

US Series Energy Storage System

Quick Installation Guide

Issue: V1.1b
Date: 2024-09-09

FOXESS CO., LTD.



Notice

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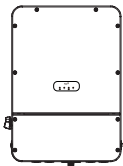
2. Only certified electricians are allowed to operate the device. Operation personnel must wear proper personal protective equipment (PPE).

3. Before installing the device, check that the package contents are intact and complete against the packing list. If any damage is found or any component is missing, contact your dealer.

4. The device damage caused by the violation of instructions in this document is not covered under warranty.

1 Packing List

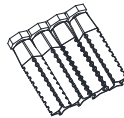
1.1 Hybrid Inverter Package Box



A



B



C



D



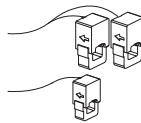
E



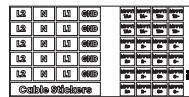
F



G



H



I

WARNING: THIS SENSOR IS PART OF A POWER CONTROL SYSTEM. DO NOT REMOVE.

J

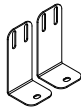
OBJ	QTY	DESC	OBJ	QTY	DESC
A	1	Inverter	F	1	E-STOP
B	1	Bracket	G	1	Smart WILAN
C	4	Expansion Bolt M8*60	H	3	Current Transformer (1*100A, 2*250A)
D	1	Set Screw	I	1	Cable Sticker
E	1	Quick Installation Guide	J	1	Label (stuck near the CTs)

1.2 Battery Package Box

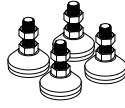
For CM :



A



B



C



D



E



F



G



H



I



J



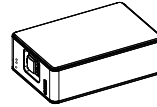
K



L



M



N

OBJ	QTY	DESC	OBJ	QTY	DESC
A	6	Set Screw	H	4	Expansion Tube & Expansion Screw
B	2	Fixing Bracket	I	1	Waterproof Cover
C	4	Footstand	J	1	RJ45
D	1	Communication Cable (BMS-inverter) (9.8ft)	K	1	Junction Box
E	1	Grounding Cable (9.8ft)	L	2	Plug
F	1	DC Output Cable (9.8ft)	M	1	Cable Gland
G	1	Quick Installation Guide	N	1	CM

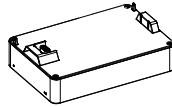
For CS :



A



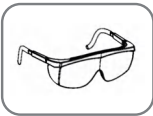
B



C

OBJ	QTY	DESC	OBJ	QTY	DESC
A	2	Set Screw	C	1	CS
B	1	Quick Installation Guide			

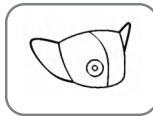
2 Required Tools



Safety Goggles



Steel Toe Boots



Dust Mask



Helmet



Insulating Gloves



Phillips-Head Screwdriver



Flat-Head Screwdriver



Wire Stripper



Electric Drill



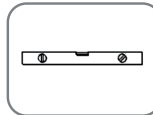
Adjustable Wrench



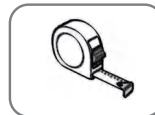
Hex Wrench Set



Hole Punch



Level



Tape



Sleeve



Multimeter



Phone



DANGER:

Special care must be taken to protect personal safety.

PPE must be worn during transfer and installation.

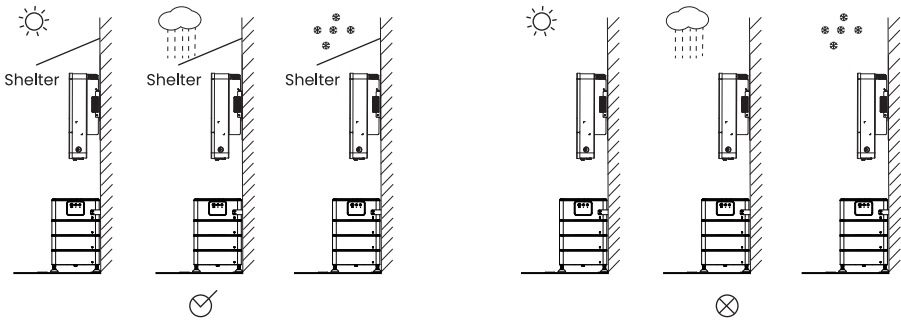


WARNING:

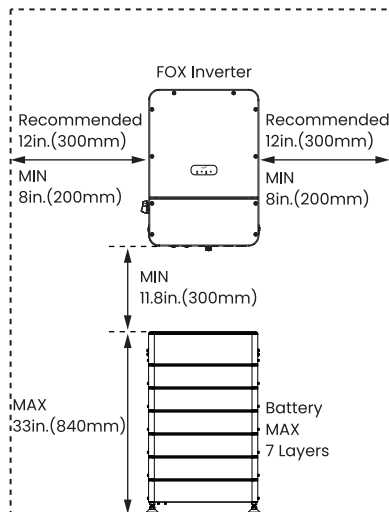
Please use proper protective measures, such as foam or protective cloth, keep the inverter well protected from hard objects that may damage their exterior appearance or body during handling and installation.

