

INSTRUCTION MANUAL

e455 MULTI CHEMISTRY CHARGER

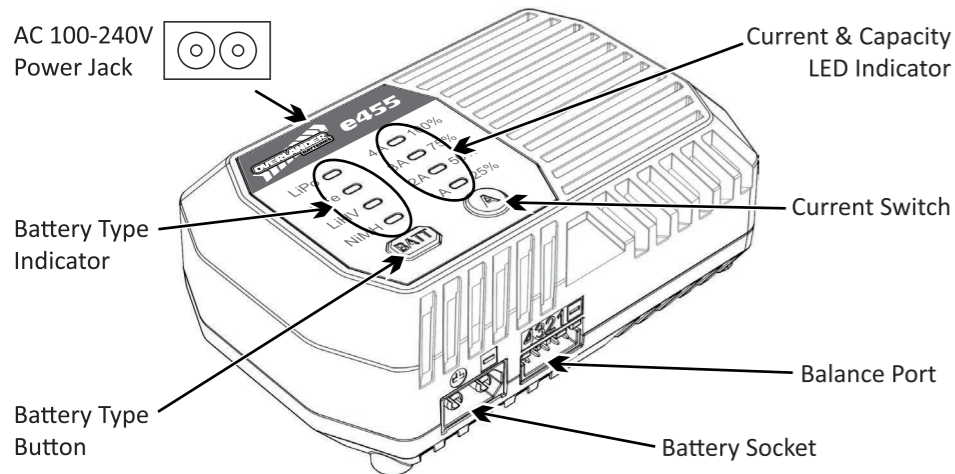


INTRODUCTION



Read this entire operating manual before using the charger!

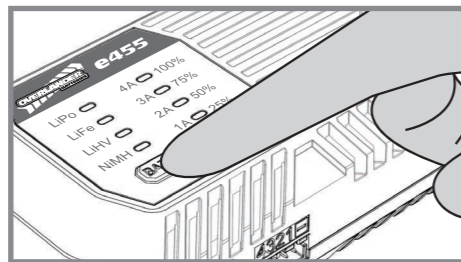
The Overlander e455 charger is a 100-240V AC balance charger designed for 2-4 cell LiPo, LiFe and LiHV batteries and 6-8 cell NiMH batteries. The circuit power is 50W and the maximum charge current is 4A. There are four charge currents to choose from in accordance to battery capacity (1A/2A/3A/4A).



OPERATION

The Overlander e455 comes with an in-built power supply. You can connect the AC power cord to an AC power socket (100-240V) directly. Refer to the following steps to charge the battery.

- 1) Insert the AC power cord into the charger.
- 2) Insert the AC cord into a wall socket (100-240V). The battery type LED (default LiPo) and the charge current LED (default 2A) will glow constant white.
- 3) Connect the battery balance wire to the balance port and select the battery type (LiPo/LiFe/LiHV) by pressing the "BATT" button.



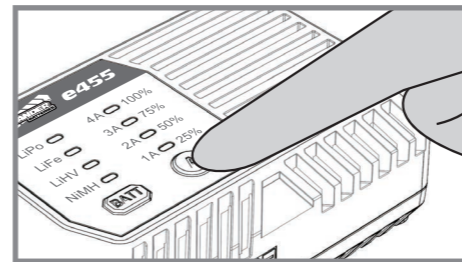
Select Battery Type

- 4) Select the correct charging current (1A/2A/3A/4A) by pressing the "A" button.

The charge current varies from 1A (1000mA) to 4A (4000mA). The recommended charge current is 1C (battery capacity = charge current).

Example: 2200mAh LiPo capacity: 1C=2200mA (=2.2A) charge current. Choose 2A to charge the battery.

