

Integy C31592

Integy Brushless ESC 100A WP-S8A-RTR Instruction Manual

Model: C31592

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Integy Brushless ESC 100A WP-S8A-RTR. This electronic speed controller is designed for 1/8 Touring Cars, 1/10 Truggies, Buggies, and Short Course Trucks (SCTs). Please read this manual thoroughly before use to ensure optimal performance and safety.

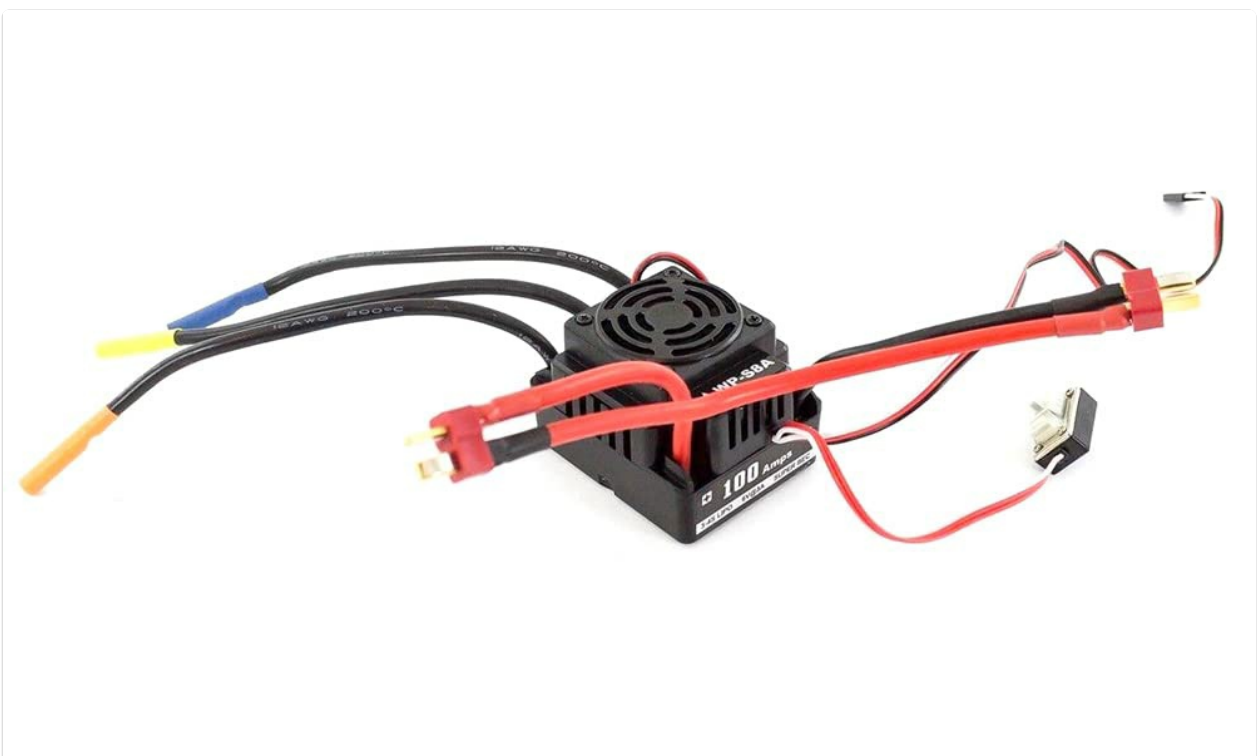


Figure 1: Integy Brushless ESC 100A WP-S8A-RTR. This image shows the compact design of the electronic speed controller.

2. SAFETY PRECAUTIONS

Always observe the following safety guidelines to prevent injury or damage to the ESC and other components:

- Ensure all connections are correct and secure before powering on the ESC. Incorrect polarity can cause severe damage.
- Avoid short circuits. Insulate all exposed wires and connectors.
- Do not operate the ESC in extreme temperatures or conditions beyond its specified limits.
- Disconnect the battery from the ESC when not in use to prevent accidental activation and discharge.
- Keep the ESC away from moisture and corrosive substances, despite its waterproof rating, to prolong its lifespan.
- Always use batteries that are compatible with the ESC's voltage and current ratings.

3. PACKAGE CONTENTS

The package for the Integy Brushless ESC 100A WP-S8A-RTR (Model C31592) typically includes:

- Integy Brushless ESC 100A WP-S8A-RTR unit
- As shown components (e.g., wires, connectors, heat shrink tubing, user manual)

