



ADVANCE OMEGA<sup>X</sup> ALPS 3

User manual

Edition 2 / 07\_2019

# Content

|  |    |  |    |
|--|----|--|----|
| Thank you for flying ADVANCE . . . . .     | 3  | Acro flying . . . . .                        | 18 |
| About ADVANCE . . . . .                    | 4  | Paramotoring . . . . .                       | 18 |
| The OMEGA XALPS 3 . . . . .                | 5  | SIV . . . . .                                | 18 |
| Outstandig Features. . . . .               | 5  | Packing . . . . .                            | 19 |
| Pilot requirements . . . . .               | 6  | Maintenance and checks. . . . .              | 21 |
| General advice about paragliding . . . . . | 6  | Maintenance . . . . .                        | 21 |
| Handle with care . . . . .                 | 7  | Check . . . . .                              | 22 |
| Using the paraglider. . . . .              | 8  | Repairs and disposal . . . . .               | 23 |
| Delivery . . . . .                         | 8  | Repairs. . . . .                             | 23 |
| Basic settings . . . . .                   | 8  | Disposal. . . . .                            | 24 |
| Adjusting the brake lines . . . . .        | 8  | Technical Details . . . . .                  | 26 |
| Setting the Speed System . . . . .         | 9  | Materials used . . . . .                     | 27 |
| Weight range . . . . .                     | 9  | Certification . . . . .                      | 28 |
| Flight characteristics . . . . .           | 10 | Folding lines . . . . .                      | 28 |
| Takeoff . . . . .                          | 10 | Suitable harnesses. . . . .                  | 29 |
| Normal flight. . . . .                     | 11 | Service . . . . .                            | 30 |
| Turning . . . . .                          | 11 | Warranty . . . . .                           | 30 |
| Accelerated Flight. . . . .                | 12 | List of parts . . . . .                      | 32 |
| Using the Pitch Control Handles . . . . .  | 13 | Lineplan. . . . .                            | 33 |
| Collapses . . . . .                        | 14 | Risers . . . . .                             | 34 |
| Stalling . . . . .                         | 16 | Bowline . . . . .                            | 35 |
| Landing . . . . .                          | 17 | Installation instructions Softlink . . . . . | 36 |
| Flying with a wet paraglider . . . . .     | 18 |  |    |
| Winching . . . . .                         | 18 |  |    |

# Thank you for flying ADVANCE

Congratulations on your choice of an OMEGA XALPS 3 – a quality product from ADVANCE. We hope that you will spend many rewarding hours in the air with it.

This user manual is an important part of the glider. Here you will find instructions and important information about safety, care and maintenance, and that's why we recommend that you read this document carefully before your first flight.

Register your OMEGA XALPS 3 online on [www.advance.ch/warranty](http://www.advance.ch/warranty); you will then receive product updates or safety-related bulletins about the OMEGA XALPS 3 direct from us. This information will also be available to download from our website at [www.advance.ch](http://www.advance.ch), as will the latest version of this manual and further updated information.

If you have any further questions or problems please contact your dealer or get in touch directly with ADVANCE.

Now we wish you a lot of enjoyment with your OMEGA XALPS 3, and always “happy landings”.

Team ADVANCE

# About ADVANCE

ADVANCE, based in Switzerland, is one of the world's leading paraglider manufacturers. Since it was founded in 1988, the company has consistently pursued its own directions and concepts, both in development and production. The results are quality products with distinctive characteristics.

Behind the ADVANCE brand name is a team of specialists who share the passion and trust in the company's products. At home in the air themselves, they contribute their valuable personal experience and dedication to the working processes.

Total control of the production process and supervision of the working practices at the ADVANCE factory in Vietnam ensure a high standard of workmanship. Long term relationships with fabric and line manufacturers means that ADVANCE knowledge and expertise also finds its way directly into the development of new materials.

ADVANCE attaches great importance to after-sales customer support, and has built up a worldwide service network for this purpose. An on-going interaction with its customers brings in a steady flow of new knowledge that finds its way into ADVANCE products, thus completing the "Circle of Service".

# The OMEGA XALPS 3

The OMEGA XALPS 3 transforms the OMEGA XALPS series into a completely new glider generation. As the first 2-liner from ADVANCE, it impresses with outstanding technological features and combines the entire know-how of the development team.

In addition to the typical 2-liner advantages such as the B-control, the OMEGA XALPS 3 impresses with its honest extreme flight behaviour.

## Outstandig Features

### Flyable Top Speed

The OMEGA XALPS 3 is one of the fastest of its class. The light racer also has a very effective yet easy to use accelerate system. This can be very useful for the competition and adventure race pilot on long passages where speed is important.

### Performance

The OMEGA XALPS 3 has a completely newly developed profile. In addition to the very good climbing behaviour the glider has significantly improved its penetration into wind. As a result of its high pitch and directional stability the OMEGA XALPS 3 is, moreover, very comfortable to fly.

