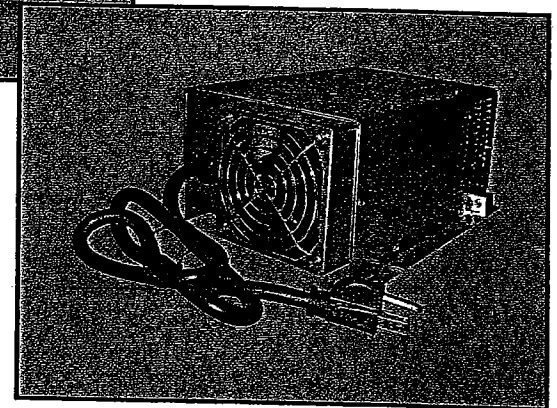
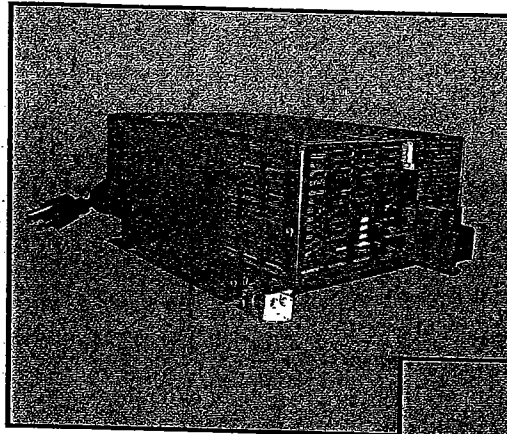


Installation and User's Manual
WF-8835, WF-8845, WF-8855, WF-8865, WF-8875

WFCO

for

Power Converter /Chargers



WORLD FRIENDSHIP CO., LTD

Phone: (574) 294-8997 Fax: (574) 294-8698

For Warranty Service Contact: (877) 294-8997

Distributed by CHENG USA, Inc.

1. Power Converter Features

- **Clean, constant 12 volt DC power**

Nominal 13.6 VDC. Eliminates need "filtered" circuits whether or not the battery is installed in the RV.

- **Reverse battery protection**

Prevents permanent damage from incorrect battery hook-up

- **Automatically Cooling Fan**

Operates only under high load conditions-normally not during sleeping hours or when power demand is low. More sleeping comfort.

- **Electronic current limiting**

Automatically shuts down power during overload or short circuit conditions. Automatically returns to normal operation after condition is corrected. No more hassle replacing fuses or resetting circuit breakers.

- **Fast recharge rate**

Depending on battery condition and 12-volt load.

- **Light Weight**

35, 45, 55 AMP Weighs only 5.676 lbs. 65AMP, 75 AMP units weighs 7.716 lbs That's 80% less weight than most older style linear converters.

- **Durable performance**



INSTALLATION INSTRUCTION

2

2. Installation Instructions

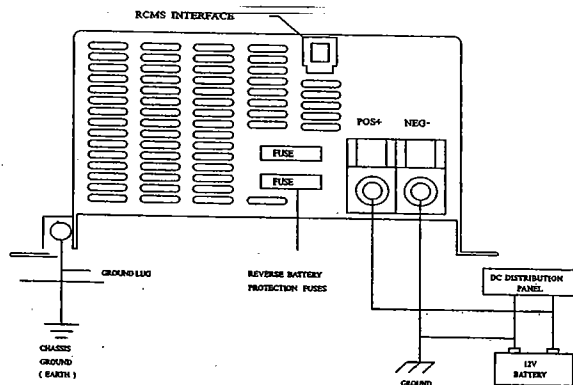
Horizontal mounting of the 8800 series is recommended although it can be mounted in any position that provides unobstructed ventilation for the fan and vent holes. Secure the converter firmly to the mounting surface using standard fasteners. For proper operation the converter must be grounded to the chassis or frame. A ground lug is provided on the side of the converter.

3. 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 original fuses. Using other fuses could result in the converter being damaged, vehicle damage, injury other consequence.

4. Attention

Use a 5/32" hex driver to tighten terminal output screws. Do not exceed 50 IN-LB Torque. Too much torque or use of a power tool, may result in stripped screws. The output terminals are rated for 2 to 14 gage, copper or aluminum wire. The 8800 series converters are not weather tight nor designed for wet location mounting. They must be protected from direct contact with water. During the manufacturing process avoid the introduction of foreign materials into the case as this could cause a malfunction of the converter.



