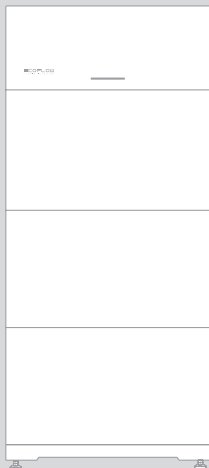


V1.3

Issue Date
2025-09-12

Home Solar Battery Solution



For the latest documents, please scan the QR code or visit:

🔍 <https://enterprise.ecoflow.com/eu/documentation>

IMPORTANT

- Before installing, operating, and maintaining the equipment, read and follow up Installation Guide and Safety Instructions.

CHANGE HISTORY

Changes between document issues are cumulative. The latest document issue contains all the changes made in earlier issues.

Issue 1.3 (2024-09-12)

- Added **EcoFlow PowerOcean System Cascading**.
- Added **Integrating Existing PV System to the EcoFlow PowerOcean System**.

Issue 1.2 (2024-06-05)

- Added EcoFlow smart meter (for UK deliverables) to section **What's In The Box**.

Issue 1.1 (2024-05-29)

- Replaced the **METER communication terminal of the equipment**.
- Updated **Connecting Smart Meter**.
- Added **CT Installation Direction**.
- Added **Wall Mounted Instruction**.

Issue 1.0 (2024-03-07)

- This issue is the first official release.

CONTENTS

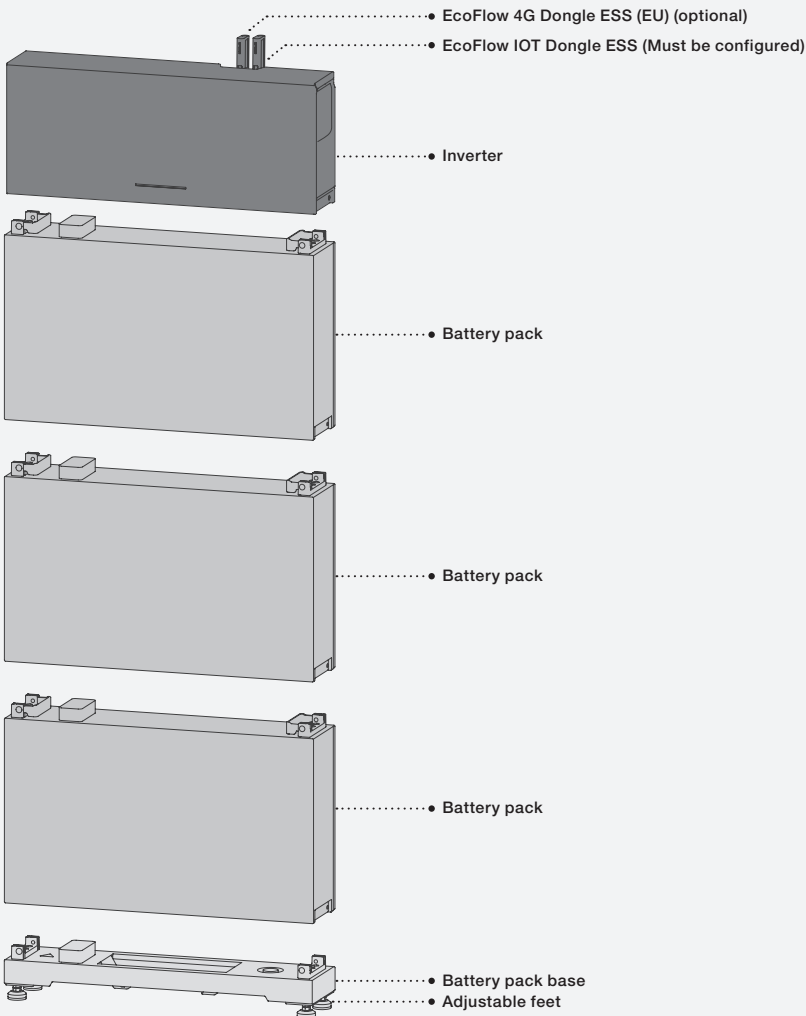
1	Safety Instructions
2	Preparing Tools and Instruments
3	What's In The Box
4	System Installation
4	Installation Environment Requirements
4	Installation Space Requirements
5	Installing Battery
8	Installing Inverter
10	Electrical Connection
10	Connecting PE Cables
11	System Commissioning
11	Checking before Power-On
11	System Power-On
11	System Power-Off
11	LED Indicators
12	System Commissioning

Safety Instructions

Symbol	Description
 DANGER	Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
 CAUTION	Caution, risk of electric shock.
 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.

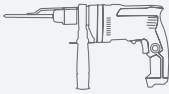
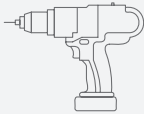
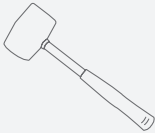
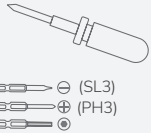
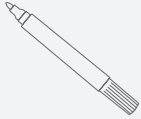
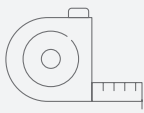
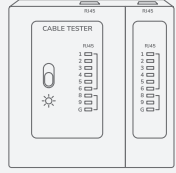
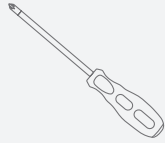


- Before installing, operating, and maintaining the equipment, read and follow up Installation Guide and Safety Instructions.
- Personnel who plan to install or maintain EcoFlow equipment must receive thorough training, understand all necessary safety precautions, and be able to correctly perform all operations.
- Personnel who will install, operate, and maintain the equipment, including operators, trained personnel, and professionals, should possess the local national required qualifications in special operations such as high-voltage operations, working at heights, and operations of special equipment.
- Before connecting cables, ensure that the equipment is intact. Otherwise, electric shocks or fire may occur.
- Before installing, operating, and maintaining the equipment, **always disconnect it from all power.**
- Wear proper PPE (Personal protective equipment) before any operations.

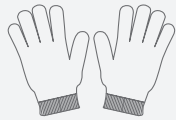


Preparing Tools and Instruments

• ESSENTIAL TOOLS

 Hammer drill (with a drill bit of 8mm)	 Electrical Screwdriver	 Torque socket of 10mm	 Multimeter (DC voltage measurement range ≥ 1000 V DC)	 Mallet	 Screwdriver
 Cable cutter	 Crimping tool	 Wire strippers	 RJ45 Crimping tool	 Crimping tool (for tubular terminal)	 Wrench (14mm)
 Marker	 Steel measuring tape	 Cable tie	 Network cable tester	 Heat gun	 Heat-shrink tubing
 Screwdriver (PH2)					

• OPTIONAL TOOLS

 Vacuum cleaner	 Safety goggles	 Safety shoes	 Safety gloves	 Dust mask	
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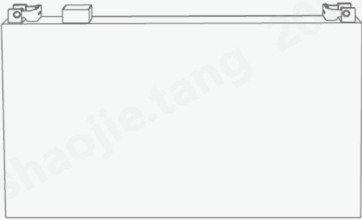
What's In The Box

NOTICE

- Check if the deliverables are intact and complete. If any item is missing or damaged, contact the supplier.
- Retain the original packaging and documentation for further needs.

• ECOFLOW POWEROCEAN LFP BATTERY

B1 ×1



EcoFlow PowerOcean LFP Battery

B2 ×2



Battery T-shaped mounting piece(M6)
Battery L-shaped mounting piece

B3 ×8



Screws(M5*12)

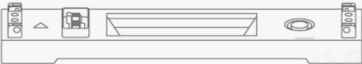
A10 ×2



Expansion bolt(M6*60)

• ECOFLOW POWEROCEAN LFP BATTERY BASE

C1 ×1



Battery base

C2 ×4



Adjustable feet

C3 ×2



Expansion bolt(M6*60)

