ROGER TECHNOLOGY B71/BC

User Manual for BATTERY CHARGER BOARD

Model: B71/BC

Brand: ROGER TECHNOLOGY

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of the **ROGER TECHNOLOGY B71/BC Battery Charger Board**. This genuine component is designed for use with *B70/1DC Brushless Digital Controllers*, ensuring reliable power management for compatible systems.

Figure 1: ROGER TECHNOLOGY B71/BC Battery Charger Board. This image displays the compact green circuit board of

the ROGER TECHNOLOGY B71/BC Battery Charger, featuring various electronic components, connection terminals, and a relay. A black wire extends from the board, indicating its connectivity.

Please read this manual thoroughly before proceeding with any installation or operation to ensure safety and optimal performance of the device.

2. Key Features

- Designed for B70/1DC Brushless Digital Controllers.
- Supports 2 x 12Vdc lead-acid batteries connected in series.
- Rated charging voltage of 27.6 Vdc.
- Features self-protection with a minimum battery voltage of 19.5 Vdc.
- Adjustable charging current via "br" jumper (250 mA or 400 mA).
- Compact dimensions for easy integration.

3. Specifications

Parameter	Value
Model	B71/BC
SKU	B71/BC
Power Supply (Input)	16Vac … 24Vac
Operating Temperature	-20°C to +55°C
Maximum Absorbed Power	15W
Compatible Batteries	2 x 12Vdc 1200mAh Lead-Acid (connected in series)
Rated Charging Voltage	27.6 Vdc
Minimum Battery Voltage for Self-Protection	19.5 Vdc
Charging Current (open "br" jumper)	250 mA (for 1200mAh batteries)
Charging Current (closed "br" jumper)	400 mA (optional, for 4500mAh batteries - B71/BC/EXT)
Dimensions (L x W x H)	243 x 49 x 89 mm

4. Setup and Installation

Before beginning installation, ensure the main power supply to the controller system is disconnected to prevent electrical shock or damage to the components.

4.1. Power Supply Connection

Connect the power supply to the designated terminals on the B71/BC board. The board requires an input power supply of **16Vac to 24Vac**. Verify the voltage of your power source matches this requirement.

4.2. Battery Connection

The B71/BC board is designed to charge two 12Vdc lead-acid batteries connected in series, resulting in a

24Vdc battery pack. Connect the positive and negative terminals of the series-connected batteries to the corresponding battery terminals on the charger board. Ensure correct polarity to avoid damage.

4.3. Jumper Settings for Charging Current

The charging current can be adjusted using the "br" jumper on the board:

- **Open "br" jumper:** Sets the charging current to 250 mA. This setting is suitable for 1200mAh batteries.
- **Closed "br" jumper:** Sets the charging current to 400 mA. This optional setting is for fast charging of 4500mAh batteries (B71/BC/EXT models).

Select the appropriate jumper setting based on the capacity of the batteries being charged to ensure efficient and safe charging.

5. Operating Instructions

Once properly installed and connected, the B71/BC charger board will automatically manage the charging process for the connected lead-acid batteries.

5.1. Charging Process

The board provides a rated charging voltage of 27.6 Vdc. It continuously monitors the battery voltage and adjusts the charging current according to the selected jumper setting (250 mA or 400 mA) to maintain optimal charge levels.

5.2. Self-Protection Feature

The B71/BC board incorporates a self-protection mechanism. If the battery voltage drops below 19.5 Vdc, the charger will activate its protection mode to prevent deep discharge and potential damage to the batteries.

6. Maintenance

The B71/BC Battery Charger Board is designed for low maintenance. However, periodic checks can help ensure its longevity and reliable operation:

- **Visual Inspection:** Periodically inspect the board for any signs of physical damage, corrosion, or loose connections.
- **Cleanliness:** Keep the board free from dust, dirt, and moisture. Use a soft, dry brush or compressed air for cleaning. Do not use liquid cleaners.
- **Connection Integrity:** Ensure all wire connections to the board are secure and free from fraying or damage.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature range (-20°C to +55°C) and is free from excessive humidity.

7. Troubleshooting

If you encounter issues with the B71/BC Battery Charger Board, consider the following basic troubleshooting steps:

- **No Charging Indication:**
    - Verify the input power supply (16Vac … 24Vac) is correctly connected and active.

- Check battery connections for correct polarity and secure contact.
- Ensure batteries are not excessively discharged (below 19.5 Vdc, which might trigger self-protection).

- **Overheating:**
  - Ensure adequate ventilation around the board.
  - Verify the correct battery type and capacity are being used for the selected charging current.
- **Incorrect Charging Current:**
  - Check the position of the "br" jumper to ensure it matches the desired charging current (250 mA or 400 mA) and battery capacity.

If problems persist after performing these checks, it is recommended to contact qualified technical support.

8. Warranty and Support

This ROGER TECHNOLOGY B71/BC Battery Charger Board is a genuine product. For specific warranty terms and conditions, please refer to the documentation provided at the time of purchase or contact your authorized ROGER TECHNOLOGY dealer or the seller directly. Keep your proof of purchase for warranty claims.

For technical assistance, troubleshooting beyond this manual, or spare parts, please contact the manufacturer or your product supplier. Provide them with the model number (B71/BC) and any relevant details about your system for efficient support.