

**BmsTools HS2.0.2 software**

**User Manual**

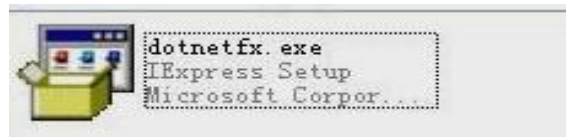
## I. Software running environment

This software runs on PC and its compatible machines using the WINDOWS operating system. The system environment requires the support of the NET Framework 2.0 or above, please make sure it is installed before using it.

### 1. Download Microsoft .NET Framework.



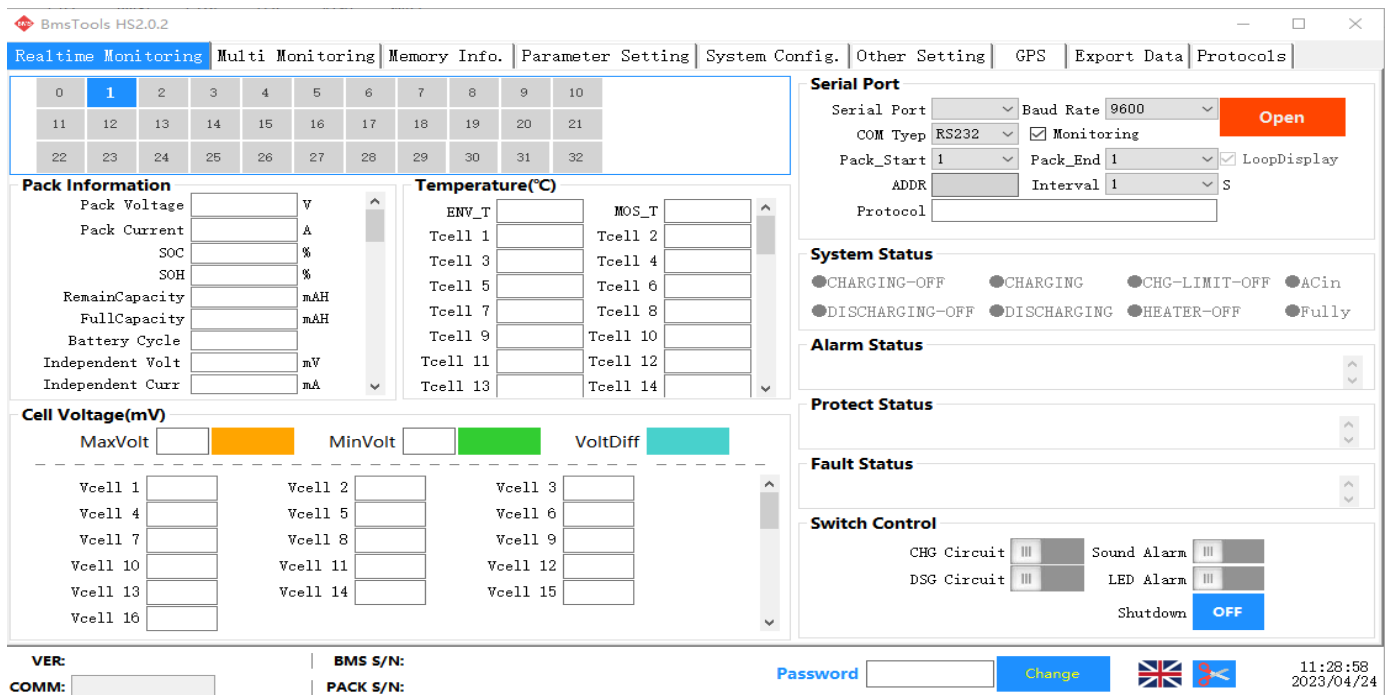
### 2. Double click on the downloaded program to install it.



3. The software does not need to be installed independently, just double click on the main program icon to run it when the running environment is satisfied.



名称	修改日期	类型	大小
Config	2022/12/12 14:31	文件夹	
<b>BmsTools</b>	2022/12/12 14:30	应用程序	815 KB
BmsTools.exe.config	2023/4/24 11:26	CONFIG 文件	1 KB



The screenshot shows the BmsTools HS2.0.2 software interface. The top navigation bar includes tabs for Realtime Monitoring (selected), Multi Monitoring, Memory Info., Parameter Setting, System Config., Other Setting, GPS, Export Data, and Protocols. Below the navigation bar is a grid of cell numbers (0-32). The main interface is divided into several sections:

- Pack Information:** Fields for Pack Voltage (V), Pack Current (A), SOC (%), SOH (%), RemainCapacity (mAh), FullCapacity (mAh), Battery Cycle, Independent Volt (mV), and Independent Curr (mA).
- Temperature(°C):** Fields for ENV\_T, MOS\_T, and individual cell temperatures (Tcell 1-14).
- Cell Voltage(mV):** Fields for MaxVolt, MinVolt, VoltDiff, and individual cell voltages (Vcell 1-16).
- Serial Port:** Configuration for Serial Port, Baud Rate (9600), COM Type (RS232), Monitoring (checked), Pack\_Start, Pack\_End, LoopDisplay (checked), ADDR, Interval, and Protocol. An "Open" button is present.
- System Status:** Radio buttons for CHARGING-OFF, CHARGING, CHG-LIMIT-OFF, ACin, DISCHARGING-OFF, DISCHARGING, HEATER-OFF, and Fully.
- Alarm Status:** A section with expand/collapse arrows.
- Protect Status:** A section with expand/collapse arrows.
- Fault Status:** A section with expand/collapse arrows.
- Switch Control:** Toggles for CHG Circuit, DSG Circuit, Sound Alarm, LED Alarm, and a Shutdown button (OFF).

