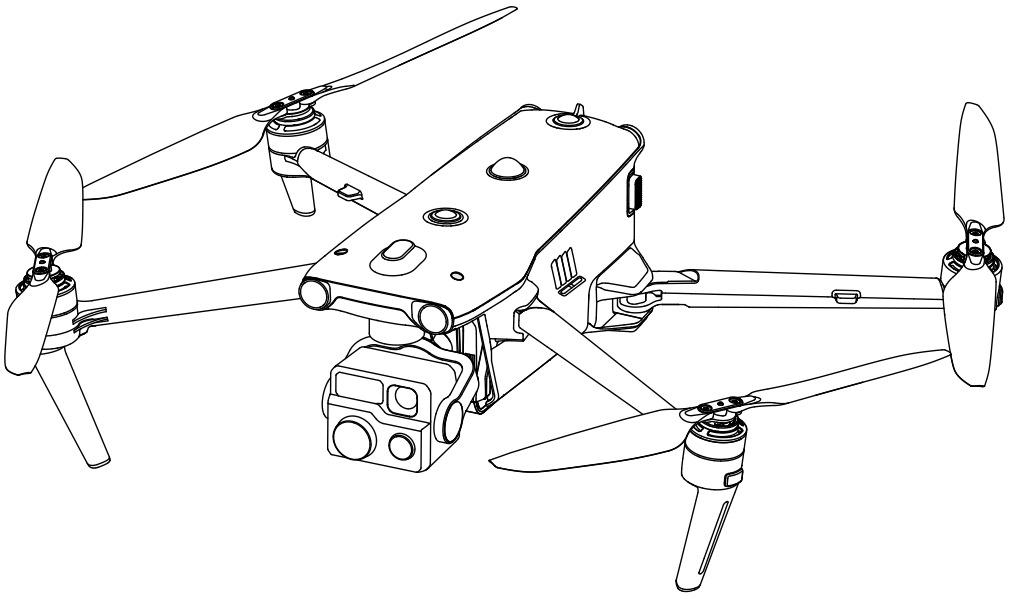
EVO Max Series V2
Multi-rotor Drone User Manual



AUTEL
ROBOTICS

Table of Contents

Release Notes

Manual Version

V1.1.0

Update Date

2025-07-29

User Notice

the manual is based on the following UAV System versions and will be updated irregularly:

Drone Firmware	RC Firmware	Autel Enterprise App
V1.9.1.125	V1.9.1.117	V2.4.54

For detailed release notes of the above versions, visit:
https://www.autelrobotics.com/doc/evomaxseries-firmware-release-notes/

- Once the remote controller is powered on and connected to the internet, the manual will automatically check for updates.
- **This English version of the manual is intended for use in Europe and North America. Information related to other regions is for reference only.** Please refer to the localized version if you are operating this product outside of these regions.
- In the event of translation discrepancies, the Simplified Chinese and English versions of the manual shall prevail.
- After a firmware update, certain operations may differ from the descriptions in the manual. In such cases, please follow the actual system behavior.
- **After updating the UAV System, be sure to refer to this section for detailed information on changes.** Please note that we shall not be liable for any damage or loss resulting from use of an outdated version of the manual.

Newly Added Functions

- Added description of the **Geofence** function.
- Added description of the **Cloud Service** function.
- Added explanation of the **Remote Controller Power On/Off Sound** function.
- Added explanation of the **Full Screen Effect** function.
- Added switch description for Geofence display.

Adjustments

- Optimized the manual structure to improve readability.
- Adjusted the description of the **Live Stream** function.
- Adjusted the explanation of the **Remote ID** broadcast function.
- Adjusted the description of the **Stealth** function.
- Adjusted terminology for **Waypoint** and **Polygon** missions.
- Adjusted icon definitions for the attitude ball.
- Adjusted definitions for **Altitude and Distance Limits**.
- Adjusted the **Signal Lost** definition.
- Adjusted options for **RC Custom Button** (C1/C2 Buttons).
- Adjusted restriction descriptions for **Waypoint** and **Polygon** missions.
- Adjusted limitation description for resume mission.

Removed Items

- Removed the **Settings** tab from the quick settings panel in the device preview area.
- Removed the **ReCap** function from the Menu.
- In Chinese mainland, removed functions related to **Submit Flight Data to CAAC** and **Registration No.**.

Reading Instructions

The operating temperature range for this product is –20°C to +50°C. According to standard classifications for electronic component temperature tolerance, this range does not meet the requirements of military-grade specifications (–55°C to +125°C). Please operate the drone within appropriate environmental conditions suitable for your specific use case.

Copyright Notice

Trademark Information

Abbreviations

For clarity and consistency throughout the manual, the following abbreviations are used. Their full definitions are provided below:

Abbreviation	Definition
The manual	All content related to the use of the EVO Max Series V2 multi-rotor drone, accessible under **User Manual** in the Autel Enterprise App.
This Product	The EVO Max Series V2 multi-rotor drone combo you have purchased or are using.
You	The lawful owner or actual user of this product.
We	The manufacturer of this product, **Autel Robotics**, or its authorized distributors.

Abbreviation	Definition
Drone	The EVO Max Series V2 multi-rotor drone, product model: MDX-1.
Smart Battery	The lithium power battery used for the EVO Max Series V2 multi-rotor drone. For details, refer to **Packing List** > **Detailed Packing List** > **Smart Battery Specifications**.
Remote Controller	Also known as RC, the Autel Smart Remote Controller V3, product model: EF9-3.
Gimbal	The gimbal device mounted on the EVO Max Series V2 multi-rotor drone.
Camera	The integrated camera module on the gimbal, such as zoom camera, wide-angle camera, infrared camera, or night vision camera.
C2 Link	The command and control link of the UAV System.
IMU	Inertial Measurement Unit installed on the drone.
Remote ID	Remote identification system of the drone. In accordance with regulations in regions such as the EU and U.S., certain non-sensitive data from the UAV System must be actively and continuously broadcast to nearby mobile devices during flight. This helps mitigate potential public safety risks and provides regulatory authorities with real-time information and data for effective supervision. The drone supports the remote identification function and uses Wi-Fi (Wi-Fi Beacon 802.11n) for broadcasting.

Symbol Legend

The following symbols are used throughout the manual to highlight **important information**. Please follow the associated instructions or warnings carefully.

Symbol	Description
	**WARNING**: Indicates a potentially hazardous situation.
	**IMPORTANT**: Highlights essential information that must be observed.
	**TIP**: Provides operational or usage advice.
	**NOTE**: Offers additional or reference information.

Accessing Resources

Before using this product, please make sure to thoroughly read and understand the relevant sections of the manual. We also recommend watching the tutorial videos to become familiar with product usage details and ensure safe operation.

Watch Tutorial Videos

Click the link below to view tutorial videos and ensure correct and safe operation of this product:
https://www.autelrobotics.com/videos/evo-max-series/

Download the Manual

Click the link below to download the electronic manual in .pdf format:
https://manuals.autelrobotics.com/?dir=/Drone/EVO%20Max%20Series%20V2/English/

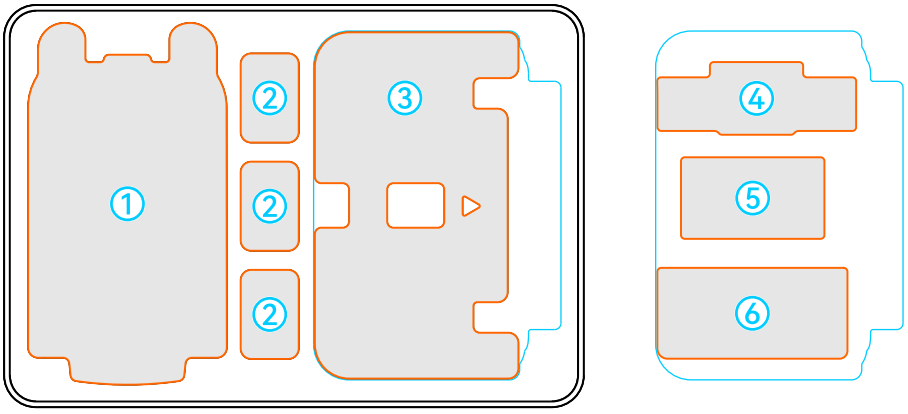
Download the Autel Assistant App

Download the firmware update assistant Autel Assistant App (for Windows).

Packing List

Packing Instructions

For routine transportation and storage, always place the drone and its accessories in the rugged case equipped with built-in shock-absorbing protective materials. The packing arrangement inside the case is shown below:



No.	Item	Notes
1	Drone	Fold arms, secure propellers, and install the gimbal cover before storage.
2	Smart Battery	/
3	Remote Controller	Fold antennas and attach the remote controller cover before storage.
4	Optional Accessories	Document box (includes **Quick Start Guide** and cleaning cloth) and optional payload (e.g., **Loudspeaker and Spotlight Combo**).
5	Battery Charger	/
6	Standard Accessories	Other included accessories besides those listed above.

IMPORTANT:

- Upon receipt, immediately inspect the rugged case and outer packaging for any signs of damage or tampering. Keep a video record of the unpacking process to facilitate claims for shipping-related damage.
- Before long-distance transportation, place all items into the rugged case according to the packing instructions provided, and avoid dropping or impacting the case.

- When shipping via mail, remove the smart battery from the drone and discharge it to approximately 30% capacity.
- For long-term storage, keep the drone and related accessories in a dry, cool environment.

NOTE:

- Smart batteries are shipped separately packaged. After confirming receipt, place them into the battery storage slots inside the rugged case.

Detailed Packing List

When unpacking for the first time, please verify that all items match the descriptions provided in the following list. If items are missing or incorrect, contact us immediately.

No.	Item	Specifications/Model	Quantity	Notes
1	Drone	MDX-1	1	Includes 2 pairs of CW/CCW propellers, 1 gimbal (refer to item 2* for purchased model), gimbal cover, and 64 GB microSD card.
2*	Gimbal	Fusion 4T V2	1	For EVO Max 4T V2.
2*	Gimbal	Fusion 4N V2	1	For EVO Max 4N V2.
2*	Gimbal	Fusion 4NZ V2	1	For EVO Max 4NZ V2.
3	Gimbal Cover	/	1	/
4	Spare Propellers	1158	2	Includes one 1158CW and one 1158CCW.
5	Smart Battery	ABX41-D	1	/
6	Battery Charger	MDX120W	1	/

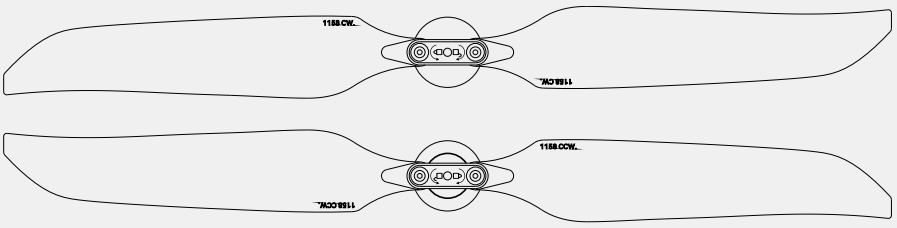
No.	Item	Specifications/Model	Quantity	Notes
7	AC Power Cord	/	1	Used with the battery charger. ***Note**: The actual AC plug type may vary.*
8	USB-C to USB-A Data Cable	/	1	/
9	Remote Controller	EF9-3	1	Includes two command sticks and two antennas.
10	Remote Controller Cover	/	1	/
11	Remote Controller Lanyard	/	1	/
12	Spare Sticks	/	2	/
13	Remote Controller Charger	GaN-001	1	*Actual appearance of charger may vary.*
14	USB-C to USB-C Data Cable	/	1	Used with the remote controller charger.
15	Cleaning Cloth	/	1	Included in the document box.
16	Quick Start Guide	/	1	Included in the document box.
17	Rugged Case	/	1	Used to store all items listed above.

TIP:

- The packing list above applies only to standard sales packages. For customized orders, please refer to your purchase list or sales contract.

Propeller Specifications

The EVO Max Series V2 multi-rotor drone can use propellers of the **1158** model, and the relevant characteristics as follows:

Propeller Specifications	1158
Status	Available
Appearance	
Part Numbers	1158CW / 1158CCW
Material	Nylon + Carbon Fiber
Diameter	11 inches
Pitch	5.8 inches
Weight	10.3 g
Max Rotation Speed	7500 RPM

> ⚠ **WARNING**:
>
> - After prolonged use, propeller blades may become deformed, potentially affecting their fit. Replace with new propellers if such issues occur.
> - If any propeller blades are damaged or cracked, stop flying immediately and replace them with new ones. If debris is found on the blade surface, clean it thoroughly before flight.

Smart Battery Specifications

The EVO Max Series V2 multi-rotor drone can use the ABX41-D Smart Battery, and the relevant features are as follows:

Battery Specifications	ABX41-D
Status	Available
Rated Capacity	9248 mAh
Rated Energy	136.5 Wh
Nominal Voltage	14.76 VDC
Max Charging Voltage	17.0 VDC
Charging Temperature	+5℃ to +45℃
Weight	530 g
Battery Presence Detection	Supported

Disclaimer

Before using this product, please read the manual carefully in its entirety and strictly follow all relevant safety guidelines. If you are unable to provide flight logs when requested, we may not be able to analyze the cause of any incident, and you may be ineligible for warranty or other after-sales services. By using this product, you are deemed to have read, understood, and accepted all terms associated with it, and you agree to be fully responsible for your actions and any resulting consequences.

- This product is not suitable for use by children.
- Keep this product out of reach of children and pets.
- We are not liable for any product damage or personal/property loss resulting from failure to follow the provided risk warnings. Free warranty service will not be provided under such circumstances.
- We are not liable for any product damage or personal/property loss caused by the use of incompatible components or modifications that do not comply with our instructions.
- You are solely responsible for ensuring that your operation of this product does not endanger your own safety or that of others, or cause any property damage.
- You agree to use this product only for lawful purposes and accept the above terms as well as any additional policies or guidelines we may issue.

Export Compliance Disclaimer

You are required to comply with all applicable export control laws and regulations of China, the United States, the European Union, and other relevant jurisdictions. You shall bear sole legal responsibility for any violation of such laws resulting from your use, sale, transfer, lease, or other actions related to this product. Under no circumstances shall we be held liable for any such violations. Furthermore, you agree to indemnify and hold harmless us and our affiliates, officers, employees, distributors, and representatives from any legal liability, losses, or damages arising from your non-compliance, including but not limited to legal fees, attorney fees, travel expenses, and other related costs.

End-Use Statement

This product may be subject to export control laws of China, the United States, the European Union, or other relevant jurisdictions, and is authorized for sale, export, or domestic transfer solely for civil (non-military) end-use. You must ensure that the

purchased product will not be used in any of the following circumstances. Otherwise, you will bear all resulting losses and legal consequences:

1. Any military end-use.
2. Any use related to nuclear weapons, biological or chemical weapons, or the missiles capable of delivering such weapons.
3. Export, re-export, or transfer to any individual or entity sanctioned by the governments of China, the United States, the European Union, or any other applicable authority.
4. Export, re-export, or transfer to embargoed destinations including Cuba, Iran, North Korea, Syria, the Crimea region, and Sevastopol.
5. Use in connection with surveillance-related equipment or systems.

The UAV System

UAV System Integrity Check

Before each flight, please perform an integrity check of the UAV system to ensure all components meet operational requirements. A complete UAV System consists of three parts: the drone, the remote controller, and the C2 link.

Drone Component Check

The drone must include the airframe, gimbal, propellers, and smart battery. Missing or damaged components may result in flight failure or system malfunction.

Name	Specifications	Code	Manufacturer	Notes
EVO Max 4T V2	**Max Weight**: 1665 g **Max Dimensions**: 563×657×147 mm	**USA**: EAN: 6924991141051 UPC: 889520221054 **EU**: EAN: 6924991141075 UPC: 889520221078	Autel Robotics	Includes propellers, ABX41-D Smart Battery, and Fusion 4T V2 gimbal.
EVO Max 4N V2	**Max Weight**: 1700 g **Max Dimensions**: 563×657×147 mm	**USA**: EAN: 6924991141068 UPC: 889520221061 **EU**: EAN: 6924991141099 UPC: 889520221092	Autel Robotics	Includes propellers, ABX41-D Smart Battery, and Fusion 4N V2 gimbal.
EVO Max 4NZ V2	**Max Weight**: 1725 g **Max Dimensions**: 563×657×147 mm	**USA**: EAN: 6924991141044 UPC: 889520221047 **EU**: EAN: 6924991141082 UPC: 889520221085	Autel Robotics	Includes propellers, ABX41-D Smart Battery, and Fusion 4NZ V2 gimbal.

Name	Specifications	Code	Manufacturer	Notes
ABX41-D Smart Battery	**Rated Energy**: 136.5 Wh **Max Weight**: 530 g **Max Dimensions**: 158.4×74.3×50.7 mm	/	Autel Robotics	Standard or Sold Separately.
1158 Propellers	**Max Weight**: 10.3 g **Size**: 11 inches **Pitch**: 5.8 inches	**EAN**: 6924991133506 **UPC**: 889520213509	Autel Robotics	Standard or Sold Separately.
XRT-2301S RTK Module	**Max Weight**: 29 g **Max Dimensions**: 72×48×45 mm	**EAN**: 6924991136392 **UPC**: 889520216395	Autel Robotics	Optional.
XRT-2301H RTK Module	**Max Weight**: 29 g **Max Dimensions**: 72×48×45 mm	**EAN**: 6924991129851 **UPC**: 889520209854	Autel Robotics	Optional.

> **NOTE**:
>
> - The RTK module is not included in the standard combo. You may purchase it separately according to your needs. When mounted on the drone, this module enables centimeter-level positioning accuracy.

Remote Controller Component Check

A complete remote controller should include the remote controller body (with properly functioning screen, touch panel, and buttons), command sticks, and antennas. The absence or damage of any component may result in the malfunction of corresponding remote control features.
The built-in Autel Enterprise App, as the sole human-machine interface for drone flight control, must be kept intact to prevent potential loss of drone control.

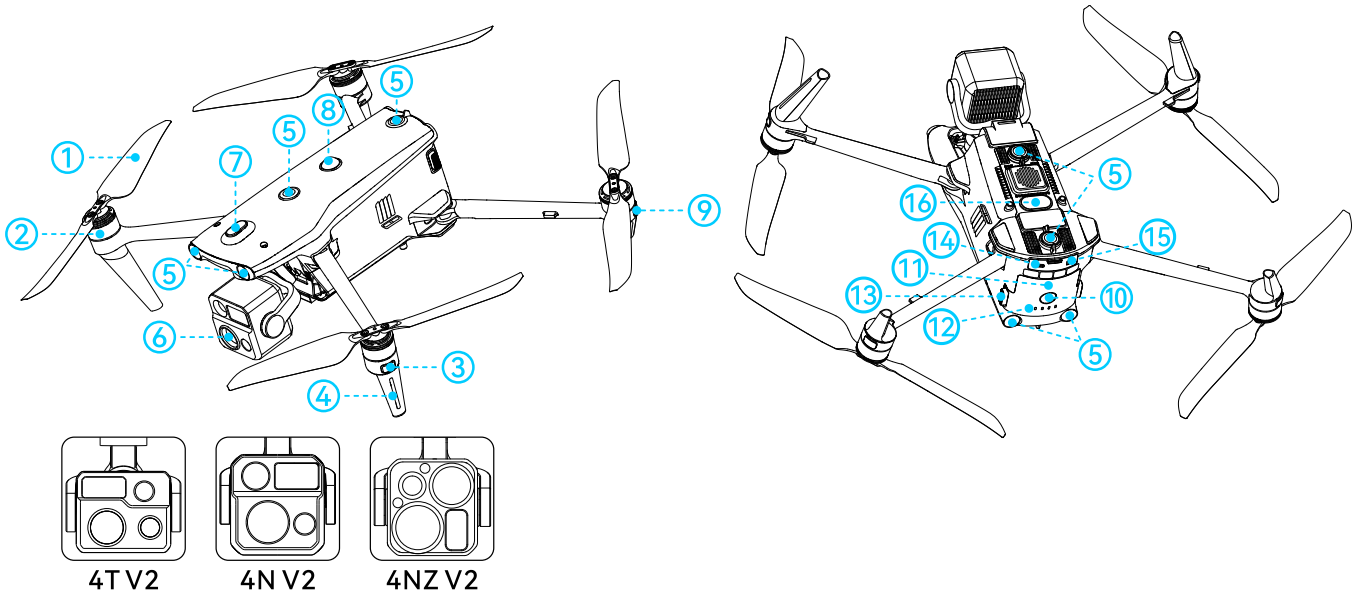
Name	Specifications	Code	Manufacturer	Notes
Autel Smart Controller V3	**Max Weight**: 1195 g (without remote controller cover) **Max Dimensions**: 269×302×87 mm	**EAN**: 6924991130963 **UPC**: 889520210966	Autel Robotics	Includes two antennas and two command sticks.

C2 Link Inspection

After powering on both the drone and the remote controller, ensure that they are successfully linked. When the C2 link is functioning properly, the real-time video feed from the drone's gimbal camera will be visible in the Autel Enterprise App on the remote controller, and the drone can be operated via the remote controller.

> **TIP**:
>
> - To ensure proper linking between the remote controller and the drone, both devices should be updated to the corresponding firmware versions as specified in the **Release Notes** > **User Notice** section.
> - During daily use, when a new firmware update is available, it is recommended that you update promptly to fix known issues and enjoy newly added functions. You may also postpone the update; this will not affect existing core functionality.

Drone Components

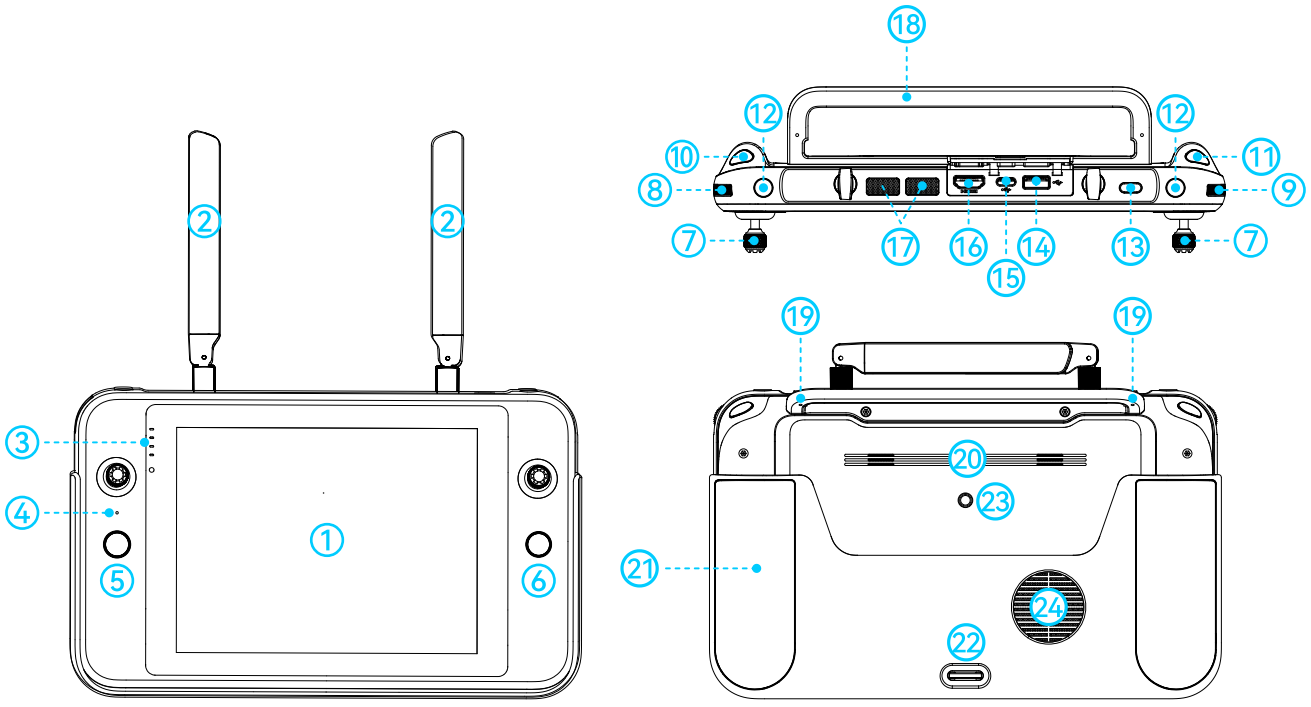


No.	Component	Description
1	Propellers	/
2	Motors	/
3	Navigation Indicators	Front arm lights: Used to identify drone orientation during flight.
4	Landing Gear	Contains antennas.
5	Omnidirectional Visual Sensing System	/
6	Integrated Gimbal Camera	/
7	Expansion Port	P-Port port for payload attachment.
8	Strobe	/
9	Status Indicators	Rear arm lights: Indicate the operating status of the drone.
10	Power Button	Power on/off: Press and hold for 3 seconds. Single Link: Double press quickly. A-Mesh Link: Short press, then long press.
11	Smart Battery	/
12	Battery Indicators	Displays battery level; may also indicate drone status in certain scenarios.
13	Battery Buckles	/
14	USB-C Port	P-Port Lite port for payload attachment.
15	microSD Card Slot	/
16	Aux Light	/

WARNING:

- Do not use the expansion port or USB-C port for charging. Do not connect them to a charger output.

Remote Controller Components



No.	Component	Description
1	Touchscreen	/
2	External Antennas	/
3	Battery Indicators	Displays the remote controller's battery level; may also indicate remote controller status in certain scenarios.
4	Microphone	/
5	Takeoff/RTH Button	When the drone is powered on and on the ground, press and hold for 2 seconds (after the beep) to display the **Press and hold to take off** confirmation popup. Upon confirmation, the drone will take off and hover at 1.2 meters above ground. During GNSS-mode flight, press and hold for 2 seconds (after the beep) to trigger **Return to Home (RTH)**.
6	Pause Button	During automated flight missions, press the button (after the beep) to pause the mission and hover in place. Press again to resume the mission. Press and hold for 2 seconds (after the beep) to exit the current automated mission.
7	Command Sticks	Manually control the movement of the drone.

No.	Component	Description
8	Gimbal Pitch Control Dial	/
9	Camera Zoom Control Dial	/
10	Video Recording Button	Press to start recording; press again to stop.
11	Photo Capture Button	/
12	Custom Buttons (C1/C2)	Functions can be mapped in Autel Enterprise App via **Menu** > **Settings** > **RC** > **RC Custom Button**.
13	Power Button	When powered off: short press to display battery level; press and hold for 3 seconds (after the beep) to power on. When powered on: press to turn off/on the screen; press and hold for 6 seconds to force shutdown.
14	USB-A Port	Supports external devices such as USB drives and card readers.
15	USB-C Port	Used for charging.
16	HDMI Port	/
17	Air Outlet	/
18	Handle	/
19	Stick Storage Holes	Used to store detached command sticks.
20	Speaker	/
21	Remote Controller Cover	/
22	Bottom Hook	Used to connect and fix the remote controller lanyard.
23	1/4" Screw Hole	/
24	Air Inlet	/

Flight Safety

Before flying outdoors, make sure to conduct basic flight training (e.g., watching tutorial videos, receiving guidance from professionals) to become familiar with the functions and features of the drone and remote controller.
Before flight, select a suitable environment based on relevant flight requirements and restrictions, and set a reasonable altitude to ensure legal operation. Operating the drone in unsuitable environments may pose legal risks.

Flight Guidelines

WARNING:

- Do not fly near manned aircraft. Ensure your drone does not interfere with crewed aircraft along flight paths. Always stay alert and avoid other aircraft. Land immediately if necessary.
- Do not fly in areas prohibited by law without proper authorization. Restricted zones may include: airports, borders, major cities and populated areas, large events, emergency sites (e.g., forest fires), and sensitive infrastructure (e.g., nuclear power plants, power stations, substations, prisons, transportation hubs, government buildings, and military facilities).
- Do not fly above the legal altitude limit of your location.
- Do not use the drone to carry any illegal or hazardous materials.
- Do not use this product for any unlawful or inappropriate activities (including but not limited to espionage, military operations, or unauthorized investigations).
- Do not use this product to infringe upon others' property or privacy rights.

IMPORTANT:

- Understand the category of your flight operation (e.g., recreational, public, or commercial). Obtain any necessary permits from relevant authorities before flying. Consult local legal experts if needed, especially since commercial drone use may be prohibited in certain regions or countries.
- Respect others' privacy when using the drone for aerial photography. Unauthorized surveillance—whether of individuals, groups, events, shows, or buildings—is prohibited.
- In some regions, filming or photographing people or events—even for non-commercial purposes—may still violate copyright, privacy, or other rights. Please comply with local laws and regulations before use.

Flight Restrictions

We provide various technical measures designed to assist you in flying safely. However, we make **no guarantees or assurances** that these measures will ensure full compliance with all applicable laws, regulations, or temporary flight restrictions in your area.
By using this product, you acknowledge and agree that **you are solely responsible for all flight activities** and assume all associated legal liability.

Geofencing System

The drone is equipped with a built-in geofencing system, which—when connected to the internet—can automatically update global flight restriction zones in accordance with the latest aviation regulations. In different types of restricted airspace, the drone's flight capabilities will be limited to varying degrees.
The geofencing system supports No-Fly Zone unlocking in specific countries. If you need to fly in restricted or controlled airspace, you may contact us to request a temporary unlock after obtaining official airspace authorization from your local civil aviation authority. The unlock will remain valid for the duration specified in the authorization.

> **NOTE**:
>
> - Due to potential delays in data updates, the information provided by the geofencing system may not always fully align with the most current local laws and regulations. Users are advised to consult and verify local regulations and flight restrictions prior to every flight, and to take full responsibility for flight safety.
> - In compliance with local regulatory requirements, No-Fly Zone enforcement policies may vary by country or region. Always refer to what is shown in the Autel Enterprise App for the most up-to-date information.
> - In countries or regions where No-Fly Zone enforcement is not mandatory (e.g., in the EU), users may manually import official local geofencing data. This can be done in the Autel Enterprise App via > **Map Type** > **Import Geofence**. When flying near restricted zones using imported data, the drone will respond appropriately (e.g., warnings, deceleration) to ensure safe operation.
> - In some cases, due to regulatory requirements, certain No-Fly Zones may not be displayed in the Autel Enterprise App. Always refer to the official flight restriction information published by your local aviation authority.

IMPORTANT:

- Before each flight, make sure the RC is connected to the internet to enable automatic updates of flight restriction data, which will be synchronized to the drone. All relevant airspace information will also be displayed in the Autel Enterprise App during flight to help ensure compliance.
- It is strongly recommended to download and install the latest firmware via the Autel Enterprise App or Autel Assistant App to ensure the geofencing system functions correctly.

Restricted Zones

Restricted zones refer to dynamically defined zones within the geofencing system where certain drone flight functions are limited. Based on the level and type of restriction, these zones are categorized into **No-Fly Zones**, **Authorization Zones**, **Warning Zones**, and **Custom Geofences**.
When the RC is powered on and connected to the internet, the distribution of restricted zones can be viewed on the map page in the **Autel Enterprise App**.

Restriction Type	Description
No-Fly Zone	Includes **Statutory No-Fly Zones** and **Custom No-Fly Zones**, shown in **red** on the map. The drone cannot take off, fly within, or enter this zone from outside.
Authorization Zone	After a successful No-Fly Zone unlock application, and upon receiving official airspace authorization from the aviation authority, the zone becomes an authorization zone, shown in **blue**. Once unlocked, the drone is allowed to fly in this zone as per regulations.
Warning Zone	Displayed in **yellow** on the map. The drone will receive in-app warning messages when flying in this zone.
Custom Geofence	Displayed in **green**, with an **orange circular buffer** outlining the boundary. The drone can only operate **within** this geofenced zone and **cannot exit** it.

TIP:

- Both **Custom No-Fly Zone** and **Custom Geofence** are defined by the user in **Menu** > **Geofence** in the Autel Enterprise App. These custom zones can be configured as **Permanent** or **Temporary**. When set to be temporary, the restrictions will automatically expire once the set time period ends.

WARNING:

- Before flying, always check local altitude restrictions and ensure operations are conducted within legal airspace.
- Avoid flying too close to controlled or restricted airspace (e.g., No-Fly Zones). If the drone loses GNSS signal or encounters weak signal conditions, it will switch to **Visual Positioning Mode** or **Attitude Mode**. In these modes, the geofencing system will no longer function, and the drone may unintentionally enter restricted airspace, posing a serious flight safety risk.

Buffer Zones

During flight, drones retain a certain amount of inertia. To prevent the drone from mistakenly entering a No-Fly Zone (when not unlocked), a Warning Zone, or flying out of an Authorized Zone (when the adjacent zone is a No-Fly Zone) or a Custom Geofence, the geofencing system defines buffer zones outside the boundaries of No-Fly Zones and Warning Zones, and inside the boundaries of Authorization Zones and Custom Geofences.

Buffer Zone Type	Description
Statutory No-Fly Zone Buffer	**When approaching from outside**: Upon reaching the warning trigger distance, the **Autel Enterprise App** will display a **"The aircraft is close to the No-Fly Zone."** warning message. The drone will automatically decelerate and eventually brake to a hover within the buffer zone. **When on the ground within the buffer zone**: The drone is allowed to take off and land vertically or fly horizontally in a direction **away from** the No-Fly Zone.

Buffer Zone Type	Description
Custom No-Fly Zone Buffer	**When approaching from outside**: Upon reaching the warning trigger distance, the **Autel Enterprise App** will display a **"The aircraft is close to the No-Fly Zone."** warning message. The drone will automatically decelerate and eventually brake to a hover within the buffer zone. **When on the ground within the buffer zone**: Takeoff is not allowed.
Authorization Zone Buffer	**When exiting the authorization zone**: If the adjacent zone is a No-Fly Zone, upon reaching the warning trigger distance, the drone will display a **"The aircraft is close to the No-Fly Zone."** warning message, decelerate, and hover within the buffer zone. **When on the ground within the buffer zone**: The drone is allowed to take off and land vertically or fly horizontally away from the restricted zone.
Warning Zone Buffer	**When approaching from outside**: Upon reaching the warning trigger distance, the app will display a **"Aircraft is close to the warning zone"** warning message. The drone's flight is **not restricted**, but the pilot should exercise caution.
Custom Geofence Buffer	**When flying outward from inside the geofence**: Upon reaching the warning trigger distance, the app will display a **"The aircraft is near the edge of the geofence. Leave immediately."** warning message. The drone will then decelerate and brake to hover within the buffer zone. **When on the ground within the buffer zone**: Takeoff is not allowed.

