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› Aoleaby JK Smart BMS BD6A24S6P Active Balance Battery Equalizer User Manual

Aoleaby BD6A24S6P

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Model: BD6A24S6P

1. INTRODUCTION

The Aoleaby JK Smart BMS BD6A24S6P is an advanced Battery Management System designed to optimize the performance and longevity of your LiFePo4, Li-ion, or LTO battery packs. It features active balancing, comprehensive protection functions, and Bluetooth communication for real-time monitoring and control via a dedicated mobile application. This manual provides essential information for the safe installation, operation, and maintenance of your BMS.

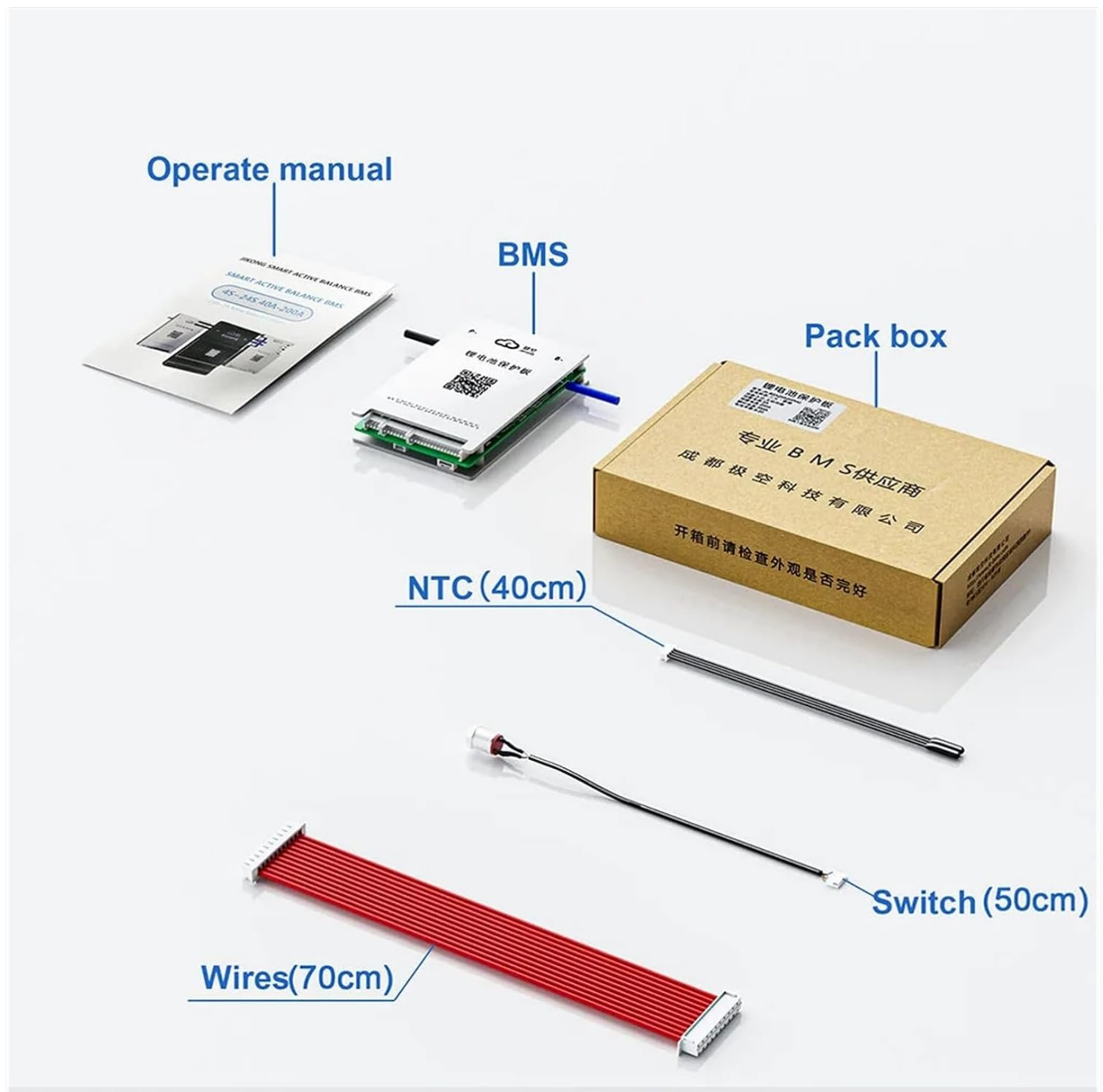
2. SAFETY INFORMATION

Please read and understand all safety instructions before installing or operating the BMS. Failure to follow these instructions may result in electric shock, fire, serious injury, or damage to the product and connected devices.

- Always disconnect the battery pack from any loads or chargers before installing or servicing the BMS.
- Ensure all wiring connections are correct and secure to prevent short circuits.
- Wear appropriate personal protective equipment (PPE), including insulated gloves and eye protection, when working with batteries.
- Do not expose the BMS to water, moisture, or extreme temperatures.
- Only use the BMS with compatible battery types (LiFePo4, Li-ion, LTO) and cell configurations (8S-24S) as specified.
- Seek professional assistance if you are unsure about any installation or operation steps.

3. PACKAGE CONTENTS

Verify that all items listed below are present and in good condition upon opening the package.



An overview of the items included in the Aoleaby JK Smart BMS BD6A24S6P package. It contains the main BMS unit, an operating manual, an NTC temperature sensor (40cm), a switch (50cm), and a wiring harness (70cm) for connection.

- JK Smart BMS BD6A24S6P Unit
- Operating Manual
- NTC Temperature Sensor (40cm)
- Switch (50cm)
- Wiring Harness (70cm)

4. PRODUCT OVERVIEW AND FEATURES

The Aoleaby JK Smart BMS BD6A24S6P is designed for robust battery management, offering a range of features to ensure optimal battery performance and safety.

