SDongleB-(06-4G-WLAN)

Upgrade Guide

Issue	01
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Huawei Digital Power Technologies Co., Ltd.

Preface

Purpose

This document describes how to upgrade SDongle V200R022C10 and roll back to the source version and provides the common-fault rectification methods, operations, and tool use guide.

Intended Audience

This document is intended for upgrade personnel. Upgrade personnel must:

● Be familiar with the product networking and related NEs' versions.
● Have device maintenance experience and be familiar with device operation and maintenance.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
⚠ DANGER	Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
⚠ WARNING	Indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. NOTICE is used to address practices not related to personal injury.

Symbol	Description
☐ NOTE	Supplements the important information in the main text. NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration.

Change History

Issue	Date	Description
01	2022-06-25	This issue is the first official release.
02	2023-02-25	This issue is the second official release.
03	2023-04-19	This issue is the third official release.
04	2023-08-30	This issue is the fourth official release.
05	2024-07-10	Add the Wi-Fi module upgrade scenario to chapter 1.3 Upgrade Precautions

Contents

1 Before You Start

1.1 Checking the Upgrade Package Integrity

To verify that the upgrade package is not tampered or damaged during transmission, check the package name and the number of files contained in the package after obtaining it. The upgrade package can be used only after it passes the verification. The upgrade package verifies itself during the upgrade. The following describes the composition of an upgrade package.

Version	Files in the Upgrade Package
V200R022C10	4G_WLAN_Dongle.bin - config.txt - FE_Dongle.bin - FE_Dongle_HC.bin - signaturelist - signaturelist.cms - signaturelist.crl - sun_lmt_mgr_cmd.emap - vercfg.xml

1.2 Application Scope

This document is applicable to the upgrade of SDongleA-05 (WLAN-FE) and SDongleB-06(4G)(hereinafter referred to as the Dongle) through the FusionSolar 6.0 Smart PV Management System (hereinafter referred to as the management system) and SUN2000 APP.

1.3 Upgrade Precautions

Before upgrading the Dongle, pay attention to the following:

- During the upgrade, ensure that the Dongle is not powered off to reduce the upgrade risks.

- When upgrading the Dongle, ensure that the Dongle is running properly.

- Do not power off the Dongle immediately after the upgrade. Otherwise, the system may mistake it for an upgrade error, which will result in a version rollback. After the upgrade is complete, keep the Dongle in position for at least 3 minutes.

- During the upgrade, if the system displays a message indicating that the Dongle enters the delayed activation state, the Wi-Fi module in the Dongle is being upgraded. Do not remove the Dongle and perform operations as prompted.

2 Upgrade Time

Table 2-1 Upgrade schedule

Step	Time Consumed
Preparing for the upgrade	About 5 minute
Performing the upgrade	About 15 minutes to 20 minutes
Verifying the upgrade	About 3 minutes

3 Upgrade Operations

3.1 Upgrading the Dongle Through the Management System

1. SDongleA-05 (WLAN-FE) and SDongleB-06(4G)can be upgraded through the management system using the same upgrade scheme.
2. After the upgrade progress reaches 100%, the Dongle automatically restarts. After the upgrade is complete, you can query the upgrade status through the management system.

☐ NOTE

This chapter uses SDongleA-05 (WLAN-FE) as an example to describe the entire upgrade process of the Dongle.
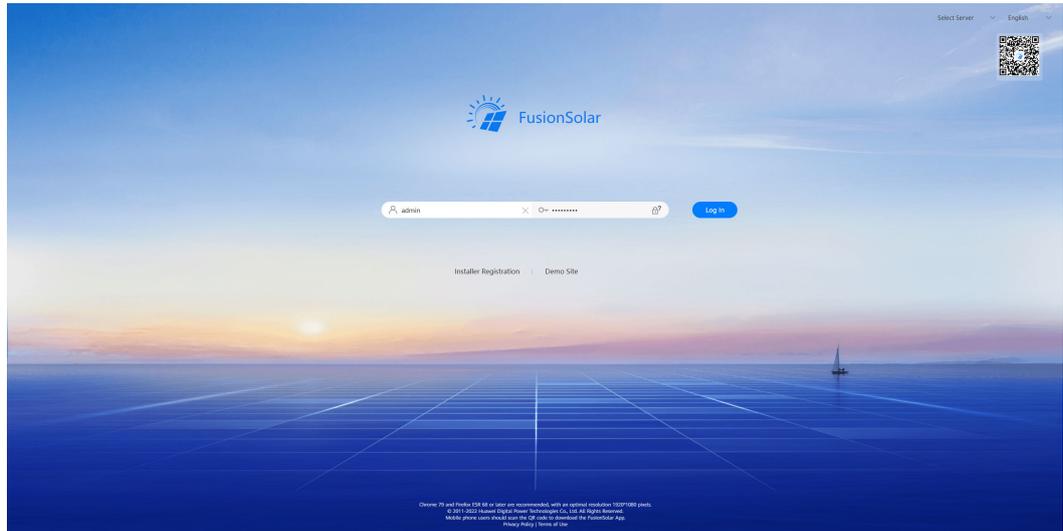
3.1.1 Environment Setup

[Required components] A PC, a Dongle, a power cable, and a network cable

[Device requirement] The Dongle is properly powered on and communicating properly. The computer is connected to the network.

3.1.2 Procedure

Step 1 Open the browser, enter the management system address **https://intl.fusionsolar.huawei.com** to enter the management system. Enter the user name and password to log in.

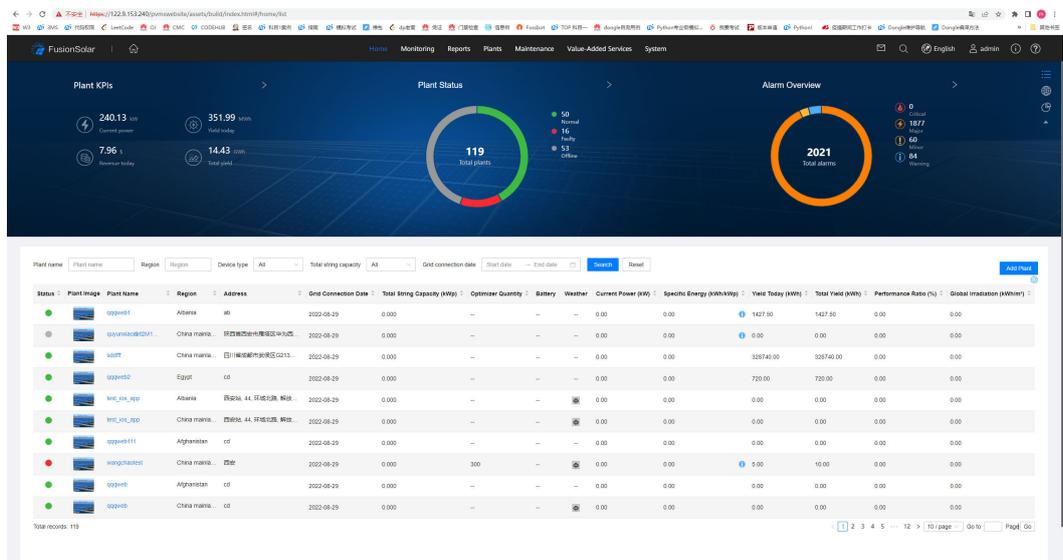**Figure 3-1** Logging in to the management system

📖 **NOTE**

This document uses the management system https://intl.fusionsolar.huawei.com/ as an example to describe related operations. The operation is subject to the management system to which the Dongle connects.

If you do not have an account, you need to register an installer account before logging in to the system.

Use Internet Explorer 11, Chrome 67, Safari 9.0, or a later version. Otherwise, exceptions may occur.

Step 2 On the home page of the management system, click **Setting** at the upper right corner.

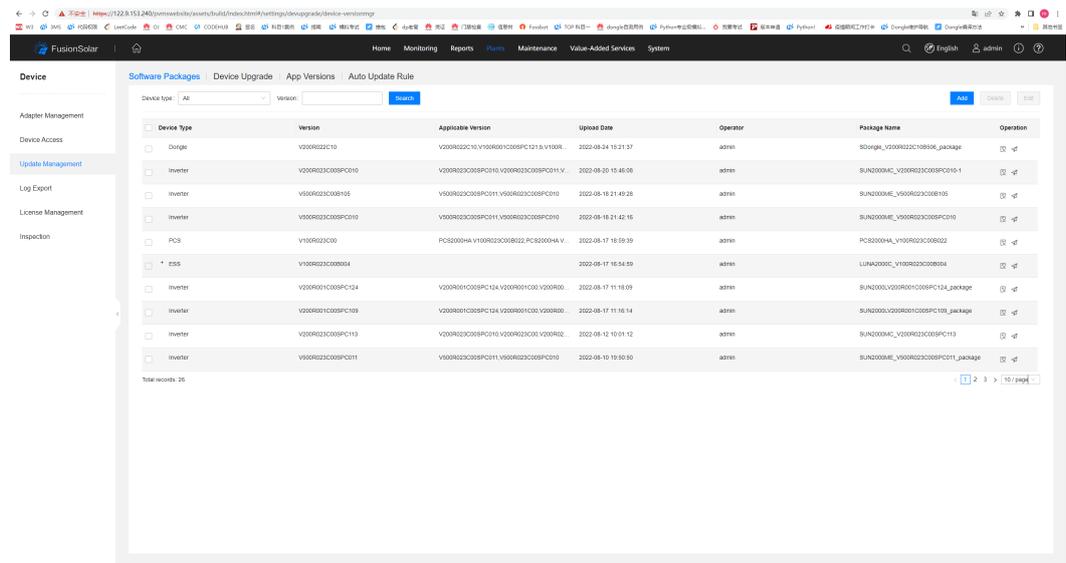**Figure 3-2** Home page of the management system

📖 NOTE

> Before upgrading the Dongle, ensure that the PV plant is created successfully and you can find the corresponding device on the **Device Management** tab page.
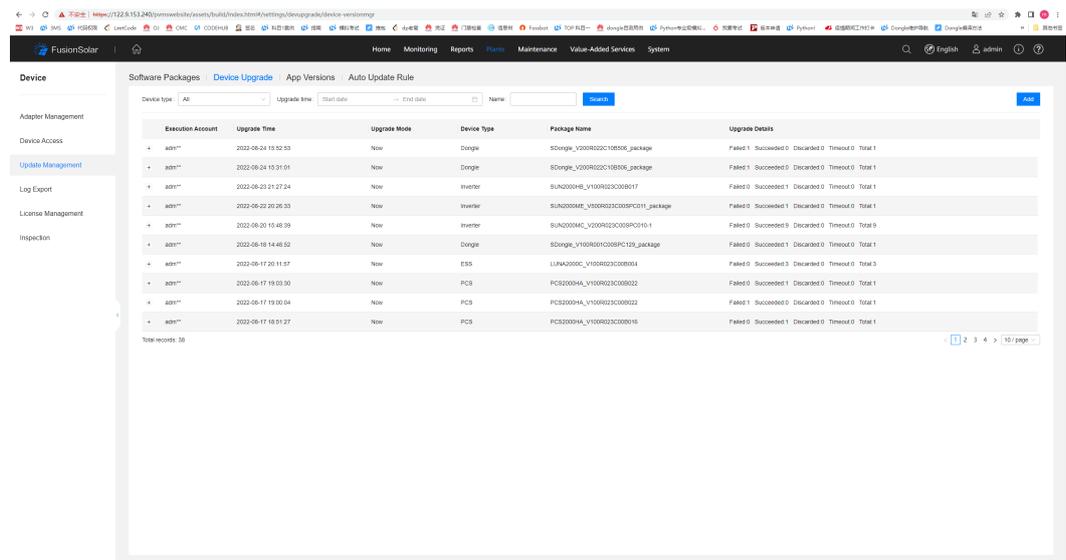
Step 3 Go to the **Setting** page and select **Upgrade Management**. The upgrade subpage is displayed.

