Installation and configuration manual With AFORE

Pytes Lithium Battery

E-BOX series

With AFORE Hybrid Inverter

SUN series

CONTENTS
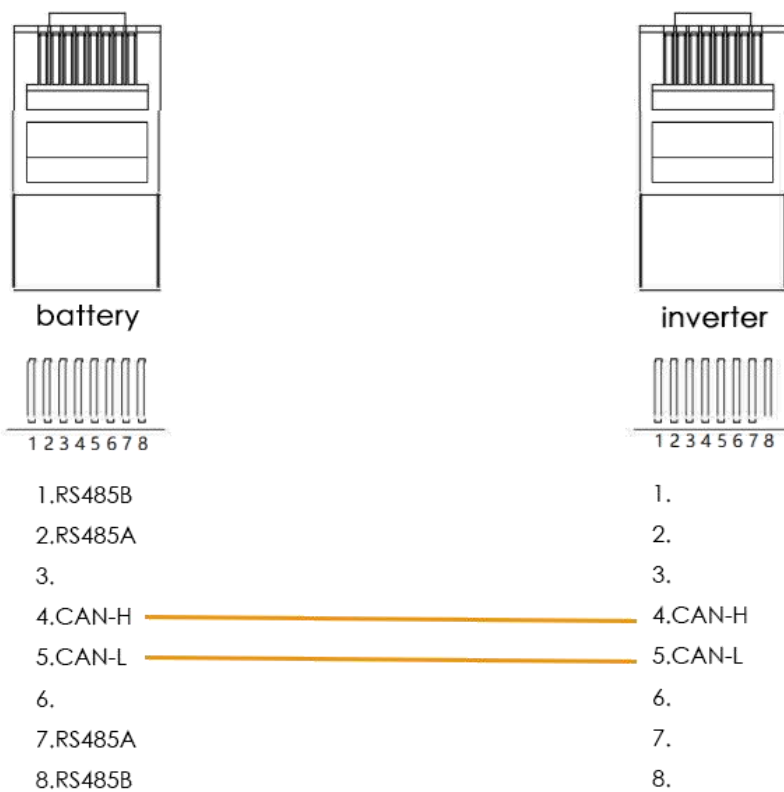
BOM LIST

Before installation, you should prepare following items.

