ARROW

User *manual*

AIVIUK BEYOND THE GLIDE

Aim high, *aim far*

WELCOME

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

We would like to share with you the excitement and passion that went into the process of creating this harness. A high-performance harness designed for pilots who want to make the most of their XC adventures and start competing.

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 our website.

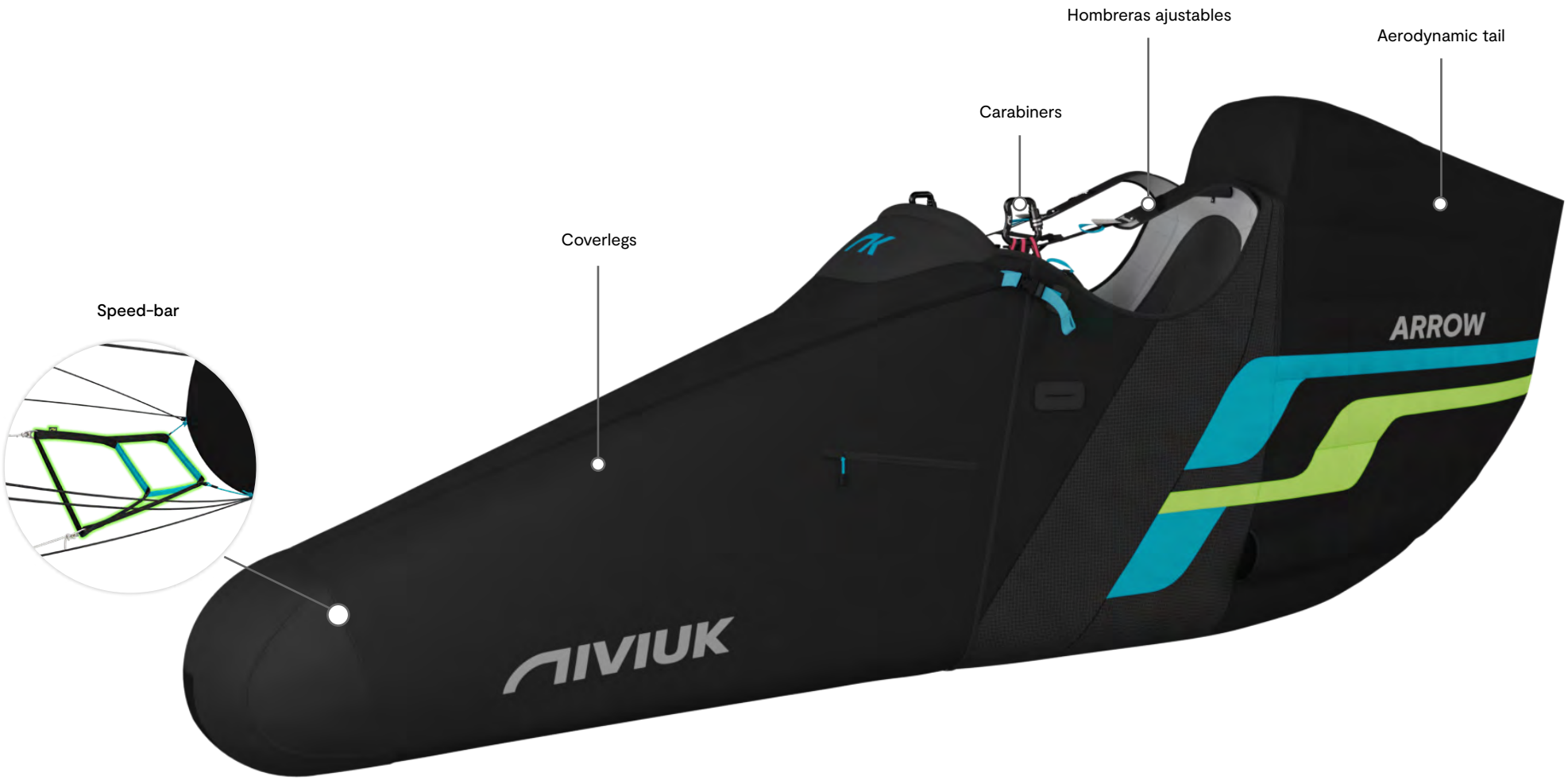
The information in this manual is provided in order to warn you against adverse flying situations and potential dangers. Equally, we would like to remind you that it is important to carefully read all the contents of your new ARROW manual.

