Hobbywing HWI30401109

Hobbywing XERUN V10 G3 Brushless Motor 6.5T : 1/10 User Manual

Model: HWI30401109

Introduction

This manual provides essential information for the proper installation, operation, and maintenance of your Hobbywing XERUN V10 G3 6.5T Sensored Brushless Motor. Please read this manual thoroughly before using the product to ensure optimal performance and safety.
The Hobbywing XERUN V10 G3 6.5T Sensored Brushless Motor is a high-performance motor designed for 1/10 scale remote-controlled vehicles, offering a 5120kv rating for powerful and efficient operation.

Safety Precautions

Always observe the following safety guidelines to prevent injury or damage to the product and surrounding equipment:

- Ensure all connections are secure and correct before applying power. Incorrect wiring can cause damage.
- Avoid touching the motor during or immediately after operation, as it can become very hot and cause burns.
- Do not operate the motor in wet conditions or expose it to water, as this can lead to short circuits and damage.
- Keep the motor away from flammable materials.
- Use only compatible Electronic Speed Controllers (ESCs) and power sources as recommended by Hobbywing.
- Supervise children when they are operating RC vehicles equipped with this motor.

Package Contents

Upon opening the package, please verify that all components are present:

- Hobbywing XeRun V10 G3 Sensored Brushless Motor (6.5T)
- Instruction Manual (this document)
- Any additional accessories included by the manufacturer (e.g., sensor cable, mounting screws - check packaging for specifics).

Note: Specific accessories may vary. Refer to your product packaging for a complete list of included items.

Product Features

The Hobbywing XERUN V10 G3 6.5T Brushless Motor incorporates advanced design and technology for superior performance:

- **Lightweight Design:** Engineered for reduced weight, contributing to overall vehicle performance.
- **High Precision Hall Sensor:** Features a built-in high precision Hall sensor combined with a balanced rotor for accurate and smooth operation.
- **Adjustable Mechanical Timing:** Allows for fine-tuning of motor characteristics to suit different applications and driving styles.
- **Dismantlable Case:** The motor case is designed for easy dismantling, facilitating maintenance and cleaning.
- **High Temperature Resistance:** Utilizes heat-resistant wire and rotor components capable of withstanding temperatures up to 200 Celsius.
- **Compliance:** Compliant with IFMAR, ROAR, EFRA, and BRCA rules, and certified by RoHS, CE, FCC, ensuring adherence to international standards.
- **2-Pole Super High-Efficiency:** Designed as a 2-pole motor for high efficiency and power output.



An overhead view of the Hobbywing XERUN V10 G3 Brushless Motor, showcasing its black casing, gold-colored connectors, and cooling fins.

Setup and Installation

Follow these steps for proper installation of your brushless motor:

1. **Mounting the Motor:** Securely mount the motor to your vehicle's motor mount using appropriate screws. Ensure proper gear mesh between the motor pinion and the spur gear.
2. **Connecting to ESC:** Connect the three motor wires (A, B, C) to the corresponding output wires on your Electronic Speed Controller (ESC). For sensored motors, connect the sensor cable from the motor to the sensor port on the ESC. Ensure correct polarity.
3. **Power Connection:** Connect the ESC to your battery pack, ensuring correct positive and negative terminals.
4. **Receiver Connection:** Connect the ESC's throttle cable to the throttle channel on your receiver.
5. **Initial Calibration:** Perform ESC calibration according to your ESC's instruction manual. This typically involves

setting throttle endpoints.

6. **Testing:** Before full operation, perform a low-speed test to ensure the motor spins in the correct direction. If not, reverse two of the motor's phase wires (A, B, or C) or adjust settings in your ESC.

Operating Guidelines

To ensure longevity and optimal performance of your Hobbywing motor:

- **Monitor Temperatures:** Regularly check motor temperature during operation. Excessive heat can damage the motor. If the motor becomes too hot to touch (over 80°C / 176°F), allow it to cool down before further use. Adjust gearing or driving style if overheating persists.
- **Proper Gearing:** Select appropriate gearing for your vehicle and track conditions. Incorrect gearing can lead to overheating and reduced efficiency.
- **Battery Voltage:** Use battery voltages within the recommended range for your ESC and motor.
- **Avoid Overloading:** Do not continuously operate the motor under extreme loads that cause excessive strain.

Maintenance

Regular maintenance helps extend the life of your motor:

- **Cleaning:** Keep the motor clean and free of dirt, dust, and debris. Use compressed air or a soft brush to remove foreign particles from the cooling fins and internal components.
- **Bearing Inspection:** Periodically check the motor bearings for smooth operation. If bearings feel rough or noisy, they may need replacement.
- **Wire and Connector Check:** Inspect all wires and connectors for signs of wear, fraying, or corrosion. Ensure connections remain secure.
- **Rotor Inspection:** If the motor case is dismantled for maintenance, inspect the rotor for any damage or imbalance.

Troubleshooting

Here are some common issues and their potential solutions:

Problem	Possible Cause	Solution
Motor not spinning or stuttering	Incorrect wiring, faulty sensor cable, ESC not calibrated, damaged motor/ESC.	Check all connections, replace sensor cable, recalibrate ESC, test with known good components.
Motor overheating	Incorrect gearing, excessive load, poor ventilation, faulty motor/ESC.	Adjust gearing (smaller pinion/larger spur), reduce load, ensure adequate airflow, inspect motor/ESC.
Reduced power or efficiency	Low battery voltage, worn bearings, motor damage, ESC settings.	Charge battery, replace bearings, inspect motor for damage, check ESC programming.
Motor making unusual noise	Worn bearings, debris inside motor, improper gear mesh.	Inspect/replace bearings, clean motor, adjust gear mesh.

Specifications

Attribute	Detail
Model Name	HWI30401109
Type	Sensored Brushless Motor
Turns	6.5T
KV Rating	5120kv
Poles	2 POLE
Diameter	35.9mm
Length	51.2mm
Shaft Length	13.3mm
Shaft Diameter	3.17mm
Product Dimensions	4.25 x 3 x 2 inches; 8.16 ounces
Material	Plastic
Manufacturer	Hobbywing
Country of Origin	China

Warranty and Support

For warranty information and technical support, please contact Hobbywing directly or refer to their official website. Keep your proof of purchase for any warranty claims.

Hobbywing Official Website: www.hobbywing.com

Note: Warranty terms and conditions may vary by region and retailer. Always consult the official Hobbywing warranty policy.

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