BD6A24S6P

Function: BT/RS485

Balance Current:0.6A

Battery Strings:8S-24S

Charge/Discharge:60A

131*81*18mm

Battery Type: Li-ion/Lifepo4/LTO



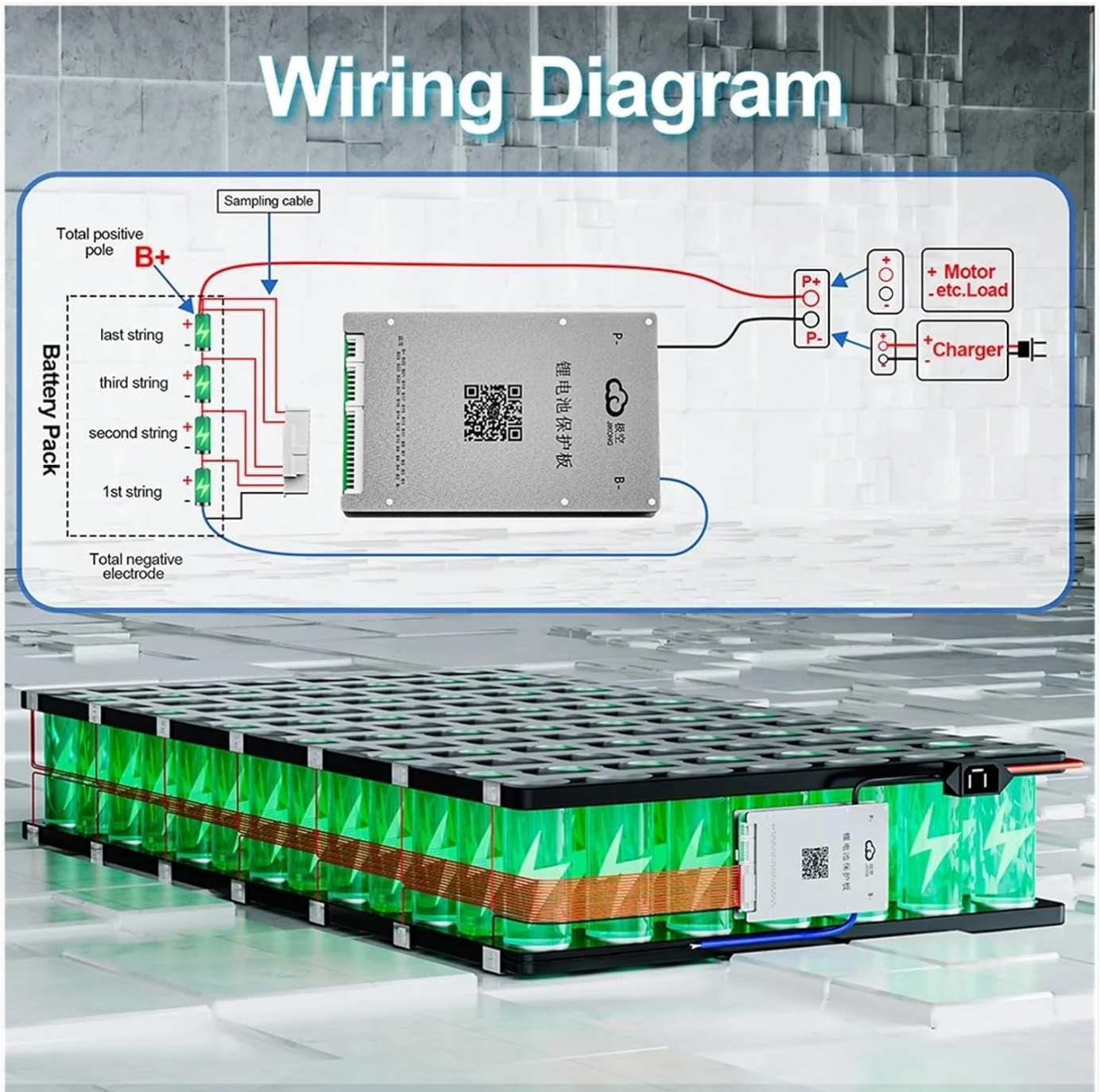
This image displays the Aoleaby JK Smart BMS BD6A24S6P unit alongside its core specifications, including Bluetooth/RS485 communication, 0.6A active balance current, support for 8S to 24S battery configurations, 60A charge/discharge capability, dimensions of 131x81x18mm, and compatibility with Li-ion, LiFePO4, and LTO battery types.

- **Smart Active Balance:** Features 0.6A active balance current to equalize cell voltages, improving battery efficiency and extending lifespan.
- **Bluetooth (BT) Communication:** Allows real-time monitoring and parameter adjustment via a dedicated mobile application.
- **RS485 Communication:** Provides an alternative communication interface for integration with other systems.
- **Comprehensive Protection:** Protects against over-charge, over-discharge, over-current, short circuit, and includes low-temperature charging cutoff.
- **Wide Compatibility:** Supports 8S to 24S battery configurations for Li-ion, LiFePO4, and LTO battery types.
- **High Current Capability:** Supports up to 60A continuous charge/discharge current.

5. SETUP AND INSTALLATION

5.1 Wiring Diagram

Follow the wiring diagram carefully to ensure correct and safe installation of the BMS with your battery pack, charger, and load.



This diagram illustrates the correct wiring connections for the Aoleaby JK Smart BMS BD6A24S6P. It shows how to connect the BMS to a battery pack (total positive pole, total negative electrode, and individual string sampling cables), as well as connections for a motor/load and a charger. The QR code for the APP is also visible on the BMS unit in the diagram.

1. Connect the **Total Negative Electrode (B-)** of the battery pack to the **B- terminal** on the BMS.
2. Connect the **Sampling Cable** (balance wires) from each cell string (B1, B2, B3... up to B24) to the corresponding ports on the BMS. Ensure the order is correct, starting from the first string's positive terminal (B1+) to the last string's positive terminal (B24+).
3. Connect the **Total Positive Pole (B+)** of the battery pack directly to the positive terminal of your load/motor and charger.
4. Connect the **P- terminal** on the BMS to the negative terminal of your load/motor and charger.
5. Ensure all connections are tight and insulated to prevent accidental short circuits.

