



USER MANUAL & INSTRUCTIONS

ACCESSORY KIT MOC2511/12 FOR  MATRICE 4

Flight Manual (MOC) - PRS-FTS-MOC Kronos AD Mavic 4 V1.0

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WE MAKE YOUR DRONE SAFER



Since 2015, Dronavia has been designing and manufacturing innovative safety accessories for professional drones in France. Developed in our workshops, the Kronos range of devices, including Parachute Recovery Systems (PRS) and Flight Termination System (FTS), are the result of 10 years of research and development and meet the highest standards set by EASA.

Thanks to these solutions, which comply with European regulations, professional drones operator benefit from the best guarantees in terms of safety and risk management for their flight missions.

Thank you for your trust and have a good flight.

Ludovic Pelletay, CEO of Dronavia



VERSION NOTE

Version 1.0

- Initial version

TUTORIAL

Parachute Recovery System Installation



Parachute Recovery System Rearming



Flight Termination System Testing Procedure



User's manual Klick trigger remote control



DRONAVIA UPDATER

Dronavia has recently launched an innovative software solution specifically designed to simplify the updating of Kronos systems. Thanks to this new software, Dronavia customers can now manage and update their systems more quickly and easily.

Download Dronavia
Updater software



GENERAL presentation

Congratulations on acquiring your Kronos MVC4 MOC2511/12 accessory kit, which includes a Parachute Recovery System & autonomous Flight Termination System, specifically designed for the DJI Mavic 4 drone.



The Kronos MVC4 MOC2511/12 accessory kit meets the technical requirements defined by EASA, and has been developed according to a rigorous research and development process, guaranteeing the highest level of safety for flight operations.

Based in Remiremont, France, Dronavia is here to support you with the use of your Kronos MVC4 MOC2511/12 accessory kit and to answer any technical or commercial questions you may have.



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GENERAL *presentation*

The Kronos MVC4 Parachute Recovery System and internal Flight Termination System have been specifically designed for DJI Mavic 4 drones, with the primary goal of ensuring ultra-fast deployment to optimize deceleration and minimize impact energy in the event of an in-flight issue.

Multicopter drones, even when properly maintained and operated, can sometimes encounter emergency situations—such as severe weather conditions, radio transmission failure, propulsion system malfunction, or GPS signal loss—where immediate activation of a safety system is crucial.

In such critical scenarios, the combined deployment of the Flight Termination System and Parachute Recovery System can mean the difference between a minor incident and a serious accident. Kronos MVC4 systems are engineered to activate and deploy in under one second.



GENERAL *presentation*



TO BE READ CAREFULLY

These safety devices do not guarantee the integrity of the equipment, nor the absence of damage to property or injury to persons. They are complementary safety features, designed to enhance existing safety measures. Under no circumstances shall Dronavia or its distributors be held liable for any malfunction, perceived performance shortcomings, or failure to deploy.

COMPLIANCE

with MOC2511 / 2512

The Kronos Mavic 4 MOC2512 (M2) Parachute Recovery System has been developed to meet the requirements of the Means of Compliance with Light-UAS.2512 published by the EASA:

The Light-UAS.2512 standard offers several options for complying with the SORA's M2 mitigation measures. M2 mitigation measures are designed to reduce the effect of ground impact once control of the operation is lost. This is done by reducing the effect of the UA impact dynamics (i.e. area, energy, impulse, transfer energy, etc).



The Kronos Mavic 4 MOC2511 Flight Termination System has been developed to meet the requirements of the Means of Compliance with Light-UAS.2511 published by the EASA:

A Flight Stop System (FTS) is a system which, when activated, terminates the flight. By its very nature, it is an emergency measure and not a precautionary one. Its purpose is to ensure that an out-of-control UAS does not enter adjacent areas with an indefinite trajectory but, on the contrary and preferably, that it stops, and that its crash/debris zones are kept strictly within the ground risk buffer zone.



WARNINGS

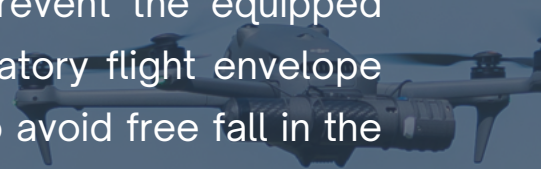
& safety precautions

TO BE READ CAREFULLY

The Kronos MVC4 MOC2511/12 accessory kit includes two safety accessories designed to, under certain conditions, prevent the equipped drone from exiting its regulatory flight envelope by cutting its motors, and to avoid free fall in the event of a critical failure.

Activating the Flight Termination System and/or the Parachute Recovery System will inevitably result in the drone falling.

These systems do not prevent technical failures from occurring. Any drone operation inherently involves a risk to equipment and nearby individuals, regardless of the safety systems in place. The use of the Kronos MVC4 Flight Termination System and Parachute Recovery System must never lead to increased risk-taking during flight operations.



WARNINGS

& safety precautions



TO BE READ CAREFULLY

Dronavia may suspend the warranty and disclaim any responsibility for anyone who fails to adhere to the basic safety instructions outlined below.

Before handling the Kronos MVC4 systems, you must carefully read this manual. It provides information on the deployment of the Parachute Recovery System and the Flight Termination System. In addition to the important notes and information mentioned in this manual, the device owner must comply with all the essential safety instructions outlined below.

TO BE READ CAREFULLY

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

Do not under any circumstances dismantle the various parts of the device, except when resetting it in accordance with the instructions in this manual.

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 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 -5°C.

6

Check that the Kronos Parachute Recovery System and Flight Termination System is in good condition before each use. Do not use the device if it is damaged. If necessary, contact your dealer.

7

The Kronos Parachute Recovery System and Flight Termination System cannot prevent the drone from malfunctioning.

8

Any flight with a drone implies the existence of a risk for equipment and people in the vicinity, with or without Kronos safety systems.



TO BE READ CAREFULLY

9

Using a Kronos Parachute Recovery System and Flight Termination System should in no way increase your risk.

10

The Kronos Parachute Recovery System and Flight Termination System attempts to prevent a drone experiencing a malfunction from free-falling. However, there are fall situations in which the effectiveness of the Kronos Parachute Recovery System may be limited or impeded.

11

The Kronos Parachute Recovery System and Flight Termination System can be actively deployed by the user. Regular training is necessary to be able to react correctly in an emergency.



12

The spring ejection system only works once. You can recharge the system yourself by following the instructions in this manual. It is your responsibility to ensure that the system is under warranty.

13

When reloading, it is forbidden to do so with people nearby, and especially with the barrel pointing in their direction. You must take the same precautions as when handling a loaded rifle. In the event of accidental firing during this stage or mishandling, the spring could be ejected and cause serious injury. Safety glasses must be worn.

14

After deploying the device, we recommend that you carefully inspect each component to ensure its integrity. If in doubt, contact your reseller.

