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› [WFCO Arterra WF-9865-AD-CB Converter/Charger User Manual](#)

WFCO WF-9865-AD-CB

WFCO Arterra WF-9865-AD-CB Converter/Charger User Manual

Brand: WFCO

Model: WF-9865-AD-CB

1. PRODUCT OVERVIEW

The WF-9800 Series converter/chargers are adaptable, advanced power source solutions. The WF-9865 model provides 65 Amps of clean, reliable DC power, which is ideal for powering electronics and appliances. The 9800 Series provides clean power, even without filtering from a battery. Quiet operation is assured as the cooling fan runs only when needed. Another advantage is FCC Class B compliance for the WF-9865 model, which means that the converter does not interfere with televisions, radios, or other signals. Automatic three-stage battery charging maintains your battery's life with three nominal voltage output modes: 13.2 VDC "float" mode, 13.6 VDC "absorption" mode, and a 14.4 VDC "bulk" charge mode. Electronic current limiting automatically shuts down the power during overload or short-circuit conditions.

2. SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating this converter/charger. Failure to follow these instructions may result in electrical shock, fire, or serious injury.

- Always disconnect AC power before making or breaking any electrical connections.
- Ensure proper ventilation around the unit to prevent overheating.
- Do not expose the unit to water or excessive moisture.
- This unit must be installed by a qualified technician in accordance with all applicable electrical codes.
- Replace fuses only with the same type and rating as specified on the unit.
- Avoid touching live terminals.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- WFCO Arterra WF-9865-AD-CB Converter/Charger Unit

4. SETUP AND INSTALLATION

The WF-9865-AD-CB is designed for deckmount installation. Ensure the mounting surface is stable and provides adequate clearance for ventilation. Proper wiring is crucial for safe and efficient operation.

4.1 Unit Overview



Figure 1: Front-side view of the WFCO Arterra WF-9865-AD-CB Converter/Charger. This image shows the overall compact design of the unit, with ventilation grilles on the side and the main connection terminals visible on the right.

4.2 Rear Panel and Connections



Figure 2: Rear panel of the WFCO WF-9865-AD-CB Converter/Charger. This view highlights the DC output terminals (POS+ and NEG-) and the two 40 Amp automotive-type fuses. The caution label regarding fuse replacement and torque specifications is also visible.

4.3 Side View



Figure 3: Side view of the WFCO WF-9865-AD-CB Converter/Charger. This image provides another perspective of the unit, showing the ventilation grilles and the overall form factor, which is suitable for deckmount applications.

4.4 Wiring Instructions

- AC Input:** Connect the 20 Amp AC power cord to a suitable 105-130 VAC, 60 Hz power source. Ensure the AC circuit is properly fused or has a circuit breaker.
- DC Output:** Connect the positive (POS+) and negative (NEG-) DC output terminals to your RV's 12V DC distribution panel or directly to the battery. Observe correct polarity.
- Battery Connection:** Connect the converter to your battery bank. The unit features automatic three-stage battery charging.
- Grounding:** Ensure the unit is properly grounded according to local electrical codes.
- Mounting:** Securely mount the converter/charger to a flat, stable surface using appropriate fasteners. Allow for adequate airflow around the unit.

5. OPERATING INSTRUCTIONS

Once properly installed and connected, the WF-9865-AD-CB operates automatically to provide stable DC power and charge your battery.

5.1 Three-Stage Battery Charging

The converter/charger features an automatic three-stage battery charging system to optimize battery life:

- Bulk Mode (14.4 VDC):** This mode provides a rapid charge to bring a discharged battery up to approximately 90% capacity.
- Absorption Mode (13.6 VDC):** Once the battery reaches 90% capacity, the voltage drops to 13.6 VDC to safely complete the charging process.
- Float Mode (13.2 VDC):** When the battery is fully charged, the converter switches to float mode, maintaining a trickle charge to prevent overcharging and keep the battery topped off.

5.2 Fan Operation

The cooling fan operates only when needed, ensuring quiet operation. The fan will activate automatically when the internal temperature rises due to load or charging activity.

5.3 FCC Class B Compliance

The WF-9865 model is FCC Class B compliant, meaning it is designed to minimize interference with televisions, radios, and other electronic signals.

6. MAINTENANCE

Regular maintenance helps ensure the longevity and optimal performance of your converter/charger.

