Manuals+ — User Manuals Simplified.

Sol-Ark HV48100 Pytes Lithium Battery

Sol-Ark HV48100 Pytes Lithium Battery Instruction Manual

Contents

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WARNING: HV48100 is a high-voltage DC system and must be operated by an authorized person only.

Warning

Before connecting

1. Please check products and components according to the enclosed packing list after unpacking. Please contact PYTES if there is any damage or missing of products and /or components.
2. Make sure power sources are cut off and the battery system is powered off before installation.
3. Wiring correctly by identifying positive and negative cables to ensure no short circuit with external devices.
4. It is forbidden to connect the battery directly with AC power.
5. The battery system must be well grounding and the resistance must be less than 0.1Ω ;
6. Make sure the electrical parameters of the battery system are compatible with related equipment.;
7. Keep the battery away from water and fire.

In Operation

1. The battery must be physically powered off in case of any move or repair.
2. It is forbidden to connect HV48100 to other types of batteries;
3. It is forbidden to connect the battery to a faulty or incompatible inverter;
4. It is forbidden to disassemble the battery (QC label removed or damaged);
5. In case of fire, only dry powder fire extinguishers can be used, liquid fire extinguishers are prohibited ;
6. Please do not open, repair or disassemble the battery other than staff from Pytes or authorized by Pytes. Pytes do not undertake consequences or related responsibility caused by violation of safety operation or design, production and equipment safety standards;

Caution

1. Please read this manual carefully before installation and any operation.

2. Charge the battery every 6 months to keep battery SOC > 90% if long-term storage.

3. The battery must be charged within 12 hours when a low-voltage alarm is triggered.

4. Battery DC output voltage exceeds 48V. It is vital to pay attention to personal safety in any case when operating.

5. All battery terminals must be disconnected before maintenance.

6. Please contact Pytes within 24 hours if there is anything abnormal.

7. Battery being damaged directly or indirectly by the above cases will result in warranty failure.

Note : This part only includes the battery and inverter connection. Please refer to other documents for the battery installation.
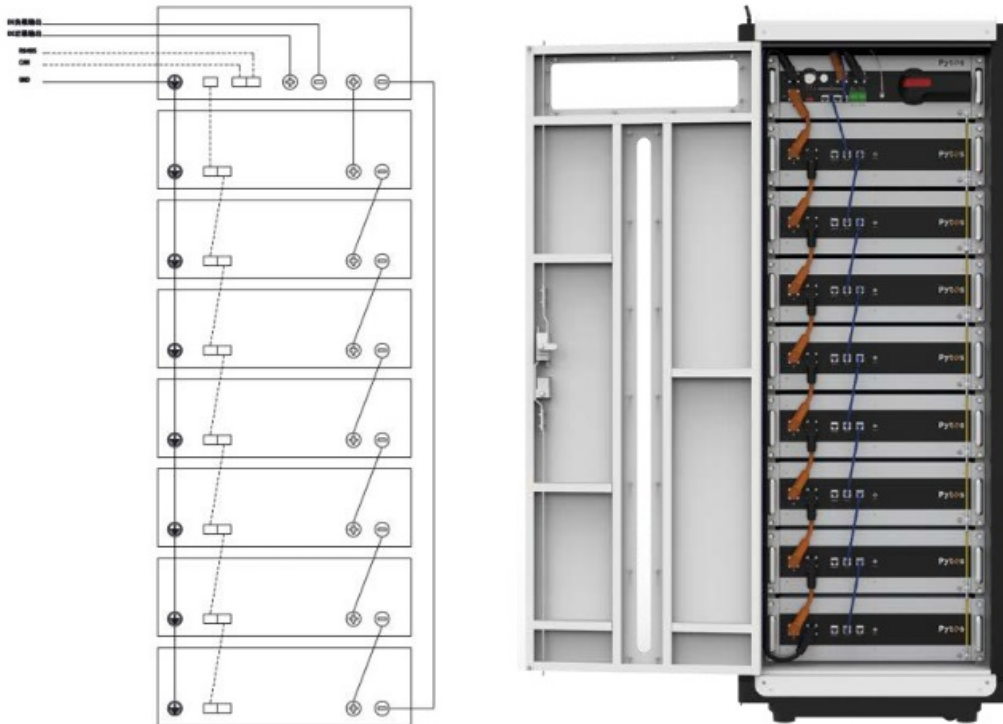
Prepare tools for installation

Wear the safety gears listed in the installation manual at all time.

