

Knowledge Base

KB50 - Pylontech LV Battery Charging Procedure

Version 2.2 Date: 25/11/2021

1. Introduction

This document describes the charging procedure required for PylonTech batteries that are completely discharged or are suspected of being faulty. The procedure requires a specialized battery charger which may be borrowed from Redback on an as required basis.

If the battery is found to be defective a claim will need to be submitted to Pylontech, including the *Pylon Warranty Card* and the **Battery Fault Information Form**.

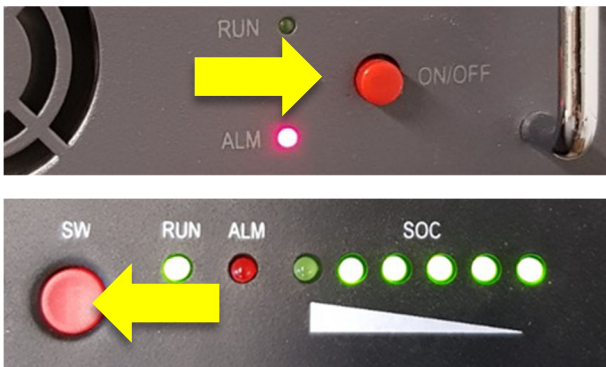
For further information refer to the PylonTech User Manual or contact: karen@redbacktech.com

2. Audience

This document is for use by Redback Installers or Redback Technical staff. It is not for homeowner use.

3. Charging procedure

Step	Procedure	Image/Comment
1.	Ensure the Battery Charger is Power OFF, Plug OUT before connecting any battery. Note: ONLY CHARGE ONE BATTERY AT A TIME	
2.	Make sure the charger is connected correctly with +ve and -ve cables in correct location and the charger power cable is plugged in ready	 
3.	Connect the battery with the positive and negative cables.	

Step	Procedure	Image/Comment								
4.	Switch on the charger. Press the red SW button on the battery.									
5.	If the battery voltage is below its minimum protection voltage of 44.5 the ALM light will illuminate on the charger until the battery is above this voltage.									
6.	Leave the charger on—the charger will appear to be continually resetting—it does this until the Voltage is acceptable, and then the charger ALM LED will go off.									
7.	The charger is a trickle charger—if running normally, the charger can be left on overnight, noting the Battery LED indications below. Normal Charger LED states during charging are:									
8.	Battery LED indications <table><tr><td>PWR</td><td>Indicates battery is alive- the BMS has electricity but no power output yet.</td></tr><tr><td>RUN</td><td>Flashes to show the battery is running.</td></tr><tr><td>ALM</td><td>LED indicates the battery is in an Alarm state. Cease charging if the ALM remains on—there may be a BMS fault and the battery must be analysed by Redback or PylonTech, using the PylonTech Battery View software.</td></tr><tr><td>SOC</td><td>LEDs indicate the battery State of Charge (1/6, 2/6, 3/6 etc). One flashing LED indicates the battery is charging or discharging. The LEDs de-activate when the battery is fully charged and enters Idle mode.</td></tr></table>	PWR	Indicates battery is alive- the BMS has electricity but no power output yet.	RUN	Flashes to show the battery is running.	ALM	LED indicates the battery is in an Alarm state. Cease charging if the ALM remains on—there may be a BMS fault and the battery must be analysed by Redback or PylonTech, using the PylonTech Battery View software.	SOC	LEDs indicate the battery State of Charge (1/6, 2/6, 3/6 etc). One flashing LED indicates the battery is charging or discharging. The LEDs de-activate when the battery is fully charged and enters Idle mode.	
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4. Battery Fault Information Form

Use this form to collect and record battery fault information. Please collect all available information and send to PylonTech or their authorized distributor. Failure to submit relevant information may delay your warranty claim.

SYSTEM INFORMATION

1. Distributor:
2. System location:
3. How many batteries in the parallel system?
4. Date of fault:
5. Faulty battery serial number
6. Inverter brand and model:

FAULT INFORMATION

7. Fault description	8. What time of day did the faulty occur?	9. How many times did the fault occur?	10. How long had the system been used?	11. Real time battery information shown on inverter or inverter monitor system APP.
☐ Will not turn ON	☐ Morning	☐ Dead on arrival	☐ <6 months	Voltage (V):
☐ No communication	☐ Afternoon	☐ From new	☐ <1 year	Current (A):
☐ Not charging	☐ Nightfall	☐ Once or twice	☐ <3 years	SOC (%):
☐ Not discharging	☐ Midnight	☐ Three or more	☐ >3 years	Temperature (°C):
☐ ALM on	☐ Not sure	☐ Daily		
☐ Other:	☐ Other:	☐ Other		

BATTERY STATUS

12. Battery power terminal voltage measured by multimeter/DC voltage meter:											
13. If the battery is visible, please record the Battery LED states by ticking the relevant boxes.	State	RUN (Green)	ALM (Red)	SOC LEDs (Green)							
	ON	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	OFF	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
	FLASHING	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

OTHER SUPPORTING INFORMATION

14. Please attach all necessary photos or videos of, for instance, battery SN label, LEDs status and front panel of whole system (battery view history logs if available) as evidence to support the claim.

Service Manager:

Date: Click or tap to enter a date.