

Scene	Navigation Indicators	Status Indicators
Initializing flight mission	●: Solid	●: 0.2 s on → ●: 0.2 s on → ●: 0.2 s on → All: 0.4 s off

⚠ WARNING:

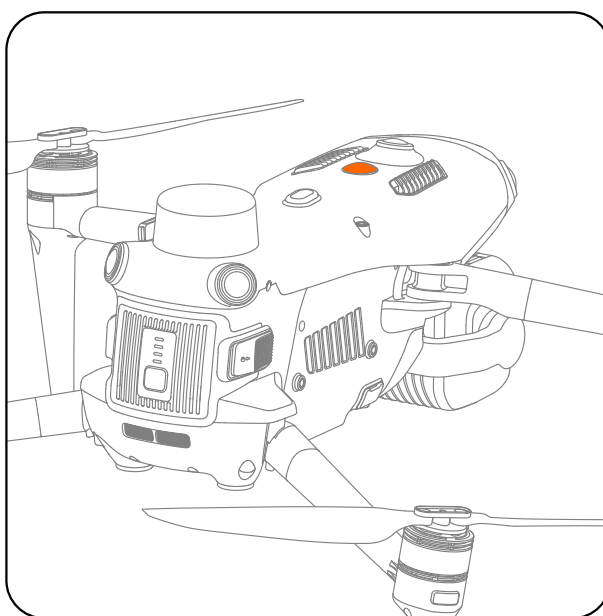
- Some countries or regions have specific regulatory requirements regarding drone lighting. Be sure to comply with all applicable local laws and regulations. Unless absolutely necessary, **do not enable Stealth Mode in the Enterprise App.**

🔔 TIP:

- When **Stealth mode** is disabled, you can tap  on the camera page in the Enterprise App and choose whether to enable **Turn off arm lights when shooting**. After this option is enabled, the front and rear arm lights on the drone will automatically turn off during photo or video capture to prevent light interference with your footage. After the photo or video capture ends, the arm lights will resume their normal periodic flashing pattern.

Strobe

The strobe helps identify the drone during nighttime flights. To turn on or turn off the strobe, choose  >  in the Enterprise app.

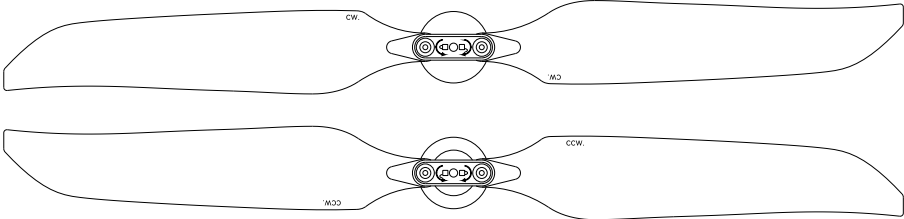


⚠ WARNING:

- The strobe emits high-intensity flashing light when operating. **Do not look directly at it, as direct exposure can cause eye injury.**

Propellers

The drone is equipped with propellers of model **1152**. The following table describes the attributes of the propellers.

Attribute	Description
Specification	1152
Appearance	
Marking	1152CW and 1152CCW
Material	Nylon + Carbon fiber
Size	11"
Propeller pitch	5.2"
Weight	10 g
Max propeller speed	7800 revolutions per minute (RPM)

 WARNING:

- Only use the original propellers. Using propellers with different specifications is prohibited.
- Make sure the drone is powered off before replacing propellers.
- Before each flight, ensure that:
 - All the propellers are correctly installed and firmly secured.
 - The propeller blades are clean without contaminants (such as dust, water marks, or oil stains). If there is any contaminant, wipe the blades clean with a soft, dry cloth.
 - The propeller blades are intact and undamaged, with no signs of aging, cracks, deformation, or breakage. If there are any such signs, replace the blades immediately.

- The maximum propeller rotation speed can reach up to 7800 RPM. Stay away from rotating propellers and motors to avoid injury.
- 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 for troubleshooting.
- Do not modify or disassemble the physical structure of the motors.
- After the motors stop running, their surfaces may still be hot. Do not touch immediately to avoid burns.

IMPORTANT:

- You can find the propeller model printed near the blade edge, close to the propeller hub. Propellers are available in two types: CW (clockwise) and CCW (counter-clockwise). Correctly install the propellers following the instructions in the "Preparing the Drone" section in the **First-Time Use** chapter.
- The blades are thin—handle with care during replacement to avoid cutting your hands or causing the blades to deform.
- Do not block the ventilation openings for the motors or those on the fuselage to ensure proper heat dissipation.

TIP:

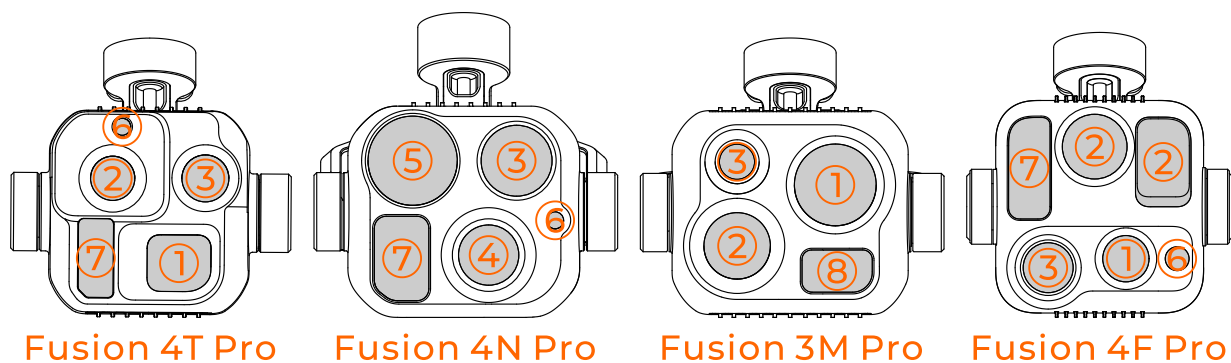
- When storing the drone, fold the propellers properly to avoid blade deformation caused by improper placement, which could adversely affect the propulsion performance.

NOTE:

- Propellers are consumable parts and should be purchased separately if replacements are needed.

Camera

The drone is compatible with five gimbal models. The camera layouts for these models are as follows:



No.	Description
1	Wide-angle camera
2	Zoom camera
3	Infrared camera
4	Night vision camera
5	Long-range night vision camera
6	Infrared laser fill light
7	Laser rangefinder
8	LED fill light

⚠ WARNING:

- Due to the physical characteristics of infrared sensors, there remains a risk of damage from intense energy sources—even with burn protection mechanisms in place—prior to the activation of such protection. Never point the infrared camera lens directly at strong energy sources such as the sun, lava, or laser beams during operation, as this may cause irreversible, permanent damage to the sensor.
- Both the laser rangefinder and the infrared laser fill light emit laser radiation. Strictly follow the safety instructions on the gimbal label and the safety warnings displayed in the Enterprise App. Operate the device properly and never look directly into the laser beam or direct it toward human eyes.
- Do not obstruct or cover the camera surface, especially in high-temperature environments, as this may cause overheating, equipment damage, or even pose a burn hazard.

i IMPORTANT:

- Use and store the drone only within the specified temperature and humidity ranges to ensure stable performance of the camera lenses and sensors.

 TIP:

- If dust or smudges are present on the lens surface, clean it using dedicated lens-cleaning tools to avoid scratching the optics or degrading image quality.

Media Storage and Export

To specify the media storage path, tap  on the camera page in the Enterprise App, and set **Storage Location** to **Internal Storage** or **SD Card**:

- **Internal Storage:** The drone comes with 256 GB of internal storage. Due to space reserved for system firmware updates, approximately 176 GB remains available for user data.
- **SD Card:** The drone comes pre-installed with a 64 GB microSD card in the card slot located at the rear of the drone. You may replace it with a higher-capacity card of Class 10, UHS-3, or higher specifications.

After flight, you can export your media files using one of the following methods:

- 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 remote controller through the Enterprise App and then export them from the remote controller.

 WARNING:

- Ensure the microSD card slot and the card surface are clean and free of debris before use.
- Do not insert or remove the microSD card while the drone is powered on or capturing photos or videos—this may cause card damage or data loss.
- Before photo or video capture, configure your camera settings correctly. We recommend using external storage for storage media files.
- Before actual photo or video capture, conduct a ground-based test to confirm the drone is functioning properly. We are not liable for any loss of media files resulting from improper user operation.

 TIP:

- If **Security** is enabled before photo or video capture, you need to enter the security password to view media files.

Gimbal

Gimbal Angle

You can adjust the gimbal tilt angle using the tilt control dial on the remote controller or via the Enterprise App.

- **Gimbal tilt control dial:** Rotate counterclockwise to tilt the gimbal downward, and rotate clockwise to tilt the gimbal upward.
- On the camera page of the Enterprise App, tap , and then control the gimbal to rotate to the desired tilt angle.



TIP:

- If the C1 or C2 button of the remote controller is assigned the **Gimbal Pitch Recenter/45°/Down** function in the Enterprise App, you can quickly adjust the gimbal tilt angle by using this button.

Usage Notes

The gimbal contains precision components. Observe the following notes when operating the drone:

- Ensure the gimbal cover is installed when transporting or storing the drone to prevent damage to the gimbal or camera caused by accidental rotation, vibration, or impact.
- When storing the drone, keep it—along with the gimbal—in a dry, cool environment free of corrosive gases.
- Keep the gimbal clean. Do not allow foreign substances to accumulate on the lens or gimbal body, and do not apply non-original stickers, as these may impair image quality or heat dissipation.
- Never attach any non-original accessories to the gimbal, as this may disrupt its balance, degrade performance, or even cause the gimbal motors to overheat and fail.
- Before powering on the drone, ensure the drone's arms are fully extended and locked to avoid mechanical interference that could restrict gimbal movement and cause operational issues.
- Always remove the gimbal cover before powering on the drone; otherwise, forced motor rotation may damage the gimbal motors or control circuitry.
- Before powering on the drone, place it on a flat, stable surface and ensure there are no obstructions within the gimbal's range of motion.
- After power-on, do not touch, bend, or bump the gimbal with your hands. External force may trigger the gimbal's protection mechanism, causing it to stop rotating temporarily.

- After use, gently wipe away any moisture, dust, or stains from the drone and gimbal surfaces using a soft, dry cloth to maintain cleanliness.

Smart Battery

The drone uses the **ABE40** smart battery, whose attributes are described in the table below.

Attribute	Description
Model	ABE40
Rated capacity	8640 mAh
Rated Energy	124.4 Wh
Nominal voltage	14.4 V DC
Max charging voltage	17.2 V DC
Charging temperature	+10°C to +50°C
Weight	460 ± 5 g

Usage Notes

WARNING:

- Before using the smart battery, carefully read and strictly follow the instructions in the **Smart Battery Safety Guidelines** section of the **Flight Safety** chapter and the labels on the battery. You assume full responsibility for any consequences resulting from improper use.
- Use the smart battery within suitable environmental temperatures (refer to the drone's operating temperature range). Using the battery at high or low temperatures can affect its safety and lifespan, potentially causing spontaneous combustion or permanent damage.
 - When the temperature of the smart battery is below -10°C or above +70°C, the drone cannot take off. It is recommended that you wait until the battery has finished self-heating or has naturally cooled down to an appropriate temperature before operating the drone.
 - To achieve optimal performance of the smart battery, it is recommended to keep the battery within a temperature range of +15°C to +35°C prior to flight.
 - When the temperature of the smart battery is below +5°C, the internal resistance increases and voltage drops suddenly due to low temperatures, reducing the

battery's discharge capability and shortening the drone's flight duration. Before taking off in cold environments, ensure the battery is fully charged.

- In cold environments, activate the self-heating function of the smart battery in advance. In extremely cold conditions, additional insulation measures should be taken during heating to shorten the self-heating time.
- In cold environments, the drone's wind resistance may decrease due to power output limitations of the smart battery. Extra caution is advised when flying in high-altitude areas.
- If the charge level of the smart battery is below 50%, it is not recommended to take off. The battery may not perform at full capacity at low charge levels, reducing flight safety.
- During flight, if the Enterprise App indicates a low battery warning, it is recommended that you immediately initiate RTH or land the drone.
- After landing, the smart battery is still hot. Wait until the battery cools down to the safe charging temperature before charging.
- If the battery temperature is outside the allowed charging range, charging will not begin—even when connected to the charger—to protect the battery.
 - The optimal charging temperature range is +22°C to +28°C; charging within this range can extend the battery's lifespan.
 - If the battery temperature rises to +50°C or higher during charging, charging will stop until the temperature drops back to +45°C.
- When not in flight, if the smart battery discharges to a certain voltage, it will cut off output and enter sleep mode to prevent over-discharge. To use the battery again, connect it to the charger to wake it up. During flight, low battery protection is disabled.
- If the smart battery is stored in a high-temperature environment or unused for 6 days with a relatively high charge level, its self-discharge protection mechanism will activate, automatically discharging the battery to about 60% and continuing to discharge for 2-3 days. During this period, the battery may slightly heat up, which is normal.
- Over-discharge severely damages the smart battery. If the smart battery is idle for more than 12 hours with a charge level below 8%, the ultra-low power mode will activate, putting the battery into hibernation to prevent over-discharge. To resume normal use, reactivate the battery by connecting it to the charger.
- Charge the smart battery once every three months to preserve its activity. Long-term storage without maintenance affects the performance and lifespan of the battery. Batteries not maintained (charged/discharged) for over three months are not covered by warranty.
- For safety reasons, keep the smart battery at a low charge level (no higher than 30%) during transportation. Before transporting, perform a battery discharge.

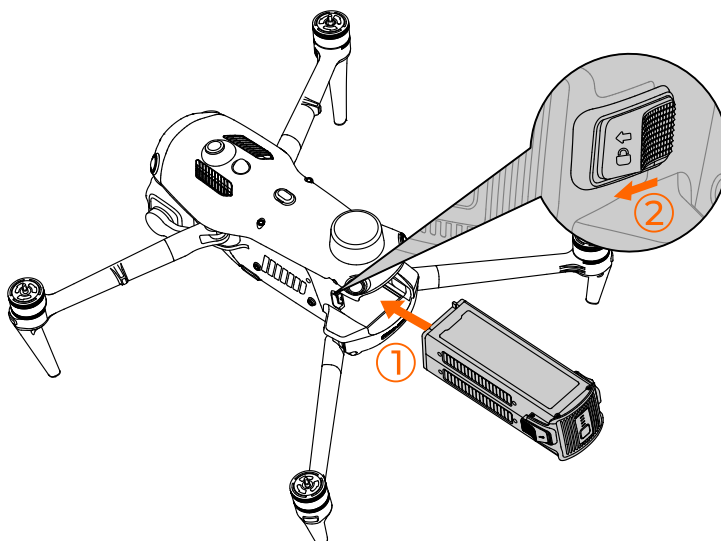
 **NOTE:**

- The smart battery features a self-heating function that raises its temperature in cold environments, helping maintain optimal output performance.
 - When the smart battery is installed on the drone and the drone is powered on, the self-heating function activates automatically if the battery temperature is below +15°C. Once the drone takes off, the self-heating function automatically turns off.
 - If the smart battery is not installed on the drone, **short-press for 1 second and then press and hold for 3 seconds** to activate self-heating. This will heat the battery to and maintain it between +15°C and +20°C for 10 minutes. To deactivate self-heating at any time, simply **short-press for 1 second and then press and hold for 3 seconds**.
 - To use the self-heating function, ensure the battery retains at least 10% charge.
 - When the smart battery is connected to the battery charger and the charger is plugged into a power source, if the battery temperature is below +10°C, the charger will supply power for self-heating. Once the battery reaches +15°C, the self-heating function will automatically turn off.

