



BMS Tools V1.0 Time/date and Historical Data Guide

1. Using an RS232 to USB-A, connect the RJ45 (Pins 4-Rx,5-Tx) to the Battery-Comm port on the EG4 LL V2 (4 dip or 6 dip) and then to the USB-A port on a windows computer.
2. Set the battery's dip switch ID you are updating to ID:1.
3. Now power on only the BMS On/Off switch.
4. Open BMS Tools V1.0, Confirm that the COM is set to the correct RS232 Serial Cable that windows has assigned.
5. Confirm that the Baud Rate is 115200
6. Confirm that the battery ID:1 is selected. Now click Start monitoring

7. The Com State will now change to Online. Next click on the BMS Parameter tab.

BMS_TOOLS V1.0

Monitor Status

COM COM08 Refresh Baud Rate 115200 ID: 1 Stop Monitoring

BMS Monitoring **BMS Parameter** Historical Record BMS Datalog Communication

Model Information

Com State **Online** Mod ZTR-16S100A-SKW-ST02

Version S02T08 SN 1648100200200001

Battery Information

Status Standby Heater Heat off SOC 96 % SOH 100 %

Voltage 53.15 V Current 0.00 A Capacity 100 AH Remain C 96 AH

Max Vol 3.323 V Min Vol 3.321 V Vol Diff 0.002 V Max C-C 100 A

Max Temp 23 °C Min Temp 23 °C Temp Diff 0 °C Cell Num 16

Temperature Information(°C)

PCB Temp 24 Ambient Temp 25

Temp01 23 Temp02 23 Temp03 23 Temp04 23

Voltage(V)

Cell01 3.322 Cell02 3.321 Cell03 3.322 Cell04 3.322 Cell05 3.321 Cell06 3.322 Cell07 3.323 Cell08 3.322

Cell09 3.323 Cell10 3.321 Cell11 3.322 Cell12 3.322 Cell13 3.322 Cell14 3.322 Cell15 3.321 Cell16 3.323

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

Discharge 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

Discharge OT

Charge UT

Discharge UT

Float Stopped

Discharge SC

8. Click on the check mark box on the Date/Time Setting, then click Read.

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Monitor Status

COM: COM2 Refresh Baud Rate: 115200 ID: 1 Stop Monitoring

BMS Monitoring BMS Parameter Historical Record BMS Datalog Communication

<input type="checkbox"/> Cell UV Cell UV Warn <input type="text"/> V Cell UV Protect <input type="text"/> V Cell UV Release <input type="text"/> V	<input type="checkbox"/> Cell OV Cell OV Warn <input type="text"/> V Cell OV Protect <input type="text"/> V Cell OV Release <input type="text"/> V	<input type="checkbox"/> Pack UV Pack UV Warn <input type="text"/> V Pack UV Protect <input type="text"/> V Pack UV Release <input type="text"/> V	<input type="checkbox"/> Pack OV Pack OV Warn <input type="text"/> V Pack OV Protect <input type="text"/> V Pack OV Release <input type="text"/> V
<input type="checkbox"/> Charge UT Charge UT Warn <input type="text"/> °C Charge UT Protect <input type="text"/> °C Charge UT Release <input type="text"/> °C	<input type="checkbox"/> Discharge UT Discharge UT Warn <input type="text"/> °C Discharge UT Protect <input type="text"/> °C Discharge UT Release <input type="text"/> °C	<input type="checkbox"/> Charge OC Charge OC1 Protect <input type="text"/> A Charge OC1 Delay <input type="text"/> s Charge OC2 Protect <input type="text"/> A Charge OC2 Delay <input type="text"/> s Charge OC Release <input type="text"/> s Charge OC Times <input type="text"/> A	<input type="checkbox"/> Discharge OC Discharge OC1 Protect <input type="text"/> A Discharge OC1 Delay <input type="text"/> s Discharge OC2 Protect <input type="text"/> A Discharge OC2 Delay <input type="text"/> s Discharge OC Release <input type="text"/> s Discharge OC Times <input type="text"/> A Load Short Current <input type="text"/> A
<input type="checkbox"/> PCB OT PCB OT Warn <input type="text"/> °C PCB OT Protect <input type="text"/> °C PCB OT Release <input type="text"/> °C	<input type="checkbox"/> Ambient OT Ambient OT Warn <input type="text"/> °C Ambient OT Protect <input type="text"/> °C Ambient OT Release <input type="text"/> °C	<input type="checkbox"/> Ambient UT Ambient UT Warn <input type="text"/> °C Ambient UT Protect <input type="text"/> °C Ambient UT Release <input type="text"/> °C	<input type="checkbox"/> Balance Balance Vol <input type="text"/> V Balance Diff <input type="text"/> mV Low Capacity Warn <input type="text"/> %
<input type="checkbox"/> Heating Switch Heat Opening <input type="text"/> °C Heat Off <input type="text"/> °C	<input checked="" type="checkbox"/> DateTime Setting BMS Time <input type="text"/> Now Time <input type="text"/> 2023-11-02 16:16:53		

