

SUN2000L COMMISSIONING GUIDE EU



Huawei Technologies Co. Ltd.

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03	a84093577	21.09.2018	Firmware V321 and NetEco

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This document describe the steps for commissioning the SUN2000L inverters. The mobile phone application used for commissioning the SUN2000L is called FusionHome app (app for short), which communicates with the SUN2000L over Wi-Fi to provide a convenient platform for querying alarms, configuring parameters and performing routine maintenance.

After the DC and AC side of the SUN2000L is energized you can start the commissioning procedure.

The steps in this guide are applicable for firmware version SUN2000LV100R001C00SPC321.

The steps in this document are applicable for a fresh FusionHome APP install and for a first SUN2000L inverter startup. If it's not the first time and you find that the steps are not easy to follow, please reinstall FusionHome APP and reset the inverter to default settings (disconnect and connect AC and DC 2 times within 3 minutes. After the reset, all 3 LEDs on the inverter's cover will glow yellow for 2 seconds.)

Procedure

1. Downloading and install the FusionHome APP

Search for **FusionHome** in one of the following app stores, download the installation package, and install the FusionHome App by following the instructions.

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

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



Troubleshooting:

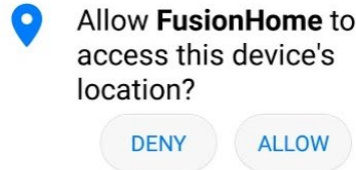
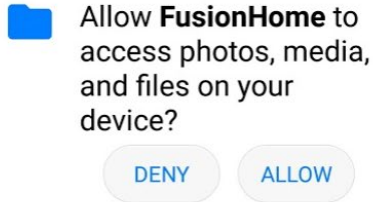
If you can't find the app in your Play Store/App Store, please make sure that you've written FusionHome in one word.

On Android phones, the OS version of the phone must be at least 4.4 (Kit Kat), otherwise the app is not compatible with that phone.

2. FusionHome APP permissions

When FusionHome app is opened for the first time you'll be asked to allow the the app to use the following resources:

- Photos, media and files – Needed to store firmware files and other resources
- Device's location – Needed to automatically set the **Grid Code** for your country
- Accept Privacy Policy



Troubleshooting:

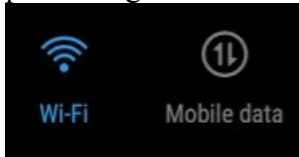
If the access to photos, media and files is denied, the app won't work correctly and won't be able to connect to the inverter's Wi-Fi.

If the access to device's location is denied, the app won't work correctly and won't be able to connect to the inverter's Wi-Fi.

If the Privacy Policy is not accepted, the app will shut down.

3. Connecting to the SUN2000L

3.1 Turn ON Wi-Fi on your phone (recommended is to turn OFF mobile data because your phone might switch networks since the inverter's Wi-Fi doesn't offer access to internet).



Troubleshooting:

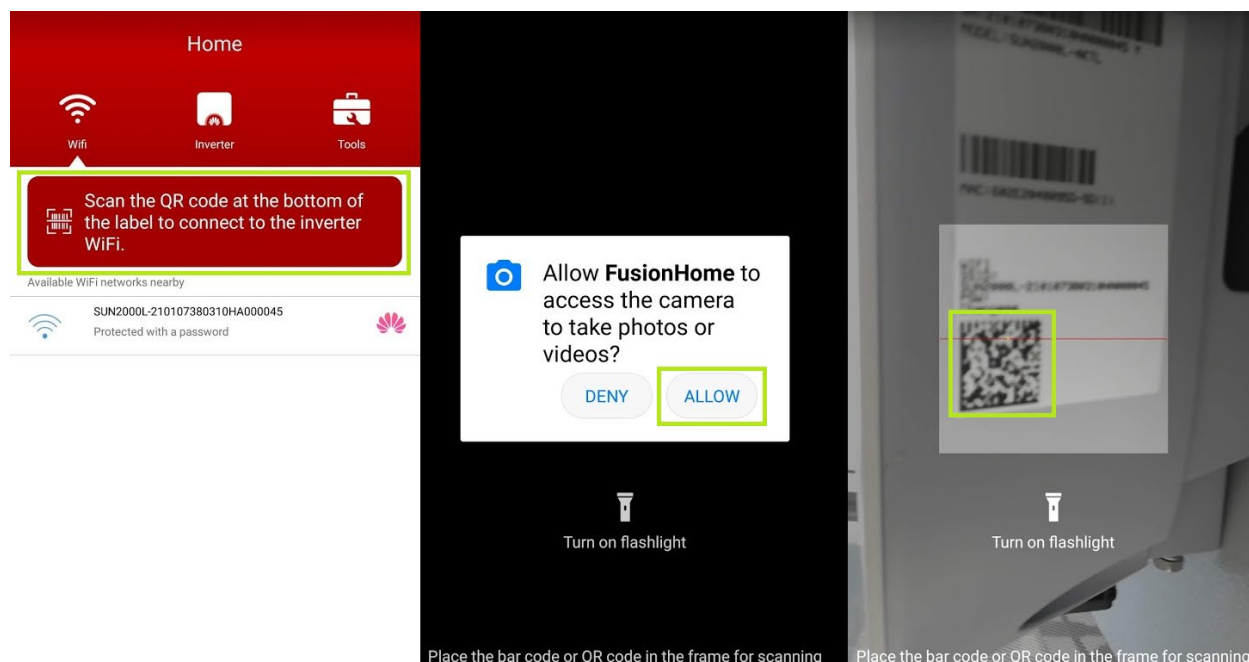
If both, Wi-Fi and Mobile Data are turned on, you can connect to the inverter via Wi-Fi and access the internet via mobile data, only if the phone is able to work in dual mode.

