

WeCo Battery Configuration



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Introduction

In this article, we delve into the exciting collaboration between Solis inverters and Weco batteries, exploring the seamless integration of these two cutting-edge technologies.

We will provide a comprehensive guide on how to connect Weco batteries to various Solis inverter models, offering a step-by-step approach to harnessing the power of renewable energy and ensuring uninterrupted power supply.

Whether you're a seasoned solar enthusiast or a newcomer to the world of sustainable energy solutions, this article will be your essential resource for a successful union of Solis inverters and Weco batteries.



General Safety Preparation



For Safety reason it is forbidden to install any power inputs such as PV, GRID or BATTERY before having completed all the data wiring connection as explained below.

- The PV cables cannot be connected at this stage.
- Grid and Generator wires cannot be connected at this stage.
- Battery must kept OFF while performing the connection operations, power cables to be connected at last.
- Ground the Inverter immediately after fixing it on the wall.



Weco in combination with Solis S6 Hybrid Three Phase inverters



A) Battery Preparation:

- Keep the HV BOX breaker and the BMS switch on "0" OFF.
- Assemble the tower and the DIP Switch of the HV Box and batteries in accordance with the relevant manual.
- Connect the CAN cable RJ45 to the CAN 2A port of the HV BOX.
- The RJ45 Terminal on the other side needs to be crimped to match inverter PIN OUT.
- **Do not connect the power cables at this stage.**

HV BOX XP EXAMPLE

HV BOX XP DIP Switches are set as 00000010 (Only DIP 7 ON)