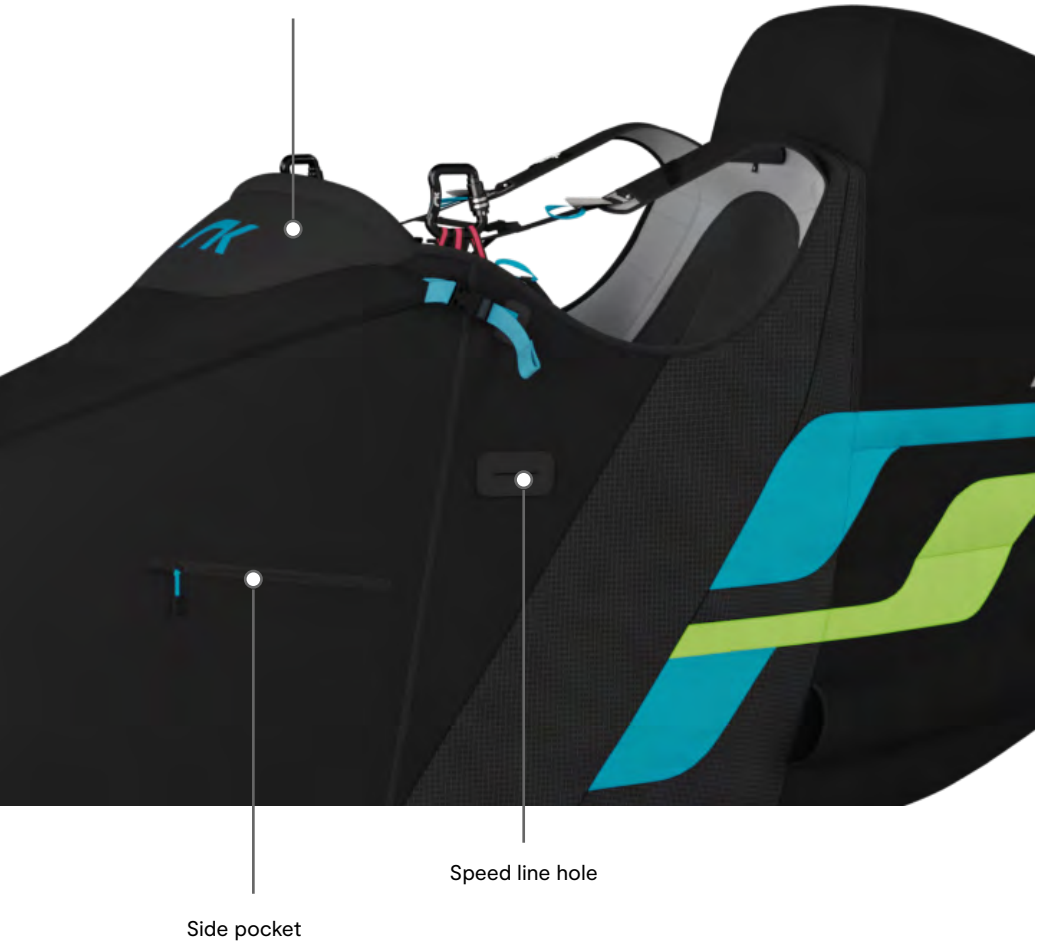
Misuse of this equipment could lead to severe or irreversible injuries to the pilot, even death. The manufacturers and dealers cannot be held responsible for misuse of the equipment. It is the responsibility of the pilot to ensure the equipment is used correctly.

