



# ELEMENT PRO

#41220

**Fast Charger 1.0, 2.0 or 4.0A**  
**Dual Input (100-240Vac + 12Vdc)**  
**1-3 cells LiPo / LiFe**  
**4-8 cells NiMH / NiCd**

LRP electronic GmbH  
Hanfwiesenstrasse 15  
73614 Schorndorf, Germany  
info@LRP.cc - www.LRP.cc

## Connections & Operation

**DC INPUT:** connect to a suitable DC source with 11-15V. Be careful with correct polarity!

- Red = Plus
- Black = Minus



**AC INPUT:** connect to main power with 100-240VAC

**Caution:** Do not alter the connector as this will void your warranty!

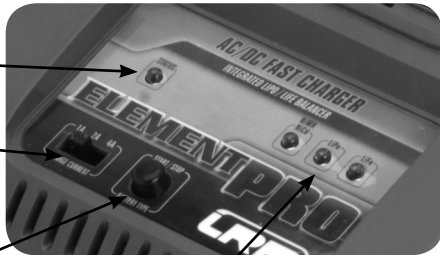
**OUTPUT CONNECTOR:** connect battery, which you want to charge, to the attached „Tamiya Style“. Be careful with correct polarity!

**BALANCER CONNECTOR:** integrated balancer for 2S and 3S packs using EHR balancing connector.

**STATUS LED:** indicates if charger is in stand-by-mode (LED off), charging (LED on) or battery has been fully charged (LED flashing).

**SLIDE SWITCH:** adjust charge current (1.0, 2.0 or 4.0A)

**START/STOP & BATTERY TYPE BUTTON:** used to select battery type and start/stop charging process.



**BATTERY TYPE LED's:** indicate which battery type has been selected.

## Balancing Function

The *Element-Pro* contains an integrated balancer for 2S- and 3S Lithium based (LiPo, LiFe) battery packs using EHR balancing connector. Please refer to drawing (also like that on charger) for correct polarity, basically minus (black wire) is always on the far right side of the plug as shown on drawing. The balancer equalises the cells, during charging, which results in higher performance and higher cycle-life.

**Caution:** Avoid incorrect connection as in the worst case this may result in damage to the battery and/or charger!



## Repair Procedures / Limited Warranty

All products from LRP electronic GmbH (hereinafter called "LRP") are manufactured according to the highest quality standards. LRP guarantees this product to be free from defects in materials or workmanship for 90 days (non-european countris only) from the original date of purchase verified by sales receipt. This limited warranty doesn't cover defects, which are a result of misuse, improper maintenance, outside interference or mechanical damage.

„This applies among other things on:

- Cut off/changed original input- and/or output-wires
- Mechanical damage of the case, electronic components or PCB
- Humidity/Water inside the case
- Soldered on the PCB"
- Charger disassembly by customer
- Any modification of the charger done by the customer
- Over temperature failures due to blocking the fan or the cooling slots
- Reverse polarity at DC output

To eliminate all other possibilities or improper handling, first check all other components in your model and the trouble shooting guide, if available, before you send in this product for repair. If products are sent in for repair, which do operate perfectly, we have to charge a service fee according to our pricelist.

With sending in this product, the customer has to advise LRP if the product should be repaired in either case. If there is neither a warranty nor guarantee claim, the inspection of the product and the repairs, if necessary, in either case will be charged with a fee at the customers expense according to our price list. A proof of purchase including date of purchase needs to be included. Otherwise, no warranty can be granted. For quick repair- and return service, add your address and detailed description of the malfunction.

If LRP no longer manufactures a returned defective product and we are unable to service it, we shall provide you with a product that has at least the same value from one of the successor series.

The specifications like weight, size and others should be seen as guide values. Due to ongoing technical improvements, which are done in the interest of the product, LRP does not take any responsibility for the accuracy of these specs.

### LRP-Distributor-Service:

- Package your product carefully and include sales receipt and detailed description of malfunction.
- Send parcel to your national LRP distributor.
- Distributor repairs or exchanges the product.
- Shipment back to you usually by COD (cash on delivery), but this is subject to your national LRP distributor's general policy.

Thank you for your trust in this LRP product. By purchasing a **LRP Element Pro Charger**, you have chosen a high-performance charger full of new design features, such as:

- Fast Charging with 1.0, 2.0 or 4.0A
- Integrated LiPo / LiFe Balancer
- Microprocessor Controlled
- Multi-Protection-System
- LiPo, LiFe, NiMH & NiCd batteries
- Dual Input (100-240Vac + 12Vdc)
- Plug in and Charge

Please read the following instructions carefully before you start using your product. This user guide contains important notes for the installation, the safety, the use and the maintenance of this product. Thus protecting yourself and avoid damages of the product.

