

Use Batteryview upgrade and acquire system information Pylontech Low Voltage Product

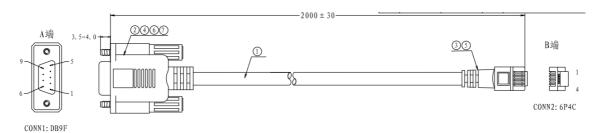
This SOP is for Pylontech authorized software engineer and field application engineer to upgrade and acquire system information of Pylontech Powercube product. To avoid misoperation or commands lead to system failure, please contact Pylontech first before using any of the command not listed in this SOP; Otherwise the product will be out of Pylontech warranty scope.

Section A: Battery Firmware Upgrade

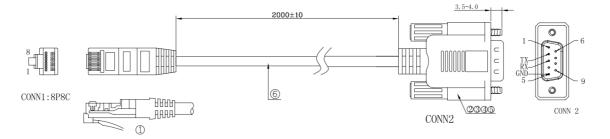
1. Connect from Battery RS232/Console port to laptop USB:



For US2000/US3000/Phantom-S/UP2500, the RS232 cable type is RJ11 – DB9 – USB:



For Force L1/L2, US2000C, US3000C, UP5000, US5000, the RS232 cable type is RJ45 – DB9 – USB:





Please re-wire the PIN OUT on RJ11/RJ45 side as below:

For RJ11 cable:

Definition of RJ11 Port Pin

No.	232 Pin
1	GND
2	RXD
3	TXD
4	GND



RJ11 Port

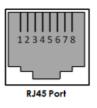


For RJ45 cable:

Console

For manufacturer or professional engineer to debug or service.

Pin3	232-TX				
Pin4*	+5~+12V for wake up				
Pin5*	GND for wake up				
Pin6	232-RX				
Pin8	232-GND				
*Wake up signal shall ≥0.5Sec, current between 5~15mA. After send wake up signal, the voltage shall					
disappear for	normal operation.				





Connect to battery Console Port(as below BLUE circle):





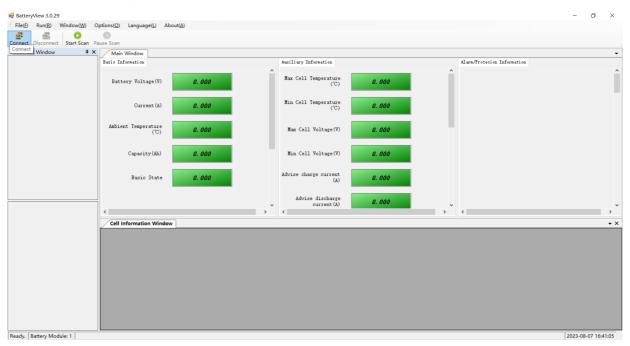


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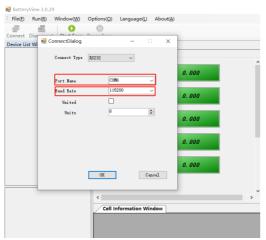
2. Open 'Batteryview.exe':

📕 en	2016/3/23 14:55	
🌽 Update file	2016/8/23 16:41	
Update log	2016/3/23 15:17	
J zh-CHS	2016/3/23 14:55	
🕌 zh-cn	2016/3/23 14:57	
Battery Firmware Update SOP	2016/7/12 11:14	117 KB
BatteryView	2016/3/23 16:09	573 KB
BatteryView.pdb	2016/3/23 16:09	494 KB
BatteryView.vshost	2016/3/21 17:14	14 KB
BatteryView.vshost.exe.manifest	2009/6/11 5:14	1 KB
LabelGradient.dll	2015/8/27 9:19	20 KB
S LEDIndicator.dll	2014/7/4 16:16	30 KB
Nicrosoft.Office.Interop.Excel.dll	2007/10/10 9:48	1,075 KB
Microsoft.Vbe.Interop.dll	2007/10/10 9:48	63 KB
S office.dll	2007/10/10 9:48	219 KB
WeifenLuo.WinFormsUI.Docking.dll	2013/11/19 16:33	437 KB

3. Connect to Battery:



The Port Name will be automatically recognized once the RS232 cable is well installed or from the Device Manager; The Baudrate is 115200.



