

# LI6K PRO

## Product Manual

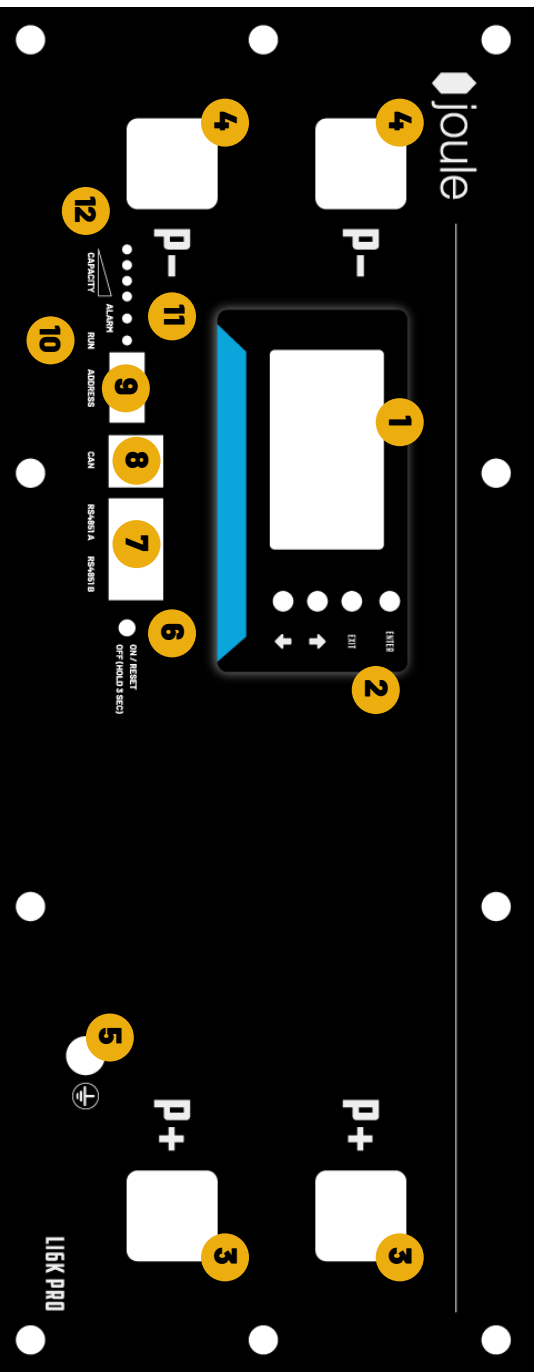


Thank you for purchasing a Joule Case Li6k Pro Battery System. It has been engineered to exacting specifications and we trust it will provide many years of trouble-free operation. Please read this guide thoroughly and observe the safety precautions below.

## **SAFETY PRECAUTIONS**

- ⚠ Installation should be done by qualified personnel in accordance with applicable electrical codes.**
- ⚠ Do not reverse battery polarity.**
- ⚠ Do not connect batteries in series.**
- ⚠ Ensure charger / inverter is programmed with the correct charge voltage. (No higher than 58.8VDC).**
- ⚠ Ensure proper cable sizes are used.**
- ⚠ Apply appropriately sized over-current protection (fuse or circuit breaker) between the output and the load.**
- ⚠ Do not connect solar panels directly to the battery.**
- ⚠ Battery should be turned off when making connections.**
- ⚠ Keep the battery away from flammable materials and sources of ignition.**
- ⚠ Do not connect battery in parallel with other battery brands or types.**
- ⚠ Do not expose the battery to precipitation or extreme temperatures.**
- ⚠ Team lift the battery. It is heavy.**
- ⚠ Use insulated tools.**

# FRONT PANEL CONTROLS AND INDICATORS



- |          |                            |          |                         |           |                              |
|----------|----------------------------|----------|-------------------------|-----------|------------------------------|
| <b>1</b> | LCD Display                | <b>5</b> | Chassis Ground Terminal | <b>9</b>  | Address Setting DIP Switches |
| <b>2</b> | Display Navigation Buttons | <b>6</b> | On/Off Reset Switch     | <b>10</b> | Run Indicator                |
| <b>3</b> | Pack Positive Terminals    | <b>7</b> | RS485 Ports             | <b>11</b> | Alarm Indicator              |
| <b>4</b> | Pack Negative Terminals    | <b>8</b> | CAN Interface Port      | <b>12</b> | LED Capacity Indicator       |

# BASIC OPERATION

Your battery should arrive in the **"OFF"** state. If the battery is not in the **"OFF"** state as indicated by the flashing **Run Indicator (10)**, you should turn the battery off before making any connections.

The battery may be turned off by pressing the **ON/OFF Reset Switch (6)** on the front panel and holding for 3 seconds. The LEDs will flash in sequence and then go out as the battery enters the **"OFF"** state.

