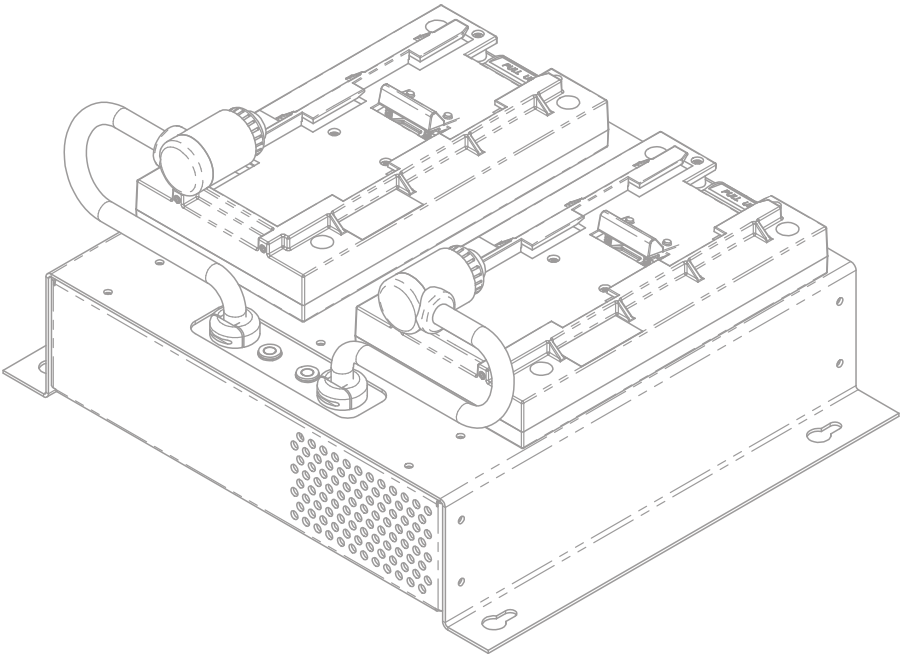


# Owner's Manual



## RAMFAN LITHIUM ION DUAL BATTERY CHARGER

R2C-5500AC

R2C-5500AC230

R2C-5500DC

**Model Numbers:**

Dual Battery Charger, 115VAC Input

Dual Battery Charger, 230VAC Input

Dual Battery Charger, 12-24VDC Input



**Euramco  
Group**

Thank you for purchasing the RAMFAN® Dual Battery Charger manufactured in the USA by Euramco Group.

For more than 30 years Euramco Group has been on the cutting edge of industrial, fire, and marine ventilation products. Each of our blower/exhausters, smoke ejectors, PPV & LSV fans and accessories represent the finest technologies available. Every product is constructed to demanding and exact specifications for quality, performance, and reliability.

Explore our website and online catalog at [www.euramco.com](http://www.euramco.com) and discover how RAMFAN products can make a difference in the field!

All product information in the publication is based on the most current information available at the time of printing. Euramco Group reserves the right to make changes at any time without notice.

## General Safety Rules

### 1. SAFETY GUIDELINES

- Read and understand this manual before use.
- Always check charger, connection cable, extension cable and plug for damage and deterioration and repair as required before use.
- Keep the cables away from heat sources, oil and sharp edges.
- Store chargers outside the reach of children.
- Charger may not be exposed to rain or condensing humidity. Exposure to rain or condensing humidity can cause battery charger to malfunction and increase risk of shock hazards.
- Safe handling of the charger is only guaranteed if the safety and operating information are carefully read and adhered to.
- Do not use any chargers in an explosive environment such as in the vicinity of flammable liquids, gases or dust.

### 2. USE AND CARE

- Take proper care of the charger. Keep an eye out for defective connections, defects and all other conditions that may affect the device's operation. If any damage, repair the charger before use.
- The charger may only be used with RAMFAN battery packs. The use of other batteries can cause damage, injury or fire.
- Battery pack(s) should not be stored for longer than 12 months without charging, to maintain lifetime reliability.
- The Charger is for charging RAMFAN 40V, 6AH Li-Ion battery packs, part# R2-360-AH-U only.
- Battery packs should not be used in the vicinity of metallic objects such as paper clips, coins, nails, screws or other small metallic objects that could bridge and short out battery connection terminals.
- Improper use of battery packs can lead to fluid leaking from the battery; avoid any physical contact with the fluid. If you accidentally come into contact with this, wash the area concerned thoroughly with water. Seek medical assistance if the fluid gets into the eyes.

