




MADE IN FRANCE 



USER'S MANUAL & INSTRUCTIONS

DIRECT REMOTE IDENTIFICATION SYSTEM (DRI) FLY ID LIGHT

BCNF12

SUMMARY

direct remote identification (DRI) system

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INTRODUCTION

by our CEO

At Dronavia, we've been developing a wide, innovative range of accessories to secure your professional drones since 2015. Based in France, we design all our products in our design office, before bringing them to life in our workshop, with unique technological know-how.

The fruit of more than 4 years of research and innovation, our new Fly ID range of direct remote identification systems for drones has been developed and tested in accordance with the standards imposed by the EASA, to comply with the latest regulations.

Thanks to its standardised safety accessories, Dronavia ensures that operators have the best risk management and safety measures at their disposal during their flying missions. You'll be flying in complete safety thanks to the visibility that Fly ID Light offers your drone.

Thank you for your confidence & enjoy your flight!



Ludovic Pelletay, Dronavia's CEO.



GENERAL

presentation

Dear customer

Congratulations on the purchase of your new direct remote identification system for model aircraft: Fly ID Light

You have chosen what we are sure is the best performing system of its kind. Extensive research and testing have gone into making it as safe and effective as possible.

Based in Remiremont, France, DRONAVIA is at your service to advise you on the purchase of your Fly ID Light direct remote identification system and to answer any questions of a technical or commercial nature.

The Fly ID Light system has been developed to meet the requirements of the EN 4709-002 EASA standard:

The EN 4709-002 standard requires direct remote identification for drones weighing more than 250 grams and flying at less than 120 metres in the specific category.



The aim of these requirements is to enable a drone to be made digitally visible in order to ensure the safety of low-level airspace. A Direct Remote Identification (DRI) system transmits basic information about a drone digitally via Bluetooth & Wifi. The system transmits the drone's serial number, type of drone, pilot identification number, take-off position, latitude, longitude, altitude, speed and direction to anyone with a receiving device.

WARNINGS


& precautions for use

TO BE READ CAREFULLY

Dronavia may suspend the warranty and disclaim all liability to any person who fails to comply with the basic safety instructions set out below.

Before using the Fly ID Light direct remote identification system, you must read this manual carefully. It provides information on how to use the Fly ID Light system. In addition to the important notes and information mentioned in this manual, the owner of the device must comply with all the important instructions set out below.

WARNINGS & precautions for use



TO BE READ CAREFULLY

Any flight with a aircraft model implies the existence of a danger for the equipment and people in the vicinity, regardless of the equipment used. Using the Fly ID Light system should in no way increase your risk-taking.

7 INSTRUCTIONS

to follow

- 1 It is forbidden to carry out any manipulations other than those specified in the manual.
- 2 The device should only be used by or under the supervision of a responsible adult. Always keep the device out of the reach of children. Do not let them play with it.
- 3 Under no circumstances should you dismantle the various parts of the device.
- 4 Do not place the device in a damp or wet environment and keep it out of direct sunlight.
- 5 Do not expose the system to high or low temperatures, strong shocks, shock hazards, contact with chemicals or acids, or long-term storage in a high-humidity or dusty environment. The maximum operating temperature is 40°C and the minimum operating temperature is -15°C.
- 6 Check that the Fly ID Light system is in good condition before each use. Do not use the device if it is damaged or malfunctions. If necessary, contact your reseller.
- 7 The Fly ID Light system must be manually activated by the user before each flight. The user must check that the system is working properly before each take-off.

