



STRAPLESS BI 3

Product Manual

Version 01.03.2023



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1. THANK YOU FOR FLYING ADVANCE

Thank you for choosing an ADVANCE quality product with Swiss engineering.

User manual

This user manual is an important part of your product. You will find instructions for Putting into service and use in practice as well as important information on safety, care and maintenance. We encourage you to read this document carefully before your first flight. Video instructions can be accessed via QR codes if available. All information can also be found on our website www.advance.swiss.

Product Registration

Register your new ADVANCE product online in your MyADVANCE account at www.advance.swiss/garantie no later than 10 days after purchase for a warranty extension or to be informed promptly by e-mail about updates and safety-relevant findings regarding your product. All this information can also be found on our website www.advance.swiss.

Our story: Pioneering spirit and Swiss precision

Putting our ideas into the air. That's what we can do. For more than 30 years, ADVANCE have kept the needs and wishes of our pilots at the forefront. With Swiss precision we refine model after model. Highest quality and absolute reliability have our top priority, in the air and in our customer service. So from pioneers we have become perfectionists, and a leading worldwide comprehensive service provider.

Questions and support

You can always contact your ADVANCE dealer or our support team, we will be happy to help you. Send an email to support@advance.ch

We wish you many exciting and enjoyable hours in the air with your new product!

Greetings from Thun your ADVANCE Team

2. SAFETY INFORMATION

2.1. General safety advice

Flying a paraglider calls for appropriate training and a sound knowledge of the subject, as well as, of course, the necessary insurance cover and licence. A pilot must be able to correctly assess the weather conditions before taking off. His or her capabilities must be adequate for the actual paraglider. The paraglider pilot is also required bear a sense of responsibility towards the natural world, especially regarding the preservation of wildlife and landscape.

Warning

Wearing an adequate helmet, suitable boots and clothing, and carrying an emergency parachute (a 'reserve') are essential. Before every flight all items of equipment should be checked for damage and airworthiness. A proper pre-takeoff check must also be carried out.

Warning

Every pilot bears sole responsibility for all risks, including injury or death, when participating in the sport of paragliding. Neither the manufacturer nor the seller of a paraglider can guarantee or be held responsible for the pilot's safety.

2.2. Range of use and load limits

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Like all commercially available reserve parachutes, paraglider harnesses are never suitable for free fall parachuting because their design and construction details do not allow such a thing. Neither the reserve parachute nor its attachments to the harness can withstand the loadings involved in an abrupt opening.

All harness adjustments must be made before the harness is flown. Correct adjustment of the STRAPLESS BI 3 greatly contributes to safety, correct function and comfort in flight.

Warning

The STRAPLESS BI 3 certification up to 110 kg (load test only) is restricted exclusively to paraglider sport.

3. HANDLE WITH CARE

The STRAPLESS BI 3 is an ultralight harness. The life of this product is highly dependent on your care. Mechanical stresses such as dragging on the ground etc. accelerate the ageing process and should be avoided. A lightweight product is much more sensitive to stress of all kinds.

SIV Overloads

Do not use this lightweight product for SIV training. Excessive loading can cause non-safety-related damage to the product, which is not covered by the ADVANCE guarantee.

Warning

We strongly advise against making a rescue deployment with the STRAPLESS BI 3 during safety induction training (SIV). After a rescue release, non-safety related damage to the harness may occur which is not covered by the ADVANCE warranty.

Warning

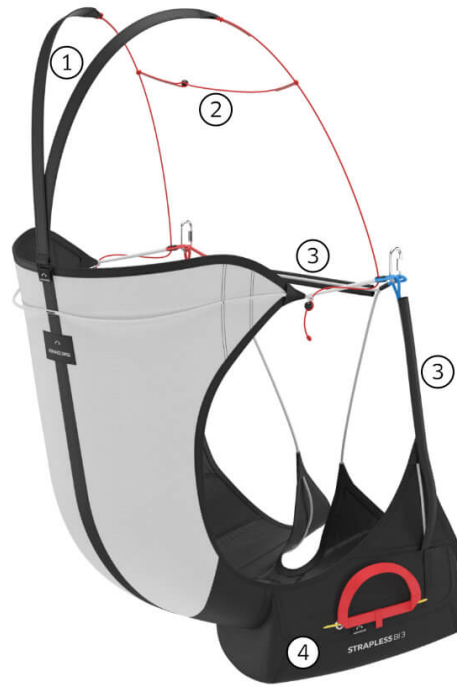
The harness must be inspected by a qualified person after each rescue descent!

