Hobbywing 30103205

HOBBYWING EZRUN MAX8 G2S User Manual

Model: 30103205

Introduction

This manual provides essential information for the proper setup, operation, and maintenance of your HOBBYWING EZRUN MAX8 G2S Electronic Speed Controller (ESC). Please read this manual thoroughly before use to ensure optimal performance and safety.

Safety Information

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.

Product Features



Image: The HOBBYWING EZRUN MAX8 G2S ESC, a black rectangular unit with "HOBBYWING EZRUN MAX8 G2S" branding, cooling fins on top, and red/black power wires extending from one side. It also shows Bluetooth and signal icons.

- **Innovative Waterproof Sensor Interface:** Enhances overall waterproof and dustproof performance, suitable for harsh conditions.
- **Built-in Ultra-Powerful Switch Mode BEC:** Supports 6V/7.4V/8.4V switching with continuous current of 6A, compatible with powerful and high-voltage servos.
- **Turbo Timing Setting:** Remarkable timing response when used with matching motors.
- **Multiple Protection Functions:** Includes battery low voltage protection, ESC and motor overheat protection, signal loss protection, and current protection.
- **Built-in Bluetooth Function:** Allows for direct connection to the mobile app (HW LINK V2) for setting and upgrading the ESC without additional devices.
- **Data Logging Function:** View various running data on the HW LINK app, storing up to 10 minutes of recent run data.
- **Firmware Upgrade Support:** Enjoy the latest functions through firmware upgrades.
- **Optimized Hardware:** Features intelligent freewheeling technology for increased stability and reliability.
- **Extreme Output, Easy Control:** Provides powerful yet smooth and linear throttle response.
- **Waterproof Sensor Harness:** Provides an element-proof solution for sensor-based systems.

Setup Guide

1. **Physical Installation:** Securely mount the EZRUN MAX8 G2S ESC in your vehicle, ensuring adequate airflow for cooling.
2. **Motor Connection:** Connect the ESC to your sensored or sensorless brushless motor. Ensure correct phase wire connections for proper rotation.
3. **Battery Connection:** Connect your 3-6S LiPo battery to the ESC's power input. Always ensure correct polarity.
4. **Receiver Connection:** Plug the ESC's throttle cable into the throttle channel of your receiver.

5. **Servo Connection:** Connect your steering servo to the appropriate channel on your receiver. The ESC's BEC will power the receiver and servo.
6. **Bluetooth Pairing (HW LINK App):**
    - Download the HW LINK V2 App on your mobile device.
    - Power on the ESC.
    - Open the HW LINK V2 App and connect to the ESC via Bluetooth. The effective distance for Bluetooth connection is approximately 5 meters.
    - Use the app to configure ESC parameters, including BEC voltage (6V/7.4V/8.4V), turbo timing, and other settings.
7. **Calibration:** Perform throttle range calibration with your radio system according to the ESC's specific instructions (refer to the detailed manual for precise steps).

Operating Instructions

The EZRUN MAX8 G2S ESC is designed for powerful yet smooth operation. Follow these guidelines for optimal performance:

- **Power On/Off:** Always connect the battery to the ESC first, then power on your radio transmitter. To power off, turn off the transmitter first, then disconnect the battery from the ESC.
- **Throttle Control:** Experience the smooth and linear throttle response. Gradually apply throttle for controlled acceleration.
- **Data Logging:** Utilize the built-in data logging function via the HW LINK V2 App to monitor real-time data and review historical performance (up to 10 minutes of latest run data). This helps in optimizing settings and diagnosing issues.
- **Turbo Timing:** For advanced users, the adjustable turbo timing (up to 32 degrees) can be used to increase motor RPM for maximum speed. Adjust this setting carefully through the HW LINK App.
- **Protection Features:** The ESC is equipped with multiple protection functions. If the ESC stops operating unexpectedly, check for low battery voltage, overheating (ESC or motor), or signal loss. Address the underlying cause before resuming operation.
- **Waterproof Operation:** The innovative waterproof design allows operation in wet conditions. However, always ensure proper drying and maintenance after exposure to water to prevent long-term damage.

Maintenance

Proper maintenance ensures the longevity and reliability of your EZRUN MAX8 G2S ESC:

- **Cleaning:** Regularly clean the ESC to remove dirt, dust, and debris. Use a soft brush or compressed air. For wet conditions, ensure the ESC is thoroughly dried after use.
- **Inspections:** Periodically inspect all wires, connectors, and solder joints for any signs of wear, damage, or corrosion. Repair or replace as necessary.
- **Firmware Updates:** Check the HW LINK V2 App regularly for available firmware updates. Keeping the firmware updated ensures you have the latest features and bug fixes.
- **Storage:** When not in use, store the ESC in a cool, dry place away from direct sunlight and extreme temperatures. Disconnect all batteries before storage.
- **Waterproof Integrity:** While waterproof, avoid prolonged submersion or exposure to corrosive liquids. Ensure the waterproof sensor harness is properly seated.

Troubleshooting

If you encounter issues with your EZRUN MAX8 G2S ESC, refer to the following common troubleshooting steps:

Problem	Possible Cause	Solution
ESC does not power on.	Battery not connected, battery discharged, faulty power switch, incorrect polarity.	Check battery connection and charge level. Ensure power switch is on. Verify correct polarity.
Motor does not spin or stutters.	Incorrect motor wiring, motor sensor cable disconnected/damaged, ESC not calibrated, signal loss.	Verify motor phase wire connections. Check sensor cable. Recalibrate ESC. Check radio signal.
ESC or motor overheats.	Overgearing, motor timing too aggressive, insufficient cooling, excessive load.	Reduce gearing. Adjust motor timing. Ensure proper airflow. Reduce load on the vehicle.
Vehicle runs slowly or lacks power.	Low battery voltage, incorrect ESC settings, motor issues.	Charge battery. Check ESC settings via HW LINK App. Inspect motor for damage.
Bluetooth connection issues.	Out of range, app issues, ESC not powered on.	Ensure device is within 5m of ESC. Restart app/device. Power cycle ESC.

Specifications

Attribute	Detail
Model Number	30103205
Cont. / Peak Current	160A / 1050A
Motor Type	Sensored and Sensorless Brushless Motor
LiPo Cells	3-6S LiPo
Size (L x W x H)	60 x 48 x 40.5mm
Weight	192g (Included input wires & connectors)
Motor Limit (4S LiPo)	KV ≤ 3000 (4278 size motor)
Motor Limit (6S LiPo)	KV ≤ 2400 (4278 size motor)
BEC Output	6V / 7.4V / 8.4V adjustable, continuous current 6A (Switch-mode)
Product Dimensions	5.24 x 3.48 x 2.11 inches
Item Weight	8 ounces
Country of Origin	China
Manufacturer Recommended Age	8 years and up
Manufacturer	Hobbywing Technology

What's in the Box

- (1) MAX8 G2S ESC
- (1) Manual

Warranty and Support

For warranty information and technical support, please refer to the official Hobbywing website or contact Hobbywing customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims.
For further assistance, you may visit the Hobbywing Official Website.

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