

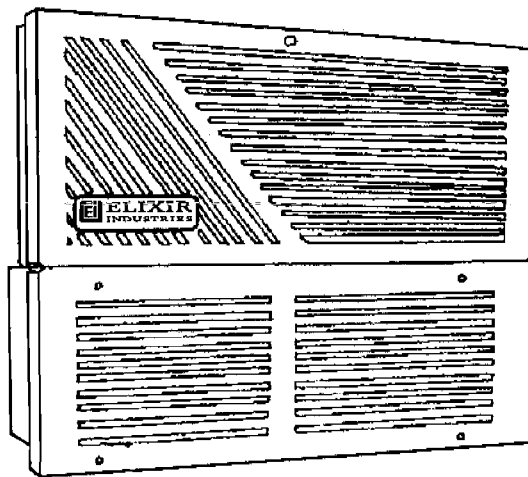
# OWNER'S MANUAL

ELIXIR POWER CONVERTER / CHARGER

MODELS: ELX-45

ELX-60

ELX-35-240



**ELIXIR**  
INDUSTRIES

640 Collins Road Elkhart, IN 46516 USA



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## **SAFETY PRECAUTIONS**



**When operating your Elixir power converter, basic safety precautions should always be followed to reduce the potential risk of fire, electric shock and/or injury to persons, including the following:**

- Read this owner's manual thoroughly before operating your converters.
- Do not allow any objects or liquid into the openings of your converter.
- Do not place any flammable materials such as gasoline near your converter.
- Do not cover or obstruct the ventilation opening of your converter, overheating may result.
- To reduce the risk of fire or electric shock, do not remove any service covers. No user serviceable parts are inside. Repair should be done by your dealer's authorized personnel only.
- If you have any questions or comments about this product, please contact your local dealer for assistance.
- The DC fuse holders for replaceable automotive-type fuses are located on the upper right corner of the converter front face plate. Maximum fuse size and circuit identification are provided to the right of the fuse holder. **REPLACE THE FUSES ONLY WITH THE SAME TYPE AND RATING AS THE ORIGINAL FUSES.**



## FEATURES

Your Elixir power converter installed in your RV is the heart of the DC electrical system. The power converter system carries full ETL, ETL-C approval and has been FCC Class B Certified. We are confident that it will provide you with outstanding performance for many years. Features of your Elixir power converter are:

### **1. Stable DC Power**

Your converter provides stable DC power to operate the 12 volt DC lights and motor(s) in your RV whether a battery is installed or not.

### **2. Variable Speed Control Cooling Fan**

Variable speed control cooling fan operates only when your converter is at a higher load. The cooling fan will stop or just turn at low speed when power demand is low (especially during sleeping hours).

### **3. Overload Protection**

If your power demand (including lights, motor and battery charge) exceeds your converter output rating and voltage drops to 12.5 V the audible alarm will sound. Simply reduce your power demand by turning off the last item that triggered the alarm. The alarm will stop and your converter will function again.

### **4. Low Reverse Current**

Battery installed in your RV will not exhaust quickly during storage.

### **5. Short Circuit Protection**

Your converter will shut down automatically if a short circuit is detected. Once the short circuit is corrected, the unit will function again.

### **6. Reverse Polarity Protection**

Your converter is equipped with a reverse polarity protection fuse (DC output fuse #10 and #11) that will blow if the battery is not connected correctly.

### **7. Constant Voltage**

Your converter is designed to output a constant voltage of 13.5-13.6 volts at no load and 13.1 volts at full-load to ensure trouble free service of all 12 volt DC appliances.

### **8. Fast Battery Charging**

For faster battery charging, turn the converter on and reduce the DC appliance load on the unit.

### **9. Durable Performance**

Your converter will provide you outstanding performance for many years.

