**GENS ACE/TATTU Lithium Polymer Battery Operating Instructions**

**ALL OF THE INSTRUCTIONS AND PRECAUTIONS MUST BE READ CAREFULLY AND FOLLOWED EXACTLY BEFORE USE IT. (WARNING: IT IS POSSIBLE TO GET SERIOUS FIRE, DAMAGE YOUR DEVICE, CREATE THE PROBABILITY OF PROPERTY DAMAGE, COLLATERAL DAMAGE AND SERIOUS INJURY WITH WRONG OPRATION APPROACH. IF UNEXPECTED SITUATIONS HAPPEN, PLEASE TAKE NECESSARY AND REASONABLE MEASURES TIMELY TO PREVENT THE EXPANSION OF THE DAMAGE.)**

**DISCHARGING**
- Never discharge Batteries at amperages higher than specified on Batteries’ labels.
- Never allow the temperature of Batteries to exceed 140° F during discharge. Adequate cooling for Batteries is required, especially when discharging at or near maximum rates.
- Never discharge Batteries to voltage below which they are rated by the manufacturer when measured under load (connected to the vehicle or a charger capable of discharge). Batteries discharged to a voltage lower than the lowest approved voltage may be damaged, resulting in loss of performance and potential fire when Batteries are charged.
- Never discharge battery to a level below 3V per cell under load.
- For Tattu series batteries which are used for Unmanned Aircraft system, The recommended cut off voltage is 3.5V per cell.
- Never leave battery unattended during the discharging process. During the discharging process, user should monitor the process constantly and react to potential problem that may occur.
- In case of emergency, discontinue the process immediately, disconnect the battery, place it in a safe area, and observe it for approximately one hour. This may cause the battery to leak and the reaction with air may cause the chemicals to ignite, resulting in a fire. A safe area should be outside of any building or vehicle and away from any combustible materials. A battery can still ignite even after one hour.
- User need to check the conditions of the battery before use it or discharge it. Stop using it if user found the cells are not balanced or cells are puffing or weeping.

**BEFORE CHARGING**
- Please read the charger instruction book before charging.
- Always check the voltage of Batteries before each charge session in order to ensure they are at or above the minimum safe starting voltage. If starting voltage is below recommended levels then Batteries have been over discharged or have experienced a failure and should NOT be charged.
- Always check the battery before charging for any type of damage. Check the battery packaging, wires and connectors for defects, which may cause a short circuit and eventual battery failure.
- Make sure you are using charge leads which are compatible with the battery connectors.
- User should check the polarity of the battery cable and charger lead carefully before the connection to avoid any short circuit.
- Always verify the charger is in good condition. A poor quality charger can be dangerous.

**CHARGING**
- Only use charger designed for lithium polymer/Li-ion battery. Do not use a NIMH/NICD/LIFEPO4/LEAD ACID charger. If the charger can support different battery types. Be absolutely sure to select the Lithium polymer(Lipo) mode on the charger. Failure to do so may cause a fire, which may result in personal injury and property damage.
- User should Always charge Batteries in an open area away from flammable materials, liquids and surfaces.
- Never charge Batteries inside of the model.
- Never charge Batteries that are hot to the touch (above 100° F). DO NOT handle Batteries until they are cool.
- User should Always set the charger to the proper cell count and/or voltage listed on Batteries’ labels.
- User should Always set the charger to the amp charge rate as listed on Batteries’ labels.

The charger should never be set to charge Batteries at a rate greater than 1C (One (1) times the capacity of Batteries in amp hours) unless another C rate is specified in the manufacturer’s product documentation or the rate is preset as part of a specific battery and charger combination. DO NOT alter the charge rate once charging has begun.
- Never overcharge Batteries beyond the capacity listed on Batteries’ labels.
- Never overcharge batteries over their rated maximal voltage (4.35V/cell for LiPo).
- It must choose series charging if two or more battery packs be connected in series for using.
- Use suitable and good quality chargers, please don’t use cheap and low quality chargers, use the professional Lithium polymer charger to charge the Gensace&Tattu battery. When charging, please make sure the surroundings is clean, without sundries around. Don’t charge without monitoring. Using lipo sack is suggested when charging to ensure the charging safety. Stop charging timely when the battery is fully charged. Do not connect the charger and the battery for a long time when the battery is fully charged. We will not be responsible for any personal injury and property lost or any kind accident that caused by improper charging.