3 Installation Steps

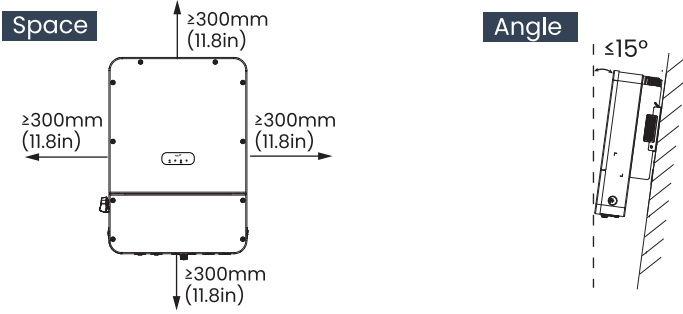
3.1 Installation Environment



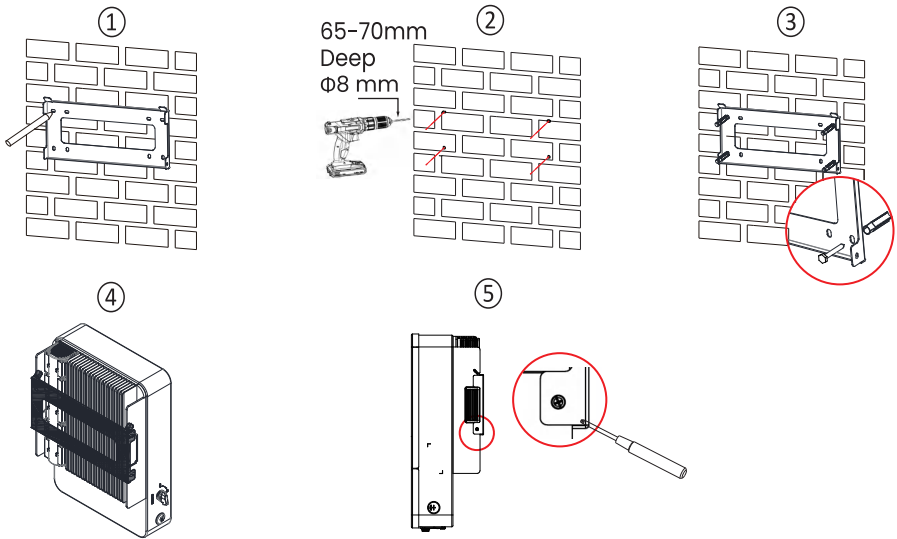
3.2 System Installation



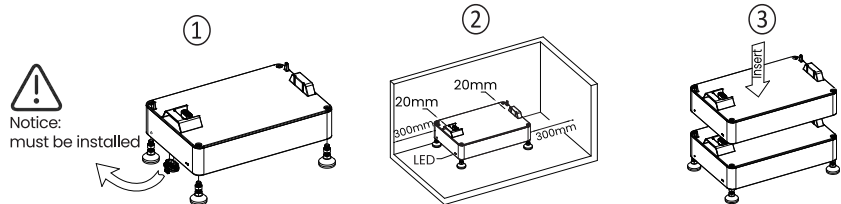
3.3 Inverter Installation

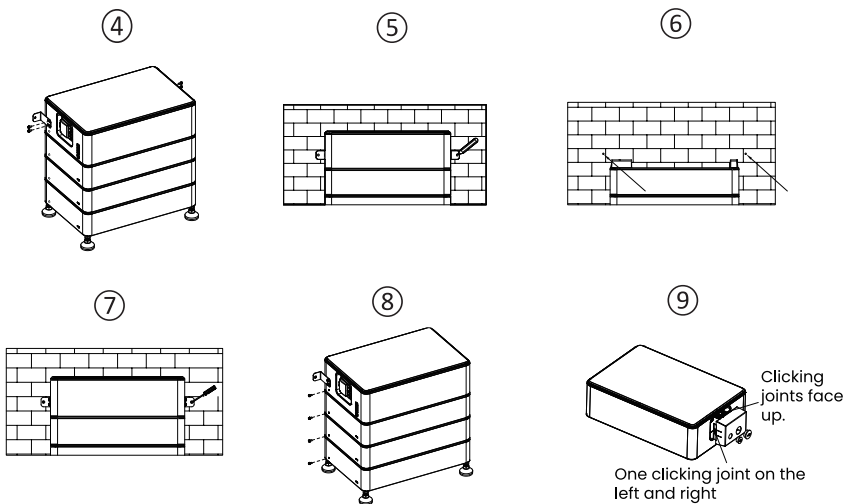


Steps



3.4 Battery Installation

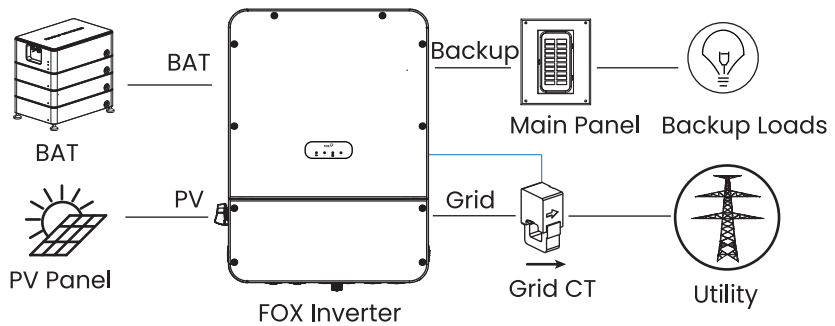
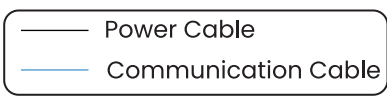




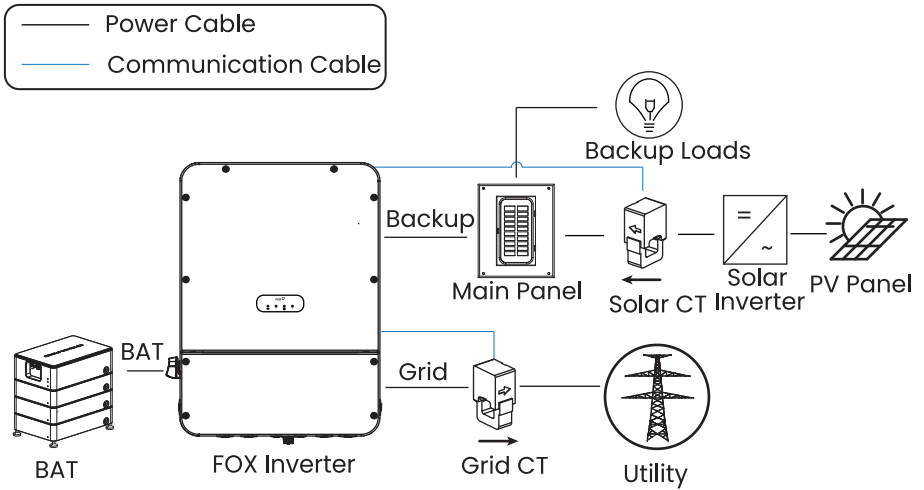
4 System Wiring Diagram

4.1 Whole-home Backup

Whole-home Backup (DC Couple)

