

# CH0002 Battery Charger

## Operation Manual



**Ultralife Corporation**  
2000 Technology Parkway, Newark, NY 14513 USA  
Telephone: (315) 332-7100 FAX: (315) 331-7800  
E-MAIL: [sales@ulbi.com](mailto:sales@ulbi.com)  
[www.ultralifecorporation.com](http://www.ultralifecorporation.com)

## Copyright

Copyright © 2011, Ultralife Corporation. All Rights Reserved.

## Disclaimer of Liability

Information and descriptions contained in this manual are the property of Ultralife Corporation. Distribution and/or reproduction in part or in whole are expressly forbidden without written consent.

Ultralife Corporation believes that information in this publication is accurate as of its publication date. Ultralife Corporation reserves the right to change the contents without prior notice and is not responsible for any inadvertent errors.

Ultralife Corporation  
2000 Technology Parkway  
Newark, New York 14513  
Phone: (315) 332-7100  
Fax: (315) 331-7800  
Email: [sales@ulbi.com](mailto:sales@ulbi.com)  
[www.ultralifecorporation.com](http://www.ultralifecorporation.com)

## CONTENTS

1. Before You Begin .....	4
2. Function .....	4
3. Connection Instructions.....	4
4. Charging .....	5
5. Maintenance Charging .....	5
6. Error Conditions .....	5
7. Status Light Indications: .....	5
8. Charger Specifications: .....	5



## USE ONLY WITH UBI-2590 (UBBL02, UBBL10, UBBL13) LITHIUM-ION BATTERY

### 1. Before You Begin

- 1.1. The charger consists of three parts: a line cord, a power supply (PS2524), and a charge control module that has a charge cable attached. Make certain the line cord is the proper type for your application (i.e. the plug is correct for your wall outlet.)
- 1.2. The charger is designed for use between 0°C and 45°C (32°F and 113°F.) Failure to operate charger in this range will result in reduced battery capacity and/or ability of safety devices to activate.

### 2. Function

- 2.1. The charger is designed to charge each section of any UBI-2590 battery independently. This assures that the two sections of the battery are both fully charged and assists in maintaining proper charge balance within the battery.

### 3. Connection Instructions

- 3.1. Connect the line cord to the power supply.
- 3.2. Connect the power supply to the charge control module.
- 3.3. The charge control module has a built-in mating connector that will connect to any of the UBI-2590 batteries. Carefully orient the connector so that Pin 1 matches Pin 1 on the battery connector. Press the connector firmly into the battery.

**NOTE:** Although the connector is keyed, failure to orient it properly can cause damage to battery and/or charger.

- 3.4. The charger will automatically detect the presence of a connected battery and initiate the charging sequence. This is identified by the blinking green lights on the charger.

#### **4. Charging**

- 4.1. The charger will charge both battery sections until each section is fully charged. The green lights will blink during charging.
- 4.2. Once charging is completed, the green lights will stop flashing and remain solid.
- 4.3. Each battery section may complete charging at different times, which is due to small differences in capacity between the battery sections. Wait for both green lights to remain solid before removing the battery from the charger.

#### **5. Maintenance Charging**

- 5.1. If left connected to the battery, the charger will initiate a low rate charge every 24 hours to maintain a fully charged battery.

#### **6. Error Conditions**

- 6.1. If an error condition is detected the red light will blink.

#### **7. Status Light Indications:**

- 7.1. Off - No battery detected
- 7.2. Green blinking - Charging
- 7.3. Green steady on - Charging Complete
- 7.4. Red blinking Error: Shorted terminals or invalid battery chemistry

#### **8. Charger Specifications:**

- 8.1. See UBI-5134