AIRDOG
ADII

USER MANUAL

AIRDOG USER MANUAL V.4
DECEMBER, 2017

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1.1 Read Before The First Flight

Before operating Airdog ADII, please follow the steps below, and retain the User Manual for future reference:

> 1. Read the Airdog ADII User Manual. The latest version can be found at www.airdog.com/downloads
> 2. Get familiar with Safety Guidelines, Disclaimer and Warranty
> 3. Look for tutorials and other useful information on Airdog self-help portal help.airdog.com

1.2 General Overview

First of all, thanks for joining the Airdog community and for being an early adopter of autonomous drone technology. We hope Airdog ADII will encourage you to fill your life with adventures, not things. Have stories to tell not stuff to show.

After our success on Kickstarter, "auto-follow" or "follow me" have become standard features in many drones and we are proud to have made such impact in the industry. For the Airdog ADII, auto-follow is not a feature or a mode, but it's core essence. And because every sport is different and has different demands for precision following, we've custom engineered flight modes for various sports, activities, and creative needs.

We can't wait to see the amazing footage of your action, so remember to use #airdog when you share your videos and photos! Have fun and make sure you're familiar with the User Manual to ensure you get the most out of your Airdog ADII while staying safe!

1.3 Safety Guidelines For Small Unmanned Aircraft Systems (sUAS) Recreational Users

Safety guidelines for sUAS:

> • Follow community-based safety guidelines, as developed by organizations such as the Academy of Model Aeronautics (AMA).
> • Fly no higher than 400 feet (120 meters) and remain below any surrounding obstacles when possible.
> • Keep your sUAS in eyesight at all times, and use an observer to assist if needed.

• Remain well clear of and do not interfere with manned aircraft operations, and you must see and avoid other aircraft and obstacles at all times.
• Do not intentionally fly over unprotected persons or moving vehicles, and remain at least 25 feet (7 meters) away from individuals and vulnerable property.
• Contact the airport and control tower before flying within five miles of an airport or heliport.
• Do not fly in adverse weather conditions such as in high winds or reduced visibility.
• Do not fly under the influence of drugs, alcohol and medicines.
• Ensure the operating environment is safe and that the operator is competent and proficient in the operation of the sUAS.
• Do not fly near or over sensitive infrastructure or property such as power stations, water treatment facilities, correctional facilities, heavily traveled roadways, government facilities, etc.
• Check and follow all local laws and ordinances before flying over private property.
• Do not conduct surveillance or photograph persons in areas where there is an expectation of privacy without the individual's permission (see AMA's privacy policy).

Source: knowbeforeyoufly.org

Airdog supports the Know Before You Fly education campaign and is committed to providing consumers and prospective business operators of unmanned aircraft systems the tools to know how to fly safely and responsibly before taking to the skies.

1.4 Unmanned Aircraft Systems (sUAS) Registration

You must register your drone with the Federal Aviation Administration's Unmanned Aircraft System (UAS) registry. A federal law effective since December 21, 2015 requires unmanned aircraft registration, and you are subject to civil and criminal penalties if you do not register.

To register, go to: https://registermyuas.faa.gov

1.5 Laser Warning

Airdog ADII is equipped with a downward LiDAR sensor (circular lenses under the drone) which is a remote sensing technology that measures distance between the

CHAPTER 1: BEFORE YOU BEGIN

drone and the ground by illuminating a target with a laser and analyzing the reflected light. LiDAR prevents downward collisions, should you suddenly descend too fast. Meaning, if you take a steep drop on a mountain bike, Airdog ADII won't bounce off the rocks.

1.6 What's In The Box

Airdog ADII drone (1x unit)*

AirLeash (1x unit)   Strap (1x unit)   Micro USB cable (1x unit)

Battery (1x unit)   Battery charger (1x unit)   Power cord** (3x units)

*GoPro camera not included.
**Airdog ADII battery charger power cord for US, EU and UK.

CHAPTER 2: SUPPORT

Visit Airdog self-help portal: help.airdog.com

Get help:
Go to: www.airdog.com/report-wizard
Email us: support@airdog.com (please allow up to 48 hours for response)

Website address: www.airdog.com

Social Media:

facebook.com/airdogteam

youtube.com/airdogchannel

twitter.com/airdogteam

instagram.com/airdog_official

vimeo.com/airdog

Mailing address:
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Maskavas street 12 k-1,
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CHAPTER 3: AIRDOG ADII DRONE OVERVIEW

The ADII is a foldable, autonomous, and intelligent flying quadcopter. The ADII will follow the user wearing a small tracking and control device called AirLeash. The ADII films the user with a mechanically stabilized 3 axis gimbal for GoPro® HERO 5 Black camera.

Battery

LED status
indicator

3 Axis Camera
Gimbal

Fold-Up Arm

Motor

LED status
indicator

Tail Button

Landing Gear
(rear)
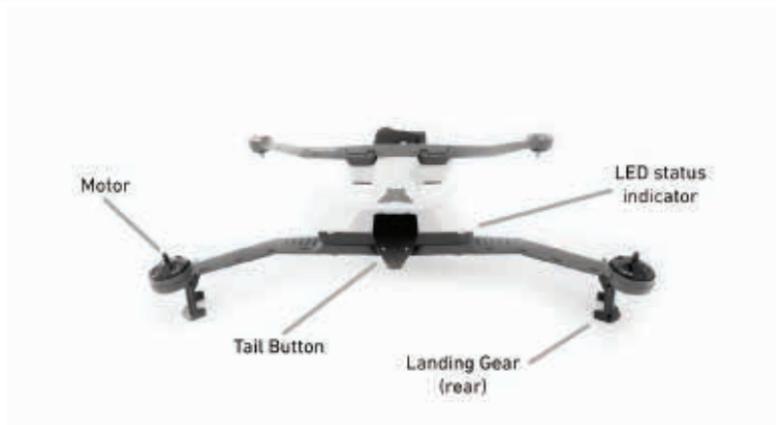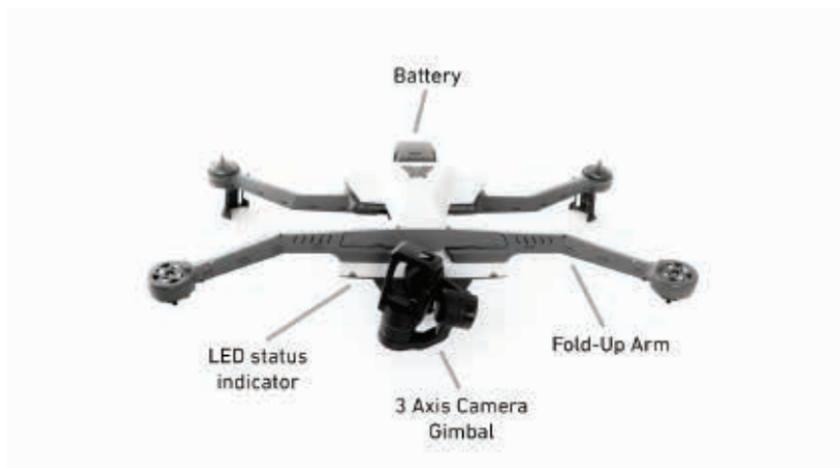
3.1 Unfolding The Arms

Airdog ADII arms are designed to fold in. This makes it safer to travel with and it makes it easy to store in a small case or a backpack.

To unfold the arms:

1) Push the arm away from the drones body.

2) Arm is fully unfolded when a snap is heard and it's locked in place.

To fold the arms back together:

1) Slowly pull the arm back toward the drones body.

> • Be careful while folding the arms as there is a risk of pinching your fingers.
> • Make sure that all drones arms are fully unfolded and locked in place before each flight.
> • Make sure that the drones arms are in good condition before each flight.
> • Flying with damaged (cracked) arms may cause a crash that is not covered by the warranty.
> • Do not try to unfold or fold the arms while the propellers are rotating.

3.2 Unfolding The Landing Gear

Unfold the front landing gear:
1) Press on the snap-fit to release the "Y" part from the folded position.
2) Lift the "Y" part up to approximately 45°.
3) Lift the small support piece and hook it into the "Y" part.

CHAPTER 3: AIRDOG ADII DRONE OVERVIEW

Unfold the landing gear for both rear arms:
1) Unfold the landing gear from the folded position.
2) Push the landing gear hook with your finger (near the motor) over the motor hook and lock it in place.

3.3 Attaching The Propellers

Airdog ADII has four different propellers. Each propeller has a unique symbol engraved on the metal hub that matches the engraved symbol on the motor:

To attach the propellers you have to match the propeller symbol with the same symbol on the motor. Note that front arm motors are facing down, so start with the rear arms and then flip the drone belly-up and attach the front propellers.

Tighten the propellers in the direction according to arrows next to padlock icon that is embossed on the propeller plastic:

- Incorrect propeller placement may cause the drone to flip over or fly out of control.
- Before each flight ensure the propellers are attached correctly and in good condition.
- Propellers are self tightening, so don't over-tighten the propellers, to avoid damaging the threads.
- Always use original Airdog propellers.
- Do not touch the drone when propellers are rotating. Always turn off Airdog ADII before handling it or the propellers.
- Ensure that rotating propellers are at least 25 feet (7 meters) away from any person, animal or property.

3.4 Inserting The Battery

To insert the battery into Airdog ADII:
Turn the battery face up (so you see the Airdog logo)
and slide it in until it securely snaps in place.

To remove the battery from Airdog ADII:
1. Press and hold the two side release buttons on battery.
2. Pull the battery outside.

3.5 Turning The Drone ON And OFF
The battery charge level button acts as Airdog ADII Power button, when it's inserted into the drone. This means that **you will have to manually turn on Airdog ADII**, after you insert the battery into the drone.

To power Airdog ADII ON:
Insert the battery into the drone, press and hold the
Power button (located on the battery itself), until
ADII's LEDs light up and you hear the startup tone:

To turn Airdog ADII OFF:
Press and hold the Power button (located on the battery
itself), until ADII's LEDs turn off or simply pull the battery
out from the drone.

> The drone will automatically power off after 1 hour of inactivity since last flight.

3.7 LED Status Indicator Description
Airdog ADII has four RGB color LED status indicators, two in front and two in back, that communicate the system status. Refer to the table below for more information about the LED color and lighting pattern meanings:

CHAPTER 3: AIRDOG ADII DRONE OVERVIEW

LED color and lighting pattern	Meaning
Yellow - slowly dimming	System initializing, please wait
Yellow - solid	Preflight Check required
Red - slowly dimming	System failure, check AirLeash display for info
Green - solid	Airdog is ready for takeoff
Blue - flashing rapidly	Airdog is in pairing mode

3.8 Camera Gimbal (Stabilizer)

To ensure vibration-free, smooth and professional grade video footage, Airdog ADII has a built-in gimbal for GoPro HERO 5 Black camera. Powered by three brushless motors, the gimbal has the ability to keep the camera level on all axes no matter how the drone is flying, even when operating in extreme weather conditions. The gimbal adapter also charges your GoPro, so there is one battery less to charge.

> • Airdog ADII 3 axis gimbal is compatible only with GoPro HERO 5 Black camera.
> • Use only original GoPro camera. Using other brands, that have different weights and dimensions, may cause a crash that is not covered by the limited warranty.
> • Camera battery needs to be inserted into the camera when it's mounted on the gimbal adapter.
> • In order to avoid signal interference, turn off the WiFi on the GoPro camera before each flight. DO NOT fly your Airdog ADII with the GoPro WiFi on.

3.8.1 Gimbal Locking For Transport

To keep your camera gimbal secure while being transported, the gimbal has two locks, one on the roll motor and other on the yaw (pan) motor.

To release the camera gimbal from locked position, gently turn the roll motor clockwise until it moves freely and do the same thing for the yaw (pan) motor.

> **!** Make sure that the camera gimbal moves freely in all 3 axis before you take off!

3.8.2 Mounting The Camera

1. Press on the gimbal adapter bottom lever to open the camera adapter side latch.

2. Unfold the adapter side latch completely.

3. Remove the camera side door, before inserting it into the adapter.

4. Gently slide the camera in the adapter until it snaps in place.
5. Close the adapter side latch.

6. Secure the adapter side latch by pressing down on the bottom lever and hooking it in place.

CHAPTER 3: AIRDOG ADII DRONE OVERVIEW

3.8.3 Gimbal Calibration

1. Turn on Airdog ADII by inserting the battery into the drone and long pressing (3 sec.) the Power button (located on the battery itself).

