SolarEdge CSS OD Communication Module replacement - Support kit manual

This manual describes the procedure for replacing the communication module for the CSS-OD.

Revision history

- Version 1.0, November 2024 - Initial release

Kit contents

- Communication module PN: FLD-CSS-OD-BC-CM-01

Required tools

- Multimeter
- Insulated tools
- Insulated shoes
- Insulated gloves
- Cable ties

Before you begin

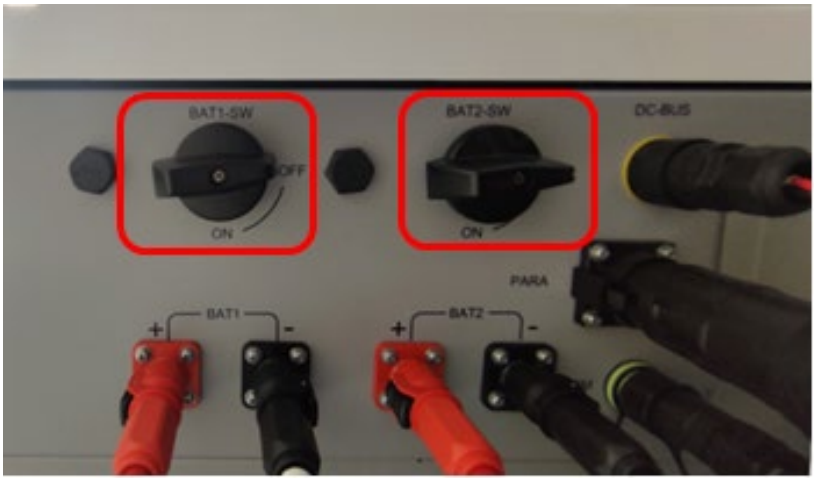
There are two versions of the system: On-grid system and the Backup Interface (BUI) system. The procedure for shutting down the system differs depending on the installed system.

On-grid system

Turn off all AC circuit breakers supplying the battery cabinet and the air conditioner.

Shut down the Battery inverter

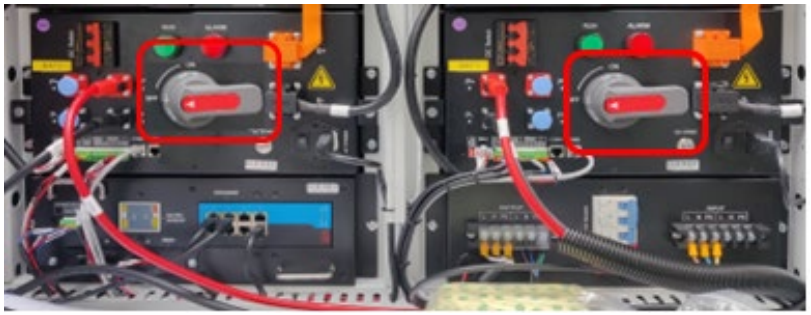
On the bottom of the battery inverter, turn OFF (counterclockwise) the two (2) black PCS DC switches.