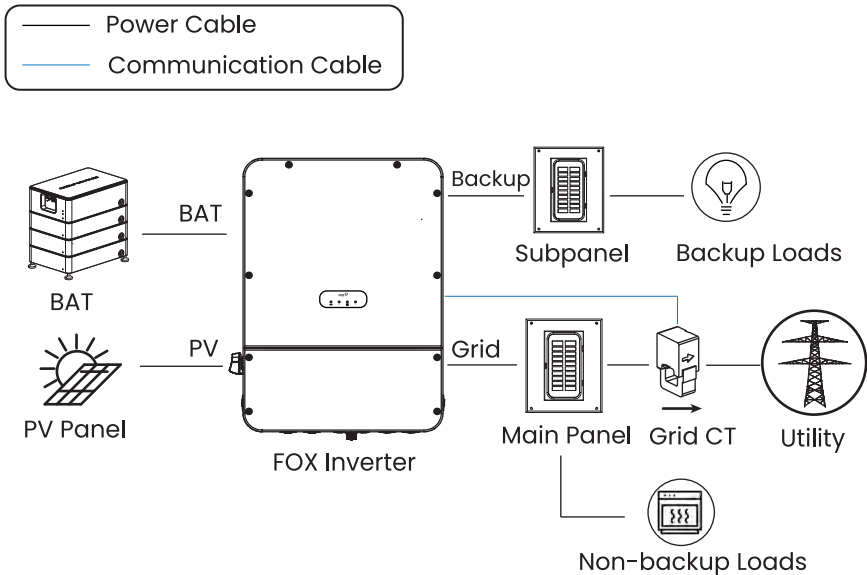


Whole-home Backup (AC Couple)

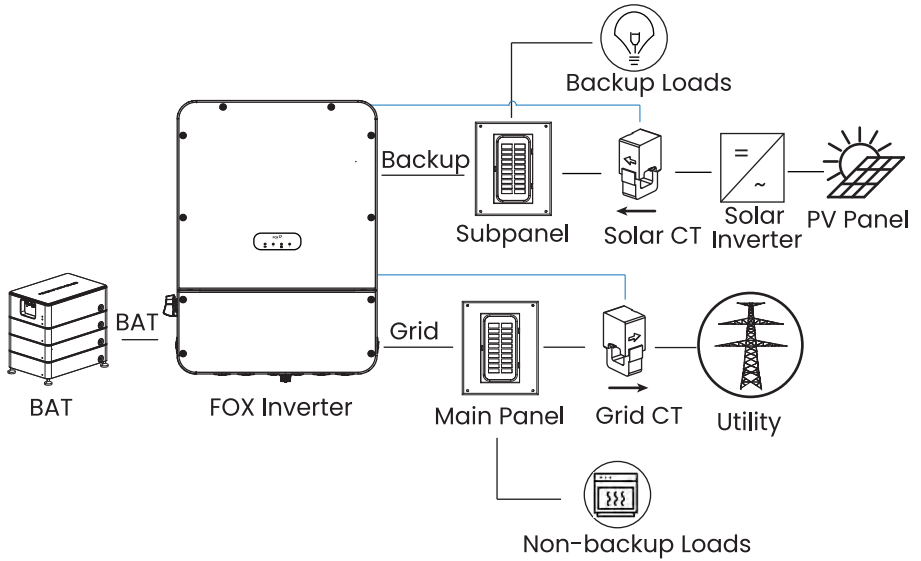
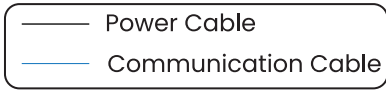


4.2 Partial-home Backup

Partial-home Backup (DC Couple)