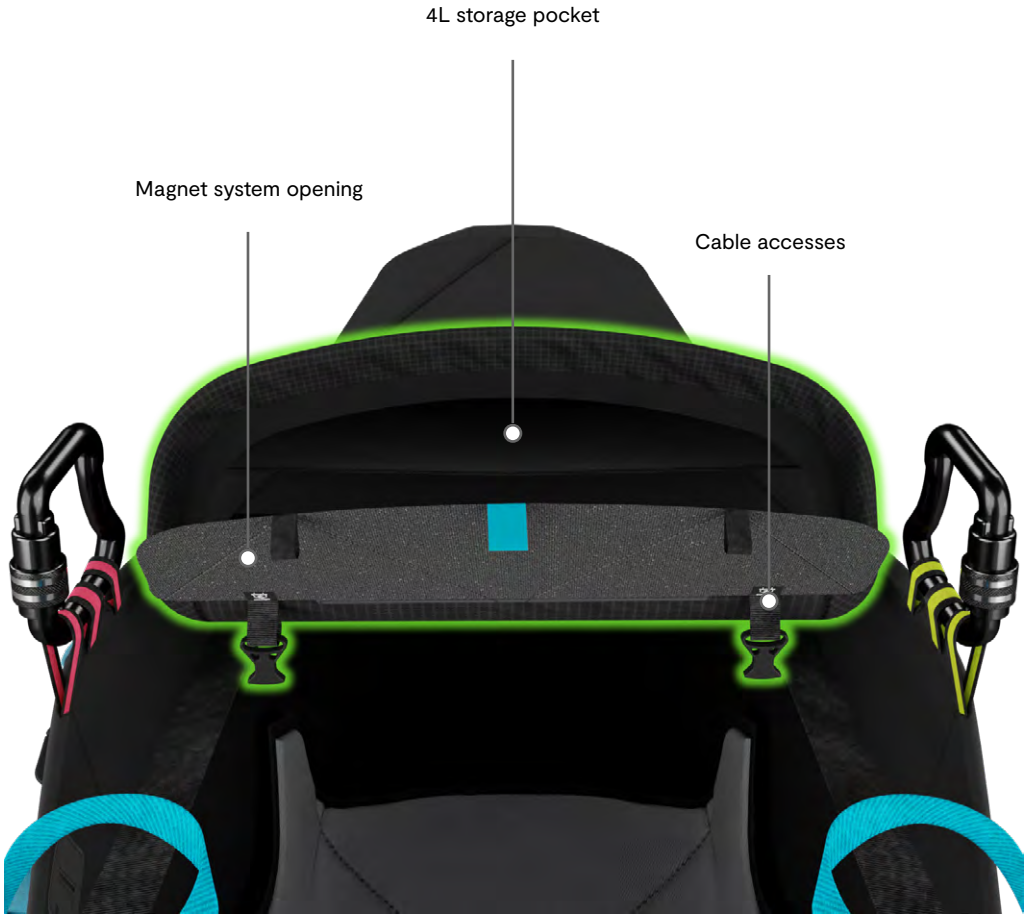
CONTENTS

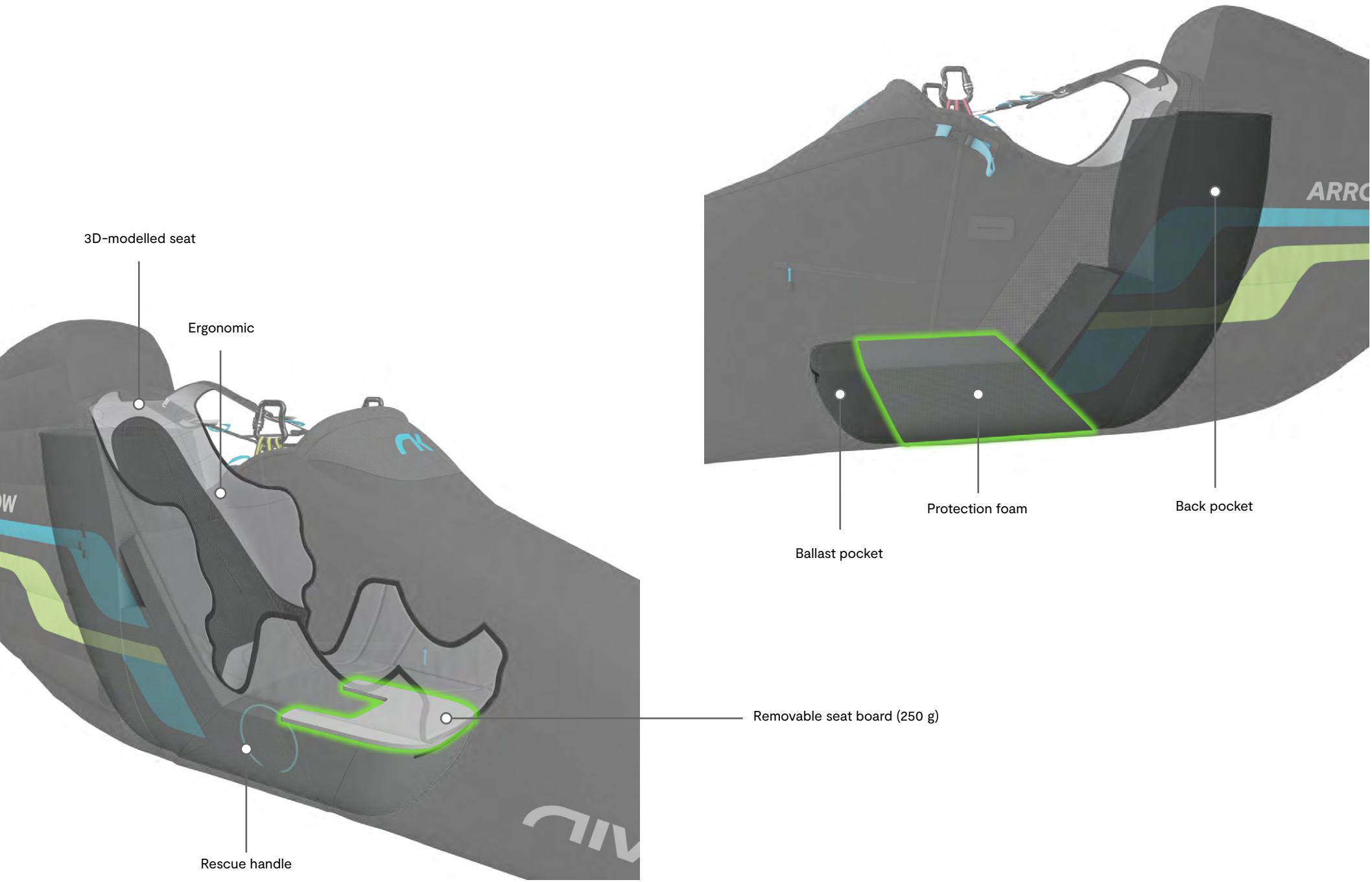
1. GENERAL CHARACTERISTICS

1.1 OVERVIEW OF THE HARNESS




Cockpit
Speed line hole
Side pocket


4L storage pocket
Magnet system opening
Cable accesses


3D-modelled seat
Ergonomic
Removable seat board (250 g)
Rescue handle
Ballast pocket
Protection foam
Back pocket

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.

Video tutorial

1.3 TECHNICAL DATA

			S	M	L	XL
Weight*		kg	3,85	3,95	4,3	4,65
Pilot height		cm	150–170	165–178	175–187	182–200
Back length		cm	60	60	64,5	69
Seat baset	Width	cm	31	31	33	36
	Length	cm	47	47	50	54
Ballast volume		L	6	6	7	8
Cockpit volume		L	3	3	4	5
Rescue compartment volume		L	4–7	4–7	4–7	4–7
Carabiner distance		cm	35–43	35–43	36–45	37–46
Max. load		kg	120	120	120	120
Certification			EN/LTF	EN/LTF	EN/LTF	EN/LTF

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

Weight and height range table

To be tried on!
It depends on the back and leg length.

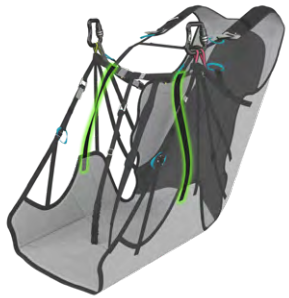
1.4 TARGET GROUP

Cross-country and Hike & Competition

