Pytes E-BOX Series Solar Storage System Instruction Manual

Installation and configuration manual
With Voltronic (off-grid)
Pytes Lithium Battery E-BOX Series
With Voltronic Axpert King Inverter

Contents

BOM List

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

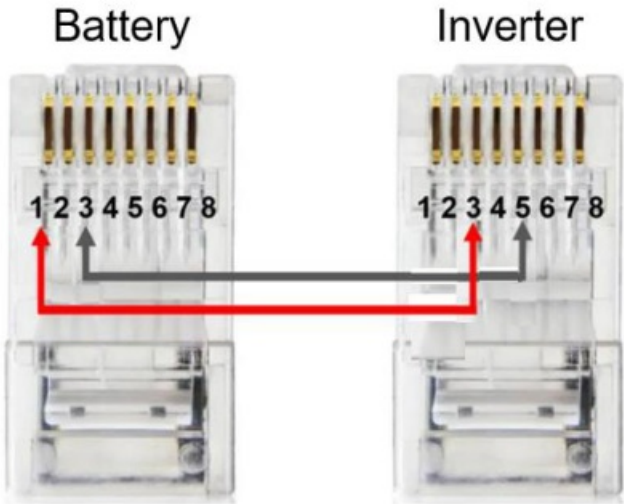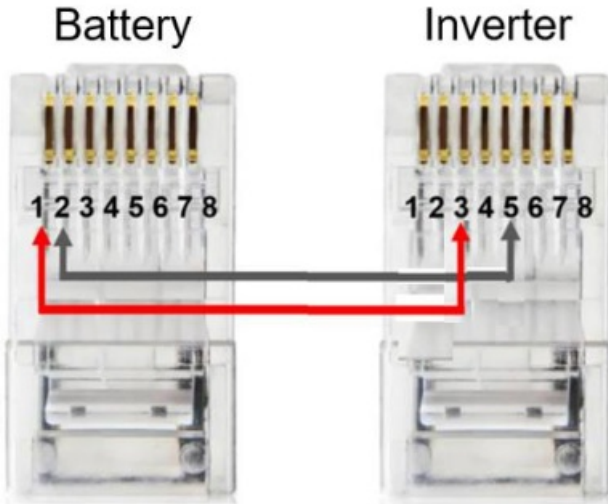| Item	Remarks	Quantity
Power Cable (DC)	Conductor cross-section: 50 mm2 to 95 mm2 Cable diameters: 14 mm to 25 mm Only copper cables may be used. The DC cables must be sized for the maximum battery voltage and the maximum battery current.	Depends on the number of batteries and the connection method
RJ45 Cable	RS485 communicationTerminal (RJ45 port) follow RS485 protocol, to output batteries information.	1
PC (Personal Computer)	Self-Provide.	1
Battery	48100R / 48100C / 4850	Depends on the number of batteries and the connection method
Inverter	Voltronic Axpert King	1

Graph 1.

