

# FusionHome App Quick Guide

Issue: 03  
Part Number: 31508725  
Date: 2018-05-30



Copyright © Huawei Technologies Co., Ltd. 2018. All rights reserved.

## 1 Overview

### 1.1 Function

The mobile phone application used for the SUN2000L is called FusionHome app (app for short), which communicates with the SUN2000L over WiFi to provide a convenient platform for querying alarms, configuring parameters, performing routine maintenance, and commissioning.

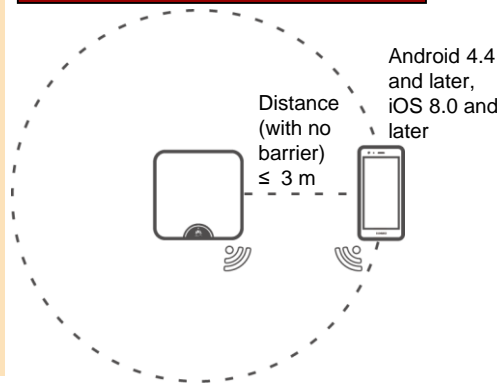
### 1.2 Connection Methods

After the DC or AC side of the SUN2000L is energized, the app can connect to the SUN2000L in two methods:

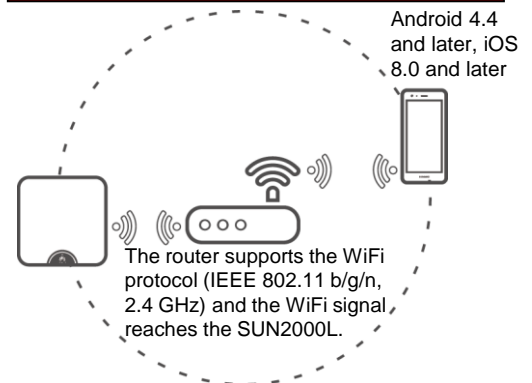
#### NOTE

- When connecting the SUN2000L to the app directly, if using the built-in embedded antenna, the mobile phone is no more than 3 meters of the SUN2000L, and there are no obstructions between the mobile phone and the SUN2000L.
- The mobile phone supports the access to the Internet.
- The mobile phone supports WiFi.
- This section describes how a mobile phone connects to the SUN2000L directly. For the description about the other connection mode, see the appropriate SUN2000L user manual.

**First login: mobile phone connecting to the SUN2000L directly**



**Not for first login: mobile phone connecting to the SUN2000L over a router (the router WiFi name and encryption mode have been set on the SUN2000L)**




## 2 Downloading and Installing the App

Search for **FusionHome** in one of the following app stores or scan a QR code in the right figure using a mobile phone, download the installation package, and install the FusionHome app by following the instructions.

- Google Play (Android)
- App Store (iOS)



After the app is installed, the FusionHome icon (  ) is displayed on the home screen.

#### NOTE

The screenshots provided in this document are from FusionHome 2.1.11.300. The data on the screenshots is for reference only.

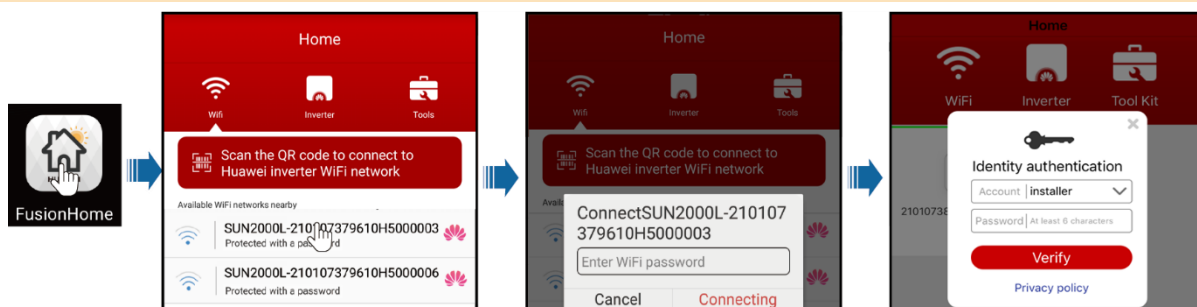
## 3 Connecting to the SUN2000L

### Mobile Phone Connecting to the SUN2000L Directly (Android)

Run the app, tap the WiFi name corresponding to the SUN2000L, and enter the WiFi password to connect to the WiFi network. After the connection succeeds, the **Inverter** screen is displayed.

