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> HRB 3S 4000mAh 60C 11.1V LiPo Battery Instruction Manual

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Model: 3S 4000mAh 60C 11.1V | Brand: HRB POWER

1. INTRODUCTION

This manual provides essential instructions for the safe and effective use of your HRB 3S 4000mAh 60C 11.1V LiPo battery. This battery is designed for various remote control (RC) applications, including drones, quadcopters, airplanes, cars, trucks, and boats. Please read this manual thoroughly before using the battery.

BATTERY PARAMETER

Capacity	4000mah	Discharge Rate	60C
Voltage	11.1V	Size	135mmx42mmx25mm
Power	44.4Wh	Weight	310g/10.93oz/0.68lb

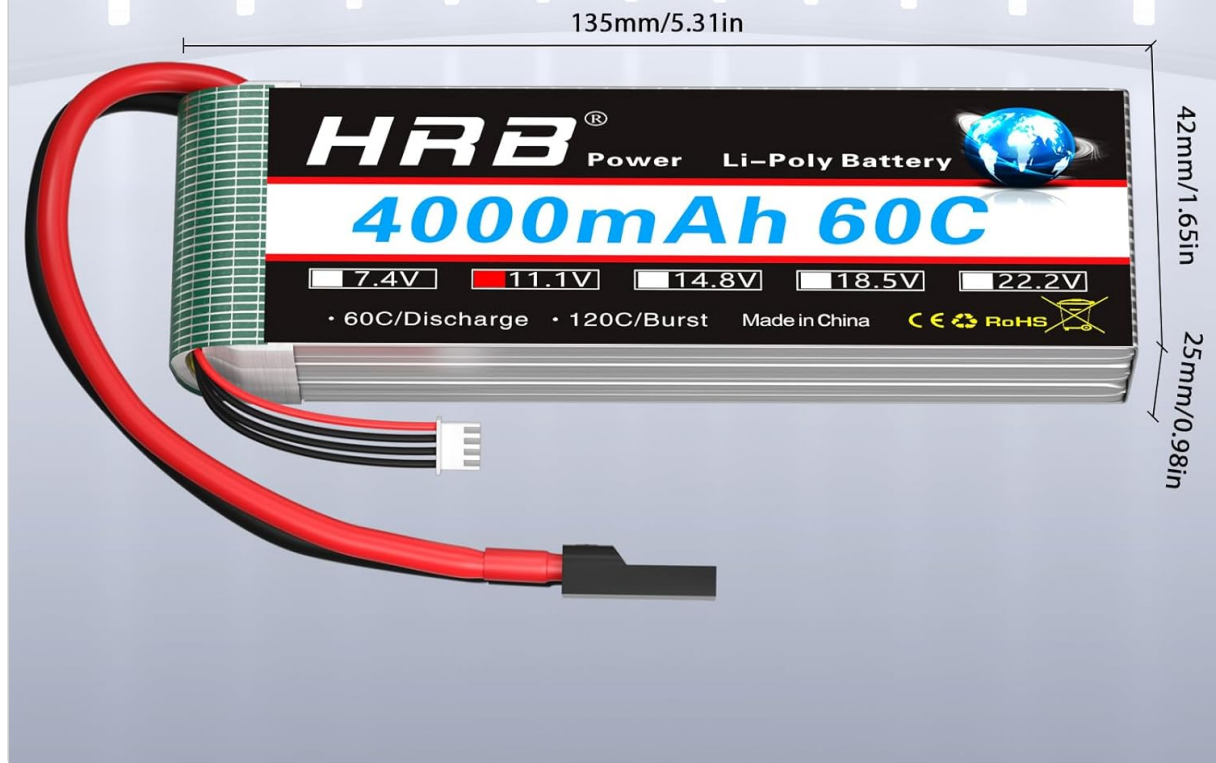


Image 1: HRB 3S 4000mAh 60C 11.1V LiPo Battery. This image displays the overall appearance of the battery pack with its wires and connector.

2. SAFETY GUIDELINES

Lithium Polymer (LiPo) batteries are powerful and require careful handling. Failure to follow these safety guidelines can result in fire, personal injury, and property damage.

- **Charging:** Always use a LiPo-compatible charger. Never charge unattended. Charge in a fire-safe area, away from flammable materials. The safest charge rate for LiPo batteries is 0.5C-1C. Do not exceed 1C.
- **Discharging:** Do not over-discharge LiPo batteries. The voltage should not drop below 3.0V per cell (9.0V for a 3S battery). Over-discharging can permanently damage the battery.
- **Storage:** Store LiPo batteries at room temperature in a fire-safe container, away from direct sunlight and heat sources. For long-term storage, charge or discharge the battery to a storage voltage of 3.8V-3.85V per cell.
- **Physical Damage:** Do not puncture, drop, or expose the battery to impact. If the battery is damaged, swollen, or leaking, discontinue use immediately and dispose of it safely.
- **Temperature:** Do not expose batteries to extreme temperatures (above 60°C / 140°F or below 0°C / 32°F).

