# WATSON 2

User manual



## An elementary *companion*

### WELCOME

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

We would like to share with you the excitement and passion that went into the process of creating this harness. The WATSON 2 is the new tandem passenger harness and is the only reversible harness on the market that easily converts into a backpack.

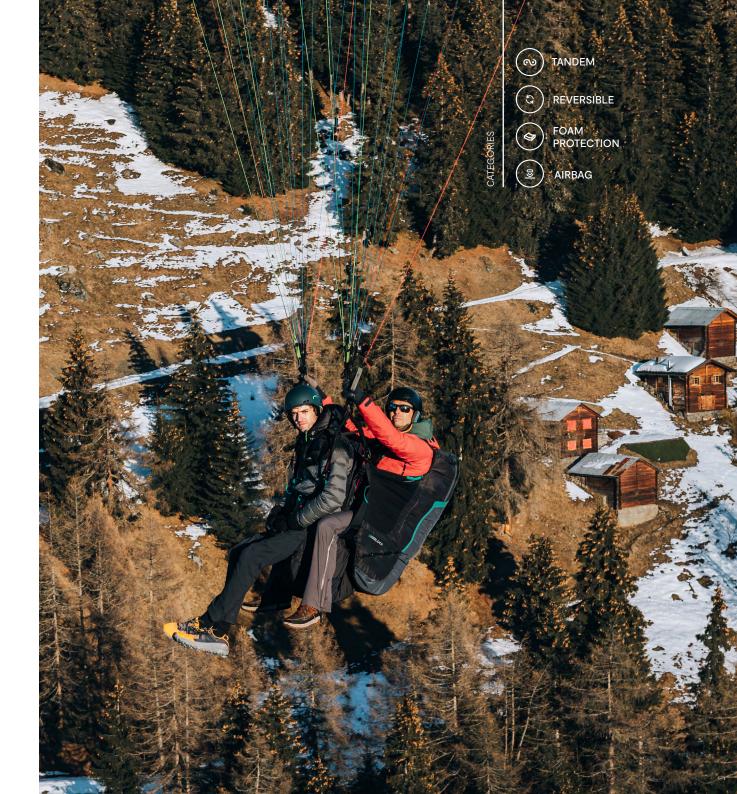
The design is more ergonomic and has improved comfort and durability. It offers two protector options: a pre-inflated airbag and foam, depending on the pilot's preference.

It is designed to be used with the tandem harness for the pilot, the SHERLOCK. They are the perfect match for both pilot and passenger to enjoy great recreational flights.

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 WATSON 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**



1.1 OVERVIEW OF THE HARNESS	
1.2 VIDEOTUTORIAL	
1.3 TECHNICAL DATA	
1.4 TARGET GROUP	
1.5 DESIGN PROCESS	



### UNPACKING AND ASSEMBLY

2.1 ASSEMBLING THE HARNESS	10
2.2 CONNECTING THE PILOT AND	
PASSENGER HARNESSES TO THE WING	10
2.3 ADJUSTING THE HARNESS	11
2.3.1 PILOT POSITION	11
2.3.2 CHEST STRAP	11
2.3.3 SHOULDER STRAPS	11
2.4 INSTALLING THE PROTECTOR	12
2.5 OPTIONAL ACCESSORIES	13

IN FLIGHT	13
3.1 PRE-FLIGHT CHECKS	13
3.2 LAUNCH	13
3.3 LANDING	13
3.4 FLYING ABOVE WATER OR LANDING	
IN WATER	13
3.5 RUCKSACK AND PACKING	13