15

After switching on the system, if the LED changes to a steady red, do not use it and contact your reseller for assistance.

SECTION

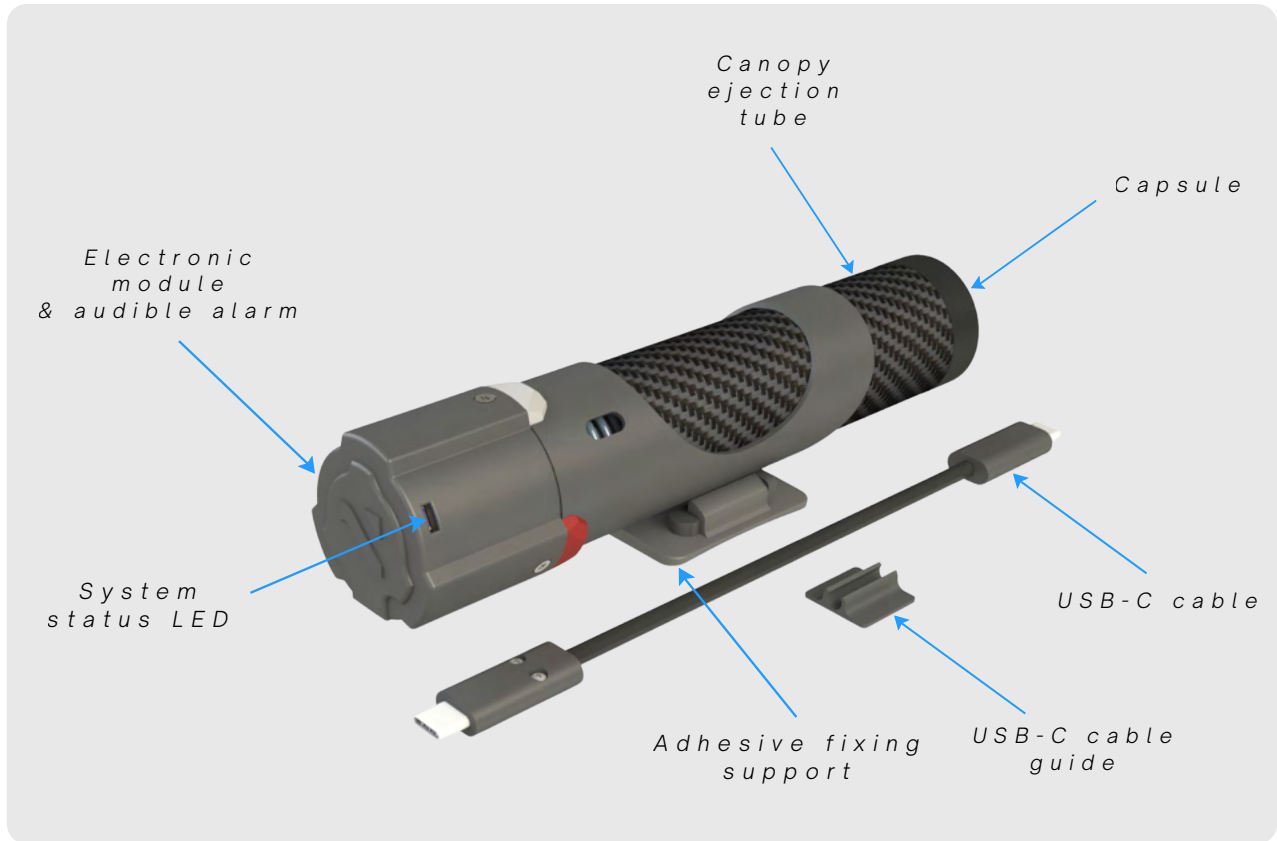
KRONOS MV04

PARACHUTE RECOVERY SYSTEM FOR *dji* MAVIC 4 



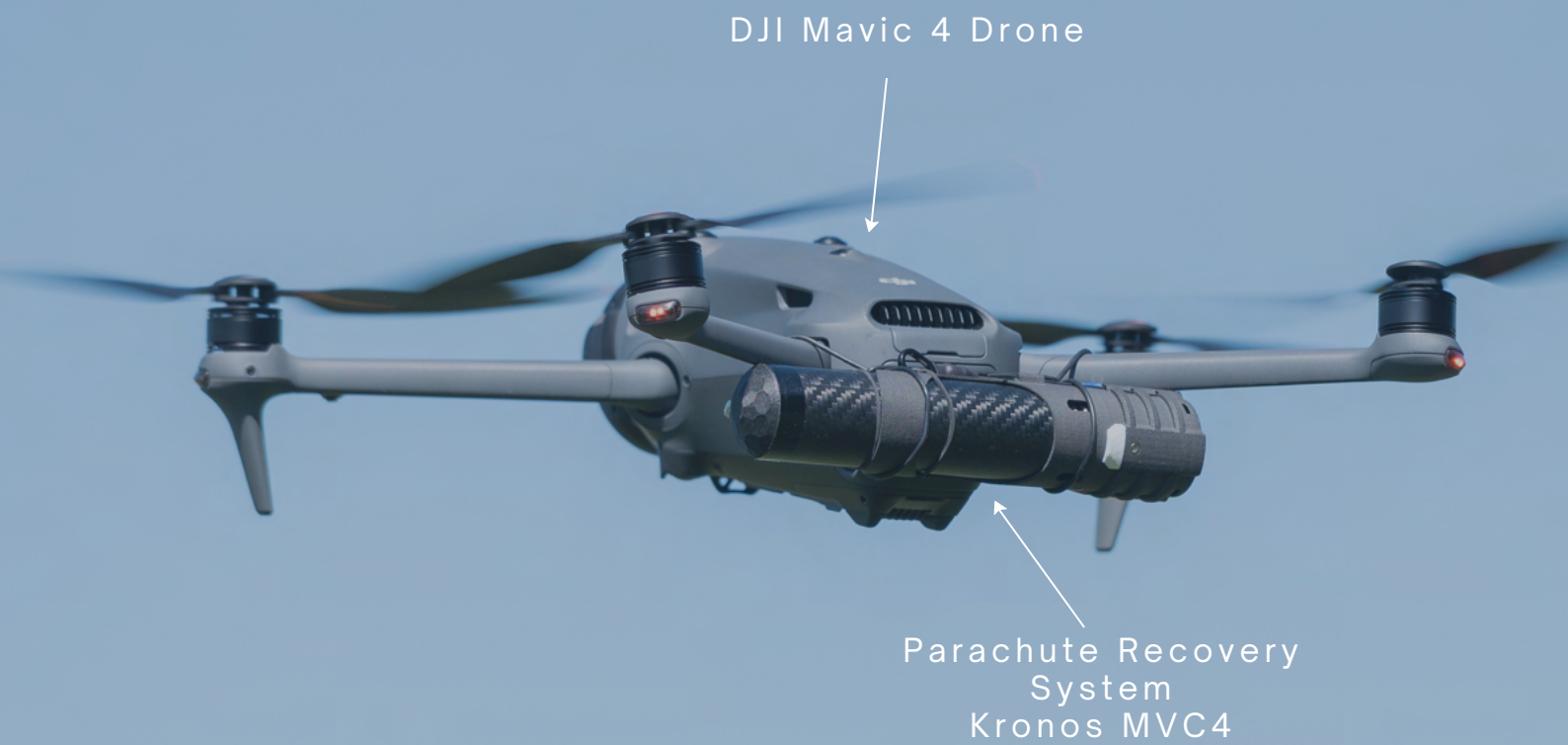
COMPONENTS

presentation



KRONOS MVC4

System Visual Representation



KRONOS MVCH

System Visual Representation

DJI Mavic 4 Remote
Controller

Klick trigger
remote control

KRONOS MVC4

Overview of Key System Figures



KRONOS MVCH

Technical specifications

**TOTAL WEIGHT (PRS+FTS) : 137G*

TOTAL WEIGHT	130 GRAMS
EJECTION DEVICE	SPRING PRESTRESSED
MINIMUM HEIGHT EFFICIENCY	FROM 20 METERS
COMMUNICATION WIRELESS RADIO	SRD860 WITH ENCRYPTED KEY (869 MHZ / 100 MW)
RANGE OF THE CLICK REMOTE CONTROL	1500 METERS*
CLICK REMOTE CONTROL AUTONOMY	30 HOURS
ENERGY GROUND IMPACT	< 9 JOULES
OPERATING TEMPERATURE	-5°C TO 40°C
STORAGE TEMPERATURE	10°C TO 40°C



**can reach up to 1.5 km, under optimum conditions and in an environment free of obstacles and interference.*

KRONOS MVC4

Operating limits

MAXIMUM WIND SPEED
AT GROUND LEVEL

9,22 m/s

MINIMUM FLIGHT
ALTITUDE (AGL)

15.5 metres

OPERATING
TEMPERATURES

*MIN : -5°C
MAX : 40°C*

USABLE IN
RAINY WEATHER

No



KRONOS MVC4

Dimensions and weights

DRONE



32.8 x 39 x 13.5 cm

1063 G

PARACHUTE



18 x 3.9 x 4.5 cm

130 G



PARACHUTE + DRONE + ACCESSOIRES



32.8 x 39 x 13.5 cm

1204 G MTOM

KRONOS MVC4

*Minimum Size of the Ground Risk
Buffer (GRB)*

OPERATING VOLUME VERTICAL LIMIT	30	140	SOIL-RELATED RISK BUFFER ZONE