- **Disposal:** Dispose of damaged or old LiPo batteries responsibly according to local regulations. Never put them in household trash.



Image 2: Illustration of a LiPo battery connected to a charger, highlighting the recommended charging rate of 0.5C-1C for safety.

3. SETUP

3.1 Initial Inspection

Upon receiving your HRB LiPo batteries, inspect them for any signs of damage, such as swelling, punctures, or frayed wires. Do not use a damaged battery.

3.2 Charging the Battery

1. Connect the battery's main discharge connector (e.g., T-plug) to the appropriate port on your LiPo charger.
2. Connect the battery's balance lead (white connector) to the balance port on your charger. This is crucial for balanced charging and cell longevity.
3. Set your charger to the "LiPo Balance Charge" mode.
4. Set the voltage to 11.1V (3S).
5. Set the charging current. For a 4000mAh battery, a 1C charge rate is 4.0A. A 0.5C rate is 2.0A. It is recommended to charge at 0.5C-1C.
6. Start the charging process and monitor the battery and charger throughout.

3.3 Connecting to Your RC Device

Ensure your RC device (e.g., RC car, drone) is compatible with 3S 11.1V LiPo batteries and has the correct connector type (e.g., T-plug). Connect the battery's main discharge connector to the corresponding connector on your RC device. Ensure a secure connection.

