

HOBBYWING QUICRUN 16BL30 G2 + 2435SL 4500KV

HOBBYWING QUICRUN 16BL30 G2 + 2435SL Combo (2435SL 4500KV) Instruction Manual

1. INTRODUCTION

This instruction manual provides comprehensive guidance for the proper setup, operation, maintenance, and troubleshooting of your HOBBYWING QUICRUN 16BL30 G2 Electronic Speed Controller (ESC) and 2435SL 4500KV Brushless Motor Combo. Please read this manual thoroughly before using the product to ensure optimal performance and safety.

2. PRODUCT OVERVIEW

2.1 Package Contents

- 1 x HOBBYWING QUICRUN 16BL30 G2 Electronic Speed Controller (ESC)
- 1 x HOBBYWING QUICRUN 2435SL 4500KV Brushless Motor

2.2 Key Features

- Optimized for 1/16 & 1/18 On-road & Off-Road RC vehicles.
- 4-pole rotor design for enhanced torque and explosive power.
- Intelligent freewheeling technology in ESC for higher efficiency, lower operating temperatures, and improved reliability.
- Motor output power and efficiency increased by over 4% compared to previous generations, reducing operating temperature.
- Compact G2 ESC design: 8.3% shorter, 7.1% narrower, and 16.7% lower than the previous 16BL30 ESC, facilitating easier installation and cleaner wiring.
- Durable motor construction with 0.2mm thick silicon steel laminations, high-strength explosion-proof rotor, high-temperature resistant coil, and high-precision bearings.
- IP67-rated protection for both ESC and motor, allowing operation in harsh environments including rain, sand, and muddy conditions.

