

WF-8700-AD SERIES

WF-8725-AD | WF-8735-AD | WF-8740-AD

(The Power Center model number is located on the front panel lable near the AC breakers)







THE HEARTBEAT OF TODAY'S RVS

ARTERRA DISTRIBUTION

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↑ WARNING

RISK OF ELECTRICAL SHOCK

Disconnect or isolate all power supplies before making electrical connections. More than one disconnection or isolation may be required to completely de-energize equipment. Contact with components carrying hazardous voltage can cause electric shock and may result in severe personal injury or death.

NOTICE

All wiring must conform to local, national, and regional codes and regulations. Use copper conductors only for all wire connections. Do not exceed the electrical ratings for the WF-8700-AD Series Converter/Charger or the equipment connected to it. Failure to follow these precautions may cause equipment failure and/or electrical shock which could result in severe personal injury or death.

∆CAUTION

INSTALLATION AND SERVICING

This product should be installed and serviced by a certified or licensed electrician familiar with applicable safety codes and installation requirements. Failure to observe this precaution could result in electrical shock or bodily injury. Consult your servicing dealer before attempting any work on this product.

AWARNING

SPARK HAZZARD

This unit employs components that can produce arcs or sparks. To prevent fire or explosion, do not install in compartments containing batteries or flammable materials (LP gas). This product is NOT ignition protected.

∆CAUTION

DO NOT OBSTRUCT VENTILATION OPENINGS

To prevent fire, DO NOT cover or obstruct enclosure ventilation openings. DO NOT mount the WF-8712P or WF-8725P in a zero-clearance compartment as overheating may result. These units requires a 2 cubic foot (min) vented area behind the unit for cool air exchange.

↑WARNING

BATTERY SYSTEM

Use converter only on appropriate battery systems. Other usage may cause personal injury and damage. Consult all battery manufacturer's recommendations for additional safety information before use.

GENERAL INFORMATIONWF-8700-AD Series Power Center Safety Features

REVERSE BATTERY PROTECTION

The WF-8700-AD Series Power Centers will charge the 12-volt House battery if installed. A battery DOES NOT have to be installed for WF-8700-AD Series Power Center converter operation. When a battery is installed, a reverse polarity fuse protects the converter circuitry. The fuse is located along the bottom of the row of fuses. Refer to Figure 1 on page four. This feature prevents permanent damage to the converter from a battery connected into the circuit backwards. In addition to protecting the converter section, the reverse polarity fuse is the main connection between the converter and the DC fuse board.



The fuse values and quantity vary depending on which WF-8700-AD Series Power Center you have. Refer to the table and drawing below.

- WF-8725-AD 30A (1)
- WF-8735-AD 40A (1)
- WF-8740-AD 30A (2)

BLOWN FUSE INDICATORS ON DC FUSE BOARD

The DC Fuse Board has individual blown fuse indicators as standard equipment. The WF-8725-AD has four DC circuits (three Branch and one Battery). The WF-8735-AD and WF-8740-AD have six DC circuits (Five Branch and one Battery). Each of the circuits contain a red LED to indicate a blown fuse. If one of the circuits draws more current than the rating of the fuse, the fuse will blow. When this occurs, the red LED for that circuit will illuminate. NOTE: The fuse board employs surface mount LEDs which are barely visible to the naked eye. Replace the blown fuse with a known good fuse of the same rating. NOTE: If the replacement fuse blows again, check that circuit for a short or overload condition .

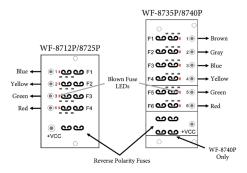


Figure 1

AUTOMATIC COOLING FAN

The cooling fan in the WF-8700-AD Series Power Center is incremental and is controlled by the current drawn out of the converter to the applied load. The on-board microprocessor increases fan speed as the total load increases and decreases fan speed as the load decreases. Unlike traditional temperature-controlled fans, the load-controlled fan provides better component cooling by avoiding temperature spikes which can lead to premature component failure.