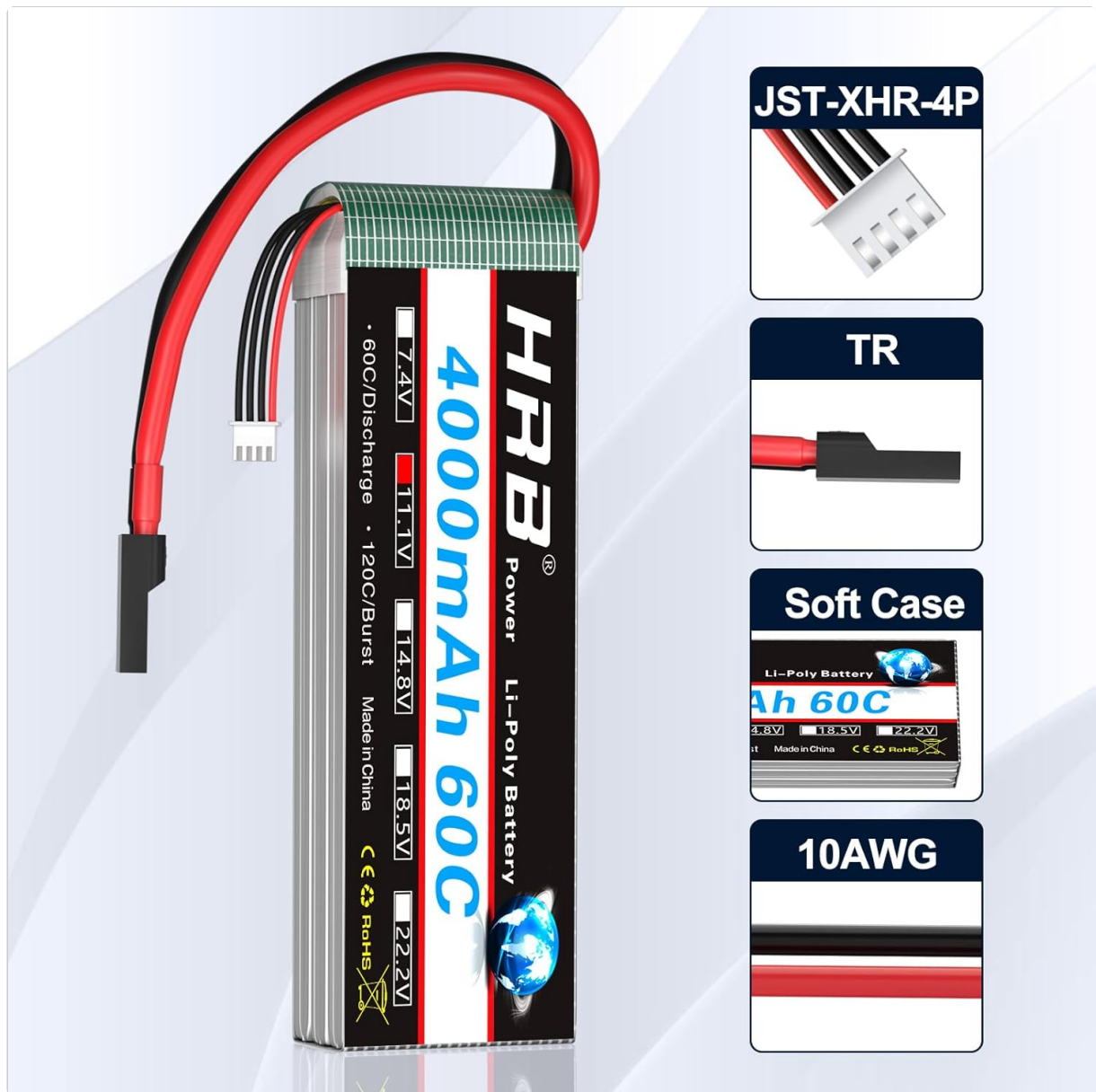


Image 3: Close-up view of the HRB LiPo battery, showing the main discharge connector (T-plug) and the JST-XHR-4P balance connector.

4. OPERATING INSTRUCTIONS

Once properly charged and connected, your HRB LiPo battery is ready for use in your compatible RC model. Always ensure the battery is securely mounted within your device to prevent movement during operation.

- **Voltage Monitoring:** It is highly recommended to use a low-voltage alarm or telemetry system with your RC device to monitor the battery voltage during use. Stop operation when the battery reaches approximately 3.4V-3.5V per cell under load to prevent over-discharge.
- **Temperature Management:** Avoid operating the battery in conditions that cause it to become excessively hot. If the battery feels hot to the touch, allow it to cool down before recharging or further use.
- **Compatibility:** This battery is compatible with various RC models. Ensure your model's ESC (Electronic Speed Controller) and motor are rated for 3S 11.1V LiPo batteries and can handle the 60C discharge rate.



Image 4: Examples of RC applications compatible with HRB LiPo batteries, including drones, helicopters, airplanes, cars, and boats.

5. MAINTENANCE

- **Regular Inspection:** Periodically inspect the battery for any signs of damage, swelling, or connector wear.
- **Cleaning:** Keep the battery and connectors clean and free from dirt or debris.
- **Storage:** For short-term storage (a few days), ensure the battery is not fully charged or fully discharged. For long-term storage (more than a week), discharge or charge the battery to its storage voltage (3.8V-3.85V per cell).
- **Cycle Life:** Proper charging and discharging practices, along with appropriate storage, will extend the overall cycle life of your LiPo battery.

6. TROUBLESHOOTING

- **Battery Not Charging:**
 - Ensure all connectors are securely plugged into the charger and battery.
 - Verify charger settings (LiPo mode, correct cell count/voltage, charge rate).

- Check for damaged balance leads or main power leads.
- If a cell voltage is too low (below 3.0V), some chargers may refuse to start charging. In such cases, the battery may be permanently damaged and should be safely disposed of.

- **Reduced Run Time or Performance:**

- Check if the battery is fully charged before use.
- Ensure the battery is not over-discharged during previous uses.
- Verify that the battery's specifications (voltage, capacity, C-rating) are appropriate for your RC model.
- Over time, all batteries experience degradation. If the battery is old and has many cycles, reduced performance is expected.

- **Battery Swelling:**

- If the battery shows any signs of swelling, discontinue use immediately. This indicates internal damage and a potential fire hazard. Safely dispose of the battery.

7. SPECIFICATIONS

HRB 3S 4000mAh 60C 11.1V LiPo Battery Specifications

Feature	Specification
Battery Type	Lithium Polymer (LiPo)
Cell Count	3S
Voltage	11.1V
Capacity	4000mAh
Discharge Rate (Continuous)	60C
Burst Discharge Rate	120C
Dimensions (L*W*H)	135mm x 42mm x 25mm (5.31in x 1.65in x 0.98in)
Weight	310g / 10.93oz / 0.68lb
Main Connector	T-plug (Deans style)
Balance Connector	JST-XHR-4P
Wire Gauge	10AWG
Reusability	Rechargeable



Image 5: Detailed diagram showing the battery's parameters including capacity, voltage, discharge rate, size, power, and weight.

8. WARRANTY AND SUPPORT

HRB POWER provides quality products. For any questions, concerns, or support regarding your HRB LiPo battery, please contact the manufacturer or your point of purchase. Please refer to the product packaging or the HRB POWER official website for specific warranty details and contact information.