

1. Tap the **Thermal** tile.
2. Tap **Start**.

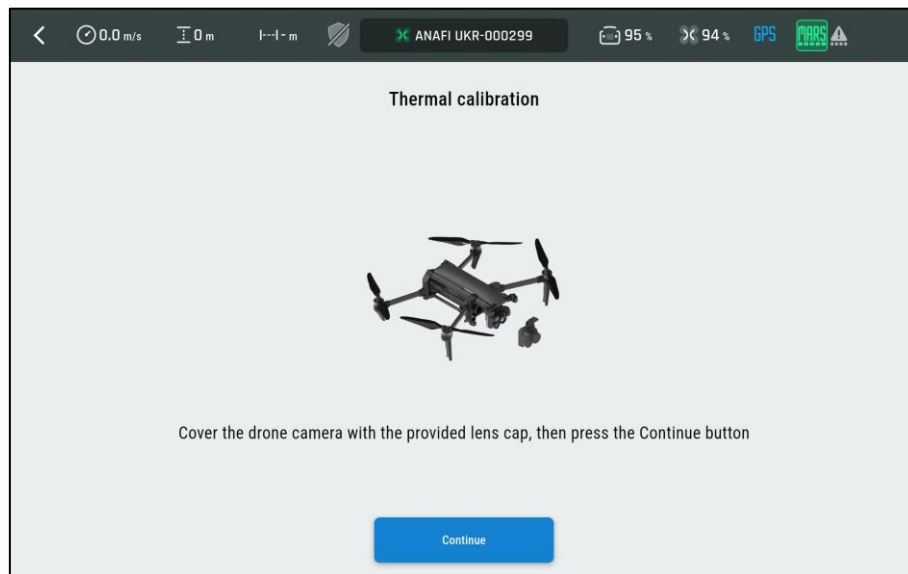


Figure 137: Place the cover before starting gimbal calibration

3. Cover the drone camera with the provided lens cap
4. Tap **Continue** when the cover is in place:

The thermal calibration has 2 steps:

- A. **Thermal sensor heating.** The thermal sensor must be activated for 90 seconds before it is ready to calibrate:

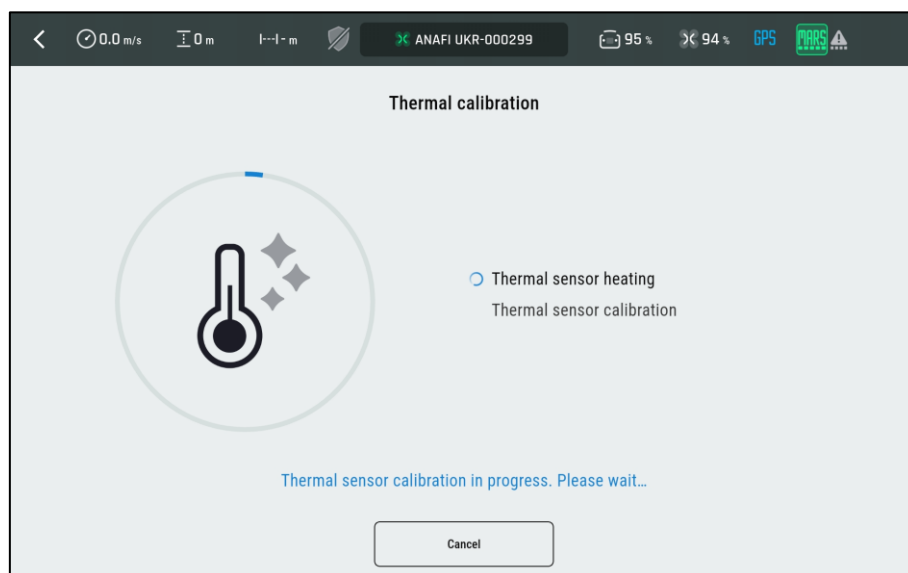


Figure 138: Thermal sensor heating

- B. **Thermal sensor calibration.** This step lasts for 8 seconds:

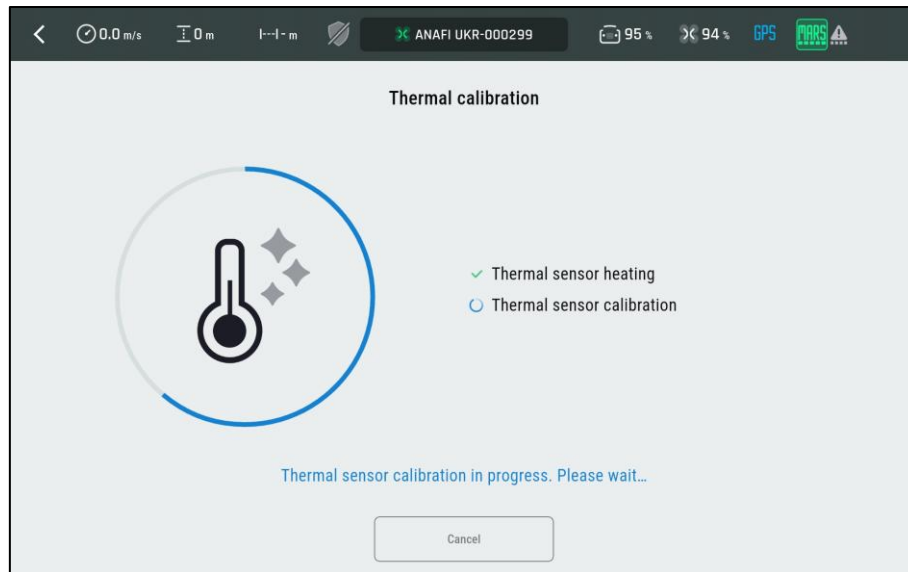


Figure 139: Thermal sensor calibration

5. Remove the lens cap
6. Tap **Quit**.

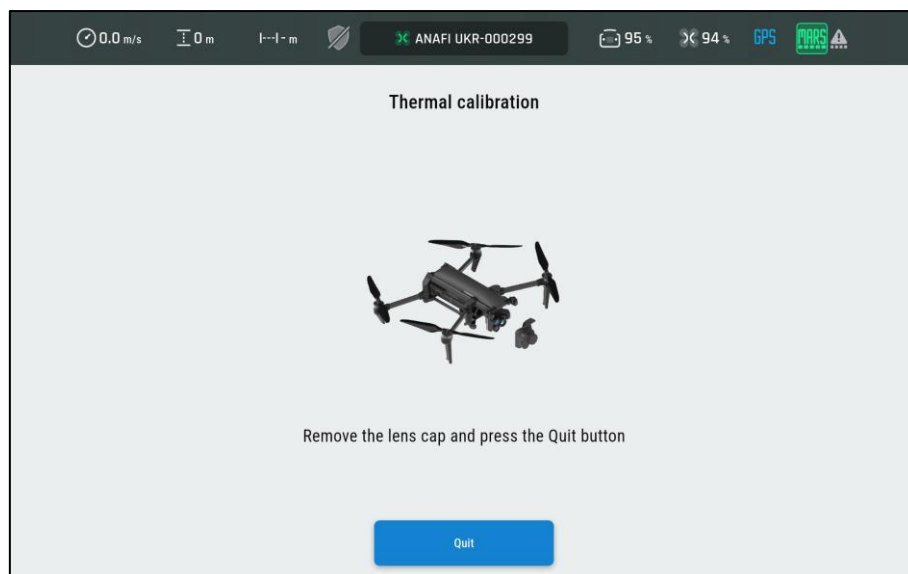


Figure 140: Thermal sensor calibration complete

13.14.1.5. Cursor on Target calibration

The **Cursor on Target calibration** allows the user to evaluate and compensate offsets on the gimbal angle estimation that impact the accuracy of the Cursor on Target functionality.

Cursor on Target calibration is recommended when you need to use the Cursor on Target feature after the drone has been stored for some time.

The Cursor on Target calibration process requires the Android **Location** service to be enabled in the Android tablet **Settings**.

Improve the location measurement accuracy by aiming at a known point (the Skycontroller UKR), the drone evaluates the biases of its position/orientation sensors and applies these corrections to the CoT measurements.

Follow this procedure to calibrate Cursor on Target:

1. Enable the **Location** feature on the Android device (**Settings > Location**).

The blue pictogram is visible in the FreeFlight 8 map view when the Android Location service is enabled.

2. Tap the **Cursor on Target** button in the Calibration menu.
3. **Take off** the drone.

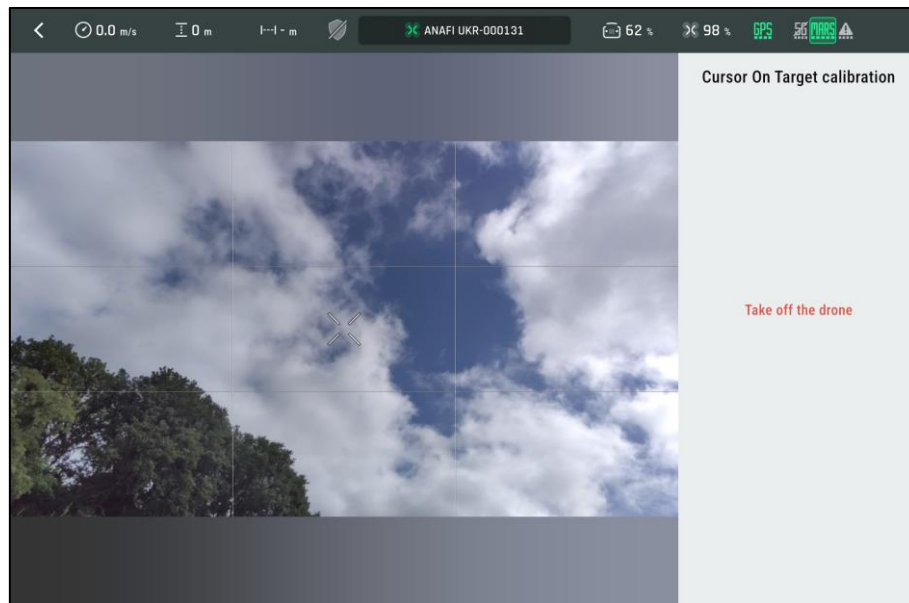


Figure 141: Cursor on Target calibration interface

For optimal calibration accuracy take off the drone from a position very close to the pilot. The pilot must stay close to the drone's take-off position during the calibration process.

4. **Fly the drone 300 m away** (984 ft) and at an altitude of 100 m (328 ft):

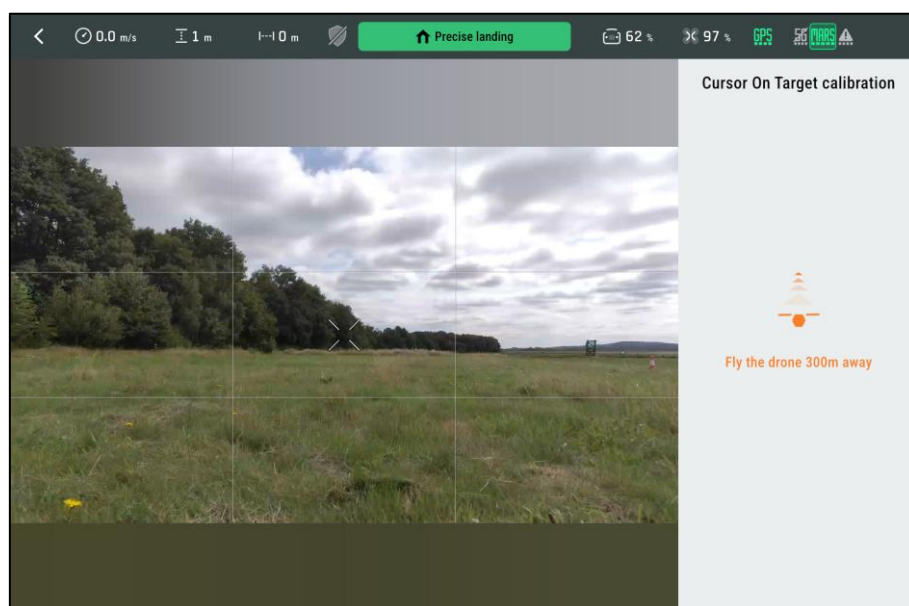


Figure 142: Cursor on Target calibration – fly the drone 300 m away

- When the drone reaches the optimal position, tap **Start**.

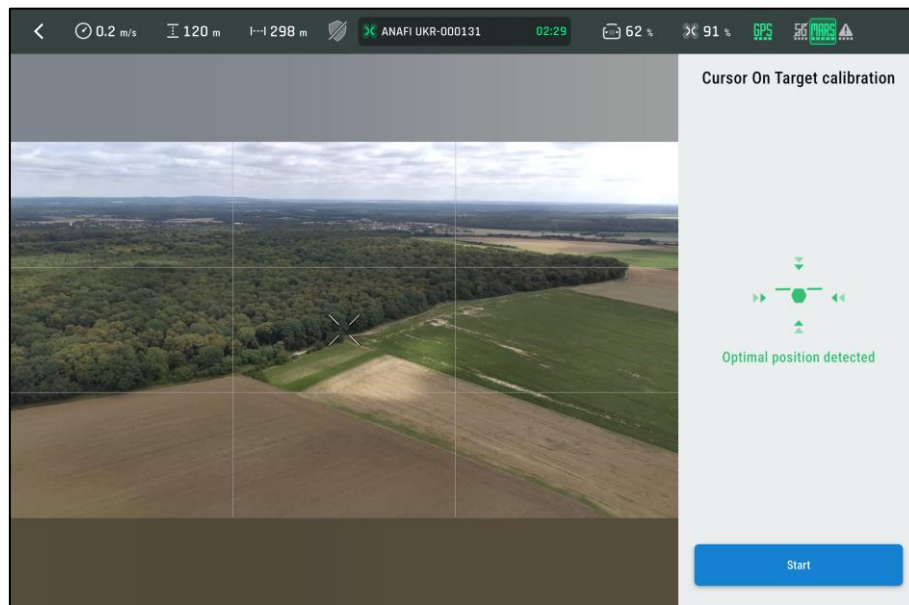


Figure 143: Optimal position detected

The aircraft automatically rotates toward the pilot and adjusts the gimbal tilt angle. However, it does not precisely center the pilot in the image.

- Zoom in to better aim at the pilot.
- Manually adjust the aircraft yaw and gimbal tilt to perfectly center the pilot in the video stream.

Aiming accuracy directly influences the accuracy of the Cursor on Target measurements.

