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HOBBYWING QUICRUN 12BL45 G2 + 2850SL COMBO

HOBBYWING QUICRUN 12BL45 G2 ESC + 2850SL Motor Combo User Manual

Model: QUICRUN 12BL45 G2 + 2850SL COMBO (2850SL 3400KV)

1. INTRODUCTION

This manual provides detailed instructions for the HOBBYWING QUICRUN 12BL45 G2 Electronic Speed Controller (ESC) and 2850SL Brushless Motor Combo. This high-performance system is specifically designed for 1/12th and 1/14th scale On-road and Off-road remote-controlled vehicles. Please read this manual thoroughly before installation and operation to ensure proper use and maximize the performance and longevity of your product.



Image 1: HOBBYWING QUICRUN 12BL45 G2 ESC and 2850SL Motor Combo. This image displays the combined electronic speed controller and brushless motor unit.

2. SAFETY PRECAUTIONS

- Always disconnect the battery from the ESC when not in use to prevent accidental operation and potential damage.
- Ensure all connections are secure and properly insulated to avoid short circuits.
- Operate your RC vehicle in a safe environment, away from people, pets, and obstacles.
- Avoid prolonged exposure to extreme temperatures or direct sunlight.
- Do not attempt to disassemble or modify the ESC or motor, as this may void the warranty and cause damage.
- Keep the product away from moisture and corrosive substances. Although the components have water resistance ratings, proper care is essential.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- (1) QUICRUN 12BL45 G2 ESC package

- (1) QUICRUN 2850SL motor package

4. SETUP AND INSTALLATION

1. **Motor Installation:** Securely mount the 2850SL motor into your 1/12th or 1/14th scale vehicle chassis. Ensure proper gear mesh between the motor pinion and the vehicle's spur gear. The motor is designed to pair with Quicrun 2840/2850 G2 motors for optimal performance.
2. **ESC Mounting:** Mount the 12BL45 G2 ESC in a location that allows for good airflow and is protected from impacts. Use double-sided tape or screws as appropriate for your chassis.
3. **Motor Connection:** The 2850SL motor comes pre-soldered with high-quality gold-plated 3.5mm connectors. Connect the motor wires to the corresponding ESC motor output terminals. Ensure correct phase connection (A-A, B-B, C-C).
4. **Battery Connection:** Connect your battery pack to the ESC's battery input wires. Observe correct polarity: red wire to positive (+), black wire to negative (-). Incorrect polarity will damage the ESC.
5. **Receiver Connection:** Plug the ESC's throttle cable into the throttle channel (usually channel 2) of your RC receiver.
6. **Calibration:** Perform ESC calibration with your radio system according to the specific instructions provided with the ESC (refer to the detailed ESC manual for precise steps). This ensures proper throttle range recognition.

Environmental Protection: The 2850SL motor features an IP56 protection rating, offering dust resistance and reliable performance in wet conditions. The 12BL45 G2 ESC has an IP67 protection rating, providing excellent waterproof and dustproof performance. While these ratings allow for operation in harsh outdoor environments, it is always recommended to minimize exposure to excessive moisture and dirt for prolonged product life.

5. OPERATING INSTRUCTIONS

1. **Power On:** Turn on your radio transmitter first, then connect the battery to the ESC. The ESC will emit a series of tones indicating successful power-up and cell count detection.
2. **Initial Test:** Gently apply throttle to ensure the motor spins in the correct direction. If the motor spins backward, reverse any two of the three motor wires or adjust the motor direction setting via the ESC's programming options.
3. **Driving:** Operate your RC vehicle responsibly. The combination of the 12BL45 G2 ESC and 2850SL motor delivers smoother power output and superior control performance, providing an exhilarating driving experience.
4. **Power Off:** Disconnect the battery from the ESC first, then turn off your radio transmitter.

Parameter Adjustment

The ESC supports three methods for parameter adjustment:

- **LCD Program Box Pro:** Offers comprehensive programming options and a user-friendly interface.
- **LED Program Box:** Provides basic programming adjustments through LED indicators.
- **SET Button:** Allows for quick adjustments of common parameters directly on the ESC.

Refer to the specific programming device's manual for detailed instructions on how to adjust parameters.

6. MAINTENANCE

- **Cleaning:** After each use, especially in dusty or wet conditions, gently clean the ESC and motor to remove dirt, debris, and moisture. Use a soft brush or compressed air. Avoid using solvents that may damage plastic components.
- **Inspection:** Regularly inspect all wires and connectors for signs of wear, fraying, or damage. Ensure all connections remain secure.
- **Storage:** Store the ESC and motor in a dry, cool place away from direct sunlight and extreme temperatures. Disconnect batteries before storage.
- **Motor Bearings:** Periodically check motor bearings for smooth operation. If they feel rough, they may need cleaning or replacement.

7. TROUBLESHOOTING

If you encounter issues with your HOBBYWING QUICRUN combo, consider the following common troubleshooting steps:

- **No Power/No Response:**
 - Check battery connection and charge level.
 - Ensure ESC is properly connected to the receiver.
 - Verify transmitter is powered on and bound to the receiver.
- **Motor Not Spinning/Incorrect Direction:**
 - Re-check motor wire connections to the ESC.
 - Perform ESC calibration with your transmitter.
 - Adjust motor direction via ESC programming if necessary.
- **Overheating:**
 - Check gear mesh for excessive tightness.
 - Ensure adequate airflow around the ESC and motor.
 - Consider reducing vehicle load or adjusting ESC timing settings.
- **Erratic Operation:**
 - Check for loose connections or damaged wires.
 - Ensure no radio interference.
 - Recalibrate the ESC.

For persistent issues, consult the detailed ESC manual or contact HOBBYWING customer support.

8. SPECIFICATIONS

Brand	HOBBYWING
Model Name	QUICRUN 12BL45 G2 + 2850SL COMBO
Item Model Number	2850SL 3400KV
Product Dimensions	1.65 x 1.65 x 3.07 inches

Item Weight	11 ounces
Manufacturer	Hobbywing Technology
UPC	088718520362
Motor Protection Rating	IP56 (Dust resistant, protected against strong jets of water)
ESC Protection Rating	IP67 (Dust tight, protected against immersion in water up to 1m)
Designed For	1/12th & 1/14th On-road & Off-road RC vehicles

9. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact HOBBYWING customer support directly. Details regarding warranty periods and terms of service are typically provided with your purchase documentation or can be found on the official HOBBYWING website.

Manufacturer: Hobbywing Technology