Wire Cutter	Crimping Modular Plier	Cable Ties
Screw Driver Set	Electric Screw Driver	Insulating Gloves
Adjustable Wrench	1500VDC Isolating nut drivers	2000VDC Multimeter

It is recommended to wear the following safety gear when dealing with the system.

绝缘手套　　　　　　　　安全护目镜　　　　　　　　安全鞋

BOM LIST

Before installation, you should prepare the following items.

Item	Remarks	Quantity
Power Cable (DC)	☐ Cable diameters: 4awg(≥25 mm) ☐ Only copper cables may be used. ☐ The DC cables must be sized for the maximum battery voltage and the maximum battery current (see battery manufacturer documentation).	1pair
Earthing cable		1
Com. Cable	CAN communication or RS485 communication	1
Battery	HV48100 series	Depends on the number of Battery module
Inverter	**Sol-Ark**	1

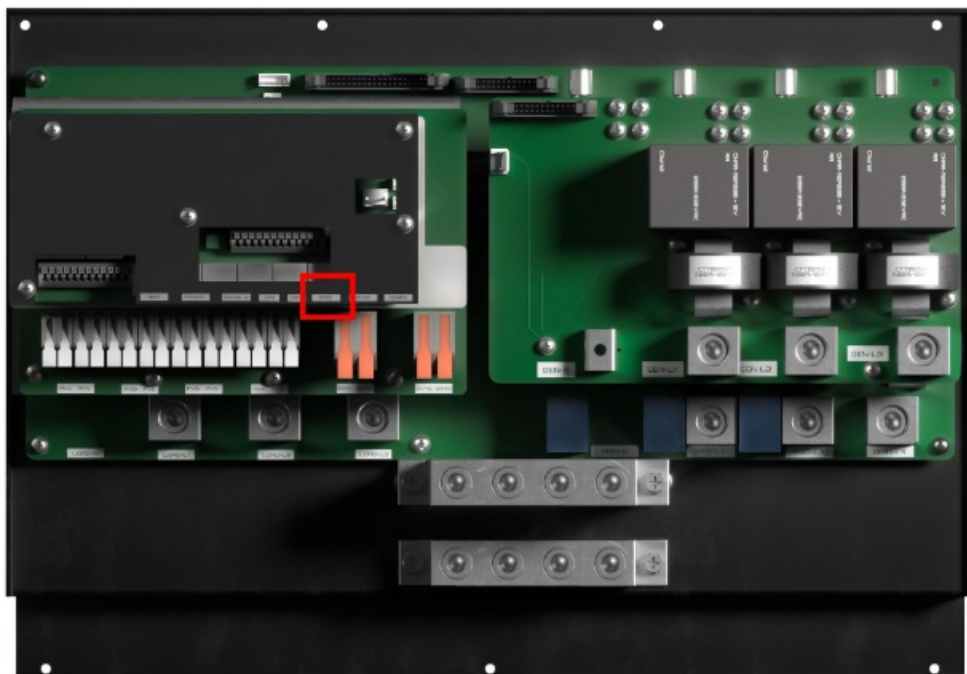Definition of RJ45 Port Pin for BMS is as follow.
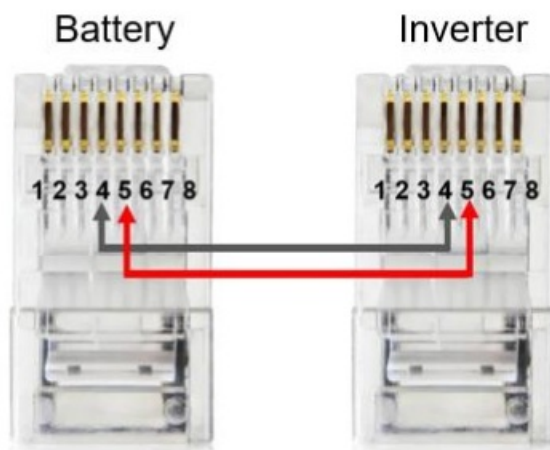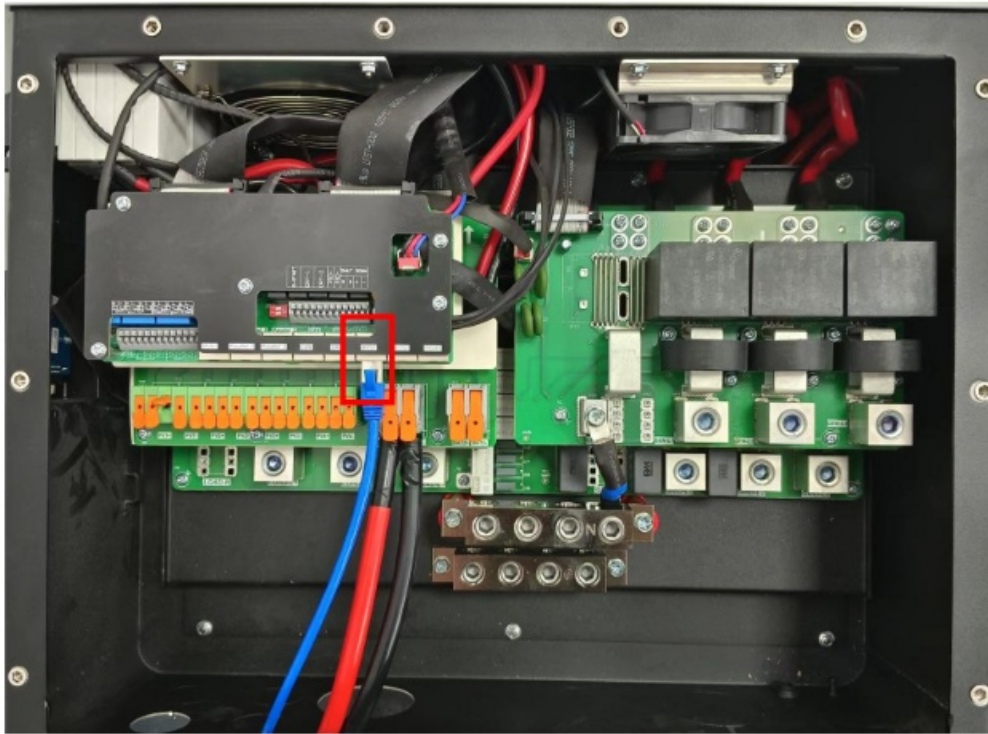

