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## INSTALLATION INSTRUCTIONS

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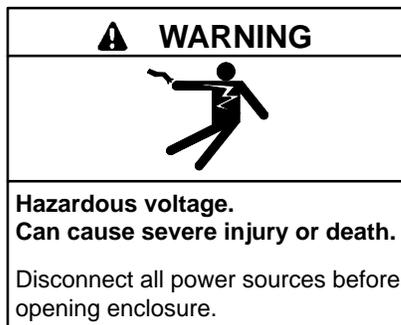
Original Issue Date: **3/98**

Model: **Power Monitor**

Market: **Industrial**

Subject: **AC Power Supply Accessory Kits PA-353399 to PA-353408 and PA-353399-SD to PA-353408-SD**

An AC power supply accessory allows the power monitor to operate from line voltage. The accessory kit includes a power transformer, AC input power terminal block, and mounting hardware. Accessory kits use different power transformers for each line voltage. See Figure 1.



*(under 600 Volt)*

**Opening power monitor enclosure. Hazardous voltage can cause severe injury or death.** Only trained and qualified personnel should open power monitor enclosure.

**Opening power monitor enclosure. Hazardous voltage can cause severe injury or death.** Transfer switch or generator set, when part of the system, can automatically energize power monitor or accessories. Disconnect all power sources before opening enclosure. Move generator set master switch on controller to OFF position and disconnect battery negative (-) lead before proceeding.

**Current transformer voltage. Hazardous voltage can cause severe injury or death.** Do not disconnect current transformer leads and reenergize the power source or equipment damage and personal injury may occur. If the situation requires reenergizing the power source, reconnect the current transformer leads or short leads together first.

## Installation

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### NOTE

Supply power to the power monitor from a storage battery or other constant supply if performing ATS tests. A momentary loss of power will occur on the load side of an ATS during testing. If the power monitor is powered from the load side of the ATS under test using an AC power supply accessory, the power monitor will end the ATS test immediately when the momentary loss of power occurs.

### NOTE

Install AC and DC wiring in separate raceways, cables, or conduit. Observe all applicable national, state, and local electrical codes during installation.

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1. See Figure 1 to verify that the kit is for the correct line voltage.
  2. Disconnect all power sources before opening the power monitor enclosure.

3. Mount the AC input power terminal block. See Figure 2 for the mounting location.
  - a. Place the terminal strip marker (352320) on the mounting studs with the LA and LC designations to the bottom of the enclosure as shown in Figure 3.
  - b. Place the AC input power terminal block (243845) on the mounting studs as shown in Figure 3.
  - c. Place a retaining clip (352911) on each of the studs. The retaining clips hold the terminal strip cover in place.
  - d. Place a lock washer (X-22-7) and hex nut (X-70-12) on each of the two studs and tighten the nuts carefully. Overtightening the nuts can cause damage to the terminal strip or retaining clips or can strip the threads.

4. Mount the power transformer. See Figure 2 for the mounting location.
  - a. Place the power transformer (see Figure 1 for the part number) on the two mounting studs as shown in Figure 3; black and white wires to the left, red and blue wires to the right.
  - b. Place a lock washer (X-22-7) and a hex nut (X-72-4) on each of the two studs and tighten the nuts carefully. Overtightening the nuts can strip the threads.
5. Complete the wiring of the AC power supply accessory. See Figure 3 for wiring connections.

**NOTE**

Allow sufficient slack in the wiring to components mounted on the enclosure door to ensure that the enclosure door opens and closes without stress or wear on the wiring. Neatly route or bundle wiring to prevent dangling wires from causing damage to internal components when opening and closing the enclosure door.

