

Machine Translated by Google

1. APP Operation Guide 1.

Download and install the Lithium-ion WiFi APP: Scan the QR code below to download and install the Lithium-ion WiFi Android APP and iOS APP.

APP Please go to the App Store (Apple App Store) and search for "Lithium Battery WiFi" to install



Figure 1.1.1 Android APP download link QR code



Figure 1.1.2 App icon after installation

2. After opening the APP, search for Bluetooth devices and select the device to connect to.



Figure 1.2 Bluetooth search connection interface

3. As shown in the figure below, after the Bluetooth device is successfully connected, it will automatically jump to the home page, where you can see the battery data.



Figure 1.3 Battery home page data interface

4. Enter the setting interface to view more BMS parameters, set BMS actions and modify some settings.

Set parameters



Figure 1.4.1 Basic Information Interface

In the settings interface, click on the upper sub-interface selection to enter the corresponding interface. Slide left in the upper sub-interface selection area to see more sub-interface selections. Click to enter. As shown below, click on the cell voltage to enter the cell voltage display page and view the cell voltage information.



Figure 1.4.2 Cell Voltage Interface

5. Enter the parameter setting interface to set some of the BMS parameters and control the BMS action.

The configuration interface requires password: 888888



Figure 1.5.1 The unlock box that pops up when entering the parameter setting interface



Figure 1.5.2 Parameter setting interface

As shown below, click the selected parameter in the parameter setting interface, set the value in the pop-up setting box and click OK to modify the BMS parameter.



Figure 1.5.3 Modify BMS parameter value pop-up window

6. In the BMS upgrade interface, you can import the BMS upgrade file and transfer the upgrade file from APP is transmitted to the communication module, and then the module upgrades the BMS through the serial port. To enter the BMS upgrade interface, you need to enter the password: 888888 (the process is the same as entering the parameter setting interface, refer to the process of entering the parameter setting interface described above). The following describes the detailed steps for upgrading the BMS through the APP: Step 1: In the BMS upgrade interface, click Select File and select the BMS upgrade file in the file management of the mobile phone.



Figure 1.6.1 BMS upgrade interface click the Select File button



Figure 1.6.2 Click to select the BMS upgrade file in the phone's file management

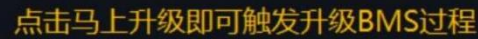
As shown below, after selecting the BMS upgrade file, the APP will display the loaded file path,

indicating that the BMS upgrade file has been imported and the first step is completed.



Figure 1.6.3 Importing BMS upgrade files completed

Step 2: Trigger BMS upgrade. After importing the BMS upgrade file in the first step, click the Upgrade button. A BMS upgrade operation prompt will pop up. Click Upgrade Now to trigger the BMS upgrade process.



As shown in the figure below, after triggering the BMS upgrade operation, a progress bar will be displayed on the APP. Wait for the progress bar to finish. All operations of APP upgrading BMS are completed.



Figure 1.6.5 Upgrade progress bar

About the upgrade progress bar: There are two ways to upgrade BMS via APP. One is Bluetooth online upgrade, that is, the module will not first use Bluetooth data transmission to save the complete BMS upgrade file, and then upgrade BMS through the serial port. Instead, it will first let BMS enter the boot upgrade state and start downloading the upgrade file from APP. Each time Bluetooth receives a full frame of BMS upgrade file data from APP (one frame of BMS upgrade file data agreed upon by the BMS serial port upgrade protocol), it will be immediately transmitted to BMS. When the module using this upgrade method is performing APP Bluetooth upgrade of BMS, when the progress bar is displayed on the APP, the BMS is already in the boot upgrade state, and the progress bar displayed on the APP is the BMS upgrade progress bar. Another way for the module to upgrade BMS via Bluetooth is to first use Bluetooth data transmission to download the complete BMS offline upgrade package, and then trigger the BMS upgrade operation. When the module using this method is performing APP Bluetooth upgrade of BMS, when the progress bar is displayed on the APP, the BMS is already in the boot upgrade state, and the progress bar displayed on the APP is the BMS upgrade progress bar.

When the progress bar is displayed, it indicates the progress of downloading the BMS upgrade file to the module. At this time, the BMS is not in the boot upgrade state, and the actual BMS upgrade operation has not yet started.