C4 ×1



Marking-off template for battery

System Installation

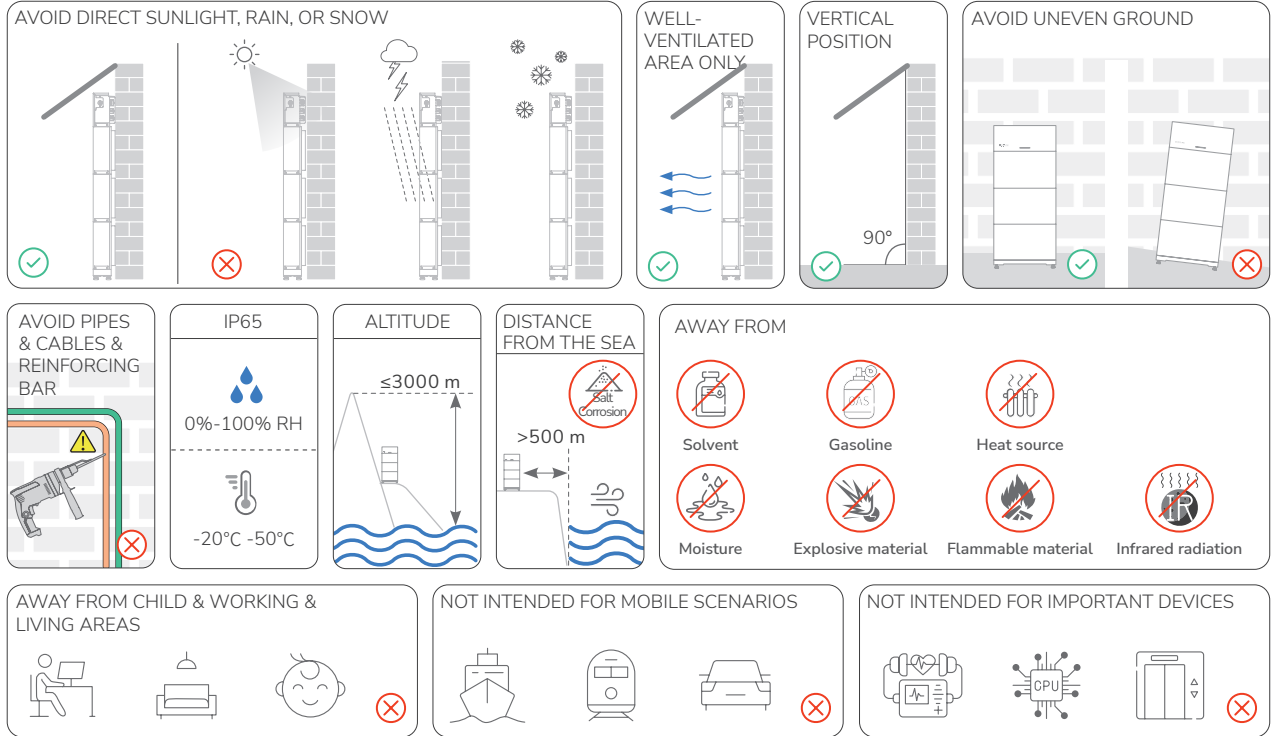
Installation Environment Requirements

WARNING

- The installation and use environment must meet relevant international, national, and local standards for lithium batteries, and are in accordance with the local laws and regulations.

NOTICE

- When installing the equipment in a garage, keep it away from the drive way.
- The mounting structure where the equipment is installed must be fire resistant. Do not install the equipment on flammable building materials.
- Ensure that the installation surface is solid enough to bear the weight of the equipment.



Installation Space Requirements

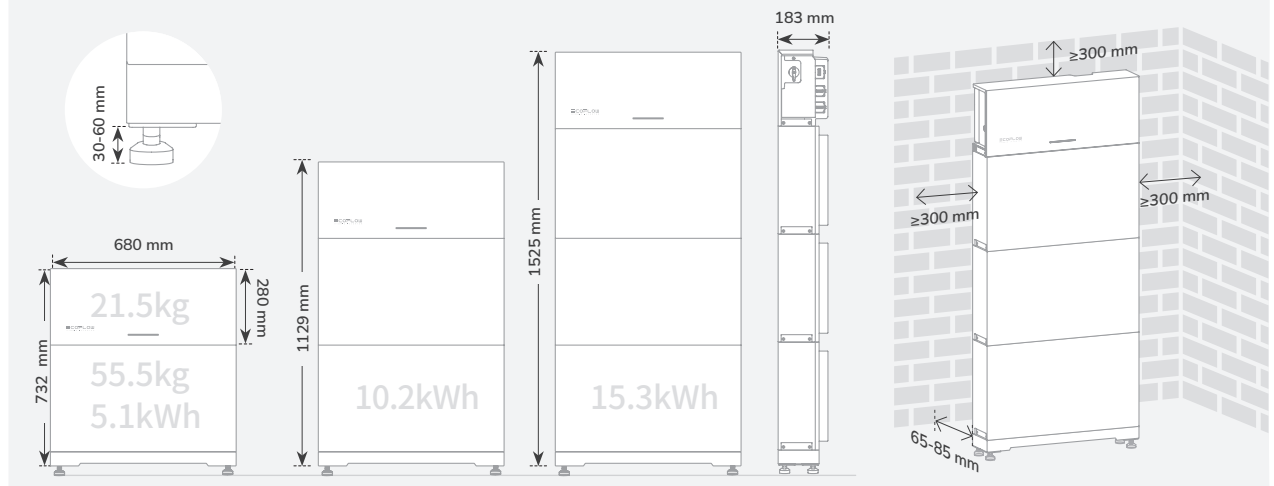
WARNING

- Reserve enough clearance around equipments to ensure sufficient space for installation and heat dissipation.

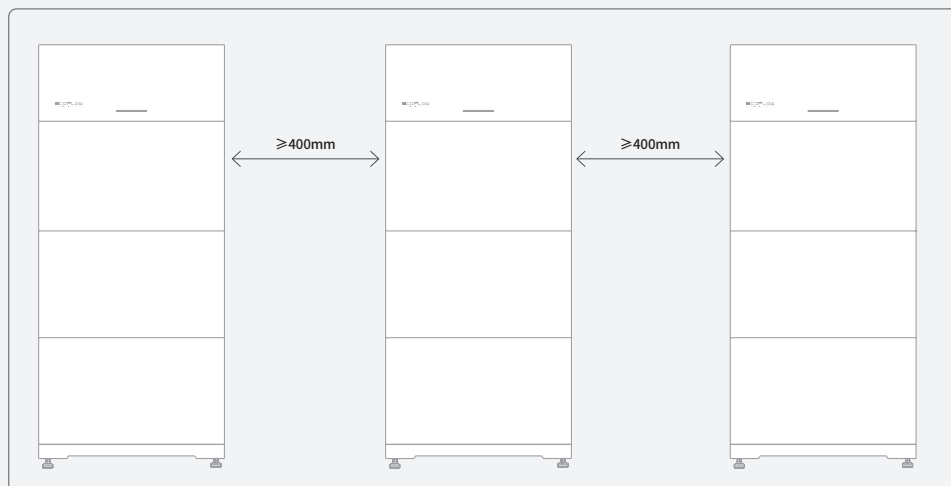
NOTICE

- Ensure there is enough space on both sides of the battery to facilitate the locking operation of the screws on the side of the battery.
- When installing two sets of batteries (number of battery packs ≥ 4), ensure that the minimum clearance between the two sets of batteries is 400mm, while greater clearance is also permitted if it is required by the specific local electrical codes.
- When installing multiple inverters, install them in horizontal mode if sufficient space is available and install them in triangle mode if no sufficient space is available. Stacked installation is not allowed.

• ONE ECOFLOW POWEROCEAN SYSTEM



• ECOFLOW POWEROCEAN SYSTEM CASCADING
- HORIZONTAL INSTALLATION MODE (RECOMMENDED)



Installing Battery

⚠ DANGER

- When drilling holes, avoid the water pipes and power cables buried in the wall and under the floor.

⚠ CAUTION

- When drilling holes, protect the battery base from shavings or dust.
- Before installing the battery, make sure that the click-on terminals on the top and bottom of the battery are free of foreign objects or any liquid.
- Assign enough personnel (two or more) to move battery to avoid personal injury and battery damage.

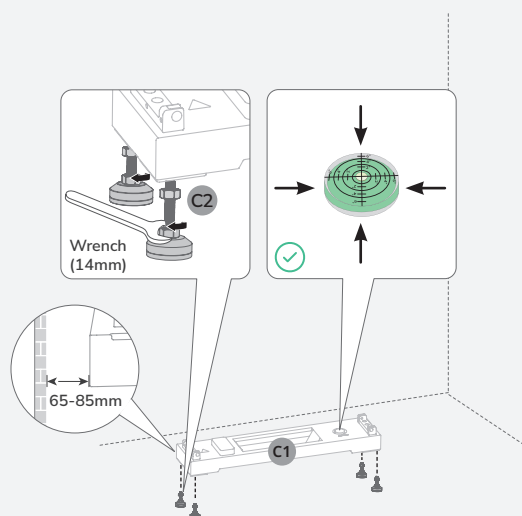
NOTICE

- When moving battery, hold handles on top of the battery module.
- Sealant is applied underneath the battery base to ensure its resistance against water.
- There will be a gap between the battery junction box and the battery pack before the screws are tightened. This gap is caused by the mechanical design to meet the IP rating, and will normalize after the screws are tightened.
- **(Optional) Install the provided adjustable feet to the base if needed.** Then you can adjust the feet and check the level on the base to ensure that the base is placed horizontally, screw the nuts of the four feet to the top to lock.