OVER-TEMPERATURE PROTECTION

If the internal temperature of the converter exceeds a critical point, it will shut down. This protects the unit from excessive heat that may damage sensitive components. The unit will restart once the temperature inside has dropped.

ELECTRONIC CURRENT LIMITING

If the output current exceeds the maximum rating for the WF-8700-AD Series Power Center converter, the output current will remain constant, but the output voltage will begin to drop. If this occurs, the unit will recover once loads are reduced .



SHORT-CIRCUIT PROTECTION

Should a short-circuit occur in the RV, the WF-8700-AD Series Power Center converter will drop the voltage output to zero volts. If the short-circuit condition is removed and no other fault conditions are detected, the converter will resume normal operation. However, short-circuit conditions are dangerous, and an RV will require inspection by a qualified service technician.

CIRCUIT PROTECTION

WF-8700-AD Series Power Center Fuses and Breakers

CIRCUIT PROTECTIONWF-8700-AD Series Power Center Safety Features

DC FUSES (12 VOLTS)

The DC fuse boards have spaces the Branch, Battery and Reverse Polarity fuses as described above. Should any of fuse's blow, the Branch Circuit fuses, and the Reverse Battery Protection fuses should be replaced with ATC or ATO automotive type fuses such as:

- Littelfuse type 257
- Bussmann type ATC

AC CIRCUIT BREAKERS (120/240 VOLTS)

The AC Breaker side of the WF-8700-AD Series Power Center is located on the left side of the enclosure. The WF-8700-AD Series Power Center accepts standard residential breakers. The WF-8725-AD has spaces for a 30 Amp Main and up to 3 Branch breakers when using duplex breakers. The WF-8735-AD and WF-8740-AD have spaces for a 30 Amp Main and up to 5 Branch breakers when using duplex breakers. A list of factories tested, and approved breakers follows. The breakers may be purchased at most big-box department stores and home centers.

UL-LISTED MAIN CIRCUIT BREAKERS, RATED FOR 120V, MAXIMUM 30A

The following breakers have been factory tested and approved for use as 30 Amp Main breakers in the WF-8700-AD Series Power Center:

Manufacturer	Model/Cat. No./Type
Cutler Hammer	Type BR and C
Thomas Betts	Type TB or TBBD
ITE/Siemens	Type QP or QT
Square D	Type HOM or HOMT
Murray	Type MP-T or MH-T
General Electric	Type THQL, THQP

UL-LISTED BRANCH CIRCUIT BREAKERS, RATED FOR 120V, MAXIMUM 20A

The following breakers have been factory tested and approved for use as Branch breakers in the WF-8700-AD Series Power Center:



Manufacturer	Model/Cat. No./Type
Cutler Hammer	Type BR and C, Type BRD, BD and A
Thomas Betts	Type TB or TBBD
ITE/Siemens	Type QP or QT
Square D	Type HOM or HOMT
Murray	Type MP-T or MH-T
General Electric	Type THQL, THQP

When replacing any of the installed circuit breakers, the replacement should be of the same manufacturer, type designation, and equal interrupting rating, not to exceed 30A. The "Short-Circuit-Current" rating for the breaker should be 10,000 Amps. Breaker Filler Plates: Model #FP-01 or FP-01B (Black)

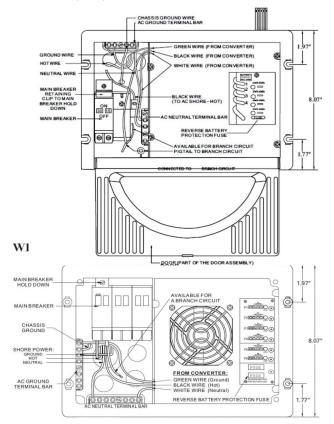


Figure 2



OPERATIONAL FEATURES



AUTO DETECT

This product includes the exclusive "Auto-detect" feature for the charging of batteries . With this new technology, the power converter will evaluate the charging cycle of a battery, determine the type of battery being used, and then choose the appropriate charging program(profile) to provide for the best performance and maintenance of that battery.