# OPERATION



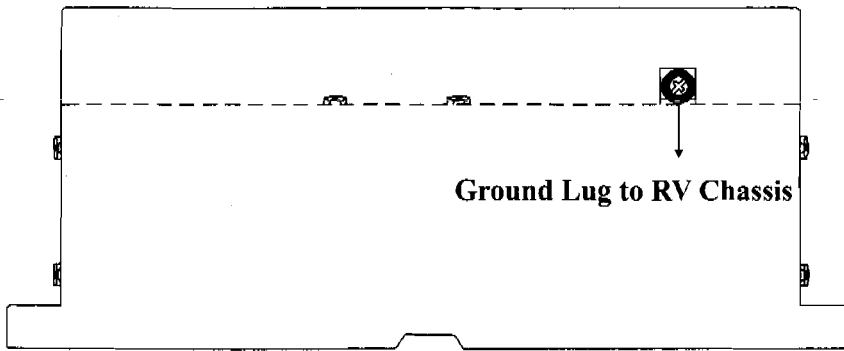
1. When 120VAC (240VAC for ELX-35-240) is connected to your converter via commercial power generation, your converter will automatically provide power to operate 12VDC appliances (lights, motors) in your RV. When 120VAC (240VAC for ELX-35-240) disconnects from your converter the battery installed in your RV will automatically provide necessary power to operate DC appliances.
2. When 120VAC (240VAC for ELX-35-240) is connected, your converter will sense and provide primary power to the DC demand source, while providing remaining current to the battery charge. Once the RV battery is fully charged, your converter will reduce battery charge to a maintenance rate until it falls below "full charge" again.
3. For faster battery charge, turn on the converter and reduce DC appliance load.
4. If your power demand (lights, motors, charge) exceeds your converter amperage and voltage drops to 12.5 V the audible alarm will sound. Simply reduce the DC demand by turning off the last DC appliance which triggered the alarm; the alarm will stop and your converter will function again.
5. AC distribution panel contains the AC breakers for each of the 120VAC (240VAC for ELX-35-240) branch circuit(s) of the RV. To turn AC breaker ON or OFF, switch breaker handle position as indicated by visual ON/OFF. To reset a tripped breaker, switch breaker handle to OFF position and then to ON.
6. The DC distribution panel contains the 12VDC fuses for each of the 12VDC load circuits of the RV. The DC distribution panel is designed for blade type fuses. If a fuse blows, do not replace with a fuse larger than indicated on the label.



