Gens ace Soaring 2200mAh 4S 30C

Gens ace Soaring 4S 14.8V 2200mAh 30C LiPo Battery User Manual

Model: Soaring 2200mAh 4S 30C

1. Introduction

This manual provides essential instructions for the safe and effective use of your Gens ace Soaring 4S 14.8V 2200mAh 30C LiPo battery. This battery is designed for various RC models, including aircraft, helicopters, and gliders, offering stable power delivery and reliable performance. Please read this manual thoroughly before using the battery to ensure proper operation and to prevent potential hazards.

2. Important 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. Do not exceed the recommended charge rate (typically 1C, or 2.2A for this 2200mAh battery, unless specified otherwise by the manufacturer). Always balance charge to ensure cell voltage consistency.
- **Storage:** Store LiPo batteries at room temperature (15-25°C or 59-77°F) in a fire-safe container or bag. Do not store fully charged or fully discharged for extended periods. A storage voltage of 3.8V per cell is recommended.
- **Handling:** Do not puncture, short-circuit, or disassemble the battery. Avoid physical impact. If the battery becomes swollen, damaged, or hot, discontinue use immediately and follow proper disposal procedures.
- **Disposal:** Never dispose of LiPo batteries in regular trash. Fully discharge the battery before disposal and take it to a designated battery recycling center.
- **Temperature:** Do not expose the battery to extreme temperatures (above 60°C/140°F or below 0°C/32°F).

3. Package Contents

Verify that all items are present in your package:

- 1x Gens ace Soaring 4S 14.8V 2200mAh 30C LiPo Battery with XT60 Connector

- 1x Product Box
- 1x User Manual (this document)