Because of the differences of Lead Acid, AGM and Lithium type batteries, a system that provides a charge to the battery or batteries must be able to accommodate the different charging requirements. With the use of the "Auto-detect" product, the charging requirement is able to be "detected" and is then automatically set for the type of battery being used. For standard Lead Acid and AGM ≠batteries, WFCO power converters still use the Three-Stage Smart Charging to effectively maximize battery life by monitoring through the different phases of the charge cycle. On the other hand, Lithium batteries will prefer the use of only two stages when charging, and therefore the power converter will charge using the WFCO Two-Stage Smart Charging system.

LEAD ACID & AGM THREE-STAGE SMART CHARGING

In order to maximize battery life for lead acid and AGM, it is best to charge batteries slowly, keep them topped off with a trickle-charge when the RV is not being used. The 3-Stage "smart" charger continuously measures the battery voltage output and regulates the amount of charge using three modes of operation: Absorption, Bulk and Float modes.

All WFCO power converters are automatic three-stage switching power supplies. The converter senses which mode it needs to be in by checking the RV system voltage.

ABSORPTION MODE

The converter normally provides a constant target output voltage of 13.6 VDC (nominal) to power all the branch circuits. However, it is current limited, and if the output (load) current reaches its maximum, the output voltage will drop as necessary to hold the converter's maximum output current level (the Amperage rating) without exceeding it.

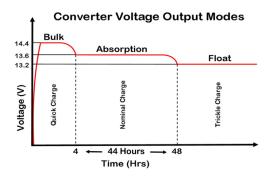


Figure 3



BULK MODE

If the output current reaches its maximum (normally caused by a discharged battery), this will cause the converter to go into Bulk Mode, which means the target output voltage will change to 14.4 VDC and a timer will start. Although the converter is outputting 14.4 VDC, you will not be able to read that on a voltmeter due to the voltage-current relationship. From the paragraph above, as load current increases, output voltage decreases. The actual output voltage will not rise until the load current is reduced, which happens naturally as the battery charges or if 12 VDC appliances are turned off.

Bulk Mode will be maintained until the current draw drops to approximately five Amps, or until the timer reaches four hours (whichever happens first). Then the target output voltage is changed back to 13.6 VDC for Absorption Mode. Lights that are powered from the output may change brightness slightly at that time.

FLOAT MODE

The third mode of charging is what is called the "float" charge . This mode is designed to provide a "trickle charge" to the battery after the system observes no significant variations in current draw over a long period of time . When in "float" mode, the voltage will reduce from 13.6V to 13.2V and supply the "trickle charge" which helps to preserve the life of the battery while keeping it charged and ready for use. A change in DC current will cause the converter to exit the mode and return to the Absorption mode and then to Bulk mode if required. NOTE: For a detailed explanation of the charging modes, please refer to our publication "Theory of Operation", document #AD-TD-0001-0.

LITHIUM TWO-STAGE SMART CHARGING

The two-stage "smart" charger continuously measures the battery voltage output and regulates the amount of charge using two modes of operation: Bulk and Absorption mode.

2-STAGE CONVERTER VOLTAGE OUTPUT MODES

Understanding output voltages of a two-stage converter.

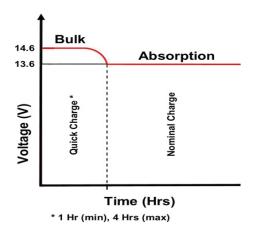


Figure 4



BULK MODE

This mode is designed with two purposes in mind. First, to quickly restore the energy back into the battery. Second, to ensure the lithium cells inside the battery remain balanced. This is accomplished by boosting the output voltage to 14.6 VDC and allowing the maximum current to flow as required by the loads.

