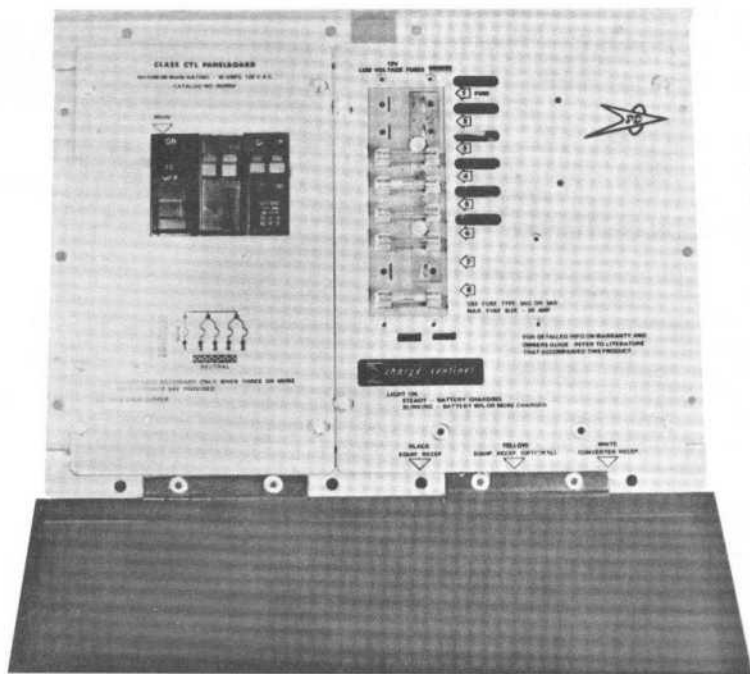



# ELECTRICAL CONTROL CENTER OWNERS MANUAL



## MODELS

731	743
732	744
733	745
734	746
735	

 Optional Black or Brown Door



**Progressive Dynamics Inc.**  
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## INTRODUCTION:

Congratulations: your R.V. is equipped with the very latest and most advanced Electrical Control System. Your new Electrical Control Center is designed as a combination distribution panelboard and a power converter. The distribution panelboard gives you overcurrent protection for all the 115 VAC wiring in your R.V. The power converter changes the incoming 115 VAC down to a safe 12 VDC to power your interior lights, fans, pumps, etc.

## 115 VAC PANELBOARD

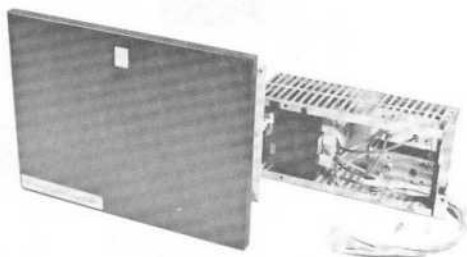
On most R.V.'s the 115 VAC panelboard is equipped with a 30 amp main breaker and 3 or more branch circuit breakers. On some R.V.'s with only 2 branch circuit breakers there might not be a main 30 amp breaker. When you plug your R.V. into a 115 VAC power the panelboard distributes the power to your air conditioner, power converter, refrigerator, and other 115 VAC receptacles and appliances through out your coach.



115 VAC Panelboard

## POWER CONVERTER OPERATION ON 115 VAC

The power converter section of the Electrical Control Center consists of 2 separate modules. The **transformer module** and the **12 volt distribution panel**. The **transformer module** contains the transformer (some units have dual transformers) that reduce the 115 VAC down to 12 VAC. It also contains the rectifiers or diodes that change the AC to DC. The **12 volt distribution panel** contains the power switch that changes the RV from battery power to transformer power and also contains the individual 12 VDC fuses for all the 12 volt circuits from the converter. The removeable printed circuit board for the battery charger is also housed in the 12 Volt panel. Your power converter may be equipped with an automatic or a manual power changeover switch which is located in the 12 volt distribution panel. On converters equipped with the automatic power switch you will hear a clicking sound when the transformer is energized by plugging the RV into 115 VAC power. The clicking sound tells you the converter is working. On converters equipped with the manual power switch you will have to press the rocker switch to the TRANSFORMER position when you plug your R.V. into 115 VAC power. When either the automatic power switch or the manual power switch is in the transformer position, all the 12 volt lights, fans, etc. are operating directly from the transformer of the converter.

