# DRIFTER 2

User manual

AIVIUK



DRIFTER 2

# Competition *revolution*

## WELCOME

We welcome you to our team and thank you for the trust you have placed in our DRIFTER 2 harness.

We would like to share with you the excitement and passion that went into the process of creating this harness. The new DRIFTER 2 is a hybrid harness designed for competition and cross-country, in which the pilot is fully enveloped and which offers better performance than a classic racing harness.

We have modelled the harness structure in 3D, studying it meticulously, to offer maximum comfort and to be able to fly for hours without any pressure points. To offer the best flying feeling, we have focused on achieving a good balance between stability and manoeuvrability.

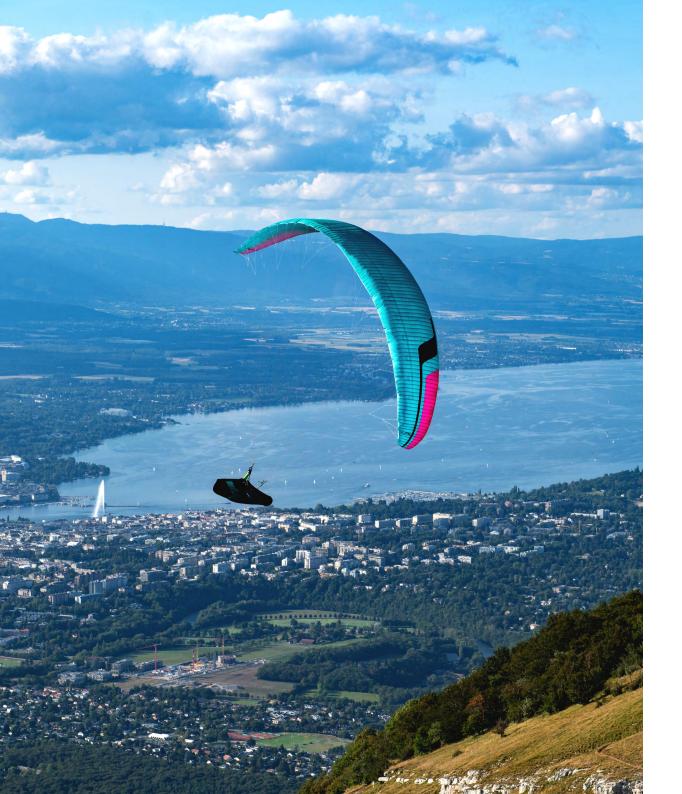
Thanks to the redesign and significant aerodynamic optimisation work in virtual wind tunnels, the DRIFTER 2 offers maximum flight performance. We are sure you will enjoy flying with this harness and you will soon discover the meaning of our philosophy:

"Give importance to the small details to make big things happen".

This is the user manual and we recommend you read it carefully.







## **USER MANUAL**

This manual provides the necessary information on the main characteristics of your new harness.

Whilst it provides information, it cannot be viewed as an instructional handbook and does not offer the training required to fly this type of harness. Training can only be undertaken at a certified paragliding school and each country has its own system of licensing. Only the aeronautical authorities of respective countries can determine pilot competence. You can get more information from <u>our website</u>.

The information in this manual is provided in order to warn you against adverse flying situations and potential dangers. Equally, we would like to remind you that it is important to carefully read all the contents of your new DRIFTER 2 manual.

Misuse of this equipment could lead to severe or irreversible injuries to the pilot, even death. The manufacturers and dealers cannot be held responsible for misuse of the equipment. It is the responsibility of the pilot to ensure the equipment is used correctly.