### 3. MAINTENANCE

- No user serviceable parts. Only allow qualified individuals to maintain the charger. This will ensure the long-term safety of the charger.

### 4. CAUTION

- Battery packs at temperatures above 105°F / 40°C or below 4°F / -20°C will not accept a charge.



## CONTENTS

|   |   |
|---|---|
| <b>Basic Functions</b> .....              | 4 |
| <b>Specifications</b> .....               | 4 |
| <b>Installation</b> .....                 | 4 |
| <b>Charging Status</b> .....              | 5 |
| <b>Electrical Connections</b> .....       | 5 |
| <b>Backpack Installations</b> .....       | 5 |
| <b>Warranty</b> .....                     | 6 |
| <b>Customer Service</b> .....             | 6 |
| <b>Disposal</b> .....                     | 6 |
| <b>EC Declaration of Conformity</b> ..... | 7 |

## Basic Functions

- Microprocessor-controlled charging system, up to 6 hour charge time for RAMFAN 40V Li-Ion battery packs depending on the battery pack's discharge state
- Charge two RAMFAN 40V Li-Ion battery packs simultaneously
- Defective battery detection

## Specifications

|                                   |  |
|-----------------------------------|--|
| <b>INPUT POWER:</b>               | 115VAC, 230VAC, 100 WATTS<br>12VDC, 24VDC, 100 WATTS   |
| <b>OUTPUT:</b>                    | Dual Channel, 42VDC, 1 Amp per Battery Pack Channel  |
| <b>CHARGE TIME:</b>               | 6 Hour Nominal   |
| <b>OVER-CHARGE PROTECTION:</b>    | Charger shuts down if Battery Pack charge current does not drop to 150 milliamps within 9 hours  |
| <b>UNDER VOLTAGE DISABLE:</b>     | Charger disabled if battery pack voltage is less than 6VDC   |
| <b>SIZE:<br/>(W X L X H)</b>      | 11-3/8" x 9-1/2" x 3-5/8" without Battery Packs   28.9 cm x 24.1 cm x 9.2 cm<br>11-3/8" x 9-1/2" x 6-1/2" with Battery Pack(s)   28.9 cm x 24.1 cm x 16.5 cm |
| <b>WEIGHT:</b>                    | 17 lbs (7.71Kg) with two Battery packs   |
| <b>OPERATING ENVIRONMENT:</b>     | -20 °C to 50 °C, 95% RH  |
| <b>NON-OPERATING ENVIRONMENT:</b> | -40 °C to 85 °C, 95% RH  |
| ROHS COMPLIANCE 6/6               |  |

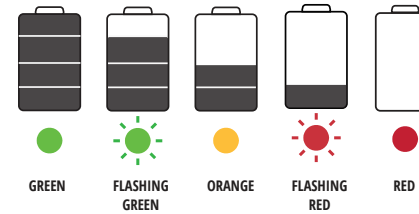
## Installation

- Can be mounted on vertical or horizontal surfaces
- Space should have ventilation to ensure ambient temperature does not exceed 50 °C
- Use drill template provided with each charger to determine best mounting location
- Pick space such that the fan finger guard or vent holes are not blocked
- Pick a dry location

Batteries should not be stored for longer than 12 months without charging, to maintain lifetime reliability."

## Charging Status

The charger will examine connected batteries' voltage



### Indicator Lights During Charge:

|                          |   |
|--------------------------|---|
| <b>SOLID GREEN</b>       | Battery pack voltage above 40VDC<br>Battery pack fully charged    |
| <b>1 SEC GREEN FLASH</b> | Battery pack is between 38 and 40VDC                              |
| <b>SOLID ORANGE</b>      | Battery pack is between 33 and 38VDC                              |
| <b>1 SEC RED FLASH</b>   | Battery pack between 27 and 33VDC                                 |
| <b>SOLID RED</b>         | Battery pack voltage below 27VDC                                  |
| <b>½ SEC RED FLASH</b>   | Battery pack failed to in 9 hours, or Battery pack less than 6VDC |
| <b>OFF</b>               | No AC or DC input power or no battery pack                        |

## Electrical Connections

**Three models to support various input power application:** 85-260V with NEMA plug, 85-260V with Schuko plug, and 12-24DC.