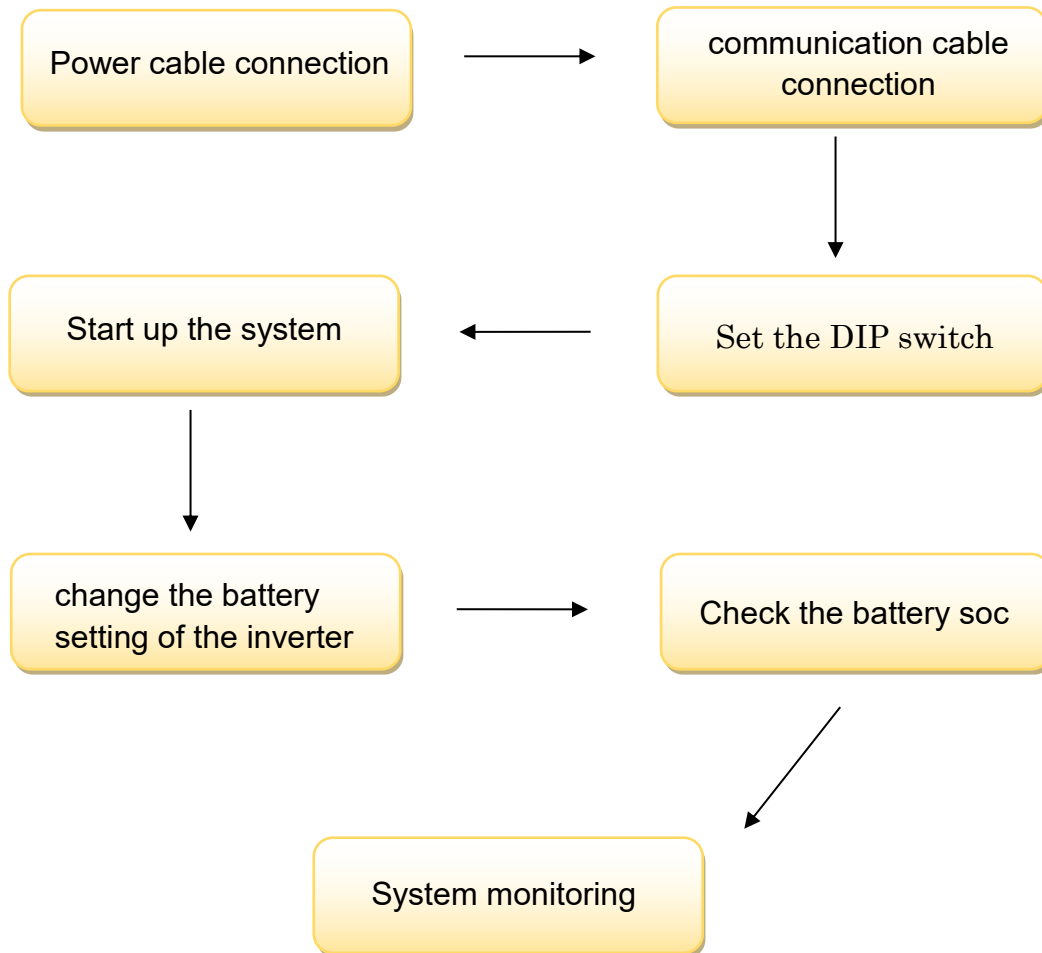| Item	Remarks	Quantity
Power Cable (DC)	□ Conductor cross-section: 50 mm² to 95 mm² □ Cable diameters: 14 mm to 25 mm □ Only copper cables may be used. □ The DC cables must be sized for the maximum battery voltage and the maximum battery current (see battery manufacturer documentation).	Depends on the number of batteries and the connection method
CAN Cable	CAN communication Terminal (RJ45 port) follow CAN protocol, to output batteries information	1
Twist Pair Cable	For Ethernet Connection between PC and Inverter	1
PC (Personal Computer)	Provide for oneself	1
Battery	48100R / 48100C / 4850	Depends on the number of batteries and the connection method
Inverter	AFORE HF4850S80-H	1

Defintion of RJ45 Port Pin for BMS is as follow.

battery

inverter

1 2 3 4 5 6 7 8

1 2 3 4 5 6 7 8

battery	inverter
1.RS485B	1.
2.RS485A	2.
3.	3.
4.CAN-H	4.CAN-H
5.CAN-L	5.CAN-L
6.	6.
7.RS485A	7.
8.RS485B	8.

CAN port definition

HOW TO INSATLL

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┌─────────────────────────┐                ┌─────────────────────────┐
│                         │                │  communication cable    │
│ Power cable connection  │  ───────────▶  │      connection         │
│                         │                │                         │
└─────────────────────────┘                └─────────────────────────┘
                                                        │
                                                        ▼
┌─────────────────────────┐                ┌─────────────────────────┐
│                         │                │                         │
│   Start up the system   │  ◀───────────  │   Set the DIP switch    │
│                         │                │                         │
└─────────────────────────┘                └─────────────────────────┘
           │
           ▼
┌─────────────────────────┐                ┌─────────────────────────┐
│   change the battery    │                │                         │
│ setting of the inverter │  ───────────▶  │  Check the battery soc  │
│                         │                │                         │
└─────────────────────────┘                └─────────────────────────┘
                                                        ╲
                                                         ╲
                    ┌─────────────────────────┐           ╲
                    │                         │  ◀──────────
                    │   System monitoring     │
                    │                         │
                    └─────────────────────────┘
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CAUTION:If you want to get more inverter-related settings, please refer to the inverter user manual first.

