

19.06.2026

User Manual

BALTERTECH CHARGER

- Finesse
- Junior
- Liberty



Please note that due to variations or special requirements in the various markets, there may be additional information as appendices or included in the user guide.

For the visually impaired, this and other guides can be downloaded from our website and enlarged on a PC or other electronic aid.

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1. INTRODUCTION

1.1. About this manual

This document is a supplement to the product's user documentation.

This component itself does not bear a CE and a UKCA mark but is part of a product that complies with the Medical Device Regulation 2017/745, Class I and Part II UK MDR 2002 (as amended) Class I concerning medical devices. It is therefore covered by the product's CE and UKCA marking. See the product's user documentation for more information.

Only use this component if you have read and understood this manual. Seek additional advice from a healthcare professional who is familiar with your medical condition and clarify any questions regarding the correct use and necessary adjustment with the healthcare professional.

Note that there may be sections in this document, which are not relevant to your component, since this document applies to all available models (on the date of printing). If not otherwise stated, each section in this document refers to all models of the component.

Baldertech reserves the right to alter component specifications without further notice.

Before reading this document, make sure you have the latest version. You find the latest version as a PDF on our website www.baldertech.com.

1.2. Use of hazard symbols

Symbols and signal words are used in this manual and apply to hazards or unsafe practices which could result in personal injury or property damage. See the information below for definitions of the signal words.



WARNING

Indicates a hazardous situation that could result in serious injury or death if it is not avoided.



CAUTION

Indicates a hazardous situation that could result in minor or slight injury if it is not avoided.

NOTE

Indicates a hazardous situation that could result in damage to property if it is not avoided.

TIPS

Gives useful tips, recommendations and information for efficient, trouble-free use.

1.3. Available documentation

If you have problems reading this manual, it is also available in electronic format so that the text and pictures can be enlarged, etc. if so required. Contact your local dealer if you need an electronic copy. This manual and complete Technical Handbook including Service information is also available for download as a PDF file from our website www.baldertech.com.

1.4. The environment

These component must be sorted at source in accordance with applicable regulations on waste. Batteries and electronic equipment in particular must be taken into account.

1.5. Warranty

The terms and conditions of the warranty are part of the general terms and conditions particular to the individual countries in which this product is sold.

1.5.1. TERMS OF WARRANTY

Fulfillment of the warranty by Baldertech AS is conditional on the following terms:

Adjustments, service, and maintenance must be carried out by Baldertech AS authorized service partners.

The products must be used for their intended purpose in accordance with the Owner's Manual.

Repairs and maintenance must be carried out by skilled service personnel.

1.5.2. WARRANTY EXCLUSIONS

The Baldertech AS warranty does not apply in the following circumstances:

- If the terms of the warranty are not met
- Incorrect use of the component
- Incorrect storage and transport
- Incorrect adaptations or use of parts not supplied by Baldertech AS
- Repairs or adaptations carried out by non-Baldertech AS authorized personnel
- Damage caused by force majeure
- If the service schedule is not followed

1.5.3. SERVICE AND SUPPORT

We recommend the component to be inspected by an authorized service partner once per year for your own safety and for the product to function smoothly.

All Baldertech electronic components are identified with a unique serial number on the product label.

Always provide the serial number when contacting your supplier.

If you are in need of technical support, please contact your dealer. See "Contact Information". See "Routine Maintenance" form in Balder Service Information.

2. SAFETY

2.1. General safety notes related to charging of batteries



WARNING

Explosive gases may be generated during battery charging. Keep the wheelchair and battery charger away from all ignition sources such as open flames, sparks, welding equipment, and smoking materials.



WARNING

Charging shall be carried out with the wheelchair located in a space having a volume of at least twice the volume of the wheelchair and with sufficient ventilation to prevent the accumulation of flammable gases.



WARNING

The charger shall only be used for charging batteries of the specified type and capacity. Use of incorrect battery types may result in damage to the battery, charger, or injury to persons.



CAUTION

This off-board battery charger shall not be connected to and carried on the wheelchair during operation or transportation.

NOTICE

Risk of damage to the connector pins.

If you touch the connector pins, they can become dirty or they can be damaged.

- Do not touch the connector pins.

NOTICE

Risk of damage to the device. There are no user-serviceable parts inside any case.