### Nitinol Rods

As a first ADVANCE glider the OMEGA XALPS 3 uses Nitinol Rods. These Nitinol Rods, are especially adapted to the lightweight construction of the OMEGAA XALPS 3. The material is extremely light, durable and its properties allow a wide range of packing methods and smallest packing volumes.

# Pilot requirements

The OMEGA XALPS 3 is a thoroughbred high performance wing, which should be flown exclusively by very experienced, performance-oriented cross country or competition pilots.

To fully master an OMEGA XALPS 3 a pilot must already have experience of high performance wings in a typical variety of atmospheric conditions. An OMEGA XALPS 3 pilot must be capable of a very active flying technique, and fly frequently. Only then will the full performance potential of this paraglider be achieved, and the pilot be able to go on his cross country way safely, in a relaxed frame of mind.

## **General advice about paragliding**

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.

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.

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.

# Handle with care

The ADVANCE OMEGA XALPS 3 is designed to be as light as possible for its specific areas of use. This places significant demands on those who use and look after it. The owner should become very familiar with the product, its qualities and requirements. Because of its specialised materials and construction the OMEGA XALPS 3 can suffer wear and damage if it is carelessly or ignorantly used.

The OMEGA XALPS 3 should never be dragged over the ground. Pointed and sharp objects such as stones or twigs can damage the lines and fabric. ADVANCE recommend that you choose your takeoff surface carefully.



**Caution:** ADVANCE considers it important that you are aware of and respect the OMEGA XALPS 3's lightweight materials. The OMEGA XALPS 3 will provide long-term enjoyment, but only if you look after it carefully.

# Using the paraglider

## **Delivery**

Before delivery every ADVANCE paraglider has to be flown by the dealer and checked for correct settings and trim. When this has been done the dealer enters the date of the first flight on the label attached to a centre rib. This entry, together with a completed warranty card, will ensure that defects in the product attributable to manufacturing faults are covered by the ADVANCE warranty. See "Warranty" in the section "Service".

Within 10 days of purchasing your glider we ask you to fill in the registration form on the internet, to be found under "Warranty".

OMEGA XALPS 3 delivery consists of an ADVANCE compress bag, a repair kit and a Mini-Windsock.

## **Basic settings**

The length of the brake lines is set at the factory so that the trailing edge is not braked (is crease-free) when brakes are fully released in fully accelerated flight. This setting should be kept as a matter of principle.

## **Adjusting the brake lines**

The brake handle positions have been set at the factory to allow free brake line travel of approximately 8 cm between the brakes free position and the point where brake application first affects the wing trailing edge in unaccelerated flight. This free run makes sure, among other things, that the trailing edge remains unbraked with brakes released, both at takeoff and during accelerated flight, thus implying that the brake line length should not be altered.

We recommend the bowline knot for fastening the brake handles. See illustration at the end of the manual.



## Setting the Speed System

We recommend that the OMEGA XALPS 3 speed system is correctly adjusted before your first flight. When doing this you must confirm that the full range of the speed system travel can be used. The OMEGA XALPS 3 suspension system has Brummel hooks on the riser speed lines which connect to those on the harness.



**Caution:** The speed system is correctly adjusted when you can use the full travel available on the risers. Make certain that the speed lines are not set too short, thus causing the wing to be pre-accelerated all the time!

## Weight range

The weight ranges for the two different sized gliders are given in the “Technical Data” section. The figures given here apply to total in-flight weight. This includes everything that will be flying – pilot weight, clothes and all equipment (paraglider, harness, reserves, instruments etc.). Flight at the lower or upper ends of a weight range can have some effect on the glider’s flying behaviour, but does not affect your safety.

# Flight characteristics


We recommend that you make your first flights with a new glider in quiet conditions at a site you know. A few pull ups on easy ground will give you confidence in your OMEGA XALPS 3' handling, from the very beginning.

## Takeoff

### Takeoff preparation

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

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

 **Tip:** 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.

For its performance class the OMEGA XALPS 3' easy rising profile makes takeoffs surprisingly straightforward.

### Forward Takeoff

Even for a long line wing the OMEGA XALPS 3 only needs a light impulse to pull up. Lead the glider up with distinct leaning forward, but without too much pull on the A risers.

After any correcting, and a quick look up, a few rapid steps with continued leaning forward will soon have you airborne, even if there's not much wind.


### Reverse takeoff

The backwards pull up is usually recommended if there's strong wind coming up, but it also works well in light wind. During the pull up the OMEGA XALPS 3 long lines may make it advisable to walk towards the wing to control its rising speed and pressure, and thereby limit any tendency to overshoot at the top. Turning round and taking off with the OMEGA XALPS 3 will then turn out to be easy.