Inverter switches

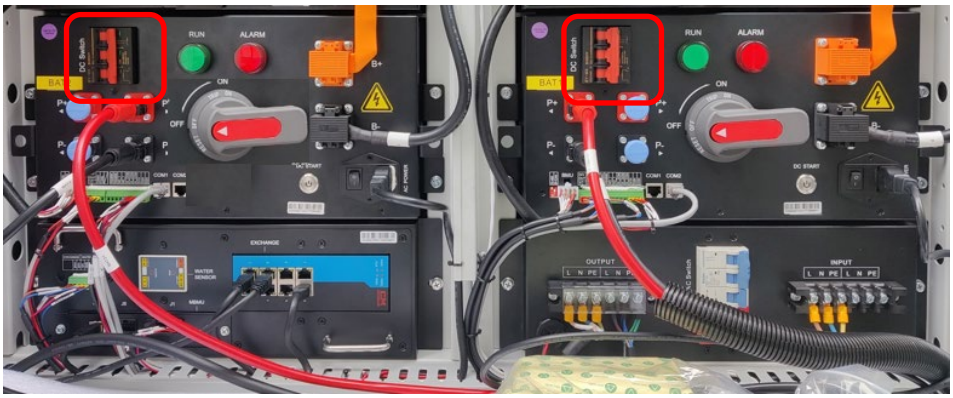
Shut down the Battery cabinet

1. Open the battery cabinet door, and keep it open using the support bar located inside the cabinet.
2. Turn off the two red and grey high voltage switches.