Figure 3-3 Management system settings

Step 4 On the upgrade subpage, click **Device Upgrade** to query the upgrade information about devices of the PV plant.
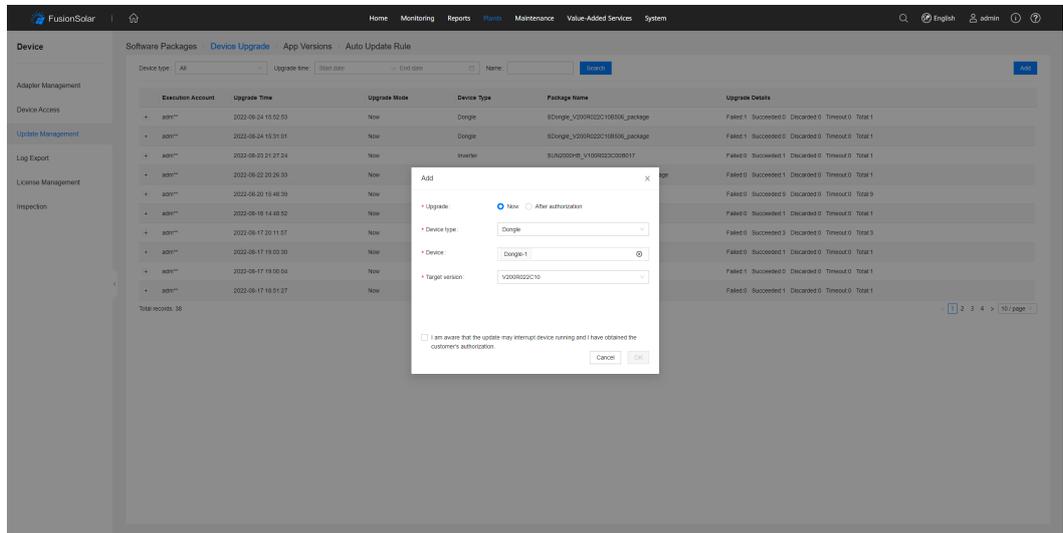
Figure 3-4 Device upgrade

Step 5 Click **Add** on the **Device Upgrade** page. The **New device upgrade** box is displayed. Set **Upgrade Method** to **Upgrade now** and set **Device Type** to **Dongle**.
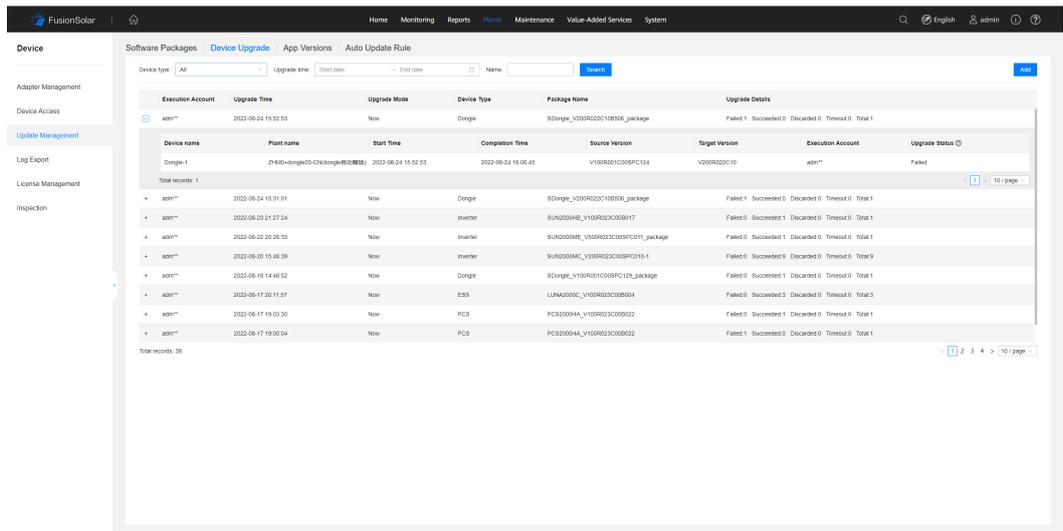
Select the target version and the device to be upgraded. After selecting the device, click **Confirm** to upgrade the device.

Figure 3-5 New device upgrade

Step 6 After the upgrade task is added, you can query the upgrade details on the **Device Upgrade** page, including the upgrade progress, number of devices to be upgraded, and upgrade result.

Figure 3-6 Upgrade details

📖 **NOTE**

The upgrade progress refreshes every 5 seconds.

The monitoring service of the inverter will be stopped during the upgrade of the Dongle.

Step 7 After the upgrade is complete, the Dongle restarts and the upgrade result is displayed in **Upgrade Details**.

----End

3.1.3 Troubleshooting

If the upgrade fails, perform steps 4–7 in **3.1.2 Procedure** and check the upgrade result. If the upgrade fails for multiple times, contact the dealer or Huawei Technical Support.

3.2 Upgrading the SDongleA-05 Using the Mobile APP(Distributed Smart Inverter)

3.2.1 Environment Setup

[Required Devices]

- Mobile phone
- The Dongle is powered on and running properly.

[Device requirements]

- Mobile phone operating system: Android 4.0 or later.
- Recommended mobile phones: Huawei and Samsung.
- The mobile phone supports the web browser and can connect to the Internet.
- The mobile phone supports the Wi-Fi function.

3.2.2 Procedure

Step 1 Downloading and Installing the App

Search for SUN2000 in the following app market, download the app installation package (the version number must be 3.2.00.005 or later), and install the app by following the instructions.

- Baidu Mobile Assistant (Android)
- Huawei AppGallery (Android)

After the installation is complete, the SUN2000 icon is displayed.

Step 2 Downloading the Inverter Upgrade Package

Download the update package from https://e.huawei.com and copy the update package to the root directory of your phone's internal storage or microSD card.

Step 3 Connects to the inverter. The app supports the following connection mode.

- **Method 1: Connect the mobile phone to the inverter through the inverter Wi-Fi hotspot.**
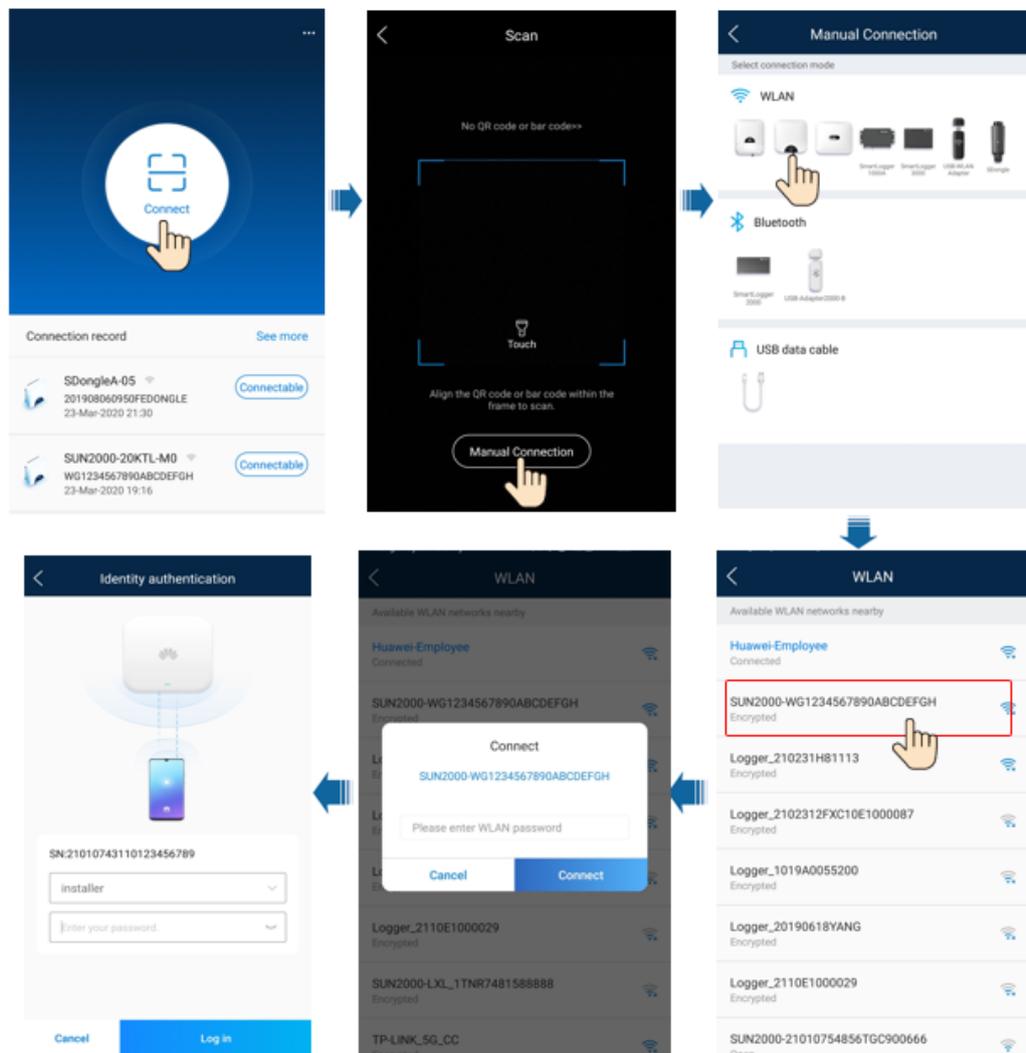
  Open the SUN2000 APP, touch Connect, and select the device type you want to connect. Here, select WLAN.