At the bottom, there are fields for VER, BMS S/N, COMM, and PACK S/N, a Password field with a "Change" button, language selection icons (UK and US), and a timestamp: 11:28:58 2023/04/24.

#### 4. Language switch :

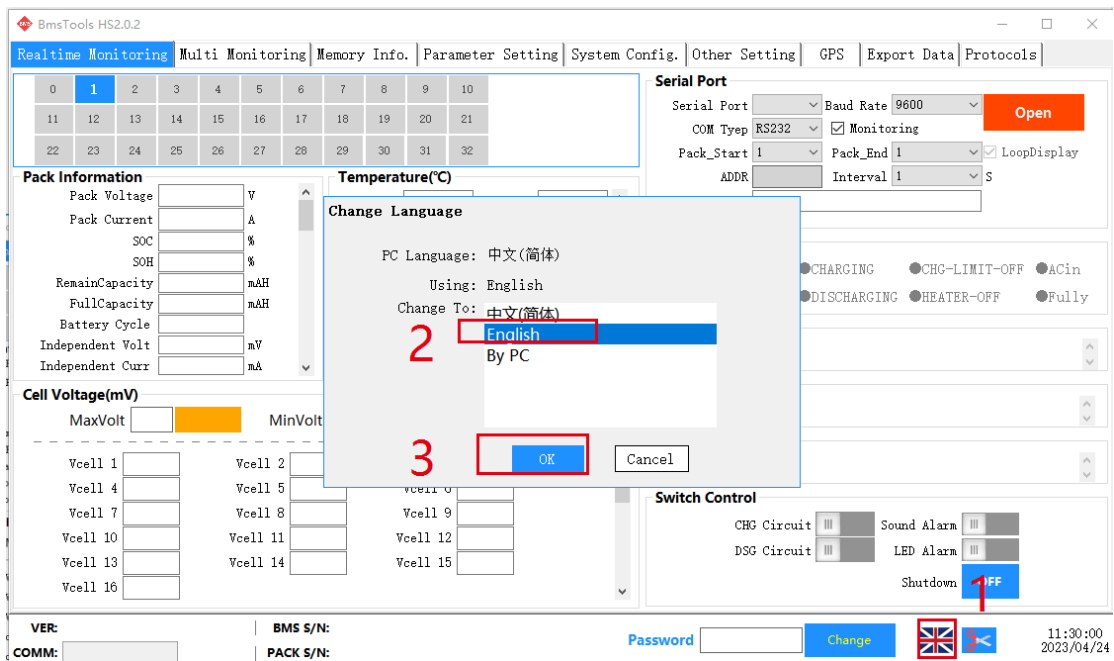
1. Click on the national flag icon

2. Select English as the current language **English** interface language is English

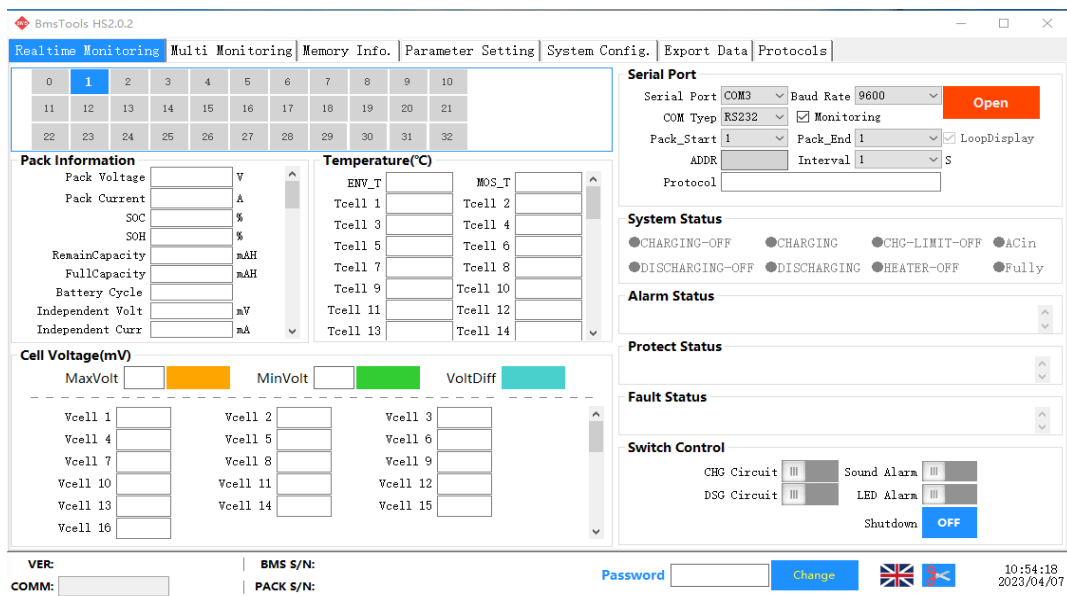
**By PC :** The language of the interface is determined by the language of the computer.

