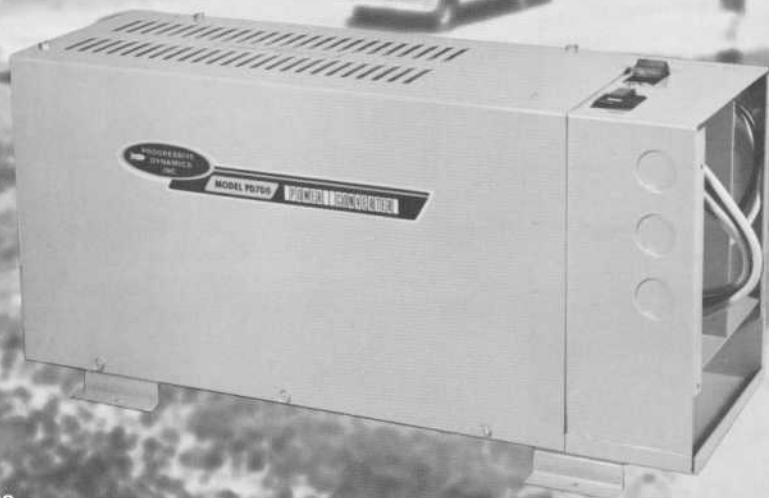


*dependable power!*



PD-707-708  
30 Amp Power Converter

*Now...* You can operate from a 12 volt battery or from a standard 115 volt electrical outlet. Your Electronic Power Converter automatically does all the rest. For Marine or Recreational Vehicle applications.

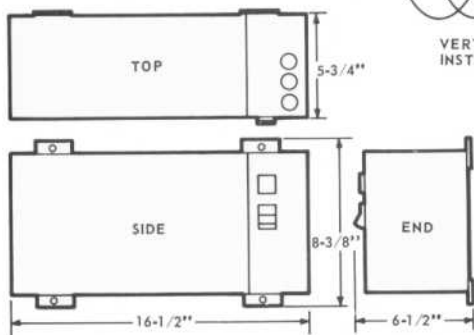
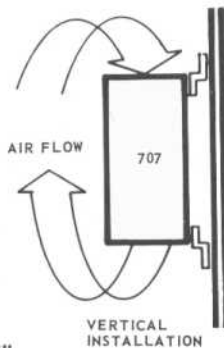
Join the better traveling crowd with . . .



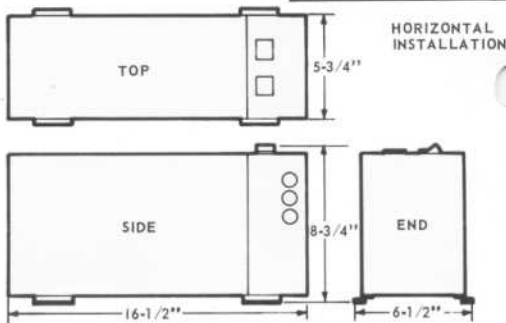
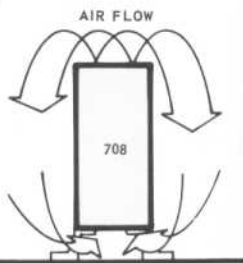
**PROGRESSIVE DYNAMICS, INC.**  
MARSHALL, MICHIGAN



**PD-707**  
POWER CONVERTER FOR  
VERTICAL INSTALLATION



**PD-708**  
POWER CONVERTER FOR  
HORIZONTAL INSTALLATION



**WITH THE PROGRESSIVE DYNAMICS ELECTRONIC POWER CONVERTER, HERE ARE A FEW MORE BENEFITS YOU GET:**

- PROTECTION AGAINST ACCIDENTAL REVERSAL OF BATTERY.
- CIRCUIT PROTECTION AGAINST SHORTS. UP TO FOUR AUTOMATIC RESETTING THERMO-BREAKERS.
- ELECTRONIC CIRCUIT WILL LIMIT CHARGE TO BATTERY. NO EXPLOSION OR DAMAGING OVERCHARGING OF BATTERY.
- PROTECTION AGAINST DEAD SHORTS.
- EITHER AUTOMATIC OR EXCLUSIVE PROGRESSIVE DYNAMICS PUSH-BUTTON CIRCUIT BREAKER.
- NO FUSES NEEDED.
- WILL AUTOMATICALLY CORRECT BATTERY DESULFATION.\*
- FOR RECREATION VEHICLES OR MARINE APPLICATIONS.

\*Sulfation is a chemical process that restricts battery performance by the lead sulfate building up and crystalizing on the inside and outside of the positive and negative battery plates.

