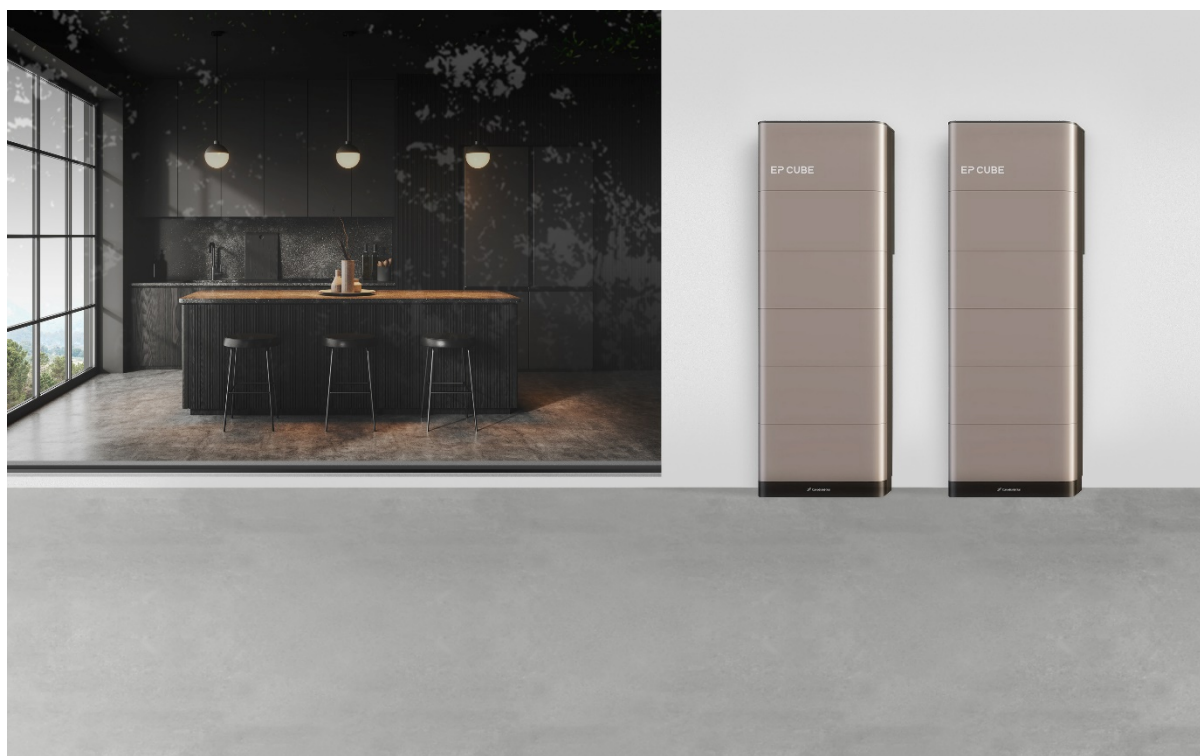


EP Cube 3Phase on-grid Paralleling Guide



EP Cube Paralleling Installation Guide v1

Contents

EP Cube 3Phase on-grid Paralleling Guide	1
EP Cube Paralleling Installation Guide v1	2
Contents	2
Parallel Installation Introduction	3
1. Checking the Environment	3
1.1 Wiring requirements	3
1.2 App Requirements	4
2. Commissioning Process	5
2.1 New Installation - Master	5
2.2 System Expansion – Slave	10
3. Post-Installation	14
3.1 Home page	14
3.2 Data page	14
3.3 More page	15
4. Troubleshooting	18

Parallel Installation Introduction

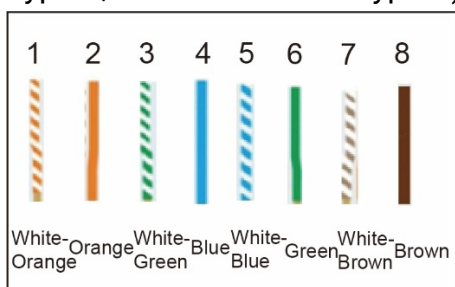
This guide can help you quickly understand the requirements and commissioning process of the parallel system via the app.

***IMPORTANT:** Parallel installation is only possible when not using the EP Cube Smart Gateway

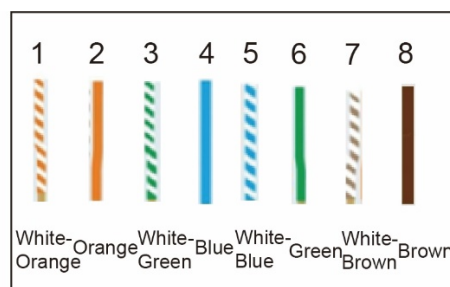
Checking the Environment

1.1 Wiring requirements

- Communication Cable : Use a straight-through network cable (both ends are Type B, or both ends are Type A)



T568B (Type B)



T568B (Type B)

NO.	Item
1	PCS_SGND
2	PWMA PCS
3	+PCS_15V
4	CANL2
5	CANH2
6	I/O PCS
7	CANL1
8	CANH1

- When wiring, one end is connected to the SG port of the Master PCS, and the other end is connected to the PAR of the slave. (Actually, the SG and PAR interfaces are the same.)
- The meter is connected to METER2 of the Master



1.2 App Requirements

- The EP CUBE APP needs to be upgraded to version $\geq 2.6.0$.
- The account type is installer and has permission for expansion installation.
- The device type must be an EU 3phase PCS.

Commissioning Process

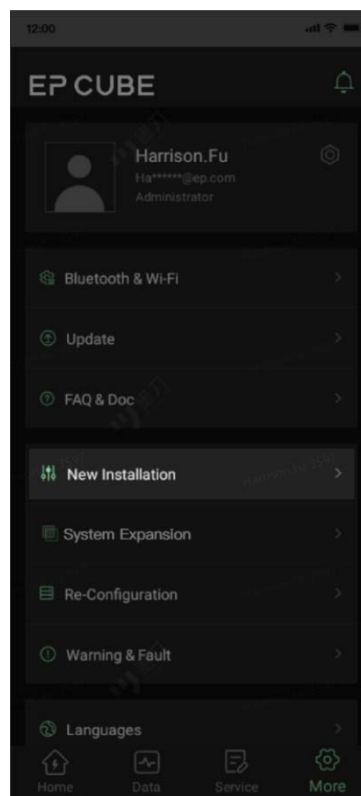
In this section you will find step-by-step instructions for the commissioning process of an EP Cube parallel system via the app.

