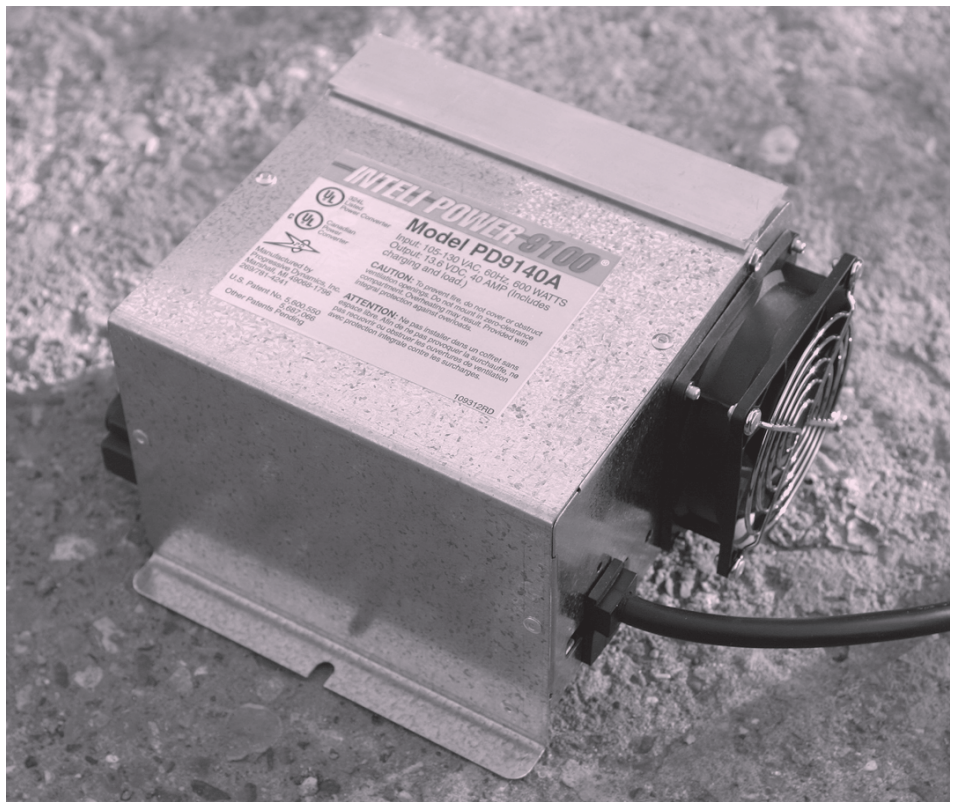
INTELI-POWER 9100 ®

The INTELI-POWER 9100 series 120 VAC to 12 VDC power converters are state-of-the-art electronic converter/ battery chargers. The INTELI-POWER 9100 models generally available in the UK are PD9140A, PD9145Aand PD9160A-40, 45 and 60 amps output respectively.

Their compact size and quiet operation gives greater flexibility in selecting the mounting location for either OEM installation or after market replacement.

All INTELI-POWER 9100 series converters incorporate the Total Charging Management System (TCMS) interface. The TCMS interface connects the converter to an optional CHARGE WIZARD device that can automatically control the output voltage of the converter thereby controlling the charge rate to the batteries.

The converter has been designed and tested to provide maintenance free operation. The INTELI-POWER 9100 line of power converters have undergone tens of thousands of hours of strenuous engineering testing to insure years of trouble free operation.



GENERAL OPERATION

The INTELI-POWER series will supply 'clean' nominal 13.6 VDC power from input voltages that range from 90-130 VAC.

It Operates With or Without a Battery Connected, the output of the INTELI-POWER 9100 converters are a regulated, filtered D.C. voltage that can power sensitive electronics without the need for a battery or other filtering.

NOTE - At nominal input voltages the full load rated capacity is available. At input voltages less than 105 VAC the converter may not supply full rated output capacity.

The full rated load (either 40, 45 or 60 amps) is available for load, battery charging or both. When functioning as a regulated battery charger the INTELI-POWER 9100 converters have nominal voltage output of 13.6 VDC. The system was designed to sense voltage on the battery and will taper the charging current as the battery becomes charged. When the INTELI-POWER 9100 senses the battery is at full charge it will provide a trickle charge to maintain a full charge condition.

CAUTION – IT IS IMPORTANT THAT THE FLUID LEVEL OF ANY CONNECTED BATTERIES BE CHECKED ON AREGULAR BASIS. ALLBATTERIES WILL'GAS'AND LOSE SOME FLUIDS WHEN CONTINUOUSLY CONNECTED TO ANY CHARGING SOURCE.

When the vehicle is to be stored for extended periods of time it is recommended that the batteries be disconnected, unless one of the optional devices are attached to the TCMS interface (see the owners manual for that device for more information). Re-connect once a month to maintain a full charge.

