INTELI-POWER 9000®

PD9020, PD9040, PD9055
OWNER'S MANUAL

PROGRESSIVE DYNAMICS, INC.
POWER CONVERTER LIMITED WARRANTY

I. **DURATION:** This warranty is given for a period of one year from the original date of purchase, and is valid only within the Continental limits of the United States and Canada.

II. **COVERAGE:** Progressive Dynamics, Inc. warrants its power converter to be free from defects of material or workmanship under normal use and service.

Any implied warranties of merchantability and fitness for intended use are limited in duration to the one year period as stated above, unless applicable State law provides otherwise.

Provided the procedures in Part IV of this warranty are followed, Progressive Dynamics, Inc. will repair or replace, at its option, any defective part or assembly without charge for parts or labor, at its factory within 60 days of receipt of the product.

III. **EXCLUSIONS:** This warranty specifically does not apply to:

a. Any converter which has been repaired or altered in any way by an unauthorized person or service station;
b. Damage caused by misuse, negligence, or accident; or any other converter installed in a vehicle used for commercial purposes;
c. Any converter which has had the serial number altered, defaced, or removed;
d. Any converter which has been connected, installed or adjusted other than in accordance with the instructions furnished by Progressive Dynamics Inc.
e. The following consequential damages: loss of use of the product; inconvenience; loss or damage to personal property or loss of revenues; cost of all services performed in removing and re-installing the power converter.

IV. **WARRANTY CLAIM PROCEDURE:** Upon discovery of any defect, the owner is to notify Progressive Dynamics, Inc., by mail, phone, or FAX, at the address below. Indicate your name and address, the name and model of the converter, the name and model of the unit in which the converter is installed, and a complete description of the claimed defect.

Upon determination that a defect relating to material or workmanship exists, Progressive Dynamics, Inc. will require the owner to ship the converter, postage pre-paid, to its factory for repair.

Progressive Dynamics, Inc. will bear the cost of repair and return shipment.

Progressive Dynamics Inc.
507 Industrial Rd.
Marshall, MI 49068
(616) 781-4241
Fax (616) 781-7802

GENERAL INFORMATION

The INTELI-POWER 9000® series 120 VAC to 12 VDC power converters are state-of-the-art electronic converter / battery chargers. The INTELI-POWER 9000's are UL and CUL (Canadian) listed.

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

The INTELI-POWER 9000 is an "intelligent" system. It continuously monitors itself. As power usage and ambient temperature conditions fluctuate the converter will make automatic adjustments in its internal operation.

The converter also senses if a battery is connected. The INTELI-POWER 9000 performs equally well whether a battery is connected or not!

The converter has been designed and tested to provide maintenance free operation. INTELI-POWER 9000 has undergone tens of thousands of hours of strenuous engineering testing to insure years of trouble free operation.

GENERAL OPERATION

The PD9020, PD9040 and PD9055 will supply "clean" nominal 13.6 VDC power from input voltages that range from 90-130 VAC.

NOTE

At normal 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 or 55 amps) is available for load, battery charging or both. When functioning as a regulated battery charger the INTELI-POWER 9000 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 INTELI-POWER 9000 senses the battery is at full charge it will provide a trickle charge to maintain a full charge condition.

CAUTION

AS WITH ANY BATTERY CHARGER IT IS IMPORTANT THAT THE FLUID LEVEL BE CHECKED ON A REGULAR BASIS. WHEN CONTINUOUSLY CONNECTED TO ANY CHARGING SOURCE ALL BATTERIES WILL "GAS" AND LOSE SOME FLUIDS.

When the vehicle is to be stored for extended periods of time it is recommended that the batteries be disconnected. Re-connect once a month to maintain a full charge.

FEATURES

INTELLIGENT ... The INTELI-POWER 9000 thinks for itself, by monitoring and sensing the load and ambient conditions.

MULTIPLE BATTERY CHARGING ... INTELI-POWER 9000 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 9000 has the LOWEST ground fault leakage. With this unit, the user can confidently utilize the RV's AC outlets without being concerned 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. The Model PD9055 has two 30 AMP ATC automotive style fuses, the Model PD9040 has one 40 AMP ATC automotive style fuse and the Model PD9020 has one 30 AMP ATC automotive style fuse mounted externally that will blow if a reverse battery condition should occur.

CAUTION

IF THE REVERSE BATTERY PROTECTION FUSES ARE BLOWN DURING INSTALLATION, CHECK TO SEE THAT THE BATTERY HAS BEEN CONNECTED PROPERLY BEFORE REPLACING THE FUSES. REPLACE THE FUSES ONLY WITH THE SAME TYPE AND RATING AS THE ORIGINAL FUSES. USING OTHER FUSES COULD RESULT IN THE CONVERTER BEING DAMAGED, VEHICLE DAMAGE, INJURY OR OTHER CONSEQUENCES (SEE WARRANTY).