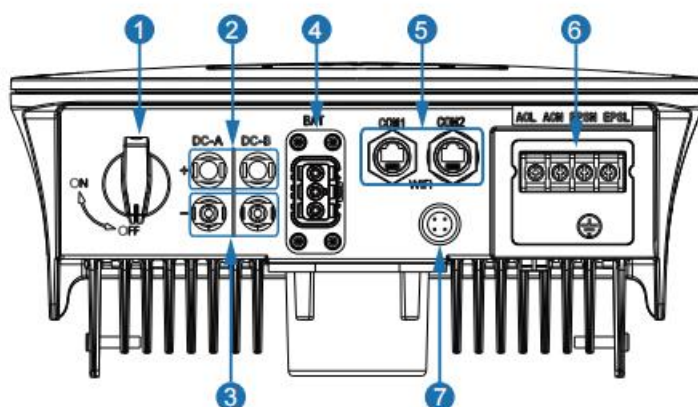## 1. Power Cable Connection

Step.1

Open the front housing of the AFORE Sun Series.

Step.2

Connect the red and black cables to the inverter DC connector as shown in Pic 1.1.1.

Inverter Terminals

No.	Items	No.	Items
1	DC Switch	5	Communication Port
2	DC Connectors (+) For PV Strings	6	AC Port & EPS Port
3	DC Connectors (−) For PV Strings	7	Monitor Module Port
4	Battery Port		

Pic 1.1.1

Step.3

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

1.1.2.（Ensure that the battery power switch is off）


Pic 1.1.2

2. Communication Cable Connection

Connect the end of the cable to the inverter communication port as

shown in pic 1.2.1. Make sure use CAN communication port .

PIN	Assignment
1-3	/
4	CANH
5	CANL
6-8	/

PIN	Assignment
1-2	/
3	RS485A
4-5	/
6	RS485B
7-8	/
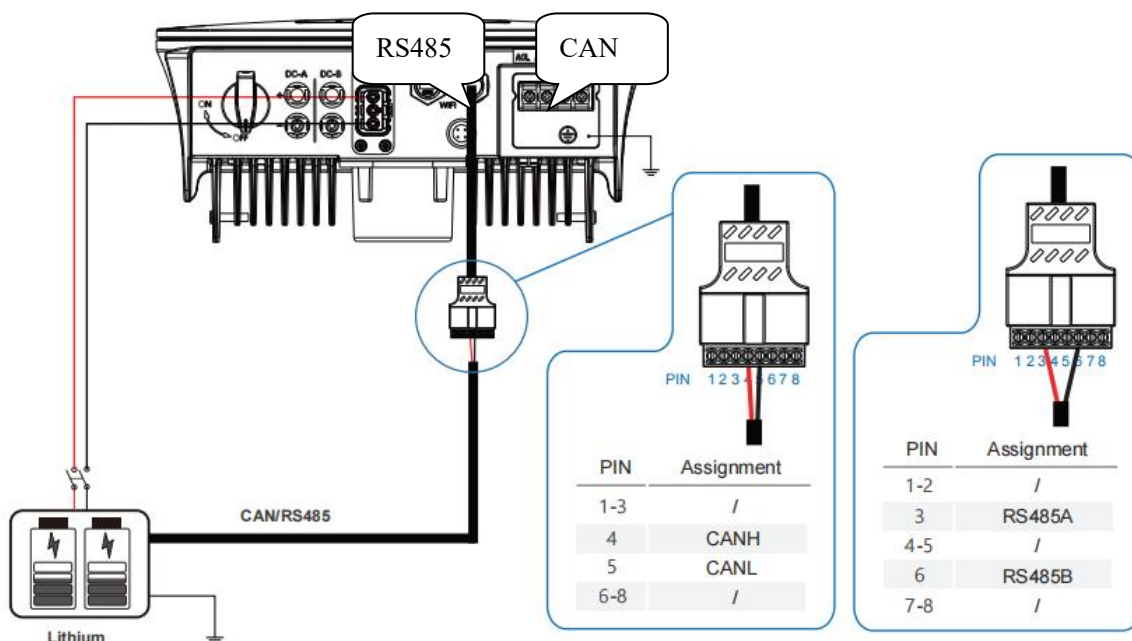
Pic 1.2.1

