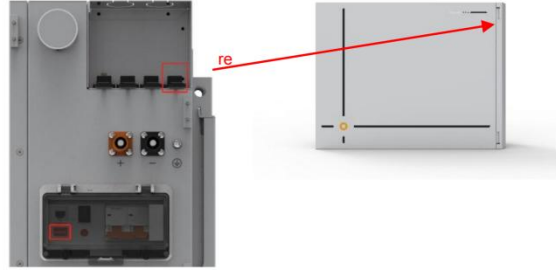
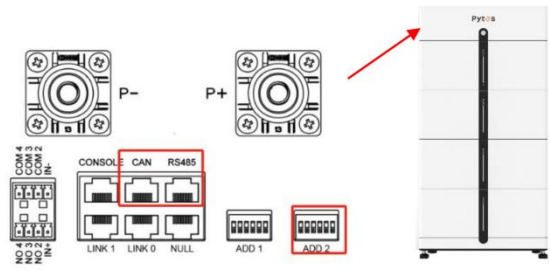


Pytes Low Voltage Battery Series Configuration Guide with Growatt (Two Versions Included)

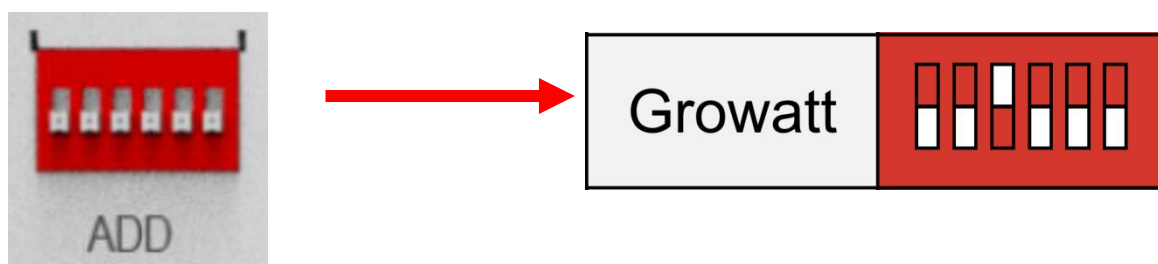


Pytes low voltage battery interface overview

No.	Item Name	Product Picture
1	E-BOX 4850-C	
2	E-BOX 4850G	
3	E-BOX 48100R-C	
4	V5°	
5	V5°α	
6	V5°α Plus	
7	V10	
8	V15	
9	Pi LV1	

Set the Dip Switch

Only need to set the master battery Dip Switch to the corresponding position as shown. The Dip Switch (ADD) location varies for each battery model; please refer to the respective user manual for details.



Select the correct the communication cable between battery and Inverter

Select the correct the communication cable and the correct pinout of communication port on the battery according to the Pin Definition List. If the pin definitions of the battery and inverter align, a standard ethernet cable can be used. Otherwise, the cable needs to be adjusted.

Pin Number	Battery Pin Definition	Inverter Pin Definition
1	RS485B	
2	RS485A	
3	GND	
4	CAN-H	CAN-H
5	CAN-L	CAN-L
6	GND	
7	RS485A	
8	RS485B	

Growatt SPF/SPA Series/SC 48V Series:

Connect the cables

1. Connect the power cables between inverter and battery or the Busbars. See the (1) on Figure 1.1 to check the position of Growatt Battery Connectors.
2. A standard ethernet cable can be used for the communication. Plug in the battery end into the CAN port of the Pytes battery(Check Page 2) and plug in the inverter end into Growatt BMS Port as shown (2) on the Figure 1.1.