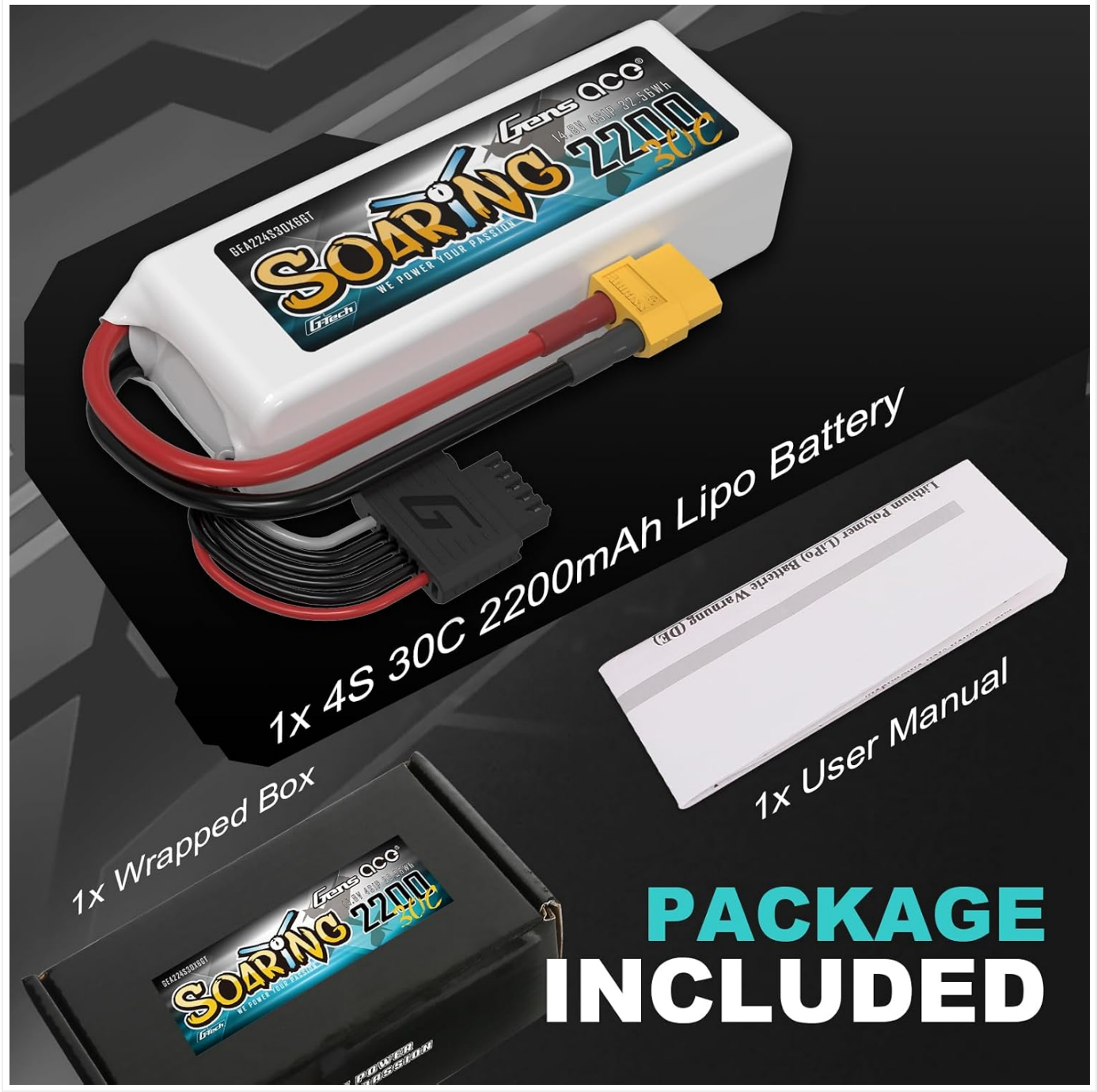

Image: Contents of the Gens ace Soaring LiPo battery package.

4. Specifications

Detailed technical specifications for the Gens ace Soaring 4S 14.8V 2200mAh 30C LiPo battery:

Parameter	Value
Configuration	4S1P
Voltage	14.8V
Capacity	2200mAh

Parameter	Value
Discharge Rate	30C
Energy	32.56Wh
Main Connector	XT60
Balance Connector	G-Tech-5P (JST-XH compatible)
Dimensions (L x W x H)	107mm x 35mm x 27mm (4.21in x 1.38in x 1.06in)
Weight	217g (0.48lb)
Battery Type	Lithium Polymer (LiPo)