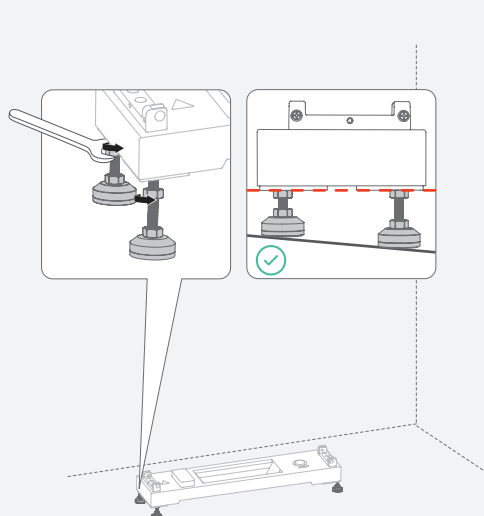
Method 1: Floor Mounted

• WITH ADJUSTABLE FEET

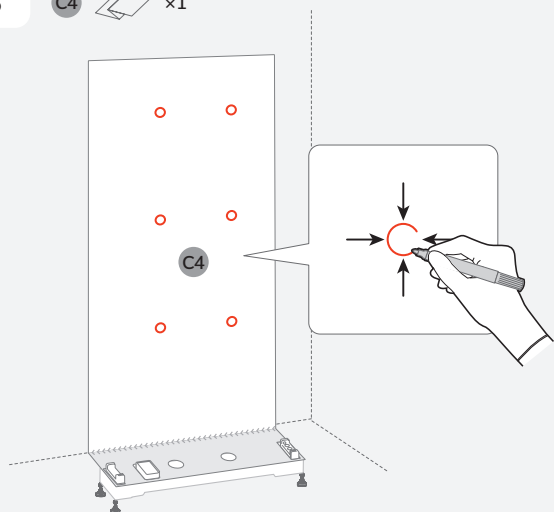
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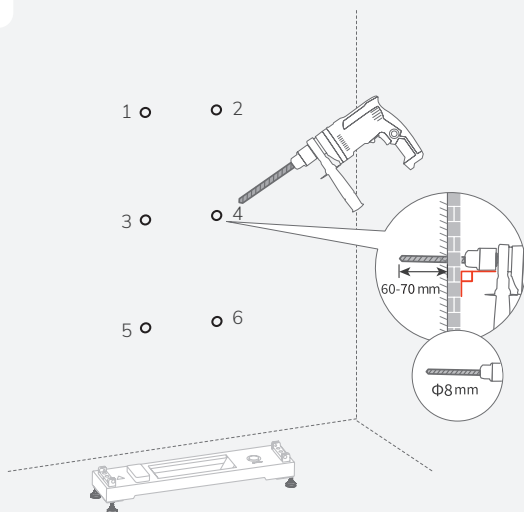
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3 C4  ×1

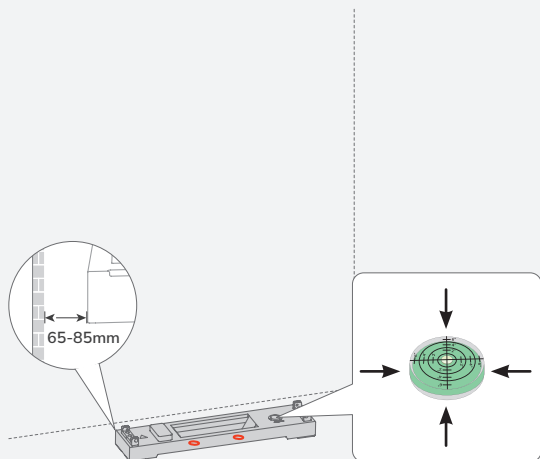


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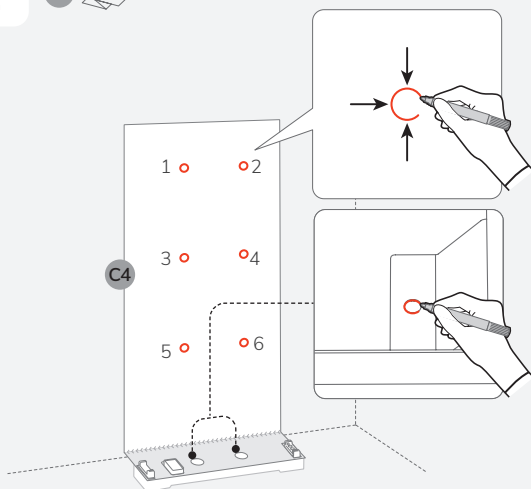


• WITHOUT ADJUSTABLE FEET

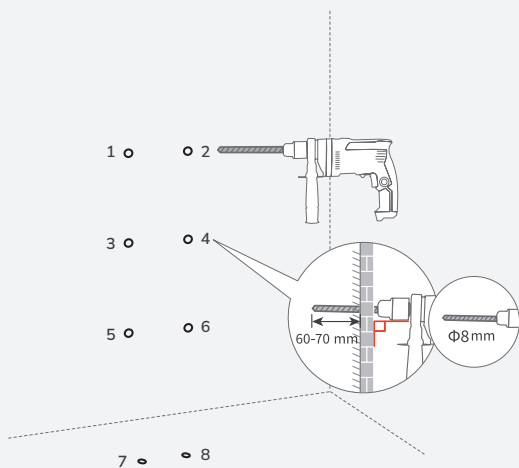
1 C1 



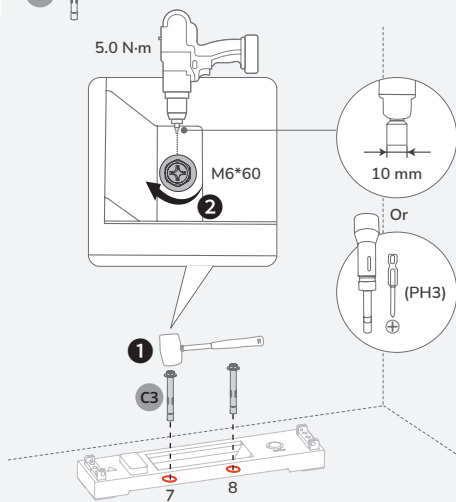
2 C4  ×1



3

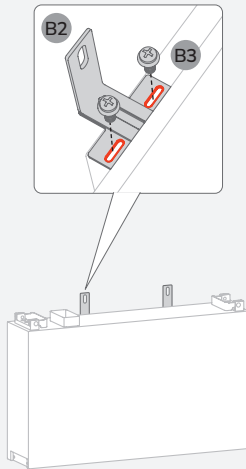


4 C3  ×2



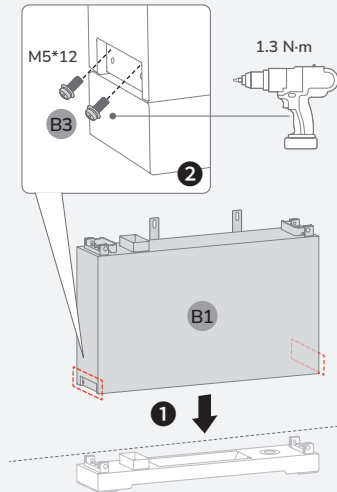
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B1  x1 B2  x2 B3  x4



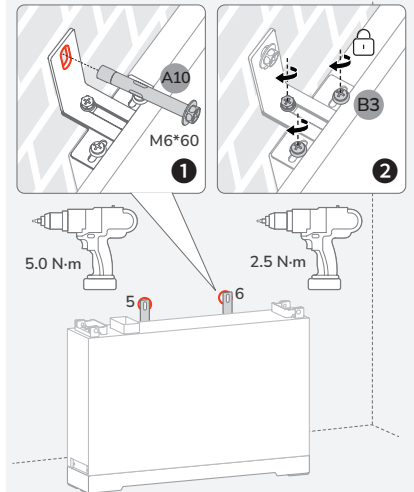
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B3  x4



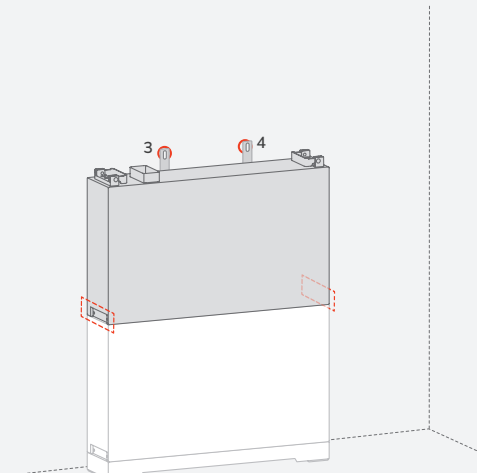
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A10  x2



