

### **JKBMS Smart Active Balance BMS**

JK-PB1A16S10P JK-PB1A16S15P / JK-PB2A16S15P JK-PB1A16S20P / JK-PB2A16S20P Specification and operation manual





#### BMS update firmware process Summary of File Changes

DATE	No.	Revision Description	Prepared by	Approved by
2023/11/2	V1.01	BMS update firmware process	Helen	

JK BMS <u>http://www.jkbms.net/</u>



#### BMS update firmware process

1,	Connect bms and battery correctly according to bms operation instructions3
2,	Install our software on the computerjk-bms-monitor-2.1.0.15-setup4
3、	Keep the firmware that needs to be updated in the computer in advance
4,	Open JK-BMS-monitor(Prepare an RJ45 usb cable, adapter board and computer).4
5、	According to the adapter board, set the device id5
6、	Set the device id and Click Connect6
7、	Click " about " , check the bms model6
8、	Click three in the upper-right corner and click upload fireware
9、 to yo	Select the firmware saved in step 3, and select the corresponding firmware according our model,click open,Start Installation
10、	Click Start updating8
11、	Updated successfully, OK8
12、 and click '	Click Settings to find UART1 Protocol No. 1,Select the corresponding inverter brand send"
13、	Set up9



# 1.Connect bms and battery correctly according to bms operation instructions

Wiring diagram

There are strict sequence requirements for the power-on of the protection plate. First weld B-, P-,B +, P +, and sequentially plug in the battery sampling line connector from low to high. After power-on, press the key to activate it. Load or charger can only be added after all connecting wires are installed. When removing, unplug the charger or load First, remove the battery sampling line connector in sequence from high to low, and finally remove B +, P +,B-, P-





#### 2. Install our software on the computer

jk-bms-monitor-setup



3. keep the firmwar that needs to be updated in the computer in advance





JK-PB1A16S20P - .jkbms



#### 4. Check work before linking

Open Device Manager using the shortcut keys WIN+X on the computer

#### Check the PORT code.



Confirm that the port values of the computer device manager and MONITOR are the same



JK BMS <a href="http://www.jkbms.net/">http://www.jkbms.net/</a>



#### $\mathbf{5}_{\mathbf{v}}$ Set the device id and Click Connect



Address	Dial switch position					
	1	2	3	4		
0	OFF	OFF	OFF	OFF		
1	ON	OFF	OFF	OFF		
2	OFF	ON	OFF	OFF		
3	ON	ON	OFF	OFF		
4	OFF	OFF	ON	OFF		
5	ON	OFF	ON	OFF		
6	OFF	ON	ON	OFF		
7	ON	ON	ON	OFF		
8	OFF	OFF	OFF	ON		
9	ON	OFF	OFF	ON		
10	OFF	ON	OFF	ON		
11	ON	ON	OFF	ON		
12	OFF	OFF	ON	ON		
13	ON	OFF	ON	ON		
14	OFF	ON	ON	ON		
15	ON	ON	ON	ON		



JK BMS http://www.jkbms.net/



#### 6.According to the adapter board, set the device id

Confirm that the Devices ID values of the computer device manager and MONITOR are the same

▲ Li-	ion 🚽 Lifepo4	< Lto 🔒 Modify PWD.	
⊙ Continued Charge Curr. (A): 25.0	Send	⊙ Device Addr.: 3	A Send
⊚ Charge OCP Delay (S): 3	Send Send	© UART1 Protocol No.: 000 - 4G-GPS Remote module Cor ▼	🖪 Send
Charge OCPR Time (S): 60	Send	000 - 4G-GPS Ren protocol V4.2 UART2 Protocol No.: 001 - JK BMS RS485 Modbus V1.0 002 - NIULU SERIES	A Send
© Continued Discharge Curr. (A): 100.0	Send	© CAN Protocol No.: 0003 - China towertery cabinet V1.1 006 - Growatt_BxxP_ESS_Rev2.01	Send
© Discharge OCP Delay (S): 300	Send	⊚ User Private Data: Input Userda	🛹 Send
O Discharge OCPR Time (S): 60	Send	💿 User Data 2: Input Userda	Send
Sharge OTP (°C): 70.0	Send		
Con. Wire Res. Settings			
© Con. Wire Res.01 (mΩ): 0.0	Send Send	© Con. Wire Res.09 (mΩ): 0.0	Send
© Con. Wire Res.02 (mΩ): 0.0	Send Send	© Con. Wire Res.10 (mΩ): 0.0	Send
@ Con. Wire Res.03 (mΩ): 0,0	Send	© Con. Wire Res.11 (mΩ): 0.0	🦪 Send
© Con. Wire Res.04 (mΩ): 0.0	- Send	© Con. Wire Res.12 (mΩ): 0.0	🖪 Send
© Con. Wire Res.05 (mΩ): 0.0	Send Send	ⓒ Con. Wire Res.13 (mΩ): 0.0	Send
© Con. Wire Res.06 (mΩ): 0.0	Send	© Con. Wire Res.14 (mΩ): 0.0	Send
			0.000