## Normal flight

In quiet air the OMEGA XALPS 3 best glide is at trim speed – fully released brakes. Light braking will achieve minimum sink. In headwind, sinking air, and/or with a climb expected in the next thermal, overall A to B cross country performance can be improved by appropriate use of the speed system.

In general, we recommend an active flying technique in turbulent air.

 **Info:** Make a point of assessing the effects of wingloading and harness by means of comparison flights. The exceptional performance of the OMEGA XALPS 3 mainly becomes evident during accelerated flight into a headwind and – because of its balanced pitching characteristics – when it's bumpy.


## Turning

The OMEGA XALPS 3 reacts very directly and progressively to increasing steering demand. Active weightshift is also a good steering aid. The OMEGA XALPS 3 itself maintains your chosen turn radius with a steady turn application – without needing tiresome circling corrections. Angle of bank can always be adjusted by brake position and load.

The OMEGA XALPS 3 climbs beautifully in thermals. Because there is not a lot of pitching to correct the wing is able to climb without the

hindrance of excessive brake and speed corrections, thus improving its climb performance – quite distinctly. In a thermal choose your bank angle and let the glider circle steadily in this attitude. Use outside brake as necessary to control the outside wingtip, specifically to maintain a constant rate of turn. The type of harness recommended for the OMEGA XALPS 3 will assist you in entering and maintaining the desired steady turning. See also the section "Suitable harnesses".

If one or both brake lines were to fail for some reason the wing can be steered without problem by a light pull on the B-handles.

 **Caution:** Too hard a pull on the B-handles could cause a stall!

## Accelerated Flight

The OMEGA XALPS 3 wing remains extremely stable even in accelerated flight. However, paragliders operate at a lower angle of attack while flying at their higher speeds, and the degree of stability is generally reduced. The higher aerodynamic forces involved at higher air-speeds mean that a collapse can be more dynamic (see also section “Collapses”).

Bear in mind that a paraglider flies at a reduced angle of attack when accelerated, and can generally be considered to be less stable at high speed. Because of the greater forces in play at high speed, collapses will be more dynamic.

When encountering severe turbulence while flying accelerated release the speedbar fully before applying the necessary stabilising brake. The OMEGA XALPS 3's high degree of structural stability allows it to be flown in normally turbulent air while accelerated. Active speedbar should be employed for adjusting angle of attack under these conditions, instead of brake. Pitch attitude disturbances can be minimised in this way, and optimal glide performance can be maintained.

- When the angle of attack increases (e.g. wing pitches back when entering lift), the speed bar is briefly pressed harder.
- When the angle of attack decreases (e.g. wing pitches forward), the speed bar is released.





**Info:** The OMEGA XALPS 3 is a high aspect ratio 2 liner, and this makes accelerating physically easier, achieving high speed with relatively short speed line travel. Go carefully with your feet.


## Using the Pitch Control Handles

The OMEGA XALPS 3 has Pitch Control Handles (on the backs of the B-risers). It is possible to steer using these B-handles instead of the brake lines – from trim speed right up to 100 % speedbar.

When taking hold of the B-handles make sure that you have released your brake wraps. By careful pulling then releasing you can oppose a forward pitch movement in light turbulence. As well as that, you should also compensate for canopy pressure reduction e.g. as generally occurs before a collapse. Finger weight alone will feel a loss of B-riser tension.

 **Info:** Learning efficient and instinctive B-handle technique needs much practice and experience. Try it out slowly.

 **Caution:** The B-handles should be operated with care and discretion. As with other paragliding activities too much and too abrupt pulling risks stalling.

 **Caution:** Do not push full speedbar and brake the glider at the same time with the brakes.

## Collapses

### Asymmetric collapse

The OMEGA XALPS 3 has a particularly taut and very stable canopy. An asymmetric collapse of more than 50% at trim speed will result in moderate yawing. In accelerated flight the higher aerodynamic forces and energy level will make an asymmetric collapse more impulsive. The yawing behaviour is more dynamic, and calls for fast defensive reaction on your part.

If you experience an asymmetric collapse keep control of your direction with careful corrective braking, then raise the air pressure in the collapsed side with brake pumping. This will speed up reopening the closed side. Don't forget the very careful braking on the good side – too much can easily stall this remaining useful wing.

Poorly flown wingovers can cause a wingtip to fold inwards from the side, causing it to catch in the lines and create a cravat. Due to the high drag they produce cravats can lead to strong rotation (spiralling). Stop an increase in rotation rate by just the correct amount of outside brake. Then open the cravated wingtip by pulling the orange stabilo line. Clearing a cravat can be also done more quickly by 'pumping'. The appropriate brake should be applied to 75 % brake travel within a maximum of two seconds, and then released immediately.