After the BMS upgrade file is downloaded to the module, the module triggers the BMS to enter the boot state for upgrade. The progress bar in the two upgrade states indicates different processes, which are explained below.

Both Bluetooth BMS upgrade methods have their advantages and disadvantages. The online upgrade method allows the app to visually reflect the BMS upgrade progress via a progress bar. However, because it's an online upgrade method, a stable Bluetooth connection is required during the upgrade process. A Bluetooth disconnection during the upgrade process will interrupt the upgrade, placing the BMS in the boot

state and requiring the app to restart the upgrade. Downloading the offline upgrade package allows the app and module to download the BMS upgrade file to the module more quickly. After verification, the BMS enters the boot state for the upgrade. This method allows the upgrade file to be transferred quickly, eliminating the worry of incomplete files causing the upgrade to fail.

Furthermore, disconnecting the Bluetooth

connection after the upgrade file download is complete will not interrupt the upgrade process.

However, with this upgrade method, the progress bar on the app doesn't reflect the actual progress of the BMS upgrade. The BMS upgrade occurs after the module has downloaded the upgrade file. The specific upgrade time is determined by the BMS upgrade file transfer protocol and upgrade mechanism. While the upgrade process

differs between the two methods, the results are the same: both methods can upgrade the BMS.

Since the Flash space of some modules is small, the BMS files provided by the BMS manufacturer are large, and the module Flash

space is insufficient to store the BMS upgrade files, in this case the module uses Bluetooth to upgrade the BMS, using the online upgrade

method. In other cases, the offline upgrade package is downloaded first and then the BMS is triggered to enter the upgrade. For specific details, please contact the module provider for details.

7. Enter the WiFi setting interface, you can set the module to connect to the WiFi hotspot with Internet access, and connect to the network through WiFi to report the BMS data to the server platform, so that the BMS can be remotely viewed and controlled through the platform. Entering the WiFi

setting interface requires entering the password: 888888 (the process is the same as entering the parameter setting interface, please refer to the process of entering the parameter setting interface described above)

The WiFi Name and Password fields on the WiFi settings screen display the module's saved WiFi hotspot names and passwords (if the corresponding fields are blank, the module has not saved the relevant information). The Module Network Status field below displays the module's current network status. Enter the name and password of a nearby WiFi

hotspot with internet access in the WiFi Name and Password fields, respectively. Clicking the Set button will save the information and connect the module to the hotspot. You don't need to manually enter the hotspot name. Clicking the WiFi Name field will display a list of nearby WiFi networks. Select the desired WiFi network and the app will automatically fill in the WiFi Name field with the hotspot name. Then, manually enter the hotspot password and click Set. Note that the module's WiFi frequency band is 2.4GHz; avoid connecting to 5GHz WiFi hotspots to avoid connecting to WiFi that is unusable.



Figure 1.7.1 WiFi settings interface



Figure 1.7.2 Module Network Status Bar

As shown below, after clicking on the WiFi name bar, you can use the APP's built-in WiFi scanning function to scan nearby available WiFi hotspots. Click on the selected hotspot to automatically fill in the WiFi name.



Figure 1.7.3 List of nearby available WiFi



Figure 1.7.4 Enter the WiFi hotspot password

After setting up WiFi, the module can be connected to the Internet. Later, we will introduce how to operate the device on the cloud platform.

2. Cloud Platform Webpage Operation Guide 1.

Open the URL <http://console.jz-iot.net/> ,enter your account and password to log in to the cloud platform (please contact

Cloud Platform

2. After logging into the platform, click the icon in the upper right corner of the homepage (as shown below) to enter the project management page



