

Home storage upper monitor system software operating manual

1. INTRODUCTION TO SOFTWARE FUNCTIONS

Energy storage communication base station BMS intelligent monitoring management software is Basengreen has developed intelligent software products for energy storage communication base station BMS, users can use Basengreen energy storage communication base station BMS intelligent monitoring management software for field data acquisition, parameter calibration operation, real-time acquisition BMS data, data storage, read historical data, parameter modification, etc.

Before enabling the software for monitoring, open the communication interface of the corresponding device, and set the set the PACK address to enable data reading.

The software can read and configure system parameters, read real-time BMS real-time data, parallel multi-machine monitoring, data storage and historical data reading and clearing functions.



2. OPERATION DECLARATION

The software is a clear and simple, with real-time monitoring, real-time data storage, management strategy, system settings, historical data reading and other functions. In addition, Multiple PACKs can be connected in parallel for data reading and storage.

2.1 Preparation work

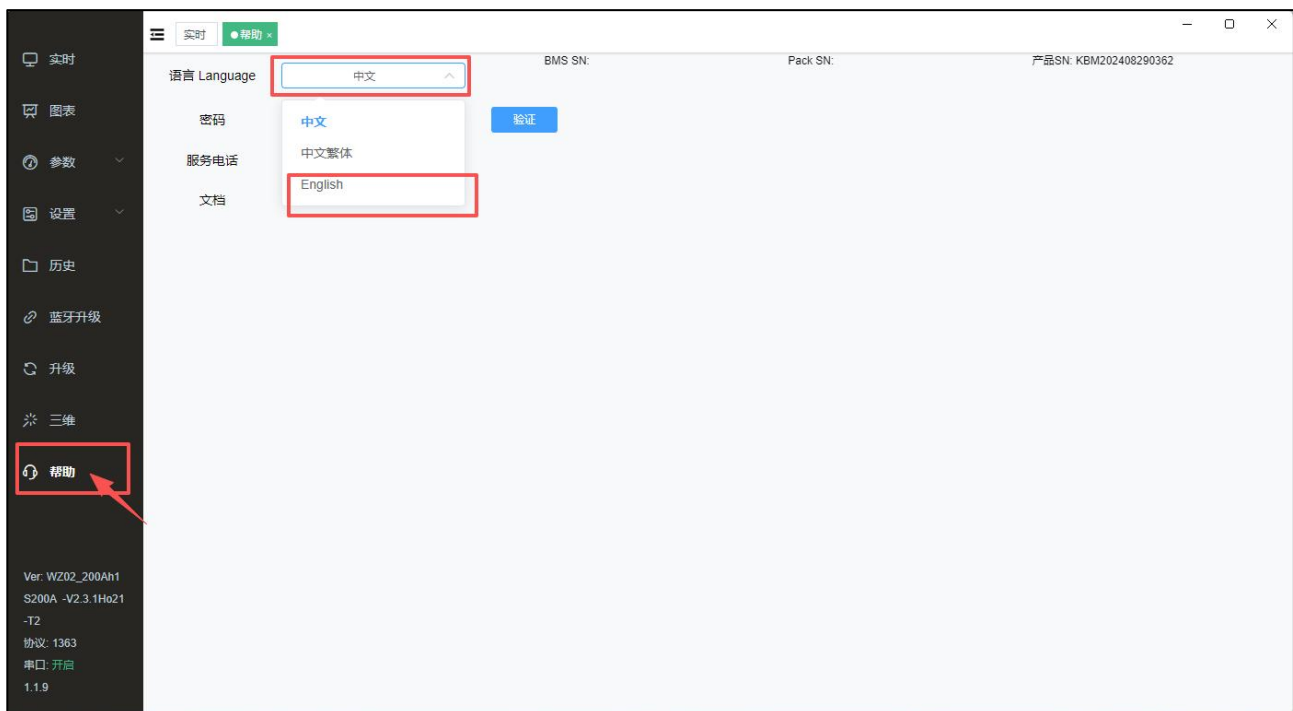
Preliminary required before opening the upper monitor system to communicate with the BMS:

- (1) Prepare a serial port converter from USB to RS485 / RS232;
- (2) Install the corresponding USB serial port driver on the computer;
- (3) Prepare communication line according to the definition of communication line in the specification.

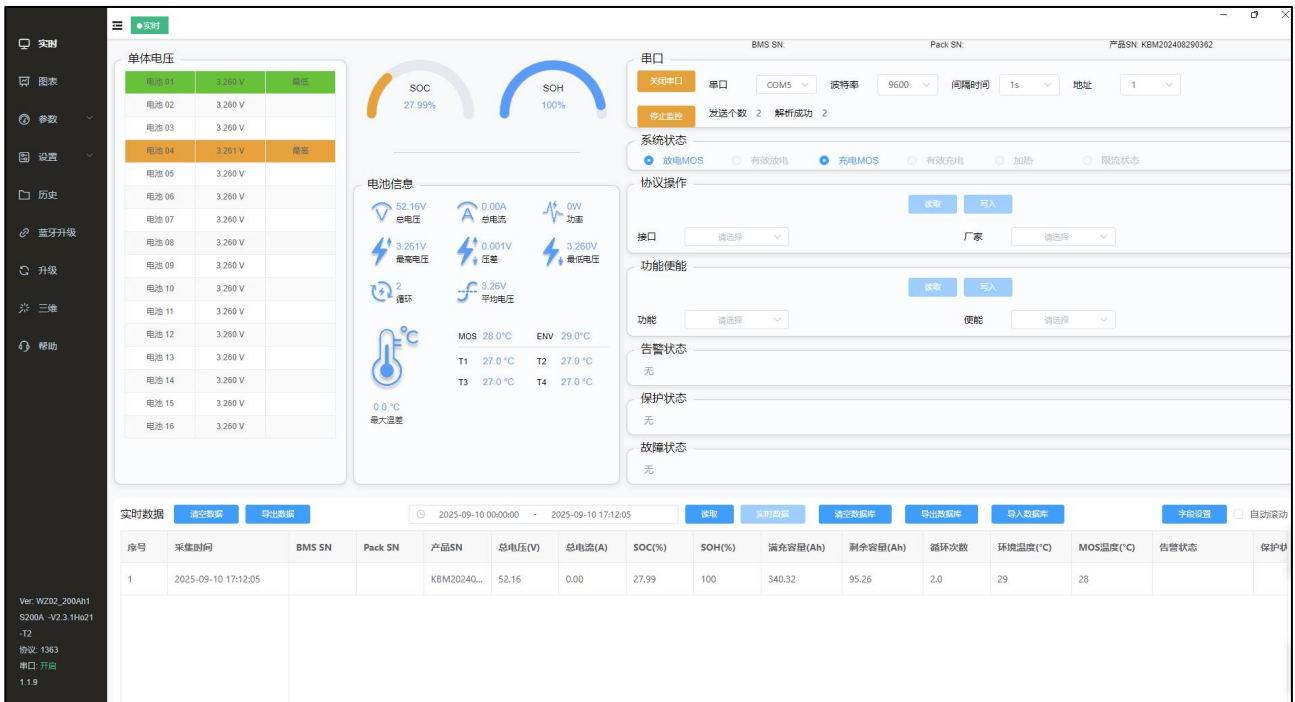
2.2 "Home page" interface function setting