Communication Cable

Definition RS485 Port Pin for BMS is as follow.
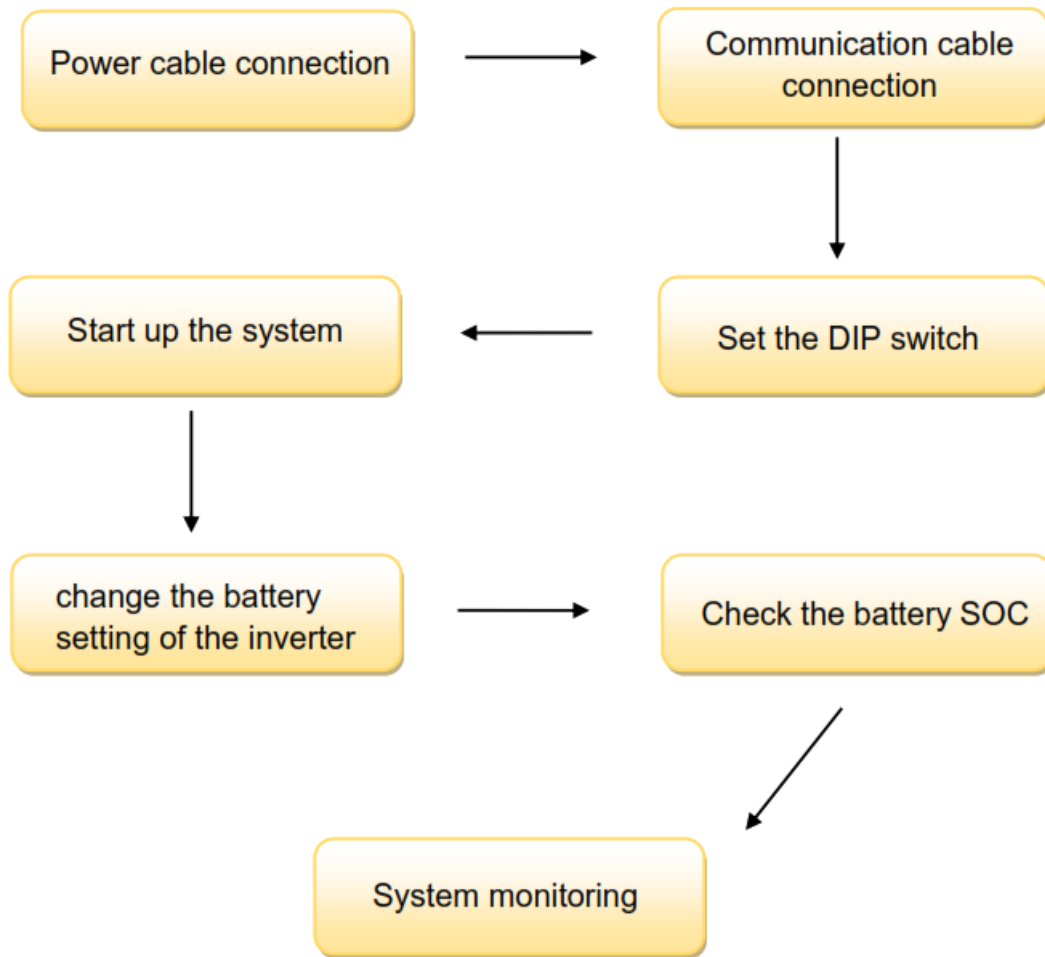Click here to tell the version of 48100R you have.
RS485 port definition

Version of 48100R	Pin number of com. cable
A version	
B and C version	

Pic 2.1

How to Install

Install the system as shown in Flow Chart 1.

```
┌─────────────────────┐              ┌─────────────────────┐
│ Power cable         │  ──────────▶ │ Communication cable │
│ connection          │              │ connection          │
└─────────────────────┘              └─────────────────────┘
                                                │
                                                ▼
┌─────────────────────┐              ┌─────────────────────┐
│ Start up the system │  ◀────────── │ Set the DIP switch  │
└─────────────────────┘              └─────────────────────┘
         │
         ▼
┌─────────────────────┐              ┌─────────────────────┐
│ change the battery  │  ──────────▶ │ Check the battery   │
│ setting of the      │              │ SOC                 │
│ inverter            │              └─────────────────────┘
└─────────────────────┘                        │
                                                ▼
         ┌─────────────────────┐
         │ System monitoring   │
         └─────────────────────┘
```
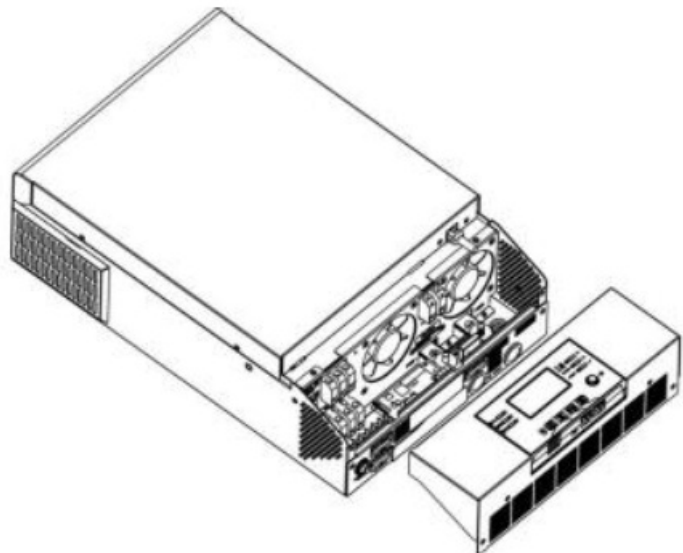
Flow Chart 1.