4. FEATURES

The STRAPLESS BI 3 is a basic ultralight Hike & Fly tandem harness with reserve compartment, without protector.

4.1. Features

1. Adjustable shoulder straps
2. Chest strap closure system
3. Channel for reserve V-lines
4. Reserve compartment



5. PREPARING THE PRODUCT

5.1. Delivery

Every ADVANCE harness must be checked by the authorized dealer before delivery to ensure that the scope of delivery is complete and that the basic settings are correct.

Register your new ADVANCE product in your MyADVANCE account no later than 10 days after purchase to benefit from the extended ADVANCE warranty. More information under Warranty.

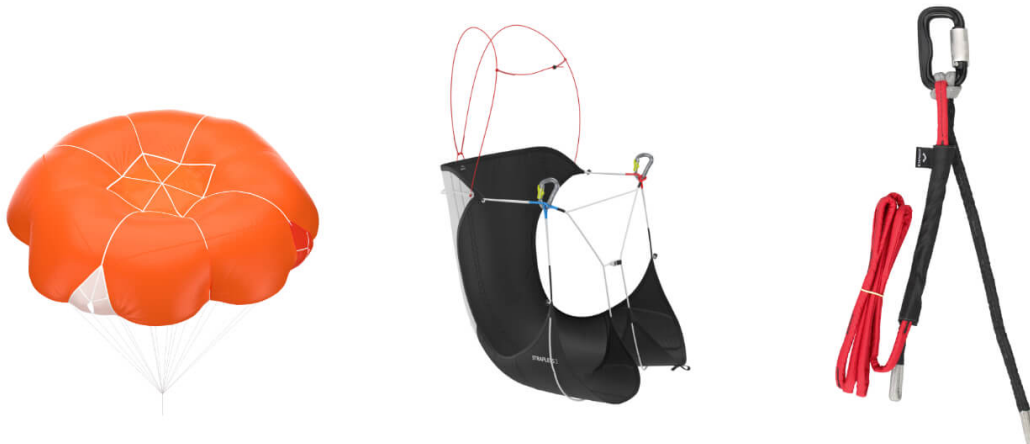
5.1.1. Delivery includes

- Harness
- Two Maillon Rapide
- Four O-rings
- Reserve handle with inner container
- Storage bag
- Getting Started Booklet



Options:

- SQR Light 190
- STRAPLESS 3 passenger harness
- Tandem spreaders Light



5.2. Installing a reserve

General

The reserve compartment is located under the right legpad.



Important advice about the reserve system

Every reserve/harness combination has its own characteristics. It is essential that pilot and packer have confidence in the system, and are therefore thoroughly familiar with its operation – especially when a new combination is installed (new reserve in existing harness or vice versa), so that reliable functioning is assured.

Warning Installing a reserve must only be done by a qualified person. Your safety depends on it!

Compatibility of the reserve/harness system

Only Tandem reserves are suitable! Certified volumes of reserves for the STRAPLESS BI 3 reserve compartment: 5 - 9 liters.

Info For a broad approximation for reserve volume in liters a factor of x 2.7 can be applied to the reserve weight in kgs. Depending on method and packing skill a reserve with a volume arrived at by this formula, which is within the certified limits for a harness, still may not release without problems.

Warning If a reserve volume lies within the top third of the certified volume, special care must be taken that the reserve is folded to match the length of the inner container's longest side.

Warning In every case a test release/compatibility test carried out by the pilot in realistic conditions is the only way to prove that the particular reserve will reliably release from the STRAPLESS BI 3.

Warning A newly-folded reserve can occupy up to 30% greater volume. ADVANCE strongly recommend a compatibility test.

Steerable reserves

The STRAPLESS BI 3 is not suitable for steerable reserves.

Info It is not possible to install quick-out carabiners.

5.2.1. Packing the reserve in the inner container

General

The release handle used with the five-flap inner container is part of the harness and complies with the latest certification requirements according to NfL.

Warning Only use the original reserve handle and its attached inner container.

