Kyosho BL64B

Kyosho America BL64B 370 Motor Instruction Manual

Model: BL64B (BLIZZARD 2.0)

1. Introduction

This manual provides essential instructions for the proper installation, operation, and maintenance of your Kyosho America BL64B 370 Motor, specifically designed for the BLIZZARD 2.0 RC vehicle. Please read this manual thoroughly before use to ensure safe and optimal performance of your motor.

2. Safety Information

Always observe the following safety precautions to prevent injury or damage to the product and surrounding property.

- **Adult Supervision:** This product is not a toy. Adult supervision is recommended for users under 14 years of age.
- **Heat Warning:** Motors can become extremely hot during operation. Avoid touching the motor immediately after use to prevent burns. Allow it to cool down completely.
- **Electrical Safety:** Ensure all electrical connections are secure and correctly polarized. Incorrect wiring can cause damage to the motor, ESC, or battery, and may lead to fire.
- **Battery Compatibility:** Use only batteries compatible with your Electronic Speed Controller (ESC) and motor. Refer to your ESC manual for battery specifications.
- **Moving Parts:** Keep fingers, loose clothing, and other objects away from rotating parts (motor shaft, gears) during operation.
- **Ventilation:** Ensure adequate ventilation around the motor during operation to prevent overheating.
- **Disassembly:** Do not attempt to disassemble or modify the motor. This may void the warranty and cause damage.

3. Package Contents

Verify that all items listed below are included in your package. If any items are missing or damaged, please

contact your retailer or Kyosho America support.

- Kyosho America BL64B 370 Motor (1 unit)

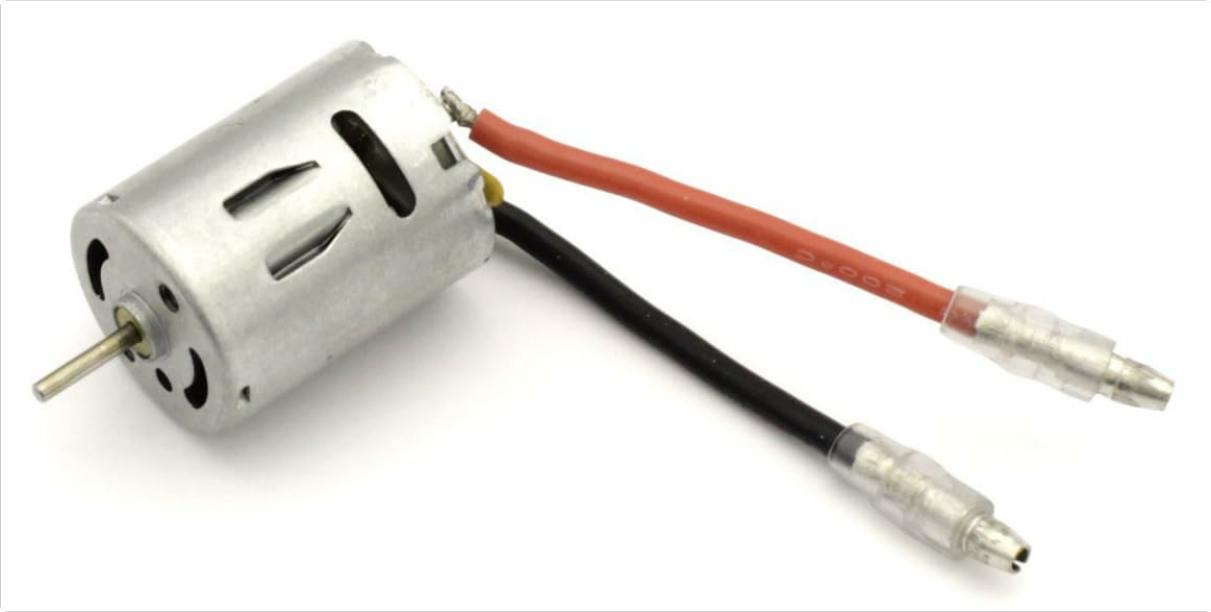

Figure 3.1: Kyosho America BL64B 370 Motor. This image shows the compact design of the motor, typically featuring a metal casing and output shaft.

4. Setup and Installation

Follow these steps to properly install the BL64B 370 Motor into your BLIZZARD 2.0 RC vehicle.

