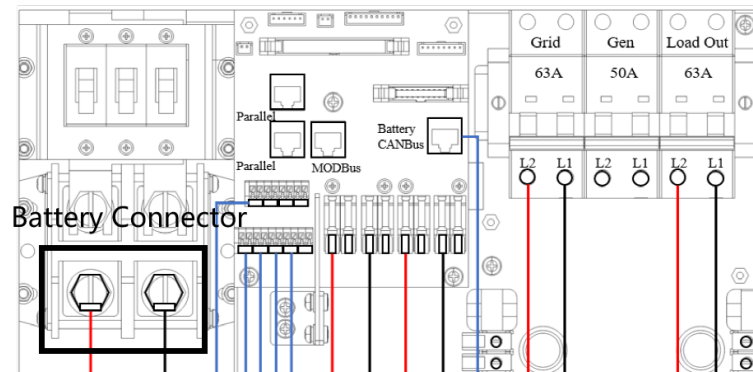# Connect the cables

Connect the power cables between inverter and battery or the Busbars as mentioned.

Figure 2.1 Sol-Ark Battery Connector

As for the cable gauge that connects the busbar to the inverter, 4/0 gauge power cable is commended for Sol-Ark 15K model and 3/0 gauge power cable is commended for 8K/12K model.

A standard ethernet cable can be used for the communication since Sol-Ark inverter pin assignment is the same as Pytes E-BOX battery.

Figure 2.2 Sol-Ark Custome ethernet cable
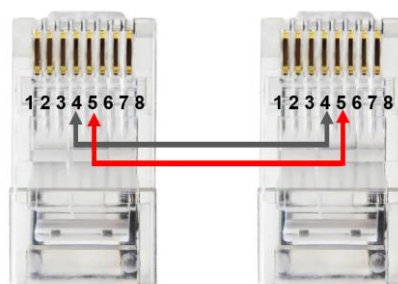
Set the DIP Switch of every master battery as Figure 2.3 shown. If your battery only have four levers, please just set the first levers shown in the figure.

Figure 2.3 Sol-Ark inverter DIP Switch Setting
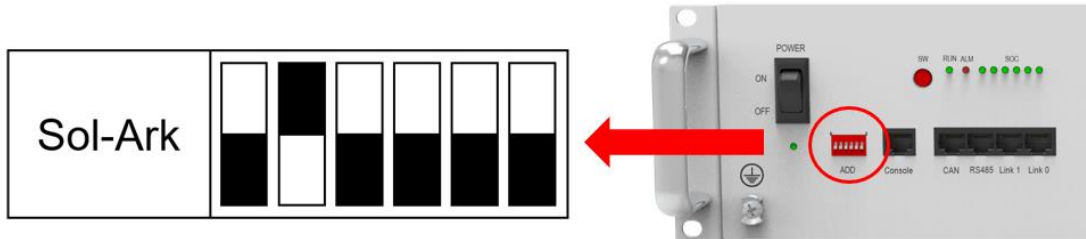
Plug in the battery end into the **CAN port** of the Pytes E-BOX battery and plug in the inverter end into Sol-Ark Battery **CANBus** Port as shown in the Figure 2.4.
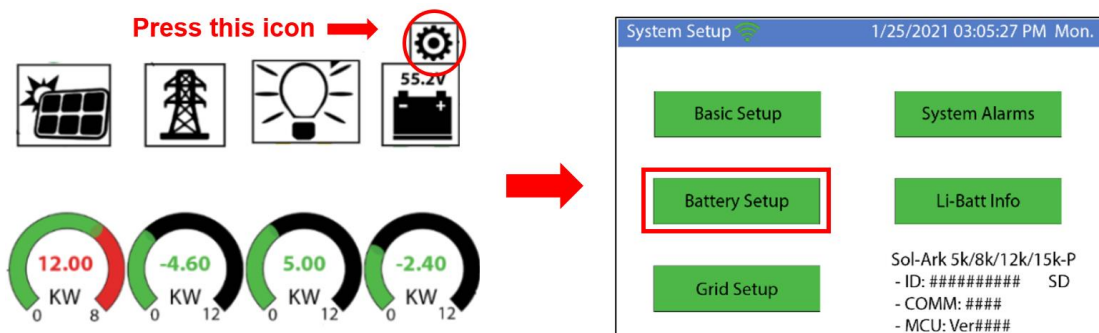
Figure 2.4 Sol-Ark inverter comm cable connection
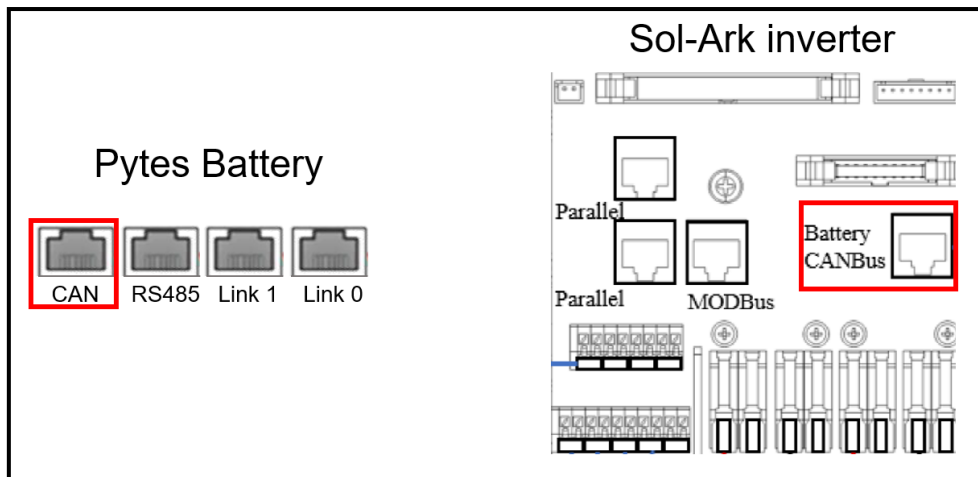
Program the inverter

Press the gear icon on the top right of the screen and then press battery set up menu.

Figure 2.5 Sol-Ark Batt Setup

Set the battery parameters

➢ Batt Capacity: 100Ah per unit

➢ Max A Charge/Discharge: 185A is the max amps that Sol-Ark 8K/12K mode supports and the corresponding number is 275A for 15K mode. Fill in the max amps or (50A*unit numbers) which is lower. (For example, there are three Pytes E-BOX batteries and one 12K Sol-Ark inverter in a system. The max amps of 12K is 185A and three batteries can support 150A(50*3). So the number should fill in is 150A.)

➢ Select "Use Batt% Charged".

➢ Enable "BMS Lithium Batt" and set its value to "00".

➢ Turn on "Activate Battery".

Note that enabling BMS Lithium Batt 00 will adjust some values and make other values unadjustable (like the temperature coefficient above). Just ignore those values - the BMS is in control.

Figure 2.6 Batt Setup

Program the Charge tab in Batt Setup

See the right picture in Figure 2.6.

➢ Start%: 15%

➢ A: Same as the Max A Charge in Batt Seting

➢ Float V: 55.6V

➢ Absorption V: 56V

➢ Equalization V: 56V

Program the Discharge tab in Batt Setup

➢ Shutdown: 10%

➢ Low Batt: 20%

➢ Batt Empty: 47.5V

Figure 2.7 Batt Discharge Setup

Please refer to the Sol-Ark inverter manual for more setting such as Grid Setup, PV Setting, Time-of-Use, etc.

Confirm Inverter-Battery Communication

Figure 2.8 communication confirm