

## GENERAL INFORMATION

The Parallax Power Supply 5300 series power converter is a solid-state electronic power supply and is maintenance-free. These revolutionary RV power converters utilize technology developed for power supplies in computers that provides a clean and stable, voltage-regulated output while also providing safety features designed to help protect the converter against over-temperature and output overload.

The Parallax 5300 series electronic power converter has been tested to comply with stringent safety standards and is Intertek/ETL listed.

Refer installation and servicing of this product to qualified service personnel. Technical or service information is provided solely for use by licensed electricians and certified RV technicians. No endorsement of technical expertise is expressed and/or implied. User assumes all liabilities arising from use of this information.

## 120-VOLT AC PANELBOARD

The 120-volt AC panelboard section of the 5300 series is located behind the decorative door. This section contains the 120-volt AC main and branch circuit breakers for your RV. One of the breakers controls the 120-volt power to the 12-volt converter section located in the lower half of the 5300.

Check the breaker identification label below each breaker for what each branch circuit breaker controls.

If the 5300 series DC power converter is not working, first confirm the RV supply or “shoreline” cord is plugged into a live circuit. Then check all the 120-volt breakers in the panelboard to make sure they are “on”. If a breaker is tripped, follow the instructions below to reset the breaker. If the breaker trips again, consult an electrician or certified RV technician.

The 120-volt circuits may be turned on by flipping the breaker handle up to the “on” position or off by flipping the handle to the “off” position. To reset a tripped breaker, move handle to off then on.

## CONVERTER OPERATION

The Parallax 5300 series electronic power converter is designed to supply the nominal 12-volt filtered DC power for all 12-volt operated devices encountered in RV service. Although the converter is an excellent battery charger, the converter does not require a battery to be connected to it for proper operation.

**Caution:** *When installing a battery, always verify wiring polarity. Connecting a battery with reverse-polarity wiring will blow the power converter main fuses located to the right of the 12-volt DC distribution fuse block on the front of the converter section.*

If the 12-volt load exceeds the converter output rating, the output voltage will drop to prevent any further increase in current. Turn off some DC lights or appliances and the output voltage will automatically recover. The same will occur if the converter exceeds safe operating temperature limits. Check to see that the converter’s air circulation is not blocked, or turn off some of the 12-volt load.

If any 12-volt appliance fails to operate, inspect all fuses in the 12-volt distribution fuse block located behind the decorative door, in the center of the converter section. If a fuse is open or “blown”, replace it with the same size fuse (never install a larger fuse). If the fuse opens again, have an electrician or certified RV technician locate the circuit trouble. Replace blown fuses with Littelfuse type 257, Bussman type ATC, or Possing Electronic type ATP fuses only.

## BATTERY CHARGER PERFORMANCE

The National Electric Code requires that power converters for RV service use be marked with an average charge rate, as part of the total continuous output rating. Average charge rate will depend on several variables such as condition of the battery, temperature, and the length of time the battery is connected to the converter. In actual RV use, the engine alternator and on board generators are also possible sources of charging currents.

With all of these variables, it is difficult to determine the average charge rate from the converter. In most cases, the average charge rate will be very small, in the order of a few hundred milliamps (1 AMPERE=1,000 MILLIAMPS). Your Parallax 5300 series power converter is capable of delivering its full-rated output to the battery (if needed), but the current taken by the RV battery system will taper off to a few hundred milliamps when the battery is at full charge.

## CONVERTER COOLING SYSTEM

The 5300 series electronic fan cooling system contributes to long converter life and trouble-free operation. The fan turns on automatically when required to cool the electronic components in the converter. The amount of airflow required is necessary to properly cool the converter components and the associated “air sound” generated may be audible in quiet environments.

*Please note: The fan runs continuously on 65 and 75 ampere DC models due to the higher DC ampere potential produced.*

## TempAssure™ (Patent US 7,245,109)

Your 5300 system may include the (optional) **TempAssure™** module and sensor cable. When properly installed, the **TempAssure™** system employs technology that allows the output voltage of the converter to be varied by the temperature of the RV’s “house” battery system. The benefit of this feature helps to provide a more appropriate charging voltage for the “house” battery system exposed to varying ambient temperatures. For example, in cold climates the output voltage of the converter will be increased, which results in a more fully charged and maintained battery. In hot climates the output voltage of the converter will automatically lower, which will aid in reducing excessive out-gassing of the battery caused by the battery requiring a lower “float” voltage.

Also with the addition of the **TempAssure™** module and sensor cable, the 5300 series converter will automatically start out in a “boost” mode for the first 4 hours of operation every time the 5300 series converter is powered “on”. The output voltage of a **TempAssure™** equipped 5300 series converter will still be temperature compensated, even while in “boost” mode.

Your RV manufacturer's installation may also allow you to manually trigger the "boost" function by pressing a switch. (optional wiring configuration)

While the 5300 series converter with the addition of the (optional) **TempAssure™** module is designed to provide a better means of charging and maintaining the "house" battery, Parallax Power Supply strongly recommends proper battery maintenance be performed by the owner on non-maintenance free batteries following the battery manufacturer's recommendations.

*DO NOT allow the battery cell plates on non-maintenance free batteries to become exposed to the air. Poor battery performance will result.*

Parallax Power Supply will not be responsible for battery failure resulting from improper battery maintenance.

## **MOUNTING LOCATION**

**The 5300 series converter is designed for indoor use only.**

*DO NOT mount in harsh environments; avoid areas where high levels of dust, dirt, or moisture may occur.*

*DO NOT mount the power converter in battery compartments or in areas where flammable materials are stored.*

Mount to a vertical surface with the front of the converter open to the living area of the RV.

## **MOUNTING CLEARANCES**

Provide a minimum of 22 inches clearance to the front of the converter. Leave adequate room behind the converter for wire routing and air intake for the fan located at the rear of converter.

*DO NOT mount in zero-clearance compartments; overheating and thermal shut down will result.*

## **INPUT SUPPLY REQUIREMENTS**

Connect to a 120/240 VAC 60HZ 3-pole, 4-wire with ground supply. DO NOT use circuit protection larger than 50-ampere.

## **CONVERTER TO BATTERY WIRING**

The battery supply wire from fuse block terminal "POS +" to the battery must be of adequate size and rating and must be protected within 18 inches of the battery with an appropriately rated fuse or breaker.

## **WARRANTY INFORMATION**

Reference the enclosed **Parallax Power Supply Warranty Policy** or download the policy at: <http://www.parallaxpower.com/warranty>

## **Parallax Power Supply**

Phone: (800) 443-4859 ▪ Fax: (765) 608-5235

011-5300-000 Rev B



## **Powering the RV Adventure**

# **5300 SERIES POWER CENTER OWNER OPERATION GUIDE**

Visit our website at [www.parallaxpower.com](http://www.parallaxpower.com)

Congratulations on the purchase of your new Parallax Power Supply product!

The Parallax 5300 series electronic switch mode power converters have been designed to give safe, reliable, and maintenance-free service.

We hope it provides many years of enjoyment.



*Listed for RV use in the U.S.A. and Canada*