## OWNERS' INFORMATION AND OPERATING INSTRUCTIONS

### LOW VOLTAGE CONVERTER SYSTEM

Your new electronic converter power pack equips your recreational vehicle with a 115 volt to 12 volt D.C. current. You have joined the better mobile living group. You can now operate from 115 volt A.C. and at the same time recharge the battery automatically to full charge whenever 115 volt A.C. is available. The converter allows the direct usage of power from the 115 volt source so that the reserve power of the battery can be maintained and used when 115 is not available. (CONVERTER DOES NOT CHANGE 12 VOLTS D.C. TO 115 VOLTS A.C.)

### BATTERY POWER

When your R.V. is used miles from power facilities, the battery will be your main source of power. Therefore, all electrical components depend upon the storage of electricity in the battery. The battery must provide the power to operate the lights, furnace, pump, electric toilets, etc.

To operate from the battery, the rocker switch on the right-hand side of the converter must be depressed at the position designated battery. Your system will then be operating 100 per cent from the battery.



### 115 V.A.C. or TRANSFORMER POWER

Whenever 115 V.A.C. is available, simply push the switch to transformer and the coach will receive the necessary 12 volt power from the converter.

If you fail to push the switch to transformer, your electronic system will continue to operate on the batteries until it's completely discharged. If this happens, merely place the

switch back to transformer and you will immediately be using D.C. converter power from the 115 volt A.C. source and at the same time be charging back the battery.

Your converter has a rating of 30 AMPs continuous.

### AUTOMATIC CONVERTERS

If your converter does not have a switch it will automatically switch your battery in or out of circuit as needed.

### CARE OF YOUR POWER CONVERTER

1. Do not pile things on top of the converter. Your unit must have a free flow of air through and around the unit.
2. Do not let your unit get wet.
3. Keep as clean as possible to assure long life. The unit could be blown clean with an air line if necessary.
4. You have many lights, motors, etc. throughout your R.V. and you may want to add a few more. Your converter has a circuit breaker (15 or 20 AMP) for each 12 volt circuit in your R.V. If you have automatic circuit breakers overloaded, they will automatically reset in about 7 to 20 seconds. If you have a manual reset, it is necessary to manually reset each time they open. Your R.V. is designed to have lights where you need them but was not intended that you would have all lights and motors operating simultaneously. If a circuit is overloaded, merely shut off a light or two to reduce the load.

5. If your converter fails to operate, first check incoming power to your R.V. to make sure you have 115 A.C. available. Check the circuit breaker on the side of your converter, (if your Model has one). This is a push-matic breaker. (Push to reset). If no power is available at the coach, check plug connections at park hook-up. Check for defective cord. If power is available, switch rocker switch back and forth several times and listen for a clicking noise in your converter. If you hear one, something is overloaded or possibly the battery is installed backward. The red wire will connect to the larger positive post on the batter. The white wire connects to negative or ground side.
6. When connecting up for the night using the cord supplied with your R.V., be sure (if the park does not have grounded recepticals) to ground your R.V.

Be aware of low voltage and the causes. The longer the cord, the more chance for low voltage; and, consequently, dim lights and possible sluggish motor problems. **NOTE:** Your unit will operate from low voltage without harming it. When purchasing an extra cord, be sure to have at least a #12 wire cord.

#### ADD A BATTERY CHARGER

If your converter did not contain the optional Battery Charger, you may at a later time purchase this unit either from your manufacturer or the local distributor or send direct to Progressive Dynamics, Inc.

All R.V.'s are not supplied with batteries or internal battery chargers.

If your R.V. is not supplied with the many available electrical conveniences, there is no need for a charger or battery. You may at a later date add these for further convenience.

If your converter unit has the optional battery charger enclosed, it will say "With Charger" on the face of the unit and will automatically bring your battery up to full charge and electronically discontinue charging at that point to protect your battery.

#### KNOW YOUR BATTERY

For a full charge battery of (1265-1275 specific gravity) it is necessary to charge with a voltage of 14.2 D.C. at 70°F. Above this temperature, your charging voltage should be lowered and below this temperature your charging voltage can be raised. Your electronic circuit has a feature that automatically adjusts the control voltage and thereby the current to your battery, depending upon the ambient temperature of the electronic circuit. This can change the voltage setting from 13 to 15 volts and means that your battery will last longer and provides the utmost in solid state control. Your electronic circuit constantly senses the charge in your battery, the voltage on your battery and the ambient temperature and thereby regulates the required amperage to prevent ruining of your battery. To determine how long your battery will last, (assuming it is full charged), divide the amps you're using into the ampere hour rating to get the hours of operation. As an example, using a 60 ampere hour battery with one light bulb drawing two amps from the battery, it should last continually for 30 hours. Obviously, the energy in the battery should be utilized as sparingly as possible - keep the number of lights on to a minimum to conserve the stored energy.