2. Turn on AirLeash by long pressing (3 sec.) the Power/OK $\boxed{OK}$ button.

3. Short press the Menu $\equiv$ button to enter Menu.

4. Navigate through the Menu with arrow left ◀ or right ▶ buttons until you see the Settings ⚙ icon on the AirLeash display.

5. Short press the Power/OK $\boxed{OK}$ button to enter Settings.

6. Navigate through the Settings with arrow left or right buttons until you see the Calibration 🎛 icon on the display.

7. Short press on the Power/OK $\boxed{OK}$ button to enter the Calibration menu.

8. Navigate through the Calibration menu with arrow left ◀ or right ▶ buttons until you see the Gimbal calibration 📷 icon.

9. Short press the Power/OK $\boxed{OK}$ button to enter Gimbal Calibration.

10. You can scroll down with arrow down ▼ button to read the calibration tips or press the Power/OK $\boxed{OK}$ button to start the gimbal calibration.

3.8.4 Recommended Camera Settings

Here are our recommended GoPro HERO 5 Black camera settings:

- Wireless Connections (WiFi): OFF

- PROTUNE - OFF

- Video Stabilization - ON

- Resolution: Full HD 1080 or 2.7K

- FOV (field of view): Medium or Linear

- Frame rate: 50 / 60 fps

CHAPTER 4: AIRLEASH WEARABLE CONTROLLER OVERVIEW

The AirLeash is a small waterproof tracker with clever software and sensors inside. It sends signals to the Airdog ADII, indicating exact movement trajectory and speed. The drone performs in-flight calculations to adjust its flying pattern and aims the camera at the user wearing AirLeash. AirLeash allows the user to easily control the distance, altitude, and the follow angle of the drone during the flight.

Charge status LED

Blue LED   Red LED
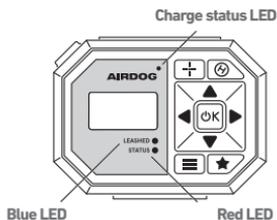
4.1 AirLeash Status LEDs

Charge status LED	
Solid yellow	AirLeash is charging
Solid green	AirLeash is fully charged

Blue "Leashed" LED	
Off	AirLeash is not connected to the drone
Solid blue	AirLeash is connected to the drone
Blinks blue	AirLeash is in pairing mode

Red "Status" LED	
Off	Everything is ok
Solid red	System faulty, check the AirLeash display for info
Blinks red	Drone battery is running low

CHAPTER 4: AIRLEASH WEARABLE CONTROLLER OVERVIEW

4.2 AirLeash Buttons

The following is a description of the buttons on AirLeash and their functions. Notice that some buttons have different functions when Airdog ADII is on ground and in flight.

"SP" – short press; "LP" – long press (3 sec.)

Button	On Ground	In Flight
⏻K	SP: Confirm selection LP (3 sec.): Power AirLeash on/off LP (20 sec.): Hard shutdown for AirLeash	SP: Confirm selection LP (3 sec.): Power AirLeash on/off LP (20 sec.): Hard shutdown for AirLeash
☰	SP: Enter menu / Back in menu	SP: Enter / exit Joystick ◂▴▾▸ mode
▲	SP: Change value in customize menu	SP: Go Up or move Farther away LP: Continuously go up or move Farther away, until ⏻K button is pressed
▼	SP: Change value in customize menu	SP: Go down or move Closer LP: Continuously go down or move Closer, until ⏻K button is pressed
◀	SP: Move Left while in menu	SP: Change follow angle to the left by one step LP: Continuously circle, until ⏻K button is pressed
▶	SP: Move Right while in menu	SP: Change follow angle to the right by one step LP: Continuously circle, until ⏻K button is pressed
▶❚❚	SP: Initiate takeoff	SP: Start / Stop follow mode and
⎯┼⎯	Inactive	SP: Initiates "Come to Me" command

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Button	On Ground	In Flight
	Inactive	SP: SPOT landing LP: HOME landing
	SP: Enter Scenic Shots menu	SP: Enter / exit Scenic Shots menu

4.3 AirLeash LCD Display

The AirLeash display provides information about Airdog ADII overall status, battery level and allows you to select and customize Activity Preset settings.

Main screen:

1. Information bar. Shows various messages about the drone and AirLeash status and selected Activity Preset
2. AirLeash battery level
3. Current Follow Mode
4. Current Landing Mode
5. Drone battery level

4.4 AirLeash Icon Description

Icon	Description
	Getting GPS. This icon will be visible only when one or both of the devices (Airdog ADII or AirLeash) don't have strong GPS signal. To operate ADII and AirLeash need to have 100% GPS.
	Joystick mode. When you enter this mode (the Joystick ◄♦► icon on AirLeash display is visible), you will be able reposition the drone farther arrow up ▲ or closer arrow down ▼ to you.
	Current drone altitude. This icon will be visible only when the drones altitude is adjusted during the flight via AirLeash. It represents the drones current altitude above takeoff point.
	Current follow distance. This icon will be visible only when the drones distance is adjusted during follow via AirLeash. It represents the current distance between drone and AirLeash.

CHAPTER 4: AIRLEASH WEARABLE CONTROLLER OVERVIEW

Icon	Description
	Settings menu. Enter Settings menu to adjust various settings of the drone or AirLeash.
	Pairing. Enable pairing mode on AirLeash.
	AirLeash LCD brightness. Adjust the brightness level of AirLeash LCD display.
	Calibration. Enter calibration menu.
	AirLeash calibration. Enter AirLeash sensor calibration menu.
	Airdog calibration. Enter Airdog ADII sensor calibration menu.
	Camera gimbal calibration. Enter ADII camera gimbal calibration menu.
	Magnetometer calibration. This icon is used for ADII and AirLeash magnetometer calibration.
	Accelerometer calibration. This icon is used for ADII and AirLeash accelerometer calibration.
	Gyro calibration. This icon is used for ADII and AirLeash gyro calibration.

	Factory Reset. Factory Reset for ADII or AirLeash sets all parameters and sensor calibrations to the factory defaults.
	Activity Presets menu. Enter Activity Preset menu to select your activity.
	Current angle in Adaptive follow. This icon will be visible only when Adaptive (ADAP) follow is initiated in flight. It will display the current angle which Airdog ADII will maintain during the flight.

 New icons might be added with firmware updates.

4.5 AirLeash Strap

AirLeash is designed to provide quick and easy access for controlling Airdog, even while you're in the middle of an activity.

The neoprene strap can be adjusted to fit around your wrist or upper arm, enabling you to easily access the control buttons even with gloves or wet hands:

CHAPTER 4: AIRLEASH WEARABLE CONTROLLER OVERVIEW

⚠ • Ensure AirLeash is strapped correctly and firmly around the wrist or the upper arm.
• For the best follow performance, use the AirLeash strap extender and wear the
  AirLeash on your upper arm.
• Do not disassemble or open AirLeash. It will no longer be waterproof if it is opened.
  Opening AirLeash may cause damage that is not covered by warranty.
• Switch off all other Bluetooth devices within range or disable their Bluetooth
  functionality such as wireless headphones or fitness trackers.
• Do not place AirLeash in a pocket or cover it with a sleeve when flying the drone.
  AirLeash should be always visible and not hidden behind a layer of clothing.
  Failure to follow these guidelines may lower the GPS accuracy and there is a risk

Follow these instructions to secure AirLeash on the strap clamp:

Secure one side in the strap clamp:

Then press down and secure the other side of the strap clamp:

Follow these instructions to release AirLeash from the strap clamp:

Press on the clamp with your index finger away from AirLeash:

Pull AirLeash upwards with your thumb and middle finger:

4.6 Charging AirLeash

Use your computer or any standard USB charger with the included micro-USB cable to charge your AirLeash. The AirLeash battery charges to 100% approximately in two hours.

To charge AirLeash you have to:
1. Gently remove the waterproofing USB cover in the back of AirLeash.
2. Connect the micro-USB cable to AirLeash USB port (AirLeash must be turned off).
3. Plug the other end of micro-USB cable to your computer or any other power source with a USB port:

When the AirLeash battery level has reached a 100% charge, the charge status LED color will change to green.

> • Make sure that AirLeash battery is charged, before you go flying.
> • Ensure that the micro-USB rubber cover is closed tightly to prevent water and dust entering AirLeash. An open or loose cover may allow water and dust to enter AirLeash and cause damage.
> • Cold temperatures may affect usage time, keep AirLeash warm in your pocket before you use it.

4.7 Pair AirLeash With Airdog ADII

To check if your drone is "Leashed" (paired) with AirLeash, power them both on, wait (about 20 sec.) and look at the blue "Leashed" LED on AirLeash, if it lights up with solid blue color, ADII and AirLeash are paired and ready to go!

If the blue "Leashed" LED doesn't light up and **"NOT LEASHED"** or **"Not paired press [OK] to pair"** message appears on AirLeash display, then you have to pair ADII with AirLeash.

CHAPTER 4: AIRLEASH WEARABLE CONTROLLER OVERVIEW

When you see the message: **"Not paired press OK to pair"** on AirLeash display, then continue reading the instructions below, starting on step 6.

To pair Airdog ADII with AirLeash follow these steps:

1. Turn on ADII by inserting the battery into the drone and long pressing (3 sec.) the Power button (located on the battery itself).

2. Turn on AirLeash by long pressing (3 sec.) the Power/OK OK button.

3. Short press the Menu ☰ button on AirLeash, navigate through the Menu with arrow left ◀ or right ▶ buttons until you see the Settings ✿ icon on the AirLeash display.

4. Short press the Power/OK OK button to enter Settings.

5. Navigate through the Settings with arrow left ◀ or right ▶ buttons until you see Pairing ✵⟩ icon on the AirLeash display.

6. Short press the Power/OK OK button and a warning message: "Are you sure?" will pop up, short press the Power/OK OK button again to enable pairing mode on AirLeash.

7. To enable pairing mode on the drone, long press (3 sec.) the **"tail button"** until you hear a long beep and drones LEDs begin flashing rapidly with blue color:

8. The pairing process can take up to 1 minute. Pairing is successful when the Blue **"Leashed"** LED on AirLeash lights up with solid blue color and you see the drones battery level on AirLeash display.

9. After you have successfully paired your AirLeash with ADII, long press (3 sec.) the **"tail button"** on the drone until you hear a long beep and LEDs stop flashing rapidly with blue color.

CHAPTER 5: AIRDOG ADII BATTERY OVERVIEW

ADII uses a rechargeable 4 cell Lithium - Ion Polymer battery with a capacity of 5550 mAh and a voltage of 14.8 V. The watt hour rating for ADII battery is 82 Wh. The battery has smart charge/discharge functionality. It should be charged only with the official Airdog battery charger. Depending on weather conditions and follow speed ADII can stay airborne up to 18 minutes.

5.1 Checking The Battery Level

The battery level indicator shows how much charge remains in the battery. To check the battery charge level, short press the button below the LED indicators:

After short calculations, the LED indicators will light up to display the current battery charge level. ADII's battery level indicator has 5 LEDs that show how much power is remaining. See the table below for details:

LEDs status	Level
● ● ● ● ●	90 - 100%
● ● ● ● ☀	80 - 90%
● ● ● ● ○	70 - 80%
● ● ● ☀ ○	60 - 70%
● ● ● ○ ○	50 - 60%

LEDs status	Level
● ● ☀ ○ ○	40 - 50%
● ● ○ ○ ○	30 - 40%
● ☀ ○ ○ ○	20 - 30%
● ○ ○ ○ ○	10 - 20%
☀ ○ ○ ○ ○	0 - 10%

● — solid   ☀ — blinking   ○ — empty

> ❗ • We do not recommend flying the drone when the battery shows less than 3 solid LEDs.
> • Always charge the drone battery before you go flying.
> • Never store an empty battery (less than three solid LEDs) for a long period of time! Charge it fully after use and it will automatically self-discharge to safe storage capacity.

