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› SKYRC B6AC Neo Balance Charger User Manual

SKYRC SK-100200

SKYRC B6AC Neo Balance Charger User Manual

Model: SK-100200

1. INTRODUCTION

The SKYRC B6AC Neo is a high-performance, compact balance charger designed for a wide range of battery types, including LiPo, LiFe, Lilon, LiHV, NiMH, and NiCd. It offers versatile charging capabilities with 200W DC power and 60W AC power, along with advanced features like battery checking and digital power supply functionality. This manual provides essential information for safe and efficient operation of your B6AC Neo charger.



Image: Front view of the SKYRC B6AC Neo Balance Charger, showcasing its compact design and display.

2. SAFETY INFORMATION

Please read and understand all safety warnings and instructions before using the charger. Improper use can lead to fire, injury, or property damage.

- **Never leave the charger unattended** during operation.
- Ensure the charger is used in a well-ventilated area, away from flammable materials.
- Only charge compatible battery types and cell counts as specified by the manufacturer.
- Do not attempt to charge damaged, swollen, or leaking batteries.
- Keep the charger away from moisture, dust, and direct sunlight.
- Always connect the battery to the charger before connecting the charger to the power source. Disconnect the power source before disconnecting the battery.
- The charger features built-in over-voltage, over-current, and over-temperature protection. However, always monitor the charging process.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- SKYRC B6AC Neo Balance Charger Unit
- AC Power Cable
- DC Input Cable (XT60)
- User Manual

4. PRODUCT FEATURES

The B6AC Neo is engineered with advanced capabilities to provide a superior charging experience:

- **Dual Power Input:** Supports 200W DC input (10-30V) via XT60 connector and 60W AC input (100-240V).
- **Wide Battery Compatibility:** Charges LiPo, LiFe, Lilon, LiHV (1-6S) and NiMH, NiCd (1-15S) batteries.
- **Advanced Discharging:** Functions as an efficient discharger for various battery types.
- **Battery Checker Function:** Provides detailed cell voltage and balance state readings when connected to the balance port.
- **Digital Power Supply:** Adjustable voltage (2-27V) and current (1-10A) output for powering external devices. Features automatic CC/CV mode switching.
- **USB-C PD Output:** Includes a standard USB-C 65W Power Delivery output for charging compatible phones, laptops, and other devices.
- **Intuitive User Interface:** Features an easy-to-read TN display and a smartphone-like menu for straightforward operation.
- **Firmware Upgradable:** Supports effortless firmware upgrades via the Charger Master App for continuous improvements.
- **Comprehensive Safety Features:** Equipped with over-voltage, over-current, and over-temperature protection.

Tiny and Shiny with Amazing Power



Image: The B6AC Neo's display showing charging parameters, highlighting its compact size compared to previous models.

5. SETUP

Follow these steps to set up your B6AC Neo charger:

5.1 Power Connection

- **AC Power:** Connect the supplied AC power cable to the 100-240V AC input port on the rear of the charger, then plug it into a wall outlet.
- **DC Power:** Connect the supplied XT60 DC input cable to the 10-30V DC input port on the rear of the charger. Connect the other end to a suitable DC power source (e.g., a power supply or car battery).



Image: Rear view of the charger, illustrating the AC input, DC input (XT60), and USB-C PD output ports.

5.2 Battery Connection

- Connect the main charging lead from your battery to the output port on the side of the charger. Ensure correct polarity.
- For LiPo/LiFe/LiIon/LiHV batteries, also connect the battery's balance lead to the corresponding balance port (1S-6S) on the side of the charger.



Image: Side view of the charger, showing the main output port and the 1-6S balance port.

6. OPERATING INSTRUCTIONS

The B6AC Neo features an intuitive menu system. Use the navigation buttons (+, -, Enter) to select options and adjust parameters.

6.1 Charging a Battery

1. Connect the charger to power and the battery to the charger as described in Section 5.
2. From the main menu, select the desired battery type (e.g., LiPo, NiMH).
3. Choose the charging mode (e.g., Balance Charge, Fast Charge, Storage Charge for Lithium batteries; Charge for NiMH/NiCd).
4. Set the charging current (Amps) and cell count (for Lithium batteries). Refer to your battery's specifications for recommended charging rates.
5. Press and hold the 'Enter' button to confirm settings and start the charging process. The display will show real-time charging data.