Installation and Removal

Installing the Smart Battery

1. Before installation, turn off the smart battery, and ensure that the battery surface, the battery compartment of the drone, and the contact terminals are free of dirt or debris.
2. Insert the battery into the battery compartment in the direction shown in the figure below, and press down on both battery buckles to ensure they fully engage with the positioning slots on the drone.
3. Slide the locking tabs on both buckles backward to secure the battery in place.



WARNING:

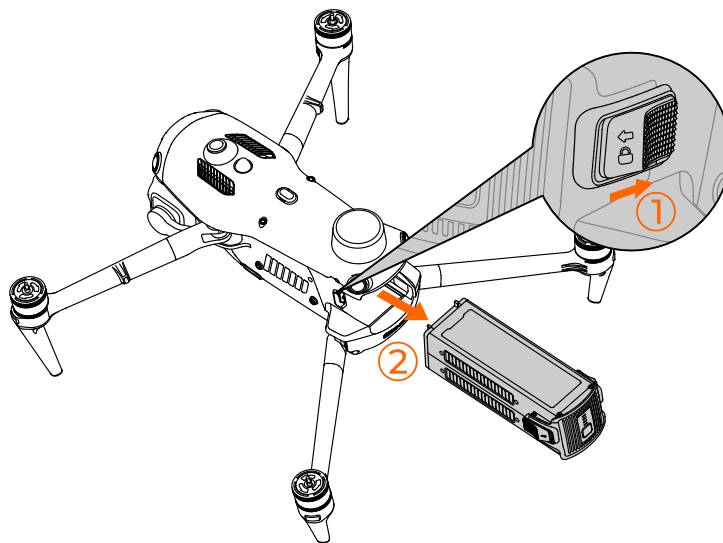
- Always confirm that the smart battery is fully seated and securely locked before takeoff. Improper installation may cause poor electrical contact or battery detachment during flight, potentially resulting in a drone crash or even personal injury.
- If either battery buckle is damaged, immediately discontinue use and replace the battery.

i IMPORTANT:

- The battery buckles are vulnerable structural components. Avoid pressing them forcefully or operating them improperly to prevent damage.

Removing the Smart Battery:

1. Before removing the smart battery, power off the drone.
2. Slide the locking tabs on both buckles forward to release the lock.
3. Press both battery buckles and gently pull the battery out.



i IMPORTANT:

- Before removing the smart battery from the drone, always power off the battery first. When powering off the battery, battery status indicators LED1 and LED4 flash simultaneously five times, indicating the power-off in progress. Wait until all battery status LEDs are off before removing the battery from the drone.

TIP:

- If **Hot Swap Battery** is enabled on the page that appears after you choose  >  **Battery** in the Enterprise App, complete the smart battery replacement within 8 seconds to ensure the drone properly activates the new battery and powers on successfully. Performing a hot swap in temperatures below -10°C may

result in failure. Avoid using this feature under such low-temperature conditions whenever possible.

Battery Level Check

- When the smart battery is powered off, briefly press the battery power button for 1 second to quickly check the current battery level range based on the battery status indicators.
- After powering on the drone, you can also learn the current battery level range in real time from the Enterprise App or based on the battery status indicators.

Battery Status Indicators



Battery Level Range

0–12%

13%–25%

26%–37%

38%–50%

51%–62%

63%–75%

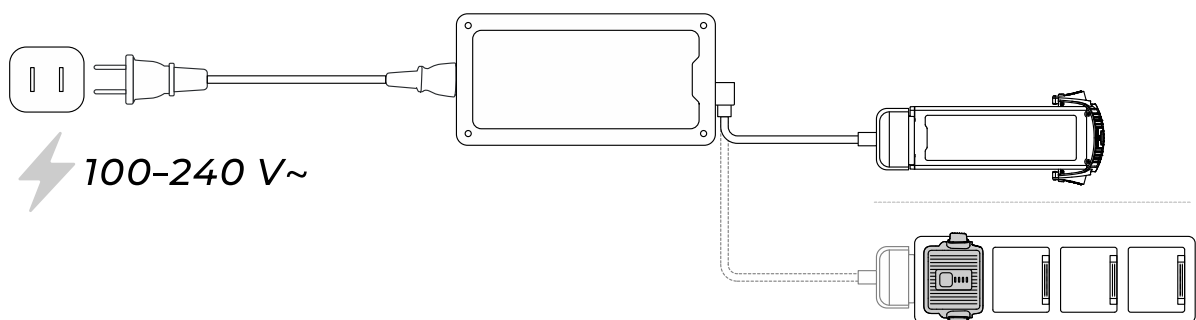
76%–87%

88%–100%

●: Solid ●: flashing ○: off

Charging

Use the dedicated battery charger and smart battery charging hub provided in the combo to charge the smart battery, ensuring both charging safety and optimal battery performance.



 **WARNING:**

- Do not modify the smart battery or battery charger supplied with the combo, as this may create safety hazards or cause device damage.
- Never attempt to charge a smart battery that shows signs of swelling, leakage, cracked or damaged casing, or deformation, or has experienced physical impact (e.g., dropping or collision). Such batteries pose serious safety risks and should be immediately taken out of service and disposed of properly.
- Do not use a damaged battery charger to charge the smart battery, as this could cause short circuits, overheat, or other hazards.
- Do not use the battery charger included in the combo to charge batteries of other models or non-original batteries.
- During charging, place both the battery charger and the smart battery on a stable, dry, well-ventilated, and non-conductive surface, and keep them away from flammable or explosive materials.

i IMPORTANT:

- If the smart battery will be stored unused for an extended period, charge it every 3 months to keep its charge level within an appropriate range. This prevents reduced battery lifespan—or even irreversible damage—caused by prolonged storage at a low state of charge.
- Do not touch the metal terminals of the battery or charger with your hands or any conductive objects. If foreign substances accumulate on the terminals, gently clean them with a dry, soft cloth.
- After charging is complete, promptly disconnect the smart battery from the charger and unplug the charger from the power source to avoid potential risks such as overcharging due to prolonged connection.

📌 NOTE:

- Under normal conditions, it takes approximately 90 minutes to fully charge the smart battery from a low state of charge. However, actual charging time may vary depending on the remaining charge level at the start of charging. Lower initial charge levels result in longer charging times, and vice versa.

During charging, the battery status indicators display the following states corresponding to the battery level range:

Battery Status Indicators



Battery Level Range

0–25%

26%–50%

Battery Status Indicators



Battery Level Range

51%–75%

76%–99%

100%

: solid : flashing

Battery Protection Status Information

The battery indicators also indicate battery exceptions during charging and discharging.

Battery Status Indicators

Battery Exception



Battery temperature too high, exceeding the allowed charging temperature range



Excessive charging current, resulting in a short circuit



Overcurrent, overload, or short circuit occurred during discharging

: flashing : off

RTK

The drone integrates an RTK module. When successfully connected to a network RTK service and entering the RTK FIX state, it achieves centimeter-level high-precision positioning, significantly improving flight trajectory accuracy.

To enable RTP positioning, choose  > **RTK** **RTK** in the Enterprise App.

IMPORTANT:

- When using RTK positioning, ensure the GNSS antenna is unobstructed and operate the drone in an open, clear area to guarantee stable reception of satellite signals and RTK correction data.
- Enabling network RTK requires that either the drone or the remote controller have a stable internet connection.
 - You must prepare a network RTK service account and correctly configure the server address, port, username, and password in the Enterprise App.

Automatic RTH

IMPORTANT:

- Carefully read this section to fully understand the behavior logic and response mechanisms of the drone during RTH scenarios, ensuring safe flight operations.

The drone features an automatic RTH function. Automatic RTH can be triggered in three ways: **manual activation**, **low battery level**, or **specific flight behavior**. Provided that the drone has recorded a home point and GNSS positioning signals are strong, it will automatically plan a return route and fly back to the home point for a safe landing once RTH is triggered.

IMPORTANT:

- **Home point:** This is the designated landing location when the drone executes automatic RTH. To specify the home point, choose  >  **Flight** in the Enterprise App, and select **Aircraft** or **RC** for **Home Point Settings**. By default, if the home point is not specified, the drone takes the takeoff point as the home point. If the home point is updated during flight, the drone will automatically record the latest location and return to this most recently saved home point when RTH is triggered.

Once automatic RTH is initiated, the drone will autonomously plan its return route and execute an intelligent RTH maneuver. As long as the drone remains connected (i.e., not lost), the planned RTH route will be displayed in real time on the map page of the Enterprise App. The flight route and speed will be dynamically adjusted based on environmental factors such as the wind speed, wind direction, and obstacles, to ensure a safe and efficient return.

Usage Notes

- Avoid flying in confined spaces, crowded areas, or regions with dense high-rise buildings. Tall mountains, rock formations, urban structures, and forests may obstruct GNSS and video transmission signals. If the drone is operating in **visual positioning mode** or **attitude mode**, automatic RTH will not be triggered.
- If obstacle avoidance is disabled, the drone cannot automatically detect or avoid obstacles during RTH.
- Always fly in well-lit environments where the visual sensing system can operate properly. In low-light conditions or areas lacking surface texture, the visual sensing system may fail, impairing the drone's ability to detect and avoid obstacles.

- The RTH function may not operate normally within or near no-fly zones, potentially causing RTH failure or unexpected hovering en route. Avoid flying within or near no-fly zones.
- Strong wind conditions (e.g., wind speeds exceeding the drone's rated wind resistance) may prevent successful return. Carefully assess weather conditions before flight.
- Thin or transparent obstacles (e.g., wires, tree branches, glass, or reflective surfaces) may be present along the RTH route and may not be detected by the drone's sensing system. If such risks are identified, immediately intervene manually to pause or cancel automatic RTH.
- If the landing area at the home point is unsuitable (e.g., due to uneven terrain, presence of people), manually exit RTH once the drone reaches the home point overhead and use the remote controller to land safely.
- Before flight, set an appropriate RTH altitude: ensure it is higher than all obstacles along the flight route, yet complies with local airspace height restrictions. Be prepared to take manual control at any time if necessary.
- During automatic RTH, remote controller inputs are disabled. Full control over the drone is restored only after it exits RTH. You can pause or cancel automatic RTH using any of the following methods:
 - **Repeatedly press** the **Pause button** on the remote controller until you hear a **beep**.
 - **Press and hold** the **Pause button** on the remote controller for 2 seconds until you hear a **beep**.
 - Pull down the pitch stick on the remote controller.

Trigger Methods

Manual Activation

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

Low Battery Level

During flight, to prevent safety risks caused by insufficient battery power, the flight control system continuously evaluates whether the remaining battery level is sufficient for a safe return based on real-time factors such as the current position, distance to the home point, and flight altitude of the drone. If the battery level approaches a critical threshold, the system issues a low-battery warning and, if necessary, automatically initiates RTH to ensure flight safety.

- If the current battery level is only sufficient to complete the RTH process, the Enterprise App will display a message reading "The remaining battery is only enough for Return to

Home. The aircraft will Return to Home in 10s", prompting you to decide whether to initiate RTH. You can confirm to initiate RTH. If you take no action within 10 seconds, the drone will automatically initiate RTH after the countdown ends.

- If you manually cancel automatic RTH and continue flying, the system will allow operations in low-battery mode. However, once the battery level drops to the specified threshold for **Critically Low Battery Warning**, the drone will forcefully trigger an emergency landing without waiting for your confirmation to minimize the risk of in-flight power loss.

WARNING:

- It is not recommended to cancel RTH triggered by a low battery level. Doing so may result in insufficient remaining power for a safe return to the home point, potentially causing loss of control or forced landing.
- Avoid letting the drone enter a critically low battery state that triggers an automatic landing. In this state, if the current landing area has hazards—such as uneven terrain, obstacles, or people—the drone may lack enough power to relocate to a safer spot, risking equipment damage or even personal injury.
- When the Enterprise App displays any low-battery alert or RTH prompt, immediately follow the on-screen instructions to initiate RTH or safe landing. Never ignore system warnings.

IMPORTANT:

- In addition to being triggered by intelligent battery level evaluation, automatic RTH can also be triggered when the battery level of the drone reaches the threshold for **Low Battery Warning** you specified in the Enterprise App. The flight control system executes RTH based on whichever condition is met first—either the intelligent evaluation or the fixed threshold—to ensure flight safety.

TIP:

- When the drone enters a critically low battery state that triggers an automatic landing, you can still slightly adjust the drone's landing position using the remote controller sticks. Once you release the sticks, the drone will resume its automatic landing process and complete touchdown. This feature can help avoid unsafe landing areas in emergencies—but use it cautiously, as aggressive maneuvers may deplete the remaining power and lead to loss of control.

Specific Flight Behavior

- For an automated flight mission: If **Finish Action** is set to **Auto RTH**, the drone will trigger automatic RTH upon mission completion. If **Signal Lost** is set to **Return to**

Home, the drone will initiate automatic RTH if the Enterprise App displays a pop-up window reading "Aircraft disconnected."

- During manual flight: If **Signal Lost** is set to **Return to Home**, the drone will trigger automatic RTH after the Enterprise App displays a pop-up window reading "Aircraft disconnected."

i IMPORTANT:

- **For an automated flight mission:** If the drone loses connection with the remote controller, it continues completing the mission as planned and executes the preconfigured loss-of-signal action only after the Enterprise App determines the drone has lost connection.
- **During manual flight:** If the drone loses connection with the remote controller, it immediately slows down and hovers in place, and executes the preconfigured loss-of-signal action (such as automatic RTH or landing) only after the Enterprise App determines the drone has lost connection.
- During RTH triggered by loss of signal, even if the drone reconnects with the remote controller, the system will continue the automatic RTH process and will not automatically revert to manual control, to ensure flight safety. To regain control, you must manually exit RTH mode.

RTH Altitude Mechanism

When RTH is triggered, the drone automatically adjusts 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.
$10 < \text{Distance} \leq 25$	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.
$25 < \text{Distance} \leq 50$	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.
$\text{Distance} > 50$	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** on the page that appears after you choose  >  **OA**) and ambient lighting and the flight altitude meet the operating requirements of the visual sensing system, the drone implements obstacle avoidance during automatic RTH. Specifically:

- If **Obstacle Avoidance System** is set to **Brake** or **Bypass** on the page that appears after you choose  >  **OA** in the Enterprise App before flight, during automatic RTH triggered by loss of signal, low battery, or mission completion, the drone will automatically brake at a safe distance upon detecting an obstacle ahead. It will then autonomously choose one of three directions (left, right, or above) at random to navigate around the obstacle and continue its RTH process.

WARNING:

- If, during obstacle avoidance, the drone has already climbed to the preset maximum flight altitude but still cannot bypass the obstacle, it will hover in place. In this case, take manual control of the drone via the remote controller as early as possible to adjust its flight route or select a safe landing spot. Otherwise, prolonged hovering may deplete the battery and trigger an emergency landing due to critically low battery.

Landing Protection

After **Landing Protection** is enabled on the page that appears after you choose  >  **OA** in the Enterprise App, the drone evaluates, during the landing phase of automatic RTH, whether the ground conditions are suitable for landing.