CAN port definition

HOW TO INSATLL
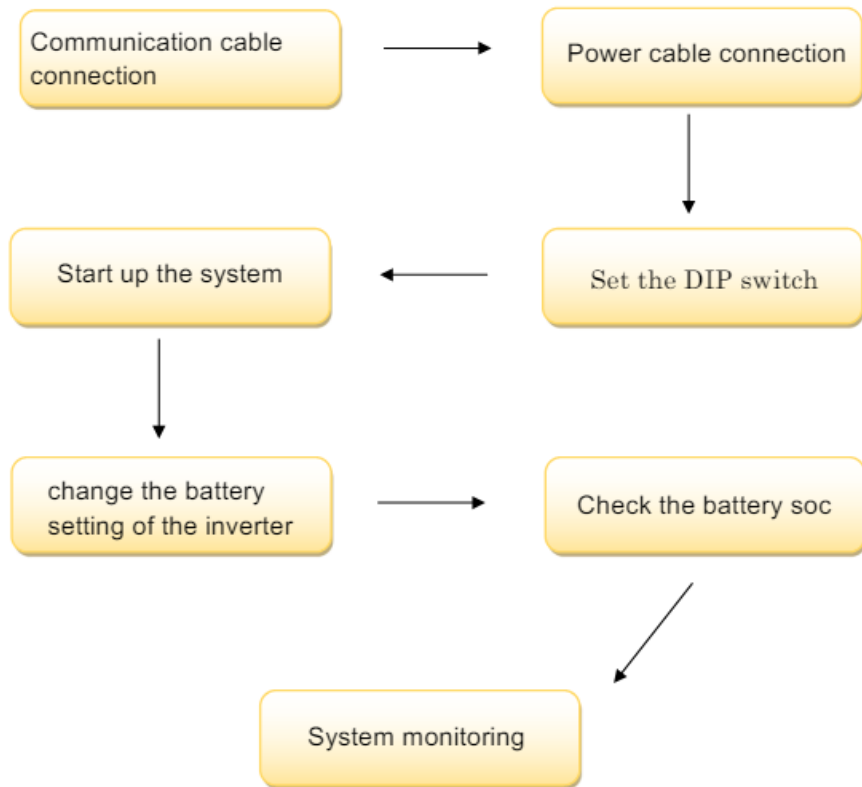
CAUTION: If you want to get more inverter-related settings, please refer to the inverter user manual first.
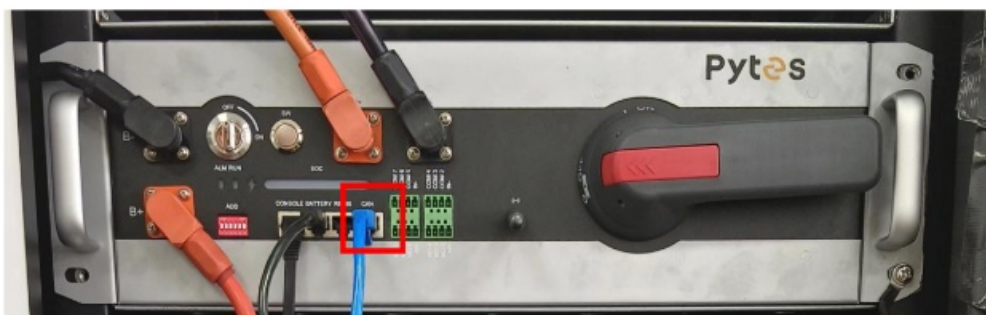
Communication Cable Connection
Connect the end of the cable to the inverter communication port as shown in pic 1.1.1. Make sure to use the BMS1 port.