- **New Installation – Master**
 - Log in to the installer account → Enter **More** → Enter **New Installation** → Select the server → Configure site and host device information → Fill in the address information where the device is located → Connect to Bluetooth → Configure device Wi-Fi → Detect and upgrade device version → Configure device power grid-related parameters → Fill in quality assurance information
- **System Expansion - Slave**
 - Log in to the installer account → Enter **More** → Enter **System Expansion** → Scan the **Master SN** → Configure slave device information → Connect to Bluetooth → Configure device Wi-Fi → Device version detection and upgrade → Parameter synchronization → Fill in slave device quality assurance information

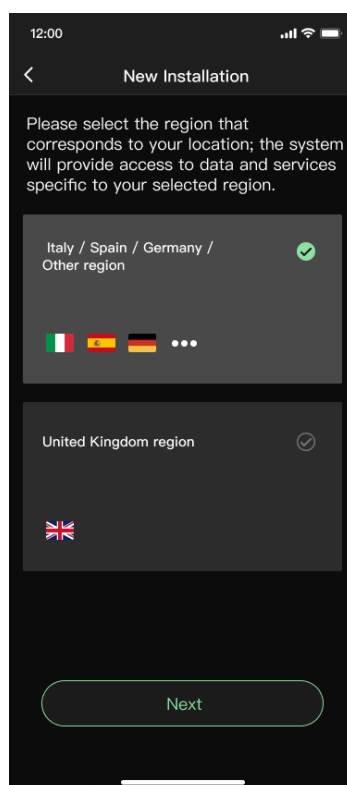
1.1 New Installation - Master

***If the customer already has a 3phase system installed, skip this process and directly proceed to “System Expansion”. The new installation process applies to scenarios where the user doesn’t have a 3phase machine installed and needs to install the master device in the parallel system.**

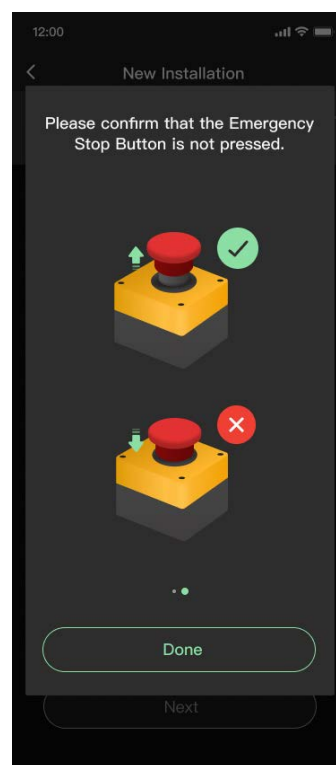
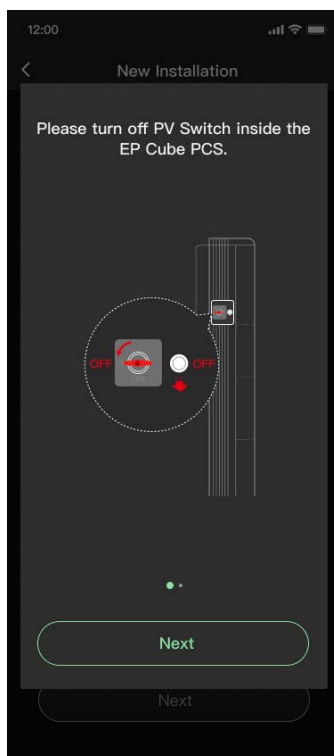
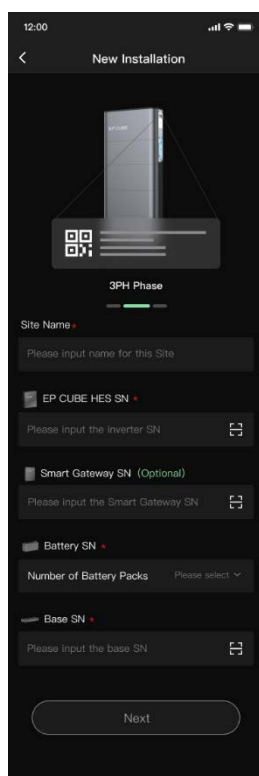
Step 1: Log into the installer account, click on “more”, then click on “new installation”



Step 2: Select your country



Step 3: Configure site and master device information and turn on the machine as instructed



Step 4: Fill in the address information of the device

12:00

<

New Installation

1

2

3

Location

Bluetooth

Wi-Fi

Device Location

Country

State/Province

Zip code

Street Address

Time Zone

Please select

Next

12:00

<

New Installation

1

2

3

Location

Bluetooth

Wi-Fi

Location config

Italy

Milan

25100

2537 Reliez Valley Road, Martinez, CA 94553

Time Zone

Eastern Standard Time

Next

Step 5: Connect to Bluetooth

12:00

<

New Installation

1

2

3

Location

Bluetooth

Wi-Fi

Please turn on the Main AC Breaker in the Main electrical panel.