If the language is not entered on the PC, the default language is English.

3. Click on "OK".



#### (4) English interface

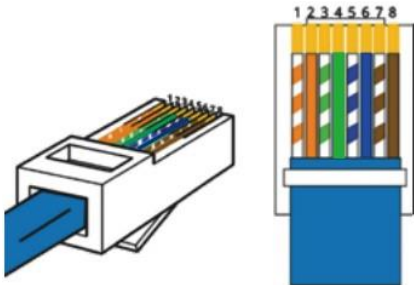


## II RS232 communication connection

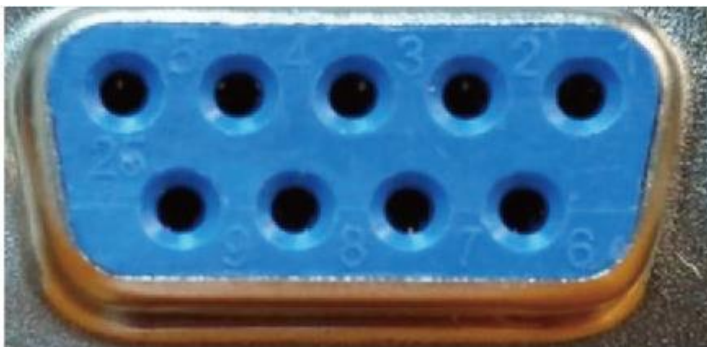
### 1. RS232 communication cable connection:



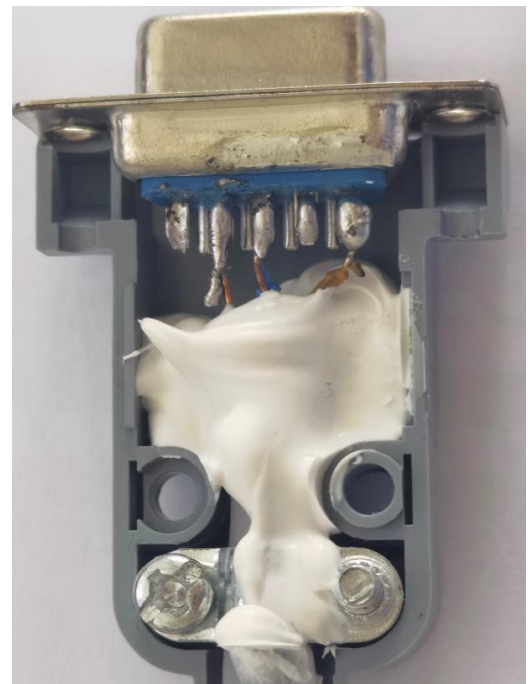
## 2. Definition of RS232 communication cable connection:



Pin	Colour	Defenition
1	Orange & White	NC
2	Orange	NC
3	Green & White	232-TX
4	Green	NC
5	Blue & White	NC
6	Blue	232-RX
7	Brown & White	NC
8	Brown	232-GND



Pin	Colour	Defenition
1		NC
2	Green & White	232-TX
3	Blue	232-RX
4		NC
5	Brown	232-GND
6		NC
7		NC
8		NC
9		NC



### III RS232 communication box driver installation

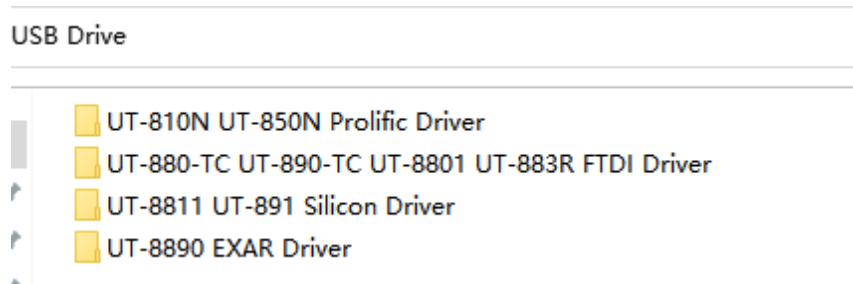
#### 1. Download RS232 communication box driver

