Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

Hobbywing XR8 Plus (G2S)

HOBBYWING XERUN XR8 Plus (G2S) Instruction Manual

Model: XR8 Plus (G2S) Electric Speed Controller

1. Introduction

The HOBBYWING XERUN XR8 Plus (G2S) is an advanced Electric Speed Controller (ESC) designed for 1/8 scale RC racing. It features robust performance, extensive programmability, and multiple protection functions to ensure reliable operation. This manual provides essential information for the proper setup, operation, and maintenance of your XR8 Plus (G2S) ESC.

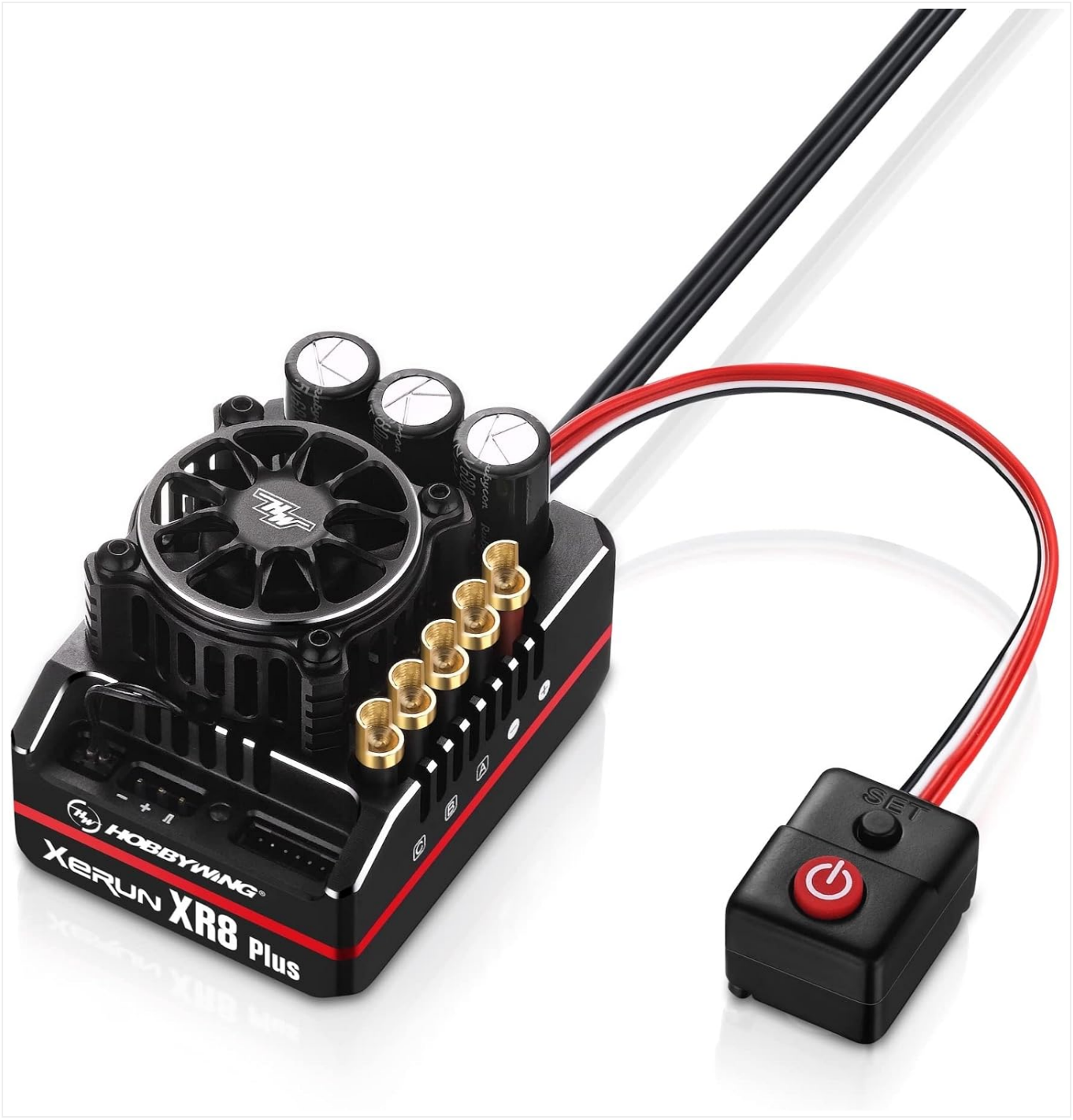


Figure 1: Front view of the HOBBYWING XERUN XR8 Plus (G2S) Electric Speed Controller.

2. Safety Precautions

Always observe the following safety guidelines to prevent injury or damage to the product and surrounding equipment:

- Read the entire manual before operation.
- Ensure all connections are correct and secure before powering on the ESC. Incorrect polarity can cause severe damage.
- Keep the ESC away from water and moisture unless explicitly stated as waterproof. This model is not waterproof.
- Avoid operating the ESC in extreme temperatures.
- Disconnect the battery immediately after use to prevent over-discharge and potential damage.
- Use only compatible batteries and motors as specified in the product specifications.
- Do not modify the ESC or its components. Unauthorized modifications void the warranty and can lead to malfunction.

- Keep out of reach of children. This product is recommended for users 18 years and up.

3. Key Features

- **Built-in Profiles:** Features 5 common profiles for 1/8 Racing (e.g., Zero timing-Blinky mode, Off-Road, On-Road, GT Racing, Sport mode) for instant use.
- **Adjustable Parameters:** Offers 30 built-in adjustable parameters for various power requirements. Parameters can be imported and exported.
- **Firmware Upgrade Support:** Supports firmware upgrades via multi-function LCD programming box or OTA Programmer (purchased separately).
- **Boost & Turbo Timing:** Supports 48 degrees Boost and Turbo timing, potentially increasing Max. Speed by 50% when paired with XERUN 4268/4274 G3 motors.