	40	182	
	50	223	
	60	265	
	70	306	
	80	348	
	90	389	
	100	431	
	110	472	
	120	514	

The ground risk threshold can be calculated based on various drone parameters and assumptions. Please refer to the document dedicated to calculating the ground risk threshold if you need to calculate more accurate ground risk thresholds based on your application.



SYSTEM

states

INITIALIZATION



System
initialisation



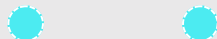
Waiting phase



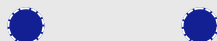
CONNECTION



FTS & PRS
Connected



FTS & PRS Connected
with Autonomous
Deployment



ACTIVATION AND DEPLOYMENT



FTS triggered & PRS
deployed with Klick



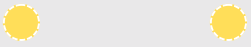
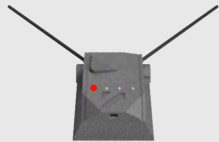
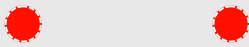
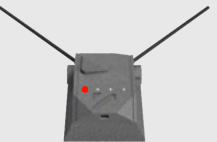
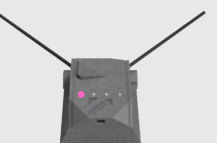
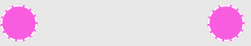
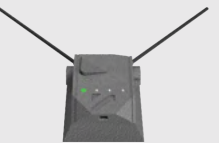
FTS triggered & PRS
deployed with Autonomous
deployment



SYSTEM

states

SYSTEM & BATTERY ALERTS

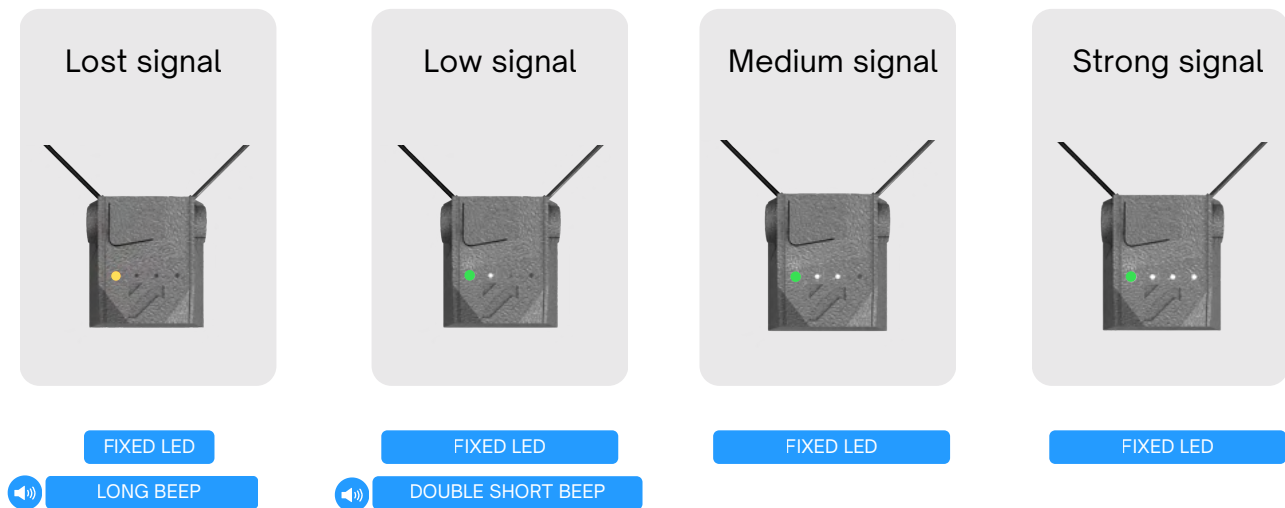
 SLOW FLASHING	Signal lost with remote control (Klick) 	 SLOW FLASHING	Low battery 
 FIXED LED	System error 	 FIXED LED	Charging the battery 
 SLOW FLASHING	Signal scrambled 	 FIXED LED	Battery charged 

SIGNAL

states

Four LEDs let you check the status of the link between the Klick trigger remote control and your Kronos MVC4 conversion kit. The signal level is represented by the number of lights on: the more lights, the more stable the connection.