The bulk mode stage could last anywhere from one-to-four-hours based on the battery and load current which is being used. For a full battery, the bulk stage has a minimum time requirement of one hour, which allows the lithium cells inside the battery the time required to "balance". For an empty battery, the bulk stage has a maximum time requirement of four hours. If your application requires longer than four hours (such as a larger battery bank > 200 Ahr), a simple cycling of power will reset the timers.

As the energy is restored into the battery, the DC system voltage will climb and the current from the converter will decrease. If the total amperage draw from the converter reaches a preset point (within the one-to-four-hour timer), the converter is designed to drop out of bulk mode.

ABSORPTION MODE

This mode is designed with one purpose in mind. This purpose is to provide a safe operating voltage for all loads in the RV. This is accomplished by reducing (from bulk mode) the output voltage to 13.6 VDC and remaining at this voltage until the power is cycled to the converter. The absorption mode stage is the default or normal mode of operation, which has no timer associated with it. In this mode an output of 13.6 VDC is provided to the DC circuits in the RV. This voltage has a long-term history as the acceptable voltage for all loads in the RV, and should not place undue stress (nor reduce the longevity) of the lights and appliances in the RV. This is not to say that all loads will have an issue with a constant higher voltage; however, some loads may have an issue. Please refer to the individual manufacturer's specifications for acceptable operating voltage range of the connected load.



Troubleshooting the WF-8700-AD Series Power Center

Refer to the Troubleshooting Guide for the WF-8700-AD Series Power Center (Figure 5) below.

CHECKING CONVERTER OUTPUT VOLTAGE

Before checking the WF-8700-AD Series Power Center output voltage, disconnect the battery cables at the battery. Make sure the converter is plugged into an AC source (105-130 VAC). Check the converter output voltage at the battery with a voltmeter. Place the meter probes on the disconnected battery cables; place the Positive (red) meter probe on the + Positive battery wire and place the Negative (black) meter probe on the - Negative wire on the battery cable. Be sure you have good connections at the cables. If the voltage reads 13.6-14.4V, the converter is functioning properly.

If the converter output voltage at the battery reads 0.0 VDC, or if the battery is not charging, check for an open inline fuse in the battery wire circuit. One may have been installed by the RV manufacturer. Also check for loose wiring connections. NOTE: The battery circuit (Red wire) should have the following fuse installed:

WF-8725-AD - Circuit #4 - 30 A

WF-8735-AD - Circuit #6 - 30 A

WF-8740-AD - Circuit #6 - 30 A

CHECKING FOR REVERSE BATTERY HOOKUP (REVERSE POLARITY FUSES)

If there is no DC output coming from the WF-8700-AD Series Power Center converter section, first check the reverse polarity fuse(s) on the fuse board. Then, visually inspect the fuses for any breaks in the fuse element. If no breaks are found, use a continuity tester to check for continuity. If the reverse polarity fuses are blown, it means the RV battery was accidentally connected in reverse, either at the battery or at the converter. Investigate the connections and reconnect the cables properly. Replace the fuse with the same type and Amperage rating as the original.

IMPORTANT: These fuses protect the converter from damage if the RV battery is accidentally connected in reverse. A reversed battery connection, even if for only a second, will cause these fuses to blow.

If the above checks have been made but the converter output still reads 0.0 VDC, the converter is not functioning properly. Contact the Arterra Distribution Power PROs at 1 (877) 294-8997. Before placing the call, please have available the WF-8700 Series Power Center model number from the front panel label and the 14-digit serial number from the bar code tag located on the fan panel.

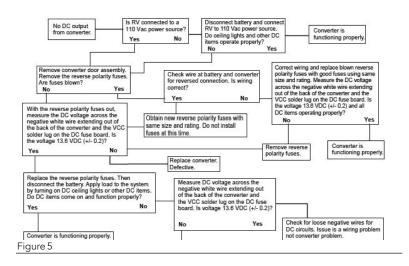
The fan panel is accessible after the door assembly has been removed.