Download reference address : <http://www.sztek.com/down-810>




USB Drive.rar


**2. Unzip the driver package**



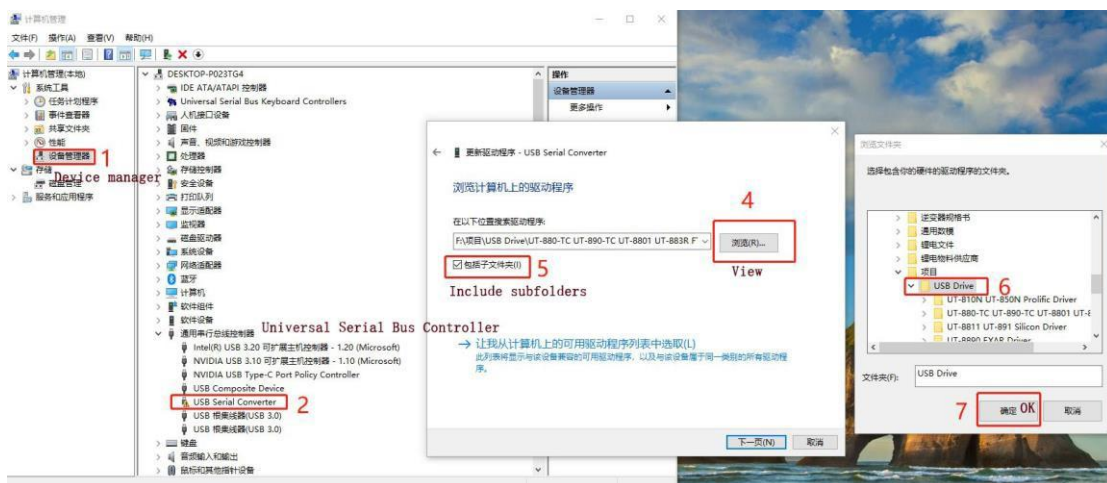
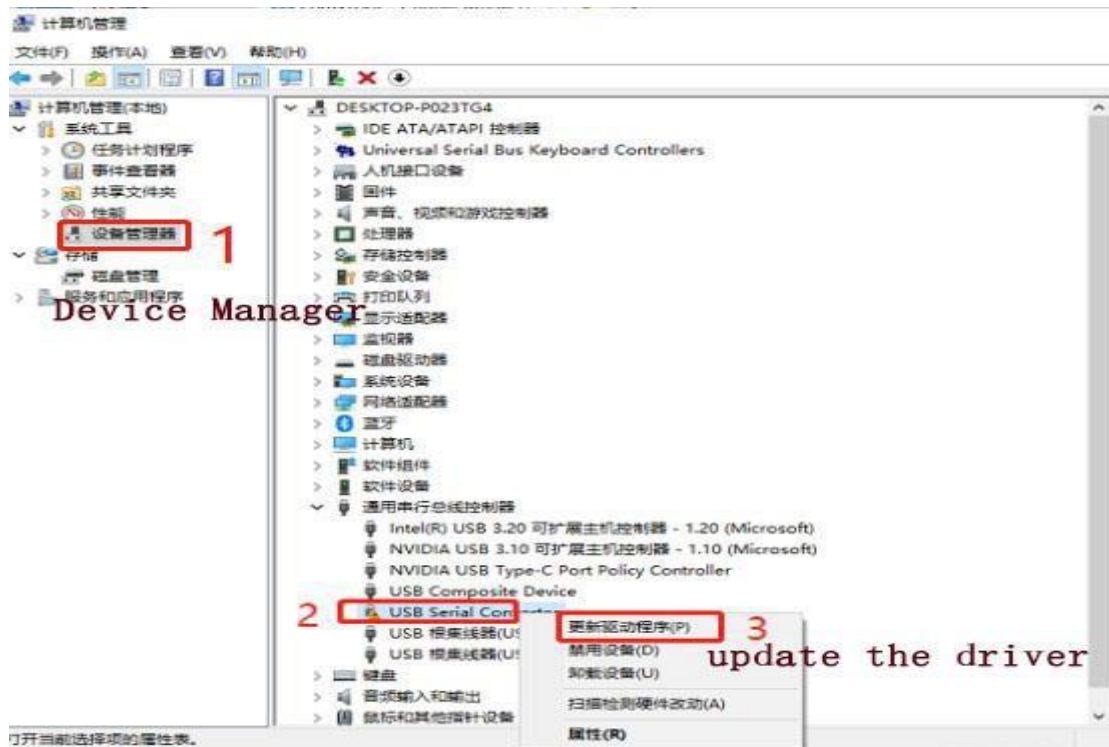
**3. Insert the RS232 communication cable correctly into the USD port of the computer.**