3.2 Connect to the SUN2000L's Wi-Fi

3.2.1 Method 1

- 1) Tap on "Scan the QR code at the bottom of the label to connect to the inverter Wi-Fi"
- 2) Allow app to use phone's camera.
- 3) Point the camera to the QR code.

In this way, your phone will automatically connect to the inverter's Wi-Fi.



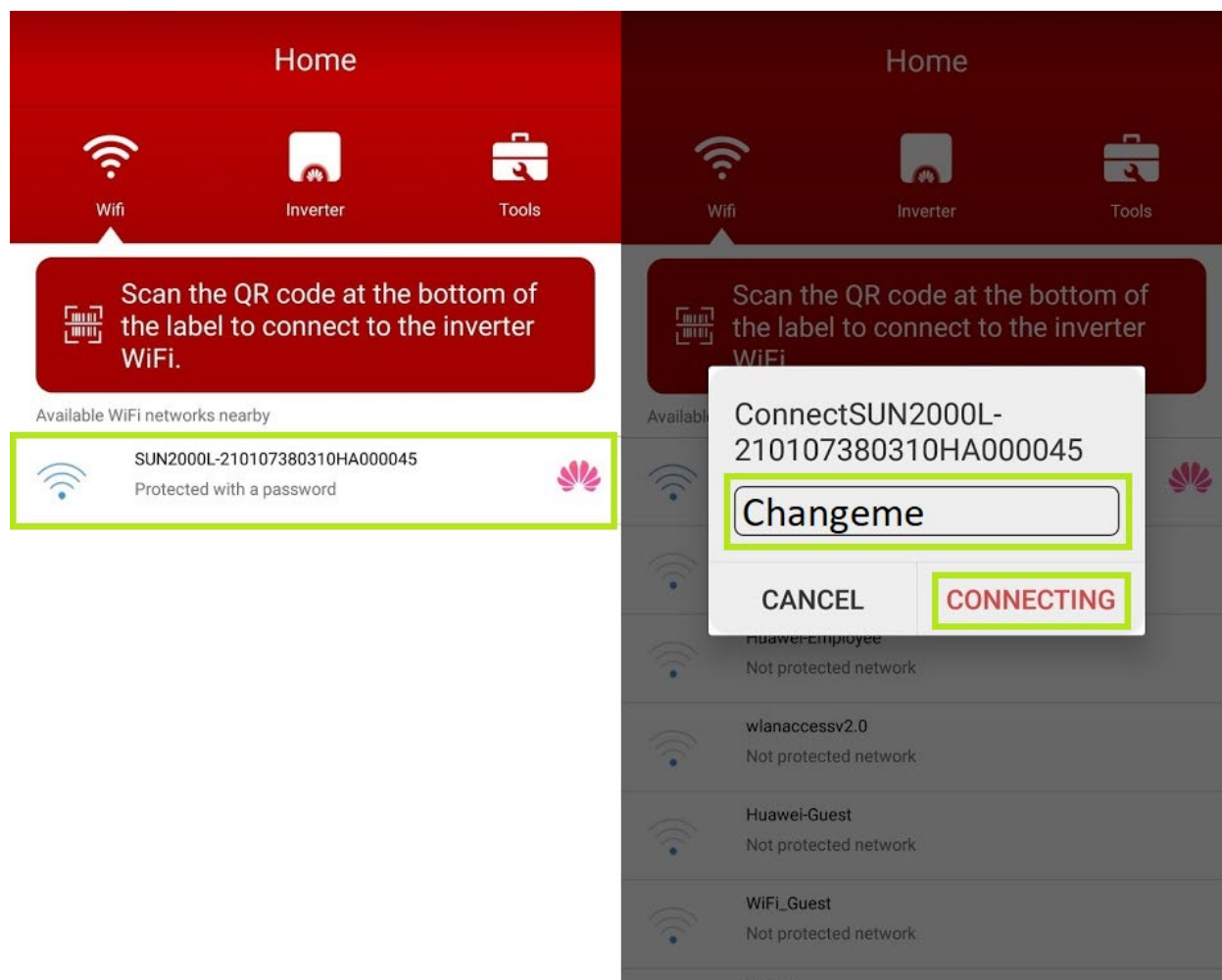
3.2.2 Method 2

If method 1 didn't work, please try it in this way.

- 1) Tap on the inverter's Wi-Fi SSID in the APP
- 2) Enter the password "Changeme"
- 3) Tap on Connect

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.