Packing the reserve parachute in the inner container



Always pack your reserve parachute to fit the shape and size of the supplied STRAPLESS BI 3 inner container. Place the rescue lines like shown in the picture. When all lines are stowed, there should be about 90 cm of line length left to the bridle.

Warning

If your reserve parachute does not fit in the inner container without excessive squeezing, this indicates that it is too big for the WEIGHTLESS.

**Close inner container**

Close the five-flap inner container in the order of the numbers on each flap 1-3. Secure the last flap 3 with a line loop that should be about 5 to 6 cm long (about 3 fingers wide). Now check the pull of the elastic and shorten or lengthen it as needed.

Info

The line loop should release under the weight of the reserve parachute itself.



Close the last flap of the container with two line loops of equal length (5 to 6 cm). These final loops are held by two elastics that pass through the eyelets of the outer flap of the container. The two elastics are pre-assembled at the factory.



5.2.2. Connecting the reserve to the harness

By looping

Based on extensive testing, ADVANCE harnesses and reserve bridles can also be looped with Companion reserves, provided basic precautions such as center looping and maximum tightening of the straps are observed. We cannot make any binding statement about the strength of ADVANCE harnesses in combination with other reserve systems.

1. Example picture "Looping"

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2. Detailed view STRAPLESS BI 3



4. Neoprene cover



With a Maillon Rapide

Connect the sewn bridles of the Spreaders Light and the bridle of your rescue parachute with a Maillon Rapide of at least 2,400 daN strength. Secure the straps in the Maillon with a rubber ring or neoprene tape, to prevent slipping and thus transverse loading of the Maillon in the event of a reserve deployment.

1. Example of using a Maillon Rapide



2. Neoprene cover



Warning Do not use tape instead of the rubber ring to fix the Maillon Rapide!

Info When looping a COMPANION reserve with the STRAPLESS BI 3, the V-line Neoprene Cover must be pulled over the connection.

Warning Never attach the inner container to the reserve parachute!

5.2.3. Attaching the spreaders & Connecting the V-lines

Permanently connected spreaders

The spreaders are permanently attached to the STRAPLESS BI 3 with the supplied Maillon Rapide (1).

Warning The Maillon Rapide must be tightened with a wrench. Tightening by hand is not sufficient!

Info We recommend the ADVANCE Tandem Spreaders Light

Reserve connection lines

Connect the V-lines (2) to the reserve (as shown before), and put them in the Velcro channels (3). Prevent them from sliding round the Maillon Rapide using the O-rings provided.

Warning Make sure that the connection lines run behind the main maillons (facing pilot)! If this is not the case the reserve may not deploy correctly.

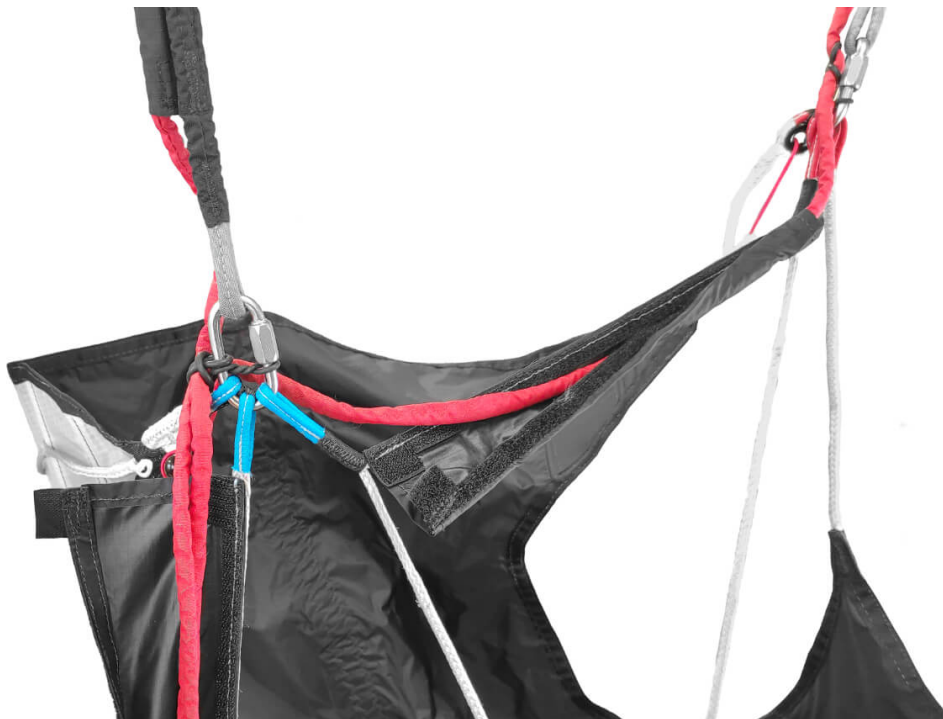
Info If the reserve is thrown the O rings snap when the reserve lines are tensioned.

