

# dependable power!



PD-712  
50 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 . . .

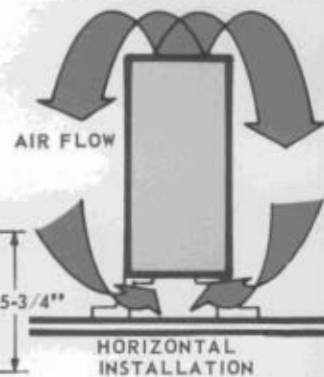


**PROGRESSIVE DYNAMICS, INC.**

MARSHALL, MICHIGAN



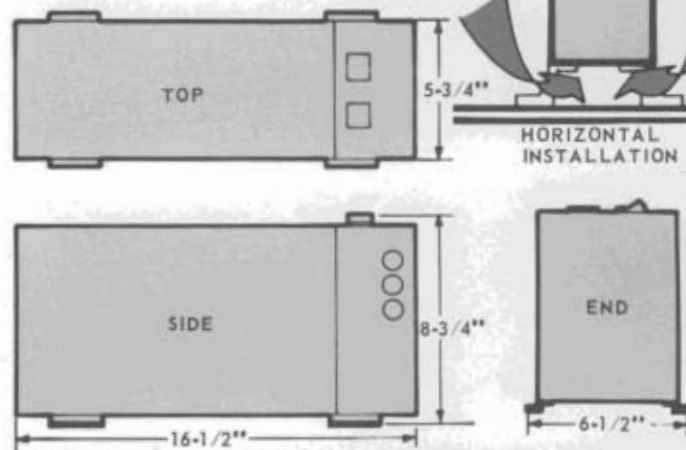
**PD-712**  
**POWER CONVERTER FOR**  
**HORIZONTAL INSTALLATION**  
 (PATENT PENDING)



**NOTE:**

The PD-712 Power Converter is a 50 ampere d.c. capacity unit.

- Recharges 60 amp hour battery in approximately 7 hours.
- Power converter is completely automatic and will switch from battery power at the instant the power converter is connected to line voltage.
- The PD-712 has a removable Electronic Circuit Board.



WITH THE PROGRESSIVE DYNAMICS FULLY AUTOMATIC PD-712 ELECTRONIC POWER CONVERTER, HERE ARE A FEW MORE BENEFITS YOU GET:

- PROTECTION AGAINST ACCIDENTAL REVERSAL OF BATTERY.
- CIRCUIT PROTECTION AGAINST SHORTS. UP TO FOUR MANUAL RESET 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 SULFATION.\*
- 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 your battery nothing else is required. Everything is done automatically within the Power Converter.

Your converter automatically switches to charging mode as soon as electric cord is plugged in. Your battery will be continually charged until full even if you are using power for your appliances and lights.

Solid state semi conductors provide an absolute limit to the amount of voltage introduced to the battery to prevent over charging.

Your converter has a rating of 50 AMPs continuous.

## 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 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 or top of your converter (if your model has one). This is a push type breaker. (Push to reset). If no power is available at the coach, check plug connections at park hook-up. Check for defective cord. If you hear a clicking noise, something is overloaded or possibly the battery is installed backward. The **red** wire will connect to the larger **positive** post on the battery. The **white** wire connects to **negative** or ground side.

**NOTE:** No other wire will connect to the red wire going to the positive post on the battery except the recharge line coming from the vehicle engine battery.

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.

## KNOW YOUR BATTERY

1. 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 will be lowered and below this temperature your charging voltage will 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.
2. A battery needs water – check at least once a month while traveling.
3. Low or dead batteries sulfate rapidly. (Sulfation restricts battery performance by the lead sulfate building up and crystalizing on the inside and outside of the positive and negative battery plates.)

A battery that has sulfated will re-charge very quickly, that is, the voltage comes up, but there is little or no energy in the battery. To de-sulfate a battery, use a slow trickle charge for 5 to 7 days.

However, the Progressive Dynamic's Power Converter will prevent sulfation of your battery automatically. When a low battery is suspected or when your battery is at "rest" for extended periods, occasionally plug in power converter to maintain your battery in a full charge condition. This in turn will prevent battery sulfation.