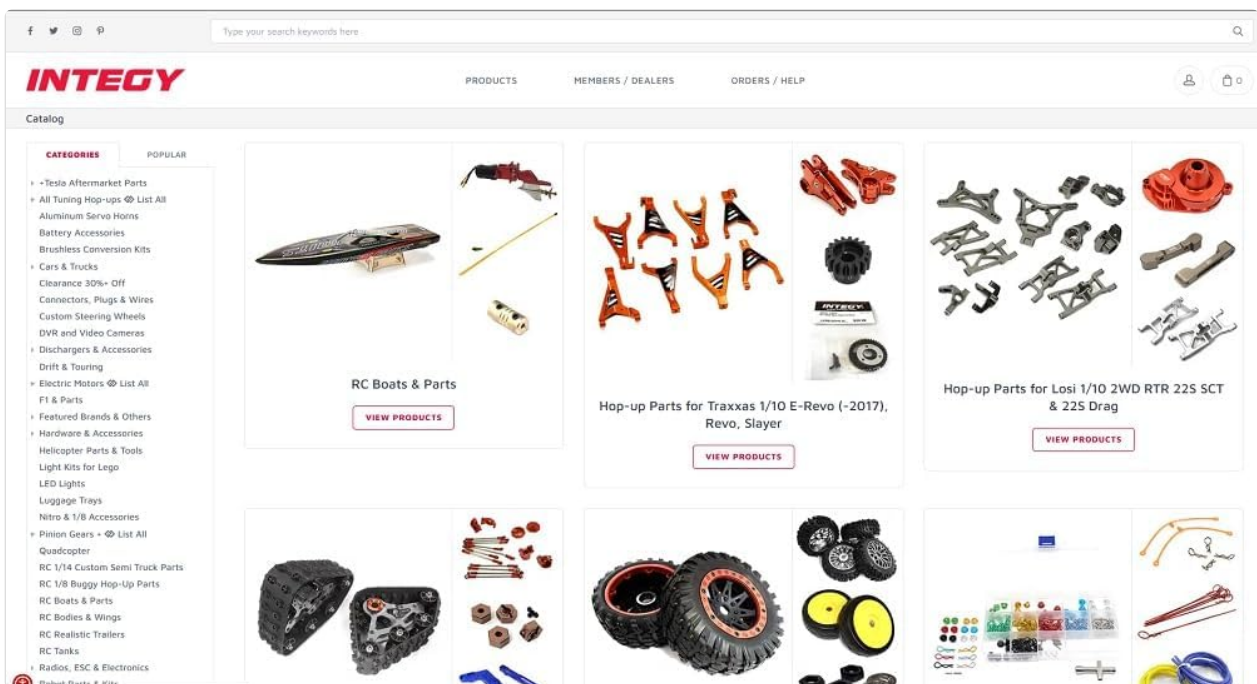


Figure 2: Integy Brushless ESC as typically packaged. The image displays the product within its retail packaging.

4. FEATURES

- **Waterproof Design:** Suitable for various operating conditions.
- **High Current Capacity:** Continuous 100A, Burst 650A.
- **Wide Voltage Support:** Compatible with 3-4S LiPo and 8-12 cell NiMH batteries.
- **Integrated BEC:** Built-in 6V/5A switch mode BEC for reliable power to receiver and servos.
- **Low Resistance:** Ultra-low 0.0005 Ohm resistance for maximum power efficiency.
- **Dual-Purpose Port:** Programming port also functions as a fan port.
- **Compact Size:** Dimensions of 59.5*48*42mm and a weight of 173g.

5. SETUP AND INSTALLATION

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

1. **Mounting the ESC:** Securely mount the ESC in your RC vehicle using double-sided tape or screws, ensuring good airflow for cooling.
2. **Motor Connection:** Connect the three motor wires from the ESC to your brushless motor. If the motor spins in the wrong direction, swap any two of the three wires.
3. **Receiver Connection:** Plug the ESC's throttle cable into the throttle channel (usually channel 2) of your receiver.
4. **Battery Connection:** Connect your compatible LiPo or NiMH battery to the ESC's battery input. Ensure correct polarity.
5. **Calibration:**
 - Turn on your transmitter and ensure the throttle trim is at neutral.
 - With the transmitter on, connect the battery to the ESC.
 - The ESC will emit a series of beeps. Follow the specific calibration procedure outlined in your transmitter's manual or the ESC's detailed programming guide (if available) to set the neutral, full throttle, and full brake points.