The different LED states



Warning

If the signal is lost, the manual release of the Parachute Recovery System and the Flight Termination System will become inoperative. Move closer to the drone to re-establish the link with the Klick remote control.

INSTALLATION

of the parachute system

The Kronos MVC4 Parachute Recovery System can be installed in just a few minutes. To install it, please follow the instructions below in order:

Skills & tools required

Designed to be quick and easy to use, the Parachute Recovery System can be installed without the need for special tools or technical skills.

Warning

For reasons of operational safety and to prevent inadvertent deployment, the M4 Parachute Recovery System incorporates an automatic lock that prevents deployment at altitudes below 20 metres. This limitation ensures that the parachute system can only be activated in conditions that guarantee the minimum effectiveness of the system. However, manual deployment of the parachute via the Klick trigger remote control remains possible. Be cautious when handling the powered-on parachute to avoid any unintentional ground deployment, which could cause physical injury or material damage.

Instructions

1

The parachute system mounting bracket is already pre-installed on your DJI Mavic 4 drone. Unscrew the tightening knobs, reposition the bracket above the battery compartment, and then insert the battery into the drone.

1



2



3



4



INSTALLATION

of the parachute system

Warning

The parachute mounting bracket must be unscrewed using the tightening knobs and then reinstalled when replacing the battery. The bracket can remain in place during transport in its dedicated carrying case.

2

Leave the parachute mounting bracket in place, then position the parachute module on it before inserting it into its mounting clip. Gently push until the parachute module is fully locked in place.



3

Lower the parachute mounting bracket in front of the drone's battery compartment, then tighten the locking knobs.



INSTALLATION

of the parachute system

4

Pass the main parachute sling under the right front arm of the drone, making sure it is completely clear and free of any twists.



5

Pass the main parachute sling under the left front arm of the drone, making sure it is completely clear and free of any twists.



INSTALLATION

of the parachute system

6

Hook the carabiner to the main sling by passing it over the drone. Then loop the elastic around both the tube and the main sling. Slide the elastic forward until the main sling is tight.

1



2



3



4



Warning

Make sure that the main parachute attachment sling is correctly positioned on the drone's body and does not have any play that could cause contact with the propellers.

7

Connect the USB-C cable of your parachute to your drone. The red connector of the USB-C cable must be connected to the drone.



INSTALLATION

of the parachute system

Warning

Make sure to disconnect the USB-C cable before folding the arms of the DJI Mavic 4 drone.

8

Your Kronos MVC4 parachute is now operational. 

9

Each installation must be entered in the 'List of installations and de-installations and maintenance operations' section on page 46.

INITIALIZATION

of the parachute system

To initialize the Kronos MVC4 Parachute Recovery System, follow these instructions in order:

Warning

For safety reasons, activation of the Kronos MVC4 Parachute Recovery System is fully automatic. No manual intervention is necessary or possible to activate the system.

Instructions

1

Switch on the DJI Mavic 4 drone, and the Kronos MVC4 Parachute Recovery System will automatically switch on. The parachute LED signals ignition with a sequence of colours, while the audible alarm emits three beeps to confirm correct operation. The LED then indicates the battery level, and a flashing yellow LED indicates that the parachute is powered up and ready for use.



2

Your Kronos MVC4 parachute is initialization started. ✓

The different LED states

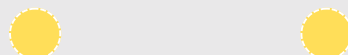


System initialisation

RAPID FLASHING



AUDIBLE BEEP



Parachute on, waiting to be activated

SLOW FLASHING

ACTIVATION

of the parachute system

To activate the Kronos MVC4 Parachute Recovery System, follow the instructions below in order:

Warning

For reasons of operational safety and to prevent inadvertent deployment, the M4 Parachute Recovery System incorporates an automatic lock that prevents deployment at altitudes below 20 metres. This limitation ensures that the parachute can only be activated in conditions that guarantee the minimum effectiveness of the system.

Instructions

1

The Kronos MVC4 Parachute Recovery System automatically detects when your drone is ready to take off. During this phase, the LEDs on the parachute module and on the Klick remote control flash purple, and double beeps are emitted.

2

When the drone reaches an altitude of 20 metres, two distinct beeps confirm that the minimum threshold required to activate the autonomous parachute deployment function has been reached. The LEDs on the parachute module and on the Klick remote control then flash dark blue.

3

Your Kronos MVC4 Parachute Recovery System is active with the autonomous deployment function. ✓

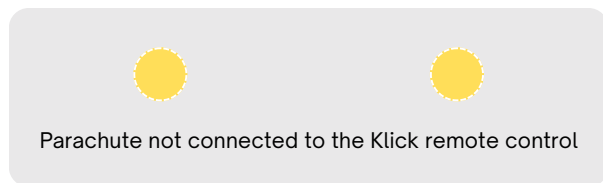
Warning

If there is no audible signal or dark blue LED, it is likely that the autonomous deployment function has not yet been activated due to insufficient altitude. To activate the autonomous deployment function, a minimum altitude of 20 metres is required.

ACTIVATION

of the parachute system

The different LED states



SLOW FLASHING



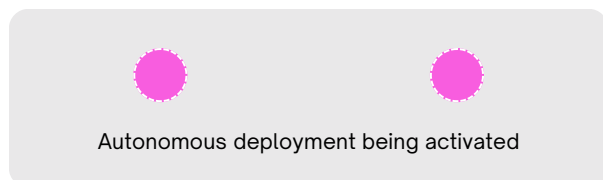
AUDIBLE BEEP



SLOW FLASHING

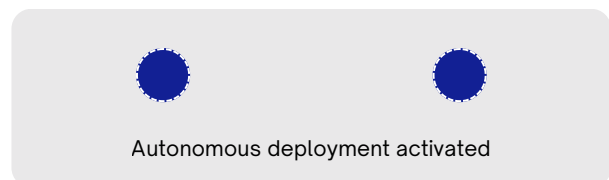


AUDIBLE BEEP



CONTINUOUS DOUBLE BEEP

SLOW FLASHING



2 SHORT, LOUD BEEPS

SLOW FLASHING

DEACTIVATION

of the parachute system

To deactivate the Kronos MVC4 Parachute Recovery System, follow the instructions below in order:

Instructions

1

The Kronos MVC4 Parachute Recovery System automatically detects the landing of the DJI Mavic 4 drone. Approximately 5 seconds after detection, a beep is emitted and the LED stops glowing dark blue. The take-off detection module is then automatically deactivated. It will reactivate on the next flight, as soon as the drone reaches a minimum altitude of 20 metres.

Warning

If the dark blue LED on the Kronos MVC4 Parachute Recovery System remains lit, this indicates that the autonomous deployment function is still active. Do not manipulate the drone to avoid any risk of involuntary deployment. Wait a further 5 seconds for the automatic deactivation.

2

The autonomous deployment of the Kronos MVC4 Parachute Recovery System is deactivated, but your parachute remains active and can be deployed using the Klick trigger remote control.