Restore Factory Data ☐ Select All

9. Double click on the Time/Date until it is highlighted, then click the Delete key on the keyboard.

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Monitor Status

COM: COM28 Refresh Baud Rate: 115200 ID: 1 Stop Monitoring

BMS Monitoring BMS Parameter Historical Record BMS Datalog Communication

<input type="checkbox"/> Cell UV Cell UV Warn 2.500 V Cell UV Protect 2.300 V Cell UV Release 3.100 V	<input type="checkbox"/> Cell OV Cell OV Warn 3.700 V Cell OV Protect 3.800 V Cell OV Release 3.450 V	<input type="checkbox"/> Pack UV Pack UV Warn 46.50 V Pack UV Protect 44.80 V Pack UV Release 48.00 V	<input type="checkbox"/> Pack OV Pack OV Warn 59.20 V Pack OV Protect 66.00 V Pack OV Release 55.20 V
<input type="checkbox"/> Charge UT Charge UT Warn -2 °C Charge UT Protect -5 °C Charge UT Release 0 °C	<input type="checkbox"/> Discharge UT Discharge UT Warn -15 °C Discharge UT Protect -20 °C Discharge UT Release -10 °C	<input type="checkbox"/> Charge OC Charge OC1 Protect 102.00 A Charge OC1 Delay 20 s Charge OC2 Protect 120.00 A Charge OC2 Delay 3 s Charge OC Release 180 s Charge OC Times 5	<input type="checkbox"/> Discharge OC Discharge OC1 Protect 102.00 A Discharge OC1 Delay 30 s Discharge OC2 Protect 150.00 A Discharge OC2 Delay 3 s Discharge OC Release 60 s Discharge OC Times 5 Load Short Current 300.00 A
<input type="checkbox"/> Charge OT Charge OT Warn 65 °C Charge OT Protect 70 °C Charge OT Release 60 °C	<input type="checkbox"/> Discharge OT Discharge OT Warn 70 °C Discharge OT Protect 75 °C Discharge OT Release 65 °C	<input type="checkbox"/> Ambient UT Ambient UT Warn -20 °C Ambient UT Protect -25 °C Ambient UT Release -15 °C	<input type="checkbox"/> Balance Balance Vol 3.400 V Balance Diff 40 mV Low Capacity Warn 10 %
<input type="checkbox"/> PCB OT PCB OT Warn 100 °C PCB OT Protect 105 °C PCB OT Release 80 °C	<input type="checkbox"/> Ambient OT Ambient OT Warn 65 °C Ambient OT Protect 70 °C Ambient OT Release 60 °C		
<input type="checkbox"/> Heating Switch Heat Opening 0 °C Heat Off 5 °C	<input checked="" type="checkbox"/> DateTime Setting BMS Time 2048-01-12 00:05:38 Now Time 2023-11-02 16:17:16		

Restore Factory Data ☐ Select All Read Write

10. After deleting the Time/Date, manually type in the Date and Time in the exact format as the Now Time, then click Write. Example: 2023-11-02 16:18:00