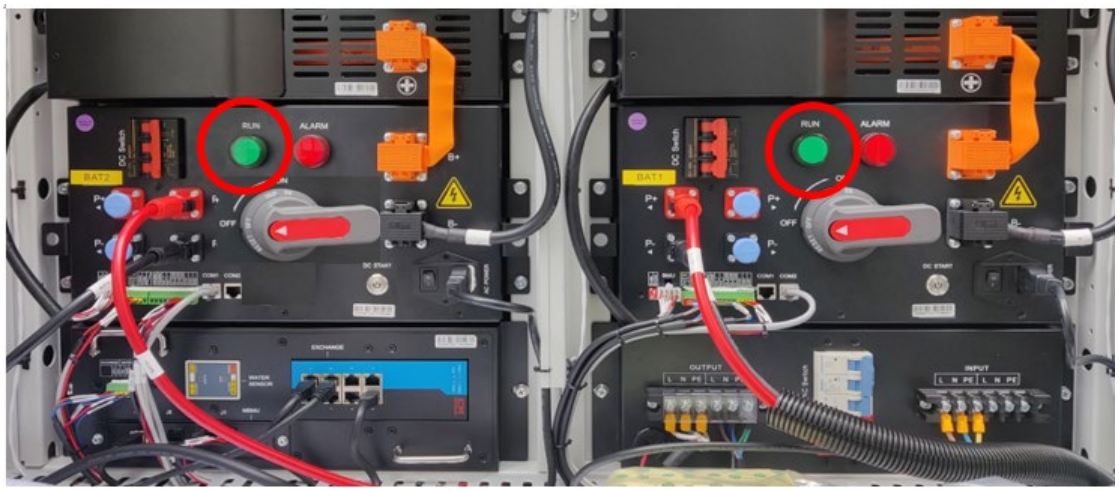


3. Turn off the two blue AC switches (move them to the right).

4. Turn OFF both red DC switches by moving them to the right.

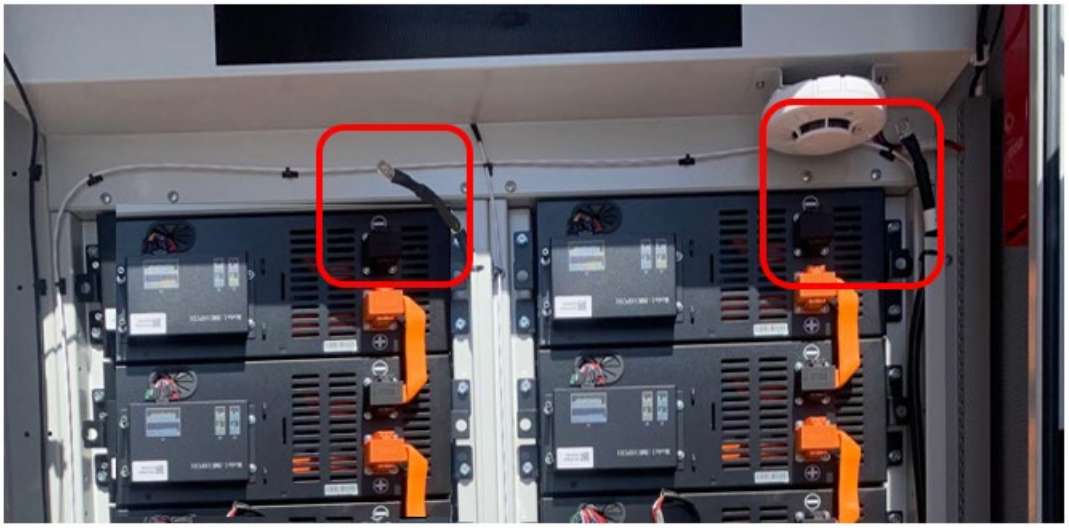


5. When the circuit breaker switches turned OFF, the High Voltage Box indicator light is OFF.

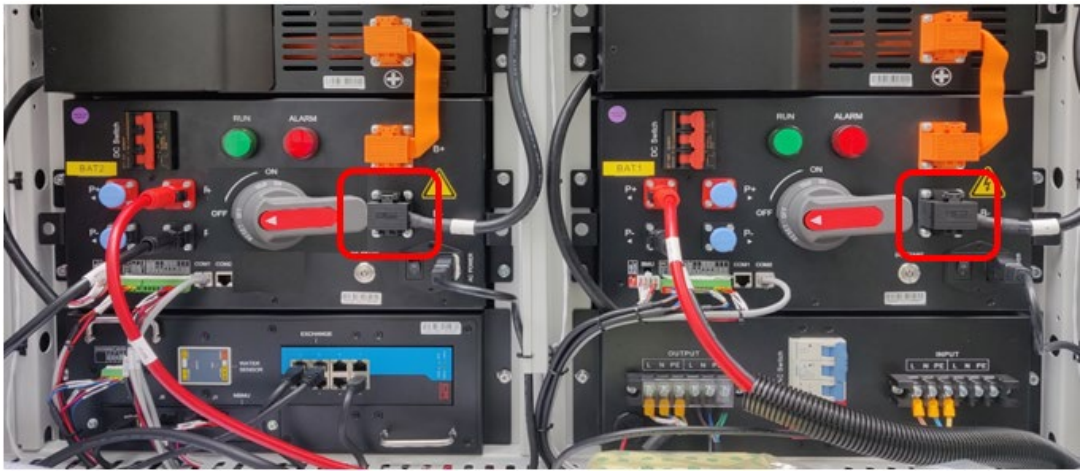


6. Ensure that the inverter indicator lights are OFF.

7. Disconnect the black cables from the top of the battery strings on both sides of the battery cabinet, as shown below.



8. Disconnect the black cables from the bottom of the battery strings on both sides of the battery cabinet.



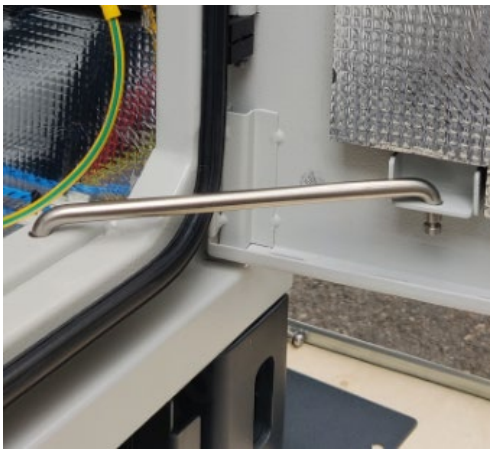
WARNING!

Be aware that each individual battery is still “live” at 52V.