Overview:



Velcro channels:

Secure the reserve connection lines in their channels on the backs of the spreaders. The left hand line goes through the channel on the chest strap to the right hand side where it joins the right hand connection line. In addition fix each connection lines to its adjacent main support Maillon with an O ring (provided).





Overview 2:



5.2.4. Putting the inner container in the reserve compartment



When installing the reserve, always place the bridle in the reserve compartment first and then the inner container. The connection to the reserve handle must be without twists.

Warning If a reserve parachute does not fit in the inner container after repacking, it must be refolded to the shape of the inner container.

Warning Put the bridle in first, then the reserve.

Warning Never attach the inner container to the reserve parachute!

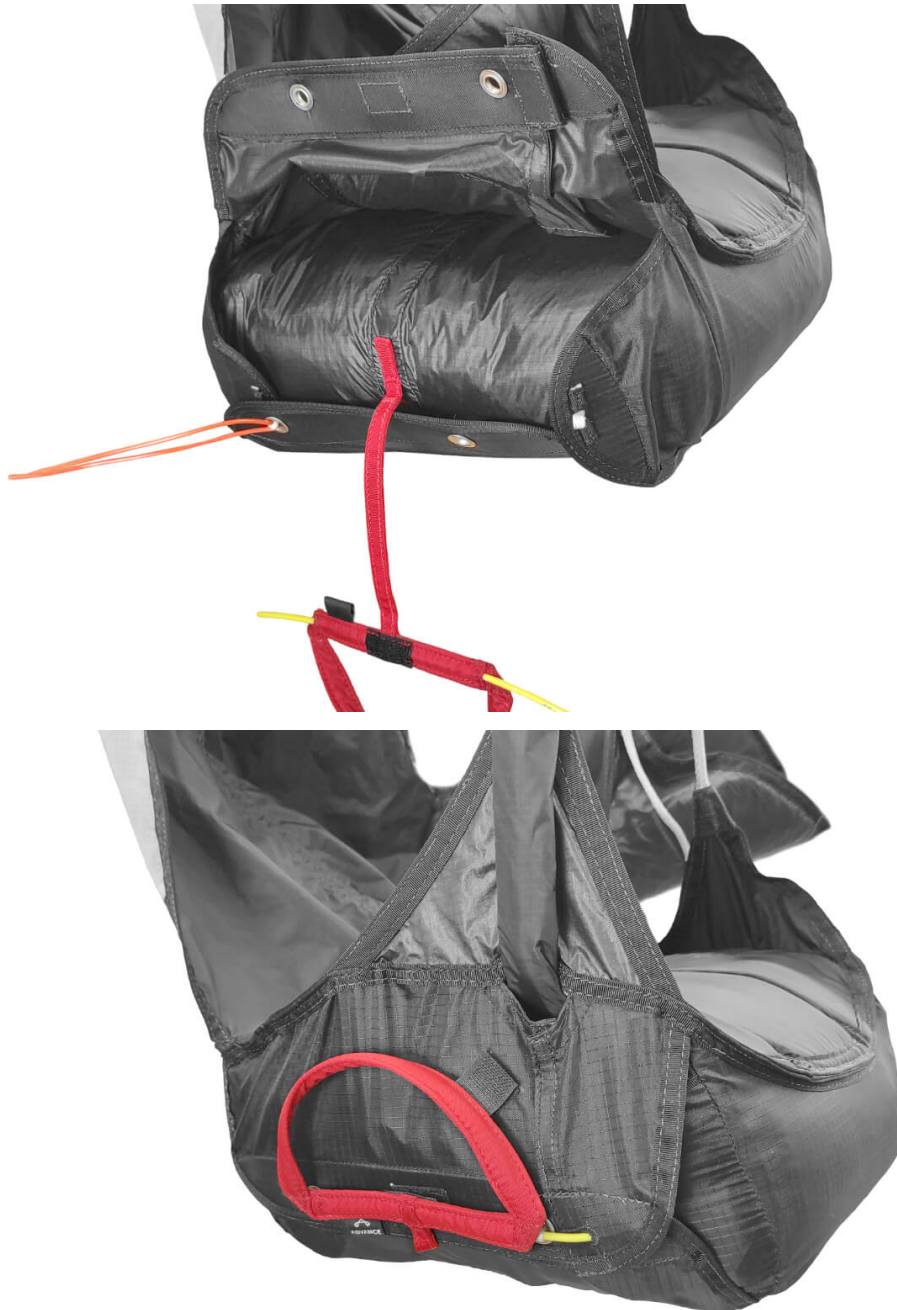
5.2.5. Closing the reserve compartment

The outer container flaps are closed by white closure loops and yellow cables. The design of the outer container creates the necessary tension and pressure on the closure loops and cables.

Attach rescue handle

Thread a packing line through the white closure loops on each side and then through the eyelets. Lower flap first. Secure the loops with the rescue handle yellow cable. Finish by stowing both ends of the yellow cable in their button holes. Carefully remove the packing line to avoid possible damage due to friction.





Warning After installing the reserve, it is mandatory to remove all auxiliary equipment and the packing device! Danger of release blockage!

Warning To ensure correct operation, always make sure that the yellow cables are routed correctly.