Main electrical panel

ON

OFF

Done

12:00

<

New Installation

1

2

3

Location

Bluetooth

Wi-Fi

Bluetooth Config

Windir

SN:1234566789012345678901

Connect

Next

12:00

<

New Installation

1

2

3

Location

Bluetooth

Wi-Fi

Bluetooth Config

Windir

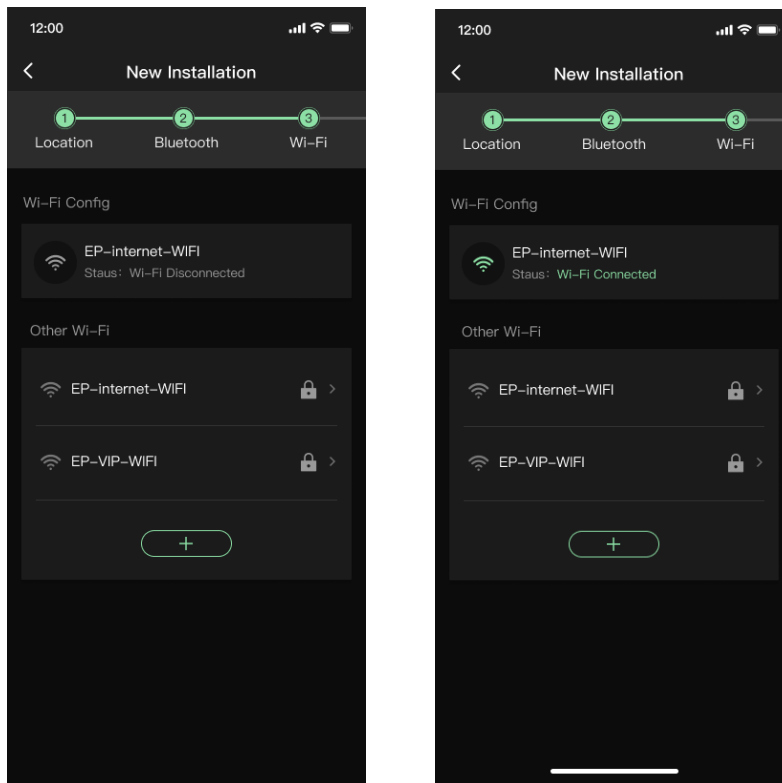
SN:1234566789012345678901

Disconnect

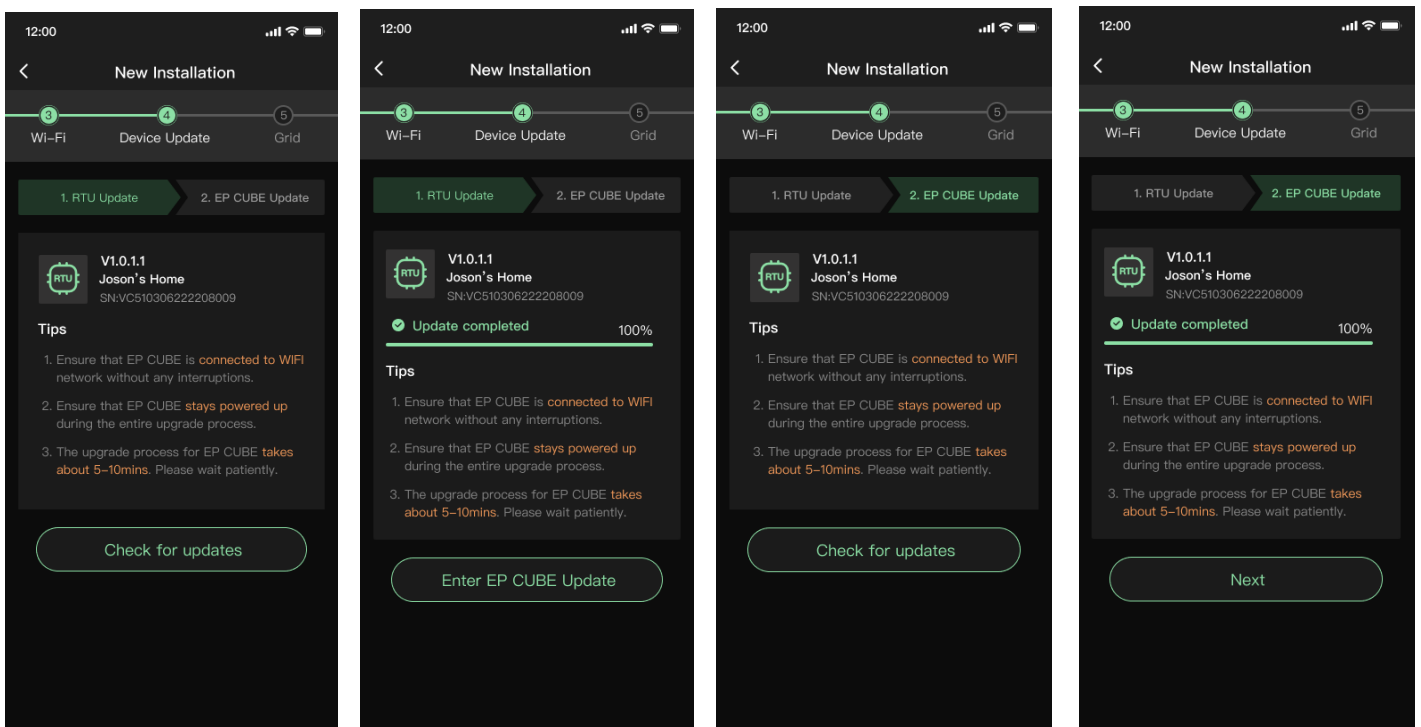
Next

7

Step 6: Configure device WIFI



Step 7: Device version detection and upgrade (OTA)



Step 8: Configure device grid parameters

12:00

< New Installation

3 Wi-Fi 4 Device Update 5 Grid

Grid config

Grid standard Italy ▾

Auto Test >

Grid Power Limit 0~10 kW

DC Solar Export ? ☒

Export power 0~10 kW

Next

Step 9: Fill in warranty information

12:00

< New Installation

4 Device Update 5 Grid 6 Warranty

Warranty

Owner email

registered owner email

1. If the owner email address is not registered yet, keep blank here.

2. Please submit it after the commissioning is completed (Support remote operation by installers). Users should register through the APP or contact the after-sales team to register. Please do the Reconfiguration > Warranty step to submit the email address again.

* Upload pictures (Up to 20)

① The following picture are required for Warranty activation. If pictures are missing you will be required to resubmit the pictures to activate the warranty!

+ Add Pictures

Distributor code

Please select distributor code

Description

Please enter the description

Next

12:00

< New Installation

4 Device Update 5 Grid 6 Warranty

Warranty

Owner email

user@123.com

1. If the owner email address is not registered yet, keep blank here.

2. Please submit it after the commissioning is completed (Support remote operation by installers). Users should register through the APP or contact the after-sales team to register. Please do the Reconfiguration > Warranty step to submit the email address again.

* Upload pictures (Up to 20)

① The following picture are required for Warranty activation. If pictures are missing you will be required to resubmit the pictures to activate the warranty!