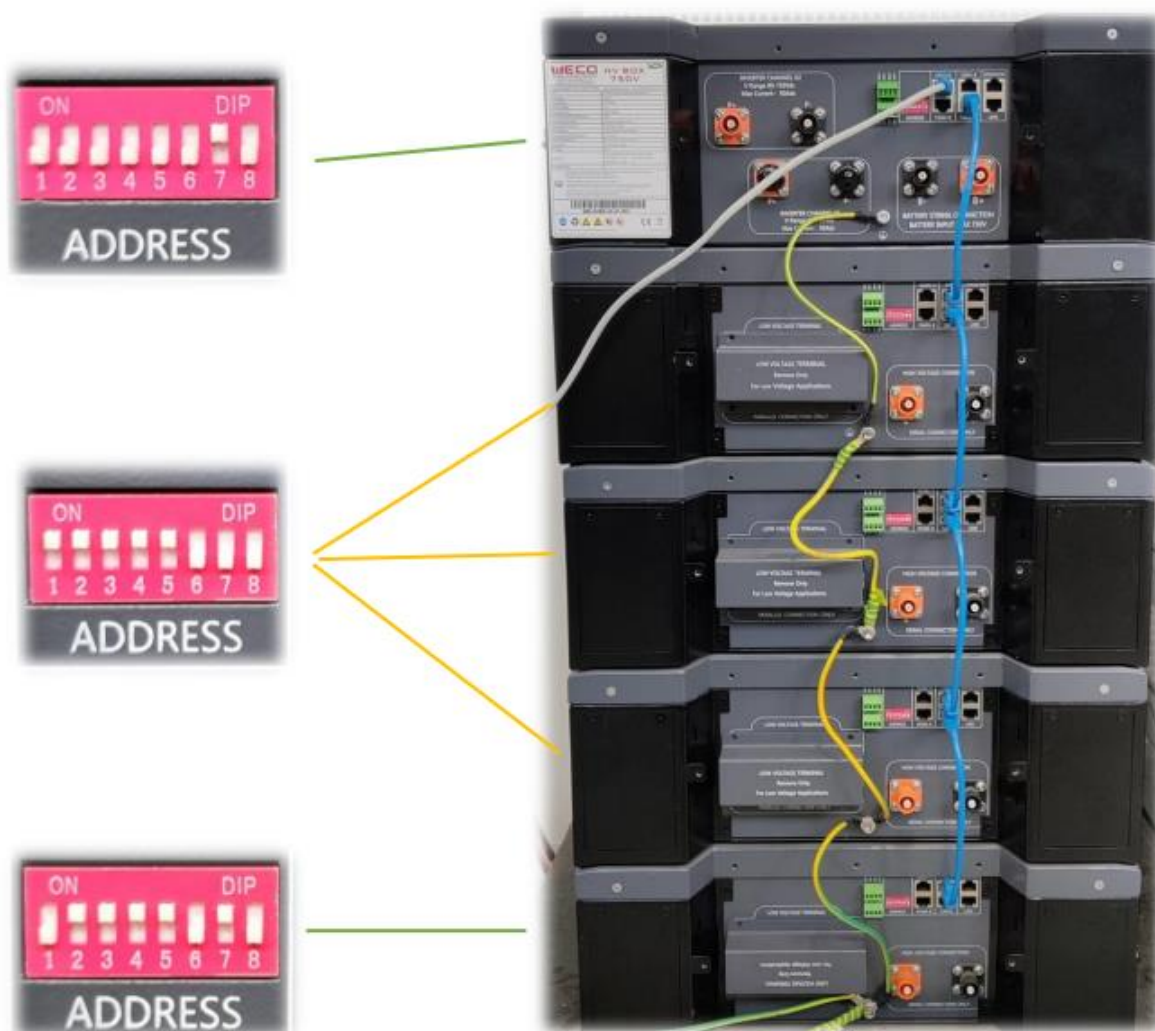


5K3 XP EXAMPLE

DIP switched are set as 11111000. Only DIP of last slave must be set differently 01111010 (Only dip 1, 6, 8 OFF).

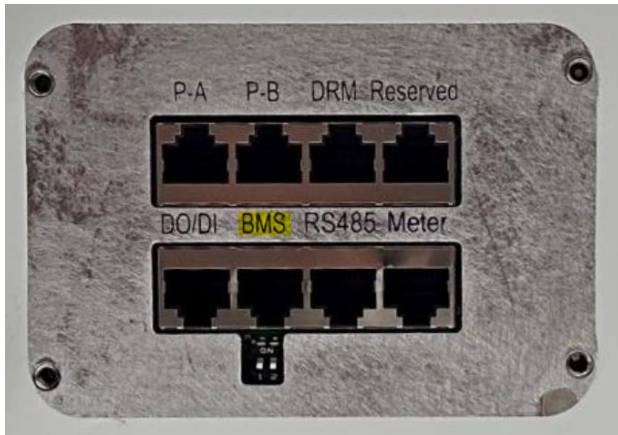


TOWER EXAMPLE



B) Inverter Com Connection:

Please use the BMS Port to connect the CAN communication cable. (See [“Can Connection”](#) section for more details.)