3

To completely deactivate your Kronos MVC4 Parachute Recovery System, switch off the DJI Mavic 4 drone.

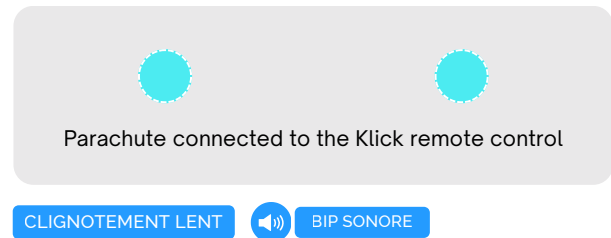
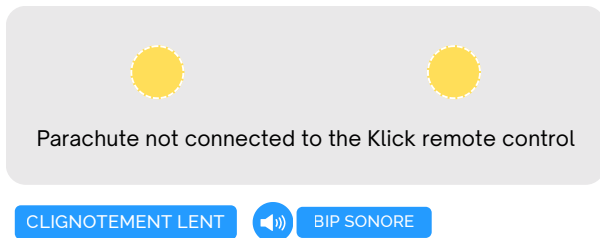
Warning

Do not perform any ground handling until the parachute system (PRS) has fully powered down.

DEACTIVATION

of the parachute system

The different LED states





YOUR PARACHUTE
IS OPERATIONAL &
ACTIVE!

DEPLOYMENT

of the parachute system

To deploy the Kronos MVC4 Parachute Recovery System (with autonomous deployment or manually), observe the following safety instructions:

Warning

- 1 Never attempt to deploy the MVC4 Parachute Recovery System on the ground.
- 2 The Kronos MVC4 Parachute Recovery System is designed to be deployed at a minimum height of 20 metres from the ground in standard atmospheric conditions.
- 3 For a fall from a height of 20 metres, the impact on the ground is less than 9 joules with the Kronos MVC4 Parachute Recovery System, compared with 338 joules without any device.

Warnings

This data may vary depending on altitude above sea level, relative wind and many other external factors. That's why we recommend a minimum height of 20 m above ground level to deploy the Kronos MVC4 Parachute Recovery System and sufficiently limit the impact of your drone on the ground.

For reasons of operational safety and to prevent inadvertent deployment, the MVC4 Parachute Recovery System incorporates an automatic lock that prevents deployment at altitudes below 20 metres. This limitation ensures that the parachute can only be activated in conditions that guarantee the minimum effectiveness of the system.

AUTONOMOUS

deployment of the parachute system

Instructions

1

When autonomous deployment is activated, the parachute system analyses the flight parameters (altitude, acceleration, inclination, angular velocity) in real time. If any abnormal behaviour is detected, indicating a loss of control, the M4 Parachute Recovery System is automatically triggered, without pilot intervention.

The different LED states



Parachute deployed with autonomous deployment function



AUDIBLE BEEP

RAPID FLASHING

MANUAL

deployment of the parachute system

To manually deploy the Kronos MVC4 Parachute Recovery System, follow the instructions below in order:

Instructions

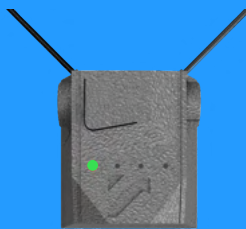
1

Find out how to deploy your Kronos MVC4 Parachute Recovery System manually with the help of our user and instruction manual for the Klick remote activation system.

KLICK

*Manual activation of the
Flight Termination System*

CONSULT THE KLICK USER MANUAL



STOP

of the parachute system

To stop the Kronos MVC4 Parachute Recovery System, follow the instructions below in order:

Warning

If the dark blue LED on the Kronos MVC4 Parachute Recovery System remains lit, this indicates that the autonomous deployment function is still active. Do not manipulate the drone to avoid any risk of involuntary deployment. Wait a further 5 seconds for the automatic deactivation.

Instructions

1

Switch off the DJI Mavic 4 drone and the Kronos MVC4 Parachute Recovery System will shut down automatically.



2

Remember to turn off your Klick trigger remote control.

3

Your Kronos MVC4 parachute system has been shut down. ✓

Warning

Do not perform any ground handling until the parachute system (PRS) has fully powered down.

DISMANTLING

of the parachute system

To dismantle the entire Kronos MVC4 Parachute Recovery System, follow the installation instructions in reverse order.

Instructions

1

Each de-installation must be entered in the 'List of installations, de-installations and maintenance operations' section on page 46.

Warning

Make sure to disconnect the USB-C cable before folding the arms of the DJI Mavic 4 drone.

ANNUAL *maintenance*

TO BE READ CAREFULLY

Like all rescue parachute systems (rescue parachutes for paragliders or parachutists, avalanche airbags, etc.) Dronavia parachutes must undergo preventive maintenance to be kept in optimum working order. The only preventive maintenance operation is to replace the POD. It's a quick and easy operation, which means that pilots never have to leave their drone standing idle.

A use-by date is set for each POD. Dronavia disclaims all liability and cancels the warranty if your POD has exceeded this use-by date.



PROCEDURES

maintenance requirements

To be kept in optimum working order, each parachute system must undergo preventive or post-deployment maintenance. Here is a summary table of the mandatory maintenance operations:

FREQUENCY	OPERATION	CAN BE MADE BY
Every year	Replacement of the canopy	Final user or DRONAVIA ou revendeur certifié
Every 5 years	Mandatory manufacturer global maintenance	Manufacturer
After every deployment	Rearming of the parachute system	Final user or DRONAVIA or any certified reseller
After every deployment	Replacement of the canopy or Repackaging of the canopy	Final user or DRONAVIA or any certified reseller
After 30 deployments	Mandatory manufacturer global maintenance	Dronavia

Warning

If you wish to carry out global maintenance yourself, Dronavia will disengage its responsibility for the system, in addition to cancelling the warranty.

LISTING

parachute deployment failures

If the deployment of the Kronos MVC4 Parachute Recovery System fails during flight, record the following:

Drone affected by activation failure	Flight hours accumulated at the time of activation failure	Distance between the control unit and the drone during the activation attempt	Location of the operation	Presence of a high-power transmitter in the operational volume

LISTING

voluntary and untimely deployment of the parachute

If the Kronos MVC4 Parachute Recovery System is deployed during flight, record the following:

Drone concerned by activation	Flight hours accumulated at the time of activation	Distance between the control unit and the drone during the activation attempt	Location of the operation	Was the activation commanded or uncommanded?	Presence of a high-power transmitter in the operational volume

Warning

If the probability of failure observed in service is greater than $10^{-2}/FH$ (taking into account the statistical uncertainty), the operator must inform the competent authority.

LISTING

monitoring of installations / de-installations & maintenance operations

To be maintained in optimum working order, each Parachute Recovery System must be monitored for installation, de-installation, firmware updates, preventive or post-deployment maintenance. Here is a table summarising the operations to be listed:

Date	Operation	Problems	Operator and signature

Each POD has a use-by date to ensure that it remains in optimum working order:

The optimum life of a POD is 1 year. The use-by date is shown on the label on the back of the parachute.