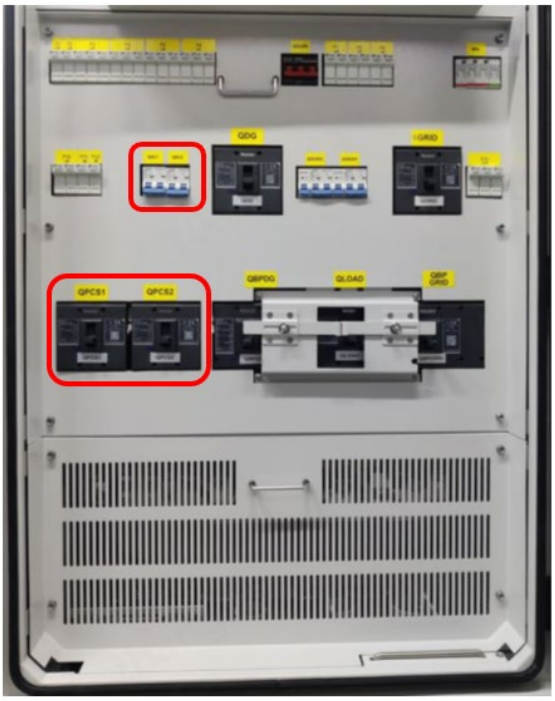
BUI system

Shut down the BUI

9. Turn off the grid AC circuit breakers supplying the BUI.
10. Open the Backup Interface (BUI) door and keep it open using the support bar located inside as shown in the picture below.



11. Turn off the circuit breaker switches labeled QAC1, QAC2, QPCS1, QPCS2.



12. Close the BUI door and turn the door handle 90º clockwise.
13. Lock the door using the key provided.

Shut down the Battery inverter

Refer to the steps in Shut down the Battery inverter.

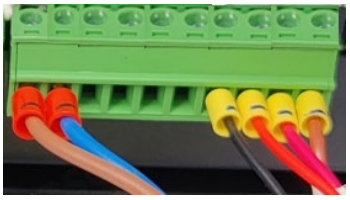
Shut down the Battery cabinet

Refer to the steps in Shut down the Battery cabinet.

Remove the wires from the communication box

14. Remove the wires from the 5-pin green terminal cable.

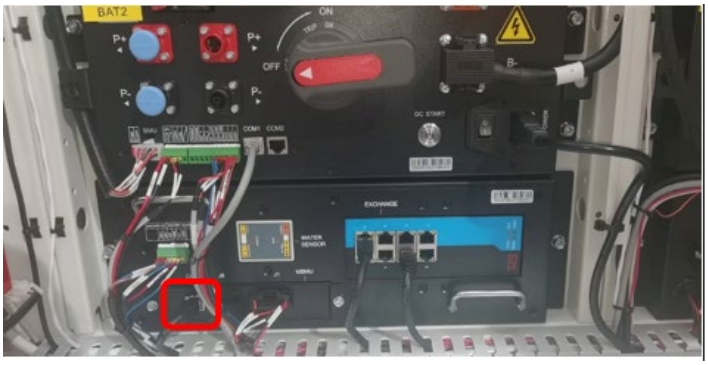
15. Remove the wires from the 10-pin green terminal cable.



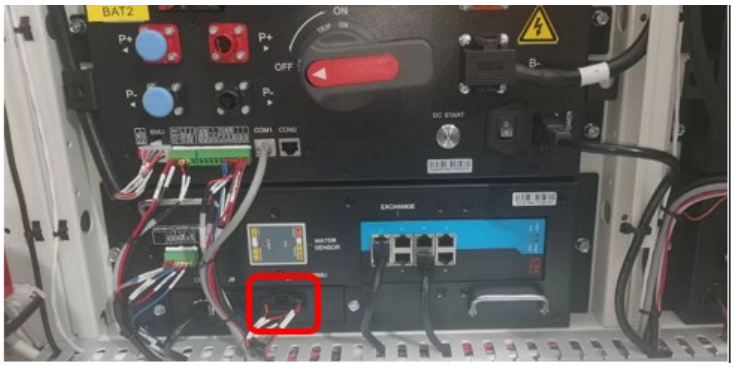
16. Remove the grey network cable.

