Hobbywing 30120301

HOBBYWING QUICRUN 880 ESC Instruction Manual

Model: 30120301 | Brand: Hobbywing

1. Introduction

The HOBBYWING QUICRUN 880 ESC is a waterproof Electronic Speed Controller designed for dual brushed motors, suitable for 1:8 and 1:10 scale all-purpose vehicles. This ESC features advanced heat dissipation, a built-in BEC, and multiple programmable parameters for precise control and protection.

2. Safety Information

Warning:
Please read this manual carefully before use. The manufacturer assumes no liability for any damages, losses, or costs resulting from improper use, installation, application, or maintenance of this product. Any claims arising from operation, failure, or malfunction will be denied. Liability for personal injury and/or consequential damages is limited to the invoice amount of the affected product, as far as legally permitted.

- Always disconnect the battery when not in use.
- Ensure proper polarity when connecting components.
- Keep the ESC away from extreme temperatures and moisture.
- Uninstall the cooling fan before using the ESC in water.
- Clean and dry the ESC thoroughly after use in wet conditions to prevent connector rusting.

3. Product Features

- **Cont./Peak Current:** 80A/400A
- **Motor Type Supported:** Brushed Motor (540, 550, 775 Size Motor)
- **LiPo / NiMH Cells:** 2-4S LiPo or 5-12S NiMH
- **BEC Output:** 6V@4A (Switch-Mode)
- **Connectors:** Input End: No Connectors; Output End: 4.0mm Female Bullet Connectors
- **Dimensions:** 45.9*34.7*26.5mm
- **Weight:** 75g
- Fully waterproof and dustproof design for all weather conditions.
- HOBBYWING patented copper heat-conductive plates for excellent heat dissipation.

- Tunable drag brake and drag brake rate.
- Adjustable PWM frequency with advanced freewheeling (/DEO) technology for great throttle linearity.
- 9 levels of acceleration/punch from soft to aggressive.
- Proportional brake with 9 levels of initial brake force, maximum brake force, and drag brake force.
- Multiple protections: low-voltage cutoff, thermal protection, and throttle signal loss protection.
- Separate programming port for easy connection to an LED program card (sold separately).
- Two outputs to drive 2 motors simultaneously (motor turn needs to be increased when driving two motors).

4. Setup

Proper setup is crucial for optimal performance and longevity of your HOBBYWING QUICRUN 880 ESC.

4.1 Initial Connection

1. **Connect Motors:** Connect your brushed motors to the ESC's output ports using the 4.0mm female bullet connectors. Ensure correct polarity for desired rotation. If using two motors, connect them to both outputs. Note that when driving two motors simultaneously, the motor turn needs to be increased.
2. **Connect Battery:** Connect your 2-4S LiPo or 5-12S NiMH battery pack to the ESC's input wires. Ensure correct polarity.
3. **Connect Receiver:** Plug the ESC's signal cable (black and white wire) into the throttle channel of your RC receiver.
4. **Cooling Fan:** If operating in wet conditions, ensure the cooling fan is uninstalled. Reinstall for dry operation to aid heat dissipation.

4.2 ESC Calibration

Refer to your radio system's manual for proper throttle range calibration. Generally, this involves setting the neutral, full throttle, and full brake points on your transmitter and then calibrating the ESC to these points.

4.3 Programming (Optional)

The HOBBYWING QUICRUN 880 ESC can be programmed using a HOBBYWING LED Program Card (purchased separately). Connect the program card to the dedicated programming port on the ESC to adjust parameters such as:

- Battery Type (LiPo/NiMH) and Low-Voltage Cutoff
- Running Mode (Forward/Brake/Reverse)
- Drag Brake Force and Rate
- Initial Brake Force and Maximum Brake Force
- Punch/Acceleration Level
- PWM Frequency

Consult the LED Program Card manual for detailed programming instructions.

5. Operating Instructions

Once properly set up and calibrated, your HOBBYWING QUICRUN 880 ESC is ready for operation.

5.1 Powering On/Off

- **Power On:** Ensure your transmitter is turned on first, then connect the battery to the ESC. The ESC will emit a series of tones indicating successful power-up and cell count detection.
- **Power Off:** Disconnect the battery from the ESC first, then turn off your transmitter.

5.2 Driving

- **Throttle Control:** Gradually increase the throttle on your transmitter to move the vehicle forward.
- **Braking:** Apply reverse throttle to engage the brake. The proportional brake system allows for fine control.

- **Reverse:** If reverse mode is enabled, applying reverse throttle from a stopped position will engage reverse.
- **Drag Brake:** The configured drag brake will automatically apply a slight braking force when the throttle returns to neutral, simulating engine braking.

5.3 Performance Tuning

Utilize the programmable parameters via the LED Program Card to fine-tune the ESC's performance to your specific vehicle, track conditions, and driving style. Experiment with different punch levels, brake forces, and PWM frequencies to achieve desired throttle linearity and control feel.

6. Maintenance

Regular maintenance ensures the longevity and reliable performance of your ESC.

- **Cleaning:** After use, especially in dusty or wet environments, clean the ESC. For wet conditions, ensure it is thoroughly dried to prevent corrosion of connectors and internal components.
- **Cooling Fan:** If operating in water, always remove the cooling fan. Reinstall it for dry operation to ensure adequate cooling.
- **Connections:** Periodically check all connections (motor, battery, receiver) for secure fit and signs of wear or corrosion.
- **Storage:** Store the ESC in a dry, cool place away from direct sunlight and extreme temperatures.

7. Troubleshooting

This section provides solutions to common issues you might encounter.