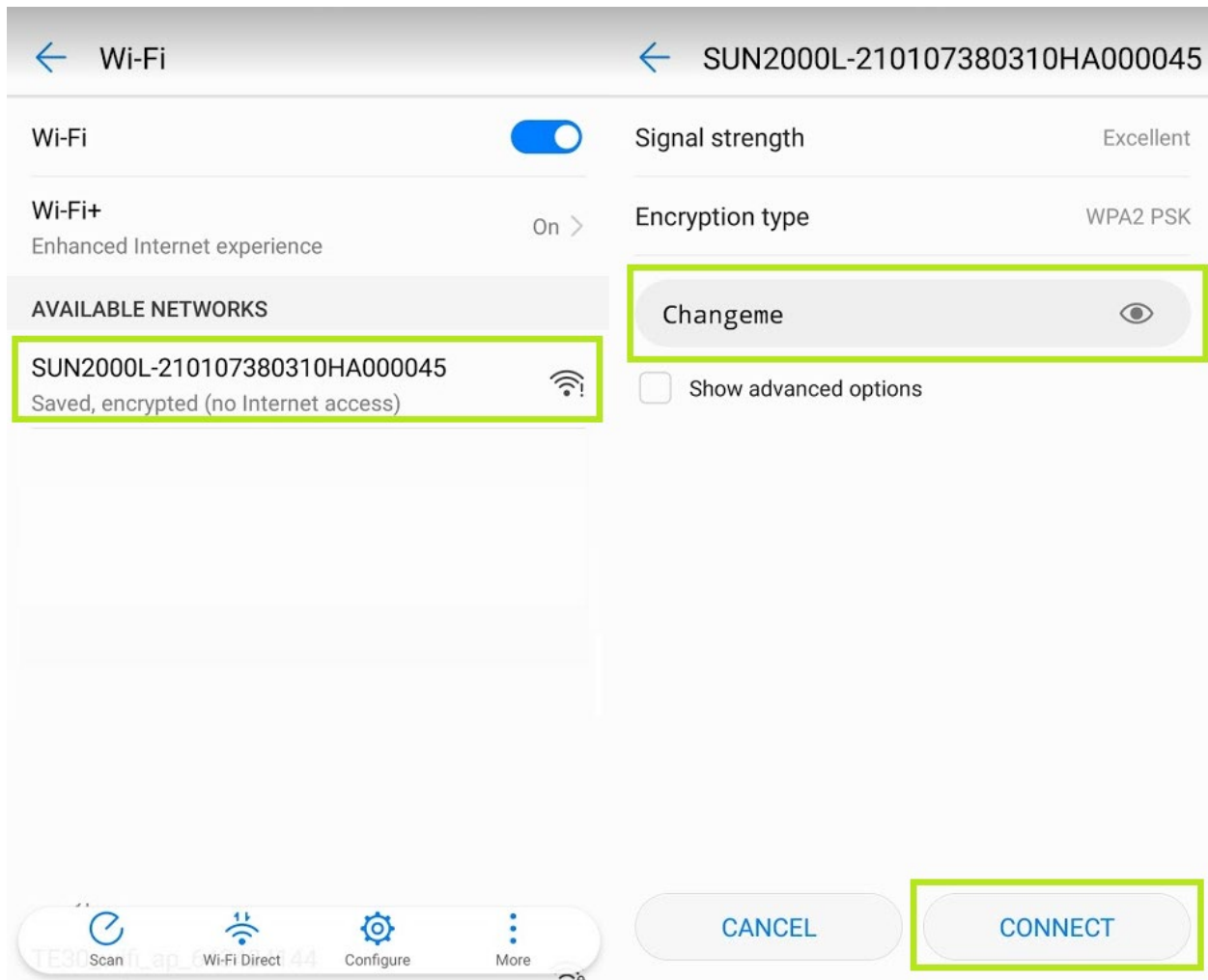
- Use the initial password **Changeme** upon first login. To ensure account security, change the password immediately after login.



3.2.3 Method 3

If method 1 and 2 didn't work, please try it in this way.

- 1) Go to Phone's Settings > Wireless > Tap on SUN2000L Wi-Fi
- 2) Enter password "Changeme"
- 3) Tap on "Connect"



Troubleshooting:

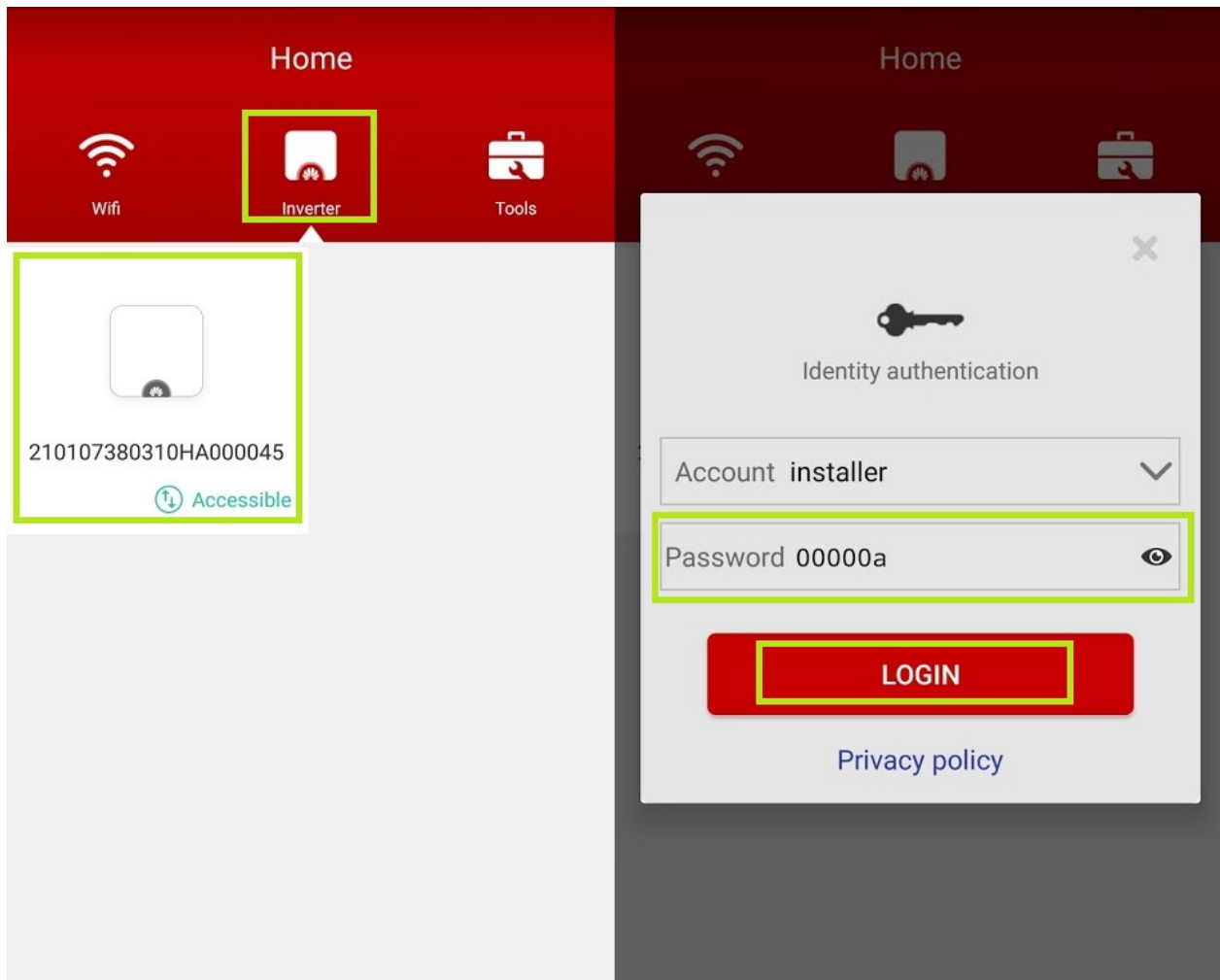
If connection to Inverter’s Wi-Fi is not possible with none of the methods presented above, Turn OFF AC and DC for 30seconds and then turn it back on and try again.

If the connection is still not possible, check the Wi-Fi network list in your phone, long press on SUN2000L SSID and choose “Forget Network”.

If the Wi-Fi signal is not visible, check if the antenna is properly tightened.

4. Login to the APP

On the Inverter list screen, tap the corresponding SUN2000L, select installer, enter the password, and then tap Verify. The initial password is **00000a**. Use the initial password upon first login. To ensure account security, change the password immediately after login.



Troubleshooting:

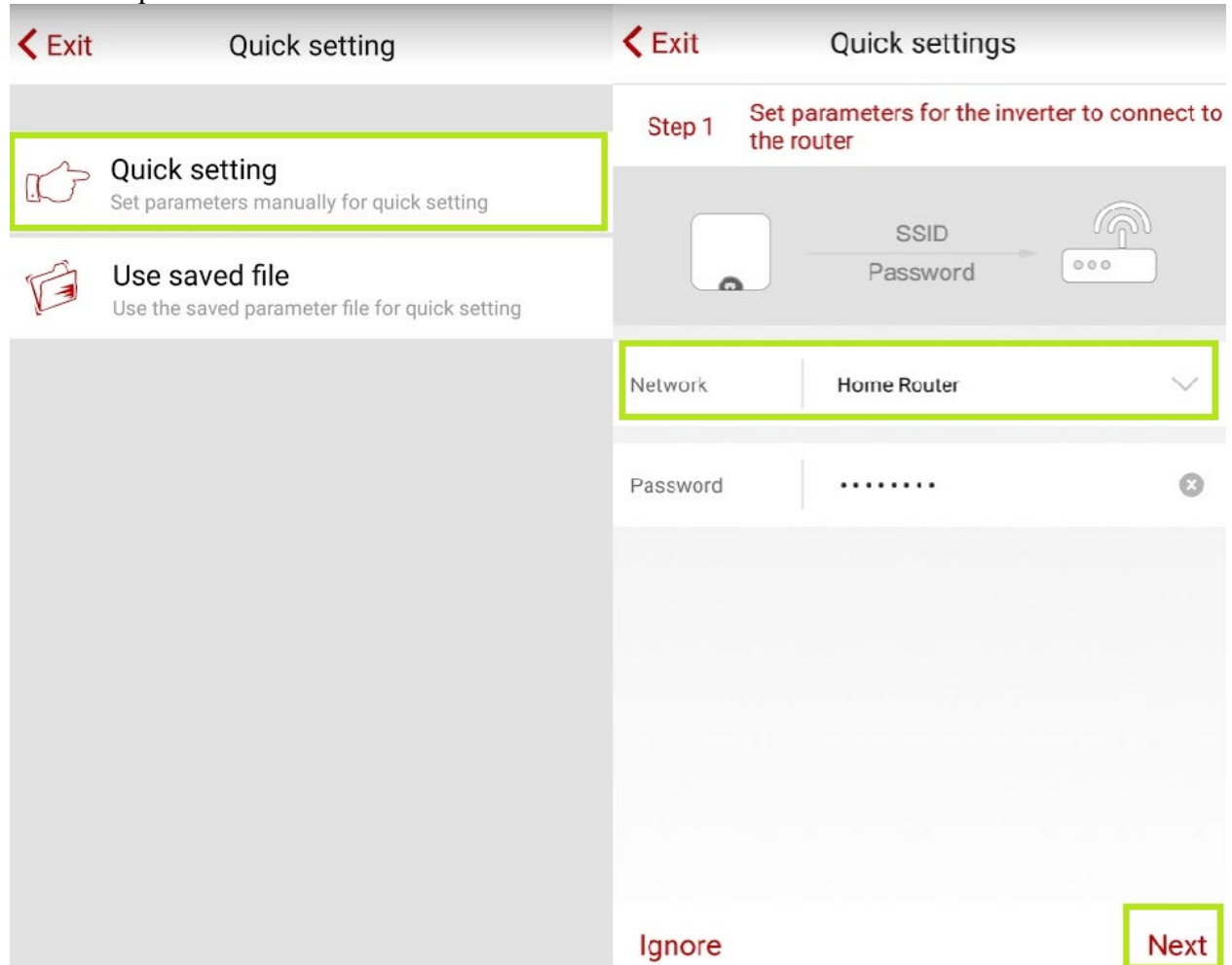
If the inverter doesn't appear as accessible the Network might have switched from Wi-Fi to Mobile. If the installer password was changed and you've forgotten it, restart the inverter 2 times within 3 minutes (disconnect and connect the AC and DC 2 times).

