31		RC pinpoint	Tap this icon to place a marked point in the RC's current position.
32		Free pinpoint	Tap this icon to free pinpoint on the map. Both Pilot Role RC and Observer Role RC can do free pinpoint operation. In the same mission, RCs in the team can share the first 10 free pinpoint marked points. Marked points that rank after 10th will be saved in the RC that conducts free pinpoint correspondingly.
33		Live-RC	Tap this icon to set live streaming of real-time aerial videos from the aircraft. Two streaming methods, that is, RTMP and GB28181, are supported.
34		Support	Tap this icon to enter the "Personal Center" interface.
35		Settings	Tap this icon to enter the "Settings" interface.
36		Flight Log	Tap this icon to view the flight logs of the aircraft or synchronize them to a third-party platform. To use this function, you need to log in to your Autel Robotics cloud service account.
37		Log	Tap this icon to query the flight logs of the aircraft. To use this function, you need to log in to your Autel Robotics cloud service account.
38		Encrypt	Tap this icon to set a security password for encrypting captured media materials.
39		User Manual	Tap this icon to check all usage guides of relevant flight application.

6.5 "Settings" Interface

1. In A-Mesh Link mode, after all aircrafts in the team are selected ("ALL" selected), users can tap "  " icon at the lower right corner of the interface to expand aircraft quick setting panel. The detailed operations are as follows:

- In "Images" column, you can view status information (aircraft battery level, RC signal and GNSS signal) of all aircrafts and switch the aircraft gimbal camera lens.
- In "Settings" column, you can set collectively flight mode, OA mode, flight altitude, RTH altitude, and signal lost action for all aircrafts.

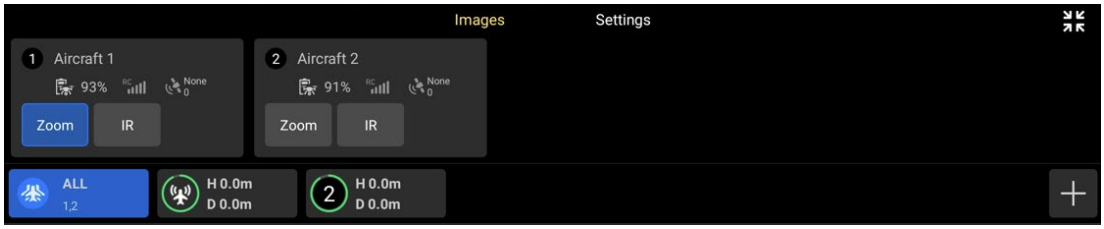

Fig 6-4 Quick Setting Panel in A-Mesh Link Mode

Tip

- Tap "" icon at the upper right corner of the quick setting panel to fold this panel
- Tap "" icon at the lower right corner of the quick setting panel to enter the mesh network settings interface ("my team" interface).

2. In Single Link or when taping an aircraft in the team in A-Mesh Link mode, users can tap the "" icon on the right side of the toolbar, and tap "" icon to enter the setting interface of the aircraft. In the setting interface, users can set parameters such as flight control, obstacle avoidance, remote controller, image transmission, battery, and gimbal.

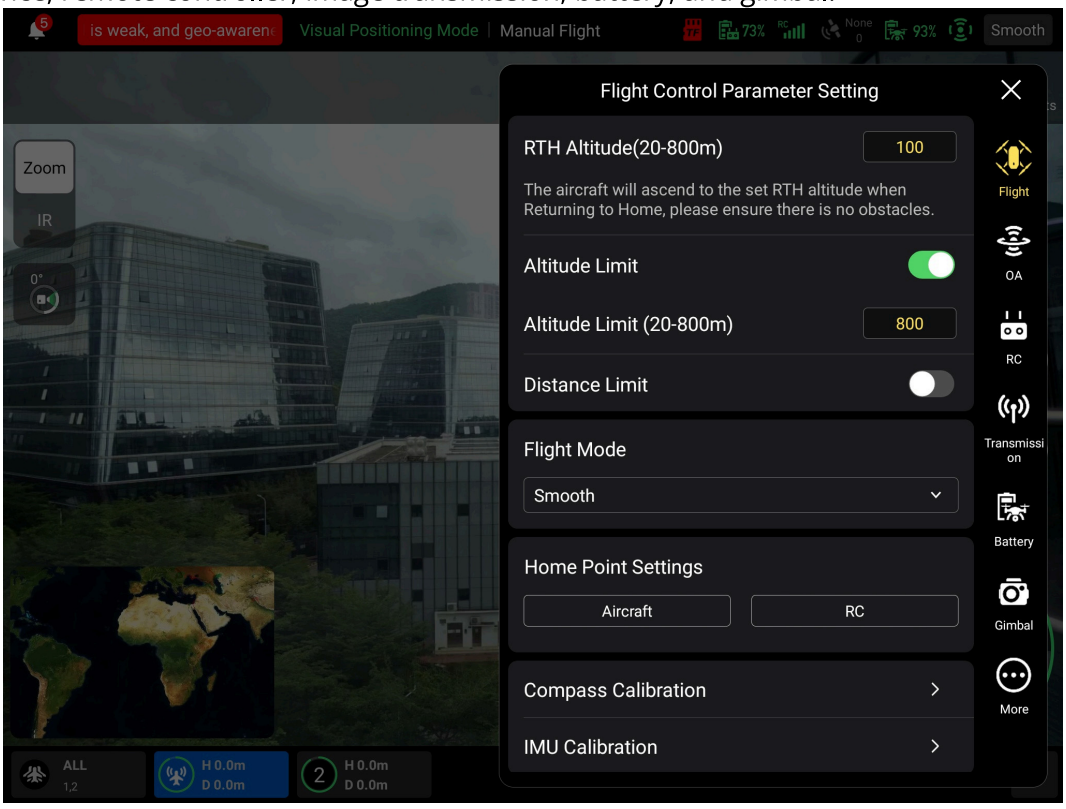

Fig 6-5 Setting Interface (Flight Control Parameter Setting)

■ Flight Control Parameter Setting

In the sidebar of the "Settings" interface, tap the "" icon to enter the "Flight Control Parameter Setting" interface, where you can set the relevant flight control parameters for the aircraft, as shown below.