# 

# CONTENTS

# 

CHARACTERISTICS
1.1 OVERVIEW OF THE HARNESS

1.2 VIDEO TUTORIAL	
1.3 TECHNICAL DATA	
1.4 TARGET GROUP	
1.5 DESIGN PROCESS	

UNPACKING AND ASSEMBLY	12
2.1 ASSEMBLING THE HARNESS	12
2.2 CONNECTING THE WING	12
2.3 ADJUSTING THE HARNESS	13
2.3.1 PILOT POSITION	13
2.3.2 CHEST STRAPS	13
2.3.3 SHOULDER STRAPS	13
2.3.4 LEG LOOPS	13
2.3.5 POD	13
2.3.6 SPEED-BAR	13
2.4 INSTALLING THE PROTECTOR	14
2.5 INSTALLING THE PARACHUTE	16
2.6 COCKPIT	16
2.7 DROGUE CHUTE CONTAINER	16
2.8 OPTIONAL ACCESSORIES	16

IN FLIGHT	17
3.1 PRE-FLIGHT CHECKS	17
3.2 LAUNCH	17
3.3 LANDING	17
3.4 FLYING ABOVE WATER OR LANDING	
IN WATER	17
3.5 RUCKSACK AND PACKING	17



TYPES OF FLYING	18
4.1 WINCH FLYING	18
4.2 TANDEM	18
4.3 OTHER	18

CARE AND MAINTENANCE	19
5.1 MAINTENANCE	19
5.2 STORAGE	19
5.3 CHECKS AND INSPECTIONS	19
5.4 REPAIRS	20
5.5 NIVIUK SERVICE	20
5.6 PRODUCT REGISTRATION	20