Pic 1.1.1

Connect the other end of the cable to the BCU CAN port as shown in pic 1.1.2. (Ensure the correct sequence of communication cable)
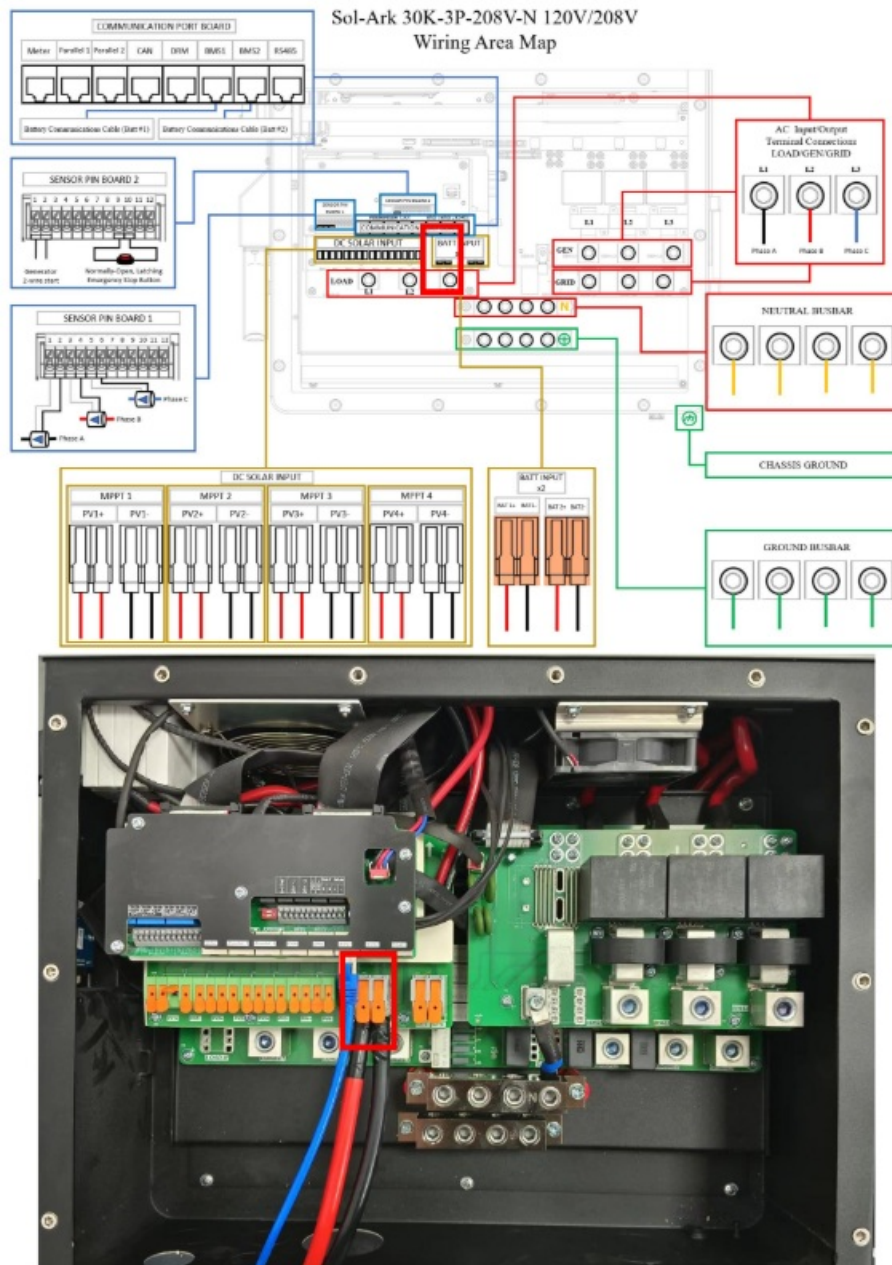