+ Add Pictures

Distributor code

QE1

Description

Ple

Next

12:00

< Expansion Installation

Complete

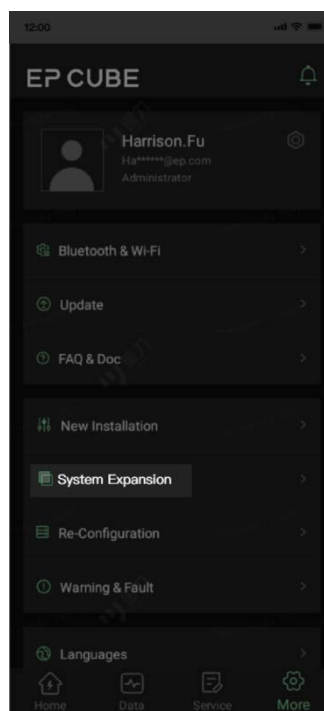
Warranty will be activated after approved

Done

1.2 System Expansion – Slave

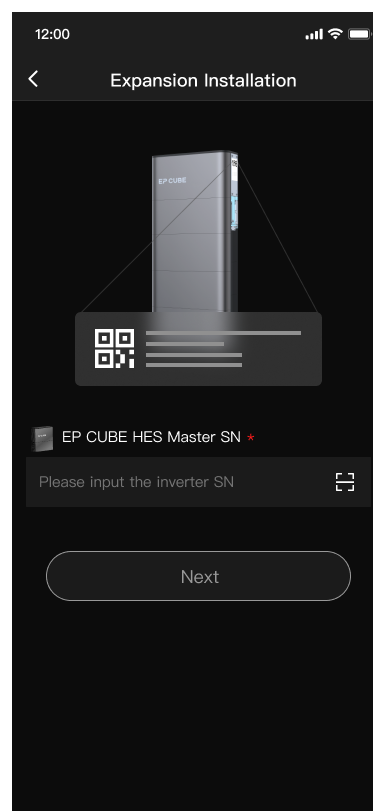
After the host device has been installed, the expansion installation process will be carried out. It is necessary to confirm that the installation account has the expansion installation permission enabled.

Step 1: Log in to the installer account → Enter More → Enter System Expansion

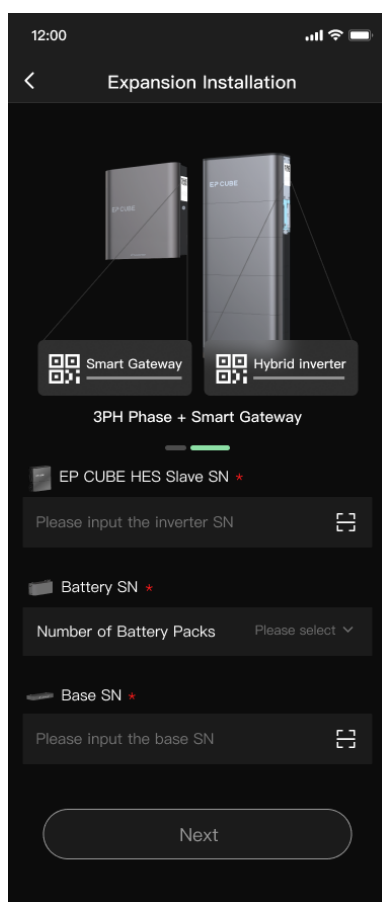


Step 2: Scan the Master SN

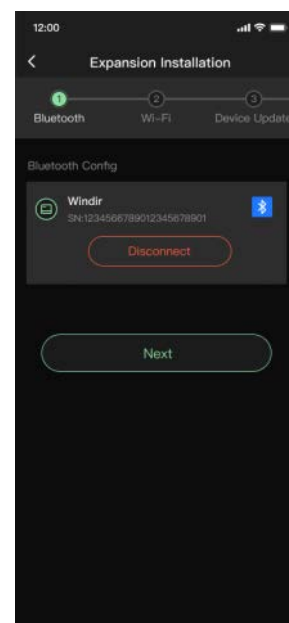
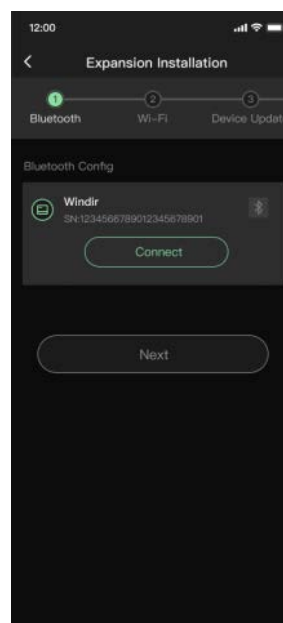
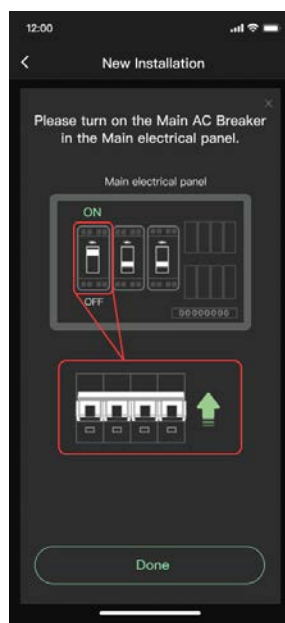
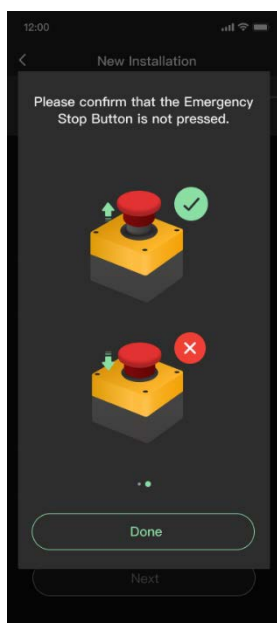
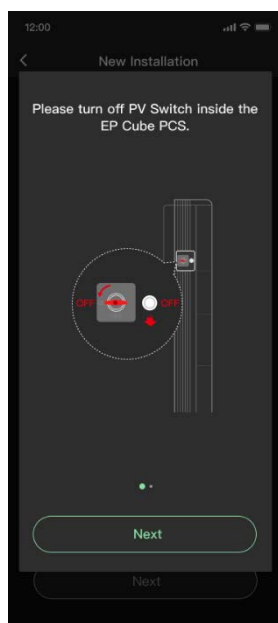
Scan the SN of the master device to be expanded in parallel for which the new installation process had already been completed.