Connect the other end of the cable to the battery communication port

as shown in pic 1.2.1. (Ensure the correct sequence of wires inside the

communication cable)

CAN

RS485
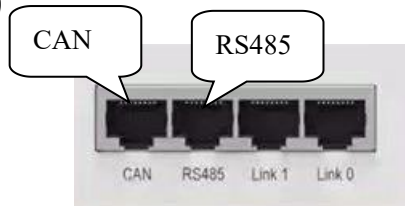
Pic 1.2.2

3. Set The DIP Switch

Set the DIP switch as shown in graphic 1
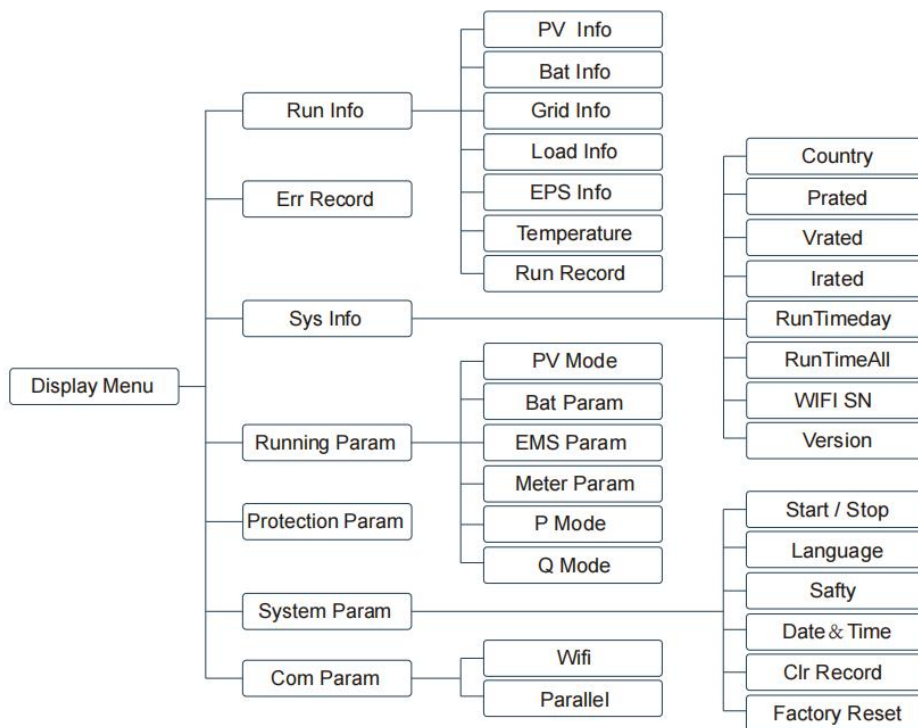
Pic 1.2.3   graphic 1

4. Start up the system

Start up the inverters and batteries.

5.Change the battery setting of the inverter

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

please check the operating manual of inverters.

Display Menu

- Run Info
  - PV Info
  - Bat Info
  - Grid Info
  - Load Info
  - EPS Info
  - Temperature
  - Run Record
- Err Record
- Sys Info
  - Country
  - Prated
  - Vrated
  - Irated
  - RunTimeday
  - RunTimeAll
  - WIFI SN
  - Version
- Running Param
  - PV Mode
  - Bat Param
  - EMS Param
  - Meter Param
  - P Mode
  - Q Mode
- Protection Param
- System Param
  - Start / Stop
  - Language
  - Safty
  - Date & Time
  - Clr Record
  - Factory Reset
- Com Param
  - Wifi
  - Parallel

Step1.Set the inverter protocol to AFORE

Step1: " ⏎ " Entry Menu;

Step2: "▲/▼" Up/Down Chose Running Param, "⏎" Confirm;

Step3: Password   Confirm,▲/▼ Up/Down Chose "5432", "⏎" Confirm;

Step4: "▲/▼"Up/Down Chose Lith (Lithium Battery), "⏎" Confirm;