TO BE READ CAREFULLY

EN 4709-002
COMPLIANCE

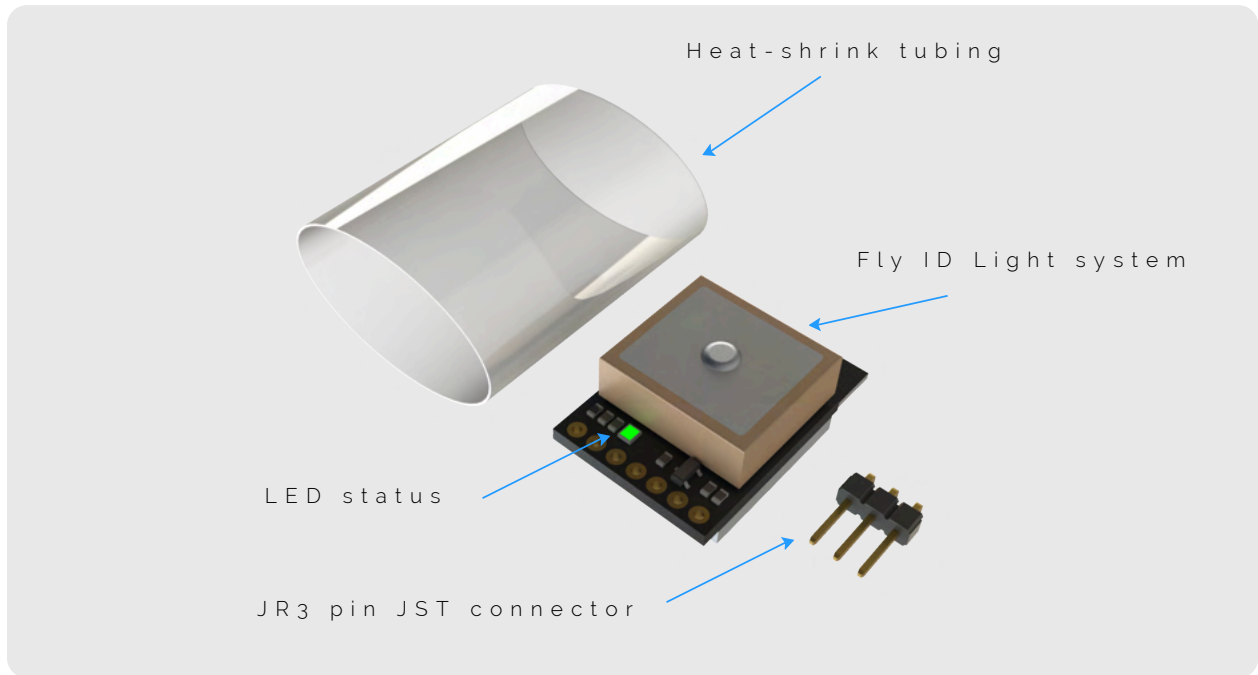


FLY ID light

DIRECT REMOTE IDENTIFICATION

COMPONENTS

presentation



ADDITIONAL ACCESSORIES SUPPLIED



Shunts for high-voltage mode

FLY ID_{light}

Technical specifications

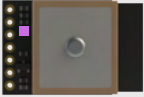
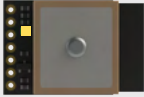

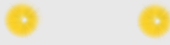
TOTAL WEIGHT	9 grams
BLUETOOTH FREQUENCY	2.4 GHZ & Wifi Beacon
RANGE	1000 meters
AUTONOMY	Unlimited
ANTENNA TYPE	Internal
DIMENSIONS	28.5 x 9 x 11 mm
OPERATING TEMPERATURE	-15°C to 40°C
CHARGING	micro-USB
SUPPLY VOLTAGE	3.8 to 8.4V
TENSION D'ALIMENTATION MODE HAUT-VOLTAGE	5 V À 8.4 V
AVERAGE CONSUMPTION	40 mA (120 mA during initialization)

EN 4709-002
COMPLIANCE

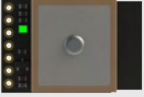


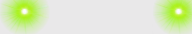
THE STATES

system


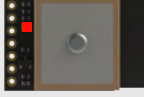
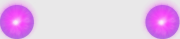
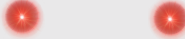






STARTING

 LED STEADY	First start-up (waiting for operator operator number)	 SLOW FLASHING	System initialisation (GPS search)
			

CONNECTION

 LED STEADY	Web interface enabled	 SLOW FLASHING	Functional system (web interface disabled)
			