NOTE:

- The warning trigger distance outside No-Fly Zones, within Authorization Zones, outside Warning Zones, and within Custom Geofences is: 200 meters horizontally and 50 meters vertically from the boundary of their respective restricted zones.
- The default buffer zone outside No-Fly Zones, within Authorization Zones, outside Warning Zones, and within Custom Geofences is: 50 meters horizontally and 20 meters vertically from the boundary of their respective restricted zones. Among them, Custom No-Fly Zones and Custom Geofences support setting buffer zones with a larger range by oneself.

- If a drone without an unlock enters a No-Fly Zone due to loss of GNSS signal, it will automatically descend once the signal is restored. During descent, the throttle stick will be disabled, and only horizontal control will be available.
- When the drone is hovering inside a No-Fly Zone buffer, you may control it to exit along the normal direction away from the no-fly boundary.

Flight Unlocking

For countries or regions where No-Fly Zone restrictions are enforced, users must apply in advance to unlock drone flight permissions within designated airspace. The following information is required for the application:

- Applicant's full name, phone number, and email address
- Authorization letter: A scanned or photographed approval document issued by the local aviation authority (e.g., police department, civil aviation agency)
- A cylindrical airspace to be unlocked:
  1. Center coordinates (latitude/longitude) of the airspace on the ground, accurate to six decimal places
  2. Flight radius (in meters)
  3. Flight altitude (in meters)
  4. Unlocking date and time
- Serial numbers of the drone(s) to be unlocked: multiple serial numbers may be submitted at once.
- Associated Autel account(s): multiple accounts may be submitted at once.

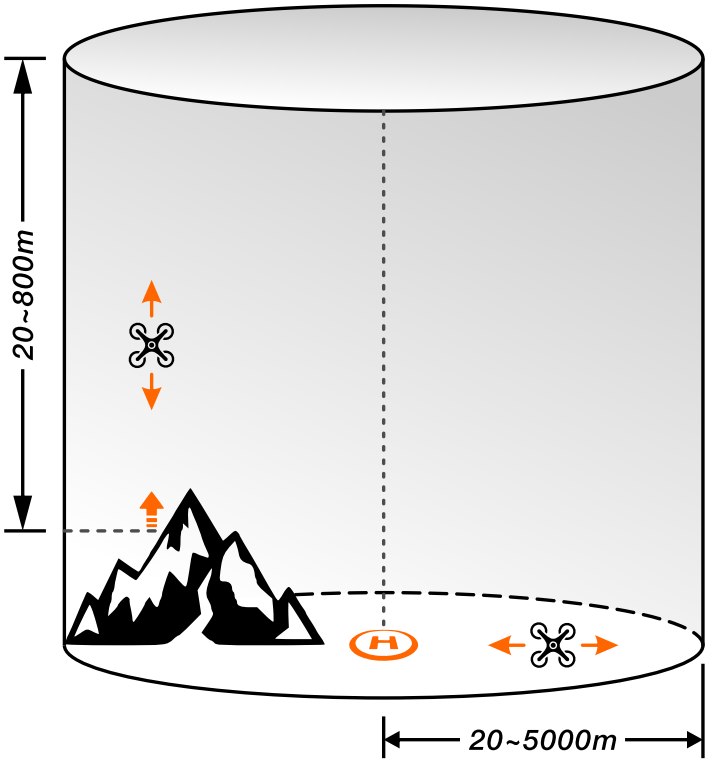
To submit an unlocking request, visit:
https://www.autelrobotics.com/service/noflight/

TIP:

- The flight approval document must meet the issuing authority's format requirements and include the official letterhead, signature, or seal.
- Approval will be processed within 24 hours, and unlocking will be completed within 48 hours. To ensure smooth flight operations, please submit requests well in advance.

Altitude and Distance Limits

Altitude Limit: Restricts the maximum altitude the drone can reach relative to its takeoff point.
Distance Limit: Restricts the drone's maximum flight radius from the home point.



Unless a special application is made, when flying in the EU region, maintain the flight altitude below 120 meters; when flying in North America, maintain the flight altitude below 400 feet. During flight, the drone should stay away from any tall buildings.

> **TIP**:
>
> - The legal flight altitude limits vary by country/region. Please contact the local aviation authority to learn about the actual altitude restrictions.
> - Altitude and distance limits are effective only in GNSS mode. If the drone switches to Visual Positioning mode during flight, the distance limit will become invalid, while the altitude limit remains effective.
> - The home point can be set as the current position of the **Aircraft** or the **RC**. If not configured, the default home point is the takeoff location.

> **IMPORTANT**:
>
> - You can configure altitude and distance limits via **Menu** > **Settings** > **Flight** in Autel Enterprise App:

- When setting altitude limits, ensure the RTH altitude is higher than the tallest obstacle along the flight path.
- When setting distance limits, take into account battery level and environmental factors that may affect flight endurance.

NOTE:

- When flying within allowed zones, the drone's flight altitude will be restricted by region-specific legal limits, which Autel Enterprise App will automatically adjust based on your location. You may sign **"Altitude Limit" Setting User Operation Agreement** in the app to increase the altitude ceiling for your drone. However, once the agreement is signed, all associated risks and consequences are solely your responsibility.

Flight Requirements

WARNING:

- Do not fly in adverse weather conditions such as strong winds, rain, snow, fog, sandstorms, extreme cold, or high heat. The maximum wind speed resistance supported by the drone is 12 m/s.
- Do not fly outside the specified temperature range of -20°C to +50°C (no payload) or -20°C to +40°C (with payload), or at altitudes exceeding 4500 meters. Operating outside the stated temperature or altitude limits will affect flight performance.
- Do not take off from moving platforms such as cars or boats.
- Do not fly in environments with poor GNSS signal (e.g., indoors or near heavily obstructed buildings) and poor visual positioning conditions (e.g., low light, high altitude from the ground, low-texture surfaces like water or snow).
- Stay at least 2000 meters away from drone jamming devices. When unavoidable, the drone jamming devices and drones must not operate simultaneously.

IMPORTANT:

- Always operate the drone in open, clear areas away from people and animals, and fly within visual line of sight whenever possible. Tall terrain, rocks, buildings, and forests may block GNSS or video transmission signals.
- Avoid taking off or landing on surfaces with dust or sand (e.g., dirt roads, beaches, deserts) to prevent damage to flight performance or motor life.

- Turn off unnecessary nearby Wi-Fi and Bluetooth devices to reduce interference with video transmission.
- Exercise caution when flying near sources of electromagnetic interference. Continuously monitor the RC's real-time video feed for signal lag or weak signal strength. If prompted by the Autel Enterprise App, return and land promptly. Common interference sources include high-voltage power lines and substations, radar stations, cell towers, and broadcast towers. Maintain at least 200 meters from these sources to avoid potential drone damage or crash.

Operation Check

Pre-Flight Check

- [ ] Ensure that the RC and drone have sufficient battery, and that the smart battery is securely installed and properly locked, and the battery presence detection function is normal.
- [ ] Verify that all propellers are mounted and tightened, free of damage or deformation, and that motors and propellers are clean and unobstructed. Ensure all arms and propellers are fully extended.
- [ ] Make sure the visual sensing lenses, gimbal camera lenses, strobe, and aux light are clean and unobstructed by any payloads or accessories.
- [ ] Remove the gimbal cover and check that all three axes of the gimbal move freely.
- [ ] Ensure a microSD card is inserted, and that the microSD slot and top expansion ports (if not in use) are sealed with rubber protective covers to maintain protection.
- [ ] Check the drone for foreign objects (e.g., water, oil, sand, dirt), and ensure that ventilation and motor air vents are not blocked.
- [ ] Confirm that RC antennas are properly deployed and locked in the optimal orientation.
- [ ] Make sure the drone, RC, and Autel Enterprise App are all updated to the latest firmware versions.
- [ ] After powering on, verify that the drone is connected to the RC, that motors and gimbal function normally, and that all warning messages shown in the Autel Enterprise App have been addressed.
- [ ] Ensure the drone is within a legal flight area, and that the flight site is suitable (e.g., away from birds, balloons, kites, or fishing areas). Place the drone in an open, flat outdoor area. For A-Mesh Link scenarios, maintain at least 5 meters of horizontal ground spacing between drones. Pilots should stand at least 10 meters behind the drones.
- [ ] Check all related parameters in the Autel Enterprise App to ensure flight control settings, obstacle avoidance system, and stick mode are appropriately

configured for a safe mission.

- [ ] If multiple drones are flying in the same airspace, maintain safe aerial spacing to prevent collisions or accidents.

Post-Flight Check

- [ ] After flight, land the drone on a wide, flat, and firm surface. Avoid landing on sand, wetlands, sloped surfaces, or moving platforms.
- [ ] The landing point must be away from areas with people or animals. During landing, the pilot should keep at least 5 meters of horizontal distance from the landing point.
- [ ] After landing, power off the drone's motors before approaching it. Turn off the drone's power before conducting any visual inspection.
- [ ] During the inspection, check the the visual sensing lenses, gimbal camera lenses, strobe, and aux light for any dirt or debris. If needed, gently clean with a soft, dry cloth.
- [ ] Inspect the drone's exterior and motors for damage, cracks, looseness, or blockage. If any issues are found, stop using the drone and contact us.
- [ ] Check the propellers for damage, looseness, or deformation. Replace them immediately if necessary.
- [ ] After removing the smart battery from the drone, inspect its port and exterior. Stop using and properly dispose of the battery if there is any structural damage, swelling, or leakage.
- [ ] After completing all checks, reinstall the gimbal cover, fold the drone arms as required, and store the drone and smart battery in the rugged case.
- [ ] Clean the RC surface and fold the antennas properly before storing the RC in the rugged case.

Safety Operation Instructions

⚠ **WARNING**:

- Do not approach the drone when its propellers are spinning. High-speed rotating propellers and motors may cause serious personal injury.
- Do not operate the drone under the influence of alcohol, drugs, medication, dizziness, fatigue, nausea, or in any other physically or mentally impaired state.
- Do not use the drone if it has been involved in an accident (such as a crash or tip-over) or if abnormal flight behavior is observed, unless it has been serviced by our authorized support.
- When updating firmware, calibrating devices, or setting parameters, always keep the drone away from people and animals.

- After powering on the drone, do not look directly at the laser rangefinder and the infrared laser fill lights to avoid eye damage.
- Do not point the IR camera at high-energy sources such as the sun, lava, laser beams, or molten metal. Doing so may permanently damage the thermal detector.
- Do not shine the strobe directly into human eyes to prevent visual harm.
- Do not enable **Visual Positioning** during flight if it was disabled prior to takeoff. To avoid malfunction, land the drone before reactivating this function.
- During flight, follow all safety alerts in the Autel Enterprise App (e.g., low battery, compass calibration). Return and land promptly—never force the drone to continue flying.
- The RTH function is only available in GNSS mode. Set appropriate obstacle avoidance system in advance; disabling it may lead to accidents.
- If the drone hovers automatically due to obstacle detection during RTH, take manual control using the RC to ensure safe flight.
- After landing, confirm the motors have fully stopped before powering off the drone and the RC. Avoid touching the motor surface to prevent burns.
- During night flights, turn on the strobe. In low-light landings, ensure the aux light is enabled for safety.
- Always maintain full control of the drone. Obstacle avoidance and data shown in the Autel Enterprise App are for assistance only. Some safety functions may be unavailable or non-functional in specific modes or environments. Visually assess the flight conditions, avoid obstacles manually, and set flight and RTH altitudes accordingly.
- Only use original accessories or certified third-party accessories. Using unauthorized parts may compromise flight safety.
- Before flying with mounted payloads, ensure they are properly and securely installed to prevent shaking or detachment in flight. Ensure the total weight remains within the stated max takeoff weight, and that the payload's center of gravity is near the drone's center or top cover, without blocking the visual sensing lenses.
- Do not modify the drone or its components. Doing so may affect performance, cause safety incidents, and void the warranty.
- If the drone becomes wet, do not power it on immediately. Doing so may cause permanent damage.

IMPORTANT:

- The original accessories mentioned in the manual—including but not limited to propellers, batteries, and the gimbal—are intended for use with this series of drone only. Do not use them for other purposes. You are solely responsible for any damage to accessories or other products caused by using them with non-recommended equipment.

- When installing accessories provided by us, please follow the instructions and use the included tools to securely tighten the screws and ensure stable installation.
- If you intend to use third-party devices or payloads with this series of drone, carefully read the third-party user manuals and safety guidelines. Even if a third-party device is physically compatible with the drone, we make no guarantees regarding its safety or suitability. We shall not be liable for any personal injury or property damage caused by third-party equipment.
- All payloads must meet the drone's protection rating or higher. Payload ports must be properly sealed for waterproofing. Water ingress due to port failure may severely impact flight safety.

Smart Battery Safety Guidelines

- DO not expose the smart battery to liquids. Do not use the battery in rain or humid environments, as this may cause fire or explosion. If exposed to liquid, immediately remove the battery, place it in a dry, ventilated area away from flammable materials, and allow it to dry completely. Discontinue use and contact us for support.
- Use only official or certified smart batteries and charging equipment. For replacements, contact us for assistance. We are not responsible for any incidents caused by third-party batteries or chargers.
- DO not use or charge swollen, leaking, or visibly damaged batteries.
- Operate the smart battery within the specified temperature range. Excessive heat may cause fire or explosion; extreme cold can reduce output performance.
- DO not disassemble, puncture, strike, crush, or burn the battery under any circumstances. Doing so may lead to fire or explosion.
- Battery electrolyte is corrosive. In case of leakage, avoid contact. If it comes in contact with skin or eyes, rinse with clean water for at least 15 minutes and seek medical attention.
- Keep batteries out of reach of children and pets. If any component is swallowed, seek immediate medical attention.
- Do not use batteries that have been dropped or subject to strong impacts.
- After flight, allow the smart battery to cool to room temperature before charging. Otherwise, charging may be disabled. Charging temperature range: +5°C to +45°C. Ideal range: +22°C to +28°C, which helps extend battery lifespan.
- Do not expose batteries to heat sources such as direct sunlight, hot car interiors, open flames, or heaters.
- Do not leave a depleted battery idle for long periods. This may cause over-discharge and permanent damage. If the drone will not be used for an extended time, remove and store the battery separately. Recharge every 3 months.

- If the smart battery is idle for more than 12 hours with charge below 8%, it will enter ultra-low power mode. Recharge to reactivate.
- Charge batteries away from flammable or explosive materials. Disconnect the charger once charging is complete.
- Regularly check battery level and discharge cycles. **Replace the battery after 200 discharge cycles** or if standard charge-discharge operations twice in a row fail to restore normal function.
- Do not operate the drone in strong static or magnetic fields (e.g., during thunderstorms). This may cause battery malfunction (e.g., sudden power cut-off), leading to serious failure.
- Do not place the smart battery on conductive surfaces (e.g., metal shelves) or into appliances like microwaves or pressure cookers.
- Do not short-circuit the battery's metal contacts.
- Do not place heavy objects on the battery. Mechanical impact may cause fire or explosion.
- Follow Autel Enterprise App warning messages to replace batteries in time. Otherwise, normal flight may not be possible.
- Periodically inspect and maintain the drone’s battery compartment, smart battery, and ports. Do not clean batteries with alcohol or other flammable agents.
- Before replacing the battery, ensure both the port and surface are dry and free of debris. Insert the battery securely into the drone body.
- In case of fire, extinguish using sand or dry powder fire extinguishers only.
- **Battery Storage and Transportation**:
  - Do not store the battery in environments exceeding +50°C. Ideal storage: ~60% charge, at +22°C to +28°C, 65%±20%RH.
  - Do not store or transport with sharp objects or metal items.
  - Do not transport damaged batteries or those with over 30% charge.
  - For air transportation, follow local regulations on lithium battery shipping.
- **Battery Disposal**:
  - For damaged or leaking batteries, fully submerge in 5% saltwater in an insulated container for 48+ hours to ensure full discharge.
  - For normal end-of-life batteries, confirm full discharge, then dispose of them per local lithium battery disposal policies to avoid environmental harm.

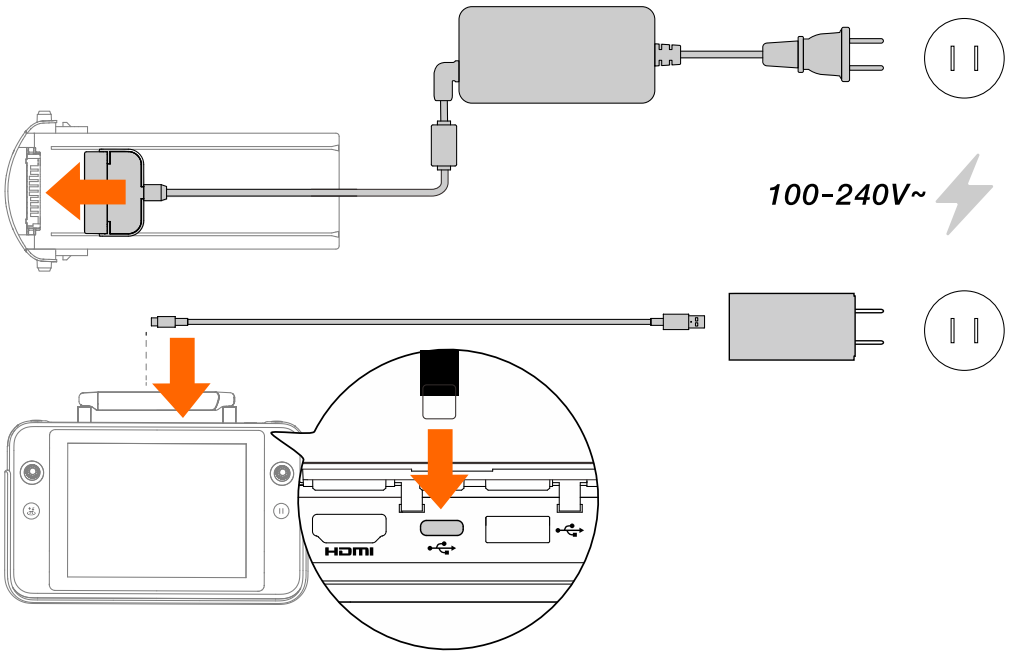
First-Time Use

Before your first flight, please watch the tutorial videos at the link below to ensure proper and safe operation of this product:
https://www.autelrobotics.com/videos/evo-max-series/

> **WARNING**:
>
> - This product is a light unmanned aerial vehicle (EU C2 class), and independent operation by minors is prohibited.
> - Before flying, check local airspace restrictions and ensure operation is within permitted airspace.

Charging

Before use, fully charge the smart battery and the remote controller using the provided charger.



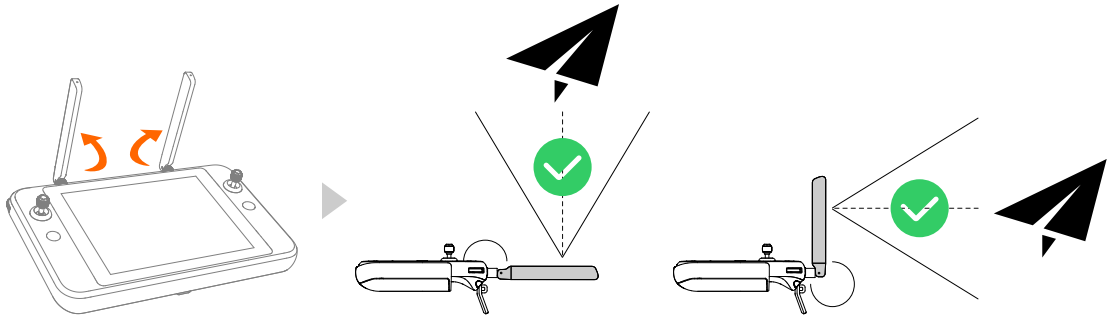
> **IMPORTANT**:
>
> - If the smart battery or remote controller has been stored at low power for an extended period, it will require activation by charging. For long-term storage, recharge both the remote controller and the battery every 3 months.

WARNING:

- Do not use the drone's expansion port (P-Port) or USB-C port (P-Port Lite) for charging. Never connect the charger while the smart battery is inserted in the drone.

Preparing the Remote Controller

Before flight, make sure the command sticks are installed and the antennas are properly unfolded and positioned. Antenna orientation affects signal strength.



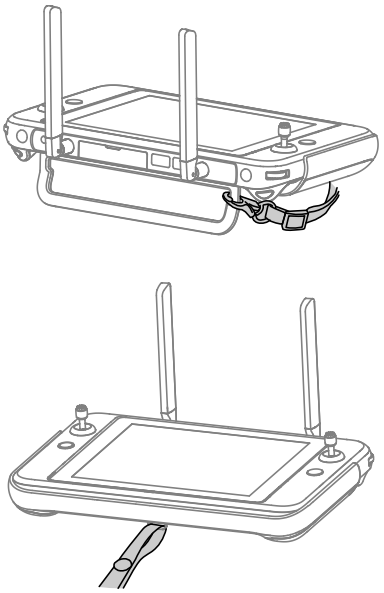
TIP:

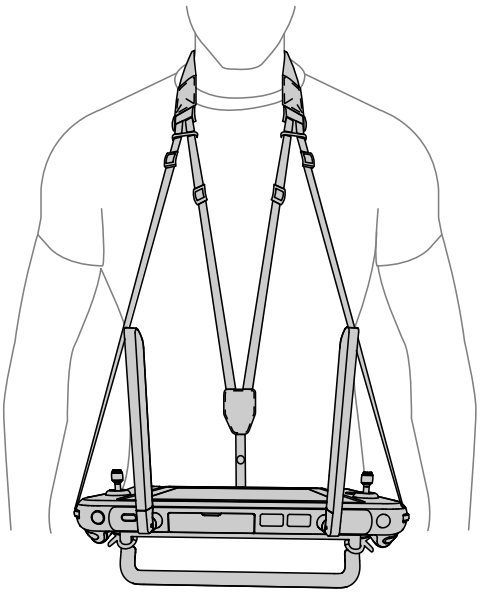
- Optimal signal strength is achieved when the antenna plane faces the drone, and the angle between the antennas and the back of the remote controller is 180° or 270°.
- If signal quality is poor during flight, the remote controller will prompt you to adjust antenna direction to maintain optimal communication.

IMPORTANT:

- Avoid using other communication devices on the same frequency band, which may interfere with video transmission.
- Ensure antennas are tightly secured during operation. If loosened, rotate the antenna connector clockwise until it is fully tightened.

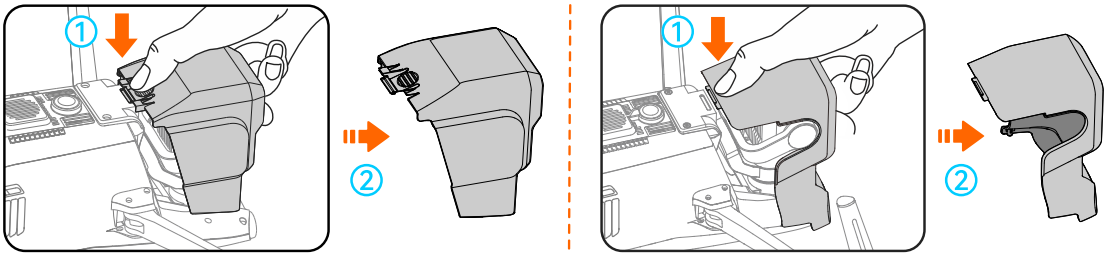
For long flight durations, consider using the remote controller lanyard to reduce hand fatigue.



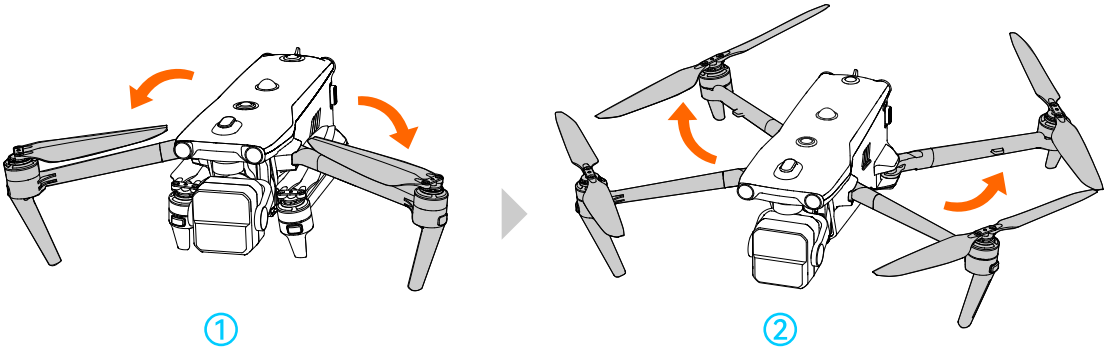


Preparing the drone

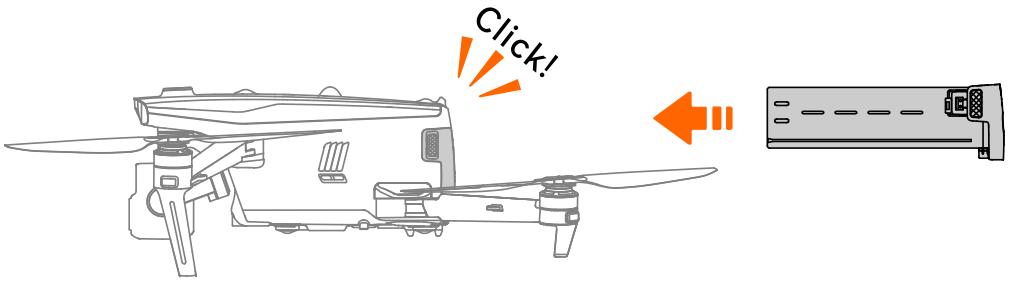
1. Remove the gimbal cover.



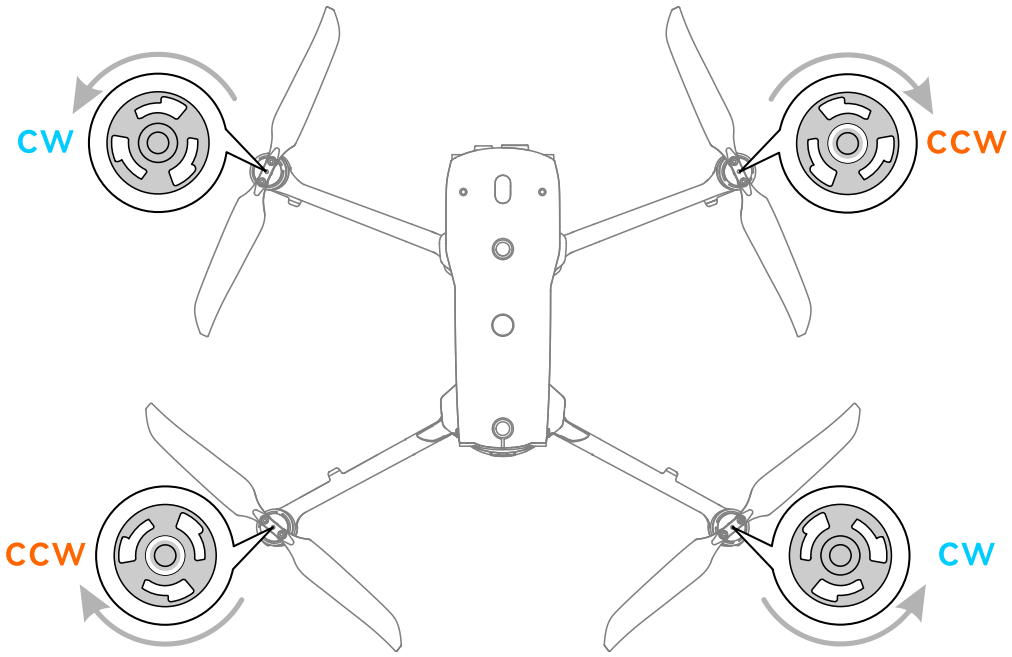
2. Unfold the arms: front arms first, then rear arms.



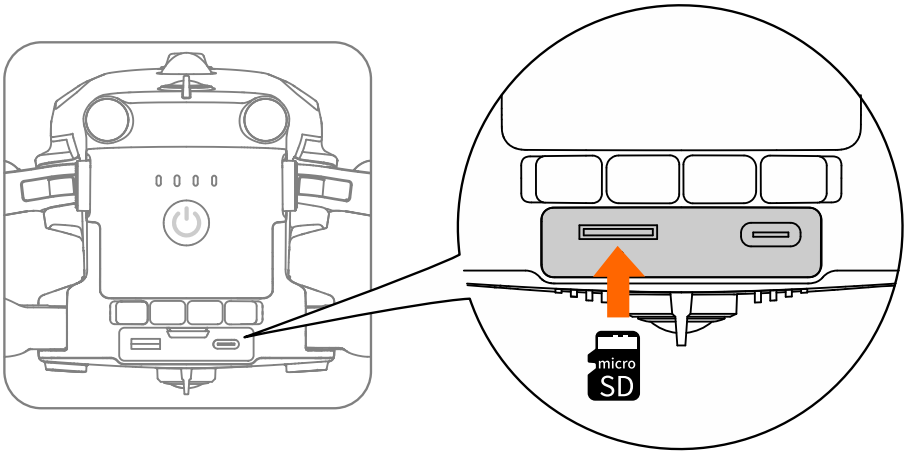
3. Install the smart battery: ensure both battery buckles click into place. A **click** sound confirms secure installation.



4. Install the propellers by matching marks: press the propeller onto the mount and twist in the lock direction until it pops up and locks.



5. Insert a microSD card.



TIP:

- The drone is shipped with a pre-installed microSD card and propellers. Follow the steps above to replace them if needed.
- For recording high-definition videos, we recommend using microSD cards rated Class 10, UHS-3, or higher.

WARNING:

- When folding the arms, fold the rear arms first, then the front arms. Incorrect folding may damage the drone.
- Ensure the battery is firmly installed and the battery presence detection function is normal before flight. Loose batteries may fall out mid-flight, causing damage.

- Always power off the drone before replacing propellers.
- Use only the supplied propellers. Do not mix different models.
- After replacing, verify the propellers are properly secured.
- Keep away from rotating propellers and motors to prevent injury.

Activation and Registration

New drones and remote controllers must be activated before use. After powering on, ensure the remote controller is connected to the internet and linked with the drone, then follow the on-screen operation guidance to complete activation.

United States

- Register at **FAADroneZone** before use. Operators must be 13 years or older.
  - Visit FAADroneZone: https://faadronezone-access.faa.gov/#/
  - Penalties for unregistered operations may include fines up to $27,500 (civil) or up to $250,000 and/or 3 years imprisonment (criminal).

Canada

- Operators must be at least 14 years old and carry a valid pilot certificate issued by Transport Canada.
  - A valid drone pilot certificate must be issued by Transport Canada in either paper or electronic format. Other forms of certification are not accepted.
  - Learn more: https://tc.canada.ca/en/aviation/drone-safety/drone-pilot-licensing/getting-drone-pilot-certificate
- A new drone must be registered under real-name identification before it can be operated. The drone is only permitted to fly in **controlled airspace** and **near people**. Violation of relevant regulations may result in fines of up to **CAD 3,000** for individuals or **CAD 15,000** for corporations, or imprisonment.
  - Complete the registration here: https://tc.canada.ca/en/aviation/drone-safety/drone-management-portal

European Union

- Drone pilots/owners must register with the national aviation authority of their EU country of residence.
  - Registration link: https://www.easa.europa.eu/drones/NAA
- The drone is classified as **C2** and must comply with **A2 Open Category** operational rules when used in urban environments:
  - Do not fly over uninvolved persons.
  - Maintain a horizontal safety distance of at least 30 m; reduced to 5 m in **low-speed mode**.

    - Maximum flight altitude: 120 m AGL.
- The drone is also eligible for operations under the A3 Open Category.
- The remote pilot must obtain the **A2 Certificate of Competency** through the following steps:
    - Completing **online training** for A1/A3 categories.
    - Conducting and declaring practical self-training.
    - Passing an additional theoretical exam (monitored online or at the aviation authority).
- Before use, review the safety requirements for EASA Class 2 drones with low speed mode.
    - Information Link: https://www.easa.europa.eu/document-library/general-publications/drone-class-identification-labels-and-information-notices

Other Regions

Consult local aviation authorities or legal experts for relevant drone regulations and registration requirements.

> **TIP**:
>
> - The drone and remote controller are pre-configured with **Single Link** at the factory. If there is no need for **A-Mesh Link**, re-pairing is generally unnecessary.
> - When powered off, press and hold the drone power button for 3 seconds to power it on. After startup, double-press the power button quickly to enter **Single Link** mode.
> - After the remote controller is powered on and activated, open the **Menu** in the Autel Enterprise App, then tap **Single Link** to enter Single Link mode. For detailed linking procedures, refer to the **Remote Controller** > **Linking** section of the manual.
> - **Drone serial number** is printed on the packaging and can also be viewed in the app after linking.

> **WARNING**:
>
> - In Canada, do not fly the drone over people.
> - The drone is not a toy. In the EU, operators must be at least 16 years old.
> - After registration, input your **Remote ID** in the Autel Enterprise App before flight.