- Tap **Calibrate**:

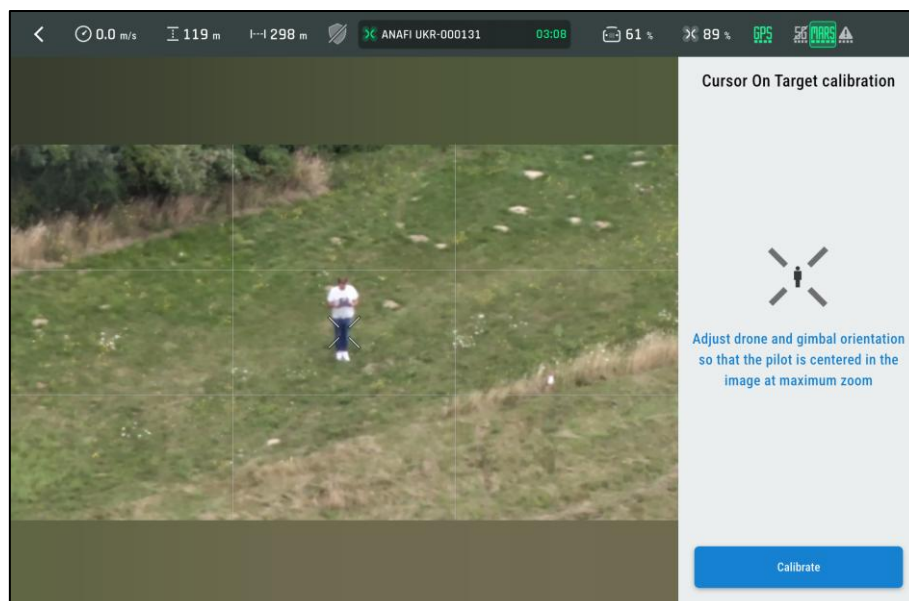


Figure 144: Cursor on Target – Calibrate

A message confirms the status of the calibration.

9. Tap **Close**:

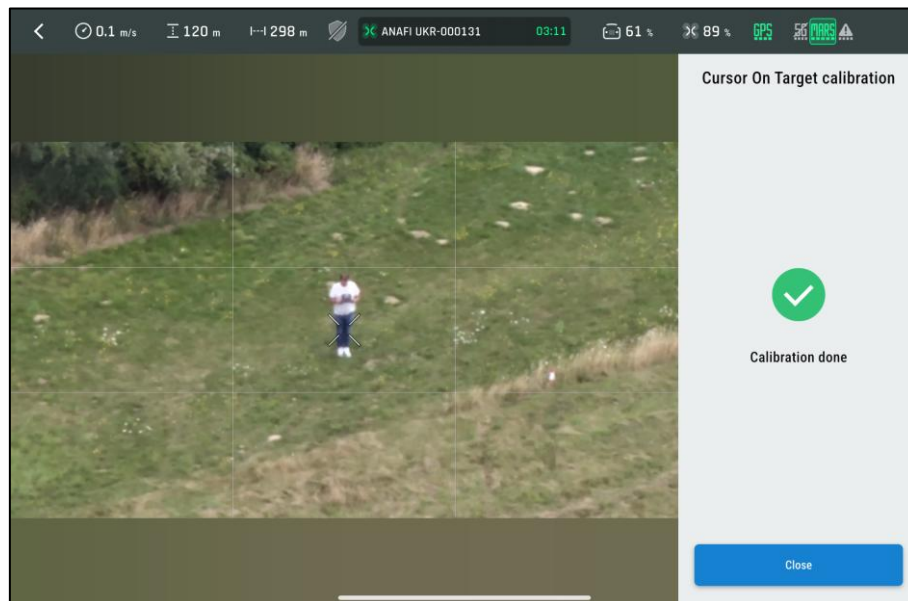


Figure 145: Curson on Target - Calibration done

NOTE: The pilot can only perform the calibration in the green zone, shown in Figure 146. If the calibration is launched in an area outside of the green zone, FreeFlight 8 displays a message to inform you that the aircraft is outside the calibration zone.

The minimum required distance, and minimum required altitude result in a gimbal angle between 17° and 60°.

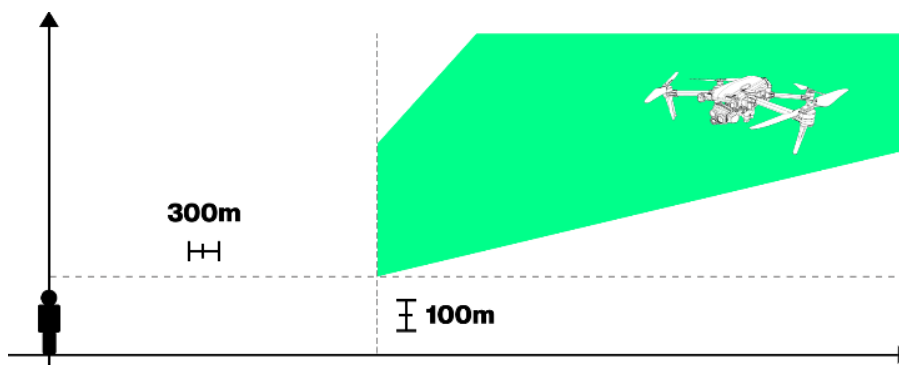


Figure 146: Calibration zone

WARNING: The aircraft cannot detect a bad calibration. You must aim at the pilot/Skycontroller UKR correctly. The accuracy indicator does not consider the aiming error since it considers the calibration to be correct.

13.14.1.6. Horizon calibration

Horizon calibration allows the user to correct any angular error on the roll gimbal axis. If you notice the horizon line is not perfectly horizontal in the streaming view, you can compensate the error with the horizon calibration:

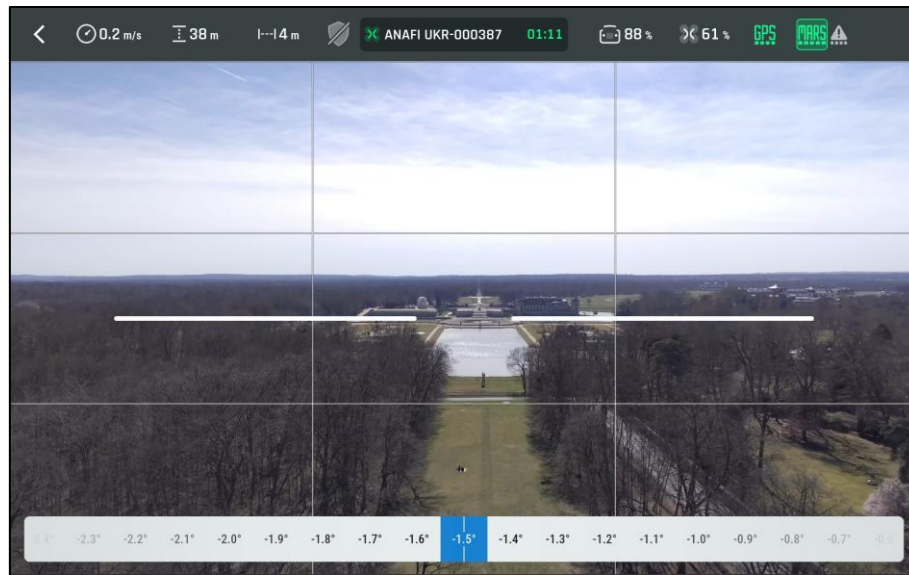


Figure 147: Horizon calibration

13.14.1.7. Cameras alignment

The thermal camera is factory-calibrated to align with the visible camera for distant objects (typically beyond 100 m). However, external impacts (such as drops, collisions etc.) can cause slight misalignment. This may result in poor image overlap in thermal blending mode, especially when using high zoom levels.

To correct this, the user can adjust the thermal alignment on both the X and Y axes. This adjustment can also optimize alignment for close-range targets (under 20 m) instead of distant ones.

To start the camera alignment procedure:

1. Tap the **Cameras alignment** tile.

The camera alignment screen opens:

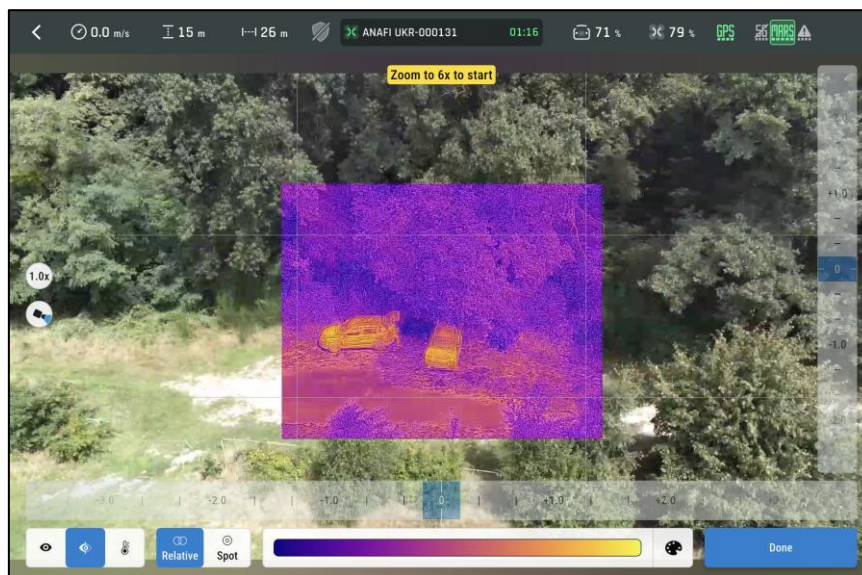


Figure 148: Cameras alignment screen

Relative mode is selected by default, but the user can also perform the camera alignment in **Spot** mode.

2. Zoom to at least 6x to start the alignment process.

The X-axis and Y-axis sliders become available.

3. Use the sliders to align the thermal camera image with the visible camera image.
 - Adjust the X-axis to move the thermal image left or right.
 - Adjust the Y-axis to move the thermal image up or down.

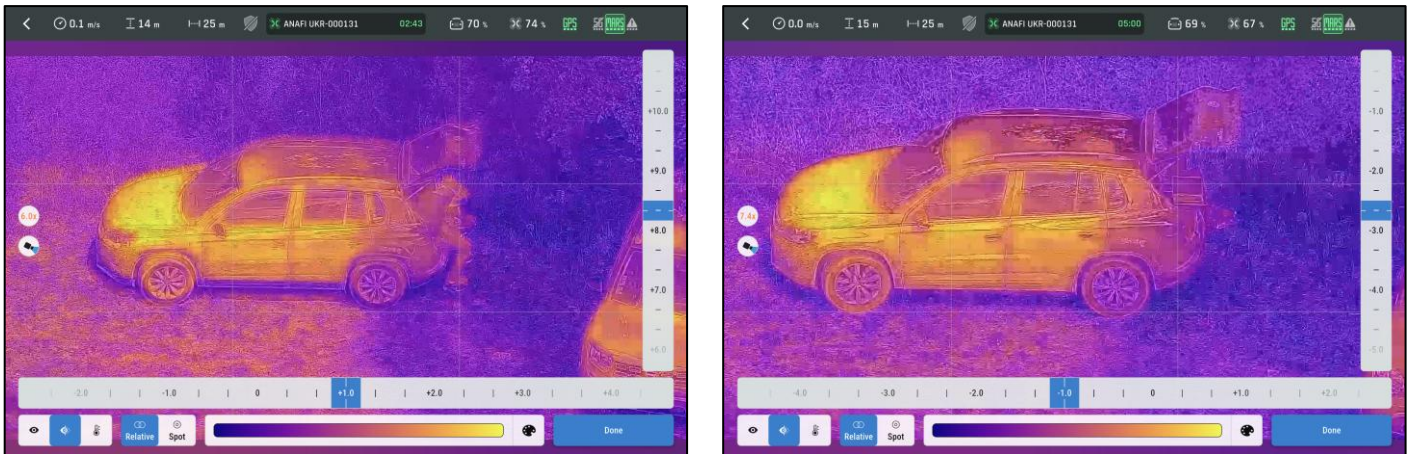


Figure 149: Unaligned thermal camera (left) vs aligned thermal camera (right)

4. Tap **Done** to confirm the alignment.

13.14.2. Battery

The **Battery information** page indicates:

- Individual **cell voltage (mV)**
- Battery State Of Charge (%)
- Battery temperature (°C)
- Battery serial number **S/N**
- **Software** version
- **Hardware revision**
- **Configuration Date (DD/MM/YYYY)**
- **Total Capacity (mAh)**
- **State of health (%)**
- Number of charging **Cycles**
- **Total Voltage (V)**

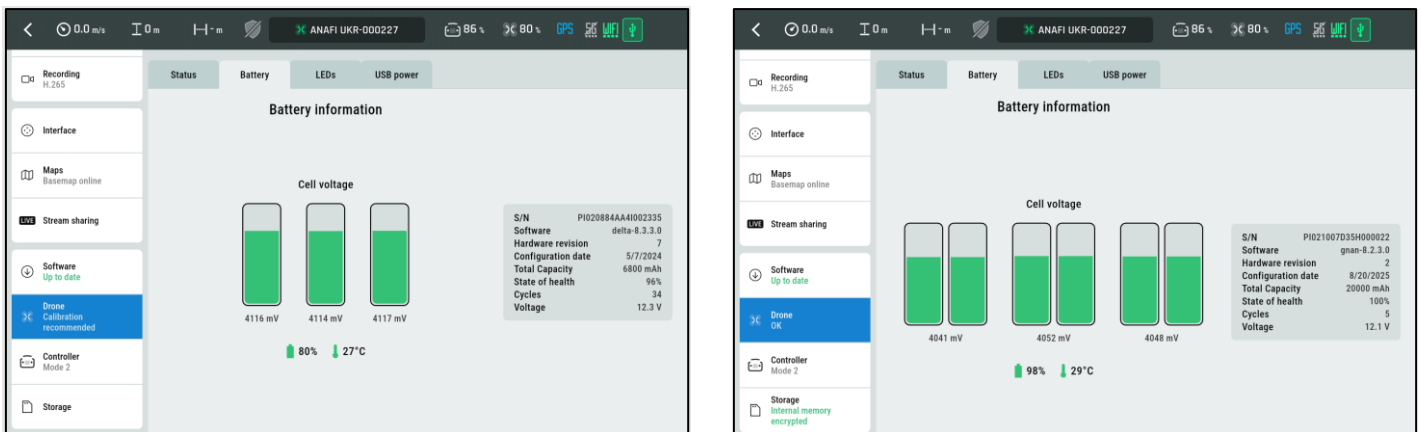


Figure 150: Settings / Battery. Standard battery (left), XLR battery (right)

13.14.3. LEDs

The LEDs tab allows users to enable or disable the aircraft's LEDs and infrared ground sensor.

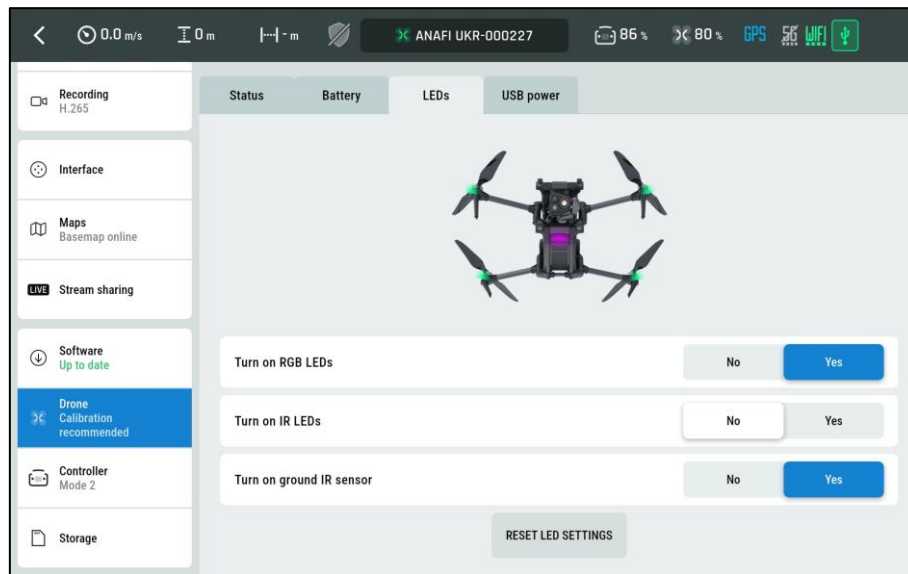


Figure 151: Drone LED tab

- **Turn on RGB LEDs** - users can control RGB LEDs. RGB LEDs are turned on by default.
- **Turn on IR LEDs** - users can control infrared LEDs. IR LEDs are turned off by default.
- **Turn on ground IR sensor** - users can switch off the ToF infrared sensor.

