AI-5000R

Firmware Update Guide

1.0 Introduction

This guide provides technical instructions for installers and service technicians on commissioning, connecting to, and maintaining the AI500R unit using the BMS-TOOL mobile application. The procedures outlined below cover the initial setup, Wi-Fi configuration, system access, and firmware updates.

7.1 App Download and Initial Setup

1. **Download the App:** Use below link or search for "BMS-TOOL" in the Google Play Store (Android) or Apple App Store (iOS).
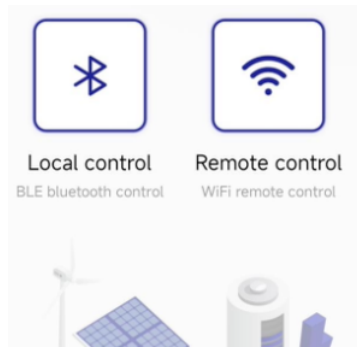
Google Play Store download link:

https://play.google.com/store/apps/details?id=com.peichengzhongxing.bms

Apple App Store download link:

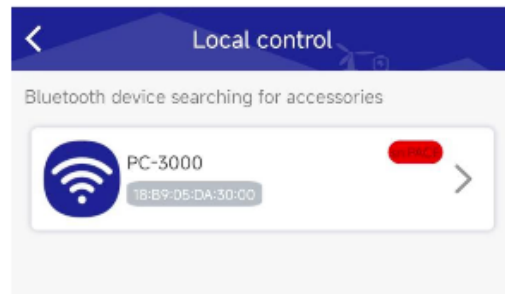https://apps.apple.com/us/app/bms-tool/id6471949475

2. **Grant Permissions:** Upon first launch, the app will request permissions for Location, Camera, Calls and Photos. Please grant these permissions for the setup process to function correctly.

3. **App Home Screen:** After granting permissions, the app will display the main screen with two options: **Local Control (BLE)** and **Local Network (Wi-Fi)**.

Local control — BLE bluetooth control

Remote control — WiFi remote control

7.2 First-Time Setup: Connecting Your AI500R

This section describes the mandatory initial setup process. You must connect via Bluetooth first to configure the device and, optionally, set up the Wi-Fi connection.
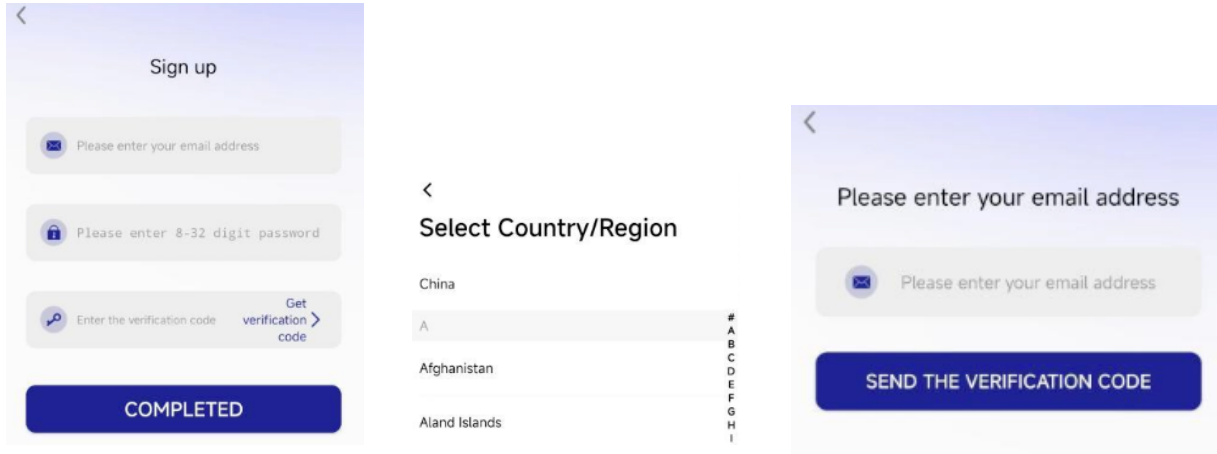
1. **Activate Pairing Mode:** Press and hold the **Reset** button on the AI500R unit for 10-13 seconds. The LED indicators will show a running pattern to confirm the device is in pairing mode and discoverable via Bluetooth.

2. **Select Local Control:** On the app's home screen, tap **Local Control (BLE)**. The app will begin searching for nearby Bluetooth devices.

