

# Owner's Manual

## PR Series

*Precision-Regulated DC Power Supplies*

For use in 120V/60 Hz. environments  
(PR3, PR3UL, PR4.5, PR7, PR10, PR12, PR15, PR20,  
PR25, PR30, PR40, PR50, PR60)



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## Applications

Tripp Lite PR series DC power supplies convert standard 120 Volt AC (VAC), 60 Hz. 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, including CB, Ham and commercial/land-mobile radios, car stereos, amplifiers, and more. PR series models can also be used as general-purpose test bench power sources.

**Important 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.

## Features

- **Solid-State Integrated Circuit:** provides excellent voltage regulation to within  $\pm 0.5$  V DC; output voltage is maintained from 0 to 95% of full load.
- **Crowbar Overvoltage Protection:** prevents overvoltage surges from damaging connected equipment.
- **High Quality Filtering:** provides low-noise operation, excellent for sensitive communications receivers (.05 volts maximum ripple).
- **Current-Limiting Electronic Foldback:** automatically limits current and voltage outputs in case of overload.
- **Heavy-Duty Power Transformer:** provides complete line isolation.
- **Large Heat Sinks and Vented Cabinet:** provides cool, continuous operation and long component life.
- **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. PR models should only be used in a dry, indoor, protected environment.

### 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.

### 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

Plug the power line cord into a 120 V AC, 60 Hz. outlet. Depress 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. 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, call Tripp Lite Customer Service at (773) 869-1234.

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 restored. When the overload is removed, normal current and voltage outputs are automatically restored.

**CAUTION!** Electronic foldback 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.

## 1-Year Limited Warranty

Tripp Lite warrants its Inverter/Chargers to be free from defects in materials and workmanship for a 12 month period 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, including opening of the unit's casing for any reason. This warranty applies only to the original purchaser who must have properly registered the product within 10 days of purchase.

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.

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

## Specifications

Model	ICS* Amps	Continuous Duty Amps	Fusing	Ripple Voltage	Dimensions (H x W x D. in.)	Weight (lbs.)	General Applications Guide
PR3	3	2	Internal	.05 volt max.	3.5 x 5.5 x 7	5.8	Home use of CB radios; car tape players
PR3UL**	3	3	Internal	.05 volt max.	3.5 x 5.5 x 7	5.8	Home use of single-sideband (SSB) CB radios; car tape players; tape recorders
PR4.5	4.5	3	Internal	.05 volt max.	4.3 x 5.5 x 8.5	6.6	Home use of single-sideband (SSB) CB radios; car tape players; tape recorders
PR7	7	5	Chassis Mount	.05 volt max.	4.3 x 5.5 x 9.5	7.4	Home use of single-sideband (SSB) CB radios; high power car stereos; low power VHF/UHF ham radios.
PR10	10	7.5	Chassis Mount	.05 volt max.	4.3 x 5.5 x 9.5	10.3	30 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; low power linear amps.
PR12	12	9.5	Chassis Mount	.05 volt max.	4 x 5.5 x 9	12.2	40 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios, low power linear amps.
PR15	15	12	Chassis Mount	.05 volt max.	4 x 5.5 x 11	13.2	50 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; low power linear amps.
PR20	20	16	Chassis Mount	.05 volt max.	4 x 5.5 x 11	15.7	60 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; low power linear amps; test bench
PR25	25	20	Chassis Mount	.05 volt max.	6 x 7.7 x 12.5	28.9	75/100 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; low power linear amps; test bench
PR30	30	24	Chassis Mount	.05 volt max.	6 x 7.7 x 12.5	37.1	125 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; medium power linear amps; test bench
PR40	40	32	Chassis Mount	.05 volt max.	6.3 x 12 x 14.5	40.2	150/200 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; medium power linear amps; test bench
PR50	50	40	Chassis Mount	.05 volt max.	6.3 x 12 x 14.5	43.3	225 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; medium power linear amps; test bench
PR60	60	48	Chassis Mount	.05 volt max.	6.3 x 14 x 17	45.4	250/300 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; multi-piece equipment installations; microwave radio applications; test bench

\* Intermittent Communications Service \*\* UL and cUL listed model.



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