Lithium BLUE – SOC Calibration

CSB Number	855-0014 Rev A
Date	DEC 14 2022

URGENCY

○ **HIGH:** Action immediately

○ **MEDIUM:** Action by next possible occasion

○ **LOW:** Action if necessary

● **GENERAL:** General Information

PRODUCTS AFFECTED

Discover Lithium BLUE Series

MODEL	PART NUMBER
DLB-G24-12V	900-0046
DLB-G24-24V	900-0047
DLB-G24-36V	900-0048
DLB-GC12-12V	900-0049
DLB-GC12-24V	900-0050

SYMPTOM OBSERVED

The SOC reported on the Lithium BLUE Bluetooth App is not in sync with the actual voltage and charge state of the battery, and/or other batteries in the system.

NOTE: Battery functionality is not based on the SOC reading, rather it is based on actual voltage and sensor readings. The SOC is not required to be calibrated for battery function, and voltage can be used as a guideline for when charging is required.

POSSIBLE CAUSE

Low currents (approximately <=7A) during charge and/or discharge may not be factored into the SOC calibration. The SOC is calculated by an algorithm taking usage history and various sensor data factors into account, with some measures only taken at the top and bottom of the SOC range.

FIELD CORRECTIVE ACTIONS

The SOC algorithm calibration may be reset manually in one of two ways:

1) Fully charge and discharge the battery for at least 3 full cycles

2) Force an over voltage protection fault by setting the charge voltage greater than the protection voltage specification:

MODEL	OVER VOLTAGE PROTECTION SPEC
DLB-G24-12V	>14.6V (i.e. 15.0V)
DLB-G24-24V	>29.2V (i.e. 30.0V)
DLB-G24-36V	>43.8V (i.e. 45.0V)
DLB-GC12-12V	>14.6V (i.e. 15.0V)
DLB-GC12-24V	>29.2V (i.e. 30.0V)

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