- **Multiple Protections:** Includes low voltage protection, thermal protection for ESC, motor, and capacitor.
- **High-Output BEC:** Built-in switch mode BEC with a maximum output of 15A and adjustable voltage from 6V to 8.4V (0.1V step).
- **Reverse Connection Protection:** Integrated circuit prevents damage from incorrect battery polarity.
- **Real-time Data Recording:** Connects with HW Link (OTA Programmer needed) and mobile app to check throttle quantity, voltage, current, temperature, and RPM in real-time.
- **Offline Data Recording:** Reads extreme value data (max temperature, max RPM) via LCD program box or HW Link app, and views historical running data graphs.
- **FFD Technology:** Incorporates FFD Technology for enhanced performance.





Figure 2: Exploded view illustrating the internal structure and components of the XR8 Plus (G2S) ESC.

4. Setup

Follow these steps for initial setup of your XR8 Plus (G2S) ESC:

1. **Mounting the ESC:** Securely mount the ESC in your vehicle using double-sided tape or screws. Ensure adequate airflow for cooling.
2. **Motor Connection:** Connect the three motor wires (A, B, C) from the ESC to the corresponding motor terminals. For sensorless motors, the order does not matter initially, but if the motor spins in the wrong direction, swap any two wires. For sensored motors, ensure correct A-A, B-B, C-C connection and connect the sensor cable.
3. **Battery Connection:** Connect your LiPo battery (2-6S) to the ESC's battery input wires. Ensure correct polarity (red to positive, black to negative). The ESC has reverse connection protection, but always double-check.
4. **Receiver Connection:** Plug the ESC's throttle cable (usually black, red, white) into the throttle channel (CH2) of your receiver.
5. **Capacitor Connection:** Ensure the external capacitors are securely connected to the designated ports on the ESC.

6. **Radio Calibration:** Perform radio calibration according to the ESC's specific instructions (refer to Hobbywing's official manual for detailed steps). This typically involves setting throttle neutral, full throttle, and full brake points.