Basic Flight

Pre-Flight Check

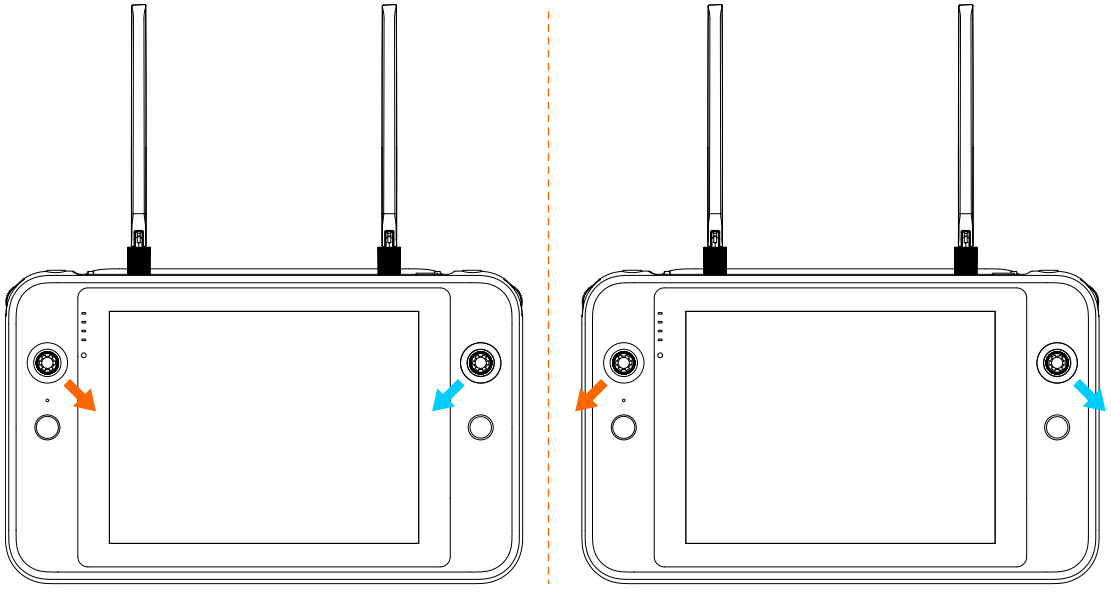
Refer to the checklist in **Flight Safety > Operational Checks > Pre-Flight Check**. If any of the following issues occur during self-check or before takeoff, the system will take corresponding actions:

Abnormalities	Flight Policy
IMU error ESC error Barometer error Battery error Battery is not properly installed RTK not in FIX state (After the mission is issued) Internal communication error Remote ID error (U.S. only)	Takeoff Prohibited
Magnetometer error RTK not in FIX state (When flying manually) Attitude mode active Remote ID error (excluding U.S.)	Cautious Takeoff

Start/Stop Motors

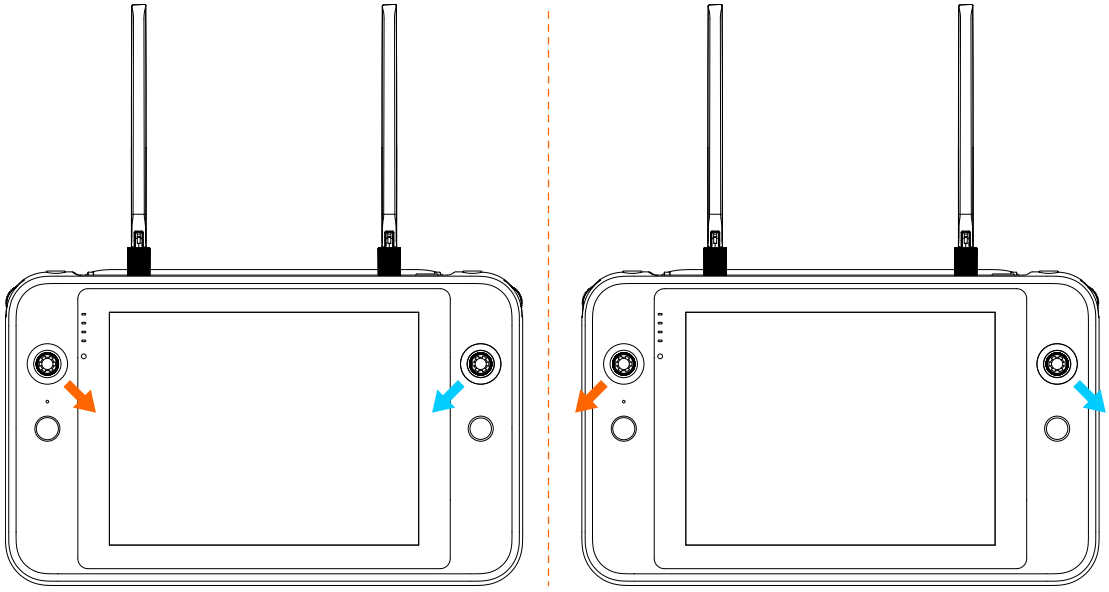
Start Motors

After linking, push both command sticks inward/outward and hold for 2 seconds to start the motors.

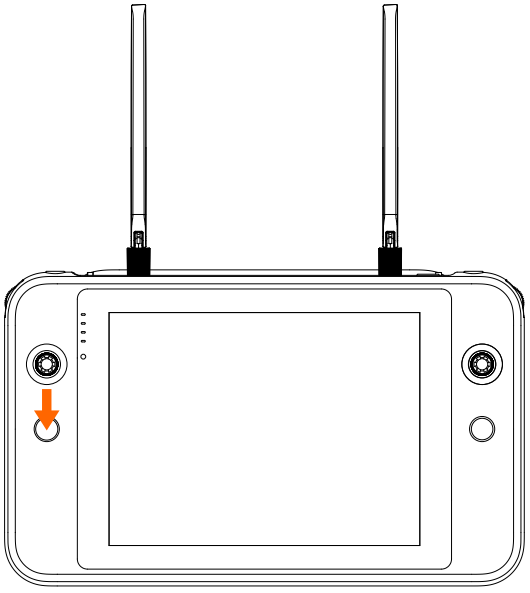


Stop Motors

Before takeoff, after starting the motors, push both command sticks inward or outward and hold for 2 seconds to stop the motors.



After landing, pull the throttle stick (shown below in **Mode 2**) all the way down until the motors stop.



> **NOTE**:
>
> - The throttle stick is used to control the drone's ascent/descent. Depending on the selected stick mode, the position of the throttle stick on the remote controller varies. In the Autel Enterprise App, the throttle stick is the left stick in the **Mode 2**, and the right stick in the **Mode 1** or **Mode 3**.

Emergency Stop Propellers During Flight

If the drone encounters an unrecoverable failure in flight—such as a broken or missing propeller, or motor malfunction—and can no longer be controlled, you may perform an **Emergency Stop Propellers During Flight** to reduce the risk of property damage or harm to people on the ground.

- After enabling the **Emergency Stop Propellers During Flight** function in the Autel Enterprise App (**Menu** > **Settings** > **More** > **Safety**), push both command sticks inward or outward and hold them during flight to immediately shut down the motors.

> **WARNING**:
>
> - In case of failure, maneuver the drone away from people and structures, and reduce both altitude and horizontal speed before executing the Emergency Stop Propellers During Flight.
> - After executing the Emergency Stop Propellers During Flight, the drone will fall in a parabolic trajectory. Do not use this function unless absolutely necessary due to the unpredictability of the crash path.
> - Do not reuse the drone after performing an Emergency Stop Propellers During Flight. Contact support for inspection and service.

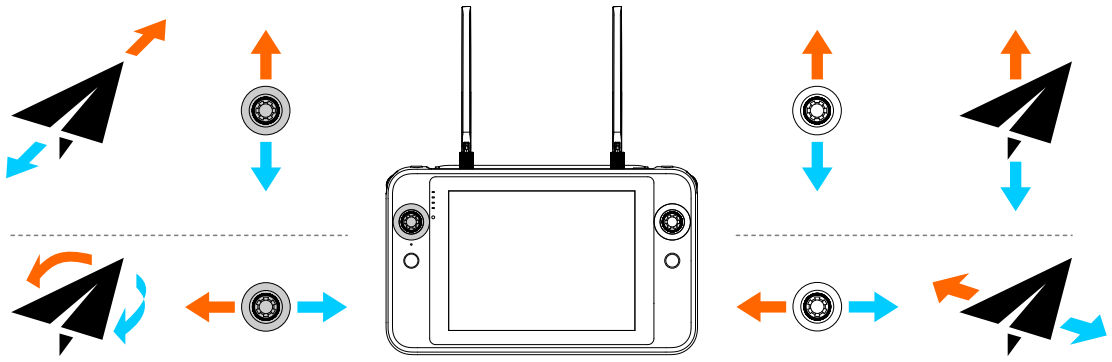
Drone Operation

Control drone movement using the command sticks. The remote controller supports **Mode 1**, **Mode 2**, and **Mode 3**.

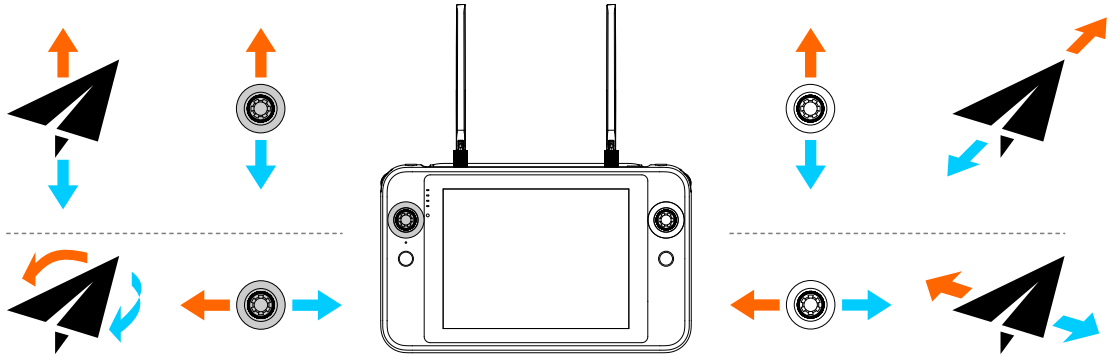
> **TIP**:
>
> - The default command stick mode is **Mode 2**. All instructions here are based on this mode.
> - The greater the stick deflection, the faster the drone moves.

> **WARNING**:
>
> - Always confirm the selected command stick mode before flight to avoid control errors.

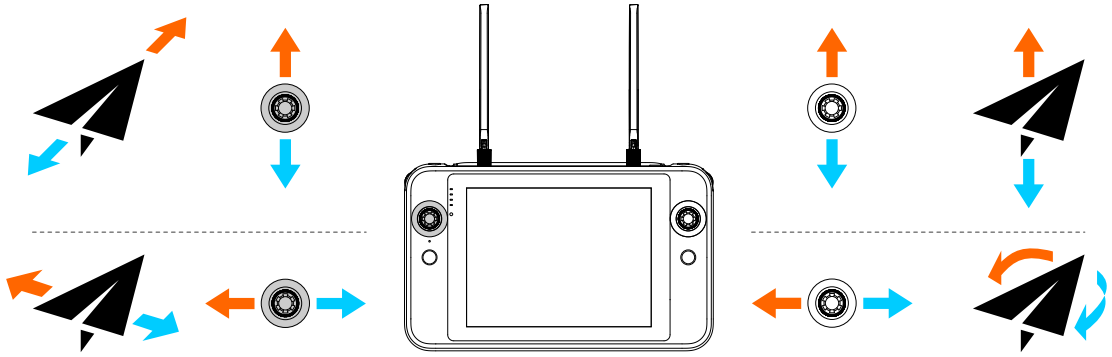
Mode 1



Mode 2



Mode 3



Drone

Flight Mode

The drone supports three flight modes: GNSS Mode, Visual Positioning Mode, and Attitude Mode. The flight control system automatically determines and switches modes based on flight conditions. Manual switching by the user is not supported. Descriptions of each mode are as follows:

Flight Mode	Description
GNSS Mode	When the drone detects a qualified GNSS signal, it automatically enters GNSS Mode. In GNSS Mode, if the obstacle avoidance system is enabled (via **Menu** > **Settings** > **OA** and the **Obstacle Avoidance System** is set to **Brake** or **Bypass**), the system will provide auxiliary data to help accurately locate and avoid obstacles, ensuring smooth and stable flight. GNSS Mode supports safety functions such as RTH, Failsafe, and Geofencing.
Visual Positioning Mode	When **Visual Positioning** is enabled (via **Menu** > **Settings** > **More** > **Safety**) and GNSS signal is insufficient, the drone will enter Visual Positioning Mode if lighting and altitude conditions meet the minimum requirements for the visual sensing system.
Attitude Mode	When GNSS signals are lost and lighting or altitude conditions fail to meet the minimum requirements of the visual sensing system, the drone automatically switches to Attitude Mode. In this mode, obstacle avoidance is disabled, and altitude is controlled only via the barometer. The pilot is responsible for all flight safety decisions.

> **WARNING**:
>
> - If you are not fully proficient in flight operations, do not attempt to take off when the drone is in **Attitude Mode**, as this may result in flight safety risks.
> - When flying in **Visual Positioning Mode** or **Attitude Mode**, the drone cannot perform RTH or detect No-Fly Zones. Be cautious and avoid entering restricted airspace.

Flight Speed Mode

The drone supports four flight speed modes, each offering different flight speeds and obstacle avoidance strategy.

Flight Speed Mode	Max Ascent Speed	Max Descent Speed	Max Horizontal Speed	Obstacle Avoidance
Slow	2.5 m/s	2.5 m/s	2.5 m/s	Supported
Smooth	3 m/s	3 m/s	10 m/s	Supported
Standard	6 m/s	6 m/s	Forward/Backward: 15 m/s Left/Right: 10 m/s	Supported
Ludicrous	8 m/s	6 m/s	Forward: 23 m/s Backward: 18 m/s Left/Right: 20 m/s	Not Supported

> **TIP**:
>
> - The above data is measured near sea level in light wind conditions and is for reference only.

Once the drone is linked with the RC, you can switch flight speed modes via the Autel Enterprise App on the RC:

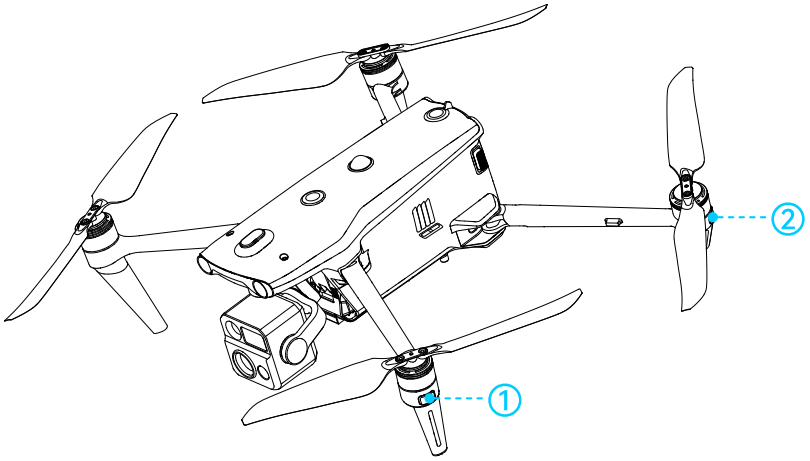
- Tap the flight speed mode icon on the far right of the status bar in the Autel Enterprise App to quickly switch modes.
- Alternatively, go to **Menu** > **Settings** > **Flight Control** to select the desired flight speed mode.

> **WARNING**:
>
> - If you are not yet fully familiar with flight operations, it is not recommended to use **Ludicrous** mode.
> - For safety when flying near the ground, it is recommended to use **Slow** mode.
> - In **Ludicrous** mode, obstacle avoidance is disabled. The drone will not automatically avoid obstacles. Be vigilant and manually steer clear of surrounding objects.

- **Ludicrous** mode significantly increases flight speed compared to Standard Mode. As a result, the required braking distance is also extended. When flying manually in this mode, maintain a minimum braking distance of 50 meters to ensure safety of people and the drone.

Arm Lights

The drone is equipped with LED indicator lights at the ends of the front and rear arms. During normal operation, these lights flash periodically. The front arm lights serve as navigation indicators, while the rear arm lights function as status indicators.



No.	Component	Description
1	Navigation Indicators	Used to identify drone orientation during flight.
2	Status Indicators	Indicates the operating status of the drone.

The flashing states of the arm lights are described as follows:

Scene	Navigation Indicators	Status Indicators
RC not connected to drone	🟢 : 1 s on / 1 s off	🟡 : 0.25 s on / 0.25 s off
Compass calibration started	🟢 : 1 s on / 1 s off	🟡 : 0.25 s on / 0.25 s off
Compass calibrating	🟢 : 1 s on / 1 s off	🟢 : 0.25 s on / 0.25 s off
Compass calibration successful	🟢 : 1 s on / 1 s off	🟢 : Solid

Scene	Navigation Indicators	Status Indicators
Compass calibration failed	: 1 s on / 1 s off	: Solid
IMU calibrating	: Solid	: 0.5 s on / 0.5 s off
Low battery	: 1 s on / 1 s off	: 0.5 s on / 1.5 s off
Critically low battery	: 1 s on / 1 s off	: 0.25 s on / 0.25 s off
IMU warning	: 1 s on / 1 s off	: Solid
Invalid battery	: 1 s on / 1 s off	: 0.5 s on / 1.5 s off
Magnetometer warning	: 1 s on / 1 s off	: 0.5 s on / 1.5 s off → : 0.5 s on / 1.5 s off
GNSS mode	: 1 s on / 1 s off	: 1 s on → : 1 s on (red when navigation indicators off)
Attitude mode	: 1 s on / 1 s off	: 1 s on → : 1 s on (red when navigation indicators off)
Takeoff	: Solid	: 0.5 s on / 1.5 s off
Cautious takeoff	: 1 s on / 1 s off	: 0.25 s on / 0.25 s off
Single Link pairing	: 0.05 s on / 0.05 s off	: 0.05 s on / 0.05 s off
A-Mesh Link pairing	: 0.05 s on / 0.05 s off	: 0.05 s on / 0.05 s off
Pairing successful	: 0.05 s on / 0.05 s off	: Solid
Pairing failed	: 0.05 s on / 0.05 s off	: Solid
Firmware updating	: 0.1 s on / 0.1 s off	: 0.1 s on / 0.1 s off
Update successful	: Solid	: Solid
Update failed	: Solid	: 0.5 s on / 0.5 s off

Scene	Navigation Indicators	Status Indicators
Obtaining log	🟢 : Solid	🟢 : 0.25 s on / 0.25 s off → 🟡 : 0.25 s on / 0.25 s off
Find drone	🟢 : 1 s on / 1 s off	🔴 : 0.5 s on / 1.5 s off
Flight mission initializing	🟢 : Solid	🔴 : 0.2 s on → 🟡 : 0.2 s on → 🟢 : 0.2 s on → All off 0.4 s

WARNING:

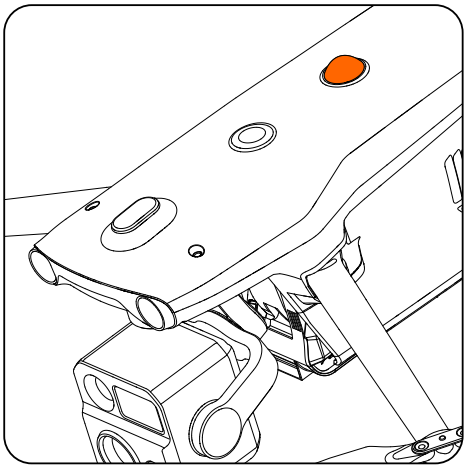
- Some countries or regions may have specific regulations regarding onboard lights. Please comply with local laws and regulations. Avoid enabling **Stealth** mode in the Autel Enterprise App unless necessary.

TIP:

- When Stealth mode is disabled, you can choose whether to enable the function of **Turn off arm lights when shooting** via , the camera page in the Autel Enterprise App. When enabled, the drone's arm lights will be disabled during photo shooting or video recording and automatically resume normal flashing afterward.

Strobe

The strobe helps identify the drone during nighttime flights. You can manually turn the strobe on or off in the Autel Enterprise App via **Menu** > **Settings** > **More** > **Light Settings** or **Menu** > **Strobe**.



WARNING:

- The strobe emits high-intensity flashing light when operating. **Do not look directly at it to avoid potential eye injury.**

Propellers

The drone is equipped with propellers of model **1158**. For details, please refer to **Packing List** > **Detailed Packing List** > **Propeller Specifications**.

TIP:

- Propellers are consumable parts and should be purchased separately if replacements are needed.
- You can find the propeller model printed near the blade root next to the clamp. Propellers are available in two types: CW (clockwise) and CCW (counter-clockwise). Please follow the installation instructions in **First-Time Use** > **Preparing the drone**.

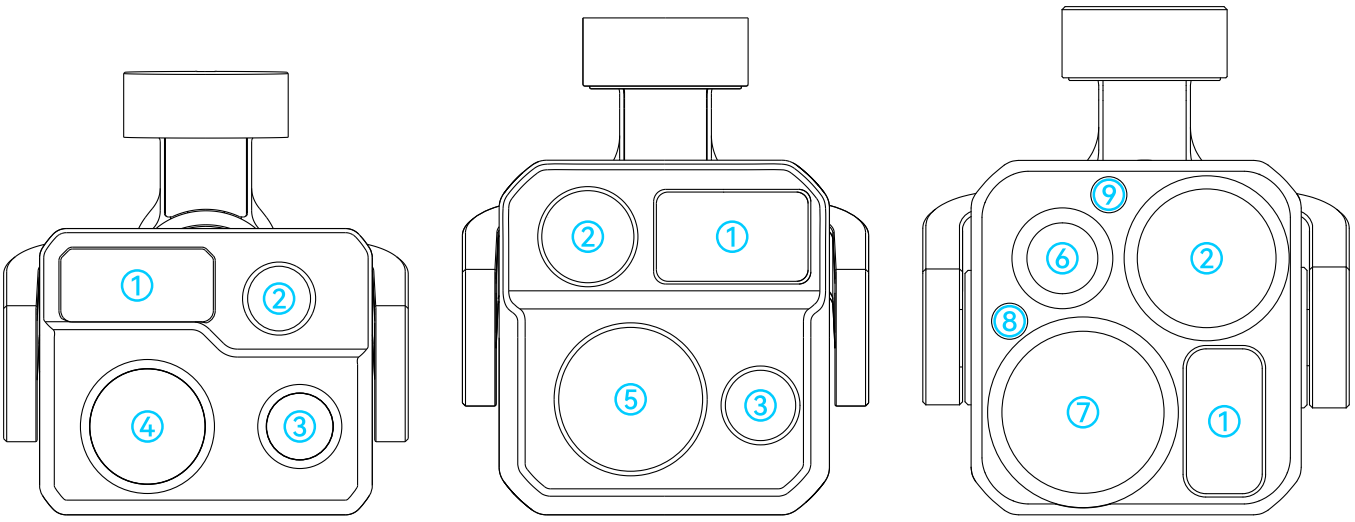
WARNING:

- Only use propellers provided by us. Mixing other propeller specifications is prohibited.
- Make sure the drone is powered off before replacing propellers.
- The blades are thin—handle with care to avoid cuts or deformation during replacement.
- Always check that each propeller is installed correctly and firmly secured before each flight.
- Inspect the propellers for damage or foreign substances before each flight. Replace aged, damaged, or deformed propellers. Clean off any residue with a soft dry cloth.
- The maximum propeller rotation speed can reach up to 7500 RPM. Stay away from rotating propellers and motors to avoid injury.
- When storing the drone, fold the propellers properly. Incorrect storage may bend the propellers, leading to performance degradation.
- Ensure the motors are securely mounted, free of foreign objects, and can rotate freely. If any motor fails to spin smoothly, land the drone immediately.
- Do not modify the physical structure of the motors.
- Do not touch the motor surface immediately after flight, as it may cause burns.

- Do not block the motor or air vents on the drone body.
- Ensure that a startup chime is heard from the ESCs after powering on the drone.

Camera

The drone is compatible with three models of gimbals. The camera layout is as follows:



Fusion 4T V2 Fusion 4N V2 Fusion 4NZ V2

No.	Description
1	Laser Rangefinder
2	IR Camera
3	Wide-angle Camera
4	Zoom Camera
5	Night Vision Camera
6	Wide-angle Night Vision Camera
7	Telephoto Night Vision Camera
8	Infrared Laser Fill Light for Telephoto Night Vision Camera
9	Infrared Laser Fill Light for Wide-angle Night Vision Camera

WARNING:

- Do not point the IR camera at high-energy sources such as the sun, lava, laser beams, or molten metal, as this may damage the infrared detector.

- The temperature of the observed target should be below +600°C. Observing temperatures above this limit may burn and damage the infrared detector.
- Both the laser rangefinders and the infrared laser fill light will emit laser radiation. Please make sure to use them correctly in accordance with the instructions on the sticker of the gimbal and the guidance in the Autel Enterprise App.
- Operate and store the camera within the specified temperature and humidity range to maintain optimal lens performance.
- Use professional lens cleaning tools to clean any dust or stains from the camera lenses. Improper cleaning may damage the lenses or affect image quality.
- Ensure the camera is not covered or obstructed. Excessive heat buildup may damage the camera and potentially cause burns to yourself or others.

Media Storage and Export

In the Autel Enterprise App camera page, tap ⚙ to set the media storage path to **Internal Storage** or **SD Card**:

- **Internal Storage**: The drone comes with 128 GB of built-in storage, of which approximately 64 GB is available after system firmware is installed.
- **SD Card**: A 64 GB microSD card is pre-installed in the microSD card slot at the rear of the drone. You may replace it with a higher-capacity microSD card rated Class 10, UHS-3, or above.

After completing a flight, you can export media files in the following ways:

- If the storage path is set to **SD Card**, remove the microSD card from the drone, insert it into a card reader, and export files via the reader.
- If the storage path is set to **Internal Storage**, you can download the media files to the RC through the Autel Enterprise App and then export them from the RC.

⚠ **WARNING**:

- Ensure the microSD card slot and card surface are clean and free of debris.
- Do not insert or remove the microSD card while the drone is powered on or recording, as this may cause card damage or data loss.
- Set camera parameters correctly before shooting; external storage is recommended for saving media files.
- Always perform a test recording on the ground before official missions to ensure the equipment is functioning properly. We are not responsible for media loss caused by abnormal operations.

TIP:

- If the **Security** function is enabled, you must enter the security password to view encrypted media files.

Gimbal

Gimbal Angle

You can adjust the gimbal pitch angle using the pitch control dial on the RC or via the Autel Enterprise App.

- Gimbal pitch control dial: Push the dial to the left to pitch the gimbal downward, and to the right to pitch it upward.
- In the camera page of the Autel Enterprise App, tap the 

, 

, or 

 icon on the left side of the screen to control the gimbal pitch.

TIP:

- You can assign the RC's C1/C2 custom buttons to **Gimbal Pitch Center/45°/Downward** in the Autel Enterprise App for quick pitch angle control.

Gimbal Replacement

The drone supports a detachable gimbal design, allowing you to swap out different gimbal models to meet various aerial imaging needs.

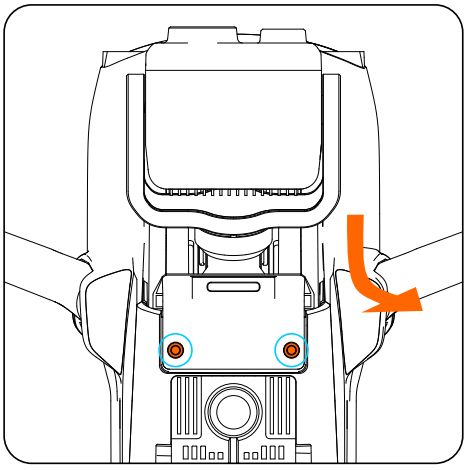
WARNING:

- Do not remove or install the gimbal while the drone is powered on. Wait at least 15 seconds after powering off the drone to allow internal capacitors to fully discharge.
- After prolonged use, allow the gimbal to cool down to room temperature before handling to avoid burns.
- When flipping the drone upside down to remove or install the gimbal, protect the visual sensing lenses and strobe on the top of the drone body to prevent scratches.
- If any payload is mounted to the top expansion port, remove it before replacing the gimbal to avoid damage.

- Avoid frequent removal and installation of the gimbal. Excessive wear on the port may lead to poor contact, affecting normal operation.

Removing the Gimbal

1. Power off the drone and remove the smart battery.
2. Place the drone on a horizontal surface with the bottom of the fuselage facing upward.
3. Use a **PH00 Phillips screwdriver** to loosen the two anti-drop screws on the gimbal port cover at the bottom of the drone.
4. Gently lift the damping mount at the gimbal joint and slide the gimbal upward and backward to remove it.

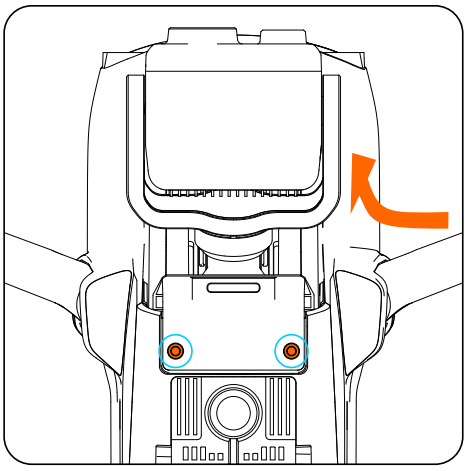


WARNING:

- Do not pull the gimbal body forcefully. Always grip the damping mount when removing the gimbal to prevent damage.

Gimbal Installation

1. Before installation, ensure the drone is powered off or the smart battery is removed.
2. Align the **cylindrical holes** on the front of the damping mount with the two **mounting pins** inside the gimbal bay on the drone nose. Slide the gimbal downward and forward until the gimbal port aligns with the slot on the drone.
3. Press down lightly on the gimbal port cover until it is flush with the drone body and the gimbal port is inserted into the slot correctly.
4. Use a **PH00 Phillips screwdriver** to gently pre-tighten the two anti-drop screws into the designated mounting holes. After confirming proper alignment and connection, fully tighten both screws to secure the gimbal port cover.
5. Power on the drone. If installed correctly, the gimbal will rotate automatically to perform a self-check.



> **WARNING**:
>
> - Before flight, always ensure the gimbal is securely mounted to prevent functional failures or equipment loss due to improper installation.

Usage Notes

The gimbal contains precision components. Please observe the following precautions when operating the drone:

- Always attach the gimbal cover during transportation or storage to prevent damage caused by unexpected rotation or impact.
- Store the drone and gimbal in a dry, cool, and appropriate environment.
- Keep the gimbal clean. Ensure there are no foreign objects or third-party stickers on the lenses or gimbal surface.
- Do not attach any non-original accessories to the gimbal, as this may impair performance or even burn out the gimbal motor.
- Before powering on, make sure all drone arms are fully unfolded to avoid interference with gimbal rotation.
- Always remove the gimbal cover before powering on. Failing to do so may damage the gimbal motors or control circuitry.
- Place the drone on a flat, solid surface and ensure there are no obstructions around the gimbal before powering on.
- After powering on, do not apply force or collide with the gimbal. External force may trigger protective mode.
- After use, wipe off any moisture or dirt from the drone and gimbal with a dry, soft cloth.

Smart Battery

The drone can use the ABX41-D Smart Battery. For details, refer to the **Packing List** > **Detailed Packing List** > **Smart Battery Specifications** section.

Usage Notes

> ⚠ **WARNING**:
>
> - Before using the smart battery, carefully read and strictly follow the instructions in **Flight Safety** > **Smart Battery Safety Guidelines** and the labels on the battery. The user assumes full responsibility for any consequences resulting from improper use.

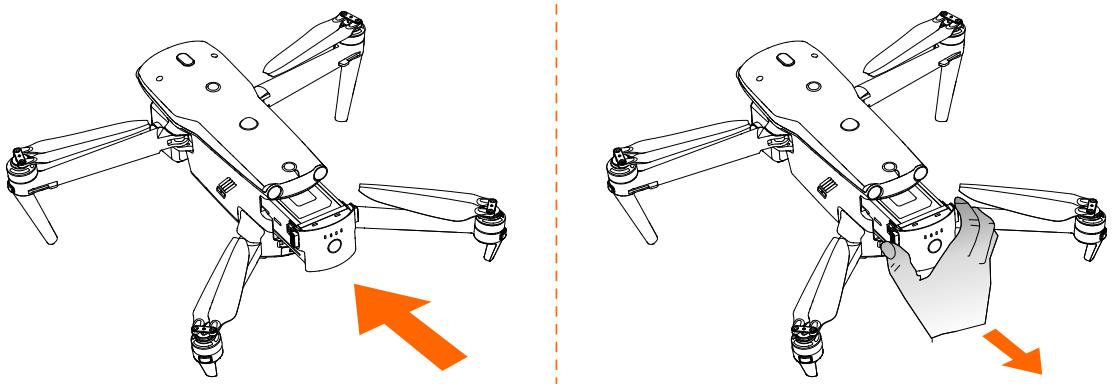
- Use the smart battery within a suitable ambient temperature range (refer to the drone's operating temperature). Operating in high or low temperatures may affect battery safety and lifespan, potentially causing thermal runaway or permanent damage.
  - The drone will not be allowed to take off if the battery temperature is below -10°C or above +70°C. Wait for the battery to self-heat or cool down naturally to within the operating temperature range before use.
  - For optimal performance, maintain the battery temperature between +15°C and +35°C before takeoff.
  - When operating in **low-temperature environments**, if the battery temperature is below +5°C, internal resistance increases and voltage may drop rapidly, reducing discharge capacity and flight time. Always ensure the battery is fully charged before takeoff in cold weather.
  - In **low-temperature environments**, enable the smart battery's self-heating function in advance. In extreme cold, consider using insulation to reduce the heating time.
  - Due to reduced power output in **low-temperature environments**, the drone's wind speed resistance may be limited. Exercise extra caution when flying at high altitudes.
- Do not take off if the battery level is below 50%. Low charge may result in insufficient activation of battery cells, affecting flight safety.
- During flight, if a low battery warning appears in the Autel Enterprise App, land or initiate RTH immediately.
- After flight, allow the battery to cool to within the acceptable charging temperature range before charging.

- If the battery temperature is outside the allowable range, charging will be disabled to protect the battery.
  - The optimal charging temperature is +22°C to +28°C. Charging within this range helps extend battery life.
  - Charging will stop if the battery temperature rises to +45°C or above, and will resume only after the temperature drops to +40°C.
- When not in use, the smart battery will automatically enter sleep mode after reaching a low voltage threshold to prevent over-discharge. Reactivate by connecting it to a battery charger. Low battery protection is not active during flight.
- If stored in a high-temperature environment or unused for over 6 days with high charge, the battery will enter **self-discharge** mode and gradually reduce the charge to around 60% over 2–3 days. Slight heating during this process is normal.
- Over-discharge can severely damage the smart battery. If the battery is left unused for more than 12 hours with less than 8% charge, it will enter **ultra-low power mode**. It must be reactivated by connecting to a charger.
- To maintain battery health, charge the smart battery at least once every 3 months. Long-term storage without maintenance will degrade battery performance. Batteries not charged/discharged within 3 months are not covered under warranty.
- For safety, keep the battery at low charge (no more than 30%) during transportation. Discharge by flight before shipping.

