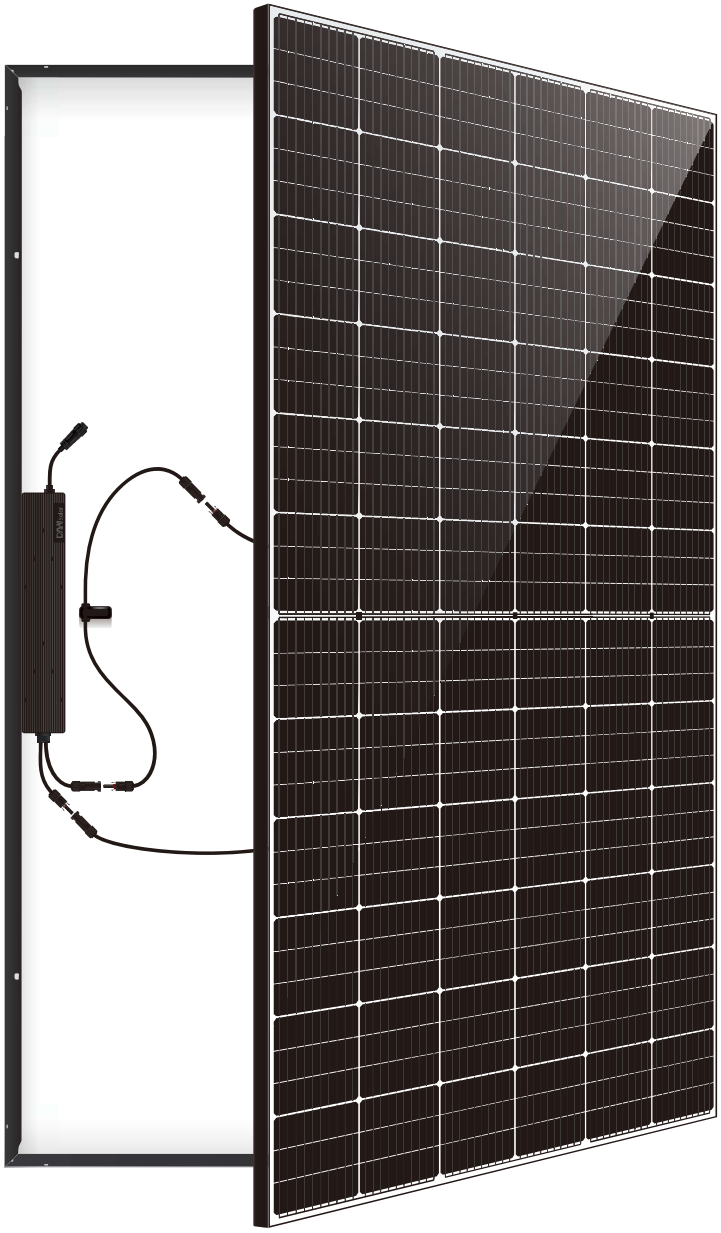
RALOS

Integrated
PV System
SolarUnit

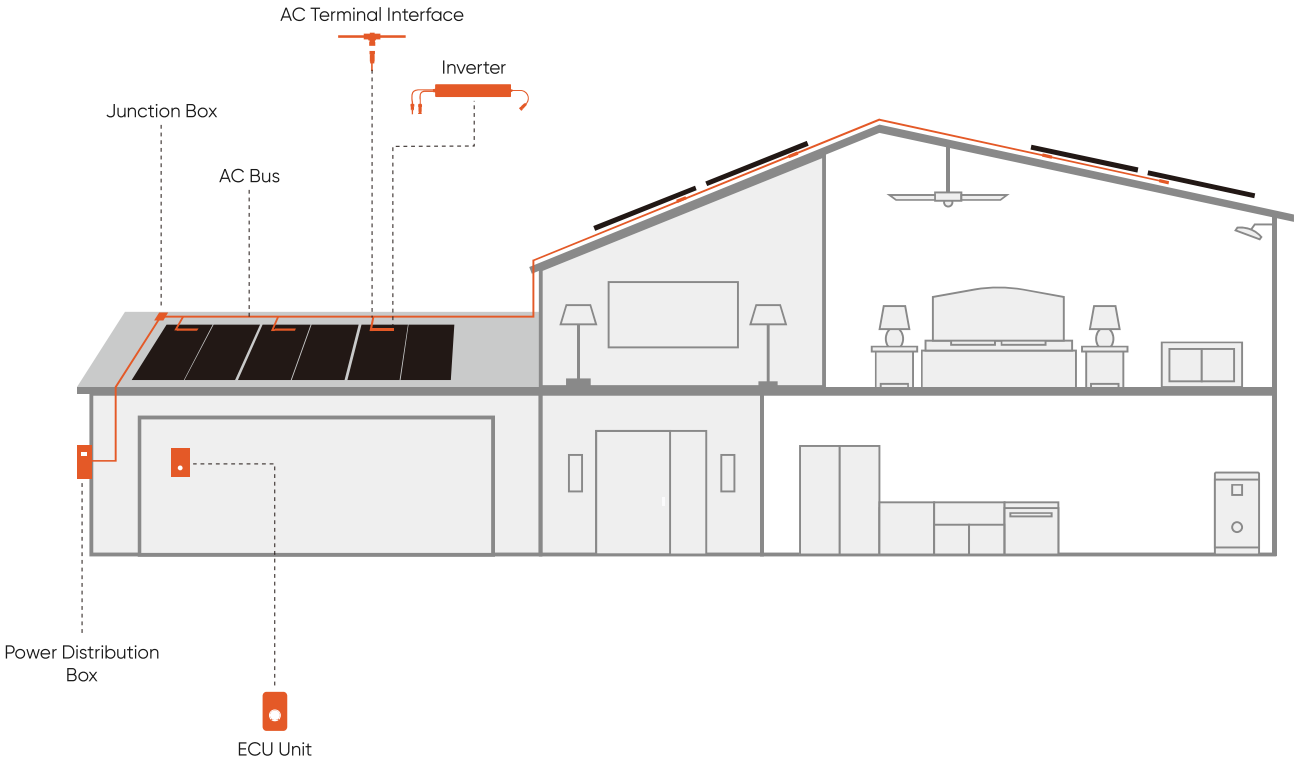
Gemini — Integrated PV System

Installation Instructions

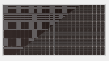
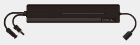


System Layout Diagram

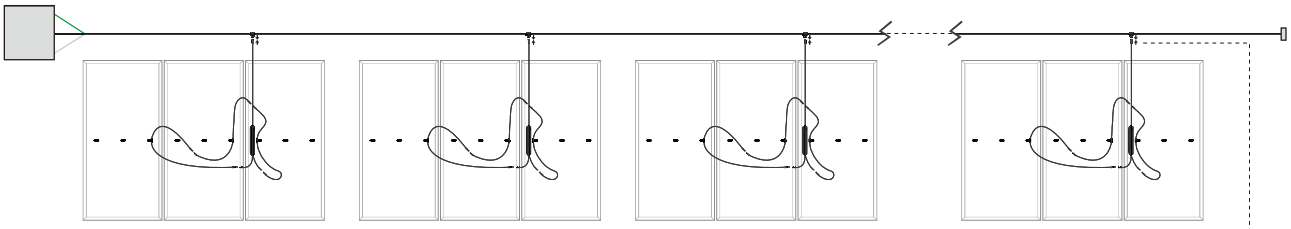
Notes: *The ECU unit is connected to the same phase as the AC line*