AC REVERSE POLARITY (AUDIBLE ALARM)

This power center is equipped with an AC REVERSE POLARITY PROTECTION feature. Should the incoming AC neutral wire and lead wire be connected backwards at the power center, an alarm located in the power center enclosure will sound . This alarm will continue to sound until the AC wires are connected correctly.



Troubleshooting Guide for the WF- 8700-AD Series Power Center



Should it be determined that the converter section of the WF-8700-AD Series Power Center is defective, and the unit is under warranty, the entire unit will need to be returned. The converter section is not user serviceable.

When preparing the unit for return, remove the AC breakers. Label and disconnect each wire as they are removed from the breakers and Ground and Neutral bars. The DC wires protruding from the back of the WF-8700-AD Series Power Center have been connected to the DC circuits in your RV by the RV manufacturer. In a similar fashion, label and disconnect these wires. Follow the packaging instructions in your warranty claim packet.

GENERAL COMPLIANCE INFORMATION Agency Listings

UL

The WF-8700-AD Series Power Centers are UL-Listed, and cUL-Listed (Canadian).

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.



INSTALLATION INSTRUCTIONS Installing the WF-8700-AD Series Power Center

MOUNTING THE ENCLOSURE

The WF-8700-AD Series enclosure should be mounted in an accessible area such as a wall or in the side of a cabinet. The front of the enclosure should not be obstructed to allow free air flow for the cooling fan. The enclosures will slide into rough openings as follows:

- WF-8725-AD 10 7/16" W x 6 1/8" H x 3 34" D
- WF-8735P and WF-8740P 10 3/8" W x 6 7/8" H x 4 5/16" D

After wiring is completed, the enclosure fastens to the wall or cabinet using four wood screws not supplied).

WIRING THE AC BREAKERS

Make sure no AC power is coming into the RV from either the Shore Power cord or an on-board generator. Determine the proper size breakers for the loads the WF-8700-AD Series Power Center will be powering. You can use either single or duplex breakers, or a combination of both. We recommend that all the breakers used be of the same brand. A total of four breakers can be mounted in the WF-8725-AD when using duplex breakers: one Main breaker and up to three Branch breakers. A total of six breakers can be mounted in the WF-8735-AD and 8740-AD when using duplex breakers: one Main and up to five Branch breakers. Refer to the tables on pages five and six for a selection of approved breakers. The Main breaker should be 30 Amp and is to be installed in the left-most position. See the wiring diagrams below. A hold down clip is provided to keep the breaker securely in place.

The 30 Amp power cord is routed through the large knockout in the back of the wiring compartment and secured with a Romex clamp. The Black (Hot) wire is connected to the 30 Amp Main breaker as shown. The White (Neutral) wire is connected to the Neutral Terminal bar at the bottom of the wiring compartment. The Green (Ground) wire is connected to the Ground Terminal bar also located at the bottom of the compartment.

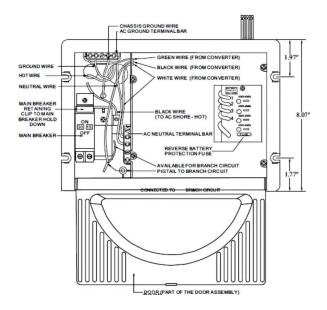
Route the Romex leads for the Branch circuits through the Strain Reliefs in the back of the wiring compartment. In a similar fashion, connect the black wire to the Branch breaker and the white and green wires to the appropriate Terminal bar.

The Black power wire for converter power on the WF-8735-AD and WF-8740-AD has a pigtail connection. The metal pin is inserted in the Branch breaker designated for converter power. The end with the wire nut can be used to power another circuit if necessary. If not used, leave the wire nut installed and push the wire to the side. Make sure all terminals are torqued to the specifications listed on the back of the door assembly.