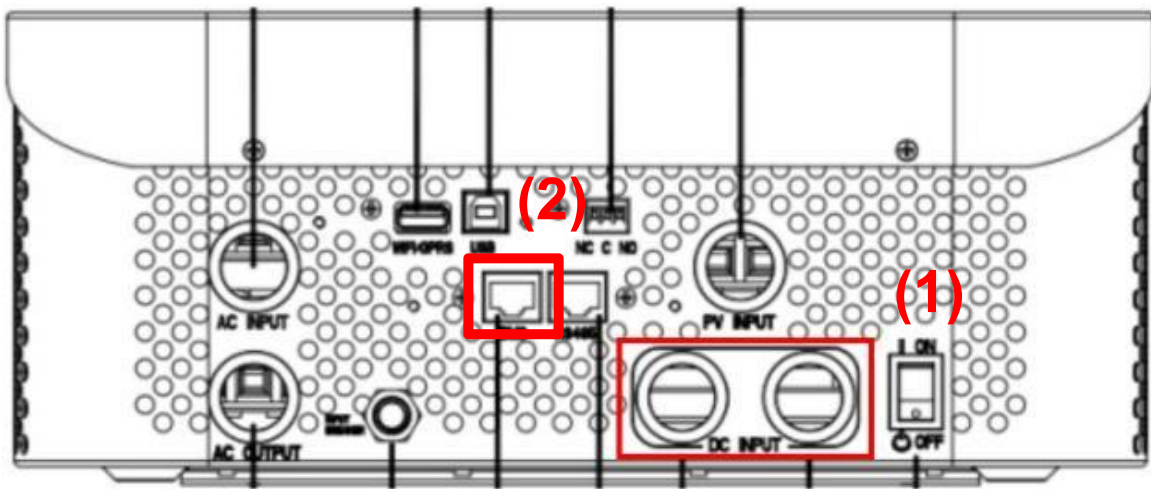


Figure 1.1 Growatt Battery Connector

Program the inverter

The operation and display panel, shown in below chart, is on the front panel of the inverter. It includes three indicators, four function keys and LCD display, indicating the operating status and input/output power information. (shown in the Figure1.2)

Esc: To exit setting mode

UP: To go to previous selection

DOWN: To go to next selection

ENTER: To confirm the selection in setting mode or enter setting mode

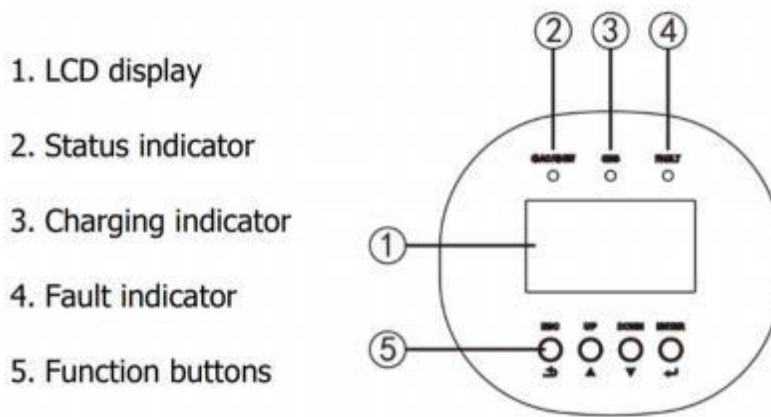


Figure 1.2 Growatt operation panel

STEP 1 After pressing and holding ENTER button for 3 seconds, it will enter setting mode. Please set the output source priority as “SBU” (SBU priority) in Program 01.

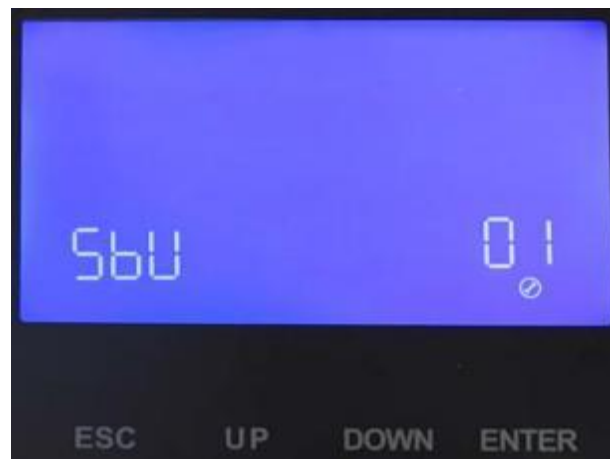


Figure 1.3 Growatt operation panel

STEP 2 Set the AC input voltage range as “APL” (Application) in Program 03.