2.2.1 Language selection

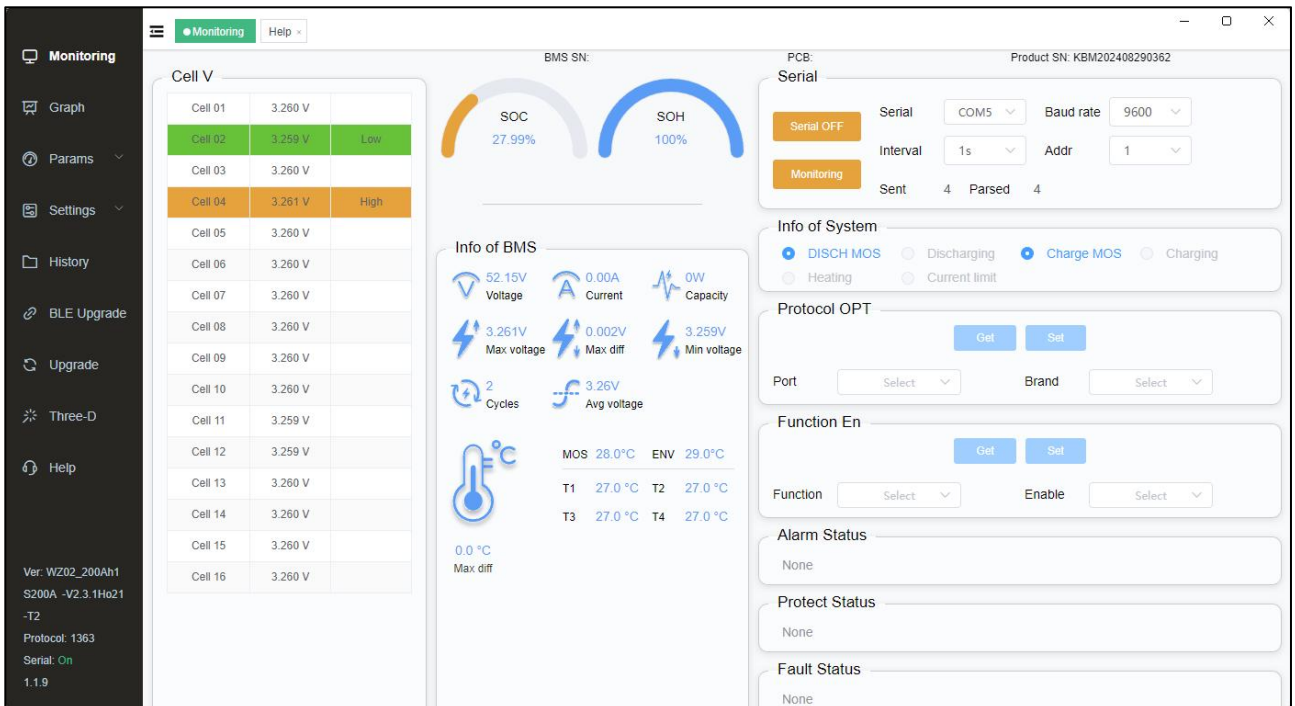
The computer software can choose the language of "Chinese" or "English", the specific operation is shown in the below figures.



(Figure1: Upon entering the page, the Chinese interface shown below will be displayed.)

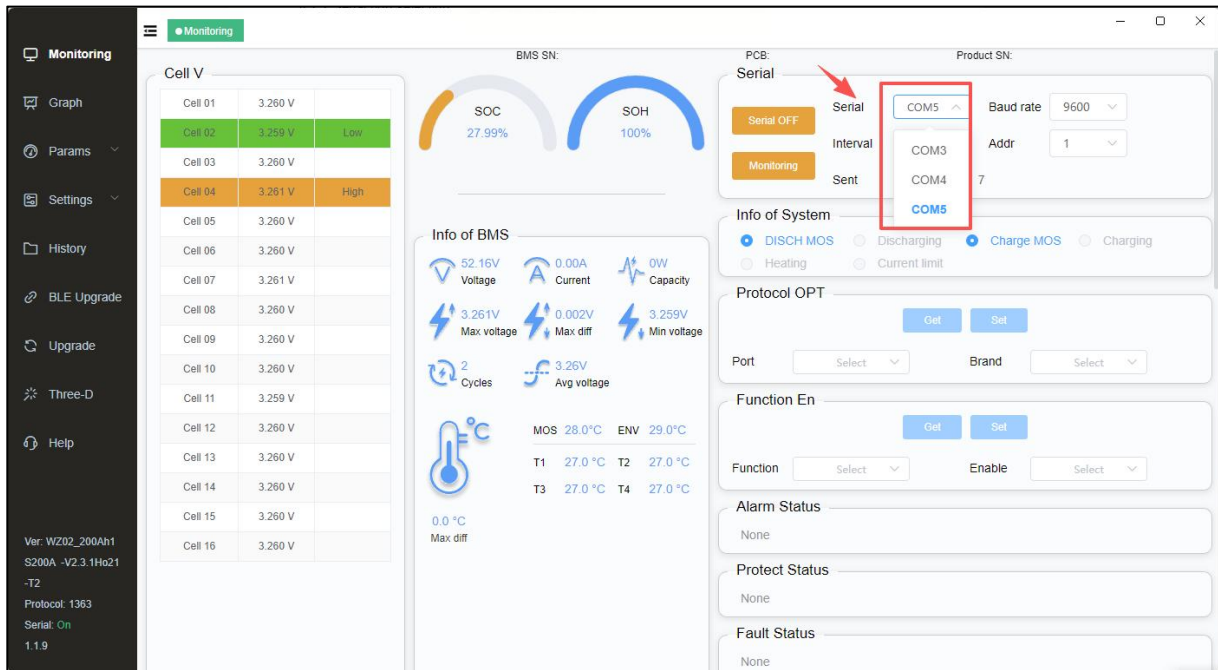


(Figure2: After changing the language to English, the English interface shown below will be displayed.)