  Select the WiFi name of the inverter and enter the WiFi password of the inverter. Use the initial password Changeme for the first login and change the password as soon as possible to ensure account security.

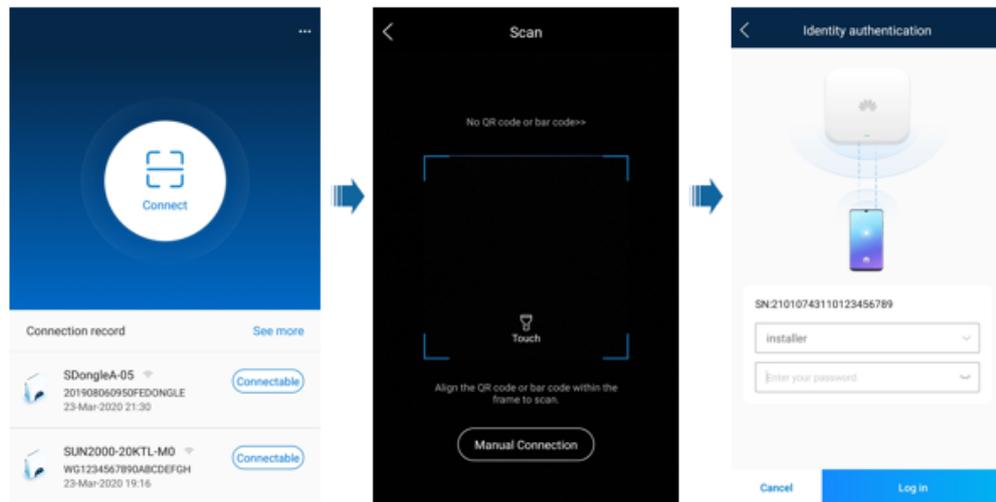 $\square$ **NOTE**

  The WiFi name of the connected inverter is SUN2000 SN, which can be obtained from the inverter label.
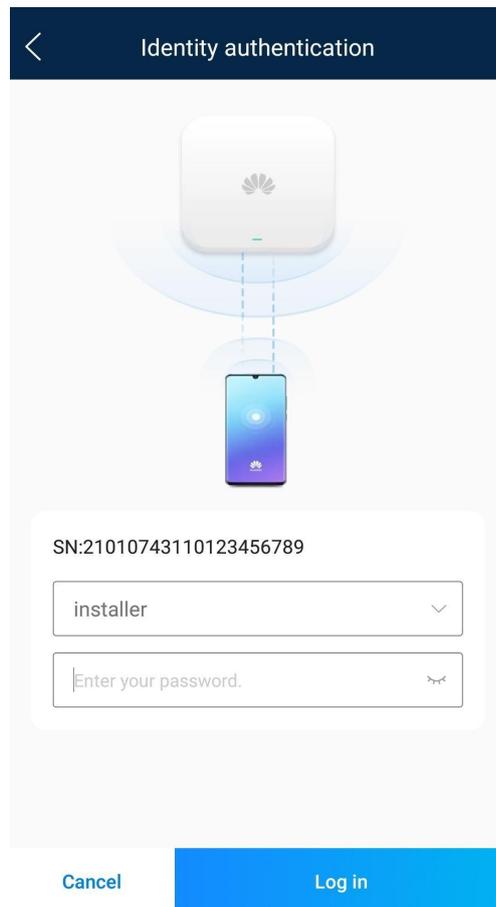
Figure 3-7 Connect to inventor

If you log in to the SUN2000 for the first time and do not change the WiFi password, you can scan the WiFi QR code of the SUN2000 to connect to the WiFi network.
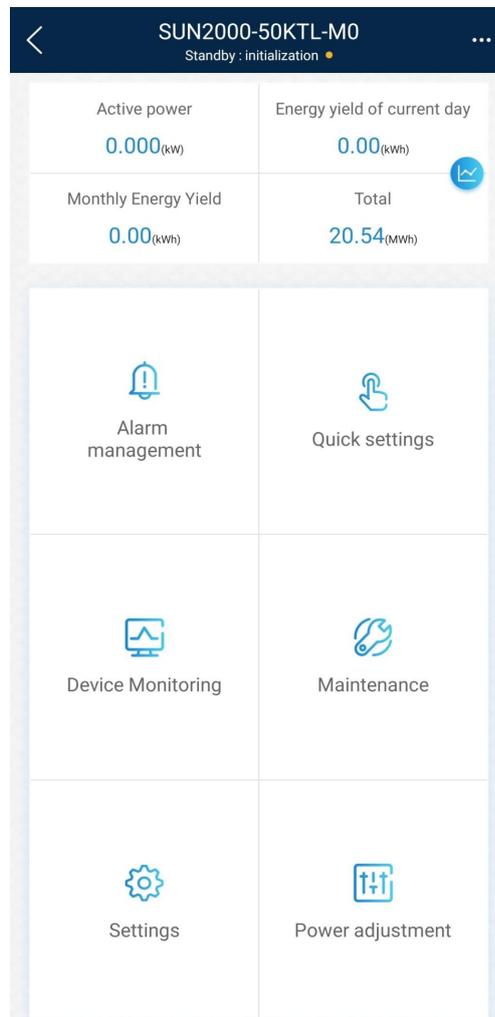
Figure 3-8 Scan to upgrade

Step 4 Select a user name and enter the password (select **installer,** and enter the correct password, which is 00000a by default) to log in to the operation console.

Figure 3-9 Log in

Step 5 On the home page, select Maintenance.

Figure 3-10 Home page

Step 6 On the Device Maintenance page, click Device Upgrade. The Device Upgrade page is displayed.
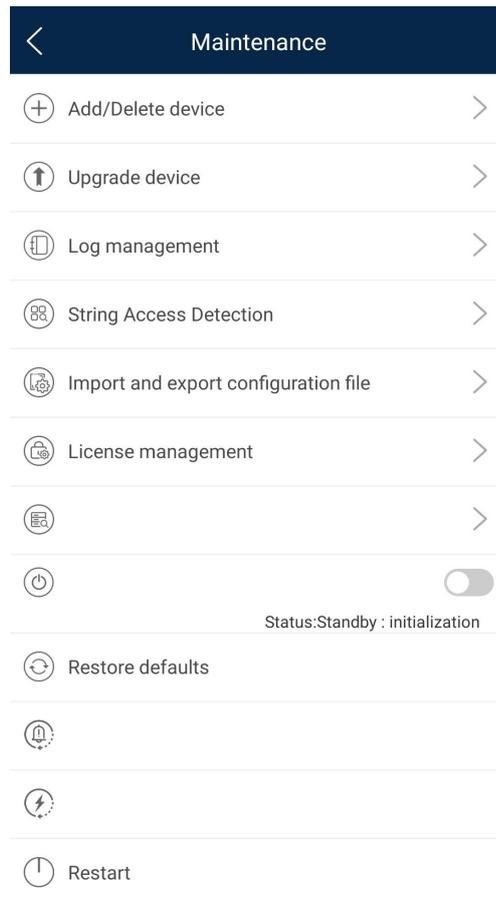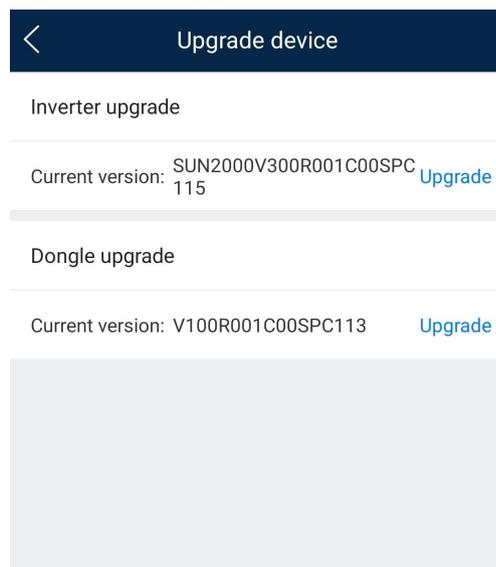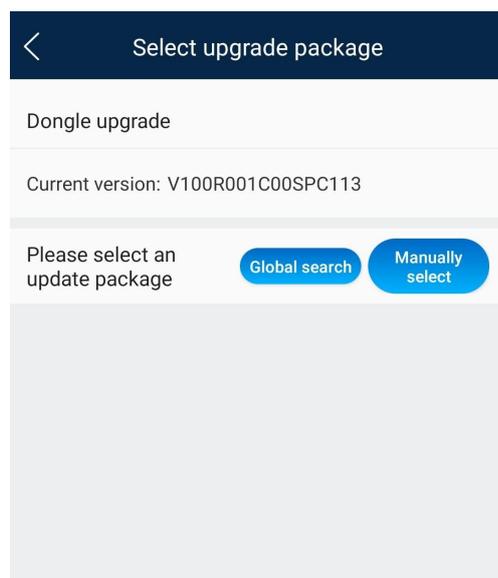
Figure 3-11 Maintenance
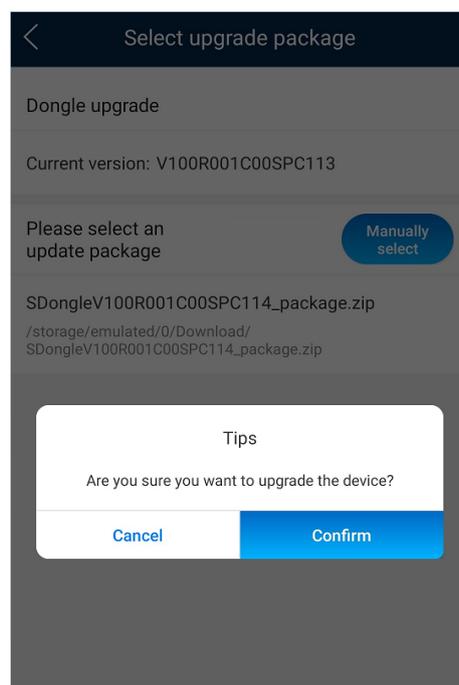

Figure 3-12 Upgrade device

Step 7 Clickthe update icon on the Dongle. The app automatically scans the update package of the Dongle. You can also manually select the path where the upgrade package of the Dongle is stored.

Figure 3-13 Select upgrade package

Step 8 Select the upgrade package of the target version and click OK to start the upgrade.