WARNING: Disabling the ground IR sensor (ToF) can significantly impact the drone's behavior, especially when the drone flies at low altitude below 8 m. Flying with the ground IR sensor (ToF) sensor disabled must only be used by experienced pilots and requires extreme care. Parrot strongly recommends that you do not fly at high-speed close to or just above the ground.

13.14.4. USB power

The **USB power** tab allows users to control the power supply of the battery USB-C port and the aircraft USB-C port.

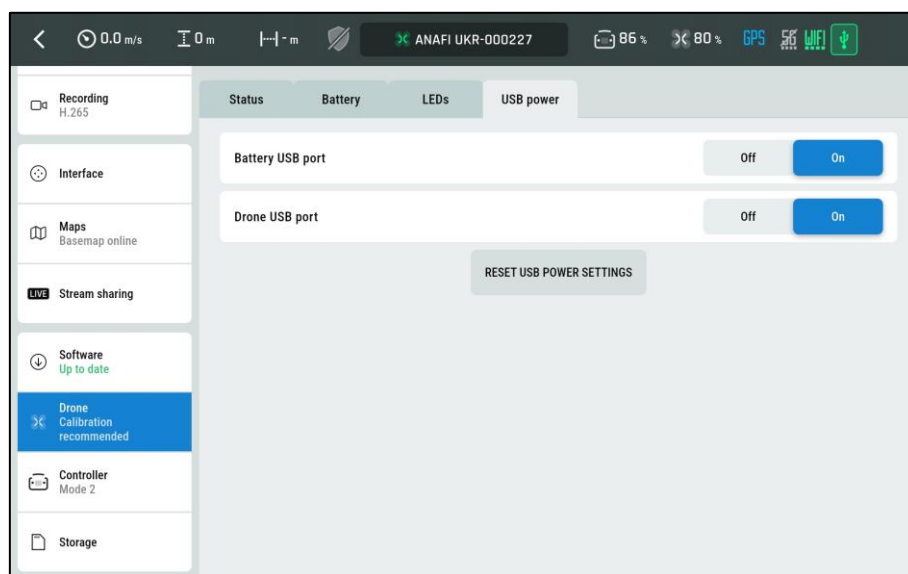


Figure 152: Drone USB power tab

Specification	Aircraft USB C port	Battery USB C port
Max power output	5 V, 2 A (10 W max)	5 V, 3 A (15 W max)
Data output	Supported	Not supported
Temperature limitation	None	Power output blocked when battery internal gauge temperature reaches 80 °C

13.15. Controller

The **Controller** information page displays the state of the controller.

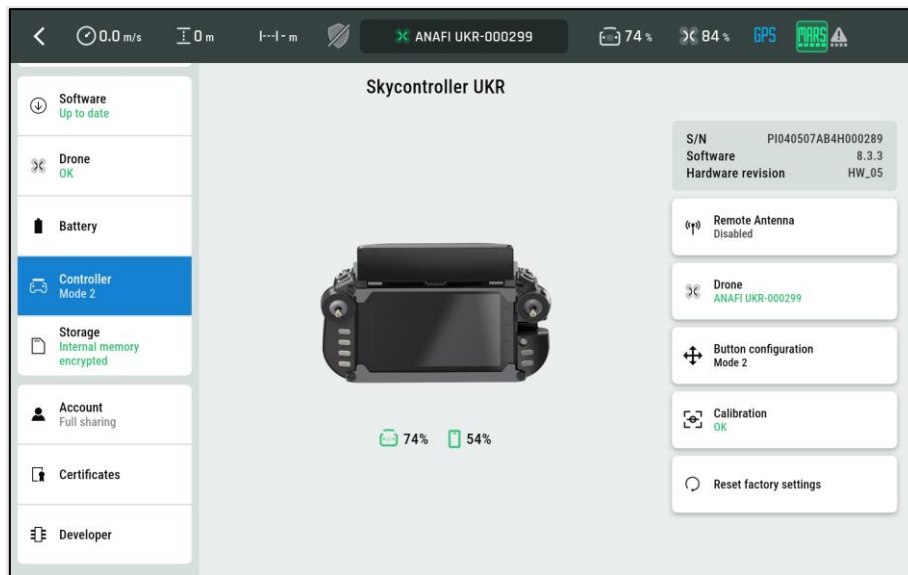


Figure 153: Settings - Controller

13.15.1. Remote Antenna

The **Remote antenna** page allows the user to activate and deactivate the Remote Antenna feature. For more information on setting up this feature, refer to [*chapter 8.5. Remote antenna feature with a second Skycontroller UKR.*](#)

Ensure that both Skycontroller UKRs are linked via the RJ45 cable to use the feature properly.

Select **Remote Antenna** from the main Skycontroller UKR in the FreeFlight 8 settings.

Tap **Yes** beside **Use Remote Antenna** setting:

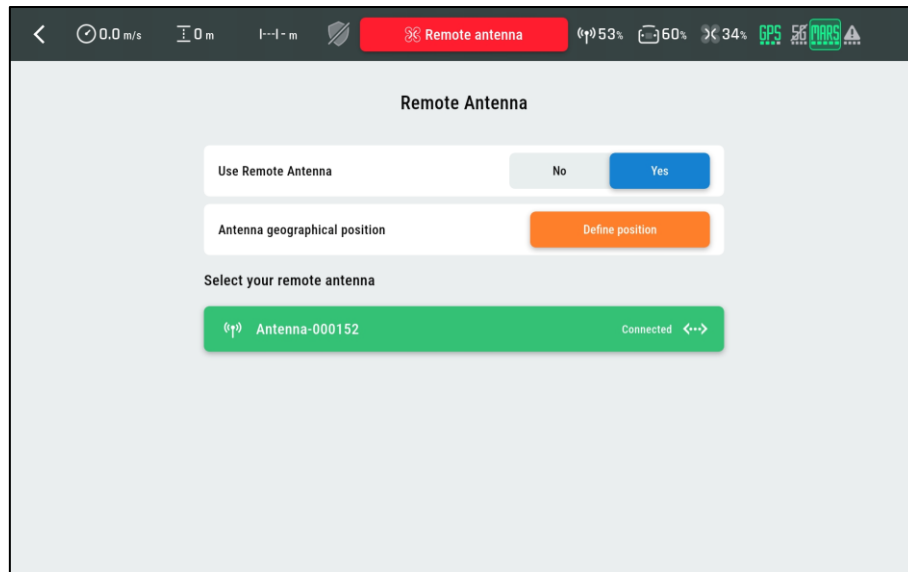


Figure 154: Remote Antenna configuration

The main radio link radio of the main Skycontroller UKR disconnects.

The remote antenna powers on.

NOTE: The remote antenna status LED remains switched off.

Wait several seconds for the status LED of the main Skycontroller UKR to turn solid blue.

The main Skycontroller UKR now uses the MARS link radio and the LoRa of the Remote antenna.

Under **Select your remote antenna**, tap your remote antenna from the list.

Beside **Antenna geographical position**, tap **Define position** to open the **Define position** screen and manually define the position of the remote antenna:

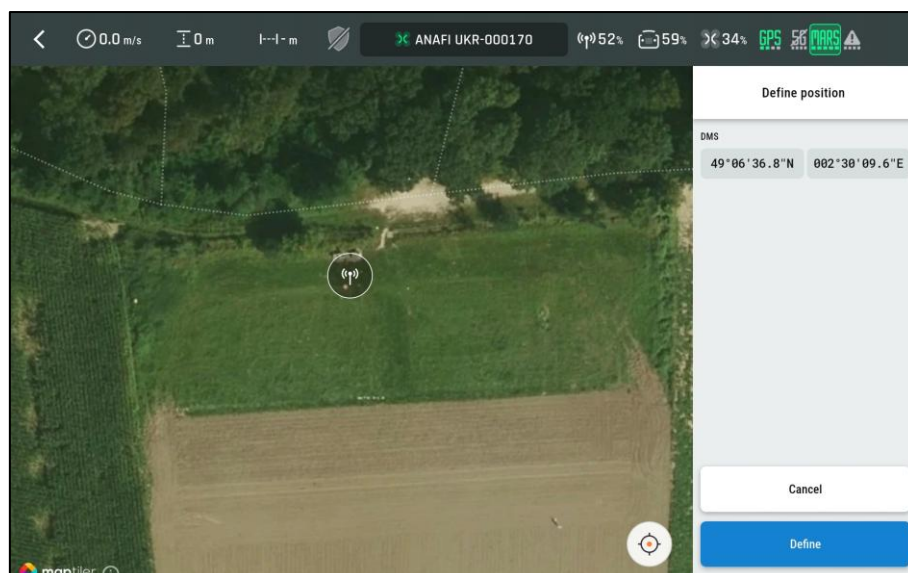


Figure 155: Define remote antenna position

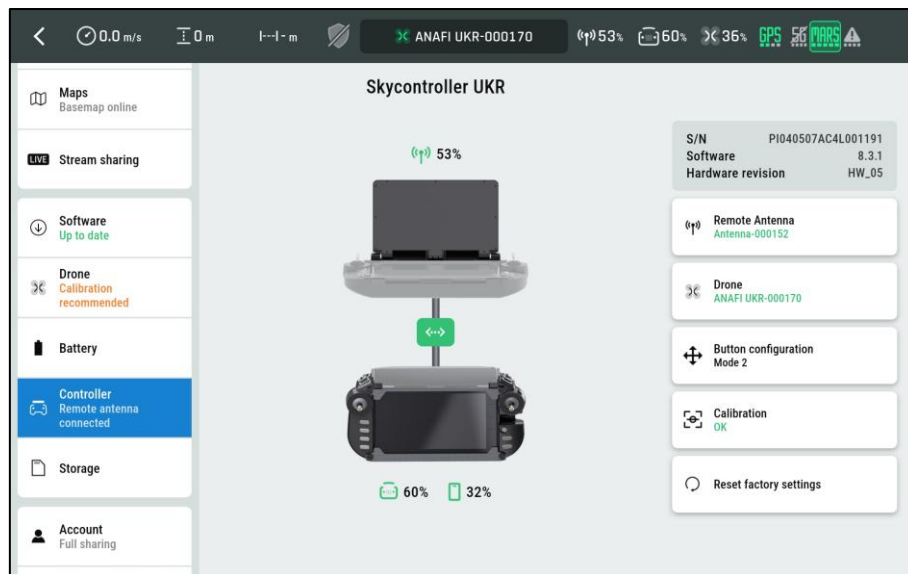


Figure 156: Remote antenna pairing successful

13.15.2. Select the active drone

By clicking on the **Drone** button, you can select the drone to which the controller connects.

That drone is highlighted in blue in the list:

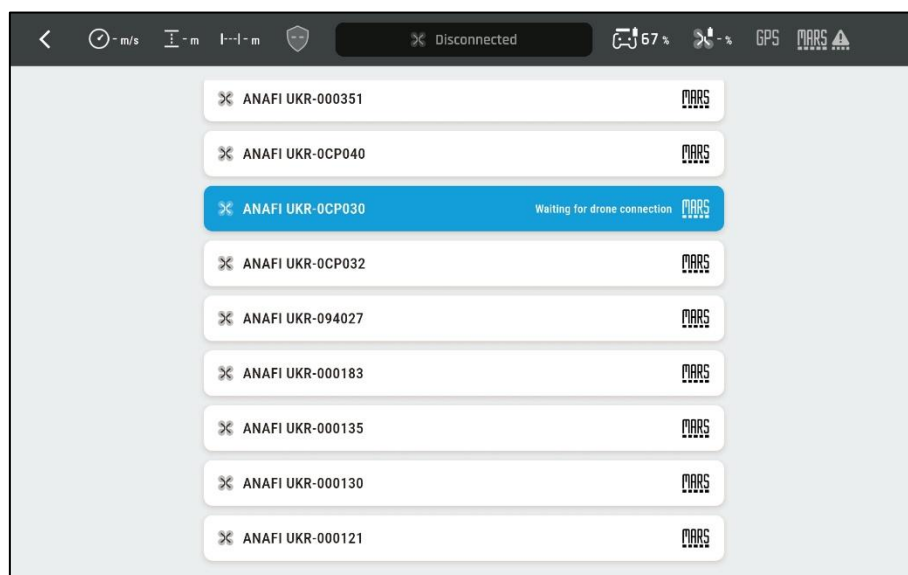


Figure 157: Controller is trying to connect to the active drone

When the controller connects to that drone, the drone is highlighted in green:

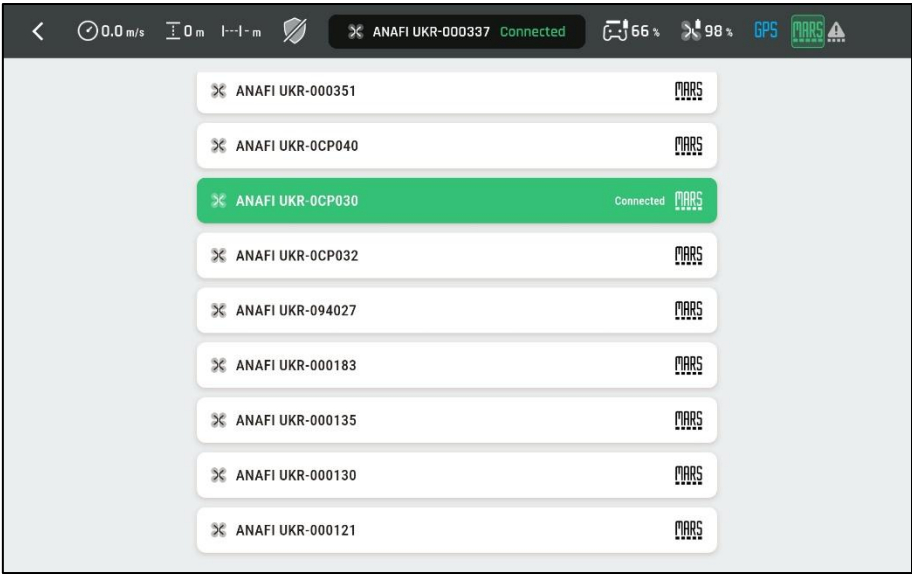


Figure 158: Controller is connected to the active drone

The user can change the active drone at any time by clicking on it in the drone list.

