



Pylon Technologies Co., Ltd.

No. 73, Lane 887, Zu Chongzhi Road, Zhangjiang Hi-Tech Park Pudong,
Shanghai 201203, China

Pylontech Product Err Code Explanation

1. High Voltage Product Err Code via Secure CRT/BatteryView HV;

By Secure CRT/BatteryView HV, SYS ERR is using hexadecimal to display. For instance, 0x1000 means bit12 is 1, which further define as external communication timeout; There may have several errors occurred in the same time, for instance 0xF000, means Bit12, Bit13, Bit14&Bit15 are all 1, which further means totally there are 4 errors in the same time.

Before the Err Code reading, if the BMS or MBMS has been upgraded recently, please make sure the **EEPROM** is being cleared follow the upgrade guidance, otherwise the Err Code maybe misinformation.

Bit No. in RS232	Bit No. in Protocol	Description	Action
0	4	external power reverse connection	Reserved
1	3	external power over voltage	Reserved
2	N/A	firmware info error	Reserved
3		serial connection failure or sensor failure	A.Check the communication cable between battery module. B.If cable is okay, swap the PCB of the no LEDs battery module.
4		sleep module error	Reserved
5	1	temp. sensor error	If detect -40°C, change the PCB of the corresponding module. Rest case depends on real condition
6	0	voltage sensor error	If detect 4.999V or 0V, change the PCB of the corresponding module.



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			Rest case depends on real condition
7	9	I2C error	Change the CMU of BMS.
8	2	internal communication offline	Check the communication cable between MBMS and BMS.
9		LTC error	Reserved
10	5	Relay failure	Restart the BMS without connect to PCS/inverter, see whether the problem remain. If problem remain, switch off and open the BMS case, then check: A. Whether it's closed circuit on relay, which means adhesion. A restart can solve the problem. B. Whether the cable from relay to CMU is solid connected. C. If not A or B, change the relay.
11	9	I2C error	Change the CMU of BMS.
12		external communication error	A. Check the ADD switch B. Check the PIN definition of the communication cable between the BMS and inverter C. Use upper controller send protocol message to BMS, see whether there is response or not. D. If not A/B/C, change the CMU of the BMS.
13	10	voltage measurement mismatch	A. Check whether the power/communication cable are connect properly. B. Try to restart the system, see whether the problem remain or not. C. If not A/B, Change the current measurement board in the BMS.
14	10	cell amount mismatch	A. Connect to CRT or Batteryview Console Window;



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			B. For M1 system, insert 'bmsinfo 255' on BMS first to locate the mismatch module. And insert command D on BMS. C. For the Powercube X1/H1, Force H1/H2 system, insert 'info' to each battery module to locate the mismatch module, then insert command D on the mismatch module. D. Use 'bmubatnuminpack [chip] [val]' command to set the correct amount, of which: - [chip] is the module order, counting from 0(from the module with communication cable connect to the BMS). - [val] is the cell amount, for H48050/H48074/FH48074 is 15, H32148 is 10, FH9637 is 30.
15	10	module capacity mismatch	A. Connect to CRT or Batteryview Console Window; B. For M1 system, insert 'bmsinfo 255' on BMS first to locate the mismatch module. And insert command D on BMS. C. For the Powercube X1/H1, Force H1/H2 system, insert 'info' to each battery module to locate the mismatch module, then insert command D on the mismatch module. D. Use 'bmutotalcoul [chip] [val]' command to set the correct amount, of which: [chip] is the module order, counting from 0(from the module with communication cable connect to the BMS). [val] is the cell amount, for H48050 is 50, H48074/FH48074 is 74, H32148 is 148, FH9637 is 37.
16	5	relay adhesion error	A. Make sure there is NO external power supply (PCS/inverter) connect to the BMS during power on. B. For M1 system, first open the breaker and remain the



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			communication with upper controller, see whether the system can powered on successfully or not; then cut-off the external power source, restart the whole system. C. For multiple strings configuration, first cut-off MBMS, wait till all BMS open relay, then restart MBMS. D. If not A/B/C, change the relay
17	6	battery damage error	Extremely low voltage, if the cell voltage is below 2V or module voltage below 30V(For H48050/H48074/FH48074), 20V(for H32148) or 60V(FH9637), then do not reuse the corresponding module.
18	7	switch off circuit error	Swap BMS
	11	Chip error	Swap BMS
	8	BMIC error	A. Restart system, check from which modules` LED is not on B. Swap the communication cable to connect the corresponding module. C. If problem remain, swap the PCB of the module.



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2. Low voltage product error code via Batteryview;

From Batteryview 'main window', the error code is using abbreviation to display in RED/YELLOW square.

Abbr.	Description	Abbr.	Description
BHV	Battery high voltage	POV	Pack over voltage
BLV	Battery low voltage	PUV	Pack under voltage
BHT	Battery High Temperature	PSLP	Pack Sleep
BLT	Battery Low Temperature	POT	Pack over temperature
BOV	Battery over voltage	PUT	Pack under temperature
BUV	Battery under voltage	COCA	Charge over current alarm
BSLP	Battery sleep	COC	Charge over current level 1
BOT	Battery over temperature	COC2	Charge over current level 2
BUT	Battery under temperature	DOCA	Discharge over current alarm
PHV	Pack high voltage	DOC	Discharge over current level 1
PLV	Pack low voltage	DOC2	Discharge over current level 2
PHT	Pack High Temperature	SC	Short circuit
PLT	Pack Low Temperature	Mosfail	Mosfet Error
BMIC	PCBA Internal communication Error		