A high-performance harness designed for pilots who want to make the most of their everyday XC adventures and those beginning to compete. A comfortable, manoeuvrable and very stable harness, lightweight, durable and easy to use.

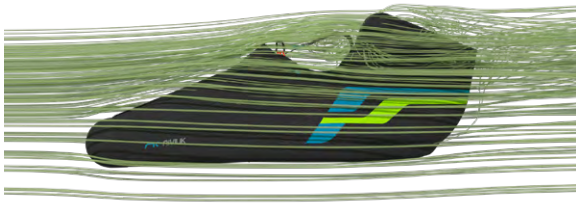
- **Maximum comfort**

Excellent ergonomic design – totally comfortable. 3D modeling of the seat and back support has made it possible to design a very stable and comfortable structure so that the harness adjusts perfectly to the pilot's body. A manageable, solid and accessible harness for a wide range of pilots. The back support features ergonomic foam for improved comfort. Additionally, the seat board is removable – therefore it is possible to fly with 250 grams less to save weight in flight, while slightly narrowing the shape of the seat.



- **Optimised aerodynamics**

The rear fairing, which optimises its aerodynamic shape, reduces the adverse pressure gradient and drag. It is a high-performance harness, where the pilot, glider and harness are in complete harmony. During flight, its inflation system with two strategically placed air inlets maintains the shape of the fairing with high internal pressure.