A new expiry date label is supplied inside the POD to replace the original label on the parachute.



Warning

If a POD is used after its use-by date, Dronavia accepts no responsibility for partial or slower deployment of the Parachute Recovery System.

PROCEDURE

of return of the POD for maintenance

There are several options for exchanging your POD that is past (or close to) its use-by date:

Buy 99€

- 1 Buy a POD in advance from your dealer. You'll be able to continue flying during the annual maintenance of your first POD.

Exchange 49€

- 2 Return your POD to a reseller and receive a new one at a preferential price.

Warning

Please plan in advance how long it will take to contact your reseller (order, delivery time, etc.) so as not to exceed the use-by date and jeopardise your flight missions.

DISMANTLING

of the POD system for maintenance

To dismantling the POD from the M4 Parachute Recovery System, follow the instructions below in order:

Instructions

- 1 Turn off your DJI Mavic 4 drone.



- 2 Remove the carabiner, then detach the main sling from around the two front arms of the drone. Next, remove the parachute from its mounting bracket.



DISMANTLING

of the POD system for maintenance

- 3 Remove the adhesive tape from the back of the parachute, then remove the capsule.



- 4 Remove the canopy from the ejector tube.



- 5 Send the used POD to Dronavia or your reseller.

REARMING

of the Kronos Parachute

TO BE READ CAREFULLY

Once the Parachute Recovery System has been deployed, Kronos systems have been designed to be rearmed quickly, enabling telepilots to resume their missions without undue delay.

Simple reactivation procedures should be followed. As some of them may present risks, it is imperative that you read the instructions in this section carefully.

A use-by date is defined for each POD. Dronavia disclaims all liability and voids the warranty if your POD has exceeded this use-by date.



REARMING

of the parachute system

To rearm your M4 Parachute Recovery System, follow the instructions below in order:

Warning

For reasons of operational safety and to prevent inadvertent deployment, the M4 Parachute Recovery System incorporates an automatic lock that prevents deployment at altitudes below 20 metres. This limitation ensures that the parachute system can only be activated in conditions that guarantee the minimum effectiveness of the system. However, manual deployment of the parachute via the Klick trigger remote control remains possible. Be cautious when handling the powered-on parachute to avoid any unintentional ground deployment, which could cause physical injury or material damage.

Instructions

- 1 Switch off your DJI Mavic 4 drone.



REARMING

of the parachute system

2

Remove the carabiner, then detach the main sling from around the two front arms of the drone. Next, remove the parachute from its mounting bracket.

1



2



3



4



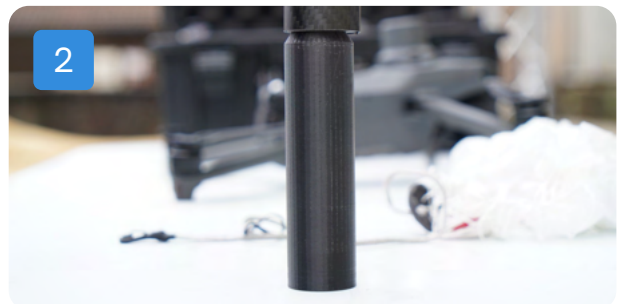
3

Push the parachute piston back into the bottom of the tube using the tool provided.

1



2



3



4



REARMING

of the parachute system

4

Take your new POD and remove the adhesive tape to gain access to the canopy.



5

Remove the adhesive from the new POD, then pull the canvas out of the new POD.



REARMING

of the parachute system

6

Press the new canopy into the bottom of the tube of your Kronos MVC4 parachute.



Warning

Be sure to keep the main sling in line with the canopy when inserting it.

REARMING

of the parachute system

7

Maintain pressure while pulling the main sling out of the parachute.



8

Press down on the top part of the new POD to exert additional pressure and free up space for your thumb.



Warning

Remember to maintain firm pressure throughout.

REARMING

of the parachute system

9

Remove the plastic sleeve surrounding the new canopy by pulling it outwards.



10

While continuing to exert pressure on the inserted cloth, remove the top part of the new POD.



REARMING

of the parachute system

- 11 Position the capsule and close the parachute with it.



Warning

Check that none of the canopy lines are blocked by the capsule.

- 12 Stick the adhesive tape provided around the flat edge of the capsule.



Warning

Position the adhesive tape only on the flat edge of the capsule. If the adhesive tape supplied covers too much of the capsule, there is a risk that the parachute will not deploy or will deploy more slowly.

REARMING

of the parachute system

13

The parachute system mounting bracket is already pre-installed on your DJI Mavic 4 drone. Unscrew the tightening knobs, reposition the bracket above the battery compartment, and then insert the battery into the drone.

1



2



3



4



Warning

The parachute mounting bracket must be unscrewed using the tightening knobs and then reinstalled when replacing the battery. The bracket can remain in place during transport in its dedicated carrying case.

14

Leave the parachute mounting bracket in place, then position the parachute module on it before inserting it into its mounting clip. Gently push until the parachute module is fully locked in place.



REARMING

of the parachute system

15

Lower the parachute mounting bracket in front of the drone's battery compartment, then tighten the locking knobs.

1



2



3



4



16

Pass the main parachute sling under the right front arm of the drone, making sure it is completely clear and free of any twists.



REARMING

of the parachute system

17

Pass the main parachute sling under the left front arm of the drone, making sure it is completely clear and free of any twists.



18

Hook the carabiner to the main sling by passing it over the drone. Then loop the elastic around both the tube and the main sling. Slide the elastic forward until the main sling is tight.



Warning

Make sure that the main parachute attachment sling is correctly positioned on the drone's body and does not have any play that could cause contact with the propellers.

REARMING

of the parachute system

19

Connect the USB-C cable of your parachute to your drone. The red connector of the USB-C cable must be connected to the drone.



20

Each time the POD system is replaced, the information must be entered in the 'List of installations, de-installations and maintenance operations' section on page 46.

21

Your Kronos MVC4 Parachute Recovery System is rearmed. 🛡️



YOUR PARACHUTE IS
REARMED!

PROCEDURE

for returning a used POD

There are several options for returning your used POD:

Buy 99€

1

Purchase a spare POD from your reseller in advance. This will allow you to continue flying during the annual maintenance of your first POD.

Exchange 49€

2

Return your POD to a reseller and receive a new one, while benefiting from a preferential rate.

Warning

Please plan in advance how long it will take to contact your reseller (order, delivery time, etc.) so as not to exceed the use-by date and jeopardise your flight missions.

