

SolarEdge CSS OD Main Battery Management Unit replacement — Support kit manual

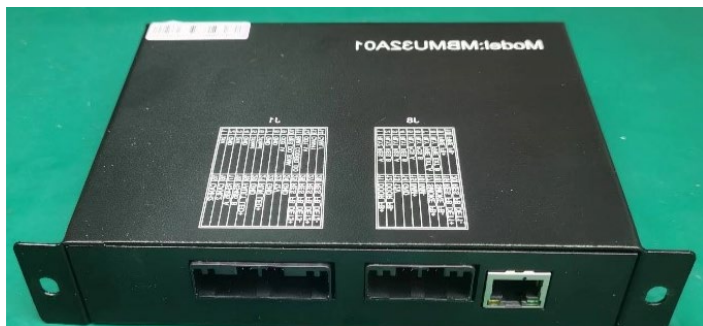
This manual describes the procedure for replacing the Main Battery Management Unit (MBMU) in the CSS OD battery cabinet.

Revision history

- Version 1.0, November 2024: Initial release

Kit contents

Main Battery Management Unit (MBMU) PN: FLD-CSS-OD-BC-MBMU-01



Required tools

- Insulated tools
- Insulated gloves
- Insulated shoes

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

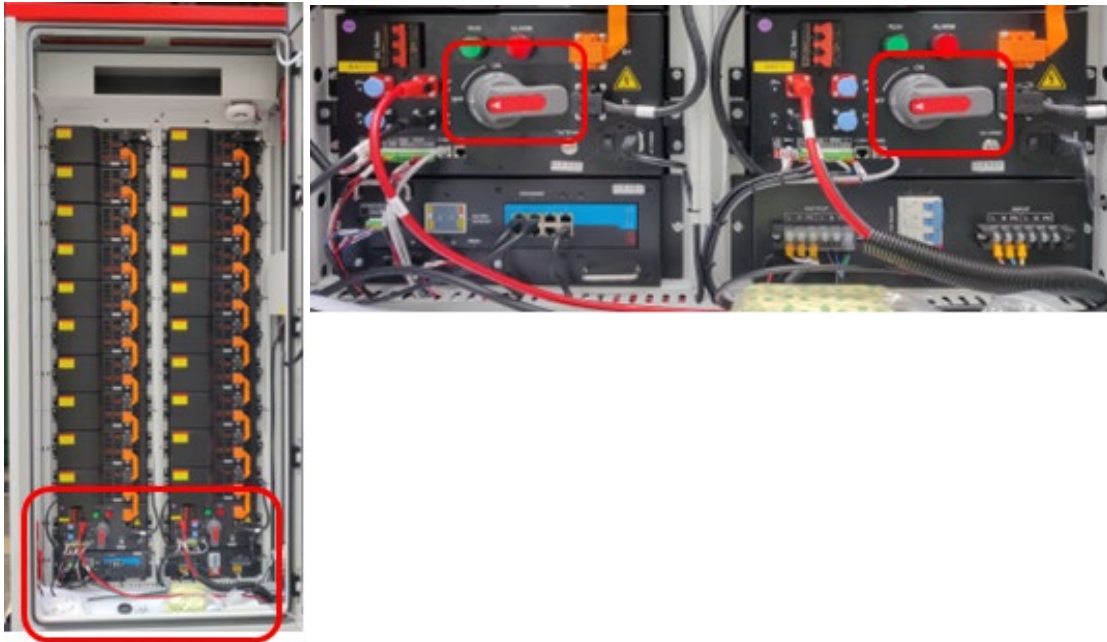
On the bottom of the battery inverter, turn OFF (counterclockwise) the two (2) black PCS DC switches.