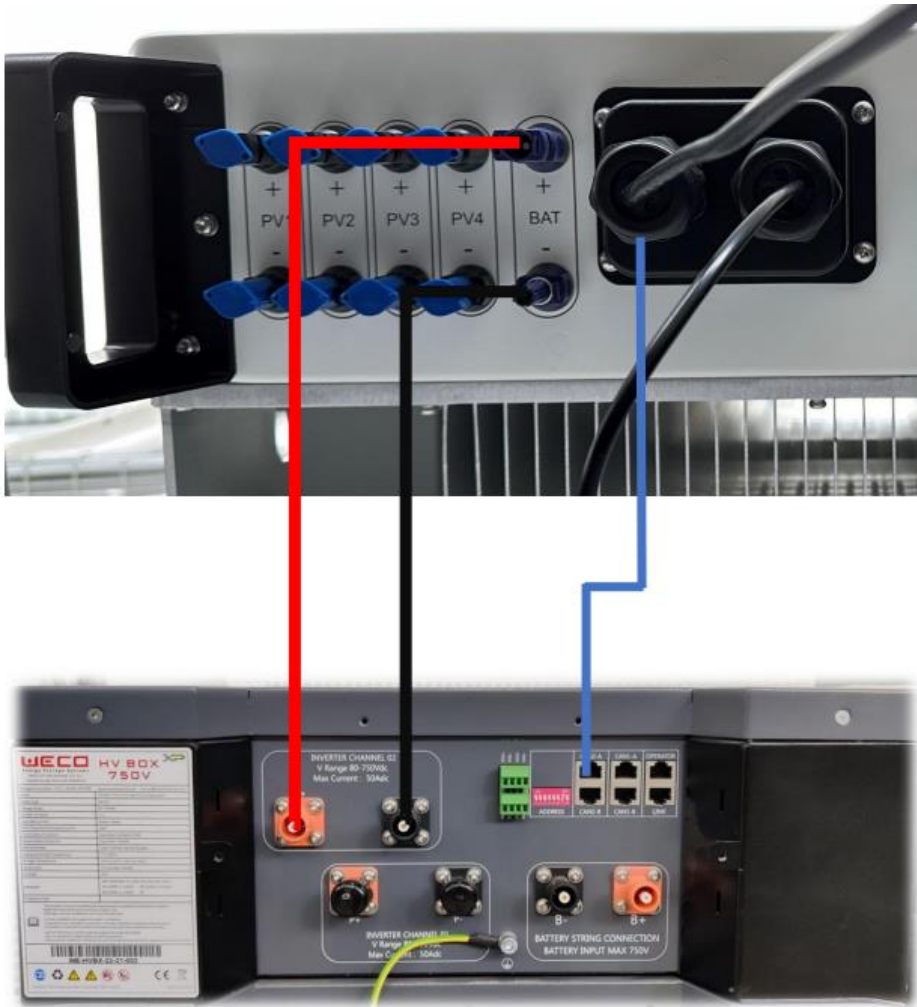


C) Battery Power Connection:

Keep Inverter and Battery OFF.

Open the lid and connect the power Cables from the battery to the Inverter.

Use a Torque Wrench to secure the cables bolt.



(Model: HV BOX XP)

A) Weco App - Upgrade and Protocol Set:

Please see the [“Weco App”](#) Section for more Details.

**ATTENTION: Turn Off the battery to proceed with the remaining operations.
Keeping the battery ON will damage the BMS and potentially the inverter power protection circuit.**

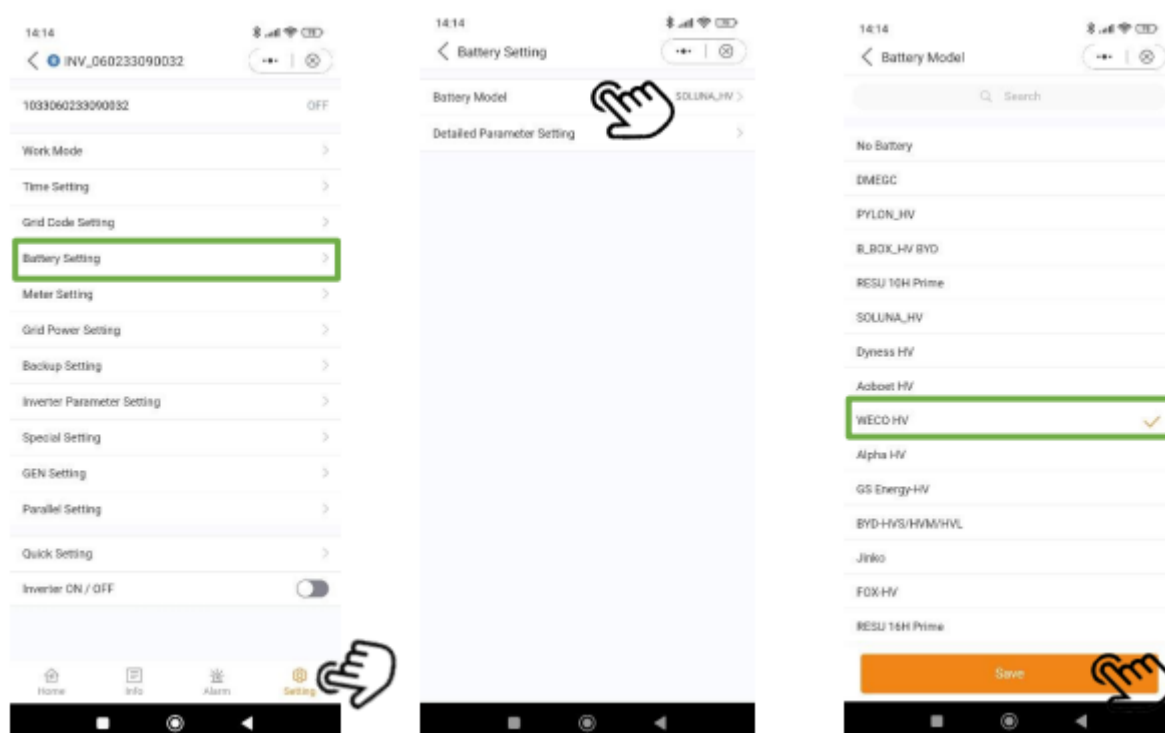
D) Inverter wiring:

After all these steps have been followed it is possible to wire the GRID and PV cables into the inverter. Then press the batteries BMS Switch on 1 and the HV Box breaker on ON and wait for the Start Up procedure.

