

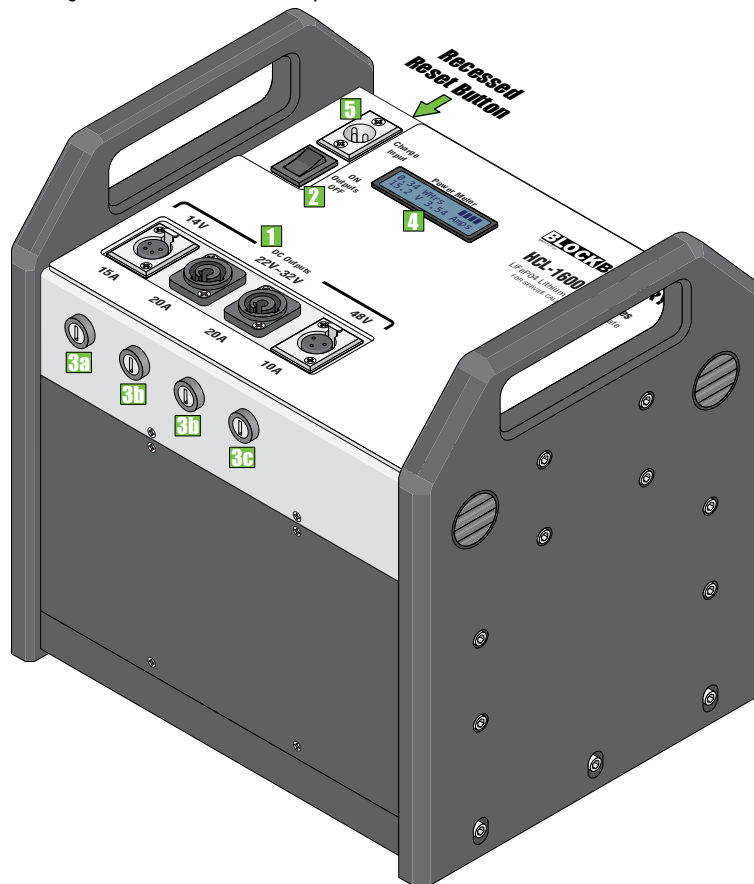
## SMART LITHIUM ION SERIES

# HCL-1600 - 14, 28 and 48 VDC Block

The HCL Series Blocks are the most versatile Block Battery designed for cinematic production applications. Utilizing innovative design concepts, the HCL Series provides an advanced feature set including QuickCell modularity and AutoBalance technology, at the same time. The HCL-1600 comes standard with multiple simultaneous voltage outputs, a nominal 28 vdc output and a regulated 14 and 48 vdc output.

**Fully Assembled (Battery Cartridges Installed)  
The HCL-1600 Must Be Shipped as Hazardous  
Material By Qualified Shipping Company**

See reverse side for transportation rules.



## HCL-1600 Features

### 1 Voltage Outputs:

Dual Voltages

Volts	Connector Type
14V Regulated	4-Pin XLR, Arri Standard (Pin 1 Gnd, Pin 4 Bat +)
22.5V ~ 30V	Speakon mating connector part number: NL2FX
48V	3-Pin XLR, (Pin 1 Gnd, Pin 2 Bat +)

### 2 ON/Off Enable:

Switch **MUST** be turned **ON** first to enable the output power.

### 3 Output Fuses:

- a - 14V Regulated. Max 15 Amps
- b - 22.5~30 VDC 20 Amps per connector.  
20 A fuses, Max total 40 Amps
- c - 48V. Max 10 Amps

### 4 Power Meter:

The Active Discharge screen displays critical output information about the power supplied from the Block Battery. **Note:** Leaving the Block turned **on** while not in use will discharge the Block, It is best to **turn off** the "ON/OFF Enable" switch when not in use. See reverse side for screen descriptions.

### 5 Charge Input:

Use **ONLY** the PSU -185 Charger and cable from Block Battery. The block can be charged and continue to power connected devices if desired. When the charger is connected the Charge LCD screen will automatically turn on (UPS Mode). See reverse side for screen description.

