CANalyst Device

Troubleshooting and Upgrading Hope Battery

By Mohapi France



PIN Definition

CAN-H connects to pin 1

CAN-L connects to pin 2





Insert the crystal head into "LINK-IN" and "LINK out" port , then press the power button about 2-3 seconds ,the battery will power on.



How to check pack port voltage

1. Insert crystal heads to Link in and link out and press power button to start

2. Unplug crystal head from "link in port", insert the head of CAN Device communication tool "link in port" of the pack, and the crystal plug from the Link in port insert into PCS port as shown below.



Now you can connect to the computer.



3. Open the ESS_LV Program and run the "ESS LV Program", the main page is shown below.

Every time you use the program you should configure the serial port firstly, by clicking the "setting" in the menu.



Click the Connect and it will turn to green to show that it is connected and can read data from the battery.

Setting	Connect	Connect Bcu: 0 V ESS_LV_CAN_GeneralMonitor R1.6.4					-	đ	×
Main									
Bcu		58.5%				100.0%			
Bmu					_				
Debug 🔨			150	150 45	0 1 1 10				
History									
DataMigrate			/ 🔨 🎍	ູ້ 🔨 🍡					
ParamWrite			Load Volt: 53.3V	Battery Volt: 53.3V	Current: 0.0A				
ProductInfo		SOC		,		SOH			
BCUInfo									
ModuleInfo									
Upgrade			Max Cell Vol: 3341	Min Cell Vol • 3333	Max Vol. position : 8	Min Vol. position : 2			
		Man_mode. In contor	Max_cell_vol. 5.541	Will Coll Vol. 0.000	Mux_vor_position. o	wini_voi_position. z			
		Max_Cell_T: 25.3	Min_Cell_T: 24.7	Max_T_position: 2	Min_T_position: 1	Work_Mode: STATIC			

Click "BCU-Info" button to enter read version information interface of the battery, secondly click "Read" button to read version information.

If the read is successful, the indicator will light up and be able to check the current firmware version as shown below.

Setting	Connect	Bcu: 0 🗸	Bcu: 0 V ESS_LV_CAN_GeneralMonitor R1.6.4					-	ð	×
Main			EraseForeverAl	larm						
Bcu										
Bmu		V1.2.63	R1.1	V2.2	514100001119	R0.0	V0.0.0			
Debug 🔨										
History										
DataMigrate										
ParamWrite										
ProductInfo	Read									
BCUInfo										
ModuleInfo										
Upgrade										

If the information read above is not the one you are looking for and would like to upgrade the software version and firmware version of the Hope battery., you can navigate to the Upgrade info and enter the button to access the interface.

After entering the software interface, the first step is to click port and select the system you want to upgrade, click the MBMS mode.

Setting	Connect Bcu: 0 🗸	ESS_LV_CAN_GeneralMonitor R1.6.4		– & ×
Main	🗻 BmsUpgrade		- 🗆 X	
Bcu		BmsUpgrade R1.5		
Bmu		C:\Users\Mohapi\Desktop\Hope Battery Files	Openfile	
Debug 🔨				
History	TransProgress		0.00 %	
DataMigrate				
ParamWrite		[0	
ProductInfo	MBMS ~			
BCUInfo				
ModuleInfo				
Upgrade	Connect			
	Start			
	Stop			
	Clear			
			· ·	
	Stop Clear		×	

The second step is to click "Open file" button and select the target file.