- Do not open or disassemble any case.

3. COMPONENTS

3.1. Charger

The charger is intended for charging rechargeable lead-acid batteries, including AGM (Absorbent Glass Mat) and Gel batteries.

The following approved battery charger shall be used for charging:

Mascot 3540

Type: Mascot 3540 Baldertech Charger

Charger configuration: Off-board battery charger (external charger)

Input voltage: 230 VAC, 50 Hz

Rated DC output current: 10 A DC

Rated DC output voltage: 24 V DC battery system

Rated capacity (C5) of batteries: 50-500 Ah

Charging voltage: 29.4 V DC

Float voltage: 27.4 V DC

Charging connector pin assignment:

Pin 1: Positive (+)

Pin 2: Negative (-)

Pin 3: Inhibit (drive lockout)



3.2. Batteries

The Balder powered wheelchair is equipped with two 12 V batteries connected in series to form a 24 V battery system.

Wheelchairs with serial numbers above 9200 use AGM batteries, while wheelchairs with serial numbers below 9200 use Gel batteries.

This document covers AGM batteries only. However, the charger is also compatible with the Gel batteries used in wheelchairs with serial numbers below 9200:

Cellpower CPC 62-12

Type: Cellpower CPC 62-12

Nominal capacity (1.70V/c, 25°C):

20Hr: 66.40 Ah

10Hr: 65.00 Ah

5Hr: 56.00 Ah

Internal resistance: $\leq 6.8\text{m}\Omega$ (fully charged)

Maximum charge current: 18.6 A

Maximum discharge current: 744 A (max. 5 sec)

Number of cycles: 600 (50% D.O.D.)

Float use/cyclic use: 13.5 - 13.8V / 14.4 - 15.0V

Charge temperature range: -15°C ~ 40°C



4. CHARGING

4.1. Charging Procedure

For more details and information on where to find the charging socket on your chair, please look in the user manual that followed your chair.

- Switch off the wheelchair.
- Ensure that the charging area is dry and well ventilated.
- Connect the charger to the wheelchair charging socket.
- Connect the charger to the mains supply.
- Charging will start automatically.

4.2. Charging Indicators

The charger automatically regulates charging current and charging voltage throughout the charging process.

When the batteries are fully charged, the charger automatically switches to float charging mode. The charger may remain connected to the batteries without risk of overcharging.

The battery charging status is shown on the charger's LED indicator:

Indicator	Meaning
Yellow	Fast charging
Flashing Yellow	Top charging
Green	Battery fully charged / float charging
Flashing Green	Battery not connected

4.3. Use Before Charging Is Complete

If necessary, the wheelchair may be used before the charger indicates a full charge. However, for maximum battery life it is recommended that the charging cycle be completed whenever practical.

4.4. Disconnecting After Charging

When charging is complete:

- Disconnect the battery charger from the mains supply first.
- Then disconnect the battery charger from the wheelchair.

This sequence shall always be followed.

4.5. Automatic Charging Functions

The charger is equipped with an automatic charging function that controls charging current and charging voltage throughout the charging cycle:

- Fast charging (constant current).
- Top charging (constant voltage).
- Float charging (maintenance charging).

When the batteries are fully charged, the charger automatically switches to float charging mode to maintain battery capacity without overcharging.

The battery charger is also equipped with a temperature sensor that monitors the ambient temperature during the charging process. The sensor enables the charger to automatically adjust the charging voltage according to the ambient temperature.

At low temperatures, the charging voltage is increased to ensure a full charge, while at high temperatures the charging voltage is reduced to protect the batteries from overheating and overcharging.

Temperature-compensated charging contributes to:

- Increased battery service life.
- Safer charging.
- Improved charging efficiency.
- Reduced risk of battery damage.

4.6. Fault Indications

The charger have a built in diagnose functions that can detect the following errors:

Indicator	Meaning
2 red flashes	Reverse battery polarity
3 red flashes	Charger output short circuit
4 red flashes	Low battery voltage
5 red flashes	Safety timer expired
6 red flashes	Defective battery

If a fault persists, the batteries and charger shall be inspected by qualified service personnel.

For more details, see the manufacturers general usemanual for the Mascot 3540 charger.



5. CONTACTS

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Label serial number

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