At the end of the procedure the **PV breaker can be turned ON**

E) Inverter Set up:

1. Download and start the Solis Cloud App. Register an account or log in to an existing one. Access to your plant or add a new one, then go into Setting and select Local Operation.
2. Now chose your preferred connection method, select the inverter and access via password.
3. On the first startup, the battery may not be recognized and a "communication error" may be displayed. This is normal as it necessary to set the right battery settings to start communication.
4. Press the Setting icon on the bottom right of the page to access to the setting page. Here press Battery Setting, then Battery Model and select WECD HV as your battery model.



5. Now the battery is recognized by the inverter and the parameters are visible.

ATTENTION, IMPORTANT

To ensure that all the information are properly displayed and received by the inverter it is necessary to make a double control by entering in Information and then Battery.

In the Screen it is possible to see the correct information received by the inverter from the Battery BMS, such as:

SOC %
SOH %

Voltage
Current
Status

Now the whole system is ready to work.



Weco in combination with Solis Hybrid RHI Three Phase inverter



A) Battery Preparation:

- Keep the HV BOX breaker and the BMS switch on "0" OFF.
- Assemble the tower and the DIP Switch of the HV Box and batteries in accordance with the relevant manual.
- Connect the CAN cable RJ45 to the CAN 2A port of the HV BOX. (see Can connection for details)
- The RJ45 Terminal on the other side needs to be crimped to match inverter PIN OUT. (see Can connection for details)
- **Do not connect the power cables at this stage.**

HV BOX XP EXAMPLE

HV BOX XP DIP Switches are set as 00000010 (Only DIP 7 ON)