5. Automatic Microcontroller Operation

Your WFCO power converter is equipped with a microcontroller mounted on the converter's PC board. The microcontroller is fully automatic and requires no additional equipment to operate. The microcontroller continuously monitors the battery condition and determines what mode (Bulk, Absorption or Float) the converter will be placed.

Below are the functions of microcontroller.

- 5-1 Our output voltage control microprocessor has been designed into the converter PC board to avoid the need for additional equipment. When power is initially applied to the power converter, the microcontroller cycles through its modes to determine which mode it needs.
- 5-2 After the test cycle the power converter moves to the "Absorption Mode" (13.6VDC)
- 5-3 When the output of the power converter is connected to the battery and a load is applied (anything in the RV) the microcontroller checks to see which mode the converter needs to be in.
 - 5-3-1 If the output voltage of the battery drops to 13.2VDC, the power converter automatically changes to "Bulk Charge Mode" (14.4VDC). Normally, when the output voltage drops to 13.2 VDC it means that the battery energy is less than 50%.
 - 5-3-2 The bulk charge timeout period (time) is a maximum of 4 hours. After 4 hours of bulk charge, the power converter changes back to the absorption mode (13.6VDC). This is to avoid battery damaged under a long period of bulk charge.
 - 5-3-3 Under the "Bulk Charge Mode", when the microcontroller detects the output voltage is at 14.4VDC, it will change back to absorption mode even though the bulk charge period is less than 4 hours. **This is important to battery durability and battery life.**
 - 5-3-4 After a period of 48 hours of detecting no load or demand, the microcontroller automatically places the converter in the "Float Mode" (13.2VDC).
 - 5-3-5 The design of the microcontroller is to "detect" the battery voltage then "make a decision" to select the proper mode automatically.
 - 5-3-6 **CAUTION:** If the converter cycles into the bulk charge mode more than once during a charge cycle check the battery(s) to determine if it has a bad cell.



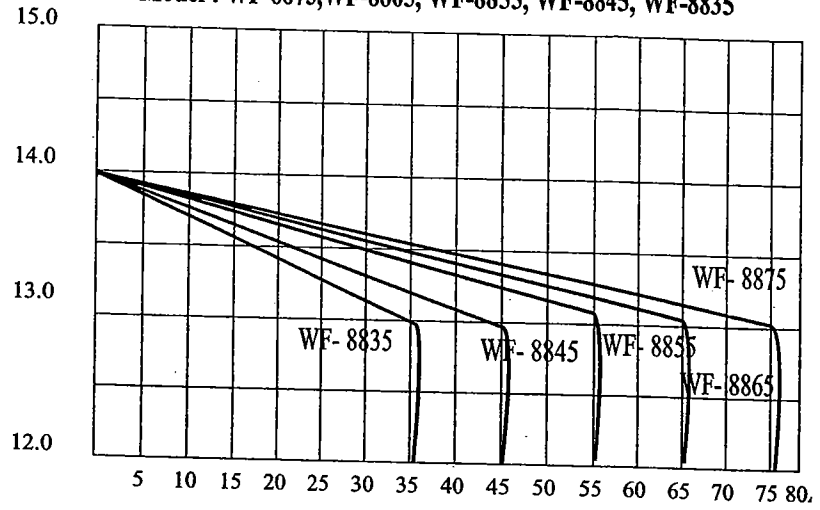
9. WF-8800 Series Specifications :