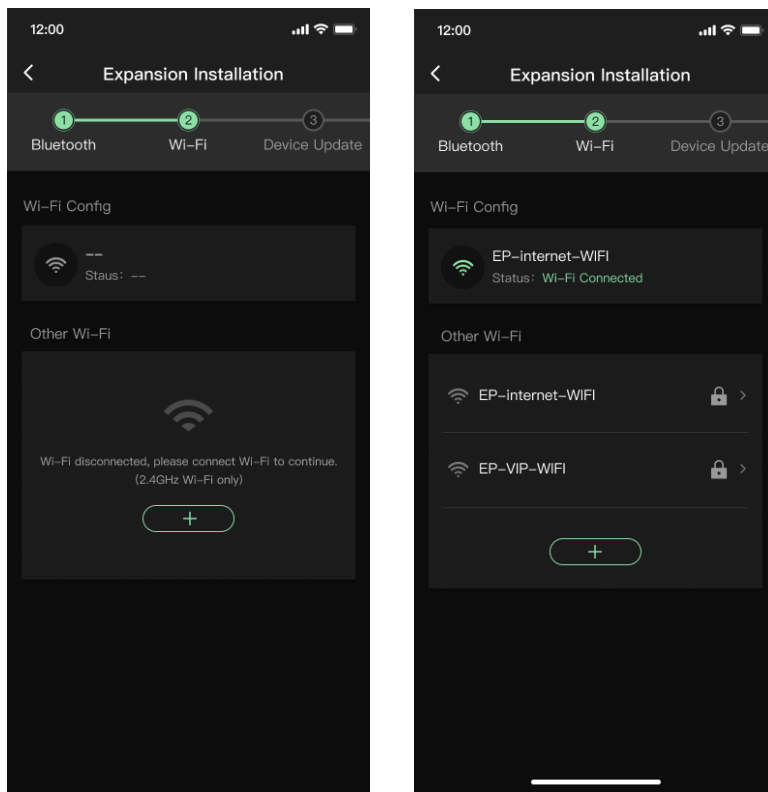
Step 3: Configure slave device information



