



Quick Installation Guide

Solax Box 3.0

I

Packing List

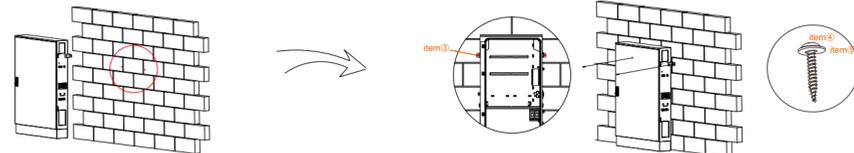


II

Box Installation

- Place Solax Box 3.0 against the ground.
- Drill holes with $\phi 10$ drill.
- Depth: at least 50mm

- Tighten the expansion tubes.
- Pass the expansion screws through the M6 washers, then screw the expansion screws.



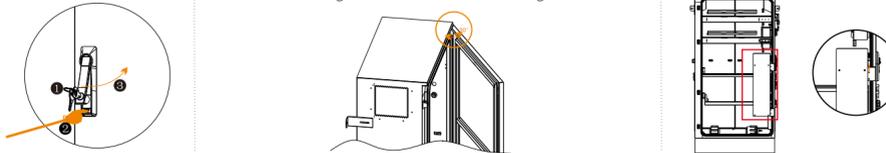
Notes:

- Affix the empty box on the wall first before proceeding any installation. It will be too dangerous to move as the box fitting with batteries and inverter will overweigh box-handle's bearing limit.
- Clean or replace the ventilation filters every three months.

- Insert the key.
- Open the door.

- If the space is too narrow to fully open the door, you are able to remove the door. Please note that the door can only be removed when opened 30 degrees or more.
- Dismantle the ground wire before removing the door.

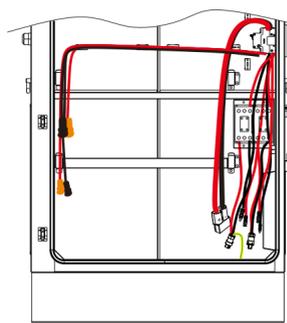
- Remove the safety bezel.



III

Connectors inside the Box

- Overview of connectors inside the Solax Box 3.0. (Wiring of the connectors inside the box has been completed upon delivery.)



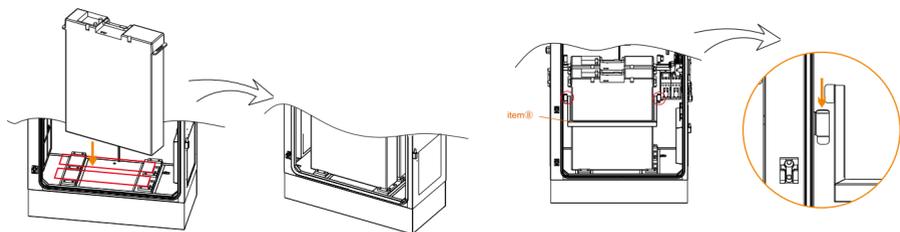
Connectors	Application	Connectors	Application
	LG Connectors X 2 pairs		BAT Connector
	Pv1- Pv1+		EPS Connector
	Pv2- Pv2+		AC Connector

IV

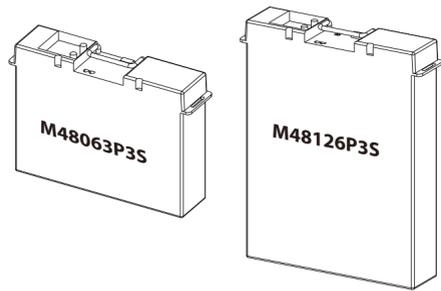
Battery Installation

- Place the battery into the Solax Box 3.0.

- Install the battery guard.



Solax Box 3.0 can be equipped with two models of batteries respectively.

