



# SENSORLESS BRUSHLESS MOTOR

## INTRODUCTION

Congratulations on your purchase of an RTR vehicle containing a powerful Reedy Sensorless Brushless motor. The latest brushless motor technology along with the design and engineering experience that is responsible for 30 World Championship titles has been incorporated into its design.

Due to its sensorless 4-pole configuration, your Reedy Sensorless Brushless Motor operates powerfully, efficiently, and reliably in a variety of vehicles and applications. This motor is perfectly suited for use in vehicles equipped with ESCs that are designed to operate sensorless brushless motors.

*Please read the following to familiarize yourself with your motor.*

## FEATURES

- Powerful 4-pole sensorless design
- Oversized, precision ball bearings
- High-strength rotor
- Hardened steel shaft
- Triple-insulated windings
- Low-resistance connectors

## PRECAUTIONS & WARNINGS

- Please read the entire manual before operating your motor
- Avoid operating temperatures exceeding 80C (175F)
- Never touch the motor after use as it may be EXTREMELY hot.
- Allow the motor to cool completely after use
- Be sure to use the proper size motor mounting screws
- Do not over-tighten the motor mounting screws

## INSTALLATION AND MAINTENANCE

- If replacing the motor mounting screws, use the same type and size that your vehicle was equipped with originally. Please refer to your vehicle's instruction manual or website product page. Generally, your motor should be installed using 3mm screws with a length (generally 6mm or less) that does not allow the screw to extend into the motor more than 5mm. Otherwise, the screw can damage the motor's internal components.
- Do not over-tighten the motor mounting screws. Doing so may strip the mounting hole threads.
- Connect the three leads exiting the motor to the three motor leads from your Electronic Speed Control (ESC). If the motor runs backwards when giving it forward throttle, reverse any two motor leads. The motor will now turn in the opposite direction.
- To clean your motor, lightly brush dirt away on a regular basis paying particularly close attention to the areas around the ball bearings. DO NOT spray cleaners or solvents into the motor.

## CAUTION

When switching to a higher voltage battery from a lower one (to 11.1V from 7.4V, for example), a change in gear ratio or a lower kV rated motor might be necessary. Otherwise, the motor or ESC may overheat and sustain permanent damage. Please visit [www.reedypower.com](http://www.reedypower.com) for the latest gear ratio suggestions for your particular motor and vehicle.

## SAFETY PRECAUTIONS

This product is a sophisticated hobby product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or property. This product is not intended to be used by children without direct adult supervision. It is essential to read and follow all instructions and warning found in this manual prior to installation, set up, and use in order for the product to operate properly and to avoid damage or injury.

## TROUBLESHOOTING

Problem	Cause	Solution
<b>Motor overheats</b>	Incorrect gear ratio/final drive ratio (FDR)	Verify that the gear ratio is the same as supplied when new
	Drivetrain binding	Check all potential binds including bad bearings, gear mesh, dirty components, etc.
<b>Poor speed/performance</b>	Incorrect final drive ratio (FDR)	Change final drive ratio (FDR)
	Transmitter settings changed	Verify correct transmitter
	Incorrect ESC settings	ATV and D/R settings Consult ESC manual for correct settings
	Motor damaged or defective	Inspect and repair necessary components
	Damaged ESC	Return ESC for repair
<b>Vehicle runs backwards</b>	Motor plugged in incorrectly	Swap any two motor/ESC leads