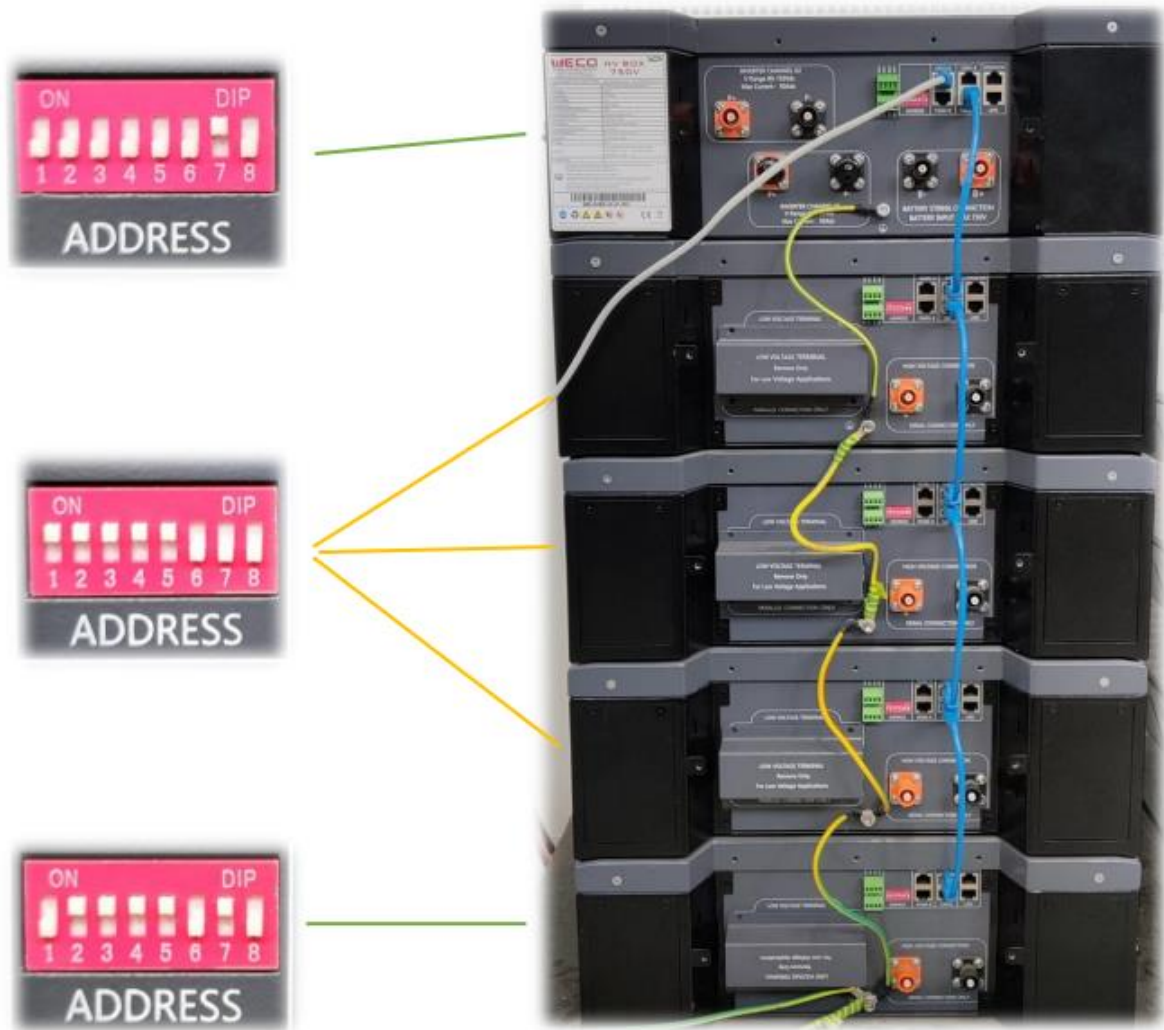


5K3 XP EXAMPLE

DIP switched are set as 11111000. Only DIP of last slave must be set differently 01111010 (Only dip 1, 6, 8 OFF).



TOWER EXAMPLE



B) Inverter CAN Com Connection:

Please use the CAN Port to connect the CAN communication cable. (See [“Can Connection”](#) section for more details.)

