

Master BMS Configuration Instruction

The program of the master is commonly used , and the configuration parameters of the master BMS can be modified according to the requirements of the user. The user wants to modify the parameter via the USB to RS485 module, a computer running the software for modifying configuration parameters are required.

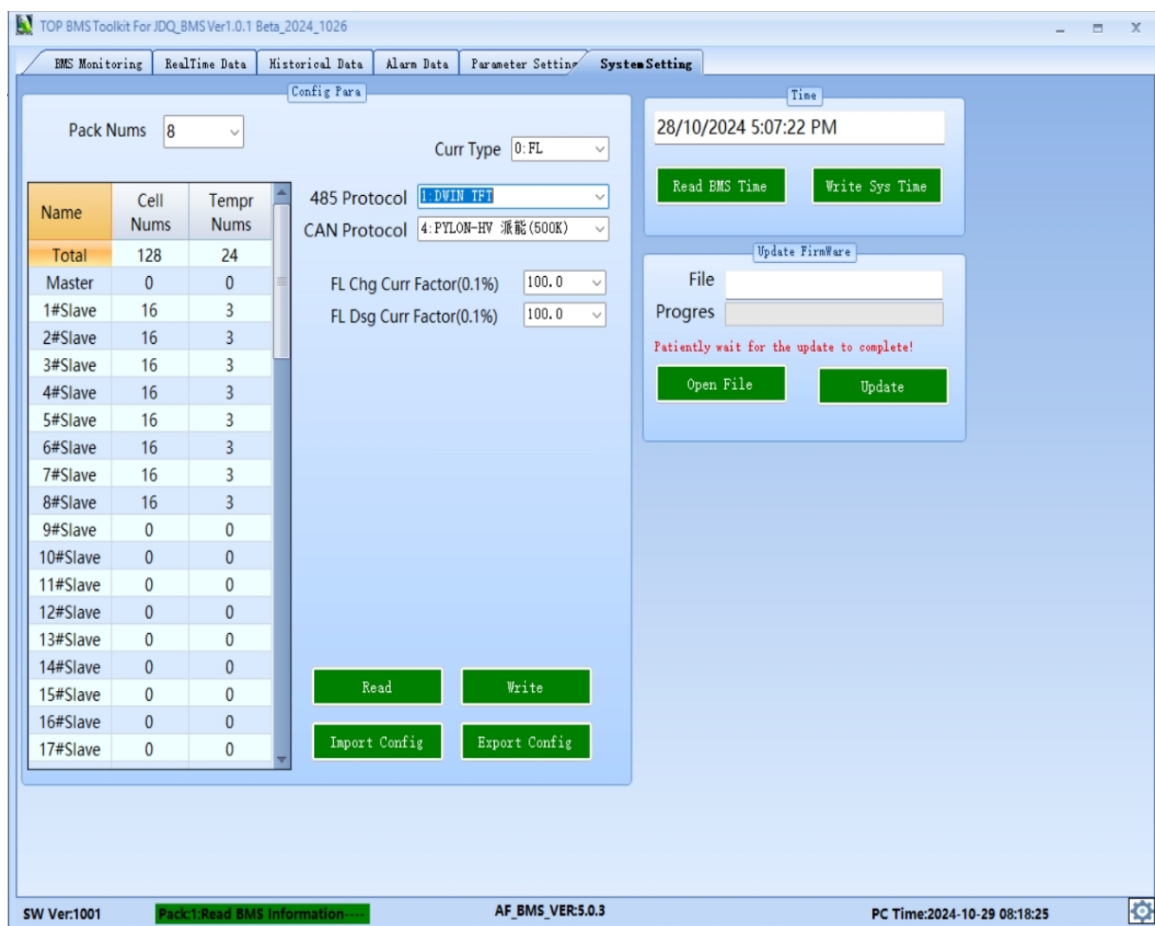
After the software is opened, the program will automatically show the serial ports of the computer.

After selecting the serial port, open the serial port. If the serial port is occupied by other software, a message is displayed indicating that the serial port is occupied.

Note: "Read" parameters before modifying them. After parameters modification, it is best to restart the software , and then read these parameters again

Check if the parameters are correct. Incorrect parameters may cause security accidents.

