Hobbywing Skywalker 60A V2

HOBBYWING Skywalker 60A V2 ESC Instruction Manual

Brand: Hobbywing | Model: Skywalker 60A V2

Product Overview

The HOBBYWING Skywalker 60A V2 Electronic Speed Controller (ESC) is designed for remote-controlled aircraft, offering reliable performance and advanced features. This manual provides essential information for proper installation, operation, and maintenance of your ESC.

Important Safety Information

Please read and understand all safety precautions before using this unit. Failure to follow these instructions may result in damage to the product, property, or personal injury.

- Review manuals for all power devices and aircraft to ensure a rational power configuration.
- Ensure all wires and connections are properly insulated before connecting the ESC to related devices. Short circuits can damage the ESC.
- Verify all devices are securely connected to prevent poor connections that could lead to loss of aircraft control or device damage. Use a soldering iron with sufficient power for all input/output wires and connectors if necessary.
- Never allow the motor to lock up during high-speed rotation. This can destroy the ESC and damage the motor. Immediately move the throttle stick to the bottom position or disconnect the battery if the motor locks up.
- Avoid using the unit in extremely hot weather or continuing operation when it becomes excessively hot. High temperatures can activate thermal protection or cause permanent damage to the ESC.
- Always disconnect and remove batteries after use. The ESC will continue to consume current if connected, leading to complete battery discharge and potential damage to batteries or the ESC. Such damage is not covered under warranty.

Package Contents

- (1) HOBBYWING Skywalker 60A V2 ESC
- (1) Instruction Manual

Setup Guide

Proper installation is crucial for optimal performance and safety. Follow these steps to set up your Skywalker 60A V2 ESC:

1. **Connect to Motor:** Connect the three output wires from the ESC to the three wires of your brushless motor. Ensure correct phase connection for proper motor rotation. If the motor rotates in the wrong direction, swap any two of the ESC's output wires.
2. **Connect to Receiver:** Plug the signal cable (usually a three-wire servo connector) from the ESC into the throttle channel of your RC receiver.
3. **Connect to Battery:** Connect the main power input wires (red and black) of the ESC to your LiPo battery. Ensure polarity is correct (red to positive, black to negative).

Figure 1: Front view of the HOBBYWING Skywalker 60A V2 ESC, showing the main unit with power and signal wires.

Figure 2: Angled view of the HOBBYWING Skywalker 60A V2 ESC, highlighting the various wire connections for power, motor, and signal.

Operating Instructions

The Skywalker 60A V2 ESC offers various programmable features to optimize your aircraft's performance. These can be configured using a compatible HOBBYWING program box or a transmitter.

Key Features:

- **Reverse Brake:** Features Reverse Brake and Linear Reverse Brake modes to shorten landing distances,

simulating real aircraft landings. Normal Brake Mode and Brake Disabled mode are also available, with adjustable brake amounts in normal mode.

- **High-Performance Processor:** Equipped with a 32-bit ARM M0 processor running up to 96MHz, supporting motor speeds up to 300,000 RPM (2-pole motor).
- **DEO Technology:** Driving Efficiency Optimization (DEO) technology provides fast and smooth throttle response, improved stability and flexibility during flight, higher driving efficiency for longer flight times, and lower ESC temperatures for reliable operation.
- **Search Mode:** Assists in locating a lost aircraft by pulsing the motor to beep, useful in visually obstructed environments. This mode can also prompt disconnection of the ESC battery after a set idle time to prevent battery damage from over-discharge.
- **Multiple Protection Features:** Includes abnormal input voltage protection, ESC thermal protection, throttle signal loss (Fail Safe), and low voltage cutoff to prolong ESC lifespan.

Programming the ESC:

The ESC can be programmed using the HOBBYWING LED Program Box or a compatible transmitter. For advanced programming and firmware updates, the Multifunction LCD Program Box Pro is recommended.

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Video 1: This video demonstrates how to use the HOBBYWING Multifunction LCD Program Box Pro to configure settings and update firmware for Hobbywing ESCs. It covers navigating menus, changing parameters, and utilizing Bluetooth connectivity.

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Video 2: This video provides an overview of the Hobbywing Skywalker 50A V2 ESC, showcasing its features and components. While demonstrating a 50A model, the setup and general operation principles are similar to the 60A V2.

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Video 3: This video presents the Hobbywing Skywalker 80A V2 ESC, highlighting its design and functionality. The information is largely applicable to the 60A V2 model, focusing on the Skywalker V2 series characteristics.