INSTALLATION INSTRUCTION

4

Output Load Curve

Model : WF-8875, WF-8865, WF-8855, WF-8845, WF-8835

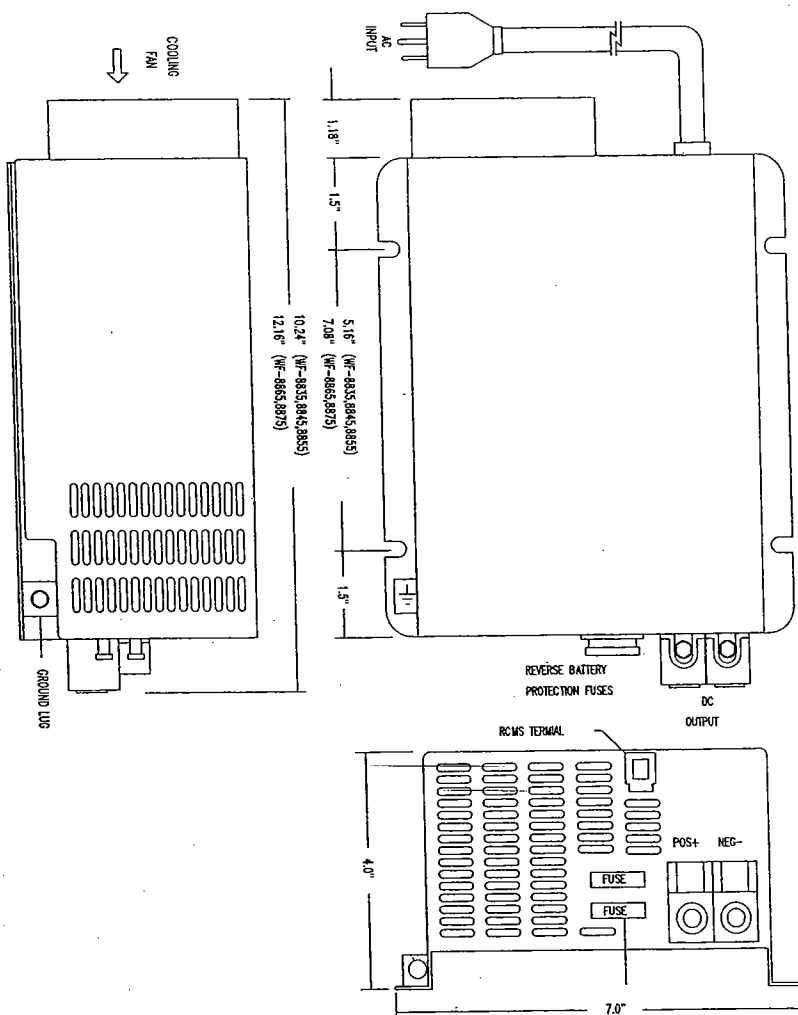


Model No.	AC Input		DC Output		Dimensions			Weight	Far coole
	Volts	AMP	Volts	Amps.	Height	Width	Length		
WF-8835	105~130 60Hz	8	Quick-Mode :14.4V 4hr Max	35	4 "	7 "	10,2 "	5,68 lbs. 2,58kg	Yes
WF-8845		11,6		45					
WF-8855		12		55					
WF-8865		12	Storage Mode : 13.2V	65	4 "	7 "	12,16 "	7,72 lbs. 3,50kg	
WF-8875		12		75	4 "	7 "	12,16 "	7,72 lbs. 3,50kgs	

Model No.: WF-8800 SERIES

INSTALLATION INSTRUCTION

5

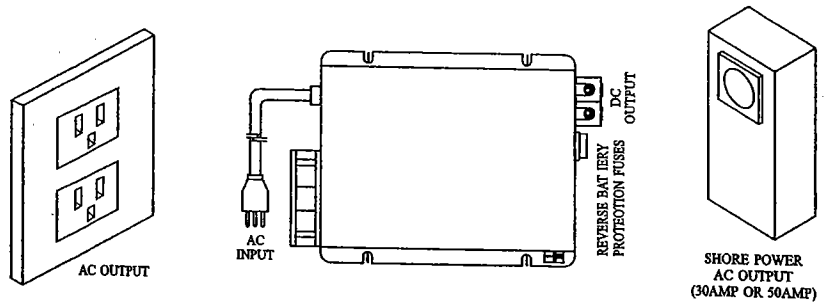




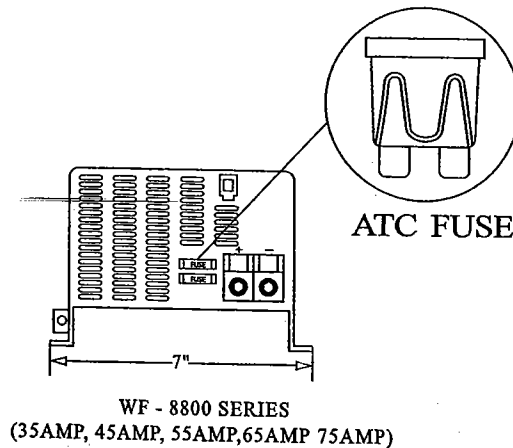
INSTALLATION INSTRUCTION

6

Procedure#1 First to be sure to check that the convener is plugged in and that there is a good source of power (at the connection point for the shore power). check the shore power with the voltmeter to be sure the output is between 105 VAC and 120 VAC. Then check the receptacle that the converter plugs into to see if there is 105 VAC to 120 VAC. If there is power to both the shore power and to the receptacle that the converter is plugged into then go to Procedure#2