1. Set RTH Altitude

Tap the "RTH Altitude" edit box and enter the value. When executing an auto-return, the aircraft will rise to the RTH altitude before starting the return process.

2. Turn On/Off Altitude Limit

Tap the button on the right side of "Altitude Limit" to turn on or off the altitude limit function.

- If this function is turned on, enter the altitude limit value in the edit box of “Altitude Limit (20-800m)” that pops up below, and the aircraft can rise up to the maximum altitude specified.
- If this function is turned off, the aircraft can keep ascending according to your operation until the battery is exhausted.

3. Turn On/Off Distance Limit

Tap the button on the right side of "Distance Limit" to turn on or off the distance limit function.

- If this function is turned on, enter the distance limit value in the edit box of "Distance Limit (20-5000m)" that pops up below, and the aircraft will fly within a circle with the take-off point as the center and the distance limit value as the radius.
- If this function is turned off, the aircraft can keep moving according to your operation until the battery is exhausted.

4. Set Flight Mode

Tap the "Flight Mode" drop-down list, and then select the appropriate mode from Slow, Smooth, Standard, and Ludicrous, that is, set the default speed mode every time you open the flight application. For the meaning of each mode, see “3.9.2 Flight Modes” in Chapter 3.

5. Set Home Point

Tap “Aircraft” or “RC” to set the home point.

- If "Aircraft" is selected, the home point is the position where the aircraft takes off this time.
- If "RC" is selected, the home point is the current position of the remote controller.

6. Calibrate Compass/ IMU

Perform the calibration operation as instructed in the flight application. For more information, see “2.12 Aircraft Calibration” in Chapter 2.

7. Set Signal Lost Action

Lost action refers to the action that the aircraft will take when the aircraft is disconnected from the remote controller during flight. By default, the lost action is set to “Return to Home”.

- If “Return to Home” is selected, when the aircraft disconnects, the aircraft will automatically return to the home point.
- If "Hovering" is selected, when the aircraft disconnects, the aircraft will hover at the current position.
- If "Land" is selected, when the aircraft disconnects, the aircraft will land at the current position.

⚠ Warning

- Although the flight application allows you to set a flight altitude within the range of 20-800 meters, this does not mean that the set altitude complies with local laws and regulations.
- The RTH altitude should be set higher than the altitude of obstacles within the flight operation area.
- The RTH altitude setting should comply with local (within the flight operation area) laws and regulations.
- For information about adjusting the RTH altitude of the aircraft, see “2.7.4 Auto-Return

Mechanism" in Chapter 2.

Note

- If the home point is not set, the aircraft will record the take-off point as the default home point.

Tip

- Appropriate altitude limit and distance limit settings can improve flight safety.
- The altitude limit should not be set lower than the RTH altitude value. The altitude limit setting should comply with local (within the flight operation area) laws and regulations. Flying the aircraft in an unsuitable flight altitude may have legal risks. Please comply with the fight safety requirements of relevant areas during flight operations.
- When the aircraft initiates a return to home due to a disconnection, even if the aircraft re-connects to the remote controller, it will continue the return process. In this case, you can short press or press and hold the "Pause" button on the remote controller for 2 seconds until the RC emits a "beep" sound to pause the return process or exit the auto return, or pull the pitch stick down to exit auto return. After exiting the auto return, the RC will regain the control of the aircraft.

■ OA Settings

In the sidebar of the "Settings" interface, tap the "" icon to enter the "OA Settings" interface, where you can conduct the following operations:

1. Set Collision Avoidance Behavior

- If "Emergency stop" is selected, the safety distance can be set. In manual flight, when the aircraft encounters an obstacle, it will automatically slow down, brake and hover in place at the "safety distance" set.
- If "Bypass" is selected, the safety distance can be set. When the aircraft encounters an obstacle, it will automatically slow down and make its own decision to bypass the obstacle in any direction, be it left, right or up.
- If "Turn off" is selected, the aircraft will not automatically slow down, brake or bypass when it encounters an obstacle.

2. Set Warning Distance

When the aircraft detects an obstacle, it will send a warning at the warning distance as set.

3. Turn On/Off Radar Display

- If this function is turned on, when the aircraft detects an obstacle, it will prompt risk warnings on the camera interface based on the set brake/warning distance.
- If this function is turned off, when the aircraft detects an obstacle, it will not prompt risk warnings on the camera interface.

4. Turn On/Off Obstacle Detection Notification Sound

- If this function is turned on, when the aircraft detects an obstacle, it will emit an audible alert.

5. Turn On/Off Landing Protection

➢ If this function is turned on, the aircraft will detect whether the ground surfaces are suitable or not for landing before it lands.