Pic 1.1.2

Power Cable Connection

Step.1
Insert the red cable into the positive DC connector, and insert black cable into the negative DC connector as shown in Pic 1.2.1.
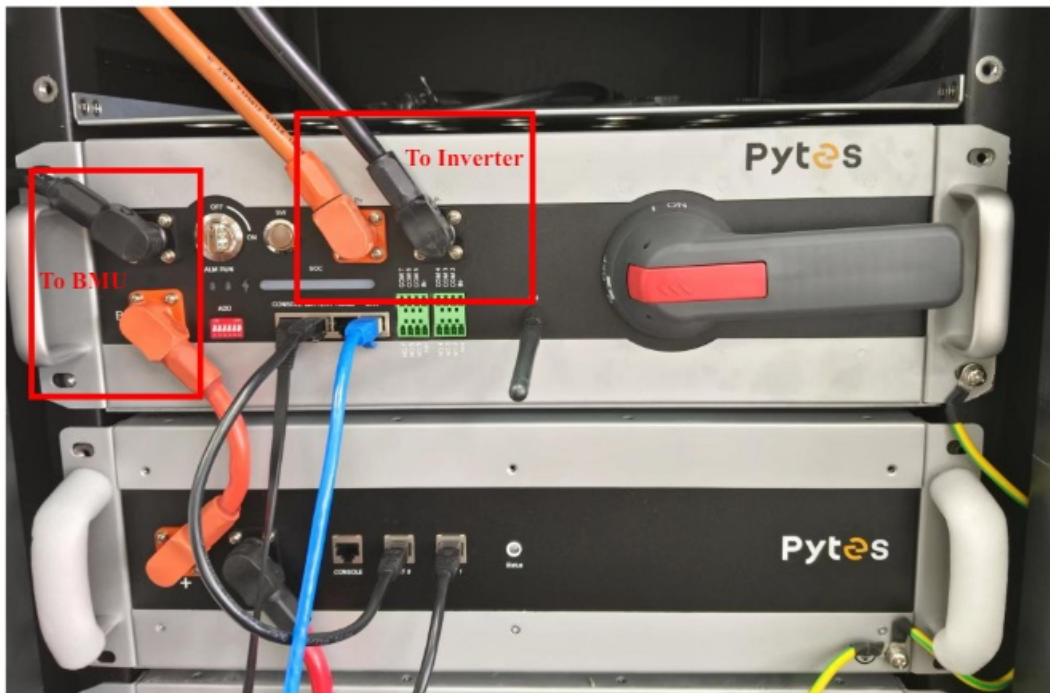
Pic 1.2.1

