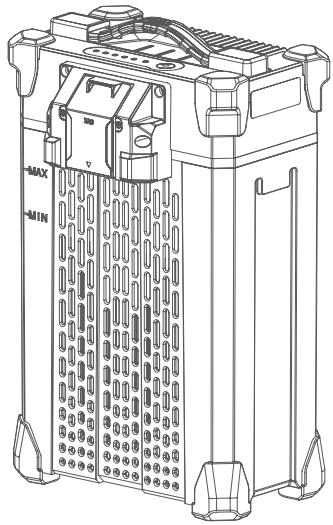
XAG B141050
Smart SuperCharge Battery
User Manual

Version 1.0 EN



XAG ADVANCING AGRICULTURE

To User

Dear user, thank you for choosing XAG's products.

For safety purposes and better user experience, it is highly recommended that you read this manual carefully and strictly follow the instructions hereof.

Contact Us

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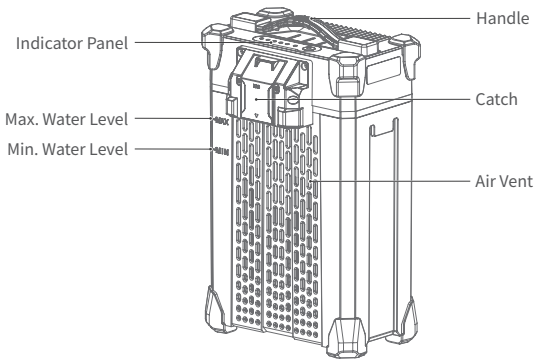
Add: Building 1, No. 9 Xinrui Road, Huangpu District, Guangzhou, P.R.China

Technical Support Team: support@xa.com

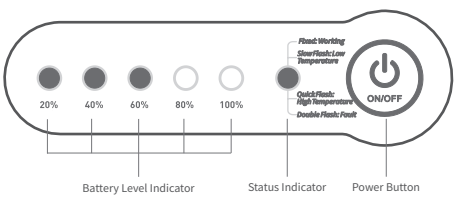
Introduction

The XAG B141050 Smart SuperCharge Battery (hereinafter referred to as the "battery") is compatible with XAG 2021–2025 model agricultural drones, 2022 model unmanned ground vehicles and 2025 agricultural rovers. The battery contains 14 high-capacity lithium polymer cells and an embedded BMS (Battery Management System) that monitors voltage, current, and temperature in real time while providing charge protection. During operation, status data is immediately sent back to the drone's control system. If the battery is low or a malfunction occurs, the BMS automatically triggers an emergency stop to ensure safety.

Main Components



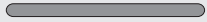
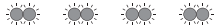
Indicator



Check Battery Status

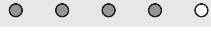
Battery Level Indicator		Description
2 Double Flashing Green	◉◉ ◉◉ ○ ○ ○	Fault Lock; Due to low battery or excessive voltage variance - contact technical support
3 Double Flashing Green	◉◉ ◉◉ ◉◉ ○ ○	Remote Lock; Battery locked remotely - contact technical support
4 Double Flashing Green	◉◉ ◉◉ ◉◉ ◉◉ ○	Anti-dismantling Lock; Cell identification failed - contact technical support

Battery Level Indicator		Description
2/4 Alternate Flashing Green		Dual-battery power on disabled - narrow voltage variance before use
5 Triple Flashing Green		Short-circuit protection - contact technical support

Status Indicator		Description
Solid Red		Normal
Fast Flashing Red		Overheating protection activated - charging/discharging disabled
Slow Flashing Red		Low temperature protection activated - keep battery above 10° C for charging
Double Flashing Red		Battery malfunction - stop use immediately
Triple Flashing Red		Abnormal plug temperature/short circuit protection - contact technical support

Check Battery Level

When powered off: Short press power button once to check the current battery level.
When powered on: Battery level is continuously displayed.

Battery Indicator		Description
1 Flashing Light		1% ~ 9%
1 Solid Light		10% ~ 29%
2 Solid Lights		30% ~ 49%
3 Solid Lights		50% ~ 69%
4 Solid Lights		70% ~ 89%
5 Solid Lights		90% ~ 100%

⚠ Note

⚠ 5 triple flashing green battery indicators with a triple flashing red status indicator indicates short circuit protection activation. Immediately contact technical support.