17. Remove the wires from the 6-pin white terminal cable.

18. Remove the communication COM port.



19. Remove the J1 terminal cable.



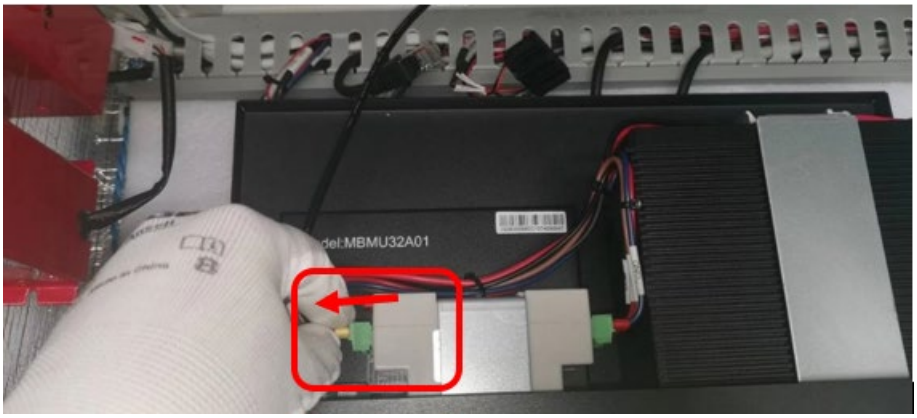
20. Remove the switch network cables.

Remove the communication box

1. Using a screwdriver, remove the screws on each side of the communication box.

2. Gently pull out the communication box.

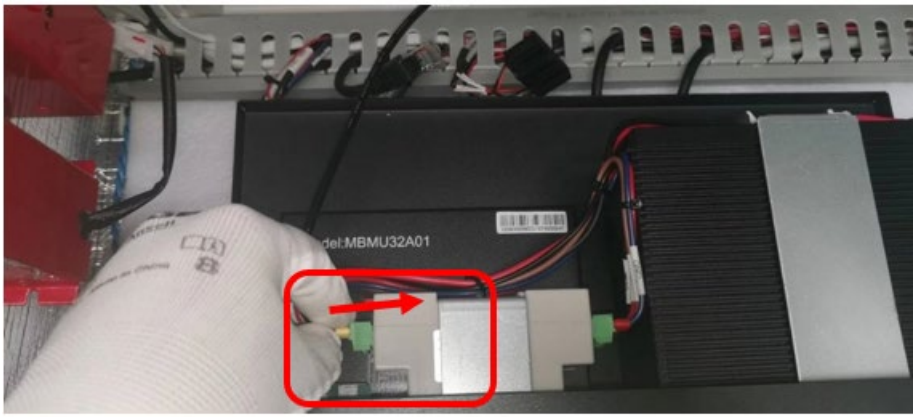
3. Disconnect the flood sense detection cable.



4. Remove the communication box.

Install the new communication box

1. Place the new communication box close to its final position.
2. Insert the flood sensor detection cable.

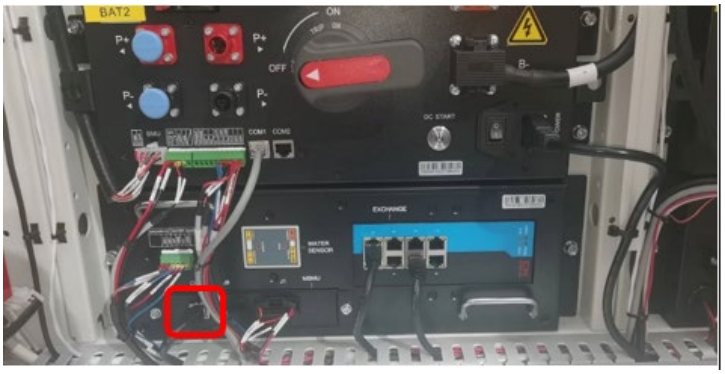


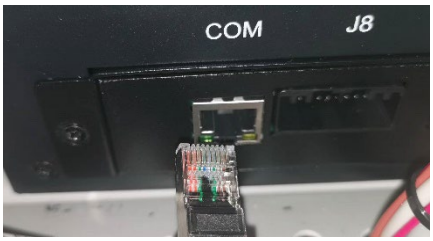
3. Slide the communication box into position.
4. Install and tighten the screws on each side of the communication box.