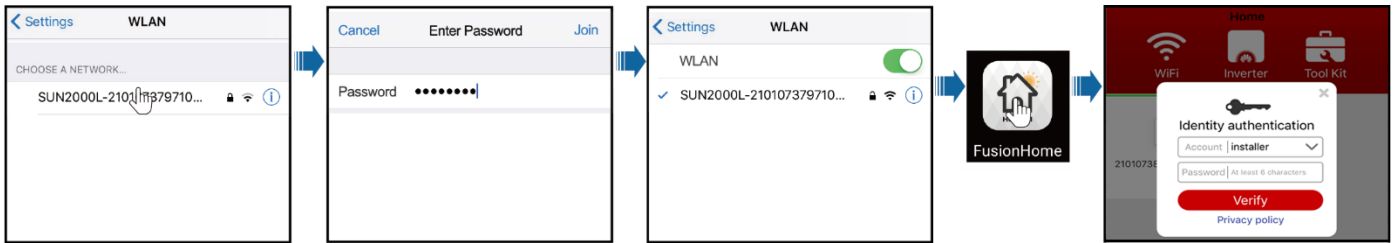
#### NOTE

- The name of the connected SUN2000L WiFi network is represented by **SUN2000L-its serial number (SN)**. The SN is available on the label attached to the side of the SUN2000L.
- Use the initial password **Changeme** upon first login. To ensure account security, change the password immediately after login.
- If you log in for the first time and the initial SUN2000L WiFi password is not changed, you can scan the WiFi login QR code on the side of the SUN2000L to connect to the SUN2000L WiFi network.
- If the connection to the SUN2000L WiFi network from the app fails, try the connection to the WiFi network from your mobile phone.



### Mobile Phone Connecting to the SUN2000L Directly (iOS)

Choose **Settings > WLAN** on your mobile phone, tap the WiFi name corresponding to the SUN2000L, and enter the WiFi password to connect to the WiFi network. After the connection succeeds, the **Inverter** screen is displayed.



**NOTE**

- The name of the connected SUN2000L WiFi network is represented by **SUN2000L-its SN**. The SN is available on the label attached to the side of the SUN2000L.
- If you log in for the first time and the initial SUN2000L WiFi password is not changed, you can run the app, tap **Scan the QR code at the bottom of the label to connect to the SUN2000L**, and scan the WiFi login QR code on the side of the SUN2000L to obtain the WiFi login password.
- Use the initial password **Changeme** upon first login. To ensure account security, change the password immediately after login.

## 4 Logging In to the App

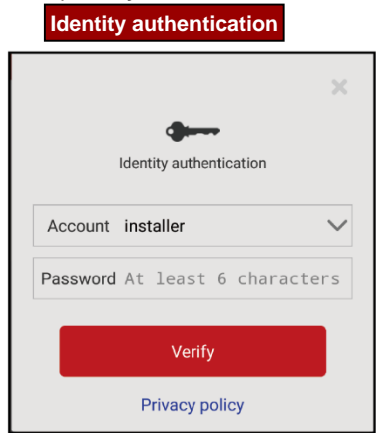
The following text describes the operations on Android screens. The operations on iOS screens are the same as those on Android screens, except that the screens are somewhat different. The actual screens prevail.

### Login as installer

1. On the **Inverter** screen, tap the corresponding SUN2000L, select **installer**, enter the password, and then tap **Verify**.

**NOTE**

- The name of the connected SUN2000L is represented by its SN, which is available on the label attached to the side of the SUN2000L.
- The login password is the same as that for the SUN2000L connected to the app and is used only when the SUN2000L connects to the app.
- The initial password is **00000a**. Use the initial password upon first login. To ensure account security, change the password immediately after login.