5.2.6. Compatibility Test



The correct installation of the reserve must essentially be tested by a trial release. Put the harness on, close it completely and then clip yourself with the STRAPLESS BI 3 by the two main carabiners into a harness hanger. Then pull out the reserve as if in flight.

Info

A successful compatibility test carried out by a pilot can greatly increase confidence in the reserve system.

Operation of the reserve handle must take place in a normal flying position, and work without hindrance, in accordance with the requirements of this manual. You therefore must be sitting in the harness. If you are not sure of this procedure you should contact a qualified person or your ADVANCE dealer.

Here are some factors that could make a reserve deployment difficult or impossible:

- Reserve too big for the compartment or inner container.
- Reserve not packed to the dimensions of the inner container.
- Reserve not pulled out with the correct technique. A pull then throw to the side is correct.
- The volume of the reserve worked originally in the new harness, but after a repack it has become too big.
- Pilot dimensions and arm length may have a significant effect on reserve-throwing success. Small pilots with short arms can have difficulties.
- Conditions such as high G-loading (3G +, as in spiral dive).

Warning

A combination of these factors could make a reserve deployment impossible.

Info

Occasionally reach to the reserve handle after launch to memorize the position.

5.3. Adjusting the harness

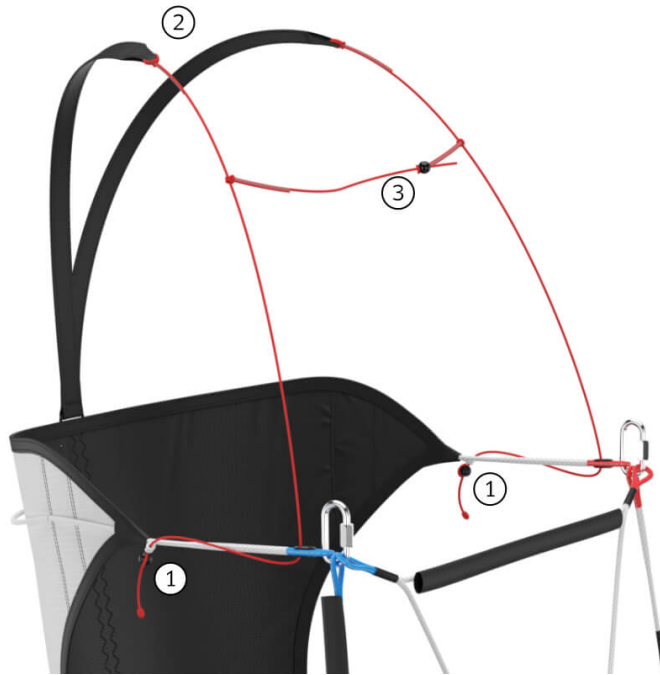
5.3.1. Adjusting & Putting On

Adjusting the shoulder straps

Move the black balls at the lower ends of the lines in the desired direction (1).