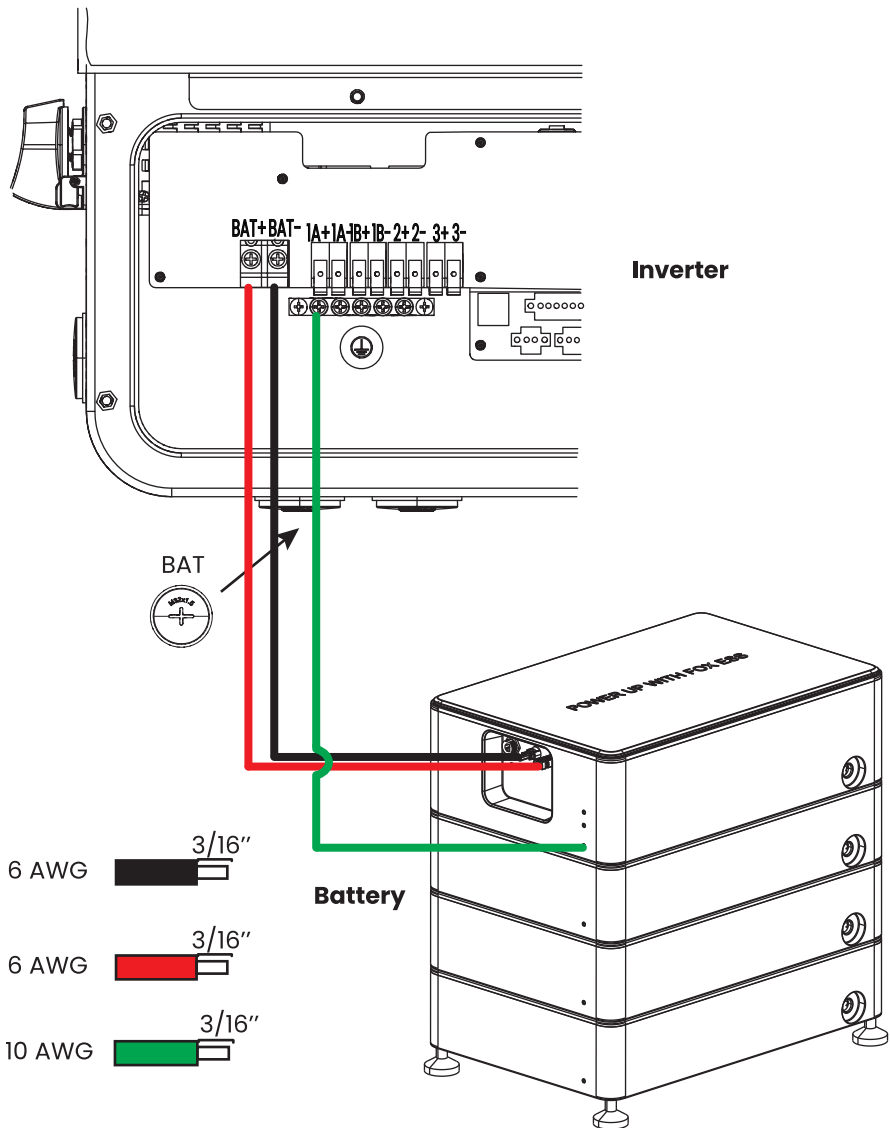
Partial-home Backup (AC Couple)



5 System Wiring Steps

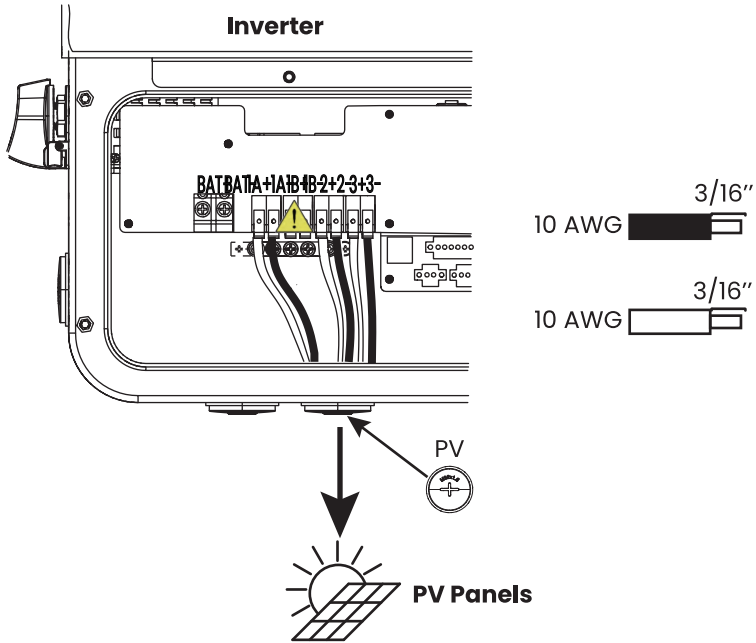
5.1 Inverter Power Cable Wiring

- The battery Connections to the inverter



- The PV Panels Connections to the Inverter

Turn off the DC switch before connection.

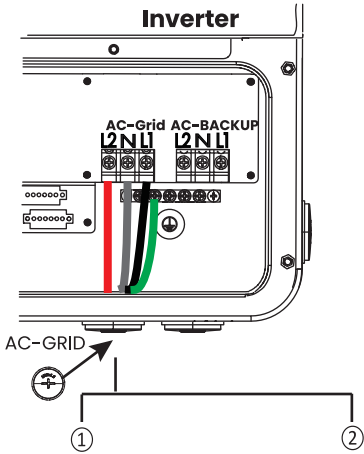


If there are ≤ 3 PV strings, 3 PV strings are preferentially connected to terminals 1A+, 1A-, 2+, 2-, 3+, 3-.



If there are 4 PV strings, the number of PV panels connected to terminals 1A+, 1A- need to be the same as that connected to terminals 1B+, 1B-.

• The Utility Connections to the Inverter

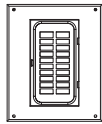


- L1:** 6 AWG 3/4"
- L2:** 6 AWG 3/4"
- N:** 6 AWG 3/4"
- PE:** 6 AWG 3/4"

Whole-home Backup Partial-home Backup

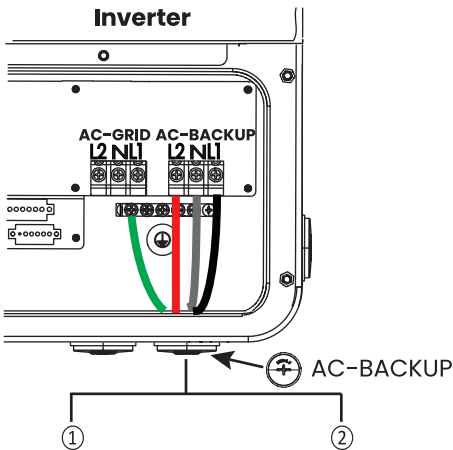


To Utility



To Main Panel

• The Backup Loads Connections to the Inverter



- L1:** 6 AWG 3/4"
- L2:** 6 AWG 3/4"
- N:** 6 AWG 3/4"
- PE:** 6 AWG 3/4"

