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› Hobby King Turnigy 3632-1200KV Brushless Motor Instruction Manual

Hobby King 3632-1200

Turnigy 3632-1200KV Brushless Motor Instruction Manual

Model: 3632-1200

INTRODUCTION

This manual provides essential information for the safe and efficient operation of your Turnigy 3632-1200KV Brushless Motor. Please read this manual thoroughly before installation and use to ensure proper function and longevity of the product.

The Turnigy 3632-1200KV is a high-performance brushless outrunner motor designed for various remote-controlled aircraft applications, particularly 3D airplanes weighing between 1400-1800g.

PACKAGE CONTENTS

Verify that all components are present in your package:

- Turnigy 3632-1200KV Brushless Motor
- Propeller adapter / Collet
- X-mount (motor mount)
- Heat shrink tubing (various colors)
- Bullet connectors (male and female)
- Mounting screws



Image: The Turnigy 3632-1200KV brushless motor, propeller adapter, X-mount, heat shrink tubing, bullet connectors, and mounting screws are shown. The motor is red and black with three wires (red, yellow, black) extending from it.

SPECIFICATIONS

Feature	Specification
Model	3632-1200KV
Dimensions	36mm (Diameter) x 38mm (Length), 54mm (Length with shaft)
Weight	99g (excluding connectors)
Shaft Diameter	4mm
Front Shaft Length	18.4mm
Lamination Thickness	0.2mm
Magnet Type	45SH
Recommended Voltage	3-4S LiPo
Max Current	35-40A (for 20 seconds)
Recommended Propeller	10x5 to 11x5.5
Pull (Thrust)	1400-1930g
Application	1400-1800g 3D airplanes

SETUP AND INSTALLATION

1. Mounting the Motor:

Attach the included X-mount to the rear of the motor using the provided screws. Ensure the screws are tightened securely but do not overtighten. Then, mount the motor assembly to your aircraft's firewall using appropriate

hardware (not always included, depending on aircraft design).

2. **Connecting to Electronic Speed Controller (ESC):**

The motor has three wires. Connect these wires to the three output wires of your ESC using the provided bullet connectors. Solder the bullet connectors to the motor wires and ESC wires, then insulate with the heat shrink tubing. The order of connection for the three wires determines the motor's rotation direction. If the motor spins in the wrong direction, swap any two of the three motor-to-ESC connections.

Note: Ensure your ESC is rated for the motor's maximum current (35-40A) and voltage (3-4S LiPo).

3. **Propeller Installation:**

Secure the propeller adapter (collet) onto the motor shaft. Mount the propeller onto the adapter, ensuring it is balanced and oriented correctly for thrust. Tighten the propeller nut firmly. Always check propeller balance before flight to prevent vibrations.

4. **Initial Testing:**

Before installing the propeller, connect the motor to the ESC and receiver. Power on your radio transmitter, then connect the battery to the ESC. Slowly advance the throttle to ensure the motor spins smoothly without unusual noises or vibrations. Once confirmed, disconnect the battery, install the propeller, and perform a final check.

OPERATING GUIDELINES

- **Battery Selection:** Use 3S or 4S LiPo batteries as recommended. Ensure the battery's discharge rate (C-rating) is sufficient for the motor's maximum current draw.
- **Propeller Matching:** Use propellers within the recommended range (10x5 to 11x5.5). Using an oversized propeller can overload the motor and ESC, leading to overheating and damage.
- **Temperature Monitoring:** During initial flights, periodically check the motor and ESC temperature. They should be warm to the touch, but not excessively hot. If they are too hot to touch, reduce propeller size or improve cooling.
- **Pre-Flight Checks:** Always inspect the motor, propeller, and mounting for any loose parts, damage, or obstructions before each flight.

MAINTENANCE

- **Cleaning:** Keep the motor free from dirt, dust, and debris. Use compressed air or a soft brush to clean the motor's exterior and cooling vents.
- **Bearing Inspection:** Periodically check the motor bearings for smooth operation. If you notice any roughness or excessive play, the bearings may need replacement.
- **Wire and Connector Check:** Inspect all wires and connectors for signs of wear, fraying, or corrosion. Ensure all solder joints are secure.
- **Shaft Straightness:** After any hard landing or impact, check the motor shaft for straightness. A bent shaft can cause vibrations and damage to the motor and aircraft.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Motor not spinning	• Loose connections • ESC not armed • Damaged motor or ESC	• Check all wiring and connectors. • Ensure throttle is at zero and ESC is initialized. • Test components individually if possible.

Motor spins in wrong direction	Incorrect motor wire connection to ESC	Swap any two of the three motor-to-ESC wires.
Motor or ESC overheating	• Oversized propeller • Insufficient cooling • ESC timing incorrect	• Reduce propeller size. • Improve airflow to motor and ESC. • Adjust ESC timing (refer to ESC manual).
Excessive vibration	• Unbalanced propeller • Bent motor shaft • Loose motor mount	• Balance propeller. • Inspect and replace bent shaft. • Tighten motor mounting screws.

WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Hobby King website or contact your retailer. Keep your proof of purchase for any warranty claims.

Manufacturer: Turnigy
Brand: Hobby King
Part Number: T3632-1200
ASIN: B00URCLUS2

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