Gens ace GEA223S25X6GT

Gens ace G-Tech 2200mAh 11.1V 25C 3S Lipo Battery User Manual

Model: GEA223S25X6GT

Introduction | Safety Precautions | Setup | Operating Instructions | Maintenance & Storage | Troubleshooting | Specifications | Warranty & Support

1. Introduction

This manual provides essential instructions for the safe and effective use of your Gens ace G-Tech 2200mAh 11.1V 25C 3S Lipo Battery with XT60 Plug. Please read this manual thoroughly before using the battery to ensure proper operation and to prevent damage or injury. This battery is designed for use in various RC models, including 450 size helicopters, gliders, EPP aircraft, and FPV drones.

Image 1.1: Gens ace G-Tech 2200mAh 11.1V 25C 3S Lipo Battery. This image shows the blue-wrapped battery pack with the Gens ace logo, 11.1V 25C 2200mAh markings, and the yellow XT60 connector visible.

2. Safety Precautions

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 charge LiPo batteries on a fire-resistant surface and never leave them unattended during charging. Use only chargers compatible with LiPo batteries and ensure correct voltage and current settings. The G-Tech smart chip allows for automatic identification with G-Tech Imars Mini or Imars D300 chargers, but manual settings are required for regular chargers.
- **Discharging:** Do not over-discharge the battery. Stop using the battery if its voltage drops below 3.0V per cell (9.0V for a 3S battery). Over-discharging can permanently damage the battery.
- **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 the battery to extreme temperatures (above 60°C / 140°F or below 0°C / 32°F). Avoid direct sunlight and store in a cool, dry place.
- **Short Circuit:** Prevent short circuits by ensuring connectors are properly insulated and never allow battery terminals to touch each other or conductive materials.
- **Disposal:** Dispose of damaged or old LiPo batteries according to local regulations. Never dispose of

LiPo batteries in regular trash.

3. Setup

3.1 Initial Inspection

Upon receiving your Gens ace G-Tech LiPo battery, inspect it for any signs of damage, swelling, or loose connections. If any issues are found, do not use the battery and contact customer support.

3.2 Charging the Battery

Before first use, fully charge the battery. Always use a compatible LiPo charger.

1. **Using G-Tech Smart Chargers (Imars Mini or Imars D300):**
    - Connect the XT60 main discharge plug and the G-Tech balancer connector to the charger.
    - The G-Tech smart chip will automatically identify the battery type and initiate charging.
    - Charging will automatically stop when the battery is fully charged.
2. **Using Regular LiPo Chargers:**
    - Connect the XT60 main discharge plug to the charger's output.
    - Connect the G-Tech balancer connector to the charger's balance port.
    - Manually set the charger parameters:
        - **Battery Type:** LiPo
        - **Cell Count:** 3S (11.1V)
        - **Charging Current:** Typically 1C (2.2A for a 2200mAh battery). Do not exceed 2C (4.4A).
    - Start the charging process and monitor the battery.

Image 3.1: Close-up view of the Gens ace G-Tech Lipo Battery showing the XT60 connector and balance lead. This image highlights the connectors for proper attachment to a charger or device.

4. Operating Instructions

4.1 Connecting to Your RC Model

Ensure your RC model is compatible with an 11.1V (3S) LiPo battery and has an XT60 connector. Connect the battery's XT60 plug to the corresponding connector on your RC model. Ensure a secure connection.

4.2 Discharge Rate

This battery has a continuous discharge rate of 25C and a maximum burst discharge rate of 50C. Ensure

your RC model's power requirements do not exceed these limits to prevent battery damage and ensure optimal performance.

4.3 Monitoring Battery Voltage

It is crucial to monitor the battery voltage during use. Do not allow the voltage to drop below 3.0V per cell (9.0V total for this 3S battery). Using a low voltage alarm or telemetry system in your RC model is highly recommended to prevent over-discharge.

5. Maintenance & Storage

5.1 Storage

For long-term storage, charge or discharge the battery to a storage voltage of 3.8V-3.85V per cell (11.4V-11.55V for a 3S battery). Store the battery in a cool, dry place, away from direct sunlight and flammable materials. A LiPo-safe bag is recommended for storage.

5.2 Regular Inspection

Periodically inspect the battery for any signs of physical damage, swelling, or connector wear. If any issues are observed, discontinue use.

5.3 Charging Cycles

LiPo batteries have a finite number of charge cycles. Proper charging and discharging practices will extend the battery's lifespan.

6. Troubleshooting

Problem	Possible Cause	Solution
Battery not charging	Incorrect charger settings; faulty charger/cable; deeply discharged battery.	Verify charger settings (LiPo, 3S, correct current). Check connections. If deeply discharged, some chargers have a "storage" or "recovery" mode, but extreme caution is advised.
Battery swells during charging/use	Overcharging; over-discharging; physical damage; internal cell damage.	**Immediately discontinue use and safely dispose of the battery. Swelling indicates a dangerous condition.**
Short run time	Battery degradation; over-discharge; high current draw from model; cold weather.	Ensure battery is fully charged. Avoid over-discharging. Check model's power consumption. Operate in suitable temperatures. Consider battery replacement if degradation is suspected.
Battery gets hot during use	Excessive current draw; internal resistance increase; short circuit.	Reduce load on the battery. Check for short circuits in the model. If overheating persists, discontinue use and inspect the battery.

7. Specifications

Feature	Detail
Capacity	2200mAh
Voltage	11.1V (3S)
Discharge Rate	25C
Max Burst Discharge Rate	50C
Configuration	3S1P
Connector Type	XT60
Balancer Connector Type	G-Tech
Wire Gauge	AWG14#
Wire Length	100mm
Dimensions (L*W*H)	108mm x 34mm x 21.7mm (4.25 x 1.34 x 0.85 inches)
Weight	169g (5.9 ounces)

Image 7.1: Gens ace G-Tech Lipo Battery shown alongside its retail packaging. This image provides a view of the product as it would appear when unboxed.

8. Warranty & Support

Gens ace products are manufactured to high-quality standards. For warranty information, technical support, or any questions regarding your Gens ace G-Tech LiPo battery, please contact the manufacturer or your authorized dealer. Keep your purchase receipt as proof of purchase.
Manufacturer: Gens ace