> **⚠ Warning**
>
> - To ensure flight safety, it is recommended to set the obstacle avoidance behavior as “Emergency stop” or “Bypass”.
> - When the flight mode of the aircraft is set to “Ludicrous”, the OA system function is unavailable.

> **Tip**
>
> - When the aircraft performs automatic missions (such as automatic return, waypoint missions, and polygon missions), the aircraft's collision avoidance behavior will be "Turn off" or "Bypass" by following the setting (when the collision avoidance behavior is set to "Emergency stop" or "Bypass" in the "OA Settings").
> - After the landing protection function is turned on, if the aircraft detects that the ground surface is not suitable for landing, it will keep hovering over the landing point. In this case, you need to use the command sticks to manually control the aircraft to land at an appropriate location.

■ RC Settings

In the sidebar of the “Settings” interface, tap the "" icon to enter the "RC Settings" interface, where you can perform following operations:

1. Set Stick Mode

The aircraft supports three stick modes, that is, Mode 1, Mode 2, and Mode 3. For the differences between the three stick modes, see "4.10.1 Stick Modes" in Chapter 4. The default stick mode is Mode 2.

2. Calibrate the Remote Controller

For details about RC calibration, see “4.14 Calibrating the Remote Controller” in Chapter 4.

3. Calibrate the Compass of the Remote Controller

For details about RC compass calibration, see “4.13 Calibrating the Remote Controller Compass” in Chapter 4.

4. Set RC Custom Button C1/C2

For details about RC custom button C1/C2 setting, see “4.11.1 Custom Keys C1 and C2” in Chapter 4.

5. Set EXP

The X-axis is the physical output of the command stick, and the Y-axis is the logical output of the command stick. That is, the X-axis represents the movement generated by the current command stick move, and the Y-axis represents the actual response strength of the current aircraft.

■ Image Transmission Settings

In the sidebar of the “Settings” interface, tap the "" icon to enter the "Image Transmission Settings" interface, where you can perform following operations:

1. Set Image Transmission Mode

The remote controller will receive and display the image transmission screen at the selected resolution.

2. Set Transmission Frequency Band

- Auto: The optimal transmission frequency band is automatically selected for image transmission between the aircraft and the remote controller.
- 2.4G: The 2.4 GHz frequency band is used for image transmission between the aircraft and the remote controller.
- 5.8G: The 5.8 GHz frequency band is used for image transmission between the aircraft and the remote controller.

3. Set Split Screen Effect

- Uniform Scale: In dual-screen mode, the image transmission screen is proportionally reduced.
- Fit the screen: In dual-screen mode, the image transmission screen is stretched to cover the screen.

Tip

- Image Transmission Mode: “Smooth” means 720P and "HD" means 1080P.
- The flight application will, based on the aircraft’s GNSS positioning information, automatically provide frequency band selection that comply with local laws and regulations.
- If the aircraft does not obtain GNSS positioning after being turned on, the image transmission frequency band between the aircraft and the RC will be set as “2.4G”.
- In A-Mesh Link mode, the image transmission frequency band can only be set to “Auto”.

■ Aircraft Battery

In the sidebar of the “Settings” interface, tap the "" icon to enter the "Battery Information" interface, where you can perform following operations:

1. View Basic Information of the Smart Battery

Here, you can view the real-time status of the battery and the estimated flight time of the aircraft with the current battery level.

2. Set Battery Warning Threshold

- Critically Low Battery Warning: Red status. The adjustable range is from 8% to 25%. When the battery decreases to this threshold, landing is triggered forcibly.
- Low Battery Warning: Orange status. The adjustable range is from 15% to 50%. The low battery warning threshold should be at least 5% higher than the critically low battery warning threshold. When the battery decreases to this threshold, auto return is triggered automatically.

3. Hot Swap Battery

After enabling the hot swap battery function as needed, you make the smart battery hot-swappable without shutting down the aircraft, thus eliminating the waiting time for a restart.

Tip

- When the smart battery output voltage exceeds the normal range, there will be a red

warning.
- When the smart battery discharge times is more than 200, there will be a red warning and users should replace the battery with new one.

■ Gimbal Settings

In the sidebar of the “Settings” interface, tap the "" icon to enter the "Gimbal Settings" interface, where you can perform following operations:

1. Set Gimbal Pitch Sensitivity

Set the number of degrees the gimbal rotates on the pitch axis per second (unit: °/second).

2. Turn On/Off Extended Pitch Angle

- If this function is turned on, the gimbal can rotate up to 30 degrees above the level baseline.
- If this function is turned off, the gimbal can only maintain a level or downward rotation and cannot rotate upwards to switch to a pitch view.

3. Gimbal Calibration

For more information about how to calibrate the gimbal, see “2.12.3 Gimbal Calibration” in Chapter 2.

4. Gimbal Adjustment

When the position of the gimbal tilts, tap “Gimbal Adjustment” and tap the buttons under the functions of “Roll”, “Yaw”, and “Pitch” to adjust the gimbal, so that the horizontal and vertical axes on the screen remain aligned to the reference objects on the three-screen image transmission screen.

5. Gimbal Parameters Reset

Tap the "Gimbal Parameters Reset" button, and then tap the "Confirm" button to reset the gimbal parameters.

⚠ Warning

- When operating the gimbal, please ensure the gimbal protective cover has been removed and there are no obstacles within the movement space of the gimbal.