SECTION

KRONOS mvc4

FLIGHT TERMINATION SYSTEM FOR *dji* MAVIC 4 

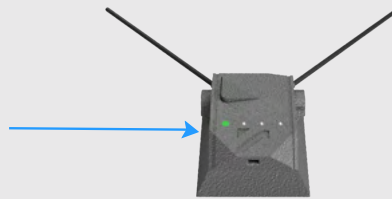
PRESENTATION

of components

*Internal FTS module inside
the DJI Mavic 4 drone*



*Klick trigger
remote control*



KRONOS MVC4

Technical specifications

TOTAL WEIGHT

3 GRAMMES

COMMUNICATION
WIRELESS RADIO

**SRD860 WITH
ENCRYPTED KEY**
(869 MHz / 100 MW)

RANGE OF THE KLIK
REMOTE CONTROL

1500 METERS*

AUTONOMY KLIK
REMOTE CONTROL

30 HOURS

OPERATING
TEMPERATURE

-5°C À 40°C

**The range can be up to 1.5 km, under optimum conditions and in an environment free of obstacles and interference.*

DESCRIPTION

of the Flight Termination System

Description

The Kronos MVC4 Flight Termination System, developed for the DJI Mavic 4, prevents a drone equipped with it from leaving its regulatory flight envelope by cutting (manually or automatically) the drone's power supply in less than a second.

Installation

The Kronos MVC4 Flight Termination System is installed between the autopilot and the drone's ESCs. It enables the motor control signal to be switched off.

Initialization

To start the Kronos MVC4 Flight Termination System, switch on your DJI Mavic 4 drone and the Flight Termination System will switch on automatically, then switch on your Klick trigger remote control by pressing and holding the start button.

Activation

In order to keep the possibility of activation at your fingertips and to be as reactive as possible, a simple gesture allows you to cut the drone's power supply and deploy your parachute (if your drone is equipped with one). Simply press the triangular button on the Klick trigger remote control for at least 1 second. Activation of the M4 Flight Termination System is described in detail in the Klick trigger remote control user manual.

INITIALIZATION

of the Flight Termination System

To switch on the M4 Flight Termination System, follow the instructions below in order:

Instructions

1

Switch on your DJI Mavic 4 drone. The M4 Flight Termination System will switch on automatically.



2

Switch on your Klick remote control. When the Flight Termination System is properly connected, a cyan blue LED flashes on the Klick trigger remote control.



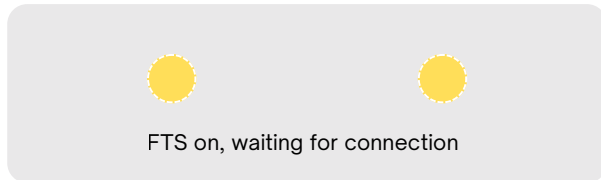
3

Your FTS Kronos MVC4 is initialization started. 🟢

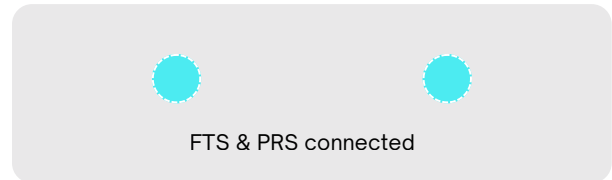
INITIALIZATION

of the Flight Termination System

The different LED states



SLOW FLASHING



SLOW FLASHING



AUDIBLE BEEP

A close-up photograph of a person's hand using a pair of black pliers to cut a thin wire. The pliers have a USB-C port on their handle. The background is dark and out of focus.

 YOUR FTS IS ACTIVE
AND OPERATIONAL!

MANUAL

activation of Flight Termination System

To activate the M4 Flight Termination System, follow the instructions below in order:

Instructions

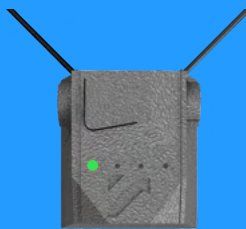
1

Find out how to activate your Kronos MVC4 Flight Termination System manually using our user and instruction manual for the Klick trigger remote control.

KLICK

*Manual activation of the
Flight Termination System*

CONSULT THE KLICK USER MANUAL



AUTONOMOUS

activation of Flight Termination System

To automatically activate your M4 Flight Termination System, follow these instructions in order

Instructions

1

Switch on your DJI Mavic 4 drone. The Flight Termination System will switch on automatically.



2

Switch on your Klick trigger remote control. When the M4 Flight Termination System is properly connected, a cyan blue LED flashes on the Klick trigger remote control.



3

When the parachute is deployed, the Flight Termination System is automatically activated via a secure wireless link, established beforehand by Dronavia experts through precise pairing between the two modules.

AUTONOMOUS

activation of Flight Termination System

4

Your FTS Kronos MVC4 has been triggered. 

The different LED states



FTS & Parachute connected

SLOW FLASHING



AUDIBLE BEEP



FTS triggered & PRS deployed
with Autonomous Deployment

RAPID FLASHING



AUDIBLE BEEP

PROCEDURE

of Flight Termination System Test

Before the flight or before the first flight of the day, you can test the M4 Flight Termination System. Follow the instructions below in order:

Instructions

1

Install the parachute system onto its bracket. Connect the parachute's USB-C cable to the DJI Mavic 4 drone.



Warning

The parachute must be installed and connected to the drone. Rest assured, an automatic lock prevents any deployment below 20 meters of altitude, ensuring optimal ground safety during the Flight Termination System test.

2

Insert the battery, then power on your DJI Mavic 4 drone. Next, switch on the DJI remote controller. Finally, turn on your Klick trigger remote. Make sure the LED on the Klick remote is flashing cyan blue.



PROCEDURE

of Flight Termination System Test

3

Arm the motors and initiate rotation while keeping the DJI Mavic 4 drone firmly on the ground.



If all four motors are running and no error message appears on the screen, proceed to test step 4. Otherwise, check the installation of the Flight Termination System.

4

Stop the motor rotation by pressing the trigger button on the Klick remote. Verify that the motors shut down properly and that the cyan blue LED flashes rapidly on both the Klick remote.



5

Perform a final flight test with the Flight Termination System powered on, without triggering it. If the flight proceeds normally and no error messages appear, the FTS is operational.

Warning

This final flight test (step 5) does not involve triggering the Flight Termination System in flight. For this step, simply perform a flight with the drone and check if any error messages appear during the flight. Warning: activating the Flight Termination System in flight will inevitably cause the drone to fall.

STOP

of Flight Termination System

To stop, switch off and reset the M4 Flight Termination System, follow the instructions below in order:

Instructions

1

Switch off your DJI Mavic 4 drone and the M4 Flight Termination System will automatically shut down.



2

Switch off your Klick trigger remote control.



DISMANTLING

of Flight Termination System

Dismantling the M4 Flight Termination System requires a workshop intervention, so that our qualified technicians can carry out this operation in complete safety.

Warning

If you dismantle or modify the M4 Flight Termination System yourself, Dronavia will not accept any responsibility and will void the warranty on your system.