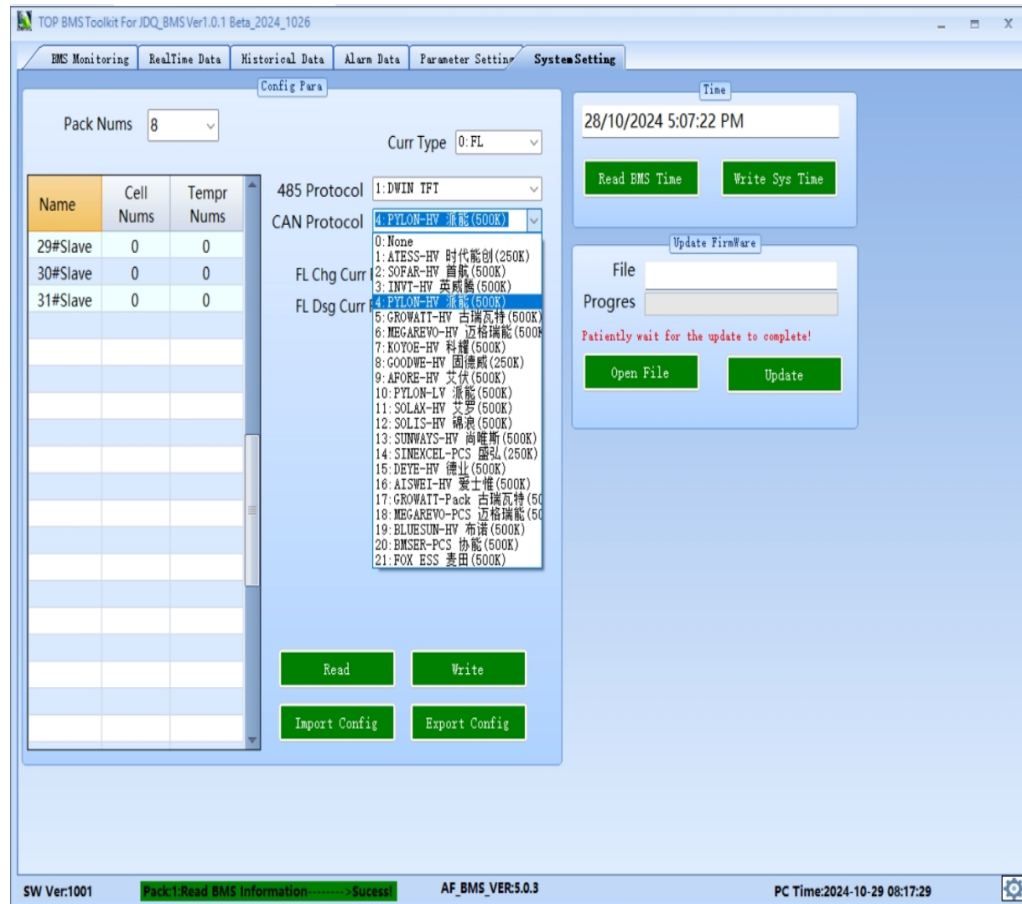
Therefore, precautions should be taken.