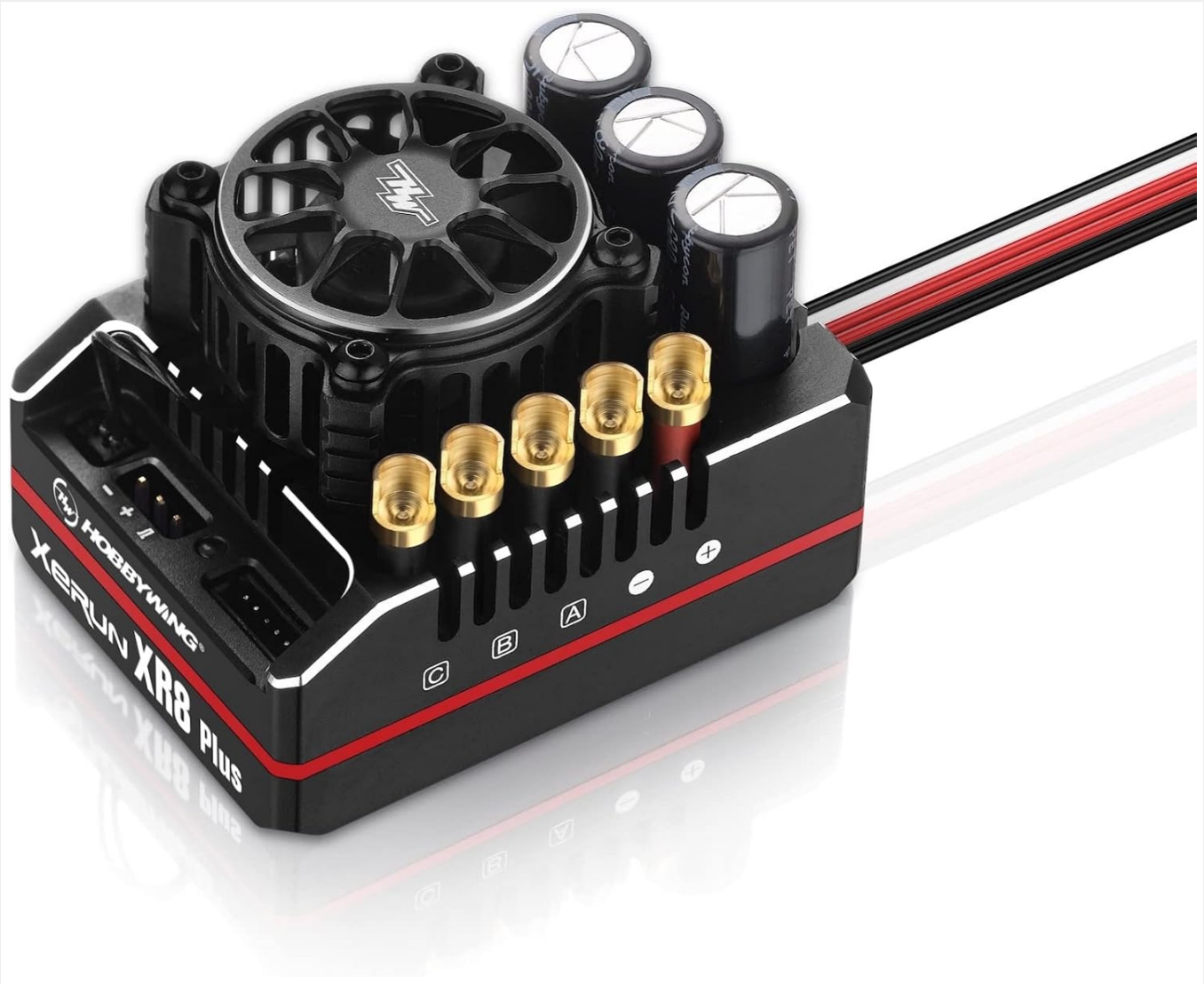


Figure 3: Angled view highlighting the various connection points on the XR8 Plus (G2S) ESC.