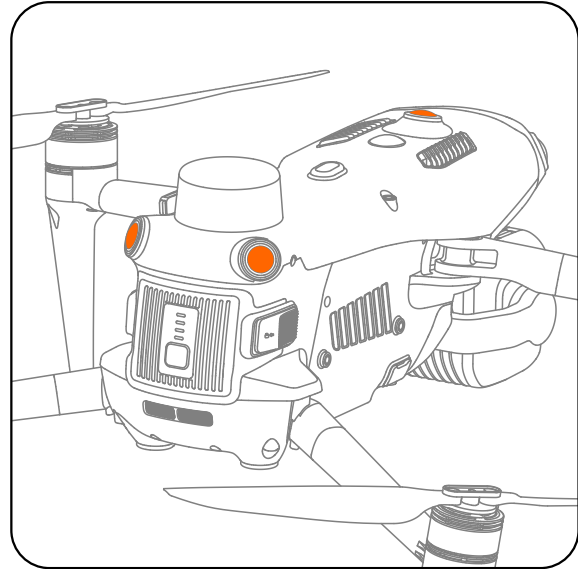
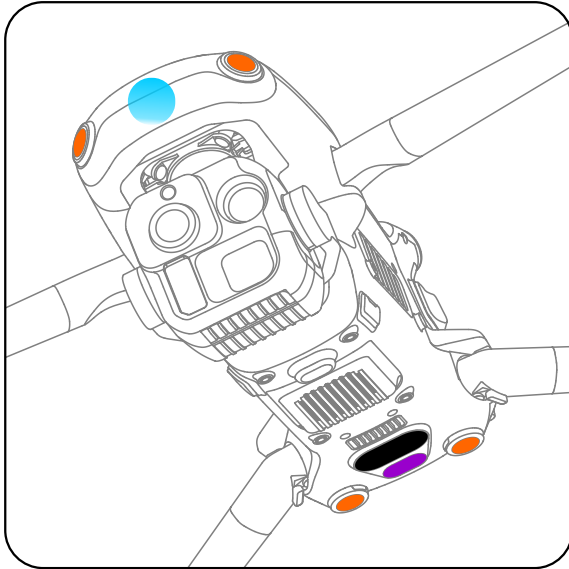
When the drone reaches above the home point during automatic RTH, it will execute the following strategies if landing protection is enabled:

- If the drone determines the ground is suitable for landing, it will land immediately.
- If the drone detects unsuitable landing conditions (e.g., uneven terrain or water below), it will hover in place and display a prompt in the Enterprise App, awaiting manual intervention. In this case, the drone will begin descending only when triggered by a critically low battery level. Landing triggered by a critically low battery level cannot be manually canceled.
- If the drone is unable to detect the ground conditions, landing protection does not take effect, and the drone will directly perform a forced landing.

WARNING:

- When landing protection is not active, the drone cannot automatically identify or avoid unsafe landing areas such as water, slopes, or obstacles. In such cases, you must take manual control in advance, actively select a safe, flat, and obstacle-free landing spot, and carefully complete the landing to ensure flight safety.

Sensing System



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

The drone features an integrated sensing system that combines an **omnidirectional visual sensing system** and a **forward-facing millimeter-wave radar**. By leveraging the strengths of both technologies, it achieves exceptional all-around obstacle avoidance performance, significantly enhancing detection accuracy and reliability in complex environments, thereby ensuring precise positioning and safe flight.

i IMPORTANT:

- The sensing system has blind spots in the immediate vicinity of the drone and cannot fully cover all surrounding areas. During flight, always actively monitor the live video feed on your remote controller and maintain visual awareness of the surroundings. Be prepared to take manual control promptly if needed to avoid potential hazards.

The **omnidirectional visual sensing system** works best in well-lit conditions where obstacles along the flight route have sufficient surface texture. Surfaces with minimal texture, such as solid-color walls, glass, or water, may degrade the sensing performance. When **Obstacle Avoidance System** is set to **Bypass** or **Brake** on the page that appears after you choose  >  **OA** in the Enterprise App, the obstacle avoidance system will activate automatically in all flight modes except the Ludicrous mode. Additionally, visual positioning (provided it is not manually disabled) will automatically engage in environments with weak or unavailable GNSS signals, helping the drone maintain stable hovering and accurate positioning.

 WARNING:

- You can manually disable the obstacle avoidance system and visual positioning function in the Enterprise App. Once disabled, the drone will rely solely on satellite-based positioning (GNSS) for hovering. In this state, omnidirectional obstacle avoidance will be completely deactivated, and the drone will not automatically slow down when descending near the ground, posing a significant risk of collision. Therefore, disable these functions only when absolutely necessary, and do so with caution.
- Before takeoff, ensure that the visual sensors are not obstructed. Any blockage severely degrades visual obstacle avoidance and positioning performance, substantially increasing the risk of collision or loss of control. Always keep the lens area clean.

 IMPORTANT:

- When the drone is executing an automated flight mission (such as RTH, a waypoint mission, or a polygon mission), its obstacle avoidance strategy will be applied based on the settings on the page that appears after you choose  >  **OA**:
 - If **Obstacle Avoidance System** is set to **Brake** or **Bypass**, the drone will apply the bypass logic during the mission to navigate around obstacles.
 - If **Obstacle Avoidance System** is set to **Off**, no obstacle avoidance actions will be performed at any point during the mission, even if obstacles are present ahead.
- If visual positioning is disabled before takeoff, do not re-enable it while the drone is airborne. Doing so may cause the visual positioning system to malfunction or fail entirely. To re-enable it, safely land the drone first, and then adjust the setting when the drone is on the ground.
- When flying in low-light conditions (e.g., at night), the visual sensing system of the drone is very likely to become ineffective. Even if your drone supports limited nighttime obstacle avoidance, this capability is not 100% reliable, as

object detection may be impaired or result in false judgments. Exercise extreme caution, and fly only in open, unobstructed areas under such conditions.

The forward-facing millimeter-wave radar is designed to assist the visual sensing system and support continuous operation in all lighting conditions.

 NOTE:

- This drone series is equipped with a forward-facing millimeter-wave radar operating in the 60 GHz band. This frequency band is a hardware-defined characteristic and cannot be modified via software. Due to varying regulatory requirements across countries and regions regarding permissible millimeter-wave radar frequencies, the activation strategy for this radar differs by market:
 - In countries/regions that permit only 24 GHz millimeter-wave radar (e.g., China, South Korea), the forward-facing millimeter-wave radar will be disabled.
 - In countries/regions that allow 60 GHz millimeter-wave radar (e.g., the European Union, the United States), the radar is enabled by default.

The drone is also equipped with a downward-facing auxiliary light beneath its body. It provides illumination for downward-facing visual sensors. When used in combination with the bottom-mounted ToF sensor, it significantly enhances the accuracy and stability of visual positioning in low-light environments such as during dusk, indoors, or at night, thereby improving landing safety. To enable or disable the Aux light, choose  >  **More** > **Light Settings**, or choose  > .

 TIP:

- When the on/off mode of the Aux light is set to **Auto**, the drone will automatically turn on the Aux light at approximately 5 meters above ground if it detects insufficient ambient light at the landing spot. This provides supplemental illumination for the downward visual sensing system to support precise positioning. After the drone has successfully landed, the Aux light will automatically turn off.

Usage Notes

- Always pay close attention to the flight environment. The sensing system provides safety assistance only under limited conditions and cannot replace human judgment or manual control. Throughout the flight, you must remain vigilant about your surroundings and any alerts displayed in the Enterprise App, maintain full control of the drone at all times, and take full responsibility for your operations.

- When flying without satellite positioning, and using the visual sensing system over an open, flat area, the optimal operating altitude range for visual positioning is 0.3 to 23 meters. Flying outside this range may degrade visual positioning performance—exercise caution accordingly.
- The visual sensing system may not function properly over water surfaces. Consequently, when landing is initiated, the drone may be unable to actively avoid water below. It is strongly recommended that you maintain full manual control throughout the flight and make informed decisions based on the actual environment, without over-relying on the visual sensing system.
- The visual sensing system cannot reliably detect large, open-frame structures (e.g., tower cranes, high-voltage transmission towers) and thin linear objects (e.g., power lines, suspension bridge cables).
- The visual sensing system cannot recognize surfaces lacking texture and cannot operate reliably in environments with insufficient or excessive lighting. Specifically, the visual sensing system may fail in the following scenarios:
 - Solid-color surfaces (e.g., pure white, black, red, or green surfaces)
 - Highly reflective or mirrored surfaces (e.g., ice, road signs)
 - Water or transparent surfaces
 - Surfaces above moving objects (e.g., over crowds, wind-blown reeds, bushes, or tall grass)
 - Scenes with rapidly changing light conditions
 - Extremely dark (illuminance < 15 lux) or extremely bright surfaces
 - Reflective materials (e.g., mirrors)
 - Surfaces with very sparse texture
 - Highly repetitive patterns (e.g., uniformly colored small-checked tiles);
 - Thin obstacles (e.g., wires, cables, or slender branches).
- Never obstruct, interfere with, or cover the sensing system. Ensure that the visual sensor lenses are clean, free of smudges, and undamaged.
- Avoid flying in rain, fog, or any low-visibility conditions (visibility < 100 meters).
- Before takeoff, remove any protective film or covers from the visual sensor lenses. If the lenses have water droplets, fingerprints, or dirt, gently wipe them clean with a dry, soft cloth. Do not use alcohol or other organic solvents. If the lenses show cracks, scratches, wear, or detachment, return the device to the manufacturer for repair.
- When flying at night, always choose open, unobstructed areas. Under low-light conditions, the drone's visual obstacle avoidance capability may fail at any time.

Expansion Ports

The drone integrates P-Port ports on both the top and bottom of the fuselage, and a P-Port Lite port (USB-C port) on the right side. Both port types support payload software development kit (PSDK) expansions. You can connect functional payload devices developed using our PSDK to the drone through these ports, unlocking a wide range of industry-specific applications.

For comprehensive PSDK development documentation, API references, and development guides, visit our official developer website:

<https://developer.autelrobotics.com/>

WARNING:

- Do not use uncertified payloads with the drone. Uncertified payloads may compromise flight stability, electromagnetic compatibility, or propulsion system load capacity, significantly increasing the risk of flight safety incidents.
- When installing a payload, ensure its center of gravity lies within the central axis of the drone's top or bottom shell to maintain flight stability. Never obstruct any onboard sensors (including the visual cameras, GNSS antennas, millimeter-wave radar, or aux light)—doing so may impair positioning, obstacle avoidance, and RTH functionality.

The total takeoff weight (including the battery, gimbal, payloads, and all accessories) must not exceed the nominal maximum takeoff weight (MTOW) of the drone. Overloading can degrade flight performance, reduce flight time, and compromise safety margins, potentially leading to loss of control or failure to execute RTH.

- Before takeoff, always verify that the payloads are securely mounted and that all fasteners (e.g., screws, buckles, quick-release mechanisms) are fully tightened to prevent in-flight detachment, which could cause equipment damage or personal injury.

NOTE:

- The drone package does not include any functional payload devices. Please purchase them separately as needed.
- Mounting holes are provided on the top, bottom, left, and right sides of the fuselage to facilitate secure installation and fixation of compatible payload devices.

C2 Link Reconnection

To ensure safe and controllable flight, the drone will remain in a continuous reconnecting state after losing the C2 link, persistently attempting to re-establish communication with

the ground control station (e.g., the remote controller). The actual handling process consists of the following stages:

- If the C2 link is restored within 10 seconds after disconnection, full control of the drone is automatically returned to the remote controller.
- If reconnection is not achieved within 10 seconds, the Enterprise App will display a warning "Aircraft disconnected." The drone will then automatically execute the loss-of-signal behavior specified for **Signal Lost** (for manual flight) or **Signal Loss Action** (for automated flight).
- During automatic RTH triggered by loss of signal, the drone continues attempting to re-establish the C2 link. Even if the connection is successfully restored, the remote controller does not immediately regain control and will keep executing the automatic RTH process. To manually take over, you must either **press and hold the Pause button on the remote controller for 2 seconds** or **pull down the pitch stick** to exit RTH mode.

IMPORTANT:

- During flight, the C2 link stays stably connected as long as communication between the drone and remote controller remains normal and data is correctly decoded. However, if persistent decoding errors occur for a certain duration due to interference, signal blockage, attenuation, etc., interrupting communication, the system will deem the C2 link as disconnected. The drone will then enter the reconnecting state and initiate the loss-of-signal response logic.
- In manual flight, options for **Signal Lost** are **Return to Home**, **Hover**, and **Land**. During automated missions, options for **Signal Loss Action* are **Continue** and **Auto RTH**.

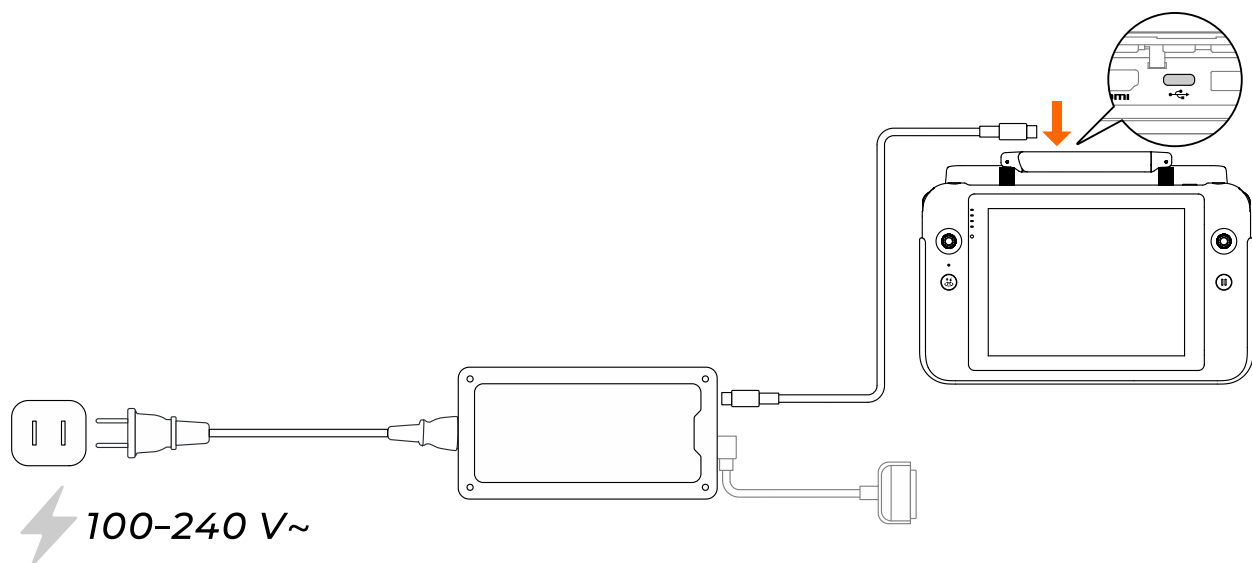
TIP:

- Once the C2 link is lost, in addition to the "Aircraft disconnected" warning in the Enterprise App, the remote controller also issues a voice prompt to notify you immediately, allowing you to take timely corrective action.

Remote Controller

Charging

The remote controller included in the combo is charged via the USB-C port of the dedicated battery charger



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 cause abnormal charging, battery overheating, and even damage the remote controller battery.

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.
- 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 Enterprise App.