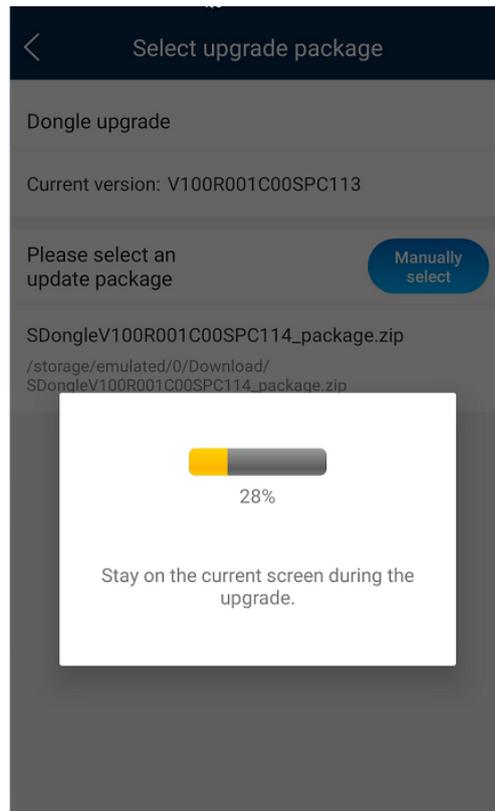**Figure 3-14** Confirm to upgrade

☐ **NOTE**

If the upgrade package is invalid, the system displays a message indicating that the upgrade package is invalid and you need to select another upgrade package.

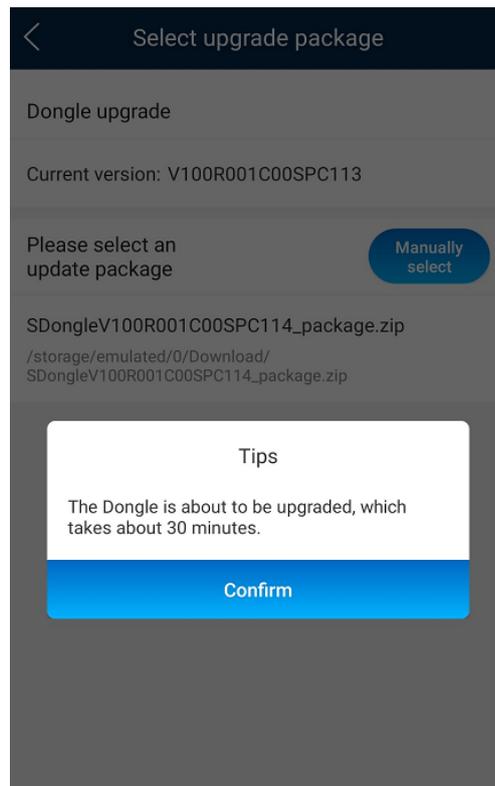Step 9 After the upgrade page is displayed, wait until the upgrade is complete.

Figure 3-15 Upgrading

Step 10 After the upgrade data package is loaded, the mobile phone APP displays a message indicating that the Dongle is about to be upgraded.

Figure 3-16 Load success

 NOTE

- If the communication times out and the activation progress stays at the same number for a long time, the system displays a message indicating that the upgrade fails.
- During the Dongle upgrade, the dual-color indicator blinks red and green alternately, and the Dongle remains online.
- To stop the current upgrade, press the return key on the mobile phone to exit the upgrade.
- After the upgrade is successful, the dual-color indicator is off, and the Dongle resets. You need to reconnect the mobile phone APP to the SUN2000.
- Touch the back key to return to the main menu screen.

----End

3.2.3 Troubleshooting

If the upgrade fails, repeat steps 7 to 8 in section **3.2.2 Procedure** and verify the upgrade.

3.3 Upgrading the SDongleA-05 Using the Mobile APP(Commercial Inverter)

3.3.1 Environment Setup

[Required Devices]

- Mobile phone

- The Dongle is powered on and running properly.

- Bluetooth, wireless, or USB data cable

[Device requirements]

- Mobile phone operating system: Android 4.0 or later.

- Recommended mobile phones: Huawei and Samsung.

- The mobile phone supports the web browser and can connect to the Internet.

- The mobile phone supports the Wi-Fi function.

- The mobile phone supports the Bluetooth function.

- The USB cable is delivered with your phone.

📖 **NOTE**

> The USB 2.0 port is used to connect to the SUN2000.

3.3.2 Procedure

Step 1 Downloading and Installing the App

Search for SUN2000 in the following app market, download the app installation package (the version number must be 3.2.00.005 or later), and install the app by following the instructions.

- Baidu Mobile Assistant (Android)

- Huawei AppGallery (Android)

After the installation is complete, the SUN2000 icon is displayed.

Step 2 Downloading the Inverter Upgrade Package

Download the update package from https://e.huawei.com and copy the update package to the root directory of your phone's internal storage or microSD card.
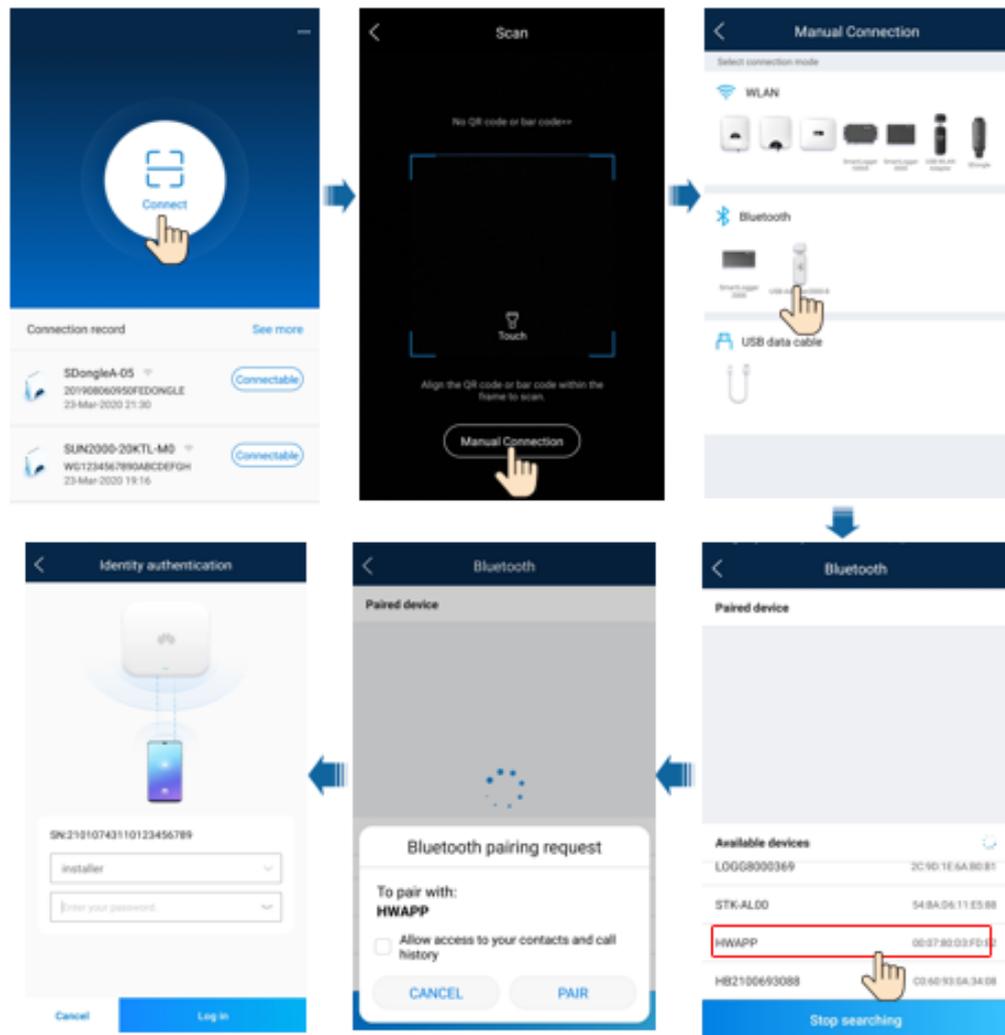
Step 3 Insert the Dongle to be upgraded into a running inverter, wait for more than 2 minutes, and unplug the Dongle.

Step 4 Connects to the inverter. The app supports the following 3 connection modes. You can select one based on the site requirements.

- **Method 1: Use a Bluetooth communication stick on the mobile phone.**

  Open the SUN2000 app, touch Connect, and select the type of the Bluetooth device you want to connect to. On the displayed screen, touch Search for devices, and select the corresponding Bluetooth device to pair. The login screen is displayed after the pairing is successful.
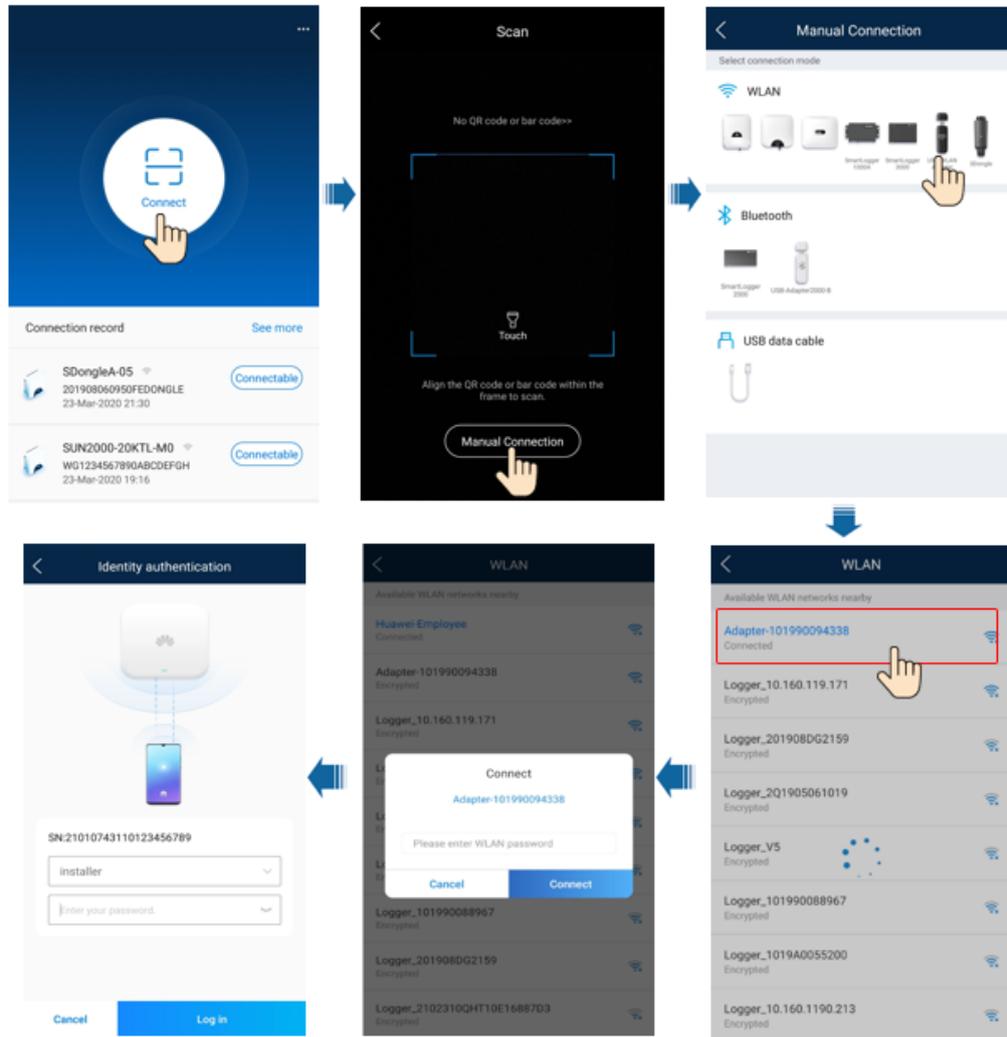
Figure 3-17 Bluetooth method

Method 2: A mobile phone passes through a wireless communications rod.