13.15.3. Button configuration

The **Button configuration** page allows the user to configure the controller joysticks and the controller buttons:

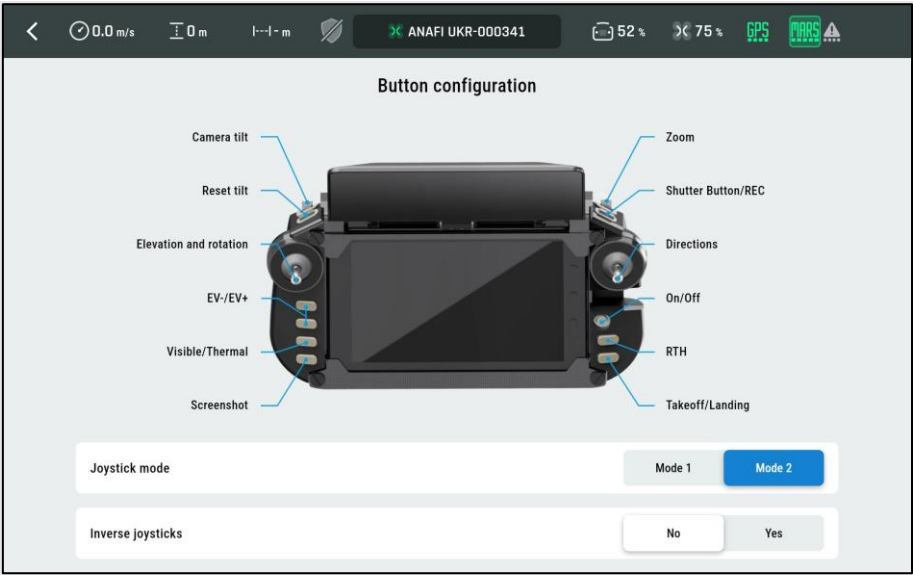


Figure 159: Controller button configuration

13.15.4. Calibration

Magnetometer or Joysticks calibration can be launched from the **Calibration** button:

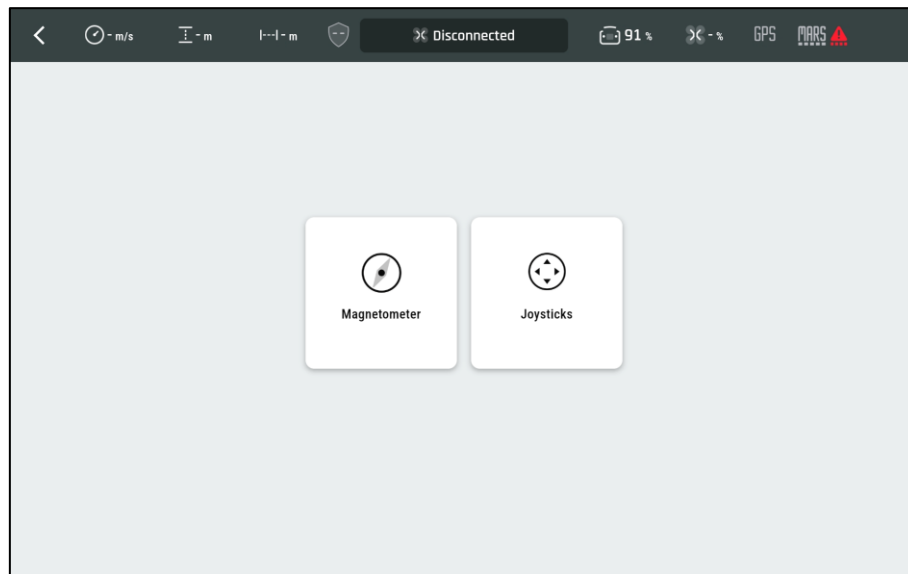


Figure 160: Controller calibration

The **Magnetometer calibration** page allows the user to calibrate the controller magnetometer at any time. Follow the onscreen instructions; rotate the controller around all 3 axes:

- **Z-axis (Yaw)**
- **Y-axis (pitch)**
- **X-axis (Roll)**

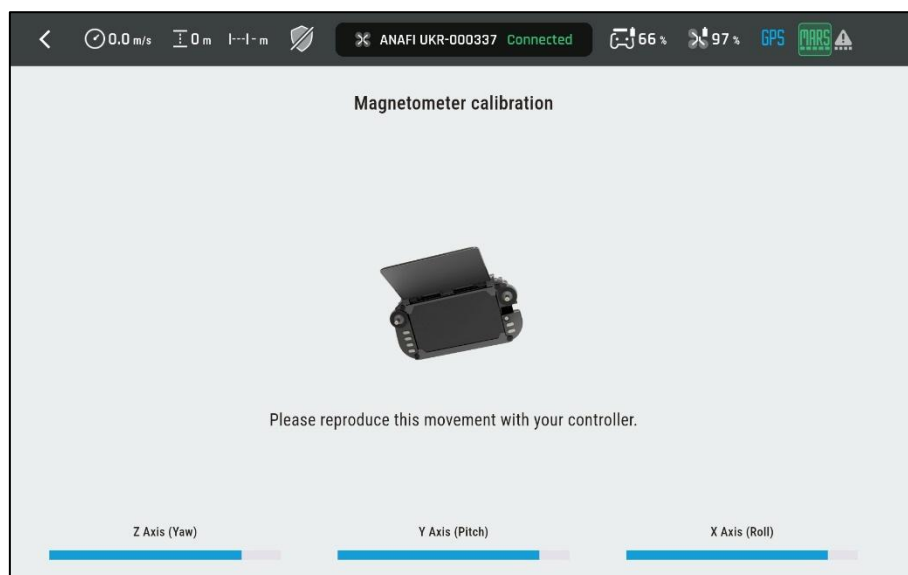


Figure 161: Controller magnetometer calibration

The Joysticks calibration allows the user to calibrate the controller joysticks. The goal is to calibrate both the neutral position of both joysticks and the angular range of both joysticks in all directions.

NOTE: If the joysticks happen to be uncalibrated, a popup will inform the user:

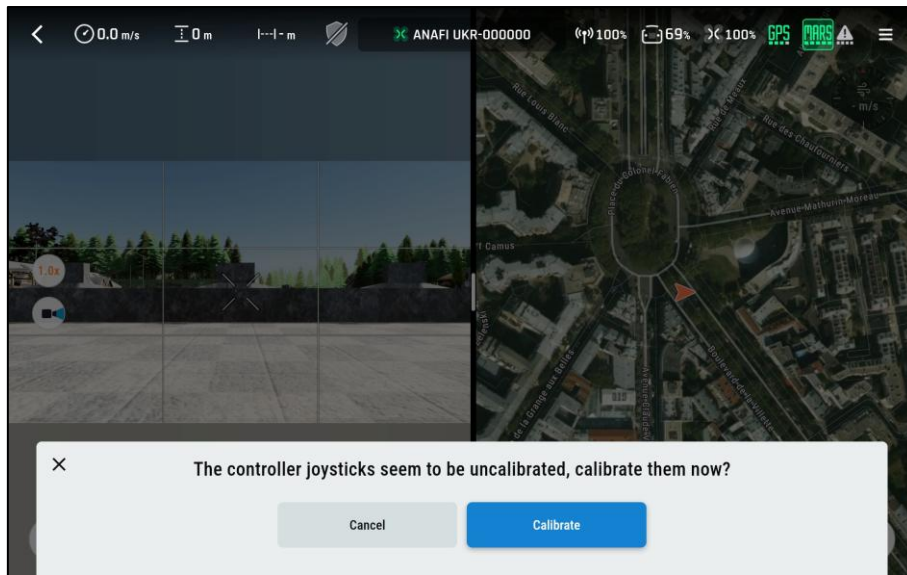


Figure 162: Uncalibrated joysticks popup alert

The joysticks calibration process is split in two steps.

In the first step the user must release both controller joysticks to their neutral position and then click on **Start** button.

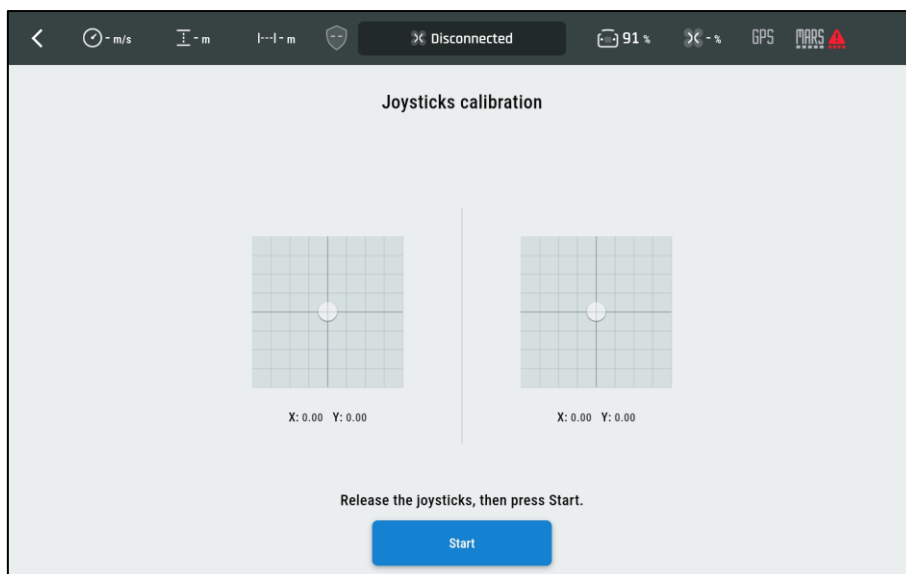


Figure 163: Joysticks neutral position calibration

WARNING: Do not touch the joysticks before you tap **Start**, otherwise the neutral zone will be incorrectly calibrated.

In the second step the user must push both joysticks to their maximum value in all directions and then click on the **Continue** button:

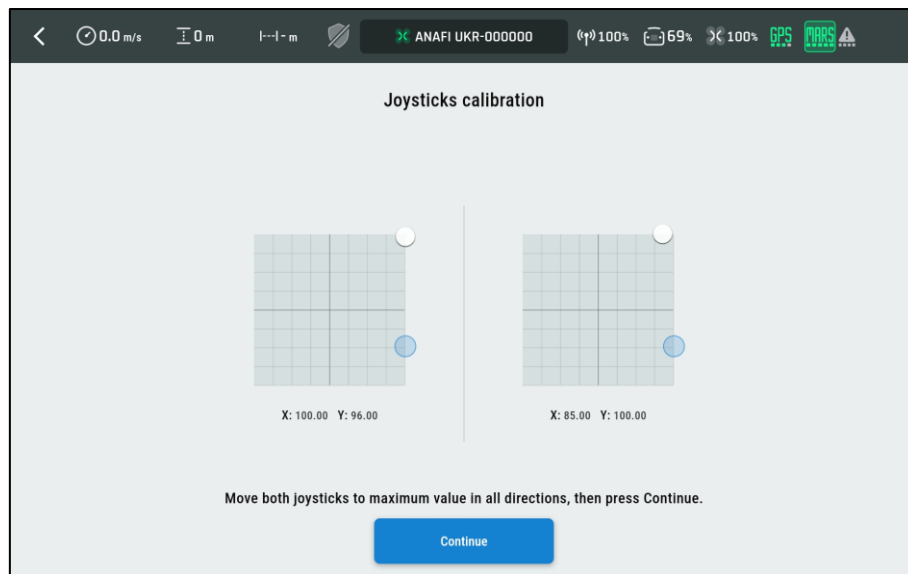


Figure 164: Joysticks angular range calibration

WARNING: The user must push both joysticks to their maximum value in all directions otherwise an error message appears:

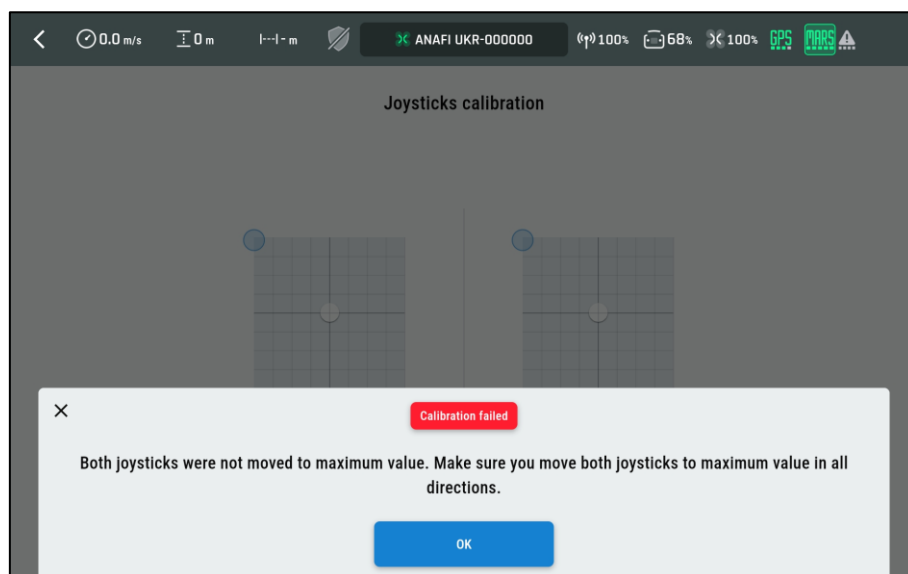


Figure 165: Calibration failed popup

13.16. Storage

The **Storage** page allows the user to encrypt and format the drone microSD card and/or internal memory.

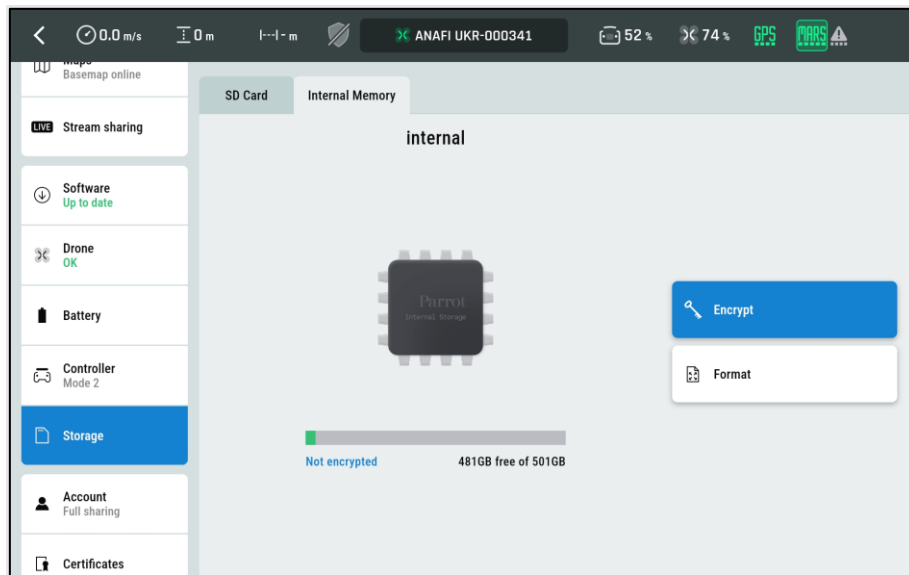


Figure 166: Settings – Storage

If you decide to encrypt a storage support (microSD card or internal memory) you will be prompted to enter a password. That password will be persistently stored in the FreeFlight 8 application and associated with the drone serial number as an Encryption profile.

WARNING: Encrypting the microSD card or internal memory implies formatting of the storage support and thus the loss of all data stored on that support.