5.1 MAINTENANCE

5.5 NIVIUK SERVICE

5.2 STORAGE

5.4 REPAIRS

CARE AND MAINTENANCE

5.3 CHECKS AND INSPECTIONS

5.6 PRODUCT REGISTRATION

4.1 WINCH FLYING	
4.2 TANDEM	
4.3 OTHER	



SAFETY AND RESPONSIBILITY



**GUARANTEE** 



SPECIFICATIONS
----------------

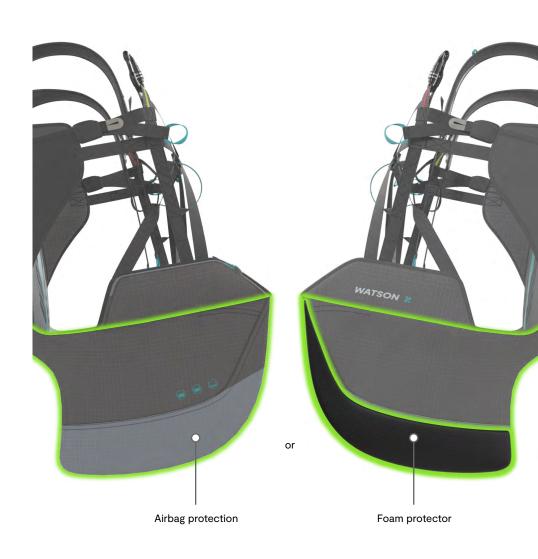
8.1 COMPATIBILITY	
8.2 CERTIFICATION	



### 1. CHARACTERISTICS











### **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.



### 1.3 TECHNICAL DATA

			One size
Weight		kg	2,52*
Rucksack volume		L	20
Passanger height		cm	150-195
Back length		cm	56
Seat base	Width	cm	40
	Lenght	cm	41
Back pocket volume		L	30
Carabiner distance		cm	39,5-62,5
Maximum load		kg	120
Certification			EN/LTF

\* The total weight of the harness includes the additional airbag covering.

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



### **1.4 TARGET GROUP**

### Tandem

The WATSON 2 is an easy-to-use, comfortable and compact harness. Thanks to the possible adjustments, it will adapt to any passenger. It is the elementary partner to our pilot's harness, the Sherlock.

### **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 and dedication of our team. All NIVIUK products undergo a thorough final inspection.

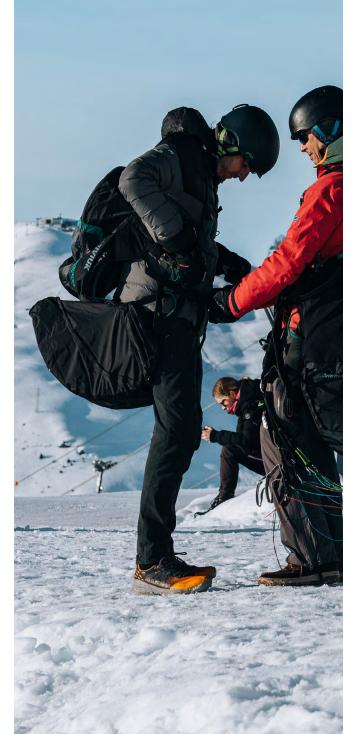
### 2. UNPACKING AND ASSEMBLY

### 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 harness to mould to the passenger's body shape. On the WATSON 2, the chest strap, chest clip and the shoulder straps can be adjusted. It also has adjustable back straps to adapt the angle of the harness and further match the passenger's body shape.



### 2.2 CONNECTING THE PILOT AND PASSENGER HARNESSES TO THE WING

The passenger's WATSON 2 harness must at all times be connected to the pilot's harness via the spreader bars, using the two main carabiners, which must be 30 mm self-locking carabiners. The spreader bars, in turn, are connected to the wing by means of a self-locking stainless steel carabiner.

The carabiner on the right side of the WATSON 2, green in colour, has to be connected to the front right of the spreader bar, also green in colour. The left carabiner has to be connected to the front left of the spreader bar, both of which are red.

The upper attachment point of each spreader bar - green on the right side and red on the left side - must be connected via a stainless steel carabiner to the risers of the wing, which match the same colour-coding.