Connect the wires to the communication box

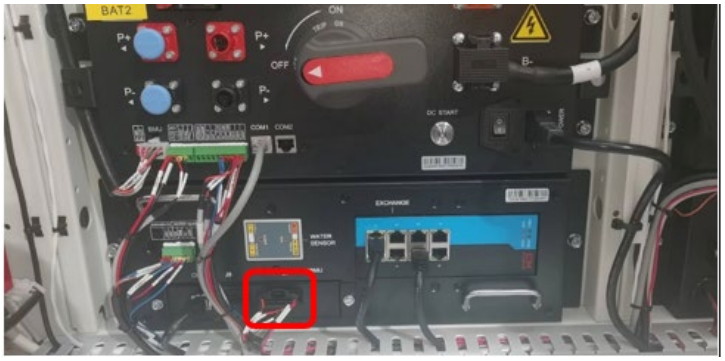
1. Connect the wires from the 6-pin white terminal cable.

2. Connect the communication COM port.





3. Connect the J1 terminal cable.

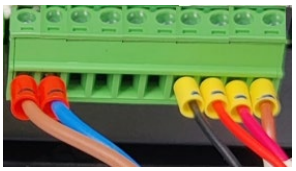


4. Connect the switch network cables.

Connect the cable of the High Voltage Box

1. Connect the wires from the 5-pin green terminal cable.

2. Connect the wires from the 10-pin green terminal cable.



3. Connect the grey network cable.