## HCL-1600 Specifications

### HCL-1600 Dimensions:

9.5" (24.1cm) Height x 11.5" (29.2CM) Width x 9.5" (24.1cm) Depth

### HCL-1600 Weight:

HCL-1600 40 lbs (18.14 kg)

### Temperature Recommendations:

Discharge Temperatures -20°C to 50°C (-4°F to 122°F)  
Charge Temperatures 0°C to 50°C (32°F to 122°F)

**AmpHours:** 57AHrs @ 28.8V

**WattHours:** 1654 WHrs

**Charge Time:** 12 Hours for an Empty Battery

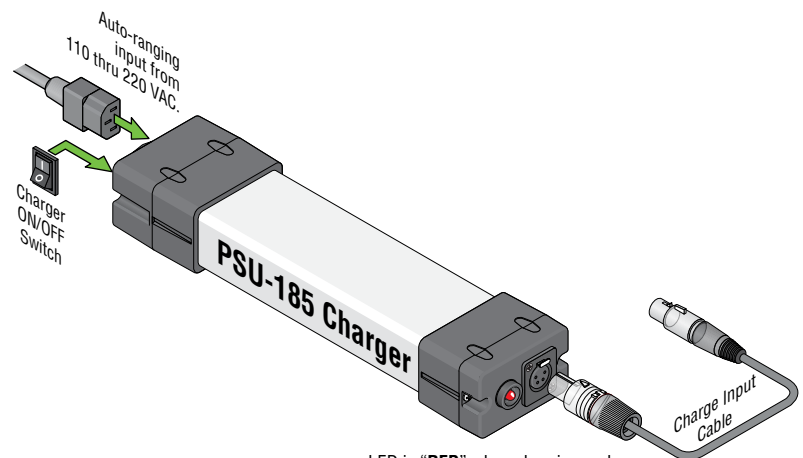
## HCL-1600 Storage

### Short Term HCL-1600 Storage (Up to 1 Week):

- 5°C to 25°C (41°F to 77°F)
- OK to leave on charger
- After depleting an HCL-1600 Battery, it is best to get the battery on a charger within a week.

### Long Term HCL-1600 Storage (More than 1 Week):

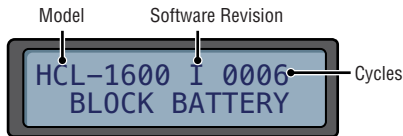
- 5°C to 25°C (41°F to 77°F)
- Fully charge battery
- No output devices connected
- Do not leave charger connected
- Recharge every 3 months



LED is "RED" when charging and "GREEN" when finished charging.

## Screen Display Descriptions

## Disassembly

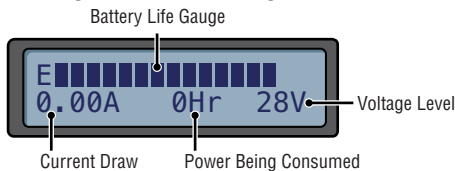


**Sign On Screen:** The Sign on screen displays the Software version and the number of recharge cycles on a block each time a block is initialized.

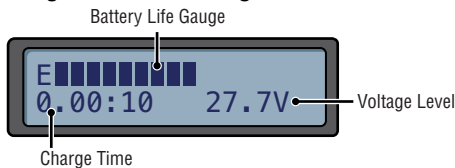


**Balancing Output Screen:** When a block is removed fresh off a charger and turned on immediately, a balancing output message might appear on the LCD screen. The HCL-1600 automatically balances the internal cells each time a charge is complete. This message is only displayed if the block is turned on immediately and is typically on for less than 2 minutes. It is best not to connect a block to a camera when this message is displayed.

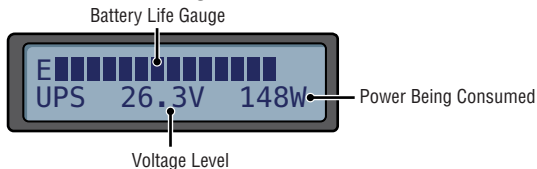
### Discharge Screen (When charger is NOT connected):



