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Mastervolt 45513000

MASTERVOLT Alpha Pro III

USER MANUAL

Introduction

The Mastervolt Alpha Pro III is an advanced charge regulator designed to optimize the charging process of your batteries. This device ensures efficient and safe power management for various applications, particularly in marine and mobile environments. It is engineered for reliability and ease of integration into existing power systems.

Key features include intelligent multi-stage charging, temperature compensation, and compatibility with 12V-24V systems. This manual provides detailed instructions for installation, operation, maintenance, and troubleshooting to ensure optimal performance and longevity of your Alpha Pro III.

Product Overview



Figure 1: Mastervolt Alpha Pro III device. This image displays the compact, dark grey unit. Visible connections include a "TEMP SENSE" port (RJ45-like), a 4-pin connector, three spade terminals labeled "+BAT", "FIELD", and "GND", and two additional RJ45-like ports. The top surface features the "MASTERVOLT ALPHA PRO III" branding, a label indicating "Type: Alpha Pro III", "Input: 12V-24V-MB", and a serial number. Three small indicator lights are also visible on the top surface.

The Alpha Pro III unit is designed for robust performance. It features clearly labeled connection points for easy installation. The input voltage range is 12V to 24V, making it versatile for different battery bank configurations. Indicator lights provide quick status feedback during operation.

Setup and Installation

Proper installation is crucial for the safe and efficient operation of the Alpha Pro III. Always ensure the power supply is disconnected before making any connections.

- 1. **Mounting:** Select a dry, well-ventilated location away from direct heat sources and flammable materials. Secure the unit using appropriate fasteners through the mounting holes.
- 2. **Temperature Sensor Connection:** Connect the temperature sensor cable to the port labeled "TEMP SENSE". This sensor is vital for accurate temperature-compensated charging.
- 3. **Battery Connection (+BAT):** Connect the positive battery cable to the terminal labeled "+BAT". Ensure a secure, low-resistance connection.
- 4. **Field Connection (FIELD):** Connect the alternator field wire to the terminal labeled "FIELD". This connection allows the Alpha Pro III to control the alternator's output.
- 5. **Ground Connection (GND):** Connect the ground cable to the terminal labeled "GND". A solid ground connection is essential for safety and performance.
- 6. **Data Connections:** Utilize the RJ45-like ports for communication with other Mastervolt devices or system monitoring, if applicable. Refer to your system's specific wiring diagram for these connections.
- 7. Power On: Once all connections are verified and secure, reconnect the battery power. Observe the indicator lights for

initial status.

For detailed wiring diagrams and specific system configurations, please refer to the comprehensive installation guide available on the Mastervolt website or contact Mastervolt technical support.

Operating Instructions

The Alpha Pro III operates largely automatically once correctly installed. It continuously monitors battery voltage and temperature to optimize the charging profile.

- Automatic Operation: The unit will automatically begin charging when the engine is running and the alternator is
 producing power.
- · Indicator Lights:
 - · Green LED: Indicates normal operation and charging.
 - Yellow LED: May indicate a warning or specific charging stage. Consult the full manual for detailed interpretations.
 - Red LED: Indicates an error or fault condition. Immediate attention may be required.
- Charging Stages: The Alpha Pro III typically employs multi-stage charging (e.g., Bulk, Absorption, Float) to ensure batteries are charged efficiently and maintained optimally.
- **System Monitoring:** For advanced monitoring and configuration, connect the Alpha Pro III to a compatible Mastervolt system display or interface.

Maintenance

The Mastervolt Alpha Pro III is designed for minimal maintenance. However, periodic checks can help ensure its long-term reliability.

- Visual Inspection: Periodically inspect the unit and all connections for any signs of corrosion, loose wires, or physical damage.
- Cleaning: Keep the unit clean and free of dust and debris. Use a dry, soft cloth for cleaning. Do not use abrasive cleaners or solvents.
- Ventilation: Ensure that the area around the unit remains clear to allow for proper airflow and heat dissipation.
- **Firmware Updates:** Check the Mastervolt website periodically for any available firmware updates that may enhance performance or add new features.