CHAPTER 5: AIRDOG ADII BATTERY OVERVIEW

5.2 Battery Operation Modes

Airdog ADII's battery has two operation modes: Healthy or Damaged.

Healthy — In this state, all functionality is enabled. When you press the battery button, LEDs will show the charge level.

Damaged — In this state, flying with the drone or charging the battery is not possible. When you press the battery button or connect it to the charger LEDs won't show anything. When you turn on AirLeash and insert this battery into the drone and long press (3 sec.) the Power button (located on the battery itself), you'll see this message displayed on the AirLeash display:

Please report this issue to our support team via desktop app Airdog Suite – "Report a problem" tab.

5.3 Battery Charger

The battery charger is designed for ADII battery only. Power cords for US, UK, EU are included in the Airdog ADII packaging.

5.4 Charging The Airdog ADII Battery

ADII uses a Lithium - Ion Polymer battery and it ships with an approximate 30% battery level. The drone battery must be fully charged before each flight. Make sure to charge the battery only with an original Airdog battery charger. Never store an empty battery (when the battery shows less than three solid LEDs) for a long period of time! Charge it fully after use and it will automatically self-discharge to safe storage capacity.

Once the battery is connected to the charger, the battery will emit a beep and the LED indicators on the battery will display the current battery level with the last LED slowly dimming on and off indicating that it is charging.

To charge the battery:
1. Connect the Airdog battery charger to a wall outlet with the appropriate power cord (100-240V, 50/60Hz).
2. Connect the battery to the charger.
3. When the battery level has reached a 100% charge, battery will emit 3 short beeps the LEDs will not be lit.

Normal charging time should take approximately 3 hours and ADII's battery is rechargeable for over 100 full cycles. After 100 cycles, the battery may provide less than 80% of its original capacity.

> • Fully charge the battery before each flight.
> • Never charge a battery that is still warm from usage and never use a battery that is still warm from charging.
> • If the battery is disconnected during charging process, simply reconnect the battery to the charger and charging will resume.
> • Never store an empty battery (less than three solid LEDs) for a long period of time!
> • Charge it fully after use and it will automatically self-discharge to safe storage capacity.
> • Charge the battery only with an original Airdog battery charger.

5.5 Battery Firmware Update

The battery will automatically check if it needs a firmware update every time it is inserted into the drone. If the message: **"Battery update required, press** OK **"** appears on AirLeash display,

please follow the steps as described, until the update is completed (the update process can take up to 1 minute).

If you have multiple batteries, then insert them into the drone and update them one by one.

Troubleshooting:

If you see the **"Battery communication error"** or **"Battery update FAILED"** message during the battery update process, then pull out the battery and re-insert it back into the drone and retry the battery update. If one of the errors persist (even after three tries), please contact support.

> Removing the battery from Airdog ADII during the battery firmware update may result in a corrupted update.

5.6 Battery Storage, Self-Discharge And Transportation

Storing the battery at a depleted charge under 20% (one LED on the battery level indicator) for a longer period of time may result in a shortened battery life or permanent damage to the battery that is not covered by warranty.

To prevent swelling the battery automatically self-discharges to approximately 50% (three solid LEDs) of battery level when:
1. Battery is left idle (not inserted into the drone) for more than 9 days since last flight or charging.
2. Battery is inserted into the drone or connected to charger adapter (that is not connected to power outlet) for more than 24 hours.

Self-discharge takes about 48 hours to discharge the battery from 100% to approximately 50%, and it is normal to feel moderate heat emitting from the battery during the discharge

> Always pack your Lithium - Ion Polymer batteries in your carry-on bag and never in your checked baggage when traveling on an airplane.

- Store the battery at room temperature between 40°F and 80°F (4°C and 26°C) for best results, relative humidity approximately 50%.
- Do not expose the battery to direct sunlight (heat) for extended periods.
- Keep the battery out of the reach of children.
- Remove the battery from Airdog ADII when you are not using it.

5.7 Battery General Guidelines And Warnings

Lithium - Ion Polymer batteries are volatile. Failure to read, understand and follow the below instructions may result in fire, personal injury and damage to property if charged or used improperly.

- Never leave the battery unattended while it is charging. Always charge the battery on a non-flammable surface, such as a concrete and away from flammable materials.
- Always use original Airdog batteries and battery chargers. Failure to do so may cause a fire, which may result in personal injury and property damage.
- Do not disassemble, pierce, distort or cut the battery or the battery charger. It may result in a risk of electric shock or fire.
- Do not use the battery if it has received a sharp blow, been dropped or otherwise damaged in any way.
- Never use a battery that has fallen into water.
- If the battery starts to balloon or swell up, discontinue the charging process immediately. Disconnect the battery, place it in a safe area outside of a building or vehicle and away from any combustible material and do not use it. Continuing to charge a battery that has begun to swell will result in fire.
- Never expose, store or charge the battery in extreme temperatures, doing so could cause a fire.
- Stop using the battery if you notice it is draining faster than normal.
- Do not operate the battery charger with a damaged cord or plug.

5.8 Battery Disposal

- Before recycling, discharge the battery, make sure output wires are correctly insulated, and then wrap the battery in a bag.
- Do not dispose of the battery in the trash! Take your battery to an approved battery recycling facility. In the US, visit call2recycle.org for a location near you or for further information contact your local solid waste authority.

CHAPTER 6: ACTIVITY PRESETS

There are 10 Activity Presets and 1 Custom Preset that you will be using to capture your videos. Each Activity Preset allows use of one or several of 3 main Follow Modes (explained below). Think of Activity Presets as a set of tailored settings and safety features to ensure the best video capture and flight safety in particular activity. For an example in Kitesurf Preset, the ADII will automatically position itself in the upwind side from rider to avoid crashing into the kite and it will return to the beach for landing at a safe altitude above other kites. However in Trail Preset ADII will follow your elevation changes while in Surf Preset it will ignore altitude changes to avoid crashing in water.

Each Activity Preset has customisable settings such as altitude, distance, angle landing mode and others that you can change prior and some even during the flight.

Custom Activity Preset provides ultimate freedom to advanced users, who fully understand how Airdog works and require specific set of settings.

> **The Airdog ADII warranty is void if:**
> • Drone sustains damage as a result of improper selection of Activity Preset which doesn't correspond to the activity that is carried out.
> • Drone sustains water damage as a result of improper use of the Custom Activity Preset.
> • Drone sustains water damage when "Follow Terrain" is set to 'YES' and/or the Landing Mode set to SPOT.

6.1 Selecting And Customizing Activity Preset

Make sure that you have selected the appropriate Activity Preset before you takeoff, you will not be able to change or customize the Activity Preset once Airdog is airborne. You can see the selected Activity Preset in the upper part of AirLeash display:
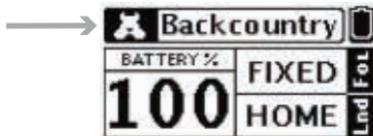
> Activity Presets can be selected or customized only when Airdog ADII is connected with AirLeash.

To Select an Activity Preset:

1. Turn on ADII by inserting the battery into the drone and long pressing (3 sec.) the Power button (located on the battery itself).

2. Turn on AirLeash by long pressing (3 sec.) the Power/OK [OK] button.

3. Short press the Menu button to enter the Menu.

4. Navigate through the Menu with arrow left ◀ or right ▶ button until you see the Activity Presets ⚓️ icon on the AirLeash display.

5. Short press the Power/OK [OK] button to enter Activity Presets ⚓️ menu.

6. Navigate through the Activity Presets with arrows until you see your preferred Activity Preset on the display.

7. Short press on Power/OK [OK] button once to select the Activity Preset, and press on Power/OK [OK] button again to confirm selection.

To Customize an Activity Preset via AirLeash:

1. Turn on ADII by inserting the battery into the drone and long pressing (3 sec.) the Power button (located on the battery itself).

2. Turn on AirLeash by long pressing (3 sec.) the Power/OK [OK] button.

3. Short press the Menu ≡ button to enter the Menu.

4. Navigate through the Menu with arrow left ◀ or right ▶ button until you see the Customize icon (with your previously selected Activity Preset icon) on the AirLeash display.

5. Short press the Power/OK [OK] button to enter current Activity Preset customization.

6. Navigate through the flight parameter list with arrow left ◀ or right ▶ buttons, to change flight parameter value use the arrow up ▲ or down ▼ buttons. You can adjust multiple parameters at once and sync them all at once.

7. After you are done with adjusting parameters, short press the Menu ≡ button and the word "SAVE" will appear.

8. Short press the Power/OK [OK] button to sync all adjusted parameters, or press arrow left ◀ or right ▶ button to select cancel.

6.2 Follow Modes

There are 3 main Follow Modes and 2 sub-Modes that you will be able to select in Activity Preset customization settings. Some Activity Presets will allow to select only certain Follow Modes, to ensure safety and best cinematographic look of your videos. Follow Modes can be switched only while the ADII is on ground, whereas sub-Modes are available during flight.

FIXED:

The simplest "Free Follow Mode" in which the ADII will maintain fixed distance and angle from you relative to the magnetic north. Altitude, distance and angle in this mode can be changed during flight.

CHAPTER 6: ACTIVITY PRESETS

ADAPTIVE:

Advanced Free Follow Mode that delivers dynamic camera angle change adapting your travel direction. You can set the ADII to stay in front, rear, right or left from you. When your movement direction will change the ADII will adopt to it and reposition itself to maintain the set angle.

CAUTION:

this mode is suggested for wide open areas and it is recommended to test it out a couple of times and get familiar with its behavior before you use it in actual activities.

3D LINE (CUSTOMIZABLE FLIGHT PATH):

Pre-programmed "Follow Mode" that is designed to deliver ultimate control over creative aspects and provide extreme level of safety in areas such as tracks, cable wake parks and anywhere else where you want your ADII to stay away from infrastructure objects, trees, buildings and other obstacles. In this mode, the ADII will fly along a pre-programmed flight path while still following and keeping you perfectly framed in the shot.

CAUTION:

Lines must be set in a safe distance from trees (minimum 30 feet or 10 meters) and buildings to allow for GPS inaccuracies and to ensure open view to skies for best satellite signal reception.

sub-Mode: HOVER

In this mode, the ADII will hover at a fixed position and altitude while panning around and adjusting the camera pitch to keep you in frame, perfectly, every time. This was developed for tight areas such as skate parks, areas with obstacles, terrain parks, and race tracks. "Hover Mode" can also be used over kickers and ramps. In this mode, the arrow buttons on AirLeash act as a remote control joystick to make the ADII positioning simple.

sub-Mode:CIRCLE

In this mode, the ADII will continually circle around you, whether you are moving or stationary. The ADII will begin to circle around you clockwise. To change the direction and speed the drone circles around you, simply use the arrow buttons on AirLeash. This mode can be used in environments that are free from obstacles to avoid. It's great for scenic and establishing shots providing professional-grade, steady, panoramic footage.

Allowed Activity Preset & Follow Mode table:

	FIXED	ADAPTIVE	3D LINE	HOVER	CIRCLE
Track			✓	✓	
Trail	✓	✓	✓	✓	✓
Wake Cable			✓	✓	
Backcountry	✓	✓	✓	✓	✓
Boat		✓			
Snow Park			✓	✓	
DH Skiing			✓	✓	
Surf / SUP	✓	✓		✓	✓
Windsurf	✓	✓		✓	✓
Kiteboard		✓		✓	
Skate Park				✓	
Custom	✓	✓	✓	✓	✓

6.3 Landing Modes

Landing is completely autonomous and is initiated when the battery level runs low or when you manually send a command from AirLeash. Landing modes are Activity-Specific, meaning each Activity Preset has its predefined landing mode to ensure a safe landing.

HOME → Return To Home

In this landing mode Airdog ADII will ascend to the preset Safe Altitude and then fly in a straight line to the initial takeoff (HOME) location, and land. The default Safe Altitude is 90 feet (30 meters), the Safe Altitude can be adjusted via AirLeash. HOME landing mode is best suited for flatland and water sports.
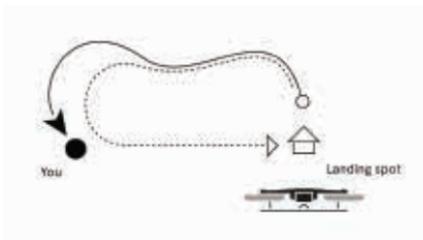
CHAPTER 6: ACTIVITY PRESETS

You can initiate the HOME (return to home) landing mode manually by long pressing (3 sec.) the ⊘ button on AirLeash.