**STORAGE**
- Do not directly connect the terminals with metal objects. This will short-circuit Batteries, resulting in heat and electrical discharge.
- Never store loose Batteries together, the Batteries’ terminals may contact one another causing a short circuit.
- Never storage Batteries to extreme temperatures or direct sunlight. The battery should be stored within -10 °C~45 °C range environmental condition. If the battery has to be stored for a long time (Over 3 months), the environmental condition should be:
  - Temperature: 23±5 °C
  - Humidity: 65±20%RH
  - The voltage for a long time storage should be 3.6V~3.9V range per cell.
- Always disconnect Batteries when not in use and store Batteries in a non-conductive and fireproof container.
- Never alter, puncture or impact Batteries or related components.
SAFETY

- Reverse charging is prohibited. The cell shall be connected correctly. The polarity has to be confirmed before wiring. In case of the cell is connected improperly, the cell cannot be charged.

- Simultaneously, the reverse charging may cause damaging to the cell which may lead to degradation of cell performance and damage the cell safety, and could cause heat generation or Leakage.
- Never strike battery with any sharp edge parts
- Trim your nail or wear glove before taking battery
- Never open or deform folding edge of the cell
- Never Fall, hit, bend battery body
- Never disassemble the cells. The disassembling may generate internal short circuit in the cell, which may cause gassing, firing, or other problems
- LIPO battery should not have liquid from electrolyte flowing, but in case the electrolyte come into contact with the skin, or eyes, physicians shall flush the electrolyte immediately with fresh water and medical advice is to be sought.
- Never incinerate nor dispose the cells in fire. These may cause firing of the cells, which is very dangerous and is prohibited. The cells shall never be soaked with liquids such as water, seawater drinks such as soft drinks, juices coffee or others.
- The battery replacement shall be done only by either cells supplier or device supplier and never be done by the user.
- The cells might be damaged during shipping by shock. If any abnormal features of the cells are found such as damages in a plastic envelop of the cell, deformation of the cell package, smelling of electrolyte, electrolyte leakage and others, the cells shall never be used any more.
- The cells with a smell of the electrolyte or a leakage shall be placed away from fire to avoid firing.
- If at any time the battery becomes damaged, hot, begins to balloon or swell, discontinue charging or discharging immediately. Quickly and safely disconnect the battery from the charger or model. Then place the battery and/or charger in a safe, open area, away from flammable materials inside a fireproof container (such as a LiPo safety bag). After one hour, if the battery condition has stabilized, remove the battery from service. Do not continue to handle, attempt to use, or ship the battery. Failure to follow these procedures can cause damage to the battery, personal property or cause serious injury.

DAMAGE LIMITS

Gens Ace/Tattu will not be liable for special, indirect or consequential damages, loss of profits or production or commercial loss in any way connected with the product, whether claim is based in contract, warranty, negligence, or strict liability. Further, in no event shall the liability of Gens Ace/Tattu exceed the individual price of the product on which liability is asserted. As Gens Ace/Tattu has no control over use, setup, final assembly, modification or misuse, no liability shall be assumed nor accepted for any resulting damage or injury. By the act of use, setup or assembly the user accepts all resulting liability.

If you as the purchaser or user are not prepared to accept the liability associated with the use of this product, you are advised to return this product immediately in new and unused condition to the place of purchase.

LIMITED WARRANTY

Gens Ace/Tattu reserves the right to change or modify this warranty without notice and disclaims all other warranties, express or implied. This warranty is limited to the original purchaser and is not transferable. Replacement as provided under this warranty is the exclusive remedy of the purchaser. This warranty covers only the products purchased from an authorized dealer. Third party transactions are not covered by this warranty. Proof of purchase is required for warranty claims. Gens Ace/Tattu makes no warranty or representation, express or implied, about non infringement, merchantability or fitness for a particular purpose of the product.

The purchaser acknowledges that they alone have determined that the product will suitably meet the requirements of the purchaser’s intended use. Gens Ace/Tattu’s sole obligation here under shall be that it will, at its option, replace any product determined by Gens Ace/Tattu to be defective in the event of a defect, this is the purchaser’s exclusive remedy. Replacement decisions are at Gens Ace/Tattu’s sole discretion. This warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of or to any part of the Product. This warranty does not cover damage due to improper installation, operation, maintenance or attempted repair by anyone.

QUESTIONS AND ASSISTANCE

If there’s anything that is not mentioned in this operating instructions, please contact us in time for consultation.

If you need assistance, please contact your local hobby store or place of purchase.

If they cannot provide support, please contact Gens Ace headquarter with info@gensace.com.

INSTRUCTIONS FOR DISPOSAL BY USERS

This product must not be disposed of with other waste. Instead, it is the user’s responsibility to dispose of their waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment.

The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or where you purchased the product.