### Symmetrical collapse (Frontstall)

Following a spontaneous front collapse the airflow will break away from the wing profile, the canopy will stop flying and pitch back. Wait, without pulling the brakes, until the wing is back above you, and after it has returned to normal forward flight (after some delay) you can stabilise it with brake. After a big front collapse it could be that the canopy stays in a folded but stable situation. This can be corrected by well- judged, symmetric brake application. Any resulting light forward pitching should again be addressed with well- judged brake.



**Caution:** ADVANCE Strongly advise against simulated front and side collapses! If an OMEGA XALPS 3 is subjected to a simulated front or side collapse without folding lines (as applies to all EN/LTF-D paragliders certified with folding lines) the line of fold or break (collapse) will be decided deeper than required for the test, and the resulting recovery will be very impulsive and aggressive. As a rule, simulated collapses under these circumstances do not represent the real thing; see section «Folding lines» for more.




**Caution:** The OMEGA XALPS 3 was designed in the successful light-build style. The High-Tech materials used are not intended to live with simulated canopy disturbances.


## Fast descents

For a quick and efficient way of getting down we recommend, depending on the situation, the spiral dive or big ears (with or without speed system). You should practise fast descents from time to time – so that they don't become an emergency when required.

## Symmetrical folding of the wingtips (Ears)

To apply this configuration pull the outer, blue marked A lines briskly down together. This will collapse the wingtips, which will stay folded. To open them briefly brake both sides.

 **Caution:** Do not fly spirals or sharp changes of direction with big ears applied; the increased loading carried by fewer lines can damage the structure.


 **Caution:** Be aware that flying with big ears brings the stall closer. Be careful with the brake lines when big ears are applied, and do not use this descent method if the wing is wet. See also section «Flying with a wet paraglider».


## Spiral dive

For the most comfortable way to carry out this manoeuvre we recommend a carabiner distance of 40 - 45 cm. Enter the manoeuvre

by progressive increase of a steering demand. Head and field of view should be directed in the turn direction. Rotation rate, speed and centrifugal force will rise with increasing angle of bank.

Exit from this manoeuvre is carried out with a neutral sitting position and progressive release of inside brake. Care is essential with the brake release when recovering from a steep spiral dive of high vertical speed and rotation rate. This judgment is necessary to minimise the excess energy remaining when the turn stops - which can lead to a zoom climb and subsequent pitch forward. Be sure to start the recovery with plenty of height remaining above the ground. Generally, the exit takes the same amount of time as the entry, but the vertical speed will be much higher – and much more height will be used!

 **Caution:** Because of the high dynamic and long lines recovery from the spiral must be carried out slowly! Active weightshift to the inside of the turn causes stronger acceleration and stable rotation. In this case recovery requires active outside brake together with outside weight shift.

 **Caution:** The OMEGA XALPS 3 is certified for harnesses in group GH (without rigid cross bracing). Harnesses in group GX (with cross bracing) or those with very low suspension points can drastically alter the spiral dive behaviour. See section «Suitable harnesses».

## Stalling

### Stalling on one side (Spin)

The OMEGA XALPS 3 warns of an impending spin with rising brake loading on the turn side. If this wing should stall, however, you will feel a marked drop in brake load. In this situation you must fully release both brakes to allow the OMEGA XALPS 3 to return itself to normal flight.

ADVANCE do not recommend that you attempt a spin, even though this manoeuvre does not pose special difficulties for the OMEGA XALPS 3.

### Fullstall

The fullstall is approached by progressively applying both brakes symmetrically. Airspeed will decrease and wind noise will become quieter. After reaching minimum speed the glider will enter a brief phase of constant attitude deep stall. Further brake application will cause the airflow to fully break away from the wing, which will pitch back in full-stall. To recover, the canopy must first be carefully allowed to preinflate over its whole span. To do this the brakes must be slowly released, then, when the wing is preinflated, released fully. If, at this last point, the wing has not preinflated adequately, or is allowed to go forward too quickly, wingtip cravats are possible. If a cravat occurs it is important

that the OMEGA XALPS 3 is kept flying straight by careful brake, and the cravat corrected by pulling the relevant orange-marked stabilo line down. It has not been possible to establish stable deep stall. For more on this last subject see also section “Flying with a wet paraglider”.



**Caution:** Due to its high aspect ratio it has proved difficult to keep the OMEGA XALPS 3 in the stall. After a stall allow the wing to reinflate slowly and let it start to go forward carefully before you completely release the brake lines. ADVANCE advise against subjecting your OMEGA XALPS 3 structure to this kind of stress in SIV training.

### Deep Stall

It has not been possible to confirm spontaneous occurrence of stable deep stall for the OMEGA XALPS 3. However, you can bring the wing to deep stall using the brakes, and hold it there. The wing returns to normal flight as soon as the brakes are fully released.

In rain, or if the glider is already wet, the OMEGA XALPS 3, like every paraglider, becomes more prone to deep stall. If a paraglider succeeds in staying in deep stall you should recover by accelerating the wing using the speed system only. See also section “Flying with a wet paraglider”.