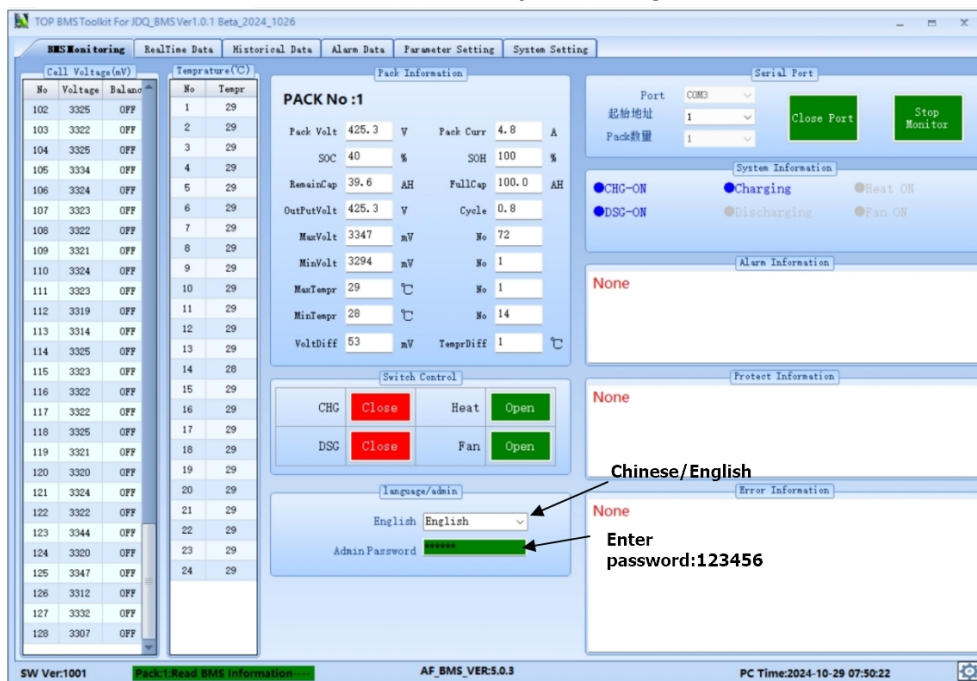
1>. The software interface is divided into left and right .

On the left there is window of batteries system parameter settings and on the right there is window of BMS parameter settings

After clicking the "Read" button on the left, the system parameters in the BMS system will be displayed. The first item is the current detection type: Shunt and Hall sensors. The second item is the RS485 port. This port can be used to communicate with PC or connect display after you configure it to be "DWIN TFT". The third item is the inverter selection. In program 8 inverter protocols are flashed



Please enter Pass word:123456 before you configurate the BMS in PC software



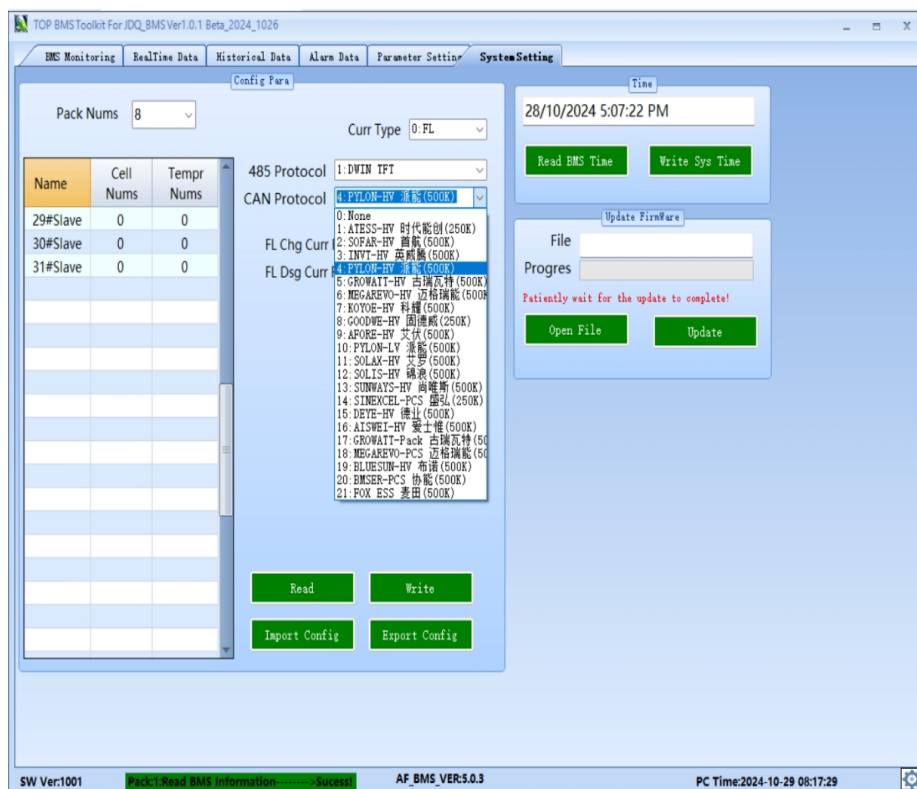
2>. Modify the configuration parameters based on customer requirements

For example, the project requires 8 slave BMS, each slave BMS control 12 cells in series, a total of 96 cells in series and each slave control has temperature sensors.