#### 7. Open JK-BMS-monitor (Prepare an RJ45 usb cable, adapter board and computer)

😥 💇 Realtime 🛛 🏟 S	ettings 💿 Control 💼	Logging 🛃 F	ault 🕧 Abou	rt JK-BM	S-MONITOR 2.1	.0 🖸 :	– 🗆 🗙
Major Status		Battery Status					
Voltage (45.69) Current (0.0) 60 <sup>100</sup> 20 140 Current (0.0) 50 50 50 50 50 50 50 50 50 50		<sup>Charge</sup>	$0.0^{\text{W}}$	Cycle Capacity	<sup>MOS Temp.</sup> 27.9℃	Battery Temp. 5 27.3 <sup>°C</sup>	Fault Record Coun 34
$10^{40}$ $4^{160}$ $10^{100}$	150 150 200 0 0 0 200	Discharge OFF	Battery Capacity 40.0 AH	Ave. Cell Volt. 3.264 V	Battery Temp. 1 27.0°C	Heat Current 0.000 A	Time Enter Sleep 86400 <sup>S</sup>
Capacity	运行时间	Pre-Discharge	Remain Capacity	$\overset{\text{Cell Volt. Diff.}}{0.000}^{\text{V}}$	Battery Temp. 2 26.8°C	Heating Status	PCL Module OFF
0.0%	011203	Balance Status OFF	Cycle Count	Balance Curr.	Battery Temp. 4 28.8℃	Time Emerg.	
Warni	ing List			Cells \	/oltage		
2 Madifie DMD in the							
2 Modily PWD. In time					11 0.000 V		
		Cells Wire Resistance					
		<b>01</b> 0.000 <sup>Ω</sup>	84 0.000 <sup>C</sup>	<b>97</b> 0.000 <sup>Ω</sup>		13 0.000 <sup>n</sup>	16 0.000 <sup>0</sup>
		02 0.000 <sup>D</sup>	05 0.000 <sup>0</sup>		11 0.000 "		
		<b>03</b> 0.000 <sup>D</sup>	86 0.000 <sup>D</sup>	0.000 °	12 0.000 "	15 0.000 <sup>0</sup>	
		Device Id: 3	Port Name:	сомз 🔫 с	Comm. Status: Co	onnected Dis	connect

😭 🙀 Realtime	🔯 Settings 🔇	Control	Logging	🛃 Fault	(i) About	JK-BMS-MONITO	DR 2.1.0	🗵 E	12	×
Vendor ID JK_PB2A	16S15P	Serial Number	9257230	1./	rlardware Ver	I4.XA	Software Ver	V14.	05	
Power-on Tipes		Total Time	2M52S		First On Date	3-10-30				
i.										