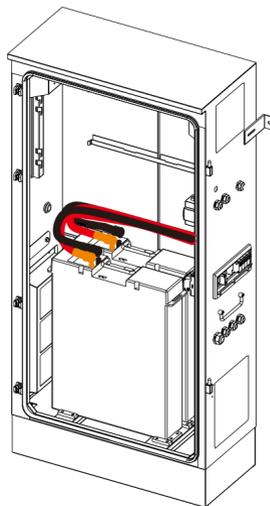


Battery	M48063P3S	M48126P3S
Nominal Capacity	63Ah	126Ah
Nominal Voltage	51.8V	51.8V
Nominal Energy	3.262kWh	6.524kWh
Maximum Current	63A	63A
Dimension	445*110*338.8mm ³	445*110*586.6mm ³

- Connect LG connectors into the jacks on the battery.

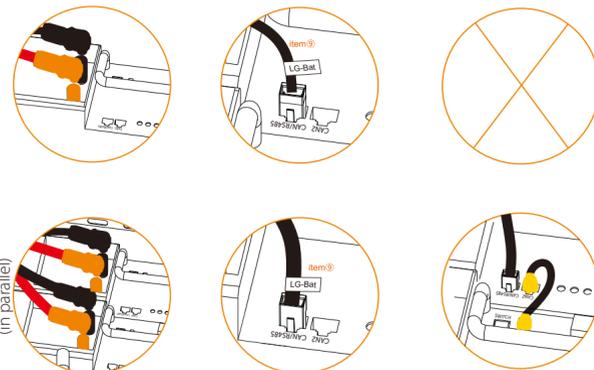
- Find BMS cable in **Solax Box 3.0 packaging**.
- Insert the "LG-Bat" side of the "BMS" cable into the "CAN/RS485" port on the battery (The "Solax" side is to be related to BMU in chapter V).

- Find intra-rack network cable in **battery packaging**.
- Insert it into "CAN2" ports on the batteries respectively.



For one battery

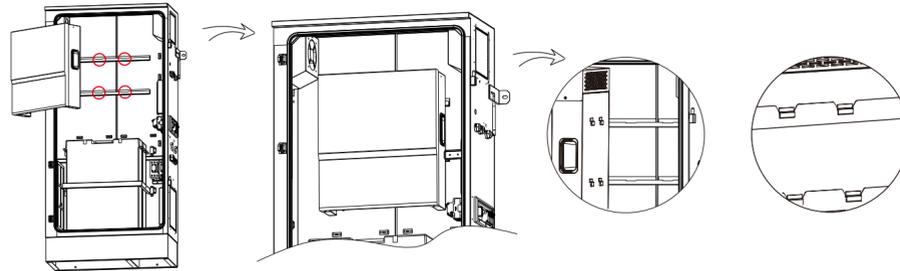
For two batteries (in parallel)



V

BMU Installation

- Match the BMU with bracket.



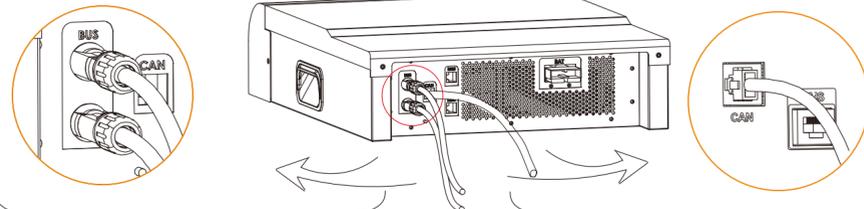
- Connection between **BMU and SK-TL** (Wiring of BMU side).

BUS Connection:

- Find BUS Connectors in **BMU Packaging**.
- Connect BUS connectors to "BUS" port on the BMU (The other side is to be related to SK-TL in chapter VI).

Communication:

- Find CAN connector in **BMU Packaging**.
- Insert one side of the connector into "CAN" port on the BMU (The other side is to be related to SK-TL in chapter VI).