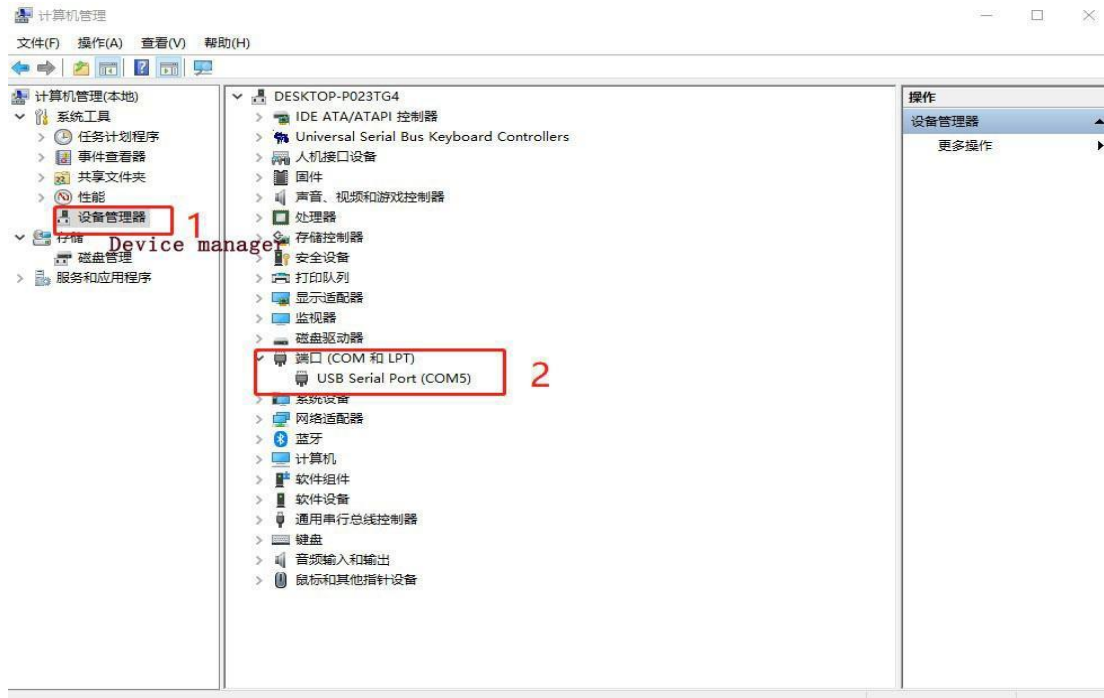
**4. Enter [My Computer], find [Universal Serial Bus Controller] in [Device Manager] and locate the appropriate USB port with  ! Then right click on the mouse, **update the driver**, and load the USB Drive**

driver package  as the below pictures show :





5. Make sure that the USB 232 communication box driver is installed **OK** and that **[COM]** will appear in the port.

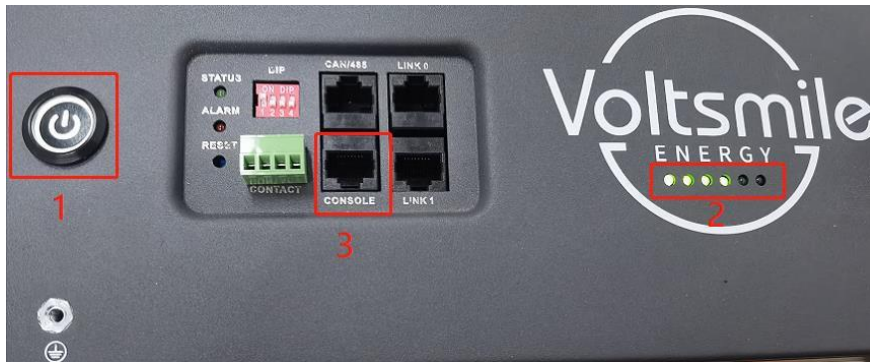


## IV Connect with the software

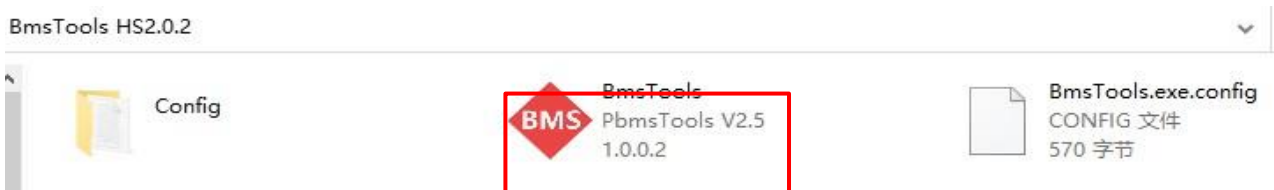
Test whether the battery is normally powered on and not in hibernation status: insert the crystal head of the communication cable into the communication port of the protection board and the USB 232 communication box USB end into the computer, as shown in below pictures.

1. Turn on the switch **1** to check the battery level as the position marked **2**.
2. Insert the crystal head of the communication cable into the communication port of the protection board **3** and the USB 232 communication box USB end into the computer as **4** shows.