Finally, the configuration of the whole project: 8 slave bms, total number of batteries strings $8 \times 12 = 96$, Temp Sensors : $8 \times 3 = 24$. Master BMS does not have acquisition wires/balancing wires
 1~8 Slave BMS: String number: 12S, temperature Sensor : 3. Then write the configuration parameters in the master bms . After configuration parameters are written
 The software will automatically re-read the parameters to see if there is any problem.

Name	Value
Pack Nums	8
Cell Nums	96
Tempr Nums	24
Master Cell Nums	0
Master Tempr Nums	0
1#Cell Nums	12
1#Tempr Nums	3
2#Cell Nums	12
2#Tempr Nums	3
3#Cell Nums	12
3#Tempr Nums	3
4#Cell Nums	12
4#Tempr Nums	3
5#Cell Nums	12
5#Tempr Nums	3
6#Cell Nums	12
6#Tempr Nums	3
7#Cell Nums	12
7#Tempr Nums	3
8#Cell Nums	12
8#Tempr Nums	3

3>.Modify inverter protocol in the program of TOPBMS MODBUS according to project requirements. In CAN Type, select the inverter protocol in the drop-down list , and then write it the in the programm



4>.Configuration Parameters :

If the configuration parameters written into the software are changed, the master BMS will adjust the corresponding protection parameters according to the configuration parameters

If the configuration does not meet the project requirements, the client needs to modify the parameters as required. After the modification, please write the protection parameter in the software again

Note: The configuration must be modified under the guidance of battery experts. Incorrect configuration parameters may cause safety accidents, need to pay attention to the characteristics.

TOP BMS Toolkit For JDQ BMS Ver1.0.1 Beta_2024_1026

EMS Monitoring RealTime Data Historical Data Alarm Data **Parameter Setting** System Setting

WCell OV Alarm(mV)	3550	Pack OV Alarm(V)	454.4	CHG OT Alarm(℃)	50	DSG OT Alarm(℃)	60
WCell OV Pprotect(mV)	3650	Pack OV Pprotect(V)	467.2	CHG OT Pprotect(℃)	55	DSG OT Pprotect(℃)	65
WCell OV Release(mV)	3550	Pack OV Release(V)	454.4	CHG OT Release(℃)	50	DSG OT Release(℃)	60
WCell OV Delay(ms)	3000	Pack OV Delay(ms)	3000	CHG UT Alarm(℃)	0	DSG UT Alarm(℃)	-10
WCell UV Alarm(mV)	2800	Pack UV Alarm(V)	358.4	CHG UT Pprotect(℃)	-10	DSG UT Pprotect(℃)	-20
WCell UV Pprotect(mV)	2550	Pack UV Pprotect(V)	326.4	CHG UT Release(℃)	0	DSG UT Release(℃)	-10
WCell UV Release(mV)	2800	Pack UV Release(V)	358.4	WCellDiff Alarm(mV)	500	BMS HW VER	171
WCell UV Delay(ms)	3000	Pack UV Delay(ms)	3000	WCellDiff Pprotect(mV)	800	BMS SW VER	503
CHG OC Alarm(A)	100.0	DSG OC Alarm(A)	300.0	TemprDiff Alarm(℃)	30	FL 75mV/xxxA	200
CHG OC Pprotect(A)	150.0	DSG OC Pprotect(A)	360.0	TemprDiff Pprotect(℃)	40	Staby Curr(mA)	300
CHG OC Delay(ms)	3000	DSG OC Delay(ms)	3000	SOC low Alarm(%)	10.0	ZeroDiff Curr(mA)	500
CHG OC Release(s)	600.0	DSG OC Release(s)	300.0	SOC Low Pprotect(%)	1.0	Zero Curr(mA)	0
Start Fan Tempr(℃)	45	UPS MaxVoltage(V)	454.4	Remain Capacity	40.5	Balance Mode	3:Chg Dsg Idle Balar
Stop Fan Tempr(℃)	35	UPS MinVoltage(V)	358.4	Full Capacity	100.0	Balance On WCell(mV)	3400
Start Heat Tempr(℃)	-10	UPS MaxChg Curr(A)	100.0	Design Capacity	100.0	Balance ΔWCell(mV)	50
Stop Heat Tempr(℃)	10	UPS MaxDsg Curr(A)	300.0				