5.2 APP Installation

The JK Smart BMS features a dedicated mobile application for monitoring and control. Download the app using the QR code provided on the BMS unit or in the manual.



A detailed view of the Aoleaby JK Smart BMS BD6A24S6P, prominently featuring a QR code. This QR code is used to download the official mobile application for monitoring and controlling the BMS. You can access the download link directly here: <http://qr17.cn/BApbC0>

1. Scan the QR code using your smartphone's camera or a QR code scanner app.
2. Follow the on-screen instructions to download and install the JK Smart BMS application.
3. Once installed, open the app and enable Bluetooth on your phone to connect to the BMS.

6. OPERATING INSTRUCTIONS (SMART BT APP)

The Smart BT APP provides a user-friendly interface to interact with your BMS. After successful installation and connection, you can perform the following operations:

Smart BT APP

Monitor the battery data in real time

Support to modify related parameters

Control BMS balance switch

Support Android IOS system



The JK Smart BT APP interface is shown, demonstrating its capabilities to monitor battery data in real-time, modify related parameters, and control the BMS balance switch. The app supports both Android and iOS systems, providing comprehensive battery management on a mobile device.

- **Monitor Real-time Data:** View current battery voltage, individual cell voltages, charge/discharge current, temperature, state of charge (SOC), and other critical parameters.
- **Modify Parameters:** Adjust various BMS settings such as over-voltage protection, under-voltage protection, over-current limits, and temperature thresholds. Refer to the in-app help or detailed manual for specific parameter definitions.
- **Control Balance Switch:** Manually enable or disable the active balancing function as needed.
- **System Compatibility:** The app is compatible with both Android and iOS operating systems.

7. MAINTENANCE

Proper maintenance ensures the longevity and reliable operation of your BMS and battery pack.

- Regularly check all wiring connections for tightness and signs of corrosion.
- Keep the BMS unit clean and free from dust and debris.

- Avoid exposing the BMS to extreme temperatures or high humidity.
- Periodically check the battery cell voltages via the APP to ensure they remain balanced.
- Update the BMS firmware via the APP if new versions are released (follow app instructions).

8. TROUBLESHOOTING

If you encounter issues with your Aoleaby JK Smart BMS, consider the following common troubleshooting steps:

- **BMS not powering on:** Check all power connections (B- and P-) and ensure the battery pack has sufficient voltage.
- **Cannot connect via Bluetooth:** Ensure Bluetooth is enabled on your phone, the BMS is powered, and you are within range. Try restarting the app and the BMS.
- **Cells unbalanced:** Verify that all balance wires are correctly connected and not damaged. Ensure the active balance function is enabled in the APP.
- **Over-voltage/Under-voltage protection triggered:** Check individual cell voltages. Adjust protection parameters in the APP if necessary, but always adhere to safe operating limits for your battery type.
- **No charge/discharge:** Check for over-current protection activation. Inspect wiring to the charger and load.

For persistent issues, refer to the detailed troubleshooting section in the APP or contact customer support.

9. SPECIFICATIONS



The Aoleaby JK Smart BMS BD6A24S6P unit, packaged with its instruction manual, ready for installation.

Feature	Specification
Model Number	BD6A24S6P
Active Balance Current	0.6A
Supported Battery Types	Li-ion, LiFePO4, LTO
Supported Cell Count	8S - 24S
Charge/Discharge Current	60A (Max)
Communication Interface	Bluetooth (BT), RS485
Protection Functions	Over-charge, Over-discharge, Over-current, Short Circuit, Low Temperature Charging Cutoff

Feature	Specification
Dimensions	131 x 81 x 18 mm (approximate)
Item Weight	2.2 pounds (approximate)

10. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or contact the seller directly. Keep your purchase receipt as proof of purchase.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

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