5. Quick Settings

When you connect for the first time to this inverter, you'll be prompted to make the "Quick settings". If you don't finish all the steps (or skip them) next time you log in, you'll be prompted again to make the settings. If all the setting have been done but you want to do them again, go to Home Screen > Quick Settings

Step 1 – Set Parameters for the inverter to connect to the router

1. Tap first the Network and choose your Wi-Fi network and after that tap Password and set your Wi-Fi password and then select “Next”.



Quick Tips:

This step can be skipped if no connection is available.

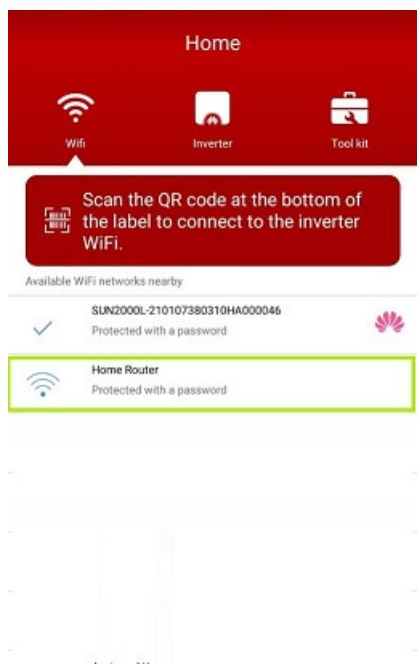
If the home router has a weak signal near the inverter, install between them a Wi-Fi extender/repeater.



2. Change connection point

From this point all the settings to your inverter can be made via your Wi-Fi router.

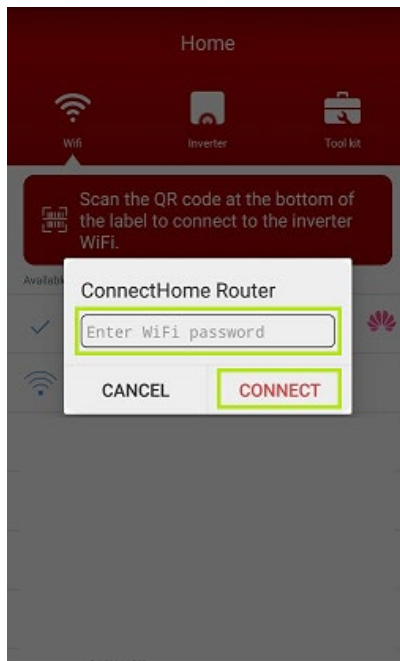
Tap “Confirm”



3. Connect to Wi-Fi router

In this step, choose from the list displayed your Wi-Fi router and tap on it.

Please make sure it's the same Wi-Fi you've selected in step 4.1

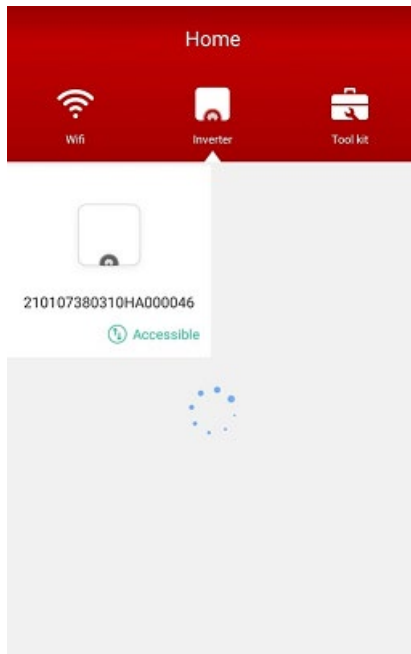


4. Wi-Fi password

This step will only appear if you don't have the Wi-Fi password saved in your phone.

Enter the password.