Import Export Read Write Reset

SW Ver:1001 Pack1 Read BMS Information AF_BMS_VER:5.0.3 PC Time:2024-10-29 07:59:54

5>. In the debugging phase, if the displayed current is very different from the actual measured current, you can modify the parameter to calibrate.

Operation Principle :

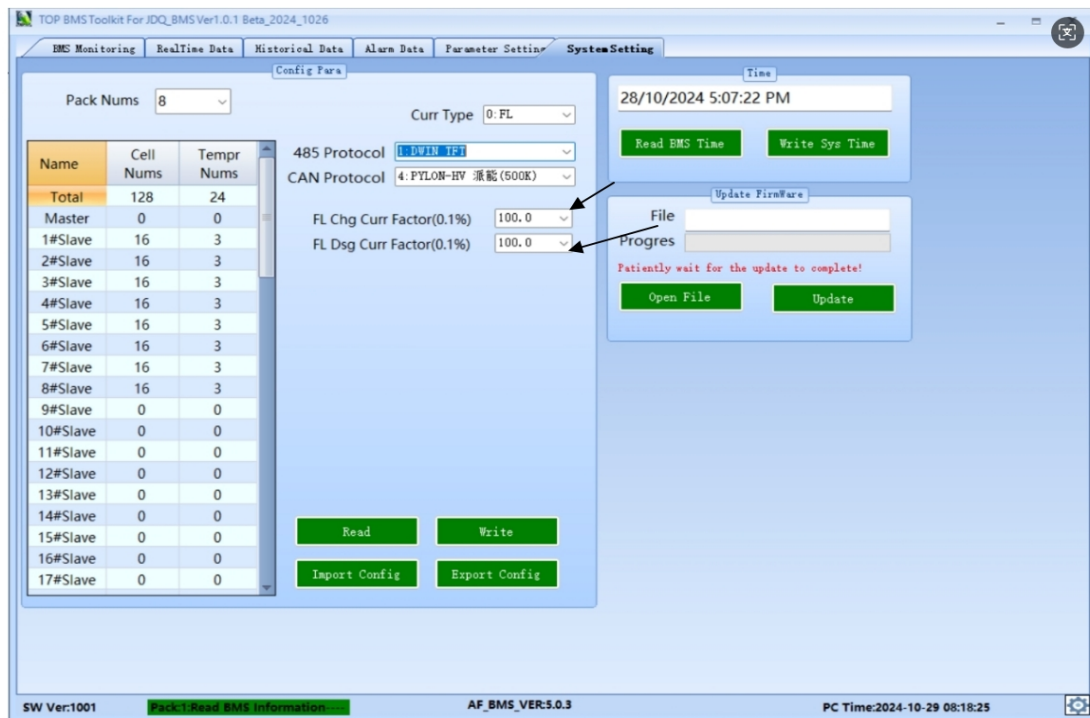
For hall sensor

The current collected by the sensor is multiplied by 100.0% coefficient to obtain the current of the system. Sensor current *100.0%= Display current.

If the current is not correct, the actual charging current is 9.5A, and the charging current shown by the computer software is 10A, and the coefficient is 100.0%. (When the calibration coefficient is 100.0%, the current of the sensor is 10A.) Adjust the calibration coefficient to 95.0%

Current calibration. (Current of sensor 10A*95.0%= display current 9.5A)

For Shunt, we do same things



6>. Some configuration parameters are configured in the upper computer software by default. Customers can select according to their needs and click Load.

The configuration parameters and protection parameters on the software interface will be updated to the contents in the file. You need to write the configuration parameters first, and then write the protection parameter in the software



7>.If the customer does not understand how to set configuration and protection parameters, or The configuration parameters in the software cannot meet the requirements Client can contact our company's technical personnel, our company's technical personnel can send a reference parameter file,