Whole-home Backup Partial-home Backup



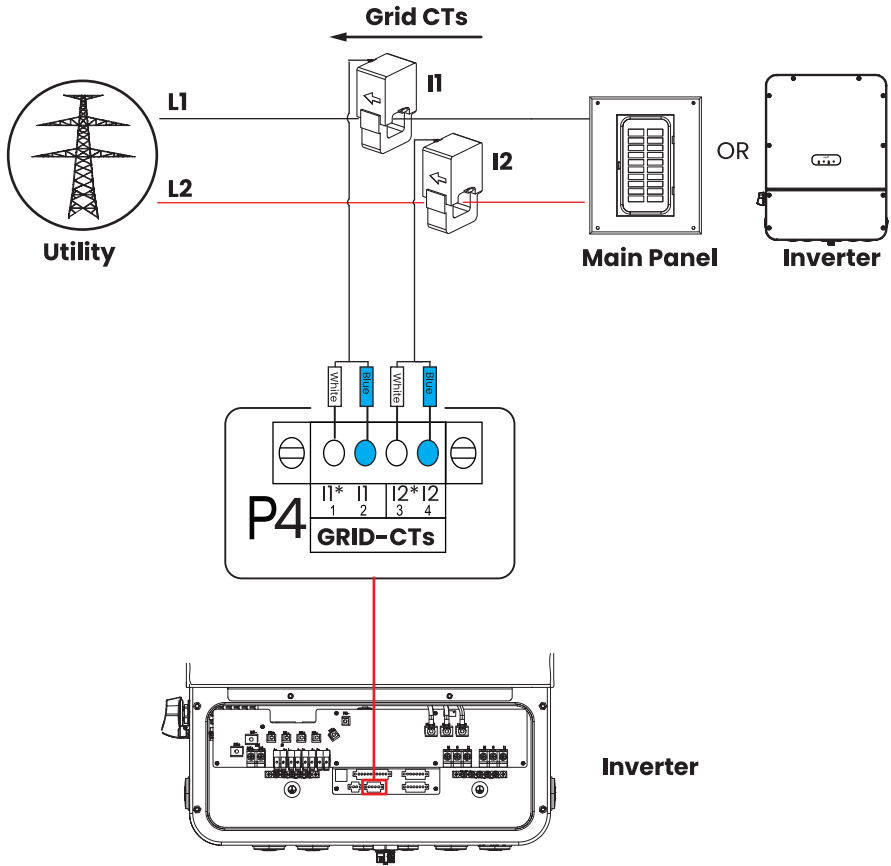
To Main Panel



To Subpanel

5.2 CT Wiring

- Grid CT Wiring

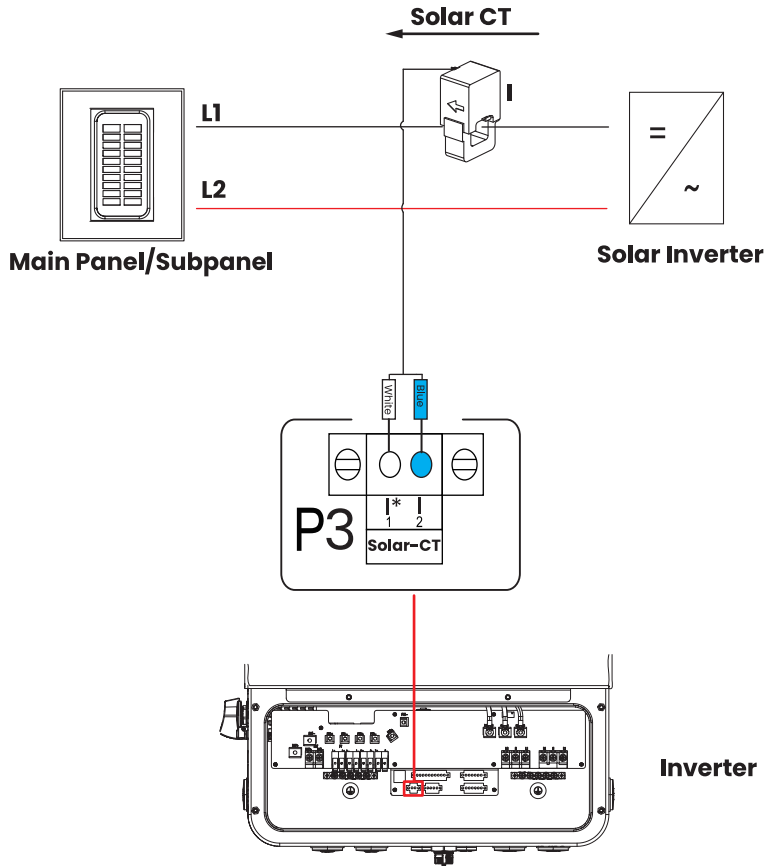


NOTE:



The grid CTs are installed in the main panel or inverter. Please refer to SLD for CTs location.