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

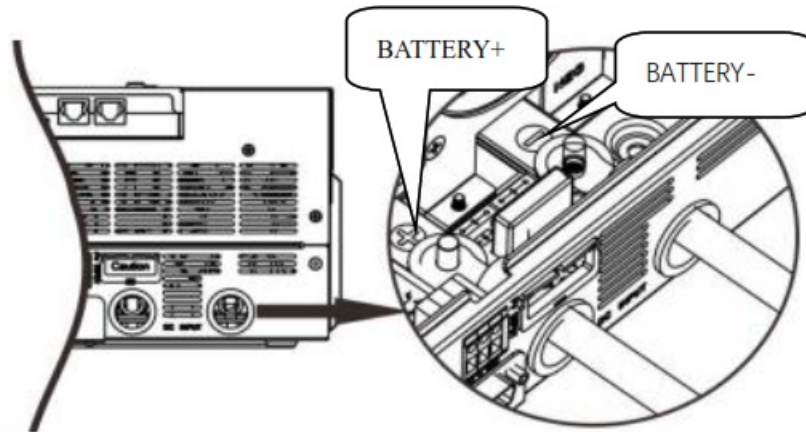**Power Cable Connection**

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

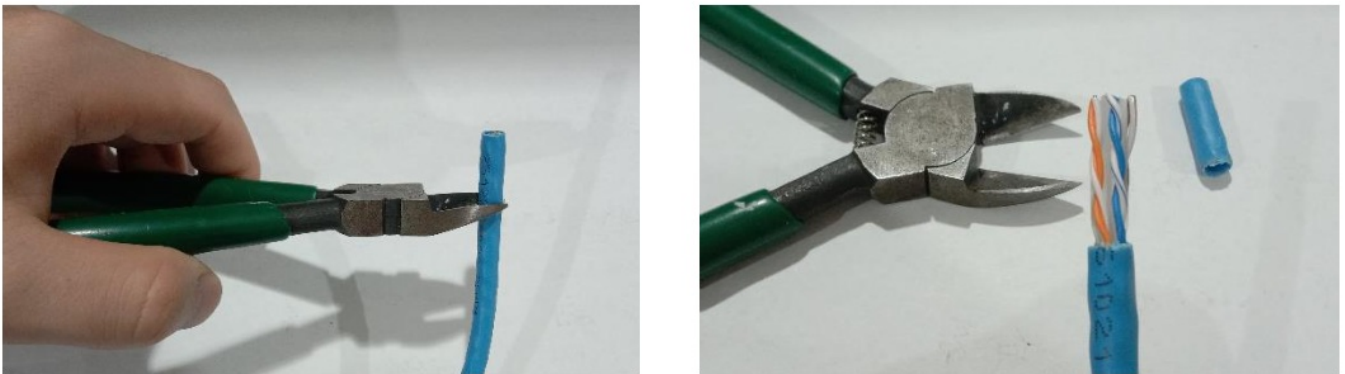Pic 4.3

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 Pic5.1.2.
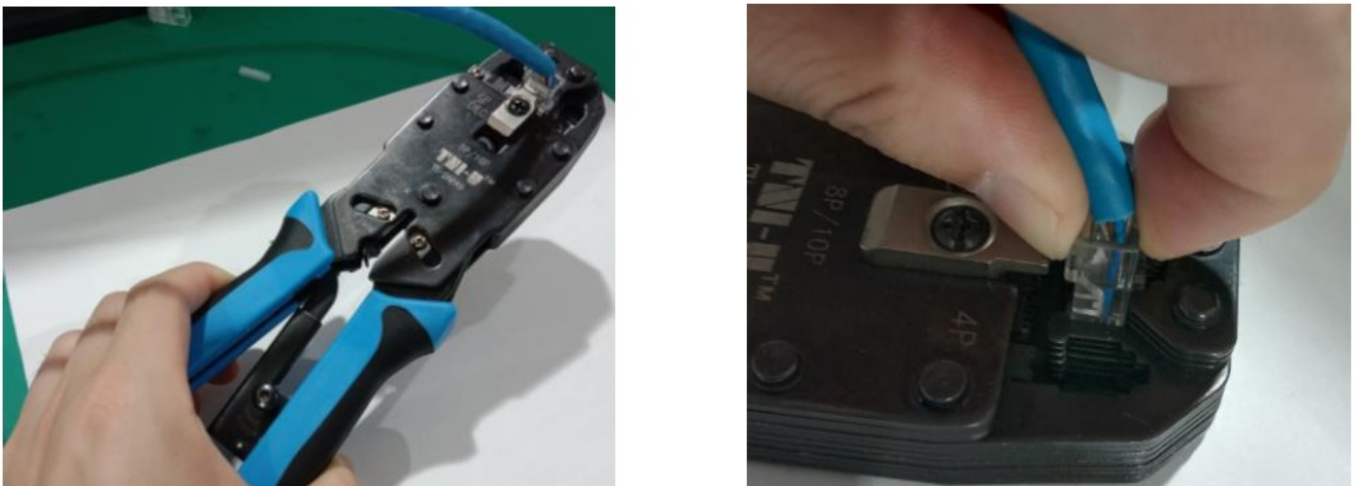