Figure 2.2 Cloud platform homepage

3. After entering the project management page, you can add, delete, modify and view project information on this page

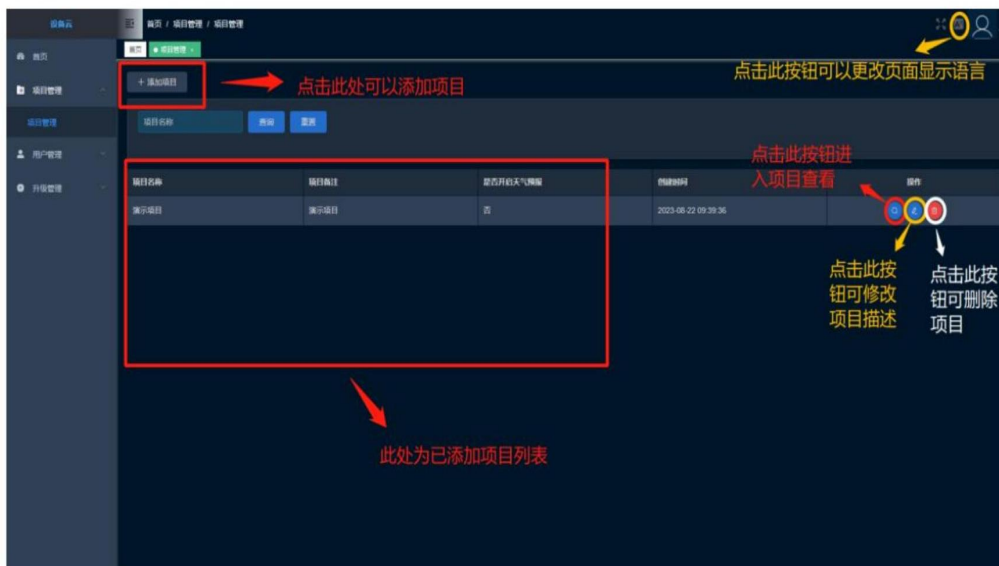


Figure 2.3.1 Project Management Page

On the Project Management page, click the Add Project button, fill in the project description in the pop-up Add Project box (as shown below), and then click OK to complete the project addition. After the project is successfully added, you can see the added project in the project list on the Project Management page.

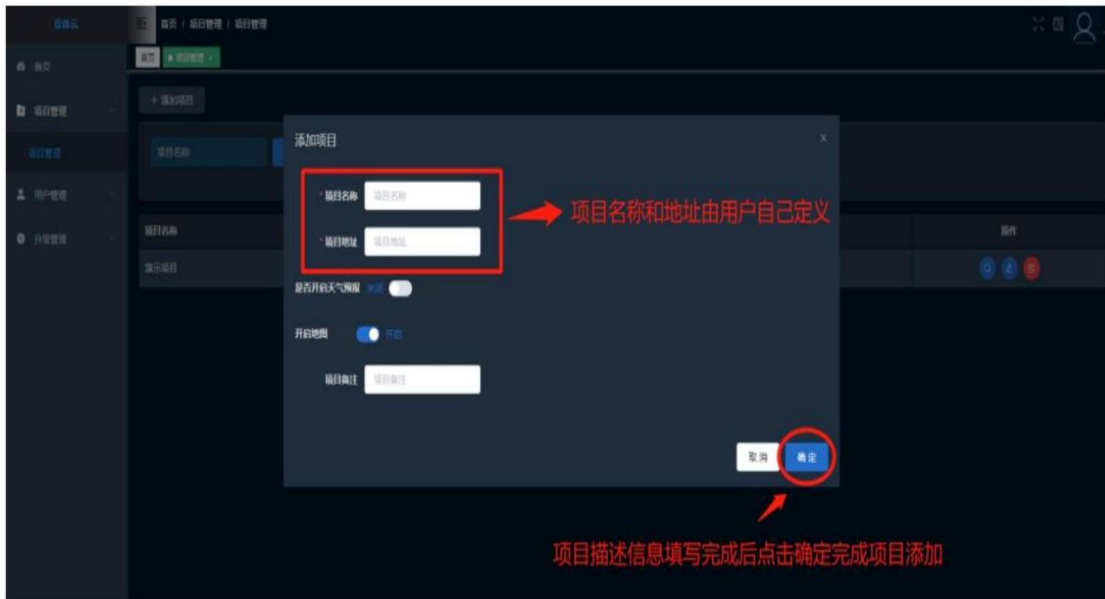


Figure 2.3.2 Enter the project description information in the project add box

4. After adding a project, click the project view button of an existing project to enter the device management page under the project.