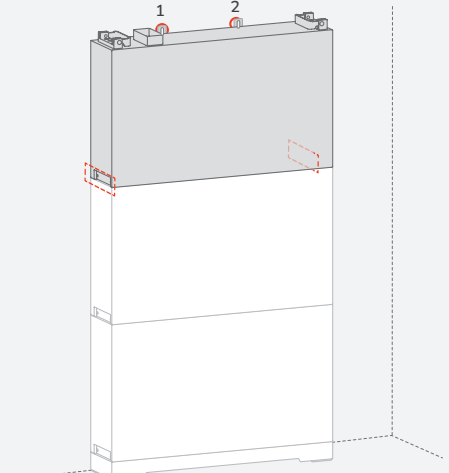
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B1  x1 B2  x2 B3  x4 A10  x2



9

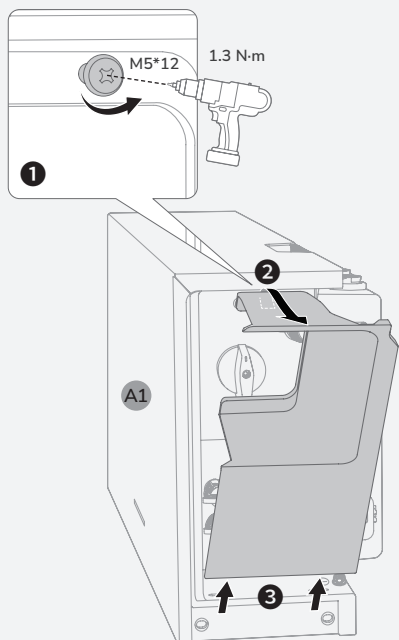
B1  x1 B2  x2 B3  x4 A10  x2



Installing Inverter

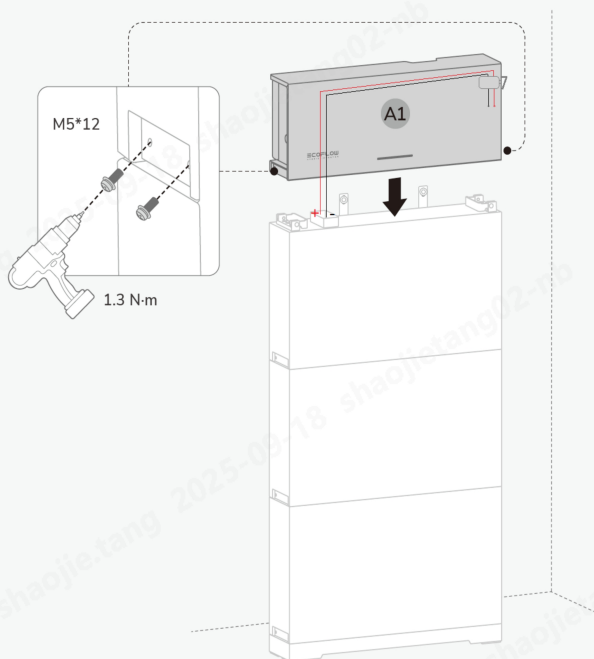
1

A1 x1



2

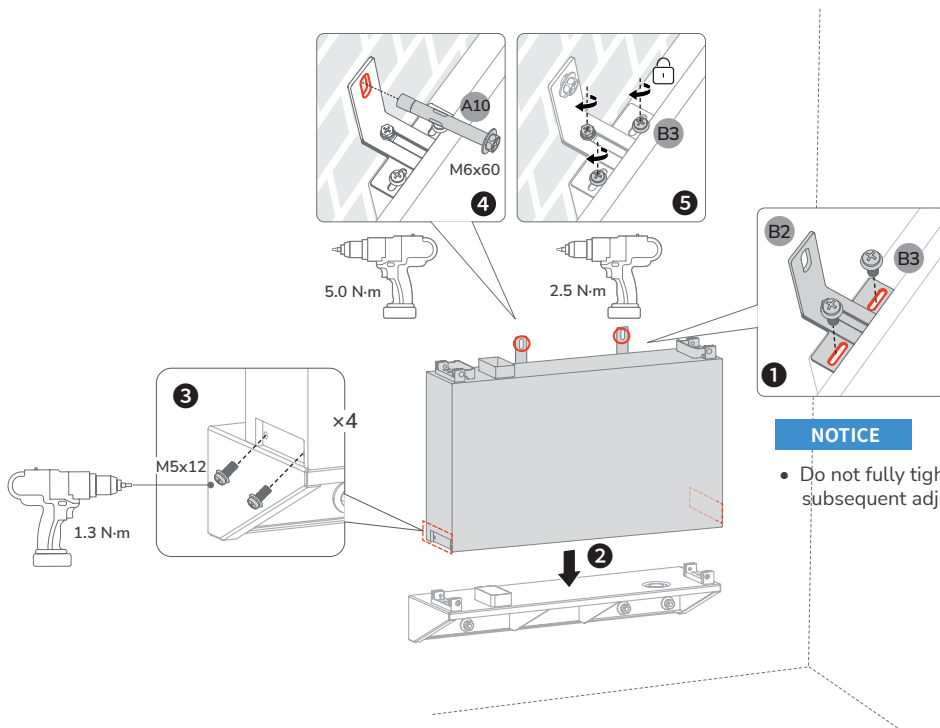
A9 x4



Method 2: (Optional) Wall Mounted

NOTICE

- For details about wall mounted installation, see the installation guide that comes together with the EcoFlow PowerOcean Wall-Mounted Battery Base.

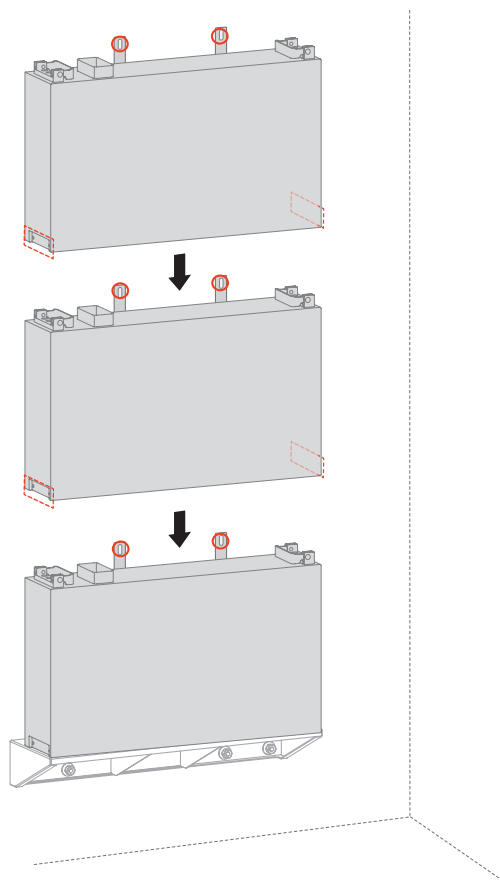


NOTICE

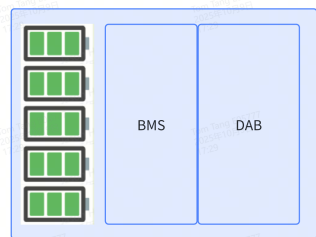
- Do not fully tighten to allow for subsequent adjustments

NOTICE

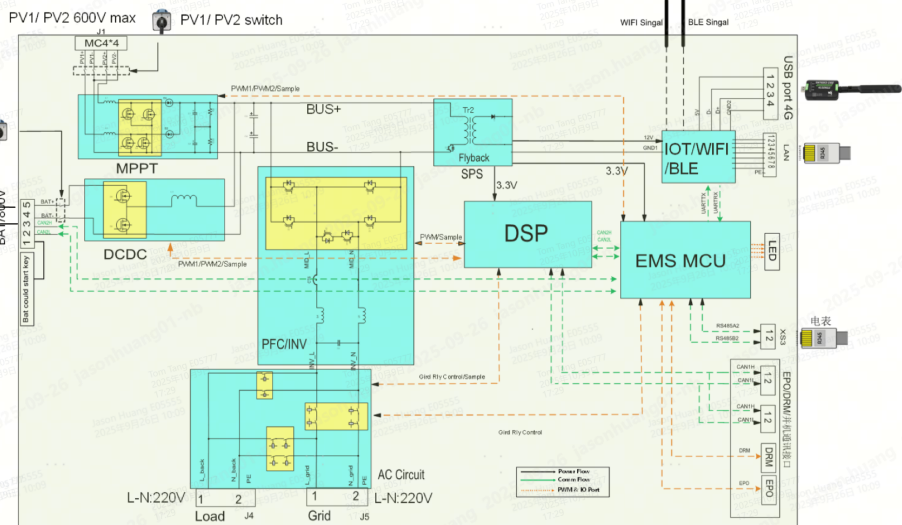
- Install the remaining batteries and the inverter as shown in the method 1.