RESET

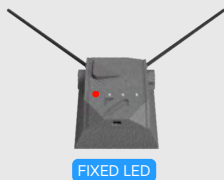
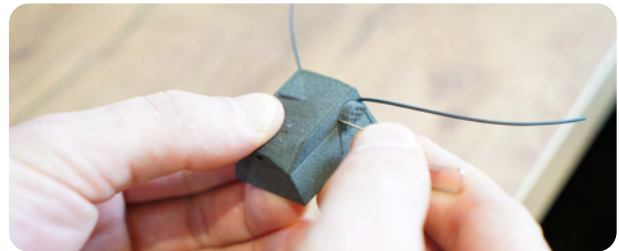
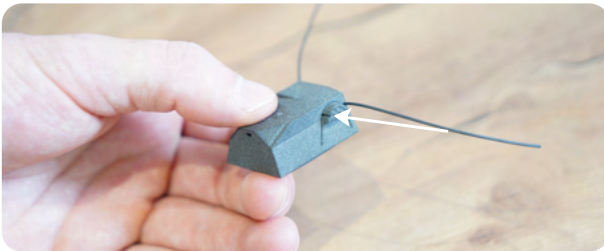
of Flight Termination System

In the event of a malfunction or any bug, follow these instructions in order:

Instructions

1

To reset the Klick remote control, locate the small hole on the left side. Insert a paper clip or other thin object into the hole and press briefly.



System error



2

If the malfunction persists, contact Dronavia customer service or your reseller.

MAINTENANCE & warranty

STORAGE

Store the Kronos safety accessories in a dry place, at a temperature between 10°C and 30°C, clean and protected from UV light.

SPECIFIC MAINTENANCE

In the event of contact with moisture, chemicals or other substances, the POD must be replaced immediately.

WARRANTY

Dronavia takes great care in the design and production of its products. We guarantee our C5 conversion kit for one year from the date of purchase against any defect or design fault 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. It is strictly forbidden to replace the batteries in the drone when it is switched on (Hot Swap), as this may damage the system and invalidate the 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 the Means Of
Compliance (MOC)
published by the 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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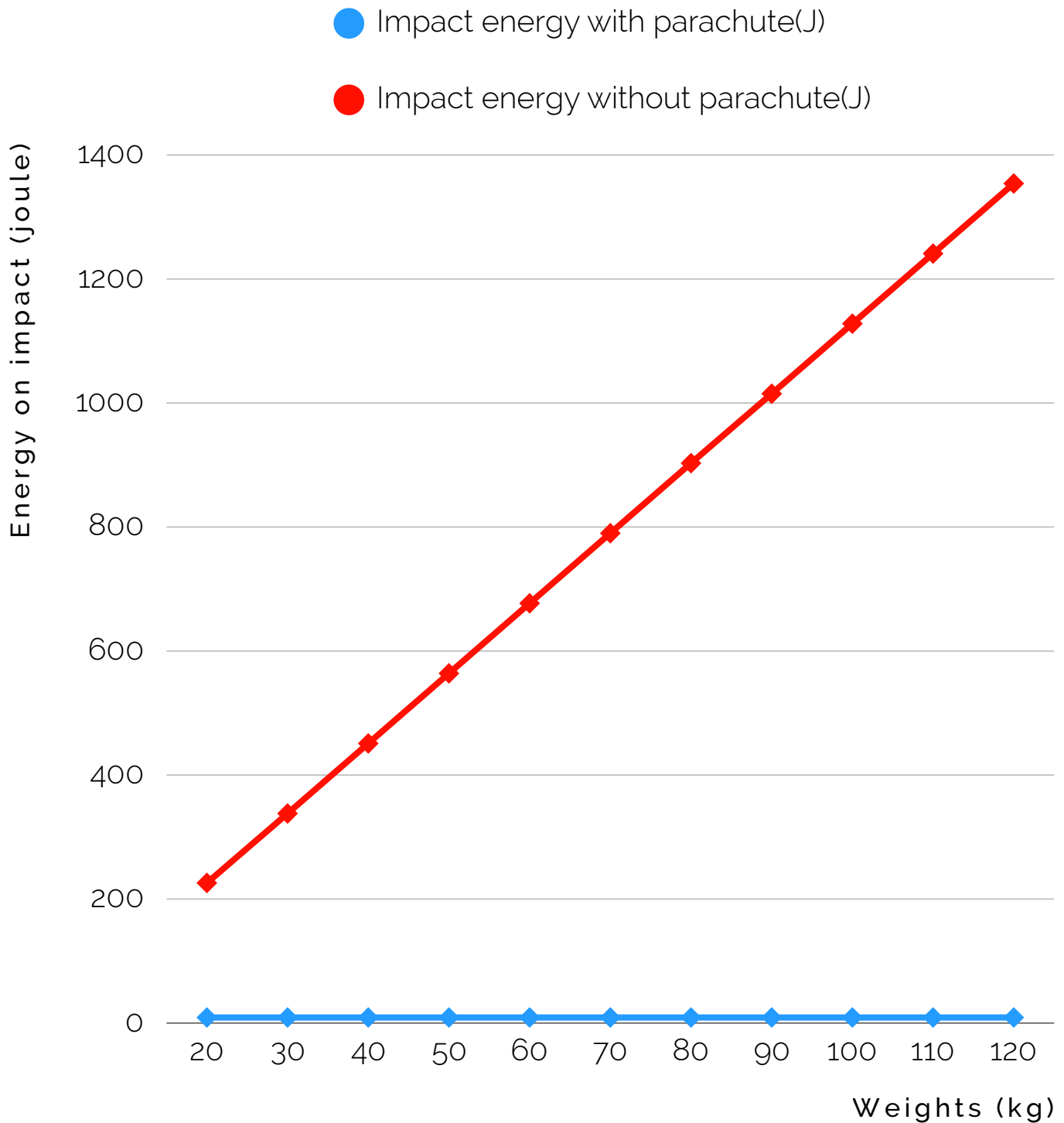


| Dronavia Channel



APPENDICES

Impact energy (joule) / Altitude (metres)



APPENDICES

Falling speed (m/s) / Weight (kg)

Weight (kg)	Falling speed (m/s)	Fall speed without parachute (m/s) * (m/s)
1.20 kg	3,86 m/s	25.8 m/s

*for a fall from a height of 20 metres

APPENDICES

Deployment height (m) / Minimum extent of buffer zone for ground-related risks (m)

OPERATING VOLUME VERTICAL LIMIT	30	140	SOIL-RELATED RISK BUFFER ZONE
	40	182	
	50	223	
	60	265	
	70	306	
	80	348	
	90	389	
	100	431	
	110	472	
	120	514	

The ground risk threshold can be calculated based on various drone parameters and assumptions. Please refer to the document dedicated to calculating the ground risk threshold if you need to calculate more accurate ground risk thresholds based on your application.