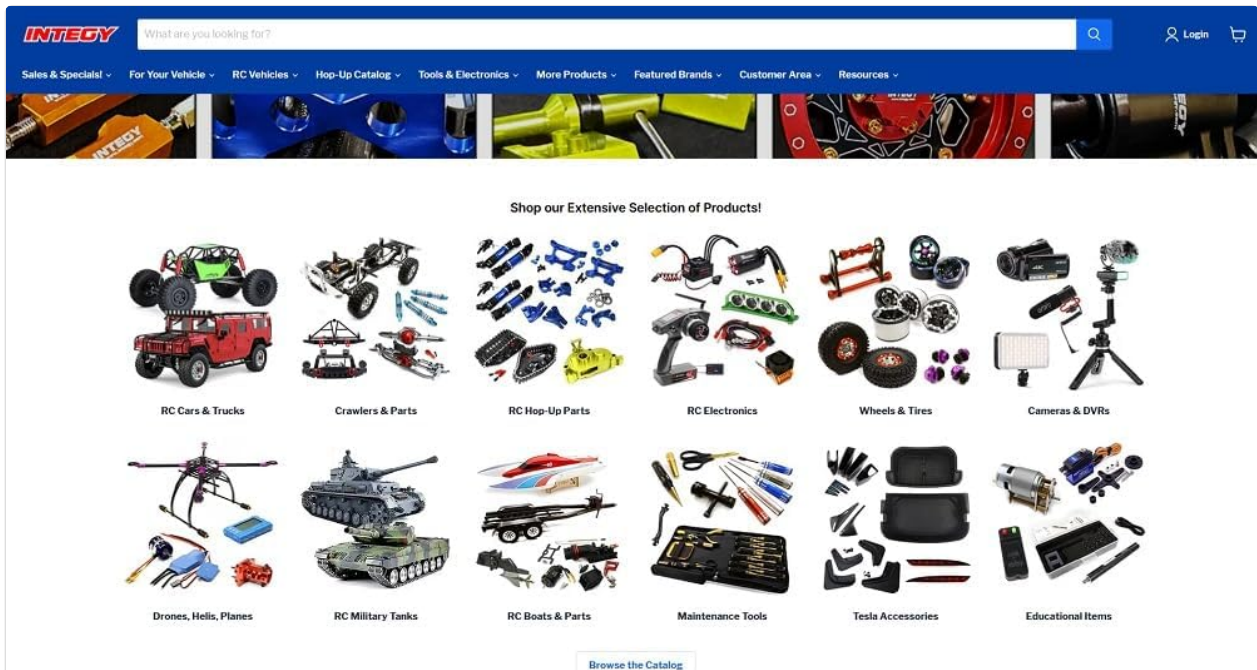


Figure 3: Integy Brushless ESC showing connection points. This image illustrates the various wire leads for motor, battery, and receiver connections.

6. OPERATING INSTRUCTIONS

Once the ESC is installed and calibrated, follow these steps for operation:

1. Turn on your transmitter first.
2. Connect the battery to the ESC. The ESC will initialize and emit a confirmation tone.
3. You are now ready to operate your RC vehicle.
4. To stop operation, disconnect the battery from the ESC first, then turn off your transmitter.

Important: Monitor ESC temperature during initial runs. If the ESC becomes excessively hot, reduce load or adjust gearing.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and performance of your ESC:

- **Cleaning:** Periodically clean the ESC to remove dirt, dust, and debris. Use a soft brush or compressed air. Avoid using solvents.
- **Inspection:** Regularly inspect all wires and connectors for signs of wear, damage, or corrosion. Replace damaged components immediately.
- **Storage:** Store the ESC in a dry, cool place away from direct sunlight and extreme temperatures when not in use.
- **Firmware:** Check the manufacturer's website for any available firmware updates for your ESC model.

8. TROUBLESHOOTING

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

| Problem | Possible Cause | Solution |
|--|---|--|
| Motor does not run or runs intermittently. | Loose connections, incorrect calibration, low battery voltage, motor or ESC damage. | Check all wiring. Recalibrate ESC. Charge or replace battery. Inspect motor and ESC for physical damage. |
| ESC overheats. | Overgearing, excessive load, poor ventilation, damaged motor. | Reduce gearing. Ensure proper airflow around ESC. Check motor for issues. Reduce run time. |
| Motor runs in reverse. | Incorrect motor wire connection. | Swap any two of the three motor wires. |
| No response from throttle. | Transmitter off, receiver not connected, ESC not calibrated, low transmitter battery. | Turn on transmitter. Check receiver connection. Recalibrate ESC. Replace transmitter batteries. |

9. SPECIFICATIONS

| Specification | Value |
|-----------------------|--|
| Model Name | Brushless ESC 100A WP-S8A-RTR Waterproof 3-4S for RC Car |
| Model Number | C31592 |
| Continuous Current | 100A |
| Burst Current | 650A |
| Resistance | 0.0005 Ohm |
| Battery Compatibility | 3-4S LiPo / 8-12 Cell NiMH |
| BEC Output | 6V/5A (Switch Mode) |
| Drive Unit Limit (3S) | Up to KV 3000 |
| Drive Unit Limit (4S) | Up to KV 2400 |
| Dimensions (L*W*H) | 59.5mm * 48mm * 42mm |
| Weight | 173g (0.41 Pounds) |
| Material | Metal |

| Specification | Value |
|---------------|--------------|
| Manufacturer | Integy |
| UPC | 917890417828 |

10. WARRANTY AND SUPPORT

This Integy Brushless ESC 100A WP-S8A-RTR (Model C31592) comes with a **30 Day Warranty Against Manufacturer Defects** from the date of purchase. This warranty covers defects in materials and workmanship under normal use.

For technical support, warranty claims, or further assistance, please contact Integy customer service through their official website or authorized retailers. Please have your model number (C31592) and proof of purchase available when contacting support.

For more information, visit the official [Integy Store on Amazon](#).