> **NOTE**:
>
> - The smart battery supports a **self-heating** function to maintain optimal performance in **low-temperature environments**.
>   - When installed in the drone and powered on, the self-heating function will activate automatically if the battery temperature is below +15°C. It will deactivate after takeoff.
>   - If the battery is not installed in the drone, press the power button (**short press 1s** + **long press 3s**) to manually activate self-heating. The battery will maintain a temperature between +15°C and +20°C for 10 minutes. To exit self-heating, repeat the same button sequence.
>   - Ensure at least 10% battery level is reserved to support the self-heating function.
>   - When the smart battery is connected to the charger and powered, and its temperature is below +5°C, the charger will power the self-heating function. Charging will begin once the temperature reaches +15°C.

Installation and Removal

Install and remove the smart battery in the direction shown below:



- Before installation, power off the smart battery and ensure that the battery surface, the drone's battery compartment, and the battery port contacts are clean and free of debris. Insert the battery into the drone's battery compartment. A **click** sound will confirm the battery is securely installed.
- Before removal, power off the drone. Press and hold the battery buckles on both sides of the smart battery, and gently pull the battery out.

WARNING:

- Always ensure that the smart battery is securely installed before takeoff. Improper installation may lead to poor contact or battery detachment during flight, potentially damaging the drone or causing personal injury.
- When the battery buckle is damaged, it is strictly prohibited to use it for flight power supply, and a new battery should be replaced in a timely manner.

IMPORTANT:

- The the battery buckles are delicate components. Do not press them with excessive force to avoid damage.
- Always power off the smart battery before removing it from the drone. During shutdown, LED1 and LED4 will blink simultaneously five times to indicate power-off in progress. Wait until all LED indicators turn off before removing the battery.

TIP:

- Before the drone takes off, if the smart battery is detected to be not properly installed, the Autel Enterprise App will display a warning message

"Battery not installed properly. Takeoff is forbidden." At this time, you cannot start the drone's power motors or take off.

- If the **Hot Swap Battery** function is enabled via **Menu** > **Settings** > **Battery** in Autel Enterprise App, we recommend completing the battery replacement within 8 seconds to ensure the drone can successfully recognize and activate the new battery. Note that **Hot Swap Battery** function may fail in environments below -10°C.

Battery Level Check

- When the smart battery is powered off, you can check the current battery level by short-pressing the power button for 1 second. The battery indicators will display the approximate battery level.
- After the drone is powered on, you can also view the current battery level via the battery indicators or directly in the Autel Enterprise App.

Battery Indicators	Battery Level
	0~12%
	13%~25%
	26%~37%
	38%~50%
	51%~62%
	63%~75%
	76%~87%
	88%~100%
 : Solid,  : Blinking, : Off	

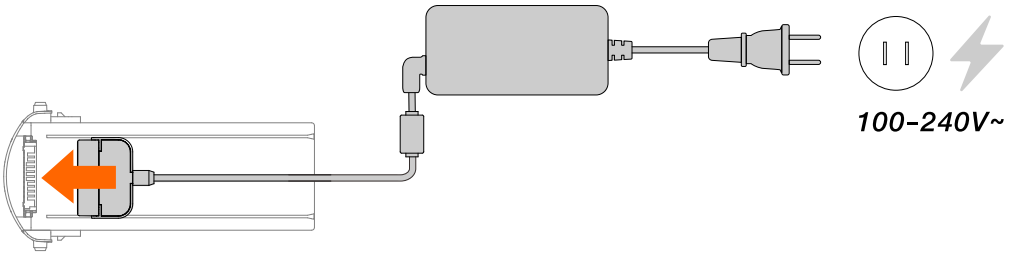
Charging

Please use the included battery charger to charge the smart battery.

NOTE:

- The smart battery also supports charging with the **Smart Multi-Charger**, which is sold separately. Please contact us if needed.

Charging with the Battery Charger



IMPORTANT:

- If the smart battery is idle for a long period, please recharge it at least once every 3 months to prevent performance degradation or permanent damage due to low voltage.

WARNING:

- Do not modify the included smart battery or battery charger.
- Do not charge batteries that are smoking, swollen, leaking, or visibly damaged.
- Do not use a damaged battery charger to charge the smart battery.
- Do not use the included charger to charge batteries not specified in the manual.
- During charging, place the charger and battery on a stable, insulated, and fireproof surface, away from flammable and explosive materials.
- Do not touch the metal contacs at the port with your hands or other objects. If the contacs are dirty, clean them with a dry, soft cloth.
- After charging, promptly disconnect the battery charger from the battery and the power source.

NOTE:

- In general, it takes approximately 90 minutes to fully charge the smart battery, but the charging time depends on the battery's initial charge level.

Battery Indicators

During charging, the battery indicators corresponds to the battery level as follows:

Battery Indicators	Battery Level
	0~25%
	26%~50%
	51%~75%
	76%~99%
	100%
 : Solid,  : Blinking	

Battery Protection Status Information

The battery indicators also display battery protection alerts during charging and discharging.

Battery Indicators	Alert
	Battery temperature too high for charging
	Overcurrent caused a short circuit
	Overcurrent or overload during discharge
 : Blinking, : Off	

Return to Home (RTH)

> **IMPORTANT**:
>
> - Please read this section carefully to understand the drone's behavior during RTH scenarios.

The drone supports Return to Home (RTH) function. RTH can be triggered in three methods: **Manually Triggered by the User, Triggered by Low Battery, or Behavior-Based Triggers**. When a home point has been successfully recorded and GNSS positioning is reliable, the drone will automatically return to the home point and land upon RTH activation.

> **NOTE**:
>
> - Home Point: The landing point for automatic RTH. You can set the home point to either the drone's current position or the remote controller's current position via **Menu** > **Settings** > **Flight** in the Autel Enterprise App. If no home point is manually set, the drone will default to using the takeoff point. If the home point is updated during flight, the drone will land at the latest recorded point.

Once RTH is triggered, the drone will intelligently plan a return route. As long as signal is maintained, the route will be displayed on the Autel Enterprise App map page and dynamically adjusted in real-time based on conditions such as wind speed and surrounding obstacles.

Usage Notes

- Do not fly in confined spaces, crowded areas, or environments with dense high-rise buildings. Tall terrain, rocks, urban structures, and trees may block GNSS or video transmission signals. If the drone is in **Visual Positioning Mode** or **Attitude Mode**, Return to Home (RTH) cannot be triggered.
- If obstacle avoidance system is set to **Off**, the drone will not avoid obstacles during RTH.
- Fly only in suitable lighting conditions. If the environment does not meet the requirements of the visual sensing system, the drone may not detect or avoid obstacles.
- Restricted zones may affect RTH, potentially preventing the drone from completing the return. Avoid flying near such areas.
- Strong winds may prevent a successful return. Fly with caution.
- Always watch for small or transparent obstacles (e.g., branches, power lines, glass, or water) along the RTH path. If needed, stop RTH and manually control the drone.
- If the home point is unsuitable for landing (e.g., uneven ground or crowds), exit RTH manually and control the landing using the remote controller after the drone hovers above the home point.
- Before flight, set a reasonable RTH altitude that is higher than the tallest obstacle within the flight area or on the return path, without exceeding local

altitude restrictions. Manually intervene if necessary.

- During RTH, manual control of the drone is disabled. You may pause or exit RTH by **Pressing** or **pressing and holding the pause button for 2 seconds** on the remote controller until a **beep** is heard. You can also exit RTH by pulling the pitch stick downward. After exiting, the remote controller will regain control of the drone.

Trigger Methods

Manually Triggered by the User

During flight, press and hold the **RTH button** on the remote controller for **2 seconds** until you hear a **beep** to initiate RTH.

Triggered by Low Battery

During flight, the flight control system will evaluate whether the remaining battery is sufficient for RTH based on the drone's current position.

- If the remaining battery is only sufficient to complete RTH, a warning message in the Autel Enterprise App will appear stating: **The remaining battery is only enough for Return to Home. The aircraft will Return to Home in 10s**, giving you the option to confirm or cancel the low battery RTH. If you do not respond within 10 seconds, the drone will automatically initiate RTH.
- If you cancel the RTH and continue flying, once the battery reaches the **Critical Low Battery Warning** threshold, the drone will initiate critical low battery landing.

> **TIP**:
>
> - In addition to the intelligent judgment scenario above, when the battery reaches the **Low Battery Warning** threshold set in the Autel Enterprise App, the drone will also trigger low battery RTH. The flight control system will prioritize the first condition met.
> - During critical low battery landing, you may adjust the landing location using the remote controller. Once stick input stops, the drone will resume the landing process.

> **WARNING**:
>
> - It is not recommended to exit RTH after it is triggered due to low battery. Doing so may result in insufficient power for a safe return.

- Avoid letting the drone enter critical low battery landing. If the landing point is unsuitable, the drone may lack sufficient power to relocate and land safely, which could result in damage.
- Follow all warning messages shown in the Autel Enterprise App immediately and operate accordingly.

Behavior-Based Triggers

- During automated flight missions, if **Finish Action** is set to **Auto RTH**, the drone will initiate RTH upon completing the mission. If **Signal Loss Action** is set to **Auto RTH**, the drone will trigger RTH after the Autel Enterprise App displays the warning message: **Aircraft disconnected.**
- During manual flight, if **Signal Lost** is set to **Return to Home**, the drone will trigger RTH once the same disconnection message appears in the Autel Enterprise App.

NOTE:

- During automated flight missions, if the connection between the drone and the remote controller is lost, the drone will continue flying in its current state until the Autel Enterprise App displays the disconnection message. Only then will the drone execute the preset Signal Loss Action. During manual flight, upon losing connection, the drone will slow down and hover. It will then execute the Signal Lost behavior after the corresponding disconnection message is shown in the app.
- If the connection between the drone and the remote controller is restored during RTH triggered by signal loss, the drone will continue to complete the RTH process.

RTH Altitude Mechanism

When RTH is triggered, the drone will automatically adjust its RTH altitude based on the horizontal distance from the home point, following the rules below:

Horizontal Distance (m)	RTH Altitude Mechanism
≤10	The drone returns at its current flight altitude.

Horizontal Distance (m)	RTH Altitude Mechanism
10 < Distance ≤ 25	If the current flight altitude is below 20 m, the drone will ascend to 20 m before returning. If the current altitude is above 20 m, it will return at the current altitude.
25 < Distance ≤ 50	If the current flight altitude is below 30 m, the drone will ascend to 30 m before returning. If the current altitude is above 30 m, it will return at the current altitude.
Distance > 50	If the current flight altitude is below the preset RTH altitude, the drone will ascend to the RTH altitude before returning. If the current altitude is above the preset RTH altitude, it will return at the current altitude.

RTH Obstacle Avoidance

When the obstacle avoidance system is enabled (i.e., **Obstacle Avoidance System** is not set to **Off** under **Menu** > **Settings** > **OA** in the Autel Enterprise App), and lighting/altitude conditions meet the operational requirements of the visual sensing system, the drone will perform RTH obstacle avoidance. Specific behavior is as follows:

- Before takeoff, if obstacle avoidance system is set to **Brake** or **Bypass**, then during RTH triggered by signal loss, low battery, or mission completion, the drone will brake automatically within the configured safety distance when it detects an obstacle in front. It will then autonomously determine whether to bypass the obstacle by moving left, right, or upward.

> **IMPORTANT**:
>
> - If the drone reaches the maximum altitude limit during obstacle avoidance and still cannot bypass the obstacle, it will hover in place until a forced landing is triggered by critical low battery. In such cases, manually take over control in advance.

Landing Protection

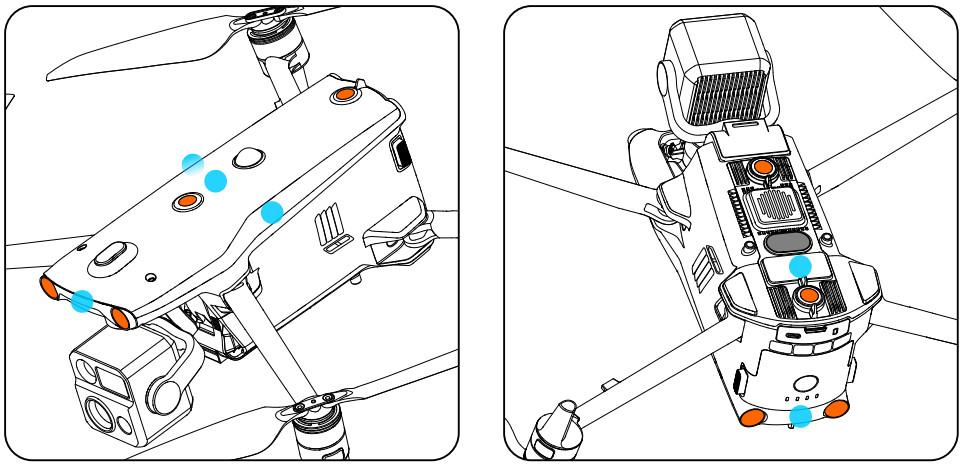
When Landing Protection is enabled (via **Menu** > **Settings** > **OA** in the Autel Enterprise App), the drone will evaluate the ground condition before landing during the RTH process.

Once the drone reaches the home point, it will execute one of the following strategies depending on the ground detection results:

- If the ground is deemed suitable for landing, the drone will land directly.
- If the ground is determined to be unsuitable for landing (e.g., uneven terrain or water), the drone will hover in place and notify the user via the Autel Enterprise App. Manual control is required. If critical low battery is triggered, the drone will forcibly descend, and the process cannot be canceled.
- If the drone is unable to detect ground conditions, landing protection will not activate, and the drone will proceed with forced landing.

> **NOTE**:
>
> - If landing protection is not active, users should manually take over and guide the drone to a safe landing point.

Sensing System



Marker	Description
●	Omnidirectional visual sensing system
●	Millimeter-wave radar (integrated inside the drone)
●	Aux light

The drone adopts an integrated design of **omnidirectional visual sensing system** and **millimeter-wave radar**, achieving excellent omnidirectional obstacle avoidance performance to ensure precise positioning and safe flight.

TIP:

- There are blind spots at close range around the sensing system. Always monitor the real-time video feed on the RC to intervene manually when necessary.

The **omnidirectional visual sensing system** functions effectively in well-lit environments and when the obstacles in the flight path have sufficient texture. When obstacle avoidance system is set to **Bypass** or **Brake** (via **Menu** > **Settings** > **OA** in the Autel Enterprise App), the obstacle avoidance system will automatically activate in all flight modes **except Ludicrous mode**. If not manually disabled, the visual positioning function will activate automatically when GNSS signal is unavailable or weak.

TIP:

- You can disable both the obstacle avoidance system and visual positioning in the Autel Enterprise App. Once disabled, the drone will rely solely on GNSS for hovering. Omnidirectional obstacle avoidance will be disabled, and the drone will not slow down automatically when approaching the ground —please proceed with caution.
- During automated flight missions (e.g., RTH, waypoint, or polygon missions), the obstacle avoidance system will follow the settings configured as **Off**, **Brake**, or **Bypass**.

WARNING:

- If visual positioning was disabled prior to takeoff, **do not enable** it in-flight, as this may cause the system to malfunction. To re-enable the function, **land the drone before proceeding**.
- Do not obstruct the visual sensing lenses during flight, as this will impair obstacle avoidance performance and may result in flight accidents.

The millimeter-wave radar works in conjunction with the visual sensing system and supports all-weather operation.

NOTE:

- The frequency band of the millimeter-wave radar is a hardware specification tied to the drone's internal components and cannot be adjusted via software. Since regulations on radar frequency bands vary across countries

and regions, the millimeter-wave radar hardware and sensing capabilities differ by market:

- In countries/regions where only the 24GHz band is permitted (e.g., China), the drone is equipped with a downward 24GHz millimeter-wave radar only. It does not support obstacle avoidance at night and can only perform visual obstacle avoidance under good lighting conditions. The downward radar in this configuration is solely used to assist landing.
- In countries/regions where the 60GHz band is permitted (e.g., the EU and the United States), the drone is equipped with six-directional 60GHz millimeter-wave radars, enabling obstacle avoidance at night.

WARNING:

- In low-light environments (e.g., nighttime), the visual sensing system may fail, resulting in a complete loss of visual obstacle avoidance capability.
- Even if your drone is equipped with night obstacle avoidance capabilities, please fly with extra caution in low-light environments. Night obstacle avoidance is not 100% reliable—it is highly recommended to fly in open and unobstructed areas.

An aux light is integrated at the bottom of the drone to provide fill light for the downward visual sensors during landing in low-light conditions, thereby improving visual positioning accuracy and landing safety. You can manually turn the aux light on or off in the Autel Enterprise App via **Menu** > **Settings** > **More** > **Light Settings** or **Menu** > **Aux light**.

TIP:

- When the **Auto** is selected for the aux light, it will automatically turn on at approximately 5 meters above ground if the landing area is poorly lit. The light will automatically turn off after landing is complete.

Usage Notes

- Please always pay close attention to your flight environment. The sensing system provides only limited safety assistance and cannot replace human judgment or manual operation. You should remain aware of your surroundings and any warning messages in the Autel Enterprise App, maintain full control of the drone, and take full responsibility for your flight behavior.
- When GNSS is unavailable and the drone relies on the visual sensing system in open, flat areas, the optimal working altitude for visual positioning is 0.3–23

meters. Flying beyond this range may result in degraded positioning performance. Please fly with caution.
- The visual sensing system may not function properly over water surfaces. Therefore, when landing functions are triggered, the drone may not actively avoid water beneath it. Always maintain manual control and make appropriate decisions based on the environment. Do not overly rely on the visual sensing system.
- The visual sensing system cannot reliably detect large hollow structures or linear objects, such as cranes, high-voltage power towers, transmission lines, or cable-stayed bridges.
- The visual sensing system cannot detect surfaces lacking texture and cannot operate properly under poor or overly strong lighting conditions. The system may fail in the following scenarios:
  - Solid-color surfaces (e.g., pure white, black, red, or green).
  - Surfaces with strong reflections or mirror-like glare (e.g., icy roads, reflective signs).
  - Water or transparent surfaces.
  - Moving surfaces (e.g., above crowds, wind-blown reeds, bushes, or grass).
  - Scenes with rapidly changing lighting.
  - Very dark surfaces (illumination < 15 lux) or extremely bright areas.
  - Highly reflective materials (e.g., mirrors).
  - Surfaces with extremely sparse texture.
  - Surfaces with highly repetitive texture (e.g., uniformly patterned tiles).
  - Thin obstacles (e.g., wires, cables, tree branches).
- Do not interfere with or block the sensing system in any way. Ensure the surface of each visual sensing lens is clean, free from dirt, scratches, or smudges.
- Avoid flying in rainy, foggy, or low-visibility conditions (visibility less than 100 meters).
- Before takeoff, remove any protective films or obstructions from the visual sensing lenses. If the lenses are stained by water, fingerprints, or dust, gently wipe them with a clean, dry, soft cloth (do not use alcohol or other organic solvents). If there are cracks, scratches, wear, or if the lenses are dislodged, please send the drone in for repair.
- When conducting nighttime flights, always choose wide, open areas. The visual obstacle avoidance system may become unreliable in low-light environments, and may fail at any time due to insufficient illumination.

Expansion Port

The drone is equipped with both a P-Port and a P-Port Lite port. Both ports support PSDK expansion, allowing developers to create custom payload integrations based

on the PSDK provided by us.
For PSDK development information and documentation, please visit:
https://developer.autelrobotics.com/

> **IMPORTANT**:
>
> - Do not use payloads that have not been certified by us. Doing so may result in flight safety incidents.
> - Before takeoff, ensure that all mounted payloads are securely attached to the drone to avoid mid-flight detachment and potential damage.
> - The total takeoff weight of the drone, including payloads, must not exceed the declared Maximum Takeoff Weight (MTOW).

C2 Link Reconnection

To ensure flight safety and controllability, the drone will enter a reconnection state when the C2 (Command & Control) link is lost, continuously attempting to re-establish connection with the ground control station (e.g., the remote controller). The reconnection process is handled in the following stages:

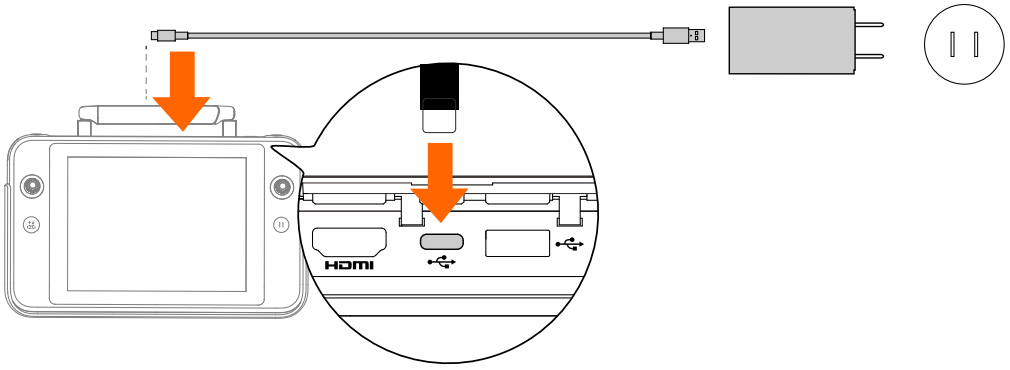
- If the link is restored within 10 seconds after disconnection, control will automatically return to the remote controller.
- If reconnection is not established within 10 seconds, the Autel Enterprise App will display the warning message "**Aircraft disconnected.**", and the drone will execute the preset **Signal Loss Action** or **Signal Lost** behavior accordingly.
- During the execution of automatic RTH caused by signal loss, the drone will continue to attempt to reconnect. If a new C2 link is established, the remote controller will not regain control of the drone until the user **presses and holds the Pause button on the remote controller for 2 seconds, or pulls down the pitch stick, to exit the automatic RTH process.**

> **TIP**:
>
> - During flight, as long as communication between the drone and the remote controller is stable, the C2 link will remain active. If decoding errors occur for a certain period and the connection becomes unstable, the C2 link will be lost and reconnection will be triggered.
> - The drone's Signal Lost behavior options include **Return to Home**, **Hover**, and **Land**. Signal Loss Action options include **Continue** mission and **Auto RTH**.

- When the C2 link is lost, both the Autel Enterprise App and the remote controller will issue real-time voice alerts to notify the user.

Remote Controller

Charging



IMPORTANT:

- If the remote controller will not be used for an extended period, charge it once every 3 months to avoid battery degradation or potential damage due to prolonged low charge.

WARNING:

- Use only the remote controller charger included in the combo or a third-party charger that supports **USB PD 60W** to charge the remote controller. Using non-compliant chargers may damage the remote controller's battery.
- After charging is complete, promptly disconnect the charger from the remote controller and power source.

NOTE:

- Under normal conditions, the remote controller takes approximately 120 minutes to fully charge. Actual charging time may vary depending on the remaining battery level at the start of charging.

Battery Level Check

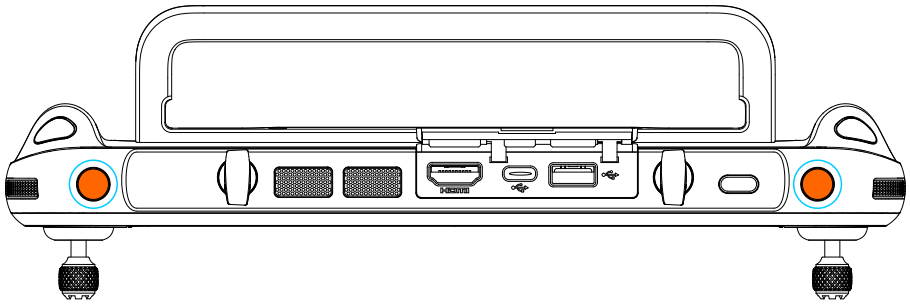
- When the remote controller is powered off, you can quickly check the battery level by short-pressing the power button for 1 second. The battery indicators will display the approximate battery level.
- When the remote controller is powered on, you can check the battery level via the battery indicators, the **Battery** section in the Settings App, or directly within

the Autel Enterprise App.

Battery Indicators	Battery Level
	0–12%
	13%–25%
	26%–37%
	38%–50%
	51%–62%
	63%–75%
	76%–87%
	88%–100%
: Solid On, : Blinking, : Off	

Custom Buttons

The custom buttons include the **C1** and **C2** buttons. You can assign functions to these buttons in the **Autel Enterprise App** via **Menu** > **Settings** > **RC**.



The custom button functions are as follows:

No.	Function	Description
1	OA System On (Brake) / Off	Short press to toggle the obstacle avoidance system on or off. When enabled, the drone will automatically brake and hover when obstacles are detected.

No.	Function	Description
2	Gimbal Recenter/45°/Down	Short press to cycle through gimbal pitch angles. **Recenter**: The gimbal pitchs returns to 0° pitch angle (horizontal). **45°**: The gimbal pitchs downward to a 45° pitch angle. **Down**: The gimbal pitchs downward to a 90° pitch angle (facing straight down).
3	Map/Video Transmission	Short press to switch the remote controller display between the map page and camera page in the Autel Enterprise App.
4	Speed Mode	Short press to switch the drone's flight speed mode. For details, refer to **Drone** > **Flight Speed Mode**.

TIP:

- To enable obstacle avoidance system (braking), you must first activate the **Visual Positioning** function in **Menu** > **Settings** > **More** > **Safety**.

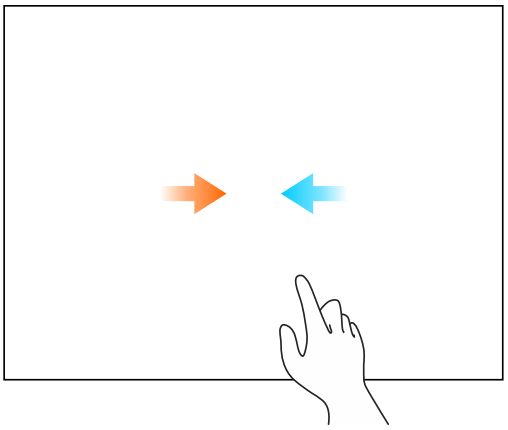
WARNING:

- When the drone is switched to **Ludicrous** mode, the obstacle avoidance system will be disabled.

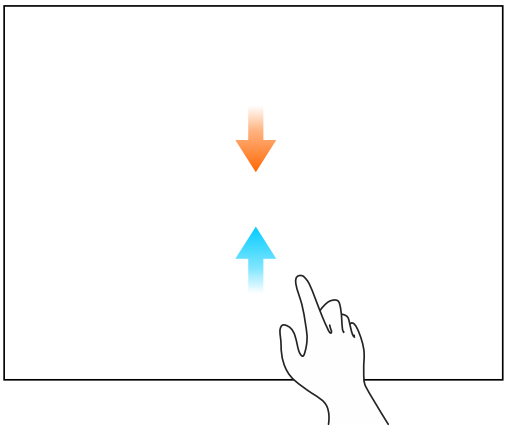
Touchscreen Operations

The remote controller supports the following touch gestures:

1. **Switch between Home Screen Pages**:
   When on the home screen, swipe left or right within the display area.



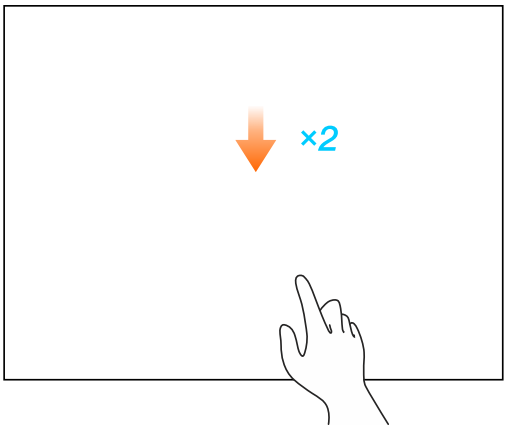
2. **Open System Status Bar and Navigation Bar**:
   When using the Autel Enterprise App, swipe down from the top edge or swipe up from the bottom edge of the screen.



TIP:

- The system status bar displays information such as system time, network connection status, and remote controller battery level.
- The navigation bar contains the ◀ **Back Button**, ● **Home Button**, and ■ **Recent Apps Button**:
  - Tap ◀ to go back one step. In the Autel Enterprise App, this returns to the home screen.
  - Tap ● to return to the home screen.
  - Tap ■ to enter the multitask center. In the multitask center, you can take full-screen screenshots or long-press an app icon to enable split-screen mode.
- In the Autel Enterprise App, the system status bar and navigation bar will automatically hide after being displayed for a few seconds.

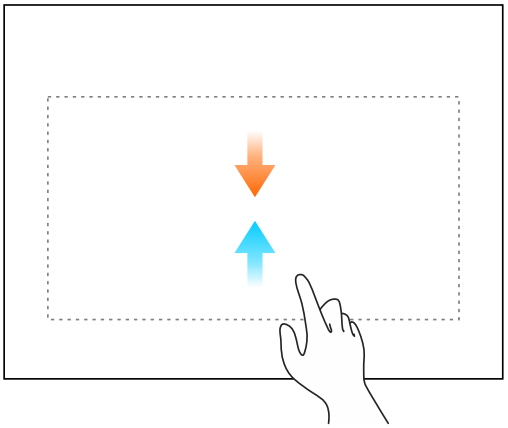
3. **Open System Quick Panel and Notification Bar**:
   While in the **Autel Enterprise App**, swipe down twice from the top edge of the screen.



TIP:

- The **System Quick Panel** includes shortcut toggles for frequently used functions such as network, Bluetooth, screenshot, screen recording, airplane mode, screen cast, screen brightness, and system media volume.
- The **Notification Bar** displays system and app message notifications.

4. **Hide/Show Application Status Bar, Toolbar, and Function Area**:
   On the camera page screen within the Autel Enterprise App, swipe up in the middle of the screen to hide related components, and swipe down to show them again.



Remote Controller Indicators

Status Indicators

In specific scenarios, the remote controller’s battery indicators also reflect the remote controller's operational status.

Status Indicators	Description
	When powered off: indicators blink in sync 5 times to indicate shutdown.
	During linking: indicators blink in sync to indicate the remote controller is in linking state.

Battery Indicators

When charging, the battery indicators on the remote controller reflect the current battery level as follows:

Battery Indicators	Battery Level
	0–25%
	26%–50%
	51%–75%
	76%–99%
	100%
 : Solid On,  : Blinking	

Remote Controller Alerts

In certain situations, the remote controller will emit alert sounds, such as system notifications, drone warning messages, and power on/off sounds.

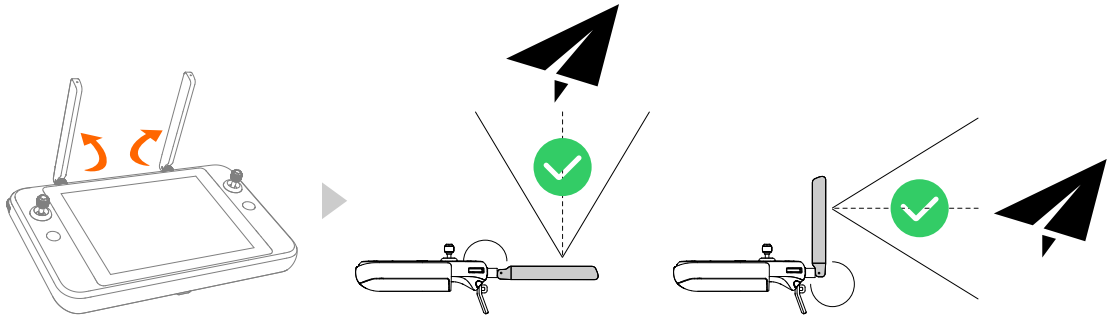
- **RC Power On/Off Sounds**: A **beep** will sound when the remote controller is powered on or off. You can disable this sound in **Autel Enterprise App** via **Menu** > **Settings** > **RC**.
- **Drone Warning Messages**: When the drone experiences system abnormalities, a voice alert will be triggered in the Autel Enterprise App. You can adjust the volume of these alerts via the remote controller's system media volume settings.

WARNING:

- If the system media volume is muted, you will not hear any voice alerts from the Autel Enterprise App. In this case, make sure to pay close attention to the warning messages in the App's status bar to ensure flight safety.

Adjusting the Antennas

After powering on the remote controller and installing the command sticks, unfold and adjust the antennas to the appropriate angle. The received signal strength varies depending on the orientation of the antennas.



Adjust the antenna direction according to the relative position of the drone and the remote controller. Ensure the antenna plane faces the drone to achieve optimal signal quality between the remote controller and the drone.

TIP:

- The command sticks features a detachable design. Simply rotate it counterclockwise to remove it from its mounting position.
- When the antennas form a 180° or 270° angle with the back of the remote controller, and the antenna plane is facing the drone, signal quality will be at its best.
- In actual operation, when the signal between the drone and the remote controller is poor, the remote controller will display a warning. Adjust the antenna direction accordingly to ensure the drone stays within optimal communication range.

IMPORTANT:

- Do not use other communication devices operating on the same frequency band to avoid interference with video transmission signals.
- During use, ensure the antennas are securely fastened. If looseness occurs, rotate the antenna connector clockwise until it is firmly fixed.

> - Do not forcefully twist the antennas when they reach their rotation limits, as this may cause damage. If antenna damage occurs, it may compromise performance and safety. Please contact us promptly for assistance.

Linking

When the remote controller and drone are purchased as a combo, they are pre-linked at the factory and ready for use after activation. In other cases, please use one of the following methods to link the devices:

- **Single Link**: Link one drone with one remote controller.
- **A-Mesh Link**: Link multiple drones and multiple remote controllers into a flight team.

> **TIP**:
>
> - The drone can only be controlled via the Autel Enterprise App on the remote controller after a successful link.
> - In the current version, A-Mesh Link supports a maximum of two drones and two remote controllers.

> **IMPORTANT**:
>
> - Keep the distance between the drone and the remote controller within **1 meter** during the linking process.
> - Turn off the **Wi-Fi** and **Bluetooth** of nearby devices operating on the same frequency band to avoid signal interference during linking.

Single Link

Quick Linking via Combination Buttons

When the remote controller is powered off, you can perform a Single Link operation using the combination buttons:

1. After powering on the drone and waiting for the self-check to complete, **double-press** the drone's power button. The front and rear arm lights will blink green rapidly, and all battery indicators will blink in sync, indicating that the drone has entered **Single Link** mode.
2. **Press and hold** both the remote controller's power button and the Takeoff/RTH button simultaneously. When all battery indicators on the remote controller

blink rapidly in sync, it indicates that the remote controller has entered **Single Link** mode.
3. Once the drone and remote controller are successfully linked, the remote controller's battery indicators will stop blinking, and the real-time video feed will appear in the Autel Enterprise App.