Maintenance

To ensure the longevity and optimal performance of your HOBBYWING Skywalker 60A V2 ESC, follow these maintenance guidelines:

- Keep the ESC clean and free from dust, dirt, and moisture. Use a soft, dry brush or compressed air for cleaning.
- Regularly inspect all wires and connectors for signs of wear, damage, or loose connections. Repair or replace as needed.
- Ensure adequate airflow around the ESC during operation to prevent overheating. Avoid obstructing the heatsink.
- Store the ESC in a cool, dry place away from direct sunlight and extreme temperatures.

Troubleshooting

If you encounter issues with your Skywalker 60A V2 ESC, refer to the following common problems and solutions:

- **Motor not spinning:** Check all connections (motor, battery, receiver). Ensure the throttle channel is correctly calibrated and the transmitter is powered on. Verify the ESC's running mode settings.
- **ESC overheating:** Ensure proper ventilation and airflow. Check for excessive load on the motor or incorrect gearing. Reduce the throttle input or adjust ESC settings if necessary.
- **Intermittent power or signal loss:** Inspect all wiring for loose connections or damage. Ensure the receiver is

properly bound to the transmitter and that there is no interference.

- **Motor beeps continuously:** This may indicate a low voltage cutoff or throttle signal loss. Check battery voltage and transmitter connection. Refer to the Search Mode feature for aircraft recovery.

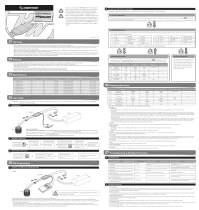
Technical Specifications

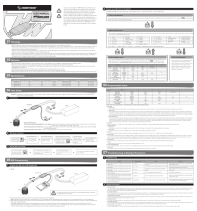
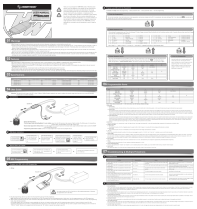
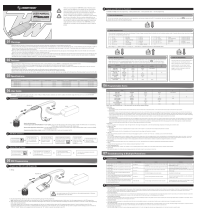
Feature	Specification
Continuous Current	60A
Peak Current	80A
LiPo Cells	3-6S
SBEC Output	5V@7A
Product Dimensions	8 x 1 x 5 inches
Item Weight	0.32 ounces
Item Model Number	30216101
Manufacturer	Hobbywing Technology

Warranty and Support

Hobbywing products are designed for high performance and reliability. Please refer to the official Hobbywing website or your local distributor for detailed warranty terms and conditions. Note that damage resulting from improper use, such as motor lock-up or continuous operation in extremely hot conditions, may not be covered under warranty.
For technical support, firmware updates, or further assistance, please visit the official Hobbywing support channels or contact your retailer.

Related Documents - Skywalker 60A V2

	Hobbywing Skywalker V2 ESC User Manual User manual for the Hobbywing Skywalker V2 series of brushless electronic speed controllers (ESCs), detailing features, specifications, connections, programming, and troubleshooting.
	HOBBYWING Skywalker V2 Series Brushless ESC User Manual Comprehensive user manual for the HOBBYWING Skywalker V2 series of brushless electronic speed controllers (ESCs), covering features, specifications, installation, calibration, programming, and troubleshooting.

	[HOBBYWING SkyWalker V2 Series ESC: Features, Specifications, and Programmable Options] Explore the HOBBYWING SkyWalker V2 series of Electronic Speed Controllers (ESCs), featuring Reverse Brake, DEO Technology, Search Mode, and multiple protections. View detailed specifications and programmable parameters for RC models.
	[Hobbywing Skywalker V2 Series ESC User Manual] Comprehensive user manual for the Hobbywing Skywalker V2 series of Brushless Electronic Speed Controllers (ESCs), covering features, specifications, setup, programming, and troubleshooting.
	[Hobbywing Skywalker V2 Series ESC User Manual] User manual for the Hobbywing Skywalker V2 series of brushless electronic speed controllers (ESCs), covering models like the 40A, 50A, 80A, and 100A V2. Provides instructions on connections, ESC programming via transmitter or LED program box, features, specifications, troubleshooting, and multiple protections.
	[Hobbywing Skywalker V2 Brushless ESC User Manual] User manual for the Hobbywing Skywalker V2 series of brushless electronic speed controllers (ESCs), covering models 40A, 50A, 80A, and 100A. Includes warnings, features, specifications, user guide, ESC programming instructions via transmitter and LED program box, and troubleshooting tips.