

Gens ace 22003S25E3

Gens ace 3S Lipo Battery 2200mAh 11.1V 25C Instruction Manual

Model: 22003S25E3

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your Gens ace 3S Lipo Battery 2200mAh 11.1V 25C. This high-performance lithium polymer battery is designed for various remote-controlled models, including drones, FPV systems, RC airplanes, and RC helicopters. Please read this manual thoroughly before use to ensure proper handling, charging, and maintenance.

2. IMPORTANT SAFETY INSTRUCTIONS

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

- **Read All Instructions:** You must read all safety instructions and warnings before using or charging this battery.
- **Initial Inspection:** Before first use, inspect the battery surface for any damage (e.g., swelling, punctures, cuts) and verify that the voltage is normal. Do not use a damaged battery.
- **Charging:**
 - Always use a LiPo-compatible charger.
 - Stop charging immediately when any cell voltage reaches 4.2V. The normal cell voltage range is between 3.2V and 4.2V.
 - Never charge unattended.
 - Charge in a fire-safe area, away from flammable materials.
- **Discharging:** Do not discharge the battery below 3.2V per cell. Over-discharging can permanently damage the battery.
- **Storage:** Store batteries at room temperature, away from direct sunlight and heat sources. For long-term storage, charge or discharge the battery to a storage voltage of approximately 3.8V per cell.
- **Physical Damage:** Avoid puncturing, dropping, or subjecting the battery to strong impacts. If the battery is damaged, discontinue use immediately and dispose of it safely.

- **Temperature:** Do not expose the battery to extreme temperatures (below 0°C or above 60°C).
- **Disposal:** Dispose of LiPo batteries responsibly according to local regulations. Never put them in household trash.

PACKAGE INCLUDED

- 1x 3S 25C 2200mAh Lipo Battery
- 1x User Manual
- 1x Wrapped Box



Figure 2.1: Package contents, including the important safety instructions leaflet.

3. PRODUCT SPECIFICATIONS

The following table details the technical specifications of the Gens ace 3S Lipo Battery 2200mAh 11.1V 25C:



Figure 3.1: Basic parameters and dimensions of the Gens ace 3S Lipo Battery.

Feature	Specification
Material	Li-Polymer
Cells	3S1P
Nominal Voltage	11.1V
Capacity	2200mAh
Discharge Rate	25C
Nominal Voltage per Cell	3.7V
Max Voltage per Cell	4.2V
Charge Plug	JST-XHR-5P

Feature	Specification
Discharge Plug	EC3 Connector
Suggested Charge Rate	1C (2.2A)
Dimensions (L x W x H)	104 x 35 x 23 mm (4.1 x 1.38 x 0.9 inches)
Weight	168g (5.93oz)
Certificates	CE, ISO14001, MSDS, UN38.3
Model Number	22003S25E3
UPC	889551005012



Figure 3.2: Detailed view of the JST-XH balance plug and EC3 discharge connector.

4. SETUP AND CHARGING

4.1 Initial Inspection

Upon receiving your Gens ace Lipo battery, carefully inspect it for any signs of damage such as swelling, punctures, or frayed wires. Use a LiPo battery checker to verify that the voltage of each cell is within the normal range (3.2V to 4.2V). Do not proceed with charging or use if any damage is observed or if cell voltages are abnormal.

4.2 Charging Procedure

1. **Select Charger:** Use only a charger specifically designed for Lithium Polymer (LiPo) batteries. Ensure the charger supports 3S LiPo batteries.
2. **Connect Battery:** Connect the main EC3 discharge plug of the battery to the charger's output port. Then, connect the JST-XHR-5P balance plug to the charger's balance port. Ensure correct polarity.
3. **Set Charger Parameters:** Set your charger to the "LiPo Balance Charge" mode. Configure the voltage to 11.1V (3S) and the charge current to 1C (2.2 Amps for a 2200mAh battery).
4. **Monitor Charging:** Begin the charging process. Monitor the battery and charger throughout the entire charging cycle. Never leave a charging LiPo battery unattended.
5. **Completion:** The charger will indicate when the battery is fully charged. Disconnect the battery from the charger once charging is complete. Each cell should be at approximately 4.2V.

Caution: Overcharging can lead to battery damage, overheating, and fire. Always adhere to the specified voltage limits.

5. OPERATING INSTRUCTIONS

5.1 Connecting to Your RC Model

Ensure your RC model is compatible with a 3S (11.1V) LiPo battery and has an EC3 connector. Carefully connect the battery's EC3 discharge plug to your model's power input. Double-check the polarity before powering on your model.