SYSTEM & BATTERY ALERT

 SLOW FLASHING	Wifi error (web interface)	 SLOW FLASHING	Low battery
			
 LED STEADY	System error	 LED STEADY	Battery charging
			
		 LED STEADY	Battery charged
			

INSTALLATION

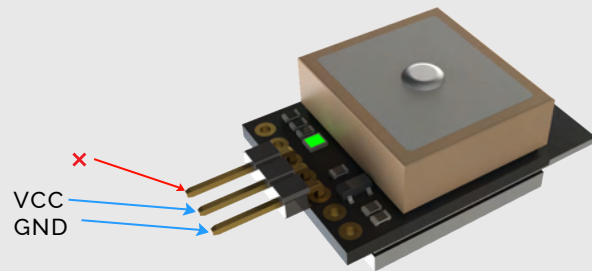
of Fly ID Light system

The Fly ID Light direct remote identification system takes just a few minutes to install inside the drone. Please follow the instructions below in order:

Instructions

1

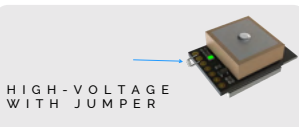
The system is powered via pins 3 and 4 of the 7-contact terminal with the following wiring. Pin number 3 corresponds to GND. Pin number 4 corresponds to VCC. To power the system, a standard servomotor type lead can be connected to the 3-pin connector.



Warning

If a 3-wire cable is used to power the system, the wire used for the signal (usually yellow or white) must not be connected to a radio control receiver. The system may not start if a PWM signal is present on it.

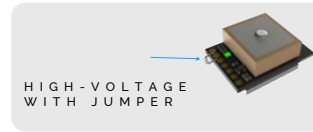
Pin 4 corresponding to VCC must not exceed 5V, unless high-voltage mode is used. (page 12)



OPTIONAL

INSTALLATION

of Fly ID Light system

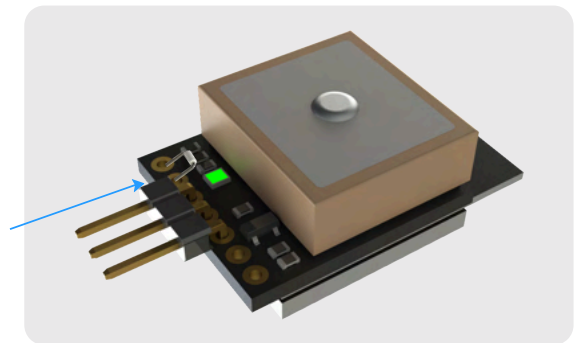
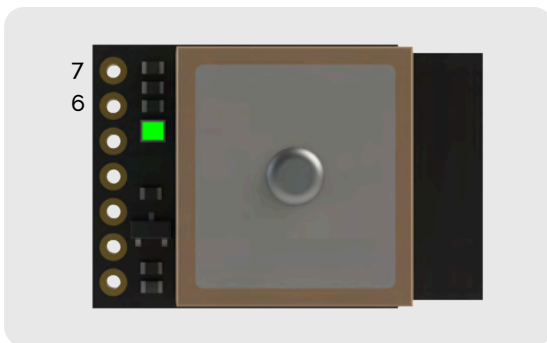


OPTIONAL

Instructions

1

A high-voltage mode can be activated to supply the system with up to 8.4 V. To activate the high-voltage mode, simply connect pins 6 and 7 of the 7-contact terminal together using the jumper provided. In this configuration, the web interface is disabled and cannot be accessed.



Warning

Do not exceed a supply voltage of 5V if the high-voltage mode is not activated, otherwise the Fly ID Light system may malfunction.

INSTALLATION

of Fly ID Light system

2

Once your system is ready, the heat-shrink tubing supplied must be fitted to prevent any contact or short-circuit between the system components and the model on which it is installed. Simply insert the sleeve around the system and heat it so that it shrinks to fit the shape of the Fly ID system.

Warning

Don't forget to solder your jumper for high-voltage mode before installing the heat-shrink tubing.