• Solar CT Wiring (Optional)



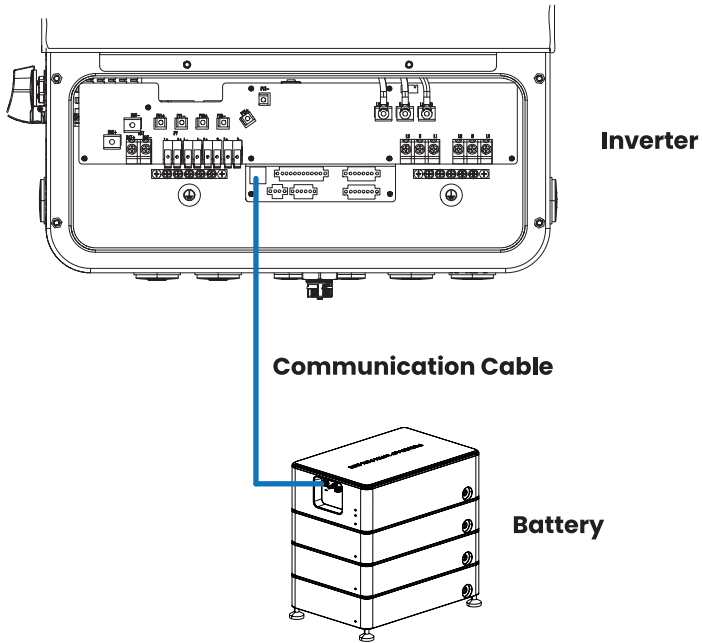
NOTE:



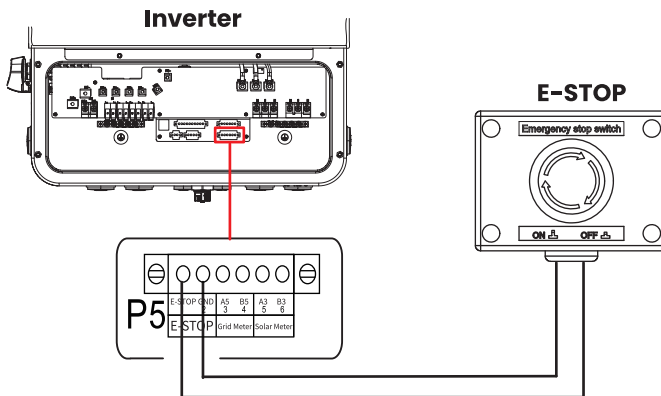
① The solar CT is installed in main panel or subpanel. Please refer to SLD for CTs location.

② Solar CT is only required in AC couple systems.

5.3 Battery Communication Wiring



5.4 E-STOP Wiring



Step 1: remove the jumper on the P5 socket.

Step 2: connect the pins 1 and 2 of the P5 socket to the E-STOP.

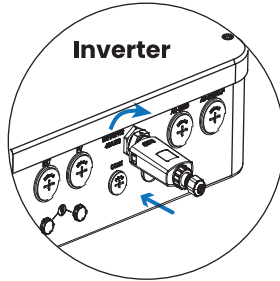
NOTE:



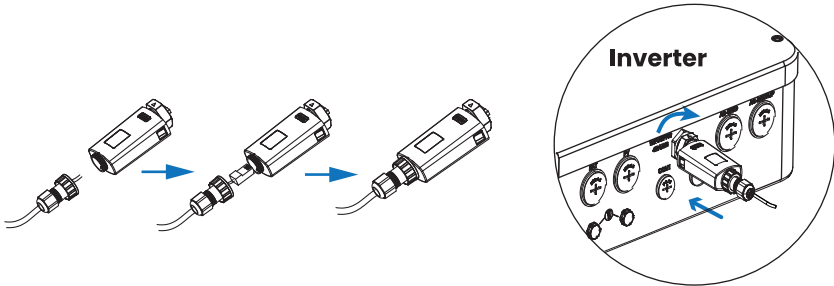
Do not remove the jumper at the P5 socket if E-STOP is not used.

5.5 Smart WiLAN Connection

- WiFi Installation: connect the Smart WiLAN to the **inverter**.



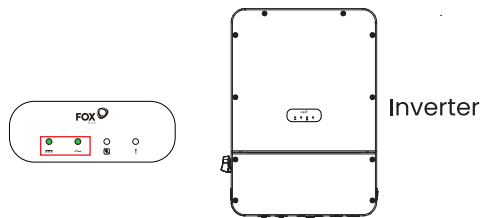
- LAN Installation: insert the network cable into the Smart WiLAN, and connect the Smart WiLAN to the inverter.



6 System Turn on

Please refer to the following steps to switch on the system.

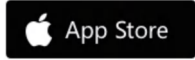
1. Ensure all cables are connected properly.
2. Turn on the PV/DC switch on the inverter (Only for New System), and AC breakers.
3. (Case 1) Normal mode: When there is PV and grid access, turn on DC switch of the battery first, then press "POWER" button of the battery.
(Case 2) Black Start: When there is no PV and grid access, turn on DC switch of the battery first, then press "POWER" button of the battery, then press and hold "B-Start" button and release it after 10s.
4. Check if green lights on the inverter are solid on.



In case you need to turn off the system, please refer to the following steps:
1. Turn off the PV/DC switch, battery, AC breakers and off-grid breaker.
2. Wait 5 minutes before you open the upper cover of the inverter (in case of repair).

7 Commissioning

Step 1: Search for FoxCloud US and download the app.



Or, scan the QR code to download the app.

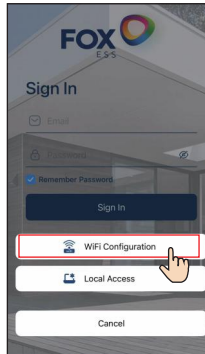
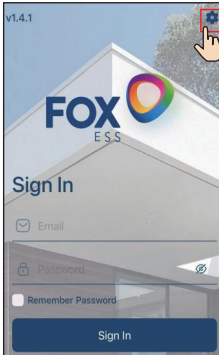


After the app is installed, the FoxCloud US icon is displayed on the home screen.