SAFETY AND RESPONSIBILITY



GUARANTEE

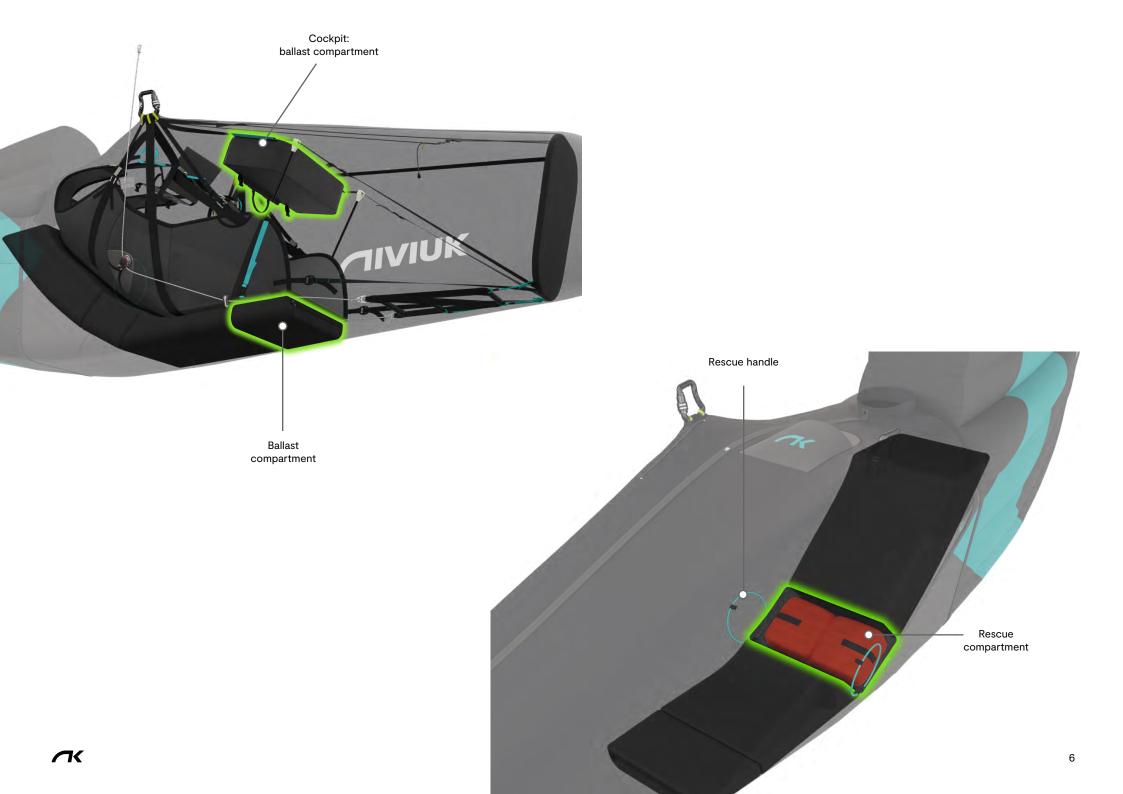


SPECIFICATIONS	21
8.1 HARNESS MATERIALS	21
8.2 COMPATIBILITY	21
8.3 CERTIFICATION	21

# **1. GENERAL CHARACTERISTICS**

**1.1 OVERVIEW OF THE HARNESS** 







Drag chute container

## **1.2 VIDEO TUTORIAL**

Check out the video tutorial with the explanation of all the features and functionalities of the harness on our YouTube channel.



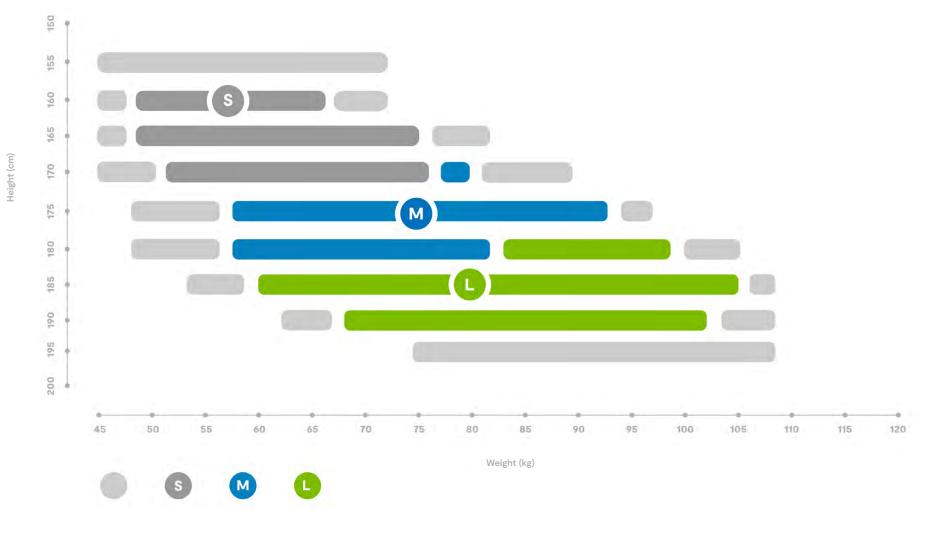
## **1.2 TECHNICAL DATA**

			S	М	L
Weight		kg	9,3	9,5	9,8*
Pilot height		cm	160-173	170-183	180-195
Back length		cm	64	64	68
Seat base	Width	cm	34	34	36
	Lenght	cm	40	40	43
Ballast volume		L	10-12	10-12	10-12
Cockpit volume		L	6-7	6-7	6-7
Under seat pocket		L	6-7	6-7	6-7
Back pocket volume		L	17-18	17-18	17-18
Rescue compartment volume		L	6 (x2)	6 (x2)	7 (x2)
Carabiner distance		cm	45-57	45-57	45-57
Maximum load		kg	120	120	120
Harness certification			EN	EN	EN
Protection certification			EN/LTF	EN/LTF	EN/LTF

TIVIUK

\* To be confirmed.

The total weight of the harness may differ ±2% due to variations in the weight of the fabric supplied by the manufacturers.



To be tried on! It depends on the back and leg length.  $\left( \right)$ 



## 1.4 TARGET GROUP

#### Competition

Its streamlined, aerodynamically optimised shape will enhance the success of your competition flights. Aerodynamic performance: careful aerodynamic simulations produced optimised airflow and aerodynamic shape. The result is this new hybrid harness, much more optimised and high performing than a classic harness. The shape of the fairing integrates the pilot's head and shoulders to avoid turbulence.