The drone will automatically initiate the HOME landing sequence to ensure a safe return to the HOME position. **ADII constantly calculates the distance to the HOME position, so "Return to Home" estimation is dynamic and determined by how far the drone is from the HOME position**. In simpler terms, if the user is very far from the HOME position ADII will Return to Home sooner than if the user was closer to the HOME position.

SPOT → Land On Spot
In this landing mode Airdog ADII will land at its current position. This landing mode is typically used in downhill activities such as snowboarding or MTB, where you want to land the drone at your chosen spot not far away from you when you're done with your ride or when the battery is low.
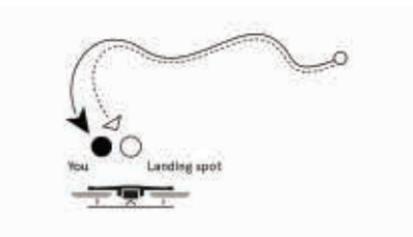
SPOT landing can be initiated manually by short pressing the ⊘ button on AirLeash. Alternatively, you can walk to a safe landing spot and press the ⊞ (Come to Me) button. Once the drone has flown to your current position, take a few steps back and short press the ⊘ button to SPOT land ADII.

SPOT landing is initiated automatically when critical battery level (approximately 25%) is reached. In such cases, the drone will not respond to any commands from AirLeash.

> ❗ • When selecting the Custom Activity Preset, always verify that you do not select SPOT land as a landing mode if you are going to fly Airdog ADII over or near water.
> • SPOT landing may be initiated automatically if the drone detects technical failure.

7.1 Mobile App Overview

With the Airdog App, you will be able to draw a 3D LINE (predefined flight path), that the Airdog ADII will keep itself on, while keeping the camera pointed at you at all times. The ADII will fly only on that preset 3D LINE, so it will be capable of avoiding obstacles regardless of it's speed, lighting conditions, and ability to separate an object from the surroundings, which is a challenge for vision based obstacle avoidance systems. These 3D LINES are stored in the CLOUD and available in your smartphone, ready to use, whenever you decide to go back to that particular spot.

You can also use the Airdog App to adjust, customize and fine-tune Activity Preset settings. The Airdog app does not let you choose an Activity Preset on ADII itself.

7.1.1 Download And Install Airdog Mobile App

Download the Airdog App from the Apple App store or Google Play store.
Install the Airdog mobile app on your smartphone / smart device.

Supported Operating Systems and Devices:
Apple - The Airdog app can be used with iPhone (7 Plus, 7, 6s Plus, 6s, 6 Plus, 6, 5s, 5c, 5 & 4s), iPad (Pro, Air - all models, Mini - all models, 3rd & 4th gen), iPod touch. Supported operating systems: **iOS 9 or newer.**

CHAPTER 7: MOBILE AND DESKTOP APPS

Supported Operating Systems and Devices:
Android – The Airdog app for Android is supported on devices that support Bluetooth Low Energy (BLE) profile and run Android versions: 4.4 or newer.

7.1.2 Pairing Airdog ADII With The Mobile App

1. Turn on ADII by inserting the battery into the drone and long pressing (3 sec.) the Power button (located on the battery itself).
2. Open the Airdog mobile app on your smartphone. Please ensure that Bluetooth is turned "ON" on your device.
3. Tap on the "Menu" icon (bottom right corner) and log in with your Airdog ID.
4. Enable pairing mode on the drone by long pressing (5 sec.) "tail button", until you hear a long beep and ADII's LEDs start flashing rapidly with blue color:

5. In the Airdog mobile app, tap on the Airdog icon:

6. Tap on the "Search" button and the app will find your drone.
7. Then press the "Connect" button in the app to connect to your Airdog ADII. Your smartphone may ask if you would like to "Pair" this device, tap "OK" and next time your smartphone will be able to connect to Airdog without enabling "pairing" mode.

7.2 Airdog Suite Desktop App Overview

In order to update your Airdog ADII and AirLeash with the latest firmware, you will need to install our desktop app Airdog Suite on your computer. Airdog Suite is also used to download log files from the drone and AirLeash and upload them to the Cloud. If you experience any issues or would like to send feedback, please use the "Report a problem" contact form in Airdog Suite.

7.2.1 Download And Install Airdog Suite Desktop App

Airdog Suite desktop app is supported by these operating systems:
Mac OS X: 10.11 "El Capitan" or newer versions.
Microsoft Windows: 7, 8.1, 10 or newer versions.

Download and install:
1. Download the free Airdog desktop app from our web page for your computer operating system: www.airdog.com/downloads
2. Install Airdog Suite:
    2.1 **(for Mac OS)** Double click the downloaded Airdog Suite.dmg file and drag the Airdog Suite app icon in the "Applications" folder.
    2.2 **(for Windows)** extract the archive folder, by right-clicking on the "Airdog Suite.zip" and then selecting "Extract all..". Choose a directory where you will be able to find it later.
3. For more detailed Airdog Suite installation instructions please visit help.airdog.com

> • (for Mac OS) If you see the message "Airdog Suite can't be opened because it is from an unidentified developer", you will have to disable security settings on your computer in order to be able to run the application for the first time.
> • (for Windows) Manual Airdog driver installation is required.
> • (for Windows) 64-Bit editions of Windows require digitally signed drivers, so you will have to disable driver signature verification, because Airdog has an unsigned driver.

7.2.2 Airdog ADII And AirLeash Firmware Update

For the best user experience, we recommend that you regularly connect your ADII and AirLeash to Airdog Suite and check if your devices have the latest firmware. Firmware updates will fix flight related issues and increase system reliability and may also bring new features such as new Activity Presets, etc.

CHAPTER 7: MOBILE AND DESKTOP APPS

How to update firmware for Airdog ADII and AirLeash:

1. Launch Airdog Suite on your computer with internet access and login with your Airdog ID.
2. Connect the drone (without the battery) to your computer via micro-USB cable.
3. Go to "Firmware Updates" tab on the Airdog Suite left side menu.
4. Click on the green "Update" button. Wait for the update to complete and you see the message: "Update Done".
5. Disconnect Airdog and connect AirLeash via micro-USB cable.
6. Turn on AirLeash by long pressing (3 seconds) the [OK] button.
7. Click on the green "Update" button. Wait for the update to complete and you see the message: "Update Done".

Troubleshooting:

• If during the update process the progress bar stops progressing or you see an error messages like: **"Device communication error"** or similar, disconnect the device and then reconnect it back and try to update firmware again.
• If you see the message: **"Can't auto-detect device",** please click on the icon that matches the connected device (Airdog ADII or AirLeash). Try to update firmware again.
• If **AirLeash becomes unresponsive** (AirLeash display doesn't show any information and one or both LEDs blink rapidly) during or after the firmware update, press and hold (20 seconds) the [OK] button to "hard shutdown" AirLeash, then turn it back on and try to update firmware again.

> • Airdog and AirLeash need to have the same firmware version to be able to operate.
> • Regularly (at least once a month) connect your Airdog ADII and AirLeash to Airdog Suite and check if your devices have the latest firmware.
> • You don't have to update firmware if you see "Up to date" message next to firmware version.
> • When updating firmware connect only one device to your computer, do not connect the drone and AirLeash at once!

CHAPTER 8: SENSOR CALIBRATION

Airdog ADII and AirLeash **do not** require calibration before each flight, even if you are moving to a new flight location. But you will be asked to complete the **Preflight Check** procedure every 8 hours for both devices.

Please note that ADII and AirLeash sensors have been factory-calibrated. Mag (magnetometer), accel (accelerometer) and gyro (gyroscope) sensors should be recalibrated only if AirLeash displays a error message during the Preflight Check procedure.

Before attempting any sensor calibration please try to do a "Factory Reset", for the particular device. Read more about the Factory Reset in article 8.1.

8.1 Factory Reset Airdog ADII And AirLeash

Factory Reset sets all Activity Preset parameters and calibrations to the factory defaults. This action needs to be performed if you hear the "SOS" tone (three long beeps followed by three short beeps). Factory Reset is device specific, it needs to be done to each device separately. If you hear the "SOS" tone on Airdog ADII, then you need to Factory Reset the drone, but if you hear the "SOS" tone on AirLeash you need to Factory Reset AirLeash. If you want to reset the Activity Preset parameters then you must reset Airdog only.

To Factory Reset AirLeash:

1. Turn on AirLeash by long pressing (3 sec.) the Power/OK ⏻OK button.

2. Short press the Menu ☰ button to enter the Menu.

3. Navigate through the Menu with arrow left ◀ or right ▶ buttons until you see the Settings icon on the AirLeash display.

4. Short press the Power/OK ⏻OK button to enter Settings menu.

5. Navigate through the Settings menu with arrow left or right buttons until you see the Factory reset ⟳ icon on the AirLeash display.

6. Short press the Power/OK button to enter the Factory reset ⟳ menu.

7. Navigate through the Factory reset menu with arrow left ◀ or right ▶ buttons until you see the AirLeash 🔲 icon.

8. Short press the Power/OK ⏻OK button, a message: "Are you sure?" will pop up, short press the Power/OK ⏻OK button again to restart and factory reset AirLeash.

CHAPTER 8: SENSOR CALIBRATION

To Factory Reset Airdog ADII:

1. Turn on ADII by inserting the battery into the drone and long pressing (3 sec.) the Power button (located on the battery itself).

2. Turn on AirLeash by long pressing (3 sec.) the Power/OK $\boxed{\text{OK}}$ button.

3. Short press the Menu $\equiv$ button to enter the Menu.

4. Navigate through the Menu with arrow left $\blacktriangleleft$ or right $\blacktriangleright$ buttons until you see the Settings icon on the AirLeash display.

5. Short press the Power/OK $\boxed{\text{OK}}$ button to enter Settings menu.

6. Navigate through the Settings menu with arrow left $\blacktriangleleft$ or right $\blacktriangleright$ buttons until you see the Factory reset $\ominus$ icon on the AirLeash display.

7. Short press the Power/OK button to enter the Factory reset $\ominus$ menu.

8. Navigate through the Factory reset menu with arrow left $\blacktriangleleft$ or right $\blacktriangleright$ buttons until you see the drone $\bigstar$ icon.

9. Short press the Power/OK $\boxed{\text{OK}}$ button, a warning message: "Are you sure?" will pop up, short press the Power/OK $\boxed{\text{OK}}$ button again to restart and factory reset Airdog.

8.2 AirLeash Calibration

Please note that all AirLeash sensors have been factory calibrated. Sensors should be recalibrated ONLY if AirLeash displays a calibration error message during the AirLeash Preflight Check.

> **!**
> • If you hear the SOS tone (three long beeps followed by three short beeps) right after you have powered AirLeash on, there is a problem with one or more AirLeash sensors. To solve this please do a Factory Reset on AirLeash. If you don't know how to do a Factory reset refer go to Chapter 8.1 for information.
> • If you get the SOS tone (three long beeps followed by three short beeps) even after Factory Reset, then please do the AirLeash Preflight Check, it will notify you which sensors are failing. Note that Preflight Check requires GPS, so you have to do it outside in a wide open space.

8.2.1 AirLeash Magnetometer (Mag) Calibration ◀

Calibrate magnetometer (Mag) on AirLeash **only** if you see the error message: "Mag failed! Calibrate Mag!" displayed on AirLeash during the AirLeash Preflight Check. The magnetometer is very sensitive to magnetic interference and its calibration requires an interference-free environment. Stay away from metal structures and concrete floors or large buildings. Do not wear gloves or rings with magnets or other ferromagnetic metals while performing the calibration steps.