Linking via the Autel Enterprise App

When the remote controller is powered on, you can perform a Single Link operation through the Autel Enterprise App:

1. After powering on the drone and waiting for the self-check to complete, **double-press** the drone's power button. The front and rear arm lights will blink green rapidly, and all battery indicators will blink in sync, indicating that the drone has entered **Single Link** mode.
2. After powering on the remote controller, go to **Menu** in the Autel Enterprise App and tap **Single Link** to initiate **Single Link** mode on the remote controller.
3. Once the drone and remote controller are successfully linked, the remote controller's battery indicators will stop blinking, and the real-time video feed will appear in the Autel Enterprise App.

A-Mesh Link

1. After powering on the remote controller, go to **Menu** in the Autel Enterprise App, tap **A-Mesh Link**, and select **Add Device(s)** to enter **A-Mesh Link** mode.
2. Power on one of the drone and wait for the self-check to complete. Then **short-press** + **long-press** the drone's power button until the arm lights blink rapidly (the rear arm lights blink yellow), and all battery indicators blink in sync, indicating the drone has entered **A-Mesh Link** mode.
3. Once the drone appears on the **My Team** page in the Autel Enterprise App, repeat Step 2 for each additional drone to link it to the team.
4. To add a new remote controller to the team, tap **A-Mesh Link** on the new remote controller and select **Join Team**.
5. After linking all devices, tap **Finish** on the **My Team** page of the remote controller from Step 1 to complete team creation.

> **TIP**:
>
> - The smart battery must be updated to firmware version **V0.4.33.1** or later to support A-Mesh Link. Otherwise, the drone will not enter A-Mesh Link

mode. If using a battery with an older firmware version, first perform **Single Link** to connect the remote controller, then restart the drone and remote controller. Follow the on-screen guidance to perform a compatibility update before attempting A-Mesh Link again.

- During A-Mesh Link, to avoid confusion between devices, it is recommended to label each drone for identification and link them to the remote controller one at a time.

NOTE:

- During A-Mesh Link, the remote controller that initiates the linking acts as the **Pilot Role**, directly controlling only one drone at a time (typically the **Lead Aircraft**), while retaining command authority over the entire team. Any additional remote controllers joining afterward are assigned the **Observer Role**, which allows viewing the real-time video feed and placing pinpoints only.
- The first drone added to the team becomes the default **Lead Aircraft**.
- In A-Mesh Link scenarios, , the remote controller for the **Pilot Role** and the remote controller for the **Observer Role** both only establish a direct connection with the **Lead Aircraft**, which is responsible for forwarding commands.
- After the team is created, the **Pilot Role** remote controller can dissolve the team or add new devices via the **My Team** page, while **Observer Role** remote controllers may leave the team at any time.

HDMI Output

After connecting the remote controller to an external display via the HDMI port on the top of the remote controller, the screen content will be mirrored to the external display for viewing.

Pre-installed Applications

The remote controller is built on Android 11 and comes with the following pre-installed applications. Some of these applications may be replaced by third-party alternatives.

No.	Application Name	Pre-installed Version	Description
1	Autel Enterprise	V2.4.54	Flight app, cannot be uninstalled
2	Settings	11	System app, cannot be uninstalled
3	Android Keyboard (AOSP)	11	System app, cannot be uninstalled
4	Maxitools	2.45	/
5	Gallery	1.1.40030	/
6	Files	11	/
7	Google Pinyin Input	4.5.2.193126728-arm64-v8a	/
8	Chrome	68.0.3440.70	/

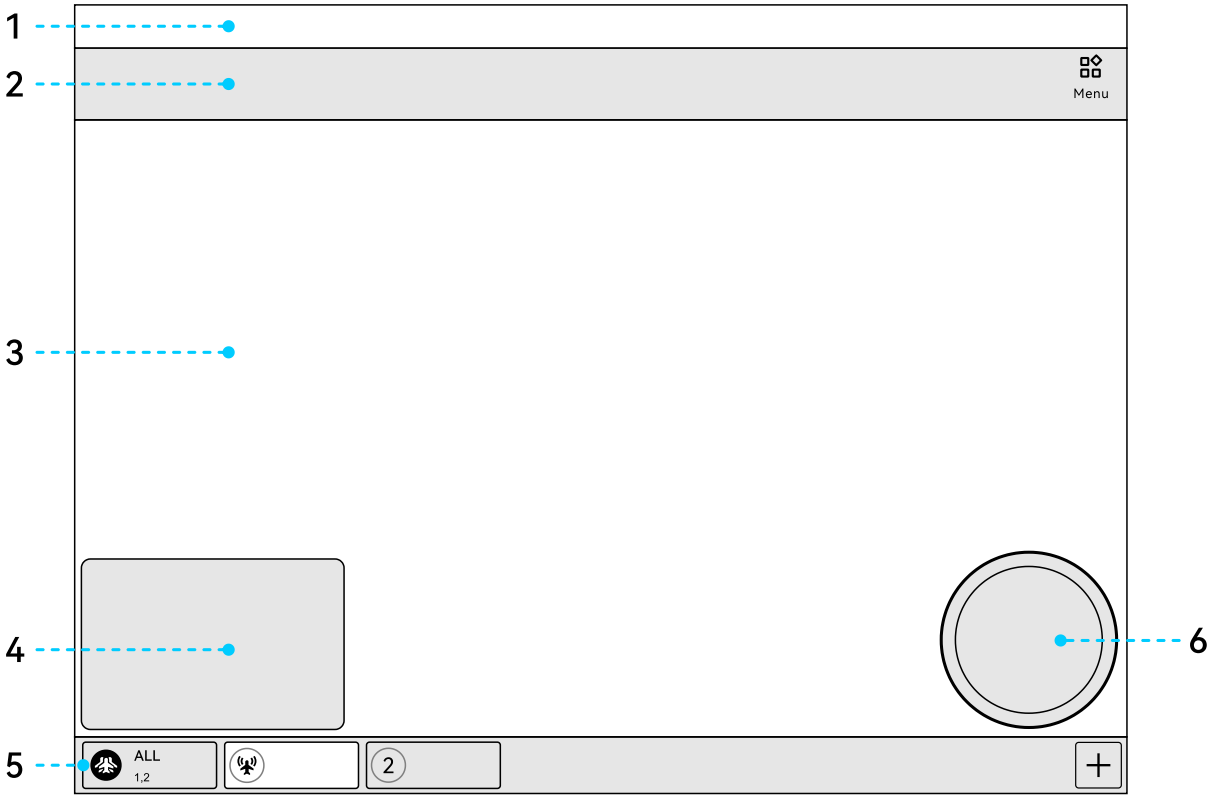
> ⚠ **WARNING**:
>
> - Only download APK installation packages from official app stores or trusted sources. Installing unknown apps may cause system instability or result in data breaches.

Autel Enterprise App

The remote controller will automatically launch the Autel Enterprise App upon startup.

> **NOTE**:
>
> - During firmware updates, the Autel Enterprise App will also be updated to the latest version.
> - Please note that certain operation procedures may change as the Autel Enterprise App is updated. If you notice any discrepancies between the actual operations and the instructions described in the manual, please refer to the actual page. We will update the manual accordingly to reflect the latest procedures.

Interface Layout



1. Status Bar

Displays the real-time operating status of the UAV System.

- **Single Link Scenario**: Displays the UAV System alerts and warning messages, flight mode and mission status, remote controller battery level, Video

transmission signal strength, RTK signal (if available), GNSS signal, drone battery level, obstacle avoidance system status, and flight speed mode.

- **A-Mesh Link Scenario**:
  - When selecting **ALL** drones in the team, only the UAV System alerts, warning messages, and remote controller battery level are displayed.
  - When selecting a specific drone within the team, the system will display that drone's alerts and warning messages, flight mode and mission status, remote controller battery level, Video transmission signal strength, RTK signal (if available), GNSS signal, drone battery level, obstacle avoidance system status, and flight speed mode.

2. Toolbar

Displays frequently used function icons for quick access.

- In the toolbar, you can customize the order of function icons by long-pressing and dragging them.
- Tap **Menu** on the right side of the toolbar to enter the Menu. Then tap the icon in the Menu to add icons from the Menu to the toolbar, or remove function icons in the toolbar.

> **TIP**:
>
> - Up to 12 function icons can be added to the toolbar. Some functions require hardware support from the drone. Functions that are not available will appear grayed out.
> - In A-Mesh Link scenarios, when **ALL** drone in the team are selected, certain function icons will be grayed out and cannot be used.
> - Tap under the toolbar to hide it.
> - Tap **Reset** in the Menu to reset the layout of icons in the toolbar and Menu.
> - When the **Shortcuts** is set to **Floating Ball** under **Menu** > **Settings** > **More**, the toolbar will be hidden and replaced by the floating ball view.

3. Map/Camera Full-Screen Page

Displays the full-screen map page or selected gimbal camera page, and provides relevant operation options.

> **TIP**:
>
> - The Autel Enterprise App automatically identifies the gimbal models and provides various split-screen and camera switching options.
> - When the camera page is in full-screen mode, you can perform the following actions:

- Tap Wide / Zoom / IR / NV on the left to switch to the corresponding gimbal camera page in full screen.
- Tap in the upper right to enter **Dual-Screen Mode**. Then select a page for each screen via the dropdown menu.
- Tap in the upper right to enter **Triple-Screen Mode**. Then select a page for each screen via the dropdown menu.
- Tap to enter **Quad-Screen Mode**.
- In split-screen mode, tap in the lower corner of a screen to switch that page to full-screen mode.

4. Camera/Map Preview Window

Used to preview a specific camera page of the gimbal or map page.

> **TIP**:
>
> - The fullscreen page and the preview window are mutually exclusive. For example, when a gimbal's camera page is switched to fullscreen mode, the map page will automatically switch to preview window mode.
> - Tapping on the preview window will switch it to fullscreen mode.
> - When switching to **Triple-Screen** or **Quad-Screen** mode, the preview window will be automatically hidden.

5. Device Preview Area

In A-Mesh Link scenarios, this area displays the list of devices within the team, and allows for device selection and gimbal camera switching operations.

6. Attitude Ball

Dynamically displays the relative positions of the drone, remote controller, and home point, as well as key flight safety information such as drone attitude, flight speed, remaining battery level, and estimated flight time. Any change in the drone's status will be reflected in the attitude ball.

> **TIP**:
>
> - In Single Link scenarios, or in A-Mesh Link scenarios when a specific drone is selected, the attitude ball of that drone will appear in the bottom-right corner of the page.

Status Bar

During operation, you can refer to the following instructions to determine the status of the UAV System.

1. : Displays the number of current UAV system alerts. Tap to view specific warning messages in a pop-up window.
2. Warning... : Cycles through detailed warning messages currently active on the UAV System. Used together with for comprehensive alert awareness.

> **TIP**:
>
> - Warning messages are color-coded based on severity. Details are as follows:
>   - Warning... : Remote controller is not connected to the drone.
>   - Warning... : Medium-level warning; drone can still take off, but caution is advised.
>   - Warning... : High-level warning; drone is restricted from taking off until the issue is resolved.

3. Visual Positioning Mode : Displays the current flight mode of the drone. The drone supports three flight modes: GNSS Mode, Visual Positioning Mode, and Attitude Mode.

> **TIP**:
>
> - The flight mode is automatically selected by the flight control system based on real-time flight conditions. Manual switching is not available. For more information, refer to the **Drone** > **Flight Mode** section.

4. Manual Flight : Displays the current mission type or execution status of the drone.
5. SD : Appears when the drone cannot detect a microSD card (either not installed or card is damaged).

> **TIP**:
>
> - For optimal flight experience, it is recommended to set the **Storage Location** of the captured images to the **SD card**.
> - If no microSD card is installed, the drone will use its **Internal Memory** for storage. Note that internal memory has limited capacity and may impact shooting missions.

6. : Displays the current battery level of the remote controller.
7. : Displays the current video transmission signal status between the remote controller and the drone.

> **TIP**:
>
> - Once the drone and remote controller are linked, tap this icon to view signal strength and frequency settings.
> - When the signal shows 5–4 bars, the control signal is **Strong** (green); 3–2 bars indicate **Medium** (yellow); 1 bar indicates **Weak** (red).
> - If the drone and remote controller are not linked, this icon displays as .
> - Always monitor the video transmission signal during flight. If the signal is weak, reduce the flight radius promptly to prevent accidents.
> - Before flight, make sure the remote controller's antennas are locked in place; loose antennas may weaken signal quality.

8. : In Single Link scenarios, this icon displays RTK signal status when an RTK module is mounted and powered on.

> **TIP**:
>
> - : FIX — centimeter-level accuracy.
> - : FLOAT — accuracy greater than 0.5 m; use with caution.
> - : SINGLE — accuracy generally between 5–10 m; not recommended.
> - : Unable to lock sufficient satellites for positioning.
> - : RTK module detected, but RTK positioning not enabled.

9. : Displays the GNSS signal status received by the drone.

> **TIP**:
>
> - If GNSS signal is unavailable, the icon is grayed out.
> - Tap the icon to view signal strength and satellite count.
> - Always monitor GNSS signal before and during flight.

10. : Displays the current drone battery level.

> **TIP**:
>
> - Tap this icon to view real-time battery level, voltage, and temperature of the drone’s smart battery.

11. : Displays the status of the drone's obstacle avoidance system.

> **TIP**:
>
> - : obstacle avoidance system is enabled (**Obstacle Avoidance System** is not set to **Off** under **Menu** > **Settings** > **OA** in the Autel Enterprise App).
> - : Obstacle avoidance is disabled (**Obstacle Avoidance System** is set to **Off**).
> - : Icon grayed out when the drone is not linked with the remote controller.

12. Standard : Displays the current flight speed mode of the drone. Tap the icon to quickly switch between **Slow**, **Smooth**, **Standard**, and **Ludicrous** modes.

> **TIP**:
>
> - You can configure the drone's **Flight Speed Mode** under **Menu** > **Settings** > **Flight**. Each flight speed mode has a different maximum speed limit. For details, refer to the **Drone** > **Flight Speed Mode** section.
>   - Slow : **Slow** mode – Ideal for low-altitude flight near the ground; recommended for safety.
>   - Smooth : **Smooth** mode – Balanced for general flight.
>   - Standard : **Standard** mode – Suitable for most flight operations.
>   - Ludicrous : **Ludicrous** mode – Greatly increases flight speed. Not recommended unless you are highly skilled in drone control.

> **WARNING**:
>
> - **When the drone is switched to Ludicrous mode, the obstacle avoidance system will be disabled.** During flight, the drone will not automatically avoid surrounding obstacles. Please operate in open and flat areas.
> - Ensure a sufficient braking distance when switching to Ludicrous mode (a minimum of 50 meters is recommended) to maintain flight safety.

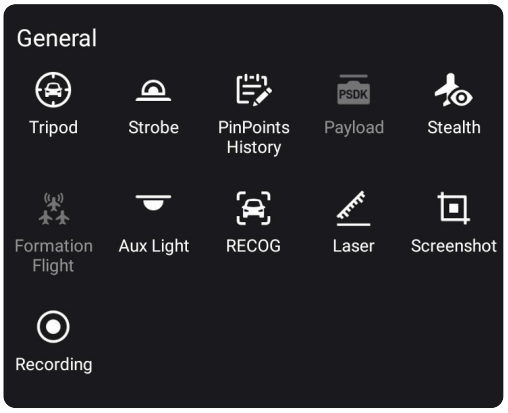
Menu

The icons in the Menu are categorized into five groups: **General**, **Missions**, **Images**, **Information Sharing**, and **User Services and Settings**. You can freely drag specific function icons to the toolbar as needed.

TIP:

- Due to hardware differences among connected drone, some function icons may be hidden or grayed out during actual use, indicating that the function is unavailable for the current drone or scenario.
- Function icons may be added or removed with updates to the Autel Enterprise App. To ensure optimal performance, please keep your UAV System up to date.

General



1. **Tripod**: During flight, tap this icon and then tap or box-select a target of interest. The drone gimbal will lock onto the selected target.
2. **Strobe**: In low-light environments (e.g., night flights), tap this icon to turn on the strobe, which helps indicate the drone's position and prevent mid-air collisions.

TIP:

- Before enabling the strobe, make sure **Stealth** mode is turned off.

WARNING:

- The strobe emits high-intensity flashing light. **Do not look directly at it** to avoid potential eye injury.

3. **Pinpoints History**: Tap this icon to access the Pinpoints History list, where you can view previously pinpoints on the map.

TIP:

- If no pinpoints have been placed o the map in advance, the Pinpoints History list will not display any entries.

- After selecting a pinpoint from the list, the map will center on that point. You can **edit**, **delete**, or **hide** the pinpoint, or command the drone to fly to the selected location.

4. **Payload**: When a functional payload is mounted on the drone, this icon will be automatically hidden and replaced by the corresponding payload icon. Tap the payload icon to open its function panel.
5. **Stealth**: Tap this icon and sign the disclaimer to enable Stealth mode. This will disable the drone's arm lights, battery indicators, strobe, aux light, and spotlight/speaker functions.

TIP:

- To re-enable the strobe or aux light, you must first turn off Stealth mode.

6. **Formation Flight**: In A-Mesh Link scenarios, after selecting at least two drones, tap this icon to initiate formation flight. During flight, the member drone will automatically move toward the Lead Aircraft based on the configured horizontal spacing, eventually aligning their heading with the Lead Aircraft.

TIP:

- For detailed instructions on formation flight, refer to the **Flight Operation** > **Formation Flight** section.

7. **Aux Light**: When landing in low-light environments (e.g., during night flights), tap this icon to turn on the bottom aux light. This helps ensure proper operation of the drone's downward visual sensors, enhancing visual positioning and improving landing safety.

TIP:

- In addition to manual control, the aux light can be configured to turn on/off automatically. In Auto mode, if the drone is in the landing phase and ambient light is insufficient, the aux light will automatically activate at approximately 5 meters above the ground and turn off after a successful landing.
- Setting path: **Menu** > **Settings** > **More** > **Light Settings**.
- Before configuring the aux light, make sure **Stealth** mode is turned off.

8. **RECOG**: Tap this icon to enable intelligent recognition of target types in the drone's real-time video feed.

TIP:

- You need to predefine the target types to be recognized. The current version supports identification of **Human**, **Vehicle**, **Boat**, and **Smoke/Fire**.
- Setting path: **Menu** > **Settings** > **More** >**Target Recognition Settings**.

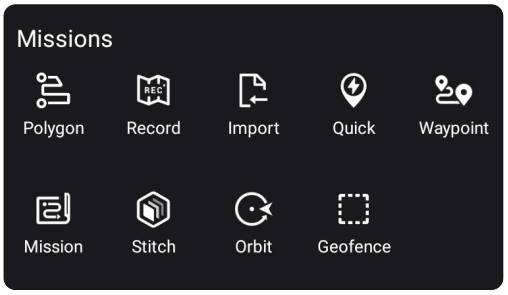
9. **Laser**: Tap this icon to automatically measure the distance from the center point of the camera page (camera feed) to the drone, along with the target's altitude and latitude-longitude.

TIP:

- This function requires the drone gimbal to be equipped with a laser rangefinder.

10. **Screenshot**: Tap this icon to capture a screenshot of the current display.
11. **Recording**: Tap this icon to record the screen of the remote controller.

Missions



1. **Polygon**: Tap this icon to enter the polygon mission editing page.

TIP:

- Polygon missions are commonly used for mapping and modeling scenarios.
- For detailed instructions, refer to **Flight Operation** > **Polygon Mission**.

2. **Record**: Tap this icon to record the current mission workflow for repeated execution in the future.

TIP:

- After enabling mission recording, you need to manually operate the drone to complete the mission once, including flying to mission points, adjusting the gimbal angle, and capturing images.

- Once the mission is completed, stop the recording. A mission entry will be automatically generated in the **Mission** page, which you can select and execute for repeated operations.

3. **Import**: Tap this icon to import missions saved locally on the remote controller (supports `.kmz` format) into the **Mission** page.
4. **Quick**: Tap this icon and mark a quick mission point on the map. The drone will then fly to that point to carry out a temporary mission.

TIP:

- For detailed instructions, refer to **Flight Operation** > **Quick Mission**.

5. **Waypoint**: Tap this icon to enter the waypoint mission editing page.

TIP:

- Waypoint missions are commonly used in inspection scenarios.
- For detailed instructions, refer to **Flight Operation** > **Waypoint Mission**.

6. **Mission**: Tap this icon to open the **Mission** page. In the Mission page, you can **edit**, **favorite**, or **delete** saved routes and geofences.
7. **Stitch**: Tap this icon to configure the remote controller to connect with a computer running the **Autel Mapper** client. This enables real-time modeling during flight.

TIP:

- For detailed instructions, refer to **Flight Operation** > **Stitch**.

8. **Orbit**: Tap this icon to enter the **Orbit** page. The drone will automatically orbit around its current location at a radius 1.5 times the current flight altitude, capturing images of the target directly beneath the center point.

TIP:

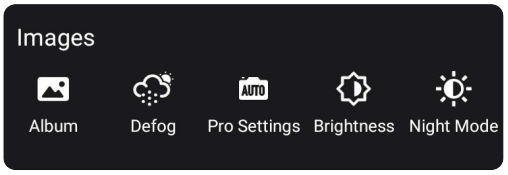
- For detailed instructions, refer to **Flight Operation** > **Orbit**.

9. **Geofence**: In Single Link scenarios, tap this icon to define **Custom No-Fly Zones**, **Custom Geofences**, and corresponding **buffer zones**.

TIP:

- During the configured time period, the drone cannot enter Custom No-Fly Zones, exit the defined Geofence, or take off within the buffer zones.
- For detailed instructions on Geofence operations, please refer to **Flight Operation** > **Others** > **Geofence**.

Images



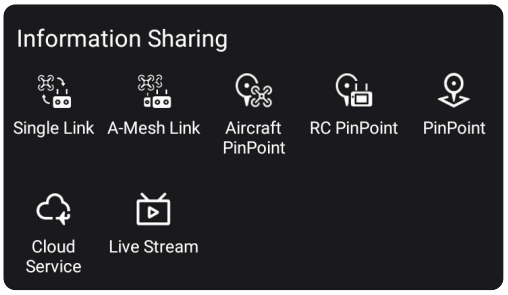
1. **Album**: Tap this icon to view photos and videos stored in the **Aircraft Album** and the **Local Album**, and perform related actions.

TIP:

- Aircraft Album: Media files stored on the drone.
- Local Album: Media files stored on the remote controller.
- When **Security** is enabled, newly captured photos and videos on the drone will be encrypted and cannot be previewed directly in the album.

2. **Defog**: Tap this icon to enhance the clarity of the captured photos or videos by reducing fog or light fog effects. It improves image transparency and color contrast.
3. **Pro Settings**: Tap this icon to open the advanced camera settings panel, where you can fine-tune various camera parameters.
4. **Brightness**: Tap this icon to adjust the display brightness of the camera image.
5. **Night Mode**: Tap this icon to enable **Night Mode**, allowing the camera to capture bright, clear images even in low-light conditions.

Information Sharing



1. **Single Link**: Tap this icon to establish a linking connection between one remote controller and one drone.

> **TIP**:
>
> - For detailed instructions, refer to **Remote Controller** > **Linking** > **Single Link**.

2. **A-Mesh Link**: Tap this icon to establish linking between up to two remote controllers and two drones, forming a coordinated team.

> **TIP**:
>
> - For detailed instructions, refer to **Remote Controller** > **Linking** > **A-Mesh Link**.

3. **Aircraft PinPoint**: When the drone is in GNSS mode, tap this icon to place a pinpoint on the map at the drone's current location.
4. **RC PinPoint**: When the drone is in GNSS mode, tap this icon to place a pinpoint on the map at the remote controller's current location.
5. **PinPoint**: Tap this icon to freely place pinpoints anywhere on the map.

> **TIP**:
>
> - All pinpoints placed on the map can be viewed in the **PinPoints History** list.
> - Both the remote controller for the **Pilot Role** and that for the **Observer Role** can place pinpoints. Within a single mission, the first 10 pinpoints can be shared across all team RCs; any additional pinpoints will be stored locally on the RC that placed them.

6. **Cloud Service**: Tap this icon to access the Cloud Service page. You can configure the relevant cloud services for the UAV System to enable remote management and control via a cloud platform (e.g. **AICS**) .

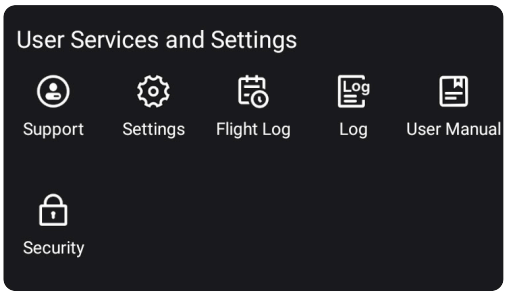
> **TIP**:
>
> - For details, refer to **Flight Operation** > **Cloud Service**.

7. **Live Stream**: Tap this icon to configure live streaming of the drone’s real-time video feed. Supports **RTMP**, **RTSP**, and **GB28181** protocols, as well as **Single camera** and **Multi-camera** streaming modes.

TIP:

- For details, refer to **Flight Operation** > **Live Stream**.

User Services and Settings



1. **Support**: Tap this icon to enter the **Personal Center** page. You can register or log in to your Autel Robotics account, view your total **Flight time**, **Flight Distance**, and **Flight times**, and purchase the **Autel Robotics Care** service for your drone (available within 48 hours of activation).
2. **Settings**: Tap this icon to access the settings page for the UAV system. You can perform **Flight Control Parameter Settings**, **OA Settings**, **RC Settings**, **Video Transmission Settings**, **Battery Information** query and settings, **Gimbal Settings**, **RTK Settings**, and **More** settings such as units settings, light settings, safety settings, target recognition settings, Remote ID settings, display language settings, shortcut operation settings, firmware updates, and more.
3. **Flight Log**: Tap this icon to view the drone's flight logs or sync them to a third-party platform. This function requires logging in to an Autel Robotics account or a linked third-party account.
4. **Log**: Tap this icon to view the drone's flight log data. Login is required with an Autel Robotics account.

TIP:

- Logs are used for technical analysis by our after-sales support team when system anomalies occur.

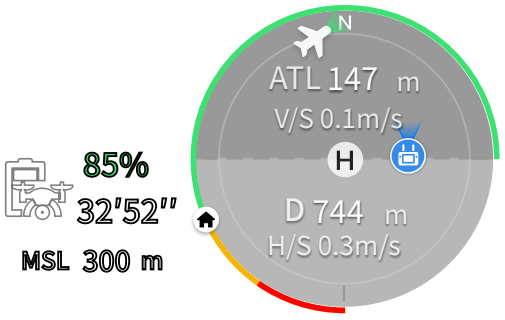
5. **User Manual**: Tap this icon to view the manual and obtain detailed operating instructions for the UAV System.
6. **Security**: Tap this icon to enable encryption for media files captured by the drone, using a secure password.

TIP:

- The drone must be connected before setting a security password.

- Once Media Encryption is enabled, a password will be required to view encrypted media files in the Aircraft Album or Local Album.
- Your security password is not stored on the device or cloud servers. Please keep it safe. If forgotten, it cannot be recovered—only storage formatting will reset it.
- Encrypted media cannot be decrypted during flight. Please decrypt after the drone has landed and stopped its motors.

Attitude Ball



During use, you can refer to the following instructions to obtain real-time flight attitude data of the drone.

1. : Displays the current drone battery level and estimated remaining flight time.
2. **MSL**: Refers to the drone's current altitude relative to Mean Sea Level.
3. : Displays the drone's position and heading relative to the home point.

TIP:

- If the drone is no longer visible to the naked eye during flight, you can use the displayed position and heading to guide the drone back manually.

4. : Displays the current gimbal orientation.
5. **ATL**: Refers to the drone's altitude relative to the takeoff point.
6. **V/S**: Displays the drone's vertical speed.
7. **D**: Displays the horizontal distance between the drone and the home point.
8. **H/S**: Displays the drone's horizontal speed.
9. : The home point is located at the center of the attitude ball.

TIP:

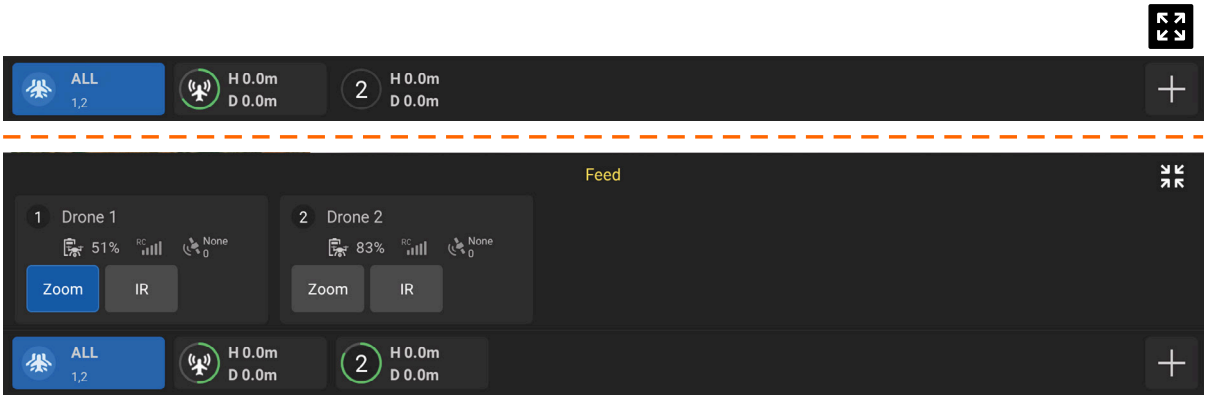
- If no home point is manually set, the takeoff point will be used as the default home point.
- The **N** marker on the attitude ball displays **due north**.

10. : Displays the position and orientation of the remote controller relative to the home point.
11. The green-orange-red arc around the attitude ball represents the **circular battery indicator**, which allows quick estimation of battery consumption status. You can configure the threshold range for the battery indicator under **Menu** > **Settings** > **Battery Information**.

> **TIP**:
>
> - **Green**: Sufficient battery.
> - **Orange**: Low battery.
> - **Red**: Critically low battery.

Device Preview Area

In A-Mesh Link scenarios, the **Device Preview Area** is displayed at the bottom of the map or camera page in the Autel Enterprise App.



- When all drone in the team are selected (i.e., **ALL** is chosen), you can tap icon at the top right of the Device Preview Area to expand the **Quick Settings Panel**. Once expanded, tap icon to collapse it.
- Tap + icon on the right side of the Device Preview Area to access the **A-Mesh Network Settings** page (i.e., **My Team**).

> **TIP**:
>
> - In the Quick Settings Panel under the **Feed** tab, you can view each drone's status information—including battery level, video transmission signal, and GNSS signal—and switch between different gimbal cameras.
> - ： Displays **all drone in the team**； : Displays the **Lead Aircraft**.
> - The Device Preview Area is **not displayed** in Single Link scenarios.

Function Pages

Camera Page

The camera page displays the real-time video feed from the drone during flight. Within this page, you can switch between gimbal cameras, adjust the gimbal pitch angle, take photos, and record videos.

Depending on the gimbal mounted on the drone, the Autel Enterprise App automatically detects the camera models. The page includes **Zoom**, **Wide**, **Night Vision**, and **IR** camera pages.

Cameras Switching

Tap the respective icon on the left side of the full-screen camera page Wide **Wide**, Zoom **Zoom**, IR **IR**, or NV **NV** to switch to the full-screen page of the corresponding gimbal camera lenses.

Camera Functions

You can perform different operations within various camera pages. The function descriptions are as follows:

1. : Tap to view and adjust camera parameters. See the related settings page for detailed options.
2. : Tap to take a photo using the selected camera.

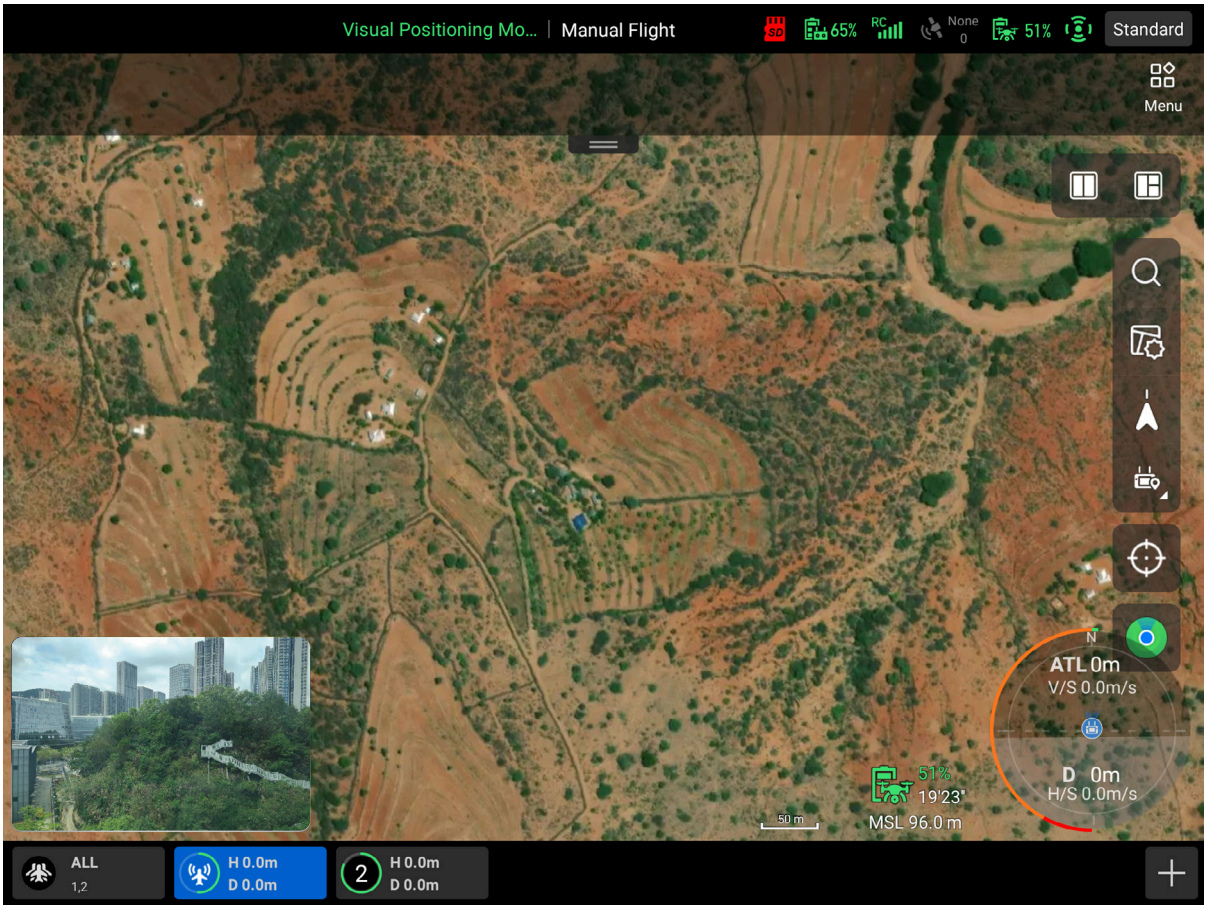
3. : Tap to start video recording using the selected camera; tap again to stop recording.
4. : Tap to open the **Album**.
5. 1.0X Wide or 1.0X Zoom or 1.0X IR or 1.0X NV : Tap the dynamic icon to adjust the zoom ratio of the selected camera.
6. 0° or 45° or 90° : Tap to quickly set the gimbal pitch angle. You can also map this function to the **C1/C2 custom buttons**.
7. : In split-screen mode, tap this to apply synchronized zoom across all linked cameras.