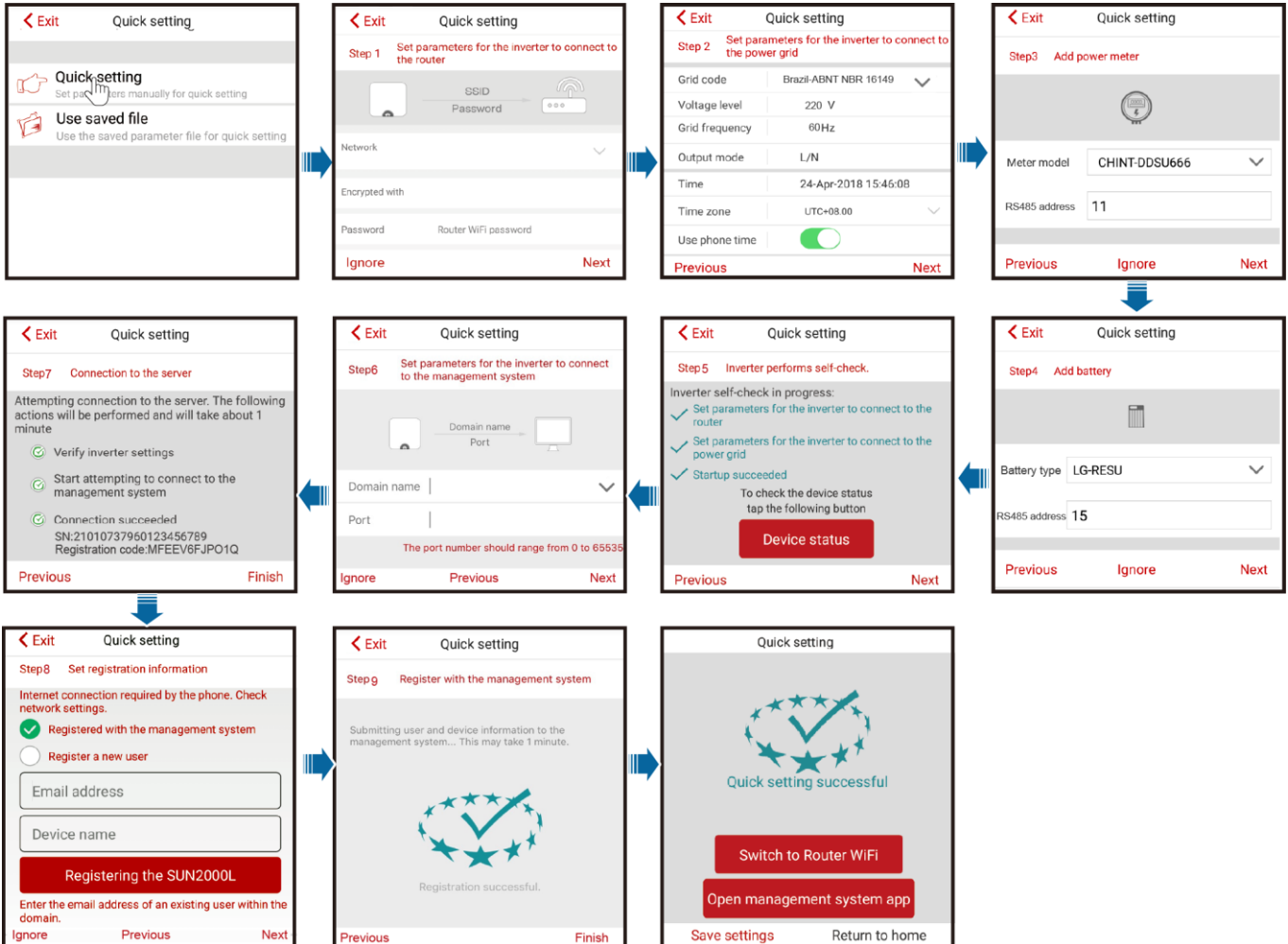


2. If you log in successfully, the **Quick setting** or **Home** screen is displayed.

**NOTE**

- The **Quick setting** screen is displayed only when the SUN2000L is powered on for the first time or the factory defaults of the SUN2000L are restored.
- If you do not follow the deployment wizard, the **Quick setting** screen is still displayed when you log in next time.
- To exit the **Quick setting** screen, press the **Back** button on the mobile phone. To enter the **Quick setting** screen again, choose **Quick setting** from the **Home** screen.