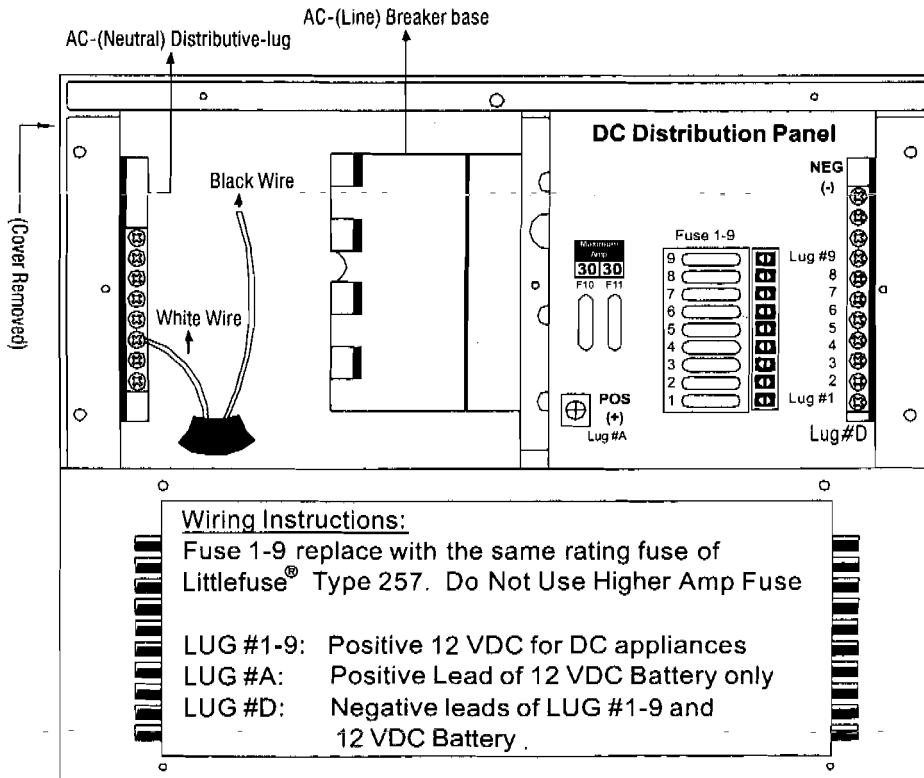
## INSTALLATION

- Mount the converter in vertical plane (upright) with the bottom edge of the plastic door to the front. Space the bottom edge of the converter one inch above the floor (for door opening clearance). Install your converter firmly on the mounting surface by using standard fasteners.
- Do not mount the converter in the same compartment as batteries or flammable materials such as gasoline. Avoid high levels of dust, dirt or moisture.
- The unit must be mounted with a minimum of 3 cm spacing between the rear of the unit and the enclosure. Leave sufficient room for wire routing at the rear of the unit.
- If the reverse polarity protection fuse(s) (DC output fuse #10 and #11) are blown during installation, check to see that the battery has been connected properly 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 original fuses. Using other or larger fuses could result in damage to the converter.
- DC fuse holders for replaceable automotive-type fuses are located on the upper right corner of the converter front face plate. Maximum fuse size and circuit identification are provided to the right of the fuse holder.
- For proper operation, your converter must be grounded to the chassis or frame. A ground lug is provided on the back side of your converter.