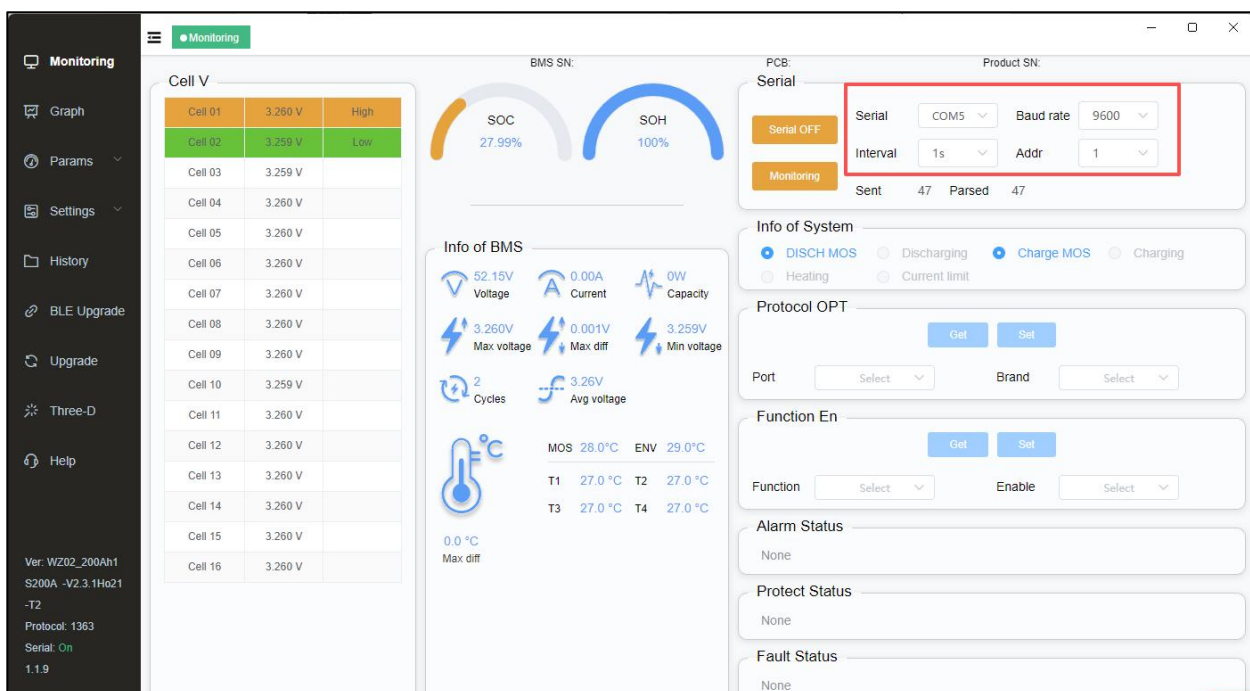
2.2.2 Serial port selection

After the BMS connection is successful, a new serial port will be added. Select a new serial port. The specific operation is as shown in the figure. For the serial port, you can check on your computer setting.



2.2.3 Selection of communication parameters

The selection of communication parameters includes the selection of Baud rate, data bit, stop bit, parity, and baud rate according to the requirements of the specification. The specific operation is shown in figure.



2.2.4 DIP code address setting

DIP address switch is a 6-bit DIP switch to manually distribute the communication address of parallel batteries.

The BMS will recognize the DIP address in a few seconds. When the DIP address is 0, the battery is configured as stand-alone working mode or master working mode; When the DIP address is 1 to 15, the BMS is configured as the slave working mode.

Please refer to the table below to set the DIP switch for parallel connection of different batteries.

 Important: In a parallel system, every battery must have a unique DIP switch address between 1–15.

Duplicate addresses will cause communication failure.

6-BIT							
Address	Dip Switch Position						Illustration
	#1	#2	#3	#4	#5	#6	
0	OFF	OFF	OFF	OFF	OFF	OFF	
1	ON	OFF	OFF	OFF	OFF	OFF	
2	OFF	ON	OFF	OFF	OFF	OFF	
3	ON	ON	OFF	OFF	OFF	OFF	
4	OFF	OFF	ON	OFF	OFF	OFF	
5	ON	OFF	ON	OFF	OFF	OFF	
6	OFF	ON	ON	OFF	OFF	OFF	
7	ON	ON	ON	OFF	OFF	OFF	
8	OFF	OFF	OFF	ON	OFF	OFF	
9	ON	OFF	OFF	ON	OFF	OFF	

10	OFF	ON	OFF	ON	OFF	OFF	
11	ON	ON	OFF	ON	OFF	OFF	
12	OFF	OFF	ON	ON	OFF	OFF	
13	ON	OFF	ON	ON	OFF	OFF	
14	OFF	ON	ON	ON	OFF	OFF	
15	ON	ON	ON	ON	OFF	OFF	

Monitoring

Cell V

Cell	Voltage	Status
Cell 01	3.260 V	
Cell 02	3.260 V	
Cell 03	3.260 V	
Cell 04	3.261 V	High
Cell 05	3.260 V	
Cell 06	3.260 V	
Cell 07	3.260 V	
Cell 08	3.260 V	
Cell 09	3.260 V	
Cell 10	3.259 V	Low
Cell 11	3.259 V	
Cell 12	3.260 V	
Cell 13	3.259 V	
Cell 14	3.260 V	
Cell 15	3.260 V	
Cell 16	3.260 V	