2.3 Product Image

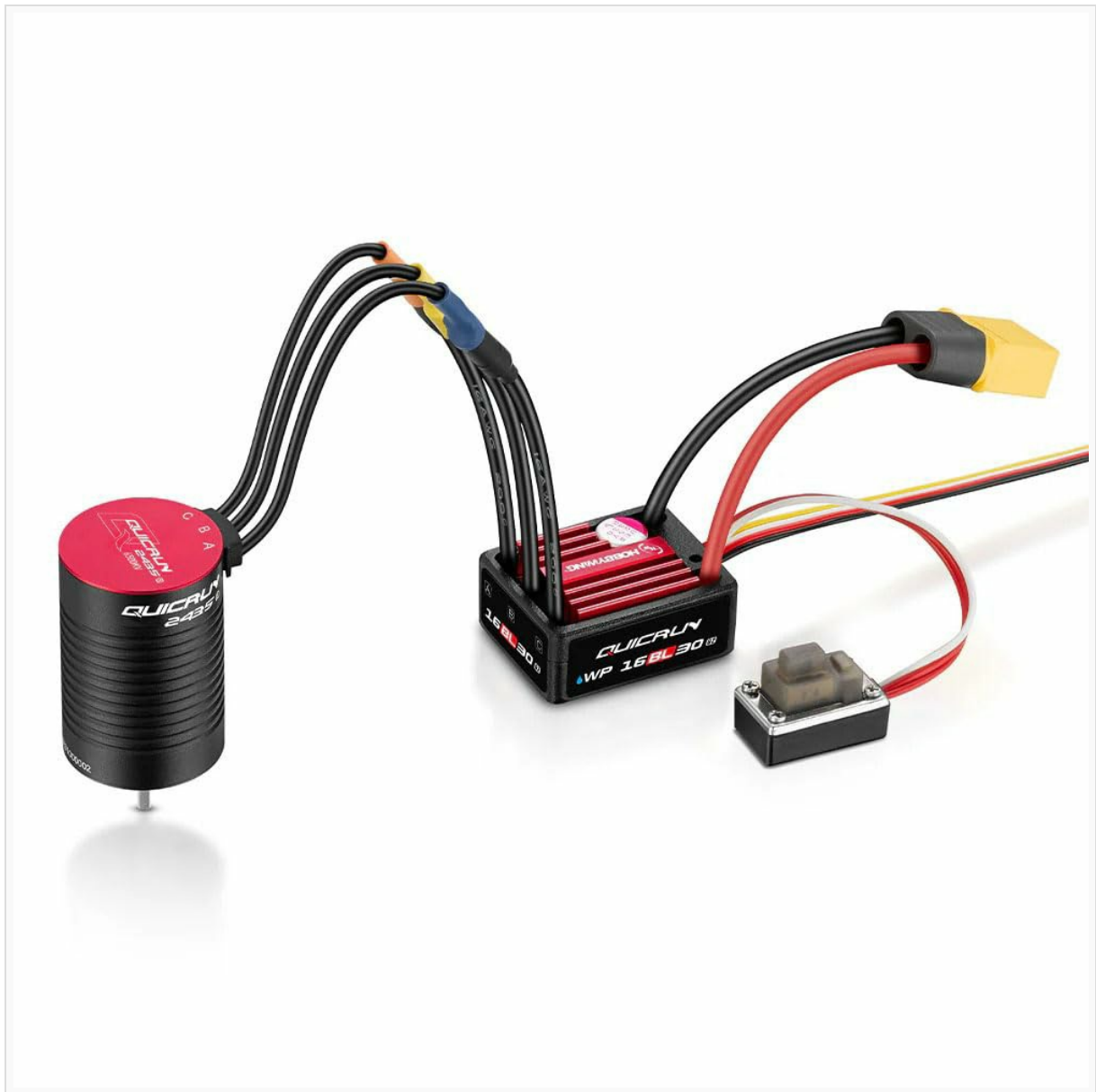


Image: The HOBBYWING QUICKRUN 16BL30 G2 ESC and 2435SL 4500KV Brushless Motor Combo, showcasing both components.

3. SAFETY PRECAUTIONS

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

- **Read the Manual:** Familiarize yourself with all instructions before operation.
- **Proper Connections:** Ensure all wiring connections are correct and secure to prevent short circuits or malfunction.
- **Battery Safety:** Use only compatible batteries and follow battery manufacturer's safety instructions. Disconnect the battery when not in use.
- **Avoid Overheating:** Monitor motor and ESC temperatures during operation. Excessive heat can damage components.
- **Water and Dust Resistance:** While IP67 rated, avoid prolonged submersion or exposure to corrosive liquids. Always clean and dry components after use in wet or dusty conditions.
- **Children:** Keep out of reach of children unless supervised by an adult.
- **Disassembly:** Do not attempt to disassemble or modify the ESC or motor, as this may void the warranty and cause damage.

4. SETUP

4.1 Installation

1. **Mount the Motor:** Securely attach the 2435SL 4500KV motor to your vehicle's motor mount using appropriate screws. Ensure proper gear mesh with the pinion gear.
2. **Mount the ESC:** Find a suitable location in your vehicle for the 16BL30 G2 ESC, ensuring good airflow for cooling. Use double-sided tape or screws to secure it.

4.2 Wiring Connections

1. **Motor to ESC:** Connect the three motor wires to the corresponding output wires on the ESC. Ensure correct phase connection (A-A, B-B, C-C). Incorrect connection may result in improper motor rotation or damage.
2. **ESC to Receiver:** Plug the ESC's throttle cable into the throttle channel (usually Channel 2) of your RC receiver.
3. **Battery to ESC:** Connect your battery pack to the ESC's power input connectors. Ensure correct polarity (positive to positive, negative to negative).

4.3 ESC Throttle Range Calibration

Proper calibration of the ESC's throttle range is crucial for correct operation. Refer to your specific radio system's manual for detailed instructions, but generally, the steps are:

1. Turn on your transmitter and set throttle trim to neutral.
2. Connect the battery to the ESC while holding the ESC's SET button (if applicable, or follow specific power-on sequence).
3. Follow the audible beeps or LED indicators to set the neutral, full throttle, and full brake positions on your transmitter.
4. Release the SET button and disconnect/reconnect the battery to save settings.