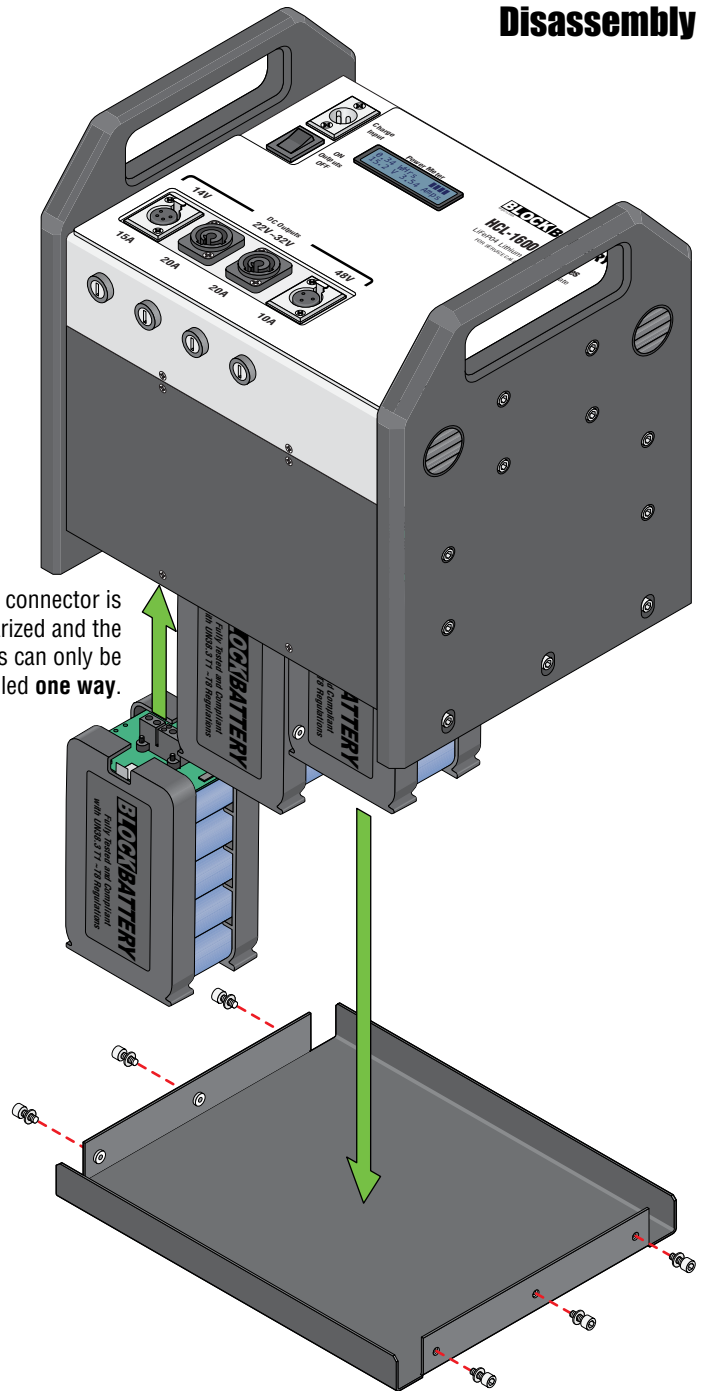
### Charge Screen (When charger is NOT connected):



### UPS Mode (When charger is connected):



Note that the connector is polarized and the cartridges can only be installed **one way**.



## HCL-1600 Transportation Guidelines

The HCL-1600 is a Lithium Ion Block. While we have designed the HCL-1600 block to make it as easy as possible to ship and service the block, we are still restricted to one of **three** types of transportation.

1. A completely assembled HCL-1600 is 1654 WHrs and as such, if you wish to ship a completely assembled block, it must be shipped via an authorized Class 9 Dangerous goods shipper **GROUND SHIPPING ONLY**.
2. The cells in the HCL are easily removed. By removing the six bottom screws, the bottom of the HCL can slide off. The internal cartridges can be simply unplugged for shipping. If you would like to ship the system **GROUND** without shipping as Class 9 Dangerous Goods. Simply ship all 9- 182 WHr cartridges disconnected and individually wrapped in one box (consult the shipper for proper labeling) and the housing in a separate box.
3. **Air Shipments.** It is possible to ship the HCL-1600 using air cargo shipments. Each cartridge is only 97 WHrs @ 3.2v and will need to be discharged to 30% state of charge prior to packing. Remove all cartridges from the battery case and ship them in the same box as the battery case. Be sure to use the proper packaging and labeling for the carrier selected (ie. UN3481 labels).