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Owner's Manual

PR Series

Precision-Regulated DC Power Supplies

Models:

**PR3UL, PR4.5, PR7, PR10, PR12, PR15, PR20,
PR25, PR30, PR40, PR50, PR60**

For use in 120V/60Hz environments

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Overview

Tripp Lite PR series DC power supplies convert standard 120 Volt AC (VAC), 60Hz power into regulated 13.8 Volt DC (VDC) power; (12V DC output, nominal). PR series models are ideal for powering a wide range of equipment designed to run on 12V DC power. PR series models can also be used as general-purpose test bench power sources.

BATTERY CHARGING NOTE

DO NOT use PR series models rated at 12 amps and lower for battery charging. If you connect a battery to any of these models with the unit NOT plugged into a live 120 Volt AC outlet or the unit plugged in but turned OFF, you may burn out the unit because of reverse current flow.

You MAY use PR series models rated at 15 amps and higher for battery charging. However, the battery must be separately fused with a fuse not greater than the value of the unit's nameplate amperage rating. Otherwise, the battery can cause current flow greater than the unit's amperage rating back into the unit under certain circumstances and may burn out the unit.



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Features

- **Solid State Integrated Circuit:** Provides excellent voltage regulation to within $\pm 0.5V$; output voltage is maintained from 0 to 95% of full load
- **Crowbar Overvoltage Protection:** Prevents overvoltage surges from damaging connected equipment (15 amp and larger models)
- **High Quality Filtering:** Provides low-noise operation, excellent for sensitive communications receivers (0.1 to 0.15 volts maximum ripple)
- **Current-Limiting Electronic Foldback:** Automatically limits current and voltage outputs in case of overload; time-controlled on 7 amp and larger models
- **Heavy-Duty Power Transformer:** Provides complete line isolation and robust load handling.
- **Large Heat Sinks and Vented Cabinet:** Provides cool, continuous operation and long component life
- **Compact, Attractive Design:** Size and color harmonize with all modern communications equipment; narrow front profile conserves operating space
- **Common Ground and Battery Minus Bonded:** Contributes to low noise operation

Installation

Power Supply Installation

Place your PR power supply in a well ventilated location. **Note:** *The unit will generate heat as it operates, especially if used at or near its current output limits.*



WARNING!

Hazardous voltages are present inside the unit. DO NOT expose the unit to rain or moisture. Unit should only be used in a dry, indoor, protected environment. Operating Environment: Temp 0 to 40 Degrees C, 0 to 95% humidity (Non-Condensing)

Equipment Installation

Place your equipment next to your PR model power supply.



CAUTION!

DO NOT block the louvers on PR models. Allow at least 2" above the top of the PR cabinet for ventilation. The compact, space-saving design of the PR has been made possible by careful placement of the cabinet louvers and design of the external heat sinks to provide adequate internal cooling for long life and reliable performance. Please store the unit in a clean and suitable environment and keep it cleaned regularly with a dry cloth.

Note: *If you are installing a radio transceiver or other equipment directly on top of PR models, you must construct a small raised shelf with at least 2" clearance for the equipment to rest on. The PR models' louvers are intentionally designed to prevent direct installation of equipment on top of them.*

Installation

Equipment Connection

There are two DC power output terminals on the rear of PR power supplies: POSITIVE (+)/ RED, and NEGATIVE (-)/ BLACK. With all equipment turned OFF, connect the DC equipment to these terminals, making sure to observe the polarity of the wiring. Connect Positive to Positive (Red to Red), and Negative to Negative (Black to Black).

Power Supply Start-Up

- 1 Plug the power supply line cord into a 120V AC, 60Hz outlet.
- 2 Press the "ON/OFF" switch on the front panel. The switch body (or indicator light on smaller models) will illuminate RED, indicating the power supply is functioning properly.
- 3 Turn the connected DC equipment ON only after the power supply has been turned ON.

Current Ratings

Tripp Lite PR series' power supply current ratings are based on the industry standard ICS (Intermittent Communications Service), limited by heat buildup. This translates to a 50% duty cycle of 5 minutes ON, 5 minutes OFF. Equivalent heat loading would result from 7 minutes ON at 25% load, followed by 3 minutes ON at 100% load. This cyclical-type of loading is similar to the operation of a transceiver.