■ RTK Settings*

In Single Link mode, after a RTK module is installed on the aircraft, tap “RTK”icon on the side column In the sidebar of the “Settings” interface, to enter “RTK Settings” interface, in which users can perform following operations:

1. Turn On/Off RTK Positioning

After it is enabled, when the aircraft connects to the RTK service, the positioning accuracy down to centimeter can be achieved.

- When the RTK module is abnormal, please turn off the RTK positioning manually to switch the aircraft mode to GNSS mode.
- When the aircraft is flying, if you want to enable the RTK positioning, please keep the aircraft hovering until it completes satellite signal searching.

2. Check RTK Network Status

After enabling RTK positioning and entering network RTK account, tap “Log In” button and conduct RTK network connection.

- If the connection is normal, “Connection Successful” will be displayed.

- If the connection is abnormal. “Connection Fail” will be displayed and failure reason will be also prompted.

3. Network RTK Service Configuration

Enter network RTK server address, port, account, password and mounting point to complete network RTK service configuration.

- Tap “Log In” button to log in to network RTK service, if there is abnormal network RTK configuration, a prompt will be displayed.
- Tap “History Accounts” button to check configured network RTK accounts. The aircraft supports saving multiple network RTK accounts.
- Tap “Auto Connect” button to turn on or off the auto log in function of network RTK account.

4. Check RTK Coordinate System

After completing RTK network connection, you can view coordinate system type, RTK positioning method, latitude and longitude, altitude, satellite searching number and mean in the RTK coordinate system.

Note

- Before enabling network RTK service, please connect the RC or the aircraft to the internet.
- After a RTK module is installed, the status notification bar will display RTK signal status icon synchronously.
- In multi-aircraft matching mode, RTK function cannot be enabled and the flight application will not display “RTK Settings”.

■ More

In the sidebar of the “Settings” interface, tap the “” icon to enter the "More" interface, where you can perform following operations:

1. Unit Settings

Tap "Units Settings", and then set "Speed/Distance Units", "Area Units", "Temperature Units", and "Coordinate Format" according to your needs.

2. Light Settings

- Turn On/Off Stealth Mode
  - If stealth mode is turned on, the arm lights, strobe, and auxiliary bottom light will be turned off by default.
  - If stealth mode is turned off, you can configure the strobe and auxiliary bottom light.
- Set Aux Light
  - If “Auto” is selected, the auxiliary bottom light is automatically turned on or off according to ambient brightness.
  - If "On" is selected, the auxiliary bottom light is always on by default.
  - If "Off" is selected, the auxiliary bottom light is off by default.

3. Turn On/Off Visual Positioning

- If the visual positioning function is turned on, the aircraft will hover in a place with a poor GNSS signal.

4. Turn On/Off GNSS

- If "Auto" is selected, the aircraft will automatically select the best GNSS positioning signal.
- If "Beidou" is selected, the aircraft will only receive GNSS positioning signals from the BeiDou Navigation Satellite System.

5. Turn On/Off Submit Flight Data to CAAC

According to Chinese laws and regulations, flight data must be submitted in real time to the official system of the Civil Aviation Administration of China (CAAC) via the internet.

6. Enter Registration No.

According to Chinese laws and regulations, real-name registration is required for aircrafts which fly within the territory. For more information, see "2.1 Legal Use Notice" in Chapter 2.

7. Emergency Stop Propellers During Flight

- If "Off" is selected, the "Emergency Stop Propellers During Flight" function will be disabled.
- If "On" is selected, you can stop the propellers of the aircraft from spinning at any time during flight by simultaneously pushing the two command sticks down inward or outward.
- If "Only in case of failure" is selected, you can stop the propellers of the aircraft from spinning by simultaneously pushing the two command sticks inward or outward only in the case of aircraft malfunctions.

8. Target Recognition Settings

The aircraft supports recognition of four target types: "Human", "vehicle", "Boat" and "Smoke/Fire". Users can select the type or types based on their needs.

9. Remote ID

Enter the pilot registration number as required by the laws and regulations of the location (not in Chinese mainland). After successful input, the broadcast status of Remote ID will be prompted. For more information, see "2.1 Legal Use Notice" in Chapter 2.

10. Language Settings

After select corresponding language, the flight application will automatically restart and display in the chosen language.

11. Quick Operation

It supports "Toolbar" and "Floating Ball" for quick operation. After select one of those two, the shortcut function icons will be displayed correspondingly.

12. About

You can view the firmware version and the serial number of the aircraft, remote controller, gimbal, and battery, as well as the version of the flight application, and check for versions and perform upgrade for the App and firmware.

⚠ Warning

- Turning on the stealth mode may violate local laws and regulations, if unnecessary, please do not turn on it.
- Before an aircraft takes off, if the visual positioning of the aircraft is turned off, do not turn on the visual positioning function after the aircraft takes off as it might lead to visual positioning failure. If you need to turn on the visual positioning function again, it is recommended to land the aircraft before conducting relevant operations.
- When GNSS positioning fails, if the environment lighting condition and surface texture meet the requirements, the aircraft will enter the visual positioning mode.
- When GNSS is unavailable, if the environment lighting condition and surface texture do not meet the requirements, the aircraft will enter the attitude mode. In this mode, operating the aircraft has high risk potential, easily leading to flight accident.
- After switching to GNSS mode, the aircraft needs to be rebooted before this mode takes effect.

- Please use the "Emergency Stop Propellers During Flight" function with caution. Once the propellers stop, the aircraft will fall freely without control. This function is only used to reduce additional harm or damage caused by aircraft malfunctions. Please stay away from crowds or buildings when using this function.
- After the "Emergency Stop Propellers During Flight" function is enabled, please stop using the aircraft and contact Autel Robotics to inspect the power system of the aircraft.

