



# SSL-2054BE

## Smart Battery Pack Operator Manual



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## 1. INTENDED USE

The SSL-2054BE is a 2054-style, smart, li-ion battery pack supplied by Sunoptic Technologies® that is to be integrated into our premier LED Headlight product line.

## 2. WARNINGS

- **NOTE: The batteries must be fully charged before first use.**
- Upon initial receipt and before each use, inspect each battery for damage. Do not attempt to charge a damage battery.
- Do not expose the battery to heat, fire, mechanical shock, or store in direct sunlight.
- Do not open or dismantle the battery
- Do not use this equipment in the presence of a mixture containing flammable anesthetic and/or air or oxygen or nitrous oxide.
- Do not sterilize, immerse, or expose the battery to water, solvents, lubricants, or other chemicals to clean the charger unless otherwise directed. Do not allow water to collect in the battery contacts. Keep clean and dry.
- Do not short-circuit, crush, or shred the battery
- Do not store the batteries haphazardly in a box or drawer in which the batteries may short circuit each other or be short-circuited by other metal objects.
- In the event of a battery leakage, do not allow the liquid to come in contact with skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice.
- Do not use any charger other than a smart battery charger supplied by Sunoptic Technologies®.
- Ensure correct battery orientation is followed before placing into a device.
- Do not attempt to force a battery into a device.
- When possible, remove the battery from equipment when not in use.
- Do not store batteries for more than one month in a discharged state.
- Do not store batteries for more than one year without recharge.

### 3. TECHNICAL SPECIFICATIONS

Item	Specification
Input	17.4V $\overline{\text{---}}$ 2.17A max
Output	15V $\overline{\text{---}}$ 3.2A nominal, 4.25A max.
Operating Temperature	32°F to 113°F (0°C to 45°C) while charging -4°F to 140°F (-20°C to 60°C) while discharging
Storage Temperature	-4°F to 140°F (-20°C to 60°C) max. -20°F to 25°F (-20°C to 77°C) recommended
Contacts	+, C, D, T, -
Dimension (without battery adaptor)	(LxWxH) 3.4in x 3.0in x 0.9in
Weight (without battery adaptor)	0.53lbs
Regulatory Approvals	UL listed, UN 38.3 and CE
Water Resistant	Not Protected Equipment, IPX0

### 4. BATTERY OPERATION



Figure 1. The SSL-2054BE Battery

**FUEL GAUGE:** Each SSL-2054BE battery is equipped with a fuel gauge that displays the relative charge state of the battery. To activate the fuel gauge, press the small circular button next to the gauge. Each LED on the fuel gauge represents 25% of the fully charged capacity. Below is the fuel gauge legend:

- All four LEDs illuminated – Capacity = 76 – 100%
- Three LEDs illuminated – Capacity = 51 – 75%
- Two LEDs illuminated – Capacity = 26 – 50%
- One LED illuminated – Capacity = 10 – 25%
- One blinking LED – Capacity < 10%

**CHARGING:** The SSL-2054BE should only be charged with Sunoptic Technologies supplied smart battery chargers. To charge, orient the battery to line up the charger

and battery contacts, and place the battery into the slot. Do not force the battery into the slot. Refer to the charger IFU for a detailed operation.

**ABOUT SMBus and SBS:** The Smart Battery System defines the parameters that are stored by an SBS-compliant battery. These parameters include full battery status and fuel gauging information. The System Management Bus is the language by which these parameters are communicated between the battery, the charger and the host device.

NOTE: The SSL-2054BE no longer requires fuel gauge re-calibration.

## 5. CLEANING INSTRUCTIONS

- Remove the battery from the host device.
- Clean the exterior of the battery with a cloth that has been dampened (not dripping) using a hospital disinfectant. Follow applicable hospital protocols during cleaning and dry immediately.

## 6. USER SERVICE

The SSL-2054BE has no user or field serviceable components. It can only be serviced at the factory by factory trained technicians.

## 7. REPLACEMENT PARTS

For replacement parts, additional or optional equipment :  
Please call Customer Service @ 877-677-2832

## 8. LIMITED WARRANTY

Your battery carry a one year warranty from the date of shipment on workmanship and all defects of material. Should your product prove to have such defects **Sunoptic Technologies®** will repair or replace the product or component part without charge. Please contact **Sunoptic Technologies®** for return authorization documentation.

You should carefully pack the unit in a sturdy carton and ship it to the factory. Please include a note describing the defects, your name, telephone number and a return address. Warranty does not cover equipment subject to misuse, accidental damage, normal wear and tear or if transferred to a new owner without authorization from **Sunoptic Technologies®**. This warranty gives you specific legal rights and you may also have other rights that vary from state to state.

**POST WARRANTY REPAIRS:** You may return your product(s) for repair, shipping prepaid to the factory. Your product will be inspected and an estimate of repair charges will be submitted to you for approval. Payment must be received before repairs are completed.

- In the U.S call: 877 667-2832 (toll free)
- Customer Service 904 737-7611

## 9. END OF PRODUCT LIFE







In accordance with the European Waste from Electrical and Electronic Equipment (WEEE) directive, we encourage our customers to recycle this product whenever possible. Disposal of this unit must be performed in accordance with the applicable local environmental regulations.

In the US a list of recyclers in your area can be found at: <http://www.eiae.org/>.

Please contact customer service to issue a return authorization to return product to manufacturer at the end of product life.



## 10. SYMBOLOGY

GRAPHIC	DESCRIPTION
	Indicates suitability for direct current only.
	Caution, consult accompanying documents
	Certifies that the electromagnetic interference from the device is under limits approved by the Federal Communications Commission.
	Consult Instructions for Use
	CE mark
	Not for disposal in general waste