Once ready, the system should be fitted inside the model aircraft, with the status LED pointing skywards to ensure optimum GPS reception. Make sure there are no metal or carbon obstacles above the system to obstruct the GPS signal.

ACTIVATION

of Fly ID Light system


The Fly ID Light direct remote identification system takes just a few seconds to activate. Please follow the instructions below in order:

Instructions

1

To activate the Fly ID Light system, simply switch on your drone and the Fly ID Light system will activate automatically.

2

Your Fly ID Light system is active. 

First start-up

1

To start up the Fly ID Light system for the first time, you need to set up your operator number. The status LED lights up solid purple until the settings are made. Follow the steps described in "Web interface" on page 23.

Operator's country 13 digits and/or letters linked to the operator Hyphen Last 3 digits and/or letters

F R A 8 7 a s t r d g e 1 2 k 8 - x 6 z

2

To register your operator number on your Fly ID Light system, you need to connect to the system's web interface. Follow the steps in the "Web interface" section on page 20.

The different LED states

First start-up

(waiting for operator number to be set)



ACTIVATION

du système Fly ID Light

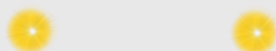
Classic start-up

1

After initial start-up and setting your operator number, here are the different LED states when you start up your Fly ID Light system:

After switching on, the system first searches for its GPS position. During this phase, the LED flashes yellow and the system must not be moved. Once the GPS position has been established, the status LED flashes green. The system is then operational. Before each take-off, the user must check that the system status LED is flashing green. If it is not, the system is not operational and remote reporting will not work.

The different LED states



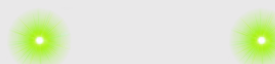
GPS search



System error



Web interface enabled



Functional system



 YOUR FLY ID LIGHT
SYSTEM
IS ACTIVE AND
OPERATIONAL!

STOP

& resetting Fly ID Light system

The Fly ID Light direct remote identification system stops and resets itself in a few seconds. Please follow the instructions below in order:

Instructions

1

To stop and reset the Fly ID light system, simply turn the red switch to the OFF position, by sliding it to the right. The status LED should go out after stopping.

CHARGING

of Fly ID Light system

The Fly ID Light direct remote identification system recharges in just a few seconds. Please follow the instructions below in order:

Instructions

1

To recharge the Fly ID Light system battery, simply connect a micro USB cable to the socket on the front and connect the cable to a computer. The status LED will turn solid yellow to indicate charging and solid green once the battery is fully charged.

The different LED states



System charging



Charged system

DISASSEMBLY

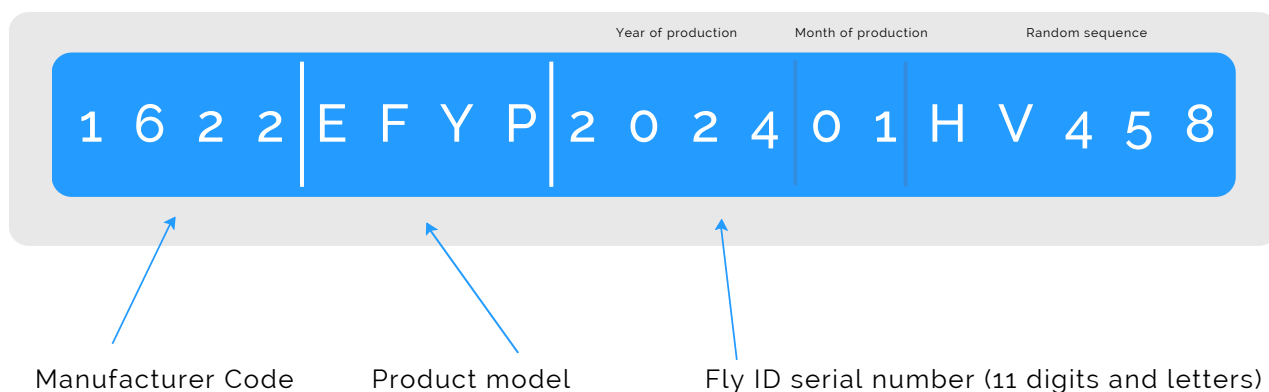
of Fly ID Light system

To dismantle the Fly ID Light system, simply follow the installation instructions in reverse order.