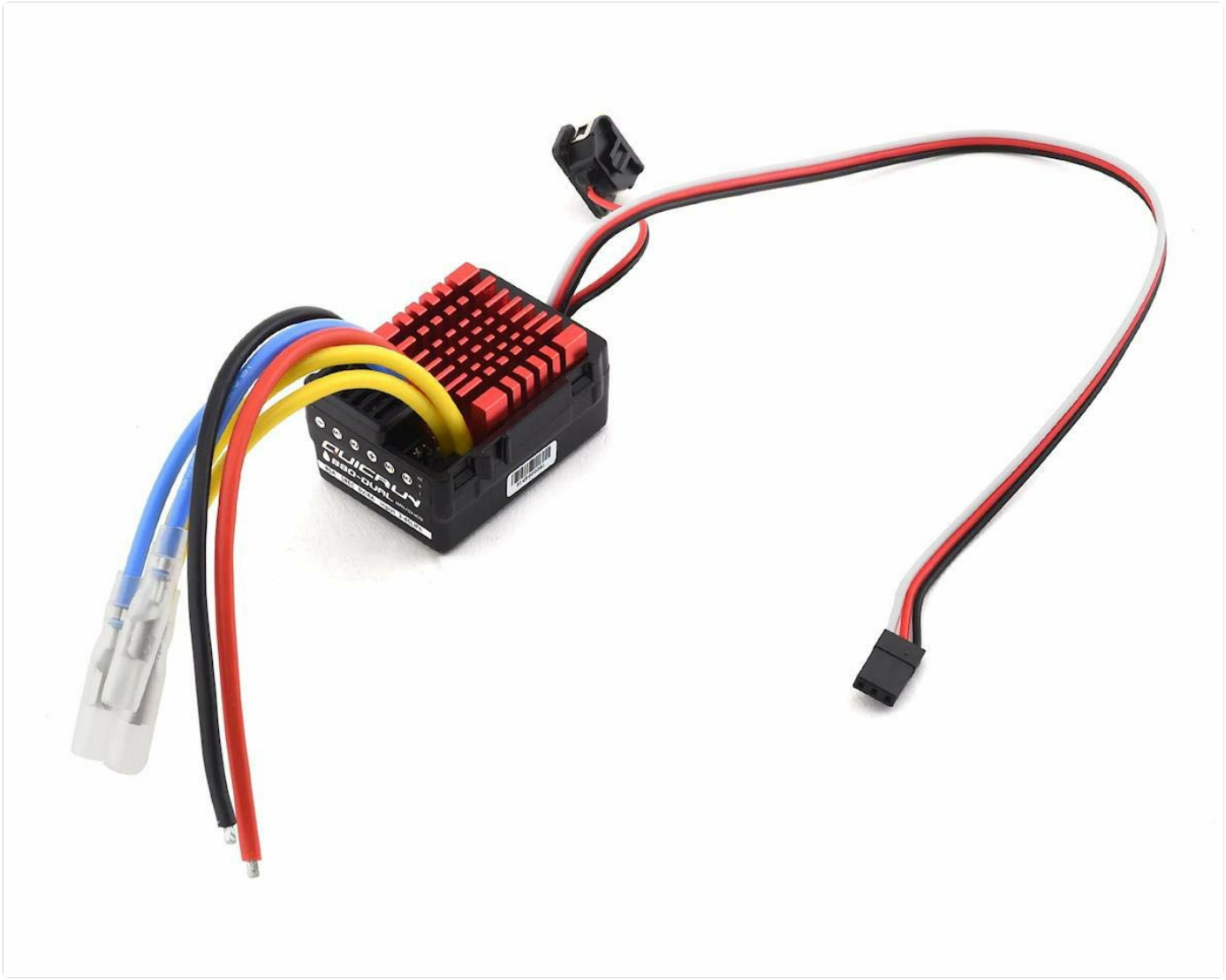
Problem	Possible Cause	Solution
ESC does not power on.	Incorrect battery connection, dead battery, faulty switch.	Check battery polarity, charge battery, inspect switch and connections.
Motor not responding or erratic.	Incorrect calibration, loose motor wires, throttle signal loss.	Recalibrate ESC, check motor connections, ensure receiver is powered and signal is strong.
Vehicle stops unexpectedly.	Low-voltage cutoff, thermal protection activated.	Recharge battery, allow ESC to cool down. Check for proper ventilation.
ESC gets excessively hot.	Overgearing, motor overload, insufficient cooling.	Adjust gearing, use appropriate motor, ensure cooling fan is installed (if dry) and clear of obstructions.

8. Specifications

Specification	Value
Product Dimensions	45.9 x 34.7 x 26.5 mm (1.81 x 1.37 x 1.04 inches)
Weight	75 grams (2.65 ounces)
Cont./Peak Current	80A/400A
Motor Type Supported	Brushed Motor (540, 550, 775 Size Motor)
LiPo / NiMH Cells	2-4S LiPo or 5-12S NiMH
BEC Output	6V@4A (Switch-Mode)

Specification	Value
Item Model Number	30120301
Manufacturer Recommended Age	18 years and up

9. Product Images



An overhead view of the HOBBYWING QUICRUN 880 ESC, showing its red heat sink, black casing, and various colored wires (red, yellow, blue, black) with connectors, along with a separate black and white signal wire.

10. Official Product Videos

No official seller-provided product videos are available for this item at this time.

11. Warranty and Support

For specific warranty information and technical support, please refer to the documentation included with your product or contact Hobbywing Technology directly. The manufacturer's legal disclaimer states that liability for damages or losses is limited to the invoice amount of the product.
For further assistance, you may visit the official Hobbywing website or contact their customer service department.

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Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question