**AC Models:** Insert AC plug into the appropriate AC power receptacle. The AC input battery charger models are built around a universal (85 - 260AC, 50 / 60Hz) input power supply. Only the AC plug determines the input voltage to be 115VAC or 230VAC.

**DC Models:** Will work with 12VDC or 24VDC input.

Charger is not equipped with a power switch and there is no reason to cycle power ON & OFF.

Charger automatically turns ON when input power is applied to the charger. Both Battery status LEDs will flash at a rate of two flashes per second for 10 seconds and then turn OFF until battery pack(s) have been connected to charger.

## Battery Pack Installation

The battery charger will hold and charge two battery packs at one time. Charger will function with one or two battery packs installed.

Align battery pack with holder and drive battery into position until a loud click is heard. Attach charging cables to the battery pack(s).

Battery charger will determine if batteries are attached, measure & report battery charge / fuel level, and initiate a charge cycle.

Typical charge time for a fully discharged battery is approximately 6 hours. Partially discharged batteries will take less time.

### NOTES:

- Charger is not supplied with an ON / OFF power switch.
- Charger is active as soon as input power is applied.
- **GREEN LED** lights flash 20 times over a 10 second period when power is first applied to the Dual channel Battery Charger.
- LED lights will remain OFF until a battery pack is connected to the charger.
- Battery pack charge status will be reported by the LED status lights.

## Warranty

Battery Charger comes with a 12 month limited warranty. This does not cover damage due to improper handling. For information please visit [www.euramco.com](http://www.euramco.com).

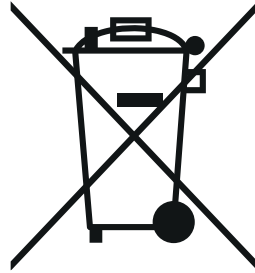
## Customer Service and Advice

The customer service department will answer your questions regarding repairs and maintenance for your product as well as regarding spare parts and operation. You can also find further information at [www.euramco.com](http://www.euramco.com).

## Disposal

Charging devices, accessories and packaging should be recycled in an environmentally-friendly manner.

Only for EU countries: Do not dispose of charging devices in household waste. In accordance with the European Directive 2012/19/EC on Waste Electrical and Electronic Equipment and its implementation into national law, unserviceable chargers should be collected separately and recycled in an environmentally-friendly manner.



### Environmentally Safe Battery Disposal

Battery pack(s) contain Li-ion, a toxic material. All toxic materials must be disposed of in a specified manner to prevent contamination of the environment. Before disposing of damaged or worn out Lithium-ion battery packs, contact your local waste disposal agency, or the local Environmental Protection Agency for information and specific instructions. Take the batteries to a local recycling and/or disposal center, certified for Li-ion disposal.



## EC Declaration of Conformity



### DECLARATION OF CONFORMITY

In respect of the following Directives:

**Council of European Communities Directives**

Machinery Directive 2006/ 42/EC

**Also the following European Directives for our Electric Fans**

2006/95/EC (Low Voltage Directive)

2004/108/EC (EMC Directive)

**Standard(s) to which conformity is declared:**

EN 294 (Safety of Machinery – Safety Distances to Prevent Danger Zones Being Reached by the Upper Limbs)

EN 953 (Safety of Machinery –Guards – General Requirements for the Design and Construction of Fixed and Movable Guards)

EN 50081-2 (Electromagnetic Compatibility Generic Emission - Industrial)

EN 61000-6-2 (Electromagnetic Compatibility – Immunity for Industrial Environments)

**Manufacturer's Name:** Euramco Group

**Manufacturer's Address:** 2746 Via Orange Way  
Spring Valley, CA 91978  
USA

**Type of Equipment:** Battery Charger

**Model No:** R2C-5500AC Universal AC Input, 42VDC @ 2 Amp Output  
R2C-5500AC230 Universal AC Input, 42VDC @ 2 Amp Output  
R2C-5500DC 12-24VDC Input, 42VDC @ 2 Amp Output

**Year of Manufacture:** 2017

Euramco Safety Inc. hereby declares that above equipment conforms to the relevant Essential Health and Safety Requirements of the European Machinery Directive 2006/42/EC and the additional Directives and Standards listed above.

  
Gary E. Clemens

Material Control Manager

May 19, 2017

Date

05-19-2017



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