Battery Indicators



Battery Level

0–12%

13%–25%

26%–37%

38%–50%

51%–62%

63%–75%

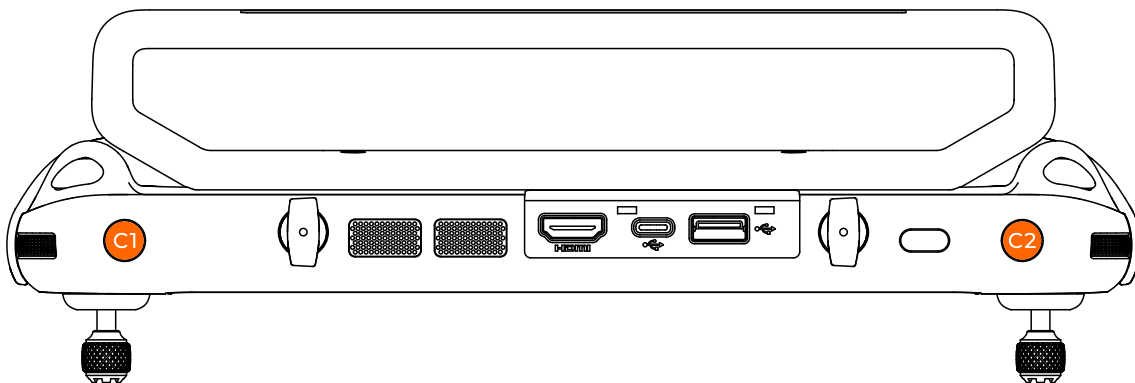
76%–87%

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 **Enterprise App** via **⚙️ > 🚁 RC > RC Custom Button**.



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.
2	Gimbal Pitch Recenter/45°/Down	Short press to cycle through gimbal pitch angles. Recenter: The gimbal pitch returns to 0° pitch angle (horizontal). 45°: The gimbal pitches downward to a 45° pitch angle.

No.	Function	Description
		Down: The gimbal pitches 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 Enterprise App.
4	Speed Mode	Short press to switch the drone's flight speed mode. For details, refer to Drone > Flight Speed Mode .
5	Auxiliary light on/off	Short press to toggle auxiliary light on/off.
6	Arm light on/off	Short press to toggle arm light on/off.

WARNING:

- When the drone is switched to **Ludicrous** mode, the obstacle avoidance system will be disabled, and the drone will no longer perform obstacle avoidance maneuvers including braking or detouring. Please use this flight mode with caution in an open and obstacle-free environment.
- Certain regions impose strict regulatory requirements on drone lighting. Do not turn off the arm light if it is necessary.

TIP:

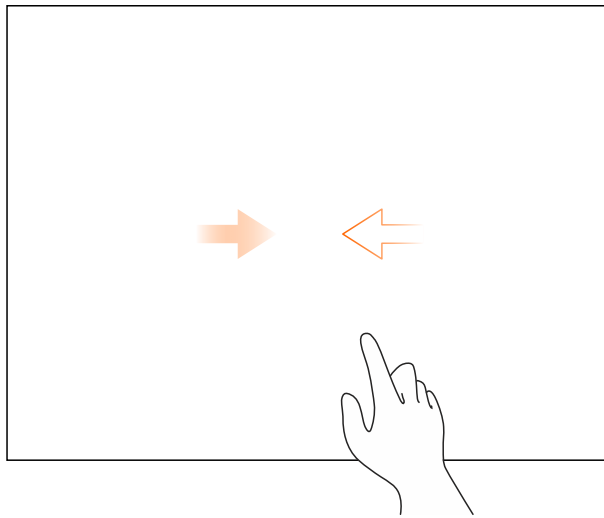
- To enable obstacle avoidance system (braking), you must first activate the **Visual Positioning** function in  >  **More > Safety**.

Touchscreen Operations

The remote controller supports the following touch gestures:

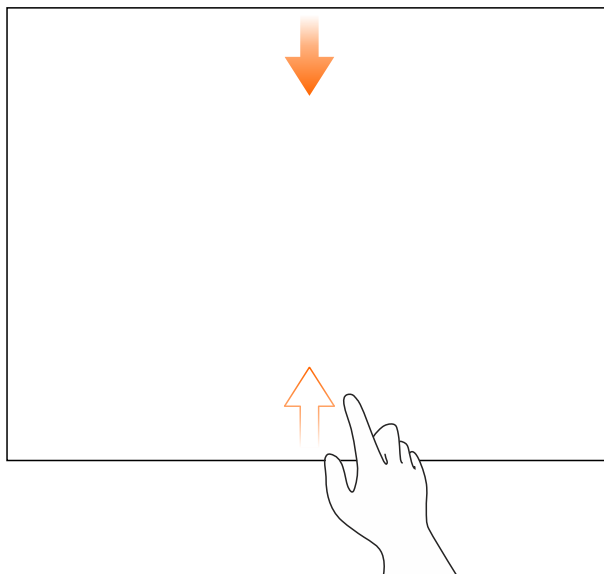
1. **Switch between home screen pages:**

When on the home screen, swipe left or right within the display area.



2. **Open system status bar and navigation bar:**

When using the Enterprise App, swipe down from the top edge or swipe up from the bottom edge of the screen.

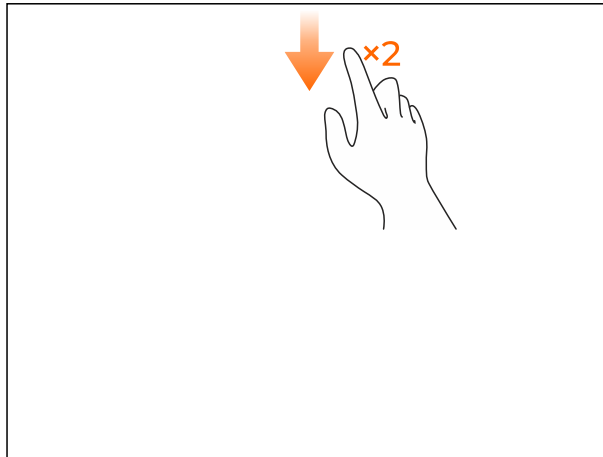


NOTE:

- 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 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 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 **Enterprise App**, swipe down twice from the top edge of the screen.



NOTE:

- 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.

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.

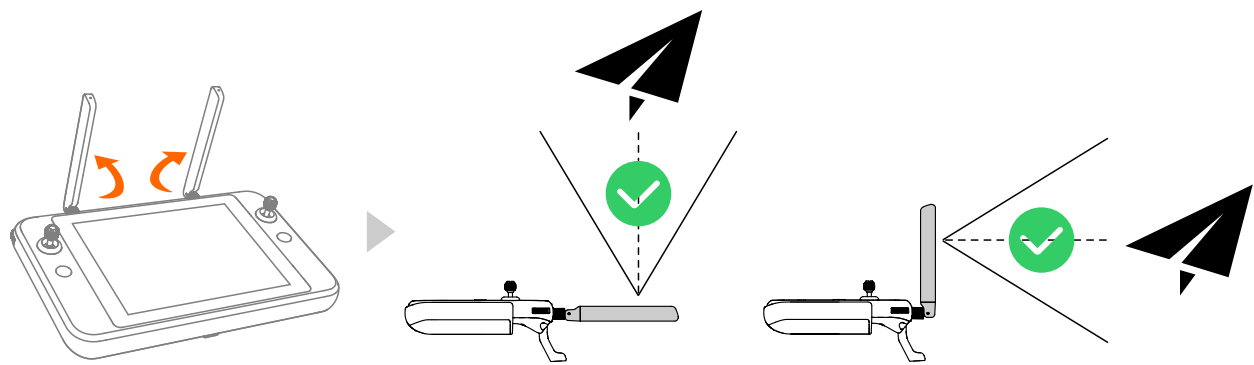
- **RC power on/off sounds:** A **beep** will sound when the remote controller is powered on or off. You can disable this sound in **Enterprise App** via  >  **RC**.
- **Drone warning messages:** When the drone experiences system abnormalities, a voice alert will be triggered in the Enterprise App. You 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 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 control 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.

⚠ WARNING:

- Do not use other communication devices operating on the same frequency band (such as Wi-Fi routers, other remote controllers, video transmission devices, etc.), as they will interfere with video transmission signals, which may result in video freezing, delays or loss of control.
- The antenna is equipped with mechanical stops for angle adjustment. When rotated to the limit position, do not forcefully bend it or apply external force, as this may damage the antenna's internal structure or connectors.

i IMPORTANT:

- During use, ensure the antennas are securely fastened. If looseness occurs, rotate the antenna connector clockwise until it is firmly fixed.
- 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.

🔔 TIP:

- To achieve optimal communication performance, it is recommended to extend the antenna and adjust it to form an angle of 180° (horizontally backward) or 270° (vertically upward) with the back of the remote controller. At the same time, ensure the antenna plane is directly facing the direction of the drone. This orientation can maximize signal gain and enhance the stability of the video transmission and control links.

📌 NOTE:

- The control sticks of the remote controller adopt a detachable design. For storage, simply rotate the control sticks counterclockwise to easily remove them

from their mounting positions.

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.

IMPORTANT:

- In the current version, A-Mesh Link supports a maximum of two drones and two remote controllers.
- Keep the distance between the drone and the remote controller within **1 meter** during the linking process, and keep no obstruction between them to ensure a stable and reliable signal.
- Turn off the **Wi-Fi** and **Bluetooth** of nearby devices operating on the same frequency band to avoid signal interference during linking.

NOTE:

- The drone can only be controlled via the Enterprise App on the remote controller after a successful link.

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, 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 video transmission feed of the gimbal camera will appear in the Enterprise App.

Linking via the Enterprise App

When the remote controller is powered on, you can perform a Single Link operation through the 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, indicating that the drone has entered **Single Link** mode.
2. After powering on the remote controller, tap **Connecting** > **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 video transmission feed of the gimbal camera will appear in the Enterprise App.

A-Mesh Link

1. After powering on the remote controller, tap **Connecting** > **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), indicating the drone has entered **A-Mesh Link** mode.
3. Once the drone appears on the **My Team** page in the 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 **Connecting** > **Join Team** on the new remote controller.
5. After linking all devices, tap **Finish** to complete team creation.



TIP:

If linking fails, please update the system firmware of both the drone and the remote controller to the latest version, and then attempt linking again.



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 video transmission feed of the gimbal camera and placing pinpoints only.
- The first drone added to the team becomes the default **Lead Aircraft**.

- 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.



TIP:

- 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 first drone to join the team by default acts as the relay drone.
- 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.

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	Enterprise	V1.0.0.001.86	Flight app, cannot be uninstalled
2	Settings	11	System app, cannot be uninstalled
3	Android Keyboard (AOSP)	11	System app, cannot be uninstalled
4	System Tools	2.45	/
5	Gallery	1.1.40030	/
6	Files	11	/

No.	Application Name	Pre-installed Version	Description
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.

Enterprise App

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

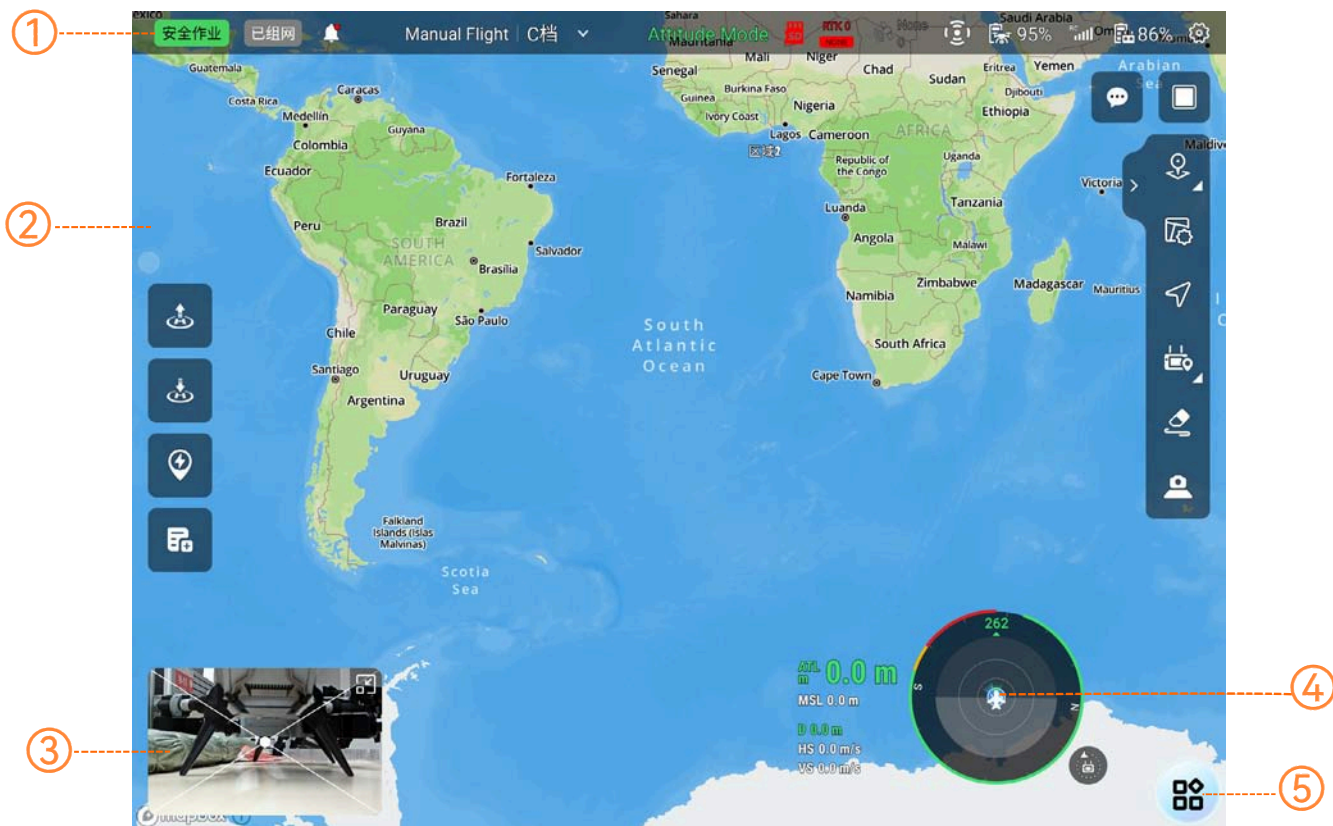
 TIP:

- During firmware updates, the Enterprise App will also be updated to the latest version.

 NOTE:

- Please note that certain operation procedures may change as the 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. Including Linking Status, Warning message, Task type, Flight mode, RTK Signal, GNSS Signal, OA status, Battery level of drone, Remote Controller Signal, Battery level of remote controller and System settings.

2. Camera/Map full-screen page

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



TIP:

- The 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  in the upper right to enter **Dual-Screen Mode**. You may click the dropdown list  in the lower right (or lower left) corner of the split-screen page to select a page to be displayed.
 - Tap  in the upper right to enter **Triple-Screen Mode**. You may click the dropdown list  in the lower right (or lower left) corner of the split-screen page to select a page to be displayed.
 - 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.

3. 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 **Quad-Screen** mode, the preview window will be automatically hidden.

4. 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.

5. Tool Bar

Frequently used function icons are included to facilitate quick and easy operations.

TIP:

- Press the  in lower right corner of the page to expand or hide the tool bar.

6. Device preview area

In A-Mesh Link scenarios, this area (the bottom of page) displays the list of devices within the team, and allows for device selection.

Status Bar



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

1. : Displays the linking status of the current UAV system, click it to access the **My Team** page for manage the devices.
2. : Displays the number of current UAV system alerts. Tap to view specific warning messages in a pop-up window.

 TIP:

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

3. : Displays the current mission type or execution status of the drone.
4. : Displays the current flight speed mode of the drone. Tap the icon to quickly switch between **Slow**, **Smooth**, **Standard**, and **Ludicrous** modes.