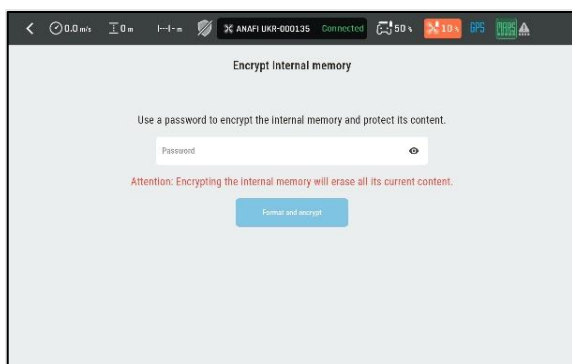


Figure 167: Format and encrypt internal memory

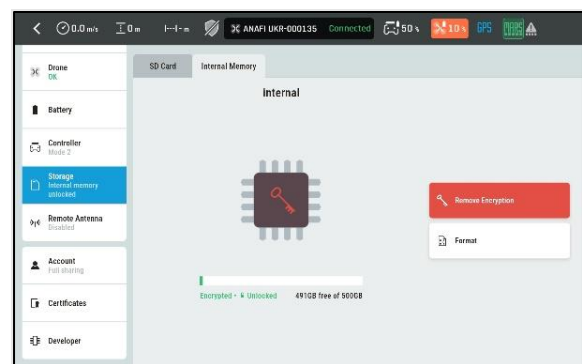


Figure 168: Remove encryption

The storage support (microSD Card or internal memory) is unreadable as long as it has not been unlocked with associated Encryption profile. As the encryption profile is stored in the FreeFlight 8 application, the storage support will be automatically unlocked as soon as FreeFlight 8 gets connected to the drone.

In case a PC is connected to the drone by USB and if some storage support is encrypted, then a popup will be displayed into FreeFlight 8 application so that the user can enter the password to unlock the storage support:

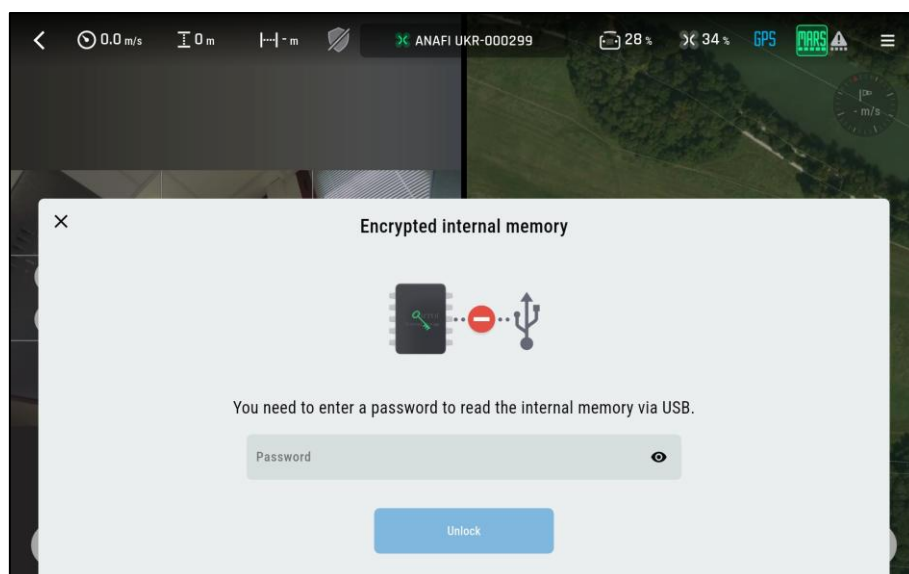


Figure 169: Unlock an encrypted storage support

MicroSD card and internal memory passwords are stored in the FreeFlight 8 application used to encrypt the storage. If you connect to the drone with another instance of FreeFlight 8 than the one used to encrypt the storage (another tablet or same tablet but after FreeFlight 8 uninstallation), then the password is not stored into the FreeFlight 8 application, and the storage cannot be automatically unlocked. You will have to unlock the storage by entering the password manually through the **Unlock** button:

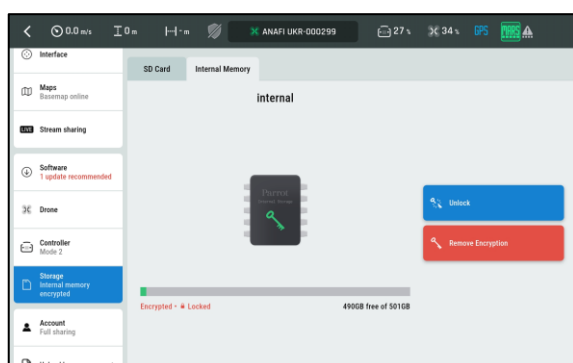


Figure 170: Internal memory locked

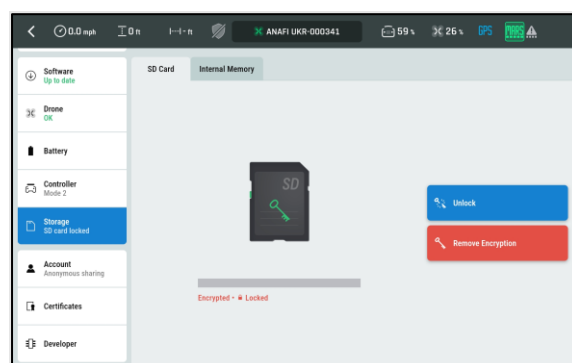


Figure 171: SD card locked

You can also remove the encryption through the **Remove encryption** button. If you do that the storage will be formatted and its contents will be lost.

If the drone storage media is locked then media recording is not possible. The shutter button in FreeFlight 8 HUD does not operate, an error message is displayed if you try to start a recording:

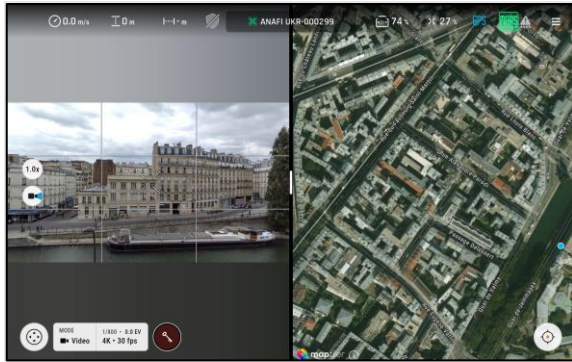


Figure 172: shutter button locked

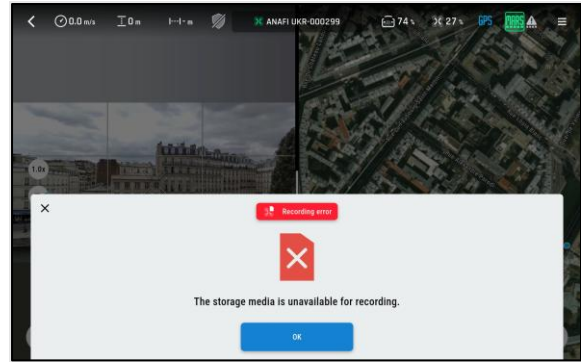


Figure 173: storage unavailable for recording

13.17. Account

The **Account** screen allows you to manage your Parrot.CLOUD account and data confidentiality.

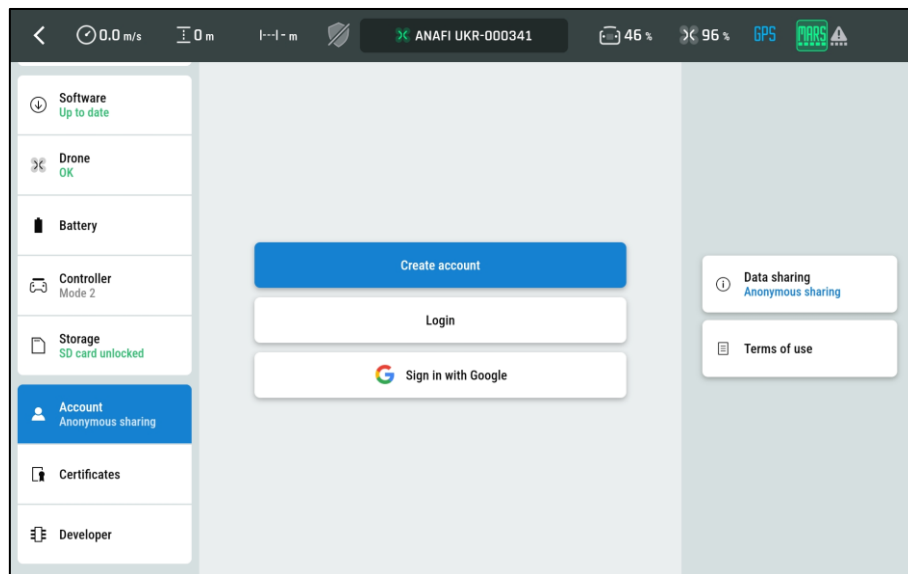


Figure 174: Settings - Account

13.17.1. Create a Parrot.CLOUD account

To create a Parrot.CLOUD account:

1. Tap **Create account**.

The **Create account** screen opens.

2. In the **Email** field, enter a valid email address.
3. In the **Password** field, enter a Password.
4. In the **Confirm password** field, enter your password again.

13.17.2. Log in to a Parrot.CLOUD account

To log in to your Parrot.CLOUD account:

1. Tap **Login**.

The **Log in** screen opens.

2. In the **Email** field, enter your email address.
3. In the **Password** field, enter your password.
4. Tap **Log in**.

If you forget your password:

1. Tap **Forgot your password?**

The **Password forgotten** screen opens.

2. In the **Email** field, enter your email address.
3. Tap **Send**.

NOTE: You must use the email address that you used to create your Parrot.CLOUD account.

The application sends you an email with a link to reset your password.

Alternatively, you can sign in to your Parrot.CLOUD account with Google.

1. Tap **Sign in with Google**.

The **Verify it's you** screen opens.

2. Enter your FreeFlight 8 device PIN to verify your identity.
3. Tap **Continue**.
4. Tap **Done**.

The Google sign-in screen opens.

5. Complete the Google sign-in process.

NOTE: The Google sign-in process is managed by Google after this step.

After you log in, the **Account** screen shows your profile information and the **Edit** button:

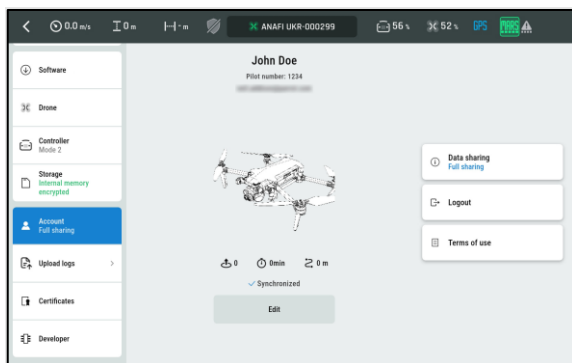


Figure 175: Logged in Parrot.CLOUD account

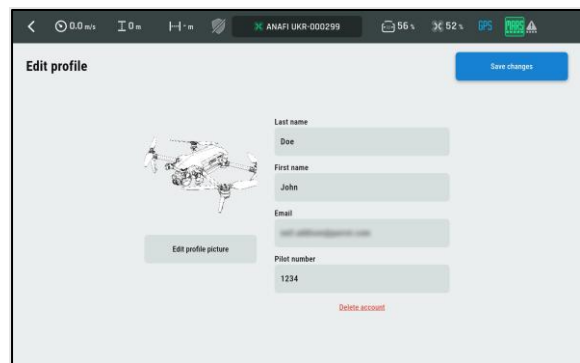


Figure 176: Edit Parrot.CLOUD account

To edit your Parrot.CLOUD account:

1. Tap **Edit**.

The **Edit profile** screen opens.

2. Update your profile information:
 - Tap **Edit profile picture** to change the profile image.
 - Enter a new name in the **Last name** field.
 - Enter a new name in the **First name** field.
 - See your Parrot.CLOUD account email address in the **Email** field.
 - Enter a new pilot number in the **Pilot number** field.

- Delete your Parrot.CLOUD account with the **Delete account** button.

3. Tap **<Back** to return to the **Account** screen.

4. Tap **Save changes** to save your updates.

13.17.2.1. Security

You can choose if you want to share your data with Parrot or if you want to fly the drone in private mode through the **Data sharing** tile. In private mode the drone firmware does not generate any log file and absolutely no data is shared with Parrot.

3 data confidentiality modes are available depending if you are logged or not to a Parrot cloud account, and depending on the data sharing mode you have selected:

1. Full sharing mode
2. Anonymous sharing mode
3. Private mode

Anonymous sharing is enabled by default.

	Private mode	Sharing mode
Logged to a Parrot.CLOUD account	No log generated on the drone	Full sharing: • Logs are generated on the drone • Logs are synchronized on Parrot.CLOUD
Anonymous user	No log generated on the drone	Anonymous sharing: • Logs are generated on the drone • Logs are synchronized on the tablet

FreeFlight 8 will not allow itself to execute as long as no screen lock is configured on the device:

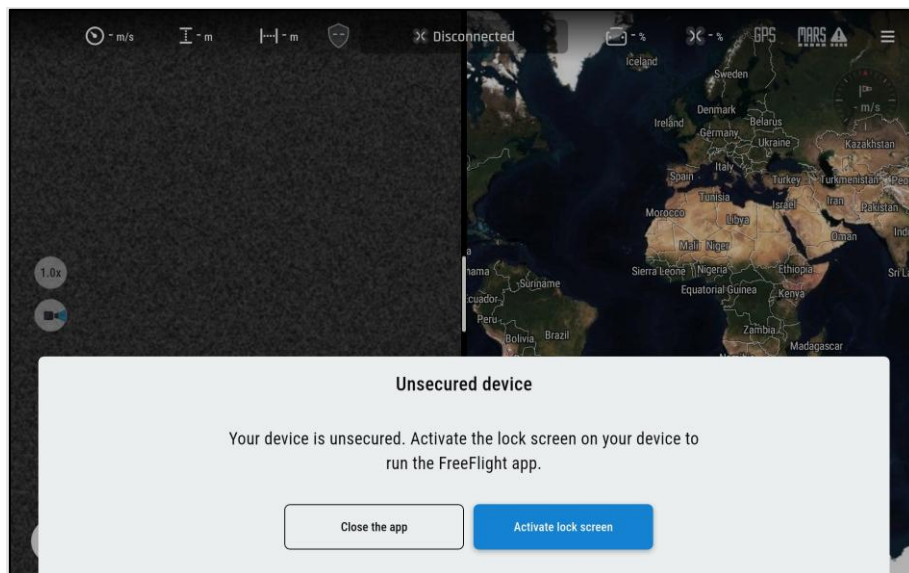


Figure 177: Activate lock screen

13.17.2.2. Full sharing

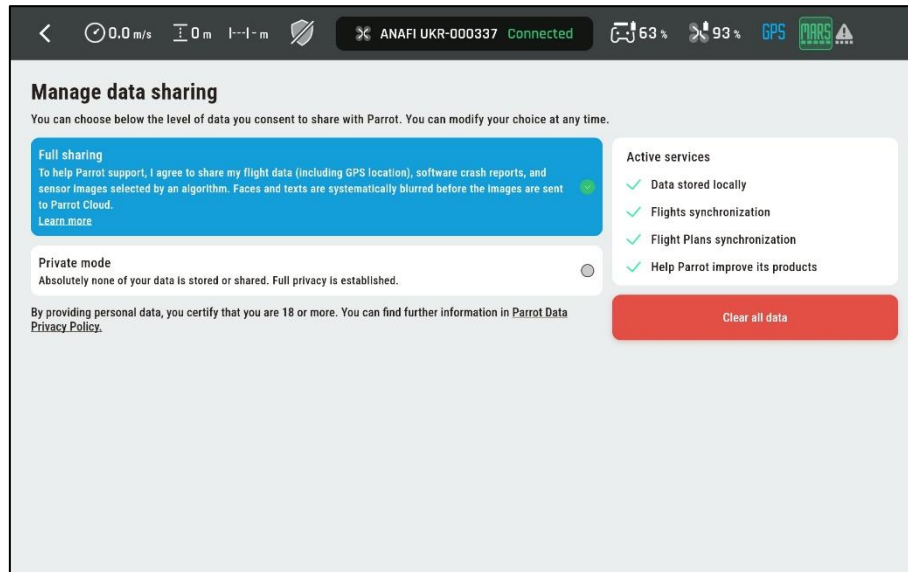


Figure 178: Full data sharing

Full sharing mode is available when the user is logged on his Parrot.CLOUD account.

