

WFCO WF-8725-AD

WFCO WF-8725-AD Power Center

Instruction Manual

1. PRODUCT OVERVIEW

The WFCO WF-8725-AD Power Center is a state-of-the-art electrical component designed for recreational vehicles (RVs). It is part of the WF-8700-AD Series, featuring an innovative Patent Pending Auto-Detect technology. This microprocessor-driven system intelligently identifies whether a connected battery is lithium-ion or lead-acid and automatically adjusts its charging profile accordingly. This eliminates the need for manual switches or settings, providing peace of mind that batteries are charged accurately, preventing over or under-charging. The unit also incorporates multi-stage charging and current monitoring to maximize battery longevity.



This image displays the WFCO WF-8725-AD Power Center. It is a compact, black rectangular unit designed for RV electrical

systems. The front panel features a large perforated area for ventilation and a smaller section, likely for circuit breakers or fuses, along with the WFCO brand logo.

2. WHAT'S IN THE BOX

Upon opening the package, you should find the following components:

- WFCO WF-8725-AD WF-8700-AD Series Power Center - 25 Amp, 105-130 VAC, 60 Hz, 430W

3. SPECIFICATIONS

Model	WF-8725-AD
Input Voltage	105-130 VAC
Input Frequency	60 Hz
Output Current	25 Amps DC
Wattage	430W
Dimensions (L x W x H)	11.88 x 7.25 x 1 inches
Item Weight	1 pound
Battery Compatibility	Lithium-ion, Lead-acid (Auto-Detect)

4. SETUP AND INSTALLATION

Installation of the WFCO WF-8725-AD Power Center requires careful attention to electrical connections. It is recommended that installation be performed by a qualified technician to ensure safety and proper functionality.

4.1. Pre-Installation Checks

- Ensure the power source to the RV is disconnected before beginning any installation work.
- Verify that the cutout hole dimensions in your RV are compatible with the WF-8725-AD unit.
- Confirm that all necessary wiring (AC and DC) is available and in good condition.

4.2. Wiring Connections

The power center handles both AC and DC wiring. AC connections (hot, neutral, ground) are typically located inside the enclosure, while DC wiring is external and color-coded. Ensure all connections are secure and follow applicable electrical codes.

- **AC Connections:** Connect incoming shore power to the designated AC terminals. Install circuit breakers as required.
- **DC Connections:** Connect the DC output wires to the RV's 12V distribution system and battery. Pay close attention to polarity (positive and negative). The unit includes a 30 amp DC fuse for self-protection against reverse battery connection.

Note: Detailed wiring diagrams are crucial for proper installation. Always refer to the specific wiring diagrams provided by WFCO for your model. If such diagrams are not readily available, contact WFCO technical support for assistance.

4.3. Battery Type Configuration (Auto-Detect and Manual Override)

The WF-8725-AD features an Auto-Detect function that automatically identifies lead-acid or lithium-ion batteries. However, in some cases, particularly with certain battery management systems (BMS) or if the auto-detect function does not engage as expected, a manual override may be necessary.

- **Auto-Detect:** The unit will attempt to detect the battery chemistry upon connection and adjust its charging profile. For lithium battery detection, a significant current draw (e.g., 30 amps) during the initial charge cycle may be required to trigger the detection.
- **Manual Override (Lithium Jumper):** If auto-detect does not successfully switch to the lithium profile, a jumper can be installed on the internal circuit board to force the unit into lithium charging mode. This procedure typically requires removing the unit from its mounting and accessing internal components. It is advisable to consult WFCO technical support for instructions on installing this jumper.

5. OPERATING INSTRUCTIONS

Once installed and connected, the WF-8725-AD Power Center operates largely automatically, managing your RV's 12V power and battery charging.

5.1. Charging Profiles

The Auto-Detect technology ensures the correct charging profile is applied:

- **Lead-Acid Profile:** Utilizes multi-stage charging (bulk, absorption, float) to optimize lead-acid battery life.
- **Lithium-ion Profile:** Provides a dedicated charging algorithm suitable for lithium-ion batteries, typically a constant current/constant voltage (CC/CV) charge.

5.2. Status Indicator LED

The unit features an internal LED indicator to communicate its charging status and detected battery type:

- **Green LED:** Indicates the unit is operating in lead-acid mode.
- **Blue LED:** Indicates the unit has successfully detected and switched to lithium-ion mode.
- **Alternating Green/Red LED:** Indicates bulk charging in the lead-acid profile.

6. MAINTENANCE

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

- **Keep Clean:** Periodically clean the exterior of the unit and ensure ventilation openings are free from dust and debris.
- **Check Connections:** Annually inspect all AC and DC wiring connections for tightness and signs of corrosion. Loose connections can lead to poor performance or overheating.
- **Fuse Inspection:** Check the condition of the DC fuses if you experience a loss of 12V power. Replace blown fuses with ones of the correct amperage.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your WF-8725-AD Power Center.

7.1. Auto-Detect Not Switching to Lithium Mode

- **Symptom:** The LED remains green (lead-acid mode) even with a lithium battery connected, and the

battery's BMS may restrict current.

- **Possible Cause:** The auto-detect function requires a significant current draw (e.g., 30 amps) during the initial charge cycle to properly identify a lithium battery. Some battery management systems may limit this initial draw.
- **Solution:** Try to create a sustained 30-amp load on the battery during charging. If this does not resolve the issue, consider installing the lithium jumper to manually force the unit into lithium charging mode. Contact WFCO technical support for guidance on this procedure.

7.2. No 12V DC Output

- **Possible Cause:** Blown DC fuses, loose DC connections, or a problem with the battery.
- **Solution:** Check all DC fuses on the power center and replace any that are blown. Verify all DC wiring connections are secure. Ensure the battery is properly connected and charged.

7.3. No AC Output / Shore Power Issues

- **Possible Cause:** Tripped AC circuit breakers (either on the power center or at the shore power pedestal), issues with the shore power connection.
- **Solution:** Check and reset all AC circuit breakers. Ensure the shore power cord is securely connected and that the campground pedestal is supplying power.

8. WARRANTY AND SUPPORT

8.1. Warranty Information

For detailed warranty information regarding your WFCO WF-8725-AD Power Center, please refer to the warranty documentation included with your product or visit the official WFCO website. Warranty terms and conditions may vary.

8.2. Technical Support

If you encounter issues that cannot be resolved using the troubleshooting steps provided, or if you require assistance with installation or specific technical details (such as the lithium jumper installation), please contact WFCO technical support. They can provide expert guidance and support for your product. Contact information for WFCO support can typically be found on their official website or in the product packaging.