Open the SUN2000 APP, touch Connect, and select the type of the device to be connected. If a wireless communication rod is used, select WLAN.

Select the Wi-Fi name of the corresponding wireless communication rod and enter the Wi-Fi password of the inverter to connect to the Wi-Fi network. Use the initial password Changeme for the first login and change the password as soon as possible to ensure account security.
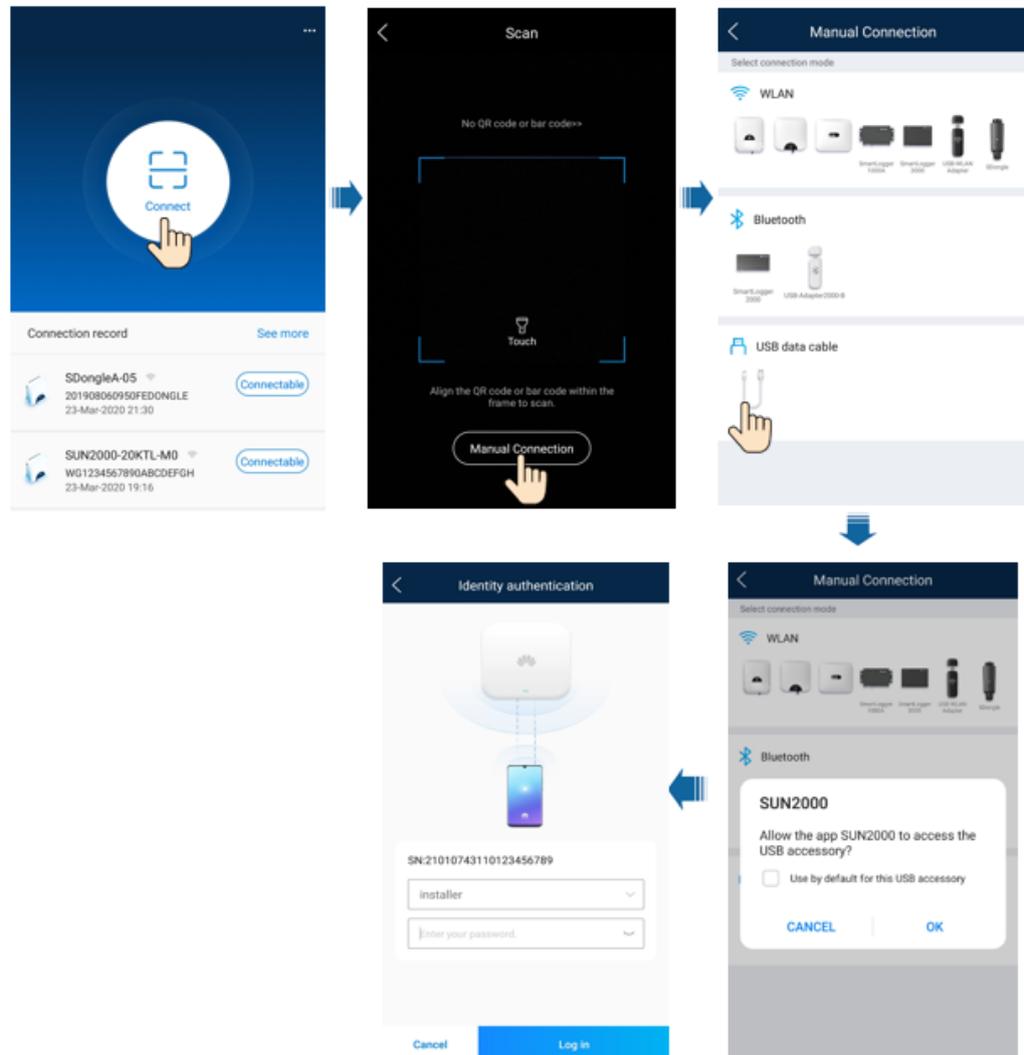
Figure 3-18 Adapter method

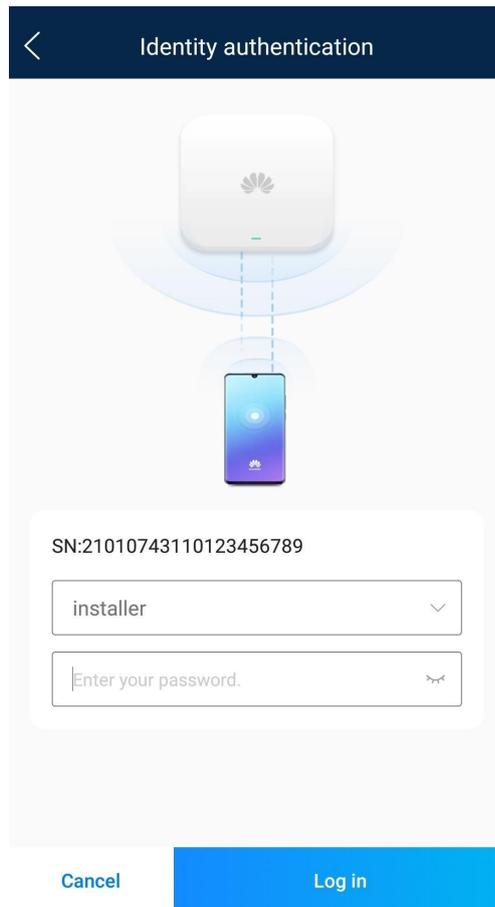**Method 3: Use a USB cable to connect the mobile phone to the inverter.**

Run the SUN2000 APP, touch Connect, and select the type of the device to be connected. If a USB cable is used to connect to the device, select USB Data Cable. The app displays a message, asking you whether to allow the USB device. Touch OK. The corresponding selection screen is displayed.
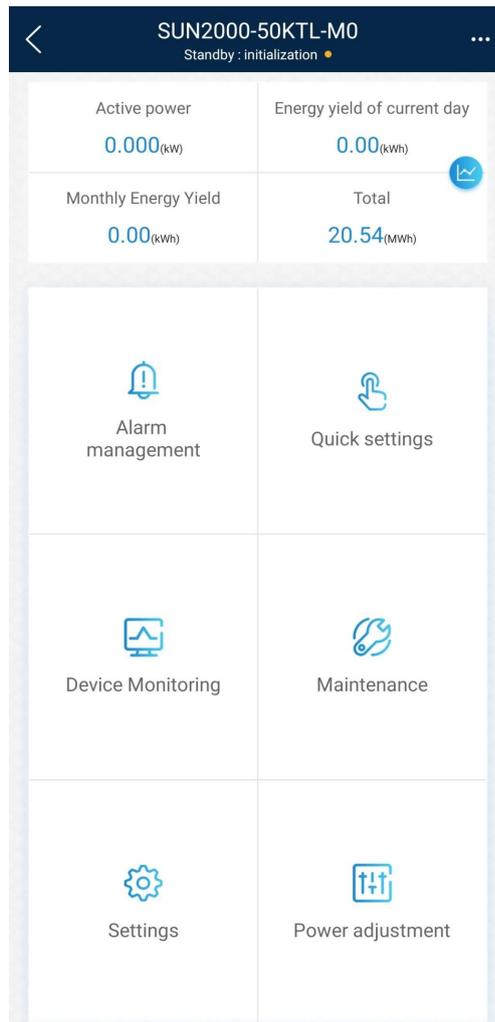
Figure 3-19 USB cable method

Step 5 Select a user name and enter the password (select **installer,** and enter the correct password, which is 00000a by default) to log in to the operation console.

Figure 3-20 Log in

Step 6 On the home page, select Maintenance.

