



# Installation and configuration manual

## With Voltronic (off-grid)

**Pytes Lithium Battery V Series With  
Voltronic Axpert King Inverter**



**BOM List**

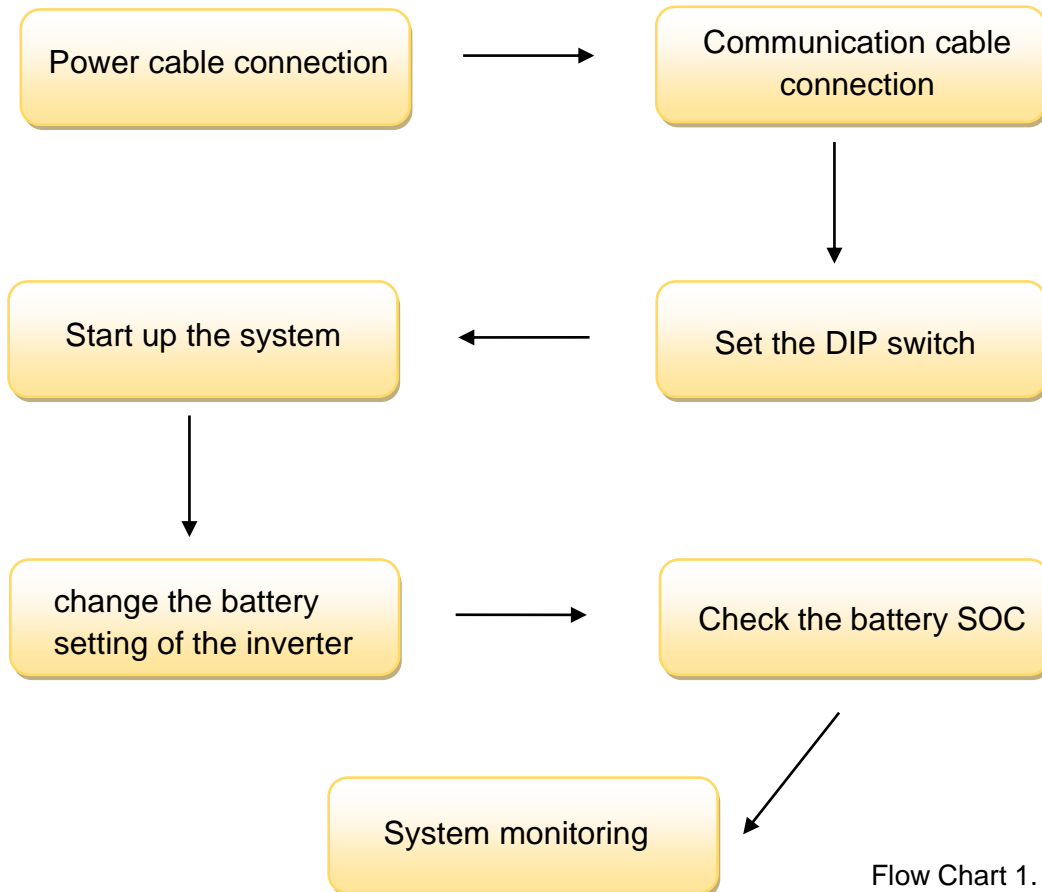
Before installation, you should prepare following items as shown in Graph 1.

<b>Item</b>	<b>Remarks</b>	<b>Quantity</b>
<b>Power Cable (DC)</b>	<input type="checkbox"/> Conductor cross-section: UL10269-1/0AWG-200mm- Amphonel 8.0mm Or TMR-190*25*18mm Cable diameters: 14 mm to 25 mm Only copper cables may be used. The DC cables must be sized for the maximum battery voltage and the maximum battery current.	Depends on the number of batteries and the connection method
<b>RJ45 Cable</b>	RS485 communication Terminal (RJ45 port) follow RS485 protocol, to output batteries information.	1
<b>PC (Personal Computer)</b>	Self-Provide.	1
<b>Battery</b>	V series	Depends on the number of batteries and the connection method
<b>Inverter</b>	Voltronic Axpert King	1

Graph 1.

## How to Install

Install the system as shown in Flow Chart 1.



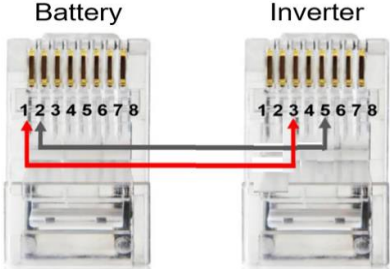
Flow Chart 1.

**CAUTION:** If you want to get more inverter-related settings, please refer to the inverter user manual first.

## 1.Communication Cable

Definition RS485 Port Pin for BMS is as follow.