5. Operating Instructions

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

1. **Power On:** Connect the battery to the ESC. Press the power button on the ESC. The LED indicator will light up, indicating the ESC is ready.
2. **Throttle Control:** Use your radio transmitter's throttle stick to control the motor speed. Pushing forward will accelerate, pulling back will brake or reverse (depending on mode).
3. **Profile Selection:** The ESC comes with 5 pre-set profiles. You can switch between them using a programming box or the HW Link app.
4. **Parameter Adjustment:** For advanced tuning, use the multi-function LCD programming box or the HW Link app (with OTA Programmer) to adjust the 30 available parameters.
5. **Data Logging:** Utilize the real-time and offline data recording functions via the HW Link app to monitor performance metrics like temperature, voltage, and RPM.
6. **Power Off:** After use, always disconnect the battery from the ESC first, then power off the transmitter.

6. Maintenance

Proper maintenance ensures the longevity and optimal performance of your ESC:

- **Cleaning:** Regularly clean the ESC to remove dirt, dust, and debris. Use a soft brush or compressed air. Avoid using liquids.
- **Inspection:** Periodically inspect all wires, connectors, and solder joints for signs of wear, damage, or corrosion. Repair or replace as needed.
- **Cooling Fan:** Ensure the cooling fan is free from obstructions and spins freely. Clean any accumulated dust.
- **Storage:** Store the ESC in a dry, cool place away from direct sunlight and extreme temperatures. Disconnect all batteries before storage.
- **Firmware Updates:** Check the Hobbywing official website periodically for new firmware updates. Keeping the firmware updated can improve performance and add new features.

