

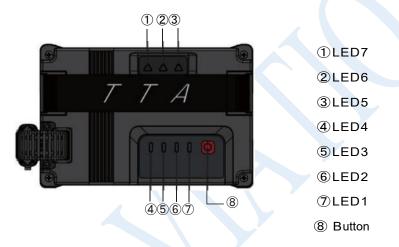
Add: No.1 TTA Building, Niantou Industrial Park ,Changping District,Beijing, China

G200 PLUS Smart battery

1. Products Introduction

This is a 14S1P self-balancing intelligent battery pack with charge and discharge management function specially designed for UAV. The supporting intelligent data cloud service system developed and designed can provide users with all-round application and security services

2. Indicator Description



3. Products Standard

	No. Item		Parameter		
	1	Battery Model	14S1P		
	2 Nominal Capacity 17		17000mAh @ 0.2		
	3	Nominal Voltage	51.8 V(Cell 3.7V)		
	4	Size	112.5 x 167.5 x 235mm		
5		Battery Weight	5900±100g		
	6	Standard Charge	5A CC(constant current)charge to 58.8V, the CV (constant voltage 58.8V) charge till the value of the current≤0.02C		
	7	Quick Charge	Sustained current:25A, Sustained voltage:58.8V Non-conducting voltage:0.02C		

www.ttaviation.org



Add: No.1 TTA Building, Niantou Industrial Park , Changping District, Beijing, China

	Charging time	Standard Charge: 5.4h (reference value)
8	Charging time	Quick Charge: 1.0h (reference value)
	Maximum constant	Maximum constant current: 100 A
9	discharge current	Non-conducting voltage: 44.8V

4. Attention

- (1) Use TTA approved battery.
- (2) The storage voltage of G200Plus is up to 53.9V. Please use it in strict accordance with relevant safety specifications and the instructions of the battery itself, and be sure to pay attention to safety.
- 5. Button Function

Check: Shot press the button at the state of shutdown, LED shows battery level, and will extinguish within 2s;

Starting up: Shot press the button at the state of shutdown, LED shows battery level, long press the button over 2s when the light is on, the battery level indicator light from LED1 to LED4 successively, then LED will show current battery level after completing the starting up procedure.

Shutdown: Shot press the button at the state of power on, then long press the button over 2s when 4 LED flashing, and the battery goes to shutdown state after LED indicator extinguishes from LED4 to LED1 successively.

Lifespan state indication : Long press the button over 5s at the state of shutdown, battery level indicator shows the lifespan state of the battery.

6. Intelligence Battery Capacity Indication

BMS design 4 LED which indicates the battery level from 8 degree;

State: • on; \circ soff; \odot flash;

Table 1 The battery capacity indication of standby and discharge state				
LED1	LED2	LED3	LED4	Current battery level
\odot	0	0	0	0%~12%
•	0	0	0	13%~24%
•	\odot	0	0	25%~37%



⁴ Add: No.1 TTA Building, Niantou Industrial Park ,Changping District,Beijing, China

•	•	0	0	38%~49%
•	•	\odot	0	50%~62%
•	•	•	0	63%~74%
•	•	•	\odot	75%~94%
•	•	•	•	95%~100%

Table 3 The battery capacity indication of charging state						
LED1	LED2	LED3	LED4	Current battery level		
\odot	\odot	\odot	\odot	0%~12%		
•	\odot	\odot	\odot	13%~37%		
•	•	\odot	\odot	38%~62%		
•	•	•	\odot	63%~94%		
•	•	•	•	95%~100%		

Attention:

(1) If charging the battery after starting up, all of the battery level indicators will extinguish within 10 mins after getting full charge.

(2) If the battery charge in automatic state, all of the battery level indicators will extinguish within 10s after getting full charge.

Long press the battery over 5s at the state of shutdown, LED indicator will show the battery lifespan.

Table 3 Remaining battery lifespan indicator						
LED1	LED2	LED3	LED4	Remaining battery lifespan		
•	•	•	•	88%~100%		
•	•	•	\odot	75%~87%		
•	•	\odot	0	63%~74%		
•	\odot	0	0	50%~62%		
\odot	0	0	0	38%~49%		

www.ttaviation.org



Add: No.1 TTA Building, Niantou Industrial Park ,Changping District,Beijing, China

•	•	0	0	25%~37%
•	0	0	0	13%~24%
•	0	0	0	Below 12%

7. State LED Indicator

①. Red LED: Storage indicator, indicates that battery is in storage mode. Current battery voltage is higher than storage voltage, so battery is discharging itself to reach the storage voltage.

②. Orange LED: Low voltage prompt indicator to indicate the battery need to charge now;

③. White LED: Maintain prompt indicator to show that battery need to be maintained now;

(4). Warning indicates: Red light and white light turn on at the same time.

8. Dormancy Function

(1)BMS will enter into dormancy after starting up 10mins to reduce consumption, and the battery will be activated by charging and discharge.

②BMS will proceed to the second-level energy-saving mode when the voltage of any battery is lower than 3.65V to ensure the safety of the battery. The battery can standby safely for 3 months with this mode. However, if reserving the battery over 3 months, users must dispose the battery or return it to the factory for safety inspection.

(3)If the battery is seriously short of power and idle for a long time, the battery will enter to deep sleep mode.At this situation, the battery needs to manually start up and immediately get charge.

9. Self-equalization Function

If the standing time of battery is over 6 hours, and the BMS detects that the voltage difference between the cells reaches a preset value, the equalization function will be triggered



Add: No.1 TTA Building, Niantou Industrial Park , Changping District, Beijing, China

10. Intelligent Storage Function

If the standing time will be more than 5 days, please discharge the battery to 40-70% power to storage, which can prolong the life of the battery. If the battery is fully charged, it will automatically turn on the intelligent storage function (the temperature of the battery may rise during the discharge process to the appropriate storage voltage, which is a normal phenomenon). It is recommended to store the batteries in a special battery box. Do not leave a completely discharged battery for over 1 day, in order to avoid the battery enter into the state of over-discharge, which will permanently damage batteries.

- 11. Maintenance
- Never use water to wash battery
- Never store batteries at room temperature above 45°C or below -20°C
- If the battery is left for a long time without maintenance, its performance will be affected.
- Recharge and discharge every 3 months to keep the battery alive.
- Batteries over 6 months or over 200 charge-discharge cycles will not be guaranteed



Add: No.1 TTA Building, Niantou Industrial Park , Changping District, Beijing, China

This content is subject to change.

If you have any questions, please contact TTA: <u>lan.li@ttaviation.com</u>

Copyright@2020 TT Aviation All rights reserved.

www.ttaviation.org