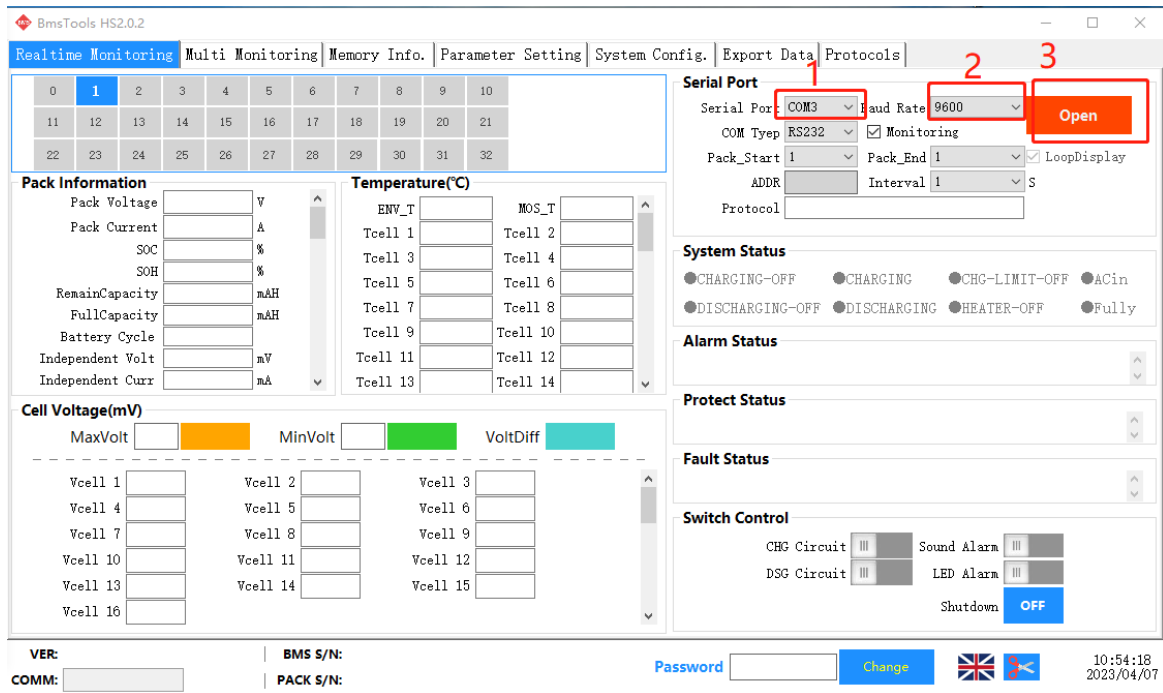




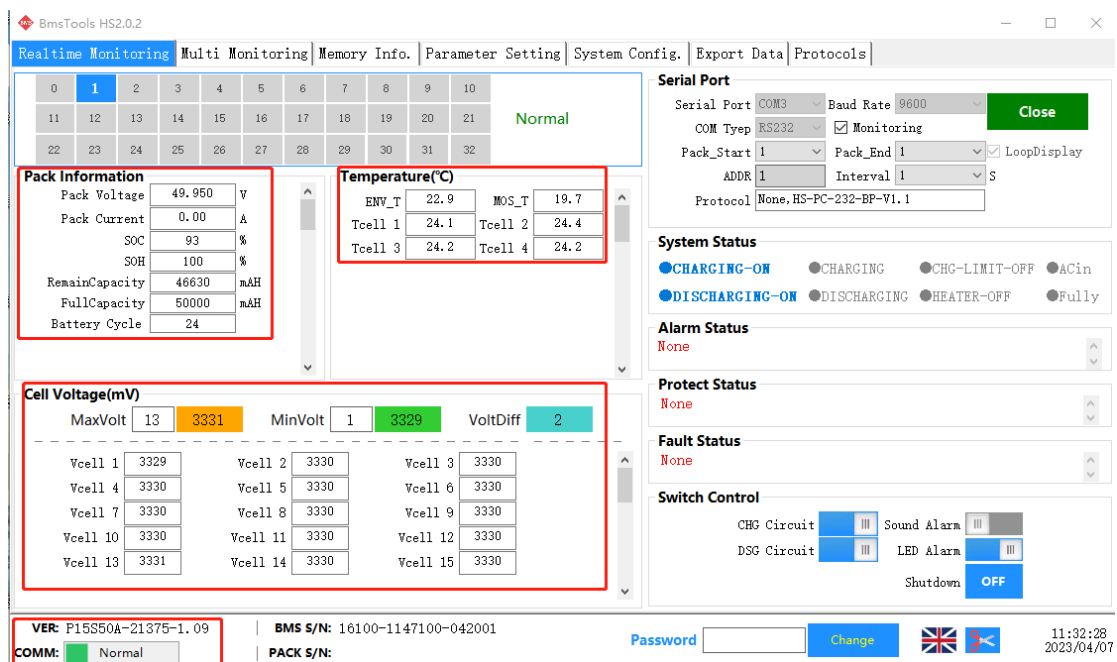
2. Open **[BmsTools HS2.0.2]** and double click to run the  PbmsTools V2.5FN PbmsTools V2.5 1.0.0.2 software.



- 3.
- (1) Select serial port in the software **1** and select baud rate 9600 **2**.
  - (2) Click the **"Try to connect"** button to search for a serial port to connect. Or manually select the serial port and click on the **"Open"** button to connect **3**.