In the management page, you can add, delete, modify and view device information



Figure 2.4.1 Device Management Page

On the device management page, click the Add Device button, fill in the device description information in the pop-up device addition box (as shown below), and then click OK to complete the device addition. After the device is successfully added, you can see the added device in the device list on the device management page. Note that the device number of the added device is the SN code of the BMS or the SN code of the communication module. This is determined by the BMS manufacturer and the communication module supplier. Please contact the supplier for details. When adding a device, you need to select the device type. Select the corresponding device type under the platform account. Other device description information can be defined by the customer



Figure 2.4.2 Enter device description information in the device add box

After the device has been added and the module has been connected to the network, the module can log in to the platform. At this time, the LED indicator on the module changes to a steady state. After the APP connects to the module via Bluetooth, the module network status on the WiFi setting interface shows "Module connected to the platform". When the module indicator is steady on and the module network status on the APP shows "Module connected to the platform", it means that the module has been successfully connected to the platform and the operation of adding the device to the platform is correct.

5. After the device is added, click the device details button to view the device's parameter information (as shown below). Note that the device must be connected to the network and can upload data to the platform before the device data can be seen on the platform. For the device connection steps, refer to the previous description. In addition, be careful not to fill in the device's SN code incorrectly when adding the device, otherwise the device will not be able to access the platform after connecting to the network.

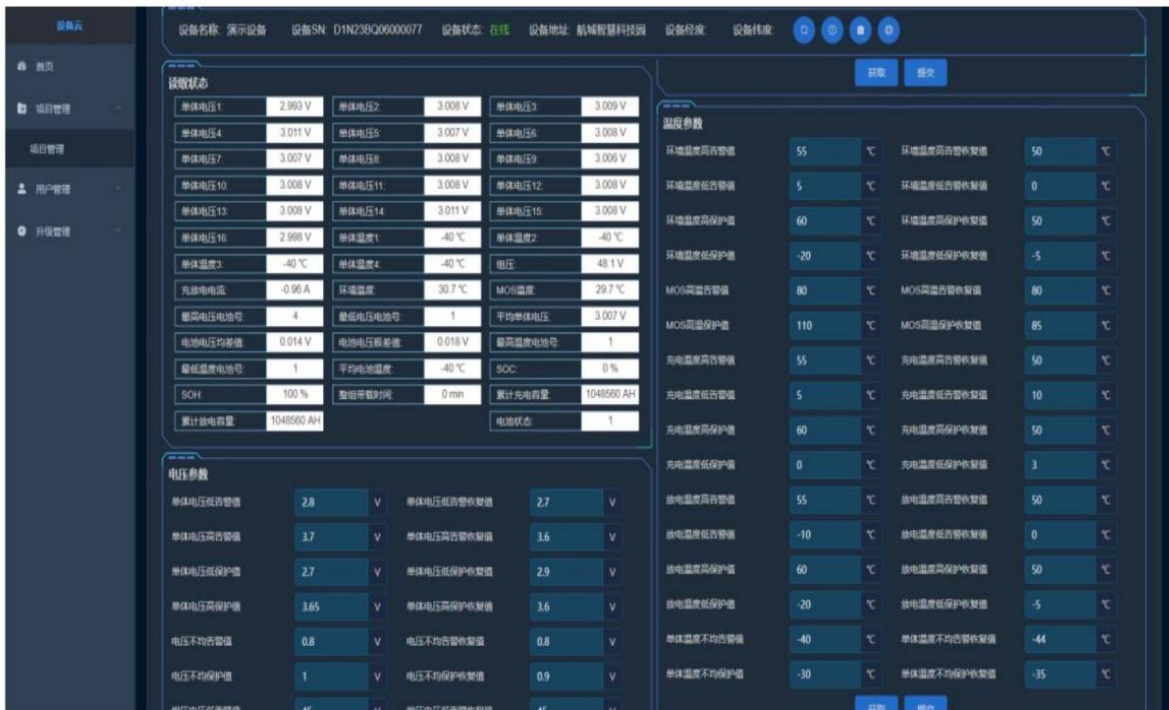


Figure 2.5.1 Device details page

The basic parameters of the device are automatically reported by the module every 1 minute, and the alarm and protection information are automatically reported every 2 minutes. The user can also manually click the refresh button (position as shown below) to obtain real-time data



Figure 2.5.2 Refresh button

Click the alarm data button on the device details page to view the device's alarm and protection status.



Figure 2.5.3 Alarm Data Button



Figure 2.5.4 Alarm data display interface

On the device details page, click the Historical Data button to view the data log reported by the device.