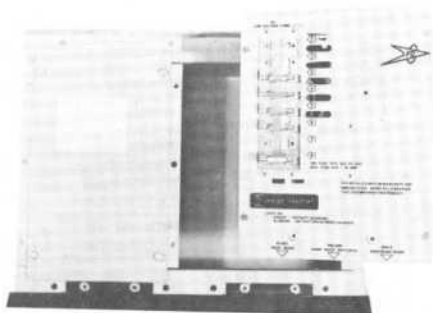


Front view of Transformer Module



Rear view of Transformer Module

In this condition the battery is held in reserve and cannot be discharged. The battery will be charged in this condition if the converter is equipped with the optional battery charger.



12 volt Distribution Panel

### POWER CONVERTER OPERATION ON 12 VOLT BATTERY

If your power converter is equipped with the automatic power switch it is normally in the battery position. When you wish to run self contained on battery only you merely have to turn on the lights etc. If your power converter is equipped with the manual power switch you must press the rocker switch to BATTERY position before your lights will operate on battery.

When your power converter is operating on battery the 12 volt battery power comes into the converter through the power switch and then through the 12 volt distribution panel out to the various 12 volt lights etc. The battery is now supplying the power to the same lights, fans, etc. as the transformer was previously powering. On the power converters equipped with the manual power switch there is a center off position where all 12 volt power to the R.V. is turned off.

### BATTERY CHARGER OPERATION

The battery charger portion of your power converter is fully automatic. When your R.V. is connected to 115 VAC power the charger will automatically bring your battery up to a full charged condition and then taper down to a small trickle charge to maintain your battery. Warning: Check your R.V. battery for water a minimum of every week.

\*CHARGE SENTINEL IS A VISUAL indication that your battery is being charged from the power converter. The SENTINEL will show a continuous light while the battery is being charged and will then change to a flashing light when your battery reaches approximately 90% of full charge. The SENTINEL will continue to flash several times a second as long as the battery is over 90% of full charge and will continue to flash even when the battery is fully charged. Warning: The Sentinel will not work when there is no battery in the R.V. and when the converter is not plugged into 115 VAC power.

### CHARGING WHILE DRIVING

All Progressive Dynamics, Inc. Electrical Control Center converters are designed to allow the R.V. battery to be charged by the alternator while driving. We recommend using our PD-741 or PD-742 dual battery hook-up to prevent accidental draining of the starting battery.

**ELECTRICAL CONTROL CENTER SPECIFICATIONS**  
**7300 AND 7400 SERIES**

	DC Amp.	Power Switch	Battery Charger	Decor. Door	Removable P. C. Board	Weight
PD-731	20	Manual or Automatic	OPT 5A	OPT	YES	29
PD-732	25	Manual or Automatic	OPT 9A	OPT	YES	35
PD-733	30	Manual or Automatic	OPT 5A	OPT	YES	35
PD-734	38	Automatic	OPT 15A	OPT	YES	36
PD-735	44	Automatic	Optional 10A/20A	OPT	YES	37
PD-743	27	Automatic	Standard 9A	OPT	YES	31
PD-744	35	Automatic	Standard 9A	OPT	YES	41
PD-745	40	Automatic	Standard 9A	OPT	YES	45
PD-746	50	Automatic	Standard 9A	OPT	YES	45

R Automatic Power Switch

F Manual Power Switch

D,K Battery Charger

Y Decorator Door Black

Z Decorator Door Brown

Door Option add 2 lbs.

**COLOR CODE FOR LOW VOLTAGE WIRING**

**White wires:** The white wires are the negative wires for all the 12 volt circuits.

**Red wires:** There will be two or four red wires which are always connected together as one big wire and then connected to the positive terminal of the RV Battery and also connected to the recharge line from the alternator. Caution: There should be overload protection between the converter and the battery.

**Blue wires:** There will be from three to eight blue wires. These are the individual 12 volt load circuits. They are each connected to a fuse on the front of the 12 volt distribution panel. Use fuse type 3AG or 3AB. Maximum fuse size 20 amp.

**CONVERTER REPAIR MANUAL**

A complete converter repair manual with parts lists, trouble shooting guide, Electrical Schematics, and pricing may be ordered through the customer service department at Progressive Dynamics, Inc. Price is \$3.00 prepaid by 3rd class mail.

\*Progressive Dynamics Inc., reserves the right to change designs or specifications on our products without obligation.