### RS485 port definition

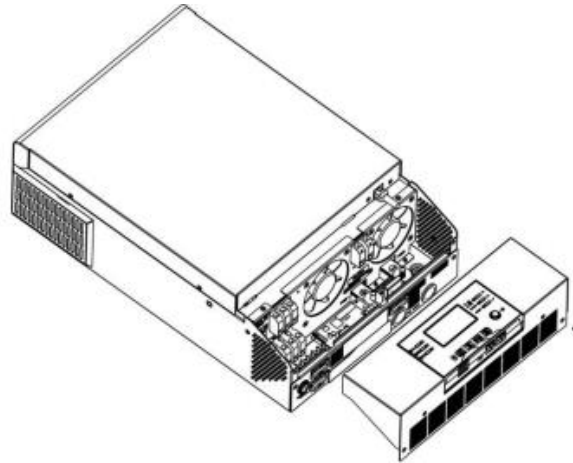
Version	Pin number of com. cable
V version	

Pic 2

## 2.Power Cable Connection

### Step.1

Before connecting all wirings, please take off bottom cover by removing two screws as shown Pic 4.1.

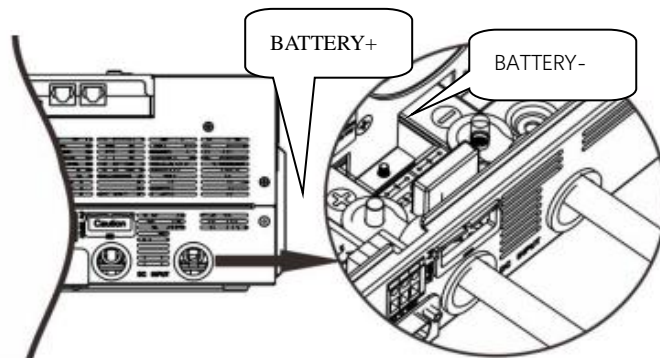


Pic 4.1

**Step.2**

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

Pic 4.2.

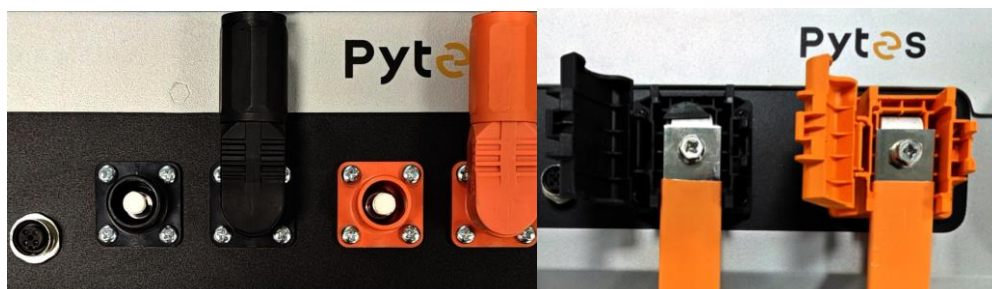


Pic 4.2

**Step.3**

At the other end of the cable, connect to the battery as shown Pic 4.3.

(Ensure that the battery power switch is off)



### 3. Communication Cable Connection

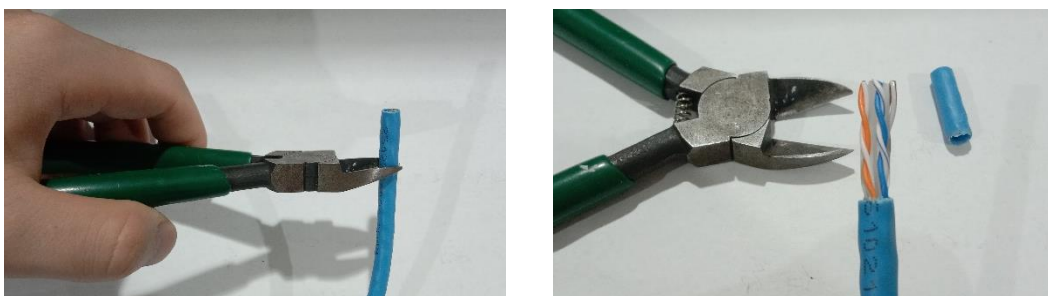
#### Step.1: Wire Set Up

a): Prepare one cable, one clamp and one scissor as shown in Pic 5.1.1.



Pic 5.1.1

b): Cut the cable skin at both ends to expose the wires as shown in Pic 5.1.2.