IDENTIFIER

unique of Fly ID Light system

The Fly ID Light unique identifier in European format is made up of 19 characters. This unique identifier will be linked to your operator number, enabling you to be identified by local or European authorities.



Advice

The unique identifier for your Fly ID Light system can be found on the leaflet inside the packaging. It can also be found on the system's web interface (see web interface section).

Warning

The Fly ID Light system only sends information to a nearby area (3 kilometers). Anyone equipped with the right type of receiver or a mobile application can pick up this data transmitted via Bluetooth & Wifi. However, sensitive data such as the pilot's name and personal details can only be requested by the authorities if necessary, and are not visible to the general public.

WEB INTERFACE

of Fly ID Light system

The Fly ID Light system features a web interface that can be accessed from any device via a WIFI connection. The web interface allows you to check the status of your system, configure the Fly ID Light with your operator number and aircraft type, and update the system. To access your Fly ID's web interface, please follow these instructions in order:

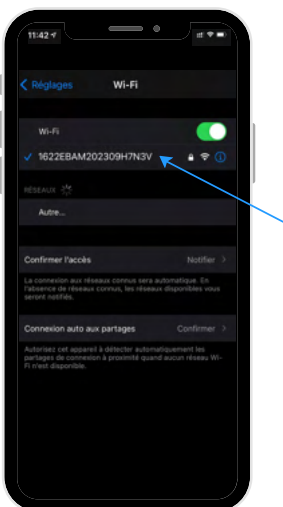
Warning

The web interface is only active when the Fly ID Light system is being initialised (LED flashing yellow), and is deactivated after 30 seconds once the GPS signal has been acquired (LED flashing green). Only one device at a time can be connected to the WIFI network generated by the Fly ID Light.

Instructions

1

During the initialisation phase, the Fly ID Light generates a WIFI network with a name (SSID) consisting of the 19 characters of its unique identifier. Connect to this network using the password: 12345678

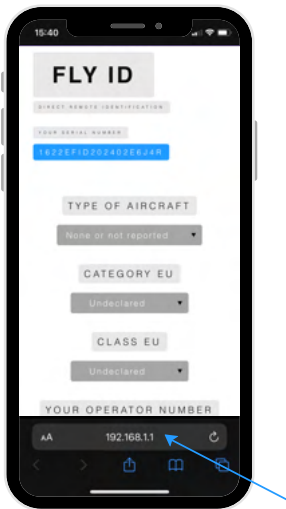


WEB INTERFACE

of Fly ID Light system

2

Once connected to the WIFI network, simply open a browser and go to the following URL address: 192.168.1.1.



Warning

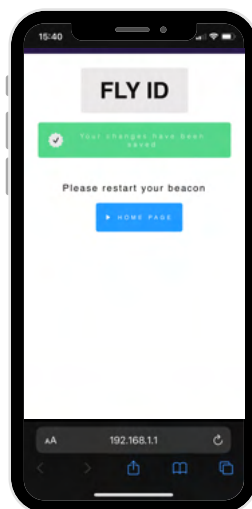
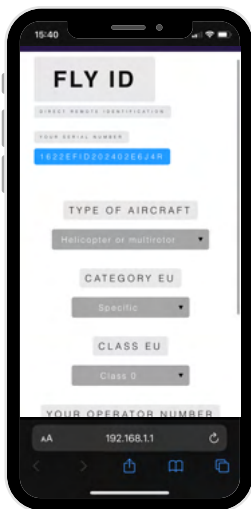
On some mobile devices (Android in particular) it is sometimes necessary to cut the mobile data network in order to reach this address.

INTERFACE WEB

of Fly ID Light system

3

When you first connect to your Fly ID Light system, you will be asked to enter the type of drone, the category in which the drone flies, the class of the drone and your operator number. Then click on "register".