#### Cross-Country

Move to the next level of XC. Its great comfort and stability will allow you to fly long distances in total comfort.

#### Comfort: 3D structure

The seat structure has been designed in 3D for maximum comfort and perfect adjustment to the shape of the body. You can fly for hours and feel like you are on your sofa at home.

#### Optimised ABS system

The triangulation offers great stability without compromising the feedback transmitted to the pilot in flight. The R&D team focused a lot on making sure that the DRIFTER 2 has a good balance between stability and handling.



#### Ergonomics

The shape of a classic harness has been maintained, but its performance has been maximised. This harness will not change the pilot's flying habits, but it will certainly change their flights.



The NIVIUK team has done extensive and meticulous work. Distinctive adjustments were made as a result of flight testing of the various prototypes. These were tested in all flight conditions. This intensive development of an innovative and modern harness has been made possible by the extensive experience of our team. All NIVIUK products undergo a thorough final inspection.



# 2. UNPACKING AND ASSEMBLY

#### 2.1 ASSEMBLING THE HARNESS

Before your first flight we recommend making the initial adjustments of the harness using a hang frame.

Position the harness and hang it from the carabiners. Sit in the harness and close it. Using the straps, adjust it to your individual preference.

A number of easy-to-use adjustable straps allow the DRIFTER 2 to mould to the pilot's body shape. On the DRIFTER 2, the ventral strap is adjustable and the shoulder straps can also be adjusted. It also has adjustable back and lumbar straps to adapt the angle of the harness and further match the pilot's body shape.

# 2.2 CONNECTING THE HARNESS TO THE WING

The DRIFTER 2 has two carabiners to connect the harness to the paraglider. The right carabiner is connected to the right riser of the wing, both of which are green. The left carabiner is therefore connected to the left riser, both of which are red.



#### 2.3 ADJUSTING THE HARNESS

#### Pilot position

The DRIFTER 2 can be adjusted to regulate the angle of the pilot. This angle may be varied by adjusting the inner back straps accordingly.

It is also possible to vary the angle of the back and the shoulder straps.

#### Ventral strap

The ventral strap, which controls the distance between the two carabiners, can be adjusted in flight from 50 to 57 cm. For the first flight with the DRIFTER 2, we suggest setting the strap to an intermediate length, and then adjust accordingly. The optimum setting will depend on the type of wing being flown with the DRIFTER 2. When the strap is tighter, the stability is greater. However, over-tightening the strap may enhance the "twist" effect. A wide distance between carabiners increases the turning capacity.



#### Shoulder straps

The adjustment of the shoulder straps depends on the height of the pilot. To get the optimal adjustment, sit up straight with the ventral strap and legs loops closed and adjust the shoulder straps symmetrically. The shoulder straps can be adjusted by pulling the blue strap.

#### Leg loops

The leg loops of the DRIFTER 2 can be adjusted. This should be done before launch and once the leg loops are closed. To do this, pull down the Lycra protector that wraps around them and change the length using the adjustable straps.

#### Pod

The pod can be adjusted to fit the size of the pilot's legs, thanks to the cords situated at the side of the inside of the pod. It is essential that the pod is correctly adjusted so that the pilot is comfortable during flight. Adjust it in a hang frame before your first flight.

PLEASE NOTE: To close the pod, it is important that you close the upper part of the harness before take-off, i.e. the part that covers your torso. And you should leave the zip slider pointing downwards, i.e. towards your feet. Once you have taken off and are in flight, you must close the pod zip completely.