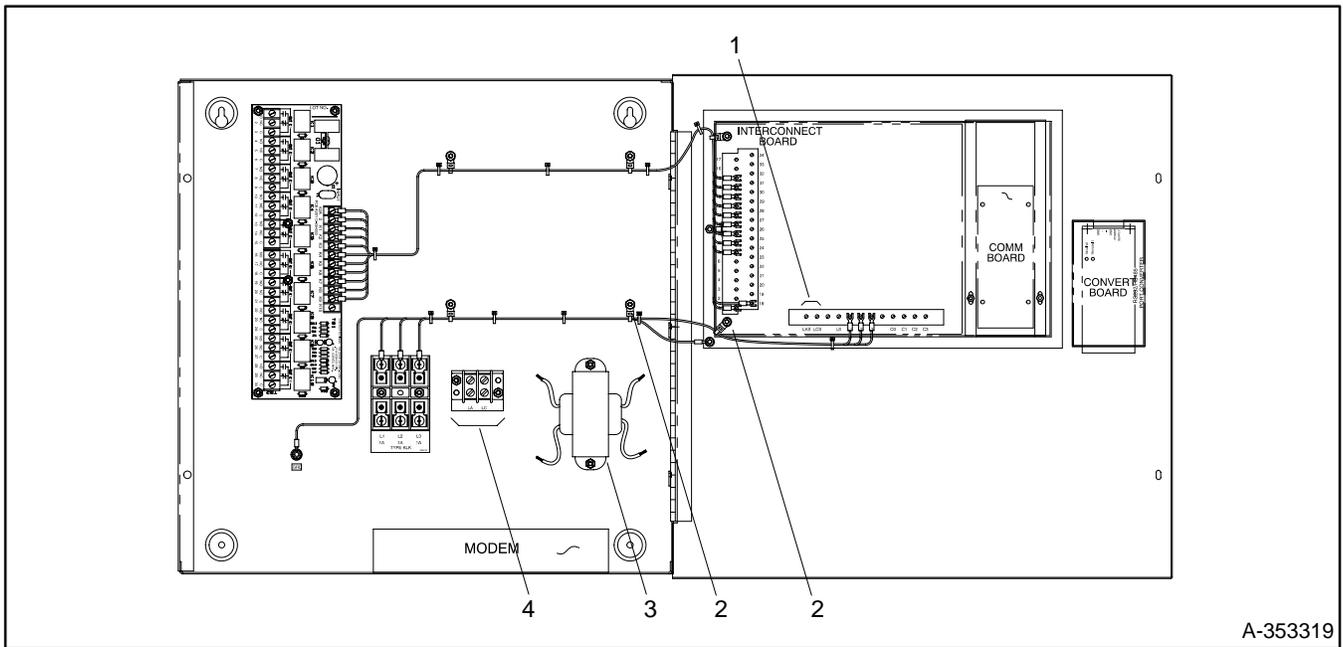
- a. Crimp a terminal (X-285-3) to each of the primary (white and black) wires of the power transformer and connect the wires to terminals LA and LC of the AC input power terminal block.
  - b. Crimp a terminal (X-285-3) to each of the secondary (red and blue) wires of the power transformer and connect the wires to the AC input terminals LAS and LCS on terminal strip TB2 of the interconnection circuit board. Replace the barrier on the terminal strip TB2 after completing the connections. Neatly route the wires along the power monitor wiring harness that leads to the enclosure door.
  - c. Complete the line voltage circuit connection to terminals LA and LC of the AC input power terminal block. Typically the load side of an automatic transfer switch (ATS) supplies this circuit so that power is available to the power monitor in the event of a power failure on the normal or emergency source.
  - d. Install the terminal strip cover (353321) for the AC input power terminal block.
6. Use the nylon cable ties (X-468-2) to bundle the wires together neatly.
  7. Close and replace the screws that hold the enclosure door closed before reapplying power.

**AC Power Supply Accessory**

<b>Parts List</b>		
<b>Kits: PA-353398 and PA-353398-SD</b>		
<b>Qty.</b>	<b>Description</b>	<b>Part Number</b>
1	Transformer, power	See Figure 1
8	Washer, lock #8	X-22-7
4	Terminal	X-285-3
2	Tie, cable nylon	X-468-2
2	Nut, hex	X-70-12
2	Nut, hex 8-32 zinc plated	X-72-4
1	Block, terminal	243845
2	Clip, retaining	352911
1	Marker, strip	353320
1	Cover, terminal strip	353321

<b>Line Voltage LA-LC</b>	<b>Kit Part No.</b>	<b>Transformer Part Number</b>
110 V, 50 Hz.	PA-353399-SD or PA-353399-SD	294644
120 V, 60 Hz.	PA-353400-SD or PA-353400-SD-SD	294593
190 V, 50 Hz.	PA-353401-SD or PA-353401-SD-SD- SD	294645
208 V, 60 Hz.	PA-353402-SD or PA-353402-SD-SD- SD	294594
220 V, 50 Hz.	PA-353403-SD or PA-353403-SD-SD- SD	294646
240 V, 60 Hz.	PA-353404-SD or PA-353404-SD-SD- SD	294595
380 V, 50 Hz.	PA-353405-SD or PA-353405-SD-SD- SD	294596
400 V, 50 Hz.	PA-353406-SD or PA-353406-SD-SD- SD	353284
416 V, 50 Hz.	PA-353407-SD or PA-353407-SD-SD- SD	294597
480 V, 60 Hz.	PA-353408-SD or PA-353408-SD-SD- SD	294598