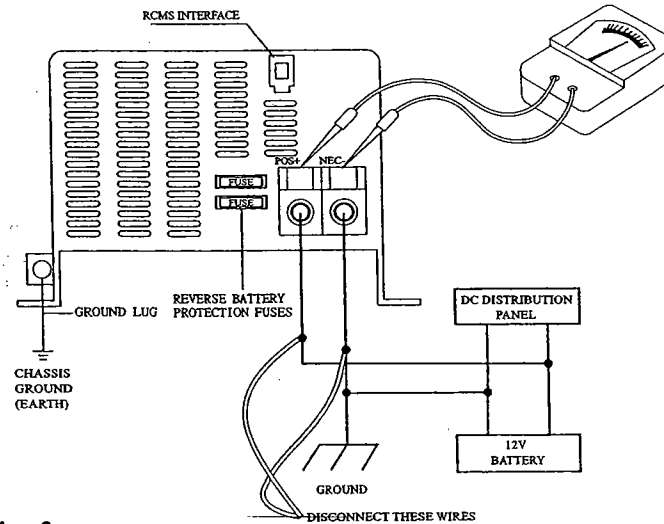
Procedure#2 If there is power to the converter then check the reverse polarity fuses on the front plate of the WF-8800 series converters. First visually inspect the fuses for any breaks then if none are seen then using a continuity tester check for continuity. If the fuses are good then go to Procedure #3



If fuse(s) are blown this means the RV Battery was accidentally connected in reverse either at the battery or at the converter. Connect properly then replace the fuse(s).

IMPORTANT: These fuses protect converter from damage in the event RV Battery is accidentally connected in reverse. A reverse battery connection even for a second is the only thing that will blow these fuses.

Procedure #3- Before the converter output voltage can be checked it is necessary to disconnect both of the wires on the front of the converter (as shown below). Using a 5/16 hex driver disconnect the wires. Cap each wire or wrap with tape. Then using a voltmeter check the converter output voltage. Place the **Positive**(red) probe in the **Positive** output(red) and place the **Negative**(black) test probe into the **Negative**(black) output terminals of converter. Be sure you have good connections at the terminals. If the voltage reads 13.6 volts (+/- .3volts) the converter is functioning properly.



Drawing 3

If converter output voltage reads 13.6 volts, but the battery is still not charging, check for an open automatic reset circuit breaker(if provided), or an open between the converter and distribution panel or an open wire between converter and RV Battery.

If converter fuses check good and 120 V.A.C. and there is power at the outlet, but the converter output still reads zero volts, the converter is not functioning properly and must be replaced. For Warranty service contact 1-800-900-2468. If the RV is out of warranty contact 1-800-900-2468.

If you still have a problem determining if the converter or the unit has a problem contact our Warranty Partner BR Wholesale at 1-800-900-2468.



INSTALLATION INSTRUCTION

8

GENERAL INFORMATION

The 8800 Series power converters, 120VAC to 13.6VDC are intelligent, reliable electronic switch mode converter / battery chargers. The 8800's are UL,cUL (Canadian) Listed. They meet FCC Class B requirements (see below).

FCC Compliance Class B:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



Consumer Limited Warranty

for

WFCO Switch mode converters

WFCO extends, to the original owner, a Limited Switch Mode Converter Warranty commencing from the original date of purchase for a period of two (2) years. This limited warranty is extended specifically for and is limited to Recreational Vehicle application and is only valid in the continental United States, Alaska, Hawaii and the Provinces of Canada. WFCO warrants, to the owner, that its switch mode converter is free from defects in material and workmanship under normal use and service based on its intended use and function and is limited to the repair or replacement, at its discretion, of any defective part or defective assembly. 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.

EXCLUSIONS and LIMITATIONS

The OEM warranty specifically does not apply to the following :

- Any switch mode converter that has been repaired or altered by an unauthorized person ;
- Any damage caused by misuse, faulty installation, testing, negligence or accident or any switch mode converter installed in a commercial vehicle.
- Any switch mode converter whose serial number has been defaced, altered or removed;
- Any switch mode converter whose installation has not been in accordance to WFCO instructions.
- Any consequential damages arising from the loss of use of the product including but not limited to: inconvenience, loss of service, loss of revenue, loss or damage to personal property, cost of all services performed in removing or replacing the WFCO switch mode converter.

CONSUMER WARRANTY CLAIM PROCEDURE

Upon determination and validation by the OEM dealer that a WFCO switch mode converter has a defect, the dealer shall contact the WFCO warranty service number (800) 900-2468 and obtain a return goods authorization (RGA) number. This number shall appear on all correspondence with warranty service. Upon validation warranty service shall replace the switch mode converter with a like product. The RGA number shall also be placed on the outside of the carton used to return the product for ease of identification. Do not mark on the converter.