AirLeash Mag calibration process:
1. Turn on AirLeash by long pressing (3 sec.) the Power/OK ⏻OK button.
2. Short press the Menu ≡ button to enter Menu.
3. Navigate through the Menu with arrow left ◀ or right ▶ buttons until you see the Settings icon on the AirLeash display.
4. Short press the Power/OK ⏻OK button to enter Settings.
5. Navigate through the Settings with arrow left ◀ or right ▶ buttons until you see the Calibration 畾 icon on the display.
6. Short press on the Power/OK ⏻OK button to enter the Calibration menu.
7. Navigate through the Calibration menu with arrow left ◀ or right ▶ buttons until you see the AirLeash calibration ▣ icon.
8. Short press the Power/OK ⏻OK button to enter AirLeash Calibration menu.
9. Navigate through the AirLeash Calibration menu with arrow left ◀ or right ▶ buttons until you see the Magnetometer ◀ icon on the AirLeash display.
10. Short press the Power/OK ⏻OK button to select the magnetometer calibration.
11. You can scroll down with arrow down ▼ button to read the calibration tips or short press the Power/OK ⏻OK button to start the calibration. It is strongly advised to watch the calibration videos at help.airdog.com before you calibrate any sensors!
12. Calibration will start after 5 sec., a message stating **"Hold THIS side up"** with an Arrow pointing to the side that you must hold up will appear on AirLeash display:
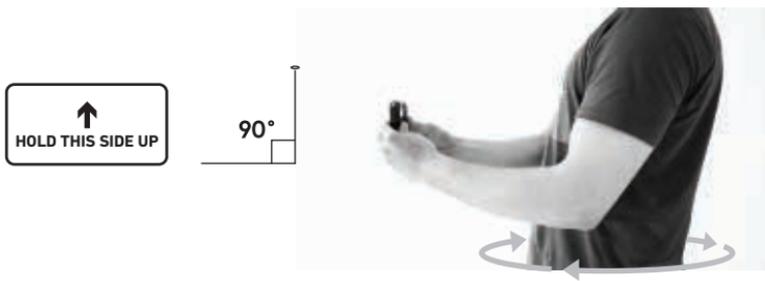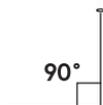
CHAPTER 8: SENSOR CALIBRATION

13. Hold AirLeash steady with indicated side UP until you hear a tone change and see a message: **"Rotate 360° holding ⬛ steady",** rotate ONLY when you see THAT message.

14. The rotation is complete when you hear a different tone and AirLeash displays the next: **"Hold THIS side up"** message. It will be upside down, so you have to rotate AirLeash so that the text is readable:
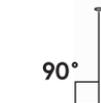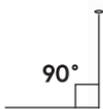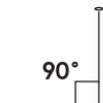

15. Hold AirLeash steady with indicated side UP until you hear a tone and see a message: **"Rotate 360° holding ⬛ steady"**, rotate ONLY when you see THAT message.

16. The rotation is complete when you hear a different tone and AirLeash displays the next: **"Hold THIS side up"** message. Rotate AirLeash so that the text is readable:


17. Hold AirLeash steady with indicated side UP until you hear a tone and see a message: **"Rotate 360° holding steady"**, rotate ONLY when you see THAT message.

18. The rotation is complete when you hear a different tone and AirLeash displays the next: **"Hold THIS side up"** message. Rotate AirLeash so that the text is readable:

19. Hold AirLeash steady with the indicated side UP until you hear a tone and see the message: **"Rotate 360° holding 🎮 steady"**, rotate ONLY when you see THAT message.
20. The rotation is complete when you hear a different tone and AirLeash displays: **"Hold AirLeash Display UP".** Rotate AirLeash so that display is facing up:

21. Hold AirLeash steady with Display facing UP until you hear a tone and see a message: : **"Rotate 360° holding 🎮 steady"**, rotate ONLY when you see THAT message.
22. The rotation is complete when you hear a different tone and AirLeash displays: **"Hold AirLeash Display DOWN"** message. Rotate AirLeash so that display is facing down:
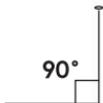
CHAPTER 8: SENSOR CALIBRATION

23. Hold AirLeash steady with Display facing DOWN until you hear a tone and see a
24. During calibration you may see the following error messages:

• If you get **"This SIDE is DONE, rotate ⬛ to a different side"**, then rotate AirLeash

and make sure that the "This SIDE up" message is readable, hold it steady,
the calibra tion will resume.

• If you get "**FAILED motion detected Scroll dwn. for info",** then retry the
calibration and hold AirLeash really steady in each position. If the error persists
calibrate AirLeash gyro and then retry the Magnetometer calibration.

• If you get **"FAILED wrong angle Scroll dwn. for info"**, then retry the calibration
again and hold AirLeash at a 90º angle (respective to the ground level).

8.2.2 AirLeash Accelerometer (Accel) Calibration ⟫⟩

Calibrate Accelerometer on AirLeash **only** if the error message: **"Accel Failed!
Calibrate Accel"** displayed on AirLeash during the AirLeash Preflight Check.

Follow the steps below to complete accel calibration. Make sure to hold AirLeash
steady and level (at a 90º angle respective to a surface) in each axis position. Do not
move AirLeash when it displays the message **"CALIBRATING Hold steady".**

AirLeash Accel calibration process:
1. Turn on AirLeash by long pressing (3 sec.) the Power/OK ⟦OK⟧ button.
2. Short press the Menu ☰ button to enter Menu.
3. Navigate through the Menu with arrow left ◀ or right ▶ buttons until you see the

Settings ⚙ icon on the AirLeash display.
4. Short press the Power/OK ⟦OK⟧ button to enter Settings.
5. Navigate through the Settings with arrow left ◀ or right ▶ buttons until you see the
Calibration 卌 icon on the display.
6. Short press on the Power/OK ⟦OK⟧ button to enter the Calibration menu.
7. Navigate through the Calibration menu with arrow left ◀ or right ▶ buttons until
you see the AirLeash calibration ⬛ icon.
8. Short press the Power/OK ⟦OK⟧ button to enter AirLeash Calibration menu.

**You can scroll down with arrow down ▼ button to read the calibration tips or short
press the Power/OK ⟦OK⟧ button to start the calibration. It is strongly advised to
watch the calibration videos at help.airdog.com before you calibrate any sensors!**

9. Navigate through the AirLeash Calibration menu with arrow left ◀ or right ▶ buttons until you see the Accel ⋙ icon on the AirLeash display.

10. Short press the Power/OK [OK] button to select the accel calibration.

11. You can scroll down with arrow down ▼ button to read the calibration tips or short press the Power/OK [OK] button to start the calibration. It is strongly advised to watch the calibration videos at help.airdog.com before you calibrate any sensors!

12. Calibration will start after 5 sec., a message stating **"Hold THIS side up"** with an Arrow pointing to the side that you must hold up will appear:
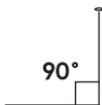

13. Place AirLeash on a level surface and hold it steady at a 90° angle (respective to the surface) so the displayed message is readable. A message: **"CALIBRATING Hold steady"** will appear, do not move AirLeash while this message is visible.

14. When you hear a different tone and you see the next **"Hold THIS side up"** message, rotate AirLeash so that the text is readable:

15. Place AirLeash on a level surface steady at a 90° angle (respective to the surface) so the displayed message is readable. A message: **"CALIBRATING Hold steady"** will appear, do not move AirLeash while this message is visible.

16. When you hear a different tone and you see the next **"Hold THIS side up"** message, rotate AirLeash so that the text is readable:

CHAPTER 8: SENSOR CALIBRATION

17. Place AirLeash on a level surface steady at a 90° angle (respective to the surface) so the displayed message is readable. A message: **"CALIBRATING Hold steady"** will appear, do not move AirLeash while this message is visible.

18. When you hear a different tone and you see the next **"Hold THIS side up"** message, rotate AirLeash so that the text is readable:
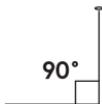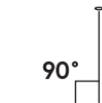

19. Place AirLeash on a level surface and hold it steady at a 90° angle (respective to the surface) so the displayed message is readable. A message: **"CALIBRATING Hold steady"** will appear, do not move AirLeash while this message is visible.

20. When you hear a different tone and you see the message **" Display UP"**, place AirLeash on a level surface with the display facing up:

21. A message: **"CALIBRATING Hold steady"** will appear, do not move AirLeash while this message is visible.

22. When you hear a different tone and you see the message **" Display DOWN",** place AirLeash on a level surface with the display facing down:
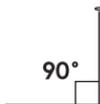
23. The calibration is complete when you hear the "success" tone. Turn the AirLeash display facing up and you will see the message **"Calibration COMPLETED Press OK "**. Short press the Power/OK OK button to complete the calibration process and restart AirLeash.

24. During calibration you may see the following error messages:

   • If you get: **"This SIDE is DONE, rotate to a different side"**, then rotate AirLeash and make sure that the "Hold THIS side up" message is readable, hold it steady, the calibration will resume.

   • If you get: **"FAILED motion detected Scroll dwn. for info"**, then retry the calibration and hold AirLeash really steady in each position. If the error persists, calibrate AirLeash Gyro and then retry the Accel calibration.

   • If you get: **"FAILED wrong angle Scroll dwn. for info"**, then retry the calibration again and make sure AirLeash is placed at a 90° angle respective to the ground level in each position.

8.2.3 AirLeash Gyroscope (Gyro) Calibration �

Calibrate Gyro on AirLeash ONLY if the error message: **"Gyro Failed! Calibrate Gyro"** is displayed on AirLeash during the AirLeash Preflight Check.

Follow the instructions as indicated below to complete the gyro calibration. Make sure you do not touch, move or shake AirLeash until the calibration process is completed.

AirLeash Gyro calibration process:

1. Turn on AirLeash by long pressing (3 sec.) the Power/OK OK button.

2. Short press the Menu ☰ button to enter Menu.

3. Navigate through the Menu with arrow left ◀ or right ▶ buttons until you see the Settings icon on the AirLeash display.

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4. Short press the Power/OK [OK] button to enter Settings.

5. Navigate through the Settings with arrow left ◀ or right ▶ buttons until you see the Calibration 🎛 icon on the display.

6. Short press on the Power/OK [OK] button to enter the Calibration menu.

7. Navigate through the Calibration menu with arrow left ◀ or right ▶ buttons until you see the AirLeash calibration 🎛 icon.

8. Short press the Power/OK [OK] button to enter AirLeash Calibration menu.

9. Navigate through the AirLeash Calibration menu with arrow left ◀ or right ▶ buttons until you see the Gyro icon on the AirLeash display.

10. Short press the Power/OK [OK] button to select the gyro calibration.

11. You can scroll down with arrow down ▼ button to read the calibration tips or put AirLeash on stable surface and short press the Power/OK [OK] button to start the calibration. It is strongly advised to watch the calibration videos at help.airdog.com before you calibrate any sensors:

12. Calibration will start after 5 sec., a message stating: **"CALIBRATING don't move 🎛"** will appear, do not move AirLeash while this message is visible.

13. You will hear the "success" tone and see the message **"Calibration COMPLETED Press [OK]"** short press on Power/OK [OK] to complete calibration process and restart AirLeash.

> ⓘ • If the gyroscope calibration fails more than three times (in a row), calibrate AirLeash Accel and try gyro calibration again. A bad accelerometer (Accel) calibration can cause gyroscope calibration failure.

8.3 Airdog ADII Calibration

Please note that all Airdog ADII sensors have been factory calibrated. Sensors should be recalibrated only if AirLeash displays a calibration error message during the Airdog ADII Preflight Check.

Airdog ADII is only meant to work outdoors and indoor calibration will lead to faulty measurements.

> • If you hear the SOS tone (three long beeps followed by three short beeps) right after you have turned on the ADII, there is a problem with one or more drone sensors. To solve this, please do the Factory Reset for Airdog ADII. Learn more about the Factory Reset in Chapter 8.1.
> • If you get the SOS tone (three long beeps followed by three short beeps) even after Factory Reset, go through the Airdog ADII Preflight Check, that will show which sensors are failing. Note that Preflight Check requires GPS, so you have to do it outside in a wide open space.

8.3.1 Airdog ADII Magnetometer (Mag) Calibration ◀

Calibrate the magnetometer on ADII only if you see the error message: **"Mag failed! Calibrate Mag!"** displayed on AirLeash during the Airdog ADII Preflight Check.