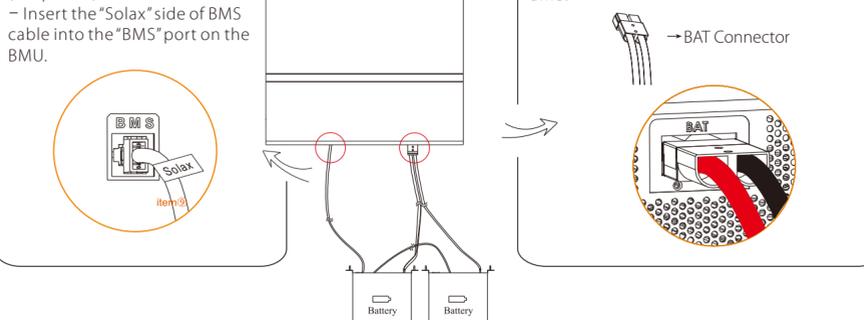
- Connection between **BMU and Battery** (Wiring of BMU side).

Communication:

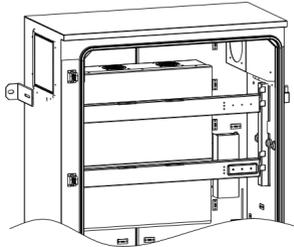
- Find the BMS cable which has been connected to the Battery (chapter IV).
- Insert the "Solax" side of BMS cable into the "BMS" port on the BMU.

Battery Power Supply:

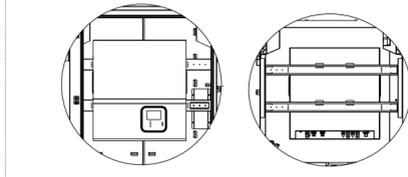
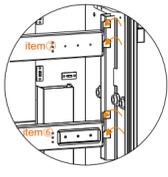
- Find BAT Connector inside the box (chapter III).
- Insert BAT connector into "BAT" port on the BMU.



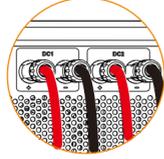
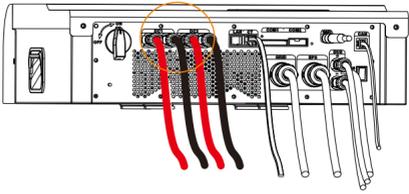
– Install the bracket.



– Match SK-TL with the bracket.

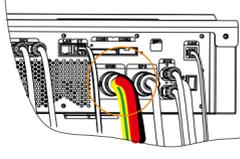


Connection between **SK-TL and circuit breakers** (Wiring of SK-TL side).
– Find PV connectors, AC connector and EPS connector inside the box.
– Plug PV connectors to DC ports on the SK-TL by numbers.

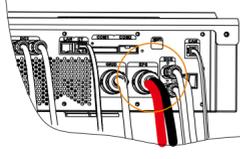


PV1+ TO DC1+
PV1- TO DC1-
PV2+ TO DC2+
PV2- TO DC2-

– Plug AC connector to "GRID" port.

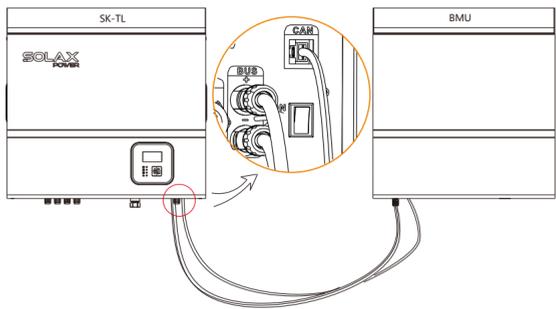


– Plug EPS connector to "EPS" port.

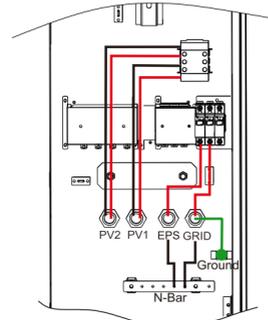


Connection between **SK-TL and BMU** (Wiring of SK-TL side).

– Find the BUS connectors and CAN connector that has already been inserted into the ports on the BMU.
– Insert RJ45 side of the CAN connector into "CAN" port on the SK-TL.
– Insert the BUS connectors into the "BUS" port on the SK-TL.