Step 4: Connect to Bluetooth

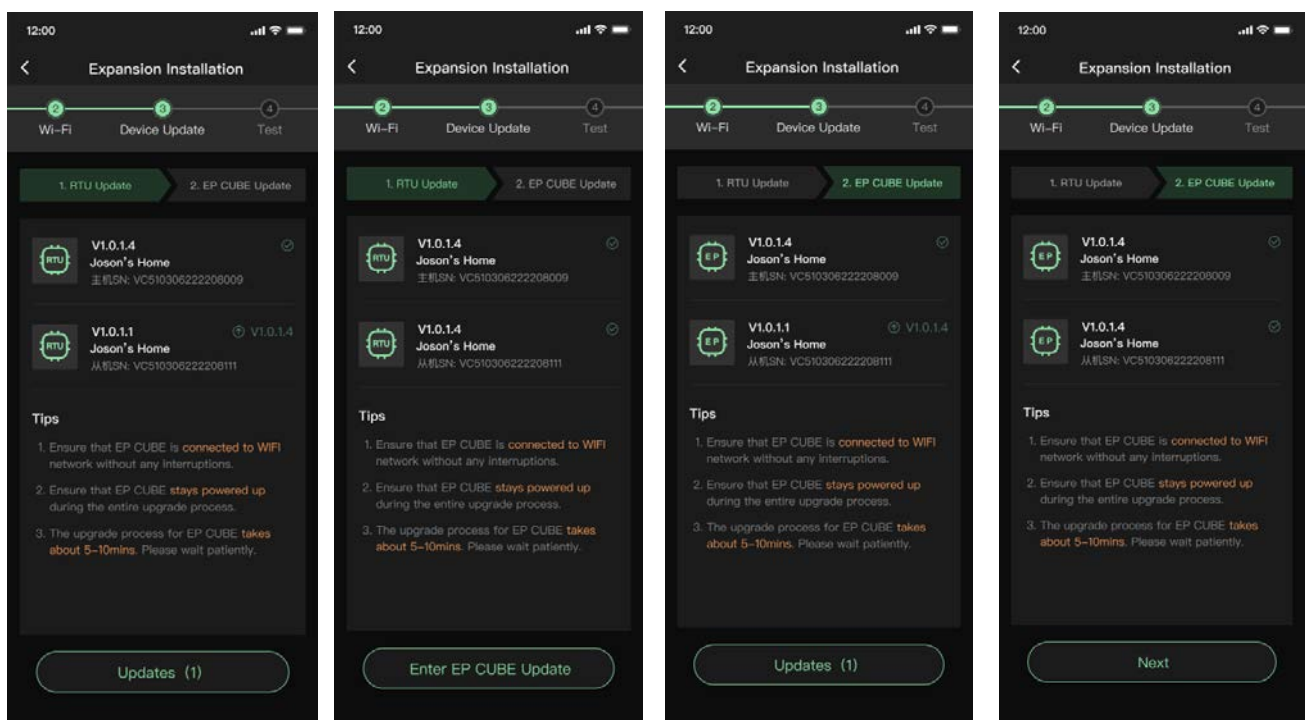


Step 5: Configure device WIFI



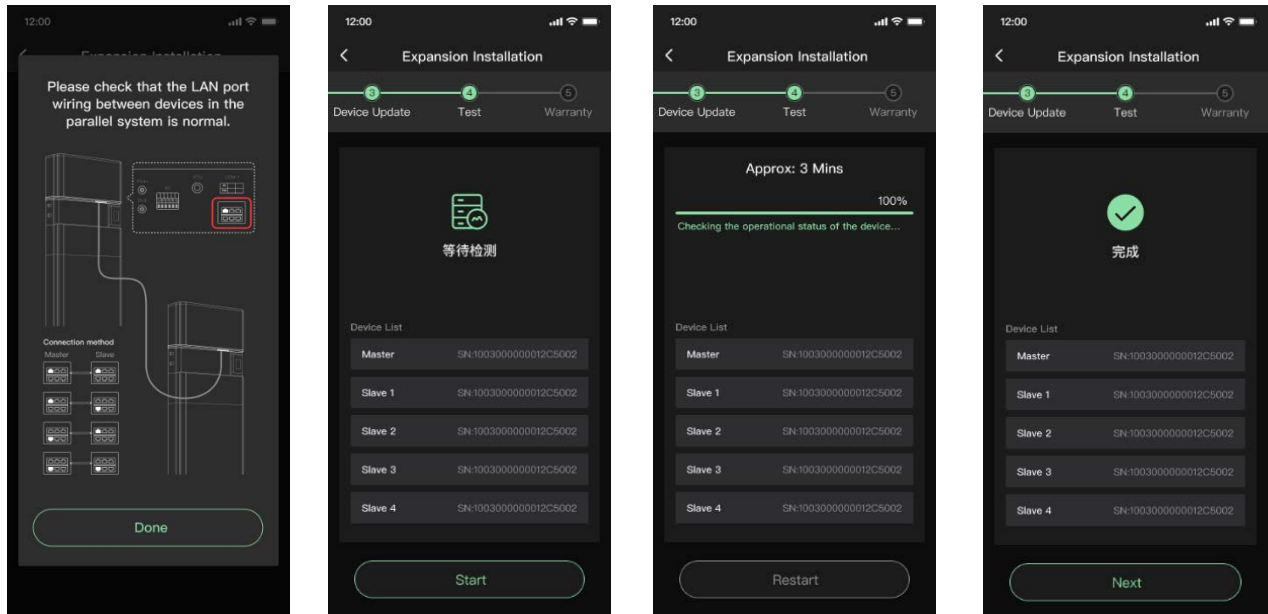
Step 6: Device version detection and upgrade (OTA)

Check whether the firmware versions of RTU and PCS of master and slave need to be upgraded.

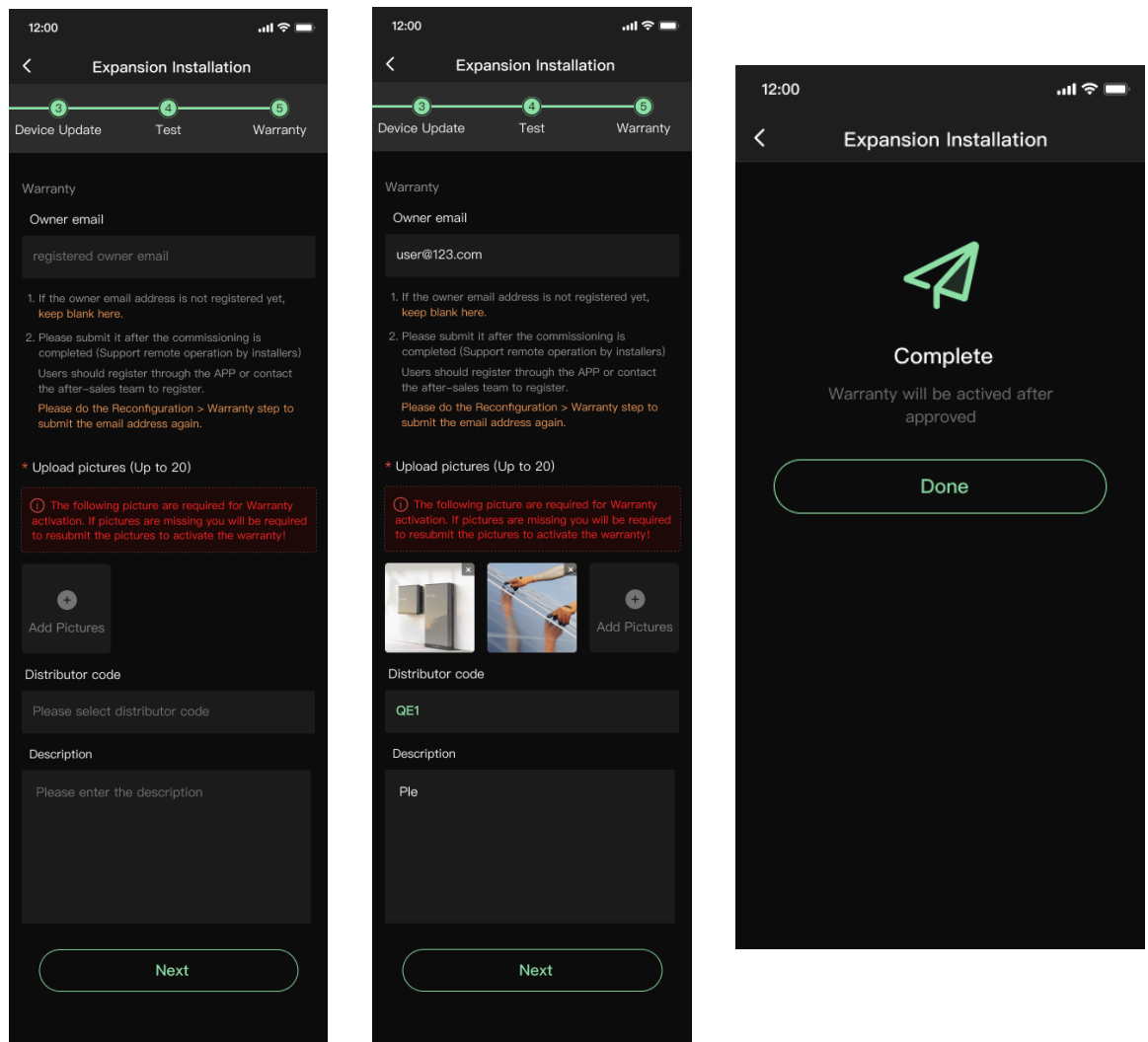


Step 7: Parameter Synchronization (Test)

Ensure that the communication cable between the master and the slave is properly connected, and the APP should set the necessary parameters and check the status of the parallel system.