Info of BMS

SOC 27.99% SOH 100%

52.15V Voltage 0.00A Current 0W Capacity

3.261V Max voltage 0.002V Max diff 3.259V Min voltage

2 Cycles 3.26V Avg voltage

MOS 28.0°C ENV 29.0°C

T1 27.0 °C T2 27.0 °C

T3 27.0 °C T4 27.0 °C

0.0 °C Max diff

Serial

Serial OFF Serial COM5 Baud rate 9600

Interval 1s Addr 1

Sent 98 Parsed 97

Info of System

DISCH MOS Discharging Charge MOS

Heating Current limit

Protocol OPT

Port Select Brand

Function En

Function Select Enable Select

Alarm Status

Protect Status

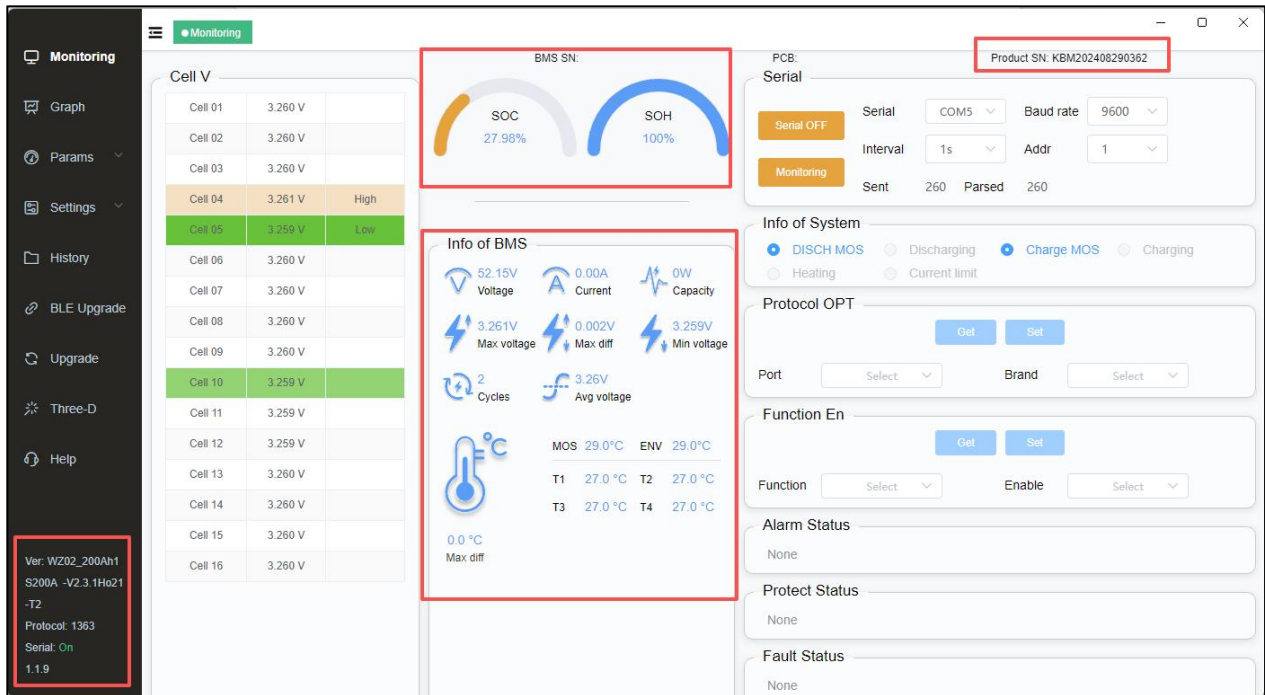
Fault Status

Ver: WZ02_200Ah1 S200A -V2.3.1Hz21 -T2 Protocol: 1363 Serial: On 1.1.9

(Choose right Dip code as battery pack)

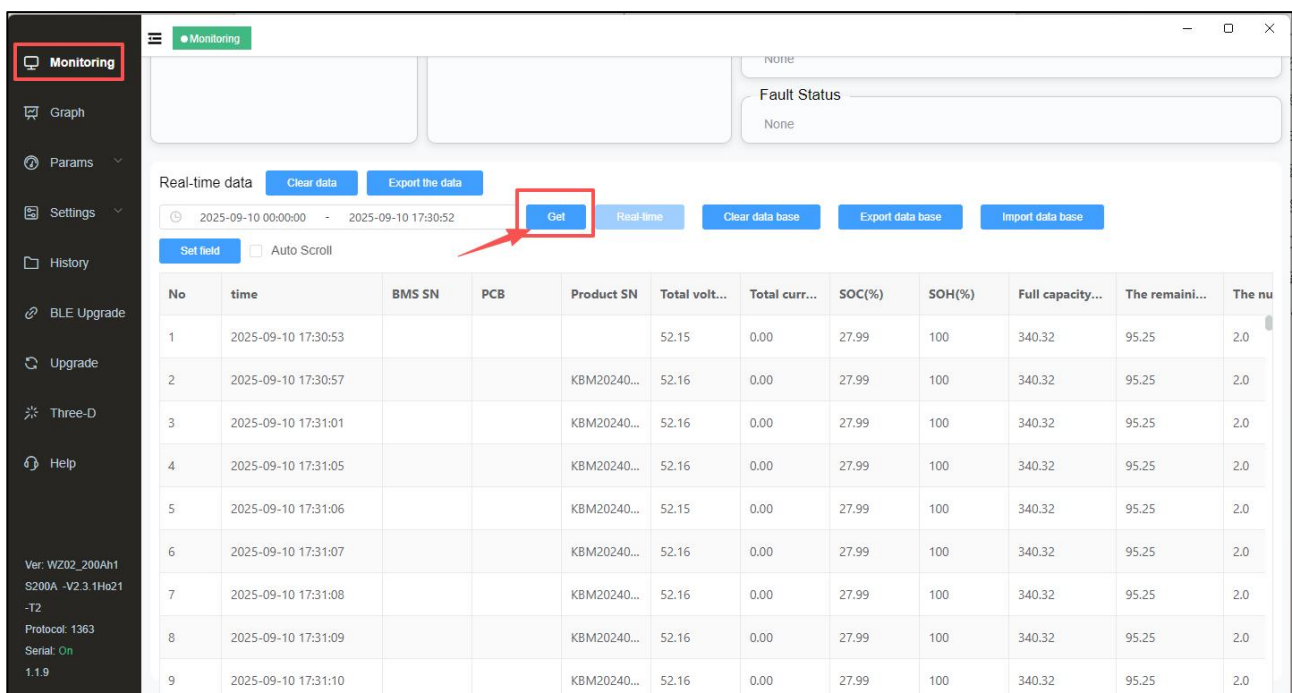
2.3 "MONITORING" INTERFACE FUNCTION SETTING

Select the corresponding serial port, click to start monitoring, and read the real-time data information of the BMS. The information includes voltage, temperature, switching status, alarm status, protection status, fault status, etc., as shown in the figure below.



2.3.1 Viewing real-time data

Real-time BMS data can be viewed, saved, and exported in Excel format.



2.3.2 Multiple groups of information viewing

When monitoring multiple packs, set the start and end addresses manually to view, compare, and export each pack's data in Excel format. The specific operation is shown in the figure.