BMS_TOOLS V1.0

Monitor Status

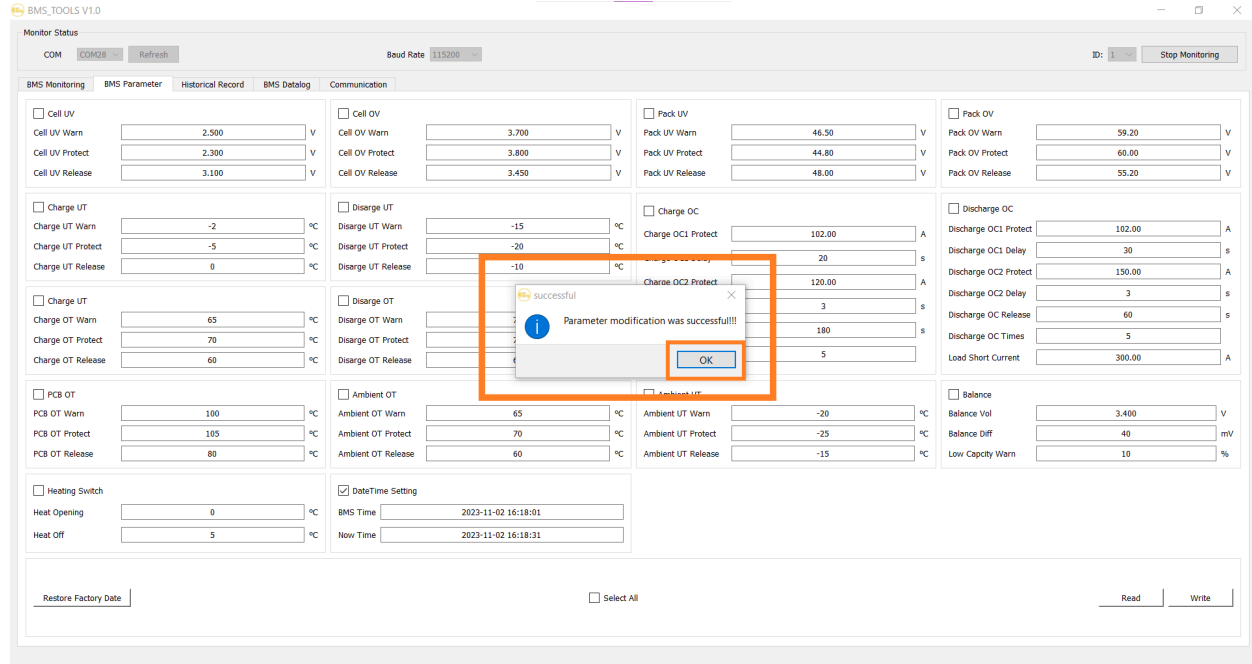
COM: COM28 Refresh Baud Rate: 115200 ID: 1 Stop Monitoring