Step 8: Fill in the slave device warranty information



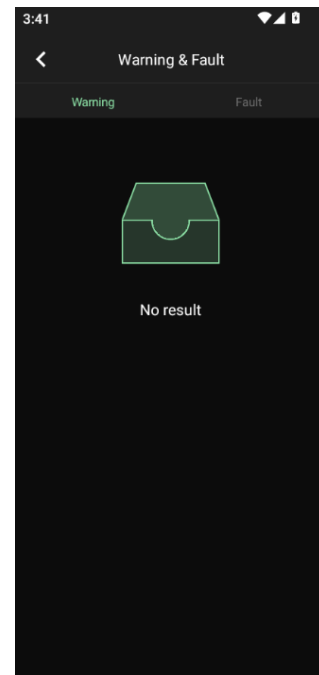
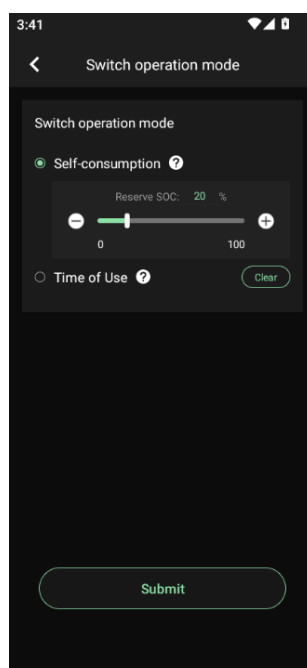
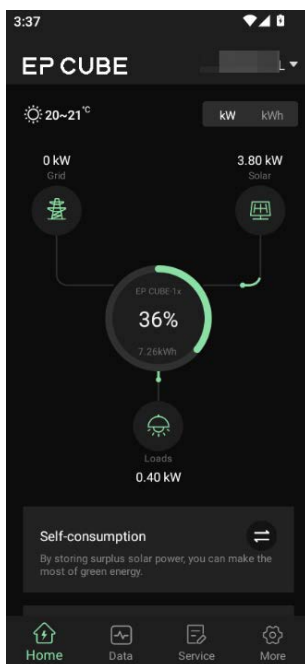
Post-Installation

You can use the EP Cube App to monitor and manage your EP Cube parallel system. The usage roles of the app are divided into installers, administrators, and end users. The following content will introduce the available functions according to different roles.

3.1 Home page

Available for: Installers, administrators, and end users

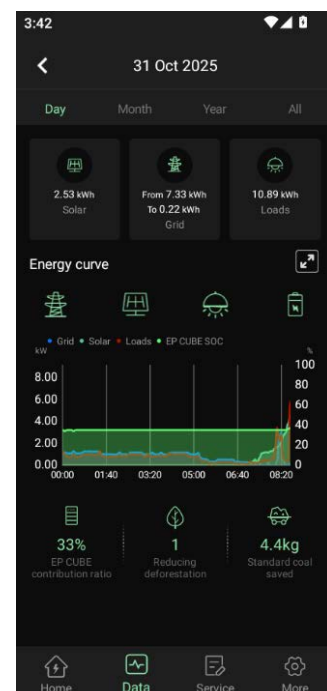
In this page you can check the operation status and power flow, set up and view faults and alarms of the parallel system.



3.2 Data page

Available for: Installers, administrators, and end users

In this page you can check the aggregated operating data of the parallel system.



3.3 More page

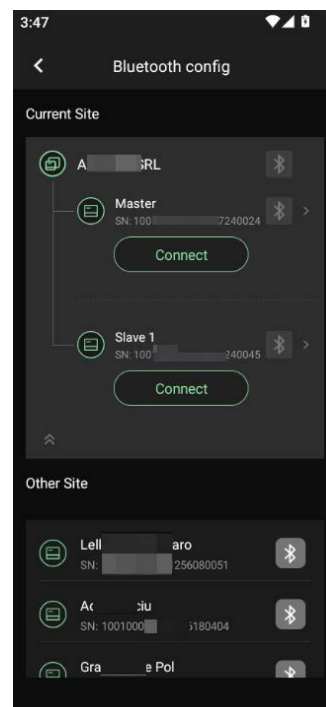
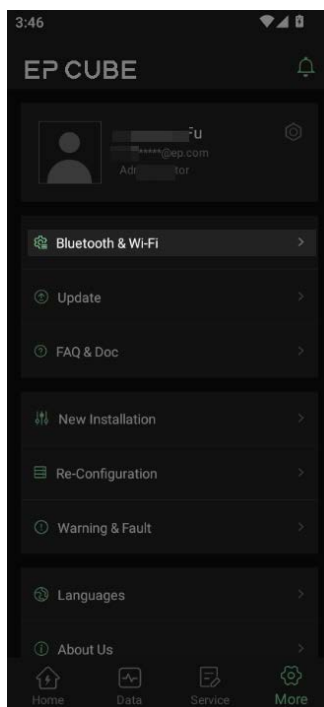
The more page contains the following additional functionalities, depending on the user role:

- Bluetooth & Wi-Fi

Available for: Installers, administrators, and end users

In this page you can reconfigure

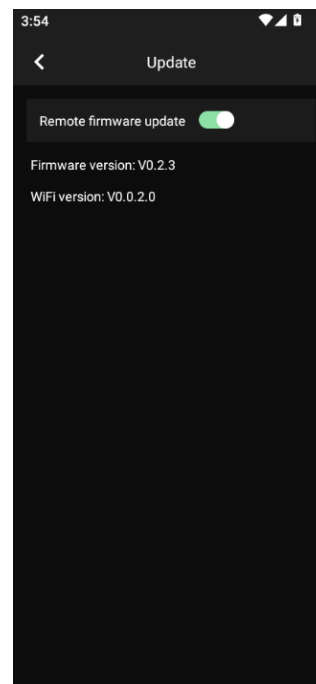
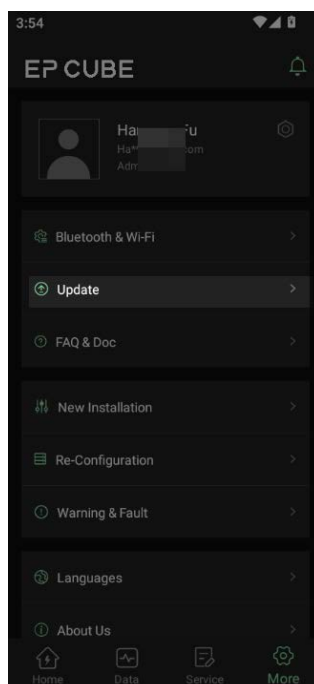
The Bluetooth and Wi-Fi settings for each device in the parallel system.