WIRING THE DC FUSE BOARD

Make sure the house battery is disconnected before beginning the DC wiring. Determine what DC loads are to be connected to the fuse board and what position they will occupy. All four circuits on the WF-8725-AD Power Center have up to 20 Amp ATO or ATC fuses installed. On the WF-8735-AD and WF-8740-AD Power Centers, circuits F5 and F6 can be used for slide-outs or other higher current loads and can have a maximum 30 Amp ATO or ATC fuse installed. The remaining four circuits are general purpose and can have up to 20 Amp ATO or ATC fuses installed. Make sure the fuses are seated properly.



WF-8735 and WF-8740 Wiring Diagram

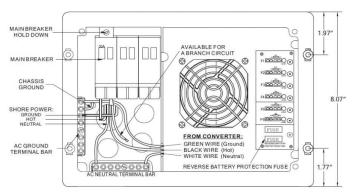


Figure 6



All models have wire lead connections. Strip approximately 1/4" of insulation from the wires and attach to the appropriate connected load using a wire nut or other approved method. Make sure the connectors are tightly secured.

Connect the heavy wire (Red) coming from the battery to the Red 10AWG wire coming from the back of the enclosure.

As a last step, install a separate bus bar in a location behind the converter. Connect the 10AWG White wire coming from the back of the enclosure to this bus bar. Connect the battery negative wire to this bus bar along with all the negative DC load wires. Also, run a wire from the bus bar to chassis ground.