# WIRING DIAGRAM



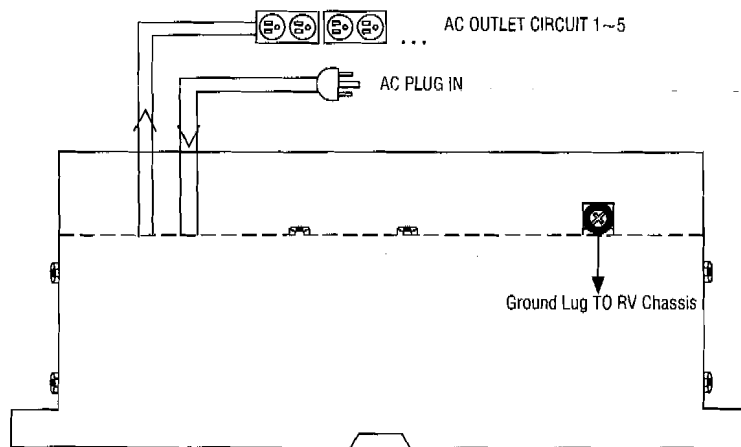
**TOP VIEW**



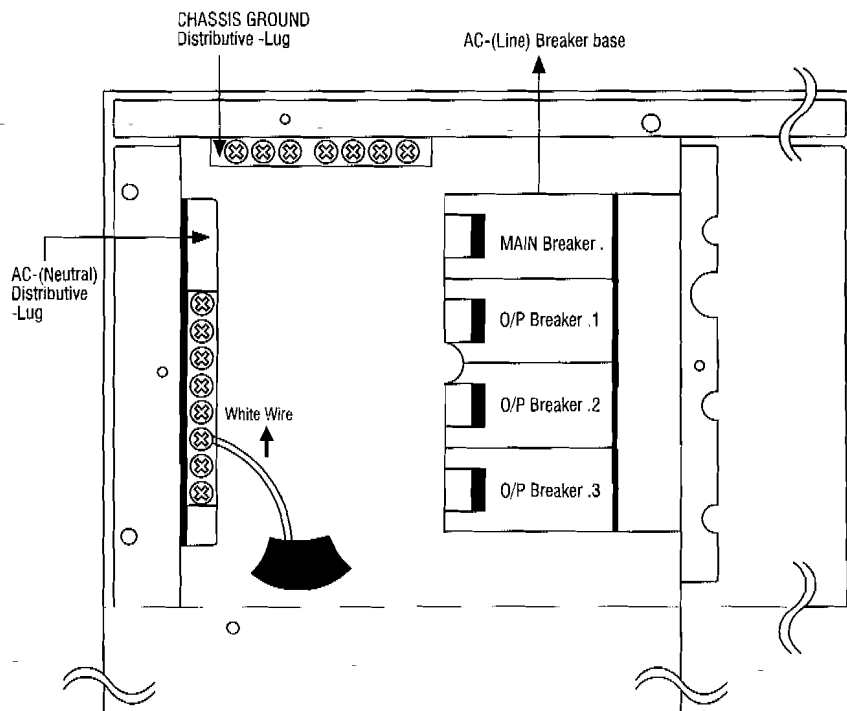
**FRONT VIEW**



## AC COMPARTMENT DIAGRAM



TOP VIEW

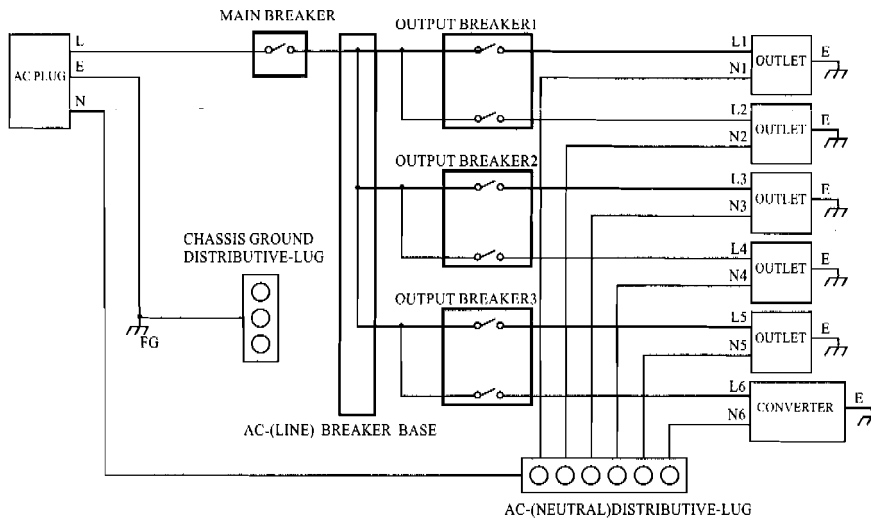


AC COMPARTMENT





# WIRING DIAGRAM



## AC to AC Breaker Schematic

### AC Plug/Receptacle in to Converter

- Black Wire - Main Breaker
- White Wire - AC Distributions Lug (Common or Negative)
- Green Wire - Chassis Grounding

### Circuit Breakers

Single or Twin Breakers may be used allowing for 2-5 Branch AC Circuits. The following breakers are suitable for Converter use:

- |                        |                      |
|------------------------|----------------------|
| ITE/Siemens - QP, QT   | Square D - HOM, HOMT |
| Cutler Hammer - BR, BD | T&B - TB, TBBD       |

### Caution

- Use a 30 Amp Breaker for the Main Breaker
- Use a 20 Amp Breaker for the AC Branch to the Converter

### Circuit Breaker Wiring (Assuming all twin breakers are used)

- AC outlet 1 **Black** wire goes to Breaker 1-1
- AC outlet 2 **Black** wire goes to Breaker 1-2
- AC outlet 3 **Black** wire goes to Breaker 2-1
- AC outlet 4 **Black** wire goes to Breaker 2-2
- AC outlet 5 **Black** wire goes to Breaker 3-1

Converter AC Input **Black** Wire 3-2

AC outlet(s) 1-5 and Converter **White** wires goto AC Distribution Lug (Common or Negative)

AC outlet(s) 1-5 **Green** wires goto Chassis Grounding Lug



## SPECIFICATIONS

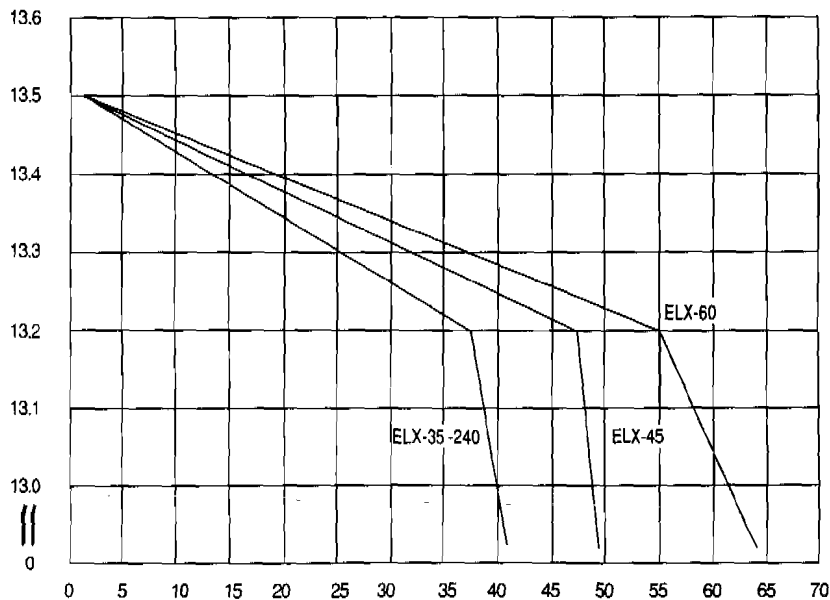
Model	AC Input			AC Output*			DC Output*	
	Volts	Freq	Current**	Volts	Freq	Current	Volts	Current
ELX-60	120	50/60	24 Amps	120	50/60	24 Amps max	13.5	60 Amps
ELX-45	120	50/60	24 Amps	120	50/60	24 Amps max	13.5	45 Amps
ELX-35	120	50/60	24 Amps	120	50/60	24 Amps max	13.5	35 Amps

\*Total Power Output not to exceed 2880 VA.

