Application Note

Comba BBUs with LiFePO4 Battery & Extended Commercial Power Outages

Applicable Products:

- PSU-9248 (Modified w60AH LiFePO4 Battery kit)
- CPBBUV1-48055-UL (Modified w60AH LiFePO4 Battery Kit)
- CPBBUV2-48030-UL
- CPBBUV2-48060-UL
- CPBBUV2-48100-UL

Purpose:

The Comba Battery Backup (BBU) is designed to provide reliable DC backup power for the duration of its rated Amp Hour specification with runtimes of 12 to 24 hours to satisfy local codes.

When an extended commercial power outage occurs, e.g. natural disaster event, the Comba BBU is designed to release the DC load after a preset timeframe (low voltage cutoff) to maintain the integrity of the equipment being backed up and the LiFePO4 battery.

The LiFePO4 battery has an onboard battery management system that monitors the health and operation of the battery. During an extended loss of commercial AC power, the Comba BBU and LiFePO4 battery will run until its low voltage threshold is reached. Majority of the time, this is well beyond the calculated Comba BBU uptime for the total equipment load.

Once the LiFePO4 battery low voltage threshold is achieved, the battery management system will disconnect the positive and negative battery terminals from the Comba BBU charger/controller and equipment load, thus shutting off the Comba BBU.

The LiFePO4 battery low voltage disconnection circuit is designed to:

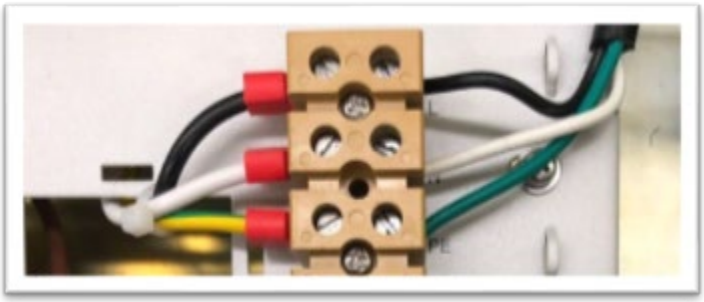
1. Protect its internal cells from damage during an extended commercial power outage
2. Fully recharge the LiFePO4 battery when commercial power has been restored
3. Protect the Comba BBU equipment loads from a low DC voltage

Procedure:

To remedy this shutdown condition, the Comba BBU will need to be initiated in the steps below

CAUTION - High voltage may be present at Step 1, use extreme caution when testing for AC voltage

Step 1 - Verify 120VAC power is present at BBU AC input using a Voltmeter



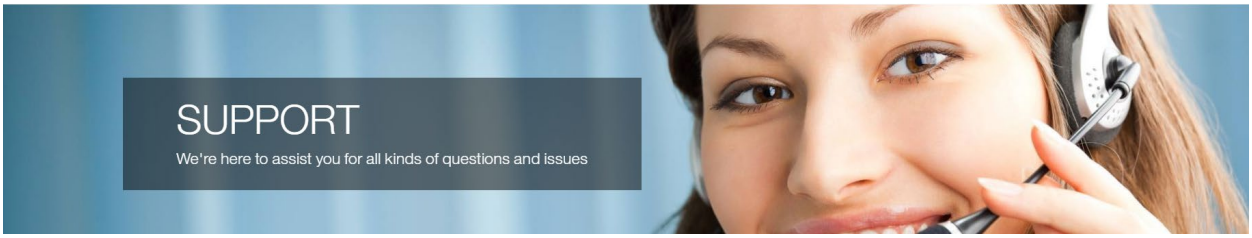
Step 2 – Verify the AC and DC breakers are in the “ON” position

Step 3 - Verify that the DC breaker located on the LiFePO4 battery is in the “ON” position

Step 4 – Press and momentarily hold the RESET button on the top of the LiFePO4 battery until the SOC LED’s illuminate, then release

(Note: pressing the reset button too long will result in the battery cycling back off.)

Support:



Comba technical support is provided 12 hours-a-day, 5 days-a-week (Mon-Fri) from 9:00AM (EST) to 6:00PM (PST).

Our technical support team can be reached at:

Tel: 1-408-526-0180, Ext 3 - (Mon-Fri) from 9:00AM (EST) to 6:00PM (PST)
Email: techsupport@combausa.com

If you need to request an equipment RMA:

Tel: 1-408-526-0180, Ext 3 - (Mon-Fri) from 9:00AM (EST) to 6:00PM (PST)
Email: techsupport@combausa.com
RMA Request Form

If you need sales assistance, please contact Sales at 1-408-526-0180, Ext 1 or email sales@combausa.com