6. The charger will automatically stop when the battery is fully charged.



Image: The B6AC Neo in operation, displaying charging voltage, current, and capacity for a LiHV battery.

6.2 Discharging a Battery

The charger can discharge batteries for storage or testing purposes.

1. Select the battery type and then the 'Discharge' mode.
2. Set the discharge current and the desired cut-off voltage.
3. Start the discharge process.

6.3 Battery Checker Function

To check battery cell voltage and balance status:

- Connect the battery's balance lead to the charger's balance port.
- The charger will automatically display the overall voltage and individual cell voltages.

6.4 Digital Power Supply Function

The B6AC Neo can act as a regulated DC power supply.

1. From the main menu, select 'Digital Power Supply' mode.
2. Adjust the output voltage (2-27V) and current (1-10A) as needed for your device.
3. Connect your device to the main output port.

6.5 USB-C PD Output

To use the 65W USB-C PD output:

- Ensure the charger is powered on.
- Connect your USB-C compatible device to the PD output port on the rear of the charger.

7. MAINTENANCE

Proper maintenance ensures the longevity and performance of your charger.

- **Cleaning:** Use a soft, dry cloth to clean the charger's exterior. Do not use solvents or abrasive cleaners.
- **Storage:** Store the charger in a cool, dry place away from direct sunlight and extreme temperatures.
- **Firmware Updates:** Regularly check for and install firmware updates via the SKYRC Charger Master App. This ensures optimal performance and compatibility with new battery technologies. Connect the charger to your computer via the Type-C port for updates.
- **Ventilation:** Ensure the cooling fan and vents are clear of obstructions during operation.



Image: Side view of the charger, highlighting the integrated cooling fan for efficient heat dissipation.

8. TROUBLESHOOTING

If you encounter issues with your B6AC Neo charger, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Charger does not power on.	No power connection; faulty cable; power source issue.	Check AC/DC power cable connections. Ensure power outlet/source is functional.
Charging error message displayed.	Incorrect battery type/cell count selected; battery damaged; poor connection.	Verify battery type and cell count settings. Inspect battery for damage. Reconnect battery leads securely.

Problem	Possible Cause	Solution
Battery not balancing properly.	Balance lead not connected; faulty balance lead/port; severely unbalanced battery.	Ensure balance lead is fully inserted. Try a different balance lead if possible. Perform multiple balance charges.
USB-C PD output not working.	Device incompatibility; faulty cable; charger not powered on.	Ensure charger is powered. Try a different USB-C cable and device. Check device's PD compatibility.
Charger gets hot during operation.	Normal operation at high power; poor ventilation.	Ensure adequate ventilation around the charger. The cooling fan should be active. If overheating persists, reduce charging current.

9. SPECIFICATIONS

Feature	Specification
Input Voltage (AC)	100-240V
Input Voltage (DC)	10-30V
Charge Power (AC)	60W
Charge Power (DC)	200W
Discharge Power	10W
LiPo/LiFe/LiIon/LiHV Cell Count	1-6S
NiMH/NiCd Cell Count	1-15S
Charge Current Range	0.1-10.0A
Discharge Current Range	0.1-2.0A
Balance Current	Max 500mA
Digital Power Supply Output	2-27V, 1-10A
USB-C PD Output	65W
Dimensions (L x W x H)	70.6 x 50.6 x 46 mm (2.78 x 1.99 x 1.81 inches)
Weight	150g (5.3 ounces)
Display	TN Display