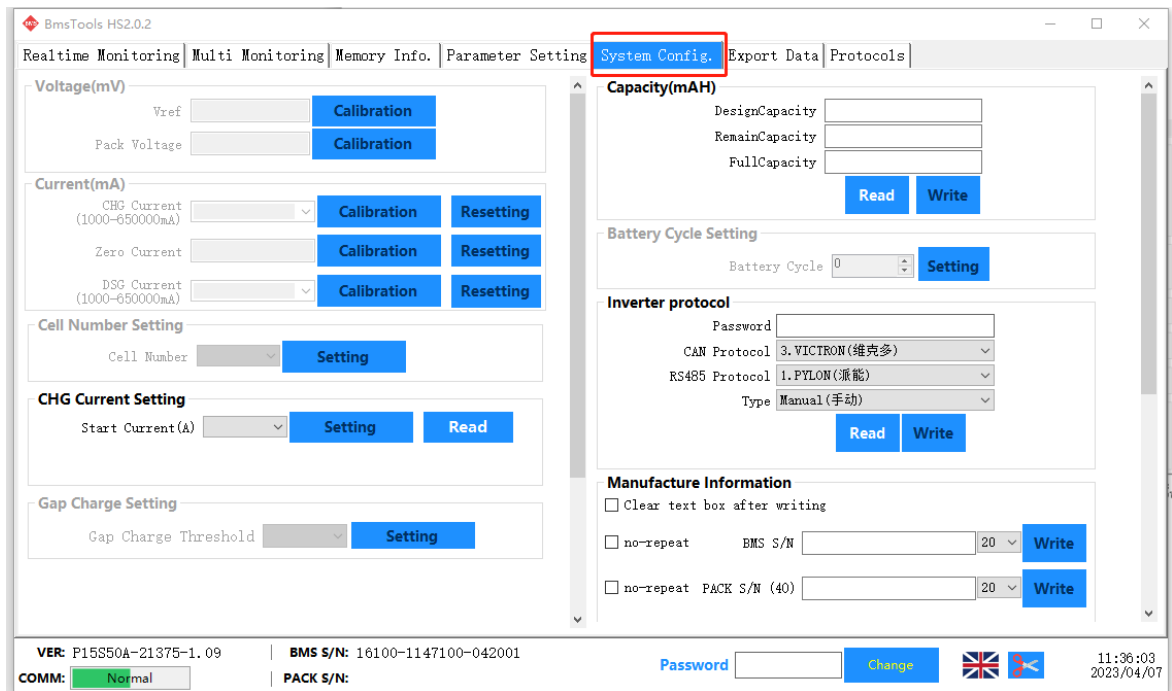
4. The software and connection interface shows as below



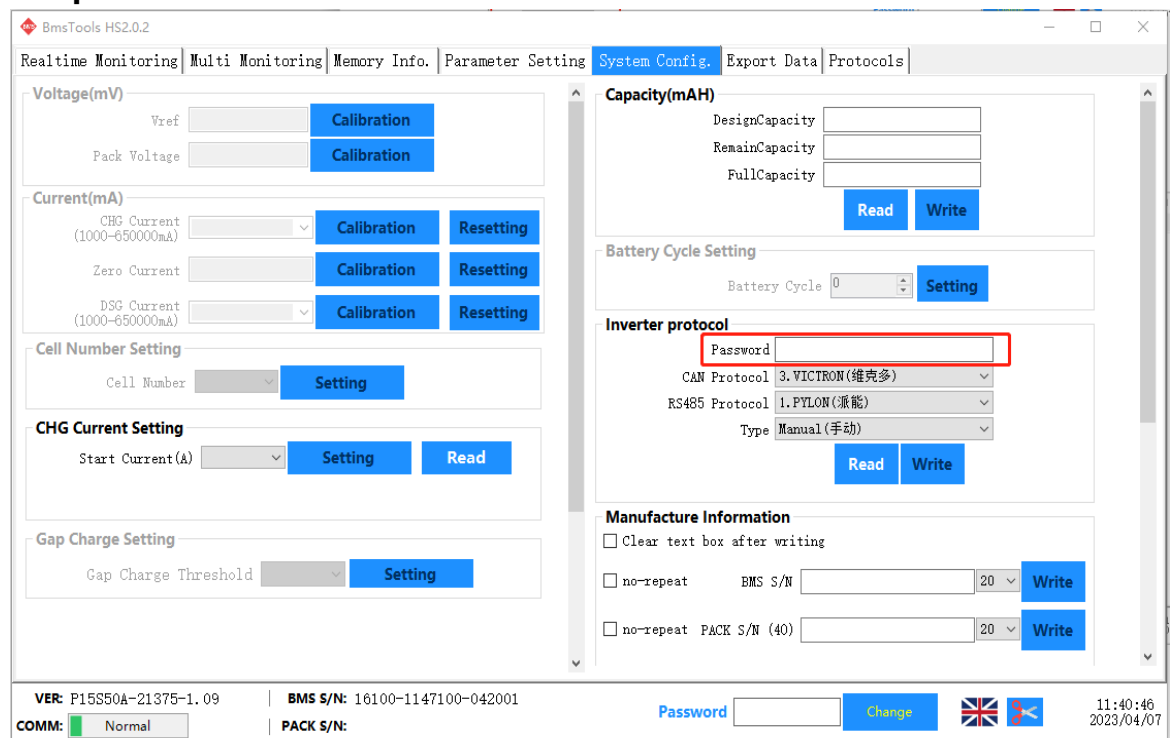
## V. Change the protocols in the software

1. Find

System Config.