## Landing

Always make a proper landing circuit with a well-planned final approach. As the ground approaches progressively increase brake to level the flight-path, before applying full brake to completely arrest the forward speed.



**Caution:** Steep turn reversals lead to strong swinging of the pilot, and should not be done near the ground.



**Caution:** Braking will reduce your speed and increase your sink, but it will certainly seriously restrict your ability to manoeuvre.



**Caution:** Getting below minimum speed leads to stalling: this should unquestionably be avoided when top landing, and on final approach.



**Handle with care:** Never let your glider fall to the ground on its leading edge. The overpressure so caused inside the wing can rip the cell walls and damage the leading edge.



**Handle with care:** After landing in water the canopy can quickly fill up, and become very heavy. The canopy should be lifted out of the water by its trailing edge, giving the water a chance to run out. Otherwise it might tear under this unaccustomed heavy load.

## **Flying with a wet paraglider**

Flying with a wet glider creates a risk of deep stall. Deep stall is often the result of a combination of factors. The weight of the wet canopy goes up, and this increased weight increases the angle of attack, which always puts the glider nearer the deep stall limit. Added to this, water drops on the top surface have a detrimental effect on the laminar flow of the boundary layer near the leading edge, which distinctly reduces the maximum lift coefficient. If the wet glider is also being flown at its lower weight limit there is a further small effect of increasing the angle of attack, as well as there being a lower airspeed because of the reduced wing loading.

In order to avoid the risk of deep stall with a wet glider the wing should be braked as little as possible, and big ears not used at all. As a further preventative measure apply moderate ( 25-40% ) speed bar. All these actions have a small effect in reducing the angle of attack.

If the wet glider does get into deep stall, recovery can only be achieved using the speed bar. See also section «Deep stall».

## **Winching**

The OMEGA XALPS 3 has good takeoff behaviour, so is suitable for towing by winch. However, the ADVANCE test team have made no such tests.

## **Acro flying**

The OMEGA XALPS 3 is not suitable for acrobatic flying.

## **Paramotoring**

The OMEGA XALPS 3 is not certified for flight with a motor.

## **SIV**

The OMEGA XALPS 3 was certified using folding lines. Due to both this fact and the glider's lightbuild construction ADVANCE advise against

# Packing


## General

The OMEGA XALPS 3 should be packed cell on cell. There are various methods. We recommend the following: First gather the cells at the leading edge, beginning at the wing centre. Collect one side to the centre, then the other side. Make sure that the Rigid Foils (wires) of the leading edge lie as flat as possible on each other and (important) at the same height. This will ensure that all leading edge wires will automatically be at the same level (important for later folding). Then follow the same process at the trailing edge – except that the ends of these cells will not be at the same level because of the elliptical shape of the wing – the ribs get shorter as the wingtips are approached. Do not disturb the positions of the leading edge and C-wires – already carefully gathered.

Now turn the collected left and right lanes over into the centre, then fold one over the other. Regularly change the position of this final crease to save wear on the same lane.

Now fold the paraglider to the width of the inner bag as usual (see pic.): fold the trailing edge in, at the ends of the C-wires, and then the leading edge, below the rigid foils. Finally fold the leading edge half over the lower section. First fold in the mini-rib section of the trailing edge, Now fold the paraglider to the width of the inner bag as usual (see pic.): fold the trailing edge in, at the ends of the C-wires, and then the leading edge, below the rigid foils. Finally fold the leading edge half

over the lower section. then fold the leading edge bundle over, below ends of the leading edge wires. Finally fold the leading edge half over the trailing edge end of the package. Be aware that careless packing will shorten your OMEGA XALPS 3's life. Do not leave the wing unnecessarily in the sun, and never subject it to large temperature changes. Always store your OMEGA XALPS 3 in a dry place. As for all paragliders, avoid excessive compression and extra-tight packing. Finally fold the leading edge half over the trailing edge end of the package. Be aware that careless packing will shorten your OMEGA XALPS 3's life. Do not leave the wing unnecessarily in the sun, and never subject it to large temperature changes. Always store your OMEGA XALPS 3 in a dry place. As for all paragliders, avoid excessive compression and extra-tight packing.

 **Info:** ADVANCE recommend packing and storing the OMEGA XALPS 3 in a cell bag. The ADVANCE Tubebag (304 gms) is very suitable.

### **Packing with the Tubebag**

Packing in a sausage bag is good for the wing, and is easy to do. It avoids undesirable sliding over the ground. Also the shape-retaining storage in a Tubebag promotes long glider life.