Inverter switches

Shut down the Battery cabinet

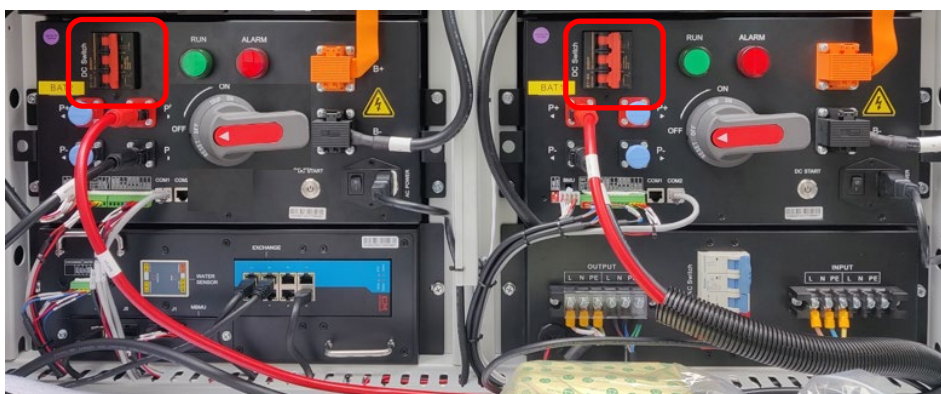
1. Open the battery cabinet door and keep it open using the support bar located inside the cabinet.
2. Turn off the two red and grey high voltage switches.



3. Turn off the blue AC switch (move it to the right).



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



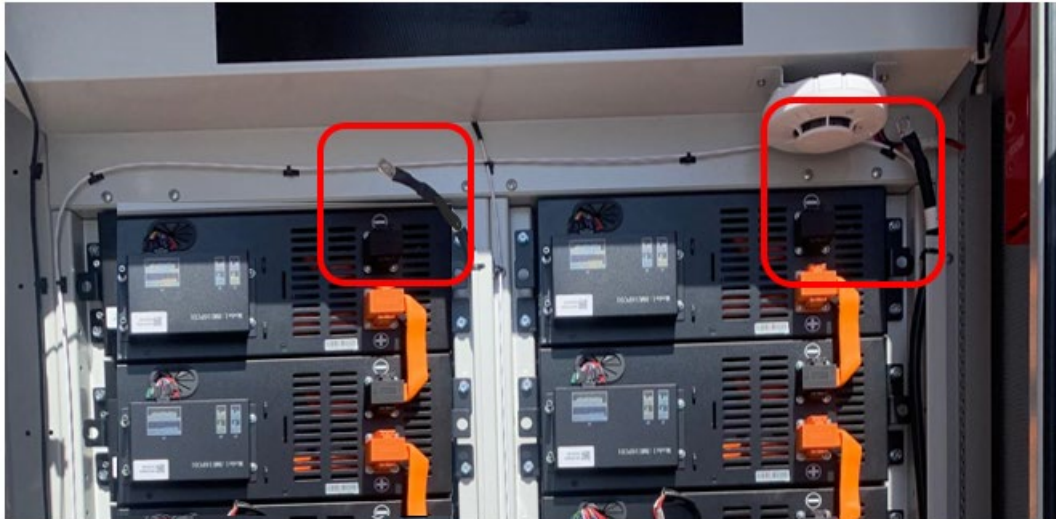
5. When the circuit breaker switches turned OFF, the High Voltage Box indicator light is OFF.



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.