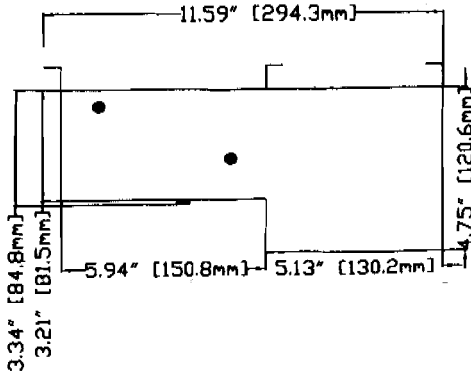
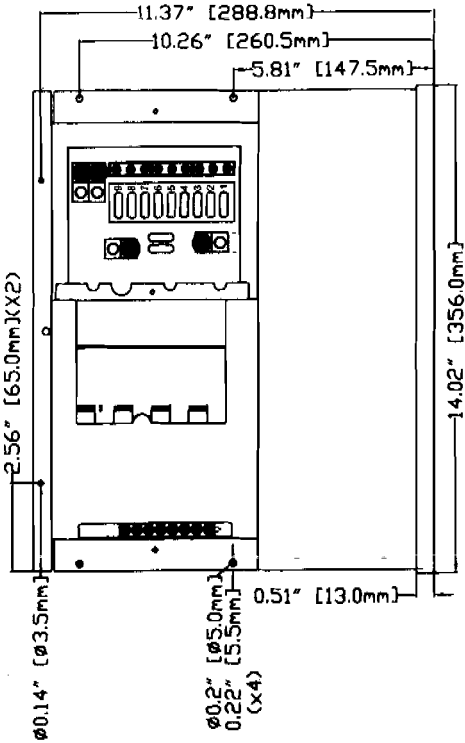
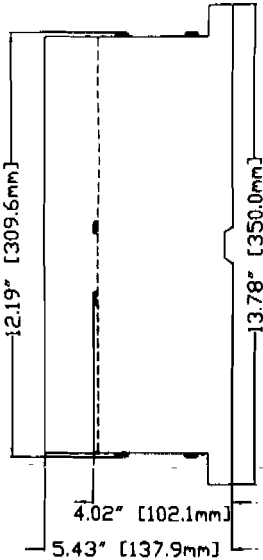
\*\*US and Canadian electrical code requires that product be rated at 80% of the incoming capacity.

Model Number	Dimensions	Cut-Out	Faceplate	Weight
	H x W x L			
ELX-35-240	14.33" x 11.73" x 5.95"	11.1" x 12.24"	14.33 x 11.73"	11.8 lbs
ELX-45	14.33" x 11.73" x 5.95"	11.1" x 12.24"	14.33 x 11.73"	12.0 lbs
ELX-60	14.33" x 11.73" x 5.95"	11.1" x 12.24"	14.33 x 11.73"	12.5 lbs

## OUTPUT LOAD CURVE



# DIMENSIONS



# WARRANTY

Elixir Industries warrants this converter to be free from defects in materials or workmanship under normal use and service for two years from the date of retail purchase and limits the remedies to repair or replacement at its discretion of any defective part or assembly. This warranty is limited to the original owner only and within the continental limits of the United States and Canada. This warranty is extended specifically for and is limited to recreational vehicle applications

If a problem should occur with your converter within the first 24 months of purchase; please contact a dealer that handles warranties on your brand of RV.

Any implied warranties of merchantability and fitness for intended use are limited in duration unless applicable State Law provides otherwise. You may have other rights as specified by each individual state.

This warranty does not apply to the following:

- Any damage of converter caused by misuse, improper installation or accident.
- Installation of a converter in a commercial vehicle.
- Any converter whose serial number has been defaced, altered, or removed.
- Any converter that has been repaired or altered by an unauthorized person.

## Warranty Reference Record

For future Warranty reference, record the following:

Date of RV Purchase: \_\_\_\_\_

Converter Serial Number: \_\_\_\_\_