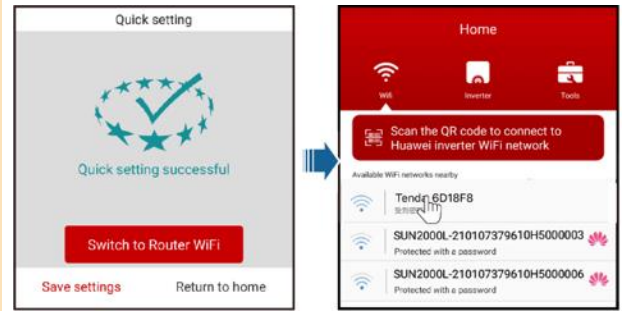
### Quick setting



**NOTE**

- Before setting the grid code, ensure that the DC side of the inverter is energized.
- If the inverter does not need to connect to the router, skip **Step 1 Set parameters for the inverter to connect to the router**. If the inverter does not need to connect to the management system, skip **Step 6 Set parameters for the inverter to connect to the management system**.
- After the management system is successfully connected, the SUN2000L will report the SN and installer CD Key number. If the connection fails, another connection attempt will start after 10 seconds. The installer CD Key number is generated by the SUN2000L automatically and is used for the installer to register with the management system and manage the inverter.
- To connect to the router over WiFi from the mobile phone system, ensure that you have logged out of the app.
- If you want to set parameters using a saved configuration file, ensure that the file is available in your mobile phone. To generate a configuration file, choose **Quick setting > Save settings**.

If you need to switch to the router WiFi network, tap **Switch to Router WiFi** after quick setting is successful, and then tap the router WiFi connection to switch to the router WiFi network.

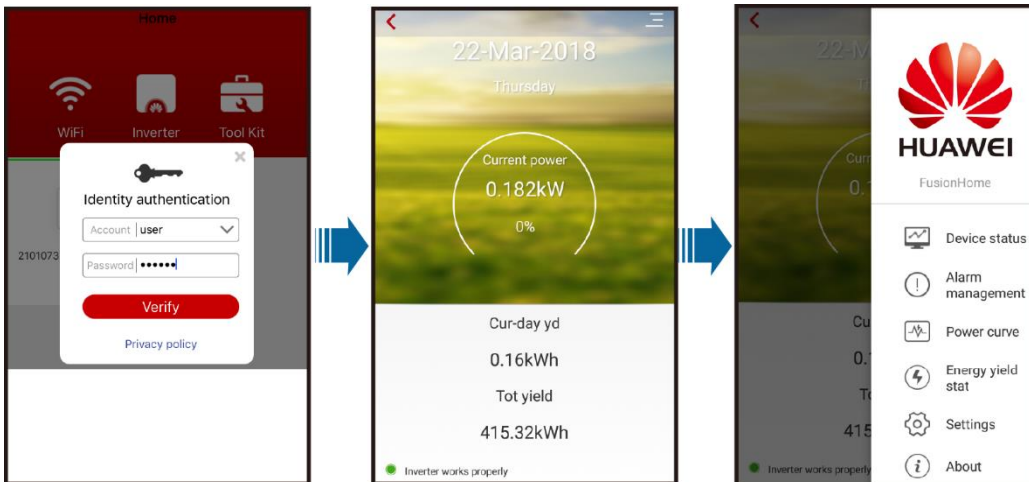


**Login as user**

**NOTICE**

You can log in as **user** only after you have logged in as **installer** and followed the instructions on the **Quick setting** screen.

On the **Inverter** screen, tap the corresponding SUN2000L, select **user**, enter the password, and log in to the app.