### 2.3 ADJUSTING THE HARNESS

### Pilot position

The WATSON 2's backrest inclination can be adjusted to regulate how reclined the passenger flies. This angle may be varied by adjusting the back straps accordingly.

In addition, the WATSON 2 has two blue side handles, at waist height, to ease into the seated position in flight. By using these handles it is possible for the passenger to get into the harness and correct their sitting position.

ITIP: The side handles are also very useful for holding the harness and transporting it to take-off, if the harness has not been converted to a rucksack.



#### Chest strap

The chest strap, which controls the distance between the two carabiners, can be adjusted in flight from 39.5 to 62.5 cm. For the first flight with the WATSON 2, we suggest setting the strap to an intermediate length, and then adjust accordingly.

To secure the harness, the Austri-Alpin Cobra T-lock system with just two automatic buckles is used. This system has been specially designed to offer maximum safety and simplicity.

The connection of the chest strap to the seat plate permits the change in inclination, as the straps are adjustable.

#### Shoulder straps

•

The shoulder straps can be adjusted to the passenger's preferred setting by pulling the blue strap. This adjustment will depend on the passenger's height. To do this optimally, the passenger should sit upright with the T-Lock buckles closed and the shoulder straps should then be symmetrically adjusted.



### 2.4 INSTALLING THE PROTECTOR

The WATSON 2 offers the possibility of using two types of protector: airbag or foam.

The new airbag protector, pre-inflated at launch thanks to the incorporated Nitinol rods, keeps its shape in any situation. It guarantees maximum safety with excellent results during impact tests.

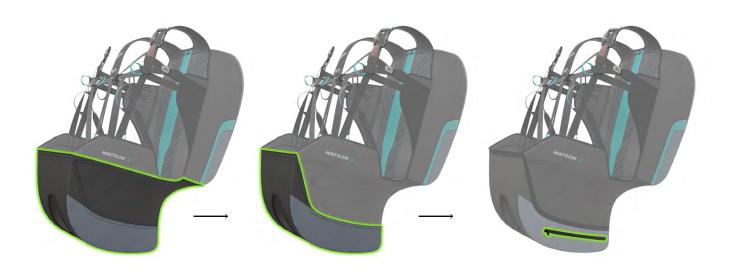
Although the airbag already provides outstanding protection, the WATSON 2 also comes with a foam protector that is placed inside the airbag. To install it, remove the airbag cover by opening the Velcro, unzip the zip on the left side and place the foam inside in the correct position.

The harness is certified with and without the foam protector. Relax in flight with a technologically advanced protector that fits your preferences.

TIP: if flying without the foam protector, the airbag pocket can be accessed using the same zip where the ultra-fast folding Koli Bag can be stored. If choosing this option is important to be careful, as the airbag protector can be damaged if incorrectly used.

### Choose the protector

that best suits your preferences:	FOAM	AIRBAG
Lightness	×	$\checkmark$
Durability	$\checkmark$	$\checkmark$
Compression volume	×	$\checkmark$
Protects during all flight phases	$\checkmark$	$\checkmark$







### 2.5 OPTIONAL ACCESSORIES

The design of the WATSON 2 includes several practical compartments, designed to hold all flight accessories and equipment:

- A large rear storage pocket with 30 litres of volume.
- Small Lycra side pockets are located on both sides of the shoulders.
- The left shoulder pad is covered with Velcro so that the pilot can attach their vario.

### **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.
- That the glider is correctly connected to the spreader bars, which in turn are connected to the pilot and passenger harnesses. All carabiners are locked.
- All pockets are properly closed and items hanging from the harness are secured/attached.
- · Check again that you have locked all carabiners before take-off.

### 3.2 LAUNCH

Check with the pilot that the weather conditions are suitable for their experience and skill level. Put on the harness and make sure all buckles are closed correctly. Your life depends on it.