 WARNING:

- The flight speed of the drone in **Ludicrous Mode** will deeply increased compared with that in Standard Mode. It's not recommended to switch to this mode for flight If you are not fully familiar with the operation.
- **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.

 TIP:

- The flight mode can be set via **Setting** >  **Flight**. The discrepancy in flight speed varies under different flight modes. For more information, refer to the **Drone** > **Flight Mode** section.
- When flying at low altitudes, for safety reasons, it is recommended to switch to **Slow Mode**.

5. : Displays the current mission type or execution status of the drone. There are 3 modes for the drone: **GNSS Mode**, **Visual Positioning Mode** and **Attitude Mode**.

**TIP:**

- Depending on the availability of GNSS signals and flight conditions, the drone can automatically switch between three flight modes. For details, please refer to **Drone > Flight Mode**.

6. : 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.

7. : In Single Link scenario, it shows after the remote controller 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.

8. : Displays the GNSS signal status for the selected drone.

**TIP:**

- If GNSS signal is unavailable, the icon is grayed out.
- Please pay attention to the GNSS signal during the flight.

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

**TIP:**

- : Obstacle avoidance system is enabled (**Obstacle Avoidance System** is set to **Brake** or **Bypass** via  >  **OA** in the Enterprise App).
- : Obstacle avoidance is disabled (**Obstacle Avoidance System** is set to **Off**).

10. : Displays the current drone battery level.

11. : Displays the current video transmission signal status between the remote controller and the drone.

**WARNING:**

- Always monitor the video transmission signal during flight. If the signal is weak, reduce the flight radius promptly to prevent accidents.

IMPORTANT:

- Before flight, make sure the remote controller's antennas are locked in place; loose antennas may weaken signal quality.

TIP:

- When the signal shows 5–4 bars, the control signal is **Strong** (green); 3–2 bars indicate **Medium** (yellow); 1 bar indicates **Weak** (red).

NOTE:

- If the drone and remote controller are not linked, this icon displays as gray.

12.  : Displays the current battery level of the remote controller.

13.  : Tap it to enter the **Setting** page.

Menu

Swipe clockwise or counterclockwise in the toolbar to browse function icons. You can freely tap specific function icons to enable or disable its associated feature.

TIP:

- Function icons may be added or removed with updates to the Enterprise App. To ensure optimal performance, please keep your UAV system up to date.

NOTE:

- 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.

1.  : **GNSS**, tap it to enable or disable the drone's GNSS positioning.

WARNING:

- Disabling the **GNSS Positioning Mode** may trigger automatic transitions to either **Visual Positioning Mode** or **Attitude Mode**, which elevates operational risks. Under such conditions, all liabilities for flight incidents or equipment damage shall be exclusively borne by the operator.

- Disabling the **GNSS Positioning Mode** will lead the loss of restricted area and other flight limitation, and it may infringe the local regulations. Do not disable the **GNSS** unless required.

2. : **VPS**, tap this icon to enable or disable the **Visual Positioning Mode**.

 WARNING:

- If the **Visual Positioning Mode** is disabled, the drone will switch to **Attitude Mode** in case of GNSS signal loss. The risk of flight safety will deeply increased, all liabilities for flight incidents or equipment damage shall be exclusively borne by the operator.

3. : **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.

 WARNING:

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

 TIP:

- Aux light can be turned on/off manually or automatically. 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.
- You can set it via  >  **More > Light Settings**.

4. : **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.

 WARNING:

- The strobe emits high-intensity flashing light. **Do not look directly at it**, as direct exposure can cause eye injury.

 IMPORTANT:

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

5. : **AI**, tap this icon, the system will conduct intelligent identification of the target object type within the drone's video transmission image.

6. : **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.

7. : **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-

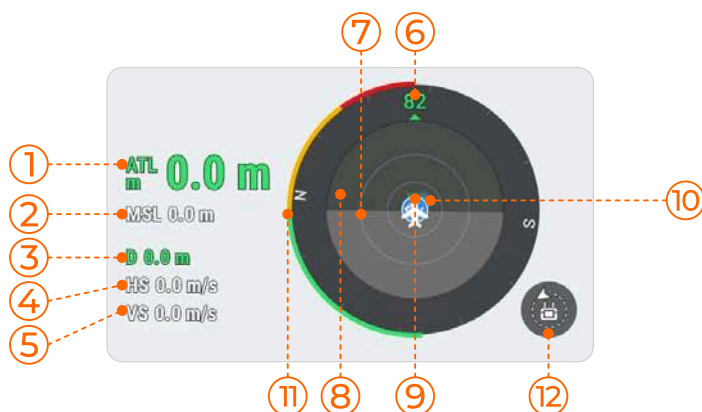
longitude.

NOTE:

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

8. : **Camera fill light**, tap this icon activates the camera's infrared laser fill light, thereby enhancing imaging performance in low-light environments.
9. : **Searchlight**, If the drone has equipped with top-mounted payload devices such as searchlights, tap this icon to activate the top light for night illumination of the drone.

Attitude Ball



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

1. **ATL**: Above takeoff location, the drone's altitude relative to the takeoff point.
2. **MSL**: Refers to the drone's current altitude relative to Mean Sea Level.
3. **D**: Displays the horizontal distance between the drone and the home point.
4. **H/S**: Displays the drone's horizontal speed.
5. **V/S**: Displays the drone's vertical speed.
6. **Drone heading angle**: Displays the drone's position and heading relative to the due north.

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.
7. **Attitude**: Displays the drone's tilt degree relative to the horizontal plane. You can intuitively determine if the drone is pitched down, pitched up, tilted leftward or tilted rightward through the gray liquid level.
 8. **Speed Indicator**: During flight, a speed indicator line will appear. The longer the indicator line is, the faster the flight speed will be.

9.  : Displays the current gimbal orientation.
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  >  **Battery**.

 TIP:

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

12.  : By tapping this button, the attitude sphere view can be switched to the remote controller view or the drone view.

 TIP:

- **Remote controller view** : The remote controller and the home point present their relative positional relationship with the drone as the central reference point.
- **Drone view** : The drone and the home point present their relative positional relationship with the remote controller as the central reference point.

Function Pages

On the map/camera full-screen page, You can perform operations are as follows:

1.  : Tap this icon enables you to execute the takeoff operation for the selected drone.
2.  : During flight, tap this icon will make all drones in the team carry out landing.
3.  : 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.
4.  : Tap this icon enables the initiation of a group chat with other remote controller devices in the team.

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 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 bottom of the full-screen camera page **Wide**, **Zoom**, **IR**, or **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:

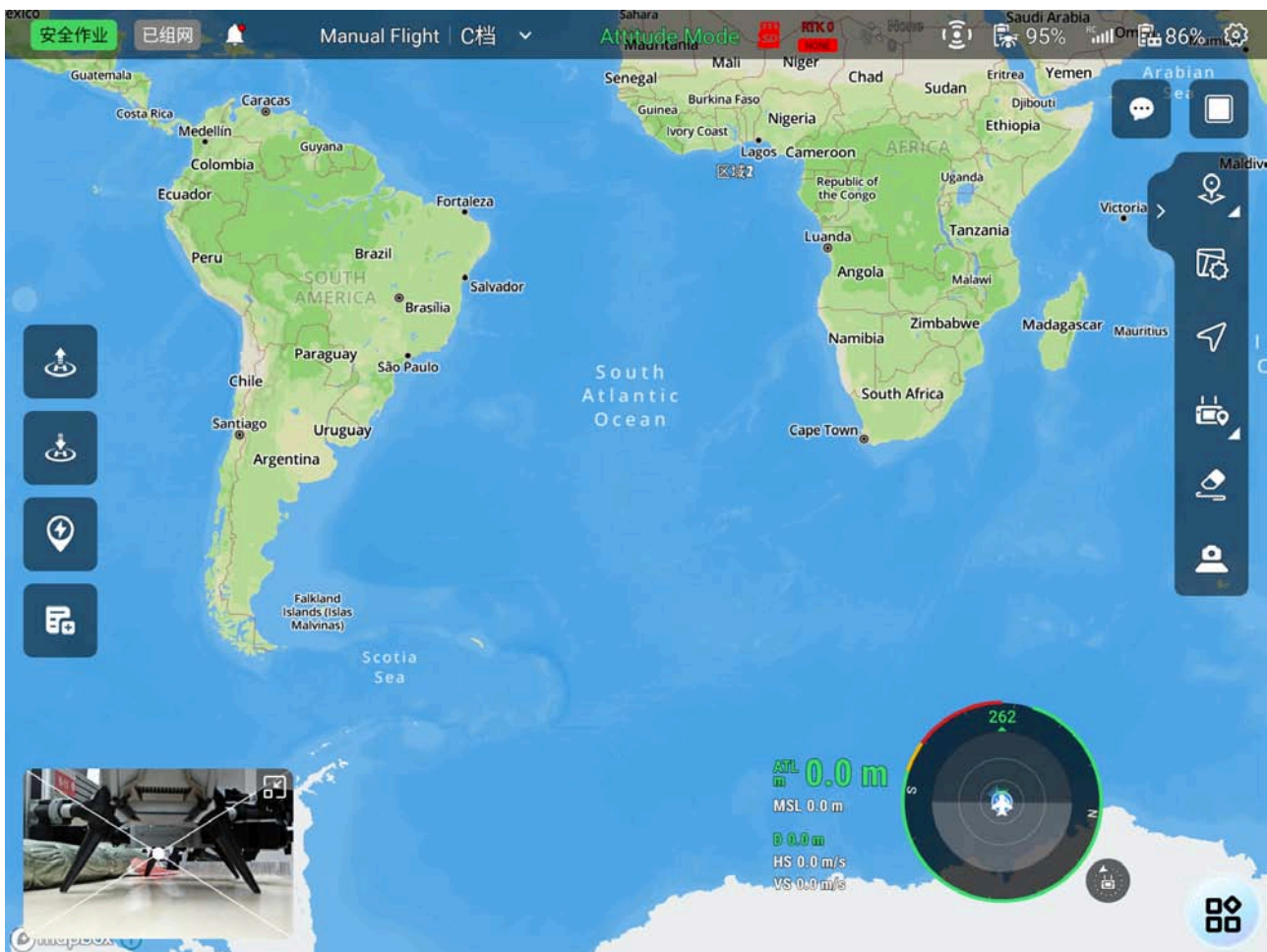
1. : Tap to view and adjust camera parameters in details. See the related settings page for specific options.
2. : Tap to view and adjust camera parameters. See the related settings page for detailed options.

3. : Tap to take photos with selected camera lens.
4. : Tap to record with the selected camera lens; tap it again to end recording.
5. : Tap to open the Album.
6. : Tap to adjust the zoom ratio of the selected camera in corresponding camera page.
7. : Tap to quickly set the gimbal pitch angle. You can also map this function to the **C1/C2 custom buttons**.
8. : In the IR camera page, tap to open the **Thermal Color** dropdown list and select a color palette.
9.  or : After enabling **Temperature Measurement** via , this icon appears. Tap to toggle between **High-Gain** and **Low-Gain** thermal modes.
10. : After enabling **Temperature Measurement** via , 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 permanently.

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 lower-right corner (or lower-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 this icon to freely place pinpoints anywhere on the map.
2. : Tap to configure  **Map Display**,  **Offline Map**
 -  **Map Display**: In the Settings panel, you can configure map type, enable or disable pinpoints, flight path and geofence, and conduct pinpoint management and geofence import. Toggle geofence display or show/clear the flight path.
 -  **Offline Map**: Download offline maps for specified regions, configure layers, or delete existing offline maps.

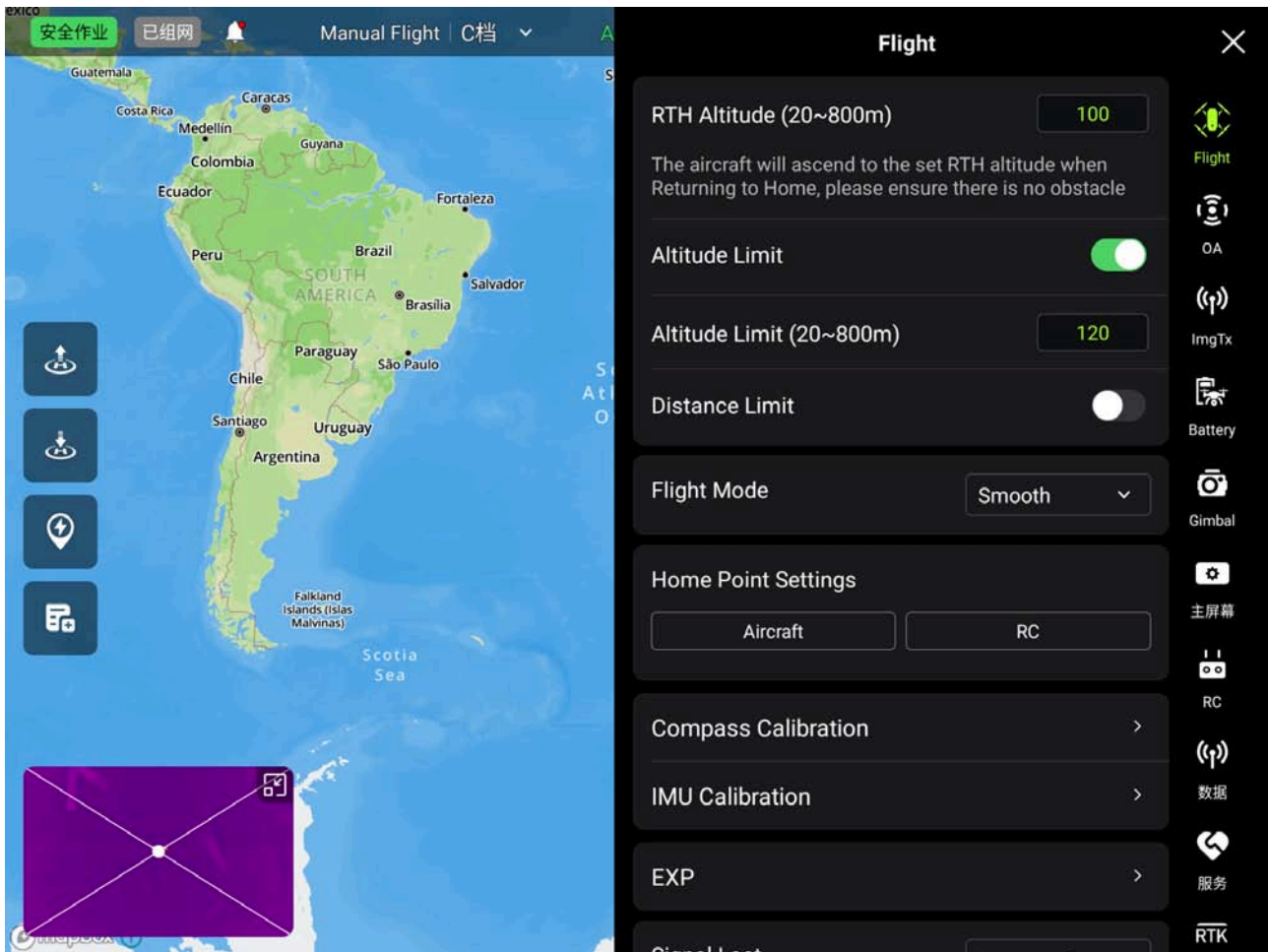
3. : Displays a fixed North-Up orientation, regardless of the remote controller's heading. The display direction will not vary with the rotation of the remote controller orientation.
4. : Displays that the map orientation follows the remote controller's heading, maintaining real-world directional alignment.