> **TIP**:
>
> - The synchronous zoom trigger ratios vary for different gimbal cameras. Please test it in actual use.

8. : In the IR camera page, tap to open the **Thermal Color** dropdown list and select a color palette.
9. 0~550 Mode or -20~150 Mode : After enabling **Temperature Measurement** via > **IR**, this icon appears. Tap to toggle between **High-Gain** and **Low-Gain** thermal modes.
10. FCC : After enabling **Temperature Measurement** via > **IR**, tap to perform **Flat-Field Calibration (FFC)**. This optimizes thermal image clarity and enhances temperature visibility.

> **WARNING**:
>
> - Do not point the IR camera at high-energy sources such as the sun, lava, laser beams, or molten metal, as this may damage the infrared detector.
> - The temperature of the observed target should be below +600°C. Observing temperatures above this limit may burn and damage the infrared detector.

Map Page



On the map page, you can view map information of the flight area, monitor the drone's flight path, and place pinpoints during the flight.

You can access the map page in the following ways:

- When the camera page is in full-screen mode, tap the **Map** Preview Window in the lower-left corner to switch to full-screen map view.
- In split-screen mode, tap , the dropdown menu at the top right (or top left) to display the map page.
- In the split-screen map page, tap the icon in the corner to expand the map to full screen.

You can perform the following operations on the map page:

1. : Tap to search by **POI** (Point of Interest) or **Coordinate** (requires internet connection). After confirming the result, the map will center on the selected location.
2. : Tap to configure **Map Display**, **Map Type**, and **Offline Map**:
   - **Map Display**: Toggle geofence display or show/clear the flight path.
   - **Map Type**: Select the map source (**MapBox** or **MapTiler**) and map layer style (**Normal** or **Hybrid**); import geofence files if needed.

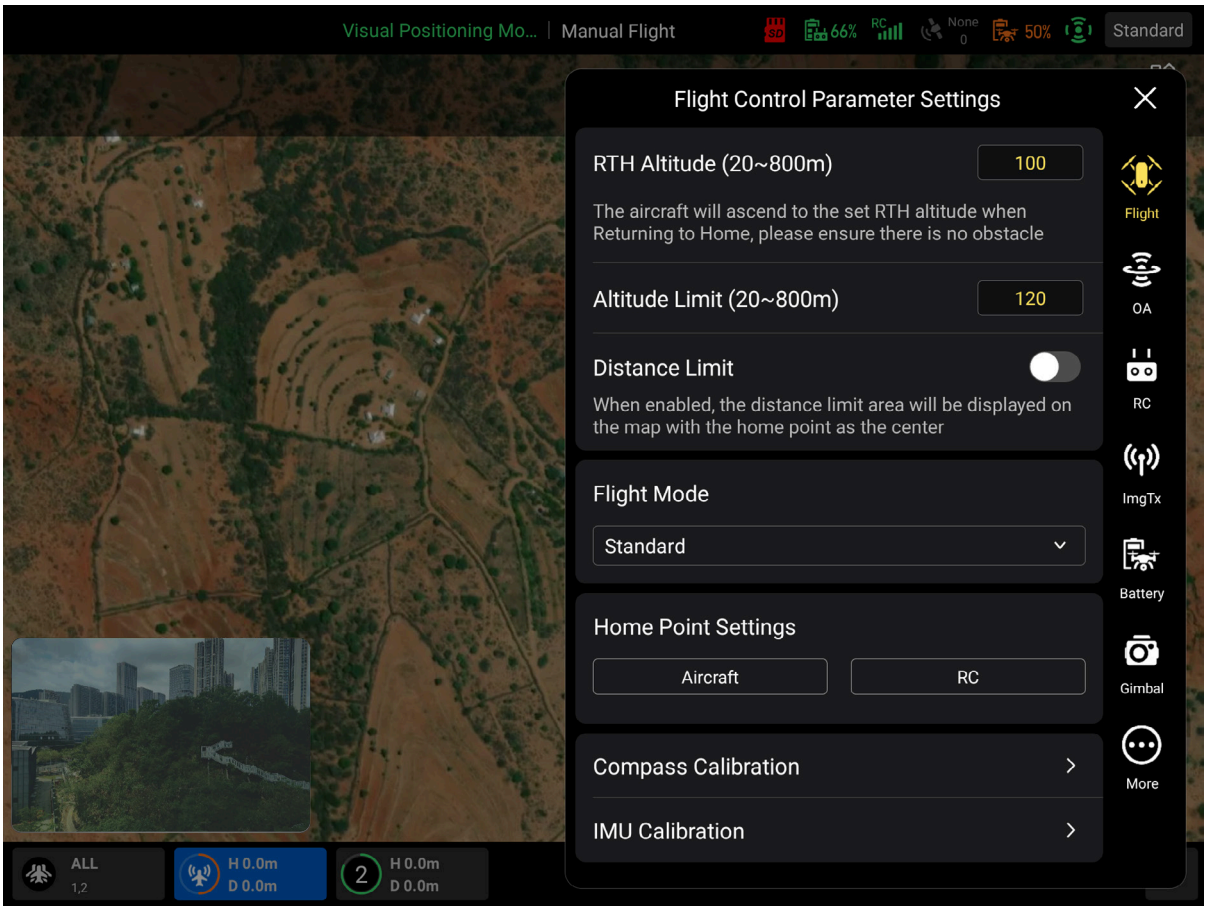
- **Offline Map**: Download offline maps for specified regions, configure layers, or delete existing offline maps.

3. : Displays a fixed North-Up orientation, regardless of the remote controller's heading.
4. : Displays that the map orientation follows the remote controller's heading, maintaining real-world directional alignment.

> **TIP**:
>
> - Tap between to toggle orientation modes.

5. **RC Location**: In GNSS mode, tap to locate and display the remote controller's position on the map.
6. **Home Point**: In GNSS mode, tap to locate and display the home point on the map.
7. **Aircraft Location**: In GNSS mode, tap to locate and display the drone's position.
8. **Overview**: In GNSS mode, tap to simultaneously display the locations of the remote controller, drone, and home point.
9. **Recenter**: If the map has been moved, this icon appears on the right side. Tap to recenter the map on the current location.
10. : Tap to view the last reported location of a disconnected drone.

Settings Page



In the Menu, tap **Settings** to access the settings page for the UAV system.

> **TIP**:
>
> - In Single Link scenarios, or in A-Mesh Link scenarios when a specific drone is selected, you can access the settings page.
> - In A-Mesh Link scenarios, when **ALL** drone are selected, the icon **Settings** will be grayed out and unavailable.

Flight Control Parameters Settings

Tap **Flight** in the sidebar of the settings page to enter the **Flight Control Parameter Settings** page, where the following settings are available:

1. **RTH Altitude** : Set the altitude at which the drone will fly when performing an automatic RTH. The drone will ascend to this altitude before returning.

> **TIP**:
>
> - For more information on RTH altitude mechanism, refer to **Drone** > **Return to Home (RTH)** > **RTH Altitude Mechanism**.
> - Set an RTH altitude that is higher than the tallest obstacle in the flight area.

- Ensure the RTH altitude complies with local aviation regulations. For example, in the EU, the maximum flight altitude is 120 meters; in North America, it is 400 feet.

2. **Altitude Limit**: Limits the drone's maximum altitude relative to the takeoff point.
3. **Distance Limit**: When enabled, restricts the maximum flight radius from the home point.

TIP:

- The altitude limit should not be set lower than the RTH altitude and must also comply with local regulations.
- When the distance limit is disabled, you can manually fly the drone until it triggers **Critically Low Battery Landing** or **Signal Lost** behavior.

WARNING:

- Flying at altitudes or in airspace that violates local aviation laws may lead to legal consequences. Please fly legally.

4. **Flight Mode**: Flight speed modes include **Slow**, **Smooth**, **Normal**, and **Ludicrous**.
5. **Home Point Settings**: Choose between **Aircraft** and **Remote Controller** as the home point.

TIP:

- If no home point is manually set, the takeoff point will be used by default.

6. **Compass Calibration**: If the status bar displays **"Compass needs calibration, please calibrate before flight."**, You can access the Compass Calibration page from here to perform the calibration.
7. **IMU Calibration**: If displayed with **"Please calibrate IMU"** or **"Cannot take off due to IMU error. Calibrate IMU first."**, You can access the IMU Calibration page from here to perform the calibration.
8. **Signal Lost** behavior: Available options: **Return to Home**, **Hover**, **Land**.

TIP:

- Signal Lost behavior: Configure how the drone should respond when the **C2 link** between the drone and the remote controller is lost for more than 10

seconds and cannot be re-established.
- **Return to Home**: The drone will return to the home point automatically.
- **Hover**: The drone will hover in place.
- **Land**: The drone will land at its current location.

Obstacle Avoidance Settings

Tap **OA** in the sidebar of the settings page to enter the **Obstacle Avoidance Settings** page, where the following settings are available:

1. **Obstacle Avoidance System**: Available options: **Off**, **Brake**, **Bypass**.

> **TIP**:
>
> - **Off**: The obstacle avoidance system is disabled.
> - **Brake**: Allows setting a **Safety Distance**. During manual flight, the drone will automatically slow down and brake at the defined safety distance from an obstacle, then hover in place.
> - **Bypass**: Also allows setting a **Safety Distance**. When an obstacle is detected during flight, the drone will slow down and autonomously maneuver around it from the left, right, or above.
> - For flight safety, it is recommended to use **Brake** or **Bypass** mode.
> - During automatic missions (e.g., RTH, Waypoint Mission, Polygon Mission), the obstacle avoidance system will follow the settings of **Off** or **Bypass** (when **OA** > **Obstacle Avoidance System** is set to **Brake** or **Bypass**).

> **WARNING**:
>
> - Obstacle avoidance system is disabled when the drone is in **Ludicrous** mode.

2. **Warning Distance**: Defines the distance at which the drone will issue a warning when detecting an obstacle.
3. **Radar Display**: When enabled, a real-time obstacle detection will appear on the camera page based on the configured safety and warning distances.
4. **Obstacle Detection Notification Sound**: When enabled, the remote controller will emit audible alerts when the drone detects an obstacle.
5. **Landing Protection**: When enabled, the drone will assess ground conditions during auto-landing to determine if it is safe to land.

> **IMPORTANT**:
>
> - When landing protection is enabled, if the drone detects unsafe landing conditions, it will hover above the landing point. The pilot must manually control the drone to land at a suitable location.

RC Settings

Tap **RC** in the sidebar of the settings page to access the **RC Settings** page. The following settings are available:

1. **Stick Mode**: Choose from **Mode 1**, **Mode 2**, or **Mode 3**.

> **TIP**:
>
> - The default stick mode is **Mode 2**. You may select the mode that best suits your personal control habits.
> - Always confirm the current stick mode before flying. For more information about stick mode differences, refer to **First-Time Use** > **Basic Flight** > **Drone Operation**.

2. **RC Calibration**: If the RC's sticks or dials respond abnormally, tap here to enter the RC Calibration page and perform the calibration.
3. **RC Custom Button**: Map specific functions to the **C1** and **C2** buttons. Available options include: **OA System On (Brake) / Off**, **Gimbal Pitch Recenter/45°/Down**, **Map/Video Transmission**, **Speed Mode**.

> **TIP**:
>
> - For detailed descriptions of each function, please refer to **Remote Controller** > **Custom Buttons**.

4. **EXP**: Adjust the response curve of the command sticks. The **X-axis** represents the physical stick input, while the **Y-axis** represents the logical output—i.e., how strongly the drone responds to the stick movement.
5. **RC Power On/Off Sound**: When enabled, a **beep** will sound when the remote controller is powered on or off. When disabled, transitions occur silently.

Video Transmission Settings

Tap **ImgTx** in the sidebar to access the **Video Transmission Settings** page. The following settings are available:

1. **Video Transmission Mode**: Options: **Smooth**, **HD**.

> **TIP**:
>
> - **Smooth**: Transmits video in 720p resolution.
> - **HD**: Transmits video in 1080p resolution.

2. **Transmission Band**: Options: **AUTO**, **2.4G**, **5.8G**

> **TIP**:
>
> - **AUTO**: The drone and RC automatically select a legal frequency band for video transmission.
> - **2.4G**: Transmits video over the 2.4GHz legal band.
> - **5.8G**: Transmits video over the 5.8GHz legal band.
> - The system will automatically select compliant frequency bands based on the drone's GNSS location.
> - If the drone fails to acquire GNSS positioning after startup, the video transmission band will default to **2.4G**.
> - In A-Mesh Link scenarios, only **AUTO** mode is supported for transmission band selection.

3. **Full-Screen Display Mode**: Available options: **Fit the Screen**, **Original Ratio**

> **TIP**:
>
> - **Fit the Screen**: The camera feed fills the entire screen in full-screen mode.
> - **Original Ratio**: The camera feed maintains its original aspect ratio in full-screen mode.

4. **Split-Screen Effect**: Available options: **Uniform Scale**, **Fit the Screen**

> **TIP**:
>
> - **Uniform Scale**: In dual-screen mode, the camera feed is scaled down proportionally.
> - **Fit the Screen**: In dual-screen mode, the camera feed fills the available screen space.

Battery Information

Tap **Battery** in the sidebar to access the **Battery Information** page. The following settings and information are available:

1. You can view the installed **smart battery** status and estimated remaining flight time, including real-time data such as **battery level**, **temperature**, **voltage**, and **discharge times**.

> **TIP**:
>
> - If any value exceeds the normal range, it will be displayed in red as a warning.

> **WARNING**:
>
> - If the smart battery has been discharged more than **200 times**, its output performance may no longer be reliable. For flight safety, please replace the battery with a new one.

2. **Battery Warning Thresholds**: You can configure thresholds for **Critical Low Battery Warning** and **Low Battery Warning**, allowing the system to notify you of low battery conditions during flight and ensure sufficient time for safe RTH or landing.

> **TIP**:
>
> - **Critical Low Battery Warning**: Red status; configurable range: **8%–25%**. When the battery reaches this threshold, the drone will initiate **Critical Low Battery Landing**.
> - **Low Battery Warning**: Orange status; configurable range: **15%–50%**. Must be set at least **5% higher** than the critical low battery threshold. When triggered, the drone will **automatically return to home**.
> - When a low battery warning is triggered, please initiate RTH promptly to avoid flight safety risks.

3. **Hot Swap Battery**: When enabled, the drone supports **hot-swapping** smart batteries without shutting down, avoiding reboot wait time.

> **TIP**:
>
> - It is recommended to complete battery replacement **within 8 seconds** to ensure the new battery activates properly.
> - Hot swapping may fail in environments below **-10°C**.

Gimbal Settings

Tap **Gimbal** in the sidebar to access the **Gimbal Settings** page. The following settings are available:

> **TIP**:
>
> - Before powering on the drone, ensure the gimbal cover is removed and that there are no obstructions within the gimbal's range of motion.

1. **Gimbal Pitch Sensitivity**: Set the maximum rotation speed (degrees per second) of the gimbal pitch axis.
2. **Gimbal Calibration**: When the status bar displays **"Please calibrate the gimbal motor"**, tap here to enter the Gimbal Calibration page and perform automatic calibration.
3. **Gimbal Adjustment**: If the gimbal position appears pitched, use **Roll**, **Yaw**, or **Pitch** buttons to adjust and align the camera feed with the visual axes.
4. **Gimbal Parameters Reset**: Tap **Reset** to restore all gimbal parameters to their default settings.

RTK Settings

Tap **RTK** in the sidebar to access the **RTK Settings** page. The following options are available:

> **TIP**:
>
> - This option is not available by default. It becomes visible only after an RTK module is mounted on the drone.
> - RTK is currently supported only in Single Link scenarios. In A-Mesh Link scenarios, RTK is not supported and the setting will not appear in the Autel Enterprise App.

1. **RTK Positioning**: When enabled and connected to a Network RTK service, the drone can achieve centimeter-level positioning accuracy (when RTK achieves FIX state).

> **TIP**:
>
> - An active internet connection on either the RC or the drone is required to use Network RTK.
> - Once RTK Positioning is enabled, RTK settings become available.

2. **Status**: When logged in successfully to the Network RTK service, the status will display **Connected**.

> **TIP**:
>
> - If the connection fails, the page will show **Disconnected** along with the failure reason.

3. Network RTK configuration: Configure the RTK server IP address, port, mount point, and login credentials (username/password).

> **TIP**:
>
> - After entering the details, tap **Log** to connect to the Network RTK service. Any configuration errors will be reported.
> - When **Auto Connect** is enabled, the system will automatically log in to the RTK service upon startup if a network is available.
> - Tap **History Accounts** to view and manage previously configured RTK accounts. Multiple Network RTK accounts can be saved.

> **IMPORTANT**:
>
> - After mounting an RTK module on a drone without built-in RTK capability, an RTK signal icon will appear in the status bar.

4. **RTK Coordinates**: Once connected to a Network RTK service, this section displays the coordinate system type, RTK positioning method, latitude, longitude, altitude, number of satellites tracked, and standard deviation.

More

Tap **More** in the sidebar to access the **More** page. The following configuration options are available:

1. **Units Settings**: Set unit preferences for **Speed/Distance Units**, **Area Units**, **Temperature Units**, and **Coordinate Format** within the Autel Enterprise App.
2. **Light Settings**: Enable or disable **Stealth** mode. After disabling Stealth mode, you can control the **Strobe** and **Aux light** independently.

> **WARNING**:
>
> - By enabling Stealth mode, you acknowledge and accept all resulting risks as outlined in the disclaimer. Do not enable this mode unless absolutely

necessary.
- Stealth mode may violate local laws or regulations. Unless you are performing a legally authorized special mission, do not enable it.

3. **Safety**: The following safety-related options are available:
   - Enable **Visual Positioning**: When enabled, the drone will use the visual sensing system to maintain hovering in areas with poor GNSS signal.
   - GNSS System Selection: Choose between **Auto** and **BeiDou**.
     - **Auto**: Automatically selects the GNSS signal with the best performance.
     - **BeiDou**: Restricts GNSS input to the BeiDou Navigation Satellite System only.
   - **Emergency Stop Propellers During Flight**: Enable this function according to your flight safety needs. When enabled, push both command sticks inward or outward simultaneously to stop the propellers. **Use with caution.**

TIP:

- If visual positioning is disabled prior to takeoff, **do not enable** it during flight, as this may cause malfunction. To restore, land the drone before enabling.
- Some regions or countries may not support BeiDou; actual availability depends on your location.
- After changing the GNSS setting, **restart the drone** for the new setting to take effect.
- Emergency Stop Propellers causes the drone to drop uncontrollably. This function is designed to minimize damage in case of critical failure. Avoid using near people or buildings. After emergency landing, **discontinue use** and contact support for a UAV system inspection.

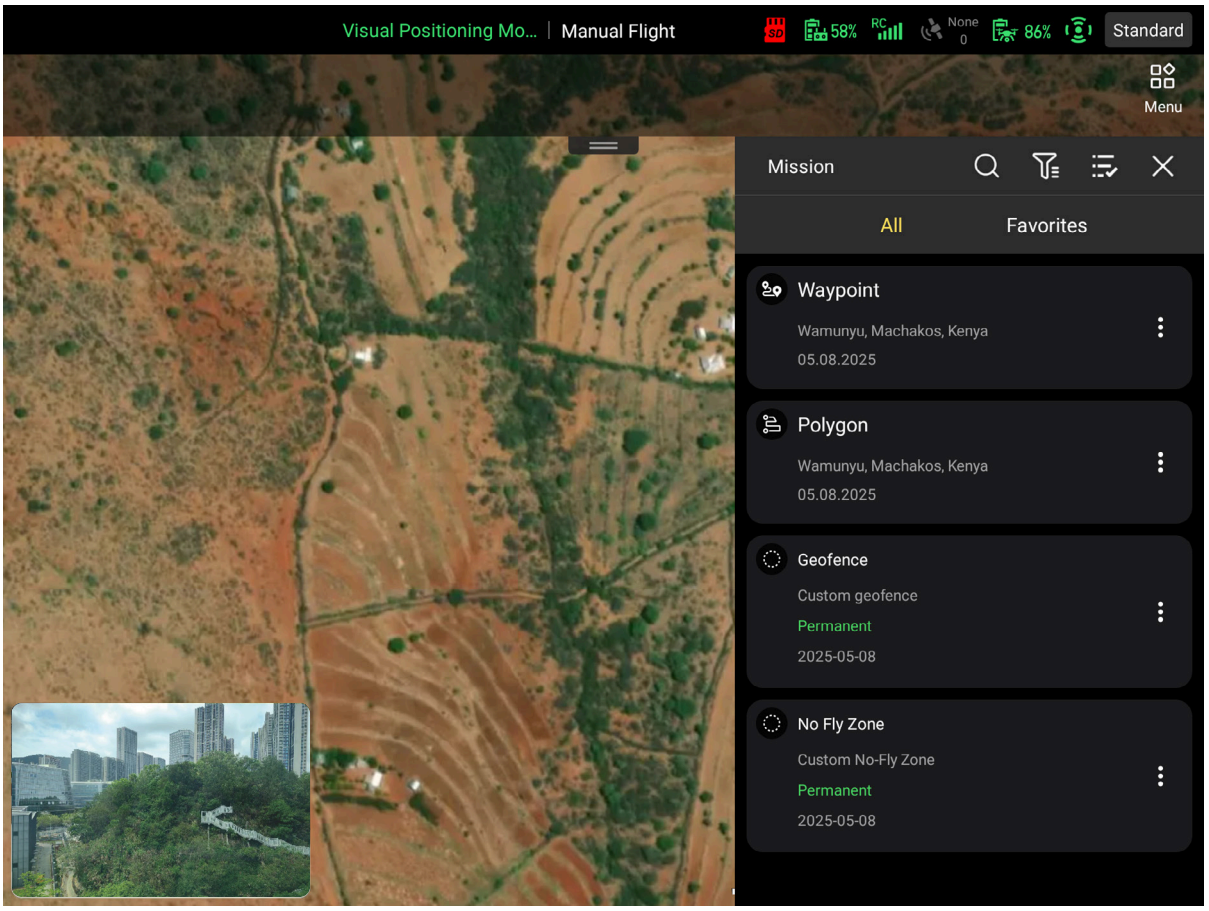
4. **Target Recognition Settings**: Define target types for onboard recognition and enable/disable **Sound alert**. The current version supports **Human**, **Vehicle**, **Boat**, and **Smoke/Fire**.
5. **Remote ID**: After powering on the drone, enter this section to input required information as prompted. Once submitted successfully, the Remote ID broadcast status will be displayed.
6. **Language Settings**: Set the display language of the Autel Enterprise App. The app will restart automatically after selection.

TIP:

- Changing the display language does not affect region-specific function settings. Drone functionalities may vary by country/region.

7. **Shortcut**: Choose how function icons are displayed: either as a **Toolbar** or as a **Floating Ball**.
8. **About**: View the version of the Autel Enterprise App and the firmware versions and serial numbers of the drone, RC, gimbal, and smart battery. This section also allows checking for updates to both the App and device firmware.

Mission



Tap **Mission** in the **Menu** to open the Mission page.

> **TIP**:
>
> - The Mission page is used to save and manage planned flight routes (such as Waypoint routes and Polygon routes), geofences (including Custom No-Fly Zones and Custom Geofences), and routes generated via Mission Recording.

You can perform the following operations in the Mission page:

- : Tap this icon to search for routes or geofences using keywords.
- : Tap to filter and view specific types of saved routes or geofences.
- : Tap to select one or more saved routes or geofences to delete, favorite, or export.

- : Tap to exit the Mission page.
- : Tap to add selected routes or geofences to your Favorites list.
- : Tap to re-edit a selected route or geofence.
- : Tap to remove selected routes or geofences.
- : Tap to export selected routes in .kmz format to a specified location.
- : Tap to disable an active geofence.

Flight Operation

You can create and execute various types of automated flight missions through the Autel Enterprise App, and the relevant mission routes will be saved under **Mission**.

> **TIP**:
>
> - The drone cannot perform automated flight missions while operating in **Visual Positioning Mode** or **Attitude Mode**.
> - During an automated mission, the drone will automatically terminate the mission and take the corresponding action if any of the following conditions occur:
>   - If the drone battery is low, the Autel Enterprise App will prompt Auto RTH.
>   - If the drone battery is critically low, the drone will end the mission and automatically land in place.
>   - If the C2 link between the drone and the remote controller is lost for more than 10 seconds (e.g., remote controller power-off), the drone will perform the Signal Loss Action you set.

Terminology

When creating an automated flight mission, refer to the following terms to better understand the related settings.

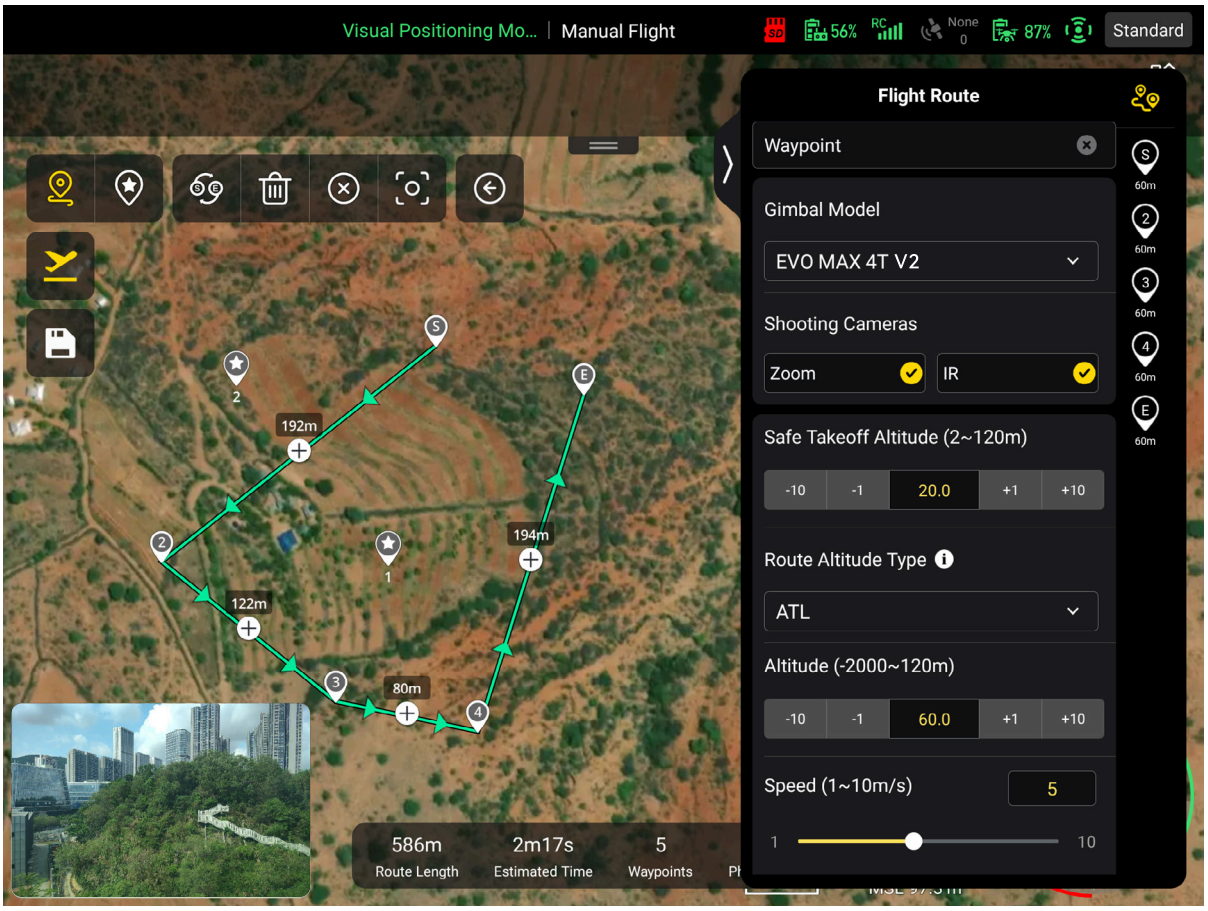
Term	Definition	Related Missions
Safe Takeoff Altitude	After powering on, the drone will ascend to this altitude before proceeding to the first waypoint, then gradually adjust to the planned mission altitude.	Waypoint Mission
ATL Above Takeoff Location	Vertical altitude relative to the takeoff point.	Waypoint Mission
MSL Mean Sea Level	Vertical altitude relative to mean sea level.	Waypoint Mission
Yaw Angle	The angle between the drone nose direction and due north.	Waypoint Mission

Term	Definition	Related Missions
Finish Action	The flight behavior strategy the drone performs after completing the mission.	Waypoint Mission Polygon Mission
Signal Loss Action	The flight behavior strategy when the C2 link with the ground control station (e.g., remote controller) is lost for more than 10 seconds.	Waypoint Mission Polygon Mission
Waypoint Action	The actions executed by the drone and gimbal at a specific waypoint.	Waypoint Mission
Gimbal Pitch Angle	The angle between the gimbal pitch axis and the horizontal plane.	Waypoint Mission
Gimbal Yaw Angle	The angle between the gimbal yaw axis and true north.	Waypoint Mission
Coordinated Turns Radius	The radius at which the drone transitions smoothly between two adjacent flight segments before reaching the next waypoint.	Waypoint Mission
Mission Altitude	The vertical altitude relative to the target area during mission execution.	Polygon Mission
Relative Mission Altitude	The vertical altitude difference between the drone takeoff point and the target area.	Polygon Mission
GSD	Ground Sampling Distance, varies depending on mission altitude.	Polygon Mission
Front Overlap	The image overlap ratio between consecutive photos taken along the flight line.	Polygon Mission
Side Overlap	The image overlap ratio between adjacent flight lines.	Polygon Mission
Course Angle	The angle between the automatically generated main flight lines and the lines of latitude.	Polygon Mission
Coordinated Turns	The drone smoothly transitions from one main flight line to the adjacent main flight line using an optimal curved flight path.	Polygon Mission

General Function Icon Descriptions

1. : In the waypoint and polygon mission editing pages, tap this icon to delete the selected waypoint or vertex.
2. : In the waypoint and polygon mission editing pages, tap this icon to clear the current mission for re-editing.
3. : In the waypoint and polygon mission editing pages, tap this icon to center the edited flight route on the map.
4. : In the waypoint and polygon mission editing pages, tap this icon to exit the current mission editing page.
5. : In the waypoint and polygon mission editing pages, tap this icon to save the current mission.
6. : After saving a waypoint or polygon mission (route), tap this icon to perform a preflight checklist.
7. : During the execution of a waypoint or polygon mission, tap this icon to pause the mission. The drone will hover in place.
8. : During the execution of a waypoint or polygon mission, tap this icon to exit the mission.

Waypoint Mission



On the waypoint mission editing page, you can tap the screen to place a series of waypoints on the map to create a flight route. By configuring parameters such as flight altitude, flight speed, yaw angle, waypoint actions, and waypoint coordinates for the entire route and individual waypoints, the drone will automatically follow the route and perform the designated actions at each waypoint.

> **TIP**:
>
> - Each pair of adjacent waypoints forms a flight segment, and one or more flight segments make up a route.
> - A route must contain at least two waypoints: the start point ( ) and the end point ( ).
> - After placing the start and end points, you can tap on any flight segment to add a new waypoint.

Waypoint Mission Function Icon Descriptions

1. : Tap this icon on the waypoint mission editing page to enter waypoint editing mode.
2. : Tap this icon on the waypoint mission editing page to enter point of interest (POI) editing mode.
3. : Tap this icon on the waypoint mission editing page to swap the start and end directions of the route.

Waypoint Mission Settings

A waypoint mission includes route settings and waypoint settings. While editing a waypoint mission, you can tap on the right side of the screen to expand the settings sidebar and configure related parameters.

- : Tap this icon in the sidebar to configure general settings for the entire route.
- : Tap this icon in the sidebar to configure settings for the route's start point.
- : Tap this icon in the sidebar to configure settings for the route's end point.
- (with numbers): Tap this icon in the sidebar to configure settings for other waypoints along the route.

> **TIP**:
>
> - Once a waypoint is associated with a point of interest (POI), its yaw angle will no longer align the route by default. If the waypoint's **Yaw Angle** is set to **Turn to Point of Interest**, the drone will keep its nose pointed toward the POI throughout the segment from this waypoint to the next.

- The POI altitude refers to its height relative to the takeoff point. If the POI is located above the waypoint altitude, the gimbal camera will be unable to look upward at the POI.

Polygon Mission

On the polygon mission editing page, you can tap the map to add a rectangular area. You can then drag the entire area, add edges, or move vertices to adjust its size and position. After adjustments are made, the Autel Enterprise App will automatically generate evenly spaced flight lines across the polygon area based on the specified side overlap rate and course angle. The drone will follow these generated flight lines to carry out the aerial capture mission.

TIP:

- A polygon mission includes a start point (Ⓢ) and an end point (Ⓔ).
- Tap the ⊕ icon in the middle of a polygon edge to add a new vertex and edge.
- Press and hold the center of the polygon area (✣) to adjust the entire area's position.

Polygon Mission Settings

When editing a polygon mission, you can tap  on the right side of the screen to open the settings sidebar for configuration.

- Front overlap range: 10%–90%; default: 70%
- Side overlap range: 0%–90%; default: 70%
- For high-altitude missions without obstacles, it is recommended to set the **Obstacle Avoidance System** to **Off**.
- Elevation Optimization: When enabled, after completing the main flight lines, the drone will perform an additional pass over the center of the polygon to improve overall capture accuracy.
- Route Extension: Due to gimbal pitch angle and flight altitude, parts of the target area near the polygon boundary may not be fully captured. Enable route extension to expand the polygon boundary and ensure full image coverage of the area of interest.