Model No. Converter Input Power: Voltage: Frequency: Max. input current @105Vac Max Power Converter Output Power Continuous power: Rated DC Curput Voltage Rated DC Current Charging Modes Intelligent charge mode Battery Adaptability Absorption charge voltage Bulk charge voltage: Regulation Cooling Fan VA Efficiency: Protection: Over-load Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating Breakers Romex strain reliefs DC Distribution Board Standard DC Output loops	105- 6 5A 425 watt 340 watt 13.6\(\) 25A automatically contro 3-stage intelligent charge Absorption \(\) Bulk and Stor LA \(\) AGM 1 1 13. \(\pm \) 196 accuracy again Speed according to >80% (under 70) current-limiting \(\) shut down, shut down \(\) auto protected by Fuse; same ra	age / Absorption \ Bulk / Lithium ion 3.6V 4.6V 2V / X st input or load changes the DC load amperage % of load condition) auto recovery upon nor recovery upon normal recovery upon normal	mode
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Continuous power: Rated DC Cutput Voltage Rated DC Cutput Voltage Rated DC Current Charging Control Charging Modes Intelligent charge mode Battery Adaptability Absorption charge voltage Bulk charge voltage: (4 Hrs) Storage charge voltage Regulation Cooling Fan VA Efficiency: Protection: Overload Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating Breakers Romex strain reliefs DC Distribution Board	13.6\times 25A automatically control 3-stage Intelligent charge Absorption \times Bulk and Stor LA & AGM 1 1 13. \(\frac{1}{2}\) 1% accuracy again Speed according to \(\times 80\)% (under 70 current-limiting & shut down; shut down & auto shut down & auto protected by Fuse; same ra	/ 14.6V 35A Illed by micro-processor / 2-stage Intelligent chaage / Absorption \ Bulk / Lithium ion 3.6V 4.6V 2V / X st input or load changes the DC load amperage % of load condition) auto recovery upon normal recovery upon normal	40A sirge mode
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Bulk charge voltage: (4 Hrs) Storage charge voltage Regulation Cooling Fan VA Efficiency: Protection: Overload Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating Breakers Romex strain reliefs DC Distribution Board	13. ± 1% accuracy again Speed according to > 80% (under 70 current-limiting & shut down; shut down & auto shut down & auto protected by Fuse; same ra	4.6V 2V / X st input or load changes the DC load amperage 6 of load condition) auto recovery upon nor recovery upon normal recovery upon normal	mal load
Storage charge voltage Regulation Cooling Fan VA Efficiency: Protection: Overload Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating 1 x 3 breal Romex strain reliefs DC Distribution Board	± 1% accuracy again. Speed according to > 80% (under 70 current-limiting & shut down; shut down & auto shut down & auto protected by Fuse; same ra	2V / X st input or load changes the DC load amperage % of load condition) auto recovery upon nor recovery upon normal recovery upon normal	mal load
Regulation Cooling Fan VA Efficiency: Protection: Overload Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating Breakers 1 x 3 breal Romex strain reliefs DC Distribution Board	± 1% accuracy again Speed according to > 80% (under 70 current-limiting & shut down; shut down & auto shut down & auto protected by Fuse; same ra	st input or load changes the DC load amperage % of load condition) auto recovery upon nor recovery upon normal recovery upon normal	rmal load
Cooling Fan VA Efficiency: Protection: Overload Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating Breakers 1 x 3 breal Romex strain reliefs DC Distribution Board	Speed according to > 80% (under 70 current-limiting & shut down, shut down & auto shut down & auto protected by Fuse; same ra	the DC load amperage % of load condition) auto recovery upon nor recovery upon normal recovery upon normal	rmal load
VA Efficiency: Protection: Overload Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating Breakers Romex strain reliefs DC Distribution Board	> 80% (under 70 current-limiting & shut down, shut down & auto shut down & auto protected by Fuse; same ra	% of load condition) auto recovery upon nor recovery upon normal recovery upon normal	rmal load
Protection: Overload Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating 1 x 3 breal Romex strain reliefs DC Distribution Board	current-limiting & shut down; shut down & auto shut down & auto protected by Fuse; same ra	auto recovery upon nor recovery upon normal recovery upon normal	mal load
Overload Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating 1 x 3 breal Romex strain reliefs DC Distribution Board	shut down & auto shut down & auto protected by Fuse; same ra	recovery upon normal	rmal load
Short-circuit Over-temperature Battery reverse polarity AC Distribution Mains Rating Breakers 1 x 3 breal Romex strain reliefs DC Distribution Board	shut down & auto shut down & auto protected by Fuse; same ra	recovery upon normal	rmal load
Over-temperature Battery reverse polarity AC Distribution Mains Rating Breakers Romex strain reliefs DC Distribution Board	shut down & auto protected by Fuse; same ra	recovery upon normal	
Battery reverse polarity AC Distribution Mains Rating 1 x 3 breakers Romex strain reliefs DC Distribution Board	protected by Fuse; same ra		THE PARTY OF THE P
AC Distribution Mains Rating 1 x 3 Breakers Romex strain reliefs DC Distribution Board		ted fuse replacement re	
Mains Rating Breakers Breakers Breakers DC Distribution Board	Max. 30		quired
Breakers 1 x 3 breal Romex strain reliefs DC Distribution Board	Max. 30		
Breakers breat Romex strain reliefs DC Distribution Board		A / 120VAC	
DC Distribution Board	DA Mains breaker ; 3 x duplex branch ker	1 x 30A Mains breaker breaker	; 5 x duplex branch
Consultation and a second second	n	one	
Standard DC Output loops		E-res	
	4 x 20 AMP max. each	2 x 30 AMP ; 4 x 20	AMP max. each
Total	6 chip-LEDs; Red indicating fuse	Total 8 chip-LEDs; Red	indicating fuse
LED on Fuse Board: blow	n status of loops; 1 x Amber LED	blown status of loops; 1 x Amber LED r indicating Bulk mode on status; 1 x Amber LED indicating Battery type	
indic	ating Bulk mode on status; 1 x Amber		
LED i	ndicating Battery type		
Visual Window:	Special design transparent win	dow for reading LED stat	tus easily
Mechanical:		3	
Zero Clearance:	none	Special design air con heat dissipating int	
TO LESS CONTROLS	11.85 x 7.25 x 5.12 inch	11.85 x 8.27	
Dimension: W x H x D	/ 300 x 184 x 130 mm	/ 300 x 210	x 133 mm
Cutout Size: W x H	10.43 x 6.1 inch / 265 x 155 mm		/ 265 x 175 mm