4.4 Programming (Optional)

The QUICRUN 16BL30 G2 ESC can be programmed using an optional HOBBYWING LED Program Card (sold separately) to adjust parameters such as cut-off voltage, drag brake, punch, and more. Refer to the program card's manual for detailed instructions.

5. OPERATING INSTRUCTIONS

5.1 Powering On/Off

1. **To Power On:** Ensure all connections are secure. Turn on your transmitter first, then connect the battery to the ESC. The ESC will emit a series of tones indicating it's ready.
2. **To Power Off:** Disconnect the battery from the ESC first, then turn off your transmitter.

5.2 Basic Operation

After successful setup and calibration, your RC vehicle is ready for operation. Use the throttle trigger on your transmitter to control the motor speed and direction. Always operate your RC vehicle in a safe and open area, away from people, pets, and obstacles.

5.3 Environmental Use

The IP67 rating provides protection against dust and water ingress. This allows for operation in challenging conditions such as wet grass, puddles, or dusty trails. However, it is recommended to:

- Avoid prolonged submersion in water.
- Rinse off dirt and mud with clean water after use in harsh conditions.
- Ensure all components are thoroughly dried before storage or next use.

6. MAINTENANCE

- **Cleaning:** Regularly clean the motor and ESC to remove dirt, dust, and debris. Use a soft brush or compressed air.
- **Inspection:** Periodically inspect all wires, connectors, and solder joints for signs of wear, damage, or corrosion. Check motor bearings for smooth operation.
- **Temperature Monitoring:** Continuously monitor the operating temperature of both the motor and ESC. If temperatures exceed safe limits (typically above 80°C / 176°F), reduce load, adjust gearing, or allow components to cool. Prolonged high temperatures can lead to irreversible damage.
- **Storage:** Store the ESC and motor in a clean, dry place away from direct sunlight and extreme temperatures. Disconnect batteries during storage.

7. TROUBLESHOOTING

This section addresses common issues you might encounter. For problems not listed here, please contact customer support.

Problem	Possible Cause	Solution
Motor does not run or runs intermittently.	Loose wiring, incorrect connections, low battery, ESC not calibrated.	Check all wiring, ensure battery is charged, recalibrate ESC.
Motor runs in the wrong direction.	Incorrect motor wire connection.	Reverse any two of the three motor wires.
ESC or motor overheats.	Over-gearing, excessive load, insufficient airflow, damaged components.	Reduce gearing, ensure proper ventilation, check for binding in drivetrain, allow components to cool.
Loss of control or erratic behavior.	Radio interference, low receiver battery, damaged receiver/transmitter.	Check radio system, ensure receiver battery is charged, operate in an interference-free area.

8. SPECIFICATIONS

Feature	Detail
Brand	HOBBYWING
Model Name	QUICRUN 16BL30 G2 + 2435SL COMBO
Item Model Number	2435SL 4500KV

Feature	Detail
Product Dimensions	1.65"W x 3.07"H
Material	Alloy Steel, Aluminum, Copper
Item Weight	8.8 ounces
UPC	088718520300
Global Trade Identification Number	00088718520300
Manufacturer	Hobbywing

9. WARRANTY AND SUPPORT

9.1 Warranty Information

HOBBYWING products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the official HOBBYWING website or contact their customer support directly. Keep your proof of purchase for warranty claims.

9.2 Customer Support

Should you require technical assistance, have questions regarding setup, operation, or encounter any issues not covered in this manual, please contact HOBBYWING North America customer support. Contact details can typically be found on the official HOBBYWING website or through your retailer.

10. OFFICIAL PRODUCT VIDEOS

No official product videos from the seller were found to be relevant or useful for this instruction manual.