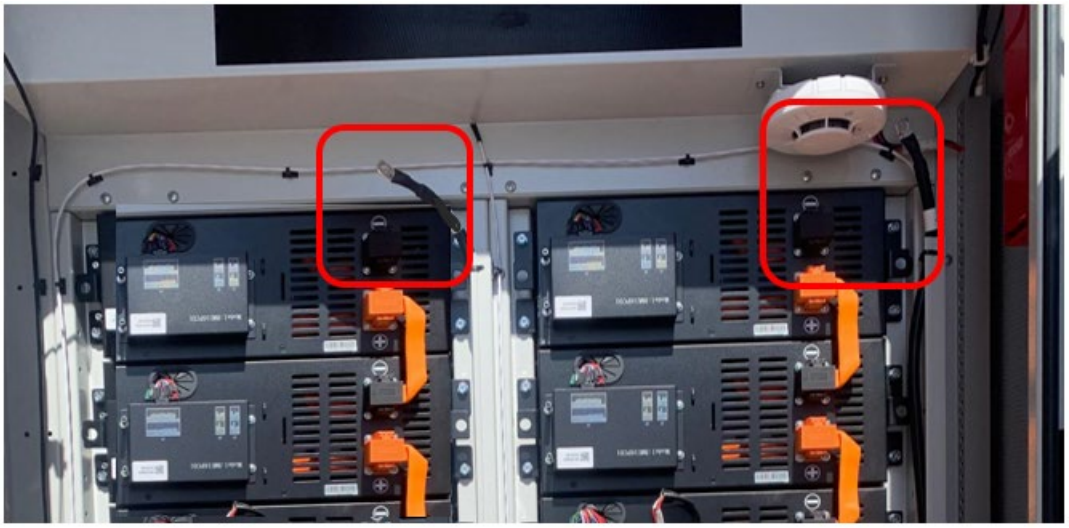
Power on the system

On-grid system

Power on the Battery cabinet

1. Connect the black cables at the bottom of the battery strings on both sides of the battery cabinet.

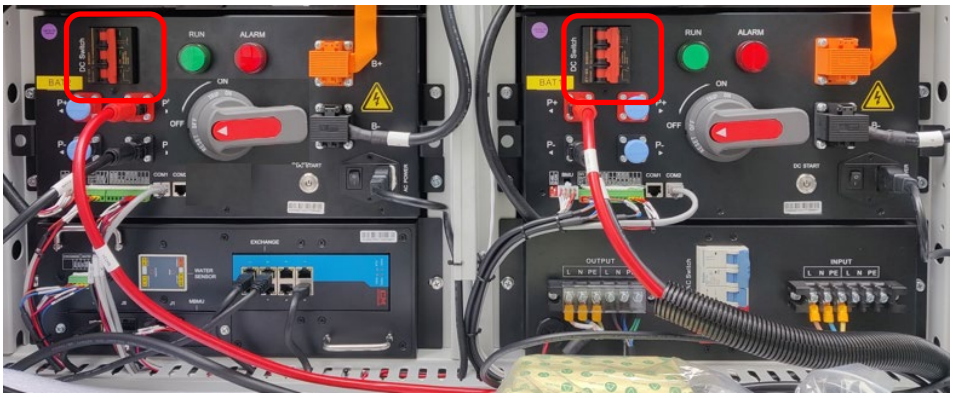
2. Reconnect the black cables at the top of the battery strings on both sides of the battery cabinet, as shown below.



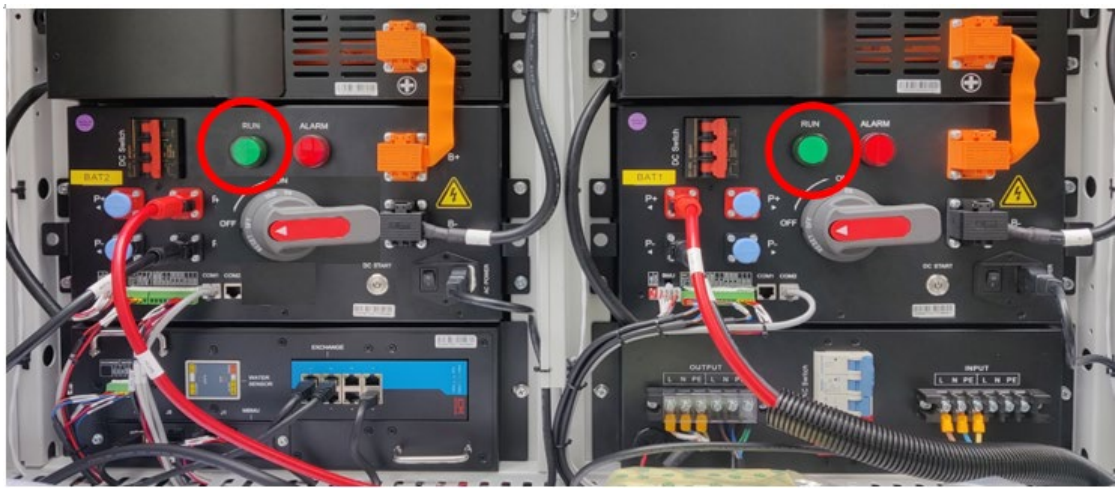
WARNING!

Be aware that each individual battery is still "live" at 52V.