Pic 5.1.2

c): Arrange wires sequence according to the Appendix C V1.0.4.
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.
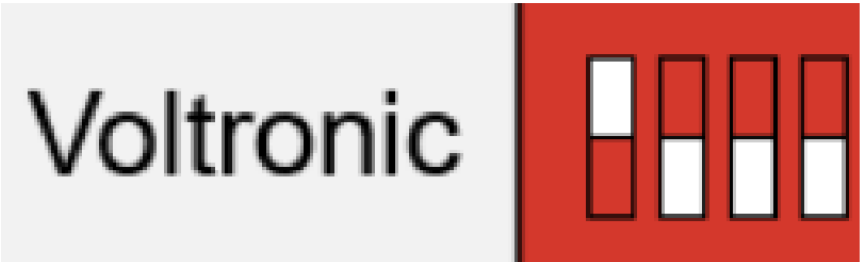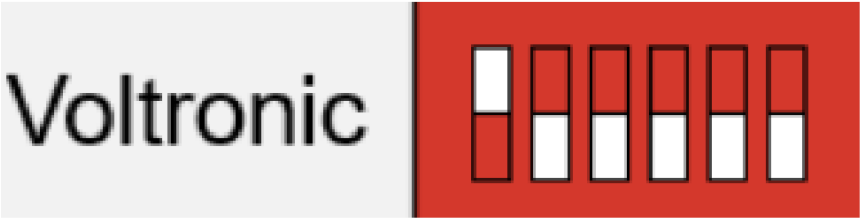

Pic 5.2.1

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).
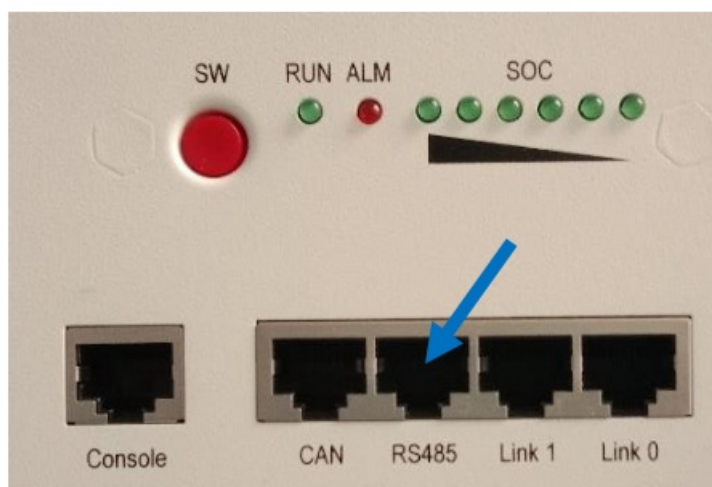
Pic 5.2.2

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 (Up, Down, Down, Down) as shown in Pic 6.1

Version of 48100R	ADD setting
A and B version	Voltronic
C version	Voltronic

Pic 6.1

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.
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

Lib-protocol compatible battery 05 ⬡ LI b	Select" Lib" if using Lithium battery compat ed, programs of 02, 26, 27 and 29 will be a for further setting.

Pic 8.2

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

Documents / Resources

	Pytes E-BOX Series Solar Storage System [pdf] Instruction Manual E-BOX Series Solar Storage System, Solar Storage System, E-BOX Series, Storage System, S olar Storage, Storage