Putting the harness on

Make sure that the harness is correctly hooked into the two Maillon Rapide. Step into the closed harness from above. Pull the shoulder straps (2) over and fasten the small chest strap with the ball (3).



Warning Take care not to damage the harness with your shoes (e.g. with crampons).

Warning Always check that the Maillon Rapide and the harness loops are not twisted.

6. PREPARATION FOR FLIGHT

6.1. Takeoff preparation and checks

Before every takeoff carry out the following pre-takeoff checks:

1. Harness and helmet buckled, reserve OK?
2. Lines free?
3. Canopy open?
4. Wind direction and strength assessed?
5. Airspace and field-of-view clear?

Hint

To get the wing in the right shape for takeoff do the following: pull the brake lines in while you are sorting the lines until the canopy arrives at the perfect banana shape.

Warning

Before each flight, check that the reserve handle is in the intended position and that the yellow locking cables of the reserve handle are correctly stowed.

7. USE IN PRACTICE

7.1. Paraglider models of other brands

The harness can be flown with any paraglider. There are no restrictions.



7.2. Winching

The STRAPLESS BI 3 is not suitable for winch towing.

7.3. Acro

The STRAPLESS BI 3 is not suitable for acro flying and SIV.

7.4. Tandem flying

Due to its dimension/function the STRAPLESS BI 3 is basically not suitable for solo flying.

7.5. Emergencies

7.5.1. Reserve

Throwing the reserve

Use the correct technique to release and throw the reserve. This is a pull then throw to the side. Do not pull straight up. Throw the reserve inner container as far away as possible in the transverse direction so that the lines are quickly extended and tensioned.

Hint

We recommend that you make a brief tactile check on your reserve handle during every flight. This will program the subconscious as to where it is. We advise that you also mentally rehearse the throwing technique.

In strong rotational flight such as a spiral dive, very high G-loading can occur. This can make reserve throwing much more difficult.

Hint

Take your harness along to a G-Force Trainer and practise releasing your reserve under high G-loading.

Landing under the reserve

After throwing a reserve get your feet out of the speedbag immediately and stabilise the paraglider. Then try to open the cockpit and the speedbag while descending, so that you only have to open the T-piece of the front harness after touchdown.

Reserve landing in strong wind

In a strong surface wind there's a risk that the pilot, attached at the shoulders, will be dragged over the ground by the reserve and paraglider. Options for dealing with this are distinctly limited. This is why it is important that all buckles except the front strap should be open before touchdown.

Warning

In the event of very strong winds on the ground, consider also cutting the paraglider risers on at least one side with the hook knife before touchdown.

Warning

If a buckle or the speedbag cannot be opened, cut it with the hook knife before touching down on the ground.

Warning

The front buckle will not open under tension. Immediately after touchdown, open the T-piece as soon as it unloads. If this is not possible, use the hook knife here as well and cut the strap.



7.5.2. Water landing

Water landings are dangerous and should be avoided at all costs. Landing in flowing water or in coastal surf is often fatal (drowning). ADVANCE recommends that you always carry a hook knife.

- Warning** Landing in water with a speedbag also raises the danger level, in that there are more fastenings to open than for a simple sit-up harness.
- Warning** After a water landing, separate yourself from your harness as quickly as possible and get clear of your equipment so that you do not get caught up in the reserve or paraglider lines.
- Warning** You should be aware that the foam protector in any harness will try to float. This can automatically tip the pilot head down in the water.

Involuntary reserve descent into water

Especially in this case it is very important, if possible, to get out of the speedbag before splashdown, and open all buckles except the front belt or use the hook knife. Immediately after entering the water the front belt must be opened or cut. Get away from the harness and all your equipment as quickly as possible.

- Warning** The front strap will not open under load.

Water landing without reserve

Everything described so far applies. Depending on the situation and danger (current, waves) it may be useful to cut straps with the hook knife before touching down, as the front strap cannot be opened under tension, or even to cut all straps and jump or slide out of the harness into the water.

