

VTEC 1600
LRP RACINGPACKS

VTEC

HV² TREATED
ULTRA PERFORMANCE

USER MANUAL



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Dear Customer,

thank you for your trust in this LRP product. By purchasing a LRP VTEC NiMH-battery, you have chosen a high-performance battery for your RC model. Please read the following instructions to ensure, that your LRP VTEC NiMH-battery always works up to your full satisfaction.

NiMH-batteries need special treatment and care. Please read the following instructions carefully before you start using your LRP VTEC NiMH-battery. 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 LRP VTEC NiMH-battery better. 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.



1. WARNING NOTES

No toy. Not suitable for children under 14 years.

Keep the product out of the reach of children.

Pay close attention to the following points, as they can destroy the product and void your warranty. Non-observance of these points can lead to property damage, personal and severe injuries!

- Avoid incorrect connections or connections with reversed polarity of the product.
- All wires and connections have to be well insulated. Short-circuits can possibly destroy the product.
- Always remove the battery from your product or disconnect the product from the power source, if the product is not in use.
- Do not throw away used batteries in the household garbage, but only give them to the collection stations or dispose of them at a special garbage depot.
- Avoid soldering longer than 5 seconds per soldering joint while soldering batteries directly to prevent damage to the batteries due to overheating. Use a high power soldering station with at least 60W for soldering.
- Always charge the battery outside of the product you want to use. The product could get damaged, if a battery defect occurs.
- Avoid short circuits, overcharging and reverse polarity of the battery or single cells. This can lead to fire or explosion.
- Never open a battery or a single cell.
- Never leave the battery unattended while charging.
- During charging, the battery has to be kept on a non-flammable, heat-resistant mat. Furthermore no flammable or highly inflammable objects may be close to the battery.
- Never exceed the maximum charge/discharge current, which is recommended by the LRP electronic GmbH.
- Under no circumstances a NiMH-battery shall be deep discharged.
- The battery may never get in touch with fire, water or other liquids.
- Only charge in a dry place.
- Only use chargers and dischargers, which are specified for NiMH/NiCd-batteries by the manufacturer. Never use chargers or dischargers, which are specified for LiPo-batteries!
- Do not use different types of batteries and do not mix new and used batteries.
- If individual cells in the battery pack heat up excessively, immediately stop the charging process.
- **The manufacturer can not be held responsible for damages, which are a result of non-observance of the warning notes and security advices.**

2. CHARGING

We generally recommend a maximum charge current of 1C* and chargers, which are suited for NiMH batteries. Our charger family of Pulsar, Quadra, Jet, Micro and NiMH-Charger are perfect for this application. Make sure not to overcharge your battery pack.

Charge up to a maximum cell temperature of 42°C, when you are using a temperature cut-off charger.

We recommend the following settings, if you are using a charger of the LRP Pulsar family:

Cell type	Number of cells	Charge current	Delta Peak	Trickle	Mode
VTEC 2/3A-1600UP 7.2V	6	1.6A	15mV	OFF	LIN
VTEC 2/3A-1600UP 8.4V	7	1.6A	20mV	OFF	LIN
VTEC 2/3A-1600UP 9.6V	8	1.6A	25mV	OFF	LIN
VTEC 2/3A-1400EP 7.2V	6	1.4A	15mV	OFF	LIN
VTEC 2/3A-1400EP 8.4V	7	1.4A	20mV	OFF	LIN
VTEC 2/3A-1400EP 9.6V	8	1.4A	25mV	OFF	LIN

Please note: You can use your VTEC NiMH batteries up to 3-times per day, but they require at least 3 hours minimum rest between the cycles to fully cool down.

* C=Nominal capacity of the battery. E.g. with a nominal capacity of 1600mAh (1.6Ah), the battery can be charged with a max. current of 1.6A.

3. DISCHARGING

NiMH batteries should never be stored completely empty. Always pay special attention, that your battery is not completely discharged. Even if you use the battery once a week, the battery should never be stored completely empty. Be sure to also check the information, which is given in the section „Storage“.

Best results will be obtained, when the battery pack gets discharged with 5A to a cut-off voltage of 5.4V (6 cells), 6.3V (7 cells), 7.2V (8 cells), one hour before you need to start charging. Pay attention, that the battery pack has cooled down completely before beginning the charge.

VTEC 2/3A-1600UP cells are high-performance cells, manufactured with the newest technology available. Discharging each cell below 1V over a longer period of time harms the battery and reduces the capacity. Therefore we do not recommend the use of Discharge trays or similar devices with the VTEC 2/3A-1600UP cells.

IMPORTANT: Do not dead-short or deep-discharge the VTEC cells to 0V. Also do not use the common light-bulbs without a cut-off or a monitoring device. This will immediately damage the cells irreversibly.

4. SPECIFICATION

Type	Order# Race	Configuration	# of cells	Nominal Voltage	Plug
VTEC 1600UP 7.2V NiMH Hump Pack	75610	Hump	6	7.2V	Micro
VTEC 1600UP 7.2V NiMH Side-by-Side Pack	75620	Side-by-Side	6	7.2V	Micro
VTEC 1600UP 7.2V NiMH Maverick Stick	75625	Stick (for Maverick)	6	7.2V	Maverick
VTEC 1600UP 7.2V NiMH Stickpack	75630	Stick	6	7.2V	Micro
VTEC 1600UP 8.4V NiMH Stickpack	75635	Stick	7	8.4V	Micro
VTEC 1600UP 8.4V NiMH Hump Pack	75637	Hump (for LRP Shark)	7	8.4V	Micro
VTEC 1600UP 9.6V NiMH Saddle Pack	75650	Saddle (for Mini Inferno)	8	9.6V	Kyosho Mini

5. STORAGE

If you are not using your battery pack for several days/weeks, under no circumstances it shall be stored fully discharged. Storing of fully discharged NiMH batteries even for just a few days immediately damages the cells.

We recommend to only store your NiMH battery packs with some capacity left in them. A common way to do this is to partially charge the empty battery with 1C for 25 minutes. You can then store the pack for at least 4 weeks at a temperature of 20°C without problems. Store the battery preferably in a cool place.

Attention: Storing NiMH batteries at higher temperatures increases the self-discharge rate of the batteries. Therefore you have to recharge the battery more often when storing it at higher temperatures.

After a long storage period, the battery pack has to be discharged with 5A to a cut-off voltage of 5.4V (6 cells), 6.3V (7 cells), 7.2V (8 cells). Pay attention, that the battery pack has cooled down completely before beginning the charge.

LRP strongly recommends to not use any Discharge trays or similar devices with the VTEC 2/3A-1600UP cells.

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 especially applies on already used batteries or batteries, which show signs of heavy usage. Damages or output losses due to improper handling and/or overload are not a product fault. Signs of wear (loss of capacity) after intensive usage are also no product fault.

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. The following points do also result in a service fee:

- Original power plugs replaced with a NON reverse polarity protected power plug system
- Send in the battery without power plugs
- Removed or damaged original heatshrink

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.