The screenshot displays the 'Monitoring' interface. On the left is a sidebar with navigation options: Monitoring (selected), Graph, Params, Settings, History, BLE Upgrade, Upgrade, Three-D, and Help. Below the sidebar, system information is shown: Ver: WZ02_200Ah1, S200A -V2.3.1Hz21 -T2, Protocol: 1363, Serial: On, 1.1.9.

The main area shows a table of battery packs with columns for No., time, PACK, Total volt..., Total curr..., SOC(%), SOH(%), Full capacity..., The remaini..., The num..., Env TEMP(°C), and MOS TEI. The table lists packs 56 through 61.

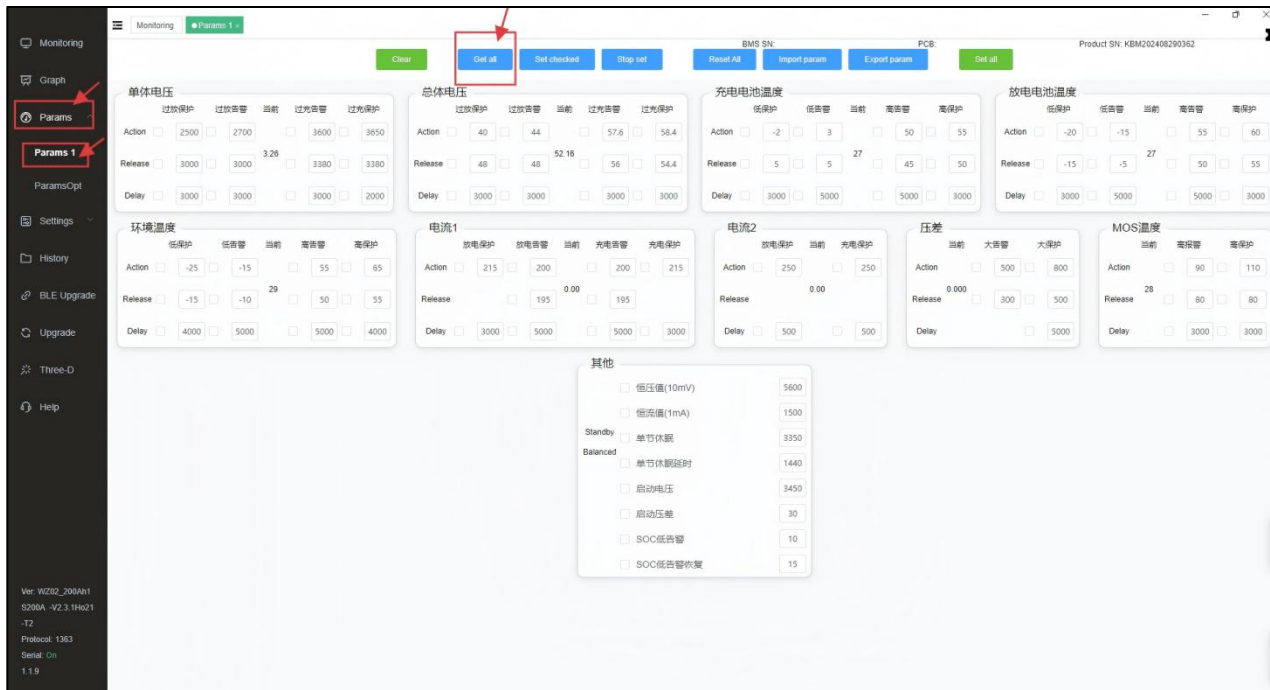
Below the main table, a 'Parallel data' section is highlighted with a red box. It includes buttons for 'Clear data', 'Export the data', 'Set field', 'Continue', and 'Fixed'. There is also an 'Auto Scroll' checkbox. The table below these buttons shows detailed data for packs 1 through 7.

No	time	PACK	Total volt...	Total curr...	SOC(%)	SOH(%)	Full capacity...	The remaini...	The num...	Env TEMP(°C)	MOS TEI
1	2025-09-10 16:49:19	1	52.16	0.00	27.99	100	340.32	95.28	2.0	29	27
2	2025-09-10 16:49:24	1	52.16	0.00	27.99	100	340.32	95.28	2.0	29	27
3	2025-09-10 16:49:28	1	52.16	0.00	27.99	100	340.32	95.28	2.0	29	27
4	2025-09-10 16:49:29	1	52.16	0.00	27.99	100	340.32	95.28	2.0	29	27
5	2025-09-10 16:49:30	1	52.16	0.00	27.99	100	340.32	95.28	2.0	29	27
6	2025-09-10 16:49:31	1	52.16	0.00	27.99	100	340.32	95.28	2.0	29	27
7	2025-09-10 16:49:32	1	52.16	0.00	27.99	100	340.32	95.28	2.0	29	27

3. Parameter

3.1 Basic Parameters 1

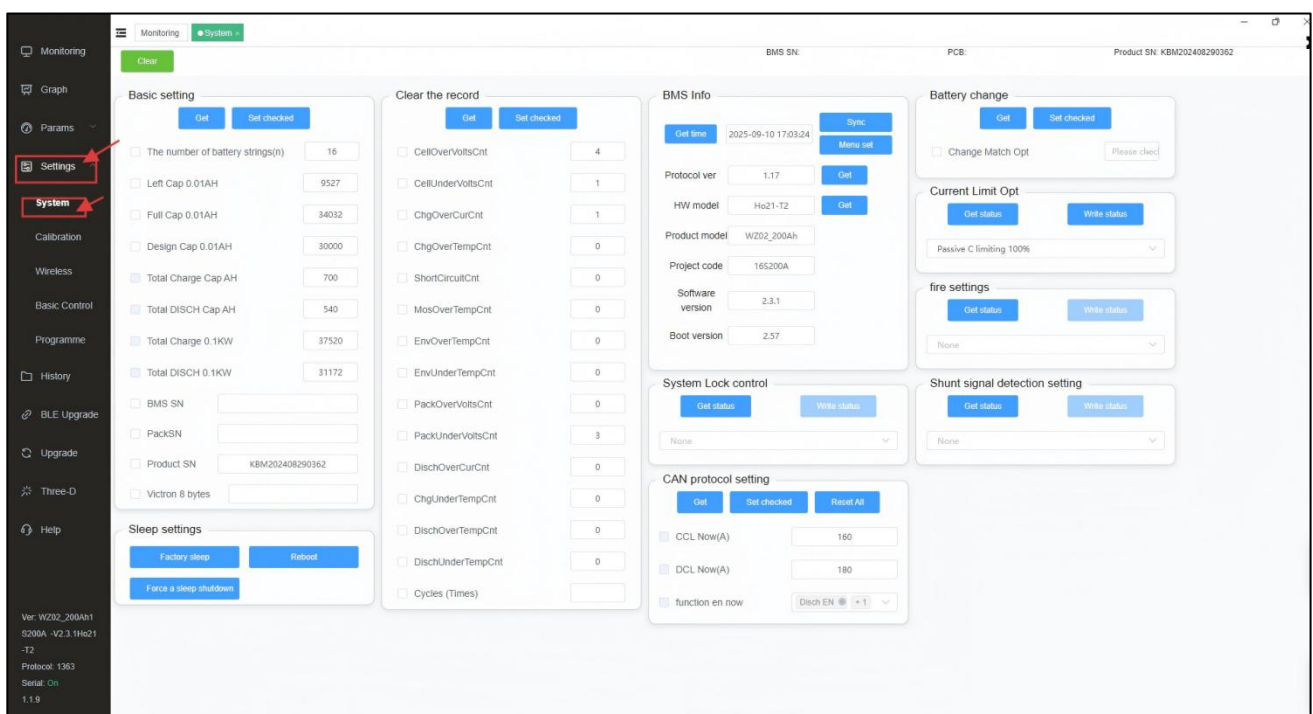
On the first entry, you need to click Read All. This section includes reading basic parameter information, restoring default parameters, writing a single parameter, writing all parameters, importing parameters, and exporting parameters. **(It is not recommended to manually modify default information parameters.)**