Setting	Connect Bcu: 0	✓ ESS_L	V_CAN_GeneralMonit	tor R1.6.4		—	5 X
Main	BmsUpgrade				- 🗆 X		
Bcu	🔀 OpenFileDialog			×			
Bmu	← → * ↑	Desktop > Hope Battery Files > V	ට 🔎 Search Hope Batte	ery Files	Openfile		
Debug 🔨	Organize 🔻 New f	folder			opennie		
History	OneDrive - Tshwa	^ Name	Date modified Ty	ype	0.00 %		
DataMigrate	Recordings	driver	2/14/2023 10:27 AM Fi	ile folder			
ParamWrite	This PC	ESS_LV_CAN_GeneralMonitor R1.6.4	2/14/2023 11:49 AM Fi	ile folder			
ProductInfo	3D Objects	514100001119_R1.1_V1.2.63.bin	2/14/2023 11:44 AM B	IN File	^		
productinio	Desktop						
BCUInto	🔮 Documents						
ModuleInfo	🕹 Downloads						
Upgrade	👌 Music						
	Pictures						
	Videos						
	🏪 Windows (C:)						
	FI	lie name: 514100001119_R1.1_V1.2.63.bin	update file	~			
			Open	Cancel			
	Stop						

The third step is click "Connect" button to make the General Monitor connect to the target system. After connect success, click "start" button to start the upgrade process.

Connect Bcu: 0 🗸	ESS_LV_CAN_GeneralMonitor R1.6.4		– @ ×
🔀 BmsUpgrade		- 🗆 X	
	BmsUpgrade R1.5		
	C:\Users\Mohapi\Desktop\Hope Battery Files	Openfile	
TransProgress		0.00 %	
MBMS	[12:23:08./2/]> Selected upgrade file is C:\Users\Mohapi\Desktop\Hope Battery Files \\514100001119_R1.1_V1.2.63.bin		
	File size: 408554 File crc: 94CE63BD		
	Project code: C3S9CDEA09 Hardware Version:1.1		
Connect			
Start			
Chan			
stop			
Clear			
		~	
	Connect 0 ✓ BmsUpgrade TransProgress MBMS Connect Start	Bruillygrade ESS_LV_CAN_GeneralMonitor R1.6.4 Image: Bruillygrade BmsUpgrade R1.5 C:\Users\Mohapi\Desktop\Hope Battery Files TransProgress Image: Bruilly and the second	Connect BuskUpgrade - × BmskUpgrade - - × BmskUpgrade C:\Users\Mohapi\Desktop\Hope Battery Files Openfile TransProgress 0.00 % MBMS [12:23:08.727]> Selected upgrade file is C:\Users\Mohapi\Desktop\Hope Battery Files Start [12:23:08.727]> Selected upgrade file is C:\Users\Mohapi\Desktop\Hope Battery Files Start [12:23:08.727]> Selected upgrade file is C:\Users\Mohapi\Desktop\Hope Battery Files Start [12:23:08.727]> Selected upgrade file is C:\Users\Mohapi\Desktop\Hope Battery Files Start [12:23:08.727]> Selected upgrade file is C:\Users\Mohapi\Desktop\Hope Battery Files Connect [Start Stop [Clear

Setting	Connect Bcu: <mark>0 ~</mark>	ESS_LV_CAN_GeneralMonitor R1.6.4			- 0	
Main	🔀 BmsUpgrade		_	• ×		
Bcu		BmsUpgrade R1.5				
Bmu		C:\Users\Mohapi\Desktop\Hope Battery Files	Openfile			
Debug 🔨						
History	TransProgress		0.00	%		
DataMigrate						
ParamWrite						
ProductInfo	MBMS ~	[12:23:08.727]> Selected upgrade file is C:\Users\Mohapi\Desktop\Hope Battery Files \514100001119_R1.1_V1.2.63.bin	^			
BCUInfo		File size: 408554 File crc: 94CE63BD				
ModuleInfo		Project code: C3S9CDEA09				
Upgrade	Disconnect					
		[12:23:28.541]> Port open successed				
	Start					
	Stop					
	Class					
	Clear		~			

Setting	Connect	Bcu: 0 🗸	ESS_LV_CAN_GeneralMonitor R1.6.4			—	ð	×
Main	🗷 BmsUp	grade			- 🗆 X			
Bcu			BmsUpgrade R1.5					
Bmu			C:\Users\Mohapi\Desktop\Hope Battery Files					
Debug 🔨								
History	Т	ransProgress		0	.00 %			
DataMigrate								
ParamWrite			[13,22/41 102]	A				
ProductInfo	Ν	MBMS ~	[12:23:41.102]> Start upgrade! [12:23:41.106]> Enter upgrade mode					
BCUInfo								
ModuleInfo								
Upgrade		Disconnect						
		Stort						
		Start						
		Stop						
		Clear						
				\sim				