Tip

- The auxiliary bottom light is mainly used to enhance the ambient brightness of the landing point during the landing of the aircraft, improve the sensing performance of the downward visual obstacle avoidance sensing system, and ensure landing safety.
- To enter visual positioning mode, the aircraft must turn on visual positioning. For more information, see "3.9.1 Flight Status" in Chapter 3.
- When the network is poor, relevant flight data will be cached in users' local devices.

6.6 Attitude Ball

In Single Link, or when you tap an aircraft in the team in A-Mesh Link mode, the attitude ball of the aircraft will be displayed at the lower right corner in the interface.
The attitude ball is mainly used to dynamically display the relative positions of the aircraft, remote controller, and home point, and display the relevant attitude, flight speed, battery level, operating time, and other flight safety data of the aircraft. Any changes in the aircraft's status will be reflected in the attitude ball.

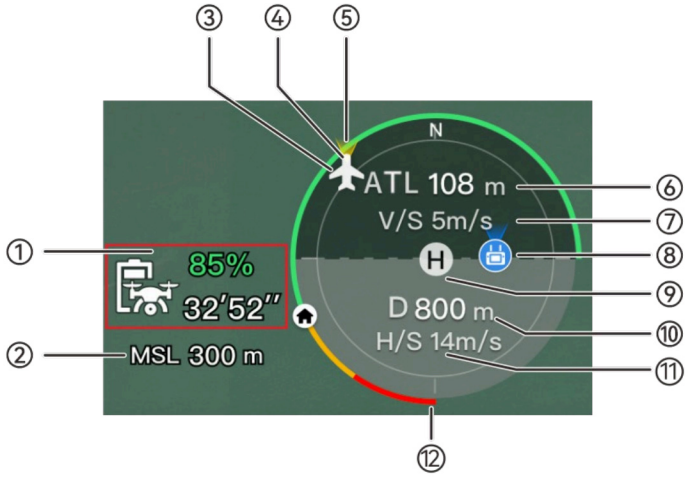

Fig 6-6 Attitude Ball

Table 6-5 Attitude Ball Details

No.	Description	Description
1	Estimated Remaining Flight Time of the	Displays the current remaining battery level and estimated remaining flight time of the aircraft.

	Aircraft	
2	MSL Altitude	Refers to the current altitude of the aircraft relative to the mean sea level (MSL).
3	Aircraft Position	Displays the current position of the aircraft, which can help you observe the approximate position between the aircraft and the remote controller.
4	Aircraft Heading	Displays the current nose orientation of the aircraft. If the aircraft is no longer visible in the line of sight, the aircraft can be controlled to return to the home point based on the position and heading of the aircraft.
5	Gimbal Direction	Displays the current gimbal orientation of the aircraft.
6	Vertical Altitude	Refers to the current vertical altitude of the aircraft relative to the take-off point.
7	Vertical Speed	Refers to the current vertical flight speed of the aircraft.
8	Remote Controller Location	Displays the current position of the remote controller, which can help you observe the approximate position between the aircraft and the remote controller.
9	Home Point	Refers to the set home point of the aircraft.
10	Horizontal Distance	Refers to the current horizontal distance from the aircraft to the take-off point.
11	Horizontal Speed	Refers to the current horizontal flight speed of the aircraft.
12	Aircraft Battery	Displays the real-time remaining battery level of the aircraft in the dynamic circular battery bar.

6.7 "Map" Interface

When the flight application is in split screen mode, tap the “ ” icon in the corner of the "Map" preview interface, or tap the "Map" mini window at the lower-left corner after entering the "Zoom Camera" interface, “Thermal Camera” interface, “Night Vision Camera” interface, or "Wide Angle Camera" interface, to enter the "Map" full-screen interface.

Fig 6-7 "Map" Interface

Table 6-6 Interface Button Details

No.	Icon	Name	Description
1		Search Map	When the remote controller is connected to the Internet, tap this icon and enter POI or latitude and longitude. According to what you enter, the “Map” interface will switch to the map of the corresponding position.
2		Map Management	When the remote controller is connected to the Internet, tap this icon to select MapBox or Map Liber, adjust the map display style to a standard map or a hybrid map, show as well as to set “Display/Clear Flight Path” and import GEO-fence. You can also manage the offline map. ➢ Standard: 2D map. ➢ Hybrid: 2D map and satellite map combined.
3		Orientation Lock	This icon indicates that the display direction of the map is locked. When the remote controller is rotated, the display direction of the map will not change accordingly. Tap this icon to unlock the display direction of the map of the current remote controller.

4		Orientation Unlock	This icon indicates that the display direction of the map is unlocked. When the remote controller is rotated, the display direction of the map will change accordingly. Tap this icon to lock the display direction of the map of the current remote controller.
5		Overview	Tap this icon to simultaneously locate the positions of the remote controller, the home point, and the aircraft on the map.
6		Remote Controller Location	Tap this icon to locate the position of the remote controller on the map.
7		Home Point Location	Tap this icon to locate the position of the home point on the map.
8		Aircraft Position	Tap this icon to locate the position of the aircraft on the map.
9		Re-center	If the map is moved from the current positioning point to another location, this icon will appear on the right side of the screen. Tap this icon, and the map will quickly return to the current positioning point.
10		Aircraft Search	When the aircraft is lost, you can tap this icon to query the location information of the lost aircraft.