Tap on "Connect"

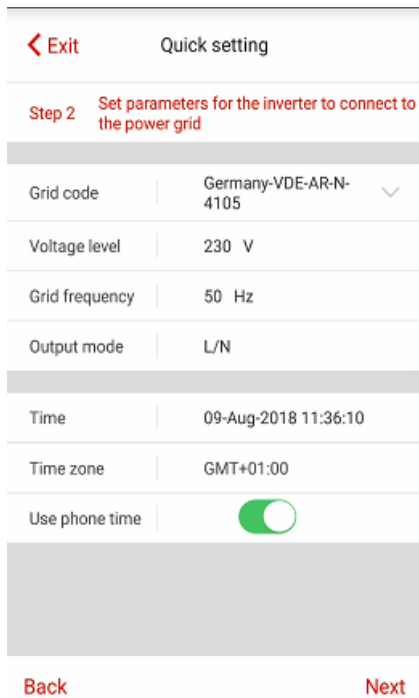


5. Connection to the inverter

If the status "Accessible" is displayed you can now connect again to the inverter.

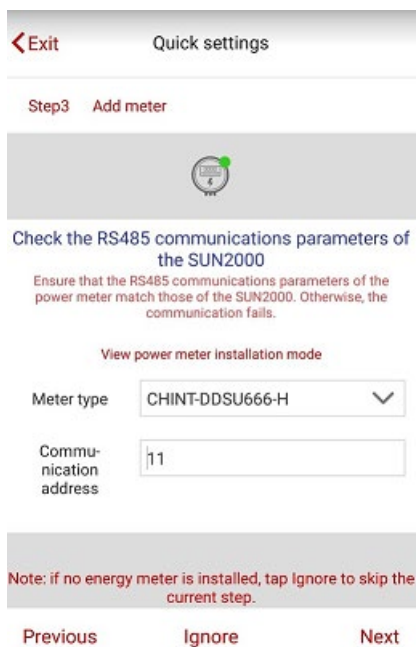
Tap on the inverter's image.

If the status displayed is "Mobile device connected" then make sure nobody else is connected to the inverter's Wi-Fi.



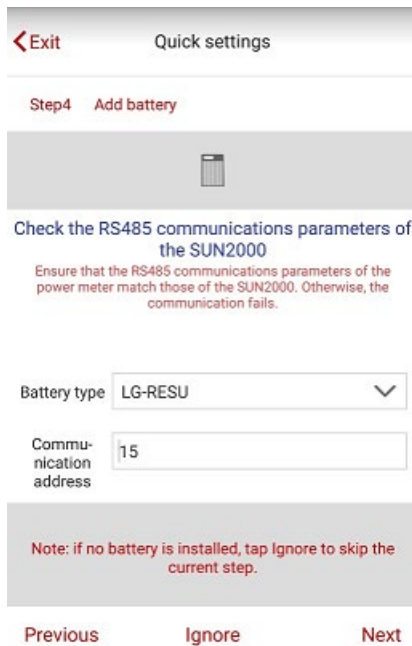
Step 2 – Set parameters for the inverter to connect to the power grid

Select the grid code that’s used in your country. If you are not sure which one to choose, please check user manual or call support team. In order to be able to select grid code, make sure that the string voltage is higher than 120VDC. Make sure that the “Use phone time” is enable and then select “Next”



Step 3 Add power meter (optional)

Select the power meter from the dropdown list. Check if the exact product type is selected. Check if the installation is made correctly, by tapping on “View Power Meter Installation Mode”. If no meter is installed, tap on **Ignore**. Otherwise press **Next**. The default communication address is set when the meter type is selected.



Quick settings

Step4 Add battery

Check the RS485 communications parameters of the SUN2000

Ensure that the RS485 communications parameters of the power meter match those of the SUN2000. Otherwise, the communication fails.

Battery type LG-RESU

Communication address 15

Note: if no battery is installed, tap Ignore to skip the current step.

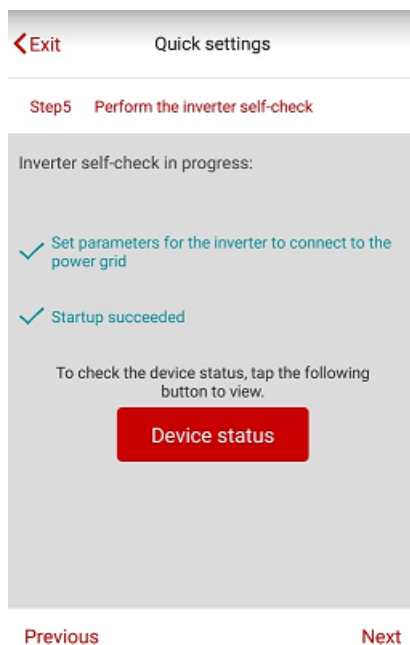
Previous Ignore Next

Step 4 Add Battery (optional)

Select battery type.

The comm. address is by default the one that was set in the battery management system.

If no battery is available press ignore, otherwise – press next.



Quick settings

Step5 Perform the inverter self-check

Inverter self-check in progress:

✓ Set parameters for the inverter to connect to the power grid

✓ Startup succeeded

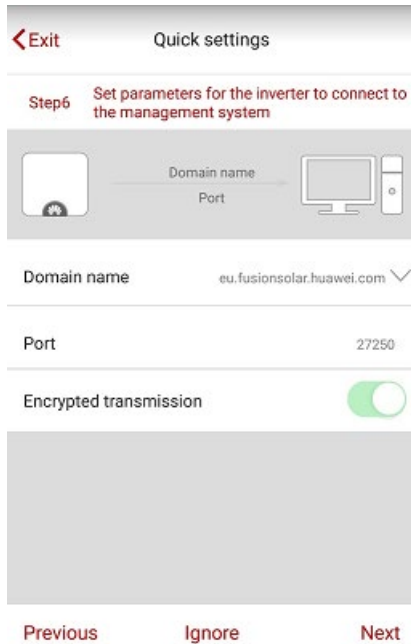
To check the device status, tap the following button to view.