Setting	Connect Bcu: 0 🗸	ESS_LV_CAN_GeneralMonitor R1.6.4		– & ×
Main	🔀 BmsUpgrade		- 🗆 X	
Bcu		BmsUpgrade R1.5		
Bmu		C:\Users\Mohapi\Desktop\Hope Battery Files	Openfile	
Debug 🔨				
History	TransProgress		61.22 %	
DataMigrate				
ParamWrite				
ProductInfo	MBMS ~	[12:23:41.102]> start upgrade! [12:23:41.106]> Enter upgrade mode	^	
BCUInfo		[12:23:46.668]> Boot Version: 1.1.0 [12:23:46.671]> Enter upgrade mode success.		
ModuleInfo		[12:23:46.673]> Request to receive firmware command		
Upgrade	Disconnect	[12:23:46.681]> Version match		
		[12:23:40.085]> Erase flash [12:23:50.751]> Erase flash success.		
		[12:23:50.755]> Firmware transfer command [12:23:50.759]> Code segment transfer command		
	Start			
	Stop			
	Clear			
	Cicur		~	

When the upgrade success field appears on the interface, the upgrade succeeds as shown below on the picture.

Setting	Connect Bcu: 0 🗸	ESS_LV_CAN_GeneralMonitor R1.6.4	– @ ×
Main	🔉 BmsUpgrade	- 🗆 X	
Bcu		BmsUpgrade R1.5	
Bmu		C:\Users\Mohapi\Desktop\Hope Battery Files Openfile	
Debug 🔨			
History	TransProgress	100 %	
DataMigrate			
ParamWrite			
ProductInfo	MBMS ~	[12:23:41.102]> start upgrade! [12:23:41.106]> Enter upgrade mode	
BCUInfo		[12:23:46.668]> Boot Version: 1.1.0 [12:23:46.671]> Enter upgrade mode success.	
ModuleInfo		[12:23:46.673]> Request to receive firmware command	
Upgrade	Disconnect	[12:23:46.681]> Version match	
		[12:23:40:083]> Erase flash Succeed! [12:23:50:751]> Erase flash success.	
		[12:23:50.755]> Firmware transfer com [12:23:50.759]> Code segment transfer OK	
	Start	[12:24:16.990]> End Cmd [12:24:17.723]> End Cmd success.	
		[12:24:17.726]> upgrade succeeded!	
		[12.24.17.25] *** take 50024.2154 ms	
	Stop		
	Clear		
	Clear		

Finally the battery firmware version has been upgraded.

Setting	Connect Bcu: 0 🗸	ESS_LV_CAN_GeneralMonitor R1.6.4				ð	
Main	📧 BmsUpgrade			-	• ×		
Bcu		BmsUpgrade R1.5					
Bmu		C:\Users\Mohapi\Desktop\Hope Battery Files	Openfile				
Debug 🔨							
History	TransProgress			100	%		
DataMigrate							
ParamWrite							
ProductInfo	MBMS ~	[12:23:41.102]> start upgrade! [12:23:41.106]> Enter upgrade mode	^				
BCUInfo		[12:23:46.668]> Boot Version: 1.1.0 [12:23:46.671]> Enter upgrade mode success.					
ModuleInfo		[12:23:46.673]> Request to receive firmware command					
Upgrade	Disconnect	[12:23:40.070]> Version match					
		[12:23:46.685]> Erase flash [12:23:50.751]> Erase flash success.					
		[12:23:50.755]> Firmware transfer command [12:23:50.759]> Code segment transfer command					
	Start	[12:24:16.990]> End Cmd					
		[12:24:17.726]> upgrade succeeded					
		[12:24:17.729]> take 36624.2154 ms					
	Stop						
	Clear						
			· · ·				

Thank you.