Wiring Diagram



Battery System
(EF BD-5.1-S1,
EF BD-10.2-S1,
EF BD-15.3-S1)

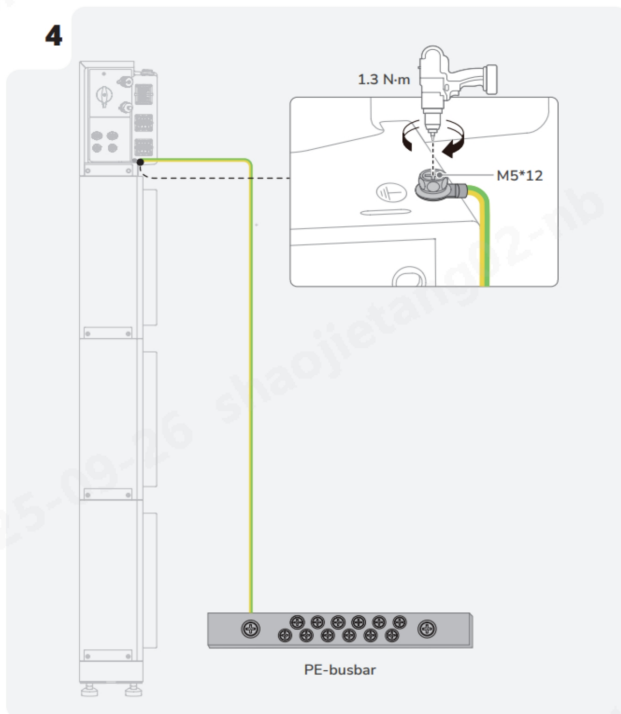
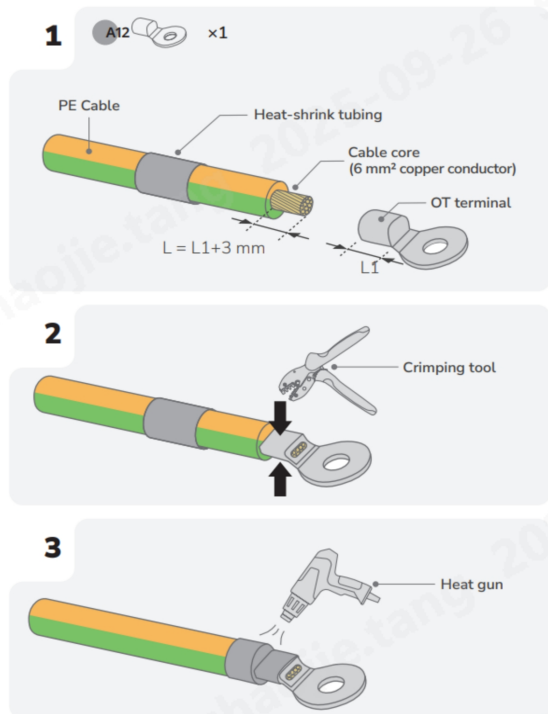


PCS:EF HD-P1-3K-S1, EF HD-P1-3.68K-S1, EF HD-P1-4.6K-S1, EF HD-P1-5K-S1, EF HD-P1-6K-S1

Connecting PE Cables

NOTICE

- Ensure that the PE cable is connected securely.
- Wrap the wire crimping area with heat shrink tubing or insulation tape. The heat shrink tubing is used as an example.
- When using a heat gun, protect the equipment from being scorched.
- It is recommended that silica gel or paint be used around the ground terminal after the PE cable is connected.



System Commissioning

Checking before Power-On

Check Item	Acceptance criteria
Equipments	Equipments are installed correctly and securely.
Cables routing	Cables are routed properly as required by the customer.
Cable tie	Cable ties are evenly distributed and no burr exists.
Grounding	The PE cable is connected correctly, securely, and reliably.
Switch	All the switches connecting to the system are OFF.
Cable connection	The AC/DC power cable, battery cable, and communication cable are connected correctly, securely, and reliably.
Unused terminal and port	Unused terminals and ports are locked by watertight covers.
Installation environment	The installation space is proper, and the installation environment is clean and tidy.

System Power-On

PROCEDURE (ON-GRID AND PV MODULE CONFIGURED)

1. Turn on the AC switch between the inverter and the power grid.
2. Set the PV SWITCH on the side of the inverter to ON position.
3. Observe the LED to check the inverter operating status.

PROCEDURE (OFF-GRID AND NO PV MODULE CONFIGURED)

1. Turn on the AC switch between the inverter and the power grid.
2. Set the PV SWITCH on the side of the inverter to ON position.
3. After commissioning, press and hold for 5 seconds the BATTERY ON/OFF button.
4. Observe the LED to check the inverter operating status.

System Power-Off



WARNING

Before installing, operating, and maintaining the equipment, always disconnect it from all power.

1. Send a shutdown command on the App.
2. Turn off the AC switch between the inverter and the power grid.
3. Set the PV SWITCH on the side of the inverter to OFF position.
4. (Optional) Secure the PV SWITCH with a lock to prevent accidental startup. The lock is prepared by the customer.
5. Press and hold the BATTERY ON/OFF button of the junction box for 10 seconds, until the indicator is off.
6. Sequentially disconnect GRID cables, BACKUP cables, PV input cables, communication cables and all modules connecting to the system.

LED Indicators

LED Indicator	Symbol Conventions	
ON		Steady White
		Blinking White
		Carousel White
		Steady Orange
		Blinking Orange
OFF		OFF

Power On/Off Status	Description
	System startup
	System shutdown

Charge Status	Description
	0-25%
	25-50%
	50-75%
	75-99%
	100%

Discharge/Standby Status	Description
<5% symbol"/>	<5%
	5-25%
	25-50%
	50-75%
	75-100%

Over-the-air Updates Status	Description
	Over-the-air update is in progress

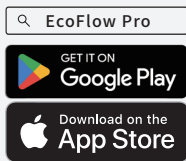
Faulty Status	Description
	Abnormal electrical connection. Check if all equipment is installed correctly and securely.
	Abnormal smart meter communication.
	Abnormal IoT communication.
	Battery is faulty.
	Abnormal battery communication.
	Converter is faulty.
	Abnormal converter communication.

NOTICE

- If the LED indicates a faulty status, visit the EcoFlow Pro app to retrieve the error code for troubleshooting.

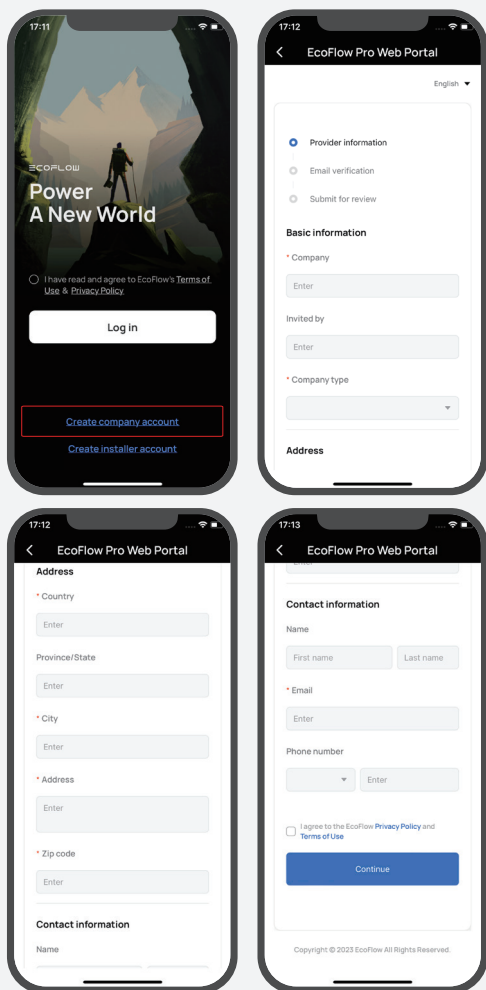
1 DOWNLOAD AND INSTALL ECOFLOW PRO APP (FOR INSTALLER ONLY)

Scan the QR code or download at:
<https://download.ecoflow.com/ecoflowproapp>

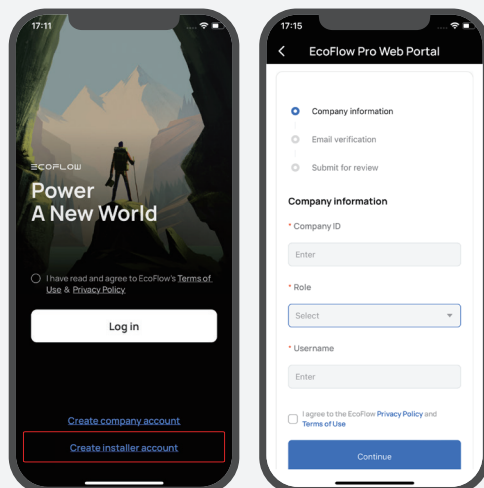


2 CREATE ACCOUNT

a. Create company account

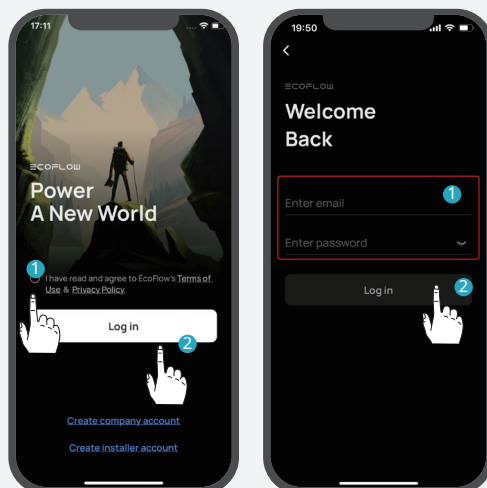


b. Create installer account



3 LOGIN

Enter the installer account and password.