Make sure the equipment you are using is properly sized to the capacity of the power supply. The maximum current draw of the equipment should not exceed the continuous duty output of the power supply. If unsure about your particular application or current output capacities, visit www.tripplite.com/support.

The PR series features electronic foldback current limiting, which protects against short circuits on the DC output. The foldback circuitry reduces the output current to less than one amp when shorted. When the overload is removed, normal current and voltage outputs are automatically restored.

The PR7 through PR60 models feature time-controlled current limiting that delays onset of foldback current limiting for about one second. This allows a brief delivery of higher-than-rated current during this time period, allowing operation of incandescent lamp loads up to approximately 65% of the PR's current rating. The power supply will also supply repetitive peak currents of up to 160% of the current rating for operation of high-power "Class B" audio amplifiers.



CAUTION!

This time-controlled current limiting will NOT overcome severe or sustained overloads. Some loads may demand peak current more than twice as high as their average current demand. This fact should be kept in mind when using the PR series power supplies.

Troubleshooting

If the power supply stops working, check the DC output connections and tighten if loose. Check the external fuse. If blown, replace with the same amperage size only. Units with an internal fuse should be checked by a qualified technician.

Specifications

Model	ICS* Amps	Continuous Duty Amps	Fusing	Ripple Voltage	Dimensions (H x W x D, in.)	Weight (lbs.)
PR3UL	3	3	External	.1 volt max.	4¼ x 3 x 7½	4
PR4.5	4.5	3	Internal	.1 volt max.	3 x 4½ x 7½	5
PR7	7	5	Chassis Mount	.15 volt max.	3¾ x 6½ x 7½	7
PR10	10	7.5	Chassis Mount	.15 volt max.	4½ x 6¾ x 7¾	10
PR12	12	9.5	Chassis Mount	.15 volt max.	4½ x 6¾ x 7¾	11
PR15	15	12	Chassis Mount	.15 volt max.	4½ x 6 x 10	13
PR20	20	16	Chassis Mount	.15 volt max.	4½ x 6 x 10	15
PR25	25	20	Chassis Mount	.15 volt max.	6¾ x 6¼ x 10¼	19
PR30	30	24	Chassis Mount	.15 volt max.	6¾ x 6¼ x 10¼	21
PR40	40	32	Chassis Mount	.15 volt max.	6¾ x 10½ x 11½	27
PR50	50	40	Chassis Mount	.15 volt max.	6¾ x 10½ x 11½	30
PR60	60	48	Chassis Mount	.15 volt max.	6¾ x 10½ x 11½	33

*Intermittent Communications Service

Warranty and Warranty Registration

1-Year Limited Warranty

TRIPP LITE warrants its products to be free from defects in materials and workmanship for a period of one (1) year from the date of initial purchase. TRIPP LITE's obligation under this warranty is limited to repairing or replacing (at its sole option) any such defective products. To obtain service under this warranty, you must obtain a Returned Material Authorization (RMA) number from TRIPP LITE or an authorized TRIPP LITE service center. Products must be returned to TRIPP LITE or an authorized TRIPP LITE service center with transportation charges prepaid and must be accompanied by a brief description of the problem encountered and proof of date and place of purchase. This warranty does not apply to equipment which has been damaged by accident, negligence or misapplication or has been altered or modified in any way.

EXCEPT AS PROVIDED HEREIN, TRIPP LITE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL TRIPP LITE BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, TRIPP LITE is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise.

Warranty Registration

Visit www.tripplite.com/warranty today to register the warranty for your new Tripp Lite product. You'll be automatically entered into a drawing for a chance to win a FREE Tripp Lite product!*

* No purchase necessary. Void where prohibited. Some restrictions apply. See website for details.

Tripp Lite has a policy of continuous improvement. Specifications are subject to change without notice.

Warning

Use of this equipment in life support applications where failure of this equipment can reasonably be expected to cause the failure of the life support equipment or to significantly affect its safety or effectiveness is not recommended. Do not use this equipment in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide.

No user-serviceable parts or equipment. Return to Tripp Lite or an authorized Tripp Lite service center for service.

Regulatory Compliance Identification Numbers

For the purpose of regulatory compliance certifications and identification, some Tripp Lite products have been assigned a unique series number. The series number can be found on the product nameplate label, along with all required approval markings and information. When requesting compliance information for this product, always refer to the series number. The series number should not be confused with the marking name or model number of the product.



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