Proceed according to the user guide in order to understand your product. Please take your time as you will have much more joy with your product if you know it exactly.

This user manual shall be kept in a safe place. If another customer is using this product, this manual has to be handed out together with it.

## Specifications

Dimensions	[mm]	125x115x40	Delta Peak cut-off for NiMH/NiCd	yes
Weight	[g]	390	Acoustic Signal Type	Buzzer
Input Voltage	[V AC]	100 - 240	Multi-Protection-System	yes
	[V DC]	11 - 15	Safety Timer	yes, 180mins
Charging Capability	LiPo/LiFe	1 - 3 cells	Status LED's	4
	NiMH/NiCd	4 - 8 cells	Multifunction Button	yes
Charge Current	[A]	1.0, 2.0, 4.0	AC Input Connection	AC connector
Charge Power Limitation	[W]	30	DC Input Connection	Alligator clamps
Integrated LiPo / LiFe Balancer		yes, 2-3S	Output Connection	Tamiya connector

Specifications subject to change without notice.

## Usage

### Connection:

connect the *Element Pro Charger* to a suitable power source:

- main power with 100-240V AC
- a suitable powersupply or car-battery with 11-15V DC

After turn-on, the **BATTERY TYPE LED'S** indicates which battery type is selected. If your desired battery type is selected already, you can go straight to point „Start Charging process“ below.

For maximum convenience, the *Element Pro Charger* checks the number of cells once you connect a battery pack and adjusts it's algorithms automatically. The number of cells the charger recognises is also indicated by the blinking of the designated battery LED (1x=1S, 2x=2S, 3x=3S).

### Battery Type Selection:

- Press and hold the button **BATTERY TYPE** until one of the green **BATTERY TYPE LED'S** starts flashing, which indicates you have entered battery type selection mode. The selected type is indicated by the blinking LED.
- By pressing the **BATTERY TYPE button** again, you can now hop through the three battery types (NiMH/NiCd, LiPo, LiFe) and you can select the desired type by either pressing **BATTERY TYPE button** for 2sec or if you wait longer then 3sec, the selected battery type will be permanently saved, the LED will turn ON all the time and the charger automatically leaves battery type selection mode and that.

**Caution:** it is important that you use correct battery type for the battery you plan on charging, as charging a pack in the wrong mode may result in under- or overcharging of your battery!

**Note:** The charging process won't be started at this time and the battery type selection is only active if there is no battery connected to the charger!

### Select Charge Current:

- move to slide switch to the desired charge current (1A / 2A / 4A).

**Note:** depending on the battery you want to charge (refer to „Charging Recommendations“).

### Start Charging Process:

- Connect battery and confirm that your selection of „Battery Type“ is correct.
- press **START/STOP button**.
- the **STATUS LED** turns ON (red) and indicates that the charge process has started.
- the **STATUS LED** will remain red until battery has been fully charged.

**Note:** Charge process can be stopped anytime by pressing **START/STOP button**, then **STATUS LED** will turn off.

### End of Charge:

- when battery is fully charged, the **STATUS LED** will flash for 15sec and the charger will beep to indicate that the battery has been fully charged now.
- by pressing **START/STOP button** you can turn off the LED.

## Charging Recommendations

Always follow the cell manufacturers charge-/usage-recommendations, never use batteries outside their specifications. As a safe „rule of thumb“, charging your packs with 0.5C\* is always a safe value!

\* C=Nominal capacity of the battery.  
E.g. with a nominal capacity of 4000mAh (4.0Ah), the battery can be charged with a max. current of 2.0A.:

## Multi-Protection-System

The *Element Pro Charger* is protected against faults and operator errors by the Multi-Protection-System. Faults/Errors are indicated by the beeper and different LED flashing sequences. All faults/errors stop the charging process to protect the charger and the battery. The errors are as following:

Failure	LED Code	Error Status
Input Voltage Error	1	The active battery type LED flashes and the charger beeps 3sec intervals.
Charger malfunction	2	
No battery connected	3	
Safety Timer exceeded (>3hrs charge time)	4	
Battery Error	5	

Press **START/STOP button** to stop LED's flashing and beeping, this will return the charger to stand-by mode.



The crossed-out wheeled bin means that within the European Union the product must be taken to separate collection at the product end-of-life. Do not dispose of these products as unsorted municipal waste.