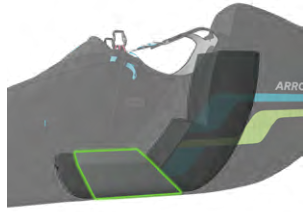


- **Equally light and robust**

Constructed with semi-light materials for both a long service life and reduced weight. The result is a pod harness weighing only 3.95 kg (size M) but made with robust materials. With a removable and replaceable pod, its durability is exponentially increased.

- **Commitment to safety**

To increase its safety, the Arrow features a 15 cm foam back protector, with efficient impact absorption in case of a hard landing. Thanks to the applied triangulation, the ARROW is very stable in glide and has extra speed. It includes a T-lock system to connect the chest strap to the leg loops, using two attachment points. It is easy to use and extremely safe.



1.5 DESIGN PROCESS

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.

To adjust the harness to your body shape, a number of easy-to-use adjustable straps have been incorporated into the ARROW.

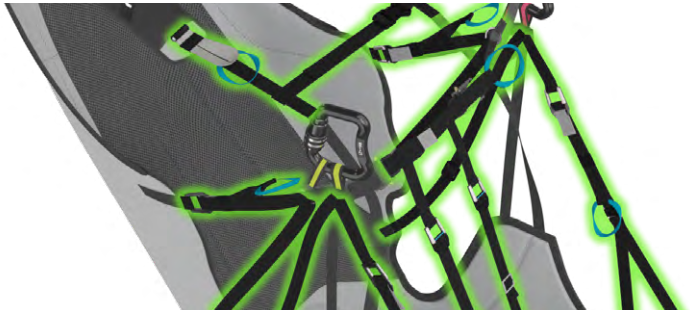
2.2 CONNECTING THE HARNESS TO THE WING

The ARROW 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

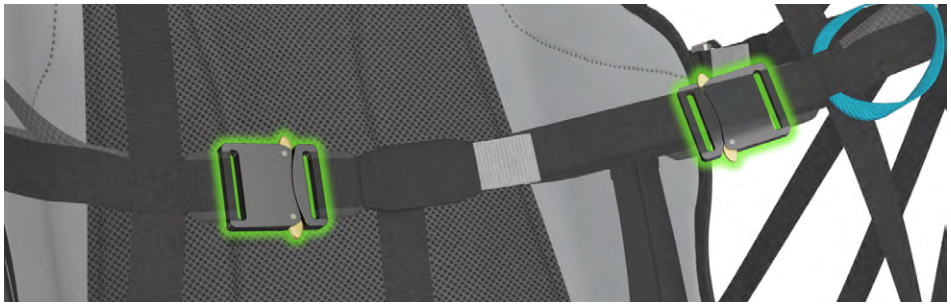
- **Pilot position**

The ARROW can be adjusted to regulate the angle of the pilot. This angle can be varied by adjusting the appropriate straps. You can also vary the angle of the back and the shoulder straps can also be adjusted.



- **Chest straps**

The chest strap, which controls the distance between the two carabiners, can be adjusted in flight from 34 to 43 cm in size M. For the first flight with the ARROW, we suggest that the strap is set to the middle position, and then gradually ensure that the option that best suits your needs is selected in flight. The optimal adjustment will depend on the type of wing you are flying with the ARROW. When the chest strap is tighter, the wing feels more stable. 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 chest strap and legs loops closed and adjust the shoulder straps symmetrically.

- **Leg loops**

The leg loops must be correctly adjusted so that the pilot can get into and sit down without using their hands after take off. If the length is not correct, it is possible that problems or difficulties may occur in flight when placing the legs in the harness. If the leg loops are still too long when standing, use the adjustment straps under the chest strap so that they fit without being too tight. Make sure they are symmetrical. If it is necessary to lengthen the leg loops, first make sure that the shoulder straps are not too tight. Normally, not much adjustment is needed to the default position of the leg loops.

- **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.