**NOTE**

- The name of the connected SUN2000L is represented by its SN, which is available on the label attached to the side of the SUN2000L.
- The login password is the same as that for the SUN2000L connected to the app and is used only when the SUN2000L connects to the app.
- The initial password is **00000a**. Use the initial password upon first login. To ensure account security, change the password immediately after login.

**5 Common Alarms and Troubleshooting Measures**

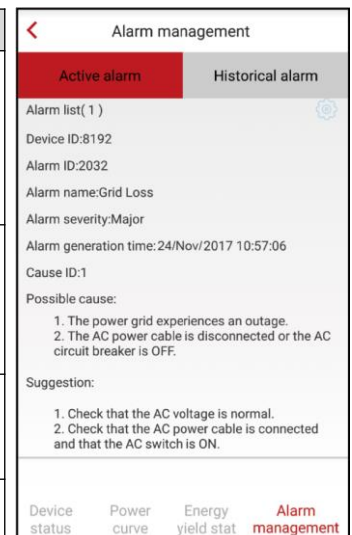
When a fault occurs, a corresponding alarm is generated.

- To view alarms as **installer**, choose **Device info > Alarm management** on the **Home** screen.
- To view alarms as **user**, choose **☰ > Alarm management** in the upper right corner.

**NOTE**

For more alarms, see the appropriate SUN2000L user manual.

Alarm Name	Possible Cause	Measures
High String Input Voltage	The PV array is incorrectly configured. Excessive PV modules are connected in series to the PV string, and therefore the open-circuit voltage exceeds the maximum input voltage of the SUN2000L.	Reduce the number of PV modules connected in series to the PV string until the PV string open-circuit voltage is less than or equal to the maximum input voltage of the SUN2000L. After the PV array is correctly configured, the alarm disappears.
Output Overcurrent	The grid voltage drops dramatically or the power grid is short-circuited. As a result, the SUN2000L transient output current exceeds the upper threshold and therefore the protection function is triggered.	<ol style="list-style-type: none"> <li>1. The SUN2000L monitors its external working conditions in real time. The SUN2000L automatically recovers after the fault is rectified.</li> <li>2. If the alarm occurs frequently and affects the power production of the PV plant, check whether the output is short-circuited. If the fault persists, contact your dealer.</li> </ol>
Output DC Component Overhigh	The DC component in the grid current exceeds the specified upper threshold.	<ol style="list-style-type: none"> <li>1. The SUN2000L monitors its external working conditions in real time. The SUN2000L automatically recovers after the fault is rectified.</li> <li>2. If the alarm occurs frequently, contact your dealer.</li> </ol>
Abnormal Residual Current	The insulation impedance between the input and the PE decreases when the SUN2000L is operating.	<ol style="list-style-type: none"> <li>1. If the alarm occurs accidentally, the external power cable may be abnormal temporarily. The SUN2000L automatically recovers after the fault is rectified.</li> <li>2. If the alarm occurs frequently or persists, check that the impedance between the PV string and ground is not below the lower threshold.</li> </ol>
Low Insulation Resistance	<ol style="list-style-type: none"> <li>1. The PV string is short-circuited to PE.</li> <li>2. The PV string is installed in a moist environment for a long time and the power cable is not well insulated to ground.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check the impedance between the PV array output and PE, and eliminate short circuits and poor insulation points.</li> <li>2. Check that the SUN2000L PE cable is correctly connected.</li> <li>3. If you are sure that the impedance is less than the default value in a cloudy or rainy environment, set <b>Insulation resistance protection</b>.</li> </ol>