FEATURES

INTELLIGENT – The INTELI-POWER 9100 thinks for itself, by monitoring and sensing the load and ambient conditions.

MULTIPLE BATTERY CHARGING– INTELI-POWER 9100 has the capability of charging multiple batteries at the same time! They can even charge a combination of different capacity batteries.

GFCI PROTECTION — INTELI-POWER 9100 has the LOWEST ground fault leakage. With this unit, the user can confidently utilize the RV's AC outlets without being connected about a ground fault interruption of the facilities power source.

REVERSE BATTERY PROTECTION CIRCUIT – If a battery is accidentally hooked up backwards, the converter will be protected. Models PD9160A, PD9145A and PD9140A have two 30 AMP ATC automotive style fuses. NOTE: If the unit has accessories plugged into the TCMS interface the TCMS plug must be removed to provide clearance to replace the fuses.

SHORT CIRCUIT PROTECTION – The 'smart' converter, INTELI-POWER 9100, senses, within millionths of a second, if the output terminals have been shorted. If this condition should occur the converter first limits the current. Should the condition continue to exist the converter then reduces the current output, within thousandths of a second. The INTELI-POWER 9100 was designed to protect itself. Once the 'short circuit' has been corrected the INTELI-POWER 9100 will automatically return to nominal operating conditions.

THERMALPROTECTION – If a over temperature condition should occur due to air flow obstruction or improper installation the INTELI-POWER 9100 senses the condition and decreases power output until the unit returns to normal operating temperature. Full output capacity will return as the unit cools down.

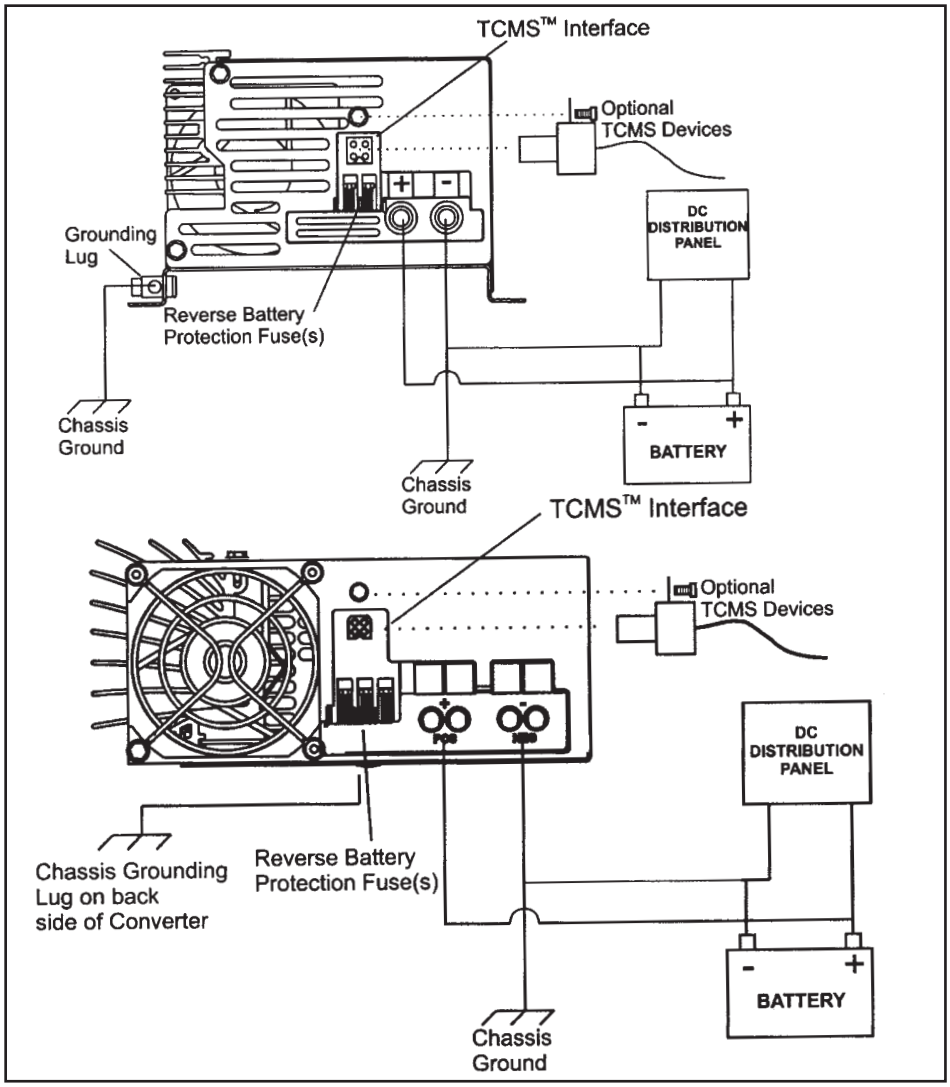
IGNITION PROTECTION – All INTELI-POWER 9100 series converters are ignition protected.

