BMS TOOLS SETUP WHITESHEET

The PC software "BMS Tools" provides real-time battery analysis and diagnostics. The battery cannot communicate with BMS Tools and a closed loop inverter at the same time. The steps outlined below will walk through the initial set up of BMS Tools.

SCAN FOR VIDEO
WALKTHROUGH

1. Using an RS-485 (RJ45 Pins 1-B, 2-A) to USB-A cable, connect to the RS-485 port of the battery and then to a USB-A port on a Windows computer.
2. Set the battery's DIP switches to ID: 64. (all switches ON)
3. Power on the battery pack.
4. Confirm the RS485 cable's COM is set correctly in the BMS Tools program. Refer to the Device Manager on the PC for more information.

5. Change the Baud Rate to 9600.

BMS_TOOLS V1.0

Monitor Status

COM | COM30 | Refresh | Baud Rate | 9600 | ID: 1 | Start Monitoring

BMS Monitoring | BMS Parameter | Historical Record | BMS Datalog | Communication

Model Information
Com State | Offline | Model
Version | SN

Error Status
Voltage Error
Temperature Error
Current Error
Cell Unbalance

Warn Status
Pack OV
Cell OV
Pack UV
Cell UV
Charge OC
Discharge OC
Temp Anmaly
MOS OT
Charge OT
Disharge OT
Charge UT
Discharge UT
Low Capacity
Other Error

Protect Status
Pack OV
Cell OV
Pack UV
Cell UV
Charge OC
Discharge OC
Temp Anmaly
MOS OT
Charge OT
Disharge OT
Charge UT
Discharge UT
Float Stoped
Discharge SC

Battery Information
Status | Heater | SOC | % | SOH | %
Voltage | V | Current | A | Capacity | AH | Remain C | AH
Max Vol | V | Min Vol | V | Vol Diff | V | Max C-C | A
Max Temp | ℃ | Min Temp | ℃ | Temp Diff | ℃ | Cell Num

Temperature Information(℃)
PCB Temp | Ambient Temp
Temp01 | Temp02 | Temp03 | Temp04

Voltage(V)
Cell01 | Cell02 | Cell03 | Cell04 | Cell05 | Cell06 | Cell07 | Cell08
Cell09 | Cell10 | Cell11 | Cell12 | Cell13 | Cell14 | Cell15 | Cell16

6. Change the "ID" to 64.

BMS_TOOLS V1.0

Monitor Status

COM | COM30 | Refresh | Baud Rate | 9600 | ID: 64 | Start Monitoring

BMS Monitoring | BMS Parameter | Historical Record | BMS Datalog | Communication

Model Information
Com State | Offline | Model
Version | SN

Error Status
Voltage Error
Temperature Error
Current Error
Cell Unbalance

Warn Status
Pack OV
Cell OV
Pack UV
Cell UV
Charge OC
Discharge OC
Temp Anmaly
MOS OT
Charge OT
Disharge OT
Charge UT
Discharge UT
Low Capacity
Other Error

Protect Status
Pack OV
Cell OV
Pack UV
Cell UV
Charge OC
Discharge OC
Temp Anmaly
MOS OT
Charge OT
Disharge OT
Charge UT
Discharge UT
Float Stoped
Discharge SC

Battery Information
Status | Heater | SOC | % | SOH | %
Voltage | V | Current | A | Capacity | AH | Remain C | AH
Max Vol | V | Min Vol | V | Vol Diff | V | Max C-C | A
Max Temp | ℃ | Min Temp | ℃ | Temp Diff | ℃ | Cell Num

Temperature Information(℃)
PCB Temp | Ambient Temp
Temp01 | Temp02 | Temp03 | Temp04

Voltage(V)
Cell01 | Cell02 | Cell03 | Cell04 | Cell05 | Cell06 | Cell07 | Cell08
Cell09 | Cell10 | Cell11 | Cell12 | Cell13 | Cell14 | Cell15 | Cell16

7. Select, "Start Monitoring".

BMS_TOOLS V1.0

Monitor Status

COM [COM30 ▼] [Refresh]   Baud Rate [9600 ▼]   ID: [64 ▼] [**Start Monitoring**]