Figure 2.5.5 Historical Data Button

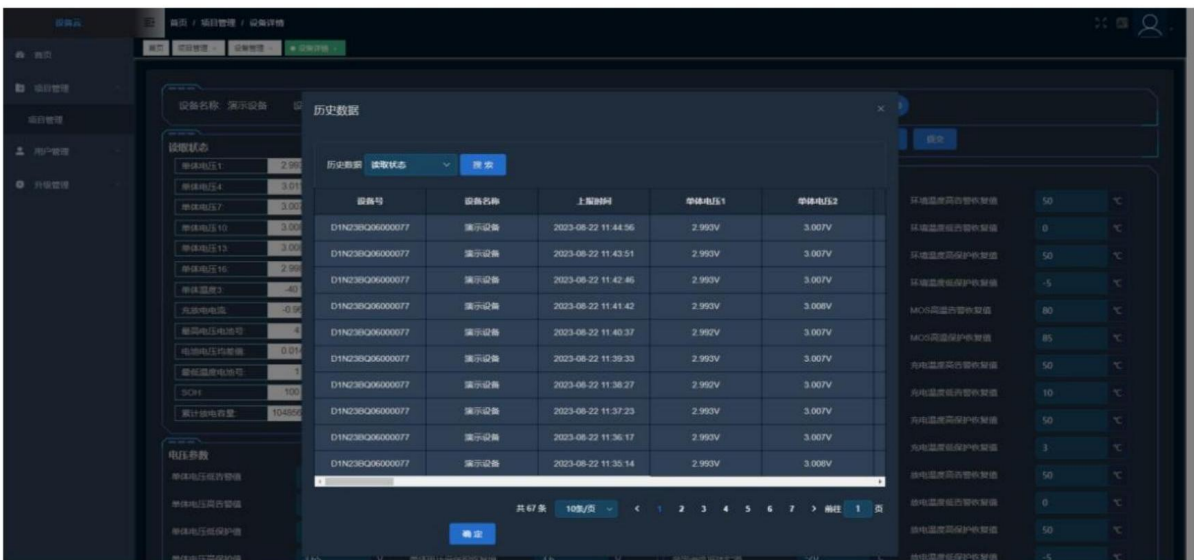


Figure 2.5.6 Historical data display interface

6. There is an upgrade management section on the left side of the platform page, where you can upload BMS upgrade files and manage remote upgrades of BMS. First, add the version and upload the BMS upgrade file on the version management page of the upgrade management section.