Operator's country 13 digits and/or letters linked to the operator Hyphen Last 3 digits and/or letters

F R A 8 7 a s t r d g e 1 2 k 8 - x 6 z

Warning

You need to enter your entire operator number via the web interface. Do not forget to enter the hyphen (after the first 13 digits and/or letters) and the last 3 digits and/or letters (only accessible by the competent authorities). If your operator number is not entered correctly, your Fly ID system will not work.

The different LED states

First start-up

(waiting for operator number to be set)



Advice

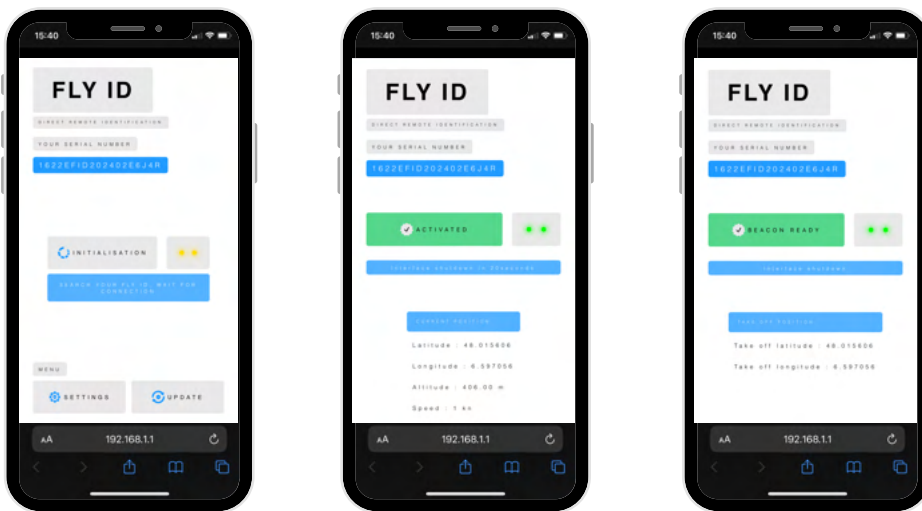
You can change the information entered when you first connect from the "configuration" menu, see page 24.

WEB INTERFACE

of Fly ID Light system

4

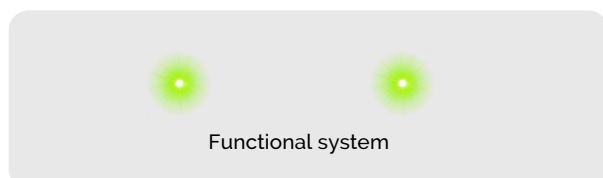
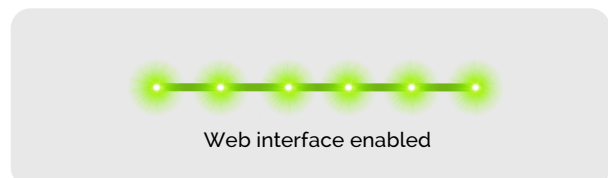
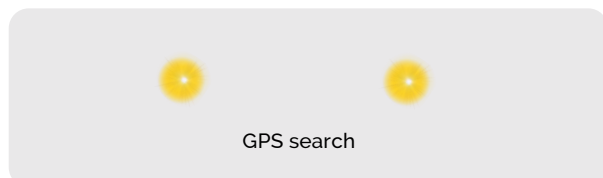
You are connected to the Fly ID Light system web interface. During the initialisation phase, the Fly ID displays and details its unique identifier. Once the GPS signal has been acquired, the web interface displays the Fly ID's current position (as long as the web interface is active) and the take-off position stored for 30 seconds.



Warning

After 30 seconds, the web interface is deactivated and the Fly ID Light system is ready to fly (LED flashing green).