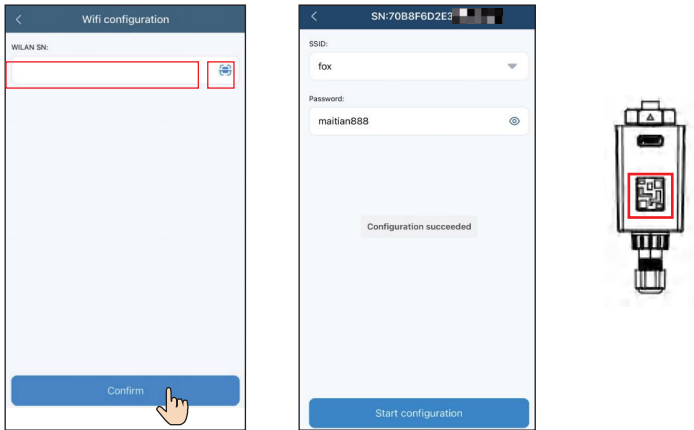


FoxCloud US

Step 2: Tap , and tap "Wifi Configuration".



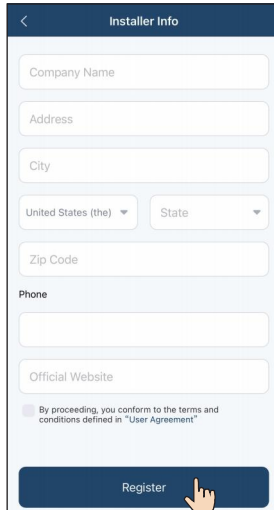
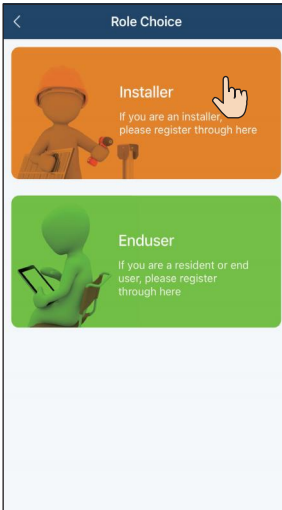
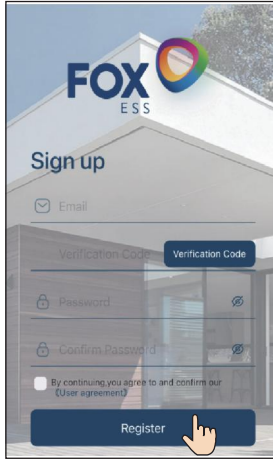
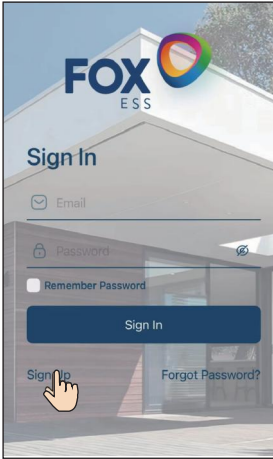
Step 3: Scan the QR code on the Smart WiLAN, or enter the SN code, and then tap “confirm”. Input the house router WiFi’s information.



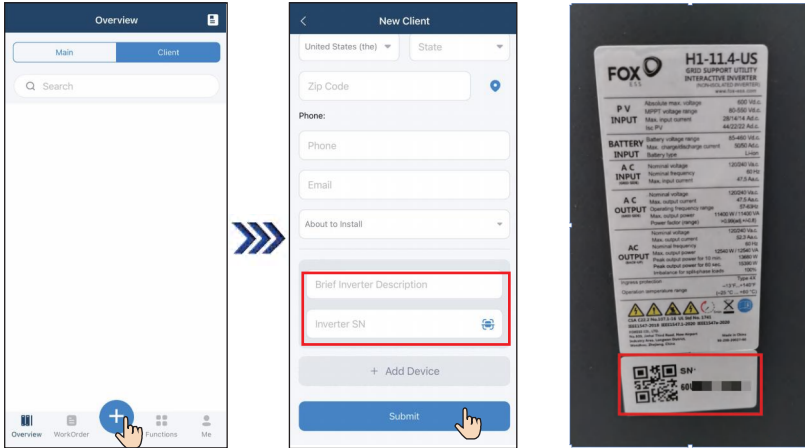
Light indication on the Smart WiLAN

Indicator	Status	Instructions
Red light	Blinking	not connected to the server
	Solid on	Connected to the server
Green light	Blinking	Data transmission

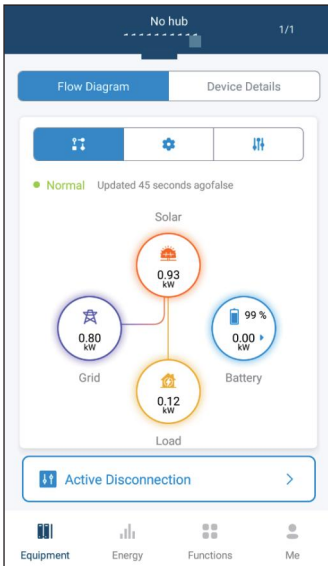
Step 4: The installers sign up.



Step 5: The installer signs in to bind the client's inverter. Scan the QR code or manually enter the inverter SN on the right side of the inverter.



Step 6: Check system performance via the end user's account.

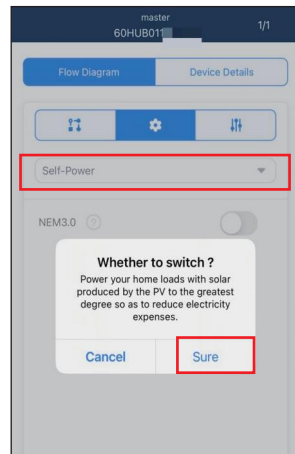
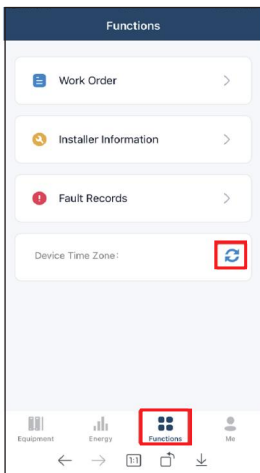


Step 7: Use the checklist below to make sure the necessary items are completed.