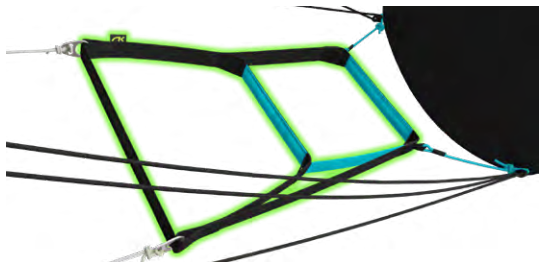
At the end of the harness pod, right where the footplate is, you will see a loose elastic strap. This elastic is designed to hook onto the pilot’s foot or shoe, ensuring that the fairing always stays within reach, next to the leg. It is especially useful during takeoff, as the pilot’s posture can make it difficult to keep the pod in the correct position to enter and close it.

Niviuk R+D pilots provide the following tip for getting into the pod without getting stuck: put your left leg in first, and then put your right leg in. Using the straps, adjust it to your individual preference.

- **Speed-bar**

The ARROW 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 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.



2.4 INSTALLING THE PARACHUTE

You can find a tutorial on correctly installing parachutes in our harnesses on our Youtube channel.

TAKE CARE: 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.

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.

In the ARROW, there may be some movement inside the container when using any of our Cires or Octagon 2 parachutes. To prevent this, we have designed a special foam insert that fills the remaining space not occupied by the rescue. This helps keep it securely in place and prevents it from shifting inside the compartment. You can see how to install it in this video.

If you notice that your parachute is loose or that there's a chance it might move or rotate inside the container, request this foam from your distributor.

2.5 REPLACING THE POD

To ensure the durability of the harness, the ARROW is fitted with a removeable pod. When you need to replace it, use the zip located on the sides, below the carabiners. You will have to set up and adjust the pod again before your first flight with it. To do this, see the section on "Adjusting the harness". You will also find a tutorial on how to install your pod correctly on our Youtube channel.

2.6 CLOSING THE POD WITH THE SWIFT LOCK SYSTEM

The Swift Lock is the new closing system between the chest strap and the pod on the ARROW harness, which secures the pilot when closing the pod.

You can find a tutorial on how to close your pod correctly using the Swift Lock System on our Youtube channel here.

2.7 OPTIONAL ACCESSORIES

Ballast
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.
- Check again that you have secured the chest strap and leg loops before launch.
- The parachute container is properly closed.
- The deployment handle is 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.

(!) CAUTION: 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 and get into a standing position 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 foam 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 parachute must also be removed to dry completely. Once dry, it has 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

By following this link you can see all the details of the harness and the best way to pack it in your rucksack with your glider and flying equipment.

4. TYPES OF FLYING

4.1 WINCH FLYING

- The ARROW 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 ARROW is not recommended for tandem operation.

4.3 OTHER

- The ARROW 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 materials used in the ARROW have been carefully selected to ensure maximum durability. 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). 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. A rucksack can reach temperatures up to 60ºC.
- 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 well-ventilated 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 ARROW 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 aluminium 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 ARROW may only be carried out by the manufacturer or qualified and authorised personnel. This ensures that the most appropriate materials and correct repair techniques are applied.

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

5.5 NIVIUK SERVICE

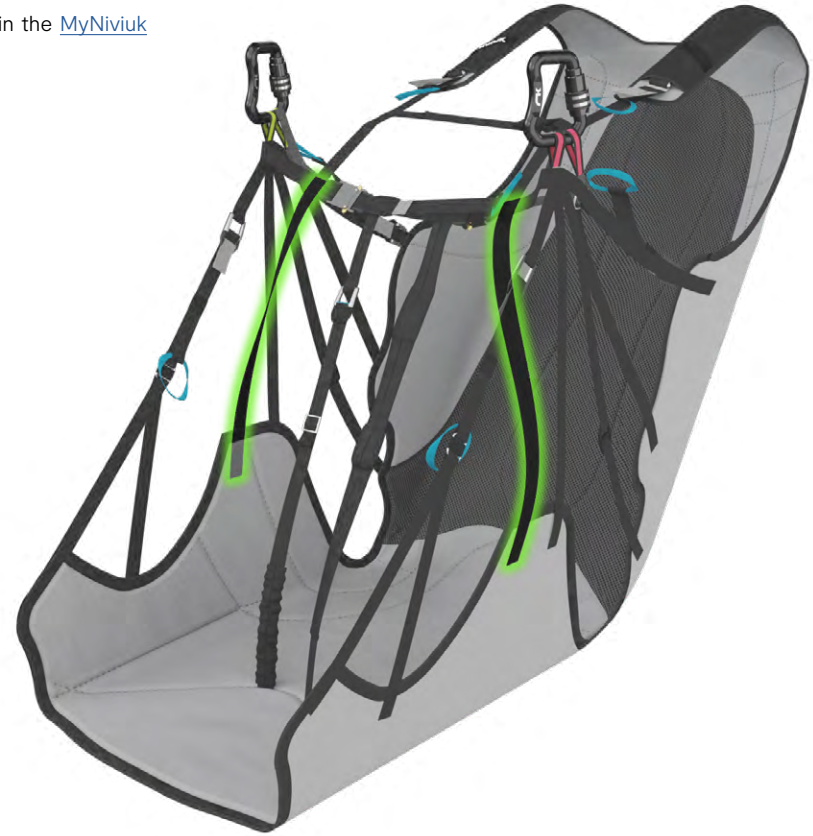
Niviuk Service is our official workshop offering a quality service, based on the care and maintenance of flight equipment. Thanks to the knowledge, technologies and procedures we have acquired over the years, we can repair any flying equipment.