The different LED states



CONFIGURATION

of Fly ID Light system

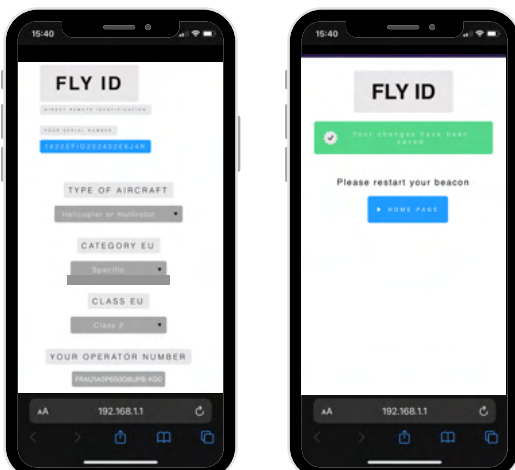
The Fly ID Light system web interface allows you to configure your operator number and aircraft type. To do this, please follow the instructions below in order:

Instructions

- 1 Connect to the web interface of your Fly ID system.



- 2 Click on the 'configuration' button. You can then change the type of drone, the category in which the drone flies, the class of the drone and your operator number. Then click on 'save'.



CONFIGURATION

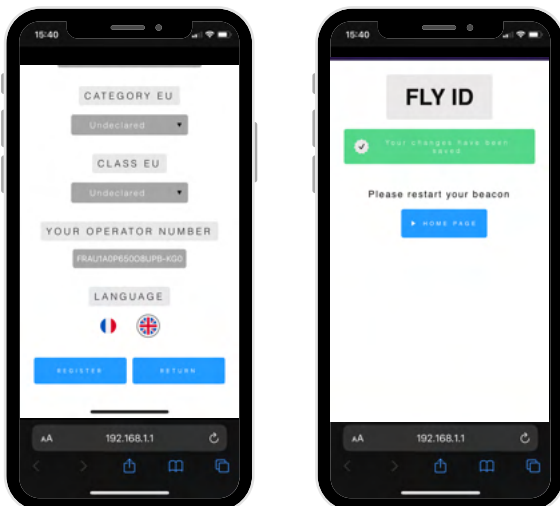
of Fly ID Light system

The Fly ID Light system web interface also allows you to configure the language of the web interface. To do this, please follow the instructions below in order:

Instructions

1

Click on the flag at the bottom of the interface to change the language. Then click on "save".



Warning

Whenever you modify or save a parameter from the Fly ID Light system web interface, you must restart the system to ensure that your changes are taken into account.

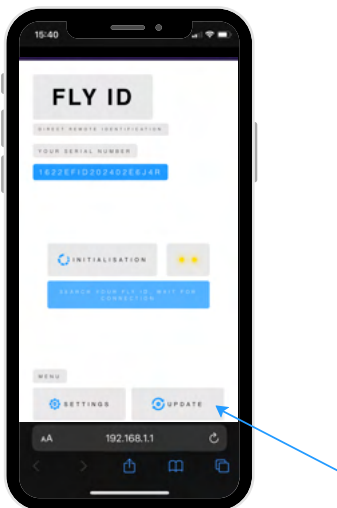
UPDATE

of Fly ID Light system

The Fly ID Light system web interface allows you to update the version of your system. To do this, please follow the instructions below in order:

Instructions

- 1 Connect to the web interface of your Fly ID system.