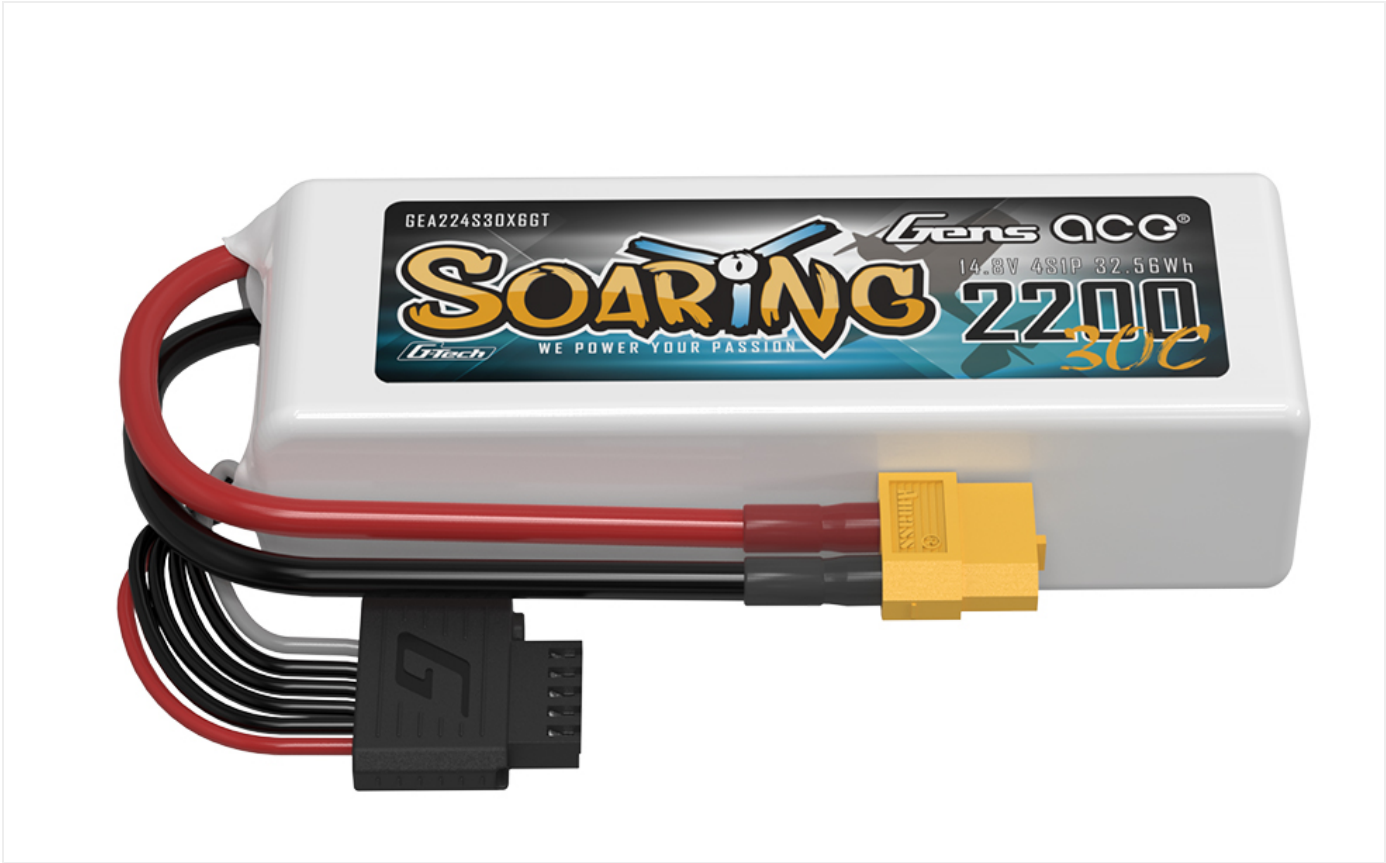

Image: Basic parameters and physical dimensions of the Gens ace Soaring LiPo battery.

5. Setup and First Use

1. **Initial Inspection:** Upon receiving your battery, carefully inspect it for any signs of damage, swelling, or punctures. Do not use if any damage is observed.
2. **First Charge:** Before first use, fully charge the battery using a compatible LiPo balance charger. Set the charger to "LiPo Balance Charge" mode, 4S cell count, and a charge current of 2.2A (1C).
3. **Connection:** Connect the main XT60 connector to your RC model's ESC (Electronic Speed Controller). Connect the G-Tech-5P balance connector to your charger's balance port during charging.
4. **Mounting:** Securely mount the battery in your RC model using appropriate straps or trays to prevent movement during operation. Ensure proper weight distribution for optimal flight performance.

6. Operating Instructions

6.1 Charging the Battery

- Always use a dedicated LiPo balance charger.
- Connect the main XT60 connector and the G-Tech-5P balance connector to the charger.
- Set the charger to "LiPo Balance Charge" mode.
- Confirm the cell count is 4S (14.8V).
- Set the charge current to 2.2A (1C) for standard charging. Higher charge rates may be possible with advanced chargers and specific battery ratings, but 1C is safest.
- Monitor the charging process. Disconnect immediately if the battery shows signs of swelling, overheating, or smoke.

6.2 Discharging and Usage

- Ensure the battery is fully charged before use.
- Connect the XT60 connector to your RC model's ESC.
- Avoid over-discharging the battery. The minimum safe voltage for a 4S LiPo battery is 3.0V per cell (12.0V total). Most ESCs have a low-voltage cutoff feature; ensure it is set correctly for 4S LiPo.
- Do not exceed the continuous discharge rate of 30C. Exceeding this can damage the battery and reduce its lifespan.
- If the battery becomes excessively hot during use, allow it to cool down before recharging or storing.