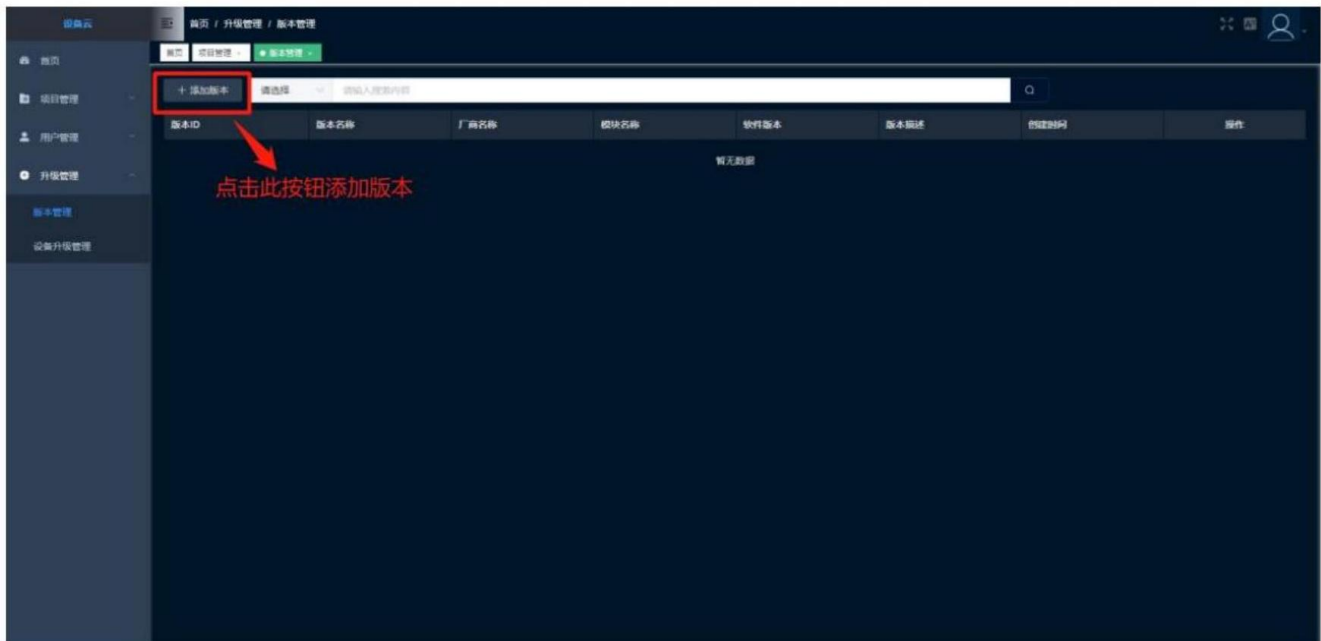


Figure 2.6.1 Version Management Page

Click the Add Version button and enter the version information in the pop-up Add Version box (as shown below). The content is defined by the user. Click the Upload button on the right side of the version address to upload the BMS upgrade file. Contact the module supplier for the upgrade file naming specification.

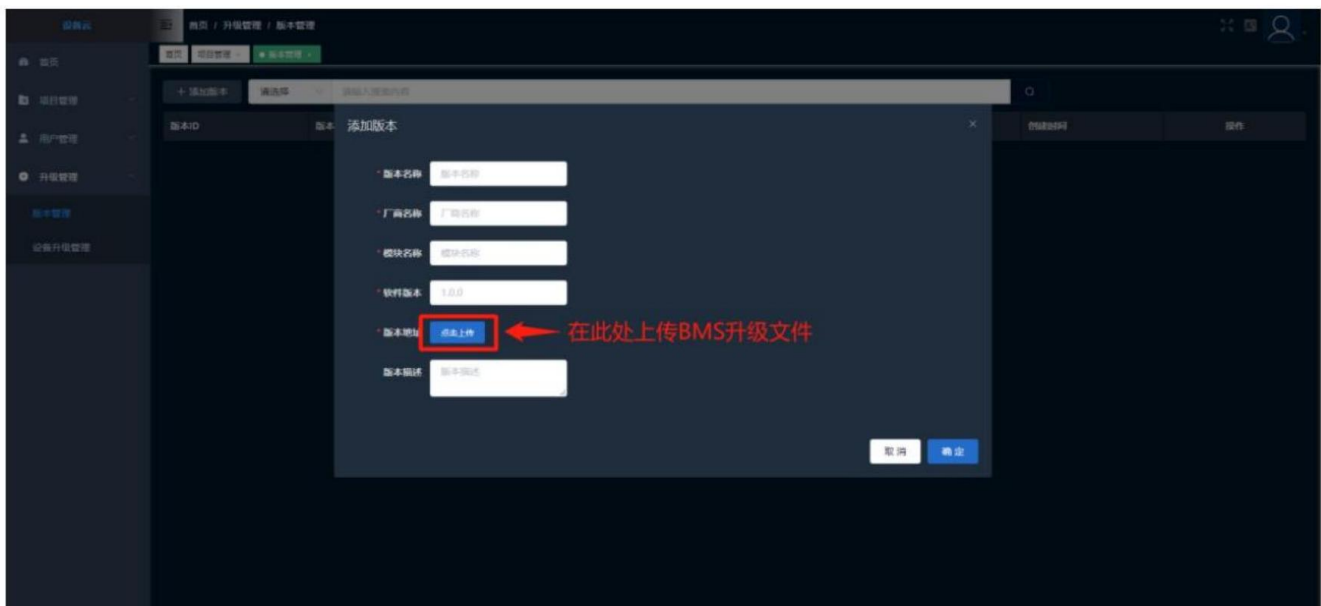


Figure 2.6.2 Add version pop-up window

After adding the version, you can see the added version in the version list under the version management page.