- Cleaning:** Periodically clean the exterior of the unit and ensure ventilation openings are free from dust and debris. Use a soft, dry cloth. Do not use liquid cleaners.
- Fuse Inspection:** Regularly inspect the 40 Amp automotive-type fuses on the rear panel (refer to Figure 2). If a fuse is blown, replace it only with a fuse of the same type and rating. Blown fuses often indicate a short circuit or overload condition.
- Connections:** Check all electrical connections periodically to ensure they are secure and free from corrosion.
- Ventilation:** Ensure that the area around the converter/charger remains clear to allow for proper airflow and cooling.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your WF-9865-AD-CB converter/charger.

| Problem | Possible Cause | Solution |
|-------------------------------|--|--|
| No DC Output Power | No AC input power; Blown DC fuses; Overload/Short circuit condition. | Check AC power source and circuit breaker. Inspect and replace DC fuses (refer to Figure 2). Disconnect loads to check for short circuits; the electronic current limiting feature will automatically shut down power during these conditions. |
| Battery Not Charging Properly | Loose battery connections; Faulty battery; Converter in float mode. | Check battery terminal connections for tightness and corrosion. Test the battery's health. Ensure there is sufficient load to trigger bulk or absorption mode if the battery is low. |
| Loud Fan Noise | High load on the converter; Restricted airflow; Dust buildup in fan. | This is often normal under heavy load. Ensure adequate ventilation around the unit. Clean any dust from the fan and vents. If noise is excessive and constant without high load, contact support. |
| Unit Shuts Down Automatically | Overload or short circuit on DC output. | The electronic current limiting feature has activated. Disconnect all DC loads, then reconnect one by one to identify the faulty appliance or wiring. Correct the issue before restoring power. |

8. SPECIFICATIONS

| Feature | Detail |
|-------------------------|---|
| Model | WF-9865-AD-CB |
| Output Power | 65 Amps DC output |
| Output Current | 65 A |
| Input Voltage/Frequency | 105-130 VAC, 60 Hz |
| Wattage | 884 watts |
| Converter Type | Three-Stage Converter Charger (Bulk, Absorption, Float) |
| Item Weight | 6.25 lbs. |
| Product Dimensions | 12 x 6.25 x 4 inches |
| Compliance | FCC Class B |

9. WARRANTY INFORMATION

For detailed warranty information regarding your WFCO Arterra WF-9865-AD-CB Converter/Charger, please refer to the official WFCO website or contact WFCO customer support directly. Warranty terms and conditions may vary and are subject to the manufacturer's policies.

10. CUSTOMER SUPPORT

If you require further assistance, technical support, or have questions not covered in this manual, please contact WFCO customer support. Contact details can typically be found on the official WFCO website or on the product packaging.

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Related Documents - WF-9865-AD-CB

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|---|---|
|  | <u>WFCO WF-9800 Series ULTRA III Deckmount Converter Installation Manual & Specifications</u> Official installation manual and specifications for the WFCO WF-9800 Series ULTRA III Deckmount Power Converter. Includes model details, dimensions, output curves, and installation guidelines for WF-9835, WF-9845, WF-9855, WF-9865, and WF-9875. |
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|  <p>Product Manual WFCO WF-9800-AD DECK MOUNT CONVERTER CHARGER • WF-9835-AD • WF-9845-AD • WF-9855-AD • WF-9865-AD • WF-9875-AD • 2001 Amplex Drive, Rocklin, CA 95765 • (916) 244-8887 • www.wfco.com</p> | <p><u>WFCO WF-9800-AD Series Deck Mount Converter Charger Product Manual</u></p> <p>This manual provides detailed information on the WFCO WF-9800-AD Series Deck Mount Converter Charger, including safety guidelines, operational features, installation instructions, troubleshooting steps, specifications, and warranty details for RV applications.</p> |
|  <p>WFCO WF-9800 Series Installation and Operator Manual WF-9800 Series</p> | <p><u>WFCO WF-9800 Series Installation and Operator Manual</u></p> <p>Comprehensive installation, operation, and troubleshooting guide for the WFCO WF-9800 Series Deckmount Power Converter, including technical specifications and warranty information.</p> |
|  <p>WFCO WF-8700-AD Series RV Power Center Operator's Manual WF-8700-AD SERIES</p> | <p><u>WFCO WF-8700-AD Series RV Power Center Operator's Manual</u></p> <p>Operator's manual for WFCO WF-8700-AD Series Power Centers (WF-8725-AD, WF-8735-AD, WF-8740-AD). Covers installation, operation, smart charging features, troubleshooting, safety, and warranty for RVs.</p> |
|  <p>WFCO WF-8700-AD Series Power Center Operator's Manual WF-8700-AD SERIES</p> | <p><u>WFCO WF-8700-AD Series Power Center Operator's Manual</u></p> <p>Operator's manual for WFCO WF-8700-AD Series Power Centers (WF-8725-AD, WF-8735-AD, WF-8740-AD), detailing features like Auto-Detect charging, installation, troubleshooting, and warranty for RVs.</p> |
|  <p>WFCO WF-9500-AD-MBA Series Power Center Operator's Manual WF-9500-AD-MBA SERIES</p> | <p><u>WFCO WF-9500-AD-MBA Series Power Center Operator's Manual</u></p> <p>Operator's manual for the WFCO WF-9500-AD-MBA Series Power Center, covering safety, general information, operational features, troubleshooting, installation, compliance, and warranty. Includes model numbers WF-9540-AD-MBA, WF-9560-AD-MBA, and WF-9580-AD-MBA.</p> |