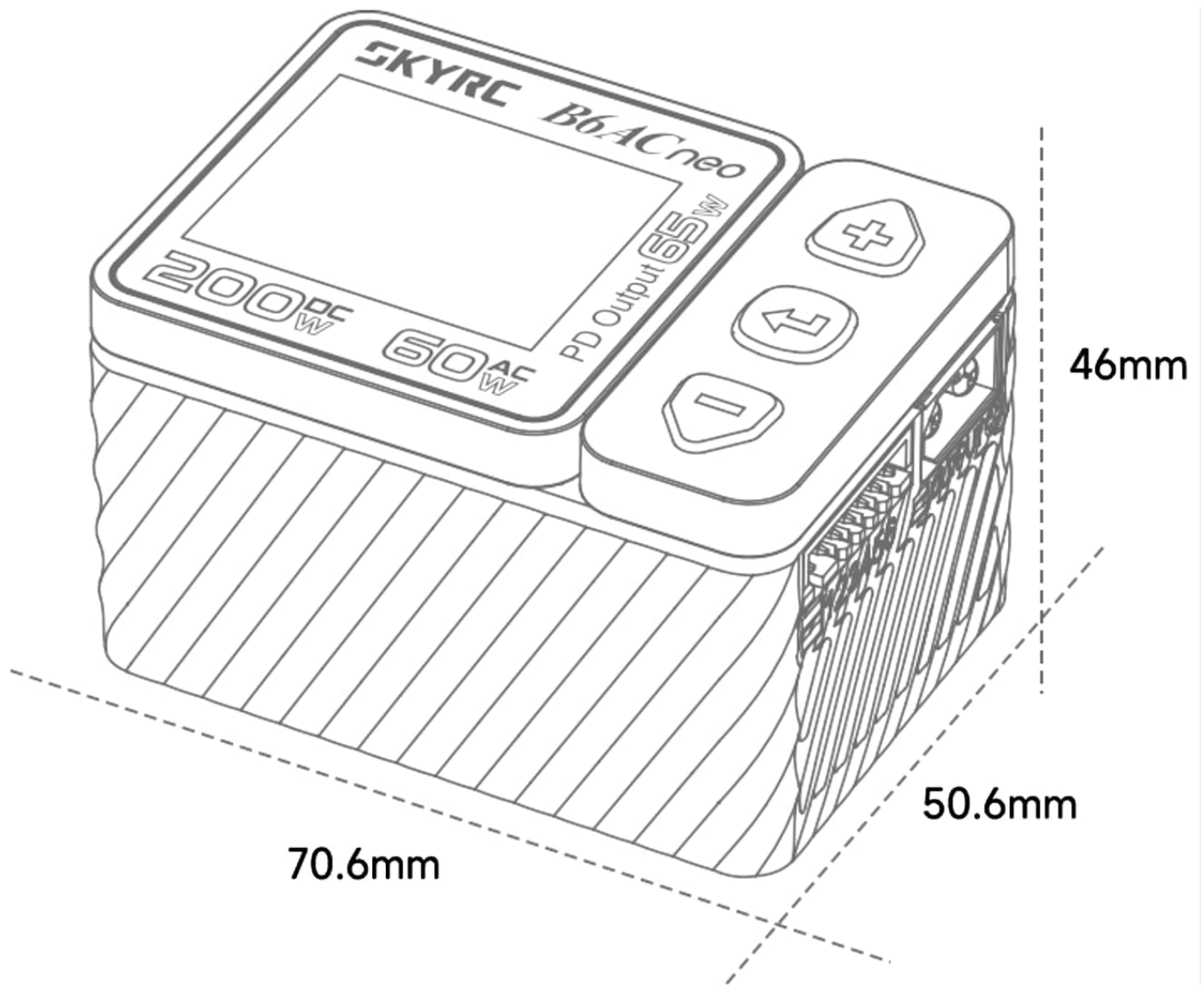


Image: Technical diagram illustrating the precise dimensions of the SKYRC B6AC Neo charger.

10. WARRANTY AND SUPPORT

SKYRC products are manufactured to the highest quality standards. This product is covered by a manufacturer's warranty against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official SKYRC website.

For technical support, troubleshooting assistance, or service inquiries, please contact SKYRC customer support through their official website or the contact information provided in your product packaging. Keep your purchase receipt as proof of purchase for warranty claims.

Official Website: www.skyrc.com

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and use this page's manual context to help answer it.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question