93-1322

OWNER'S MANUAL

TRIPP LITE
THE POWER PEOPLE

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www.tripplite.com

PR & TL Series

Precision-Regulated DC Power Supplies

For use in 120V/60 Hz. environments

(PR 3, PR 3UL, PR 4.5, PR 7, PR 10, PR 12, PR 15, PR 20, PR 25, PR 30, PR 40, PR 50, PR 60)

(TL 11, TLC 11)

APPLICATIONS

Tripp Lite PR and TL (Trimline) 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 and TL 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, etc. PR and TL series models can also be used as general-purpose test bench power sources.

BATTERY CHARGING NOTE

DO NOT use PR and TL 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 and TL 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 ±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 (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.
- **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.

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INSTALLATION

Power Supply Installation

Place your PR or TL 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 and TL models should only be used in a dry, indoor, protected environment.

Equipment Installation (PR models)

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.

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.

Equipment Installation (TL 11 and TLC 11 Trimline models)

TL 11 and TLC 11 models are designed specifically to accept the installation of popular name-brand radios. Simply set the radio on top of the power supply (TL 11 models) or slide the radio into the space between the top of the power supply and underneath the cabinet cover (TLC 11 models). TLC 11 models provide an integrated base station appearance while providing protection for the radio. Compatible radio models that will fit inside the TLC 11 cover include: Motorola Radius and GM 300; GE MVS, MTD and TMX; GE Monogram; Maxon SM 4000; GE Marc and EF Johnson GT-ML81/GT-ML83.

Equipment Connection

There are two DC power output terminals on the rear of PR and TL 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 supply line cord into a 120V 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 and TL 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 and TL 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 PR 7 through PR 60 and the TL 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 and TL'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 and TL 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

Seller warrants this product, if used in accordance with all applicable instructions, to be free from original defects in material and workmanship for a period of 1 year from the date of initial purchase. If the product should prove defective in material or workmanship within that period, Seller will repair or replace the product, in its sole discretion. Service under this Warranty can only be obtained by your delivering or shipping the product (with all shipping or delivery charges prepaid) to: Tripp Lite, 1111 W. 35th Street, Chicago, IL 60609. Seller will pay return shipping charges. Call Tripp Lite Customer Service at (773) 869-1234 before sending any equipment back for repair.

THIS WARRANTY DOES NOT APPLY TO NORMAL WEAR OR TO DAMAGE RESULTING FROM ACCIDENT, MISUSE, ABUSE OR NEGLECT. SELLER MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY EXPRESSLY SET FORTH HEREIN. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ALL IMPLIED WARRANTIES, INCLUDING ALL WARRANTIES OF MERCHANTABILITY OR FITNESS, ARE LIMITED IN DURATION TO THE WARRANTY PERIOD SET FORTH ABOVE; AND THIS WARRANTY EXPRESSLY EXCLUDES ALL INCIDENTAL AND CONSEQUENTIAL DAMAGES. (Some states do not allow limitations on how long an implied warranty lasts, and some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights, and you may have other rights which vary from jurisdiction to jurisdiction).

TRIPP LITE; 1111 W. 35TH STREET; CHICAGO, IL 60609

WARNING: The individual user should take care to determine prior to use whether this device is suitable, adequate or safe for the use intended. Since individual applications are subject to great variation, the manufacturer makes no representation or warranty as to the suitability or fitness of these devices for any specific application.

The policy of Tripp Lite is one 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
PR 3	3	2	Internal	.1 volt max.	3 x 4-1/2 x 7-1/2	4	Home use of CB radios; car tape players
PR 3UL	4.5	3	Internal	.1 volt max.	4-1/4 x 3 x 7-1/2	4	Home use of single-sideband (SSB) CB radios; car tape players; tape recorders
PR 4.5	4.5	3	Internal	.1 volt max.	3-1/4 x 3 x 8-1/4	5	Home use of single-sideband (SSB) CB radios; car tape players; tape recorders
PR 7	7	5	Chassis Mount	.15 volt max.	3-3/4 x 6-1/2 x 7-1/2	7	Home use of single-sideband (SSB) CB radios; high power car stereos; low power VHF/UHF ham radios
PR 10	10	7.5	Chassis Mount	.15 volt max.	4-1/2 x 6-3/4 x 7-3/4	10	30 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; low power linear amps
PR 12	12	9.5	Chassis Mount	.15 volt max.	4-1/2 x 6-3/4 x 7-3/4	11	40 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; low power linear amps
TL 11	11	7	Chassis Mount	.15 volt max.	3-1/4 x 7-3/4 x 9	10	Same as PR 10. Also designed with footprint to match most popular base station radios (Motorola, GE, EF Johnson and others)
TLC 11	11	7	Chassis Mount	.15 volt max.	6-1/4 x 7-3/4 x 9 (overall) 2-1/8 x 7-5/8 x 9 (opening)	10	Same as PR 10. Also designed with integrated enclosure to match most popular base station radios (Motorola, GE, EF Johnson and others)
PR 15	15	12	Chassis Mount	.15 volt max.	4-1/2 x 6 x 10	13	50 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; low power linear amps
PR 20	20	16	Chassis Mount	.15 volt max.	4-1/2 x 6 x 10	15	60 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; low power linear amps; test bench
PR 25	25	20	Chassis Mount	.15 volt max.	6-3/4 x 6-1/4 x 10-1/4	19	75/100 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; low power linear amps; test bench
PR 30	30	24	Chassis Mount	.15 volt max.	6-3/4 x 6-1/4 x 10-1/4	21	125 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; medium power linear amps; test bench
PR 40	40	32	Chassis Mount	.15 volt max.	6-3/4 x 10-1/2 x 11-1/2	27	150/200 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; medium power linear amps; test bench
PR 50	50	40	Chassis Mount	.15 volt max.	6-3/4 x 10-1/2 x 11-1/2	30	225 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; medium power linear amps; test bench
PR 60	60	48	Chassis Mount	.15 volt max.	6-3/4 x 10-1/2 x 11-1/2	33	250/300 watt transmitters; VHF/UHF ham radios; commercial/land-mobile radios; multi-piece equipment installations; microwave radio applications; test bench

Intermittent Communications Service

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