Troubleshooting

If you encounter issues with your Alpha Pro III, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
No charging output	Loose connections, blown fuse, alternator issue, or unit fault.	Check all wiring connections. Inspect system fuses. Verify alternator operation. If issues persist, contact support.
Red LED illuminated	Over-voltage, over-temperature, or internal fault.	Check battery voltage. Ensure adequate ventilation. Disconnect power, wait 5 minutes, and reconnect. If error persists, seek professional assistance.
Inaccurate charging	Faulty temperature sensor or incorrect battery settings.	Verify temperature sensor connection and integrity. Ensure battery type and capacity settings (if configurable) are correct.

For more complex issues or if the problem cannot be resolved using these steps, please contact Mastervolt technical support.

Specifications

Attribute	Value
Brand	Mastervolt
Model Name	45513000
Part Number	45513000
UPC	816882020377
Item Weight	2.38 Pounds
Item Dimensions (LxWxH)	9.75 x 6.5 x 3 inches
Material	Plastic
Color	No Color
Date First Available	July 9, 2020
Best Sellers Rank	#33 in Photographic Lighting Power Packs

Warranty Information

The Mastervolt Alpha Pro III comes with a manufacturer's warranty. For specific details regarding the warranty period, coverage, and terms, please refer to the official warranty documentation included with your product or visit the Mastervolt website. Retain your proof of purchase for warranty claims.

Support and Contact

For technical assistance, product inquiries, or warranty claims, please contact Mastervolt customer support. You can find contact information, including phone numbers and email addresses, on the official Mastervolt website.

Mastervolt Official Website: www.mastervolt.com

When contacting support, please have your product model number (45513000) and serial number (J824H 1002, if applicable) ready to expedite the process.

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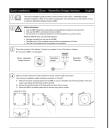
This manual is for informational purposes only. Mastervolt reserves the right to make changes without prior notice.

Related Documents - 45513000



Mastervolt Alpha Pro Bedienungs- und Installationsanleitung: Leitfaden für Laderegler

Diese Anleitung bietet detaillierte Informationen zur Installation, Bedienung und Wartung des Mastervolt Alpha Pro Ladereglers. Erfahren Sie mehr über die 3-Stufen-Ladetechnologie, MasterBus-Integration und Fehlerbehebung für optimale Leistung Ihrer Lichtmaschine und Batterien.



CZone MasterBus Bridge Interface Quick Installation Guide | Mastervolt

Mastervolt's quick installation guide for the CZone MasterBus Bridge Interface (MBI). Learn about safe installation, wiring, and setup for marine electronics. Model 80-911-0072-00.



Manual del Panel de Control Remoto Mastervolt REMOTE ICC

Manual de usuario detallado para el panel de control remoto Mastervolt REMOTE ICC, cubriendo instalación, operación, seguridad y garantía.



Mastervolt Amperian Interface: General Notes, Guarantee, Liability, and Intended Purpose

Comprehensive guide to the Mastervolt Amperian Interface, covering general notes, guarantee terms, liability, intended use, installation guidelines, and disposal instructions. Ensure safe and effective operation.



Mastervolt Mass Combi Pro Installation and Operation Manual

This manual provides detailed instructions for the installation, operation, and maintenance of the Mastervolt Mass Combi Pro 12/3000-150 and 24/3500-100 inverter/charger combinations.



Guida Rapida App CZONE Mastervolt: Controllo e Monitoraggio Imbarcazioni

Scopri come utilizzare l'app CZONE di Mastervolt per controllare e monitorare i sistemi elettrici della tua imbarcazione tramite iPad. Guida rapida completa per la gestione dei circuiti, monitoraggio e allarmi.