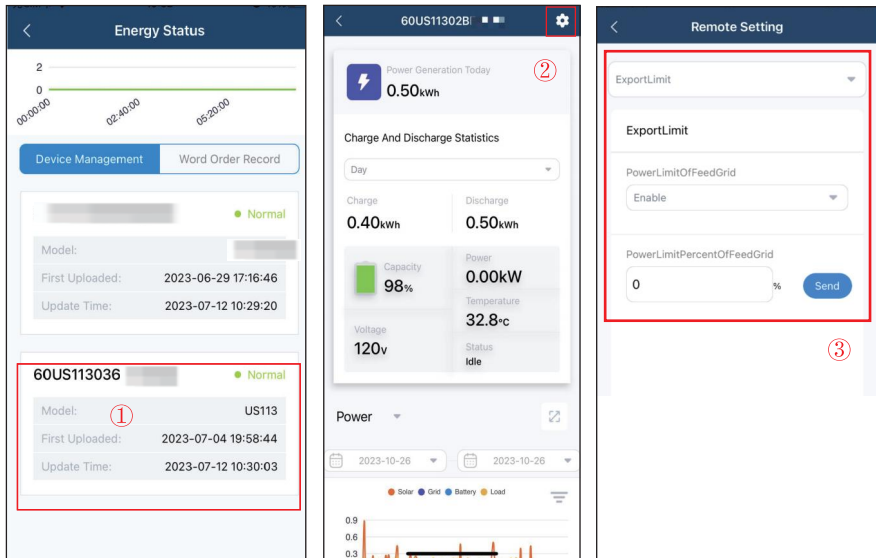
Item	Necessary or Optional	Status (✓ if completed)
1. Time Zone	Necessary	
2. Energy Mode	Necessary	
3. Zero Back-feed	Optional	
4. Grid Code	Optional (Only needed when selling to countries except US; Change "USA" into your own country)	
5. Existing Solar Inverter Power	Optional (Only needed in Existing System)	
6. Charge from Grid	Optional (Only needed when main breaker cannot support inverter output during full load)	

Item 1: Set up the time zone via the end user's account.

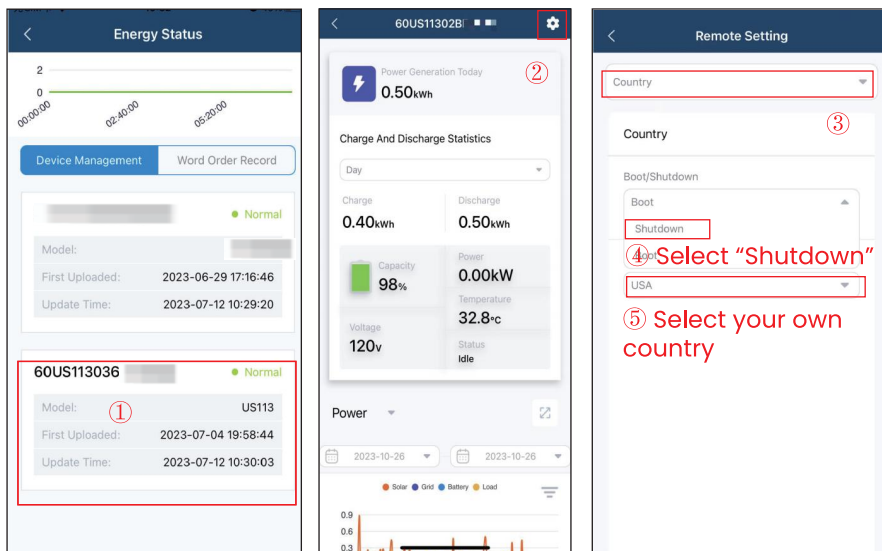
Item 2: Configure the energy management mode via the end user's account.



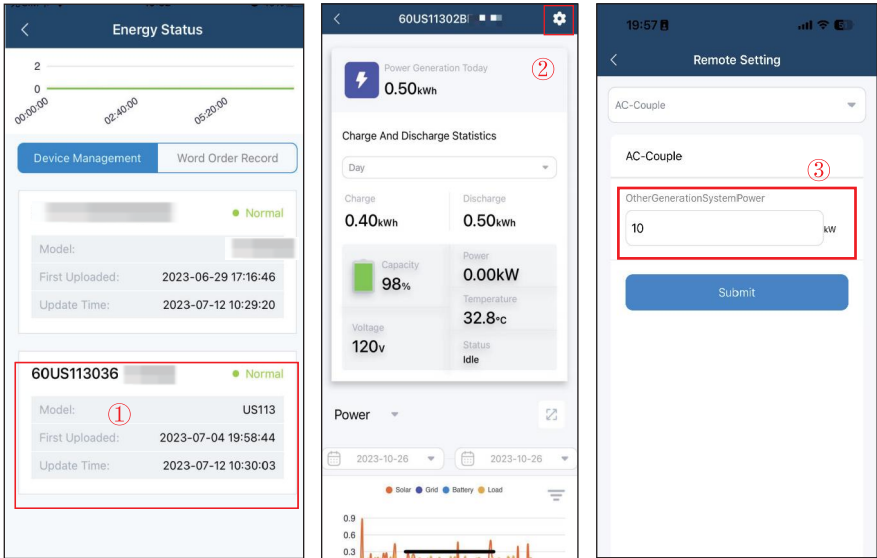
Item 3: Set the zero back-feed via the installer's account.



Item 4: Set the grid code via the installer's account.



Item 5: Set the solar inverter power via the installer's account (Existing inverter only).



Item 6: Set the charge by grid value via the installer's account.