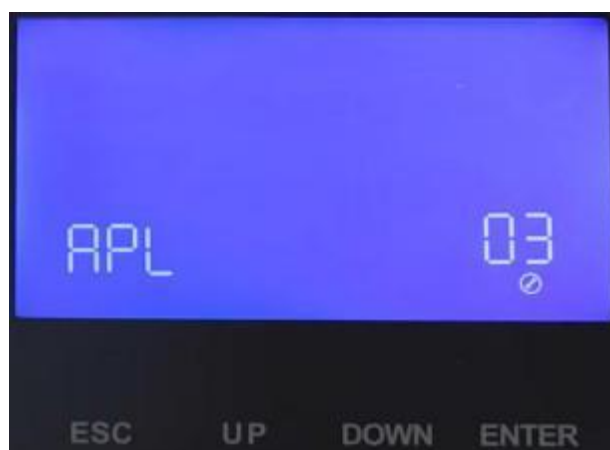


Figure 1.4 Growatt operation panel

STEP 3 Set the power saving mode enable/disable as “SDS” (Saving mode disable) in Program 04.

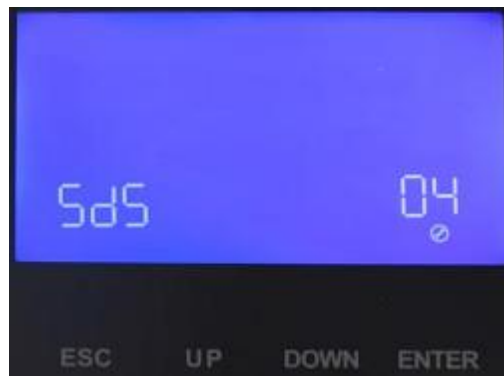


Figure 1.5 Growatt operation panel

STEP 4 Set the battery type as “LI” (Lithium) in Program 05, and it will switch to Program 36 to choose battery type. Then set “L51” (Protocol) in Program 36.



Figure 1.6 Growatt operation panel

STEP 5 After program 05 select Li, and protocol select to L51, there is SOC can be set in program 21.



Turn to program 21, set Min soc to 10%, and save.



21	Low DC Cut-off SOC. If self-defined is selected in program 5, this program can be set up	CO4 20% 21 Default 20%, 5%~50% Settable
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Please refer to the Growatt inverter manual for more settings.

Growatt SPH Series:

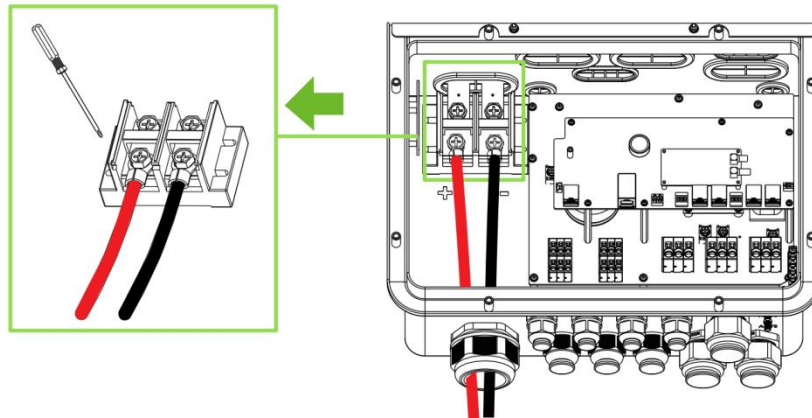
Power Cable Connection

Step.1

Open the front housing of the Growatt SPH_10000TL-HU.

Step.2

Connect the red and black cables to the inverter DC connector as shown in Pic 2.1



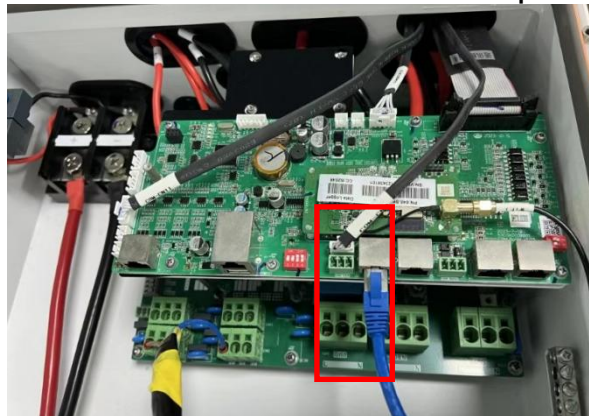
Pic 2.1

Step.3

At the other end of the cable, connect to the battery.

