

WFCO WF-8935-AD

WFCO WF-8935-AD Power Center Instruction Manual

Model: WF-8935-AD

1. INTRODUCTION

The WFCO WF-8935-AD Power Center is an advanced power management system designed for recreational vehicles (RVs). It features patented Auto-Detect™ Technology, which automatically identifies the battery type (lithium-ion or lead-acid) and adjusts the charging profile accordingly, ensuring optimal battery health and longevity. This unit provides reliable AC and DC power distribution, multi-stage charging, and efficient thermal management for your RV's electrical needs.

2. IMPORTANT SAFETY INSTRUCTIONS

Read all instructions carefully before installing or operating the WF-8935-AD Power Center. Failure to follow these instructions may result in electric shock, fire, or serious injury. Keep this manual for future reference.

- **Qualified Personnel:** Installation and servicing must be performed by qualified personnel familiar with electrical systems and RV wiring.
- **Disconnect Power:** Always disconnect shore power and battery power before making any electrical connections or performing maintenance.
- **Ventilation:** Ensure adequate ventilation around the power center. Although designed with front airflow, proper air circulation is essential.
- **Moisture:** Do not expose the unit to rain, moisture, or excessive humidity.
- **Fuses and Circuit Breakers:** Use only fuses and circuit breakers of the specified type and rating.
- **Authenticity:** Ensure you are using a genuine WFCO product. Counterfeit products may not meet safety standards.

3. PRODUCT OVERVIEW

The WF-8935-AD Power Center integrates a 35 Amp converter/charger with an AC/DC distribution panel. Key features include:

- **Auto-Detect™ Technology:** Automatically detects and charges lead-acid or lithium-ion batteries.
- **Multi-Stage Charging:** Optimizes battery charging for extended battery life.
- **Load-Based Fan Operation:** The cooling fan operates only when needed, reducing noise and preventing heat spikes.

- **Zero-Clearance Design:** Allows for installation in tight spaces due to its innovative front airflow system.
- **Comprehensive Circuitry:** Includes 1 main AC circuit, 9 branch AC circuits, 9 x 20 Amp DC circuits, and 2 x 30 Amp DC circuits.
- **UL/CSA Listed and FCC Compliant:** Meets rigorous safety and performance standards.

Figure 3.1: Internal components and key features of the WF-8935-AD Power Center, including the cooling fan and Auto-Detect technology.

4. INSTALLATION

The WF-8935-AD is designed as a compatible replacement for various WFCO and other power centers. Follow these general guidelines for installation.

4.1 Pre-Installation Checks

- Verify that the new unit's dimensions are suitable for the intended mounting location.
- Ensure all power sources (shore power, generator, battery) are disconnected.
- Inspect existing wiring for damage or corrosion.

Figure 4.1: Dimensions and certifications for the WF-8935-AD Main Board Assembly.

4.2 Mounting

Mount the power center in a dry, protected location. The zero-clearance design allows for installation without requiring extra space for side or rear ventilation. Ensure the front panel is accessible for wiring and fuse replacement.

4.3 Wiring Connections

Carefully connect all AC and DC wiring according to your RV's electrical diagram and local electrical codes. Labeling wires before disconnection from an old unit is highly recommended.

- **AC Wiring:** Connect the main AC input, and then individual branch circuits to the appropriate breakers. The unit supports 1 main and 9 branch AC circuits.
- **DC Wiring:** Connect the battery leads (positive and negative) and then individual DC load circuits. The unit provides 9 x 20 Amp and 2 x 30 Amp DC circuits.
- **Grounding:** Ensure proper grounding of the unit to the RV chassis.

Figure 4.2: The WF-8935-AD Main Board Assembly, ready for installation in various RV types.

5. OPERATION

Once installed and wired correctly, the WF-8935-AD Power Center operates automatically.

5.1 Initial Power-Up

After all connections are secure, restore battery power, then shore power. The unit will power on, and the converter/charger will begin its operation.

5.2 Auto-Detect™ Technology

The patented Auto-Detect™ Technology automatically senses whether a lead-acid or lithium-ion battery is connected. It then adjusts the charging voltage and current profile to match the battery type, ensuring efficient and safe charging without any manual intervention.

5.3 Fan Operation

The internal cooling fan is load-based, meaning it will only activate when necessary to maintain optimal operating temperatures. This design minimizes noise and extends the fan's lifespan.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable operation of your power center.

- **Fuse Checks:** Periodically inspect DC fuses for continuity. Replace blown fuses with the correct amperage rating.
- **Cleaning:** Keep the power center's ventilation openings clear of dust and debris. Use a soft, dry cloth for cleaning the exterior. Do not use liquid cleaners.
- **Connection Inspection:** Annually, with power disconnected, check all electrical connections for tightness and signs of corrosion.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your WF-8935-AD Power Center.

Problem	Possible Cause	Solution
No AC power to RV appliances	Shore power disconnected, tripped main breaker, tripped branch breaker.	Check shore power connection. Reset main breaker. Reset individual branch circuit breakers.
No DC power to RV lights/appliances	Blown DC fuse, battery disconnected, low battery voltage.	Check and replace blown DC fuses. Verify battery connections. Check battery voltage and charge if low.
Battery not charging	No AC input, battery disconnect switch off, faulty battery, converter issue.	Ensure AC power is supplied to the unit. Check battery disconnect. Test battery condition. If issues persist, contact WFCO support.
Fan runs constantly or loudly	High load on DC system, restricted airflow, fan malfunction.	Reduce DC load. Ensure ventilation openings are clear. If problem persists, contact WFCO support.

8. SPECIFICATIONS

Feature	Specification
Model	WF-8935-AD
Input Voltage	105-130 VAC

Feature	Specification
Input Frequency	60 Hz
Output Amperage	35 Amps DC
Output Wattage	600 Watts
AC Circuits	1 Main, 9 Branch
DC Circuits	9 x 20 Amp, 2 x 30 Amp
Dimensions (L x W x H)	15 x 12 x 1 inches
Item Weight	8.08 pounds
Cooling Method	Air (Load-Based Fan)
Compatible Devices	Recreational Vehicle (RV)

9. WARRANTY INFORMATION

WFCO products are backed by a manufacturer's warranty. For specific warranty terms, duration, and claim procedures, please refer to the warranty documentation included with your product or visit the official WFCO website. Keep your proof of purchase for warranty claims.

10. CUSTOMER SUPPORT

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact WFCO customer support. You can find contact information on the official WFCO website or through the retailer where you purchased the product.

WFCO Technologies

Website: [wfcoelectronics.com](#) (Example link, please verify official site)