



# TATTU PLUS INTELLIGENT FLIGHT BATTERY

- \* ALL OF THE INSTRUCTIONS AND PRECAUTIONS MUST BE READ CAREFULLY AND FOLLOWED EXACTLY BEFORE USING IT. (WARNING: IT IS POSSIBLE TO GET SERIOUS FIRE, DAMAGE YOUR DEVICE. GIVING RISE TO THE POSSIBILITY OF PROPERTY DAMAGE, COLLATERAL DAMAGE AND SERIOUS INJURY WITH WRONG OPERATION APPROACH.
- \* IF UNEXPECTED SITUATIONS HAPPEN, PLEASE TAKE NECESSARY AND REASONABLE MEASURES TIMELY TO PREVENT THE EXPANSION OF THE DAMAGE.) . THE LITHIUM POLYMER IS ACTIVE MATERIAL, IF YOU HAVE NOT READ THE INSTRUCTIONS CAREFULLY BEFORE USING THE TATTU PLUS BATTERY, TATTU MANUFACTURER, DISTRIBUTOR AND DEALER WON' T TAKE RESPONSIBLE FOR THE HUMAN INJURY AND PROPERTY LOSS AND OTHER ACCIDENTS CAUSED BY USING IMPROPERLY.
- \* IF YOU DON' T AGREE THE ABOVE CLAUSE, PLEASE RETURN THE BATTERY BEFORE USING THAT.

Before using, check the followings:

1. Please check the battery whether damaged or not, if damaged, don' t use the battery
2. Please check the battery whether swell or not, if swell, don' t use the battery
3. Please check the battery whether electrolyte leak or not, if leak, don' t use the battery
4. Please don' t let the connector contact the metal and the carton fiber product, avoid causing short circuit.
5. Please check the capacity indicator light whether indicate exactly remaining power.
6. Make sure never let the cell in an overheated condition, if the cell temperature higher than 60 centigrade, there exists potential safety hazard.
7. Suggest checking the battery power and the health condition by the button before using the battery.

## Charge / Discharge

1. 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.
2. Don' t charge and discharge the battery without monitoring
3. Recommend charging and discharging the battery between 0-40 centigrade.
4. Using the battery in cold environment, battery capacity will drop sharply and cause the flying time drop sharply. When using the battery in temperature between -10 to 5 centigrade, need to meet up certain voltage that can support flying. Before using, fully charge the battery keep the battery in warmer condition. Suggest not using the battery in very cold condition. (lower than -10 Centigrade)
5. Never over-charge the battery ( each cell voltage never higher than 4.25V)
6. Never connect the battery positive and negative together, it will cause the battery short circuit. And connect to the equipment correctly. Never connect oppositely positive and negative to the equipment.
7. When charge the battery, pay attention the desk need to bear high temperature, and charge the battery in the clear and open cement floor, suggest using the lipo sack during charging. When charge battery, keep far from flammable and the explosive materials, such as paper, plastic material, carpet, leather, wood, oil. Never charge the battery with the model, and don' t charge battery in your car.
8. Never over-discharge (each cell voltage can' t be lower than 3.3V), over-discharging will damage the battery, and cause battery swell.
9. Never let the electrolyte contact your eyes or skin, in case the electrolyte splashing to your eyes or skin, please use water wash that right away, if that is serious, seek for help from the doctor. Never disassembly the battery .
10. Never directly contact the leaked battery.
11. Never assembly the battery by yourself, don' t disassembly the old pack and repack, or get the single cell from one pack and assembly with another pack, these behaviors are dangerous (Because lack of professional assembly equipment will cause the short circuit and catch fire)

## Battery storage

1. Never let the battery near to liquid material, and don' t store the battery in humid environment.
2. Never let the battery close to fire and some heating machines and other things that can catch fire.
3. Keep the battery where children can' t touch.
4. Keep the battery in the 25 Centigrade temperature.
5. Keep the battery in blank environment , make sure there' s enough space for the battery storage.( The battery can' t be squeezed by battery)
6. If the battery hasn' t been used for a long time, please keep the single cell voltage between 3.8-3.85V, in addition, make sure to check the storage every two weeks. And do one charge and discharge cycle to active the pack, and keep the battery in stable condition.

# Product Overview Introduction



TATTU PLUS is an intelligent battery which is specially designed for drone. With integrated high-performance, ultra-low-power MCU. It can grab cell voltage information accurately, and realize mature and intelligent self-discharge, balance management. It extends battery storage life and using life effectively and protects the battery from puffing. This product is simple to operate. All the functions can be realized by one button. It's easy and convenient for customers to use.

## Item list

- 1、 Battery Pack
- 2、 Balance plug connect wire
- 3、 Instruction

## Use instruction

### One button health checking

Short press the button, check the power, (white led on), and will be off later.

(LED1 is the one closest to the button, while LED4 is furthest to the button.)

Button led red	LED1 white	LED2 white	LED3 white	LED4 white	Remain capacity
on	on	on	on	on	75%~100%
on	on	on	on	off	50%~75%
on	on	on	off	off	25%~50%
on	on	off	off	off	8%~25%
on	flash	off	off	off	0%~8%

### Function control alarm Status

Button red	LED1red	LED2red	LED3red	LED4red	Instruction
on	on	on	on	flash	over-voltage alarm
on	flash	on	on	on	under-voltage alarm
on	flash	flash	on	on	under-temperature alarm
on	on	on	flash	flash	over-temperature alarm
on	on	on	off	off	Low power damage alarm
on	on	off	off	on	Imbalance Seriously

## One button storage function

1.Long press the button, until 4 leds finish flashing, enter into the one button storage , battery voltage will automatically drop to the safe range. If the battery capacity is too low, it won't enter into one button storage function, white indicator led flashes, reminding need to charge the battery.

2.Charge or discharge battery or long press the button, white led1, led2 and white led3, led 4 these two groups finish flashing alternately, that indicate exiting the one button storage function.

Remark: During the charge and discharge process, it doesn't support the one button storage function.

## Intelligent storage self-discharge

Store the battery in full charge condition, battery self-discharge to the safe voltage,battery temperature will have a little increase. This is normal.

## Intelligent repair the battery function

when the cells come out imbalance , it will repair the imbalance automatically.

## Specification

Cell	Lithium polymer	
Voltage	22.2V	
Over voltage protection	4.24V	
Under voltage alarm	3.1V	
Over temperature alarm	55℃	
Under temperature alarm	5℃	
Use temperature	-10℃ ~ 40℃	
Capacity	Dimension: length x width x height (tolerance 0.5mm)	Weight
10000mAh	70.00mmX62.80mmX185.77mm	1466.0 ± 10g
12000mAh	75.98mmX61.20mmX201.98mm	1640.0 ± 10g
16000mAh	88.14mmX69.80mmX202.43mm	2063.0 ± 10g
22000mAh	96.18mmX68.60mmX213.52mm	2640.0 ± 10g