1. **Vehicle Preparation:** Ensure your BLIZZARD 2.0 vehicle is powered off and the battery is disconnected. Remove the old motor if applicable, following the vehicle's specific instructions.
2. **Motor Mounting:**
    - Carefully align the BL64B motor with the motor mount in your BLIZZARD 2.0 chassis.
    - Secure the motor using the appropriate screws provided with your vehicle or motor mount. Do not overtighten.
3. **Pinion Gear Installation:**
    - Slide the correct pinion gear (refer to your BLIZZARD 2.0 manual for recommended size) onto the motor shaft.
    - Secure the pinion gear with the grub screw, ensuring it is aligned with the flat spot on the motor shaft (if present).
4. **Gear Mesh Adjustment:**
    - Adjust the motor position to achieve proper gear mesh between the pinion gear and the vehicle's spur gear. There should be a slight amount of play (approximately the thickness of a piece of paper) between the teeth.
    - Once the gear mesh is set, tighten the motor mounting screws securely.
5. **Electrical Connections:**
    - Connect the motor wires to your Electronic Speed Controller (ESC). For brushed motors, polarity is important for forward/reverse direction. If the vehicle runs backward when it should go forward, reverse the motor wire connections.

- Ensure all connections are firm and insulated to prevent short circuits.

5. Operating Instructions

Once the motor is installed, follow these guidelines for optimal operation.

- **Initial Run-in (Brushed Motors):** For new brushed motors like the 370, a proper run-in procedure can improve performance and brush life.
  - Connect the motor directly to a low-voltage power source (e.g., 1.5V-3V) for 5-10 minutes without a load. This helps seat the brushes.
  - Alternatively, run the vehicle at low throttle for the first few minutes of operation.
- **Temperature Monitoring:** Regularly check the motor's temperature during and after operation. A motor that is too hot (too hot to touch for more than a few seconds) indicates excessive load or improper gearing. Adjust gearing or driving style as needed.
- **Avoid Overloading:** Do not continuously run the motor under heavy load, as this can lead to overheating and premature wear.
- **Environmental Conditions:** Avoid operating the motor in excessively dusty, wet, or corrosive environments unless the vehicle is specifically designed for such conditions.

6. Maintenance

Regular maintenance will extend the life and performance of your BL64B 370 Motor.

- **Cleaning:** After each use, especially in dirty conditions, gently clean the exterior of the motor to remove dirt and debris. Use a soft brush or compressed air. Avoid using liquids that could enter the motor.
- **Brush Inspection (for brushed motors):** Periodically inspect the motor brushes for wear. Worn brushes should be replaced to maintain performance and prevent commutator damage. Refer to specialized RC hobby resources for brush replacement procedures if needed.
- **Commutator Cleaning (for brushed motors):** If performance degrades, the commutator (the copper segments inside the motor) may need cleaning. This typically requires specialized tools and knowledge.
- **Bearing Check:** Check the motor bearings for smooth rotation. If bearings feel gritty or noisy, they may need cleaning or replacement.
- **Wire and Connector Inspection:** Regularly inspect all motor wires and connectors for signs of wear, fraying, or corrosion. Repair or replace damaged components immediately.

7. Troubleshooting

This section addresses common issues you might encounter with your BL64B 370 Motor.

Problem	Possible Cause	Solution
Motor not spinning	Disconnected wires Faulty ESC Dead battery Motor brushes worn out (brushed motor)	Check all electrical connections. Test with a known good ESC. Charge or replace battery. Inspect and replace brushes if necessary.

Problem	Possible Cause	Solution
Motor overheating	Incorrect gearing (too high) Excessive load Poor ventilation Worn bearings	Reduce pinion gear size or increase spur gear size. Avoid continuous heavy acceleration. Ensure motor is not obstructed. Inspect and replace bearings.
Reduced power/speed	Worn motor brushes/commutator Weak battery Poor electrical connections	Inspect and clean/replace brushes and commutator. Charge or replace battery. Check and secure all connections.

8. Specifications

Key technical specifications for the Kyosho America BL64B 370 Motor.

- **Brand:** Kyosho
- **Model Name:** BL64B (KYOBL64B)
- **Motor Type:** 370 Motor (typically brushed)
- **Material:** Metal
- **Item Weight:** 1.6 ounces (approx. 45 grams)
- **Product Dimensions:** 3.94 x 3.94 x 3.94 inches (approx. 10 x 10 x 10 cm)
- **Part Number:** BL64B
- **GTIN:** 04548565419562

9. Warranty and Support

Kyosho America products are manufactured to high-quality standards. For specific warranty information, please refer to the warranty card included with your product or visit the official Kyosho America website. For technical support, replacement parts, or service inquiries, please contact Kyosho America customer service through their official website or authorized dealers. Please have your model number (BL64B) and purchase information ready when contacting support.
Kyosho America Website: www.kyoshoamerica.com