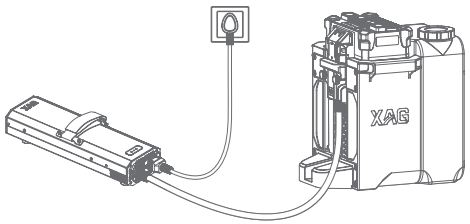
Power On/Off

Press and hold the power button for 2 seconds to turn on/off. To power on, connect to the charger/device, then press and hold the power button for 2 seconds until the battery level indicators light up. To power off, press and hold the power button for 2 seconds until all battery level indicators turn off.

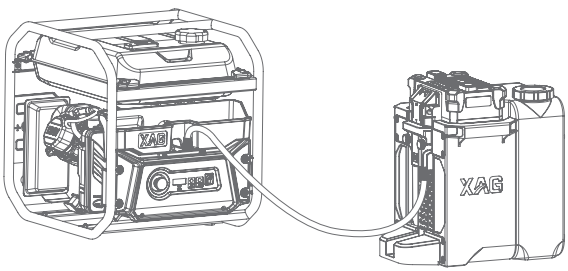
Charging

After connecting the battery to the intelligent supercharger (e.g., XAG CM13600S Charger) or the auto supercharge station (e.g., XAG GC4000+ Supercharge Station), turn on the battery to start charging.

Charge with XAG CM13600S Charger



Charging with XAG GC4000+ Supercharge Station



⚠ Note

- ⚠ Only sockets rated at 16A and compliant with national or industrial quality standards can be used when charging with the intelligent supercharger. Failure to do so will render the user liable for any resulting loss.
- ⚠ For water or mist cooling, immerse the battery in clean, non-corrosive water for a maximum of 60 minutes. Ensure that the water level remains between the Min and Max marks on the battery casing for optimal heat dissipation. Do not fully submerge the battery in water.
- ⚠ Do not store the battery in the water/mist cooling tank when not in use. Never soak the battery in any liquid for extended periods.
- ⚠ Please remove the battery before draining the water/mist cooling tank.
- ⚠ Before charging, please see that the power contact is clean and dry and the charging plug and battery interface are free of any metal objects or liquid residue.
- ⚠ During charging, prevent water in the water/mist cooling tank from splashing onto the charger or supercharger station to avoid power failure or damage to the station and battery.
- ⚠ While charging, monitor the water level in the mist cooling tank. If it falls below the Min mark, refill with fresh water without exceeding the Max mark.

Transport & Storage

Transport

- Transport the battery only when powered off and disconnected from drones, unmanned ground vehicles, and charging devices.
- Secure the battery firmly during transport. Use cushioning materials if necessary to prevent collisions or accidents.
- Never put the battery near heat sources or in enclosed high-temperature spaces (e.g., hot, unventilated vehicles/compartments, uncooled mobile charging stations).
- Never transport batteries at high temperatures. Cool to ambient temperature first.
- Never transport in humid environments.
- Never transport with flammable/explosive materials or metal objects.
- Never charge/discharge during transport.
- Never transport batteries with swelling, leakage, or visible damage.

Storage

- Do NOT mix normal batteries with faulty ones.
- The battery storage area must be open, with no flammable materials, fuel supercharging stations, drones, debris, or any device that may generate electrical sparks (such as charging devices, circuit breakers, or power sources) within a 10-meter radius.
- Please check the battery level and charge or discharge the batteries to 50%~60% before storage.
- Battery storage should be divided into designated areas and labeled as such, and should be managed by dedicated personnel.
- Before storing batteries, check for any safety hazards or abnormalities such as bulging, leakage, or severe exterior damage. Abnormal batteries should NOT be mixed with normal or faulty ones. Abnormal batteries should be scrapped or disposed of according to regulations. Before that, abnormal batteries should be stored separately and kept away from high temperatures, heat sources, flammable or explosive materials, and other hazardous environments.
- Batteries should be stored in dry, ventilated environments (room temperature 10~30 ℃), avoiding damp conditions.
- The battery storage area should be equipped with fire fighting appliances (such as fire sand, water-based fire extinguishers, fire buckets, pliers, and heat-resistant gloves).
- During storage, follow the requirements related to battery maintenance as specified in the manual.