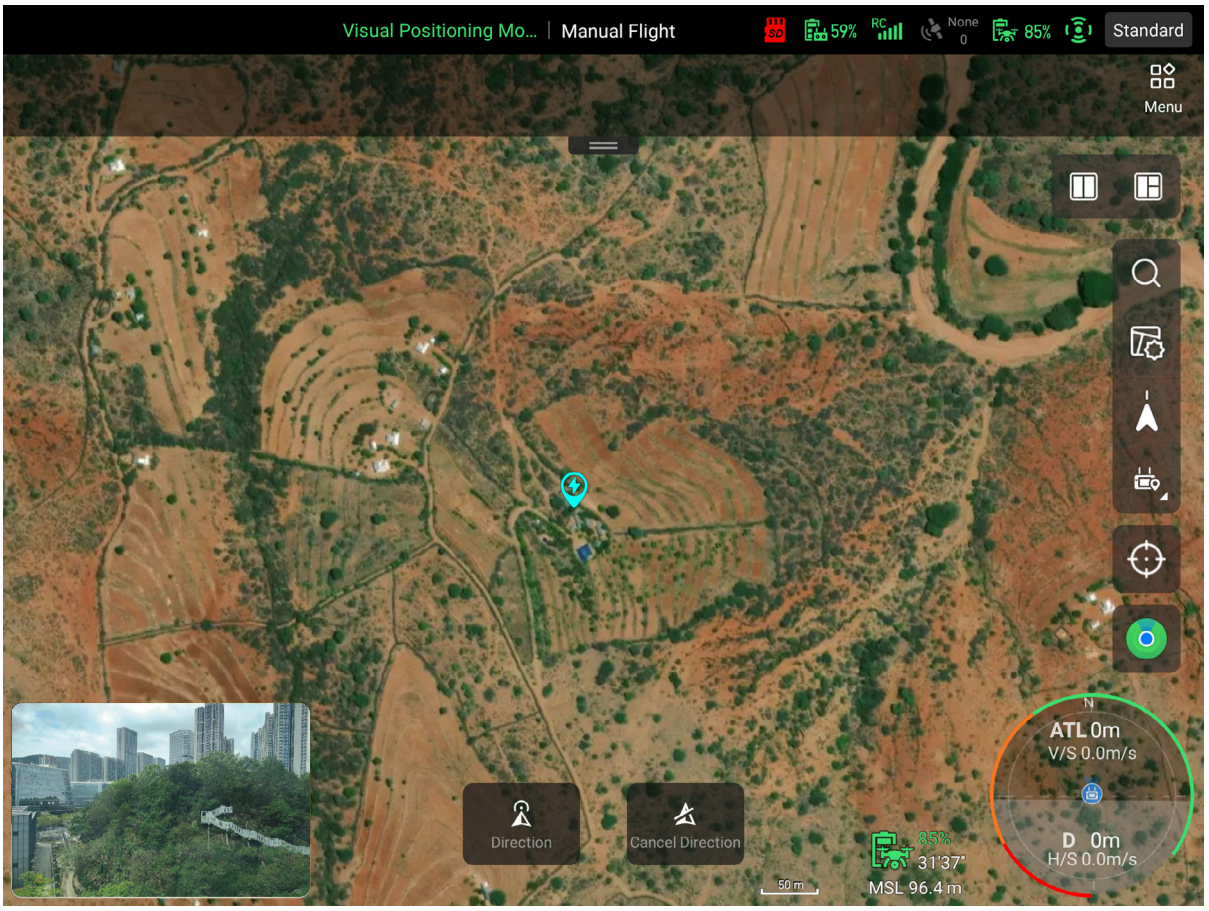
Formation Flight

Formation flight is only available in A-Mesh Link scenarios. It enables other member drone in the team to maintain the same heading and fly in formation with the Lead Aircraft.

- To perform formation flight, you must control at least two drones (including the Lead Aircraft) to take off, and maintain an altitude of at least 30 meters above ground level.
- Once formation flight is enabled, you need to set a horizontal spacing (default: 10 meters). The member drone will align with the Lead Aircraft at the specified spacing, and their gimbal orientation and flight heading will also be synchronized with the Lead Aircraft.

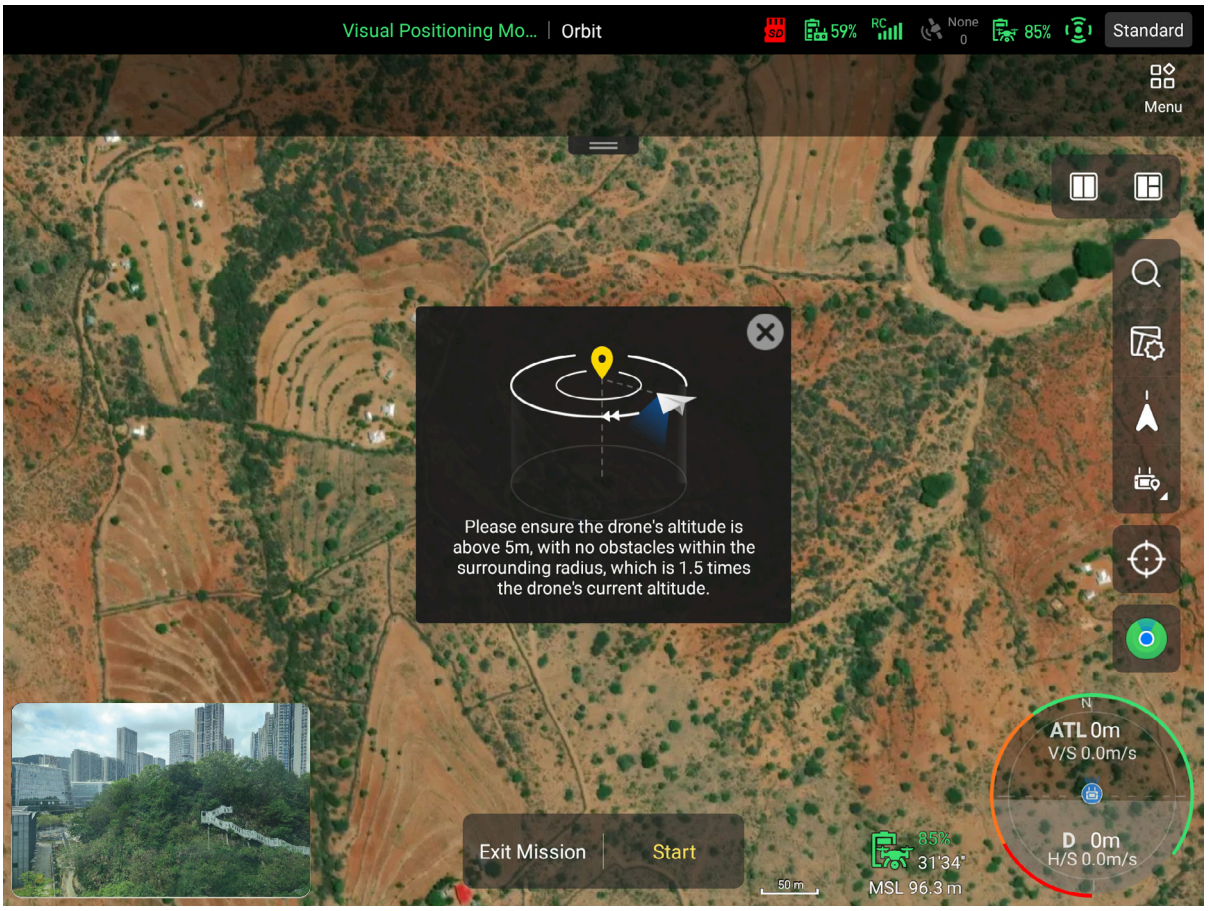
> **TIP**:
>
> - During formation flight, always monitor the video transmission signal quality between the Lead Aircraft and the RC for the Pilot Role. If signal quality degrades, reduce the flight radius in time.

Quick Mission



A quick mission is a temporary mission.
During flight, you can initiate a quick mission, place a quick mission point on the map, and command the drone to **Direction**, allowing it to quickly navigate to the mission point.

Orbit



Orbit is used to perform a 360° orbit flight around a target point for aerial imaging. The operation steps are as follows:

1. Hover the drone above the target point and adjust to a suitable altitude.
2. Enter the **Orbit** page and tap the **Start** button. The drone will begin circling automatically around its current position, using a radius 1.5 times the current altitude, capturing images of the target located directly below the center point.

> **TIP**:
>
> - **Orbit** can be used together with the **Stitch** function to generate a model of the target area.
> - Before performing Orbit, ensure the drone has ascended to at least 5 meters.

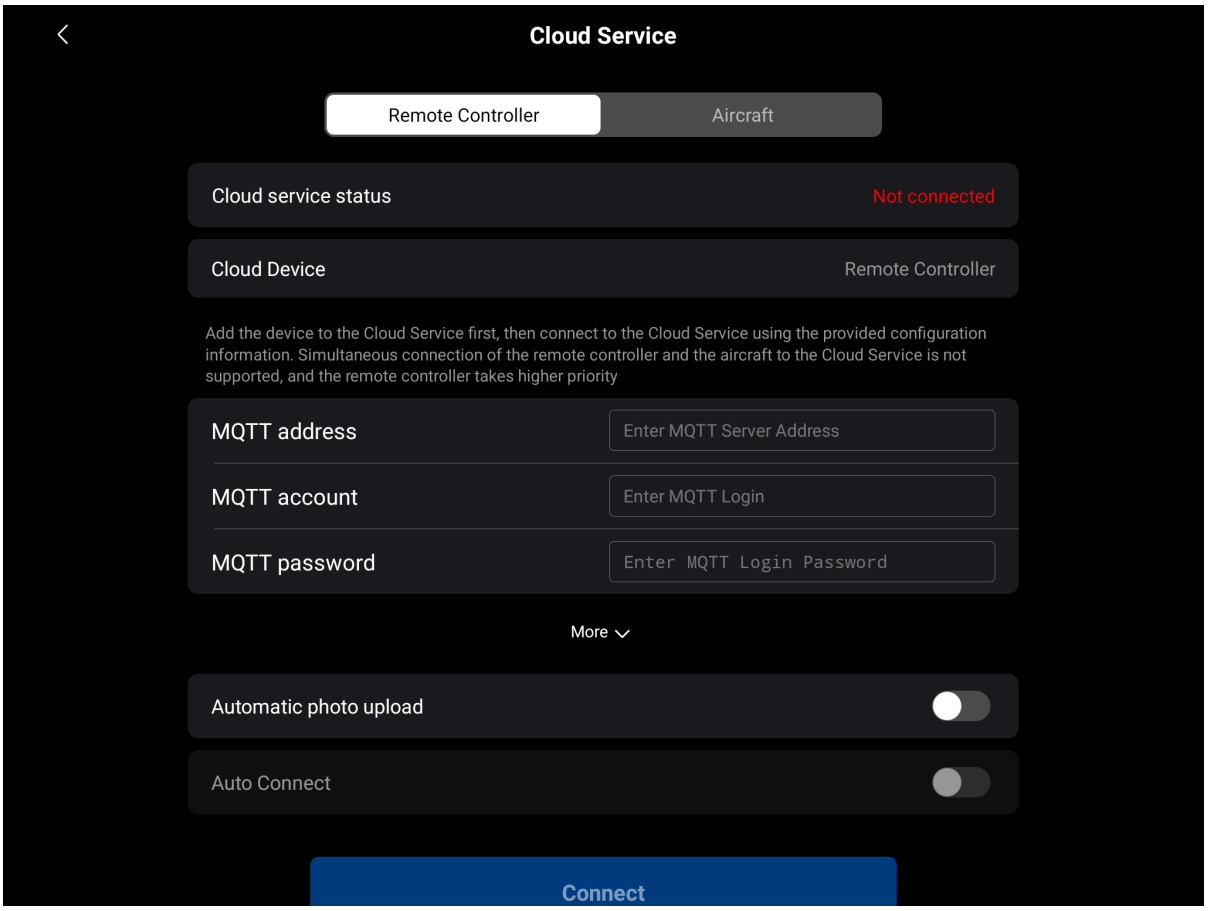
Stitch

Stitch enables real-time modeling using photos taken by the drone during flight. During operation, the drone transmits photos in real time via the video transmission link to the remote controller, which then forwards them to a computer running the Autel Mapper client for map generation. Once stitching is complete, the resulting map model is overlaid on the remote controller's map page, providing an up-to-date 2D map of the captured area during flight.
To ensure proper use of this function, please follow these setup steps:

1. Connect the remote controller and the computer running the Autel Mapper client to the same Wi-Fi network.
2. Enable the Stitch function in the Autel Enterprise App and enter the IP address of the computer in the pop-up window. Once the computer is successfully added, the connection between the remote controller and the Autel Mapper client is established.
3. When the connection is complete, the Autel Mapper client will prompt you to create a new project. Follow the instructions to proceed.
4. On the remote controller, execute a **Polygon Mission** or **Orbit**.

> **TIP**:
>
> - To ensure optimal modeling performance, please confirm that your computer meets the hardware requirements for running the Autel Mapper client (at least an NVIDIA GPU with **Compute Capability 6.0** or above).
> - During use, ensure the connection between the remote controller and the computer remains stable to prevent interruption of the Stitch function.

Cloud Service

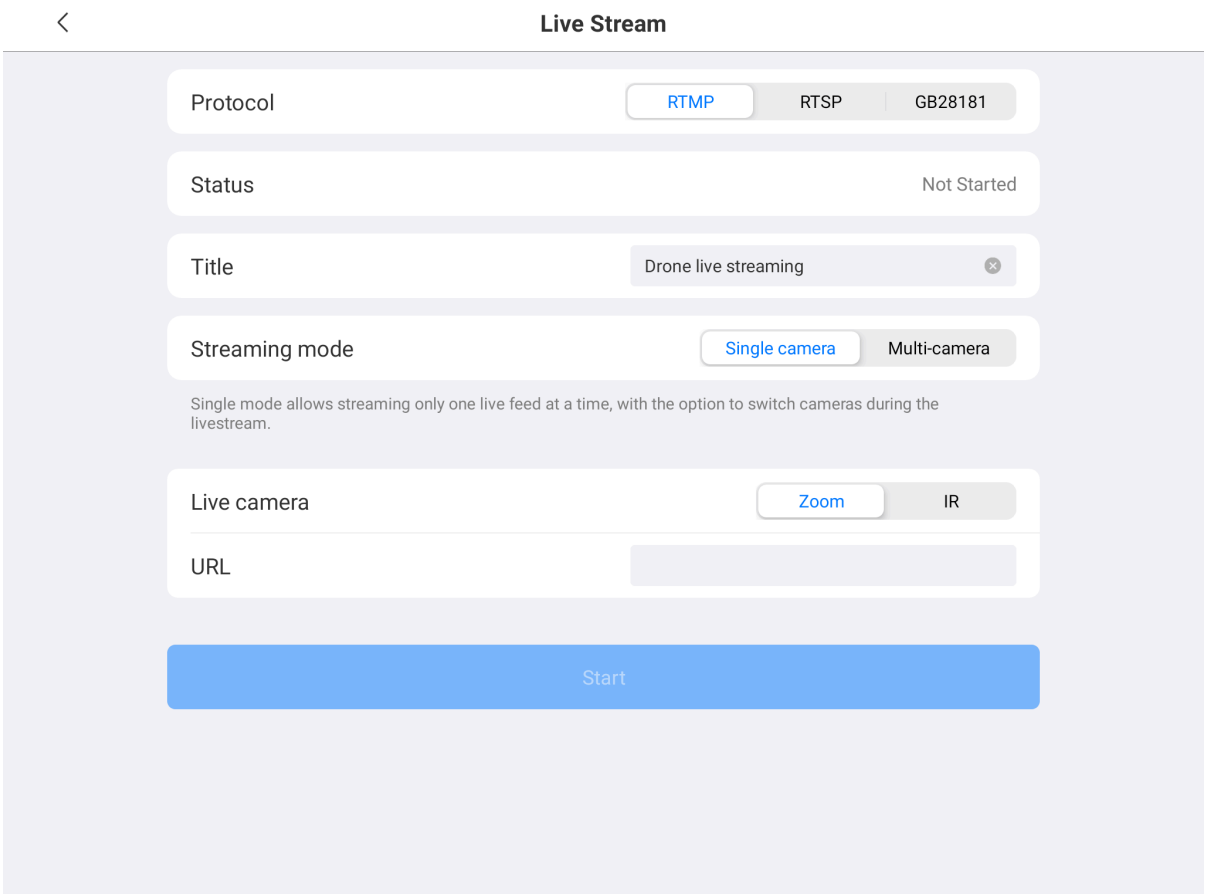


On the Cloud Service configuration page, you can connect the drone or the remote controller to a cloud service platform (such as **Autel Integrated Command System**) for remote management and control of the UAV System.
The required configuration items include:

- MQTT server address, account, and password
- HTTP server login address, account, and password
- WebSocket server address

> **TIP**:
>
> - Only the drone or the remote controller can be connected to the cloud platform at one time; simultaneous connection is not supported.
> - Before configuring the cloud service, you need to complete the addition of the drone or remote controller on the cloud service platform.
> - You can obtain the required configuration information directly from the cloud platform. For example, in Autel Integrated Command System, go to **Devices** > **Cloud Service Configuration Info**.

Live Stream

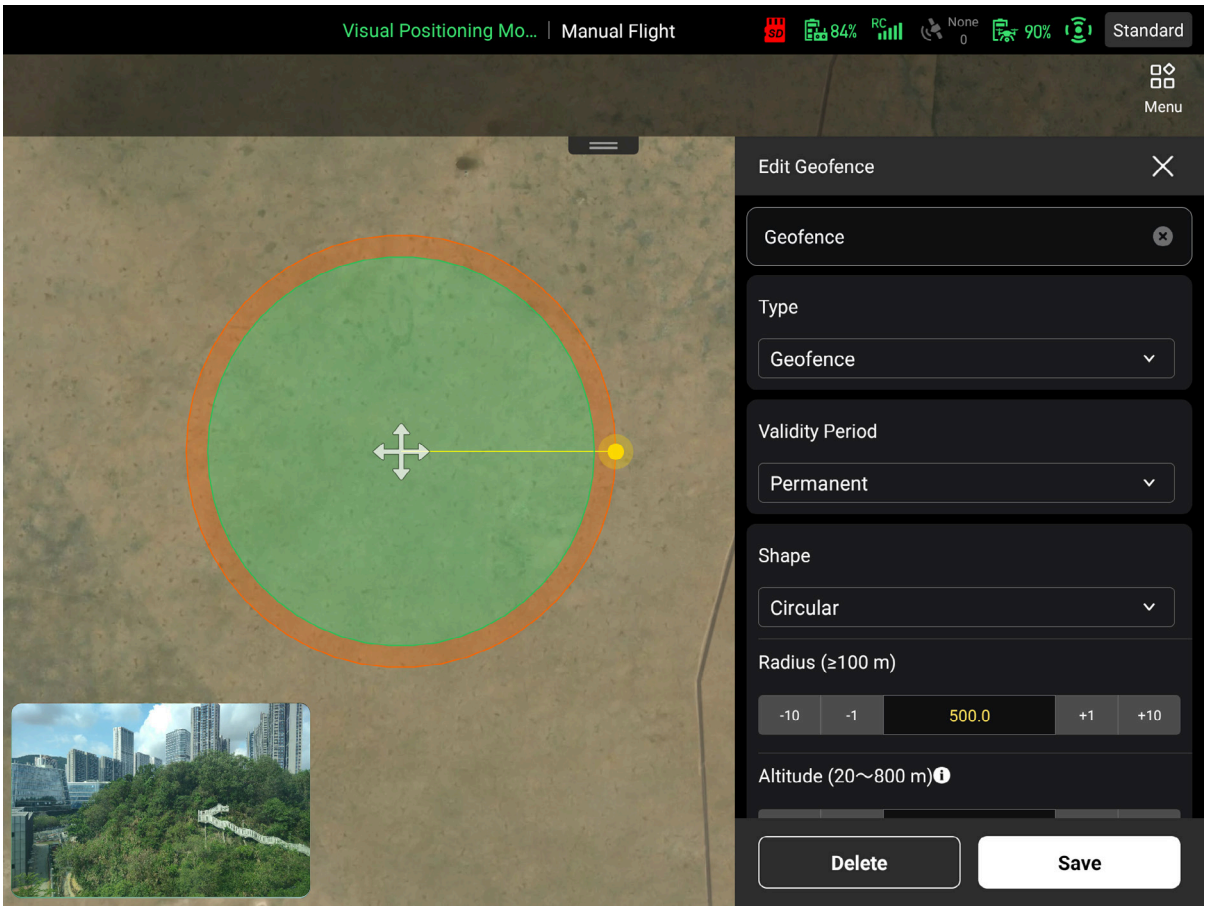


The live stream function allows you to share the real-time video feed from the drone's gimbal camera with third-party devices.
The system supports three streaming protocols — **RTMP**, **RTSP**, and **GB28181** — and two streaming modes: **Single-Camera** streaming and **Multi-Camera** streaming. You can select the desired protocol and streaming mode, complete the relevant configuration, and then start live stream.

> **TIP**:
>
> - In A-Mesh Link scenarios, simultaneous live stream from multiple drones are not supported.
> - In Single-Camera streaming mode, you can freely switch between camera feeds during streaming.
> - Switching gimbal camera on the camera page of the Autel Enterprise App does not affect the currently selected streaming feed.

Others

Geofence



Before flight, you can use the **Geofence** function to define a custom flight restriction area on the map. The Geofence function supports two types of zones: **No-Fly Zone** and **Geofence**.

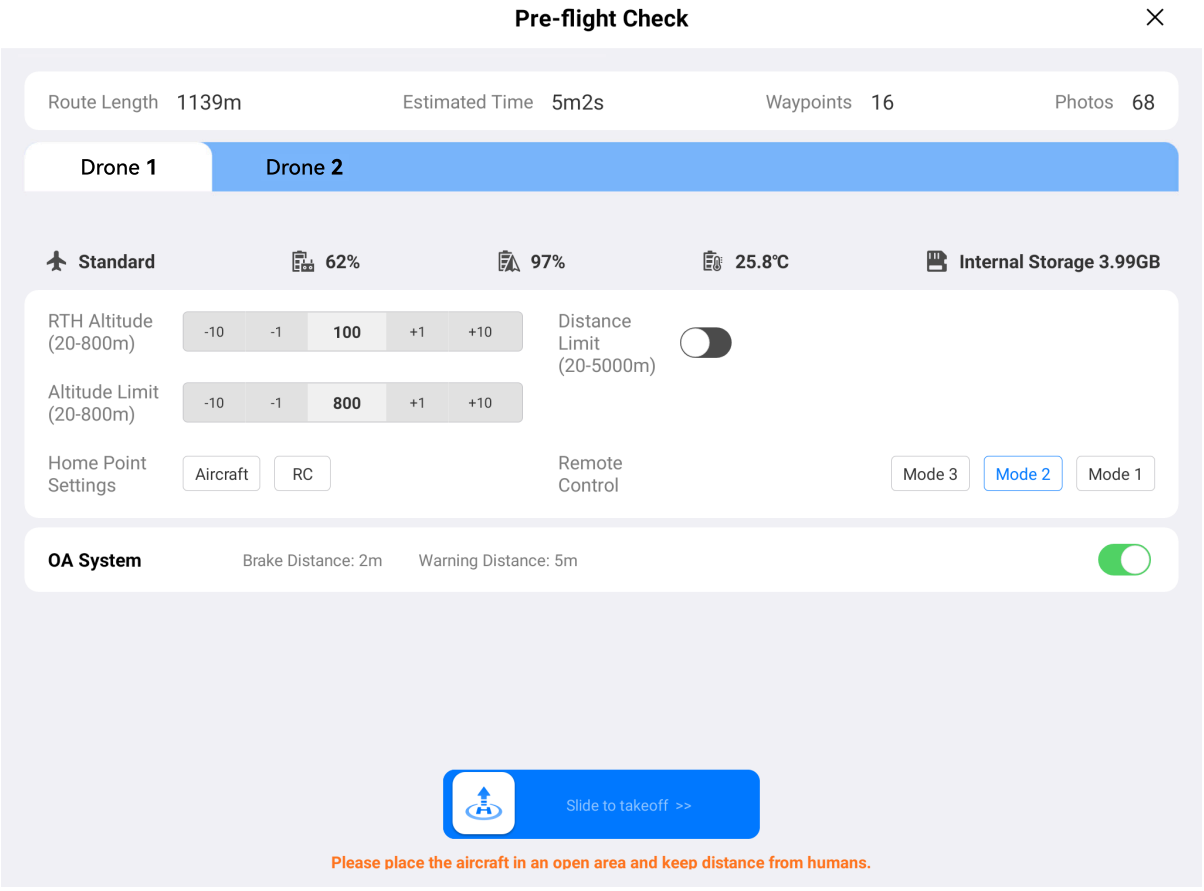
- **No-Fly Zone**: The drone is prohibited from entering the defined area during the validity period.
- **Geofence**: The drone can fly within the defined area, but cannot exit the boundary during the validity period.

1. When the area shape is set to **Circular**, you can tap and drag a vertex on the perimeter to adjust the radius. When set to **Polygonal**, you can tap ⊕ icon between two existing vertices to add a new vertex and edge, or drag any vertex to reshape the area. You can also tap and drag ✣ icon in the center to reposition the entire area on the map.
2. When the validity period is set to **Permanent**, the restriction is always in effect. When set to **Temporary**, the restriction is active only during the valid period.

> **TIP**:
>
> - The Geofence function is only available in **Single Link** scenarios.

- For detailed restrictions of custom No-Fly Zones and Geofence Zones, refer to **Flight Safety > Flight Restrictions**.
- In custom Geofence, the green area is the allowed flight area. The orange **Buffer Zone** on the outer edge marks the warning boundary.
- In custom No-Fly Zones, the entire red area is prohibited, and the **Buffer Zone** appears outside the restricted zone.
- Buffer Zones apply to both horizontal and vertical directions. Adjust **Horizontal Buffer Distance** and **Vertical Buffer Distance** appropriately.
- During the valid period, the drone cannot enter a custom No-Fly Zone or exit a custom Geofence. Takeoff is also restricted within buffer zones.

Pre-flight Check



After completing the Waypoint or Polygon Mission editing, mission information will appear at the bottom of the page. Before executing the mission, tap icon to open the **Pre-flight Check** page, where you can review safety and mission settings—such as mission data, drone status, remote controller status, stick mode, obstacle avoidance system, and flight control parameters. Once confirmed, follow the on-screen guidance to take off and begin the mission.

TIP:

- In the current version, for A-Mesh Link, only one drone in the team can execute a Waypoint mission at one time.
- For Polygon missions in A-Mesh Link scenarios, you may choose to assign the mission to either one drone or **ALL** drones in the team. If **ALL** is selected, each drone will fly a separate portion of the polygon area.

Resume Mission

If a Waypoint or Polygon mission is unexpectedly interrupted, tap icon to enter the **Mission** page, and the **Resume Mission** function will be triggered, prompting whether to continue from where the last mission was interrupted.

TIP:

- In Single Link scenarios, all missions support Resume mission function.
- In A-Mesh Link scenarios, only missions assigned to a specific drone support Resume mission function for that drone.

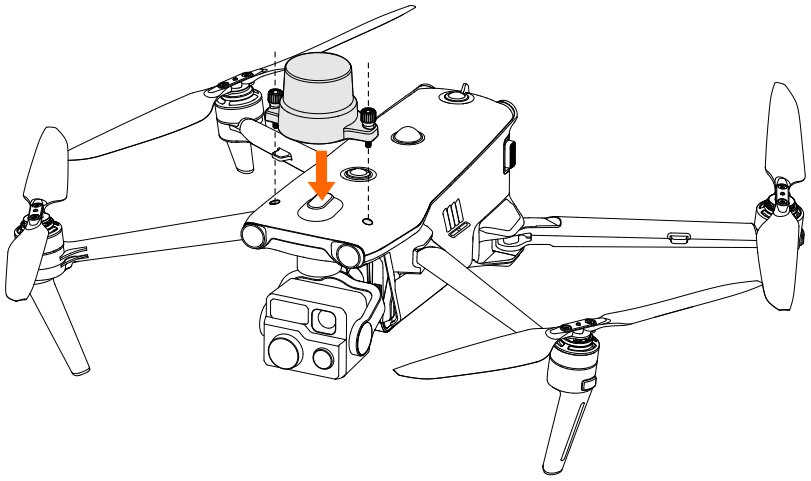
How to Use the Payload

The drone's **P-Port** and **P-Port Lite** ports support **PSDK expansion**, allowing the connection of functional payloads developed using our PSDK.

> **IMPORTANT**:
>
> - Please use functional payloads developed or certified by us.
> - No functional payload accessories are included in the standard combo. Please purchase separately if needed.
> - When using functional payloads, ensure that the total weight after mounting does not exceed the drone's declared maximum takeoff weight.

Drone RTK Module

By mounting a designated **RTK module**, the drone can achieve centimeter-level navigation and positioning accuracy.



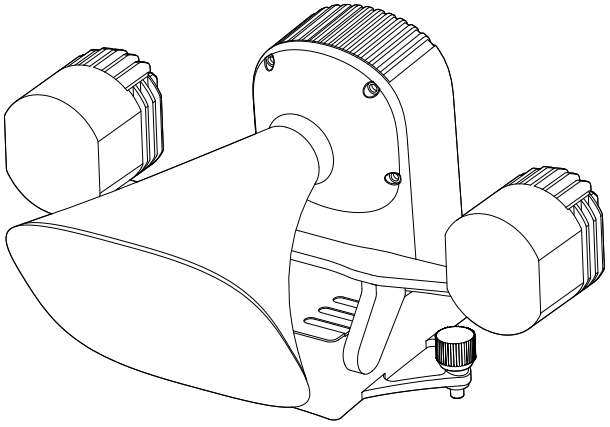
1. Remove the rubber cover on the drone's top expansion port. Insert the RTK module correctly into the port, then tighten the anti-drop screws on both sides of the module.
2. Turn on the drone and wait for the self-check to complete. Then, follow the instructions in the **Autel Enterprise App** > **Function Pages** > **Settings Page** > **RTK Settings** section to complete the RTK network service connection.
3. Once RTK achieves FIX state, you may proceed with autonomous flight missions.

TIP:

- When purchasing the RTK module, a designated RTK network service package is included free of charge. No subscription is required during the valid period. You may need to purchase additional service after expiration.
- To ensure proper use of the RTK module, the drone must remain connected to the internet. You can install a **4G Dongle module** on the drone or connect the remote controller to Wi-Fi to maintain internet access.
- RTK network service may not be available in certain countries or regions, in which case the RTK module cannot be used.

Loudspeaker and Spotlight Combo

When the drone is equipped with the designated Loudspeaker and Spotlight Combo module, it can provide both voice broadcasting and illumination functions.



1. Remove the rubber protective cover from the drone's top expansion port. Insert the module into the port in the correct orientation, and tighten the anti-drop screws on both sides.
2. Power on the drone. Once the self-check is complete, the module is ready for use.

For detailed operating instructions for the Loudspeaker and Spotlight Combo: https://www.autelrobotics.com/doc/591/

Equipment Maintenance

Firmware Update

We irregularly release firmware updates to introduce new functions, fix known issues, and enhance overall system reliability and safety—ensuring you have the best possible flight experience.

Update via the Autel Enterprise App

By default, firmware updates for the UAV System are completed through the Autel Enterprise App. The process is as follows:

1. Power on the remote controller and the drone. Ensure they are in Single Link mode and both have at least 25% battery. The remote controller must be connected to the internet.
2. Open the Autel Enterprise App. If a new firmware version is available, a pop-up notification will appear on the screen. You can also manually check for updates via **Menu** > **Settings** > **More** > **About** > **Firmware Update**.
3. Upon confirmation, the Autel Enterprise App will automatically download the firmware update package and update the firmware for the drone, remote controller, smart battery, gimbal, and the Autel Enterprise App itself.
4. Once the update is complete, follow the on-screen guidance to restart the drone and remote controller.

> **IMPORTANT**:
>
> - Do not power off the drone or disconnect it from the remote controller during the update process.
> - The update typically takes around 15 minutes, depending on the network condition of the remote controller.
> - Avoid moving the command sticks during the update to ensure the drone's propellers remain inactive.
> - Ensure the drone and remote controller have sufficient storage space for the firmware package.

Update via the Autel Assistant App

The **Autel Assistant App** is a desktop tool used to automatically detect device firmware versions and download firmware update packages. In scenarios where an

online update is not feasible, this software can be used to obtain the correct firmware update package for performing offline updates. The update process is as follows:

1. Install and launch the **Autel Assistant App** on a Windows device.
2. Power on the drone or remote controller and wait approximately 15 seconds. Then, use a data cable to connect the drone (USB-C port) or remote controller (USB-C port) to the USB-A port on the Windows device.
3. Insert a USB card reader with a **microSD card** into the Windows device. Ensure the card has **at least 4 GB** of free space.
4. In the Autel Assistant App pop-up, select the corresponding device type. Once the connection is successfully recognized, the firmware version will be automatically detected.
5. Follow the on-screen guidance to download the firmware update package and save it to the **root directory** of the microSD card, then complete the update operation.
6. Once the update is complete, **restart the device**.

> **IMPORTANT**:
>
> - To ensure a successful update, make sure the drone and remote controller both have **more than 50% battery**.

Drone Calibration

If the drone exhibits abnormal behavior during routine operation, calibration should be performed promptly. In most cases, this resolves the issue.

> **IMPORTANT**:
>
> - Before performing calibration, ensure the remote controller is properly linked to the drone.
> - Remove any mounted payload or accessory from the drone body before performing calibration.

Compass Calibration

If the Autel Enterprise App on the RC displays the message **“Compass needs calibration, please calibrate before flight.”** follow this path to calibrate the

compass:
Menu > **Settings** > **Flight** > **Compass Calibration**.

> **IMPORTANT**:
>
> - Perform calibration in a wide-open outdoor area.
> - Stay away from strong magnetic fields or large metal structures, such as magnetic minerals, parking lots, reinforced concrete buildings, and underground or overhead power lines.
> - Do not carry ferromagnetic or metallic objects (e.g., mobile phones, watches) during calibration.
> - Keep the drone at least 1.5 meters above the ground and away from electrified objects during calibration.
> - Do not turn off the drone or start the motors during the calibration process.