STRONG ENDURANCE

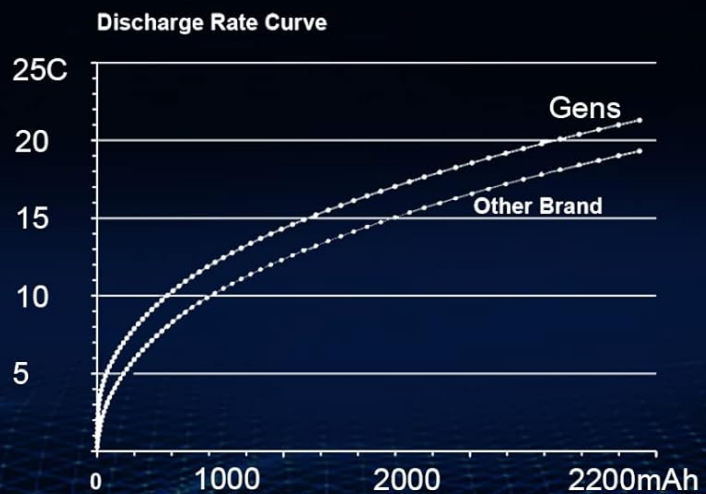


Figure 5.1: Examples of RC models compatible with the Gens ace 3S Lipo Battery.

5.2 During Operation

- **Monitor Voltage:** Use a voltage alarm or telemetry system to monitor the battery voltage during flight or operation.
- **Avoid Over-Discharge:** Stop using the battery when the voltage reaches 3.5V-3.7V per cell under load. Never allow the voltage to drop below 3.2V per cell, as this can cause irreversible damage.
- **Temperature:** The battery may become warm during use, which is normal. However, if it becomes excessively hot, discontinue use immediately.

ADVANTAGE



Light Weight

Long Cycle Life

Ultra-Low Impedance

High Quality Material

Figure 5.2: Performance advantages of Gens ace LiPo batteries, including discharge characteristics.

6. MAINTENANCE AND STORAGE

6.1 Post-Use Care

- **Cool Down:** Allow the battery to cool down to room temperature before recharging or storing.
- **Inspect:** After each use, inspect the battery for any physical damage or swelling.

6.2 Storage

- **Storage Voltage:** For short-term or long-term storage, charge or discharge the battery to its storage voltage (approximately 3.8V per cell). Most LiPo chargers have a "Storage" mode.
- **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 recommended.
- **Avoid Full Charge/Discharge:** Do not store LiPo batteries fully charged or fully discharged for extended periods.

7. TROUBLESHOOTING

- **Battery Not Charging:**
 - Ensure the charger is correctly connected to a power source and the battery.
 - Verify that both the main discharge plug (EC3) and the balance plug (JST-XHR-5P) are securely connected.
 - Check charger settings (LiPo mode, 3S, correct amperage).
 - If the battery is severely over-discharged (below 3.0V per cell), some chargers may refuse to charge it for safety reasons.
- **Reduced Performance/Short Run Time:**
 - This can be a sign of an aging battery. LiPo batteries have a finite cycle life.
 - Ensure the battery is fully charged before use.
 - Check for proper balance during charging; unbalanced cells can lead to reduced performance.
 - Verify that the battery's discharge rate (25C) is sufficient for your model's power requirements.
- **Battery Swelling:**
 - Swelling is a serious indication of internal damage or chemical reaction.
 - Immediately discontinue use and charging.
 - Safely dispose of the swollen battery according to local regulations. Do not attempt to use or repair it.
- **Overheating During Use:**
 - Excessive heat can be caused by over-discharging, drawing too much current, or internal damage.
 - Reduce the load on the battery or ensure your model's power system is not drawing more current than the battery can safely provide.
 - If overheating persists, discontinue use and inspect the battery and model's electronics.

8. WARRANTY AND SUPPORT

Gens ace is committed to providing high-quality products and customer satisfaction. Your Gens ace Lipo battery comes with dedicated customer service.

- **Customer Service:** If you have any questions, concerns, or require technical assistance, please contact Gens ace customer service. They offer 24-hour friendly customer service.
- **Warranty Claims:** For information regarding warranty coverage and to initiate a warranty claim, please refer to the official Gens ace website or contact their customer support directly. Keep your proof of purchase.

For further information and support, please visit the official Gens ace website: www.gensace.com