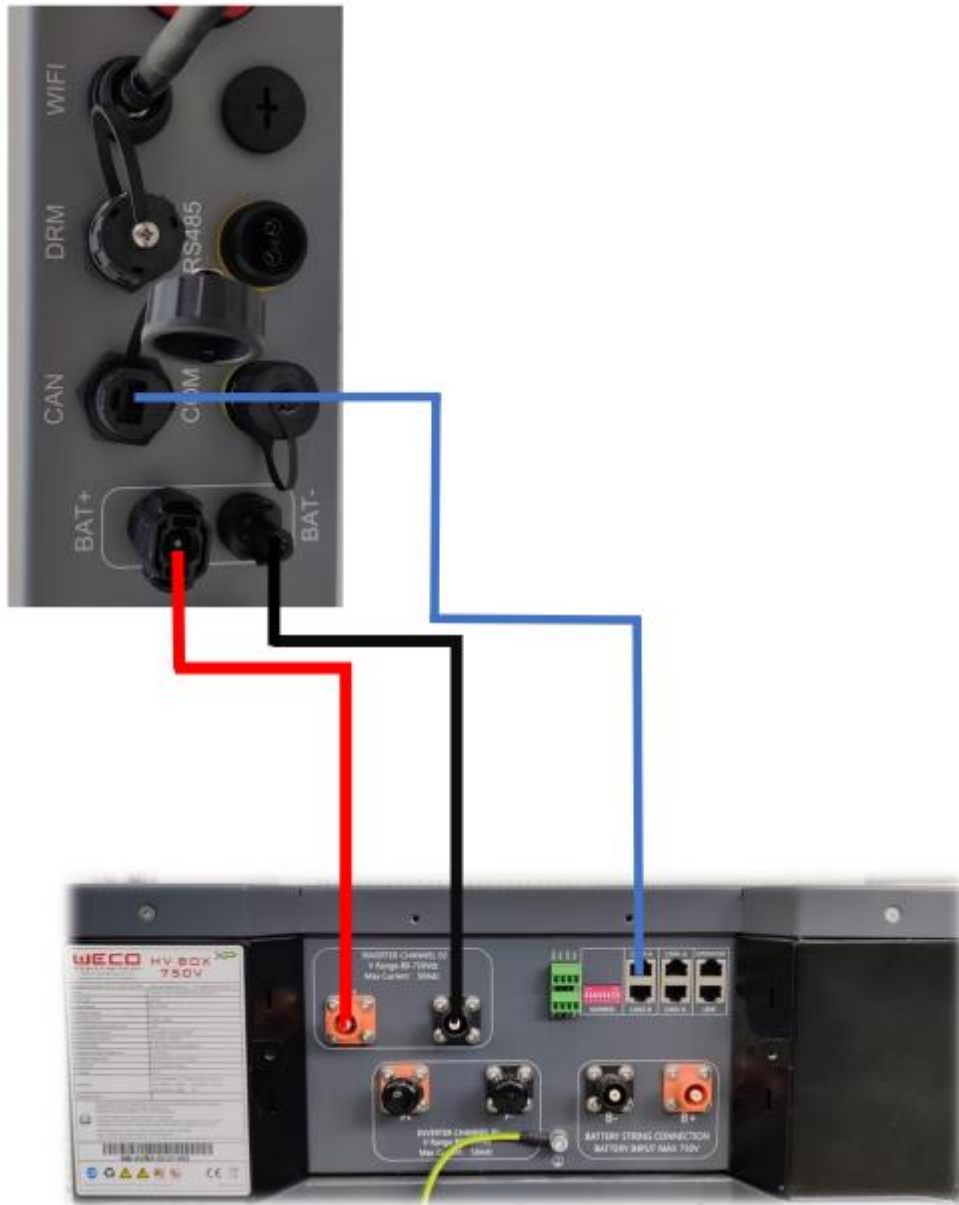


C) Battery Power Connection:

Keep Inverter and Battery OFF.

Open the lid and connect the power Cables from the battery to the Inverter.

Use a Torque Wrench to secure the cables bolt.



(Model: HV BOX XP)

D) Weco App - Upgrade and Protocol Set:

Please see the [“Weco App”](#) Section for more Details.

ATTENTION: Turn Off the battery to proceed with the remaining operations.
Keeping the battery ON will damage the BMS and potentially the inverter power protection circuit.

E) Inverter wiring:

After all these steps have been followed it is possible to wire the GRID and PV cables into the inverter. Then press the batteries BMS Switch on 1 and the HV Box breaker on ON and wait for the Start Up procedure.

At the end of the procedure the **PV breaker can be turned ON.**

F) Inverter Set up:

On the first startup, communication alarm may be displayed. This is normal as it is necessary to set the right battery settings to start communication.

To select the battery press "ENTER" to enter the menu. Use the "UP" and "DOWN" keys to navigate and "ENTER" to confirm.

Press "DOWN" until you reach Advanced Settings, then press "ENTER" and input the Password.
(Password: 0010)



Now go "DOWN" until you reach Battery Select.



Select WECO as your battery.



Now you can set the value for Overdischarging and Forced Charge SOC; input your preferred values with "UP" and "DOWN" keys and then press "ENTER" to confirm.



Now the battery is recognized by the inverter and the parameters are visible.

ATTENTION, IMPORTANT

To ensure that all the information are properly displayed and received by the inverter it is necessary to make a double control by entering in Information and then BMS info.



In the Screen it is possible to see the correct information received by the inverter from the Battery BMS, such as:

SOC %
SOH %
Voltage

Current
Status

Now the whole system is ready to work.



Weco in combination with Solis Hybrid Single Phase inverters



A) Battery Preparation:

- Keep the BMS switch on "0" OFF.
- Set the DIP Switch of the battery in accordance with the relevant manual
- Connect the CAN cable RJ45 to the CAN A port
- The RJ45 Terminal on the other side needs to be crimped to match inverter PIN OUT.
- **Do not connect the power cables at this stage.**

5K3 XP EXAMPLE

DIP switched are set all OFF (00000000). Only DIP of last slave must be set differently (00000100).



4K4 LT EXAMPLE

DIP switches are set all OFF (00000000). Only DIP of last slave must be set differently (00000100).



B) Inverter Com Connection:

Please use the CAN Port to connect the CAN communication cable. (See [“Can Connection”](#) section for more details.)