#### CHARGE YOUR TRAILER BATTERY FROM YOUR CAR'S GENERATOR

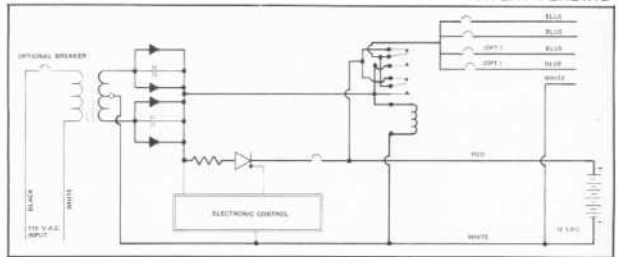
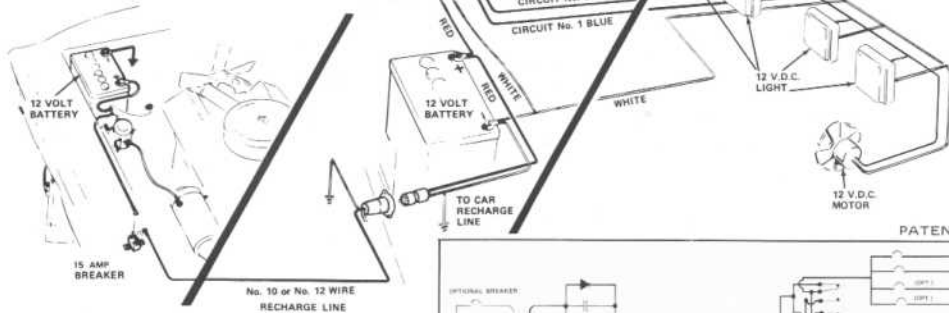
Your Power Converter is wired in such a manner that your battery can be charged up from your car generator as you are traveling. This will become especially useful if your converter is not equipped with the optional automatic charging unit. When properly connected, the car generator will charge the R.V. battery as well as the car battery while the motor is running.

At night we recommend disconnecting the car battery from the R.V. battery to prevent the car battery from draining down.

Always fuse the wire from automobile to R.V.

# PD-707-708 WIRING CIRCUITS

**PLUG IN CIRCUIT.**  
NOTE: To remove circuit board, unclip two nylon tabs and pull to remove.



## SPECIFICATIONS

- Input current 6 amps, 115 V.A.C., 60 cycles (acceptable input of 85 to 130 volts A.C.)
- Continuous D.C. current output 30 amps, 12.5 V.D.C.
- Two 15 amp or up to four 15 amp automatic or manual resetting thermo-breakers, one for each 12 volt D.C. output wiring.
- Temperature operating range — 15° to 120° F.
- Battery charger; 14.2 V.D.C. ± .2 volt, 10 amp rate at 70°F.
- Weight 28 pounds.

D.C. current consumption of various components used within the travel trailer.

Purpose:

To provide better knowledge of the various circuits necessary and loads possible per circuit. A complete D.C. Current consumption test was run with the idea of the information being used for the design of the wiring harness of the travel trailer.



DESCRIPTION	VOLTAGE	AMPS PER HR.	NUMBER OF BULBS PER LIGHT
Bath Light #4170	12.4	4.4	3
Dinette Light #4260	12.4	5.5	4
Under Cabinet Light #4380	12.4	3.0	2
Vent Fan Model C-1010 (Range hood exhaust)	12.4	3.3	
		motor light 1.5	1
		4.8 Total	
Double Bullet Light - Max.	12.4	4.0	
Single Bullet Light - Max.	12.4	1.5	1
Champion 25 Watt 12-volt light	12.4	2.2	1
Furnace Fan (Duo-Therm) Models 61901 & 61701	12.4	.8	
Humphrey Water Pump Model P-1-000	12.4	9.1 no load 10.0 loaded	
Trunk Light	12.4	1.5	1
Power Alum-Dome Fan	12.4	2.8	
Vent Fan	12.4	4.8	
Porch Light	12.4	1.5	1
Air Compressor	12.4	6.0	

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TESTING LAB



POWER CONVERTER ASSEMBLY LINE



GAS REGULATOR ASSEMBLY LINE



PRESSURE CAP ASSEMBLY LINE

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All of this to give you, our customer —

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2. Strict quality control and 100% testing of all products.
3. Prompt, dependable delivery.

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**Robert J. Crozier**  
**Eugene L. Kilbourn**



PD-742



PD-325



PD-312



PD-306



PD-5



PD-311



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MARSHALL, MICHIGAN

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