In full sharing mode the drone generates log files (FDR-Lite log files). Those files are downloaded by FreeFlight 8 on the terminal immediately after the flight.

FDR-Lite log files are converted into standard GUTMA files and synchronized on Parrot.CLOUD.

In full sharing mode, Flight plans projects are also synchronized on Parrot.CLOUD.

Parrot Servers respect GDPR. All data are anonymized. When users close their account, all data are erased.

CAUTION: If you do not share flight data / logs for the purposes of receiving support, you limit your ability to receive technical support, warranty, or both from Parrot.

13.17.2.3. Anonymous sharing

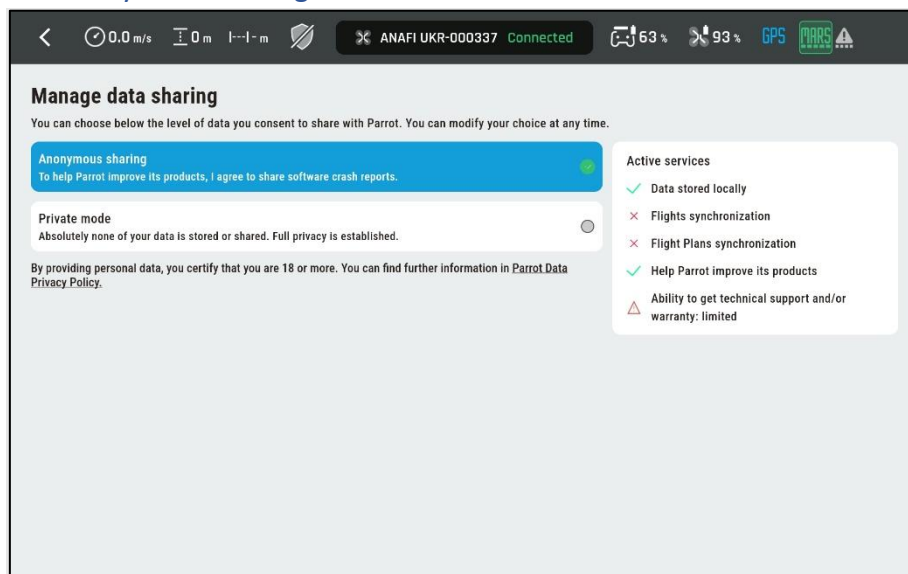


Figure 179: Anonymous data sharing

Anonymous sharing mode is available when the user is not logged on any Parrot.CLOUD account.

Although no data is synchronized on Parrot.CLOUD, the drone generates FDR-Lite log files and GUTMA flight logs are stored locally on the device. Encrypted log files are sent to Parrot for debug purposes.

13.17.2.4. Private mode

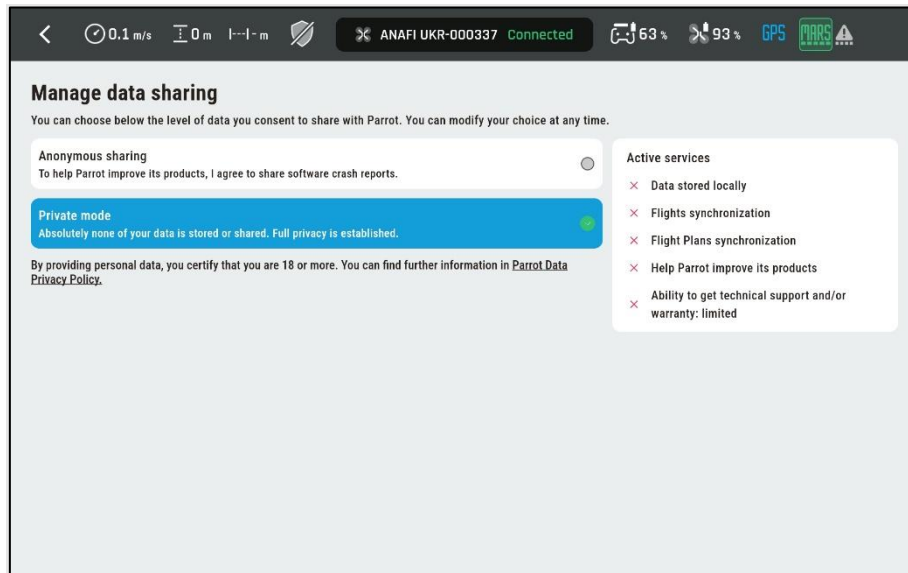


Figure 180: Private mode

In private mode the drone does not generate any FDR-lite log file.

No GUTMA flight log file is stored on the device, no GUTMA log file can be synchronized on Parrot.CLOUD. In private mode Flight Plan projects are not synchronized on Parrot cloud.

CAUTION: If you do not share flight data / logs for the purposes of receiving support, you limit your ability to receive technical support, warranty, or both from Parrot.

13.17.3. View terms of use

Tap **Terms of use** to open the **Terms of use for the Parrot FreeFlight 8 application**.

13.18. Upload logs

This **Upload logs** screen allows the user to upload flight logs to a Parrot server.

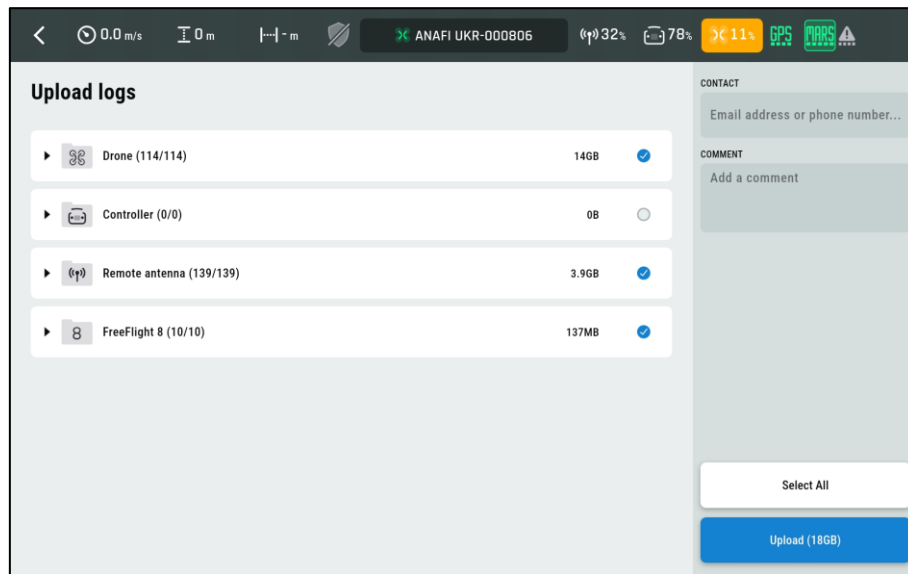


Figure 181: Settings - Upload logs

The logs include:

- Logs recorded by FreeFlight 8 on the tablet
- Logs recorded on the drone
- Logs recorded on the Skycontroller
- Logs recorded on the remote antenna

You can manually select the log files to upload.

CONTACT and **COMMENT** text fields are not mandatory. They can be used to identify yourself and briefly explain the context of your request to Parrot support.

The system first downloads the log files from the products onto the tablet storage. It then uploads the log files from the tablet to the Parrot server.

Keep ANAFI UKR, Skycontroller UKR, and the remote antenna connected until the download is complete. The drone shall be connected to the SkyController UKR through a USB cable so that the files transfer is faster.

The tablet must have an internet connection to upload the logs.

For faster download, connect the controller to the drone with a USB cable. The download progress is indicated through the blue pie chart, as the upload progress is indicated through the green pie chart:

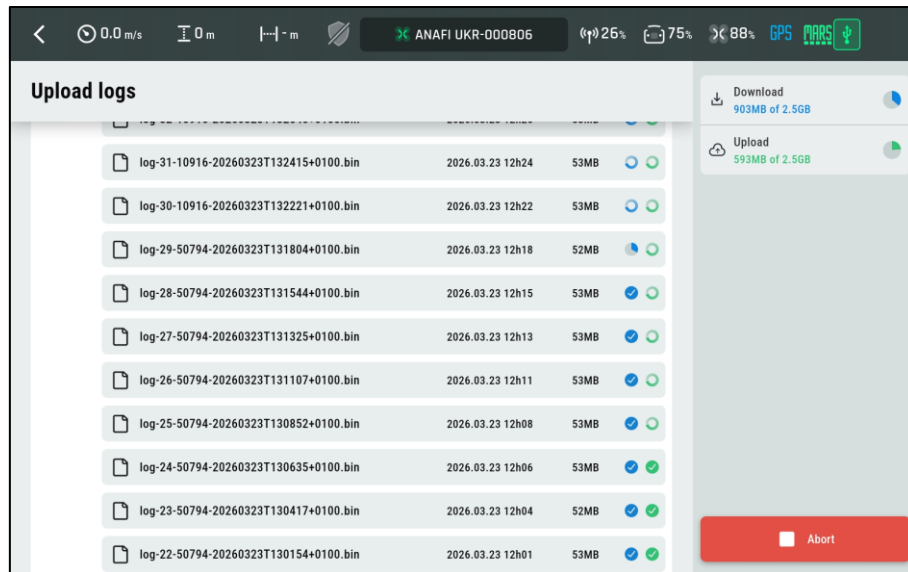


Figure 182: Upload logs in progress

You can stop the file transfer at any time. Tap the **Abort** button.

After the upload is complete, the log files on the products (drone, controller, and remote antenna) may no longer be useful. You can delete these uploaded log files from the products or keep them:

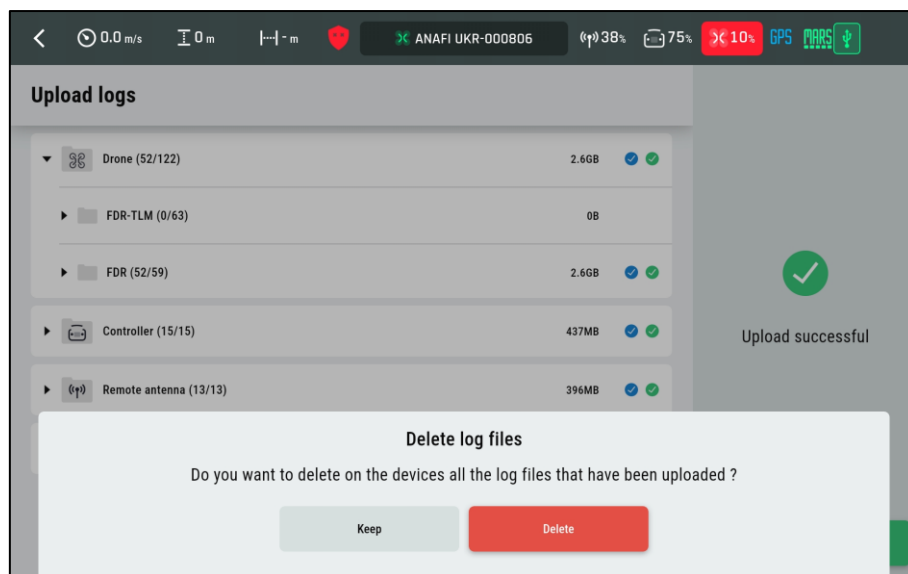


Figure 183: Delete log files

13.19. Certificates

The **Certificates** setting page is only applicable to approved users.

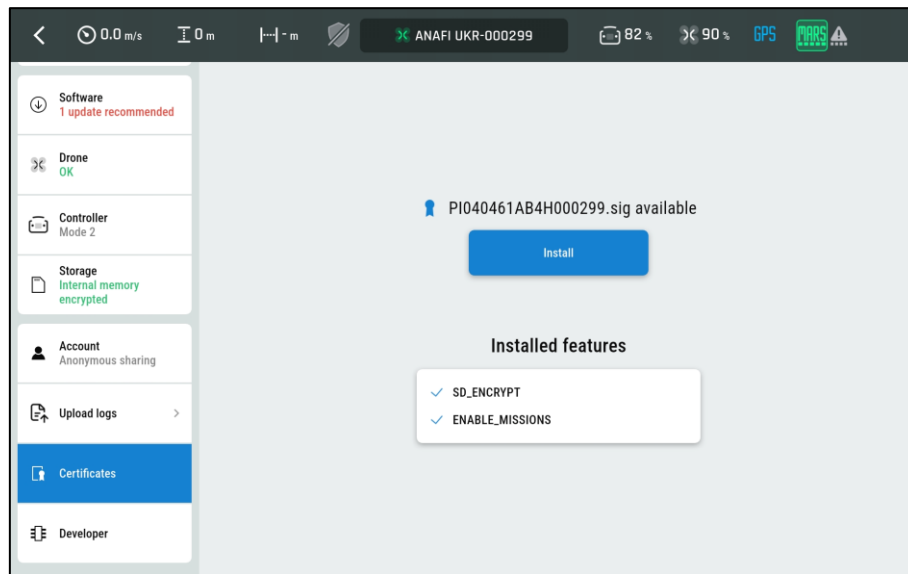


Figure 184: Settings - Certificates

13.20. Developer

The **Developer** setting page is reserved for developer purposes.

