Hobbywing 30105100

EZRUN MAX6 G2 ESC Instruction Manual

Model: 30105100
Brand: Hobbywing

Introduction

The Hobbywing EZRUN MAX6 G2 ESC is an advanced electronic speed controller designed for high-performance RC vehicles. It features an innovative waterproof sensor interface, ensuring robust performance in challenging conditions like sediment, ice, snow, and water accumulation. This ESC is equipped with a powerful switch mode BEC, supporting various high-voltage servos, and offers advanced functions such as turbo timing for remarkable response when paired with compatible motors. Its integrated Bluetooth functionality allows for convenient configuration and firmware upgrades via a mobile app, and it includes multiple protection features to safeguard your system.



Figure 1: Overview of the EZRUN MAX6 G2 ESC, showing its compact design, cooling fan, and various connection points for power and motor.

Important Safety Information

Please read and understand all safety warnings before operating the EZRUN MAX6 G2 ESC. Failure to do so may result in injury or damage to the product.

- Before using this product, read the instruction manual carefully. Ensure that the equipment is used appropriately to avoid damaging the ESC. The wrong usage will overheat and damage the electronics.
- It is important to ensure that all wires soldered are properly secured to avoid short circuits from happening. A good soldering station is recommended to do such a job to avoid overheating the circuit board as well as to ensure connections are properly soldered.
- Even though the product has relevant protective measures, always use it in a safe manner in accordance with the operating environment noted in the manual (e.g, voltage, current, temperature and etc).
- Always remember to disconnect the battery each time after using it. Failure to do so will cause the battery to be completely discharged, resulting in an unpredictable danger.

Setup Guide

Follow these steps for proper installation and initial setup of your EZRUN MAX6 G2 ESC:

1. **Mounting the ESC:** Securely mount the ESC in your vehicle, ensuring adequate airflow for cooling. The innovative waterproof sensor interface enhances protection against environmental elements.
2. **Motor Connection:** Connect the ESC to your brushless motor. For optimal performance, use matching motors

such as the EZRUN 4990SD/5690SD G2 to leverage turbo timing settings.

3. **Battery Connection:** Connect your battery pack to the ESC. Ensure correct polarity.
4. **Receiver Connection:** Plug the ESC's signal cable into the throttle channel of your receiver.
5. **BEC Voltage Setting:** The built-in ultra-powerful switch mode BEC supports 6V/7.4V/8.4V switching. Adjust this setting as needed to match your servo's voltage requirements.
6. **Bluetooth Pairing:** Utilize the integrated Bluetooth function to connect the ESC to the HW LINK mobile app. This allows for convenient configuration and parameter adjustments without additional devices.

Operation

Once installed and configured, the EZRUN MAX6 G2 ESC offers robust performance and advanced features:

- **Mobile App Control:** Use the HW LINK app to fine-tune settings, monitor real-time data, and perform firmware upgrades for the latest features and improvements.
- **Data Logging:** The ESC includes a data logging function, allowing you to view various running data directly on the HW LINK app for performance analysis.
- **Turbo Timing:** When used with compatible motors, the turbo timing setting provides a remarkable timing response, enhancing acceleration and top speed.
- **Protection Functions:** The ESC is equipped with multiple protection functions, including battery low voltage protection, ESC and motor overheat protection, signal loss protection, and current protection, ensuring the longevity of your components.

Maintenance

Regular maintenance ensures the longevity and optimal performance of your EZRUN MAX6 G2 ESC:

- **Cleaning:** Periodically clean the ESC, especially the cooling fan and heatsink, to prevent dust and debris buildup. While the ESC has enhanced waterproof and dustproof performance, gentle cleaning is still recommended.
- **Connection Checks:** Regularly inspect all wire connections for looseness or damage. Ensure all soldered joints are secure to prevent short circuits.
- **Firmware Updates:** Check for and apply firmware updates via the HW LINK app to benefit from performance enhancements and bug fixes.
- **Storage:** When not in use, disconnect the battery from the ESC. Store the ESC in a clean, dry environment.

Troubleshooting

If you encounter issues with your EZRUN MAX6 G2 ESC, consider the following common solutions:

Problem	Possible Cause	Solution
ESC not powering on	Battery not connected, low battery voltage, faulty switch.	Check battery connection and charge level. Inspect the power switch.
Motor not responding	Signal loss, incorrect motor wiring, ESC in protection mode.	Verify receiver connection and signal. Check motor phase wires. Check for overheat or low voltage protection activation.
Overheating	Insufficient cooling, excessive load, incorrect gearing.	Ensure proper airflow to the ESC. Reduce load or adjust gearing. Check motor for overheating as well.

Problem	Possible Cause	Solution
Inconsistent performance	Loose connections, outdated firmware, interference.	Check all connections. Update ESC firmware via HW LINK app. Ensure no radio interference.

The ESC's multiple protection functions (battery low voltage, ESC/motor overheat, signal loss, current protection) are designed to prevent damage. If a protection mode is activated, refer to the HW LINK app for diagnostic information.

Technical Specifications

Specification	Value
Product Dimensions	6 x 2.1 x 4.1 inches
Item Weight	12.5 ounces
Item Model Number	30105100
Manufacturer Recommended Age	3 years and up
Manufacturer	Hobbywing Technology
BEC Output	8A continuous, 25A instant (6V/7.4V/8.4V switchable)
Waterproof/Dustproof	Innovative waterproof sensor interface
Connectivity	Built-in Bluetooth for mobile app (HW LINK)
Protection Functions	Battery low voltage, ESC/motor overheat, signal loss, current protection

What's in the Box

- (1) EzRun MAX6 G2 ESC
- (1) User's manual

Warranty and Support

Hobbywing provides a warranty for the EZRUN MAX6 G2 ESC against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the official Hobbywing website or contact their customer support.
For technical support, troubleshooting assistance, or warranty claims, please contact Hobbywing customer service through their official channels. Keep your purchase receipt as proof of purchase.

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