



BRUSHLESS MOTORS OPERATION AND CARE MANUAL

1. INTRODUCTION

Congratulations for the purchase of REDS Racing brushless motor. This motor has been projected, developed and tested in cooperation with the best drivers in the world. The most advanced technologies and materials have been used to achieve the best performance and reliability. Read this manual carefully before using the engine to get the best performance and reliability. Always follow the safety precautions.

2. PRECAUTIONS and WARNINGS

Read these instructions carefully before using your new motor!

Make sure that the motor temperature does not exceed 80°C, fit the reduction ratio of the motor when it is too hot.

When mounting the motor, pay attention to the correct screws length and not to over tighten them with excessive torque.

3. INSTALLATION

Your motor should be installed using 3 mm (diameter) screws with a length, generally 6mm or less, that does not allow the screw to extend into the motor more than 5 mm. Otherwise, the screw can damage the motor's internal components. Damage caused by excessively long screws will not be covered by the warranty.

Do not over tighten the motor mounting screws. Doing so may strip the mounting hole threads.

4. CABLING

SENSOR WIRE: This bi-directional multiple wire connects the ESC and the motor. Do not alter or modify this cable! Make sure, that the plugs have a proper and tight fit and are always clean.

POWER WIRES: Note that the solder connections are marked A, B and C and connect the motor to the Electronic Speed Controller ESC. During the soldering process, do not allow solder to bridge the gap between each connection.

Caution! Avoid soldering longer than 5 sec per soldering joint to prevent possible damage to the motor due to overheating of the inner components!

5. MOTOR WORKING CONDITION

Anytime you modify a parameter on the car, like gear ratio or timing, you need to check motor's temperature. The recommended maximum motor temperature limit is 80°C (176 F). Overheating

can burn the coils and/or melt solder joints inside the motor.

6. GEARING

The correct gear ratio depends on several factors, so it is difficult to determine an exact ratio for any particular motor, car, track, ...

Your best option is to consult with the dealer from which you bought your motor to determine a good starting gear ratio.

Avoid over gearing by monitoring time by time motor temperature.

7. TIMING

Timing can be adjusted by loosening the three rear screws and rotating the aluminum end cup. We recommend to change timing one degree at a time. Rotating the end cup counterclockwise adds timing.

Attention! Be aware that by adding timing, motor temperature will increase and battery duration will decrease. This depends on both, the timing that is on the motor, as well as the timing, which is simulated with the controller. Higher timing results in higher rpm but worse efficiency/torque and vice versa. Higher timing requires shorter gearing. Timing adjustments should be done by experienced racers only, others please leave timing on standard setting!

8. CLEANING AND MAINTENANCE

To clean your motor, lightly brush dirt away paying particularly close attention to the area around the ball bearing. Add small drop of bearing oil when required.

DO NOT spray cleaners or solvents into the motor.

9. WARRANTY

Warranty covers all manufacturing defects of any motor part which are found on first motor starting. Warranty does not cover damage caused by improper motor use, improper or lack of maintenance, failure to comply with the instructions supplied with the product or use of non original accessories. No liability will be accepted for any damage or injury resulting from the use of this product. By the act of operating this product, the user accepts all resulting liability.

Visit REDS Racing Srl official website for a complete list of spare parts, optional parts and complete list of specifications.

WWW.REDSRACING.IT