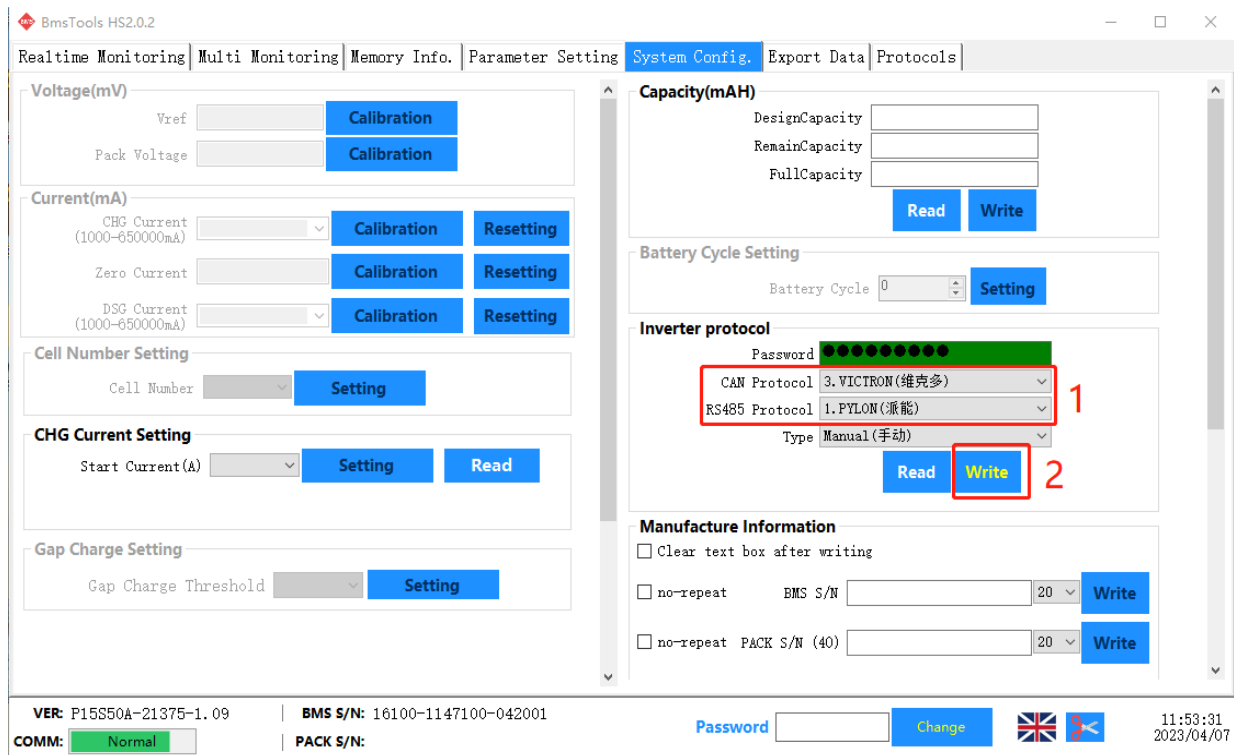
## 2. Enter the password : **Pz#168178**



## 3.

(1) Select the protocols under CAN/485 Protocol as the frame **1** shows.

(2) Click "Write" as frame **2**.



## VI Solutions for connection failure

### Possible reasons for failure :

1. Use the wrong software.

Solution: change to the correct version software.

2. Defective or incorrectly wired communication cable.

solution : replace the communication cable with a good one or correct the incorrect wiring.

3. The computer USD port not recognized. solution :  
change the USD port.

4. No driver installed.

solution : install a driver compatible with the communication line.

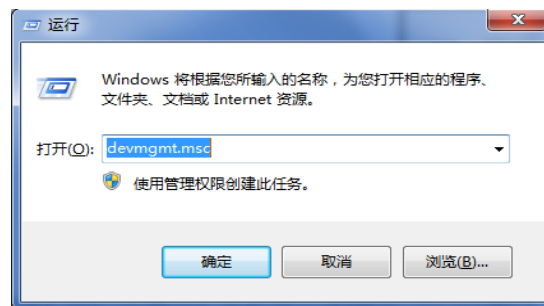
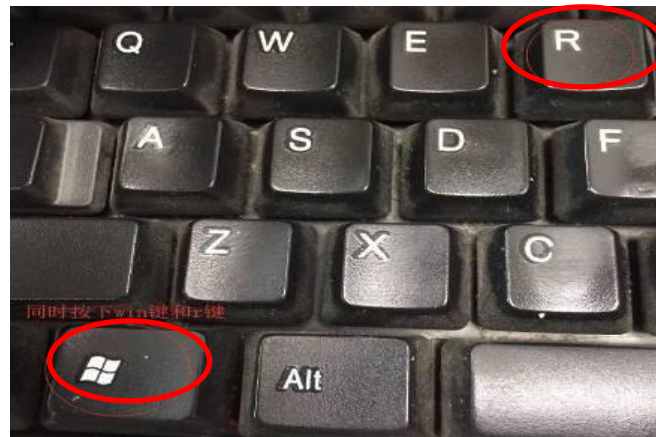
### Methods to tell if the communication cable driver is installed Method 1

Check if there is a relevant COM port in the "Serial port" pull-down of the software, if not found, it is probably not installed.



### Method 2

Press **win** and **R** at the same time to open the [Run] window, enter "**devmgmt.msc**" to open the [**Device Manager**].



Find **[Port]** in **[Device Manager]** and find the corresponding COM port. If you can find it as below pictures show, it means the driver has been installed, if not, it means the driver is not installed.