INTERNALCOMPONENT COOLING – The system is so efficient that if demand is less than 20% of the rated capacity, the auxiliary cooling fan will NOT activate. This means that at night when the power demand is reduced the fan may not come on at all. The location of the fan allows for the maximum cooling of both the case and components.

OVERVOLTAGE PROTECTION– If the Input Voltage exceeds a preset limit the converter will shut-down to prevent damage. The unit will return to nominal operation when the voltage returns to nominal

INSTALLATION

Horizontal mounting of the INTELI-POWER 9100, is recommended although it can be mounted in any position that provides unobstructed ventilation to the



fan and vent holes. Secur e the converter firmly to the mounting surface using standard fasteners.

The OEM should test the INTELI-POWER 9100 under full load conditions in its intended mounting location. This will insure that there is sufficient unobstructed ventilation to the converter allowing it to operate at its maximum rated load. Failure to provide adequate ventilation to the converter will cause the converter to cycle on and off as it responds to ambient conditions.

INPUT/OUTPUT SPECIFICATIONS

PD9140A
Input: 105-130 VAC 60 Hz
600 Watts
Output: 13.6 VDC, 40 Amps
Dimensions: 4.5H x 8.625L x 7.25W
Weight: 4.51bs

PD9145A
Input: 105-130 VAC 60 Hz
725 Watts
Output: 13.6 VDC, 45 Amps
Dimensions: 4.5H x 8.625L x 7.25W
Weight: 4.51bs

PD9160A
Input: 105-130 VAC 60 Hz
1000 Watts
Output: 13.6 VDC, 60 Amps
Dimensions: 3.6H x 9.1 5L x 9W
Weight: 5.81bs

VOLTAGE READINGS

The most accurate measur ement of the battery's voltage must be made under a no-load condition. Disconnect the battery from any load or char ger for at least 15 or 20 minutes before checking voltage.

11.7 Volts - Battery is not charged.

12.8 Volts - Ideal voltage, battery is fully charged. Maintaining this no-load voltage will help the battery to last as long as the manufacturer believes it will.

12.9-13.5 Volts - Indicate that energy taken from the batteries is being replaced by the converter.

13.6 Volts - A healthy battery can be maintained at this desirable state indefinitely with one precaution: electrolyte must not fall below the plate tops. Add distilled water to maintain the proper level.

14.1-14.4 Volts - Converter is in the boost mode. This setting will rapidly charge the battery.

INTELI-POWER CHARGE WIZARD

Turn your Inteli-Power 9100 Converter into a completely automatic, intelligent, 12 volt charging system with four operating modes: boost, Normal, Storage, and Desulfation.

The Charge Wizard is designed to be used with Progressive Dynamics Inc. INTELI-POWER 9100 series converters. Installation is completely straightforward - just plug it into the TCMS Interface socket on the charger.

The Charge Wizard controls the converter's charging system and automatically activates the optimum battery charging mode. Charging modes can also be activated manually.

Storage Mode - indicator lights flashes every 8 seconds

- Nominal no load charge of 13.2 volts is applied to the battery for long periods of storage without damaging the battery.
- (Desulfation Cycle) Every 21 hours the Charge Wizard will switch to the Boost Mode and apply 14.4 volts as an equalizing and desulfation charge for 15 minutes to prevent acid stratification and clear the beginning of lead sulfate on the battery plates, and then return to the Storage Mode.
- Charge Wizard will automatically switch to Storage Mode when the battery is charged and no battery activity is detected.
- When battery activity is detected the Charge Wizard switches to Boost Mode applying an equalizing charge of 14.4 volts for one hour then switches to the Normal Mode.
- The Storage Mode can reverse the sulfation process and possibly provide extra life for older batteries.

Normal Mode - indicator light flashes

- Nominal no load charge of 13.6 volts is applied to the battery during normal use.
- Default mode.
- With the Charge Wizard, the charging system is maintained at the optimum setting for best battery performance.

Boost Mode - indicator light on

- Nominal no load charge of 14.4 volts charges the battery very quickly and helps prevent battery sulfation that reduces how well your battery performs.
- Boost Mode will only be enabled up to four hours, to prevent over charging the battery.
- Maintaining this level for long periods can lead to excessive water loss and overheating of your battery.
- Boost Mode is activated if the battery becomes discharged to a low level.
- Boost Mode is also activated when the system exits the Storage Mode.

Automatic Mode

- The Charge Wizard automatically selects the optimum battery charging mode - depending on battery charge.