Device status

Previous Next

Step 5 Perform the inverter self-check

After the 2 tests are successfully done, press **Next**.



Step 6 Set parameters for the inverter to connect to the management system

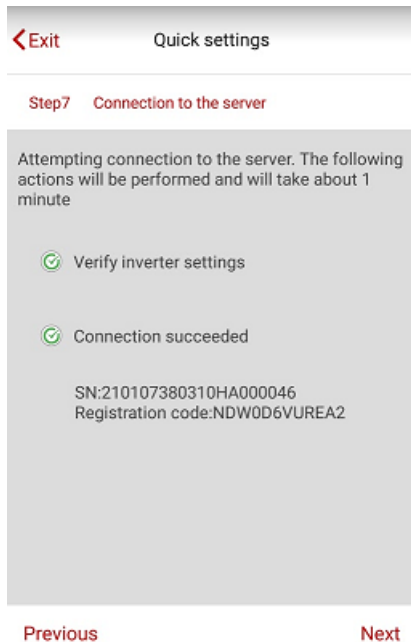
Domain name: **eu.fusionsolar.huawei.com**

Port number: **27250**

Encrypted transmission: **YES**

If you don't want to monitor remotely the PV plant via NetEco platform, you can skip this step by pressing **Ignore**.

After all settings are done, press **Next**.

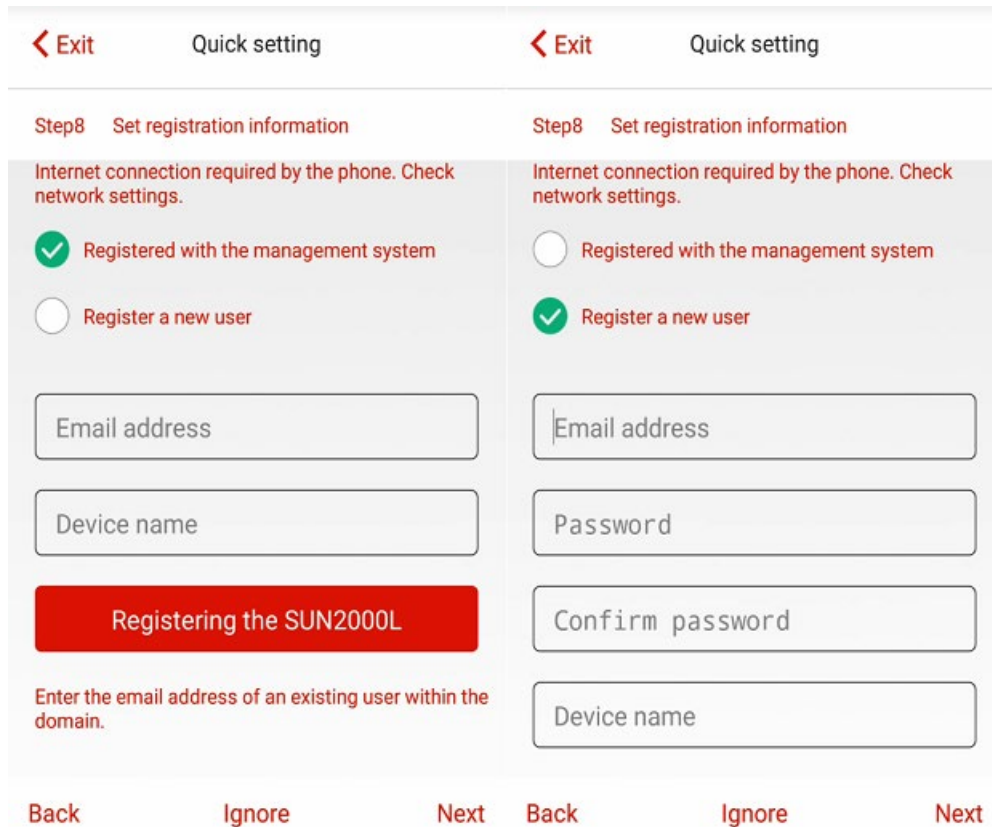


Step 7 Connection to the server

The inverter will check if all the requirements are checked. This process will take about 1 minute.

After all the check are done, press **Next**.

Step 8 Set registration information



The image displays two side-by-side screenshots of the 'Step 8 Set registration information' screen. Both screens show a warning: 'Internet connection required by the phone. Check network settings.' The left screen has 'Registered with the management system' selected (indicated by a green checkmark in a circle) and 'Register a new user' unselected. The right screen has 'Registered with the management system' unselected and 'Register a new user' selected (indicated by a green checkmark in a circle). Both screens feature input fields for 'Email address', 'Device name', and 'Password', and a red button labeled 'Registering the SUN2000L'. At the bottom of the left screen, there is a note: 'Enter the email address of an existing user within the domain.' Navigation options 'Back', 'Ignore', and 'Next' are visible at the bottom of both screens.

Register with the management system

If you are an existing user on FusionSolar platform / NetEco select the option “Register with the management system”

Enter your email address and the device name (PV plant name).