Figure 7



CONSUMER LIMITED WARRANTY For WFCO Electronic Products

WFCO extends, to the original owner, a Two-Year Limited Product Warranty. This warranty is in effect from the date of original purchase for a period of two years. This limited warranty is extended specifically for and is limited to Recreational Vehicle application and is only valid within the continental United States, Alaska, Hawaii and the Provinces of Canada. WFCO warrants, to the owner, that its products are free from defects in material and workmanship under normal use and service based on its intended use and function. This warranty is limited to the repair or replacement, at WFCO's discretion, of any defective parts or defective assembly. Any implied warranties of merchantability or 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 WFCO product that has been repaired or altered by an unauthorized person.
- Any damage caused by misuse, faulty installation, testing, negligence, accident or any WFCO product installed in a commercial vehicle.
- Any WFCO product, whose serial number has been defaced, altered or removed.
- Any WFCO product, whose installation has not been in accordance with the WFCO written 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 product. Specifications are subject to change without notice or obligation.
- Any WFCO Electronics products sold through unauthorized Internet sources (Example: eBay) will be excluded from all warranty coverage offered by Arterra Distribution / WFCO.

CONSUMER WARRANTY CLAIM PROCEDURE

Upon determination and validation by an authorized OEM dealer that a WFCO product has a defect, a Return Goods Authorization (RGA) number will be required before the product can be returned. The RGA number can be requested by completing the Warranty Information Fax Sheet and appropriate Troubleshooting Form found at wfcoelectronics.com. Once these forms have been completed, email the forms along with Proof of Purchase to warranty@wfcoelectronics.com or fax the three documents to the Warranty Department at (574) 294-8698. After receipt of the forms, an RGA number will be issued. This number shall appear on all correspondence with warranty service. Upon validation of the warranty, WFCO shall replace the product with a like product. The RGA number shall be placed on the outside of the carton used to return the product for ease of identification. Do not mark directly on the product. The product must be packaged properly to avoid further product damage which could cause a non-warrantable condition.

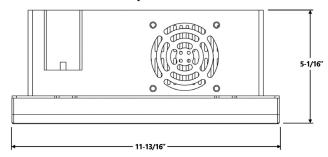


WARRANTY ASSISTANCE

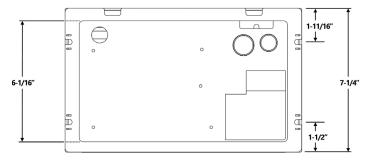
The consumer may contact the selling Dealer or OEM for warranty assistance. The consumer may also contact Arterra Distribution, exclusive distributor to WFCO Products at: (574) 294-8997 or Fax (574) 294-8698.

WF-8712/8725 Power Center

Top View



Back View



Bottom View

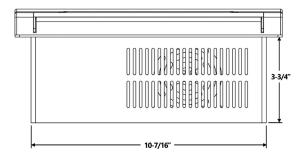
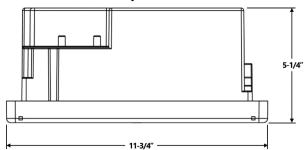


Figure 8

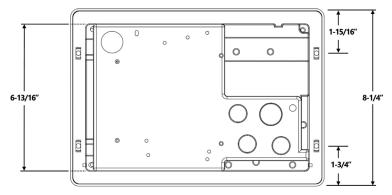


WF-8735/8740 Power Center

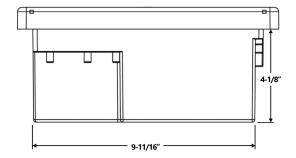
Top View



Back View



Bottom View





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