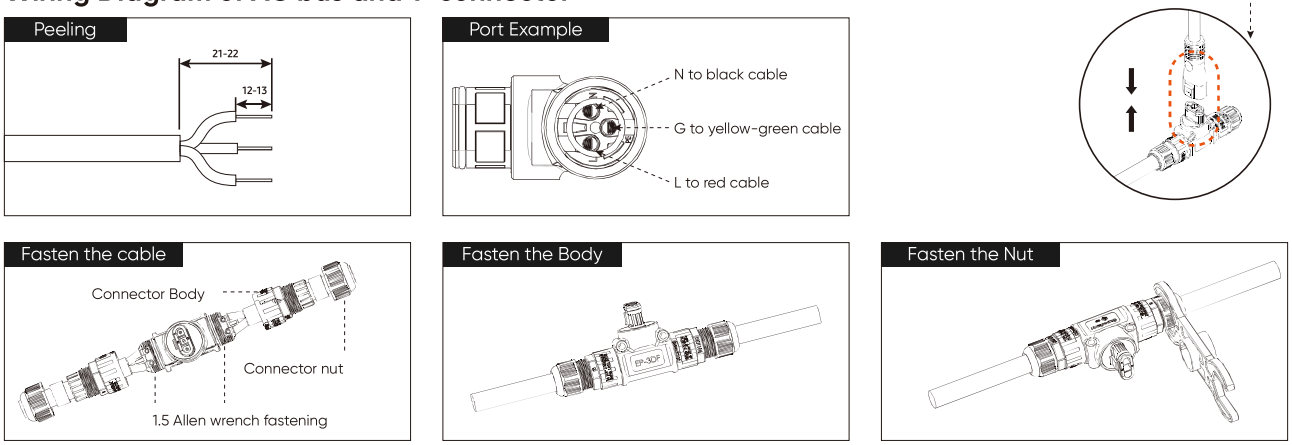
Original Equipment List

No.	Items	Pictures	Note
1	Module		Contained
2	920W Microinverter		Contained
3	ECU Unit		Contained
4	AC T-Bus (3C/12AWG) spacing cable length 2.4m		Optional number of connectors
5	AC Bus T End Cap		Contained
6	Screws		Contained
7	Quick Installation Manual		Contained
8	AC cable (3C/12AWG) optional length		Contained

AC Connection Diagram

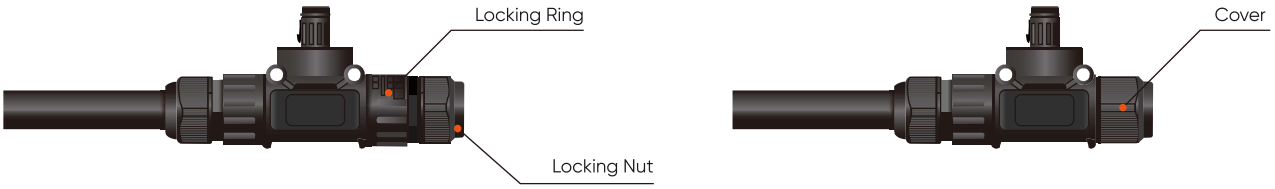


Wiring Diagram of AC bus and T-connector



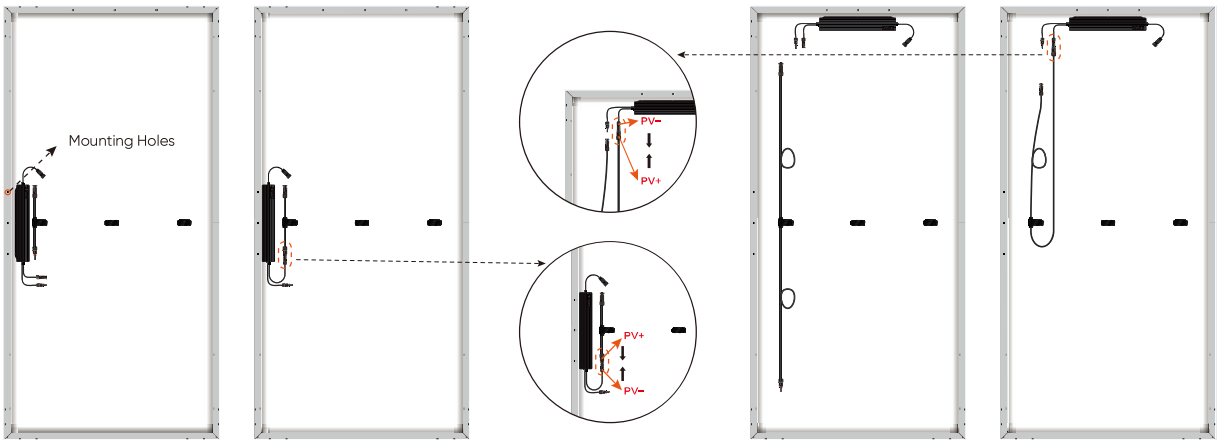
***Notes:** The AC bus is arranged according to the actual installation situations, and the 5T AC bus can be split and used. One single AC bus can be connected to a maximum of 6 inverters.*

- The reserved cable length of the AC T-bus is 2.4m, and the length of the AC bus can also be determined according to the actual distance between micro-inverters.
- Determine the number of microinverters you plan to install on each AC branch cable and prepare the corresponding AC bus.
- Take out several AC T-bus as needed to make AC cables on each branch, remove the locking ring and nut at the end of the AC bus connector when is not connected, and replace the cover at the end.