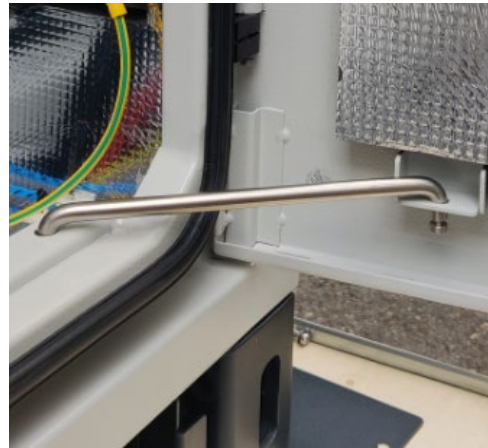
**WARNING!**

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

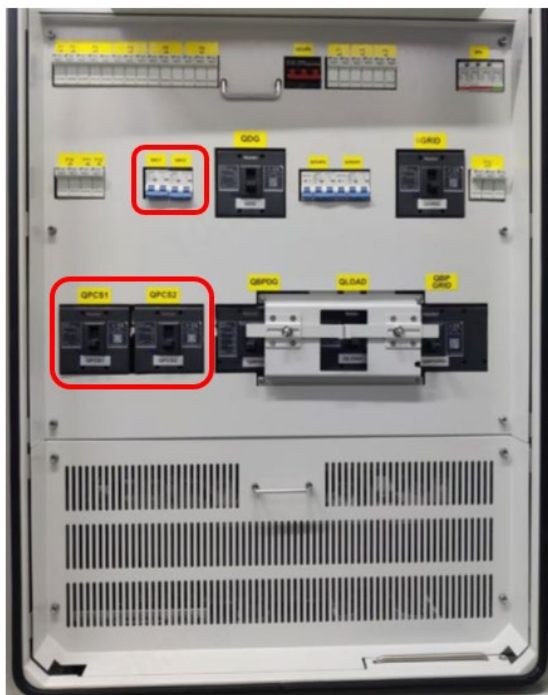
BUI system

Shut down the BUI

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



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



4. Close the BUI door and turn the door handle 90° clockwise.
5. Lock the door using the key provided.

Shut down the Battery inverter

Refer to the steps in Shut down the Battery inverter.

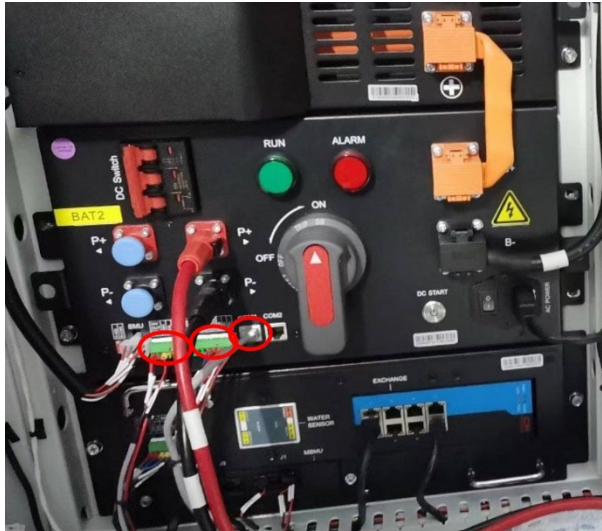
Shut down the Battery cabinet

Refer to the steps in Shut down the Battery cabinet.

Remove the faulty MBMU unit

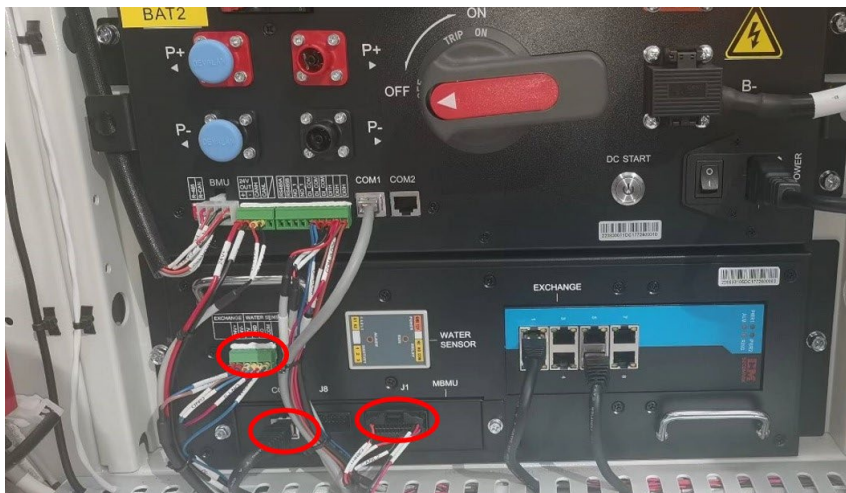
At the high voltage box:

1. Disconnect the 5-pin green connector.
2. Disconnect the 10-pin green connector.
3. Disconnect the gray network cable.



At the MBMU:

1. Disconnect the 6-pin green connector
2. Disconnect the communication (COM) connector
3. Disconnect the J1 connector



Remove the faulty MBMU

1. Using a Philips screwdriver, remove the two screws holding the MBMU in place.



2. Remove the MBMU from the battery cabinet.



Install the replacement MBMU

1. Place the new MBMU in its location in the battery cabinet.



NOTE

While moving the MBMU into position, be careful that the SD card does not accidentally eject.

2. Using a Phillips screwdriver, secure the MBMU with the two screws.

At the MBMU:

1. Reconnect the 6-pin green connector
2. Reconnect the communication (COM) connector
3. Reconnect the J1 connector

At the high voltage box:

1. Reconnect the 5-pin green connector
2. Reconnect the 10-pin green connector
3. Reconnect the gray network cable.

Power on the system

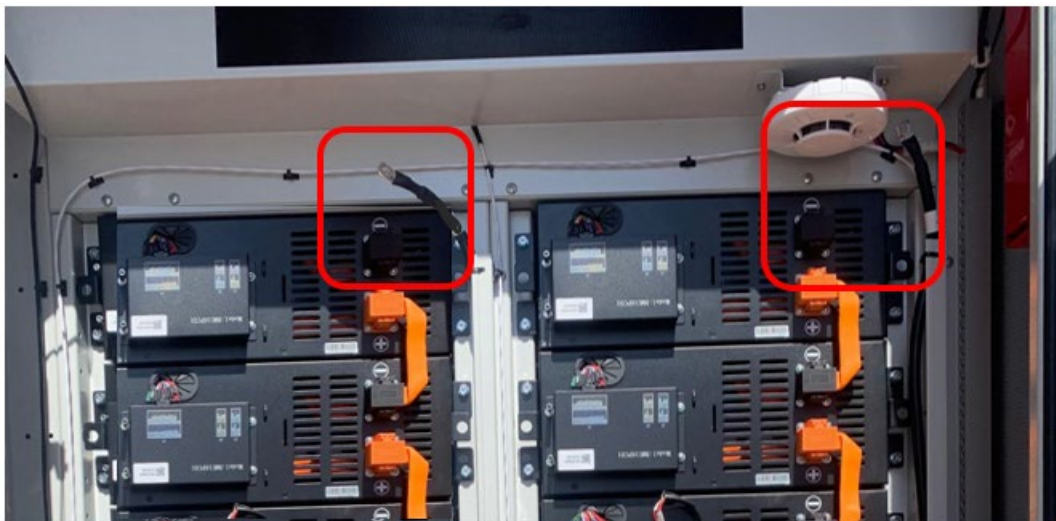
On-grid system

Power on the Battery cabinet

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

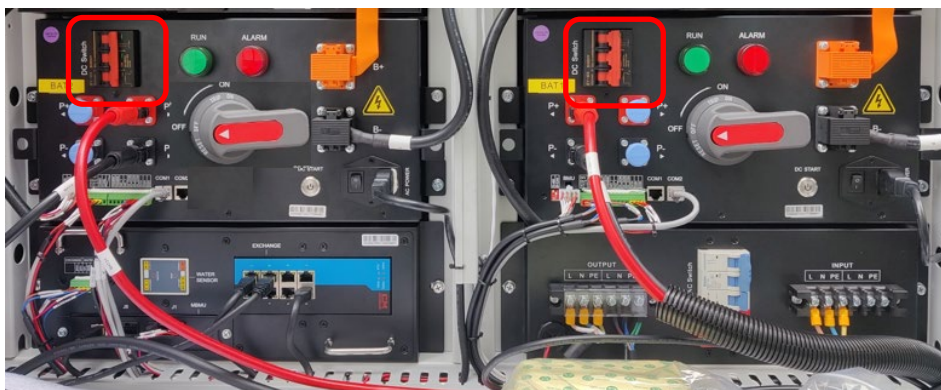


2. Reconnect the black cables at the top of the battery strings on both sides of the battery cabinet, as shown below.

**WARNING!**

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

3. Turn ON the two red circuit breakers.



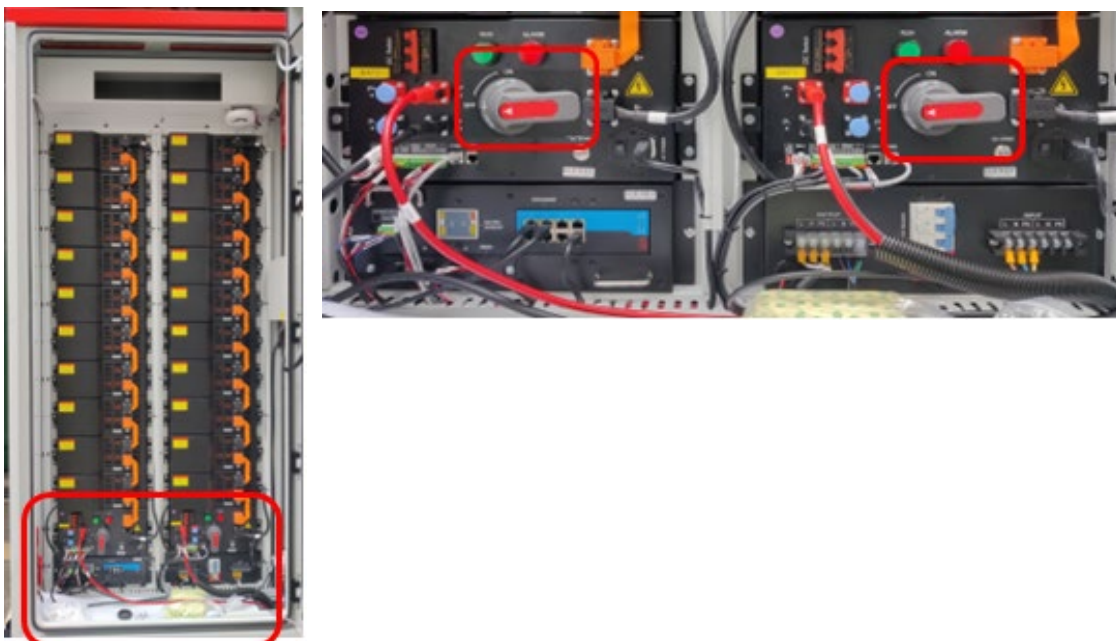
4. When these circuit breakers are turned ON, the High Voltage Box indicator lights are ON.