4. Setting.

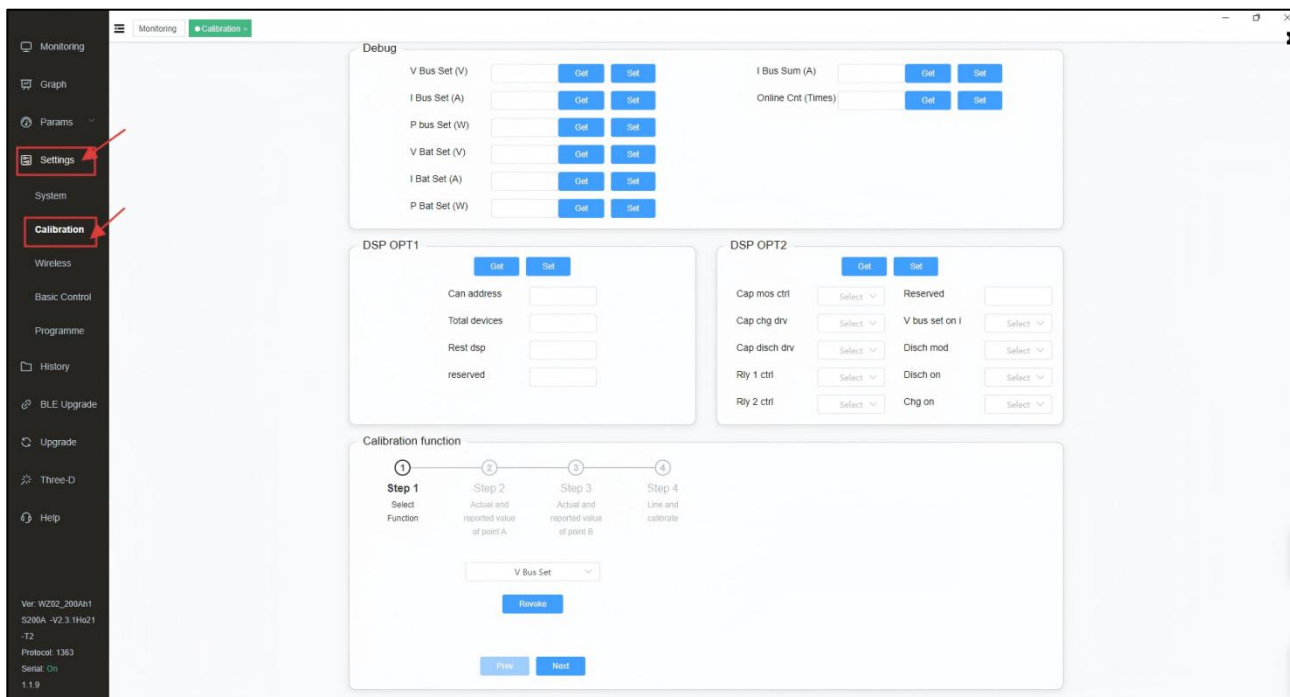
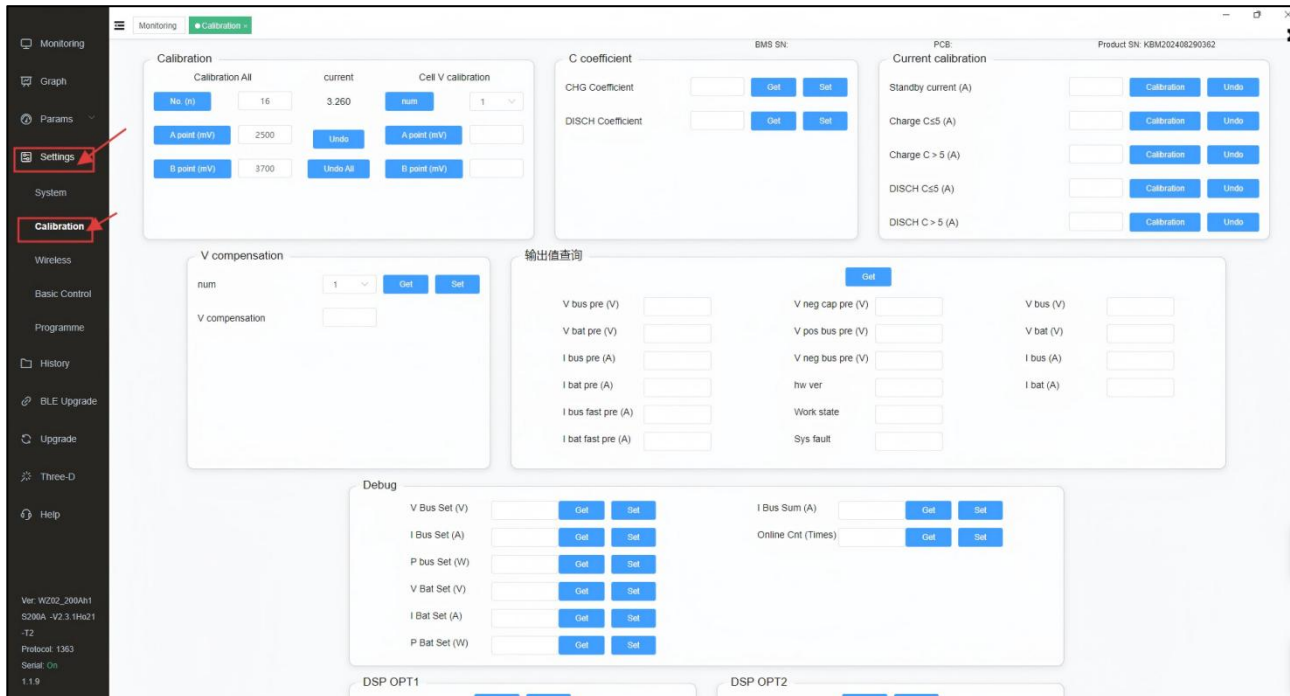
4.1 System Parameter Settings.