Lay your wing, mushroomed as after landing, on the spread Tubebag. Next spread the centre chord out to Tubebag length. Arrange the lines and stow the risers on their tabs. Now gather the leading edge cells as described in “General” above, except that all cells make up one pile – no secondary folding into the centre. Then fasten the upper Tubebag strap over the collected leading edge foils so that it holds them neatly together. Follow the same basic process at the trailing edge. Pull the centre lane straight then flatten and collect the outlying cells as already described above. Do this gently: do not disturb your leading edge and C-Wire positions. Final close the Tubebag then fold the Tubebag ends at the same wing positions as described in “General” above.

# Maintenance and checks

## Maintenance

Ultraviolet light, heat, humidity, sea water, aggressive cleaning agents, unsuitable storing and physical abuse (dragging across the ground) speed up the ageing process.

The life of a paraglider can be extended significantly by observing the following advice:

- Allow a wet or damp glider to dry by leaving it completely unpacked at room temperature, or outside in the shade.
- If the glider gets wet with salt (sea) water rinse it thoroughly with fresh water.
- Clean the glider only with fresh water, and a little neutral soap if necessary. Do not use solvents under any circumstances.
- If the glider has been subjected to increased stress (such as a tree landing) have it examined by an expert.
- Regularly remove sand, leaves, stones and snow from the cells. Openings with Velcro closures are provided at the wing tips for this purpose.
- Do not leave the glider out in the sun unnecessarily before and after flight (UV light).
- Do not subject the packed glider to excessive temperature

fluctuations, and do ensure adequate air circulation to prevent condensation forming.

- Do not drag the glider across the ground.
- When landing, make sure that the canopy does not fall on its leading edge.



**Handle** with care: All these points should be observed because the OMEGA XALPS 3 is a lightweight wing..

## Lines

The Edelrid “Magix Pro” Aramid lines on the OMEGA XALPS 3 are considerably stronger than conventional covered lines, and this continues to apply as time and use go by. After the standard kink test (5.000 bendings from new) residual strength is 17 % more than a comparable covered product. In addition, the thousands of routine line snapping tests carried out by ADVANCE after at least a year’s use show Edelrid Aramid line strength to be 20 % higher – again when compared to a covered line.

Extensive preparation and inspection complete a depiction of this high quality product. According to the current requirements uncovered Aramid lines have to have at the least the same lifespan as conventional covered line. Despite comprehensive coating (mainly UV-Protec-Coating and Thermo Shield treatment) however, this product also needs the same care as other lines: damp storage, dust, physical abuse by stones or boots – all reduce the lifespan massively.

If, after much use, line surface roughens and makes sorting more difficult, the lines can be treated with candle wax. Run a white candle along the entire line several times until it is shiny and smooth. The lines will again become easy to sort.

## **Check**

A new ADVANCE paraglider must be given a check every 24 months (2 years), > 100 flying hours per year, or > 100 flights per year whatever comes first. When a check is carried out the condition of all materials is assessed in accordance with strict guidelines, and tested with great care. Finally the overall condition of the glider is rated and recorded in a test report. You can find additional information about the check in this manual in the section “Service”, or at [www.advance.ch](http://www.advance.ch).

The general check procedure for paragliders is a constituent part of the OMEGA XALPS 3 manual. This manual also contains basic technical information and the line lengths of the glider.

# Repairs and disposal

## Repairs

A paraglider is a lifting surface of complex construction. Seams and lines have been made with great precision. In general, therefore, an unauthorised individual should not carry out paraglider repairs. Only the manufacturer or an authorised Service Organisation should replace components with identical parts, or refit complete cells.

Small repairs become exceptions to this principle. Examples could be repairs to small tears or holes with self-adhesive Ripstop material, or replacing lines. In every case of repair or line change the paraglider must be pulled up on the ground before its next flight, and visually checked.

Your paraglider is delivered with a repair kit containing self-adhesive Ripstop. Other parts, such as lines, quicklinks, softlinks or risers can be obtained from your ADVANCE dealer, an ADVANCE Service Center or direct from ADVANCE. Addresses are on [www.advance.ch](http://www.advance.ch).

## Canopy Repairs

Tears up to 3 cm in length, and very small holes that do not meet a seam, can be patched with the self-adhesive Ripstop from your repair kit. Make sure that the patch is cut out in a round or oval shape, and is big enough to generously overlap the damage. The similar piece of sticky Ripstop on the inside of the repair should be of a different size. Detailed instructions can be found on [Eine detaill www.advance.ch](http://www.advance.ch).

## Line repairs

A damaged line must be changed, without exception. The easiest option is to go to an ADVANCE Service Centre or your ADVANCE dealer. Alternatively you can order the specific replacement line direct from ADVANCE or an ADVANCE dealer and fit it yourself. All the addresses are on: [www.advance.ch](http://www.advance.ch). Under “Service” on [www.advance.ch](http://www.advance.ch) there are detailed instructions for identifying your line so that you can order it, and then fit it correctly on the wing.