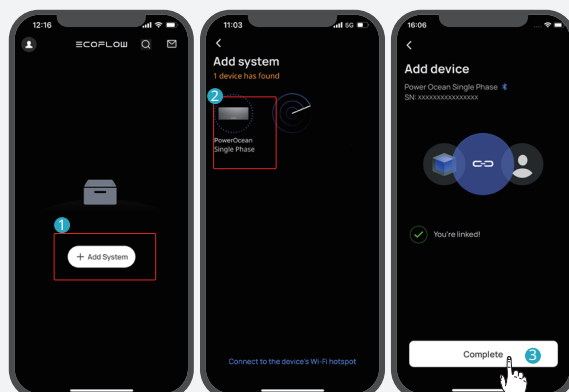


4 ADD DEVICE

You can connect to the system via Bluetooth or Wi-Fi.

a. Connect to the system via Bluetooth.

Click **Add System** to automatically search for bluetooth devices nearby, and click **EcoFlow PowerOcean Single Phase** to connect, then click **Complete** to proceed.

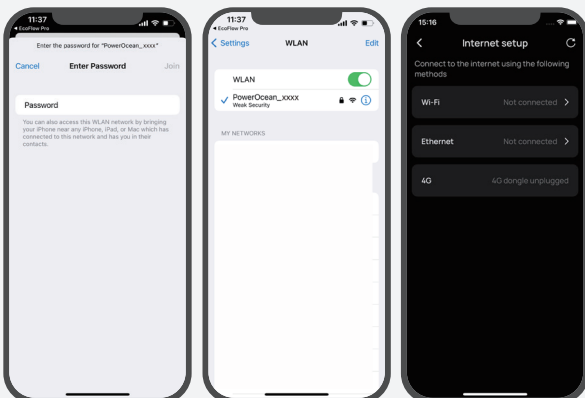
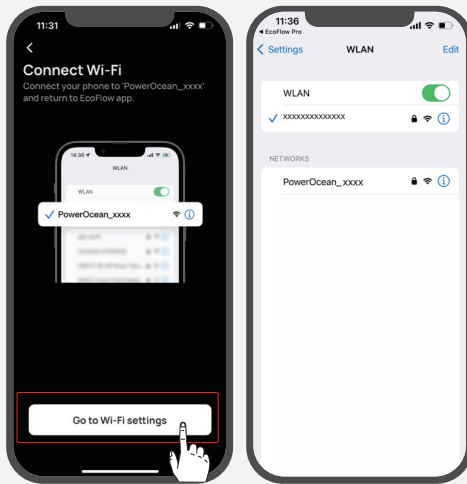
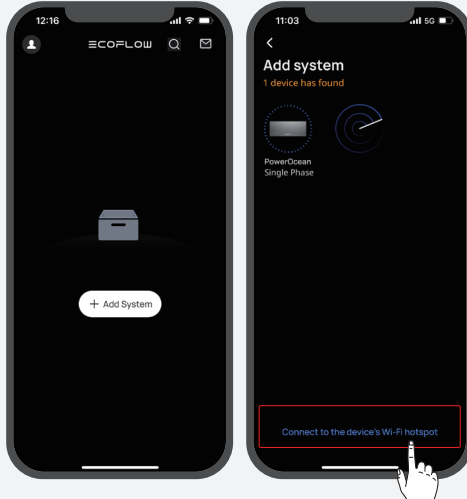


b. Connect to the system via Wi-Fi

1. Click "Add System" and then click "Or connect to the system's Wi-Fi" to access to your phone's Wi-Fi settings.
2. Find "PowerOcean_xxxx" and click it to enter the password for the Wifi, then click "Join". The password is the last 8 digits of the serial number of the inverter.

 You can find the serial number (S/N) in the product nameplate.

3. After successfully connected your phone to "PowerOcean_xxxx", tap the "EcoFlow Pro" on the top left of your phone's Wi-Fi setting page to shift back and proceed to commissioning.



5

COMMISSIONING

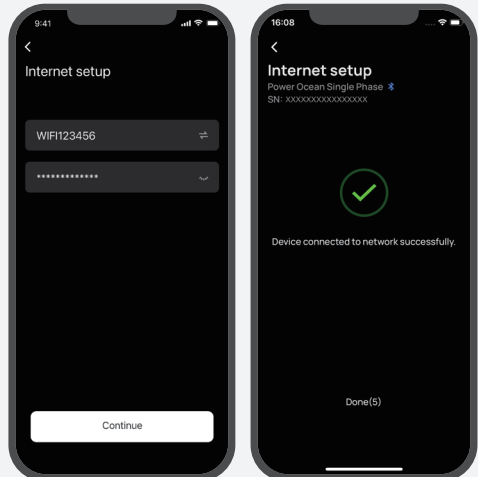
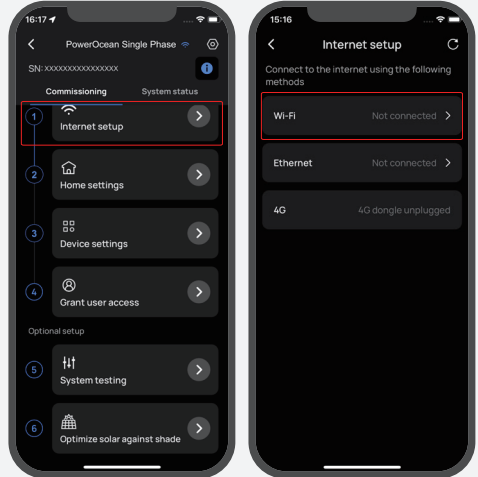
After bound device successfully, the device enters the four-step commissioning process.

Step1: Internet Setup

click **Internet Setup** to start the network configuration.

Method 1: Wi-Fi

Click **WiFi**, select the appropriate WiFi name and enter the password and click **continue**.

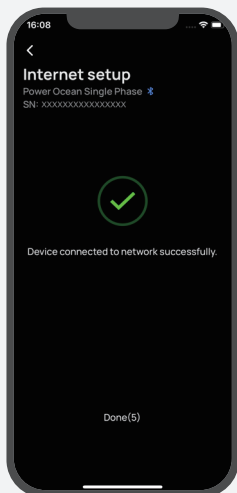
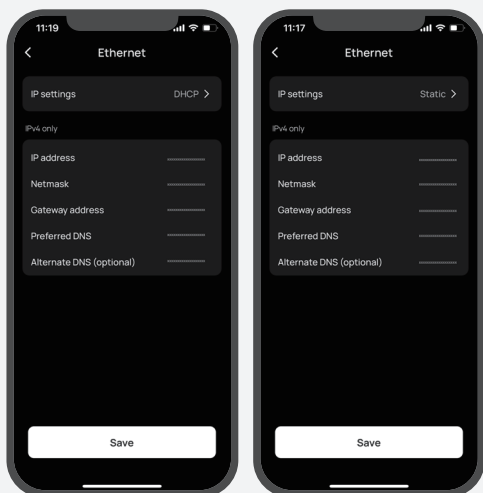
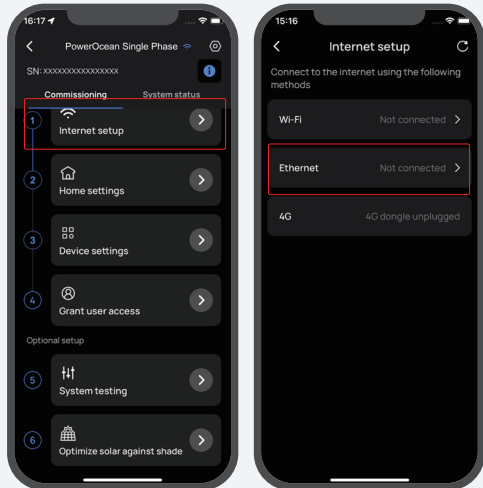


Method 2: Ethernet

Connect the system to a router using a network cable, wait a minute before proceeding. Then click "Ethernet" to set DHCP/Static mode. (Both modes are available)



- By default, the IP setting is DHCP mode, which assigns dynamic IP address to the device (recommended).
- Static mode requires manual configuration of the IP address. Please make sure the IP address is not in conflict with other devices, you can visit the router to check the IP addresses of other devices.