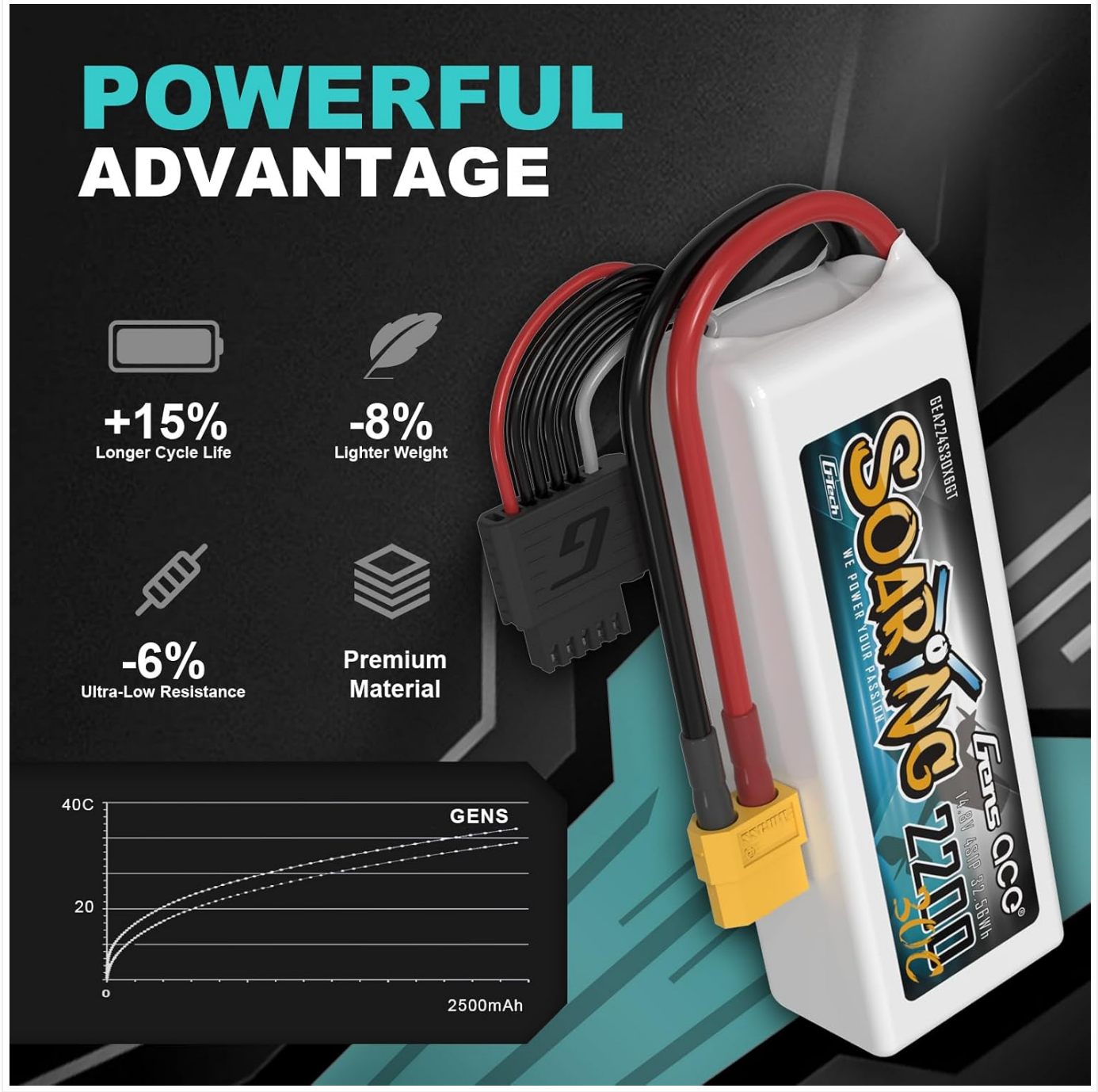

Image: Advantages of the Gens ace Soaring LiPo battery, including performance characteristics.

7. Maintenance and Storage

- **Storage Voltage:** For long-term storage, charge or discharge the battery to a storage voltage of 3.8V per cell (15.2V total for 4S).
- **Storage Environment:** Store the battery in a cool, dry place, away from direct sunlight, heat sources, and flammable materials. A LiPo-safe bag or container is highly recommended.
- **Regular Inspection:** Periodically inspect the battery for any physical damage, swelling, or connector issues.
- **Cycle Life:** Proper charging, discharging, and storage practices will significantly extend the battery's cycle life.

8. Troubleshooting

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Battery not charging	Incorrect charger settings, faulty charger, damaged battery connectors.	Verify charger settings (LiPo, 4S, 2.2A). Check all connections. Inspect battery and charger for damage. Try a different charger if available.
Battery swells during charge/discharge	Overcharging, over-discharging, physical damage, internal cell failure.	**Immediately discontinue use.** Move to a fire-safe area. Do not attempt to charge or use. Dispose of safely according to local regulations.
Reduced run time or power	Battery aging, over-discharging, high internal resistance, cold temperature.	Ensure proper charging and storage. Avoid over-discharging. Allow battery to warm up before use in cold conditions. Consider battery replacement if performance significantly degrades.
Battery gets hot during use	Excessive current draw (over-C rating), short circuit, internal damage.	Check your model's power system for excessive current draw. Ensure the battery's C-rating is sufficient for your application. Discontinue use if overheating is severe.

9. Warranty and Support

Gens ace products are manufactured to high-quality standards. For warranty claims or technical support, please contact your retailer or visit the official Gens ace website. Keep your proof of purchase for any warranty-related inquiries. Please note that damage resulting from improper use, charging, storage, or modification is typically not covered under warranty.