- Update

Available for: Installers, administrators, and end users

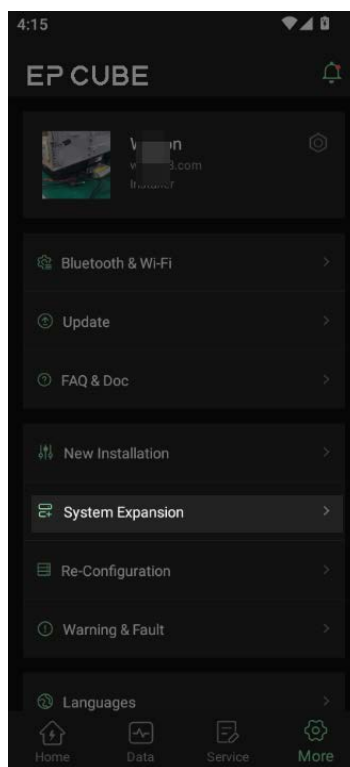
In this page you can set the automatic upgrade for the parallel system on/off.



- **System Expansion**

Available for: Installer accounts only

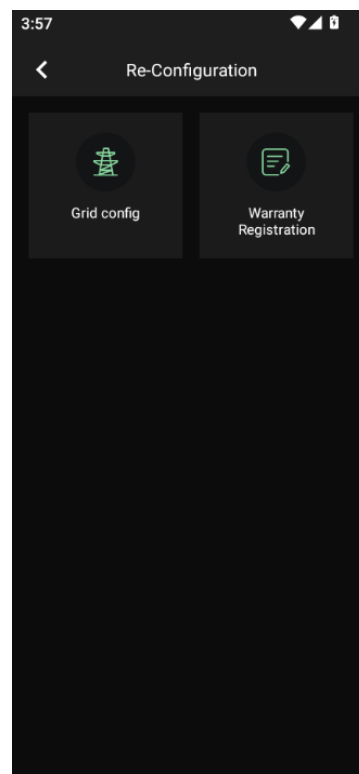
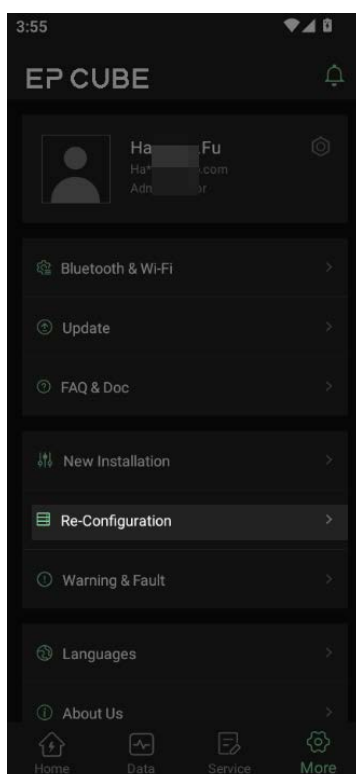
You can perform a parallel site installation via this page



- **Reconfiguration**

Available for: Installers and administrators

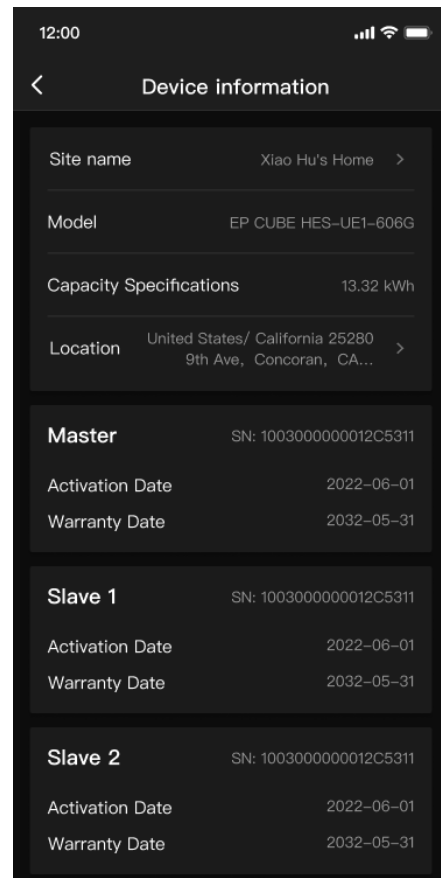
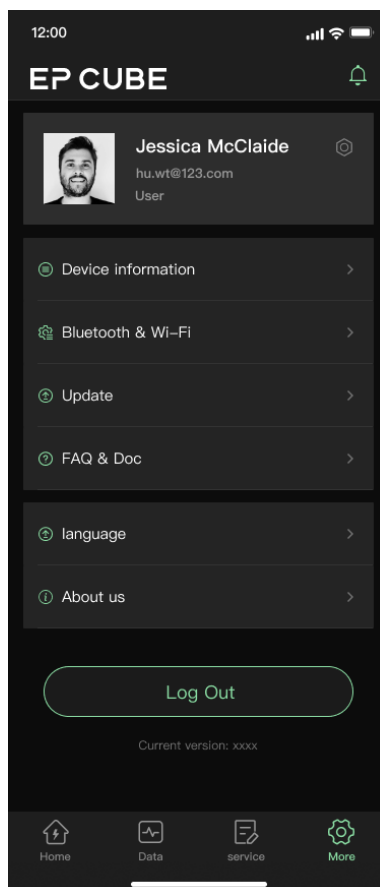
In this page you can reconfigure some of the settings of the parallel system.



- Device Information

Available for: end user accounts only

In this page end users can check their system devices' information.



Troubleshooting

If you encounter any issues during the commissioning, refer to this section for common problems and their solutions.

- OTA failure – RTU & Firmware

Problem description: During the new installation/expansion installation process, when an RTU/PCS upgrade failure occurs

Solution: try to unplug the RTU and plug it back in, then once the RTU restarts connect to Bluetooth & Wi-Fi. You can then try to proceed with the current operation.

- System expansion not available for the installer

Problem description: Installer account missing the “system expansion” option on the More page.

Solution: additional permissions might need to be assigned to the installer account.