The magnetometer is very sensitive to magnetic interference and its calibration requires an interference-free environment. Stay away from metal structures and concrete floors or large buildings. Do not wear gloves or rings with magnets or other ferromagnetic metals while performing the calibration steps.

Airdog ADII Mag calibration process:
1. Turn on ADII by inserting the battery into the drone and long pressing (3 sec.) the Power button (located on the battery itself).
2. Turn on AirLeash by long pressing (3 sec.) the Power/OK [OK] button.
3. Short press the Menu ≡ button to enter Menu.
4. Navigate through the Menu with arrow left ◀ or right ▶ buttons until you see the Settings ⚙ icon on the AirLeash display.
5. Short press the Power/OK [OK] button to enter Settings.
6. Navigate through the Settings with arrow left ◀ or right ▶ buttons until you see the Calibration 🎛 icon on the display.
7. Short press on the Power/OK [OK] button to enter the Calibration menu.
8. Navigate through the Calibration menu with arrow left ◀ or right ▶ buttons until you see the drone calibration ✳ icon.
9. Short press the Power/OK [OK] button to enter Airdog Calibration menu.
10. Navigate through the Airdog Calibration menu with arrow left ◀ or right ▶ buttons until you see the Magnetometer ◀ icon on the AirLeash display.
11. Short press the Power/OK [OK] button to select the magnetometer calibration.

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12. Strap AirLeash on your forearm with the display visible in order to see the calibration instructions.

13. You can scroll down ▼ with arrow down button to read the calibration tips or short press the Power/OK `OK` button to start the calibration. It is strongly advised to watch the calibration videos at help.airdog.com before you calibrate any sensors!

14. Calibration will start after 5 sec., a message stating **"Pick up ✳ & hold it belly UP. Wait for the tone"** will appear, pick up ADII from the ground, turn it "belly up" and hold it steady:
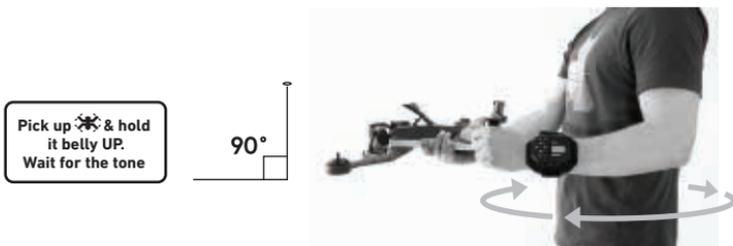
15. When you hear a different tone and see the message: **"Rotate 360°, holding ✳ steady"** Do a full 360° rotation while holding the drone in the first position. The rotation is complete when you hear a different tone.

16. A message stating **"Flip ✳ belly DOWN & wait for the tone"** will appear, flip the drone "belly down" and hold it steady:
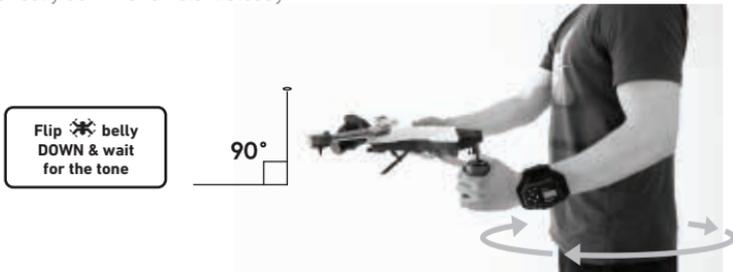
17. When you hear a different tone and see the message: **"Rotate 360°, holding ✳ steady"** Do a full 360° rotation while holding the drone in the second position. The rotation is complete when you hear a different tone.

18. A message stating **"Turn ✳ LEFT arms UP & wait for the tone"** will appear, turn the drone on the side so that the LEFT arms are UP, hold it steady:

Turn ✻ LEFT arms
UP & wait for
the tone

90°

19. When you hear a different tone and see the message: **"Rotate 360°, holding ✻ steady"** Do a full 360° rotation while holding the drone in the third position. The rotation is complete when you hear a different tone.

20. A message stating **"Flip ✻ RIGHT arms UP & wait for the tone"** will appear, flip the drone on the opposite side so that the RIGHT arms are UP and hold it steady:

Flip ✻ RIGHT arms
UP & wait for
the tone

90°

21. When you hear a different tone and see the message: **"Rotate 360°, holding ✻ steady"** Do a full 360° rotation while holding the drone in the fourth position. The rotation is complete when you hear a different tone.

22. A message stating **"Rotate ✻ Camera UP wait for the tone"** will appear, rotate the drone so that the Camera is pointing towards the sky and hold it steady:

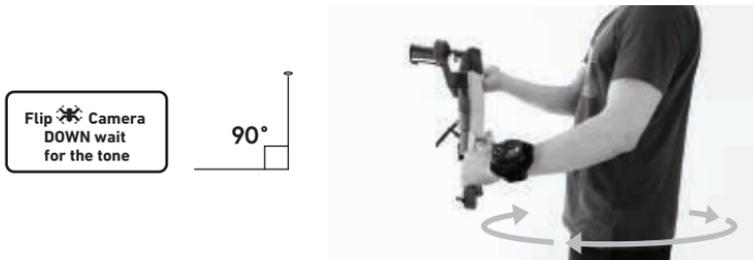Rotate ✻ Camera
UP wait
for the tone

90°

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23. When you hear a different tone and see the message: **"Rotate 360°, holding ✵ steady"** Do a full 360° rotation while holding the drone in the fifth position. The rotation is complete when you hear a different tone.

24. A message stating **"Flip ✵ Camera DOWN wait for the tone"** will appear, flip the drone so that the Camera is pointing towards the ground and hold it steady:

25. When you hear a different tone and see the message: **"Rotate 360°, holding ✵ steady"** Do a full 360° rotation while holding the drone in the sixth position. Continue rotating (even if you don't hear calibration tone) until you'll hear the "success" tone and see the message **"Calibration COMPLETED Press �지"**, short press the Power/OK �지 button to complete the calibration process and restart the drone.

26. During calibration you may see the following error messages:

   • If you get **"This SIDE is DONE, rotate ✵ to a different side"**, then change the drones position, hold it steady and the calibration will resume.

   • If you get **"FAILED motion detected Scroll dwn. for info"**, then retry the calibration and hold Airdog really steady in each position. If error persists calibrate Airdog gyro and then retry the Magnetometer calibration.

   • If you get **"FAILED wrong angle Scroll dwn. for info"**, then retry the calibration again and make sure the drone is placed at a 90° angle respective to the ground level in each position.

8.3.2 Airdog ADII Accelerometer (Accel) Calibration

Calibrate the Accelerometer on the drone **only** if the error message: **"Accel Failed! Calibrate Accel"** displayed on AirLeash during the Airdog ADII Preflight Check.

Follow the figures as indicated below to complete accelerometer calibration. Make sure to hold the drone steady and level in each axis position. Do not move it when AirLeash displays the message **"CALIBRATING Hold steady".**

Airdog ADII Accel calibration process:

1. Turn on ADII by inserting the battery into the drone and long pressing (3 sec.) the Power button (located on the battery itself).

2. Turn on AirLeash by long pressing (3 sec.) the Power/OK [OK] button.

3. Short press the Menu ☰ button to enter Menu.

4. Navigate through the Menu with arrow left ◄ or right ► buttons until you see the Settings ⚙ icon on the AirLeash display.

5. Short press the Power/OK [OK] button to enter Settings.

6. Navigate through the Settings with arrow left ◄ or right ► buttons until you see the Calibration 🎛 icon on the display.

7. Short press on the Power/OK [OK] button to enter the Calibration menu.

8. Navigate through the Calibration menu with arrow left ◄ or right ► buttons until you see the drone calibration 🌀 icon.

9. Short press the Power/OK [OK] button to enter Airdog Calibration menu.

10. Navigate through the Airdog Calibration menu with arrow left ◄ or right ► buttons until you see the Accel ⟫ icon on the AirLeash display.

11. Short press the Power/OK [OK] button to select the accel calibration.

12. Strap AirLeash on your forearm with the display visible in order to see the calibration instructions.

13. You can scroll down with arrow down ▼ button to read the calibration tips or short press the Power/OK [OK] button to start the calibration. It is strongly advised to watch the calibration videos at help.airdog.com before you calibrate any sensors!

14. Calibration will start after 5 sec., a message stating **"Hold 🌀 with camera pointing UP"** will appear, tilt the drone up so that the camera is pointing towards the sky and rear arms are resting on a surface, hold the drone steady at a 90° angle (respective to the ground level):

15. A message: **"CALIBRATING Hold steady"** will appear, do not move the drone while this message is visible.

16. When you hear a different tone and see the message **"Hold 🌀 with camera pointing DOWN",** flip the drone so that the camera is pointing towards the ground (be careful not to damage the gimbal) and hold the drone steady at a 90° angle (respective to the ground level):

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HOLD �֎ with camera pointing DOWN | 90°

17. A message: **"CALIBRATING Hold steady"** will appear, do not move the drone while this message is visible.

18. When you hear a different tone and see the message **"Hold ✖ with RIGHT arms UP",** turn the drone on its side, so that the RIGHT arms are UP and left arms are resting on a level surface. Hold it steady at a 90° angle (respective to the ground level):
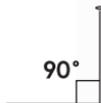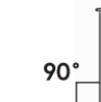

HOLD ✖ with RIGHT arms UP | 90°

19. A message: **"CALIBRATING Hold steady"** will appear, do not move the drone while this message is visible.

20. When you hear a different tone and see the message **"Hold ✖ with LEFT arms UP"**, flip the drone on the other side, so that the LEFT arms are UP and right arms are resting on a surface. Hold it steady at a 90° angle (respective to the ground level):
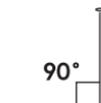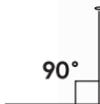

Hold ✖ with LEFT arms UP | 90°

21. A message: **"CALIBRATING Hold steady"** will appear, do not move the drone while this message is visible.

22. When you hear a different tone and see the message **"Place ⁂ BELLY UP on a surface",** flip the drone "belly up", place it on a level surface and place your arms underneath the battery:

23. A message: **"CALIBRATING Hold steady"** will appear, do not move the drone while this message is visible.

24. When you hear a different tone and see the message **"Place ⁂ BELLY DOWN on a surface",** flip the drone **"belly down"**, place it on a level surface:
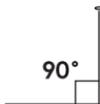
25. When you hear the **"success"** tone and see the message **"Calibration COMPLETED Press"**, short press on Power/OK [OK] button to complete the calibration process and restart the drone.

26. During calibration you may see these error messages:

   • If you get **"This SIDE is DONE, rotate ⁂ to a different side",** then change the drones position, hold it steady and the calibration will resume.

   • If you get **"FAILED motion detected Scroll dwn. for info"**, then retry the calibration and hold the drone really steady in each position.

   • If the error persists calibrate the drones gyro and then retry the magnetometer calibration. If you get **"FAILED wrong angle Scroll dwn. for info"**, then retry the calibration again and make sure the drone is placed at a 90° angle respective to the ground level in each position.

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8.3.3 Airdog ADII Gyroscope (Gyro) Calibration ⟳

Calibrate the Gyro on the drone only if the error message: **"Gyro Failed! Calibrate Gyro"** displayed on AirLeash during the Airdog ADII Preflight Check.

Follow the instructions as indicated below to complete gyroscope calibration. Make sure you do not touch, move or shake the drone until the calibration process is completed

Airdog ADII Gyro calibration process:

1. Turn on ADII by inserting the battery into the drone and long pressing (3 sec.) the Power button (located on the battery itself).

2. Turn on AirLeash by long pressing (3 sec.) the Power/OK [OK] button.

3. Short press the Menu button to enter Menu.

4. Navigate through the Menu with arrow left ◀ or right ▶ buttons until you see the Settings ⚙ icon on the AirLeash display.

5. Short press the Power/OK [OK] button to enter Settings.

6. Navigate through the Settings with arrow left ◀ or right ▶ buttons until you see the Calibration 🎛 icon on the display.

7. Short press on the Power/OK [OK] button to enter the Calibration menu.

8. Navigate through the Calibration menu with arrow left ◀ or right ▶ buttons until you see the drone calibration 🚁 icon.