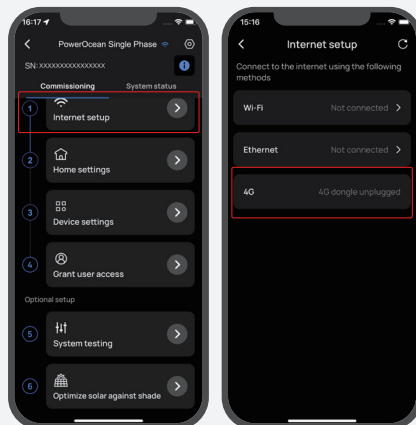


Method 3: 4G

1. Install a nano SIM card to the EcoFlow 4G Dongle ESS(EU).
2. Install the dongle onto the USB port (4G) of the inverter.
3. Activate your SIM card through App.



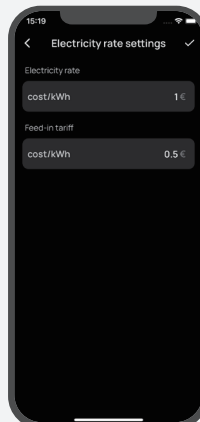
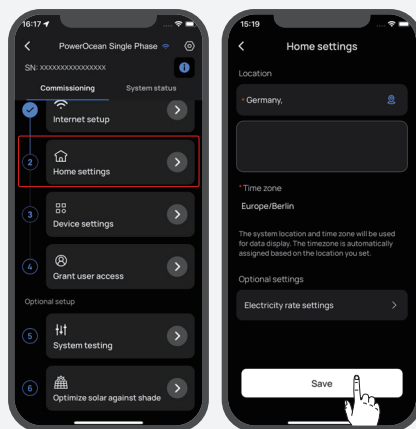
For more details about EcoFlow 4G Dongle ESS(EU), please refer to its user manual.



Step2: Home Setting

Click **Home Setting** to enter the corresponding house address.

(Optional) Set the electricity rate.

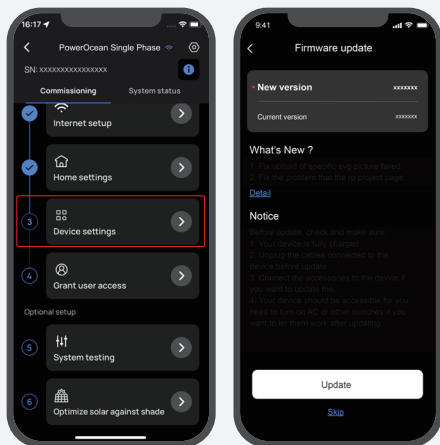


Step3: Device Setting

a. Click **Device Setting** to verify that the devices in the device list match the connected devices.

(Optional) Update firmware before carrying out Device Setting.

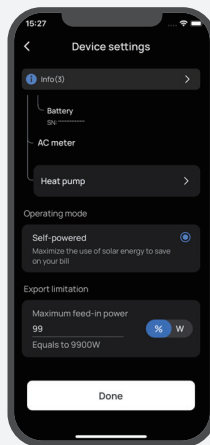
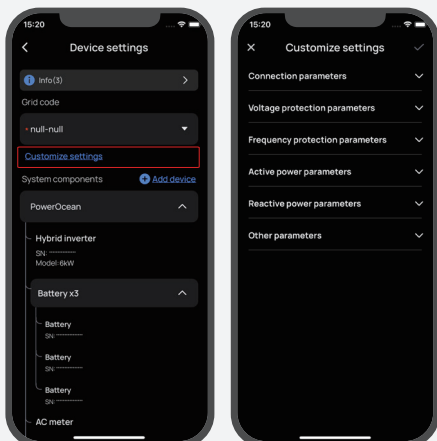
If there is a firmware update available for the EcoFlow PowerOcean system, the update page will pop up to notify you when proceeding this step. The "Skip" button is available for some update that is not urgent. It is highly recommended that you upgrade your PowerOcean firmware for seamless experience immediately.



b. Set grid code, system work mode and feed-in power limitation.

c. (Optional) You can also tap **Customize Settings** to set Connection parameters, Voltage Protection parameters, Frequency Protection parameters, Reactive Power parameters and other parameters. (Please follow local regulations, if you need to change any of these parameters, please contact your local power organization first.)

d. Click **Done** to finish the commissioning.



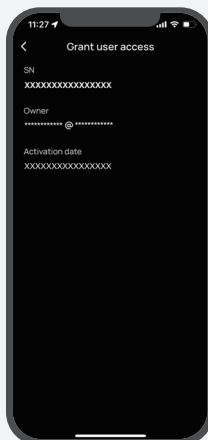
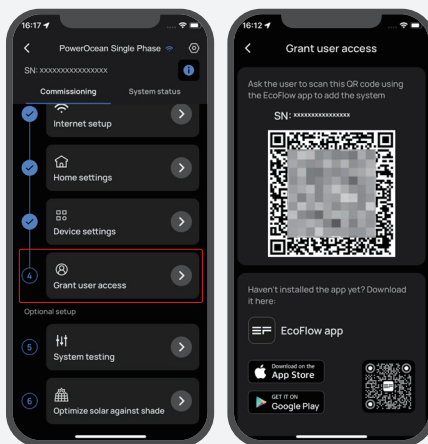
6

GRANT USER ACCESS

Click **Grant User Access** for a home owner access QR code to allow users to scan it.



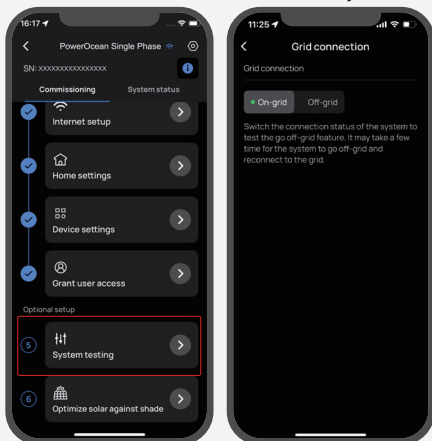
- After manually adding device **EcoFlow PowerOcean** using the EcoFlow User App, users scan the home owner access QR code to bind it.



7

(OPTIONAL) SYSTEM TESTING

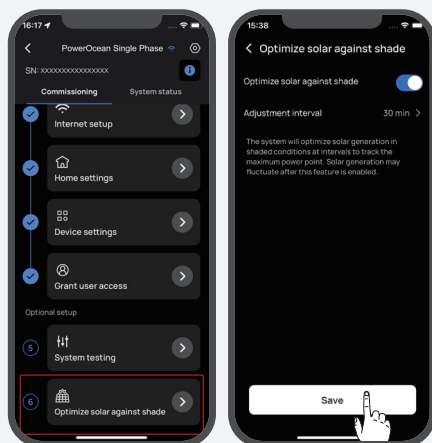
To test the go off-grid feature, you can toggle the button to switch the connection status of the system.