## 6 Common Faults and Troubleshooting Measures

Fault Symptom	Possible Cause	Measures
An Android mobile phone prompts that the app cannot be installed.	<ul style="list-style-type: none"> <li>The version of the mobile phone operating system is earlier than the required version.</li> <li><b>Allow Installation of apps from unknown sources</b> is not selected.</li> </ul>	<ul style="list-style-type: none"> <li>Upgrade the version of the mobile phone operating system.</li> <li>Choose <b>Settings &gt; Security</b> and select <b>Allow Installation of apps from unknown sources</b>.</li> </ul>
The communication fails.	The mobile phone or router is more than 5 meters away from the SUN2000L, so the WiFi connection is disconnected.	Keep the mobile phone or router within 5 meters of the SUN2000L and reconnect to the WiFi network.
The <b>Disconnected from the inverter. Connect again!</b> message is displayed.	The mobile phone or router is more than 5 meters away from the SUN2000L, or the WiFi signal is weak.	Ensure that the WiFi network is connected. Log out of the app and then log in again.
All data fails to be obtained during operations.	The app is disconnected from the SUN2000L.	Connect to the SUN2000L again.
The SUN2000L list fails to be scanned.	An error occurs in the WiFi connection to the app.	If the scan still fails after several attempts, log out and try again.
No upgrade package is displayed for the upgrade.	No upgrade package exists in the mobile phone.	Save the upgrade package in the mobile phone.

## 7 Grid Codes

NO.	Grid Code	Description	SUN2000L-2KTL/SUN2000L-3KTL	SUN2000L-3.68KTL	SUN2000L-4KTL	SUN2000L-4.6KTL	SUN2000L-5KTL
1	Italy -CEI0-21	Italy power grid	Support	Support	Support	Support	Support
2	G59-England	England 230 V power grid (I > 16 A)	N/A	N/A	Support	Support	Support
3	G59-Scotland	Scotland 240 V power grid (I > 16 A)	N/A	N/A	Support	Support	Support
4	G83-England	England 230 V power grid (I < 16 A)	Support	Support	N/A	N/A	N/A
5	G83-Scotland	Scotland 240 V power grid (I < 16 A)	Support	Support	N/A	N/A	N/A
6	UTE C 15-712-1(A)	France mainland power grid	Support	Support	Support	Support	Support
7	UTE C 15-712-1(B)	France island power grid(50Hz)	Support	Support	Support	Support	Support
8	UTE C 15-712-1(C)	France island power grid(60Hz)	Support	Support	Support	Support	Support
9	NB/T 32004	China Golden Sun low-voltage power grid	Support	N/A	Support	N/A	Support
10	NA-Custom(50Hz)	Reserved	Support	Support	Support	Support	Support
11	NA-Custom(60Hz)	Reserved	Support	Support	Support	Support	Support
12	IEC61727	IEC61727 low-voltage power grid (50 Hz)	Support	Support	Support	Support	Support
13	AS4777	Australia power grid	Support	Support	Support	Support	Support
14	EN50438-NL	Netherlands power grid	Support	Support	Support	Support	Support
15	EN50438-TR	Turkey low-voltage power grid	Support	Support	Support	Support	Support
16	IEC61727-60 Hz	IEC61727 low-voltage power grid (60 Hz)	Support	Support	Support	Support	Support
17	ABNT NBR 16149	Brazil	Support	Support	Support	Support	Support
18	CLC/TS50549_IE	Ireland power grid	Support	Support	Support	Support	Support
19	VDE-AR-N-4105	Germany low-voltage power grid	Support	Support	Support	Support	N/A

### NOTE

- The grid codes are subject to change. The listed codes are for reference only. Choose an appropriate grid code based on the local grid requirements.
- For more information about the FusionHome app, see the SUN2000L user manual.

### Customer Service Contact Information

Region	Country	Service Support Mailbox	Region	Country	Service Support Mailbox
Europe	All countries	eu_inverter_support@huawei.com	Japan and Korea	Japan and Korea	Japan_ESC@ms.huawei.com
Asia Pacific	Australia	au_inverter_support@huawei.com	North America	The United States and Canada	na_inverter_support@huawei.com
	Other countries	MYEnterprise_TAC@huawei.com	Latin America	All countries	la_inverter_support@huawei.com
China	China	solarservice@huawei.com	The Middle East and Africa	All countries	mea_inverter_support@huawei.com
India	India	in_inverter_support@huawei.com	N/A	N/A	N/A

**Huawei Technologies Co., Ltd.**

Huawei Industrial Base, Bantian, Longgang  
Shenzhen 518129 People's Republic of China  
solar.huawei.com