9. Short press the Power/OK [OK] button to enter Airdog Calibration menu.

10. Navigate through the Airdog Calibration menu with arrow left ◀ or right ▶ buttons until you see the Magnetometer ◀ icon on the AirLeash display.

11. Short press the Power/OK [OK] button to select the magnetometer calibration.

12. Strap AirLeash on your forearm with the display visible in order to see the calibration instructions.

13. You can scroll down with arrow down ▼ button to read the calibration tips or place Airdog on a stable surface and short press the Power/OK [OK] button to start the calibration. It is strongly advised to watch the calibration videos at help.airdog.com before you calibrate any sensors!

14. Calibration will start after 5 sec., a message stating **"CALIBRATING don't move �֎"** will appear, do not move Airdog while this message is visible.

15. When you hear the "success" tone and AirLeash display will show the message **"Calibration COMPLETED Press ᴼᴷ"**, short press the Power/OK ᴼᴷ button to complete the calibration process and restart the drone.

16. If during calibration you see the error message: **"FAILED motion detected Scroll dwn. for info",** then retry the gyro calibration and make sure that the drone doesn't move during the calibration process. Note that strong wind can also cause this error message to appear.

CHAPTER 9: SAFETY

9.1. Safety Checklist

We recommend that you go through the Safety Checklist before every flight:

- All ADII arms are unfolded and locked in position.
- All landing gear are unfolded and locked in position.
- Propellers are tightly attached and not damaged or bent.
- Check if all motors are spinning freely and all motor retaining rings are in place.
- Check if ADII's plastic body and arms are not damaged and there are no visible cracks.
- Check if the LiDAR (ground collision avoidance sensor) lenses are clean from dirt or snow.
- ADII battery is fully charged, not swollen and it is securely inserted.
- AirLeash battery is fully charged and it is securely attached around the user's wrist or upper arm.
- Camera gimbal is moving freely. It's not locked in transportation mode.
- GoPro camera is securely locked in place and Wi-Fi is disabled.
- Takeoff location: place the drone on a safe level surface. Do not takeoff from concrete surfaces, this may affect the accuracy of the onboard magnetometer (compass).
- Make sure that altitude difference between AirLeash and ADII does not exceed 7 feet (2 meters) during takeoff.

To see all the safety guidelines, check: knowbeforeyoufly.org/for-recreational-users

9.2 Operation Requirements

- Airdog ADII is not set up for obstacle avoidance and you must ensure there are no obstacles in the flight area that could disturb the flight, such as: trees, crowd of people, bodies of water, buildings or high voltage power lines.
- Rotating propellers can cause serious injury. Never initiate takeoff from your hand. Do not try to grab Airdog ADII before it lands automatically on the ground and before the propellers are switched off and have stopped rotating.
- Do not fly the drone indoors. Always fly outside in open areas.
- Do not fly the drone at night.
- Check the weather conditions and do not fly the drone when the weather is windy, rainy, snowy, foggy, or when visibility is limited. This includes wind speeds exceeding 30 knots (15 meters per second, 34 miles per hour, 55 kilometers per hour)
- Reduce the chance of electromagnetic interference by not flying the drone in areas with significant high levels of electromagnetism such as base stations, radio towers, underground tunnels or on-board radio transmission equipment.
- Do not use the drone under the influence of drugs, alcohol and medicines.

9.3 Flight Location & Prohibited Takeoff Locations

• Ensure that the use of the drone is authorized in your flight area and at a safe distance of 33 feet (10 meters) away from individuals, vulnerable property, persons and animals.
• Do not initiate takeoff from a boat or a moving platform. To perform its initialization and takeoff, it is mandatory that the drone remains completely motionless.
• The drone may not operate within 5 miles (8 km) of an airport or within any restricted airspace.
• FAA regulations require that Small Unmanned Aircraft Systems (sUAS) users may not operate their sUAS at an altitude of no more than 400 feet (120 meters) above ground level. Be aware that by default the maximum flight altitude for Airdog ADII cannot exceed an altitude of 400 feet (120 meters).
• FAA regulations require that Small Unmanned Aircraft Systems (sUAS) users may not operate their sUAS at a speed exceeding 87 knots (100 miles per hour, 160 kilometers per hour). Be aware that by default the maximum flight speed for Airdog ADII cannot exceed a speed of 38 knots (20 meters per second, 44 miles per hour, 70 kilometers per hour).
• Drones should always be kept away from police operations, accident scenes, building fires and rescue operations as there is a serious risk of mid-air collision with an aircraft or a helicopter, which could cause an accident.

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> ! For best performance and safety, regularly connect Airdog ADII and AirLeash to your computer and launch our desktop app Airdog Suite. Go to the "Firmware Update" section and make sure that both devices are updated with the latest firmware version. Note that ADII and AirLeash need to have the same firmware version to operate. Learn more about checking the firmware version in article 7.2.2

10.1 Getting GPS

Airdog ADII and AirLeash are solely intended for wide open outdoor areas, with a clear view of the sky, to obtain a sufficient GPS signal for autonomous flight.
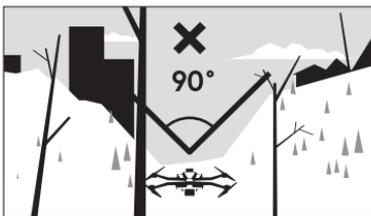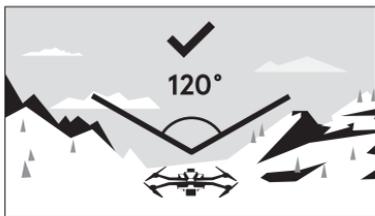
We recommend you to fly Airdog ADII in an open corridor within 165 feet (50 meters) where there are no obstructions such as trees, buildings, mountains and electromagnetic interference from radio towers, or the time of day, can reduce the quality of GPS signal.

Turn on Airdog ADII and AirLeash. Place them on the ground next to each other and wait until both of them acquire 100% GPS signal:

10.2 Preflight Check For Airdog ADII and AirLeash

Preflight Check is a very simple safety routine requested once a day before your first flight to verify that all systems function properly and autonomous flight can be performed safely. Once 100% GPS for the drone and AirLeash is acquired, you will be required to perform the Preflight Check for ADII and AirLeash separately.

Airdog ADII Preflight Check:

Place the drone on the ground, before you start the Preflight Check, press Power/OK [OK] button on AirLeash to start. Wait about 10 seconds until you hear a tone.

1. Pick up the drone and hold it steady parallel to the ground until you hear a tone change.

2. Once the tone changes start slowly rotating one full circle until you hear a tone change. Allow at least 10-15 seconds for one full 360 rotation.

3. Roll the drone so that both LEFT SIDE arms are pointing UP and hold it steady until you hear a tone change.

4. Once the tone changes start slowly rotating (maintaining the drones position) one full circle until you hear a tone change. The Preflight Check is complete when you see confirmation message on AirLeash display.

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AirLeash Preflight Check
Place AirLeash on a flat and level surface, press Power/OK [OK] button to start the Preflight Check. Don't move AirLeash until Preflight Check is complete.
The Preflight Check is complete when you see confirmation message on AirLeash display.

Preflight Check error messages
If you see an error message on during the Preflight Check, please repeat the Preflight Check few more times. If the error persists, please follow the instructions shown on AirLeash display. Here listed are all Airdog ADII Preflight Check error messages and their descriptions (AirLeash has similar error messages):

• ✷ tilted try again or calibrate accel — the drone isn't level enough, reposition it and try Preflight Check again. If you see this message again and you are sure that drone is level, then calibrate the drones accel.
• Vibrations detected try again or calibrate gyro — retry Preflight Check again, if you get the same error message calibrate the drones gyro.
• Vibrations detected try again or calibrate accel — retry Preflight Check again, if you get the same error message calibrate the drones accel.
• Vibrations detected try again or calibrate mag — retry Preflight Check again, if you get the same error message calibrate the drones magnetometer.
• Calibrate Gyro — please calibrate the drones gyro.
• Calibrate Accel — please calibrate the drone accel.
• Calibrate Magnetometer — please calibrate the drone magnetometer.
• Hardware error contact support / Magnetometer error contact support / Gyro error contact support / Accel error contact support — if you see one of these error messages, please contact support.

> ! To shorten the ADII set up time, we suggest you to perform the Preflight Check before you leave for your adventure. For example in a parking lot (away from metal structures and concrete floors), before you pack your drone in the backpack.

10.3 Flight Training Mode
Once Airdog ADII takes off for the first time, it will go into "Flight Training" mode. There are several levels of training and at first you will need to pass Level 1, which includes explanations of the basic functions and features of your drone. Passing Flight Training is mandatory and cannot be skipped.

> Full functionality of your the drone will be unlocked only after all levels of training are successfully passed.

10.4 Takeoff

Make sure that AirLeash and Airdog ADII are on the same altitude before you initiate takeoff. Altitude differences between ADII and AirLeash of more than 7 feet (2 meters) can cause incorrect camera framing.

To takeoff:

1. Airdog ADII is ready for takeoff when you see the "READY" status on the AirLeash display and all drones LEDs are solid green.
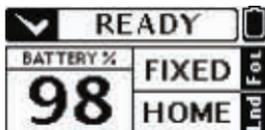
2. Short press the Play/Pause ▶️❚❚ button on AirLeash and then the Power/OK ⓄⓀ button to confirm takeoff.

3. ADII will ascend to the preset takeoff altitude, point the camera at AirLeash and HOVER in the current position. When the drone is in HOVER, you'll see the "pause" icon in the status bar:
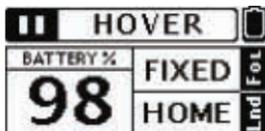
4. To initiate FOLLOW, short press the Play/Pause▶️❚❚ button on AirLeash.
   CAUTION! The drone will slowly fly backwards to reach the preset follow distance!
When the drone is in FOLLOW, you'll see the "play" icon in the status bar:

> **REMEMBER - YOU CAN ALWAYS STOP the drone by pressing the ▶️❚❚ button**

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10.5 Airdog ADII In-flight Controls Via AirLeash

10.5.1 Adjust Altitude

You can increase or decrease the drones altitude by pressing the arrow up or down buttons on AirLeash.

To increase the drones altitude:
Short press the arrow up ▲ button once and the drone will increase its altitude by one step.
If you long press (3 sec.) the arrow up ▲ button, the drone will continuously increase its altitude until you short press the Power/OK ⏻OK button or until it reaches the maximum altitude of 230 feet (70 meters).

To decrease the drones altitude:
Short press the arrow down ▼ button once and the drone will decrease its altitude by one step.
If you long press (3 sec.) the arrow down ▼ button, the drone will continuously decrease its altitude until you short press the Power/OK ⏻OK button or until it reaches the minimum altitude 7 meters (23 feet) from the ground.

10.5.2 Change Angle
You can reposition Airdog ADII clockwise (to the right) or counterclockwise (to the left) around you*.

To reposition the drone clockwise (to the right):
Press the arrow right ▶ button once and the drone will change its position by one step.
If you long press (3 sec.) the arrow right ▶ button, the drone will continuously rotate around you clockwise (to the right) until you short press the Power/OK ⏻OK button.

To reposition the drone counterclockwise (to the left):
Press arrow left ◀ button once and the drone will change its position by one step.
If you long press (3 sec.) the arrow left ◀ button, the drone will continuously rotate around you counterclockwise (to the left) until you short press the Power/OK ⏻OK button.

*You won't be able to reposition the drone clockwise or counterclockwise if's in LINE follow mode.

10.5.3 Farther & Closer

You can reposition Airdog ADII farther or closer to you, only in **"Joystick"** mode.

To enter **"Joystick"** mode*, short press the Menu ☰ button on AirLeash. A Joystick ⊹⊹ icon will appear on the AirLeash display:

To reposition the drone farther:

When **"Joystick"** mode is enabled, press the arrow up ▲ button once and the drone will reposition farther away from you by one step.

If you long press (3 sec.) the arrow up ▲ button, the drone will continuously reposition farther away from you until you short press the Power/OK ⏻K button or until it reaches the maximum distance of 295 feet (90 meters).