Step 1 Installation of inverter

- Install the microinverter on the frame of the photovoltaic module, align with the mounting holes, and fix it with M3 screws.
- Connect the DC MC4 terminal of the photovoltaic module to the DC MC4 terminal of the inverter.



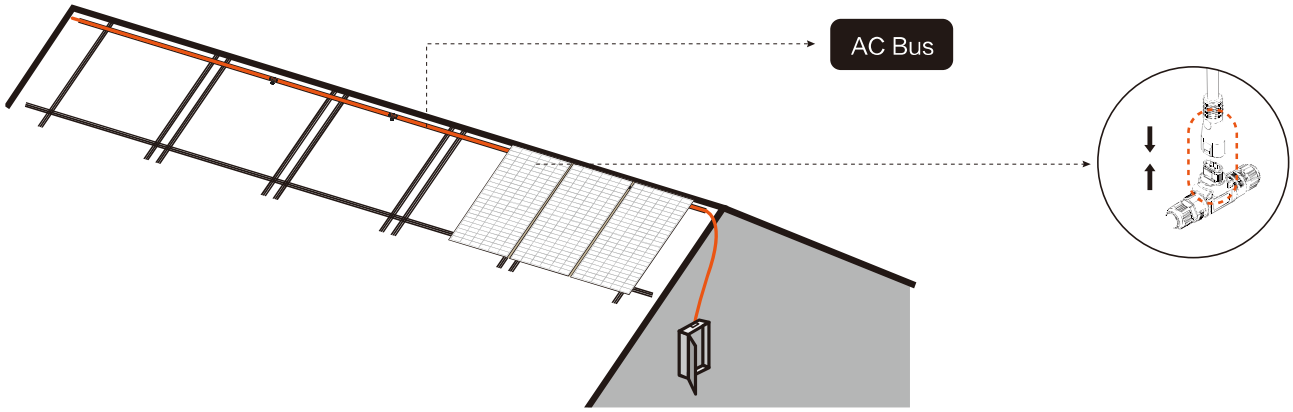
Long Side Installation Instructions

Short Side Installation Instructions

* Before installation, please check if the microinverter is installed firmly (the microinverter is installed on the frame of the module by default, if it is not installed, please follow "step 1" to install)

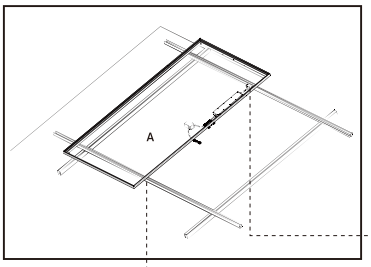
Step 2 Layout AC Bus

- Pre-arrange the AC bus at a suitable position in the SolarUnit system
- The T-shape connector should be reserved as close as possible to the middle gap between the two components

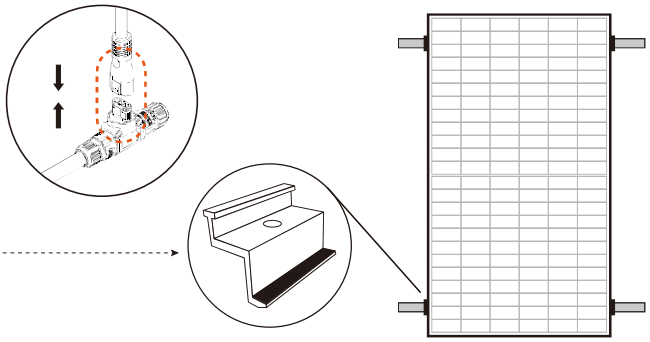


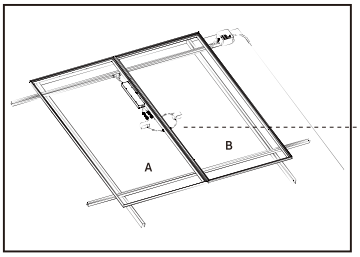
Step 3 Install PV Module

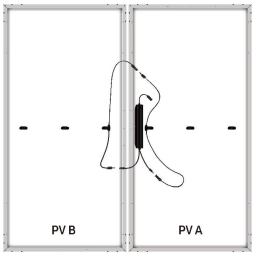
Installation and connection of the modules (repeat the modules installation according to the diagram, the diagrams are showing the front of the module)