#### 8. Click " about " , check the bms model

9. Click three in the upper-right corner and click upload fireware.

😭 🕎 Realtime 🏼 🏟 Settings 🖉	Control     Control    Cont	求併る肌 JK-BMS-MONIT	FOR 2.1.0 🖸 🗄 — 🗆 🗙
Vendor ID	Serial Number	Hardware Ver	Software Ver Upload Fireware
JK_PB1A16S10P	3092569498	V14.XA	V1 Settings (Alt+F12)
Power-on Times	Total Time		(i) About (Alt+F2)
1 <sup>Times</sup>	1S		
	Device Id: 3	Port Name: COM3 💌 Comm. St	atus: Connected Disconnect

JK BMS <u>http://www.jkbms.net/</u>



# **10.Click Upload Fireware - JK-BMS-MONITOR click upload fireware Select the firmware saved in step 3**,

and select the corresponding firmware according to your model, click open, Start Installation

JK_PB1A16S10P	3092569498	V14.XA	V14.04
Power-on Times 1 Times	Total Time 1S		
😤 Open fi	reware file		×
$\leftarrow \rightarrow$	~ 个 🔤 > 桌面 >	~ 0	在桌面中搜索 🔎
组织・	新建文件夹		
> 🔶 R00	这 - 个人 面   参		
iす 上 文 🗐	载 # 66+	DALY文档 储能上位程序 ŧ	极空总文件2 69-JK-PB1A16S 10P.jkbms
🔁 園)	н * 55		
<ul> <li>400</li> <li>100</li> </ul>	類 ♪ 72-JK-PB2A16S 15P.jkbms	73-JK-PB2A16S 20P.jkbms	
	文件名(N):	~	Fireware file (*.jkbms)

#### 11. Click Start updating

Vendor ID JK_PB1A16S10P         Serial Number 3092569469         Hardware Ver V14.XA         Software Ver V14.04           Power-on Times 21 <sup>Times</sup> Total Time 5M57S         First On Date 2023-10-31         Software Ver V14.04	
Power-on Times 21 <sup>Times</sup> 5M57S First On Date 2023-10-31	
Upload Fireware - JK-BMS-MONITOR 2.1.0 × Upload Fireware	
Fireware: C:/Users/25962/Desktop/69-JK-PB1A16S10P.jkbms	
Device ID: JK_PB1A16S10P	
Version: V14.05 Build Date: 2023-10-26	
Build Time: 18:10:49	$\geq$
Start Updating Force Updating	

JK BMS <u>http://www.jkbms.net/</u>



#### 12. Updated successfully, OK



# 13. Click Settings to find UART1/CAN Select the corresponding inverter brand and click "send"

	Li-ion	✓ Lto	
© Continued Charge Curr. (A): 25.0	Send	© Device Addr.: 3	A Send
© Charge OCP Delay (S): 3	+ seiid	© UART1 Protocol No.: 000 - 4G-GPS Remote module Cor ▼	🦪 Send
© Charge OCPR Time (S): 60	Send	© UART2 Protocol No:: 001 - JK BMS RS485 Modbus V1.0 002 - NIU U SFRIES	A Send
© Continued Discharge Curr. (A): 100.0	Send	© CAN Protocol No.: 00 003 - China towertery cabinet V1.1 006 - Growatt_BxxP_ESS_Rev2.01	send
③ Discharge OCP Delay (S): 300	Send	💿 User Private Data: Input Userda	d Send
Discharge OCPR Time (S): 60	Send Send	⊗ User Data 2: Input Userda	Send
© Charge OTP (℃): 70.0	Send Send		
🖗 Con. Wire Res. Settings			
© Con. Wire Res.01 (mΩ): 0.0	Send	© Con. Wire Res.09 (mΩ): 0.0	Send
© Con. Wire Res.02 (mΩ): 0.0	Send	⊙ Con. Wire Res.10 (mΩ): 0.0	🚿 Send
© Con. Wire Res.03 (mΩ): 0.0	Send	© Con. Wire Res.11 (mΩ): 0.0	🛹 Send
© Con. Wire Res.04 (mΩ): 0.0	Send 🗸	© Con. Wire Res.12 (mΩ): 0.0	Send
© Con. Wire Res.05 (mΩ): 0.0	Send Send	© Con. Wire Res.13 (mΩ): 0.0	Send
© Con. Wire Res.06 (mΩ): 0.0	Send	© Con. Wire Res.14 (mΩ); 0.0	send 🚿
	Device Id: 3	Port Name: COM3 * Comm. Status: Connected Discon	nect

JK BMS <a href="http://www.jkbms.net/">http://www.jkbms.net/</a>



#### 14. Other