To reposition the drone closer:

When **"Joystick"** mode is enabled, press the arrow down ▼ button once and the drone will reposition closer to you by one step.

If you long press (3 sec.) the arrow down ▼ button, the drone will continuously reposition closer to you until you short press the Power/OK ⏻K button or until it reaches the minimum distance of 23 feet (7 meters).

10.5.4 Play / Pause Follow

To start or stop the FOLLOW function, short press the Play/Pause ▶II button on AirLeash while Airdog ADII is airborne. AirLeash information bar will show if the drone is in HOVER or FOLLOW mode:

> ⓘ CAUTION! After pressing the Play/Pause ▶II button the drone will fly backwards or towards you to reach the preset FOLLOW distance!
>
> REMEMBER! You can always STOP the drone by pressing the Play/Pause ▶II button at any time!

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10.5.5 Come To Me (CTM)

You can "call" Airdog ADII to your current position with a short press of the CTM ⊞ button on AirLeash. Once the button is pressed the drone will immediately fly over in a straight line and switch to HOVER mode at the position where CTM was initiated.

If you initiate CTM when you are at a higher altitude than the drone (you're higher up the mountain), ADII will ascend until it reaches the initial takeoff altitude offset (your current altitude + takeoff altitude offset) and only then it will fly over in a straight line.

If you initiate CTM when you are at a lower altitude than the drone (you're lower down the mountain), ADII will fly over in straight line to your position and then descend to the takeoff altitude offset.

10.6 Landing

When low battery level is reached, Airdog ADII will automatically initiate landing sequence, that is determined by your chosen Activity Preset. Read more about landing modes in section 6.3.

To manually initiate SPOT landing:

Short press the land ⊕ button on AirLeash. Airdog ADII will land at its current position. Alternatively, You can walk to a safe landing spot and press the ⊞ (Come to Me) button. Once the drone has flown to your current position, **take a step back** and short press the ⊕ button to SPOT land the drone.

To manually initiate HOME landing:

Long press (3 sec.) the land ⊕ button on AirLeash. Airdog ADII will ascend to preset "Safe Altitude" and then fly in a straight line to the initial takeoff (HOME) location, and land there.

> ⚠ • SPOT landing is initiated automatically when critical battery level (approximately 20%) is reached. In such cases, the drone will not respond to any commands from AirLeash.
> • In water Activity Presets it's not possible to land on SPOT, to avoid accidentally landing in water.
> • You can STOP landing by short pressing Play/Pause ▶II button or the arrow up ▲ button on AirLeash. Note that if the drones battery level is critical, this action will not be available.

10.7 Scenic Shots

Scenic Shots allow you to capture the amazing world around you, of course, hands-free and perfectly in frame, every time.
Use the star ⭐ button on AirLeash to enter the Scenic Shots menu, where you'll be able to choose from 5 pre-set modes:

360 Panorama	ADII will tilt camera looking straight at the horizon and then do a full 360 rotation. After the full rotation ADII will aim the camera at AirLeash.
Reveal OUT	ADII will fly backwards and simultaneously increasing its altitude, while looking at AirLeash. Just before the maximum distance is reached, the ADII will tilt camera looking straight at the horizon. When the Reveal-OUT is completed, the ADII will do the same thing flying in from far and then focusing on the AirLeash.
Reveal IN	ADII will fly slowly backwards maintaining the same altitude, while looking at AirLeash. Around half-way, the ADII will gradually tilt camera looking straight down. When the Reveal-IN is completed, the ADII will do the same thing flying in from far and then focusing on the AirLeash.
Look DOWN	ADII will tilt the camera straight downwards and will not aim the camera at AirLeash. You will be able to adjust the drones position and altitude just like you would in regular HOVER mode; only difference that you will be able to manually adjust the ADII pan (yaw) with the arrow left ◀ or right ▶ buttons (only when Joystick mode is disabled). That way you can perfectly position the ADII above a jump and capture those epic shots.
Look AWAY	ADII will turn 180 degrees, "looking" away from AirLeash and lock the camera tilt horizontally, so you will be able to capture the scenery. The drones position and altitude can be adjusted just like you would in regular HOVER mode. You will be also able to switch to FIXED follow mode by pressing the Play/Pause ▶ll button, that way you can capture some dynamic shots.

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11.1 Specifications

Airdog ADII	
Dimensions L x W x H (when folded):	19.69 in. x 7.87 in. x 5.51 in. (50 cm x 20 cm x 14 cm)
Distance motor-to-motor (when unfolded):	24.80 in. (63 cm)
Weight without battery, propellers, camera:	3.10 lbs. (1.407 kg)
Weight with battery, propellers and camera:	4.73 lbs. (2.146 kg)
Motor type:	Brushless motor
Propeller:	11.02 in. x 1.06 in. (28 cm x 2.7 cm)
Battery:	Interchangeable 14.8V, 5550 mAh, lithium - ion polymer battery
Maximum flight altitude:	11,500 feet (3,500 meters) above sea level
Maximum speed	45 miles per hour (72 km per hour)
Wind limitation:	30 knots (15 meters per second)
Estimated flight time:	10 to 18 min. depending on the flight speed, wind conditions
Operating temperature range:	23F-104F (-5C to 40C)
Operating relative humidity range:	0-85% RH

AirLeash

Dimensions L x W x H:	2.99 in. x 2.36 in. x 0.82 in. (7.6 cm x 6 cm x 2.1 cm)
Weight:	0.18 lbs. (0.082 kg)
Battery:	Rechargeable 3.7V, 450mAh, lithium polymer battery
Standby time:	90min (approx. 8 flights)
Charge time:	2 hours
IP rating:	IP67 Submersible up to 1 meter for 30 min.
Charging port:	Micro-USB
Frequency type:	Long range Bluetooth
Range (when ADII is in-air):	500 feet (150 meters)
Operating temperature range:	23°F - 104°F (-5°C to 40°C)
Operating relative humidity range:	0-85% RH

Airdog Battery Charger

Voltage:	100~240 V
Rated Power:	Out 55W

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Airdog Battery	
Dimension:	7.04 in. x 2.44 in. x 1.69 in.) (17.9 cm x 6.2 cm x 4.3 cm)
Type:	Interchangeable 14.8V, 5550 mAh, lithium - ion polymer battery
Weight:	1.09 lbs. (0.495 kg)
Watt hour rating:	82.88 Wh
Operating Temperature range:	23°F - 104°F (-5°C to 40°C).
Maximum charging power:	82.88 W, 5.5 A

11.2 Warranty

11.2.1 What Is Covered And For How Long?

Airdog warrants the original purchaser of this product against defects in material or workmanship for the warranty period of one year, or such longer period as is required by applicable law when purchased directly from Airdog or Airdog authorized retailer. This warranty is not transferable or assignable.

Pursuant to this limited warranty and without charge for parts or labor directly related to the defect(s), Airdog will, at its option, 1. repair the product using new or refurbished parts or 2. replace the product with a new or refurbished product within a reasonable period of time and free of charge. "Refurbished" means a product or part that has been returned to its original specifications.

This limited warranty only covers product issues caused by defects in material or workmanship during ordinary consumer use for the period commencing upon the date of purchase and continuing for the following specified period of time after that date.

Warranty Periods		
(or such longer period as is required by applicable law)		
1 Year	**6 Months**	**No Warranty**
Airdog ADII drone, AirLeash	Battery, BatteryCharger, Propellers, Motors, Camera Gimbal Motors	Plastic Parts

Airdog will not pay for shipping, insurance or transportation charges from you to us, or any import fees, duties and taxes

11.2.2 What Is Not Covered?

This limited warranty is conditioned upon proper use of the product by the purchaser and it does not cover product issues caused by any other reason, including but not limited to:

This limited warranty only covers product issues caused by defects in material or workmanship during ordinary consumer use for the period commencing upon the date of purchase and continuing for the following specified period of time after that date.

1. Acts of God,
2. Misuse despite of the guidance of user manuals,
3. Abnormal environmental or weather conditions (i.e. strong wind, rain, snow, storms, sand/dust storm, etc.),
4. Improper storage resulting in exposure to moisture or dampness,
5. Unusual physical, electrical or electromechanical stress,
6. Defects or damage from external causes (i.e. proximity or exposure to heat, electro-magnetic interferences, interferences with other wireless devices, improper use of any electrical source, battery leakage, blown fuse, etc.),
7. Accidents caused by non-manufacturing factors (i.e. collision with another object, crash or fire, etc.),
8. Unauthorized opening, modification of or to any part of the product or product purchased which did not follow the instruction of official manuals,
9. Unauthorized opening, modification from other than Airdog or Airdog authorized retailers,
10. Malfunction results from the use of the product in conjunction with accessories, products, services, firmware or peripheral equipment not expressly approved or provided by Airdog,

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11. Improper use of battery, battery charger, battery connector or USB connector,

12. Commercial use,

13. Damage caused by operating the product with a battery that is running low or defective,

14. Damage caused by any set up and/or use which does not carefully respect the instruction manual which contains instructions for safety, operation and maintenance,

15. Damage caused by viruses or other firmware problems introduced into the product,

16. Use in violation of existing and futures laws, codes and ordinances; confiscation or damage due to such violations.

17. Unauthorized use for rental, military or commercial purposes.

18. Damage caused and/or sustained by operating the product without the latest firmware. Device must be updated with latest firmware within 4 weeks of its official release date.

19. Damage caused to Airdog battery, by storing an empty battery (less than three solid LEDs) for more than 3 (three) days.

20. Damage caused to Airdog battery, by not not fully recharging it every 3 (three) months.

This limited warranty does not apply to any non-Airdog products or software. Third-party manufacturers, suppliers, or software publishers, other than Airdog, may provide their own warranties to the purchaser.

This limited warranty is void when the Airdog ADII drone sustains damage or there is loss of the Airdog ADII drone as a result from the selection, customization or use of an Activity Preset which does not strictly correspond to the activity which is effectively performed by the user.

Except as provided in this limited warranty and to the maximum extent permitted by law, Airdog shall not be liable for any incidental or consequential damages for breach of any express or implied warranty on this product, including injury, death, loss, or other claim related to or resulting from the use of this product. In no event shall the company's liability exceed the purchase price of the product.

Some states (countries and provinces) do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights and you may have other rights which vary from state to state

Please check our website on a regular basis for user warranty updates.

11.3 Compliance

11.3.1 FCC Compliance

1This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

    1. This device may not cause harmful interference
    2. This device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by Airdog could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement:

The Airdog equipment has been tested and complies with FCC radiation exposure limits set forth an uncontrolled environment and meets the FCC radio frequency (RF). The Airdog equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

FCC Rules, Part 15. Warning:

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measurements:

    •Reorient or relocate the receiving antenna

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• Increase the separation between the equipment and receiver
• Connect the equipment to an outlet on a circuit different from that to which the receiver is connected
• Consult the dealer or an experienced radio/TV technician for help
state to state

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

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

IC Radiation Exposure Statement:
The Airdog equipment has been tested and complies with IC RF radiation exposure limits set forth an uncontrolled environment. The Airdog equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not
be co-located or operating in conjunction with any other antenna or transmitter.

Changes or modifications not expressly approved by Airdog could void the user's authority to operate the equipment.

Avertissement IC à l'Exposition Aux Rayonnements:
L'équipement Airdog a été testé et est conforme aux limites d'exposition IC RF aux rayonnements fixées pour un environnement non contrôlé.
L'équipement Airdog doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le dispositif rayonnant et le corps. Ce
transmetteur ne doit pas être placé ou utilisé avec une autre antenne ou un autre transmetteur.

Les changements ou modifications non explicitement approuvés par Airdog pourraient annuler l'autorité de l'utilisateur pour utiliser cet équipement.

11.4 Manufacturer's Disclaimer Statement

The information in this document is subject to change without notice and does not represent a commitment on the part of the vendor. No warranty or representation, either expressed or implied, is made with respect to the quality, accuracy or fitness for any particular purpose of this document.

The manufacturer reserves the right to make changes to the content of this document and/or the products associated with it at any time without obligation to notify any person or organisation of such changes. In no event will the manufacturer be liable for direct, indirect, special, incidental or consequential damages arising out of the use or inability to use this product or documentation, even if advised of the possibility of such damages.