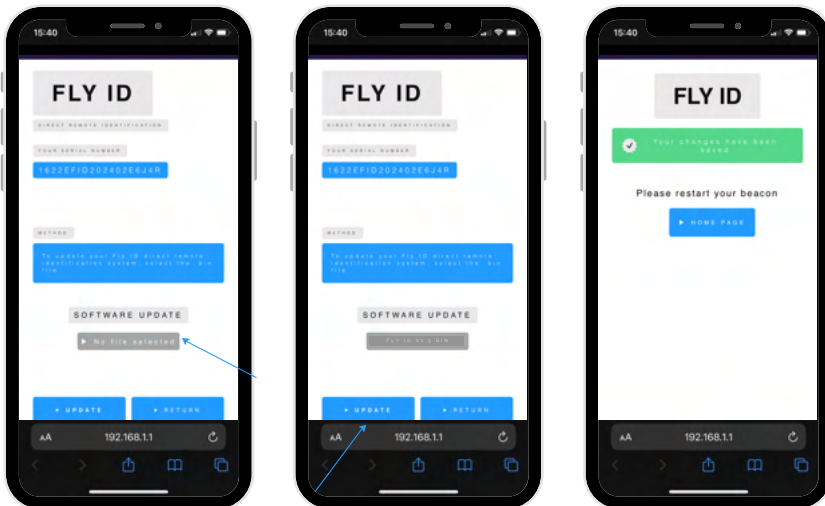


UPDATE

of Fly ID Light system

2

Click on the "Update" button, then select the .bin file to be uploaded. Then click on "Update" to confirm the update.



Warning

Whenever you modify or save a parameter from the Fly ID Light system web interface, you must restart the system to ensure that your changes are taken into account.

COMPATIBILITY

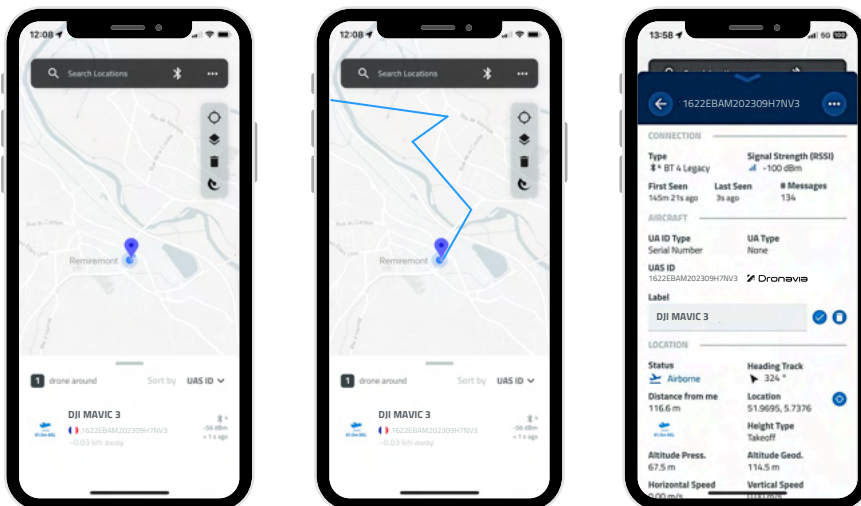
with tracking applications

The Fly ID Light system is compatible with drone tracking applications (DroneScanner and OpendroneID etc), making it easier for you to manage your flights.

Instructions

1 Activate your Fly ID Light system and then connect to your application.

2 The application automatically detects your drone and displays all the information about your drone and the flight you are making. You can also view the drones around you.



MAINTENANCE

& guarantees

STORAGE

Store the Fly ID Light system in a dry place, at a temperature between 10°C and 30°C, clean and protected from UV light.

GUARANTEE

Dronavia takes great care in the design and production of its products. We guarantee our Fly ID systems for one year from the date of purchase against any defects or design faults that may arise during normal use of the product. Any abusive or incorrect use, or exposure to aggressive factors (high humidity, excessively high temperatures, etc.) that could lead to damage will invalidate this warranty.

NOTICE OF LIABILITY

Flying a drone, whether manual or automatic, is an activity that requires attention, specific knowledge and good judgement. Be cautious, get trained in appropriate structures, take out insurance and comply with the requirements defined by the DGAC decrees of 11 April 2012 and 17 December 2015 and the EASA.



Ask our sales team your questions



LINKS to know

For France, we recommend that you consult the website of the Ministry of Ecology, Sustainable Development and Energy if you have any doubts or questions. For Europe, we recommend that you consult the EASA website. Remember that you are flying under your own responsibility.

Website of the Ministry of
Ecological Transition and
Territorial Cohesion



Details of standard EN
4709-002 EASA :



The IGN map of
restricted areas for
drones



European Union Aviation
Safety Agency (EASA)



The French Civil Aviation
Authority (DGAC)



Ask our sales team your questions



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