Step.2
At the other end of the cable, connect to the battery as shown Pic Ensure that the battery power switch is off
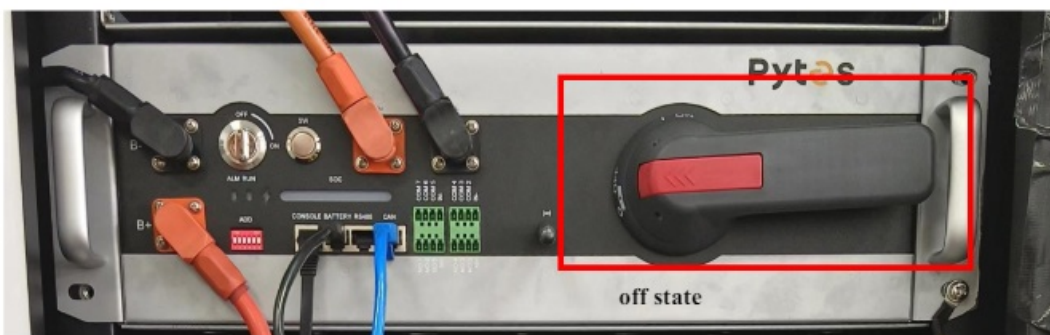
Pic 1.2.2

Set The DIP Switch

Before setting the DIP switch, make sure the isolation switch is in the off state.
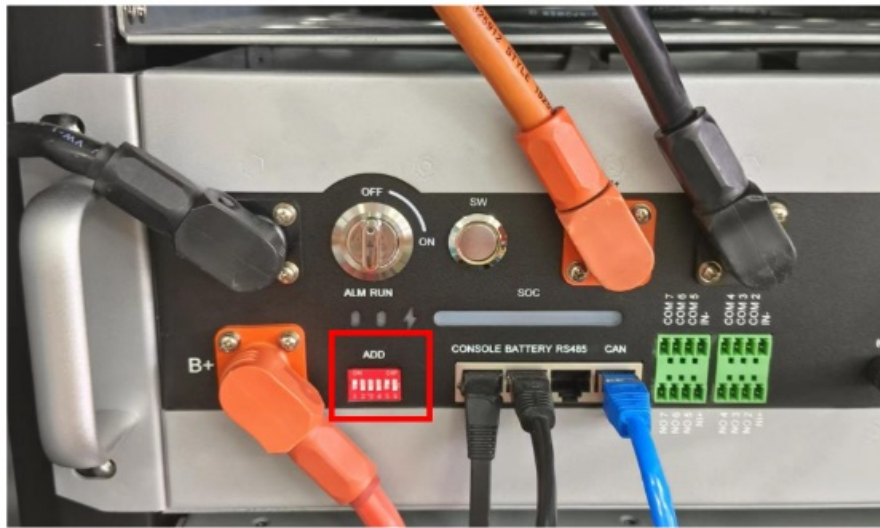

Pic 1.3.1

Then set the DIP switch of BCU as shown in Pic 1.3.2.

up,down,down,down,up,down

Pic 1.3.2

Start up the system

Before Turning on the inverters and batteries, make sure the wires are connected correctly.
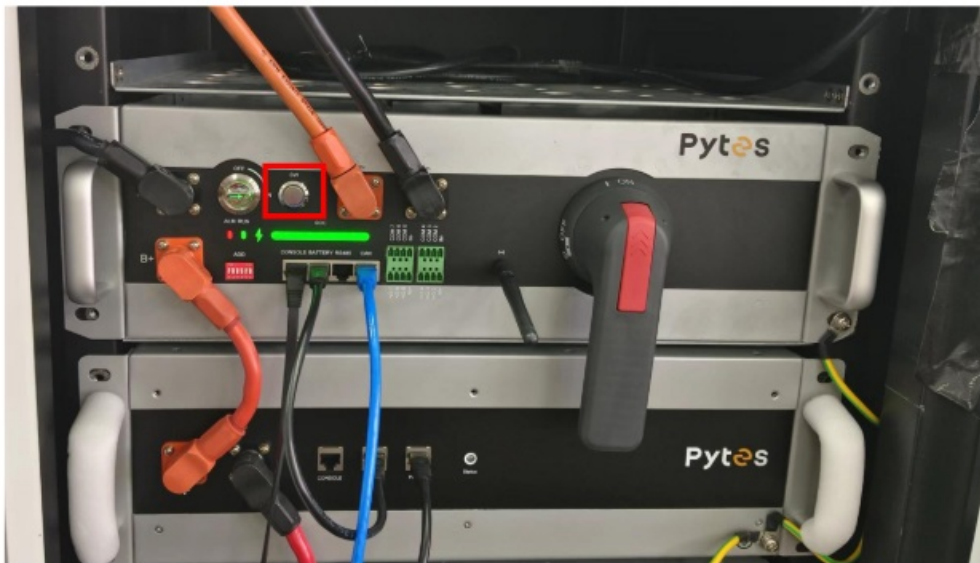
Step.1 Turn on the isolation switch.