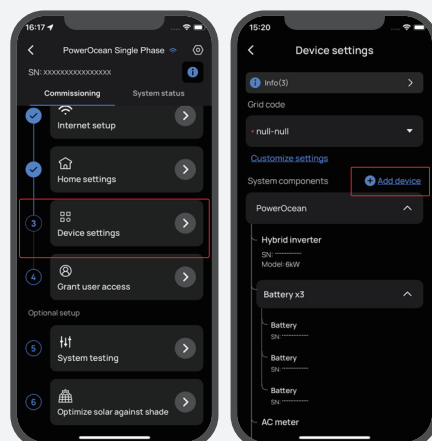
8

(OPTIONAL) OPTIMIZE SOLAR AGAINST SHADE

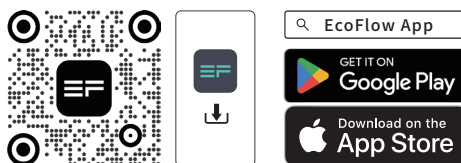
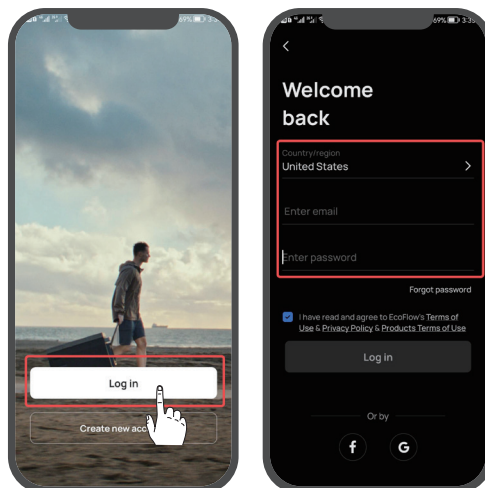
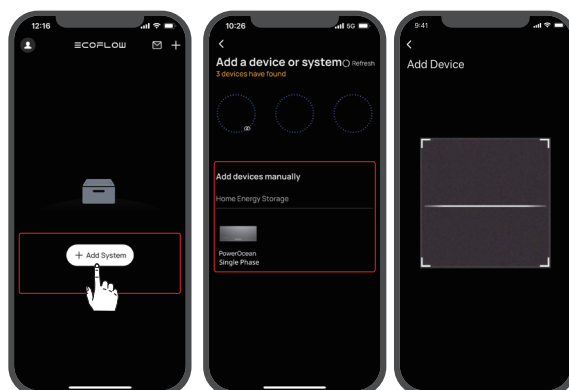
If this feature is enabled, the system will optimize solar generation in shaded conditions at your setup intervals to track the maximum power point. Solar generation may fluctuate.

**(OPTIONAL) ADD DEVICE TO POWEROCEAN SYSTEM**

After correctly wiring power cables and communication cables with PowerOcean system, tap "Device setting"->"Add Device" to add devices to EcoFlow Pro App, such as third-party PV inverter, PowerHeat, etc., and then make some relevant settings.

**How Users Add Devices****1. DOWN AND INSTALL ECOFLOW USER APP (FOR USER ONLY)**

Scan the QR code or download at:
<https://download.ecoflow.com/app>

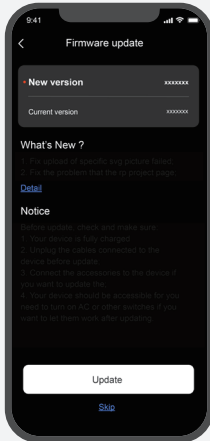
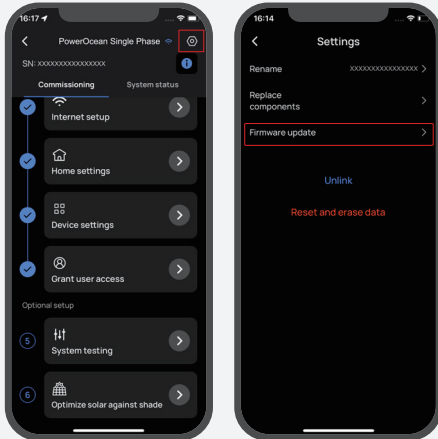
**2. CREATE NEW ACCOUNT AND LOG IN.****3. ADD DEVICE MANUALLY.**

(Optional) Inverter Cascading

- 1 FOLLOW THE INSTRUCTIONS IN THE SECTION "SYSTEM COMMISSIONING" ABOVE TO CARRY OUT COMMISSIONING FOR EACH INVERTER TO BE CASCADED.**

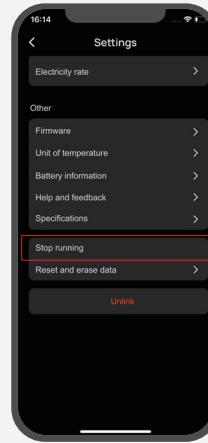
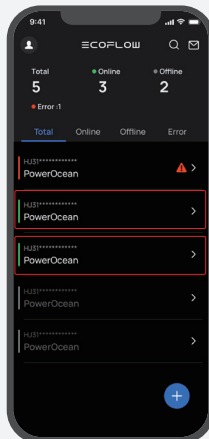
2 FIRMWARE UPDATE

If the current firmware of inverters to be cascaded don't support cascading, you need to add them to the EcoFlow App /Pro App and update their firmwares before proceeding.



3 SYSTEM STOP

- Prefer to press the Emergency Stop button (if there is any) to stop the inverters which are running.
- If no Emergency Stop button is configured, you need to access to the EcoFlow App and select "Device setting"->"Stop running" to stop the systems.

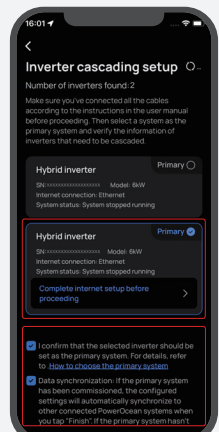
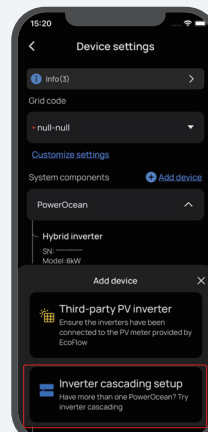
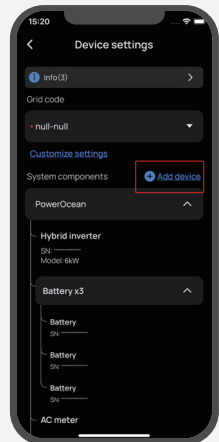
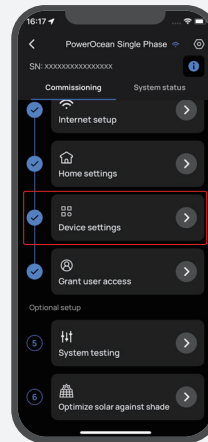


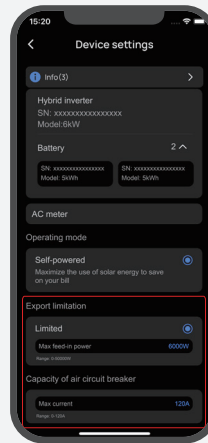
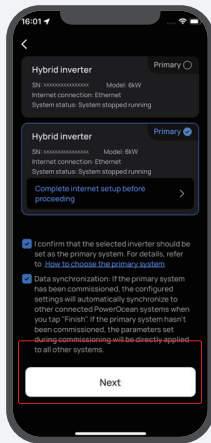
- 4 CONNECT INVERTER CASCADING CABLE CORRECTLY. SEE THE SECTION "(OPTIONAL) CONNECTING COMMUNICATION CABLES BETWEEN THE CASCADED EF HD-P1-(3K-6K)-S1".**

5 INVERTER CASCADING SETUP

Tap the inverter with meter connected on the device list page, then select "Device setting"->"Add device" -> "Inverter cascading setup" to set the inverter with meter connected as the primary inverter, the others will be the secondary inverters by default. Follow the in-App instructions to complete the cascading setup.

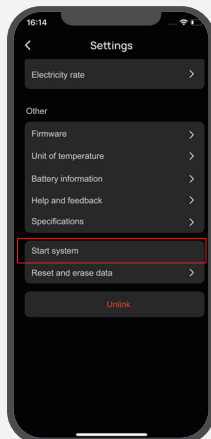
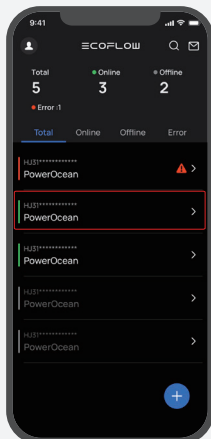
💡 The inverter to which the meter is connected must be set as the primary inverter.





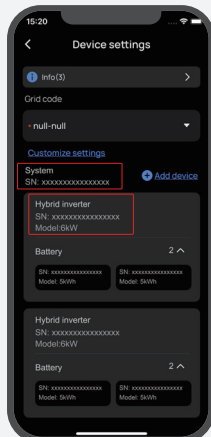
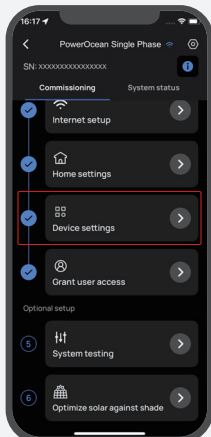
6 START SYSTEM

- Prefer to twist release the Emergency Stop button (if there is any) to start the systems.
- If no Emergency Stop button is configured, you need to access to the EcoFlow App and select "Device setting"->"Start system" to start the systems.



7 SET CAPACITY OF AIR CIRCUIT BREAKER AND EXPORT LIMITATION FOR THE CASCADING SYSTEM

Access to the EcoFlow Pro App, then select "Device setting" to set the capacity of air circuit breaker (0-120A) based on user's home actual current of air circuit breaker, and set export limitation (0-50kW) for the cascading system.



- For more details about device settings, please scan the QR code or visit:

Q <https://enterprise.ecoflow.com/eu/documentation>