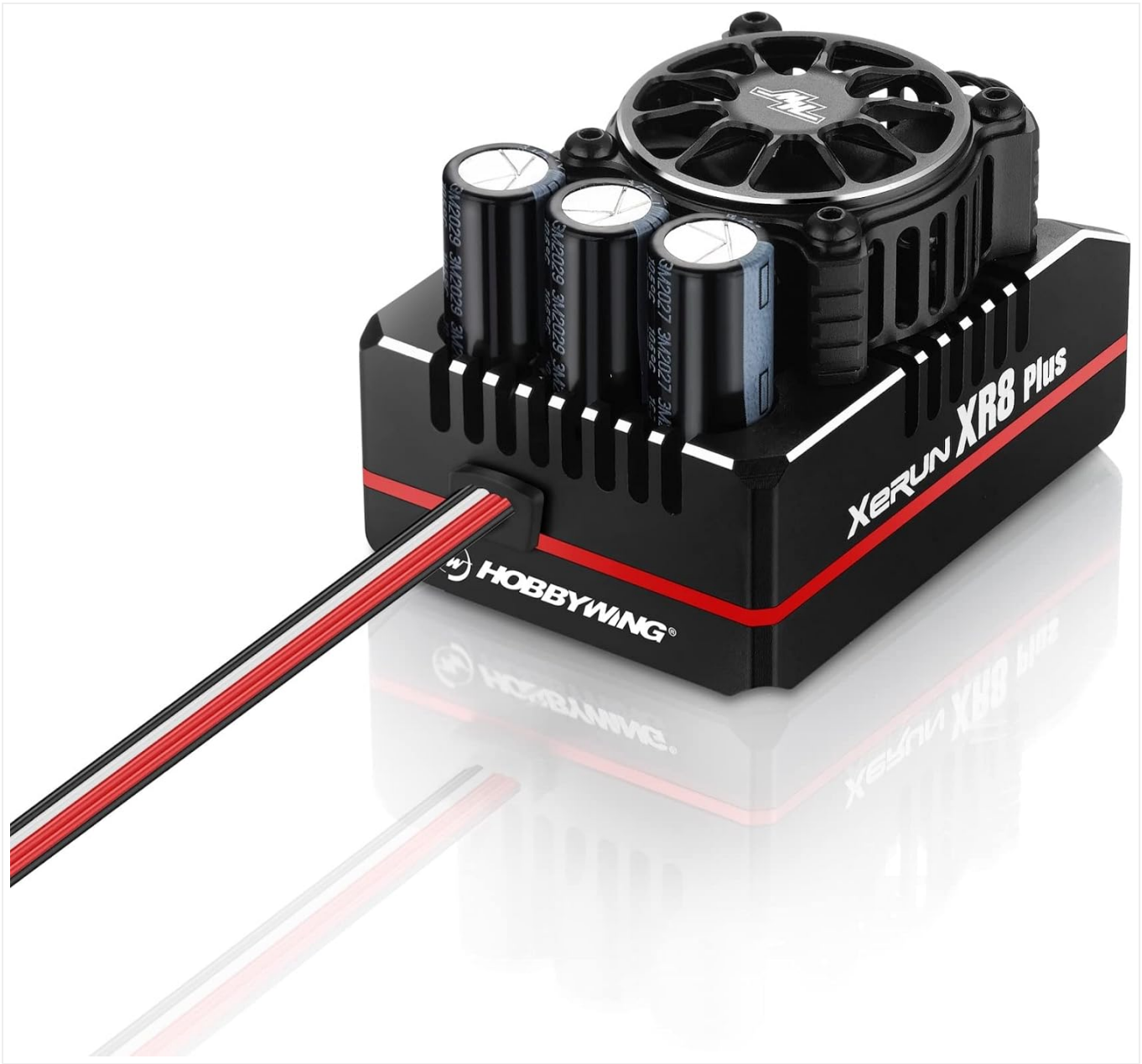


Figure 4: Side view of the XR8 Plus (G2S) highlighting the cooling fins and capacitor bank.

7. Troubleshooting

This section addresses common issues you might encounter:

Problem	Possible Cause	Solution
ESC does not power on.	Battery not connected, low battery voltage, faulty power switch.	Check battery connection and charge level. Inspect power switch and wiring.
Motor not spinning or erratic.	Incorrect motor wiring, uncalibrated radio, sensor cable issue (if sensored motor).	Verify motor wire connections. Re-calibrate radio. Check sensor cable for damage.
ESC overheats.	Overgearing, insufficient cooling, motor too large, low battery voltage.	Reduce gearing. Ensure proper airflow to ESC. Check motor compatibility. Charge battery fully.
Vehicle runs in reverse when throttle is forward.	Motor wires connected incorrectly (for sensorless), throttle channel reversed on transmitter.	Swap any two motor wires (A, B, or C). Reverse throttle channel on your radio transmitter.
Low voltage cut-off activates too early.	Incorrect LiPo cell count setting, battery degradation.	Adjust LiPo cell count setting in ESC parameters. Test battery health.

8. Specifications

Feature	Detail
Model	XERUN XR8 Plus (G2S)
SKU	30113304
Continuous/Peak Current	200A / 1080A
Input Voltage	2-6S LiPo
Wire Gauge	11AWG
BEC Output	6-8.4V Adjustable, 6A Continuous / 15A Peak (Switch-mode)
Motor Limit (4S LiPo)	KV≤3000 (4268 / 4274 Size motor)
Motor Limit (6S LiPo)	KV≤2400 (4274 Size motor)
Dimensions (L x W x H)	5.25 x 3.5 x 2.1 inches
Item Weight	9.1 ounces
Material	Plastic
Manufacturer Recommended Age	18 years and up
UPC	088718508629