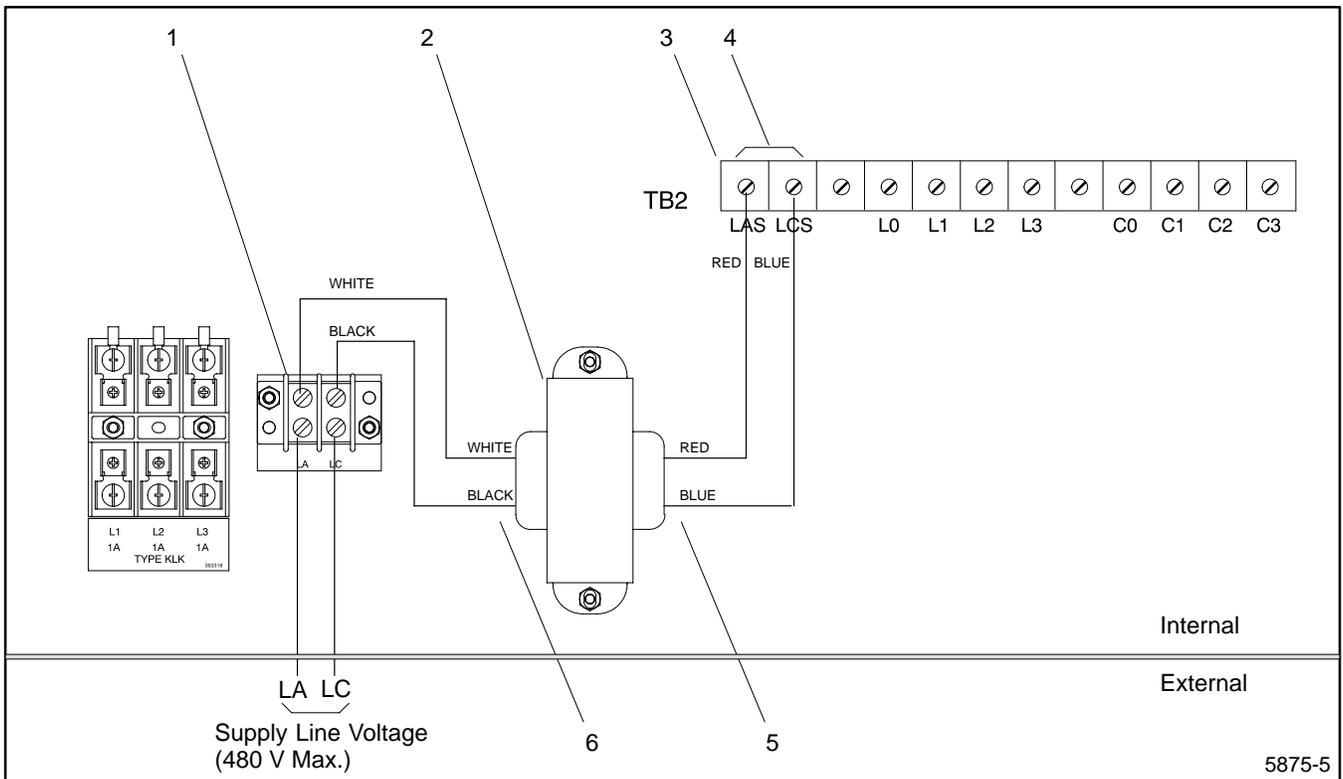
**Figure 1. Power Transformers By Voltage**



A-353319

1. AC Input Connection Terminals on TB2 of Interconnection Circuit Board
2. Cable Tie Attachment Locations
3. Power Transformer
4. AC Input Power Terminal Block

**Figure 2. AC Power Supply Accessory Details (front view with enclosure door open to right)**



5875-5

1. AC Input Power Terminal Block
2. Power Transformer
3. Terminal Strip TB2 on Interconnection Circuit Board (For AC Connections)
4. 19 VAC Power Input Terminals LAS and LCS on TB2
5. Secondary of Power Transformer (19 VAC)
6. Primary of Power Transformer (for Supply Line Voltage)

**Figure 3. Power Transformer Accessory Connections**