- Warning** If a buckle or speedbag will not open, cut it with the hook knife before landing in the water. You can mount a hook knife on the shoulder strap and secure it with a long line.

Maintenance and care of the harness after a water landing

After contact with water, all protectors and the comfort foam should be removed from the WEIGHTLESS. See chapter "Installing/removing components". Everything should then be allowed to dry in a shaded place outside, or carefully laid out in a dry room - or the harness could be hung by its carabiners and gently wafted to and fro. The reserve must be taken out and dried separately. Obviously it should then be repacked.

- Info** The protectors may take several days to dry

7.5.3. Tree landing

In the event of a tree landing, with or without a reserve parachute, there is a risk of a possible fall.

- Warning** The most dangerous part of a tree landing is climbing down. Always wait for a rescue party to get you out of the tree.
- Info** We recommend that you keep a rope sling with a carabiner in the cockpit so that you can secure your harness to a branch and relax while you wait.



8. MAINTENANCE

8.1. Maintenance harness

General care

ADVANCE recommends that you visually inspect the harness regularly for signs of wear. This includes checking the general condition, the condition of the seams and straps and the functioning of the buckles. In addition, the rescue parachute must be regularly aired and repacked. Any defects (damaged seams, webbing, etc.) must be repaired immediately by the manufacturer or an authorized service center.

Warning Do not make any modifications to your harness and never fly with a harness whose straps are damaged in any way.

Warning If the harness was used as part of a rescue emergency opening, the harness must then be inspected by the manufacturer or an authorized service center.

Ultraviolet radiation, temperatures below -20°C and above $+60^{\circ}\text{C}$, humidity, salt water, aggressive cleaning agents, improper storage as well as mechanical stress (e.g. grinding on the ground) accelerate the aging process.

The life span of your harness can be extended considerably if you pay attention to the following points:

- Allow wet or damp harness to dry completely at room temperature or outside in the shade. Repack the reserve regularly.
- Thoroughly rinse a harness that has been in contact with salt water with fresh water. Always repack the reserve.
- Clean the harness only with fresh water and neutral soap if necessary, never with solvents.
- Check the main connection bridle between the harness and the reserve after every reserve deployment.
- Have the harness checked by a qualified person after any very high loading (e.g. serious impact).
- Inspect the harness regularly for defective seams and straps, especially the reserve connection and the seams of the main carabiners.
- Do not subject the harness to extremes of temperature and make sure it gets adequate ventilation, to prevent condensation forming.
- Do not expose the harness unnecessarily to the sun (UV radiation) before and after the flight.

Packing the reserve parachute

Most reserve parachute manufacturers recommend maintenance or repacking of the reserve parachute every 6 months to ensure reliable and quick opening at all times. If the reserve gets wet, damp or overheated, it must be definitely repacked. We strongly recommend that you let a qualified person pack your reserve. ADVANCE also strongly recommends that you regularly check the yellow locking cables in the locking loops of your harness. It is sufficient to move the cables slightly.

8.2. Check harness



Inspect your harness regularly for damage and have it thoroughly visually inspected by a professional every 24 months. The inspection includes a visual assessment of the fabric, straps and connections, major stitching and main carabiners. All parts are inspected for tears, kinks, pre-damaged seams, damage and severe wear. Detected damage requires the harness to be professionally repaired before the next flight.

You can find more information about the check in the "Service" chapter of this manual or at www.advance.swiss.

8.3. Carabiner service life

Check regularly

Check the Maillon Rapide regularly visually. If they show visible flaws (dents, rust, deformation), have been incorrectly loaded or cannot be screwed shut by hand, they must be replaced immediately.

Warning

Make sure that the Maillon Rapide and the carabiners are always correctly closed and secured and that they are only -loaded in their lengthwise direction.

Warning

Please read the manufacturer's manual regarding the service life cycle of carabiners used to link spreaders to the paraglider and spreaders to the passenger harness.



8.4. Overstress

When using the product there is always the risk of unpredictable overstress in flight, for example caused by flying conditions or a surprise bump in the air. In rare cases the product could suffer damage. This is especially disappointing in that, usually, neither the manufacturer nor the pilot can be held responsible. Light products tend to be more susceptible to damage due to overstress.

