

## HOBBYWING 30408013

# HOBBYWING JUSTOCK G2.1 Brushless Motor Instruction Manual

Model: 30408013

## INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your HOBBYWING JUSTOCK G2.1 brushless motor. Designed for 1/10 and 1/12 scale RC vehicles, this motor is compliant with ROAR and IFMAR rules, featuring zero timing for spec racing.

Key features include a heat-resistant magnet attached aluminum case, double insulated windings, high precision bearings, and a robust rotor structure for durability and performance. The built-in Hall sensor and non-adjustable end bell ensure smooth and linear power delivery.

## SAFETY INFORMATION

**Warning:** This item is not a toy. It contains small parts and electrical components. Adult supervision is recommended during assembly and operation, especially for users under 16 years of age.

- Always disconnect the battery before performing any maintenance or installation.
- Ensure proper ventilation during operation to prevent overheating.
- Avoid contact with moving parts during operation.
- Do not expose the motor to water or excessive moisture unless specifically designed for such conditions.
- Use only compatible electronic speed controllers (ESCs) and batteries.

## SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and longevity of your motor.

### 1. Mounting the Motor

Securely mount the motor to your vehicle's motor mount using appropriate screws. Ensure the motor is aligned correctly with the pinion gear to prevent excessive wear and friction.



Figure 1: Side view of the HOBBYWING JUSTOCK G2.1 Brushless Motor, showing the sensor port and mounting holes.

## 2. Wiring Connections

Connect the motor to your Electronic Speed Controller (ESC) according to the ESC's instructions. Typically, the three motor wires (A, B, C) connect to the corresponding output terminals on the ESC. Ensure correct polarity and secure connections.

- **Sensor Cable:** Connect the sensor cable from the motor to the sensor port on your ESC. This is essential for sensored operation and smooth low-speed performance.
- **Battery Connection:** Connect your battery to the ESC, ensuring correct polarity. The motor supports 2S-3S LiPo batteries.





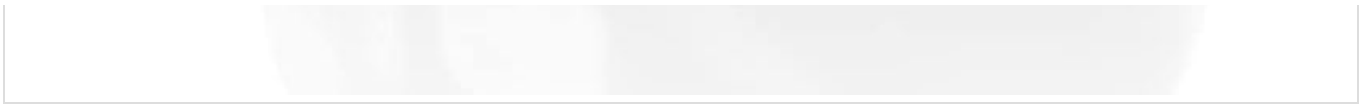


Figure 2: Top view of the HOBBYWING JUSTOCK G2.1 Brushless Motor, indicating the A, B, C terminals for ESC connection and the fixed timing end bell.

### 3. Gear Ratio Selection

Select an appropriate gear ratio for your vehicle and track conditions. Refer to your vehicle's manual or consult experienced users for recommendations. Incorrect gearing can lead to overheating and reduced performance.

## OPERATING INSTRUCTIONS

Once installed and connected, the HOBBYWING JUSTOCK G2.1 motor is ready for operation. This motor is designed for zero timing spec racing.

- **Initial Power-Up:** Turn on your transmitter first, then connect the battery to the ESC.
- **Calibration:** If necessary, calibrate your ESC with the motor and transmitter according to your ESC's manual.
- **Running:** Operate your RC vehicle as usual. Monitor motor temperature during initial runs to ensure proper gearing and setup.
- **Shutdown:** Disconnect the battery from the ESC first, then turn off your transmitter.

This motor is perfectly matched with the HOBBYWING XR10-JUSTOCK ESC for all zero timing spec racing and is also compatible with other HOBBYWING electronic speed controllers and other brands.

## MAINTENANCE

Regular maintenance will prolong the service life and improve the operating efficiency of your JUSTOCK motor.

- **Cleaning:** The motor features a detachable structure design for daily cleaning. Carefully disassemble the motor (if comfortable) to clean out dirt, dust, and debris from the internal components. Use compressed air or a soft brush.
- **Bearing Inspection:** Periodically check the motor bearings for smooth operation. Replace worn or noisy bearings to maintain efficiency.
- **O-Ring Seal:** The silicone O-ring seal between the end bell and stator helps conduct inner heat and prevent dust. Ensure it is clean and properly seated.
- **Connection Check:** Regularly inspect all wiring connections for signs of wear, corrosion, or looseness.

## TROUBLESHOOTING

If you encounter issues with your motor, consider the following common troubleshooting steps:

- **Motor Not Running:**
  - Check all wiring connections between the motor, ESC, and battery.
  - Ensure the battery is charged and properly connected.
  - Verify ESC calibration with the transmitter.
  - Inspect the sensor cable for damage or improper connection.
- **Overheating:**
  - Check your gear ratio; it might be too aggressive.
  - Ensure there is adequate airflow to the motor.

- Verify that the motor is not binding or experiencing excessive friction.

• **Irregular Performance / Cogging:**

- Re-check sensor cable connection and ensure it's not damaged.
- Ensure all motor phase wires are securely connected.
- Check for debris inside the motor.

If problems persist, contact HOBBYWING customer support or consult with an experienced RC hobbyist.

SPECIFICATIONS

Feature	Detail
Brand	HOBBYWING
Model Name	Hobby Wing 30408013 Xerun Justock 3650 Sd G2.1 Sensored Brushless Motor, 25.5 1600kV
Item Model Number	30408013
Voltage	16.8 Volts (Supports 2S-3S LiPo)
Material	Aluminum
Item Weight	8.1 ounces
Product Dimensions	2.88 x 4.5 x 2 inches
Recommended Age	16 years and up
Compliance	ROAR and IFMAR rules

WARRANTY AND SUPPORT

Legal Disclaimer and Warranty Information

Because HOBBYWING has no control over the use, installation, or maintenance of this product, no liability may be assumed for any damage or losses resulting from the use of the product. HOBBYWING does not assume responsibility for any losses caused by unauthorized modifications to its products. HOBBYWING reserves the right to modify product design, appearance, features, and usage requirements without prior notification.

HOBBYWING is only responsible for the product cost. Products purchased from Hong Kong / Chinese retailers may not conform to CE / North America regulations, and such products are deemed non-warranty. Discount / auction stores such as eBay are considered "non-authorized sales channels" in North America, and products purchased from these channels are also deemed non-warranty.

Customer Support

For technical assistance or further inquiries, please visit the official HOBBYWING website or contact your local authorized dealer. Ensure you have your product model number (30408013) and purchase details available when seeking support.



