



E O N
L I T H I U M

EL5W

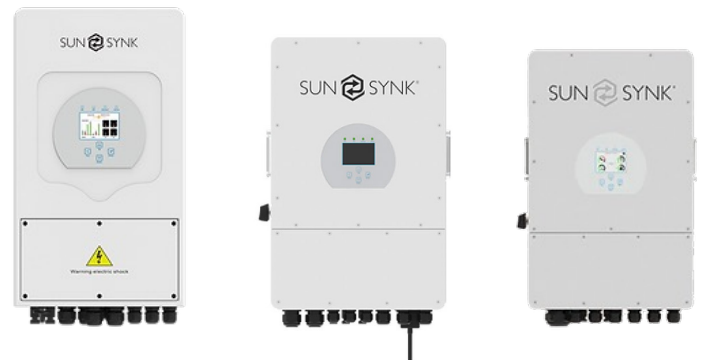
Charge your world



INVERTER SETUP GUIDE FOR SUNSYNK

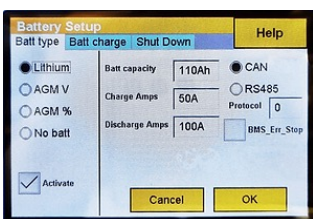
EON Lithium batteries are fully compatible with Sunsynk inverters. The setup guide will assist the installer with the correct configuration and setup of the inverter and battery.

Note: these settings only apply to one battery. For multiple batteries, please follow the instructions in the manual as well as the best practices for paralleling batteries.



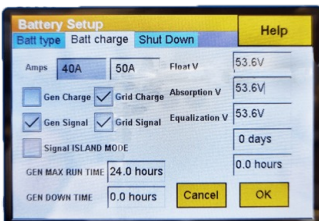
Batt Model	Nominal V	Float V	Equalization/Bulk V	Cutoff V	Recommended Charge Amps	Max Charge A
EL5W	51.2V	55.2V	55.2V	46V	25A	100A

BATTERY TYPE SETTING



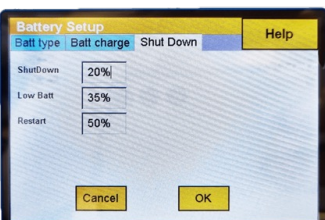
1. Battery Type

- Select Lithium
- **Battery Capacity:** 100Ah (for 1 x 5kWh Battery)
- **Charge Amps:** 25 – 50A per 5kWh Battery (this is the maximum charge setting that you want the batteries to charge at.)
- **Discharge Amps:** Set according to Inverter size and battery capacity.



2. Battery Charge

- **Charge Amps:** Set to 25 – 50A per 5kWh Battery. When it comes to more than one battery, you will multiply your charge amps as well as discharge amps by the number of batteries that you have.
- See the Table for Float, Absorption and Equalization charge values. These are usually set automatically via the comms from the battery BMS.



3. Shut Down

- The recommended shutdown % is 20% as it will prolong the battery life and deliver optimal performance.

POWER AND COMMUNICATION CABLE CONNECTIONS

Power cables

- Check the rating of the inverter and the battery pack that will be working together. Make sure that the correct gauge cable is used and the correct fuse protection.
- If the power rating of the battery is lower than the inverter, then make sure the maximum discharge current is set to conform to the battery power rating.

Example:

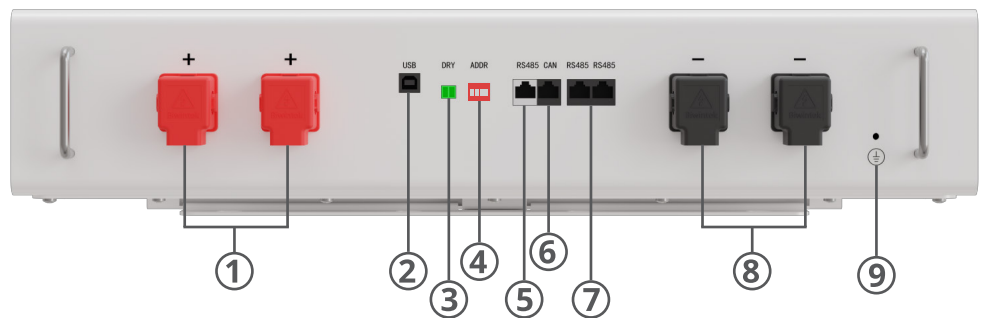
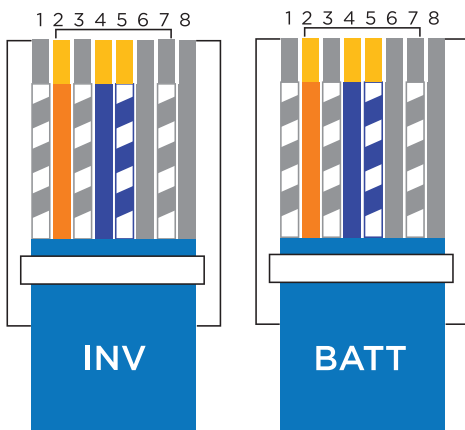
- Inverter = 8kW (Max power is 8kW or 160A DC)
- Battery = 5kWh (Max power is 5kW or 100A DC)
- Set the maximum discharge current to 100A in the battery settings.
- For batteries connected in parallel, please see the best practices guide.

Communication cables

- The communication cable that comes with the Sunsynk inverter can be used to communicate from the CAN BMS port of the inverter to the CAN port of the battery.
- The CAN PIN outs are as follows:

Sunsynk Inverter CAN	
1	-
2	Ground
3	-
4	CAN H
5	CAN L
6	-
7	-
8	-

Eon Lithium CAN	
1	-
2	Ground
3	-
4	CAN H
5	CAN L
6	-
7	-
8	-



Parallel or Multiple battery Installation – EON Lithium Dip switch settings

If you are using one battery, then set the DIP switches as the master or Battery 1. If you have multiple batteries in parallel, then follow the table below to set each battery accordingly. Also make sure to connect the supplied comms cable between the battery RS485 parallel ports (7 in figure below)

Address	Switch Position Codes			
	#1	#2	#3	#4
1 (Master)	OFF	OFF	OFF	OFF
2	ON	OFF	OFF	OFF
3	OFF	ON	OFF	OFF
4	ON	ON	OFF	OFF
5	OFF	OFF	ON	OFF
6	ON	OFF	ON	OFF
7	OFF	ON	ON	OFF
8	ON	ON	ON	OFF
9	OFF	OFF	OFF	ON
10	ON	OFF	OFF	ON
11	OFF	ON	OFF	ON
12	ON	ON	OFF	ON
13	OFF	OFF	ON	ON
14	ON	OFF	ON	ON
15	OFF	ON	ON	ON
16	ON	ON	ON	ON

Item	Name	Definition
1	Positive Socket	Battery output positive or parallel positive line
2	USB	Communication cascade port – connects battery to host computer
3	Dry Contact	
4	ADD	DIP switch
5	RS485	Communication cascade port – supports RS485 communication
6	CAN	Communication cascade port – supports CAN communication (factory default)
7	Parallel 1 & 2	Battery parallel connection ports
8	Negative Socket	Battery output negative or parallel negative line
9	Ground Terminal	Grounding device