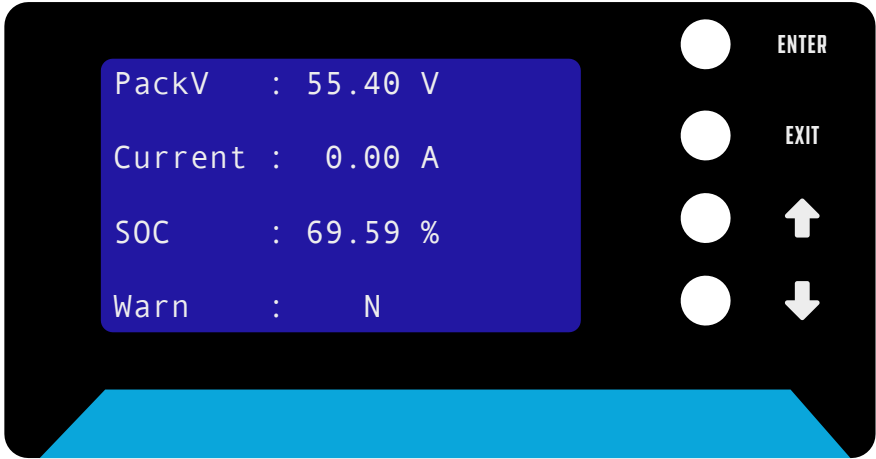
With the battery in the **"OFF"** state, connect battery terminals to the load and/or charger, making sure to observe correct polarity, i.e. connect positive (+) to positive and negative (-) to negative, and using the appropriate wire size for the application.

Turn on battery by momentarily pressing the **ON/OFF Reset Switch (6)**. The front panel LEDs will light in sequence indicating that the battery is on. Your battery is equipped with a 2 second soft-start feature that prevents a large current surge when connected to capacitive loads such as power inverters.

# LCD DISPLAY OPERATION

The LCD display gives useful information about the battery state and condition. Display screen information and navigation is described below.

Any time the battery is in the **"ON"** state, pressing the **<ENTER>** button brings up the home screen below:



**PackV:** Present battery voltage

**Current:** Battery current. Discharge currents are displayed as negative.

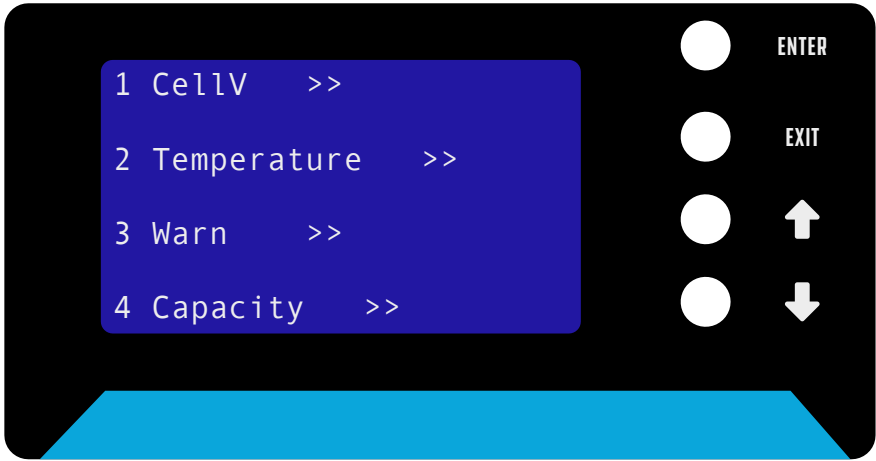
**SOC:** Battery state-of-charge percentage

**Warn:** Displays "Y" if any battery warnings are active, "N" if no warnings are active

After approximately 5 minutes without user input, the display will go blank. Pressing **<ENTER>** will turn the display back on with the home screen displayed.

# LCD DISPLAY OPERATION (CONT.)

From the home screen, pressing <↑> brings up the following information screen:



**CellV:** Displays cell bank voltages (1-14).

**Temperature:** Displays pack temperatures (6).

**Warn:** Provides detailed warning information.

**Capacity:** Displays design capacity, remaining capacity and cycle count.

# LCD DISPLAY OPERATION (CONT.)

When entering this information screen, the "1" will flash next to "CellV", indicating that pressing <ENTER> displays individual cell bank voltages.

Pressing <↓> from this information screen will cause the "2" to flash next to "Temperature", indicating that pressing <ENTER> displays pack temperatures.

Pressing <↓> twice from this information screen will cause the "3" to flash next to "Warn", indicating that pressing <ENTER> displays detailed warning information.


Pressing <↓> three times from this information screen will cause the "4" to flash next to "Capacity", indicating that pressing <ENTER> displays detailed capacity information.

Pressing <EXIT> from this screen returns the display to the home screen.

## SUPPORT

Have questions or need additional support? Reach out to our team of power experts or scan the code below for additional resources.

 [support@joulecase.com](mailto:support@joulecase.com)

 (888) 200-5414

 [www.joulecase.com](http://www.joulecase.com)



# GENERAL SPECIFICATIONS

<b>Voltage, Nominal</b>	51.8V
<b>Operating Voltage</b>	40.0 - 58.8V
<b>Capacity</b>	120Ah
<b>Energy (Nominal)</b>	6000Wh
<b>Chemistry</b>	Lilon NMC
<b>Cycle Life to 70% initial capacity</b>	1200
<b>Maximum Discharge Rate</b>	100A continuous; 120A for 10 seconds
<b>Maximum Charge Rate</b>	60A
<b>BMS</b>	Full suite of voltage, current and temperature protections
<b>Smart system</b>	Pack voltage, cell voltages, current, % remaining
<b>Data bus</b>	Two port RS485, daisy chain-able up to 16
<b>Parallel capability</b>	Yes
<b>LED indicators</b>	4 x LED SOC indicator; run, fault LEDs
<b>Display</b>	2.5" LCD
<b>Dimensions</b>	17.3" W x 22.5" D x 7.8" H
<b>Weight</b>	117 lbs.
<b>Operating Temperature</b>	-10°C to +60°C
<b>Charging Temperature</b>	-0°C to +50°C
<b>Certifications</b>	UL1973 (cell), ROHS