Figure 3-21 Home page

Step 7 On the Device Maintenance page, click Device Upgrade. The Upgrade device page is displayed.
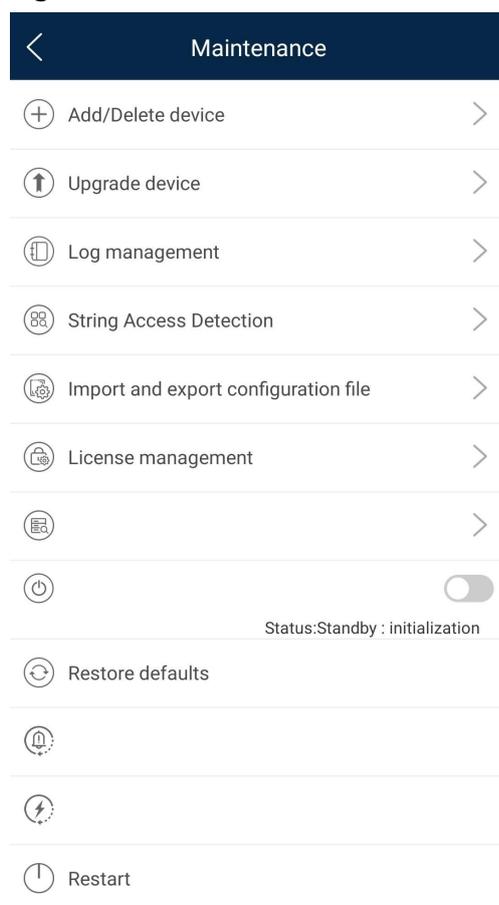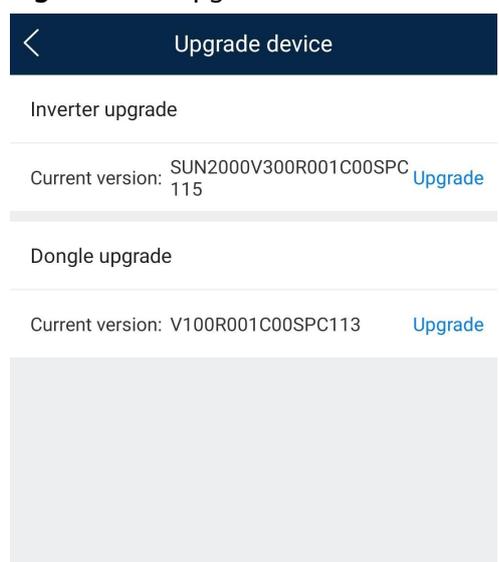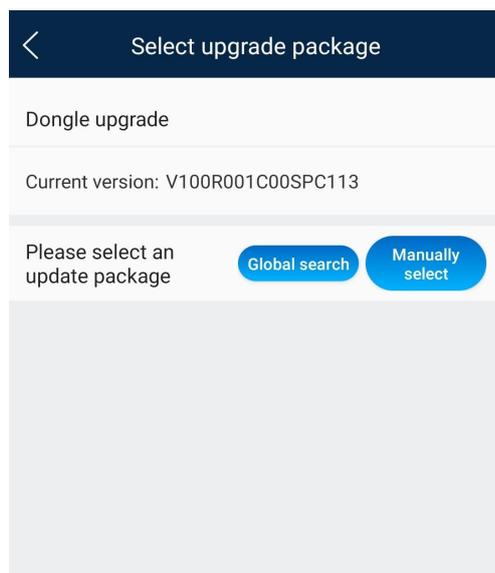
Figure 3-22 Maintenance
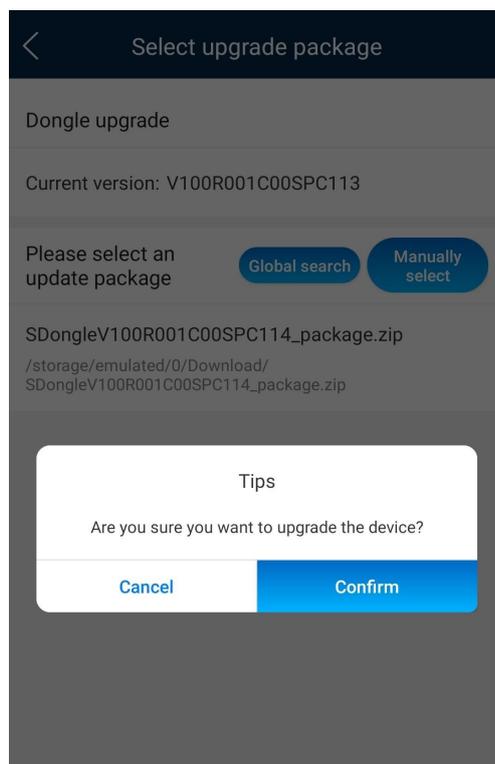

Figure 3-23 Upgrade device

Step 8 Clickthe update icon on the Dongle. The app automatically scans the update package of the Dongle. You can also manually select the path where the upgrade package of the Dongle is stored.

Figure 3-24 Select upgrade package

Step 9 Select the upgrade package of the target version and click OK to start the upgrade.

Figure 3-25 Confirm to upgrade

☐☐ **NOTE**
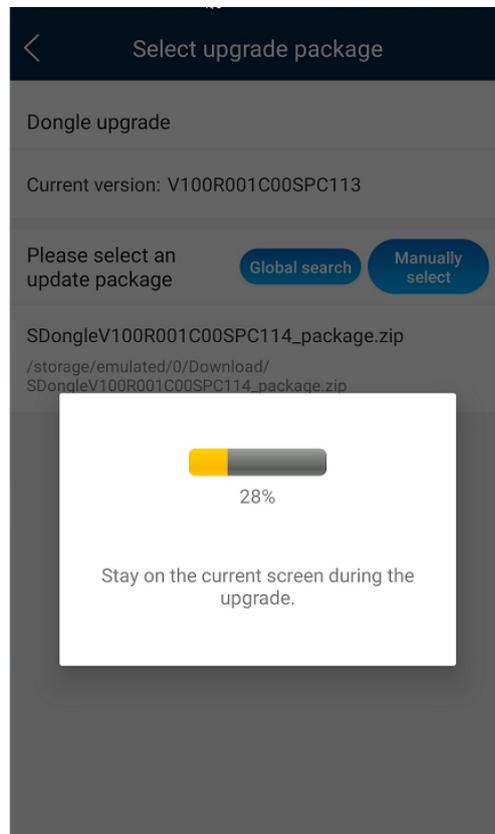
> If the upgrade package is invalid, the system displays a message indicating that the upgrade package is invalid and you need to select another upgrade package.

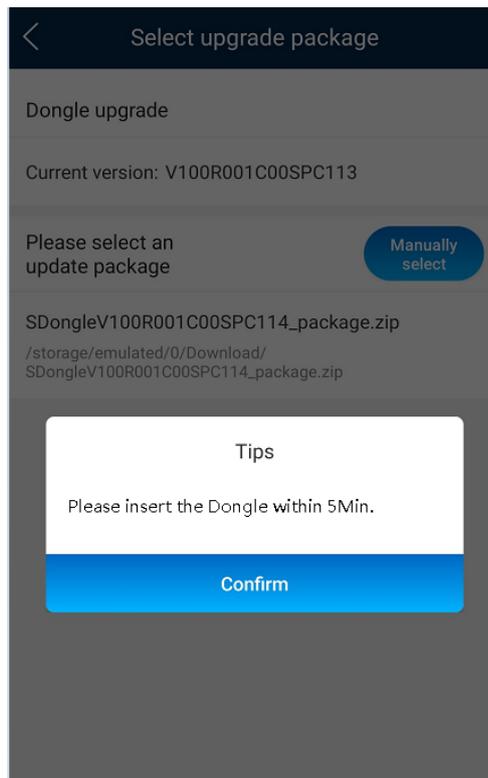**Step 10** After the upgrade page is displayed, wait until the upgrade is complete.

Figure 3-26 Upgrading

Step 11 After the upgrade data package is loaded, the mobile phone APP displays a message indicating that the Dongle is about to be upgraded.

Figure 3-27 Load success

Step 12 Connect the Dongle to be upgraded to the commercial inverter and wait until the Dongle upgrade is complete

☐ **NOTE**

- If the communication times out and the activation progress stays at the same number for a long time, the system displays a message indicating that the upgrade fails.
- During the Dongle upgrade, the dual-color indicator blinks red and green alternately, and the Dongle remains online.
- To stop the current upgrade, press the return key on the mobile phone to exit the upgrade.
- After the upgrade is successful, the dual-color indicator is off, and the Dongle resets. You need to reconnect the mobile phone APP to the SUN2000.
- Touch the back key to return to the main menu screen.

----End

3.3.3 Troubleshooting

If the upgrade fails, repeat steps 8 to 9 in section **3.3.2 Procedure** and verify the upgrade.

3.4 Upgrading the SDongleA-05 Using the Mobile APP

3.4.1 Environment Setup

[Required Devices]

- Mobile phone
- The Dongle is powered on and running properly.

[Device requirements]

- Mobile phone operating system: Android 4.0 or later.
- Recommended mobile phones: Huawei and Samsung.
- The mobile phone supports the web browser and can connect to the Internet.
- The mobile phone supports the Wi-Fi function.
- The router supports Wi-Fi. Wi-Fi signals cover the position where the smart stick is located.
- If the SDongle is not connected to the Wi-Fi network within 3 minutes after the SDongle is powered on, the Wi-Fi network of the SDongle is automatically disabled. Turn on until it is powered on again.

3.4.2 Procedure

Step 1 Downloading and Installing the App

Search for SUN2000 in the following app market, download the app installation package (the version number must be 3.2.00.005 or later), and install the app by following the instructions.

- Baidu Mobile Assistant (Android)
- Huawei AppGallery (Android)

After the installation is complete, the SUN2000 icon is displayed.

Step 2 Downloading the Inverter Upgrade Package

Download the update package from http://e.huawei.com and copy the update package to the root directory of your phone's internal storage or microSD card.

Step 3 Connects to the Dongle. You can connect to the Dongle in either of the following ways:

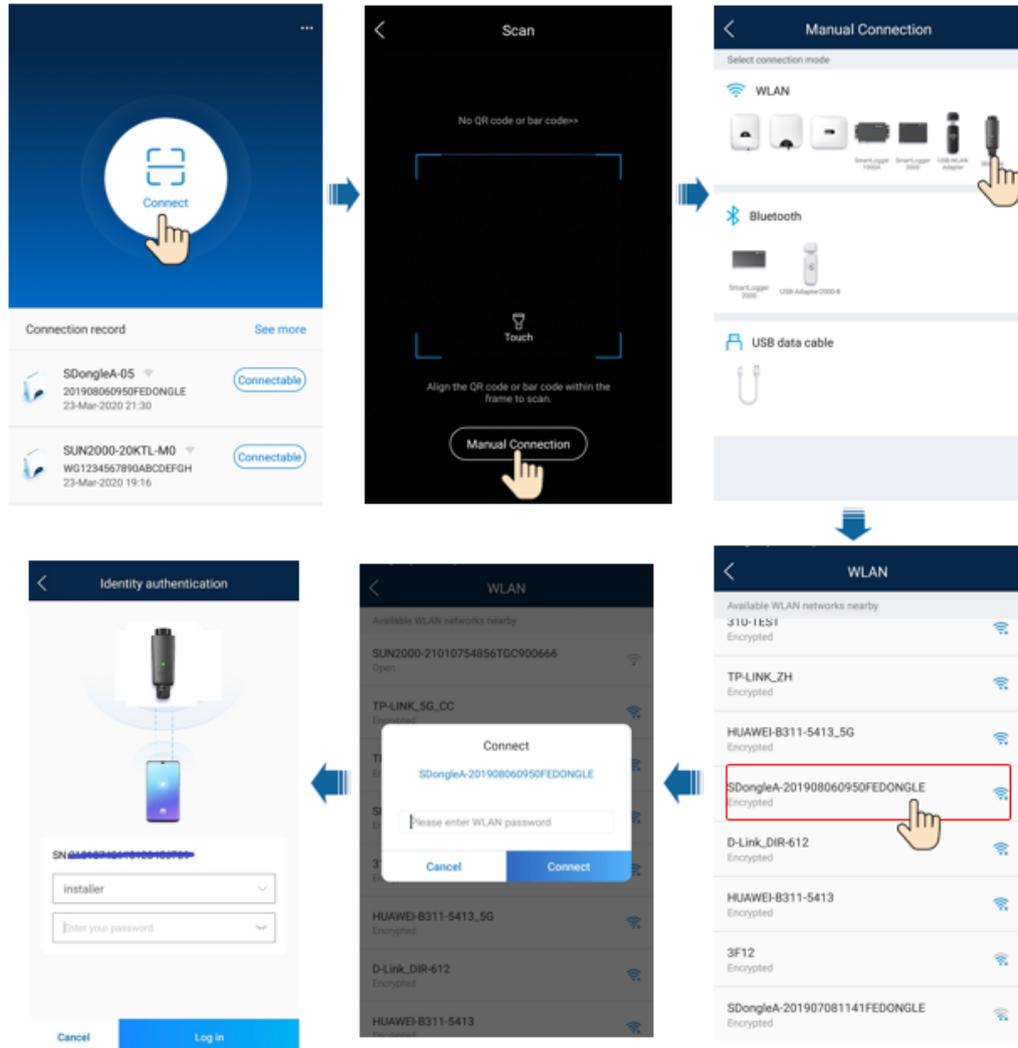- **Method 1: Directly connect your phone to the Dongle.**

  Open the SUN2000 APP, touch Connect, select Manual connection, and select the device type to be connected. In this example, select SDongle. The Wi-Fi selection screen is displayed.