Pic 1.4.1

Step.2 Turn on the power switch.

Pic 1.4.2

Step.3 Short press the red SW button, the RUN light on main control will flicker.

Step.4 Press the inverter button to start the inverter.
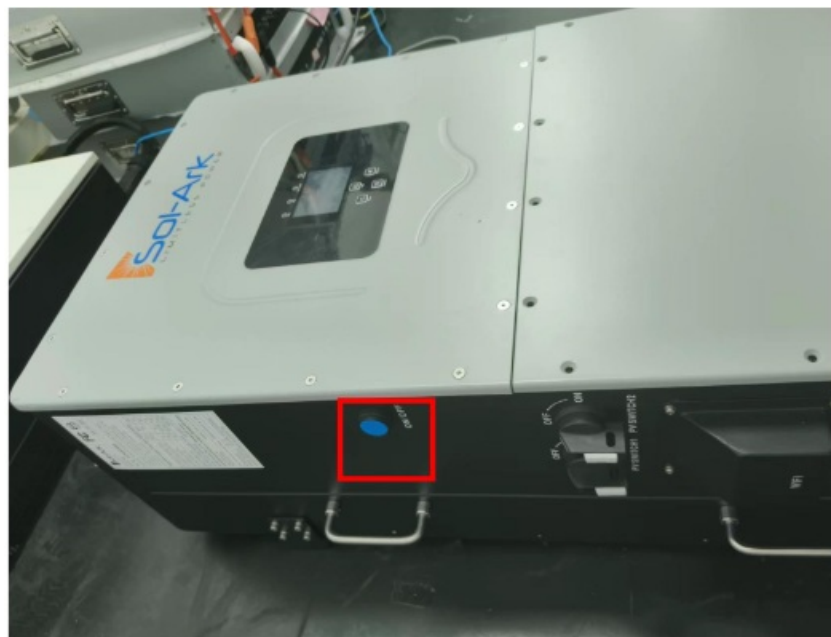
Note: When shut down the system, first press the inverter button to turn off the inverter, and then turn off the battery (first press 3S the red button, then turn off the power switch), and finally turn off the isolation switch.
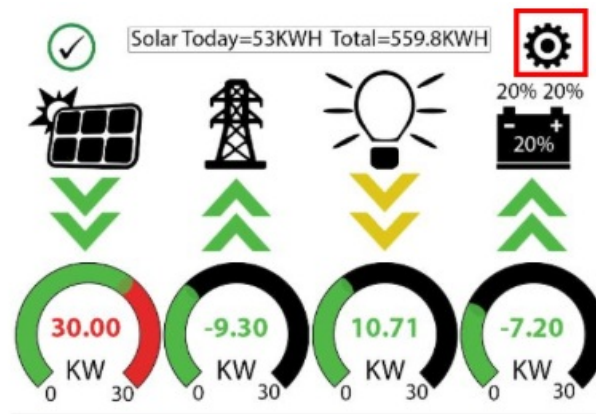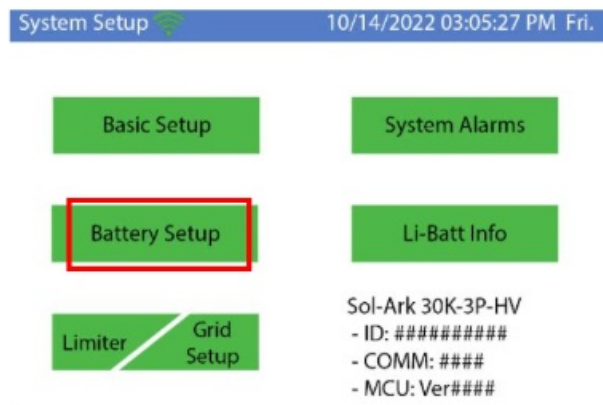
Change the battery setting of the inverter