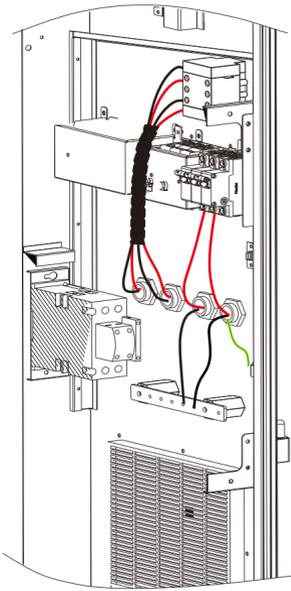
*Notes: Please refer to Quick Installation Guide or User Manual in **SK-TL packaging** for system setting.



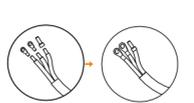
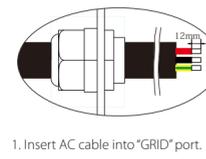
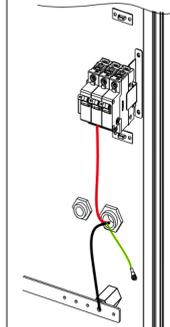
Wiring Diagram



Pictorial Wiring Display

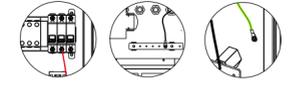


Grid connection steps (AC cable size: 4~5mm²):



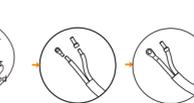
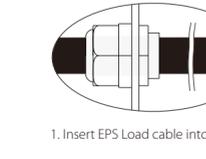
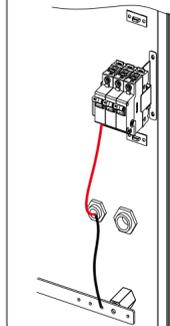
1. Insert AC cable into "GRID" port.

2. Make AC wires.



3. Connect wires to the Grid circuit breaker (inside the box), N-bar and ground terminal respectively.

EPS Load connection steps (EPS Load cable size: 4~5mm²):



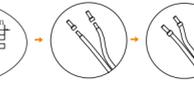
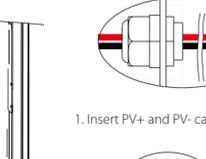
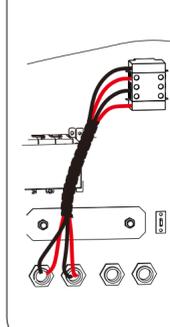
1. Insert EPS Load cable into "EPS" port.

2. Make EPS Load wires.



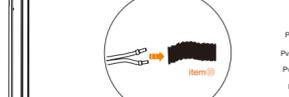
3. Connect wires to the EPS Load circuit breaker (inside the box) and N-bar respectively.

PV connection steps (Please use the PV special cables):



1. Insert PV+ and PV- cables into PV ports.

2. Make PV wires.



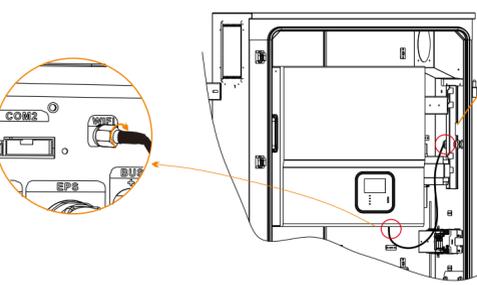
3. Pass the wires through the corrugated tubing.

4. Connect wires to the DC disconnect switch.

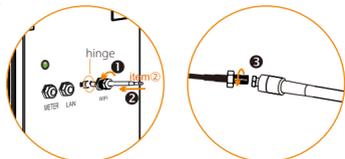
– Find Wi-Fi connector and Wi-Fi antenna in **Solax Box 3.0 packaging**.



– Tighten the tube side of the Wi-Fi connector with the "WIFI" port on the SK-TL clockwise.



– Tighten the screw side of the Wi-Fi connector with Wi-Fi antenna through the "WIFI" gland on the box. (Make sure the hinge of the Wi-Fi antenna is inside the box.)



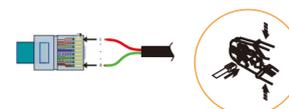
*Note: Please refer to Wifi Setting Guide in **SK-TL packaging** for Wi-Fi setting.