Maintenance

- Please use the batteries within the rated payload of the XAG Agricultural Drone or XAG Unmanned Ground Vehicle. Overloading may affect the performance of the batteries.
- The batteries should be charged or discharged to 50%~60% every 90 days to maintain battery activity.

Disposal

- If it is necessary to scrap batteries nearing the end of their charging cycle, they should be immersed in salt water for more than 72 hours to ensure complete discharge before drying and disposal. When disposing of batteries, please comply with local laws and regulations. Do NOT discard the batteries casually. Please protect the natural environment.
- When the batteries are bulging, leaking, deformed, or have exterior damage, there are significant safety hazards. Users should immediately stop using the batteries and contact XAG or XAG after-sales service stations. When the batteries have abnormalities such as bulging, leakage, deformation, or exterior damage, avoid moving or transporting the batteries, and dispose of the batteries according to the relevant laws and regulations to prevent safety accidents that could result in personal injury or property damage.

Specifications

Battery Model	M1PPA141050AH
Battery Type	Lithium Polymer Battery
Dimensions	192×139×315 mm
Weight[1]	About 7.1 kg
Rated Capacity/Power	20000 mAh/1050 Wh
Rated Output	52.5 V/140 A
Max Charging Current	120 A
IP Rating[2]	IP65
Ambient Temperature for Operating	10~45°C
Ambient Temperature for Charging	10~40°C
Ambient Temperature for Storage	10~30°C
Compatible Drone/Vehicle	2021 Agricultural Drone 2022 Agricultural Drone 2023 Agricultural Drone 2024 Agricultural Drone 2025 Agricultural Drone 2022 Unmanned Ground Vehicle 2025 Agricultural Rover
Compatible Charging Device	CM13600 Charger CM13600S Charger GC4000+ Supercharge Station

[1]: The weight of batteries may vary slightly between different batches.
[2]: Under controlled experimental conditions, the batteries have been tested to be splash-resistant and water-resistant. However, the protective performance is not permanently effective and may decrease due to normal wear.

Precautions

- Do NOT insert or remove the battery when it is on, or it's socket could be damaged.
- Before flight operations, please check that the battery firmware and software are up to date. Users will be solely responsible for any losses caused by failure to update the firmware and software in a timely manner.
- User must charge the battery with a designated XAG charging device. User will be solely responsible for any financial responsibility and legal liability arising from the use of non-designated charging devices.
- The battery should be used within ambient temperatures ranging between 10 ° C to 45 ° C. Batteries used at temperatures exceeding 45° C may catch fire or even explode.
- NEVER connect the battery's positive and negative terminals with wires or other metal objects, as this may cause a short circuit.
- If there is liquid or foreign matter in the battery connector, please wipe it clean in time and keep the connector clean and dry. Otherwise, poor contact may occur, resulting in energy loss or inability to charge.
- Please handle the battery with care during use; do NOT disassemble it, puncture its housing, or apply pressure to the battery by sitting or standing on it, placing heavy objects on top of it, or exerting external pressure in any way.。
- Before and after daily use, please regularly check various components such as the battery connector and socket. Do NOT use flammable agents to clean charging devices. Do NOT use damaged charging devices.
- When charging, please place the battery and charging device on level ground without flammable, explosive, or combustible materials nearby. NEVER charge the battery in enclosed, cramped spaces, vehicles, or compartments. A charging battery must NOT be left unattended, or accidents may occur.
- A distance of more than 30 cm should be kept between the battery and the auto supercharge station and charger. The side of the auto supercharge station with a muffler must NOT face the battery and charger to avoid failure of the battery as well as charger due to concentrated heat which may even result in serious consequences such as fire.
- If the battery shows a single flashing green light after flight operations, please charge it to 50~60% in time for storage. Batteries not charged before storage could be damaged or have a shortened lifespan. An idle battery must be charged and discharged every 90 days to maintain battery activity; otherwise, it may become less active and underperforming, or may not function properly.
- The battery should be stored in a dry environment with a temperature of 10~30° C. Do not store or charge the battery in places with water leaks, moisture, or direct sunlight.
- Do not charge the battery in a damp state. Damage caused by liquid immersion due to reasons other than quality defects is not covered by warranty.
- Product failure or damage due to human factors including the user's failure to use, store, transport, and maintain the product in line with the User Manual is not covered by warranty.
- The battery has been tested to be splash-proof and water-resistant under controlled experimental conditions. However, its protective performance is not permanently effective and may decrease as a result of daily wear and tear.