  Select the Wi-Fi name of the corresponding Dongle and enter the Wi-Fi password of the Dongle. Use the initial password Changeme for the first login and change the password as soon as possible to ensure account security.
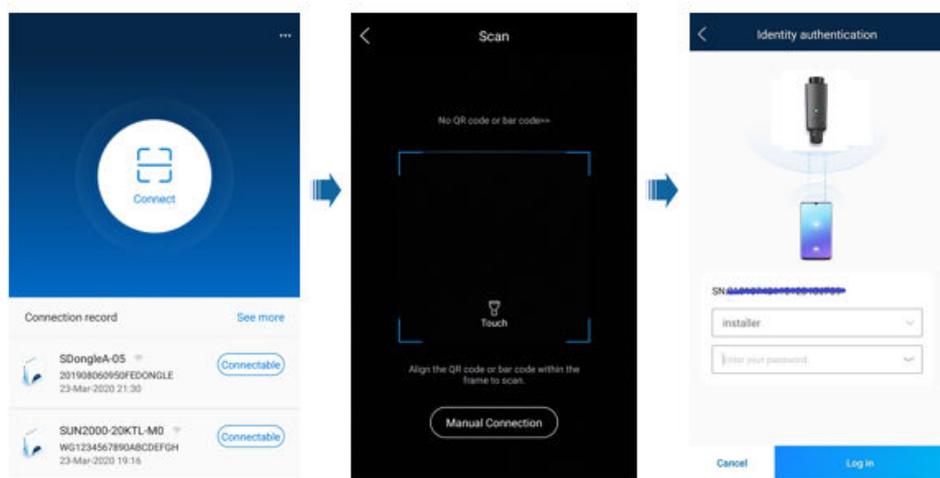
📖 **NOTE**

The Wi-Fi name of the Dongle connected to the phone is SDongleA-SN. You can view the SN on the label on the front side of the Dongle.
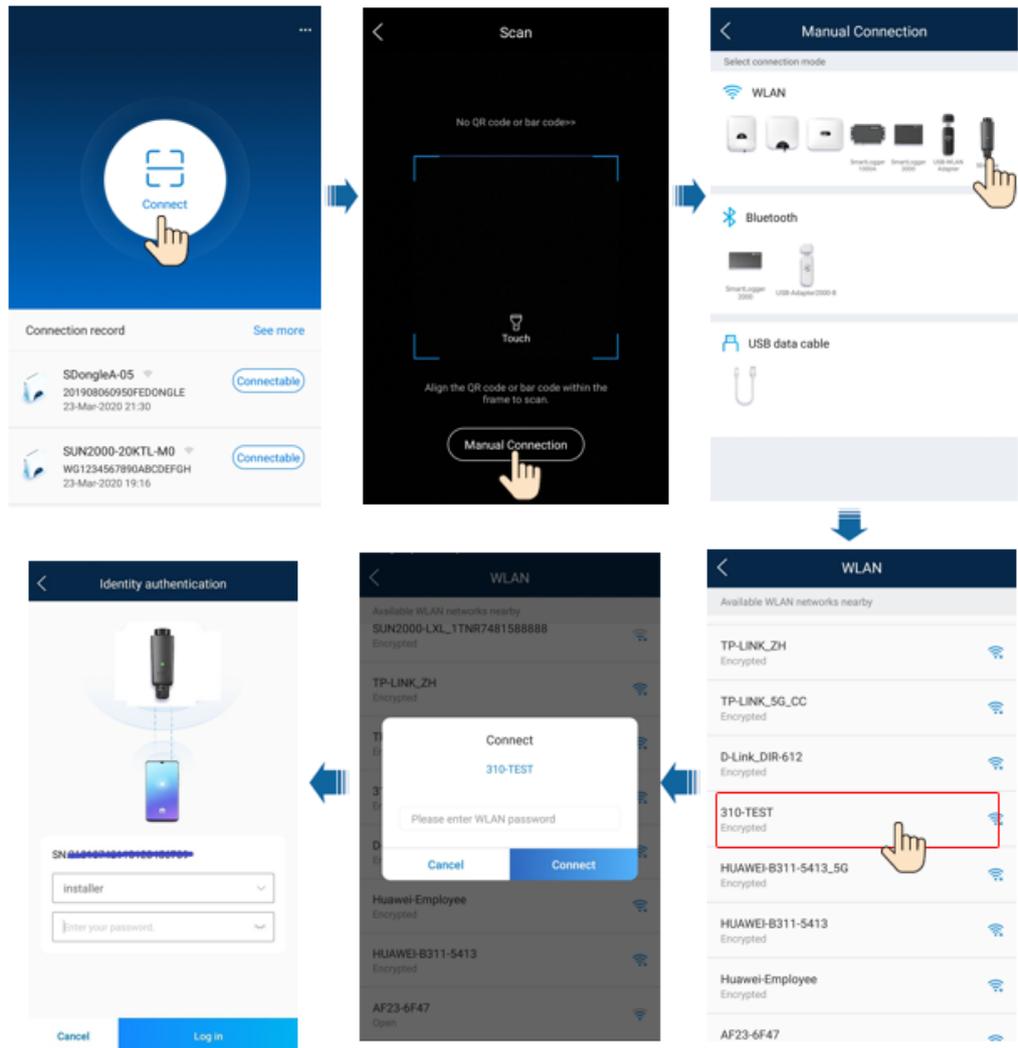
Figure 3-28 Connect to Dongle

If you log in to the Dongle for the first time and do not change the Wi-Fi password of the Dongle, you can scan the Wi-Fi login QR code on the front of the Dongle to connect to the Dongle.
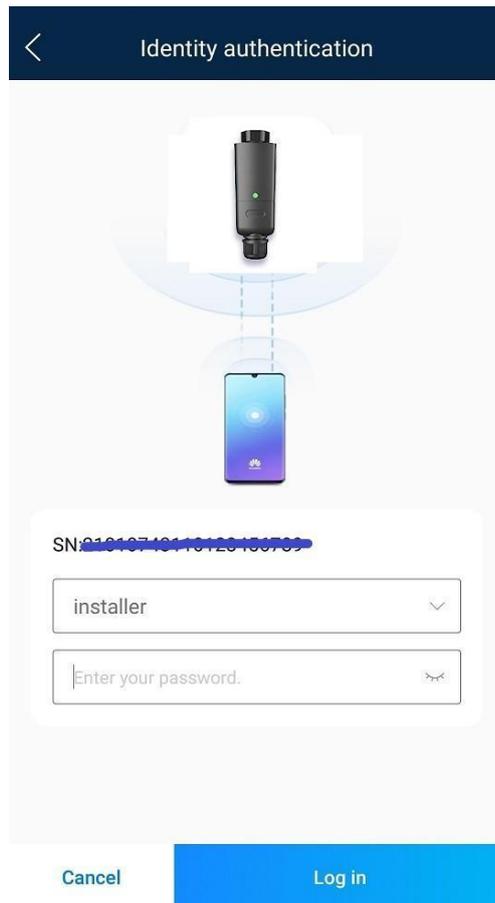
Figure 3-29 Scan to log in

- **Method 2: Connect your phone to the router. If the Dongle has been connected to the router using the Wi-Fi network, touch the Wi-Fi network of the router to connect, after the connection is successful, the login page of the Dongle is displayed.**
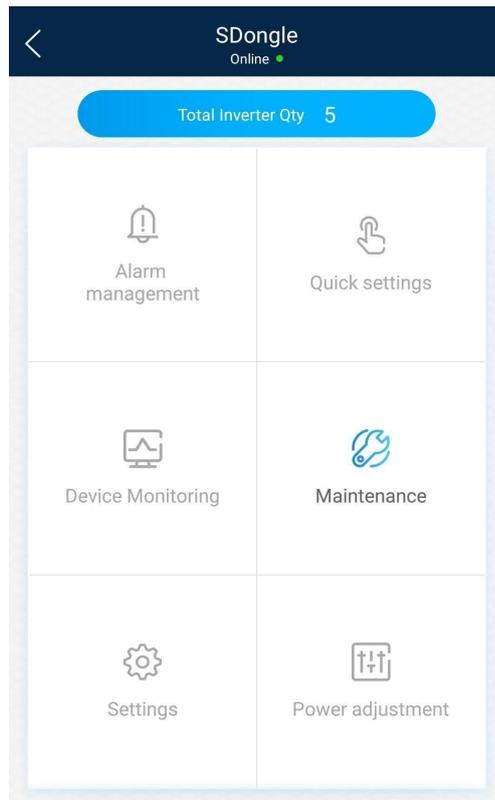
Figure 3-30 Connect through router

Step 4 Select a user name and enter the password (select **installer,** and enter the correct password, which is 00000a by default) to log in to the operation console.
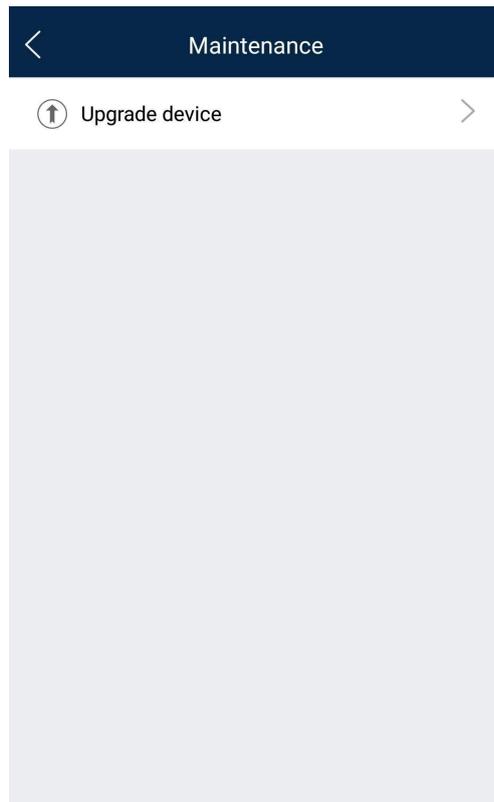
Figure 3-31 Log in

Step 5 On the home page, select Maintenance.