On the first entry, you need to click Read All. This section allows real-time monitoring of BMS system parameter configurations, sleep settings, and BMS information. **(It is not recommended to manually modify default information parameters.)**



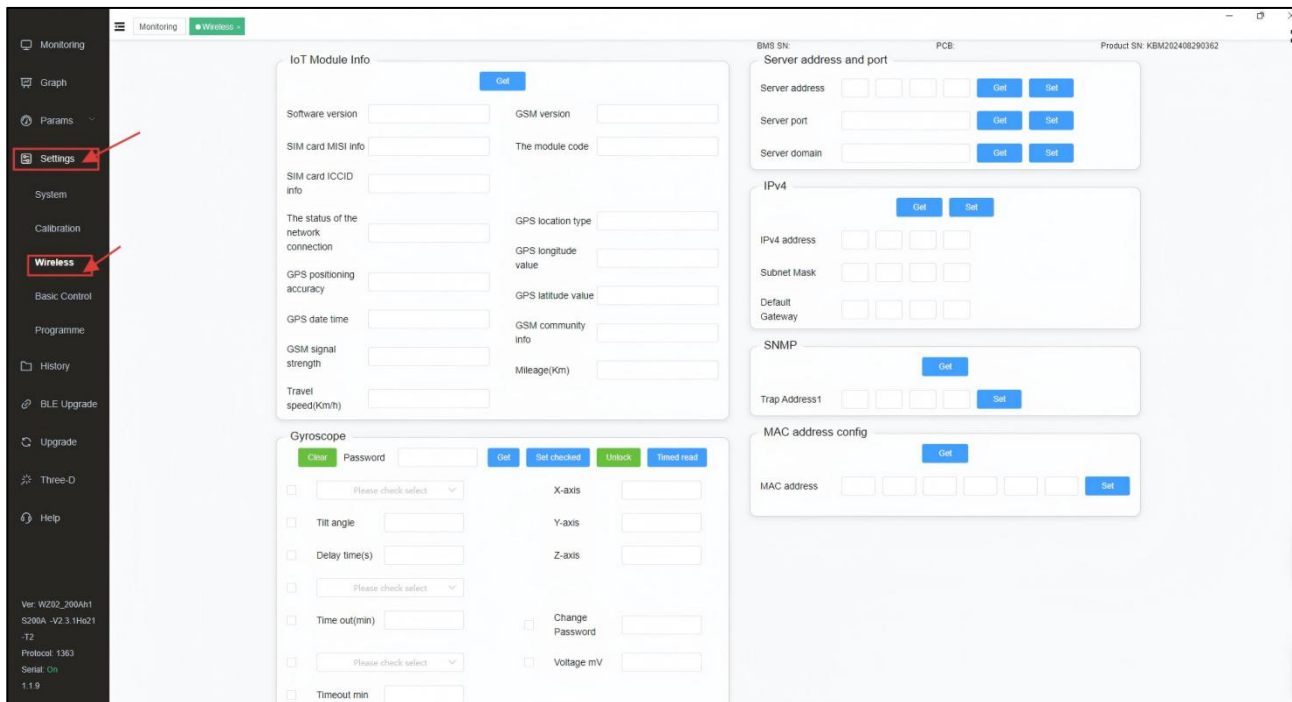
4.2 Data Calibration.

This section contains some BMS data calibration functions. **(All calibration is completed before shipment, personal calibration is not recommended.)**



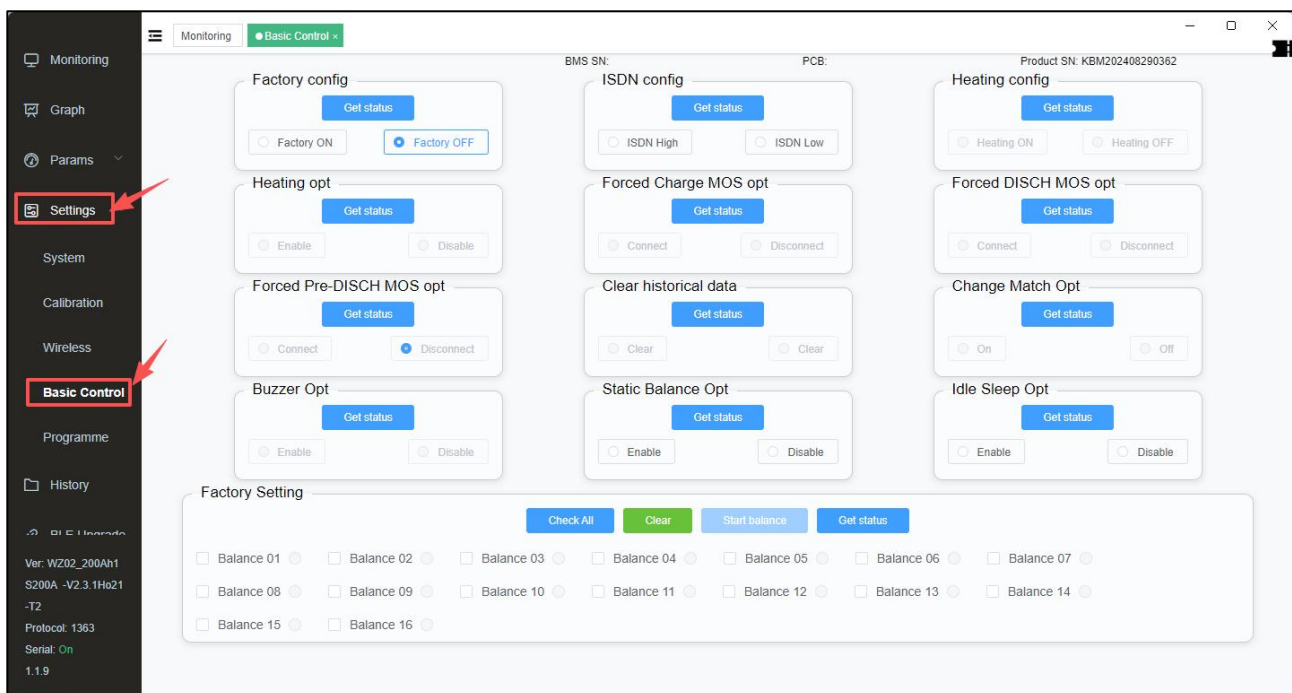
4.3 External Modules.