## What to do if the leading edge gets damaged?

If a leading edge wire breaks or its seam rips the glider must be taken to an ADVANCE checking facility where the wire can be replaced or sewn back in. To guarantee a long lifespan it is important that the wing is not allowed to fall on its leading edge after landing, otherwise the fabric can be damaged by abrasion. But mainly there is a risk, as in all paragliders, that the crossports could tear.

## **Disposal**

Environmental protection plays an important role in the selection of materials and the manufacture of an ADVANCE product. We use only non-hazardous materials that are subjected to continuous quality and environmental impact assessments. When your paraglider reaches the end of its useful life in a number of years time, please remove all metal



# Technical Details

## OMEGA XALPS 3

|   |                | <b>22</b> | <b>23</b> | <b>24</b> |
|---|----------------|-----------|-----------|-----------|
| Area flat                                       | m <sup>2</sup> | 21.8      | 22.8      | 24.4      |
| Area projected                                  | m <sup>2</sup> | 18.55     | 19.4      | 20.76     |
| Span flat                                       | m              | 12.31     | 12.59     | 13.03     |
| Span projected                                  | m              | 9.91      | 10.135    | 10.48     |
| Aspect ratio flat                               |                | 6.95      | 6.95      | 6.95      |
| Aspect ratio projected                          |                | 5.29      | 5.29      | 5.29      |
| Max. chord                                      | m              | 2.22      | 2.27      | 2.35      |
| Min. chord                                      | m              | 0.36      | 0.37      | 0.385     |
| Take off weight <sup>1</sup>                    | kg             | 75–87     | 85–97     | 95–110    |
| Glider weight                                   | kg             | 3.5       | 3.6       | 3.8       |
| Number of cells                                 |                | 63        | 63        | 63        |
| Number of risers                                |                | 2+1       | 2+1       | 2+1       |
| Riser lengths                                   | cm             | 48        | 48        | 48        |
| Max. line lengths incl. risers                  | m              | 7.49      | 7.61      | 7.95      |
| Trims   |                | -         | -         | -         |
| Max. accelerate travel                          | cm             | 12.5      | 14.5      | 15        |
| Max. sym. brake travel at max. weight           | cm             | 53        | 53        | 53        |
| Certification                                   | EN/LTF         | D         | D         | D         |
| Other adjustable / removable / variable devices |                | -         | -         | -         |

<sup>1</sup> Pilot, wing, equipment

# Materials used

## OMEGA XALPS 3

---

### Fabric

|                                   |  |
|-----------------------------------|--|
| Top surface                       | Skytex 32 Universal, 70032 E3W<br>Skytex 27 classic 2 70000 E3H                                      |
| Lower surface                     | Skytex 32 Universal, 70032 E3W<br>Skytex 27 classic 2 70000 E3H                                      |
| Ribs, Diagonals and tension tapes | Skytex 40 hard finish 9017 E29<br>Skytex 32 hard finish 70032 E4D<br>Skytex 27 hard finish 70000 E91 |
| Unsuspending ribs                 | Skytex 27 hard finish 70000 E91  |

---

### Lines

|                  |   |
|------------------|---|
|                  | Edelrid   |
| Main lines       | A-8000U-360 / 190 / 130 / 090 uncovered, 1.8mm / 1.2mm / 1.0mm / 0.8mm<br>PPSL-125 (covered, 1.1mm) |
| Gallery lines    | A-8000U-190 / 130 / 090 / 070 / 050<br>uncovered, 1.2mm / 1.0mm / 0.8mm / 0.7mm / 0.5mm             |
| Brake lines      | A-8000U-070 / 050 uncovered, 0.7mm / 0.5mm  |
| Main brake lines | A-7850-240 / covered 1.9mm A-8000U-190 / uncovered, 1.2 mm  |

---

### Risers

Techni Sangles Dyneema, 10mm, 13.5kN

---

### Softlinks

Liros, DC 500

---

We routinely inspect and test our materials many times over. Like all ADVANCE products the OMEGA XALPS 3 is designed and produced as a result of the latest developments and contemporary knowledge. We have chosen all the materials very carefully, under conditions of the strictest quality control.

## **Certification**

The OMEGA XALPS 3 has EN and LTF certification. The categorization applies to all OMEGA XALPS 3 sizes in accelerated as well as unaccelerated flight. Certification assessments can be downloaded on [www.advance.ch](http://www.advance.ch)

The category granted at certification can only give a limited indication of a paraglider's behaviour in thermal and turbulent air. The category awarded is based on deliberately provoked extreme flight situations in quiet air.

During development of an ADVANCE paraglider the priorities of the work are mainly directed at flying qualities and handling – not exclusively on passing the certification tests. The result is a well-rounded product with the familiar ADVANCE handling. But certification is an essential part of product specification, and has to be satisfactorily completed.

## **Folding lines**

Special folding lines were fitted for the OMEGA XALPS 3 certification. Without these lines side and front collapses cannot be simulated in accordance with the EN-D guidelines. Folding lines create an additional, forward A-line level. At the canopy they attach behind the air intakes.