7. After adding the version, you can remotely upgrade the BMS on the device upgrade management page

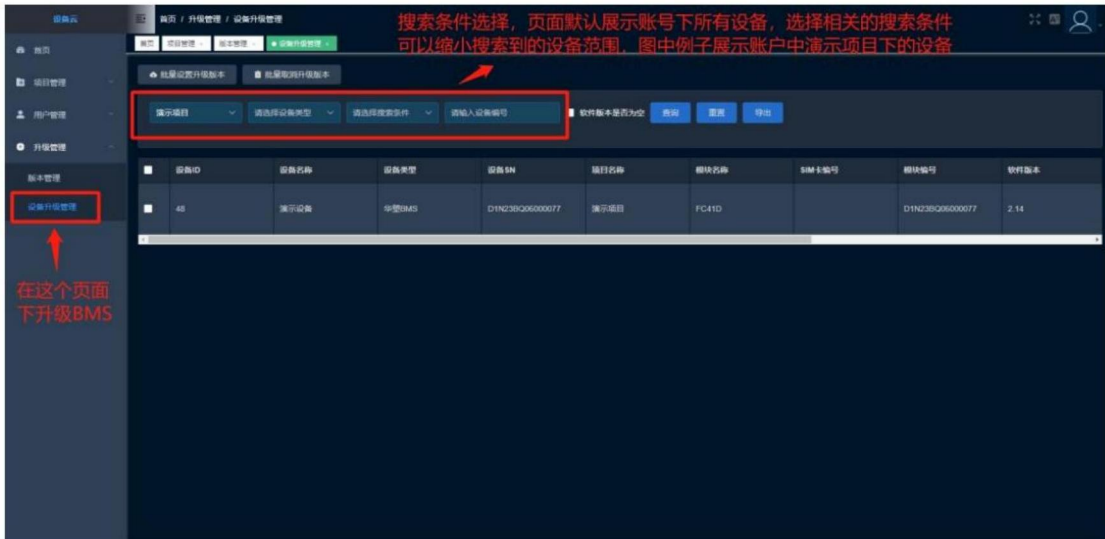


Figure 2.7.1 Device upgrade management page

After selecting the device to be upgraded, set the upgrade version in the last operation of the corresponding device column.

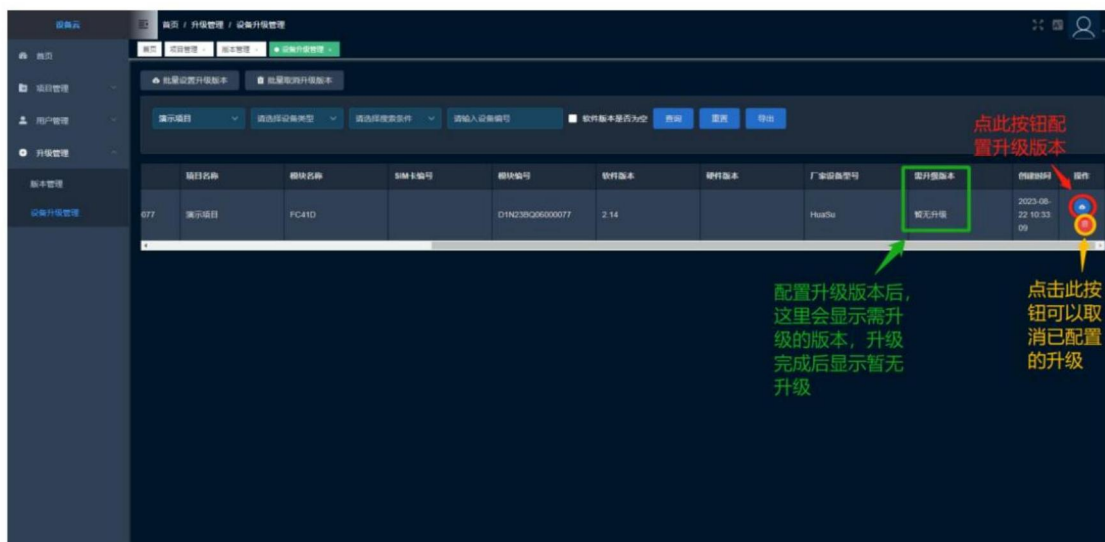


Figure 2.7.2 Configuring BMS Upgrade Operations

After clicking Configure Upgrade, select the version of the BMS device to be upgraded in the pop-up Set Upgrade Version dialog box.