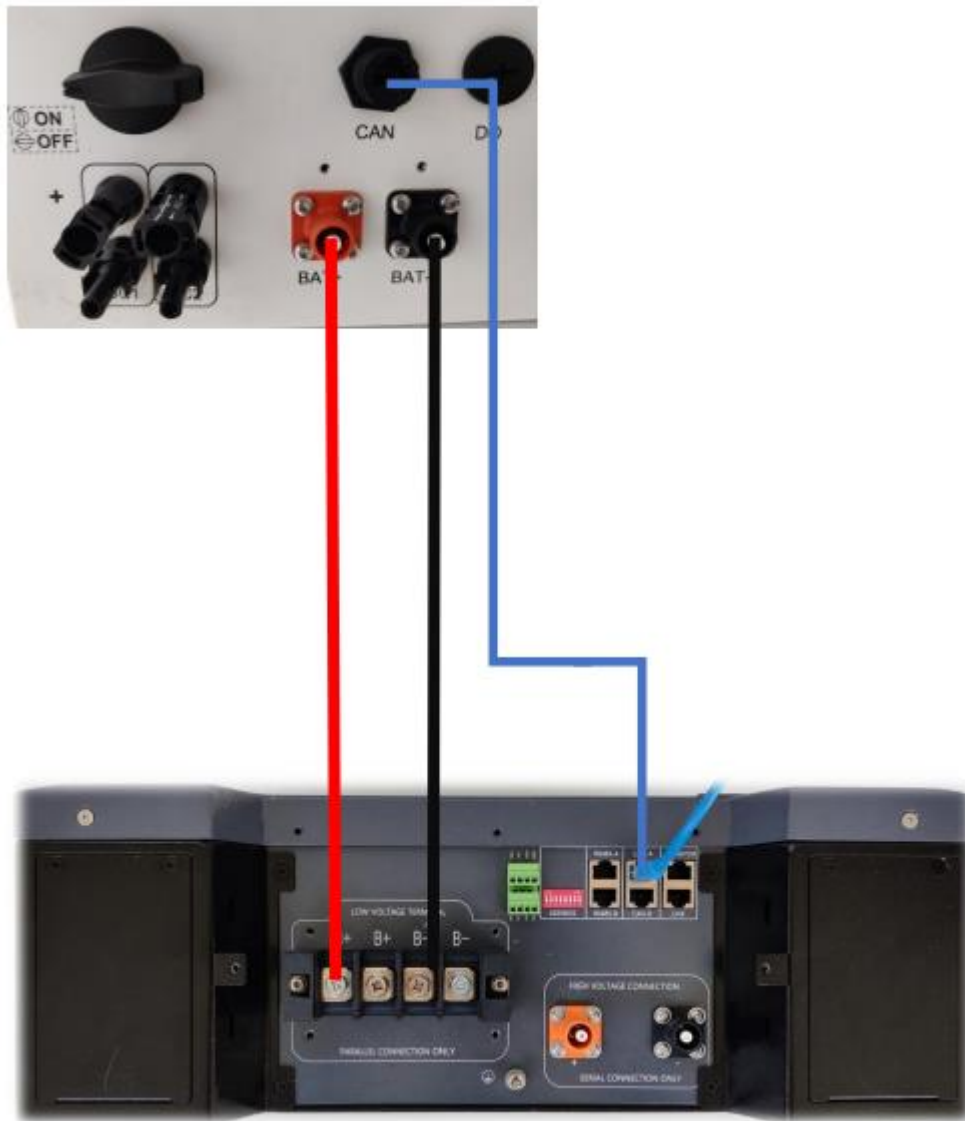


C) Battery Power Connection:

Keep Inverter and Battery OFF.

Open the lid and connect the power Cables from the battery to the Inverter.

Use a Torque Wrench to secure the cables bolt.



(Model: 5K3 XP)

NOTE: Same configuration applies to the 4k4 LT model.

D) Weco App - Upgrade and Protocol Set:

Please see the [“Weco App”](#) Section for more Details.

**ATTENTION: Turn Off the battery to proceed with the remaining operations.
Keeping the battery ON will damage the BMS and potentially the inverter power protection circuit.**

E) Inverter wiring:

After all these steps have been followed it is possible to wire the GRID and PV cables into the inverter and reinstall the protection cover.

Then press the battery ON/OFF button and turn on the PV Switch to enable the PV.

Now the inverter will Initiate the Start Up process and the **Battery can be turned ON**

F) Inverter Set up:

On the first startup, "CAN FAIL" error may be displayed. This is normal as it necessary to set the battery to start communication. Enter the menu by **pressing ENTER**.



Use the arrows Keys to navigate and **ENTER** to confirm.

Go to **Advanced Settings** (Password is 0010).



Go to **Storage Energy Set.**



Go to **Battery Select**.



In this page **select WECO as your Battery Model** and start the communication.



Battery is now recognized by the inverter and parameters are visible.



ATTENTION, IMPORTANT

To ensure that all the information are properly displayed and received by the inverter it is necessary to make a double control by entering in Information.