 提示:

- Tap between  and  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. : **Clear Flight Path**: Tap to clear flight path on the map.
10. : **Gimbal Projection**: Tap to enable the gimbal projection, the shooting area of the gimbal camera will be projected onto the map.

Settings Page



In App, tap  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, select all drones in current team (Select **ALL**), you can set parameters for all drones.

Flight Control Parameter Settings

Tap  **Flight** in the sidebar of the settings page to enter the **Flight Control** subpage, 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 > 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.

OA Settings

Tap  **OA** (obstacle avoidance) in the sidebar of the settings page to enter the **OA Settings** subpage, 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. **Safety Distance:** Defines the distance at which the drone will brake or hover when detecting an obstacle.
3. **Warning Distance:** Defines the distance at which the drone will issue a warning when detecting an obstacle.
4. **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.

Video Transmission Settings

Tap  **ImgTx** in the sidebar to access the **Video Transmission Settings** subpage. 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. **A mesh Network Settings:** Tap to enter **My team** page, you can manage the drones in team.

Battery Information

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

1. You can view the status of the installed **smart battery** and the 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** and forced 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.

Main Screen

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

1. **Center Dot:** Configure the center point style of the map transmission. Optional type include: Square (with center dot), Square (without center dot), Crosshair, Circle (with center dot), Circle (without center dot).
2. **Gird:** Enable it to display the gird in map transmission view, which assist to composition.
3. **Flight Attitude:** You can set the display type for flight attitude. Optional type include: Attitude Ball, Attitude slider.
4. **Device List:** Set the display mode of the device list in the multi-level networking scenario. Optional type include: Standard, Simple.
5. **Full Screen Effect:** Optional type include: Fit the Screen, Original Ratio.



TIP:

- **Fit the Screen:** In Full-Screen Mode, the display will fill the screen.
- **Original Ratio:** In Full-Screen Display Mode, the image will be displayed on the screen in its original aspect ratio.

6. **Split Screen Effect:** Optional type include: Fit the Screen, Uniform Scale.



TIP:

- **Fit the Screen:** In Full-Screen Mode, the display will fill the screen.
- **Uniform Scale:** In Dual-Screen Mode, the split-screen pages are scaled down proportionally.

RC Settings

Tap  **RC** in the sidebar of the settings page to access the **RC Settings** subpage. 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 > Drone Operation**.

2. **RC Calibration:** If the RC's control 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. **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.

5. **RC S/N, RC Version and APP:** View the version information for the remote controller and Enterprise App.

Data

Tap  **Data** in the sidebar to access the **Data** subpage. The following options are available:

1. **Security:** Encrypt the drone-captured media materials by setting a security 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.

Service

Tap  **Service** in the sidebar to access the **Service** subpage. The following options are available:

1. **User Manual:** Tap this icon to view the manual and obtain detailed operating instructions for the UAV system.
2. **Live Stream:** Set up live streaming for the drone's real-time video feed. The system supports three streaming protocols — RTMP, RTSP, and GB28181 — and two streaming modes: Single-Camera streaming and Multi-Camera streaming.
3. **Cloud Service:** You can connect the drone or the remote controller to a cloud service platform for remote management and control of the UAV system.
4. **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).

RTK Settings

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

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. **Light Settings:** Enable or disable **Stealth** mode. After disabling Stealth mode, you can set the **Aux light** on/off.

**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.

2. **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 the signal for GNSS positioning.
- **Emergency Stop Propellers During Flight**: Enable this function according to your flight safety needs. When enabled, push both control 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.

3. **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.

4. **About:** View the version of the 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.

5. **Units Settings:** Set unit preferences for **Speed/Distance Units**, **Area Units**, **Temperature Units**, and **Coordinate Format** within the Enterprise App.

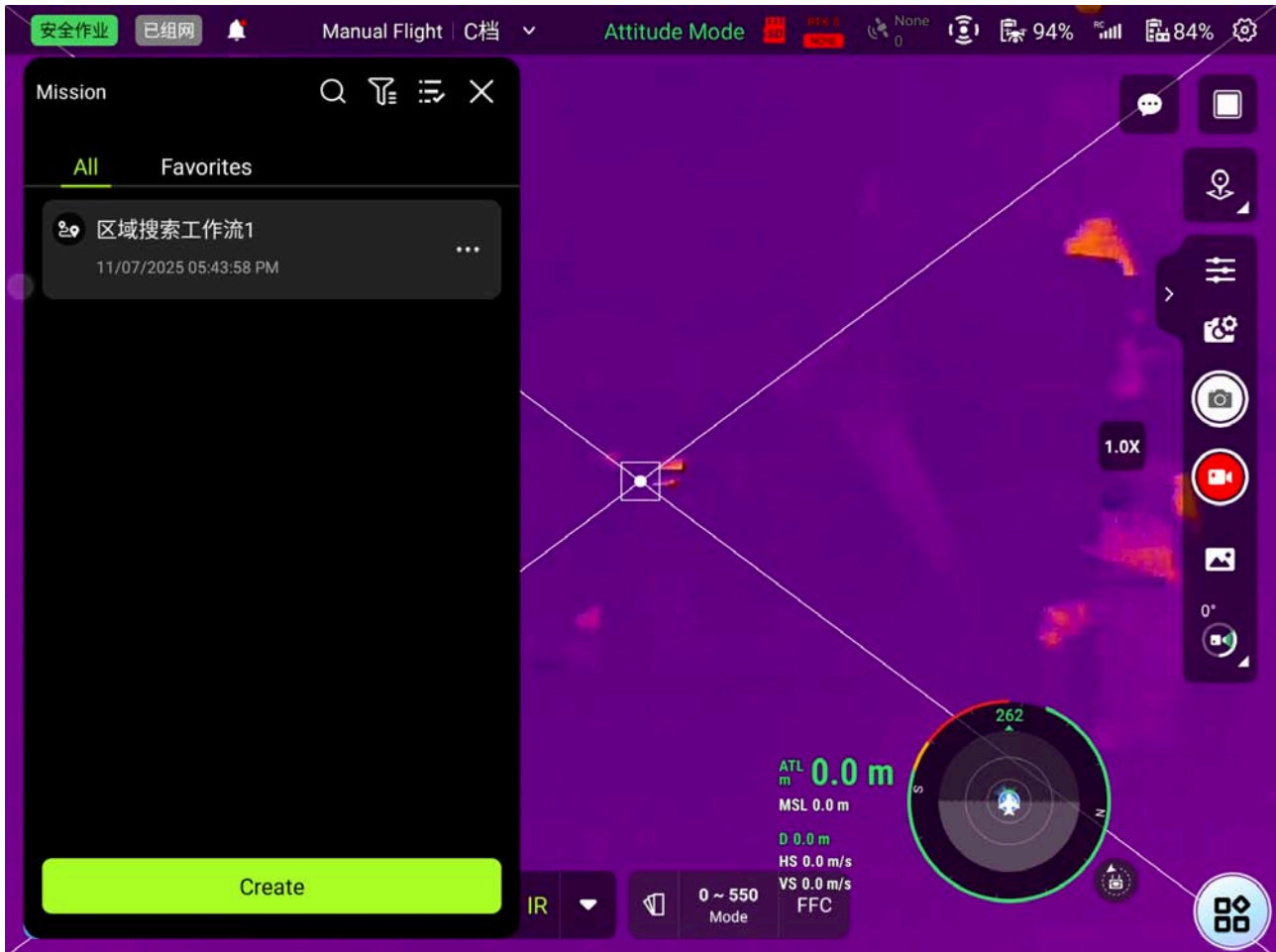
6. **Language Settings:** Set the display language of the Enterprise App. The app will restart automatically after selection.



TIP:

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

Mission



Tap  **Mission** in the left side to open the Mission page.

TIP:

- The Mission page is used to save and manage planned flight routes, intelligent task and intelligent workflow.

You can perform the following operations in the Mission page:

- : Tap this icon to search for routes or geofences using keywords.
- : Tap to filter 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 create a copy for the selected task.
- : Tap to remove selected routes or geofences.
- : Tap to export selected routes in .kmz format to a specified location.

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 Enterprise App

By default, firmware updates for the UAV system are completed through the 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 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  >  **More** > **About** > **Firmware Update**.
3. Upon confirmation, the Enterprise App will automatically download the firmware update package and update the firmware for the drone, remote controller, smart battery, gimbal, and the Enterprise App itself.
4. Once the update is complete, follow the on-screen guidance to restart the drone and remote controller.

WARNING:

- Do not power off the drone or disconnect it from the remote controller during the update process.
- Avoid moving the control sticks during the update to ensure the drone's propellers remain inactive.

IMPORTANT:

- Ensure the drone and remote controller have sufficient storage space for the firmware package.

 NOTE:

- The update typically takes around 15 minutes, depending on the network condition of the remote controller.

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.

 WARNING:

- Remove any mounted payload or accessory from the drone body before performing calibration.

 IMPORTANT:

- Before performing calibration, ensure the remote controller is properly linked to the drone.

Compass Calibration

If the Enterprise App on the RC displays the message **“Compass needs calibration, please calibrate before flight.”** follow this path to calibrate the compass: ⚙️ > 📶
Flight > Compass Calibration.

WARNING:

- 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.
- Do not turn off the drone or start the motors during the calibration process.

IMPORTANT:

- Follow the on-screen guidance in the Compass Calibration page to complete the process.

TIP:

- Perform calibration in a wide-open outdoor area.
- Keep the drone at least 1.5 meters above the ground and away from electrified objects during calibration.
- If calibration fails, the drone's rear arm lights will turn solid red and a failure message will appear in the 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.

NOTE:

- The compass is pre-calibrated at the factory and typically does not require user calibration.

IMU Calibration

If the 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:

 >  **Flight > IMU Calibration.**

 IMPORTANT:

- Do not move, power off, or restart the drone during calibration.

 TIP:

- Place the drone on a flat, stable surface and keep it completely still during calibration.
- Avoid bumping or disturbing the visual sensing lenses during the process.
- If calibration fails, the drone's rear arm lights will turn solid red and a failure message will appear in the Enterprise App. Please repeat the calibration if necessary.

 NOTE:

- The IMU is pre-calibrated at the factory and typically does not require user calibration.
- During IMU calibration, the gimbal will remain inactive.

Gimbal Calibration

If the status bar in the Enterprise App displays a warning message **"Please calibrate the gimbal motor"**, follow the path below to perform the calibration:

 >  **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.

 TIP:

- 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 control sticks or dials of the remote controller are not responding correctly, follow the path below to calibrate the remote controller:

 >  **RC** > **RC Calibration**.

- On the **RC Calibration** page, move the left and right dials and control 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. If any component is swallowed, seek immediate medical attention.
- 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.

 IMPORTANT:

- 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 ABE40 smart battery has a rated energy of 124.4 Wh (rated capacity 8640 mAh). Always follow the lithium battery transportation regulations applicable in your region when shipping or carrying the battery.

 WARNING:

- 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.

 TIP:

- Turn off the smart battery before transportation.
- Protect the battery with anti-vibration and anti-impact packaging.

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 cycle 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 cycles.

**IMPORTANT:**

- Please be advised that the smart battery will no longer function properly after exceeding 300 discharge cycles. Specific behaviors include:
 - The smart battery can still be powered on, but it will be unable to supply power to the drone. After powering on, the LED1 and LED4 battery indicators will blink continuously in sync.
 - The smart battery can still be charged, but only to approximately half capacity.

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
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 the damping balls for any signs of cracking, loosening, or aging. 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.

No.	Component	Quantity	Notes
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 control 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	Smart battery	1
4	RC control stick	2

WARNING:

- For replacement of components not listed here, please contact us for assistance. Damage caused by unauthorized disassembly will not be covered under warranty.

TIP:

- You can contact us directly to purchase the user-replaceable components listed above and follow the replacement instructions in the manual.

Troubleshooting Guide

WARNING:

- For faults caused by abnormal use, please contact us directly for assistance.

**TIP:**

- The troubleshooting measures below apply only to issues arising under normal operating conditions.

No. Problem Description Measures and Instructions

1	The RC cannot be powered 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 further support. 4. If none of the above situations apply and the RC has not been subjected to external impact, immersion in liquid or any other destructive action, it may be a hardware failure. Contact us for further support.
2	The drone cannot be powered on.	1. Check if the smart battery is sufficiently charged. If the power is too low, recharge it fully before powering on. 2. If the smart battery has sufficient charge, check whether the battery is making proper contact with the drone. If the battery contact shows signs of dirt, rust, or other contaminants, this may cause poor contact. Clean the contact and reinsert the battery before powering on the device. 3. Please check the metal contact between the drone and the smart battery for missing or damaged parts. If any, contact us for further support. 4. Please verify that the ambient temperature is within the applicable range. Temperatures that are too low or too high will affect the performance of the smart battery, which may prevent the drone from powering on. 5. If the drone or smart battery was powered off unexpectedly during a firmware update, the drone may fail to power on. Contact us for further support. 6. In the event that none of the above situations apply, try replacing the smart battery: if the drone powers on normally, the smart battery has experienced a hardware damage; if the drone still fails to power on, the drone has experienced a hardware failure. Contact us for further support.
3	Error message during startup self-	1. Check the gimbal. If it's unresponsive, turn off the drone, then restart it.

No.	Problem Description	Measures and Instructions
	check.	2. If the gimbal runs the self-check normally but an error remains with the drone, then the drone has experienced a hardware failure. Contact us for further support.
4	The drone fails to link with the RC.	1. Keep the drone and the RC within one meter of each other. 2. Ensure that there are no metal objects, mobile devices, jamming sources, or other RCs in linking state nearby. 3. Don't activate the linking state of multiple drones at the same time, as this will cause interference.
5	The drone fails to enter A-Mesh Link mode.	1. To update the firmware of remote controller and drone to the latest version, and reconnect it.
6	The drone motors won't start up.	1. Ensure that the RC and the drone are properly linked. 2. Check whether the RC control sticks respond correctly and whether the RC has been calibrated properly. 3. Ensure that the battery level is sufficient. 4. Ensure that the compass is normally calibrated. 5. If none of the above solutions work, then the drone has experienced a hardware failure. Contact us for further support.
7	The drone motors start running but the drone won't take off.	1. Check if the drone is in a No-Fly Zone, the buffer zone of a Custom No-Fly Zone, or the buffer zone of a Custom Geofence. 2. Ensure that the drone is placed on a flat surface. 3. Ensure that no nearby obstacles are triggering the obstacle avoidance system. 4. Check that the smart battery is properly installed, make sure the battery is well mounted in battery slot.
8	Shorter-than-expected flight time.	1. Flight endurance will more or less be reduced by cold ambient weather, headwinds, turbulence, or heavy payloads. 2. Ensure that the smart battery has undergone fewer than 200 discharge cycles. The battery undergoes normal capacity degradation during its service life.
9	Unstable video transmission.	1. Check that the RC antennas are secure and properly oriented. 2. Ensure that there are no strong electromagnetic fields or sources of signal interference near the drone or the RC. 3. Ensure that the drone stays within the valid

No.	Problem Description	Measures and Instructions
		communication range of the RC and reduce the drone's flight radius if needed.
10	Gimbal camera shuts off automatically during flight.	1. If you use a microSD card to save the files, don't remove it from the drone immediately. Try restarting the gimbal first, and wait for it to recover as many media files as possible. 2. Check if the card has run out of space. Replace with another microSD card or offload the media files if needed. 3. Ensure that the gimbal is securely mounted. A loose gimbal may disconnect from the drone due to vibrations during flight, causing it to stop functioning.
11	Video transmission loss during BVLOS flight.	1. Before flight, configure signal loss and RTH strategies. 2. During flight, ensure that the GNSS mode is enabled. If the drone loses connection with the RC, it will attempt to reconnect for 10 seconds before activating the signal loss strategy.
12	Visual sensing system not working normally.	1. Before flight, ensure that the visual sensing lenses are clean and unobstructed. 2. Be aware of blind spots of the drone. Pay attention to changes in the surrounding environment during flight and monitor the alert notifications on the Enterprise App. 3. The vision-based detection relies on the surface texture of objects. The visual sensing system may lose functionality when detecting plain surfaces, repetitive patterns, monochromatic surfaces, moving targets, tiny targets, extreme lighting, or dim lighting. 4. If none of the above situations apply, restart the drone to see if the visual sensing system works normally.
13	Precision landing / landing protection not working normally.	1. Both functions rely on the visual sensing lenses under the drone to detect ground texture. 2. If the ground texture is missing or changing, or if the lenses under the drone are blocked or damaged, the functions will lose functionality.
14	Pitched camera feed during flight.	1. Land the drone and perform auto gimbal calibration on a level surface via the 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 the previous solution doesn't work, try restarting the drone. If the issue still persists, contact us for further support.