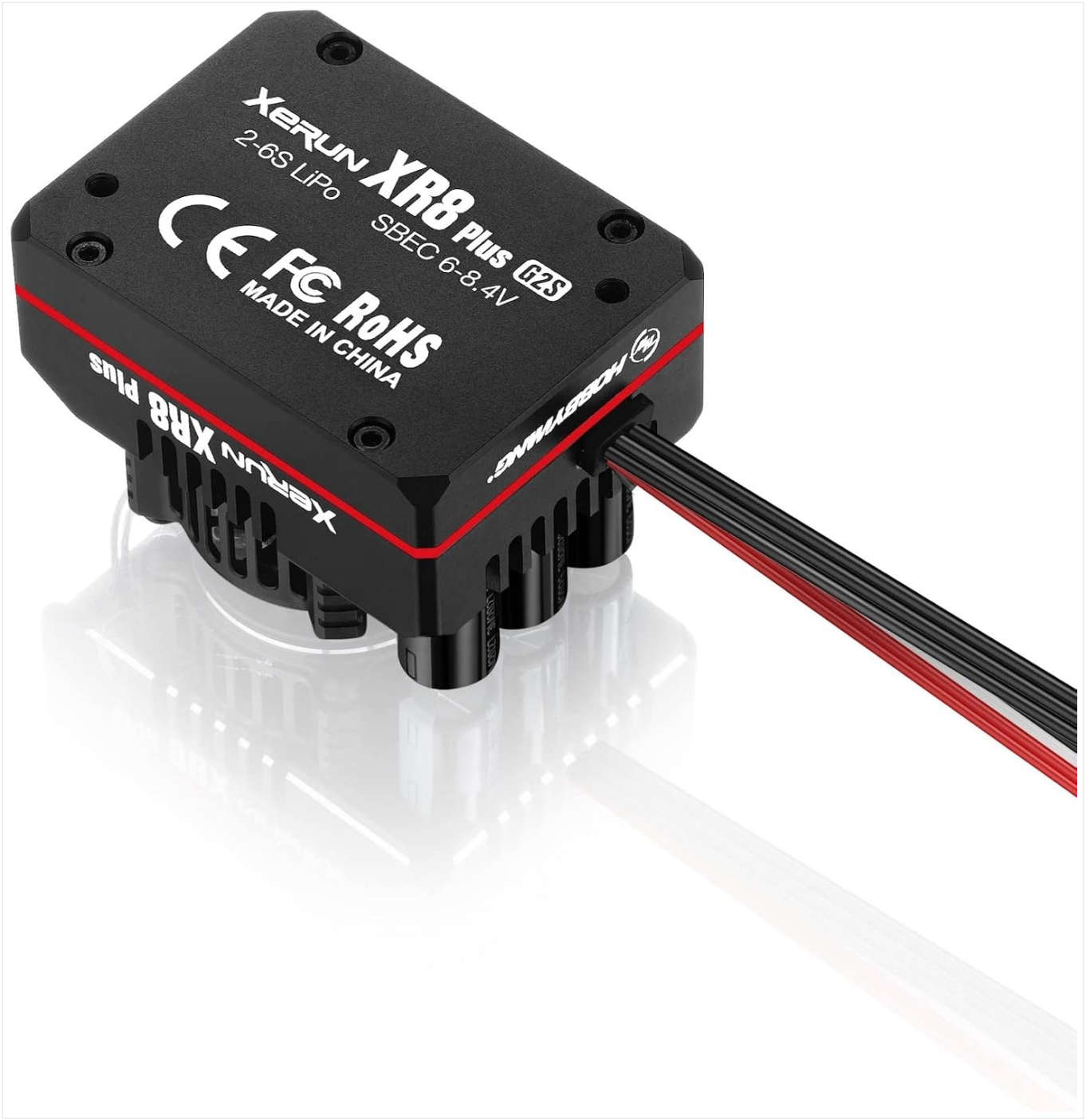


Figure 5: Bottom view of the XR8 Plus (G2S) showing regulatory compliance markings.

9. Warranty and Support

For detailed warranty information, technical support, and service inquiries, please refer to the official Hobbywing website or contact their customer service directly. Keep your proof of purchase for warranty claims.

Hobbywing Official Website: www.hobbywing.com

© 2024 Hobbywing Technology. All rights reserved.

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

Anonymous

Email

you@example.com

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

Open the live page

https://manuals.plus/asin/B09F1NDC9P

More documents and user manuals: **https://manuals.plus/**