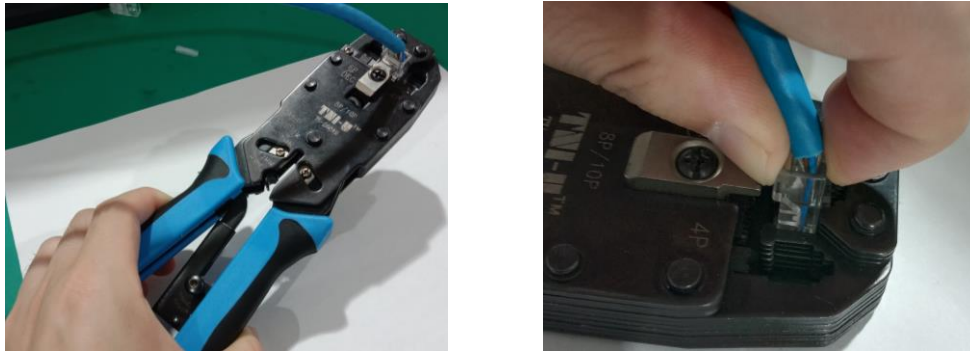
Pic 5.1.2

c): Arrange wires sequence according to pic2.(1-3,2-5)

d): Check the battery wire sequence.

e): Insert battery wire lines and inverter wire lines respectively into crystal heads.

f): Clamp two crystal heads tightly and take them out as shown in Pic 5.1.3.



Pic 5.1.3

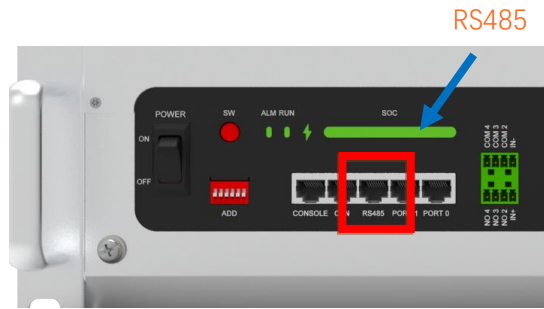
**Step.2: Cable Connection**

Connect one end of the cable to the inverter communication port as shown in Pic 5.2.1. Make sure which communication port to use.



Pic 5.2.1

Connect the other end of the cable to the battery communication port as shown in Pic 5.2.2 (Ensure the correct sequence of wires inside the communication cable).



Pic 5.2.2

#### 4. Set the DIP Switch

Set the 1st dip-switch up and the rest of the switches down. Only the master battery requires the dip switches adjusted as shown in Pic 6.1

Version	ADD setting
V version	<p>The image shows the 'Voltronic' logo on the left and a red DIP switch panel on the right. The panel has five switches. The first switch is in the 'up' position, while the other four are in the 'down' position.</p>

Pic 6.1

#### 5. Start Up the System

Start up the inverters and batteries.

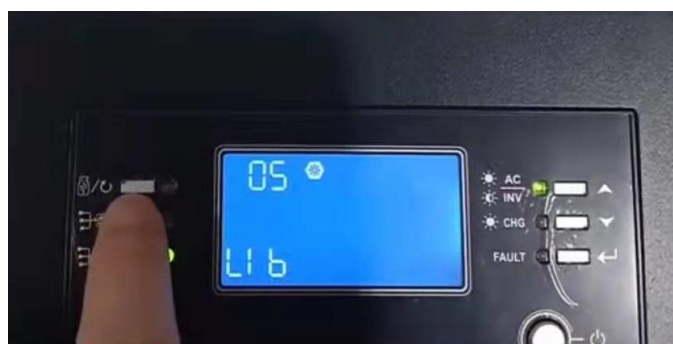
#### 6. Change the Battery Setting of The Inverter

**※CAUTION: If you want more details about the batteries settings, please**



**check the operating manual of inverters.**

You have to navigate to menu 05 (press enter button for 3 seconds to enter the menu) of the off grid inverter and select the option LIB. When you find LIB, press enter and then return to the main menu (press return button to top left corner of the LCD) as shown in Pic 8.1 and Pic 8.2



Pic 8.1

<p>LIB-protocol compatible battery</p> <p>05</p> <p>LIB</p>	<p>Select "LIB" if using Lithium battery compatible to Lib protocol. If selected, programs of 02, 26, 27 and 29 will be automatically set up. No need for further setting.</p>
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Pic 8.2

## 7. Warning Message 61. How to Reset It

If all three points are respected below as shown in Pic 9.1 and the settings are correct, you have to restart the system and the warning 61 will disappear.

Condition 1: The BMS cable has the correct pin in use (1, 2 pin on the battery and 3,5 on the inverter)

Condition 2: The 1st dip switch is up, the switches 2,3,4 are down on the master battery.

Condition 3. The menu 05 is set to LIB.



Pic 9.1

END