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 Niviuk Service section of our web site.

5.6 PRODUCT REGISTRATION

You can register your ARROW 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 high-risk 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 paraglider 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

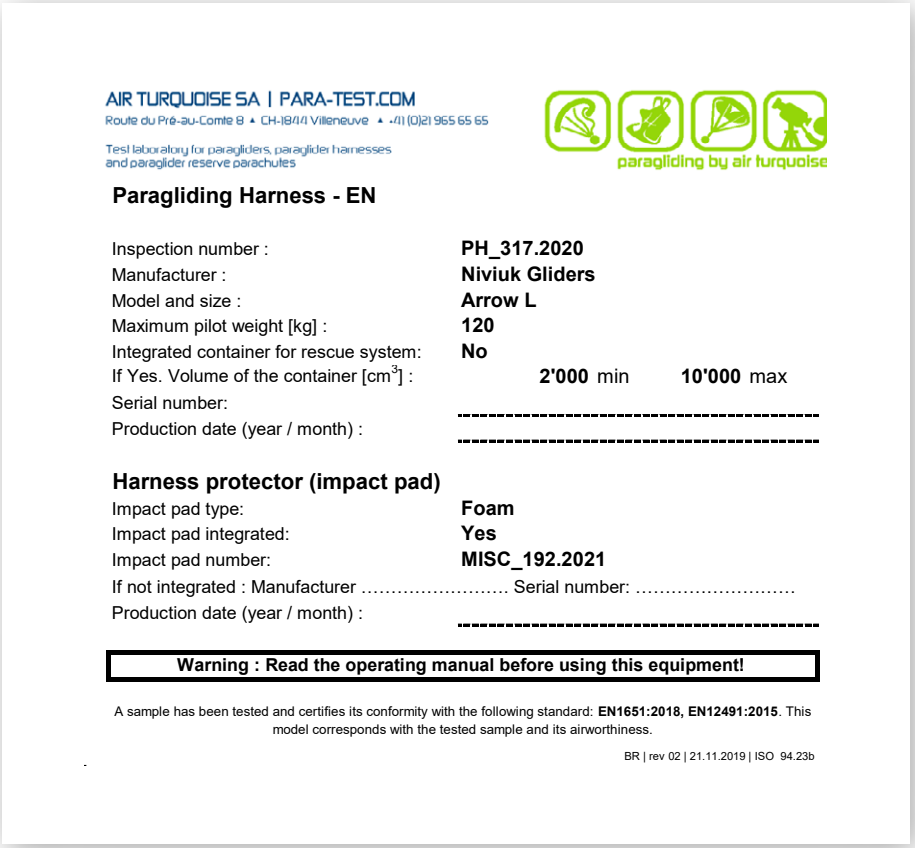
8.1 COMPATIBILITY

KLIMBER P	●
IKUMA P	●
HOOK	●
HOOK P	●
ARTIK	●
ARTIK R	●
IKUMA	●

● **Recommended:** ideal for your wing
● **Compatible:** suitable for your wing, depending on your preferences

8.2 CERTIFICATION

You will find the certification certificates on the product page.