- lace module A (with inverter) on the corresponding position of the AC terminal interface on the bracket.
- Install the pressing block to fix it (add EPDM anti-scratch mat to the pressing block)
- Connect the AC output connector of the inverter to the T-bus connector.

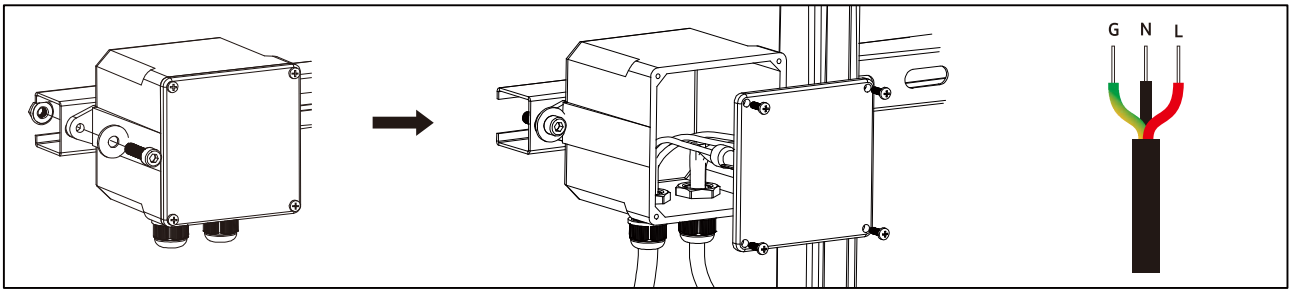






- Place module B on the bracket and align it up and down with module A
- Leaving a gap of about 20mm in the middle. The cables of module A and module B are on the same side.Connect Module A and B in series, and connect the DC MC4 terminal of Module B to the DC MC4 terminal of the inverter, then move Module B to a suitable position and fix it

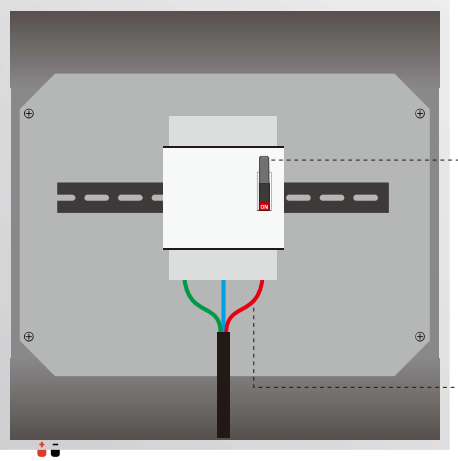
Step 4 Junction Box Installation

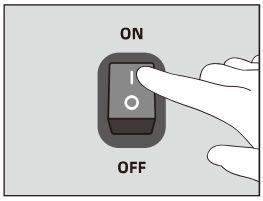


- The junction box and cables to the power distribution box need to be prepared by the user and the wiring must be completed
- First install the junction box, then strip the end of the AC cable and connect it to the junction box. Finally connect the junction box cable to the distribution box

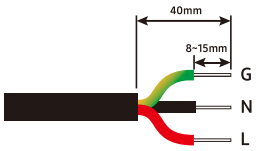
AC Bus Connection

Notes: Turn on the circuit breaker, the inverter enters the start state





- Before wiring, ensure that the circuit breaker of the household distribution box is disconnected

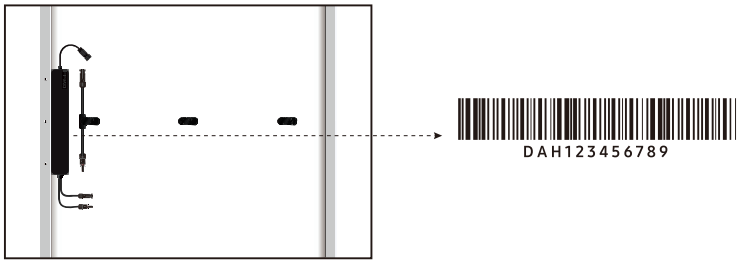


- Arrange the AC Bus

WARNING

1. Please make sure that the access circuit breaker in the distribution box is disconnected, and wear safety protection for wiring operations, beware of electric shock!