SHORT CIRCUIT PROTECTION ... The "smart" converter, INTELI-POWER 9000, 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 9000 was designed to protect itself. Once the "short circuit" has been corrected the INTELI-POWER 9000 will automatically return to normal operating conditions.

THERMAL PROTECTION ... If a over temperature condition should occur due to air flow obstruction or improper installation the INTELI-POWER 9000 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 9000 series converters are ignition protected.

INTERNAL COMPONENT COOLING ... The INTELI-POWER 9000's aluminum case has been engineered as an integral component of the converters cooling system. The case is a heat sink that was designed to keep the internal components operating at optimum temperatures. 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.

INSTALLATION INSTRUCTIONS

Horizontal mounting of the INTELI-POWER 9000, is recommended although it can be mounted in any position that provides unobstructed ventilation to the fan and vent holes. Secure the converter firmly to the mounting surface using standard fasteners.

The output terminals are rated for 2-14 Ga. copper or aluminum wire. Torque the output terminals to a maximum of 50 inch pounds.

The OEM should test the INTELI-POWER 9000 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.

THE INTELI-POWER 9000 CONVERTERS ARE NOT DESIGNED FOR ZERO CLEARANCE COMPARTMENTS.

! ATTENTION !
THE INTELI-POWER 9000 CONVERTERS ARE NOT WEATHER TIGHT OR DESIGNED FOR WET LOCATION MOUNTING. THEY MUST BE PROTECTED FROM DIRECT CONTACT WITH WATER.

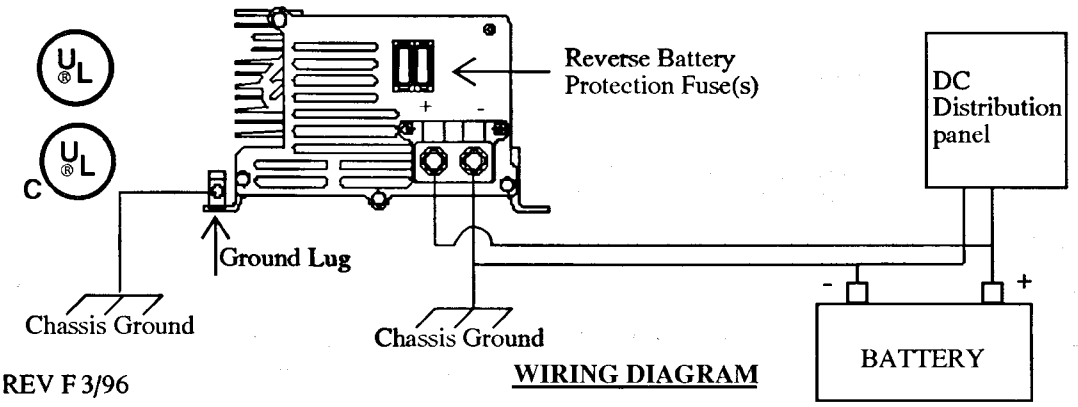
! CAUTION !
DURING THE MANUFACTURING PROCESS AVOID THE INTRODUCTION OF FOREIGN MATERIALS INTO THE CASE AS THIS COULD CAUSE A MALFUNCTION OF THE CONVERTER.

INPUT/OUTPUT SPECIFICATIONS

PD9055	PD9040	PD9020
Input: 105-130 VAC 60 Hz 900 Watts	Input: 105-130 VAC 60 Hz 600 Watts	Input: 105-130 VAC 60 Hz 300 Watts
Output 13.6 VDC, 55 Amps	Output 13.6 VDC, 40 Amps	Output 13.6 VDC, 20 Amps
Dimensions: 4.25H x 10.0L x 7.25W	Dimensions: 4.25H x 10.0L x 7.25W	Dimensions: 4.25H x 10.0L x 7.25W
Weight: 5.25lbs.	Weight: 5.25lbs.	Weight: 5.25lbs.

TROUBLE SHOOTING GUIDE

PROBLEM	POSSIBLE CAUSES	ACTION
1. No Output	120 VAC supply not connected	Connect power supply Check AC distribution panel for proper operation.
	External Fuse(s) Blown	Check for Reverse Polarity. Replace Fuse(s) with same type and rating.
	Short Circuit	Trace RV Circuits for possible fault.
	Unit has shutdown due to overheating	Check air flow. Allow unit to cool.
2. External Fuse(s) Blown	Reverse Battery Hook Up	Correct Hook-up and replace Fuse(s) with same type and rating
3. Converter cycles on & off	Compartment gets too hot	Check air flow to the converter Improve Ventilation to the compartment.
	Excessive Load for Converter	Reduce load requirements or Install Larger Converter
4. Low Output	Input Voltage not between 105 and 130 VAC	Correct input supply voltage.
	Bad Battery Cell(s)	Replace Battery
	Excessive Load for Converter	Reduce load requirements or Install Larger Converter.



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WIRING DIAGRAM

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