Figure 3-32 Home page

Step 6 On the Device Maintenance page, click Device Upgrade. The Dongle Upgrade page is displayed.

Figure 3-33 Maintenance

Step 7 Click Upgrade on the Dongle Upgrade page. The Select Upgrade Package page is displayed. The app automatically scans the upgrade package of the Dongle. You can also manually select the path where the upgrade package of the Dongle is stored.
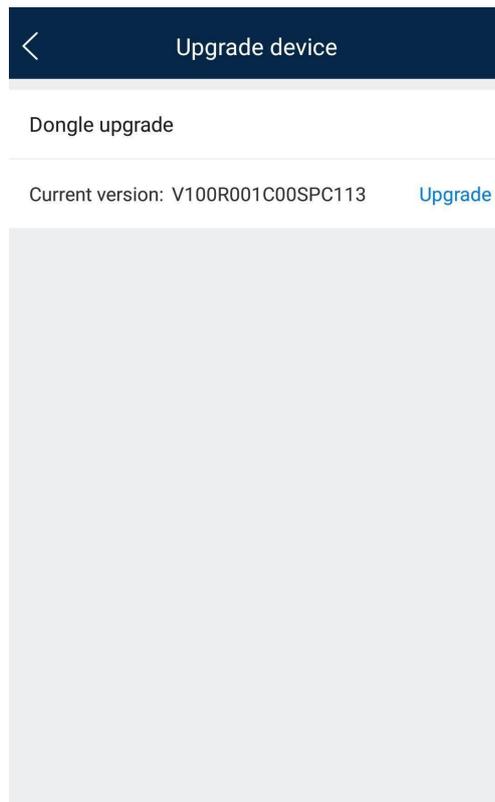
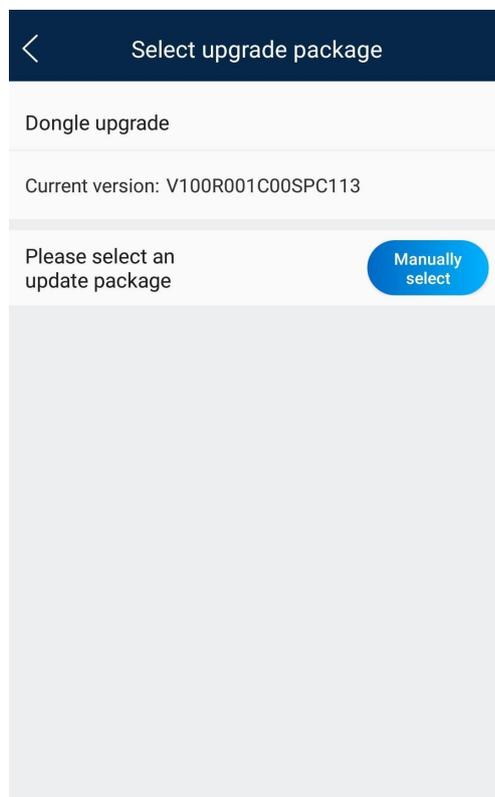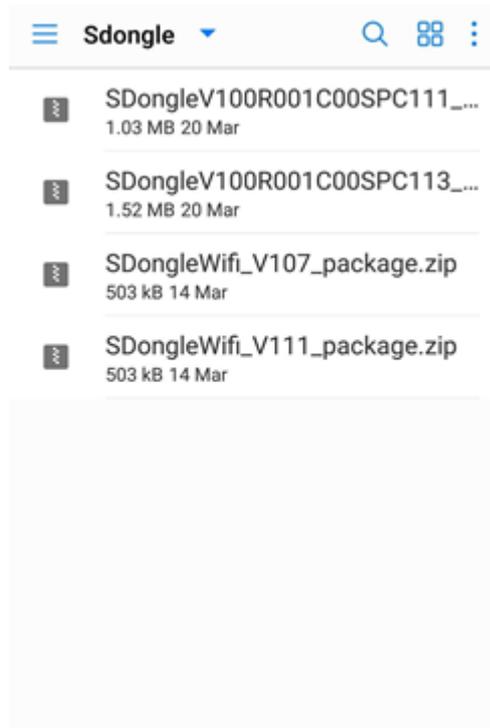**Figure 3-34** Upgrade device

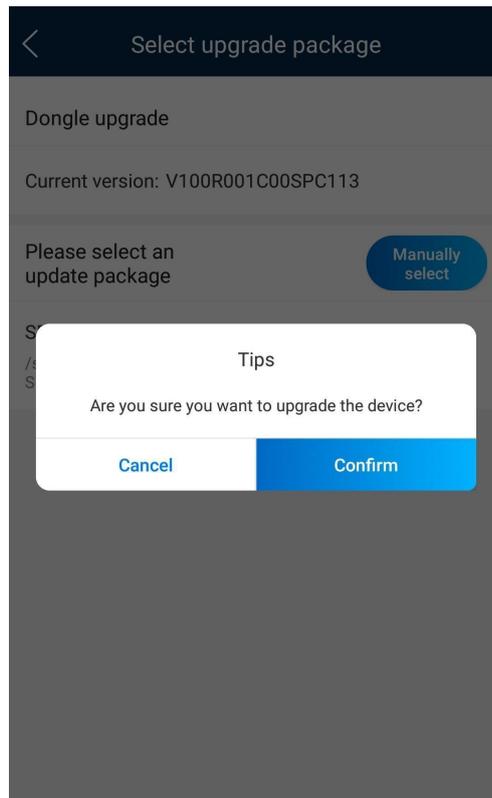**Figure 3-35** Select upgrade package

Figure 3-36 Select package

Step 8 Select the upgrade package of the target version and click OK to start the upgrade.

Figure 3-37 Confirm

> **NOTE**
>
>   If the upgrade package is invalid, the system displays a message indicating that the upgrade package is invalid and you need to select another upgrade package.

Step 9 Wait until the upgrade is complete. If "Upgrade succeeded" is displayed, the upgrade is complete.

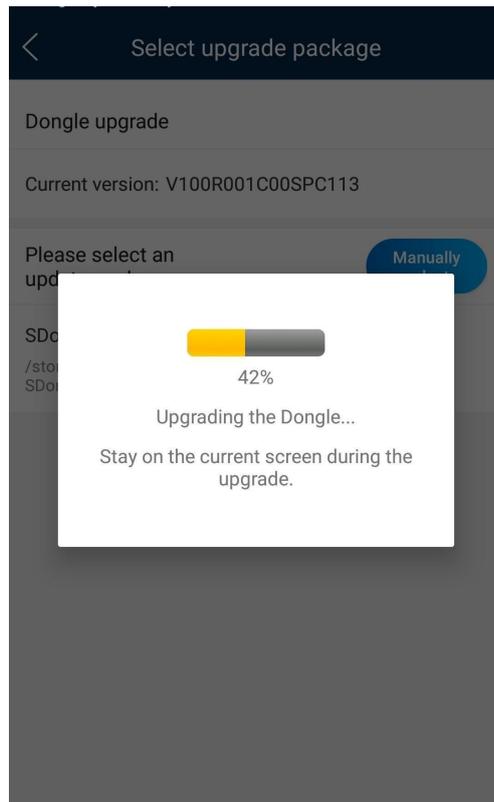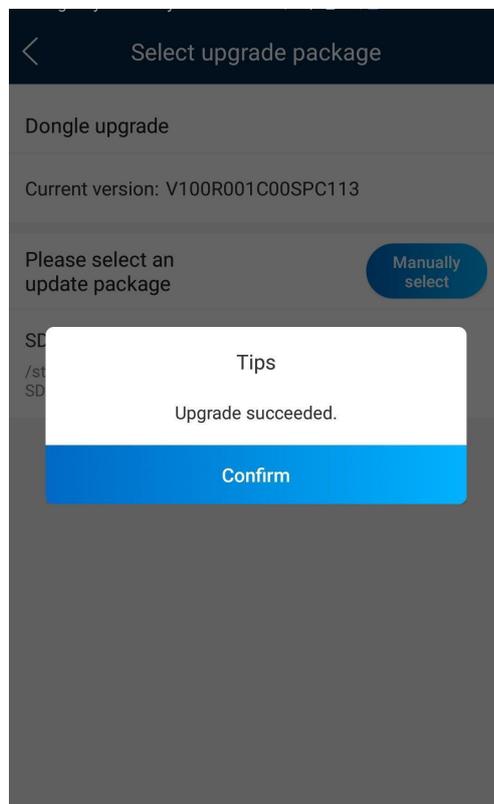**Figure 3-38** Upgrading the Dongle

Figure 3-39 Upgrade success

📖 **NOTE**

- If the communication times out and the activation progress stays at the same number for a long time, the system displays a message indicating that the upgrade fails.
- To stop the current upgrade, press the return key on the mobile phone to exit the upgrade.
- During the update, ensure that the Wi-Fi communication is stable. When directly connecting your phone to the Dongle, keep the distance between your phone and the Dongle within 5 m to ensure the quality of the communication signal between the Dongle and the Mobile. When connecting your phone to the Wi-Fi network through a router, ensure that your phone and the Dongle are within the Wi-Fi coverage of the router. If the Wi-Fi communication is interrupted during the upgrade, you need to perform the upgrade again.
- After the app displays a message indicating that the upgrade is successful, the Dongle resets once or twice.
- If the indicator blinks red and green alternately, the upgrade is in progress. Wait until the upgrade is complete. Otherwise, the upgrade is successful.
- After the upgrade is successful, the mobile phone APP can reconnect to and log in to the Dongle.
- Touch the back key to return to the main menu screen

----End

3.4.3 Troubleshooting

If the upgrade fails, repeat steps 7 to 8 in section **3.4.2 Procedure** and verify the upgrade.

4 Verifying the Upgrade

4.1 Verifying Basic Features

Table 4-1 Basic features

No.	Feature	Normal Criteria
1	Check whether the upgrade is successful.	Check whether the software version after the upgrade is the same as the version number of the upgrade package.
2	Check the running status of the device.	The device status display module is running properly.

4.2 Verifying Modified and New Features

For details about new or modified features, see the modification description of the corresponding version.