#### Smart pod opening/closing system

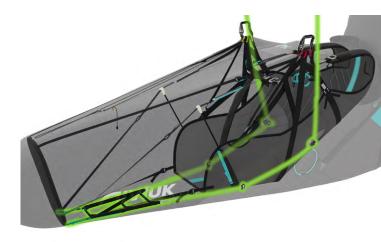
The pod is closed with a new zip system. It is very easy to open and close, thanks to an accessible "return line" system, where by pulling a cord, the zip slides down, all without releasing the controls. Once closed, it can also be easily opened with the feet. Side wind cannot enter the pod, guaranteeing stability and performance.

#### Speed-bar

The DRIFTER 2 comes fitted with a speed-bar. It is important to adjust the harness before adjusting the speed-bar, as the length of the speed-bar depends on the positioning of the legs.

Use a hang frame to adjust the speed-bar before your initial flight.

Sit in the harness and adopt your flying position to adjust the cords symmetrically on both sides. If the cords are set too short, they can cause constant tension on the speed system, which could be dangerous. Please remember that it is always preferable for the speed-bar to be set longer than shorter.



13

### 2.4 INSTALLING THE PROTECTOR

The DRIFTER 2 features a new hybrid, extra-thin foam protector, located beneath the seat. This innovative protector has been optimised to promote the aerodynamic shape of the harness. For extra protection, it also has a layer of foam in the back area.

To install it, you must reach under the seat board, open the zip of the protection compartment and insert the protection in the correct orientation.

#### **ORIKAMI: High-efficiency protector technology**

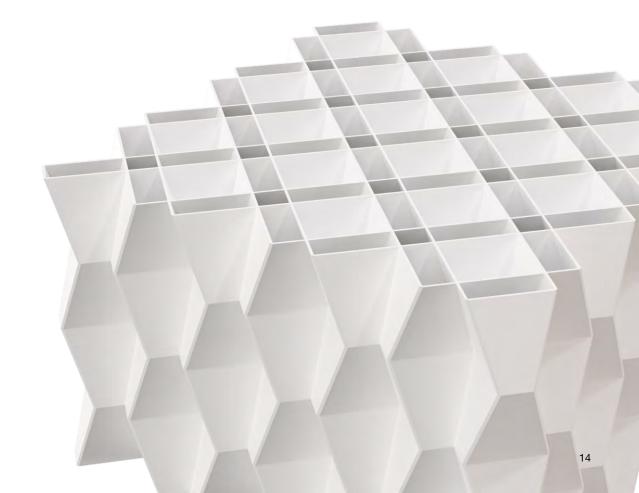
Orikami\* is the revolutionary new protector technology developed by Niviuk's R&D team.

It has been incorporated into to the back protector of our new Drifter 2 harness, and it is the thinnest (at only 5.5 cm thick) and most efficient on the market.

Its development and technological inspiration is based on the Japanese art of origami, as its structure folds in on itself to absorb and disperse energy during an impact. After the impact, the protector returns to its original shape. It is certified according to the EN and LTF standards, which means that it can withstand several impacts, without having to replace it.

In contrast to other protectors, the incorporated Orikami does not rotate nor displace from the foam matrix when an oblique or lateral impact occurs. Designed for pilots, engineered for safety and conceived for peace of mind.

- Safety throughout a wide speed range: highly effective protector technology that safeguards the pilot from damaging impact exposure in a broad range of flight situations, from low-intensity crashes to high-impact ones.
- Absorbs and disperses energy during an impact: the energy of the impact is absorbed thanks to the elastic buckling deformation of the structure, rather than by a complete plastic deformation.
- The rebound after the impact is lower compared to that of other, similar existing solutions that are already on the market.
- Designed for multiple impacts, by recovering its shape and characteristics after each.



\* Patent pending

Unparalleled safety: the alternative solution to other existing protector materials.

- Orikami stays securely in place within the foam matrix, resisting rotation even when impacted from off-center directions.
- · EN and LTF certified it can absorb various impacts.
- · Material high-efficiency polymeric matrix.
- Protection that is effective during the whole flight, from take off, through flying, to landing.
- The thinnest protector only 5.5 cm, in the Drifter 2. EN1651
  & LTF09 certified protector technology that allows the high aerodynamic performance of the harness.
- · Lowers the packing volume compared to conventional foams.