Info

In the event of damage, please contact your dealer and they will contact us. We strive to be accommodating in such cases and work together to find the best possible solution. This is individual and depends on the assessment of each case.



8.5. Repairs harness

You should never carry out harness repairs yourself. The various seams are prepared with the greatest precision. Only the manufacturer or an authorised Service Centre should carry out repairs with original materials.

8.6. Removing & replacing components

Legpad nitinol wire

The nitinol wire is located in a pocket under the legpad and helps to stretch the legpad for comfort. It can be replaced if damaged. To remove the wire, grasp it with two fingers and pull it out slowly (A). When installing, squeeze the circular wire into an oval (B) and push it into the pocket on one side. Always check that the connection is on the outside of the legpad (C). Now bend the nitinol wire so you can push it into the pocket on the other side (D).

Info

Check the nitinol wire from time to time for kinks or deformations.



8.7. Disposal

Environmental protection plays an important role in the selection of materials and the manufacture of an ADVANCE product. We use only non-toxic materials and fabrics that are subjected to continuous quality and environmental impact assessments. When your equipment reaches the end of its useful life, please remove all metal parts (recycling) and dispose of straps and material in the designated facilities.

9. SERVICE & WARRANTY

9.1. ADVANCE Service Center

ADVANCE operates two company-owned service centres that carry out checks and repairs of all types. The workshops based in Switzerland and France are official maintenance operations, which have many years'

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experience and in-depth product-specific expertise. The ADVANCE worldwide service network includes other authorised service centres that provide the same services. All service facilities use original ADVANCE materials exclusively. You can find all information on checks and repairs and the relevant addresses at www.advance.swiss.

9.2. Support (Website)

At www.advance.swiss you will find detailed information about ADVANCE and our products as well as contact details for any questions you may have.

You also have the opportunity to register your product online up to 10 days after purchase in order to enjoy the full benefits of the ADVANCE warranty. You can also:

- Keep yourself updated about new safety-related findings about ADVANCE products.
- Download an application form for the check at ADVANCE as a PDF in order to be able to send in your product.
- To find an answer to a burning question under FAQ (frequently asked questions).
- Subscribe to the ADVANCE newsletter to receive regular e-mail updates about new products and services.

9.3. Online Account

Set up a MyADVANCE account at www.advance.swiss/garantie and register your product directly online after purchase.

In the MyADVANCE account you will find all documents for your product as PDF, e.g. the manual, security updates and much more. You can also view spare parts for your product and make support requests directly.

9.4. Warranty

As part of the ADVANCE warranty, we undertake to rectify any defects in our products that are attributable to manufacturing faults. In order for a warranty claim to be made, ADVANCE must be notified immediately on discovery of a defect, and the defective product sent in for inspection. The manufacturer will then decide how a possible manufacturing fault is to be rectified (repair, replacement of parts or replacement of the product). Basically, the legal warranty obligations of your country apply. If you register your product for free on our website within 10 days of purchase you receive an extended warranty of 12 months beyond the legal warranty period of your country!

Warranty and Service Intervals begin from the date of the glider's first flight, recorded on the identification plate. If no date is evident the applicable date is that on which the glider was transferred from ADVANCE to the ADVANCE dealer. The ADVANCE warranty does not cover any other claim. Claims in respect of damage resulting from careless or incorrect use of the product (e.g. inadequate maintenance, unsuitable storage, overloading, exposure to extreme temperatures, etc.) are expressly excluded. The same applies to damage attributable to an accident or normal wear and tear.

10. TECHNICAL DATA

10.1. Data



STRAPLESS BI 3		M
Pilot height	cm	155-190
Chest strap width	cm	42
Harness weight	kg	0.420
Weight carabiners	kg	0.044
Harness certification		EN 1651:2018+A1:2020 / 110 kg

10.2. Materials

We continuously review and test the variety of materials on offer. Like all ADVANCE products, the STRAPLESS BI 3 has been designed and manufactured according to the latest findings and processes. We have chosen the materials very carefully and with the strictest quality requirements in mind.

Materials

Main straps	D-Pro, 4mm, 13 kN
Leg straps	D-Pro, 4mm, 13 kN
Seat area	Nylon 40 BE - DE Ripstop, 57 g/m ²
Carabiner	MR Standard 5mm, 22.5kN, 21gr.