In the Screen it Is possible to see the correct information received by the inverter from the Battery BMS, such as:

SOC %
SOH %
Voltage
Current
Status

Now the whole system is ready to work.



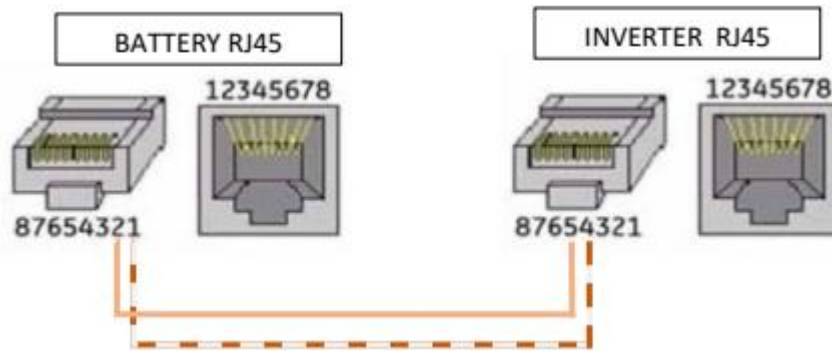
CAN COM Connection

ATTENTION SOLIS CAN BMS CABLE TO BE MODIFIED LOCALLY

BMS CAN PIN OUT at battery side is the same for any WeCo battery.
The RJ45 Terminal on the inverter side needs to be crimped to match inverter PIN OUT

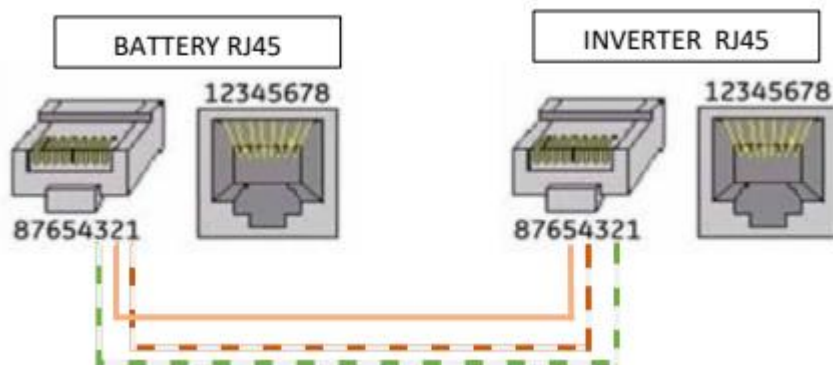
For Solis S6 Hybrid Series and RHI Hybrid Series

Terminal	Battery Side RJ45	SOLIS Side RJ45
GND	PIN 3	---
CAN -L-	PIN 2	PIN 5
CAN -H-	PIN 1	PIN 4



For Solis Single Phase Hybrid

Terminal	Battery Side RJ45	SOLIS Side RJ45
GND	PIN 3	PIN 2
CAN -L-	PIN 2	PIN 5
CAN -H-	PIN 1	PIN 4





BATTERY SIDE KEEP THE
ORIGINAL RJ45 TERMINAL



INVERTER SIDE MAKE A
NEW TERMINAL PIN OUT



WeCo App



Download the WeCo Bluetooth APP from Google Play or from APP Store.

- The Bluetooth APP will allow you to inspect the battery, set the battery and monitor the BMS functions during the commissioning phase.
- As good practice, it is always required to search for the latest FW for the battery.
- The 5K3 XP Model (so as the HV BOX) has a built in WiFi/BT device and it is possible to find the battery Bluetooth Signal (in the form of battery Serial Number) directly from the in-APP list.

Please follow the WeCo instructions for further details on how to set up the App, update Firmware etc. – see WeCo Website for details - <https://wecobatteries.com/>

Note: Same procedure applies to the 4k4 LT model, with the exception that an external WiFi/BT dongle is needed. In this case, in the step of screen 04 you will have to select the dongle's MAC Address.



Support Questions

We trust that this article has been a valuable resource in simplifying the process of connecting Solis inverters with Weco batteries.

We understand that every installation may present unique challenges, and we're here to support you every step of the way. If you encounter any issues or have further questions, please do not hesitate to reach out to your local Solis support team. Our dedicated experts are committed to assisting you in achieving a smooth and efficient transition to sustainable energy solutions.

Thank you for choosing Solis and Weco for your renewable energy needs, and we look forward to helping you power a brighter, greener future.



Connect with Solis