AIR TURQUOISE SA | PARA-TEST.COM
Route du Pré-au-Comte 8 ▲ CH-1844 Villeneuve ▲ +41 (0)21 965 65 65
Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes

paragliding by air turquoise

Paragliding Harness - EN

Inspection number :	**PH_317.2020**
Manufacturer :	**Niviuk Gliders**
Model and size :	**Arrow L**
Maximum pilot weight [kg] :	**120**
Integrated container for rescue system:	**No**
If Yes. Volume of the container [cm^3] :	**2'000** min **10'000** max
Serial number:	----------
Production date (year / month) :	----------

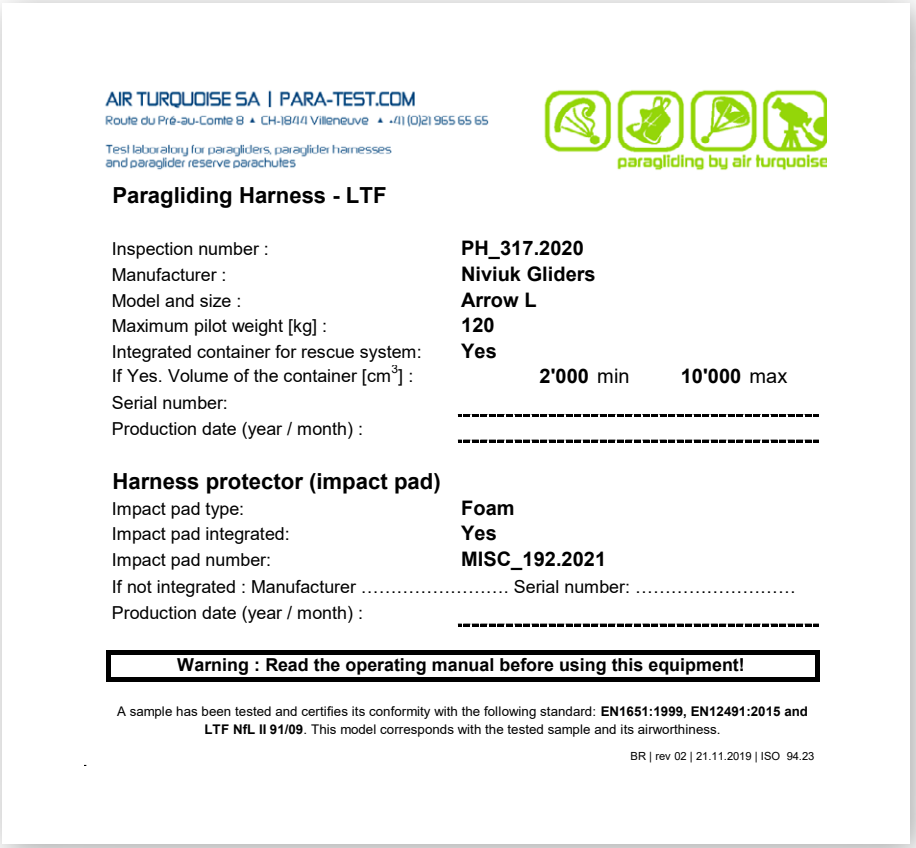
Harness protector (impact pad)

Impact pad type:	**Foam**
Impact pad integrated:	**Yes**
Impact pad number:	**MISC_192.2021**
If not integrated : Manufacturer ..... Serial number:	
Production date (year / month) :	----------

Warning : Read the operating manual before using this equipment!

A sample has been tested and certifies its conformity with the following standard: **EN1651:2018, EN12491:2015**. This model corresponds with the tested sample and its airworthiness.

BR | rev 02 | 21.11.2019 | ISO 94.23b



AIR TURQUOISE SA | PARA-TEST.COM
Route du Pré-au-Comte 8 ▲ CH-1844 Villeneuve ▲ +41 (0)21 965 65 65
Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes

paragliding by air turquoise

Paragliding Harness - LTF

Inspection number :	**PH_317.2020**
Manufacturer :	**Niviuk Gliders**
Model and size :	**Arrow L**
Maximum pilot weight [kg] :	**120**
Integrated container for rescue system:	**Yes**
If Yes. Volume of the container [cm^3] :	**2'000** min **10'000** max
Serial number:	----------
Production date (year / month) :	----------

Harness protector (impact pad)

Impact pad type:	**Foam**
Impact pad integrated:	**Yes**
Impact pad number:	**MISC_192.2021**
If not integrated : Manufacturer ..... Serial number:	
Production date (year / month) :	----------

Warning : Read the operating manual before using this equipment!

A sample has been tested and certifies its conformity with the following standard: **EN1651:1999, EN12491:2015 and LTF NfL II 91/09**. This model corresponds with the tested sample and its airworthiness.

BR | rev 02 | 21.11.2019 | ISO 94.23

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