CAUTION: If you want more details about the batteries settings please check the operating manual of inverters.
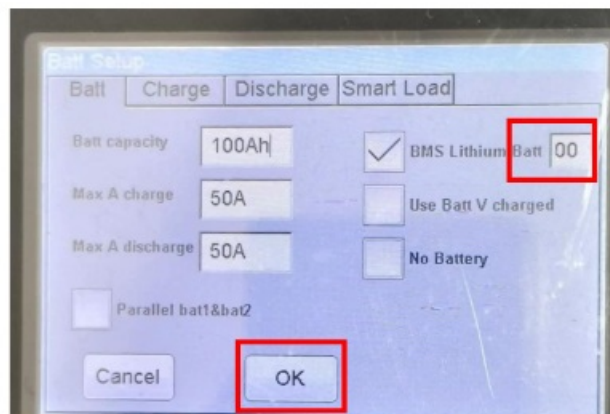
Step1.
Change the battery type to Lithium in the Battery setting. Use CAN communication,set the Lithium mode to 00.

Solar Today=53KWH Total=559.8KWH
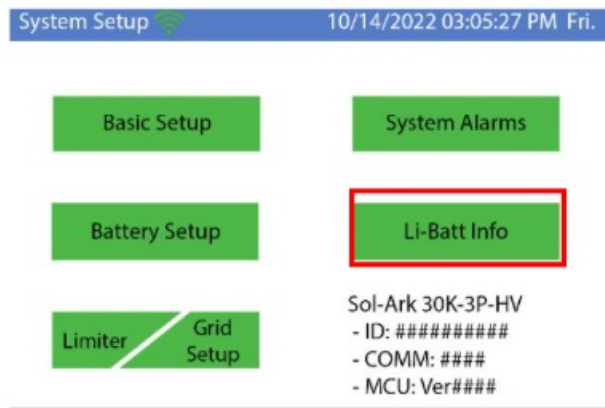
20% 20%

20%

30.00 KW   -9.30 KW   10.71 KW   -7.20 KW
0   30   0   30   0   30   0   30

Pic 5.1.1

System Setup	10/14/2022 03:05:27 PM Fri.

Basic Setup   System Alarms

Battery Setup   Li-Batt Info

Limiter / Grid Setup

Sol-Ark 30K-3P-HV
- ID: ##########
- COMM: ####
- MCU: Ver####

Pic 5.1.2

Batt Setup

Batt	Charge	Discharge	Smart Load

Batt capacity   100Ah   ✓ BMS Lithium Batt 00

Max A charge   50A   ☐ Use Batt V charged

Max A discharge 50A   ☐ No Battery

☐ Parallel bat1&bat2

Cancel   OK

Pic 5.1.3

Step2. Charge and discharge parameters can be set .

Batt Setup

Batt	Charge	Discharge	Smart Load

StartV 490.0V 490.0V   Float V 552.0V
Start% 30%   30%
A   20A   20A

☐ Gen Charge ✓ Grid Charge

✓ Gen Force Cancel   OK

Batt Setup

Batt	Charge	Discharge	Smart Load

ShutDown   160.0V   0%
Low Batt   170.0V   0%
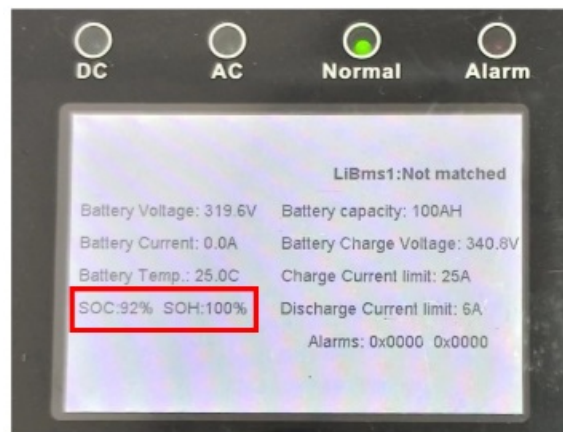Restart   180.0V   0%
Batt Empty V 160.0V

Cancel   OK

Check the battery soc

Step.1 Touch the Li-Batt Info of the inverter panel.

Pic 6.1.1

Step.2 Check the Li-BMS in battery information.

Pic 6.1.2

System monitoring

CAUTION: If you want more details about system monitoring please check the operating manual of inverters.

iPhone: (Will only show up as PV Pro)

Android

Register a new account and create a new plant. -END-

Documents / Resources

Sol-Ark HV48100 Pytes Lithium Battery [pdf] Instruction Manual
HV48100 Pytes Lithium Battery, HV48100, Pytes Lithium Battery, Lithium Battery, Battery

References

- **User Manual**