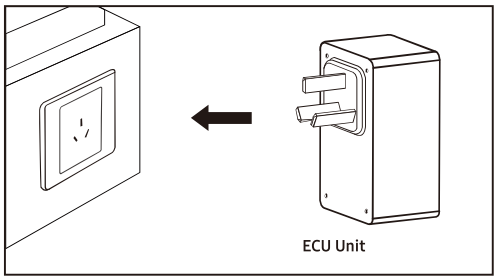
2.Corresponding cable color and type: L cable-red; N cable-black; G cable-yellow green; cables' color varies according to different regions, and the inverter checks all installed cables before connecting to the AC bus to ensure Make sure they match.



Each SolarUnit has a detachable serial number label located on the microinverter casing, as shown in the picture: tear off the serial number label and paste it on the corresponding position of the system installation worksheet (as shown in the table below);

String: Position:	Inclination: Date:	Customer:		Installation:		↑
	1	2	3	4	5	6
A						
B						
C						
D						

Installing ECU



Plug the ECU into the socket

The power supply of the ECU unit and the power station must be guaranteed to be the same output line, and the place where it is used needs to be connected to a wireless network for energy management and data monitoring

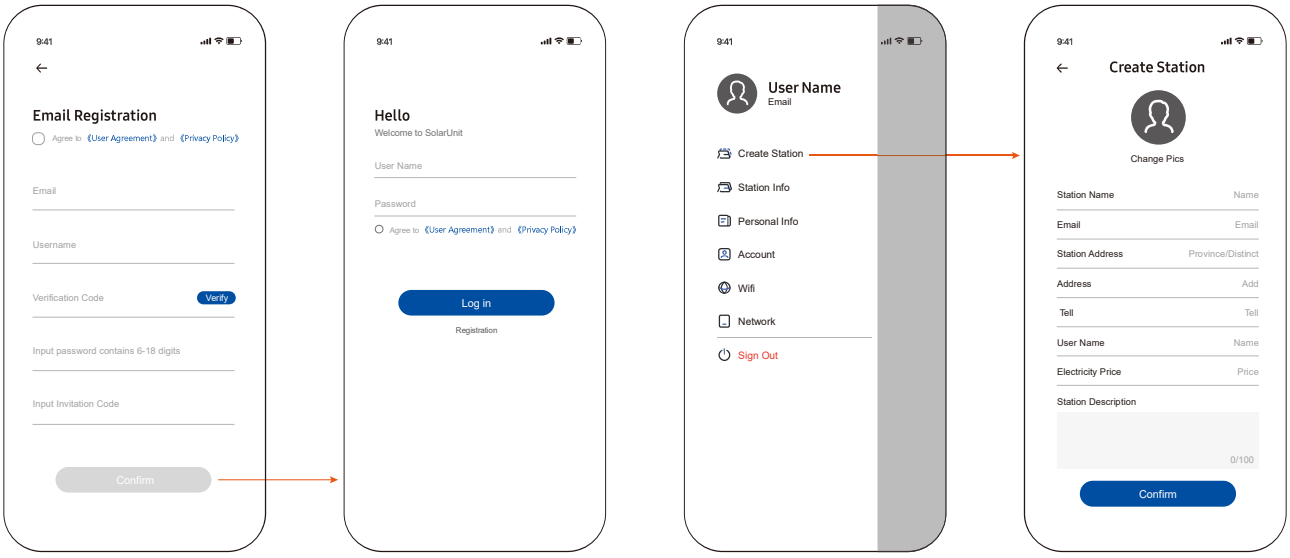
Site Construction Manual

Android

IOS

01 / APP Scan and download application

Users & Create



a b c d

02 / For new users, click the registration button in the lower right corner of the picture above, and return to the home page to log in after registration (Picture a);

03 / Enter the login interface and enter the account password (Picture b);

04 / Successful login, enter the home page, click (...) in the upper right corner, and click "Create Power Station" (Picture c);

