

ORDER NO.:

50380	ERASER 15.5T	●
50370	ERASER 13.5T	●
50360	ERASER 10.5T	●
50350	ERASER 9.5T	●
50470	ERASER STOCK-SPEC 13.5T	●
50495	CRAWLER 21.5T	●

SPORTS MODIFIED
NEODYMIUM MAGNET
STAR WINDING
SENSOR TECHNOLOGY

USER GUIDE



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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!

- Never leave the product unsupervised while it is switched on, in use or connected with a power source. If a defect occurs, it could set fire to the product or the surroundings.
- 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.
- Never allow this product or other electronic components to come in contact with water, oil or fuels or other electroconductive liquids, as these could contain minerals, which are harmful for electronic circuits. If this happens, stop the use of your product immediately and let it dry carefully.
- Never open the product and never solder on the PCB or other components.
- Avoid overtightening the motor screws. Damaged threads are not covered under warranty!
- Avoid overloading the motor due to wrong or too long gear ratios.
- **Never apply full throttle if the motor is not installed. Due to the high RPMs without load, the motor can get damaged.**
- Always wire up all the parts of the equipment carefully. If any of the connections come loose as a result of vibration, you could lose control over your model.
- Avoid soldering longer than 5 seconds per soldering joint when replacing the power wires to prevent possible damage to the product due to overheating of the components. Use a high power soldering station for soldering.

2. INSTALLATION / CONNECTIONS

HALL-SENSOR WIRE:

This bi-directional multipole wire connects the speed-control and the motor. Do not alter or modify this cable! The Hall-Sensor wire is imminent for the use of your motor. Make sure, that the plugs have a proper and tight fit.

There are replaceable hall sensor wires available: • #81910 (20cm) • #81920 (10cm)

POWER WIRES:

Your motor comes pre-wired using common motor connectors. It's simply „plug & play“ when you intend using a LRP A.1. BRUSHLESS / PRO REVERSE (#80100/#80150) or an LRP SPX SUEPER/BULLET REVERSE (#80400/#80450) speed-control. You can also solder the motor directly the power-wires if you prefer to use a „hardwired“ wire setup. The unique splitted solder-tabs allow easy and convenient replacement of the power wires. Nevertheless some soldering skills are required. Therefore we recommend using the original power-wires and plugs.

CAUTION: Avoid soldering longer than 5sec per soldering joint when replacing the power wires to prevent possible damage to the speed-control due to overheating of the components!

- Install the motor in the model.
- **CAUTION!** The maximum length of the motor screws shall not exceed **8mm**.
- Connect the motor and the speed-control, using the Hall-Sensor wire.
- Connect the power wires of the speed-control to the motor. You can do this by using the pre-assembled motor plugs or by soldering on the power wires directly to the motor.
- **CAUTION!** Make sure, that the polarity is right by checking the color code and the letters:
 - MOT.A = blue wire
 - MOT.B = yellow wire
 - MOT.C = orange wire
- Finally check all the connections before using the motor.



REPAIR PROCEDURES / LIMITED WARRANTY

All products from LRP electronic (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 normal wear, misuse or improper maintenance. This applies among other things on:

- Overload (for example: unsoldered Star-ring)
- Excessive amounts of dirt inside the motor
- Rotor damage due to debris inside motor
- Mechanical damage due to external causes
- Rust

To eliminate all other possibilities or improper handling, first check all other components and the trouble shooting guide, if available, before you send in this product for repair or warranty. Products sent in for repair, that operate perfect have to be charged with a service fee.

By sending in this product, you assign LRP to repair the product, if it is no warranty or Limited Lifetime Warranty case. The original sales receipt 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.

Dear customer,

thank you for your trust in this LRP product. By purchasing this motor, you have chosen a high-performance brushless motor. With this motor, LRP presents the promising sensor brushless technology as a sports level Brushless motor. The main features of these motors are:

- Neodymium magnets
- Star winding
- XTEC K3 Sports Modified teardown, dismountable
- Solder tabs for easy and safe installation
- Standard 540 size and weight (179g)
- Handwound
- Double ball bearings
- Sensored technology
- Pre-Wired

Please read the following instructions to ensure, that your motor always works up to your full satisfaction.

Please read and understand these instructions completely before you use this product! With operating this product, you accept the LRP warranty terms.

3. SPECIFICATION

	ERASER 15.5 Turns	ERASER 13.5 Turns	ERASER 10.5 Turns	ERASER 9.5 Turns	ERASER StockSpec 13.5 Turns	CRAWLER 21.5 Turns
Order No.	50380	50370	50360	50350	50470	50495
Voltage input	4.8 - 8.4V					
RPM ¹	20.160	22.320	29.520	33.840	20.880	11.520
Specific rpm/volt, kv	2.800	3.100	4.100	4.700	2.900	1.600
Power ¹	130W	155W	180W	200W	160W	100W
Efficiency ¹	89%	88%	87%	87%	89%	90%
Magnet material	Bonded	Bonded	Bonded	Bonded	Sintered	Sintered
Brushed rating	27T	23T	19T	17T	23T	37T
Winding	Star					
Hall-Sensor pin assignment	Compliant to IFMAR/EFRA/ROAR/BRCA/DMC rules					

¹Measured at 7.2V.

Specifications subject to change without notice.

4. GEARING

Please pay special attention to our gear ratio recommendations, before using the motor for the first time.

Never overgear your motor. A wrong gear-ratio causes much more heating and may result in a temperature shutdown of your speed-control under extreme conditions.

Take your kits instruction manual to find the correct pinion. **Please note, that following gear ratios are only a recommendation and a good starting point.** The actual gearing may vary due to different tracks, models, track conditions and/or batteries:

Motor	Touringear 1:10	Off-Road 1:10
#50380 ERASER 15.5T	5.5 : 1	7.5 : 1
#50370 ERASER 13.5T	6.0 : 1	8.0 : 1
#50360 ERASER 10.5T	6.8 : 1	8.9 : 1
#50350 ERASER 9.5T	7.4 : 1	9.4 : 1
#50470 ERASER StockSpec 13.5T	5.8:1	8.0:1
#50495 CRAWLER 21.5T	--	--

-> Refer to your kits/models manual for correct gear ratio of your #50495 Crawler Brushless motor.

5. MAINTENANCE

Due to the maintenance free design of your motor, it is not necessary to open the motor under normal conditions. Nevertheless, we recommend to oil the ball bearings with a suitable oil from time to time. We recommend our LRP Ball Bearing Oil 2 (#65430).

The **front** bearing can easily be oiled from the outside. Simply put a drop of oil onto the bearing and turn the motor for a few turns with your hand, so that the oils gets into the bearing.

To oil the **rear** bearing, you have to remove the endcover first. Therefore loosen the three hex screws on the back of the motor. Now you can remove the endcover and the rear ball bearing can be seen. Put a small drop of oil onto this bearing aswell and turn it with your hand for a few turns, so that the oil gets into the bearing. After this, reattach the endcover and secure it with the three hex screws.

As an **optional part**, we recommend our optionally available ceramic ball bearings (#50607). They lower the friction and raise the efficiency of the motor.



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.

Because we don't have control over the installation or use of this product, we can't accept any liability for any damages resulting from using this product. Therefore using this product is at owner's risk. Our limited warranty liability shall be limited to repairing the unit to our original specifications. In no case shall our liability exceed the original cost of the unit. By installing or operating this product, the user accepts all resulting liability.

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.