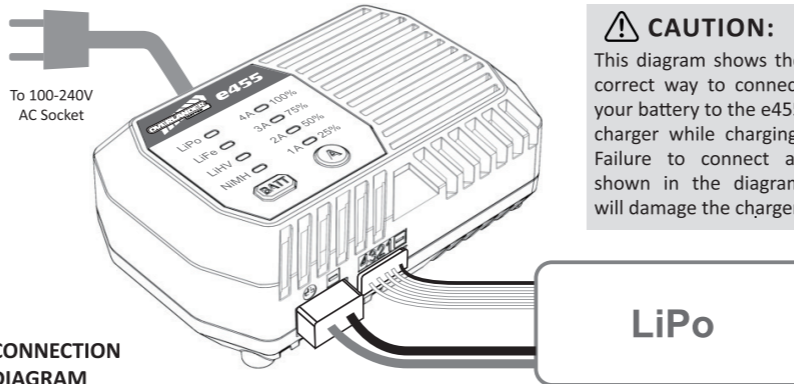
2800mAh LiPo capacity: 1C=2800mA (=2.8A) charge current. Choose 3A to charge the battery.



Select Charging Current

- 5) Charging LiPo/LiFe/LiHV Batteries

After following the previous steps, the charging process will begin and the charge status LED will glow to indicate this.



CAUTION:

This diagram shows the correct way to connect your battery to the e455 charger while charging. Failure to connect as shown in the diagram will damage the charger.

LED STATUSES

25%	50%	75%	100%	Capacity	LED Status
●	●	●	●	Capacity < 25%	25% capacity indicator LED flashing
●	●	●	●	25% ≤ Capacity < 50%	50% capacity indicator LED flashing
●	●	●	●	50% ≤ Capacity < 75%	75% capacity indicator LED flashing
●	●	●	●	75% ≤ Capacity < 100%	100% capacity indicator LED flashing

The flash times of the capacity indicator LED shows the charge current set.

1A	Flashes white ONCE and stop 1 second in cycle.
2A	Flashes white TWICE and stop 1 second in cycle.
3A	Flashes white THREE TIMES and stop 1 second in cycle.
4A	Flashes white FOUR TIMES and stop 1 second in cycle.

When the battery is fully charged, the charge status LED will glow constant white. Unplug the battery and the charger will be ready to connect another battery. During the charging process, to stop charging press the "A" button once.

- 6) Charging NiMH Batteries

Connect the battery charge lead to the battery socket.

Select the battery type NiMH by pressing the "BATT" button.

Select the correct charging current (1A/2A/3A/4A) by pressing the "A" button.

Press and hold the "A" button for 2 seconds to begin the charging process. The charge status will glow to indicate this.

During the charging process, the capacity indicator will light up in sequence.

When the battery is fully charged, the capacity indicator LEDs will glow constant white.



WARNING:

Always make sure you are charging a NiMH battery in the correct battery mode. Charging a Lithium battery in NiMH mode can lead to fire, personal injury or property damage.

TROUBLESHOOTING

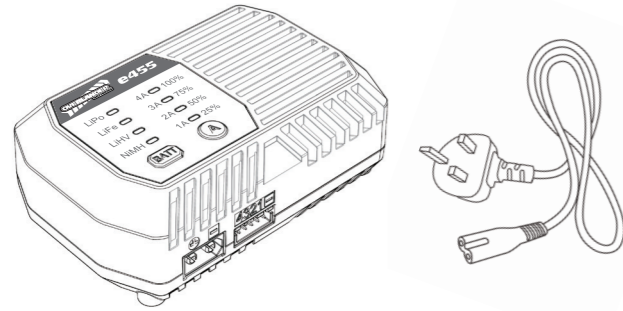
LED Blinking Times	Problem
All LEDs flash white ONCE and stop 2 seconds in cycle	Voltage of one cell in the battery pack is too high
All LEDs flash white TWICE and stop 2 seconds in cycle	Connection error in Balance port
All LEDs flash white THREE TIMES and stop 2 seconds in cycle	Connection error in Main port

SPECIFICATIONS

AC Input	100-240V
Battery Ttype	LiPo/LiFe/LiHV/NiMH
Cell Count	LiPo/LiFe/LiHV: 2-4S NiMH: 6-8S
Charge Current	1A/2A/3A/4A ± 10%
Cell Terminate Voltage	LiPo: 4.2V ± 0.02V / LiFe: 3.6V ± 0.02V LiHV: 4.35V ± 0.02V / NiMH: -ΔV
Circuit Power	50W
Current Drain for Balancing	300mA
Dimension	110x70x40mm
Weight	191g