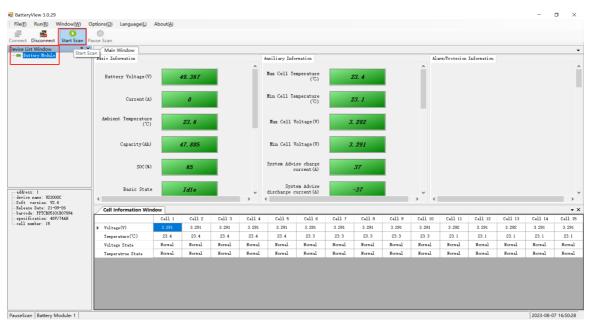
Please select the correct .bin file for the upgrade, by any version of Batteryview.

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4. If the BatteryView showed values, which means connect successfully. If not, please click "Start Scan":

*Note: Please double-click the 'Battery Module' tool bar to receive correct battery information on the bottom right side, then take a Screenshoot as evidence for further maintenance task.

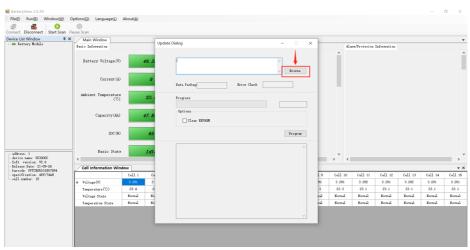


5. Please choose the "BMS Update":



File(F) Run(R) Window(W)	Options(O) Language(L) About(A)	
Connect Disconnect Start Sca	Login Scan Options	
Device List Window	Update	
Battery Module	Control Pane	
	Coul write and MosFail Set Dialog	
	Battery Voltage(V) 49	. 367
	Current (A)	0

6. Click Browse to choose the firmware:



For upgrade US2000B/US3000A/Force-L series product:

Please select the correct .bin file for the upgrade, by any version of Batteryview.



For upgrade US2000C/US3000C/UP5000:

If the 8th and 9th of the product Serial Number is not 'E2' or 'C3', it can still select the correct .bin file for the upgrade, by any version of Batteryview.

If the 8th and 9th of the product Serial Number is <u>'E2' or 'C3'</u>, please select the correct .zip file for the upgrade, and require to use Batteryview V3.0.28 or higher.

For upgrade US5000:

If the 8th and 9th of the product Serial Number is <u>(C5)</u>, please select the correct .zip file for the upgrade, and require to use Batteryview V3.0.28 or higher.

*It`s suggested to always use the .zip file and Batteryview V3.0.28 for any US2000C/US3000C/UP5000/US5000 upgrade to avoid wrong upgrade caused PCBA damage.

7. And click "Program" to start:

			+ 3	110.04
Data Packagy Error Check	Browse	Data Package 1421	Error Check Sus Check	
Frogress		Transmitting Programs	60x	
Options			[Triane]	aire s L
	Program	16-00-23 15 59: 35-70he updat 16-00-23 15 59: 35-70he updat		

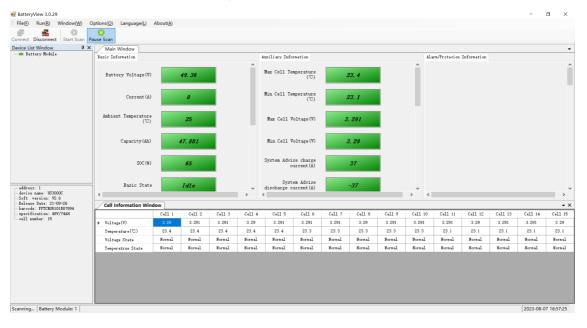
8. After it showed the Serial Number, which means update finished.

*Please keep watching the progress bar and 'Program' button till 100%; In different Operation System, it may happens that the upgrade stick during the process and require to click the 'Program' again(once the 'Program' button becomes highlighting again during the upgrade process).