CT connection steps:

– Find CT in **SK-TL packaging**.
– Cut off the RJ45 connector.
– Insert the CT wire through the "Meter" gland.



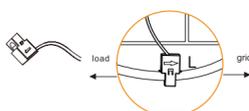
– Connect CT wire to a RJ45 connector.
– Please follow the sequence below:



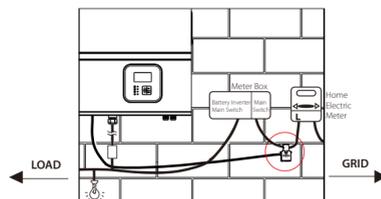
Pin 1 Red wire X X X X X X X X Green wire

– Insert RJ45 to "CT" port on the SK-TL.

– Hang the CT on the Live line which connects to the electric meter (Arrow towards the public grid).

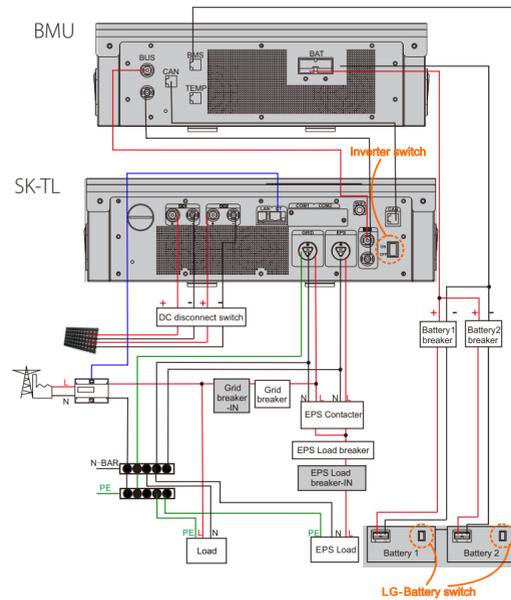


– Abbreviated drawing of the CT connection

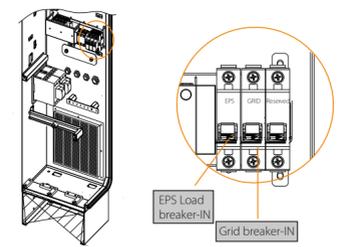


System wiring diagram:

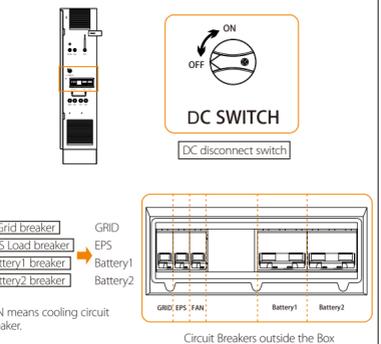
Items highlighted in grey should be performed inside the box.



Circuit Breakers (Inside the box):



DC Disconnect Switch & Circuit Breakers (Outside the box):



*Notes: The system wiring diagram does not include the cooling circuit. The cooling circuit has already been connected upon delivery. The cooling circuit will run automatically when the ambient temperature of the box is over 45°C.

PV system restart procedures:

- Step 1: Switch on Grid & EPS load circuit breakers inside the box.
- Step 2: Switch on LG-Battery switch.
- Step 3: Switch on Inverter switch.
- Step 4: Switch on DC disconnect switch.
- Step 5: Switch on Battery1 & 2 circuit breakers.
- Step 6: Switch on Grid & EPS Load & cooling circuit breakers.
- Step 7: Switch on AC "Main Switch (Battery Inverter & EPS Supply)" located in the Meter box.

*Notes: The alarm light will emit red when the inverter is faulty.

PV system shutdown procedures:

- Step 1: Follow the "Battery Shutdown Procedure" to turn off the AC "Main Switch (Battery Inverter & EPS Supply)" located at the Switchboard.
- Step 2: Switch off Grid & EPS Load & cooling circuit breakers.
- Step 3: Switch off Battery1 & 2 circuit breakers.
- Step 4: Switch off DC disconnect switch.
- Step 5: Switch off LG-Battery switch.
- Step 6: Switch off Inverter switch.
- Step 7: Switch off Grid & EPS load circuit breakers inside the box.