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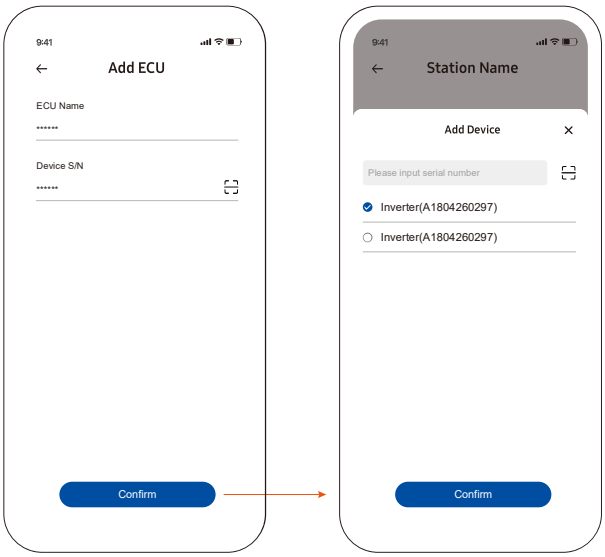
Site Construction Manual



e f

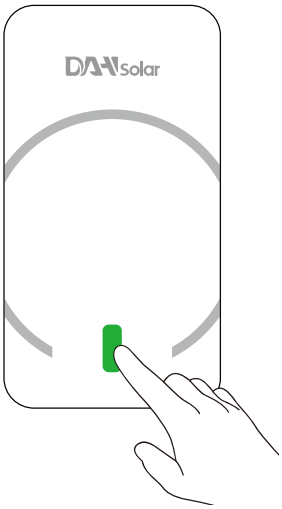
06 / Jump to the ECU unit adding page, click "Add ECU unit" in the upper right corner, enter the name and scan the code to enter the SN number (Picture e) (when the system is unpacked);

07 / ECU unit added successfully Jump to the inverter adding page, click "Add Inverter" in the upper right corner (Picture f);

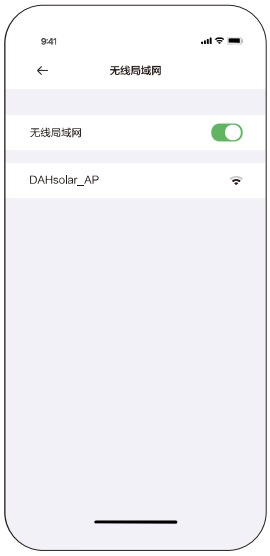
08 / According to the prompt, enter the SN of the inverter by scanning the code (when the system is unpacked);

09 / After the equipment is added successfully, the newly added inverter can be seen under the new power station.

Distribution Network



g



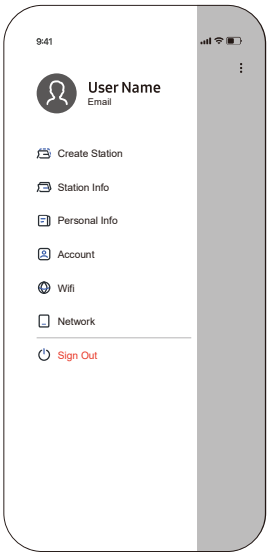
h

10 / Long press the LED light on the ECU unit until the light flashes red and green alternately (Picture g);

11 / ECU unit hotspot: connect to the hotspot created by the ECU unit in the mobile phone settings, "DAHsolar_AP", no password required (Picture h);

12 / Click (...) in the upper right corner of the home page. Then click "Configure Network" (Picture i);

13 / Enter the name and password of the home wireless WIFI, click OK, and a pop-up window "OK", which means the distribution network is successful, return to the home page.



i

j

14 / Click "Create Complete", the new power station is successfully created (Picture j)

	Red light stays on or quick flashes	Green light stays on or quick flashes
Inverter	Fault or do not meet grid connection conditions	Normal grid-connected operation

	Alternately flashing red and green	Flashing green light	Flashing blue light	Flashing red light
ECU Unit	Waiting for network distribution	Configure the network and connect to the	Not connected to server	Emergency shutdown

Notes: Be careful not to touch the button during operation, which may cause the inverter to stop running. In this state, please press the touch button again to make the green light flash to resume operation.

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