Discover <u>here</u> all the information about Orikami.

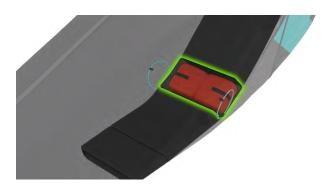


### 2.5 INSTALLING THE PARACHUTE

The DRIFTER 2 has space for two integrated emergency parachutes, both of which are located at the rear of the backrest and are easily accessible. We have focused on pilot safety and comfort by integrating the parachute compartment into the harness. This makes the daily use of the harness much more comfortable and practical.

PLEASE NOTE: the parachute must be fitted inside the container. If it fits too loosely in the inner container there is a possibility that it may twist or that the lines or webbing may not be positioned correctly, which may make it difficult or impossible to deploy the parachute.

Your safety depends on the correct installation of the parachute. This process must be carried out with care and we therefore recommend that it is performed by qualified personnel.



### 2.6 COCKPIT

1

The DRIFTER 2 has two cockpits, one for carrying ballast in case it is needed; and one for placing the flight instruments.

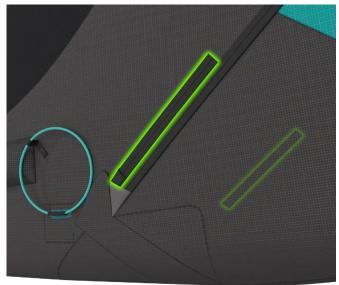
The instruments are under an anti-glare shield and are very easy to see and access, thanks to a zip that can be opened in flight or by inserting the arms through the side openings. This cockpit measures 28 cm in length and 17 cm in height. There is also an optional third cockpit for the instruments, which is located on the outside of the harness and has no shield. It is attached to the harness by carabiners, with clips and magnets.





#### 2.7 DROGUE CHUTE CONTAINER

The harness includes a rear pocket, accessible from both left and right, to fit a drogue chute.



### 2.8 OPTIONAL ACCESSORIES

Ballast

Ballast can be added to the harness very easily, either under the seat or in the designated cockpit.

In total, the DRIFTER 2 has a ballast capacity of between 10 and 12 litres.

- Camelbak
- Drink tube
- · Pee tube

# **3. IN FLIGHT** 3.1 PRE-FLIGHT CHECKS

For maximum safety, check your equipment thoroughly, using the same sequence, before every flight.

Check the following:

- There is no visible damage to the harness or carabiners that could affect the flight.
- All buckles, straps and zips are connected/closed. The buckles should snap into place when you close them (a gentle tug on them verifies this). Be especially careful in snowy or sandy areas.
- The glider is correctly connected to the harness and both carabiners are secured with their locking mechanisms closed.
- · All pockets are properly closed and items hanging from the harness are secured/attached.
- · Parachute containers are properly closed.
- · The deployment handles are fully inserted into the pockets.

#### 3.2 LAUNCH

Make sure the weather conditions are suitable for your skill and experience level. If you make the decision to fly, put on the harness and make sure all buckles are closed correctly and your legs are through the leg loops. Your life depends on it.

For your safety, before launching always repeat the same sequence of your pre-flight check.



TAKE CARE: stay away from mountain relief if you have to use your hands to get into the harness. You should always have your hands on the brakes when near terrain.

If you need to use your hands to get into the harness, try adjusting the harness using a hang frame.

### 3.3 LANDING

Before landing, slide your legs forward in the harness to assume a standing position. Never land whilst still in the seated position as this may cause a back injury.

Standing up before landing is an active safety decision and is much more effective than relying on the passive system of the back protector. It is not necessary to adjust the harness before landing. Simply straighten your legs, take them out of the pod and prepare to land.