6.8 Camera Interfaces

6.8.1 Camera Function Access

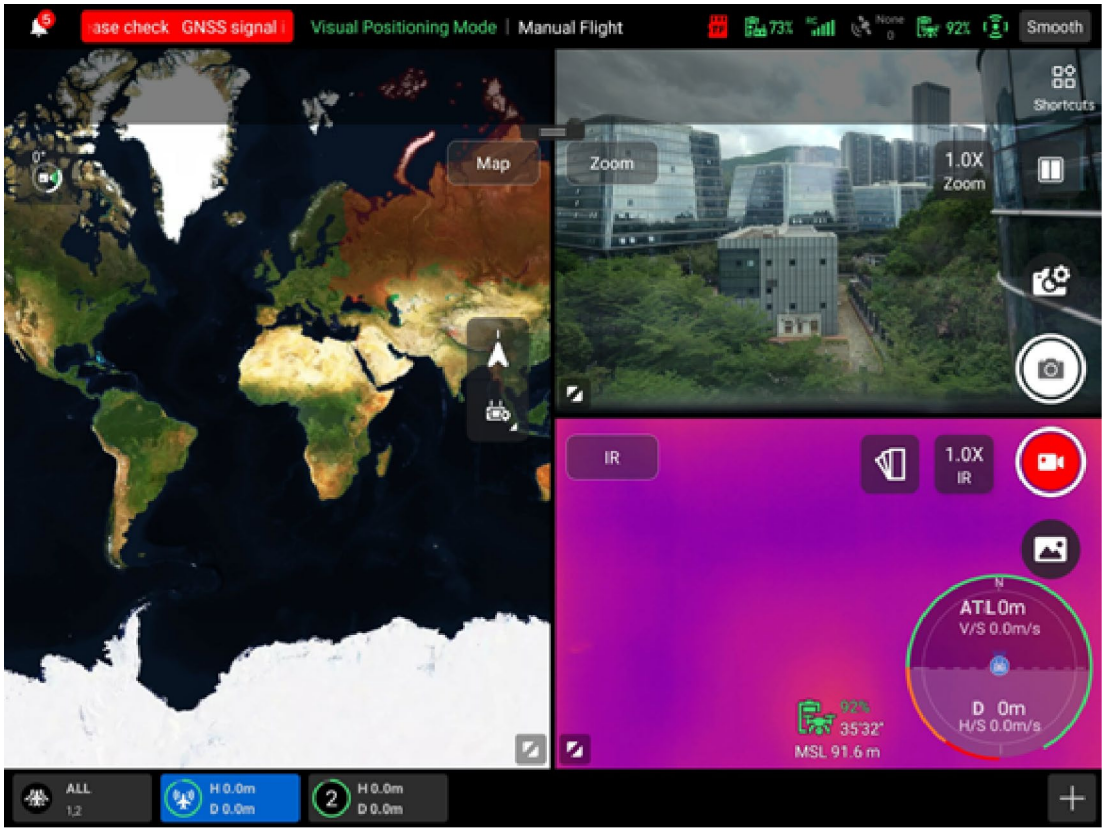

Fig 6-8 Camera Function Access

Table 6-7 Camera Menu Details

No.	Icon	Meaning	Description
1	Zoom	Switch to Zoom Camera	On any camera full screen interface, tap this icon to enter the zoom camera interface.
2	IR	Switch to Thermal Camera	On any camera full screen interface, tap this icon to enter the thermal camera interface.
3	Wide	Switch to Wide Angle Camera	On any camera full screen interface, tap this icon to enter the wide angle camera interface.
4	NV	Switch to Night Vision Camera	On any camera full screen interface, tap this icon to enter the night vision camera interface.
5		Camera Settings	Tap this icon to view and set parameters related to the gimbal camera.
6		Photo	Tap this icon to take a photo.

7		Video	Tap this icon to start/end recording.
8		Album	Tap this icon to view photos and videos from the aircraft's album and the local album and download or delete them.
9		Zoom Camera Zoom	On the "Zoom Camera" interface, tap this dynamic icon to adjust the zoom factor of the zoom camera.
10		Thermal Camera Zoom	On the "Thermal Camera" interface, tap this dynamic icon to adjust the zoom factor of the infrared thermal imaging camera.
11		Wide Angle Camera Zoom	On the "Wide Angle Camera" interface, tap this dynamic icon to adjust the zoom factor of the wide angle camera.
12		Night Vision Camera Zoom	On the "Night Vision Camera" interface, tap this dynamic icon to adjust the zoom factor of the night vision camera.
13		Linked Zoom	Tap this icon to adjust the zoom factor of any camera, and other cameras will also adjust their zoom factors simultaneously, resulting in the synchronous enlargement or reduction of camera images. Fusion 4T Gimbal: ➢ The zoom camera needs to be adjusted to 2.4x before the thermal camera starts to zoom synchronously. Fusion 4T XE Gimbal: ➢ The zoom camera needs to be adjusted to 1.8x before the thermal camera starts to zoom synchronously. Fusion 4N Gimbal: ➢ The wide angle camera needs to be adjusted to 2.2x before the thermal camera starts to zoom synchronously; ➢ The wide angle camera needs to be adjusted to 2.4x before the night vision camera starts to zoom synchronously; ➢ The wide angle camera can be adjusted to a maximum of 16x, the thermal camera can be zoomed synchronously up to 3.9x, and the night vision camera can be zoomed synchronously up to 3.6x.