3. Turn ON the two red circuit breakers.



4. When these circuit breakers are turned ON, the High Voltage Box indicator lights are ON.



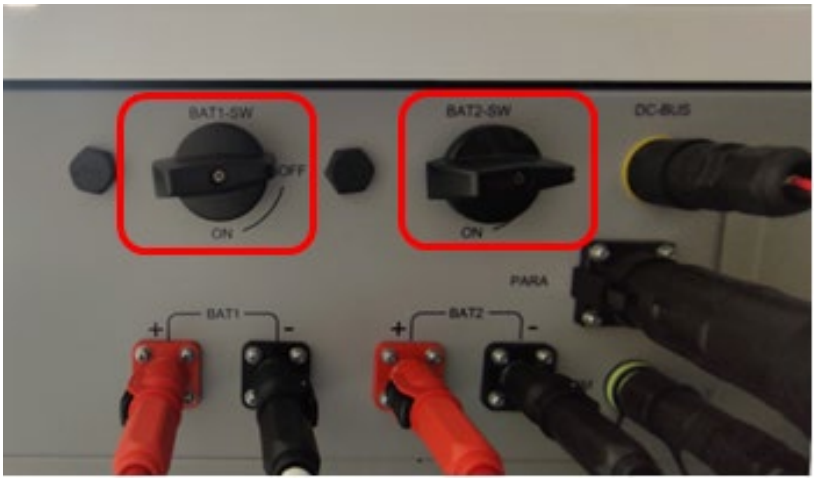
5. Turn on the blue AC switch (move it to the left).

6. Turn on the two red and grey high voltage switches.

7. Remove the support bar keeping the door open and close the battery cabinet door.

Power on the Battery inverter

8. At the bottom of the battery inverter, turn ON the two (2) black PCS DC switches.



Inverter switches

9. Ensure that the inverter indicator lights are ON.

10. Power on all AC circuit breakers supplying the battery cabinet and the air conditioner.

BUI system

Power on the Battery cabinet

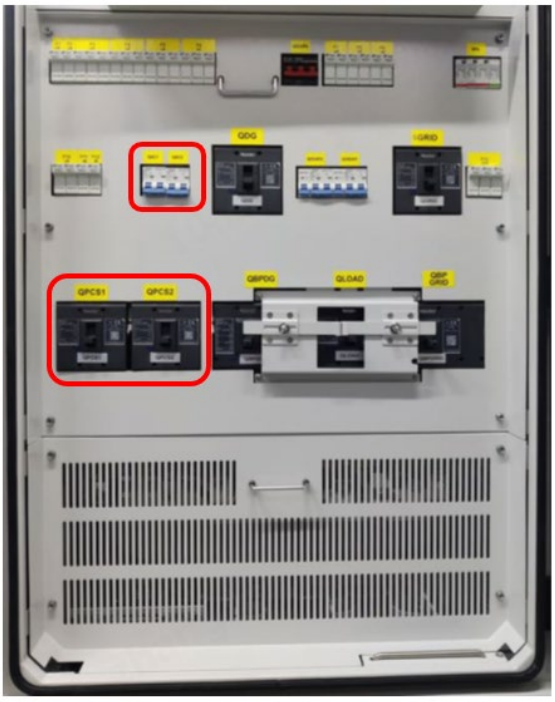
Refer to the steps in Power on the Battery cabinet.

Power on the Battery inverter

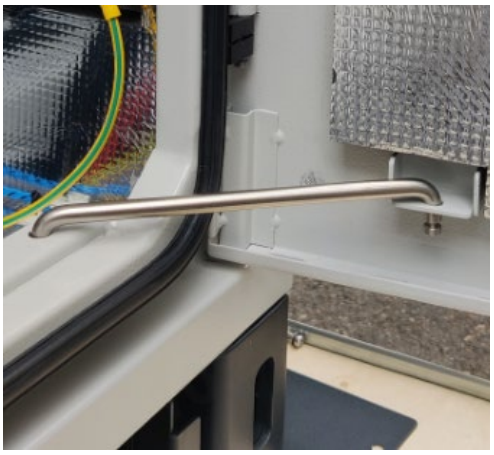
Refer to the steps in Power on the Battery inverter.

Power on the BUI

1. Unlock the door using the key provided.
2. Open the Backup Interface (BUI) door and turn the door handle 90° counterclockwise.
3. Turn on the circuit breaker switches labeled QAC1, QAC2, QPCS1, QPCS2.



4. Remove the support bar keeping the door open and close the BUI door and as shown in the picture below.



5. Turn on the grid AC circuit breakers supplying the BUI.