# 3.4 FLYING ABOVE WATER OR LANDING IN WATER

TAKE CARE: flying above water during a cross-country flight or SIV course exposes the pilot to the risk of a water landing. This situation is very dangerous and flying with a life jacket is essential during an SIV course. We recommend avoiding this situation whenever possible. After a water landing, the back protector floats and there is a risk of the pilot being pushed underwater. The pilot should wear a life jacket to avoid this occurrence. Before hitting the water, it is recommended to undo the buckles (without compromising safety) and to have enough time to get out of the harness quickly to avoid drowning. This way you will be able to reach the safety boat more easily.

If the harness gets wet due to falling into the water, the protectors and the harness must be removed from the water to dry completely.

The parachutes must also be removed to dry completely. Once dry, they have to be packed correctly and installed in the harness again.See the section on "Installing the parachute".

Do not store your equipment if it is still wet or damp – wait for it to dry completely.

#### 3.5 RUCKSACK AND PACKING

The Kargo 220 is the recommended rucksack to carry your DRIFTER 2 with either the Icepeak X-One or Peak glider. This rucksack is not included in the scope of delivery, but its purchase is recommended. It is perfect for transporting all the equipment comfortably and with plenty of space.

DRIFTER 2

# 4. TYPES OF FLYING

## 4.1 WINCH FLYING

- The DRIFTER 2 is suitable for winch launching.
- The winch release is attached by means of the main carabiners on the risers, where the wing is attached.

## 4.2 TANDEM

· The DRIFTER 2 is not recommended for tandem operation.

## 4.3 OTHER

- The DRIFTER 2 is not designed or recommended for aerobatic or acro flying.
- We consider extreme or acrobatic flights to be any form of piloting different than standard flights. Learning aerobatic/ acrobatic manoeuvres should be conducted under the supervision of qualified instructors within a school environment and over water with all safety/rescue elements in place.



# **5. CARE AND MAINTENANCE**

#### **5.1 MAINTENANCE**

- The DRIFTER 2 is very robust and will have a long operational life. Classic materials of excellent quality have been used.
- The pod is made of a high-quality Lycra (elastic, windproof and sturdy); and the fairing is made of D70, a lightweight material with high tear resistance.
- We recommend checking the harness after every impact, bad launch or landing, and if it shows signs of damage or heavy wear.
- We recommend the harness is fully inspected in an authorised workshop every two years and the carabiners are also changed every two years.
- To prevent wear or damage to the harness, it is important to avoid dragging the harness on the ground, over stones or abrasive surfaces.
- Do not expose it unnecessarily to UV radiation (sun light), other than in normal flight.

- Whenever possible, keep the harness away from moisture and heat.
- Store all your paragliding equipment in a cool, dry place, and never store it when it is wet or damp.
- Keep your harness as clean as possible by regularly wiping off dirt with a plastic brush and/or a damp cloth. If the harness is very dirty, clean it with water and mild soap. Allow it to dry naturally in a well-ventilated area without direct sun light.

#### **5.2 STORAGE**

- Keep your equipment in the in a cool, dry place away from solvents, fuels or oils.
- Do not leave the gear inside a car boot, as cars left in the sun can become very hot. The inside of a rucksack can reach temperatures up to 60°C.

- Weight should not be laid on top of the equipment.
- When storing the harness in a backpack, care must be taken that it does not become deformed. Never store it when still damp. Never use detergents to clean it. Dry the harness in a wellventilated area. If your parachute gets wet (e.g. if you fall into water) it must be removed from the harness, dried and repacked before being put back into the container.
- It is recommended that any repair and/or replacement of the harness components should only be carried out by the manufacturer or authorised personnel. Only the manufacturer and authorised professionals use the materials and techniques that will ensure the correct functionality of the harness, according to its certification.

#### **5.3 CHECKS AND INSPECTIONS**

In addition to daily and pre-flight checks, the DRIFTER 2 must be thoroughly inspected at every parachute repack, which is normally



once a year. Additional checks should be carried out after every impact, bad launch or landing, or in case of signs of damage or wear.