Communication Cable Connection

Connect the end of the cable to the inverter communication port as shown in pic 2.2. Make sure which communication port to use.



Pic 2.2

The battery supports both CAN and RS485 protocol. Choose one port and use the corresponding port.(Check Page2)(Ensure the correct sequence of communication cable)

Start up the system

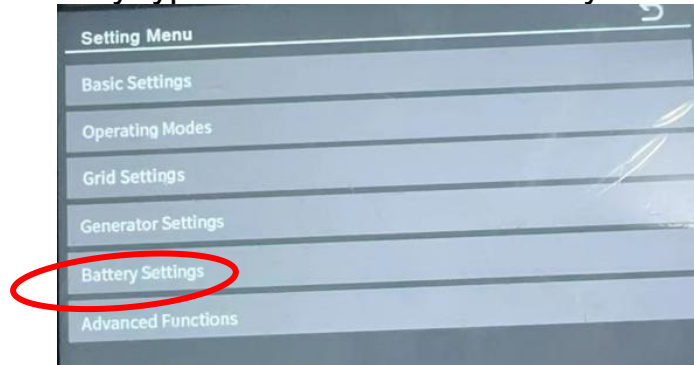
Start up the inverters and batteries.

Change the battery setting of the inverter

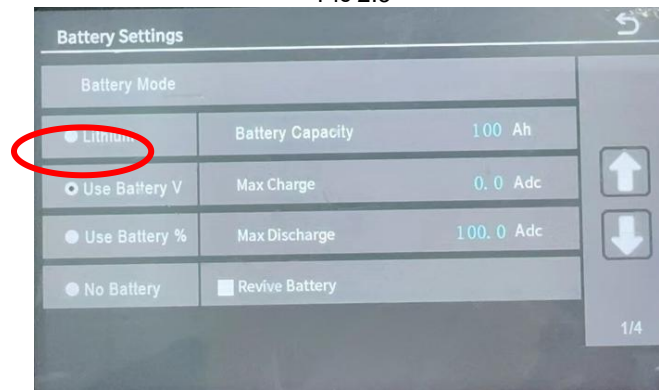
※**CAUTION:** If you want more details about the batteries settings, please check the operating manual of inverters.

Step1.

Change the battery type to lithium in the Battery setting.



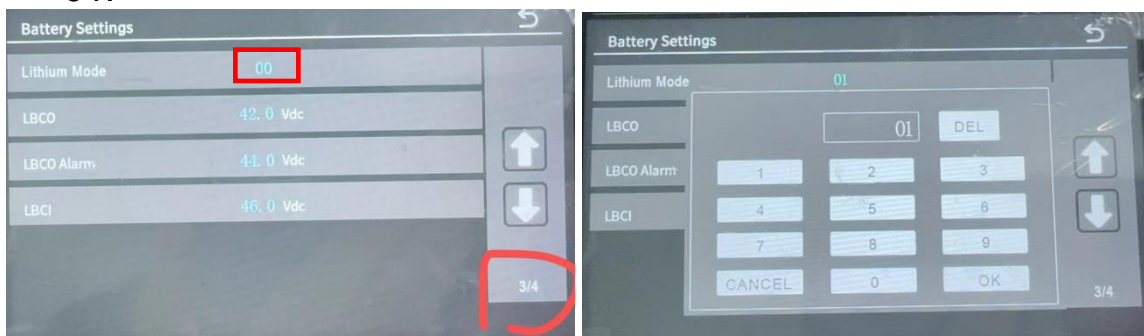
Pic 2.3



Pic 2.4

Step2.

Turn to the 3/4 page, set the lithium mode to 00 if you use RS485 communication. If you use CAN communication, set the lithium mode to 01.



Pic 2.5

Check the battery soc

Touch the battery icon of the inverter's touch panel.



Pic 2.6

The details of the battery will be shown on the parameter if the connection between battery and inverter is correct.



Pic 2.7

Please refer to the [Growatt inverter manual](#) for more settings.