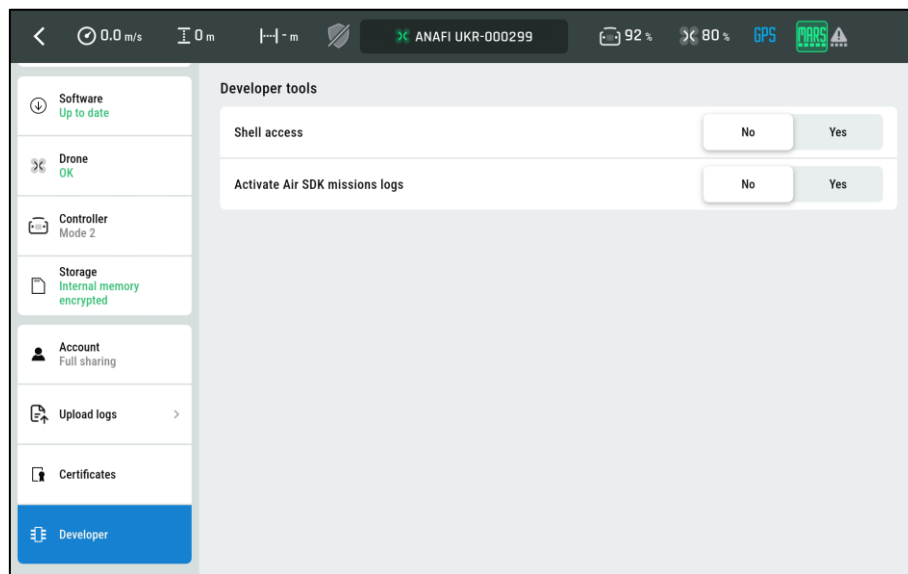


Figure 185: Settings – Developer

13.20.1. Developer tools

An ADB **Shell access** can be enabled on the drone to ease the debugging of the Air SDK mission software running on the drone.

Additionally, **mission logs** can be enabled and stored on the drone.

14. Maintenance and troubleshooting

This section describes basic procedures to maintain your drone and troubleshoot most issues you may encounter using Skycontroller UKR. In addition, drone and controller reset procedures can be useful before a change of operator or operating structure.

14.1. Skycontroller UKR hard reset

To hard reset the Skycontroller UKR, ensure that it is not connected to any drone, or the drone will initiate a take-off sequence.

Press and hold the controller's  **Take-off/Land**,  **Camera reset**, and  **Shutter** buttons for 15 seconds, then release the 3 buttons.

NOTE: The LED starts flashing after 10 seconds, but you must hold the buttons for an additional 5 seconds.

The Skycontroller reboots. The reset is successful.

The same procedure can be performed safely, even with a drone connected, through the **Reset** button of the Skycontroller page, in FreeFlight 8.

WARNING: When the Skycontroller UKR reboots, the connection between the drone and controller is lost, and all previous pairings, calibrations, and logs are deleted.

NOTE: Skycontroller UKR also features a reset button. The reset button only forces the Skycontroller to reboot. It is not a hard reset. For more information, refer to [*chapter 8. Skycontroller UKR*](#).

14.2. FreeFlight 8 device hard reset

To perform a hard reset to the Samsung galaxy tablet:

1. Power off the tablet.
2. Press and hold the **Volume Up** and **Power** buttons simultaneously until the Samsung logo appears on the screen.
3. Release the buttons to enter the Recovery Menu.
4. Use the volume buttons to navigate to **Wipe Data/Factory Reset**.
5. Press the Power button to select.
6. Use the volume buttons to navigate to **Factory data reset**.
7. Press the Power button to select.

After several seconds, the system reboots.

CAUTION: A factory reset erases all personal data on the device, including the FreeFlight 8 application and any media you recorded via FreeFlight 8. Ensure you back up important files before proceeding.

14.3. Webserver

Skycontroller UKR has a webserver feature. This feature allows the user to access additional information, and additional options for the controller.

Access to the webserver requires:

- A computer
- An internet browser
- An Ethernet cable

To access the Skycontroller UKR webserver:

1. Power on Skycontroller UKR.
2. Connect Skycontroller UKR to a computer with an Ethernet cable (or with an Ethernet to USB-A adaptor cable).
3. Open a web browser on your computer.
4. In the browser's address bar, enter the following IP address:

192.168.53.1

IMPORTANT: Ensure that the browser does not add *https://* before the IP address. Using *http://* is sufficient.

The webserver interface opens:

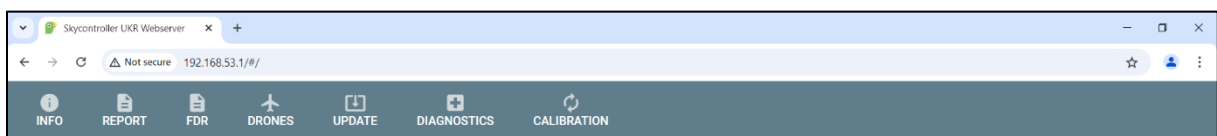


Figure 186: Webserver tabs

Click 1 of the 7 tabs to display additional information about Skycontroller UKR, or have additional options:

- **INFO**
- **REPORT**
- **FDR**
- **DRONES**
- **UPDATE**
- **DIAGNOSTICS**
- **CALIBRATION**

14.3.1. Ecosystem logs for technical support

You must provide Parrot with the drone and controller logs to receive technical support. For more information, contact sav@parrot.com.

Follow this procedure to download the Skycontroller UKR logs:

1. Open Skycontroller UKR's webserver.
2. Click the **FDR** tab.
3. Under the **Actions** column, click **download** for each file.
4. Send all the files to Parrot.

14.3.2. Joystick calibration

If you experience any unstable or unexpected behavior from the aircraft, you may need to calibrate the Skycontroller UKR joysticks.

Follow this procedure to calibrate the Skycontroller UKR joysticks:

1. Open Skycontroller UKR's webserver.
2. Click the **CALIBRATION** tab.
3. Click **Start calibration**.
4. Ensure that the joysticks are in the default position.
5. Click **Next**.
6. Move every joystick to their limits.

7. Move every slider to their limits.
8. Click **Next**.
9. Push the left stick up to the maximum limit position and simultaneously press **Next** on the webserver.
10. Push the left stick to the right to the maximum limit and simultaneously press **Next** on the webserver.
11. Push the right stick up to the maximum limit and simultaneously press **Next** on the webserver.
12. Push the right stick to the right to the maximum limit and simultaneously press **Next** on the webserver.

The calibration is complete.

14.4. Aircraft end of service life

Refer to the flight safety guide manual (available upon request) to find complementary information on how to recycle this product.

The carry box is made of plastic, they can be disposed of in a recycle bin.

All the electronic devices (Skycontroller UKR, smart battery) must be returned to a collection point (e.g. stores, recycling center) to be recycled. It is indicated by the following logos:



15. Accessories

The following accessories are available for Skycontroller UKR.

15.1. Open-source 3D printable accessories

Contact Parrot or your Parrot reseller to obtain the CAD files for the following accessories:

15.1.1. Power bank holder for Skycontroller UKR

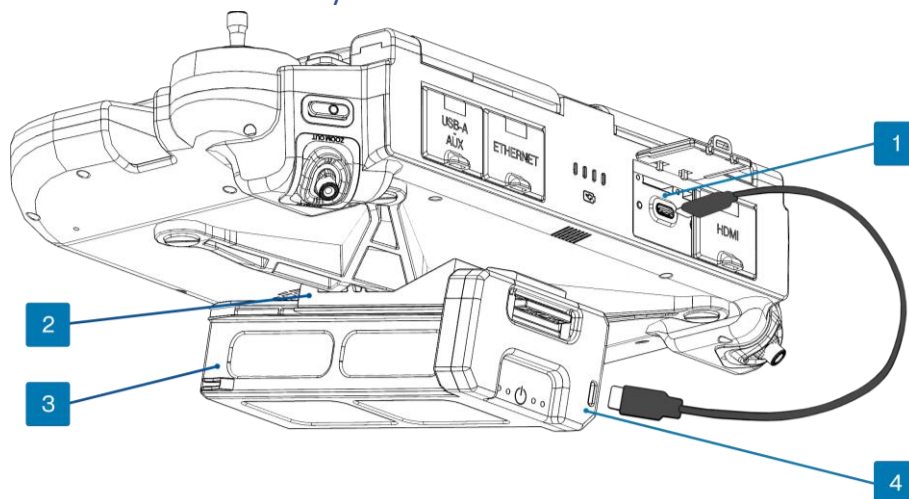


Figure 187: Power bank holder accessory

- | | |
|--|-----------------------------------|
| 1. Skycontroller UKR USB-C charging port | 3. Smart LiPo battery |
| 2. Power bank holder | 4. Smart LiPo battery charge port |

NOTE: The power bank holder is compatible with the standard battery only. It is not compatible with the XLR battery.

15.2. Proprietary accessories

15.2.1. MARS Orbiter

MARS Orbiter is a small, motorized box that attaches to the underside of the remote Skycontroller UKR, or MARS Ranger. When mounted on a tripod, MARS Orbiter rotates the remote Skycontroller UKR to ensure that it always faces the aircraft's direction.

Technical specifications	
Dimensions	207 x 107 x 55 mm (8.1 x 4.2 x 2.2")
Mass	525 g
Tripod interface	Standard UNC ¼" screw
Rotation speed	1 RPM
Max slew rate	6°/s
Ingress Protection (IP) rating	IP53

15.2.1.1. Installation procedure

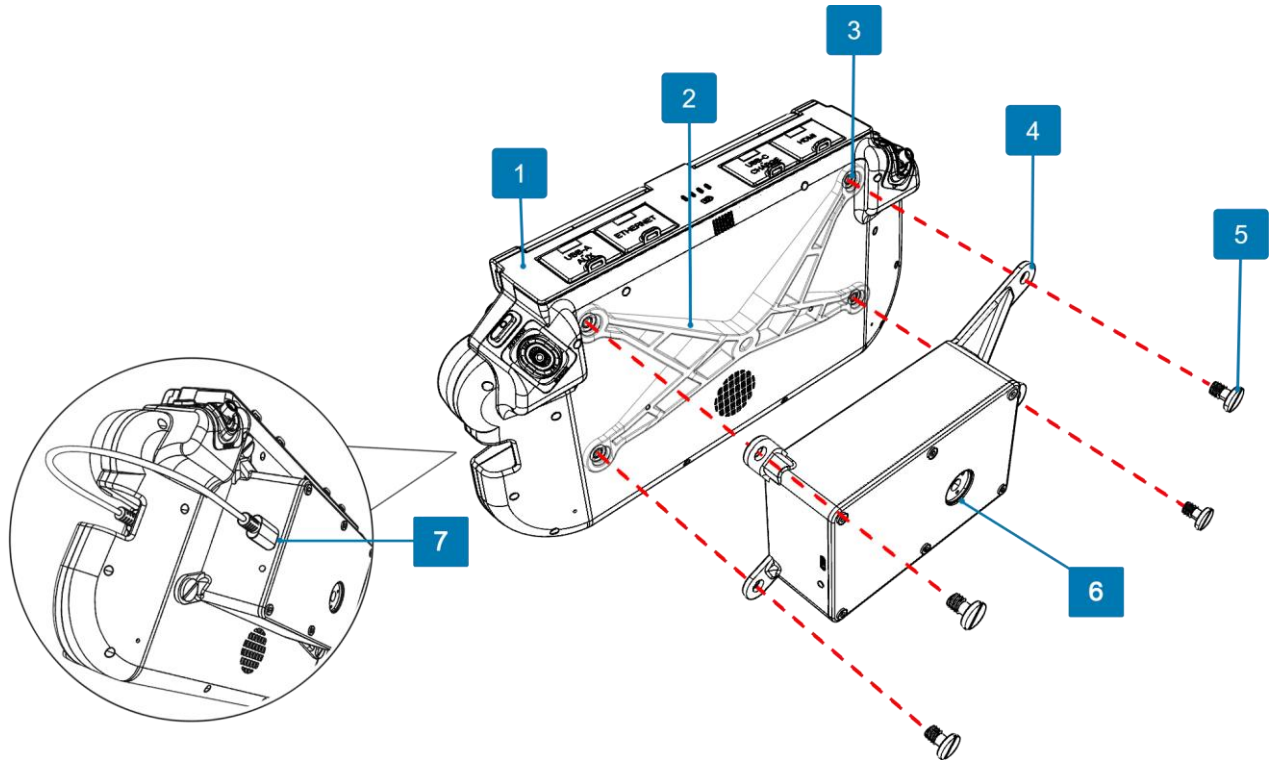


Figure 188: MARS Orbiter installation procedure

- | | |
|-----------------------------|-------------------------|
| 1. Remote Skycontroller UKR | 5. Screws (1 of 4) |
| 2. Tripod bracket | 6. Tripod interface |
| 3. Locating holes | 7. USB-C to USB-C cable |
| 4. MARS Orbiter | |

To mount the MARS Orbiter on the remote Skycontroller UKR:

1. Remove the tripod bracket from the Skycontroller UKR.
2. Place the MARS Orbiter on the back of the remote Skycontroller UKR.
3. Secure the MARS Orbiter in place with the 4 screws.
4. Mount the MARS Orbiter to a 3rd party tripod.

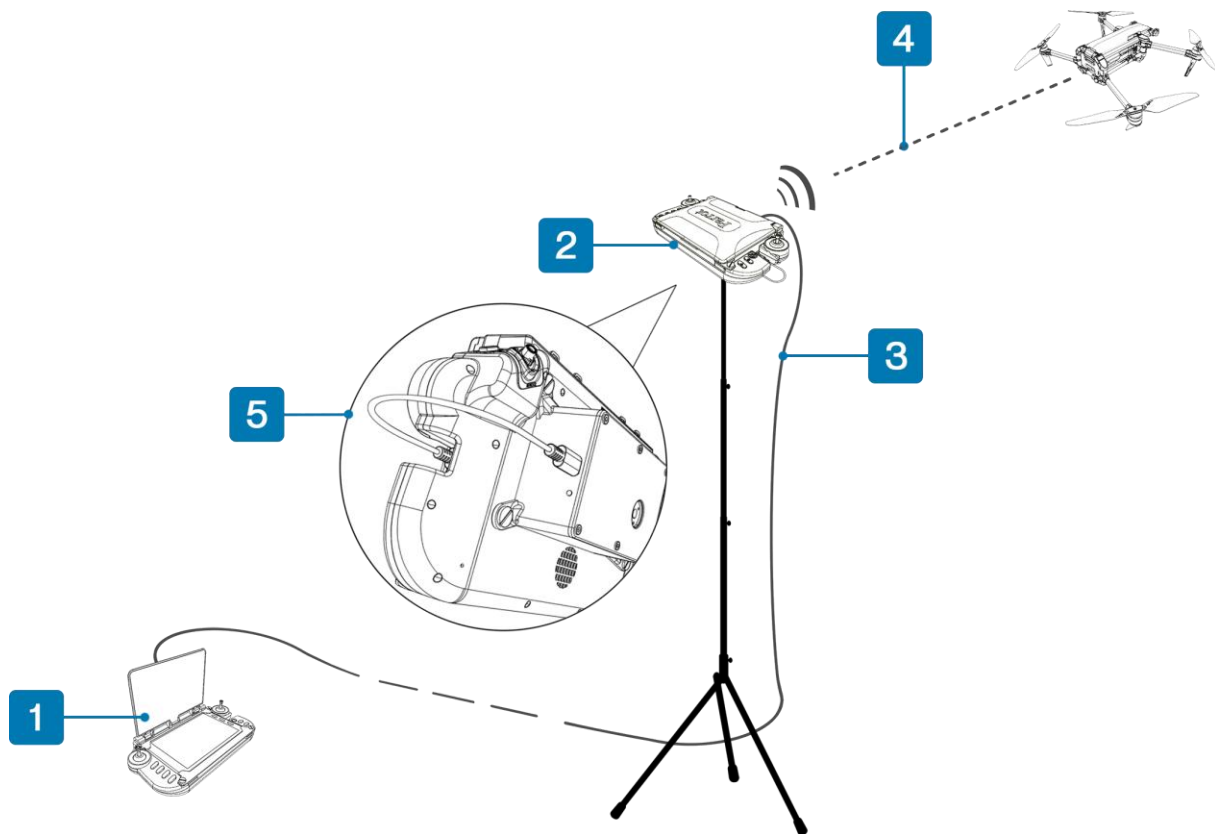


Figure 189: MARS Orbiter mounted on a remote Skycontroller UKR

1. Main (piloting) Skycontroller UKR
2. Remote Skycontroller UKR
3. Cat5 RJ45 ethernet cable
4. MARS radio link
5. MARS Orbiter on remote Skycontroller UKR

5. Connect the Remote Skycontroller UKR to the main (piloting) Skycontroller UKR with a Cat5 RJ45 ethernet cable.
6. Connect the MARS Orbiter to the Skycontroller UKR tablet port with a USB-C to USB-C cable.