₽:\新建文件3	€\phantom_b60_107.	bin	*	Browse
Data Package	1421	Error Check	Sum Check	
Transmitting Progress		Progra	100%	Complete
16-08-23 15:59: 16-08-23 16:00: 16-08-23 16:00: 16-08-23 16:00: 16-08-23 16:00: 16-08-23 16:00: 16-08-23 16:00: 16-08-23 16:00:	35->The update pro 37->File is transm 08->File transmiss 18->EEProm is clea 18->Device is rese 29->The bar code i 30->The device is 30->The update log Desktop\debug∰\De	itting ion is complete. red. t. s written in. disconnected. : is recorded in:	C:\Users TBH01176405004.	fxt.

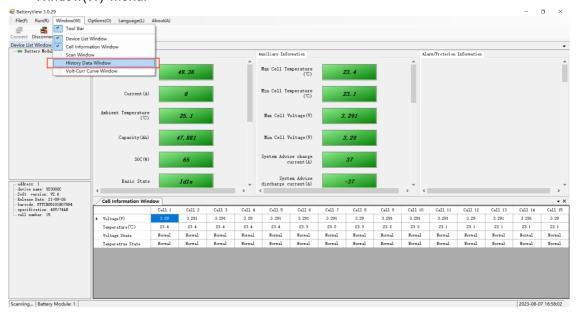


Complete and back to the main page:



Section B: Battery Data Acquirement

1. Back to Batteryview 'Mainwindow', choose 'History Data Window' under' Window(W)' menu.

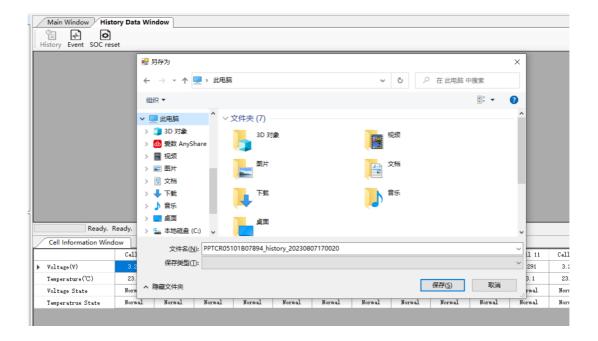




2. Click 'History' for downloading the History data

🖷 Batter	yView 3.0.2	9				
File(F)	Run(R)	Window(W)	Options(O)	Language(<u>L</u>)	About(<u>A</u>)	
Connect	Disconnec	t Start Scan	0 Pause Scan			
	st Window ttery Modul		× Main History	A 0	tory Data Window set	

3. Save the History data to corresponding folder for record.

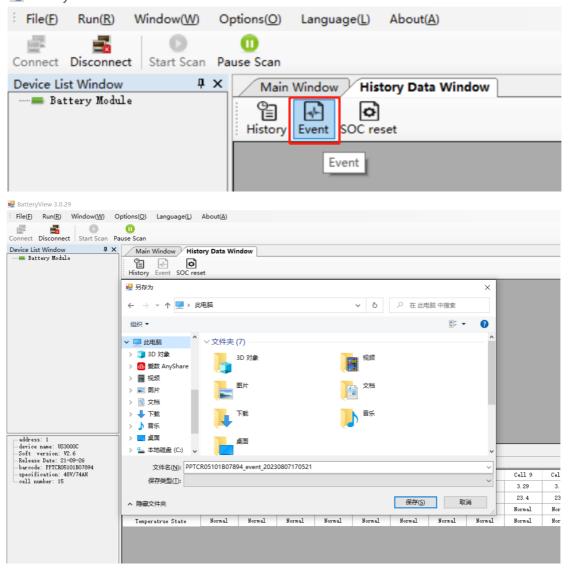




4. Wait for about 1 – 2mins to let BatteryView acquire the entire data.

🛃 BatteryView 3.0.29															-	o ×
File(F) Run(R) Window(W)	Options(O) Language(L)	About(A)														
Connect Disconnect Start Scan	Oause Scan															
Device List Window 🏾 🗛 🗙	Main Window Hist	ory Data Wi	ndow													• ×
Battery Module	History Event SOC res	et														
	-															
- device name: US3000C - Soft version: V2.6	7% Syst	em is acquirir	ng Cycle Data													
Release Date: 21-09-26 barcode: PPTCR05101B07894	Cell Information Wind	low														• ×
- specification: 48V/74AH	ľ	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6	Cell 7	Cell 8	Cell 9	Cell 10	Cell 11	Cell 12	Cell 13	Cell 14	Cell 15
- cell number: 15	Voltage(V)	3.29	3.29	3.29	3.29	3.29	3.291	3.291	3.29	3.29	3.29	3.291	3.29	3.291	3.291	3.29
	Temperature("C)	23.4	23.4	23.4	23.4	23.4	23.3	23.3	23.3	23.3	23.3	23.1	23.1	23.1	23.1	23.1
	Voltage State	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
	Temperatrue State	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
Scanning Battery Module: 1															2023-08-0	7 17:01:47