[BMS Monitoring] [BMS Parameter] [Historical Record] [BMS Datalog] [Communication]

Model Information

Com State [Offline]   Model [ ]

Version [ ]   SN [ ]

Battery Information

Status		Heater		SOC		%	SOH		%
Voltage		V Current		A Capacity		AH Remain C		AH
Max Vol		V Min Vol		V Vol Diff		V Max C-C		A
Max Temp		℃ Min Temp		℃ Temp Diff		℃ Cell Num		

Temperature Information(℃)

PCB Temp [ ]   Ambient Temp [ ]

Temp01 [ ] Temp02 [ ] Temp03 [ ] Temp04 [ ]

Error Status
- Voltage Error
- Temperature Error
- Current Error
- Cell Unbalance

Warn Status
- Pack OV
- Cell OV
- Pack UV
- Cell UV
- Charge OC
- Discharge OC
- Temp Anmaly
- MOS OT
- Charge OT
- Disharge OT
- Charge UT
- Discharge UT
- Low Capacity
- Other Error

Protect Status
- Pack OV
- Cell OV
- Pack UV
- Cell UV
- Charge OC
- Discharge OC
- Temp Anmaly
- MOS OT
- Charge OT
- Disharge OT
- Charge UT
- Discharge UT
- Float Stoped
- Discharge SC

Voltage(V)

Cell01 [ ] Cell02 [ ] Cell03 [ ] Cell04 [ ] Cell05 [ ] Cell06 [ ] Cell07 [ ] Cell08 [ ]

Cell09 [ ] Cell10 [ ] Cell11 [ ] Cell12 [ ] Cell13 [ ] Cell14 [ ] Cell15 [ ] Cell16 [ ]

8. The "Com State" will now change from "Offline" to "Online".
The system will now monitor the battery's values in real time.

BMS_TOOLS V1.0

Monitor Status

COM [COM30 ▼] [Refresh]   Baud Rate [9600 ▼]   ID: [64 ▼] [**Stop Monitoring**]

[BMS Monitoring] [BMS Parameter] [Historical Record] [BMS Datalog] [Communication]

Model Information

Com State [Online]   Model [LFP-51.2V100Ah-V1.0]

Version [Z02T15]   SN [2023-10-13]

Battery Information

Status	Standby	Heater	Heat off	SOC	99	%	SOH	100	%
Voltage	53.86	V Current	0.00	A Capacity	100	AH Remain C	99	AH
Max Vol	3.370	V Min Vol	3.365	V Vol Diff	0.005	V Max C-C	5	A
Max Temp	35	℃ Min Temp	35	℃ Temp Diff	0	℃ Cell Num	16	

Temperature Information(℃)

PCB Temp [35]   Ambient Temp [34]

Temp01 [35] Temp02 [35] Temp03 [35] Temp04 [34]

Error Status
- Voltage Error
- Temperature Error
- Current Error
- Cell Unbalance

Warn Status
- Pack OV
- Cell OV
- Pack UV
- Cell UV
- Charge OC
- Discharge OC
- Temp Anmaly
- MOS OT
- Charge OT
- Disharge OT
- Charge UT
- Discharge UT
- Low Capacity
- Other Error

Protect Status
- Pack OV
- Cell OV
- Pack UV
- Cell UV
- Charge OC
- Discharge OC
- Temp Anmaly
- MOS OT
- Charge OT
- Disharge OT
- Charge UT
- Discharge UT
- Float Stoped
- Discharge SC

Voltage(V)

Cell01 [3.367] Cell02 [3.369] Cell03 [3.368] Cell04 [3.366] Cell05 [3.366] Cell06 [3.366] Cell07 [3.365] Cell08 [3.367]

Cell09 [3.365] Cell10 [3.367] Cell11 [3.366] Cell12 [3.366] Cell13 [3.366] Cell14 [3.370] Cell15 [3.366] Cell16 [3.368]

If unable to successfully complete the BMS Tools setup, scan the QR code for a detailed video walkthrough

SCAN FOR VIDEO WALKTHROUGH