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

### 3.3 LANDING

Before landing, slide your legs forward in the harness to assume a standing position. Follow all instructions of the pilot. 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 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 over water exposes the pilot and passenger to the risk of landing in water. If the foam back protector is used, it floats and there is a risk of being pushed underwater. This can be a very dangerous situation and wearing life jackets is essential for both pilot and passenger. We recommend avoiding this situation whenever possible.

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, it must be removed from the water to dry completely.

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

### 3.5 RUCKSACK AND PACKING

The WATSON 2 transforms into an easy-to-carry backpack for transporting helmets and all the passenger's personal belongings. It is a good way to lighten the pilot's load by distributing some equipment between pilot and passenger.

On the backpack, the shoulder straps and chest clip are adjustable to adapt to the shape of any person. It has a handle on the top for easy carrying and a small zip, perfect for storing valuables.

It is very easy to use: when the zip is fully opened, the WATSON 2 is inside and can be easily removed. When zipped up, the rucksack converts into the back of the harness, which is a large 30 L pocket ideal for storing all the passenger's belongings.

The remaining equipment must be carried separately. We recommend complementing your WATSON 2 with the SHERLOCK pilot's harness, the TAKOO paraglider, and you can carry it all in the KOLI PRO rucksack.



### 4. TYPES OF FLYING

### 4.1 WINCH FLYING

- The WATSON 2 is suitable for dual winch launching.
- The tow release is attached via the main carabiners on the passenger harness.

### 4.2 TANDEM

• The WATSON 2 is especially designed for dual flying and is a very practical harness for everyday use by professional tandem pilots. It is the elementary partner to our pilot's harness, the Sherlock.

### 4.3 OTHER

- The WATSON 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.



### **5. CARE AND MAINTENANCE**

### **5.1 MAINTENANCE**

- The WATSON 2 is very robust and will have a long operational life. It offers a good compromise between light weight (2.52 kg) and durability. Made of robust materials for use on an infinite number of flights. In addition, the airbag cover can be replaced in the event of damage.
- 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 flying 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.
- Never use detergent to clean the harness. Dry the harness in a well-ventilated area.
- 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 pre-flight and daily checks, the WATSON 2 should be thoroughly inspected after every impact, bad landing or launch, and also if the harness shows signs of wear and tear or possible damage.

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 WATSON 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 Niviuk Service section.

### **5.6 PRODUCT REGISTRATION**

You can register your WATSON 2 on the Niviuk website in the <u>MyNiviuk</u> <u>section</u> 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 and/or the passenger, 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 fly with this equipment if the pilot is not qualified to use it. Do not take advice or accept any informal training from anyone who is not properly qualified as a flight instructor.

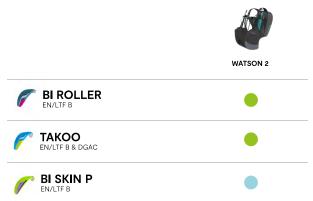
### 7. GUARANTEE

- 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 COMPATIBILITY



Recommended: ideal for your wing

• Compatible: suitable for your wing, depending on your preferences

### 8.2 HOMOLOGATION

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)21 965 65 65 Test laboratory for paragliders, paraglider harnesses and paraglider reserve parachutes oaraolidino bu air turouo **Paragliding Harness - EN** Inspection number : PH\_420.2023 **Niviuk Gliders** Manufacturer : Watson 2 One size Model and size : Maximum pilot weight [kg] : 120 Integrated container for rescue system: n/a If Yes. Volume of the container [cm<sup>3</sup>] : **n/a** min **n/a** max Serial number: \_\_\_\_\_\_ Production date (year / month) :

### Harness protector (impact pad)

Impact pad type:	Airbag
Impact pad integrated:	Yes
Impact pad number:	PH_420.2023
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 standards: EN1651:2018+A1:2020 and EN12491:2015+A1:2021. This model corresponds with the tested sample and its airworthiness.

Rev 03 | 04.03.2022 | ISO 94.23b

### R

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