Register a new user

If it's the first time when you access FusionSolar/NetEco platform, select the option “Register a new user”. An account will be created for you and after the commissioning is finished, you'll be able to access remotely the inverter via NetEco app or on your browser by accessing <https://eu.fusionsolar.huawei.com>

Now you can access your PV plant remotely via NetEco app.

6. Access PV plant remotely via NetEco APP

6.1 Download NetEco APP

The app is available on Android and iOS platforms.

Search for **NetEco** in one of the following app stores, download the installation package, and install the app by following the instructions.

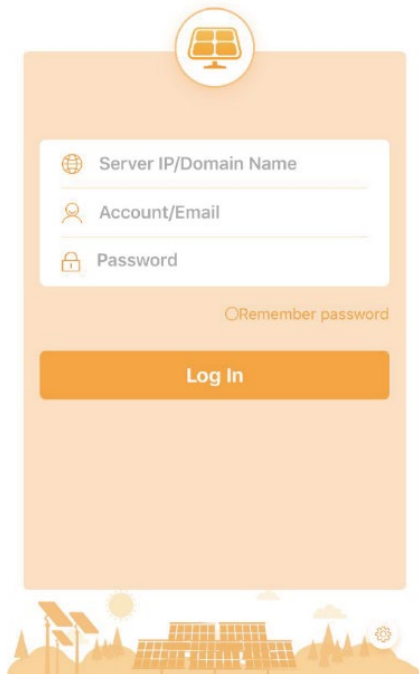
- Play Store (Android)
- App Store (iOS)
- Huawei App Store (Android)

After the app is installed, the NetEco icon is displayed on the home screen.



The monitoring portal can also be accessed from your computer by accessing the address:
<https://eu.fusionsolar.huawei.com>

6.2 Access the server



Type in your login credentials:

Server: **eu.fusionsolar.huawei.com**

Account/Email: (the one used in step 4.8)

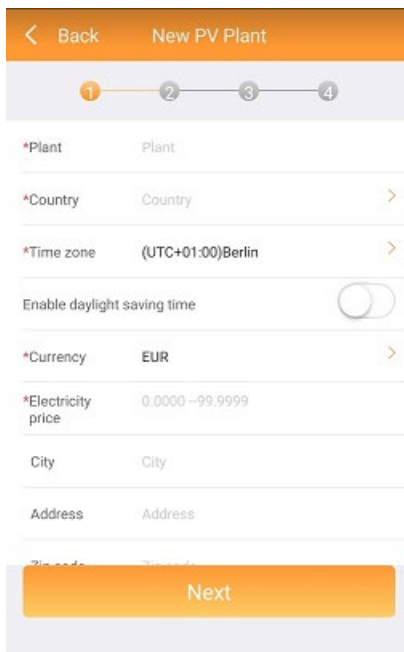
Password: (the one used in step 4.8)

Tick the “Remember password box”

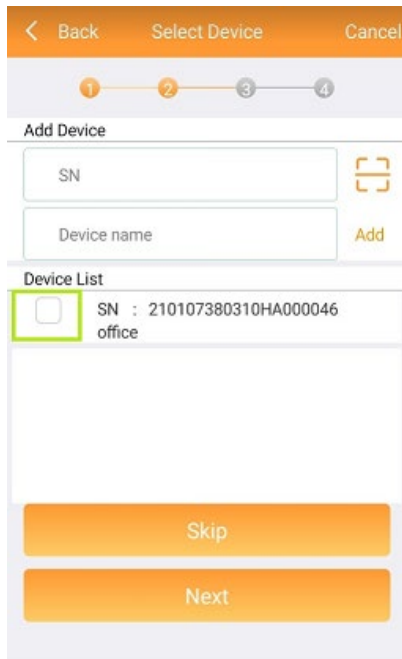


6.3 Create the PV Plant

Go to **Set** menu and tap on **New PV Plant**



Fill all the fields marked with *.
Tap **Next**.



Device List		
<input type="checkbox"/>	SN : 210107380310HA000046	office

6.4 Add device

Tick the box next to the SN.

Press **Next**.

If the SN doesn't appear automatically, then the inverter wasn't assigned to the same account used to log in the NetEco app.

If it wasn't assigned at all, you can add it manually and will become online when the commissioning is finished.



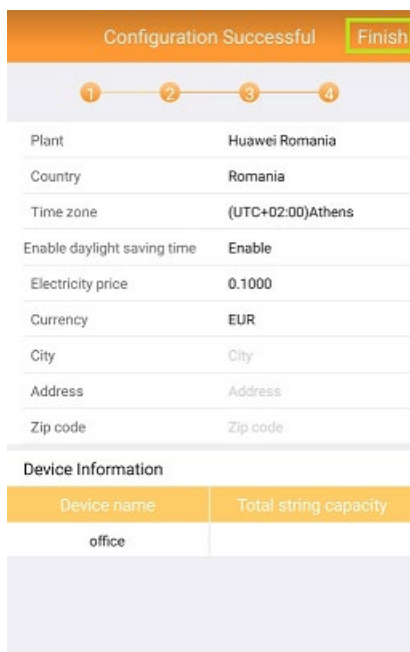
SN	210107380310HA000046	
*Device name	office	⊗
Total string capacity	0.0-1000000.0	

6.5 Set Device info

Enter the inverter's name and the total string capacity and press

Next.





6.6 Configuration Successful

After you tap on **Finish**, you can view the data from the PV Plant.