14		Gimbal 0°	Tap this icon, and the gimbal returns to the horizontal centering state.
15		Gimbal 45°	Tap this icon, and the gimbal rotates obliquely downward, forming an angle of 45° with the horizontal direction.
16		Gimbal 90°	Tap this icon, and the gimbal rotates directly downward, forming an angle of 90° with the horizontal direction.
17		Thermal Color	Tap this icon, and the drop-down list of “Thermal Color” pops up. You can scroll up and down in the list to select a color palette.
18	-20-150 Mode	Radiometric Measurement Mode	High gain mode (-20°C to 150°C), which enables more accurate radiometric measurement. In “IR” camera interface, tap this icon to switch to low gain mode.
19	0-550 Mode	Radiometric Measurement Mode	Low gain mode (0°C to 550°C), which has a larger radiometric measurement range. In “IR” camera interface, tap this icon to switch to high gain mode.
20	FFC	FFC Calibration	Flat-Field Calibration. In “IR” camera interface, tap this icon to perform calibration. After calibration, the image quality of thermal imaging will be optimized, and temperature changes will be easier to observe.

■ Camera Settings

On any camera interface, tap the "  " icon to enter the "Camera Settings" interface. On the “Camera Settings” interface, you can perform the following operations:

1. View Photo Properties

Tap the "  " icon to view the size and format of (zoom/wide angle) photos.

2. Set Video Properties

Tap the "  " icon to view the resolution, frame rate, and format of (zoom/wide angle) videos and set video encoding.

➢ Video encoding options are H.264 and H.265. The default option is H.264.

3. View Night Vision Shooting Properties

Tap the "NV" icon to view the size of night vision photos and videos and set the video encoding option.

➢ Video encoding options are H.264 and H.265. The default option is H.264.

4. Set Infrared Shooting

Tap the "IR" icon to view the size and format of infrared photos or videos and set the image mode and radiometric measurement function.

- Set Image Mode

Two image modes are available, that is, “Manual” and “Auto”.

- If the “Manual” mode is set, you can adjust the "Contrast" and "Brightness" by entering a value or tapping the numbers on the left and right sides.

- Turn On/Off Radiometric Measurement
  - If this function is turned on, you can set the image enhancement, isotherm, emissivity, and temperature alarm.
  - If this function is turned off, both "Radiometric Measurement Mode" and "FFC " cannot be set.

1. Turn On/Off Image Enhancement

Tap the button to the right of "Image Enhancement" to turn on or off the image enhancement function.

- If this function is turned on, you can enter a value in the edit box below or drag the slider left or right to set the image enhancement value. The larger the value, the clearer the image details.

2. Set Isotherm

Four isotherm statuses are available, that is, “Off”, “Human”, “Fire”, and “Custom”.

- If “Custom” is selected, you can set the minimum and maximum temperature of the radiometric measurement range.

3. Set Emissivity

Enter a value in the edit box to the right of "Emissivity" or drag the slider below left or right to adjust the emissivity value.

4. Turn On/Off Temperature Alarm

Tap the button to the right of "Temperature Alarm" to turn on or off the temperature alarm function.

- You can set the minimum and maximum temperature for temperature alarms.

5. Advanced Settings

Tap the "⋯" icon to perform advanced settings for the camera:

- Select Camera

Tap "Select Camera" to select the lens used for shooting from the list of lenses of the gimbal camera. You can select one or more lenses.

- After a shooting lens is selected, when you tap the "📷" or "📹" icon, the selected lens will simultaneously take photos or record videos. For unselected lenses, the shooting function will be unavailable.

- Set Grid

  Three grid styles are available, which can assist with picture composition during shooting. You can select one or more grid styles.
  - When multiple grid styles are selected, the grid styles will be superimposed and displayed on all camera interfaces.

- Set Defog

Defogging can make the shooting or recording scene more transparent and enhance color contrast and is used to eliminate the "fogging phenomenon" in the picture or the lack of picture clarity caused by smog.

- Three defog intensities are available, that is, “Weak”, “Medium”, and “Strong”. The stronger the defog intensity, the darker the image.

- Turn On/Off Stamps/Subtitles

Tap the button to the right of "Stamps/Subtitles" to turn on or off the stamps/subtitles function.

- If this function is turned on, you can set the time stamp, latitude & longitude and altitude, and aircraft SN functions. Once this function is enabled, the shot images will include the set stamp.

- Turn On/Off Arm Lights (When Shooting)

Tap the button to the right of "Turn off arm lights when shooting" to turn on or off this function.

- If this function is turned on, the arm lights will be turned off when shooting.
- If this function is turned off, the arm lights will be turned on when shooting.

- Turn On/Off Pre-recording

Tap the button to the right of "Pre-recording" to turn on or off this function.

- If this function is turned on, the aircraft will start recording 30 seconds ~ 1 minute in advance (tap the "■◀" icon).

- Turn On/Off Histogram

Tap the button to the right of "Histogram" to turn on or off the histogram function. The histogram can display the distribution of pixels in the images captured by the camera, thereby reflecting the exposure of the images.

- If the histogram function is turned on, a floating "Histogram" window will be generated on the screen of the remote controller, and you can drag the "Histogram" window to any area on the screen. Tap the "Close" button in the upper-right corner of the window to turn off the histogram function.

- Set Storage Location

You can choose "SD Card" or "Internal Storage" as the storage location. Also, you can view the storage status of "SD Card" and "Internal Storage" and tap "Format" on the right side to format the corresponding storage location.