No.	Problem Description	Measures and Instructions
16	The drone/RC unexpectedly shut off during an update.	1. Reboot the device. If successful, ensure sufficient power and restart the update. 2. If the device cannot start up, contact us for further support.
17	Factory reset for the RC.	Go to Settings > System > Reset options in the RC system. Back up important data before proceeding.
18	The RC is 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 devices or other 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	/

Component	Warranty (US, APEC, South Africa, MENA)	Warranty (EU)	Notes
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
Hard case	3 months	6 months	/



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/>

Query for Product Lifecycle Management Policy:

<https://www.autelrobotics.com/news/20250728/>

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 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	Multicopter drone	/
Product name 1	EVO III 4T Pro	Equipped with Fusion 4T Pro gimbal
Product name 2	EVO III 4N Pro	Equipped with Fusion 4N Pro gimbal
Product name 3	EVO III 3M Pro	Equipped with Fusion 3M Pro gimbal
Product name 4	EVO III 4F Pro	Equipped with Fusion 4F Pro gimbal
Certified model	MDE, MDE-L	/



TIP:

- Path for querying the certification information of the remote controller:
System **Settings** App > **About Device** > **Certification Info**.

For aircraft

This equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 30cm between the radiator& your body.

L'appareil est conforme aux limites d'exposition aux rayonnements spécifiées par la FCC/ISED pour les environnements non contrôlés. La distance entre le radiateur et le corps doit être d'au moins 30 cm lors de l'installation et du fonctionnement de l'appareil.

For the remote control

This equipment complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment.

L'appareil est conforme aux limites d'exposition aux rayonnements spécifiées par la FCC/ISED pour les environnements non contrôlés.

The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

L'appareil destiné à fonctionner dans la bande 5150-5250 MHz est uniquement destiné à une utilisation en intérieur afin de réduire le risque d'interférence nuisible aux systèmes mobiles par satellite utilisant le même canal.

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.

Simplified EU Declaration of Conformity

Autel Robotics Co., LTD hereby declares that the UAS MDX-1 is of class C2 and has a guaranteed sound power level of 87 dB(A) and in compliance with Regulations 2019/945/EU amended by Delegated Regulation 2020/1058/EU.

The full EU declaration of conformity is accessible at the following website:

https://app.autelrobotics.cn/statics/cdn/DoC/MDX-1_C2_DoC_en.pdf

Item	Notes
Product:	EVO Max 4T V2, EVO Max 4N V2, EVO Max 4NZ V2
Type (Model):	MDX-1
Class:	C2
Sound power level:	87 dB(A)
Batch:	XXXXXXXX (8-digit number)
Manufacturer's name:	<i>Autel Robotics Co., Ltd.</i>
Manufacturer's address:	<i>601,701,801,901, Block B1, Nanshan iPark, No. 1001 Xueyuan Avenue, Nanshan District, Shenzhen, Guangdong, 518055, China</i>

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 IEC 60825-1:2014
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)
RED Article 3.3(d)	EN 18031-1:2024
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/AOC-2502Q45607E-CY**.

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: 2025-07-31

Name: Cheng Zhuanpeng

Position: Legal Representative

Signature: *Cheng Zhuanpeng*

Annex I

Product Mix Description	Model	FW version	Description	Serial Number
EVO Max 4T V2	MDX-1	v1.9.1.125	Quadcopter equipped with a Fusion 4T V2 gimbal	1748FEV3XXXXXXXXXXXXX
EVO Max 4N V2	MDX-1	v1.9.1.125	Quadcopter equipped with a Fusion 4N V2 gimbal	1748FEV3XXXXXXXXXXXXX
EVO Max 4NZ V2	MDX-1	v1.9.1.125	Quadcopter equipped with a Fusion 4NZ V2 gimbal	1748FEV3XXXXXXXXXXXXX
Battery	ABX41-D	/	Drone battery	1748CBXXXXXXXXXXXXX
Remote Controller	EF9-3	v1.9.1.117	Drone remote controller	TH7XXXXXXXXXX
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.



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

Drone

Item	Specifications
EVO III 4T Pro weight	1520 g Note: ABE40 smart battery, Fusion 4T Pro gimbal, and propellers included.
EVO III 4N Pro weight	1600 g Note: ABE40 smart battery, Fusion 4N Pro gimbal, and propellers included.
EVO III 3M Pro weight	1555 g Note: ABE40 smart battery, Fusion 3M Pro gimbal, and propellers included.
EVO III 4F Pro weight	1520 g Note: ABE40 smart battery, Fusion 4F Pro gimbal, and propellers included.
Maximum take-off weight	1990 g
Fuselage dimensions	649×568×160 mm Note: unfolded, incl. propellers.
Diagonal wheelbase	Diagonal: 461 mm
Propeller	Size: 11 inch Pitch: 5.2 inch

Item	Specifications
Maximum propeller rotational speed	7800 RPM
Operating temperature	-20°C to +50°C
Ingress protection rating	IP43 Note: Long-term use may cause failure.
Internal storage	256 GB internal storage, with 176GB of available space Note: Remaining available space will vary with different firmware versions.
Supported microSD cards	Supports Class 10, UHS-3 or higher microSD cards, up to 1 TB
GNSS	GPS/GLONASS/Galileo/BeiDou
Hovering Accuracy	Vertically ±1.5 m (When GNSS is working normally) ±0.1 m (When RTK is working normally) Horizontally ±1.5 m (When GNSS is working normally) ±0.1 m (When RTK is working normally)
RTK Positioning Accuracy	RTK Fix 5 cm + 1 ppm (Horizontal) 5 cm + 1 ppm (Vertical)
Hot swap battery	Supported Note: The hot swap battery function must be enabled in Enterprise App in advance.
Battery Presence Detection	Supported
Strobe	Integrated
Flight Performance	
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: 3 m/s Smooth: 10 m/s Standard: 15 m/s

Item	Specifications
	Ludicrous: 23 m/s Note: Windless Near Sea Level.
Max service ceiling above sea level	5000 meters
Maximum Operating Altitude (with payload)	4000 meters
Max flight altitude	Chinese Mainland & EU Laws: No more than 120 meters US or Canada Law: No more than 400 feet Note: The altitude can be set from 20 to 800 meters in Enterprise App. To set altitude higher than required by law, authority approval is required.
Max flight time	48 minutes Note: Test data from lab with windless environment in constant speed during horizontal flight until its battery level reaches 0% and only for reference.
Max hover time	42 minutes Note: Test data from lab with windless environment hovering until its battery level reaches 0% and only for reference.
Max flight distance	33 km Note: Test data from lab with windless environment during constant speed horizontal flight until its battery level reaches 0% and only for reference.
Max wind speed resistance	Cruise phase: 12 m/s
Max pitch angle	Slow: 15° Smooth: 20° Standard: 25° Ludicrous: 35°
Max angular velocity	Yaw axis: 120°/s
Video Transmission	
Antenna	8 antennas, 4T8R
Operating frequency	900M: 902–928 MHz ^[1] 1.4G: 1.430–1.444 GHz ^[2] 2.4G: 2.400–2.476 GHz ^[2] , 2.400–2.4835 GHz ^[3] 5.2G: 5.15–5.25 GHz ^[3] , 5.17–5.25 GHz ^[4] 5.8G: 5.725–5.829 GHz ^[2] , 5.725–5.850 GHz ^[3] ^[1] Applicable only to FCC and ISED certified areas.

Item	Specifications
	^[2]Applicable only to SRRC certified areas. ^[3]Applicable only to FCC, CE (Except Germany) and UKCA certified areas. ^[4]Applicable only to Germany. Note: <i>Different countries/regions have different supported operating frequency bands and their corresponding available ranges. For details, please refer to the local laws and regulations.</i>
Equivalent isotropic radiated power (EIRP)	900M: ≤30 dBm (FCC/ISED) 1.4G: ≤35 dBm (SRRC) ; 2.4G: ≤30 dBm (FCC/ISED) ; ≤20 dBm (CE/SRRC/UKCA) 5.2G: ≤30 dBm (FCC) ; ≤23 dBm (CE/UKCA) 5.8G: ≤30 dBm (FCC/ISED/SRRC) ; ≤14 dBm (CE/UKCA)
Max transmission distance	FCC: 35 km CE: 15 km SRRC: 15 km MIC: 15 km Note: <i>The above data were measured in an outdoor, open and interference-free environment, which refers to the farthest communication distance for one-way non-return flights in accordance with various standards.</i>
Max transmission distance (with interference)	Strong Interference: 1-6 km Medium Interference: 6-15 km Weak Interference: 15-35 km Note: <i>The above data were obtained under FCC standards, in various scenarios with typical interference intensities and an unobstructed environment. The actual flight distance is not guaranteed, and is for users' reference only when flying independently.</i>
Maximum Download Rate	100 Mbps Note: <i>The above data were measured under the conditions that the drone and the remote controller are in a near-field and interference-free environment.</i>

Visual Obstacle Avoidance

System Composition	Omnidirectional Vision + Forward Millimeter-Wave Radar + Downward ToF Sensor
Forward	Binocular Ranging Range: 0.5-22 m FOV: 90° (H), 135° (V) Effective Obstacle Avoidance Velocity: ≤15 m/s Radar Obstacle Avoidance Range: >40 m (for trees, buildings and other strongly reflective obstacles) >40 m (within ±10°, at >5 m height, for 2 cm distribution lines) FOV: ±16° (H), ±28°(V) , antenna half-power points. Effective Obstacle Avoidance Velocity:

Item	Specifications
	1. 15 m/s (for trees, buildings and other strongly reflective obstacles) 2. 15 m/s (within $\pm 10^\circ$, at >5 m height, for 2 cm distribution lines)
Backward	Binocular Ranging Range: 0.5-22 m FOV: 90° (H), 135° (V) Effective Obstacle Avoidance Velocity: ≤ 15 m/s
Sideward	Binocular Ranging Range: 0.5-68 m FOV: 90° (H), 135° (V) Effective Obstacle Avoidance Velocity: ≤ 15 m/s
Downward	Binocular Ranging Range: 0.5-15 m FOV: 90° (Front & Rear), 90° (Left & Right) Effective Obstacle Avoidance Velocity: ≤ 6 m/s ToF Sensor (FOV): $\pm 30^\circ$ (Left & Right), $\pm 45^\circ$ (Front & Rear) Height Hold Range: 1. Maximum 6 m during the day (for typical surfaces such as grassland, soil and cement ground). 2. Maximum 15 m at night (for typical surfaces such as grassland, soil and cement ground) Height Hold Blind Zone: 0.2 m during the day, 0.3 m at night Height Hold Accuracy: <0.1 m (calibration result with laboratory reflector)
Operating environment	Forward, backward, sideways, and upward: The surface has rich textures, under a sufficient lighting environment (>15 lux, normal indoor fluorescent lighting environment). Downwards: The surface has rich textures, and the surface is a diffuse material with a reflectivity >20% (walls, trees, humans, etc.), under a sufficient lighting environment (>15 lux, normal indoor fluorescent lighting environment).

Gimbal

Fusion 4T Pro

Item	Specifications
Operating Ambient Temperature	-20°C to +50°C
Stabilization system	3-axis mechanical gimbal (pitch, roll, yaw)
Mechanical range	Pitch: $\pm 65^\circ$ Roll: $\pm 55^\circ$ Yaw: 105° (Upward), 140° (Downward)

Item	Specifications
Controllable range	Pitch: -90°(Downward) to 60° (Upward)
Max control speed	Pitch: 100°/s
Angular vibration range	<0.005°
Whether the Yaw axis is controllable	Uncontrollable
Ingress protection rating	IP54 Note: Long-term use may cause failure.

Wide-Angle Camera

Image sensor	1/0.98" CMOS. Effective pixels: 50MP
Lens	DFOV: 85° 35mm Equivalent focal length: 23 mm Aperture: f/1.85 Focus: 1 m ~ ∞
ISO range	Auto: ISO100 ~ ISO51200 Manual: ISO100 ~ ISO6400
Shutter speed	Shooting: 1s ~ 1/10000s Recording: 1/30s ~ 1/10000s
Zoom	3.3x digital zoom
Maximum Photo size	8192×6144
Photo format	JPED+DNG
Photo shooting mode	Single shot: 12.5 MP, 50 MP
Video resolution	4K: 4000×3000@30fps 60 Mbps 1080P: 1440×1080@30fps 20 Mbps
Video encoding	H.264/H.265
Video format	MP4
Video subtitles	Supported
Supported file system	exFAT

Zoom Camera

Image sensor	1/2" CMOS. Effective pixels: 50MP
Lens	DFOV: 29.6°-9.3° 35mm Equivalent focal length: 80 - 264 mm

Item	Specifications
	Aperture: f/2.8 – f/4.5 (Automatically Variable) Focus: 2 m ~ ∞
ISO range	Auto: ISO100 ~ ISO6400 Manual: ISO100 ~ ISO6400
Shutter speed	Shooting: 8s ~ 1/10000s Recording: 1/30s ~ 1/10000s
Zoom	160x digital zoom and 20x hybrid zoom
Photo format	JPG+DNG
Minimum Shooting Interval	1 s
Photo shooting mode	Single shot: 12.5 MP, 50 MP
Video resolution	4K: 4000×3000@30fps 60 Mbps 1080P: 1440×1080@30fps 20 Mbps
Video encoding	H.264/H.265
Video format	MP4
Video subtitles	Supported
Supported file system	exFAT
IR Camera	
Thermal imager	Uncooled VOx Microbolometer
Pixel pitch	12 μm
Spectral band	8 – 14 μm
Noise equivalent temperature difference	≤25mK@25°C , F#1.0
Lens	DFOV: 42° 35mm Equivalent focal length: 57 mm Aperture: f/1.0 Focusing distance: 7 m ~ ∞
Temperature measurement method	Center point temperature measurement Spot temperature measurement Area temperature measurement

Item	Specifications
Burn Protection	Supported Note: When the pixel energy of the detection sensor inside the movement is saturated and reaches a certain proportion, it will automatically turn on.
Temperature measurement range	High gain mode: -20°C to 150°C Low gain mode: 0°C to 550°C
Temperature measurement accuracy	High gain mode: ±2°C or reading ±2% (using the larger value) @ ambient temperature ranges from -20°C to 60°C Low gain mode: ±4°C or reading ±4% (using the larger value) @ ambient temperature ranges from -20°C to 60°C
Accurate temperature measurement distance	5 m Note: Under a windless laboratory environment at 25 °C, the measurement is performed at a distance of 5 meters from the blackbody.
Temperature alert	In area temperature measurement, high and low temperature alarm thresholds, reporting coordinates and temperature values are supported
Palette	White Hot/Black Hot/Red Highlight/Ironbow/Hot Iron/Arctic/Medical/Lava/Rainbow 1/Rainbow 2
Equivalent digital zoom rate	16x digital zoom
Photo size	640×512
Photo format	R-JPG Note: Identified via Autel IR Tool.
Photo shooting mode	Single shot: 640×512, 1280×1024 (Infrared Super Resolution Mode)
Video resolution	Basic Mode: 640×512@30fps SR Mode: 1280×1024@30fps
Video format	MP4
Laser Rangefinder	
Wavelength	905 nm
Laser safety	Class 1
Measuring accuracy	± (1 m + D ×0.15%) Note: Where D is the distance to a vertical reflecting plane.