BMS Monitoring BMS Parameter Historical Record BMS Datalog Communication

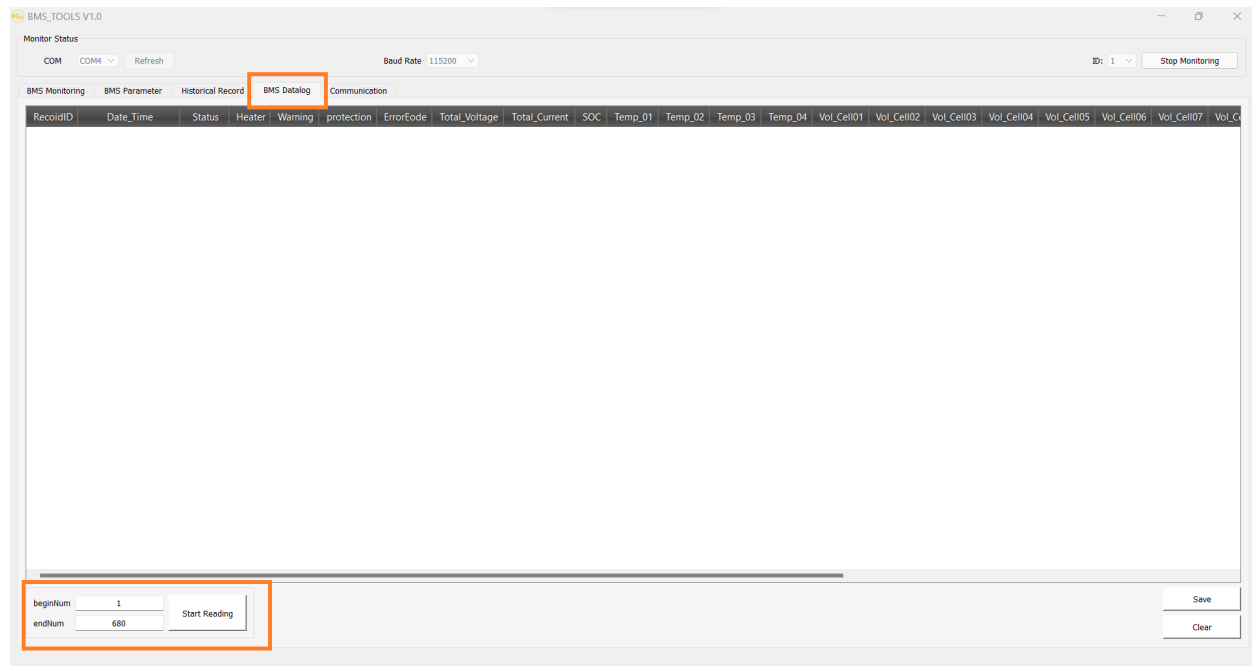
<input type="checkbox"/> Cell UV Cell UV Warn 2.500 V Cell UV Protect 2.300 V Cell UV Release 3.100 V	<input type="checkbox"/> Cell OV Cell OV Warn 3.700 V Cell OV Protect 3.800 V Cell OV Release 3.450 V	<input type="checkbox"/> Pack UV Pack UV Warn 46.50 V Pack UV Protect 44.80 V Pack UV Release 48.00 V	<input type="checkbox"/> Pack OV Pack OV Warn 59.20 V Pack OV Protect 66.00 V Pack OV Release 55.20 V
<input type="checkbox"/> Charge UT Charge UT Warn -2 °C Charge UT Protect -5 °C Charge UT Release 0 °C	<input type="checkbox"/> Discharge UT Discharge UT Warn -15 °C Discharge UT Protect -20 °C Discharge UT Release -10 °C	<input type="checkbox"/> Charge OC Charge OC1 Protect 102.00 A Charge OC1 Delay 20 s Charge OC2 Protect 120.00 A Charge OC2 Delay 3 s Charge OC Release 180 s Charge OC Times 5	<input type="checkbox"/> Discharge OC Discharge OC1 Protect 102.00 A Discharge OC1 Delay 30 s Discharge OC2 Protect 150.00 A Discharge OC2 Delay 3 s Discharge OC Release 60 s Discharge OC Times 5 Load Short Current 300.00 A
<input type="checkbox"/> Charge OT Charge OT Warn 65 °C Charge OT Protect 70 °C Charge OT Release 60 °C	<input type="checkbox"/> Discharge OT Discharge OT Warn 70 °C Discharge OT Protect 75 °C Discharge OT Release 65 °C	<input type="checkbox"/> Ambient UT Ambient UT Warn -20 °C Ambient UT Protect -25 °C Ambient UT Release -15 °C	<input type="checkbox"/> Balance Balance Vol 3.400 V Balance Diff 40 mV Low Capacity Warn 10 %
<input type="checkbox"/> PCB OT PCB OT Warn 100 °C PCB OT Protect 105 °C PCB OT Release 80 °C	<input type="checkbox"/> Ambient OT Ambient OT Warn 65 °C Ambient OT Protect 70 °C Ambient OT Release 60 °C		
<input type="checkbox"/> Heating Switch Heat Opening 0 °C Heat Off 5 °C	<input checked="" type="checkbox"/> DateTime Setting BMS Time 2023-11-02 16:18:00 Now Time 2023-11-02 16:18:15		

Restore Factory Data ☐ Select All Read Write

11. After clicking Write, Parameter modification was successful! Will appear. Click OK. You have now set the Time/Date on the EG4 LL battery.



12. On the BMS Datalog tab, you can click Start Reading to read up to 680 data logs from the battery.



13. After the historical data has finished, click Save to save the file as a spreadsheet.