3. **Pair with AI500R:** When your AI500R appears in the list, tap on it.
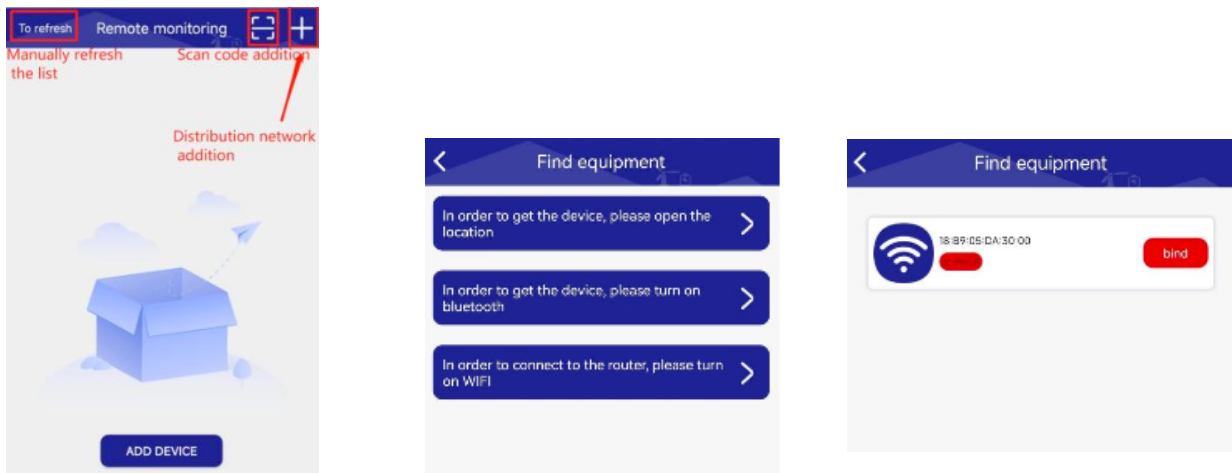

4. **Initiate Account & Wi-Fi Setup:** Tapping the device will redirect you to the account sign-up/login page. This is the starting point for configuring the device for remote access.

5. **Create Your Account:** Register a new account using your email address.

   o **Important:** You must select your actual country/region during registration. This setting is critical for connecting to the correct cloud server.

6. **Activate Wi-Fi:** After creating your account, Tap "Add Device" or "+" to search Wi-Fi for AI500R.
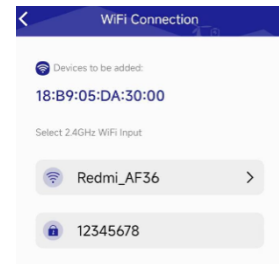

Wi-Fi, Bluetooth and Location on the mobile phone should be turned on. Tap and bind the targeted AI-500R Bluetooth device.

Note: Make sure mobile turned on the Wi-Fi to enable the searching of targeted Wi-Fi.
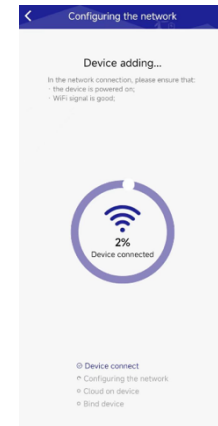
7. **Provide Wi-Fi Credentials:**

the app will prompt you to enter the Wi-Fi credentials (network name/SSID and password) for your home network.
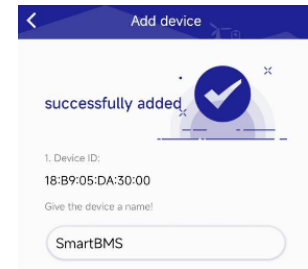
- o **Note:** The AI500R Wi-Fi module only supports **2.4GHz Wi-Fi networks**. Ensure you select a 2.4GHz network, not a 5GHz one.

8. **Automatic Configuration:** The app will now send all the information to the AI500R. The unit will automatically connect to your Wi-Fi, register with the server, and bind to your account. Wait for this process to complete.
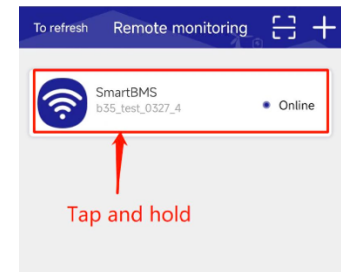
9. **Setup Complete:** Upon successful configuration, the app will display the **Device List** page, showing your newly added AI500R. The setup is now finished.

7.3 Accessing Your Device (After Setup)

Once the one-time setup is complete, follow these steps for all future use:

1. **Select Remote Control:** Open the BMS-TOOL app and tap **Remote control (WiFi)**.

2. **Log In:** If you are not already logged in, enter the email and password for the account you created during setup.

3. **View Device List:** After logging in, you will see the Device List page with your AI500R shown.

4. **Monitor Device:** Tap on your AI500R from the list to open its dashboard and begin monitoring.

7.4 Monitoring and Control

From the device dashboard, you can:

- View real-time battery status, state of charge (SOC), voltage, and temperature.

- Access historical performance data.

- View system alerts and status information.

- Configure system parameters as needed.

7.5 OTA (Over-the-Air) Firmware Updates

When a new firmware version for your AI500R is available, the BMS-TOOL app will display an upgrade notification when you connect to the device. The app downloads the update and transfers it to the AI500R over the active local connection (Bluetooth or Wi-Fi).

It is recommended to keep the firmware updated to ensure optimal performance. For stability during the update process, using a Wi-Fi connection is preferable if it has been configured.