Step5: "▲/▼" Up/Down Chose

IvyHv/JBS48/JBSHV/HSD48/TaiSu/HSDHV/**Afore**

/PYLON/Ivy48/, "⏎" Confirm;

Step6: "⏎ " Return.
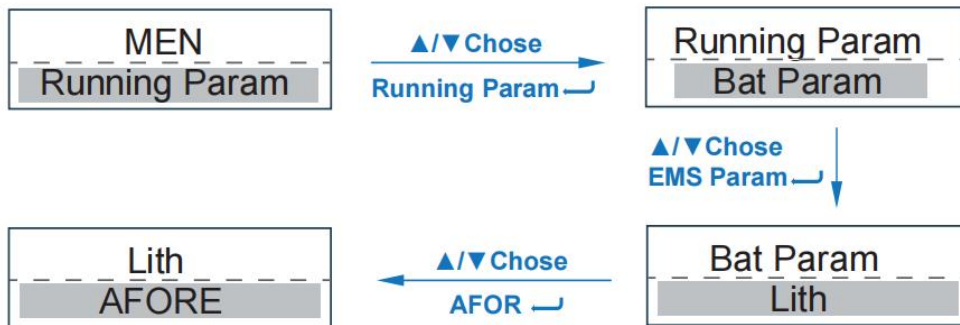
Step2.   Set Energy Management System

Step1: "⮐"Entry Menu;

Step2: "▲/▼"Up/Down Chose Running Param,"⮐"Confifirm;

Step3: Password Confifirm,▲/▼ Up/Down Chose

"5432","⮐"Confifirm;
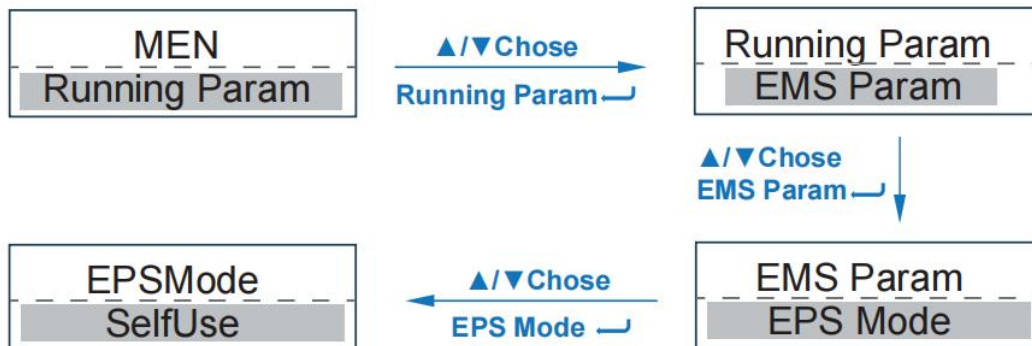
Step4: "▲/▼"Up/Down Chose EMS Param, "⮐" Confifirm;

Step5: "▲/▼"Up/Down Chose EMS Mode, "⮐" Entry MES Setting;

Step6: "▲/▼"Up/Down Chose

cmdChar/ExtEMS/SelfUse/ChgFst/SellFst/

Maintain (Maintenance), "⮐" Confifirm;

Step7: "⮐"Return.

Eps mode should be turned on

Step3.

Step1: " ⤶ "Entry Menu;

Step2: "▲/▼"Up/Down Chose Running Param," ⤶ "Confifirm;

Step3: Password Confifirm,▲/▼ Up/Down Chose

"5432"," ⤶ "Confifirm;

Step4: "▲/▼"Up/Down Chose EMS Param, " ⤶ " Confifirm;