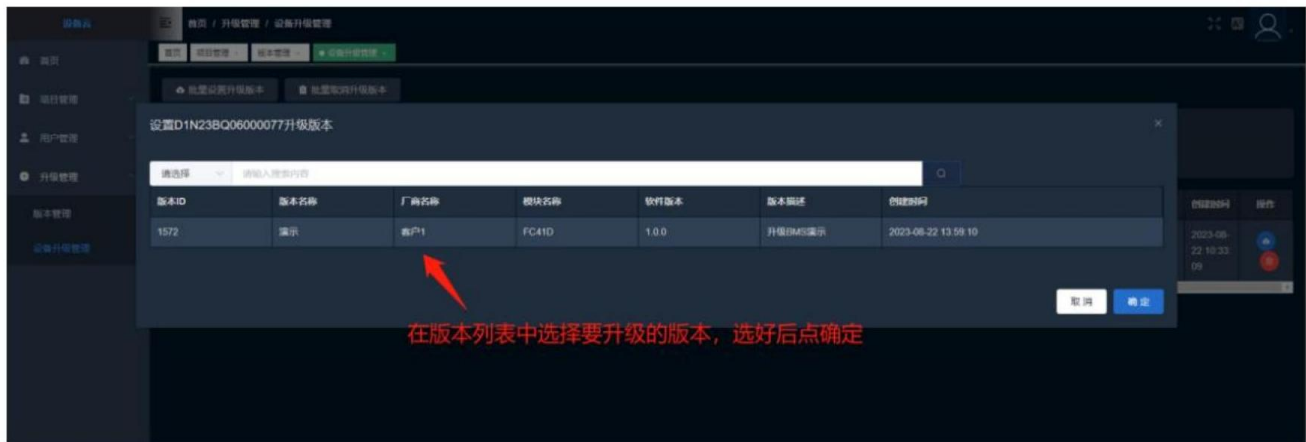


Figure 2.7.3 Setting the upgrade version pop-up window

Select the upgrade version and click OK. A dialog box will pop up asking you to confirm whether to upgrade immediately (see the image below). If you choose Upgrade Now, the platform will immediately push the new version upgrade to the device. The module will immediately download the BMS upgrade file and begin the BMS upgrade. If you choose Delay Upgrade, the platform will not push the new version upgrade to the device immediately. The module will periodically query the platform for a new version. If a new version is available, it will download the upgrade file and begin the BMS upgrade.

After configuring the upgrade version, before the upgrade is completed, the device list in the device upgrade management page will display the version number of the version to be upgraded (the software version defined when the user added the version in the version management) in the "Upgrade Version" column of the corresponding device. After the upgrade is completed, it will be displayed as "No upgrade yet"

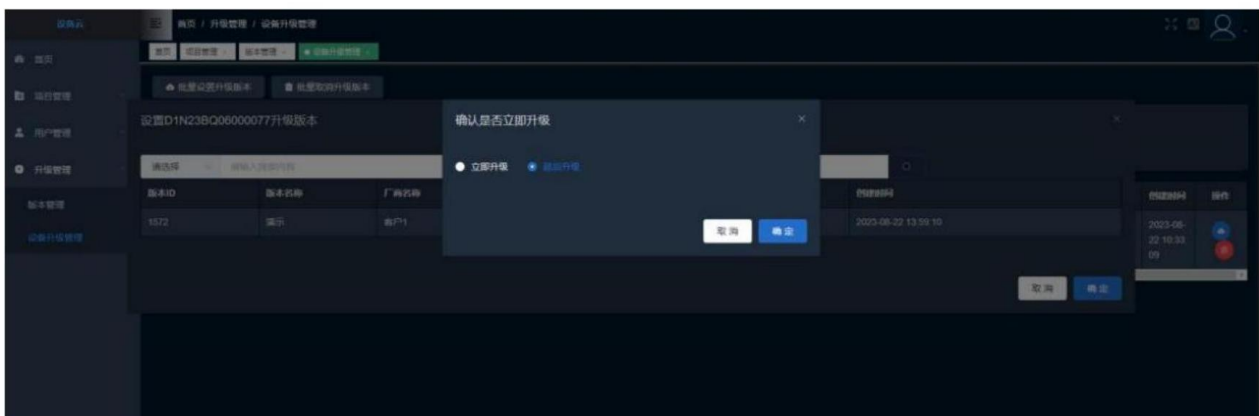


Figure 2.7.4 Confirm whether to upgrade immediately pop-up window