Every two years or 100 flying hours (whichever comes first), the harness must be inspected in an authorised workshop.

If in doubt, contact a professional. These are the required inspections:

- Check webbing and buckles for damage, especially in areas that are not easily visible, such as the inside of attachment point webbing, where the carabiner rests.
- All seams must be intact and any damage must be repaired immediately.
- The main aluminum carabiners must be replaced every two years or 500 flying hours or if they have any signs of damage. Impacts can create undetectable damage that can result in structural failure under continuous loading.

#### **5.4 REPAIRS**

Repairs to your DRIFTER 2 may only be carried out by the manufacturer or qualified and authorised personnel. This is the only way to ensure that the right materials are used and that the correct repair techniques are applied without damaging the product.

If you are not qualified to do so, do not attempt to repair the harness yourself.

#### **5.5 NIVIUK SERVICE**

Niviuk Service is our official workshop offering a quality service, based on the care and maintenance of flight equipment. Thanks to the knowledge, technologies and procedures we have acquired over the years, we can repair any flying equipment.

We want to guarantee the safety and durability of your new product, so our official workshop is the perfect place to have it serviced and/ or repaired.

Every two years, your equipment should be checked by a professional. For more information, please consult the <u>Niviuk Service section</u>.

#### 5.6 PRODUCT REGISTRATION

You can register your DRIFTER 2 on the Niviuk website in the MyNiviuk section and enjoy many benefits.

## 6. SAFETY AND RESPONSIBILITY

It is well known that free-flying with a paraglider is considered a highrisk sport, where safety depends on the person who is practicing it.

Incorrect use of this equipment may cause severe, life-changing injuries to the pilot, or even death. Manufacturers and dealers cannot be held responsible for your decisions, actions or accidents that may result from participating in this sport.

You must not use this equipment if you have not been properly trained to use it. Do not take advice or accept any informal training from anyone who is not properly qualified as a flight instructor.

# 7. GUARANTEE

The equipment and components are covered by a 2-year warranty against any manufacturing defect.

The warranty does not cover misuse of the equipment.

Any modification of the harness or its components invalidates the guarantee and its certification.

If you notice any defects in your harness, please contact Niviuk immediately for a more thorough inspection.



# 8. SPECIFICATIONS

## **8.1 HARNESS MATERIALS**

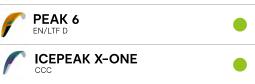
Tail	D70
Coverleg	Respira Waterproof Black
Body	N66 210D DIA R/S
Main webbings	Polyester Webbing 25T (SP3 25 180 590)

## 8.2 COMPATIBILITY

ARTIK 6 EN/LTF C

ARTIK RACE





Recommended: ideal for your wing

Compatible: suitable for your wing, depending on your preferences

## 8.3 CERTIFICATION

You will find the certification reports on the product page.

AIR TURQUOISE SA   PARA-TEST.COM Route du Pré-au-Comte 8 * CH-1844 Villeneuve * +41 (0	
fest laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes	paragliding by air furquoise
Paragliding Harness - EN	
Inspection number :	PH_364.2022
Manufacturer :	Niviuk Gliders
Model and size :	Drifter 2 M
Maximum pilot weight [kg] :	120
Integrated container for rescue system	
If Yes. Volume of the container [cm <sup>3</sup> ] :	<b>3500</b> min <b>8000</b> max
Serial number:	
Production date (year / month) :	
Harness protector (impact pa	ld)
Impact pad type:	Hybrid
Impact pad integrated:	No
Impact pad number:	PH_364.2022
•	Serial number:
Production date (year / month) :	
Warning : Read the operating	g manual before using this equipment!



## Niviuk Paragliders C/ Del Ter 6 - D

C/ Del Ter 6 - D 17165 La Cellera de Ter - Girona - Spain +34 972 422 878 | info@niviuk.com www.niviuk.com