This section contains information about some additional functional modules.



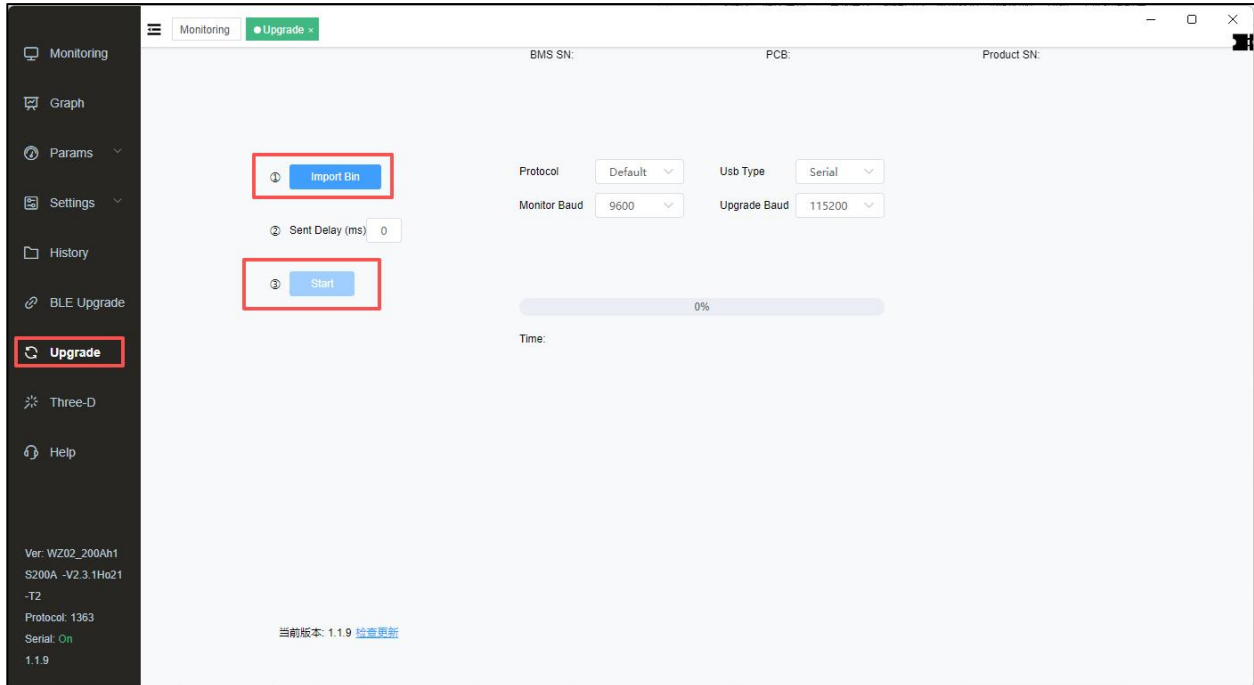
4.4 Remote Control.

This section includes control of charge/discharge MOS, heating, and other states. **(Please consult the manufacturer before operating.)**



5. Online Upgrade.

Function for online software upgrades of the BMS. **(Please consult the manufacturer before operating.)**



6. Reading of historical data.

By clicking Read Data, you can obtain real-time historical records, export data, and view basic PACK information.

No	PACK	time	EventRecord	Total volt...	Total curr...	SOC(%)	SOH(%)	Full capacit...	Env TEMP...	MOS TEMP...	Alarm sign bit	PROT the flag bit	Cell N...	V difference...	batter
1		2025-09-10 17:03:41	System run	52.1	0	28	100	340	27	27			16	1	3.260
2		2025-09-10 16:39:59	Enter sleep	52.1	0	27.9	100	340	28	27			16	1	3.261
3		2025-09-10 16:30:53	System run	52.1	0	28	100	340	26	26			16	1	3.260
4		2025-09-09 10:34:34	Enter sleep	52.1	0	28	100	340	28	28			16	1	3.261
5		2025-09-09 10:33:34	System run	52.1	0	28	100	340	28	27			16	2	3.260
6		2025-09-04 18:51:52	Enter sleep	52.1	0	27.9	100	340	30	28			16	2	3.260
7		2025-09-04 18:42:40	System run	52.1	0	28	100	340	29	28			16	2	3.260
8		2025-09-04 18:41:22	Enter sleep	52.1	0	27.9	100	340	29	28			16	2	3.260
9		2025-09-04 18:28:51	System run	52.1	0	28	100	340	28	27			16	2	3.261
10		2025-09-04 10:56:29	Enter sleep	52.1	0	28	100	340	26	26			16	1	3.261
11		2025-09-04 10:55:41	System run	52.1	0	28	100	340	26	26			16	2	3.260
12		2025-09-04 10:15:09	Enter sleep	52.1	0	28	100	340	27	27			16	1	3.260
13		2025-09-04 10:14:44	System run	52.1	0	28	100	340	27	27			16	2	3.260
14		2025-09-03 17:48:39	Enter sleep	52.1	0	27.9	100	340	30	29			16	1	3.260
15		2025-09-03 17:30:39	System run	52.1	0	28	100	340	29	28			16	2	3.260
16		2025-09-03 17:30:32	Enter sleep	52.1	0	28	100	340	29	28			16	1	3.260
17		2025-09-03 17:28:28	System run	52.1	0	28	100	340	28	28			16	2	3.260
18		2025-09-01 17:59:28	Enter sleep	52.1	0	28	100	340	30	28			16	1	3.261

7. PRECAUTIONS FOR USE

1. By default, the software opens with operator-level permissions, which allow only data reading, can only do data reading and other functions, if you want to modify the parameters, then you want to log in the administrator permission first.
2. The software only supports the PC Windows system, and other platforms (Android or IOS) cannot run.
3. Before using the software, it is best to install Office 2007 or later to facilitate the data export into EXCEL table.
4. The above upper machine operation interface as a reference, different versions of the upper machine operation page will be different, the specific operation steps should be based on the actual operation interface.