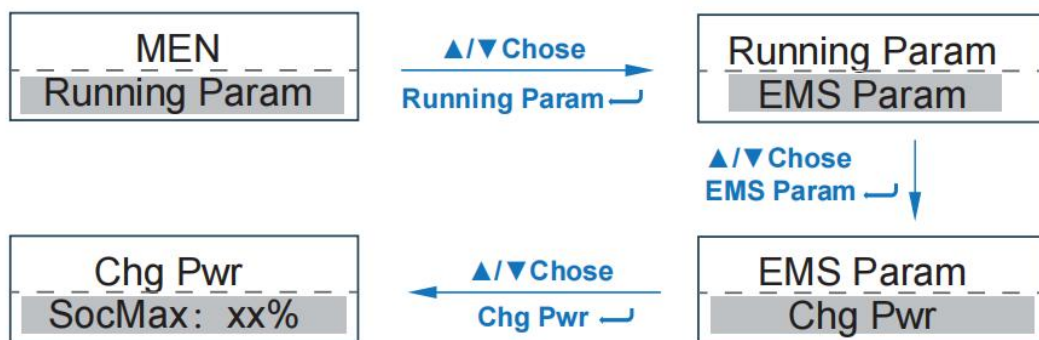Step5: "▲/▼"Up/Down Chose Chg or Dischg Tim, " ⤶ " Entry MES Setting;

Step6: "▲/▼"Up/Down Chose Max /Mini Pwr /Max /Mini Volt/Max /Mini Curr,
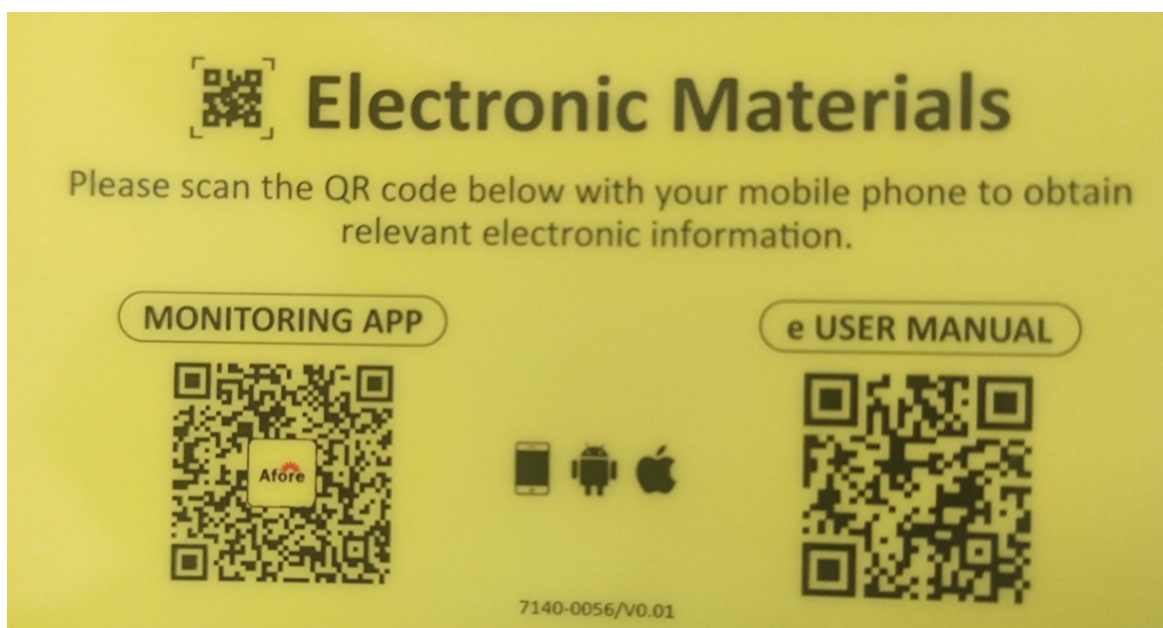
" ⤶ " Confifirm;

Step7: " "Return

Set the charge/discharge voltage to 56v.

The charge and discharge current is 50A. SOC is 100%.

MEN		Running Param
Running Param	▲/▼ Chose → Running Param ↵	EMS Param

▲/▼ Chose
EMS Param ↵

Chg Pwr		EMS Param
SocMax: xx%	← ▲/▼ Chose Chg Pwr ↵	Chg Pwr

6.Check the battery soc

Step.1：You can check the battery information on the APP

Pic 3.1.1