> **TIP**:
>
> - The compass is pre-calibrated at the factory and typically does not require user calibration..
> - Follow the on-screen guidance in the Compass Calibration page to complete the process.
> - If calibration fails, the drone's rear arm lights will turn solid red and a failure message will appear in the Autel Enterprise App. In this case, please repeat the calibration.
> - If compass calibration continues to fail, move the drone to a different location and try again.

IMU Calibration

If the Autel Enterprise App on the RC displays **“Cannot take off due to IMU error. Calibrate IMU first.”** or **“Please calibrate IMU”**, follow this path to perform calibration:
Menu > **Settings** > **Flight** > **IMU Calibration**.

> **IMPORTANT**:
>
> - Place the drone on a flat, stable surface and keep it completely still during calibration
> - Do not move, power off, or restart the drone during calibration.
> - Avoid bumping or disturbing the visual sensing lenses during the process.

> **TIP**:
>
> - The IMU is pre-calibrated at the factory and typically does not require user calibration.
> - If calibration fails, the drone's rear arm lights will turn solid red and a failure message will appear in the Autel Enterprise App. Please repeat the calibration if necessary.
> - During IMU calibration, the gimbal will remain inactive.

Gimbal Calibration

If the status bar in the Autel Enterprise App displays a warning message **"Please calibrate the gimbal motor"**, follow the path below to perform the calibration:
Menu > **Settings** > **Gimbal** > **Gimbal Calibration**.

- To calibrate the gimbal, simply place the unfolded drone on a flat surface and ensure it remains stationary. Once calibration starts, the gimbal will calibrate automatically without requiring any additional operation from you.

> **WARNING**:
>
> - Before calibration, make sure to remove the gimbal cover to avoid damaging the gimbal motors.
> - If the gimbal appears pitched, you can go to the **Gimbal Adjustment** page and adjust using the **Roll**, **Yaw**, and **Pitch** buttons to align the horizontal and vertical axes with the screen display.

RC Calibration

If the command sticks or dials of the remote controller are not responding correctly, follow the path below to calibrate the remote controller:
Menu > **Settings** > **RC** > **RC Calibration**.

- On the **RC Calibration** page, move the left and right dials and command sticks in the directions shown, holding each for 1 second. When you hear a beep and the corresponding directional icon changes from gray to dark blue, the calibration for that direction is complete. The directions can be calibrated in any order. Once all directions are successfully calibrated, the RC calibration is complete.

Smart Battery Maintenance

Storage

When storing the smart battery, avoid contact with water or heat sources, and keep it in a dry, well-ventilated environment at room temperature.
Ideal storage conditions: Maintain a battery level of approximately 60%, and store in an environment with a temperature between +22°C and +28°C and humidity between 65% ±20% RH.

> ⚠ **WARNING**:
>
> - Store the smart battery out of reach of children and pets.
> - Keep the battery away from direct sunlight, water, or reactive chemicals.
> - Do not expose the battery to open flames, explosive environments, or other hazardous conditions.
> - Do not store the battery in extreme temperatures. Prolonged exposure to extreme temperatures can shorten battery lifespan or cause damage or failure. If the battery will not be used for more than one day, store it in an environment with a temperature between -20°C and +35°C.
> - Do not place the battery inside a microwave or pressure cooker.
> - Do not place the battery directly on conductive surfaces (e.g., metal cases or panels).
> - Do not place heavy objects on the battery. Impact may lead to damage, fire, or explosion.
> - Do not store the battery with sharp objects, watches, metal necklaces, earrings, or other metal items.
> - If the battery is left unused for extended periods, recharge it every 3 months to prevent degradation due to prolonged low power levels.

Transportation

The ABX41-D Smart Battery has a rated energy of 136.5 Wh (rated capacity 9248 mAh). Always follow the lithium battery transportation regulations applicable in your region when shipping or carrying the battery.

> ⚠ **WARNING**:
>
> - Turn off the smart battery before transportation.
> - Protect the battery with anti-vibration and anti-impact packaging.
> - Do not transport the battery with sharp or conductive objects.

> - Do not transport batteries that are damaged or have a remaining charge above 30%. Discharge the battery to below 30% before transport.

Maintenance

To maintain the health and performance of the smart battery, it is recommended to perform maintenance under any of the following conditions:

- The smart battery has been discharged 50 times.
- The smart battery has been idle for 3 months.
- Occasional issues occur that may affect the battery's lifespan and require maintenance.
- The remote controller displays a warning message indicating that battery maintenance is required.

Maintenance checklist:

- Perform one full charge-discharge cycle.
- Insert the smart battery into the drone and power it on. On the remote controller, check the battery status to confirm that the cell voltage difference is less than 0.1V and that the battery firmware is up to date.
- Inspect the battery for any swelling, leakage, or physical damage.
- Check for contamination, damage, or corrosion at the battery port.

> **NOTE**:
>
> - Standard charge-discharge operation for the smart battery:
>   1. Charge the battery to 100% using the included battery charger, then let it sit for 1 hour.
>   2. Insert the battery into the drone and fly until the battery level drops below 20%, then land the drone and remove the battery.
>   3. Let the battery sit idle for 8 hours.

Replacement

Replace the smart battery promptly under any of the following conditions:

- The battery is visibly swollen, leaking, or damaged.
- The battery's metal contacts are damaged or have unremovable corrosion.
- The presence detection contacts of the smart battery (next to the battery buckle) are damaged or have uncleanable rust stains.

- The battery has been discharged more than 200 times.
- The battery still shows abnormal behavior after two consecutive standard charge-discharge operations.

Disposal of Used Batteries

- For damaged batteries with compromised casings (e.g., due to swelling or leakage), it is recommended to fully submerge them in an insulated container filled with 5% saline solution for at least 48 hours to ensure complete discharge.
- For batteries that are normally retired from use, ensure they are fully discharged before recycling them in accordance with local regulations on lithium battery disposal to avoid environmental pollution.

> **IMPORTANT**:
>
> - In case of fire, use sand or a dry powder fire extinguisher. Do not use water or liquid extinguishing agents.

Drone Maintenance

To ensure optimal flight performance, please refer to the maintenance standards below and regularly perform inspections and maintenance. This helps keep the drone in top condition and reduces potential safety risks. If you have any questions, please contact us for support.

Maintenance Schedule

Type	Maintenance Items	Recommendation	Interval
Basic Maintenance	Deep cleaning, component inspection, firmware update and calibration	Return to factory or contact authorized dealer	Based on actual usage
Regular Maintenance	Deep cleaning, component inspection, firmware update and calibration, replacement of consumable parts	Return to factory	Every 300 flight hours or 1 year

Type	Maintenance Items	Recommendation	Interval
Comprehensive Maintenance	Deep cleaning, component inspection, firmware update and calibration, replacement of consumable parts, replacement of propulsion system	Return to factory	Every 900 flight hours or 3 years

> **TIP**:
>
> - The stated intervals are determined by whichever comes first: time or accumulated flight hours.
> - "1 year / 3 years" refers to the duration since device activation.

Component Inspection

- **Propulsion System**
  - [ ] **Motor Rotation Check**: Unfold the arms and remove the propellers. Visually inspect the interior of the rotor and the gap between the rotor and the motor base for any foreign objects, and clean them if necessary. Be careful not to scratch the coils. Rotate the rotor manually to check for stuttering or scraping. If such issues are found, stop flying immediately and return the drone for maintenance.
  - [ ] **Motor and Arm Fixation Check**: Gently shake the motor along the axis perpendicular to the rotor to check for loose screws or arm fatigue. If looseness or aging is found, stop flying immediately and return the drone for maintenance.
  - [ ] **Propeller Check**: Visually inspect the blades for any obvious deformation, severe wear, damage, or cracks. Replace with new propellers if necessary. Check for any debris on the propeller surface and clean it with a soft dry cloth. Inspect the propeller hub rivets for deformation or breakage. If any abnormalities are found, replace the propellers immediately.
- **Flight Control System**

  Before takeoff, perform a full system check to ensure GNSS signal reception is normal (with at least 28 satellites recommended), and the compass, IMU, and barometer are all functioning properly. If any abnormal conditions cannot be resolved through calibration or restarting, please contact our after-sales support.

- **Airframe Structure**
  - [ ] **Overall Appearance**: Visually inspect the drone body for cleanliness and signs of damage or deformation. Clean dirt from the surface using a soft dry cloth, especially around the visual sensing lenses and air vents.
  - [ ] **Screw Check**: Visually inspect all screws to ensure none are loose or missing, with special attention to screws at the motor-arm and arm-body junctions.
  - [ ] **Arm Movement Check**: Check that the arm screws are secure and undamaged. When unfolding the arms, inspect the joint for excessive gaps. When folding, verify that the motion is smooth and the arms lock in place properly.
  - [ ] **Arm Light Check**: Inspect the lights on the arms for dirt or damage. If damaged, return the drone for maintenance.
  - [ ] **Landing Gear Check**: Ensure the landing gear is securely attached to the arms and that no screws are loose or missing.
  - [ ] **Battery Compartment Check**: Visually inspect the battery compartment and ports for dirt, water stains, or corrosion. Clean if necessary. Check whether the battery buckle rebounds properly and locks securely into place after inserting the smart battery.
  - [ ] **USB-C Port Check**: Inspect ports for foreign objects. If found, use tweezers, cloth, or a brush to remove debris. Ensure the port is pitched downward and cleaned outwardly.
  - [ ] **microSD Card Slot Check**: Visually inspect for obstructions and ensure the microSD card is correctly inserted. After powering on, verify that the card can be read and written properly.
  - [ ] **Rubber Protective Cover Check**: Check the rubber protective covers on the top and rear of the drone for cracks or detachment.
  - [ ] **Air Vent Check**: Ensure that the air vents are not blocked and the fan operates normally without noise or resistance.
  - [ ] **Gimbal Damping Mount Check**: Inspect for cracked, dislodged, or aged damping balls. Check for loose screws at the gimbal mount.
  - [ ] **Gimbal and Camera Check**: Before powering on the gimbal, check the camera lenses for damage or cracks and inspect the gimbal housing for integrity. After gimbal initialization, the camera should face forward. Move the drone by hand to check if the camera stabilizes. Pitch the gimbal up and down along the pitch axis to verify smooth motor operation. Once the RC is linked with the drone, check all camera feeds on the RC screen. If all camera feeds display normally, the camera system is functioning correctly.
  - [ ] **Visual Sensing System Check**: Inspect the visual sensing lenses for dirt, fingerprints, or debris. Clean with a soft dry cloth. If lenses are cracked or detached, return the drone for maintenance.

- [ ] **Strobe/Aux Light Check**: Visually inspect for dirt, wear, or cracks on strobe and aux light. If damaged, return for maintenance.

- **Battery**

  Please refer to the **Smart Battery Maintenance** section for proper battery care and handling.

List of Consumable Parts

Timely replacement of damaged or worn-out components helps maintain optimal performance of the UAV System and reduces potential safety risks.

No.	Component	Quantity	Notes
1	1158CW Propeller	2	Each propeller includes two blades.
2	1158CCW Propeller	2	Each propeller includes two blades.
3	Motor	4	/
4	Front Arm Landing Gear	2	/
5	Rear Arm Landing Gear	2	/
6	Arm Connector Cover	4	/
7	Smart Battery Buckle	2	/
8	Air Inlet Dust Filter	1	/
9	Air Outlet Dust Filter	1	/
10	RC Command Stick	2	/

The following components can be replaced by the user in case of malfunction or damage during regular use:

No.	Component	Quantity
1	1158CW Propeller	2
2	1158CCW Propeller	2
3	Gimbal	1
4	Smart Battery	1

No.	Component	Quantity
5	RC Command Stick	2

TIP:

- You can contact us directly to purchase the user-replaceable components listed above and follow the replacement instructions in the manual.
- For replacement of components not listed here, please contact us for assistance. Damage caused by unauthorized disassembly will not be covered under warranty.

Troubleshooting Guide

TIP:

- The troubleshooting measures below apply only to issues arising under normal operating conditions.
- For faults caused by abnormal use, please contact us directly for assistance.

No.	Problem Description	Measures and Instructions
1	RC cannot power on	1. Check if the RC battery is sufficiently charged. If the power is too low to start up, recharge it fully before attempting again. 2. Ensure the ambient temperature is appropriate. Low temperatures can affect battery output performance and prevent startup. 3. If the RC was powered off unexpectedly during a firmware update, it may fail to start. Contact us for assistance. 4. If the RC hasn't suffered external damage but still cannot start, it may be a hardware fault—please contact us.

No.	Problem Description	Measures and Instructions
2	Drone cannot power on	1. Check if the smart battery has enough charge. Recharge if needed. 2. If battery level is sufficient, check whether the battery is properly seated in the drone. Clean any dirt or rust on the contacts. 3. Inspect the metal contacts for damage or corrosion. 4. Make sure the ambient temperature is within the operating range. Extreme cold or heat may impair battery output. 5. If the drone or battery was powered off during a firmware update, contact us for assistance. 6. If a new battery allows the drone to start, the original battery may be damaged. If not, the drone may be faulty.
3	Error during drone self-check	1. Check the gimbal. If it’s unresponsive, turn off the power and reinstall the gimbal. 2. If the gimbal functions normally but an error remains, it may be a hardware issue—contact us.
4	Drone fails to link with RC	1. Keep the devices within 1 meter. 2. Avoid nearby metal objects, mobile devices, jamming sources, or other RCs in linking state. 3. Don’t activate multiple drones linking at the same time to avoid interference.
5	Drone fails to enter A-Mesh Link mode	1. If Single Link works but A-Mesh Link fails, the smart battery firmware may be outdated—update to V0.4.33.1 or later. If Single Link also fails, the battery may be faulty. 2. To update: insert battery, power on, link to RC via Single Link, restart both devices, and follow the on-screen update guidance.
6	Motors won’t start	1. Ensure RC and drone are linked. 2. Check whether the RC command sticks respond correctly. 3. Make sure battery level is sufficient. 4. Confirm the compass is calibrated. 5. If all else fails, it may be a hardware issue—contact us.
7	Motors start but drone won't take off	1. Check if the drone is in a No-Fly Zone or a geofenced buffer zone. 2. Make sure the drone is placed on a flat surface. 3. Ensure no nearby obstacles are triggering the obstacle avoidance system.

No.	Problem Description	Measures and Instructions
8	Shorter-than-expected flight time	1. Cold weather, headwinds, turbulence, or heavy payloads will reduce flight time. 2. Confirm the smart battery has been discharged fewer than 200 times. Normal degradation over time is expected.
9	Unstable video transmission	1. Check that the RC antennas are secure and properly oriented. 2. Avoid strong electromagnetic fields or interference sources. 3. Stay within a valid communication range and reduce the drone's flight radius if needed.
10	Gimbal camera shuts off during flight	1. If using a microSD card, don't remove it immediately—try restarting the gimbal first. 2. Check if the card is full. Replace or offload files if needed. 3. Ensure the gimbal is firmly mounted. Loose gimbals can disconnect due to vibration.
11	Video transmission loss during BVLOS flight	1. Configure signal loss and RTH strategies before flight. 2. Ensure GNSS mode is enabled. If disconnected, the drone will attempt to reconnect for 10 seconds before triggering the signal loss strategy.
12	Visual sensing system not working	1. Ensure visual sensing lenses are clean and unobstructed. 2. Be aware of blind spots and follow in-app warnings. 3. Vision-based detection requires texture. Plain surfaces, moving targets, or extreme lighting may interfere. 4. Restart the drone and recheck.
13	Precision landing / Landing protection failure	1. These functions rely on visual sensors to detect ground texture. 2. If texture is missing or the sensors are blocked/damaged, the functions won't function.
14	Pitched camera feed during flight	1. Land the drone and perform auto gimbal calibration on a level surface via the Autel Enterprise App. 2. If the issue persists, try fine-tuning the gimbal.
15	Obstructed or blurry gimbal camera footage	1. Clean the camera lenses using a soft dry cloth. 2. If unresolved, restart the drone. If the issue persists, contact us.

No.	Problem Description	Measures and Instructions
16	Power-off during update	1. Reboot the device. If successful, ensure sufficient power and repeat the update. 2. If the device cannot start, contact us.
17	Factory reset for RC	Go to **Settings > System > Reset options** in the RC system. Back up important data before proceeding.
18	RC unresponsive	1. Press and hold the RC power button for over 6 seconds to force shutdown. 2. Restarting during flight will trigger the drone's signal loss strategy.
19	Device compatibility issues	For safety, do not connect unknown USB or external devices to the drone.

After-Sales Service

Scope of Service

For customers who purchase our products through authorized channels, we guarantee the following:

- Under normal use conditions, this product you purchased will be free from material and workmanship defects within the warranty period.
- If you are able to provide valid proof of purchase, the warranty period will begin at 00:00 on the day following the confirmed receipt of this product.
- If you are unable to provide valid proof of purchase, the warranty period will be deemed to start 90 days after the manufacturing date indicated by this product serial number, or as otherwise determined by us.

Warranty Period for Major Components

Component	Warranty (US, APEC, South Africa, MENA)	Warranty (EU)	Notes
Flight Control System	12 months	24 months	/
Gimbal and Camera	12 months	24 months	/
Visual Sensing Module	12 months	24 months	/
Propulsion System (excluding propellers)	12 months	24 months	/
Remote Controller	12 months	24 months	/
Remote Controller Charger	12 months	24 months	/
Smart Battery	12 months or fewer than 200 discharge cycles	12 months or fewer than 200 discharge cycles	/
Battery Charger	12 months	24 months	/
Propellers	Not covered	Not covered	Consumable item

Component	Warranty (US, APEC, South Africa, MENA)	Warranty (EU)	Notes
Rugged Case	3 months	6 months	/
RTK Module	6 months	12 months	Not included in standard package; sold separately.
Loudspeaker and Spotlight Combo	6 months	12 months	Not included in standard package; sold separately.

> **TIP**:
>
> - Warranty periods may vary depending on local laws and regulations. If you have any questions, please contact us directly.

You may also click the following link to view the full after-sales service policy: https://www.autelrobotics.com/service/policy/

Product Activation Date Lookup: https://www.autelrobotics.com/productactivationdateinquiry/

Flight Incident Response

In the event of a flight incident involving your drone, please follow the steps below.

Flyaway Incident

1. Contact our technical support team immediately and describe the flyaway situation.
2. Check the Flight Log in the Autel Enterprise App and search for the drone near the last recorded location based on terrain conditions.
3. Upload the Log via the remote controller and provide it to our after-sales team or an authorized local dealer for analysis.
4. We will propose a solution based on the analysis results.

Collision or Crash Incident

1. Promptly photograph the drone and surrounding environment. Record the drone's condition before and during the incident.

2. Ensure the drone is powered off. Remove the smart battery and store it in a fireproof or isolation container.
   WARNING: In severe incidents, do not attempt to restart the drone, as it may cause further internal damage.
3. Upload the Log via the remote controller and submit it to our after-sales team or an authorized local dealer for analysis.
4. Send the affected equipment back for repair.

Repair Request Channels

We offer the following channels for submitting repair requests. Please choose the option that best suits your needs:

Contact Your Dealer

Reach out to your authorized local dealer and describe the type of service required. The dealer will assist you in initiating the repair process.

Hotline Support

Call our service hotline at **(844) 692-8835** and describe the type of service you need (e.g., repair, return, replacement). You will be guided through the return process.

Email Support

Contact our after-sales support team via email according to your region. In your email, please include the **Drone serial number**, **Photos or Videos showing the issue**, and any relevant **Warning messages**.

- North America: support@autelrobotics.com
- Europe: support.eu@autelrobotics.com
- Other Regions: after-sale@autelrobotics.com

Appendix

Product Information

Information Overview

Item	Description	Notes
Product Type	Multi-Rotor Drone	/
Product Name 1	EVO Max 4T V2	Equipped with Fusion 4T V2 Gimbal
Product Name 2	EVO Max 4N V2	Equipped with Fusion 4N V2 Gimbal
Product Name 3	EVO Max 4NZ V2	Equipped with Fusion 4NZ V2 Gimbal
Certified Model	MDX-1	/

FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
***Note**: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.*

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

ISED Compliance Statement (Canada)

This device complies with ISED Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISDE Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

EU Declaration of Conformity

Item	Note
Product:	EVO Max 4T V2, EVO Max 4N V2, EVO Max 4NZ V2
Model Number:	MDX-1
Class:	C2
Batch:	XXXXXXXX (8-digit number)
Sound power level:	87 dB(A)
Manufacturer's Name:	*Autel Robotics Co., Ltd.*
Manufacturer's Address:	*601,701,801,901, Block B1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, China*

We, ***Autel Robotics Co., Ltd.***, declare under our sole responsibility that the above referenced product is in conformity with the applicable requirements of the following directives:

- **RED Directive:** 2014/53/EU
- **RoHS Recast Directive:** 2011/65/EU
- **UAS Delegated Regulation:** 2019/945/EU, 2020/1058/EU Part 3
- **Machinery Directive:** Annex I 2006/42/CE

Conformity with these directives has been assessed for this product by demonstrating compliance to the following harmonized standards and/or regulations:

Directive	Standards and/or Regulations
Safety	EN IEC 62368-1:2020+A11:2020
EMC	ETSI EN 301 489-1 V2.2.3 (2019-11) ETSI EN 301 489-3 V2.3.2 (2023-01) ETSI EN 301 489-17 V3.3.1 (2024-09) ETSI EN 301 489-19 V2.2.1 (2022-09) EN 55032:2015+A11:2020+A1:2020 EN 55035:2017+A11:2020 EN IEC 61000-3-2:2019+A1:2021 EN 61000-3-3:2013+A1:2019+A2:2021
Radio	ETSI EN 300 328 V2.2.2 (2019-07) ETSI EN 301 893 V2.1.1 (2017-05) ETSI EN 300 440 V2.2.1 (2018-07) ETSI EN 303 413 V1.2.1 (2021-04) ETSI EN 303 213-5-1 V1.1.1 (2020-03) ETSI EN 305 550-1 V1.2.1 (2014-10) ETSI EN 305 550-2 V1.2.1 (2014-10)
Health	EN IEC 62311:2020 EN 50665:2017
RoHS	2011/65/EU
UAS Delegated Regulation	ASD-STAN prEN 4709-001:2024 Edition P 1 prEN 4709-002: 2023 Edition P 1 prEN 4709-003: 2023 Edition P 1 prEN 4709-004: 2023 Edition P 1
Machinery Directive	EN ISO 12100

The notified body, ***Bay Area Compliance Labs Corp***, notified body number: **1313**, performed the EU-type examination in according with Annex III, Module B of Council Directive 2014/53/EU, and EMC Directive 2014/30/EU，and issued the EU-type examination certificate: **B2412044**.
ATTESTATION OF CONFORMITY：**AOCSZ1221107-51889EA6-02/AOCSZ1221107-51889EA6-03**.

The notified body, ***LGAI Technological Center S.A./Applus***, notified body number: **0370**, performed the EU-type examination in according with Annex Part 8, Module B of Regulation (EU) 2019/945, and issued the EU-type examination certificate: **0370-UAS-0054**.

Signed for and on behalf of: ***Autel Robotics Co., Ltd.***
Place: Shenzhen, China
Date: 2025-07-25
Name: Cheng Zhuanpeng
Position: Legal Representative
Signature: Cheng Zhuanpeng

Annex I

Product Mix. Description	Model	SW version	Description	Serial Number
EVO Max 4T V2	MDX-1	V1.9.1.125	Quad copter equipped with a Fusion 4T V2 Gimbal	1748FEV3XXXXXXXXXXX
EVO Max 4N V2	MDX-1	V1.9.1.125	Quad copter equipped with a Fusion 4N V2 Gimbal	1748FEV3XXXXXXXXXXX
EVO Max 4NZ V2	MDX-1	V1.9.1.125	Quad copter equipped with a Fusion 4NZ V2 Gimbal	1748FEV3XXXXXXXXXXX
Battery	ABX41-D	/	Drone Battery	1748CBXXXXXXXXXX
Remote Controller	EF9-3	V1.9.1.117	Drone Remote Controller	TH7XXXXXXXXX
Adapter	MDX120W	/	Drone Adapter	/

***Note**: Updated software will be released by the manufacturer to fix bugs and improve performance after the product is placed on the market. All updated versions released by the manufacturer have been verified to comply with the applicable regulations. All RF parameters (e.g., RF power, frequency) are not accessible to end users and cannot be changed by any third parties. Conformity of the product with EU requirements is ensured by evaluating the GNSS signals. The radio parameters are automatically set according to the detected region; the user does not have the capability to change these settings.*

CE

Aviso da ANATEL Brasil

- Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.
- Para mais informações, consulte o site da Anatel: https://www.gov.br/anatel/pt-br.

Specifications

Item	Specifications
EVO Max 4T V2 Weight	1665 g ***Note**: ABX41-D smart battery, Fusion 4T V2 gimbal, and propellers included.*
EVO Max 4N V2 Weight	1700 g ***Note**: ABX41-D smart battery, Fusion 4N V2 gimbal, and propellers included.*
EVO Max 4NZ V2 Weight	1725 g ***Note**: ABX41-D smart battery, Fusion 4NZ V2 gimbal, and propellers included.*
Maximum Take-Off Weight	**Non-EU regions**: 1999 g **C2 for EU**: 1890 g
Fuselage Dimensions	563×657×147 mm ***Note**: unfolded, incl. propellers.*
Diagonal Wheelbase	**Diagonal**: 467 mm

Item	Specifications
Propeller	**Size**: 11 inch **Pitch**: 5.8 inch
Maximum Propeller Rotational Speed	7500 RPM
Max Ascent Speed	**Slow**: 2.5 m/s **Smooth**: 3 m/s **Standard**: 6 m/s **Ludicrous**: 8 m/s
Max Descent Speed	**Slow**: 2.5 m/s **Smooth**: 3 m/s **Standard**: 6 m/s **Ludicrous**: 6 m/s
Max Flight Speed	**Slow**: 2.5 m/s **Smooth**: 10 m/s **Standard**: 15 m/s (forward & backward), 10 m/s (sidewards) **Ludicrous**: 23 m/s (forward), 18 m/s (backward), 20 m/s (sidewards) ***Note**: Windless Near Sea Level.*
Max Service Ceiling Above Sea Level	4500 meters
Max Flight Time	42 minutes ***Note**: Test data from lab with windless environment in the speed of 8 m/s during horizonal flight and only for reference.*
Max Hover Time	37 minutes ***Note**: Test data from lab with windless environment during hovering and only for reference.*
Max Wind Speed Resistance	12 m/s
Max Pitch Angle	**Slow**: 10° **Smooth**: 30° **Standard**: 30° **Ludicrous**: 36°
Max Angular Velocity	**Pitch axis**: 300°/s **Yaw axis**: 120°/s

For detailed technical specifications of the **EVO Max Series V2** products, visit: https://www.autelrobotics.com/productdetail/evo-max-4t/#jsgg

Flight Data

The drone is capable of recording flight data, including media files, flight logs, and device logs. During operation, all flight-related data is stored onboard the drone. To export flight data, keep the drone powered on and connected to the remote controller, then use the Autel Enterprise App.

Click the link below to access the User Data Security Protection Statement or submit vulnerabilities:
https://www.autelrobotics.com/data-security/

C2 Certification

The drone has passed sound power level testing conducted by a qualified third-party testing agency. Under maximum rotor speed (7500 RPM), the **A-weighted Sound Power Level** complies with the EASA C2 Class drone regulations.

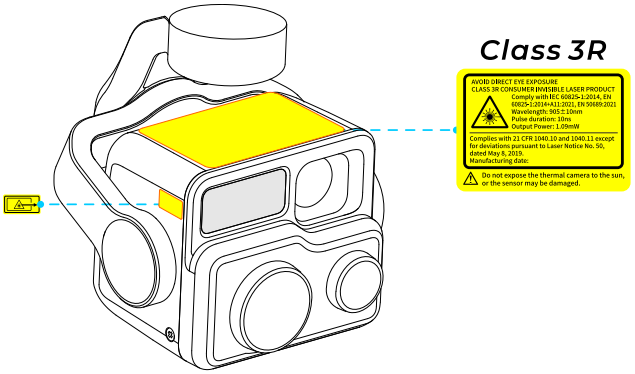
Laser Safety Instructions

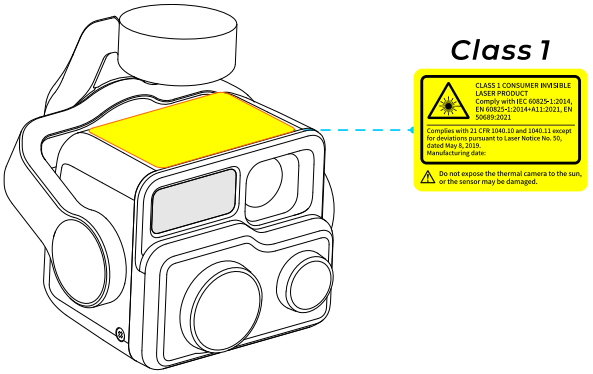
The following is the distribution position of the laser generators on the gimbal and the corresponding sticker instructions. When in use, please strictly follow the safety instructions on the sticker.

> **NOTE**:
>
> - To further enhance product safety and user experience, starting from specific subsequent production batches, the laser rangefinder modules of drone gimbals will be changed to Class 1. This change will not affect the normal operation or original safety performance of existing products. Please use them correctly in accordance with the relevant safety instructions.

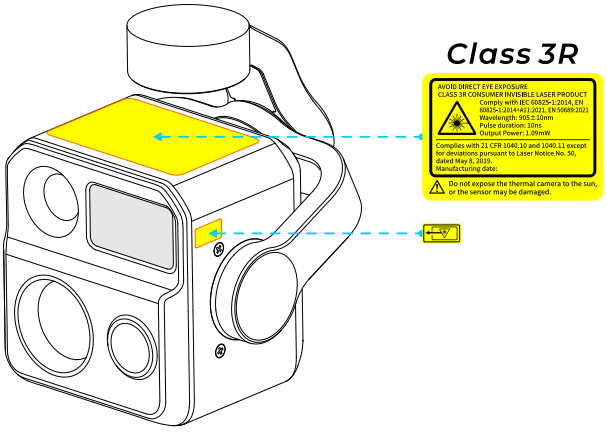
***Caution**—use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.*

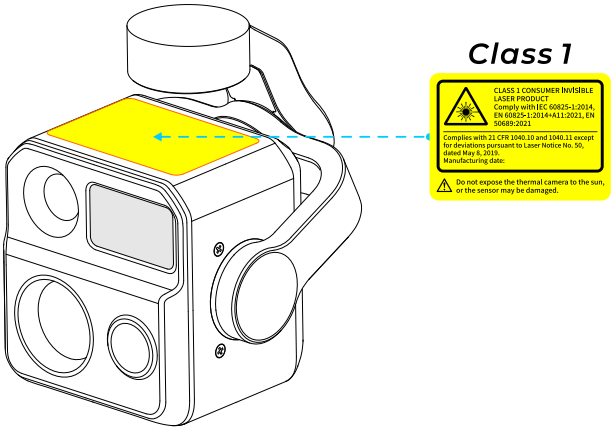
Fusion 4T V2 Gimbal



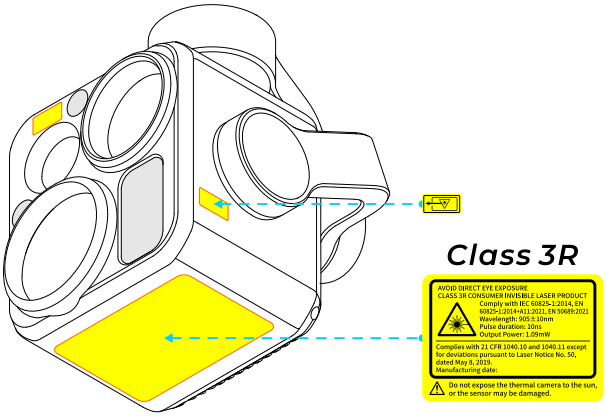


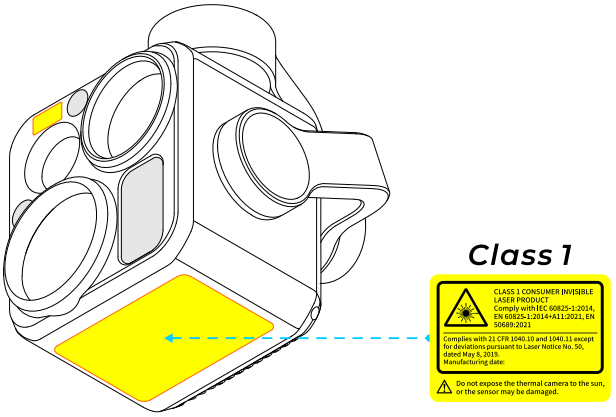
Fusion 4N V2 Gimbal

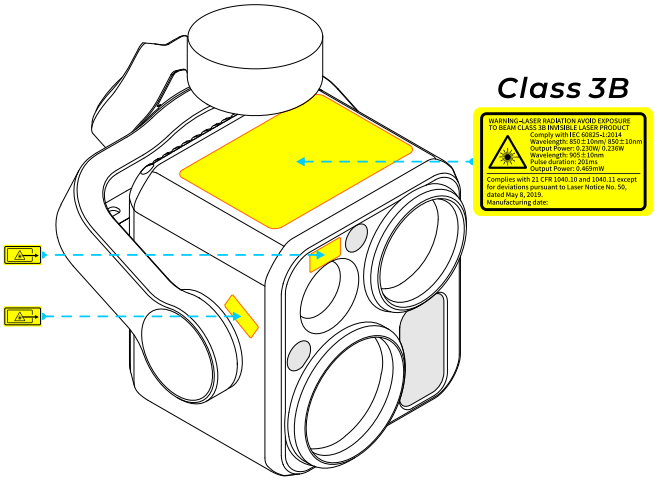




Fusion 4NZ V2 Gimbal







Known Issues List

No.	Known Issue	Temporary Measure
1	If the drone's visual positioning function is disabled before takeoff and re-enabled during flight, it is highly likely to fail to initialize properly, potentially resulting in flight accidents.	The visual positioning function should only be re-enabled after the drone has landed.
2	During flight, the Autel Enterprise App frequently displays high ESC board temperature warnings.	The flight speed mode should be reduced and the flight speed lowered to mitigate the issue.
3	Hot swapping batteries fails under certain conditions.	Hot swapping batteries should be avoided in environments below –10°C, and the swap should be completed within 8 seconds.