For Event data acquirement, Click'Event data' as below, then repeat the same steps of History data acquirement. It's more critical to save the Event data in case a failure.
BatteryView 3.0.29





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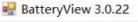
Rink Window Options(Q) Language(L) About(A) Protect Discovered Start Scan Pause Scan Vice List Window Itstory Data Window Battery Robale Main Worker Start Scan Pause Scan Battery Robale Main Worker Vice Scot reset Battery Robale Image Scan Pause Scan Battery Robale Image Scan Pause Scan Battery Robale Image Scan Pause Scan Battery Robale Image Scan Pause Scan Pause Scan Battery Robale Image Scan Pause Scan Battery Robale Image Scan Pause Scan		
Fattery Robils		
Afors: 1 First and 1000 Afors: 1 Define and 1000 Define and 10000 Define and 1000 Define and 1000 Define and 1000 Def		
vrice aans: US000C ft version: V2.6 Jackse Bate: 21:09-26 Cull Information Windows		
vrice aans: US000C ft verzien, 12:6 Lasse Bate: [1:09:26		
lars Date: 2109-26		
arcada: PPTCR05101R07894		
	11 Cell 12 Cell 13 Cell 14	Cell
ll nonber: 15		3.29
Temperature(°C) 23.5 23.5 23.5 23.5 23.5 23.4 23.4 23.4 23.4 23.4 23.4 23.1 23.1	23.1 23.1 23.1	23.1
Voltage State Hormal Bormal	l Normal Normal Normal	Norms
Temperatrue State Normal	l Normal Normal Normal	Norma

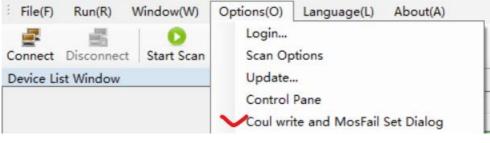
Please remember to save the Event data to your computer as well as History data.

Section C. Special settings for US2000C/US3000C/UP5000

Below settings only need to be set after swap the PCB of US2000C/US3000C/UP5000. Settings only available from Batteryview V3.0.22

- 1. Connect to battery console port
- 2. Choose-options-coul write and mosfail set dialog





- Type in number
- If US2000C: 50 If US3000C: 74
- If UP5000: 100
- Click Write
- Click Set Mosfail test



3.

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Shanghai 201203, China

Coul writ	e and N	NosFail Set Dialo	g				
Please	input b	oattery coul(Ah) Write	:]				
	Set N	DSFAIL test					
	n(R) W	indow(W) Option	s(O) Langua				
Device List Wir	ndow	ά×	Main Wir	Idow			
			Basic Inform				Auxilia
			Battery	Voltage (V)	0. 000		Max C
	Con	trol/Set Window				_	$\square \qquad \times$
	:	troi/set window					
	: Index	Item	Set	Progress	Result	Note	
	O	Set System Time	Det	0%		Set system time	
	1	Clear EEProm		0%		Clear the external EEProm	of the de
	2	Write module bar c	de	0%		write module bar code	
	3	Turn on aging log		0%		Turn on aging log function	
	4	Turn off aging log		0%		Turn off aging log	
	5	Turn on cfet		0%		turn on ofet	
	6	Turn off cfet		0%		Turn off cfet	
	7	Turn on dfet		0%		Turn on dfet	
	8	Turn off dfet		0%		Turn off dfet	
	9	Default Parameters		0%		default the parameters	
					1	• •••	

Set Index number0: this will set BMS time same as your PC Set Index number 2: this will need to type in the SN on label.

Any further questions to this SOP please contact us via service@pylontech.com.cn.