- The liquid inside the battery is highly corrosive; in the event of its accidental contact with human skin or eyes, immediately rinse it off with water and seek medical attention.
- If a short circuit occurs during the charging process, immediately cut off the power of the charging device, place the battery on the ground or in a fire bucket filled with sand, cover the flame of the battery with an asbestos blanket (or an item with equivalent function), and bury the asbestos blanket with fire sand to trap air and extinguish the fire.
- Please dispose of the battery in compliance with local laws and regulations. Improper disposal of the battery will damage the natural environment.

Compliance Information

EU Compliance Statement

"Hereby, ***[Guangzhou Xaircraft Technology CO.,LTD.]***, declares that this ***[B141050 Smart SuperCharge Battery]*** is in compliance with the essential requirements and other relevant provisions of 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: ***www.xa.com/en/service/downloads"***

Brand name / model number：***M1PPA141050AH***
Suppliers Name(EU)：***NIK ELECTRONICS LTD***
Suppliers Address (EU)：***Sofia, 11B Brussels Blvd., fl.13***
Suppliers phone number and / or internet contact information：***00359899952228***

Disclaimer

1. Please read this Disclaimer carefully before using this product, as it has much to do with both operational safety and your legitimate rights and interests. You shall be deemed to have read through, acknowledged, understood, agreed to, and accepted all the terms and conditions as well as information stated herein upon the use of this product.
2. Not a toy, this product is not suitable for those who are under 18 years old, those who have no or limited capacity for civil conduct, or those with mobility impairments. Please keep children away from this product and be particularly cautious when operating it with children present.
3. This product must be charged using an XAG charging device. XAG shall not bear any legal liability for product malfunctions or damages resulting from the user's using non-XAG devices for charging.
4. You pledge to use the product within the bounds of the law for legitimate purposes only and agree to all the information stated in the User Manual.
5. Please install, store, use, transport, and maintain the product under the instructions in this User Manual. Do NOT modify or disassemble this product on your own, otherwise, you shall be held accountable for any financial responsibility and legal liability resulting from your improper use.
6. To the maximum extent permitted by law, XAG shall not be liable for any losses caused by the user's improper operation. In addition, XAG shall not be liable for any indirect, consequential, punitive, accidental, special, or exemplary damages, including any loss incurred as a result of your purchase, use, or inability to use the product, even if you have been advised of the possibility of such loss.
7. You understand that in the use of any products, accidents may occur as a result of single or combined factors, including but not limited to improper operation, surroundings, and communication networks. You understand that the aforesaid accidents are reasonable and acceptable in the use of the product and that XAG shall not be held accountable for such accidents.
8. To the maximum extent permitted by law, under any circumstances, the liability or compensation amount from XAG to you for all damages, losses, and litigation arising therefrom will not exceed the amount that you paid to XAG for purchasing the product.
9. On any account, purchaser or user shall comply with the laws and regulations of the country and region where the product is used. XAG shall assume no liability arising from the violation of relevant laws and regulations by the purchaser or user.
10. As exclusion clauses may be prohibited by law in some countries, your rights in different countries may vary. However, this does not imply that the terms contained in this Disclaimer are necessarily invalid.
11. To the extent permitted by law, all interpretations and revisions of the terms and conditions stated hereinabove are at XAG's sole discretion, and XAG's decisions will be final. XAG also has the right to update, modify, or terminate these terms and conditions via its official website, User Manual, online App, etc., without prior notice.

Warning

User is required to read through the User Manual and follow all installation and operating instructions as specified. This product is only compatible with XAG's designated agricultural drones, unmanned ground vehicles, and related equipment, and is intended solely for agricultural purposes in farming, forestry, animal husbandry, and fishery settings. Operating this product requires strong awareness of safety. Failure to do so may result in serious injury to the user or others, or cause damage to the product and property loss.

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