THE SET CONTAINS

- ▶ Overlander e455 Charger
- ▶ UK AC Power Cord
- ▶ Instruction Manual



WARNING & SAFETY NOTES

- ▶ This charger is not intended for use by persons with reduced capabilities (including children). Ensure appropriate supervision is provided at all times.
- ▶ Do not use the AC power cord if it is damaged. It must always be replaced by the manufacturer, its service agent or a similarly qualified person to avoid hazard.
- ▶ This charger is only suitable for charging rechargeable LiPo/LiFe/LiHV/NiMH batteries. Never attempt to recharge non-rechargeable batteries. Charging other battery types may cause fire or explosion.
- ▶ Never leave the charger unattended when connected to the power supply.
- ▶ The allowable AC input voltage is 100-240V. Never connect to any other voltage.
- ▶ Protect the charger from dust, dirt and damp.
- ▶ Do not use near flammable objects or surfaces. Never use in the vicinity of inflammable material or gas.
- ▶ Keep the charger well ventilated while charging. Do not use on carpet or similar surfaces.
- ▶ Take great care to maintain the correct battery polarity and avoid short-circuit. Read the battery manufacturer's instructions and strictly adhere to them.
- ▶ The charger must only be plugged into an earthed socket-outlet (for portable class 1 battery chargers for outdoor use).
- ▶ The connection to the supply mains is to be in accordance with the national wiring rules when battery chargers for installation in caravans and similar vehicles.

CONFORMITY DECLARATION

- ⚠ Never leave the charger unattended while in use. If any malfunction occurs, TERMINATE THE PROCESS IMMEDIATELY!
- ⚠ Keep the charger away from dust, damp, rain, heat, direct sunshine and vibration. Never drop it.
- ⚠ Never charge batteries on wood, cloth, carpet or any other flammable material.
- ⚠ During charging, the charger must be placed in a well ventilated area.
- ⚠ The allowable AC input voltage is 100-240V.

The e455 Charger satisfies all relevant and mandatory CE directives and FCC Part 15 Subpart B: 2016. For EC directives:

The product has been tested to meet the following technical standards:

	Test Standards	Title	Result
CE-LVD	EN60335-2-29	Household and similar electrical appliances – Safety – Part 2-29: Particular requirements for battery chargers.	Conform
	EN 60335-1: 2012 +A11: 2014	Household and similar electrical appliances - Safety - Part 1: General requirements	Conform
CE-EMC	EN55014-1: 2006+ A1: 2009+A2: 2011	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission	Conform
	EN55014-2: 1997+ A1: 2001+A2: 2008	Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 2: Immunity Product Family Standard	Conform
	EN61000-3-2: 2014	Electromagnetic compatibility (EMC) – Part 3-2: – Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	Conform
	EN61000-3-3: 2013	Electromagnetic compatibility (EMC) - Part 3-3: Limitation of voltage supply systems for equipment with rated current ≤ 16 A.	Conform
FCC-SDOC	FCC Part 15B	Title 47 Telecommunication PART 15 - RADIO FREQUENCY DEVICES Subpart B - Unintentional Radiators	Conform



This symbol means that this product should not be disposed with other household waste. To prevent possible harm to the environment, please recycle responsibly!

LIABILITY EXCLUSION

This charger is designed and approved exclusively for use with the types of batteries stated in the instruction manual. Overlander Batteries accepts no liability of any kind if the charge is used for any purpose other than that stated. We are unable to ensure that the user follows the instructions supplied with the charger and we have no control over the methods employed for using, operating and maintaining the device. For this reason we are obliged to deny all liability for loss, damage or costs which are incurred due to the incompetent or incorrect use and operation of our products, or which are connected with such operations in any way. Unless otherwise prescribed by law, our obligation to pay compensation, regardless of the legal argument employed, is limited to the invoice value of those Overlander Batteries products which were immediately and directly involved in the event in which the damaged occurred.

WARRANTY & SERVICE

We guarantee this product to be free of manufacturing and assembly defects for a period of one year from the time of purchase. The warranty only applies to material or operational defects which are present at the time of purchase. During that period, we will repair or replace free of service charge for products deemed to be defective due to those causes. You will be required to produce proof of purchase (invoice or receipt). This warranty is not valid for any damage or subsequent damage arising as a result of misuse, modification or as a result of failure to observe the procedures outlined in this manual.

If you have any questions which are not mentioned in the manual, please feel free to send an email to support@overlander.co.uk.