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

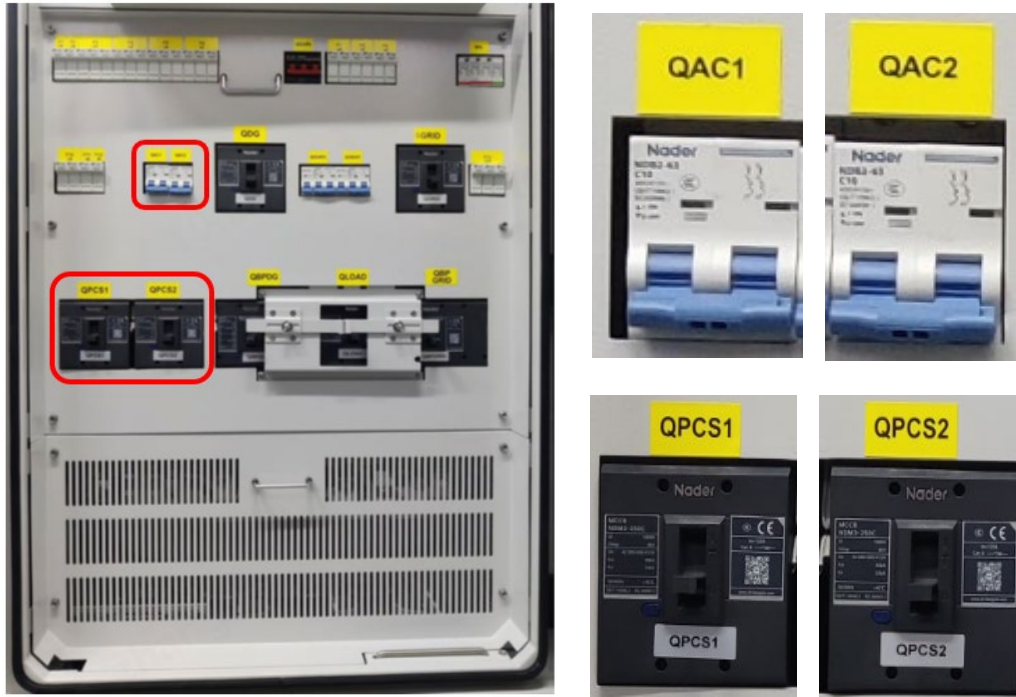
Refer to the steps in Power on the Battery cabinet.

Power on the Battery inverter

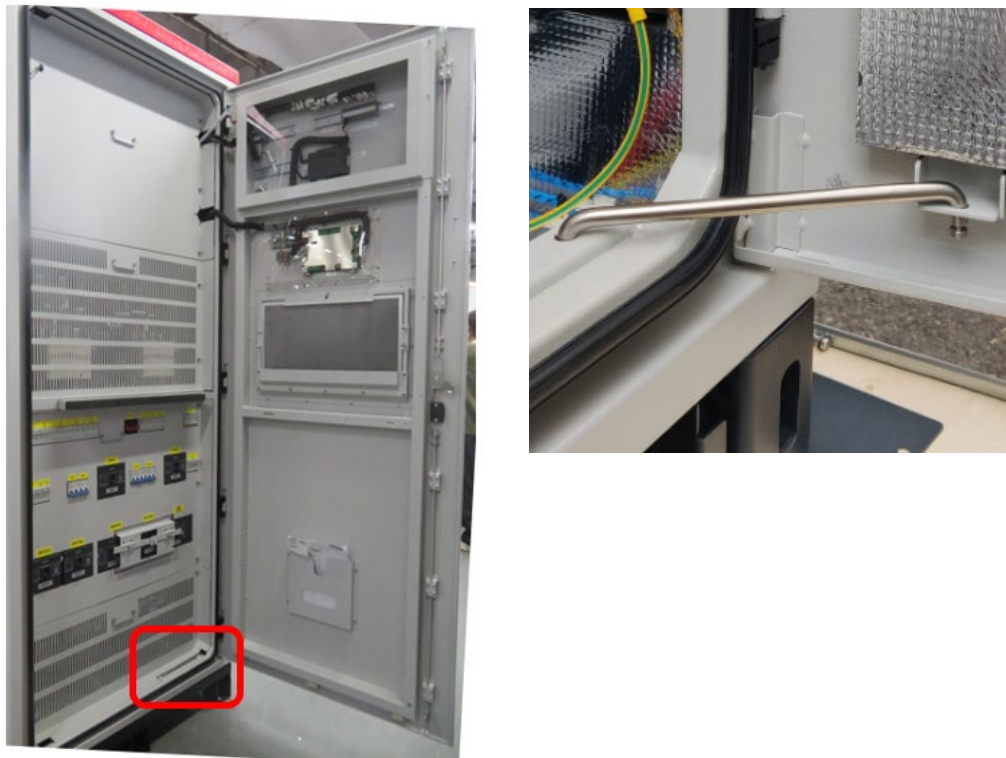
Refer to the steps in Power on the Battery inverter.

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 AC circuit breakers supplying the BUI.