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

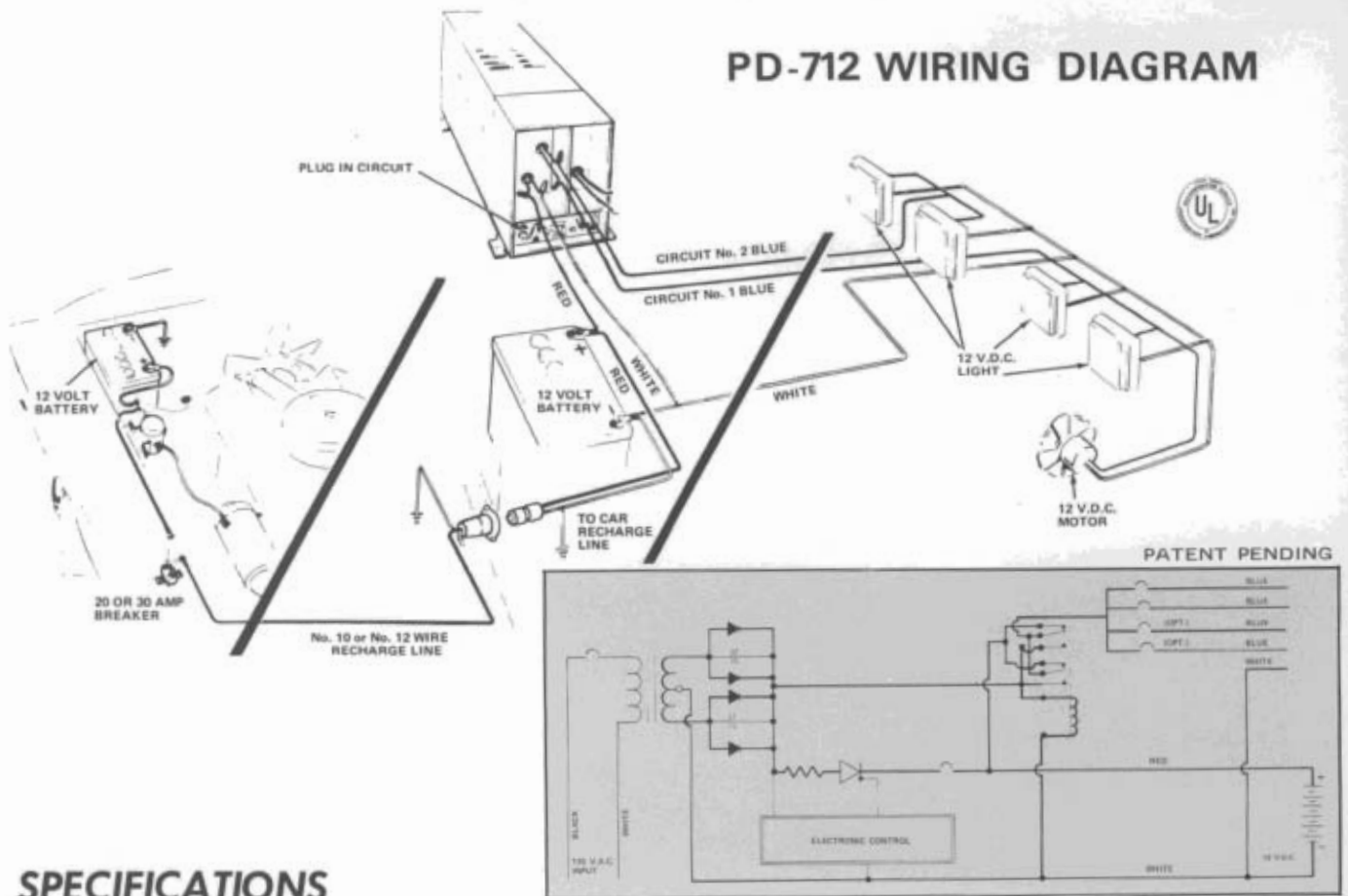
Your Power Converter is wired in such a manner that your battery can be charged up from your car generator as you are traveling. This will become especially useful if your converter is not equipped with the optional automatic charging unit. When properly connected, the car generator will charge the R.V.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

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. at both batteries.



# PD-712 WIRING DIAGRAM



## SPECIFICATIONS



- Input current 7 amps, 115 V. A. C. 60 cycles (acceptable input of 85 to 130 volts A. C.).
- Continuous D. C. current output 50 amps.
- Temperature operating range: 15° to 120°F.
- Battery charger, 14.0 V. D. C.  $\pm$  .2 volt, 9 - 12 amp rate.
- Weight 40 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	
		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	

JOIN THE 'BETTER LIVING' CROWD with PROGRESSIVE DYNAMICS



# Warranty

Ask to see the complete written Progressive Dynamics Power Converter Warranty. It gives Extra protection on your converter investment.

THE COMPANY . . . THE PEOPLE behind every Progressive Dynamics product are dedicated to the production and distribution of recreational vehicle products for people like you. Over 135,000 sq. ft. in three different plant locations, housing over 200 employees, are all dedicated to one end . . . BETTER LIVING FOR YOU IN YOUR RECREATIONAL VEHICLE.



**ENGINEERING DEPARTMENT** where better traveling ideas are carefully formulated and nurtured into workable models.



**TESTING LAB** where each power converter is tested and checked with some of the most sophisticated electronic equipment in our industry.



**ASSEMBLY LINE** where power converters are carefully assembled by skilled craftsmen.

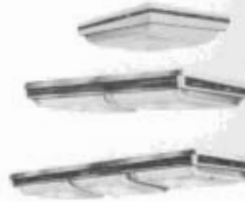
WRITE FOR A  
FREE CATALOG



**Power  
Converters**



**Pressure  
Pump**



**Lights**



"rest assured tonight"



**Ground Fault  
Warning**



**Water Cap**



**Electronic  
Filter**



**L. P. Gas  
Gauge**



**L. P. Gas  
Regulator**



**Power Guard**



**Dual Charge**



**Battery  
Charger**



**Water Tank  
Gauge**



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