MARS Orbiter powers on automatically when you connect it to the remote Skycontroller UKR with the USB-C cable.

The calibration process starts automatically. After 3 seconds, MARS Orbiter makes 1 full counterclockwise rotation lasting 15 seconds, and then 1 full clockwise rotation lasting 15 seconds.

During operation, the MARS Orbiter LED changes color to show different states. The table below shows all LED indications and their meanings:

White	Powered on, awaiting calibration
Blue	Calibration underway
Green	Orbiter functioning
Red	Motor stall detected

CAUTION: The pilot must pay attention to the Ethernet cable between the Piloting Skycontroller UKR and the remote Skycontroller UKR. If the pilot flies ANAFI UKR in circles around the remote Skycontroller UKR, as MARS Orbiter rotates, the ethernet cable can become wrapped around the tripod. This results in a motor stall in MARS Orbiter.

15.3. 3rd party accessories

The following accessories are available from 3rd parties:

- Harness for Skycontroller UKR: brand Mobilis, ref. 001024



Figure 190: Mobilis harness with Skycontroller UKR

- Anti-glare filter for the tablet: brand Brotect, ref. 1952729
- Tripod for Skycontroller UKR:
 - Brand: K&F Concept, ref. KF09.116
 - Brand: K&F Concept, ref. K234 A0

16. Appendix 1: Operational Checklist

This operational checklist applies to ANAFI UKR (a quadcopter with foldable arms, and a removable battery) paired with Skycontroller UKR. Certain elements in the following checklist may not apply to your individual configuration.

16.1. Software update & calibration

Aircraft	Software up to date
Skycontroller UKR	Software up to date
Tablet	Software up to date
FreeFlight 8	Software up to date
Aircraft gimbal calibration	OK
Aircraft magnetometer calibration	OK
Aircraft thermal calibration	OK
Aircraft Cursor on Target calibration	OK
Aircraft horizon calibration	OK
Aircraft thermal/visible image calibration	OK
Skycontroller UKR magnetometer calibration	OK
Skycontroller UKR joystick calibration	OK

IMPORTANT: Parrot strongly recommends that you regularly refer to the Release Notes Skycontroller UKR available upon request, to ensure that you have the latest versions of the drone and controller firmware, and FreeFlight 8 App.

16.2. Skycontroller UKR & Aircraft off

Aircraft	Removed from case
Aircraft arms	Unfolded, locked
Aircraft gimbal protective cover	Removed
Aircraft propellers	Intact, free, fully screwed on.
Aircraft battery	No swelling, locking tab FULLY UP , 100% charged.
Aircraft battery LEDs	4 x OK
Aircraft battery temp	Within operational range
Skycontroller UKR battery	100% charged.
Skycontroller UKR battery LEDs	4 x OK
Tablet battery	OK, 100% charged.

16.3. Skycontroller UKR & Aircraft on

Aircraft	On, gimbal stabilization OK
Skycontroller UKR	On, antenna unfolded
Skycontroller UKR / Aircraft radio link	Main radio link connection solid green in FreeFlight 8
Tablet	On
Tablet / Skycontroller UKR USB connection	USB-C cable correctly inserted
FreeFlight 8	launched
System connected	Solid blue LED on Skycontroller UKR
Image feed & telemetry	Live video feed
Mission Mode	Set
Quick settings menu	Verify GPS, obstacle avoidance, Auto record, CoT set
Flight parameters	Set to Standard
RTH and safety	Set
GPS	Verified (enabled)
Flight area	Set

Connection	Radio configured
Max altitude/Max distance	Set
Geocage	Set if needed
Geoawareness	Activate if needed
Image settings	Set
Skycontroller UKR button configuration	Joysticks inverse / Default, button mode configured
Map on FreeFlight 8	OK, offline map uploaded if required
GNSS settings	Set
Global reactivity	Set
Camera tilt speed	Set
Inclination	Set
Vertical speed	Set
Rotation speed	Set
Final check	All systems 'green'

16.4. Before Take-off

Weather / Wind	Checked and OK
Take-off Zone	Clear
Aircraft status	In the green
Propellers	No obstructions in propeller arc
Take-off/Land command	Take-off

16.5. After Take-off

Precise Home	Set
Right joystick	Pitch and roll confirmed
Left joystick	Yaw and altitude confirmed
Gimbal trigger	Up and down
Zoom trigger	In and out
Video	Clear and visible
Connection	MARS radio link confirmed

16.6. Before landing

Weather / Wind	Checked and OK
Landing Zone	Clear
Aircraft status	Check
Take-off/Land command	Land

16.7. After landing

Check motors are stopped	OK
Aircraft status	OK, no alarms
Skycontroller UKR	Off, stored away
Tablet	Off
Aircraft battery	Off
Aircraft	Check drone/gimbal/propellers
Aircraft	Install gimbal protective cover
Aircraft arms	Folded
Aircraft system	Stored away

17. Appendix 2: EU Data Act information and System data overview

In the European Union, Regulation (EU) 2023/2854 (Data Act) provides data access rights to users of connected products and related services. Please see below for information regarding data and related service data that may be generated by products and services of Parrot Drones S.A.S. ("PARROT").

17.1. Product data

PARROT designs, develops and markets a range of high-performance micro-UAVs, serving both operational and analytical needs for defense, government agencies, industrial and commercial operators worldwide, for missions in Intelligence, Surveillance and Reconnaissance (ISR), public safety, and technical inspection.

When such products qualify as "connected products" under the Data Act, they may generate varying types and volumes of data depending on the type of device, its functions, its software version, user settings and how the user uses it, including:

- Videos (mp4 files)
- Photos and screenshots (jpeg files)
- Flight logs (binary files and json files)
- Flight data (csv files)

(please refer to the table below for more details)

The products can generate such data continuously while in use, and in real-time.

By default, the data is stored on the device (drone and/or controller), sometimes users can choose to upload it to a remote server through PARROT software or to their own IT infrastructure.

Data is retained until the user deletes it from the device or until the device is full (depending on function or settings, the data may be automatically overwritten by newer data when device storage is full). To the extent the user chooses to upload data to PARROT servers, it is retained in accordance with PARROT's applicable retention policies, unless the user deletes the data first.

17.2. Related service data

PARROT offers a range of related services including mobile apps and cloud-based tools to support users when operating and managing its products (firmware updates and customer support). When such services qualify as "related services" under the Data Act, PARROT may receive and store the types of product data as described above to the extent the user chooses to upload the data to PARROT servers. The services may also generate varying types and volumes of data, depending on the type of service, its functionalities, software version, user settings, and how the user uses them (e.g., flight records). Such data is stored in the same manner and for the same duration data.

17.3. How to access data

Users can contact PARROT at eudataact.request@parrot.com to submit a request to access, retrieve, and erase such data in accordance with the Data Act.

Please note that data access may be subject to restrictions in order to safeguard trade secrets. Where we are the holder of such trade secrets, we will take appropriate measures to protect their confidential the trade secret holder, we will take steps to inform the user of their identity.

PARROT may use the non-personal product and related service data, including but not limited to performing its agreements with users and any activities related thereto; operating its business; providing and improving its products and services and developing new services; enabling research

and innovation; supporting marketing initiatives; detecting and preventing possible fraud or misuse; maintaining system security; enabling acquisitions, or sale of business or assets; enforcing applicable terms and conditions; establishing, exercising and defending legal rights and complying with applicable standards and PARROT policies.

Our Privacy Policy available on our website specifies how we process data that qualifies as “personal data”.

17.4. How to contact us

For any questions, please contact us at eudataact.request@parrot.com or by sending correspondence to our offices, located at 174-178 Quai de Jemmapes 75010 Paris, France.

You may also lodge a complaint with the competent authority designated pursuant to Article 37 of the Data Act.

PRODUCT	TYPE OF FILES	PATH	DATA PROTECTION
DRONE	Recorded media	internal/DCIM/	Storage encryption possible via FreeFlight 8
	Drone full logs	log/FDR/	File encrypted
	Drone light logs	log/fdr-lite/	File encrypted
	Sensor images (FCR)	log/FCR/	None
	User GPS Denied maps	internal/maps/	None
	User Elevation (DTED) maps	internal/terrain/	None
DRONE SD CARD	Recorded media	DCIM/	Storage encryption possible via FreeFlight 8
CONTROLLER	Controller full logs	logs/	File encrypted
ANDROID DEVICE	Media Gallery Thumbnails	Android/data/com.parrot.freeflight8/cache/thumbnails/	Android device can be password protected
	Media downloaded from drone memory	DCIM/Parrot/Medias/<drone_serial>/Flights/<date_time>/	Android device can be password protected
	Stream recordings	DCIM/Parrot/Recordings/<date_time>/	Android device can be password protected
	Screenshots	DCIM/Screenshots/	Android device can be password protected
	User Offline maps	Android/data/com.parrot.freeflight8/files/OfflineMaps/	Android device can be password protected

18. Appendix 3: Disclaimer

1. ANAFI UKR IS NOT A TOY and must not be used or handled by persons under the age of 18 years.
2. BEFORE USING ANAFI UKR:
 - (A) CAREFULLY READ the user guide and all information and documentation available upon request. Documentation is subject to change and may be updated at any time and without prior notice (hereinafter referred to as "Parrot Documentation"). SPECIAL ATTENTION must be given to the paragraphs marked: **WARNING, CAUTION, IMPORTANT.**
 - (B) Ensure that the complete drone ecosystem is up-to-date. Parrot regularly releases firmware updates for:
 - FreeFlight 8
 - ANAFI UKR
 - Smart Battery
 - Skycontroller UKR

Updates add new features, improve stability, and performance of the complete system. Updates are mandatory and must be systematically performed prior to any flight to ensure maximum performance and safety. Flying with a non-up-to-date system may impact warranty rights and jeopardize safety requirements.

Due to continuous improvement, the screenshots in this user guide may differ to the user interface you see on the FreeFlight 8 version installed on your Skycontroller UKR. The most up-to-date version of the user guide is available on request.

- (C) ENSURE YOU ARE AWARE OF THE REGULATIONS APPLICABLE TO THE USE OF DRONES AND THEIR ACCESSORIES (hereinafter referred to as "Applicable Regulations");
 - (D) REMEMBER that ANAFI UKR may expose others and yourself to EQUIPMENT DAMAGE, PERSONAL INJURY, OR BOTH, which could result in serious harm or death.
3. All Parrot drones must always be used with genuine Parrot smart batteries. Non-genuine batteries are forbidden, and their use will void the warranty, and impact safety requirements.
4. All Parrot drone systems include a charger. This is the only recommended charger to use to charge your Parrot drone's Smart Battery and Skycontroller UKR. Other generic USB chargers may be used provided that they are certified according to the country of use and have the applicable rating/specification. Performance and warranty are only guaranteed when using a genuine charger included in the Parrot drone system. Parrot takes no responsibility (warranty or safety) for third party USB chargers being used with a Parrot system.
5. Videos and photos promoted and advertised by Parrot Drones SAS and its affiliates have been made by and with experienced professionals and drone pilots. IN CASE OF DOUBT RELATING TO THE USE OF YOUR ANAFI UKR DRONE AND ITS ACCESSORIES, ALWAYS REFER TO THE MOST RECENT VERSION OF THE PARROT DOCUMENTATION.
6. Ensure that all calibrations are performed.

IMPORTANT: ANAFI UKR's warranty is void if you fly the drone without the required calibrations.

7. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, PARROT DRONES SAS, ITS SUBSIDIARIES, AND THEIR RESPECTIVE DISTRIBUTORS AND RESELLERS SHALL NOT BE LIABLE FOR ANY DAMAGES ARISING FROM, OR IN CONNECTION WITH NON-COMPLIANCE OF PARROT DOCUMENTATION OR THE APPLICABLE REGULATIONS BY YOURSELF OR ANY PERSON USING YOUR ANAFI UKR.

WARNING: Avoid touching the motors immediately after flight. ANAFI UKR's motors may become hot after a full flight, and touching the motors may result in burns. Allow the motors to cool down before touching.

8. Third-party licenses for online and offline maps

The choice of the map provider is the sole responsibility of the user and may depend on various factors such as the flight mission, the country, the provider's terms and conditions, the available budget, etc. The user must determine the most suitable map provider, subscribe to the appropriate license and comply with the terms and conditions of the license.

By default, FreeFlight 8 uses a MapTiler® license as the online map provider. By using MapTiler services, software, or map content ("MapTiler Services"), you agree to be bound by the following terms which may be updated from time to time: <https://www.maptiler.com/terms/>

If you do not agree to the MapTiler terms, do not use the MapTiler Services. All worldwide intellectual property and proprietary rights related to MapTiler Services are the exclusive property of MapTiler AG, a Swiss company with principal place of business at Hofnerstrasse 98, 6314 Unterageri, Switzerland ("MapTiler") or respective third-party supplier(s). Copyright © MapTiler <https://maptiler.com/copyright/>

To use other maps or MBTiles package, you must subscribe to a license and/or obtain a token from the selected map provider, which may imply extra cost. Certain Map providers may prohibit specific use cases or countries. You must read the applicable terms and conditions carefully. To obtain advice or a legal opinion on a particular situation, consult a licensed legal professional in your jurisdiction.

Offline maps mode requires at least one MBTiles package to be imported into FreeFlight 8. MBTiles packages can be generated with a tool of your choice.

You may generate MBTiles package with QGIS, an Open-Source Geographic Information System. copyright © 2004 - 2020 QGIS Development Team. <https://www.qgis.org>

QGIS is released under the GNU General Public License (GPL). Developing QGIS under this license means (inter alia) that you can inspect and modify the source code. You will receive a full copy of the license with your copy of QGIS, and you can also find it in *Appendix A: GNU General Public License*. Please read all requirements implied by a GPL license carefully, including legal consequences on derivative works. <https://qgis.org/resources/hub/>.

Parrot specifically disclaims all liability for any actions resulting from your use of any map provider solution or service. There is no guarantee of availability, functionality and efficiency of the solutions and services provided by the map providers.

You use and access the maps and MBTiles packages at your own discretion and risk, and you are solely responsible for any damage or loss that results from the use of and access to such maps and MBTiles packages.