- Reset Camera Parameters

Tap the "Reset" button to the right of “Camera Reset” to restore the camera parameters to default settings.

- View Camera Model

View the gimbal camera model.

Tip
• When the “Night Mode” function is turned on, the resolution of the video recorded with the “Wide-angle” camera will be reduced. • The pre-recording function can prevent missing important shots when the aircraft is flying rapidly. The pre-recorded videos will be saved in the "PreRccorder" folder in the remote controller's root directory.

6.8.2 Camera Switch and Operation

■ Camera Switch

- In the flight application, tap the "◪" icon in the corner of the "Zoom Camera" preview interface, or tap the "Zoom" icon after entering the "Thermal Camera" interface, to enter the "Zoom Camera" full-screen interface.
- In the flight application, tap the "◪" icon in the corner of the "Thermal Camera" preview interface, or tap the "IR " icon after entering the "Zoom Camera" interface or “Night Vision Camera” interface or “Wide Angle Camera” interface, to enter the "Thermal Camera" full-screen interface.

- In the flight application, tap the "" icon in the corner of the "Night Vision Camera" preview interface, or tap the "NV" icon after entering the "Wide Angle Camera" interface or “Thermal Camera” interface, to enter the "Night Vision Camera" full-screen interface.
- In the flight application, tap the "" icon in the corner of the "Wide Angle Camera" preview interface, or tap the "Wide" icon after entering the "Night Vision Camera" interface or “Thermal Camera” interface, to enter the "Wide Angle Camera" full-screen interface.

Tip

- Aircraft equipped with a Fusion 4T Gimbal or a Fusion 4T XE Gimbal can display the “zoom” camera interface and “Thermal” camera interface after connecting to the remote controller.
- Aircraft equipped with a Fusion 4N Gimbal can display the “wide-angle” camera interface, “Night Vision” camera interface and “Thermal” camera interface after connecting to the remote controller.

■ “Zoom” Camera Operations

1. Adjust the Zoom Factor

When shooting, tap the "Zoom 1.0X" dynamic icon, and the zoom factor setting window will pop up. A maximum of 160x hybrid zoom is supported. You can drag up and down or tap the number on the left to set the zoom factor according to your needs to zoom in and out on the shooting picture, so as to flexibly shoot objects at different distances.

2. Camera Settings

Tap the "" icon to enter the "Camera Settings" interface and perform relevant settings. For more information, see “6.8.1 Camera Function Access” in this chapter.

■ “Thermal Camera” Operations

1. Set Thermal Color

After tapping the "" icon, you can scroll up and down in the pop-up drop-down list to select a color palette.

➢ After selection, the images from the thermal camera will be displayed in the color style of the selected color palette.

2. Set Infrared Shooting

Tap the "" icon to enter the "Camera Settings" interface and perform relevant settings. For more information, see “6.8.1 Camera Function Access” in this chapter.

3. Set Radiometric Measurement Mode

Tap the "-20-150 Mode" icon or the "0-550 Mode" icon to switch between radiometric measurement modes.

➢ High gain mode (-20°C to 150°C): This mode has higher radiometric measurement accuracy but a smaller radiometric measurement range compared with the low gain mode.

➢ Low gain mode (0°C to 550°C): This mode has a larger radiometric measurement range but lower radiometric measurement accuracy compared with the high gain mode.

4. FFC Calibration

Tap the "FFC" icon to enable the FFC calibration function.

5. Adjust the Infrared Zoom Factor

While shooting, tap the "IR 1.0X" dynamic icon, and the infrared zoom factor setting window will pop up. You can drag up or down to zoom in or out on the picture captured by the thermal camera, so as to flexibly shoot objects at different distances.

Tip

- The radiometric measurement mode and FFC calibration functions can be used only after the infrared radiometric measurement function is enabled in the camera settings.
- The thermal cameras of Fusion 4T gimbal, Fusion 4T XE Gimbal and Fusion 4N gimbal support up to 16x digital zoom.

Warning

- While shooting, do not aim the infrared thermal imaging camera at strong energy sources such as the sun, lava, laser beams, and molten metal, to avoid damaging the infrared detector.
- The temperature of the measured target should be within 600°C. Over-temperature measurements can cause burns and damage to the infrared detector.

■ "Night Vision Camera" Operations

1. Adjust the Night Vision Zoom Factor

While shooting, tap the "NV 1.0X" dynamic icon, and the night vision zoom factor setting window will pop up. A maximum of 8x digital zoom is supported. You can drag up or down to zoom in or out on the picture captured by the night vision camera, so as to flexibly shoot objects at different distances.

2. Camera Settings

Tap the "⚙" icon to enter the "Camera Settings" interface and perform relevant settings. For more information, see "6.8.1 Camera Function Access" in this chapter.

■ "Wide Angle Camera" Operations

1. Adjust the Wide Angle Zoom Factor

While shooting, tap the "Wide 1.0X" dynamic icon, and the wide angle zoom factor setting window will pop up. A maximum of 16x digital zoom is supported. You can drag up or down to zoom in or out on the picture captured by the wide angle camera, so as to flexibly shoot objects at different distances.

2. Camera Settings

Tap the "⚙" icon to enter the "Camera Settings" interface and perform relevant settings. For more information, see "6.8.1 Camera Function Access" in this chapter.

6.9 Flight Missions

The aircraft supports flight mission planning. Flight missions are divided into waypoint missions, and polygon missions in terms of type. You can tap the corresponding icon in the toolbar or toolbox to enter the relevant mission editing interfaces.