Item	Specifications
Measurement range	5 - 2000 m
Infrared Laser Fill Light	
FOV	8°
Lighting Distance	Maximum distance of 200m
Infrared Laser Fill Light safety	Class 3

Fusion 4N Pro

Item	Specifications
Operating Ambient Temperature	-20°C to +50°C
Stabilization system	3-axis mechanical gimbal (pitch, roll, yaw)
Mechanical range	Pitch: ±65° Roll: ±45° Yaw: 105° (Upward), 140° (Downward)
Controllable range	Pitch: -90°(Downward) to 60° (Upward)
Max control speed	Pitch: 100°/s
Angular vibration range	<0.006°
Whether the Yaw axis is controllable	Uncontrollable
Ingress protection rating	IP54 Note: Long-term use may cause failure.

Low-Light Night Vision Camera

Image sensor	1/1.69" CMOS. Effective pixels: 2.3MP
Lens	DFOV: 52°±2° 35mm Effective focal length: 39.4 mm Aperture: f/1.4 Focus: 10 m ~ ∞
ISO range	Auto: ISO100 ~ ISO440000 Manual: ISO100 ~ ISO440000
Shutter speed	Shooting: 8s ~ 1/10000s Recording: 1/30s ~ 1/10000s

Item	Specifications
Zoom	8x digital zoom
Photo size	1920×1200
Photo format	JPEG
Minimum Shooting Interval	1 s
Photo shooting mode	Single shot
Video resolution	1920×1200@29fps
Max video bitrate	1920×1200@30 fps 20Mbps
Video encoding	H.264/H.265
Video format	MP4
Video subtitles	Supported
Supported file system	exFAT

Telephoto Night Vision Camera

Image sensor	1/1.2" CMOS. Effective pixels: 8MP
Lens	DFOV: 16.3° 35mm Effective focal length: 147 mm Aperture: f/1.75 Focus: 20 m ~ ∞
ISO range	Auto: ISO100 ~ ISO10000 Manual: ISO100 ~ ISO10000
Shutter speed	Shooting: 1/30s ~ 1/8000s Recording: 1/30s ~ 1/8000s
Zoom	8x digital zoom
Photo size	3840×2160, 1920×1080
Photo format	JPEG
Minimum Shooting Interval	1 s
Photo shooting mode	Single shot
Video resolution and max video bitrate	4K: 3840×2160@30 fps 50 Mbps 1080P: 1920×1080@30 fps 20 Mbps

Item	Specifications
Video encoding	H.264/H.265
Video format	MP4
Video subtitles	Supported
Supported file system	exFAT
IR Camera	
Thermal imager	Uncooled VOx Microbolometer
Pixel pitch	12 μm
Spectral band	8 – 14 μm
Noise equivalent temperature difference	≤50mK@25°C, F#1.0
Lens	DFOV: 22° 35mm Equivalent focal length: 110 mm Aperture: f/1.2 Focusing distance: 13 m ~ ∞
Temperature measurement method	Center point temperature measurement Spot temperature measurement Area temperature measurement
Temperature measurement range	High gain mode: -20°C to 150°C Low gain mode: 0°C to 550°C
Temperature measurement accuracy	±3°C or reading ±3% (using the larger value) @ ambient temperature ranges from -10°C to 50°C
Accurate temperature measurement distance	10 m Note: Under a windless laboratory environment at 25 °C, the measurement is performed at a distance of 10 meters from the blackbody.
Temperature alert	In area temperature measurement, high and low temperature alarm thresholds, reporting coordinates and temperature values are supported
Palette	White Hot/Black Hot/Red Highlight/Ironbow/Hot Iron/Arctic/Medical/Lava/Rainbow 1/Rainbow 2
Zoom	16x digital zoom
Photo size	640×512
Photo format	R-JPG Note: Identified via Autel IR Tool.

Item	Specifications
Photo shooting mode	Single shot: 640×512, 1280×1024 (Infrared Super Resolution Mode)
Video resolution	Basic Mode: 640×512@30fps SR Mode: 1280×1024@30fps
Video format	MP4
Laser Rangefinder	
Wavelength	905 nm
Laser safety	Class 1
Measuring accuracy	$\pm (1\text{ m} + \mathbf{D} \times 0.15\%)$ Note: Where D is the distance to a vertical reflecting plane.
Measurement range	5 - 2000 m
Infrared Laser Fill Light	
FOV	8°
Lighting Distance	Maximum distance of 200 m
Infrared Laser Fill Light safety	Class 3B

Fusion 3M Pro

Item	Specifications
Operating Ambient Temperature	-20°C to +50°C
Stabilization system	3-axis mechanical gimbal (pitch, roll, yaw)
Mechanical range	Pitch: $\pm 65^\circ$ Roll: $\pm 45^\circ$ Yaw: 105° (Upward), 140° (Downward)
Controllable range	Pitch: -90°(Downward) to 60° (Upward)
Max control speed	Pitch: 100°/s
Angular vibration range	<0.006°
Whether the Yaw axis is controllable	Uncontrollable

Item	Specifications
Ingress protection rating	IP54 Note: Long-term use may cause failure.
Wide-Angle Camera	
Image sensor	1/0.98" CMOS. Effective pixels: 50MP
Lens	DFOV: 81° 35mm Equivalent focal length: 24 mm Aperture: f/2.6-f/11 Focus: 1 m ~ ∞
ISO range	Auto: ISO100 ~ ISO6400 Manual: ISO100 ~ ISO6400
Shutter speed	Shooting: 8s ~ 1/10000s Recording: 1/30s ~ 1/10000s
Zoom	2.6x digital zoom
Maximum photo size	8000×6000
Photo format	JPEG+DNG
Minimum Shooting Interval	1 s
Photo shooting mode	Single shot: 12.5 MP, 48 MP
Video resolution and max video bitrate	4K: 4000×3000@30 fps 60 Mbps 1080P: 1440×1080@30 fps 20 Mbps
Video encoding	H.264/H.265
Video format	MP4
Video subtitles	Supported
Supported file system	exFAT
Zoom Camera	
Image sensor	1/2" CMOS. Effective pixels: 50MP
Lens	DFOV: 40°-10.3° 35mm Equivalent focal length: 64 - 234 mm Aperture: f/2.8 – f/4.8 (Automatically Variable) Focus: 2 m ~ ∞
ISO range	Auto: ISO100 ~ ISO6400 Manual: ISO100 ~ ISO6400

Item	Specifications
Shutter speed	Shooting: 8s ~ 1/10000s Recording: 1/30s ~ 1/10000s
Zoom	160x digital zoom and 20x hybrid zoom
Maximum photo size	8000×6000
Photo format	JPG+DNG
Minimum Shooting Interval	1 s
Photo shooting mode	Single shot: 12.5 MP, 50 MP
Video resolution and maximum bitrate	4K: 4000×3000@30 fps 60 Mbps 1080P: 1440×1080@30 fps 20 Mbps
Video encoding	H.264/H.265
Video format	MP4
Video subtitles	Supported
Supported file system	exFAT
IR Camera	
Thermal imager	Uncooled VOx Microbolometer
Pixel pitch	12 μm
Spectral band	8 – 14 μm
Noise equivalent temperature difference	≤25mK@25°C , F#1.0
Lens	DFOV: 62° 35mm Equivalent focal length: 40 mm Aperture: f/1.0 Focusing distance: 5 m ~ ∞
Temperature measurement method	Center point temperature measurement Spot temperature measurement Area temperature measurement
Burn Protection	Supported Note: When the pixel energy of the detection sensor inside the movement is saturated and reaches a certain proportion, it will automatically turn on.

Item	Specifications
Temperature measurement range	High gain mode: -20°C to 150°C Low gain mode: 0°C to 550°C
Temperature measurement accuracy	High gain mode: ±2°C or reading ±2% (using the larger value) @ ambient temperature ranges from -20°C to 60°C Low gain mode: ±4°C or reading ±4% (using the larger value) @ ambient temperature ranges from -20°C to 60°C
Accurate temperature measurement distance	5 m Note: Under a windless laboratory environment at 25 °C, the measurement is performed at a distance of 5 meters from the blackbody.
Temperature alert	In area temperature measurement, high and low temperature alarm thresholds, reporting coordinates and temperature values are supported
Palette	White Hot/Black Hot/Red Highlight/Ironbow/Hot Iron/Arctic/Medical/Lava/Rainbow 1/Rainbow 2
Equivalent digital zoom rate	16x digital zoom
Photo size	640×512
Photo format	R-JPG Note: Identified via Autel IR Tool.
Photo shooting mode	Single shot: 640×512, 1280×1024 (Infrared Super Resolution Mode)
Video resolution	Basic Mode: 640×512@30fps SR Mode: 1280×1024@30fps
Video format	MP4
LED Fill Light	
FOV	120°
LED Fill Light safety	Class 3B

Smart Battery

Item	Specifications
Weight	460 ± 5 g
Dimension	157×71×47 mm

Item	Specifications
Operating temperature	Charging: +10°C to +50°C Discharging: -10°C to +60°C
Storage temperature	-20°C to +45°C
Ideal storage environment	+22°C to +28°C, (65±20%)RH, 60% battery level
Battery type	Li-Po 4S
Rated capacity	8640 mAh
Rated energy	124.4 Wh
Nominal voltage	14.4 V DC
Max charging voltage	17.2 V DC
Max charging power	267W
Charging temperature	+10°C to +50°C Note: When the battery temperature is below +10°C, the battery stops charging and activates self-heating. When the battery temperature reaches +10°C, the battery starts charging. When the battery temperature reaches +15°C, the self-heating will be deactivated. When the battery temperature is above +50°C, the battery stops charging.
Service life	Room Temperature Environment: 300 cycles High Temperature Environment: 200 cycles Note: If the number of discharge cycles exceeds the specified limit , the battery should be replaced with a new one.
Battery Charger	
Power input	100-240 V AC 50/60 Hz 4.0 A Max
Output port	Battery charging port: 12–27 V DC, 20 A Max; Maximum output: 300 W USB-C: 5.0 V=3 A, 9 V=3 A, 12 V=3 A, 15 V=3 A, 20 V=5 A; maximum output: 100W Total power output: 300 W

Remote Controller

Item	Specifications
Body material	ABS+PC
Dimensions	269×189×92 mm Note: Antennas folded, sticks and bracket included. 269×189×178 mm Note: Antennas vertical to screen, sticks and bracket included. 269×302×92 mm Note: Antennas unfolded, sticks and bracket included.
Weight	1205 g Note: Smart controller cover excluded. 1375 g Note: Smart controller cover included.
Operating temperature	-20°C to 40°C
Storage temperature	+15°C to +25°C (within a year) 0°C to +30°C (within three months) -20°C to +45°C (within a month)
Ingress protection rating	IP43 Note: Long-term use may cause failure.
GNSS	GPS/Galileo/BDS/GLONASS
Operating system	Based on Android 11
Internal storage	128GB Note: Does not support microSD card extension.

Display

Type	TFT LCD
Screen size	7.9 inches
Resolution	2048×1536
Max brightness	2000 nits
Refresh rate	60 Hz
Touch control	Supported

Video Transmission

Antenna Design	4 antennas, 2T4R
Operating frequency	900M: 902–928 MHz ^[1] 2.4G: 2.400–2.476 GHz ^[2] , 2.400–2.4835 GHz ^[3] 5.2G: 5.15–5.25 GHz ^[3] , 5.17–5.25 GHz ^[4] 5.8G: 5.725–5.829 GHz ^[2] , 5.725–5.850 GHz ^[3]

Item	Specifications
	^[1]Applicable only to FCC and ISED certified areas. ^[2]Applicable only to SRRC certified areas. ^[3]Applicable only to FCC, CE (Except Germany) and UKCA certified areas. ^[4]Applicable only to Germany. Note: Different countries/regions have different supported operating frequency bands and their corresponding available ranges. For details, please refer to the local laws and regulations.
Equivalent isotropic radiated power (EIRP)	900M: ≤30 dBm (FCC/ISED) 2.4G: ≤30 dBm (FCC/ISED) ; ≤20 dBm (CE/SRRC/UKCA) 5.2G: ≤30 dBm (FCC) ; ≤23 dBm (CE/UKCA) 5.8G: ≤30 dBm (FCC/ISED/SRRC) ; ≤14 dBm (CE/UKCA)
Max transmission distance	FCC: 25 km CE: 10 km SRRC: 10 km MIC: 10 km Note: The above data were measured in an outdoor, open and interference-free environment, and represent the maximum communication distance for one-way non-return flights under various standards.
Wi-Fi	
Protocol	Wi-Fi 6
Operating frequency	2.4G: 2.400-2.476 GHz^[1], 2.400–2.4835 GHz 5.2G: 5.15–5.25 GHz 5.8G: 5.725–5.829 GHz^[1], 5.725–5.850 GHz ^[1]Applicable only to SRRC certified areas. Note: Some regions do not support the 5.2G and 5.8G frequency bands, and in some regions, the 5.2G frequency band is restricted to indoor use only. For details, please refer to the local laws and regulations.
Equivalent isotropic radiated power (EIRP)	2.4G: ≤30 dBm (FCC/ISED) ; ≤20 dBm (CE/SRRC/UKCA) 5.2G: ≤30 dBm (FCC) ; ≤23 dBm (CE/UKCA) 5.8G: ≤30 dBm (FCC/ISED/SRRC) ; ≤14 dBm (CE/UKCA)
Bluetooth	
Protocol	Bluetooth 5.0
Operating frequency	2.400 - 2.4835GHz
Equivalent isotropic radiated power (EIRP)	≤20 dBm CE/SRRC/UKCA) ≤30 dBm (FCC/ISED)
Battery	

Item	Specifications
Battery replacement	Built-in, not supported
Rated capacity	5800 mAh
Charging Method	Supports PD 65 W fast charging
Charging Time	About 120 minutes Note: Charging time depends on the actual remaining power.
Battery endurance	Max brightness: 2.5 hours 50% brightness: 4.0 hours
Port	
USB-A	Power: 5 V DC, 2 A Data: USB 2.0
USB-C	Charging: supports PD 60W fast charging. Data: USB 3.1 Gen2
HDMI	Outputs up to 1080P@60fps video
Other	
Speaker	Supported
Microphone	Supported

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/>

Known Issues List

No.	Known Issue	Temporary Measure
1	If the drone's visual positioning function is disabled before takeoff and	The visual positioning function should only be re-enabled after

No.	Known Issue	Temporary Measure
	re-enabled during flight, it is highly likely to fail to initialize properly, potentially resulting in flight accidents.	the drone has landed.
2	During flight, the 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.