## Suitable harnesses

Basically the OMEGA XALPS 3 can be flown with any harness that does not have rigid cross bracing (see section “Certification”).

The chosen harness should ideally have a carabiner distance of ca. 45 cm and a support height of between 40 and 48 cm.

As a single seat paraglider the OMEGA XALPS 3 comes under § 1 IV Nr. 1 AirVZO i. d. F. of 25.07.2013 in the “Light Air Sport Device with an empty weight of less than 120 kg” category. As proof of satisfying the necessary airworthiness requirements for this class according to § 11 AirGerPV the OMEGA XALPS 3 was tested by the accredited «Air Turquoise» test organisation and certified EN/LTF-D in all sizes.

For the tests the following settings were used for the harnesses:

- All-up in-flight weight less than 80 kg:  
carabiner distance  $40 \pm 2$  cm, height  $40 \pm 1$  cm
- All-up in-flight weight 80 to 97 kg:  
carabiner distance  $44 \pm 2$  cm, height  $43 \pm 1$  cm
- All-up in-flight weight 95 to 110 kg:  
carabiner distance  $44 \pm 2$  cm, height  $43 \pm 1$  cm



**Info:** Experience has proved the theory – a streamlined harness can significantly improve gliding performance.

The OMEGA XALPS 3 was specially trimmed for use with a streamlined harness. For this reason we recommend a harness with speedbag in order to get the best out of the OMEGA XALPS 3’s great performance. The ADVANCE IMPRESS or LIGHTNESS harness is particularly suitable since the OMEGA XALPS 3 was designed and tested with them in mind.

# Service

## 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, certified by the German Hanggliding and Paragliding Federation (DHV), which has many years' 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.ch](http://www.advance.ch).

## The ADVANCE website

At [www.advance.ch](http://www.advance.ch) you will find detailed information about ADVANCE and its products, as well as useful addresses which you can contact if you have any questions.

Among the things you will be able to do on the website are:

- complete the warranty card online up to 10 days after purchasing the glider, enabling you to enjoy the full benefits of the ADVANCE warranty.

- find out about new safety-related knowledge and advice concerning ADVANCE products.
- download an application form in PDF format which you can use when sending your glider in for a check at ADVANCE.
- find an answer to a burning question among the FAQs (Frequently Asked Questions).
- subscribe to the ADVANCE Newsletter so that you will be regularly informed by e-mail about news and products.

It is well worth visiting the ADVANCE website regularly because the range of services offered is continually being expanded.

## Warranty

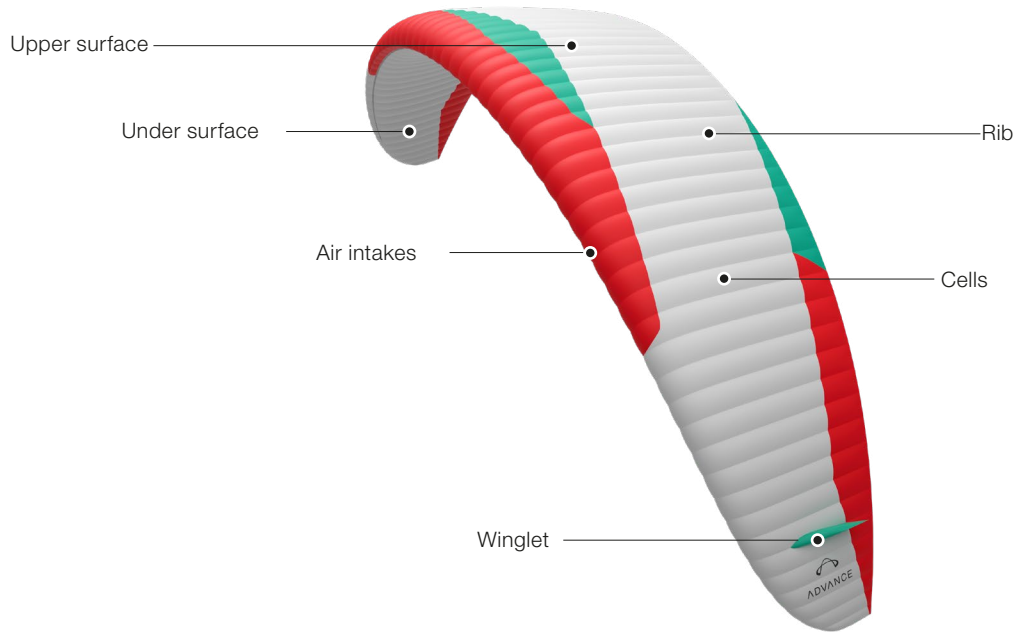
In order to enjoy the full benefits of the ADVANCE warranty, you are requested to complete the relevant form on the website in the «Warranty» section within 10 days of purchase.

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

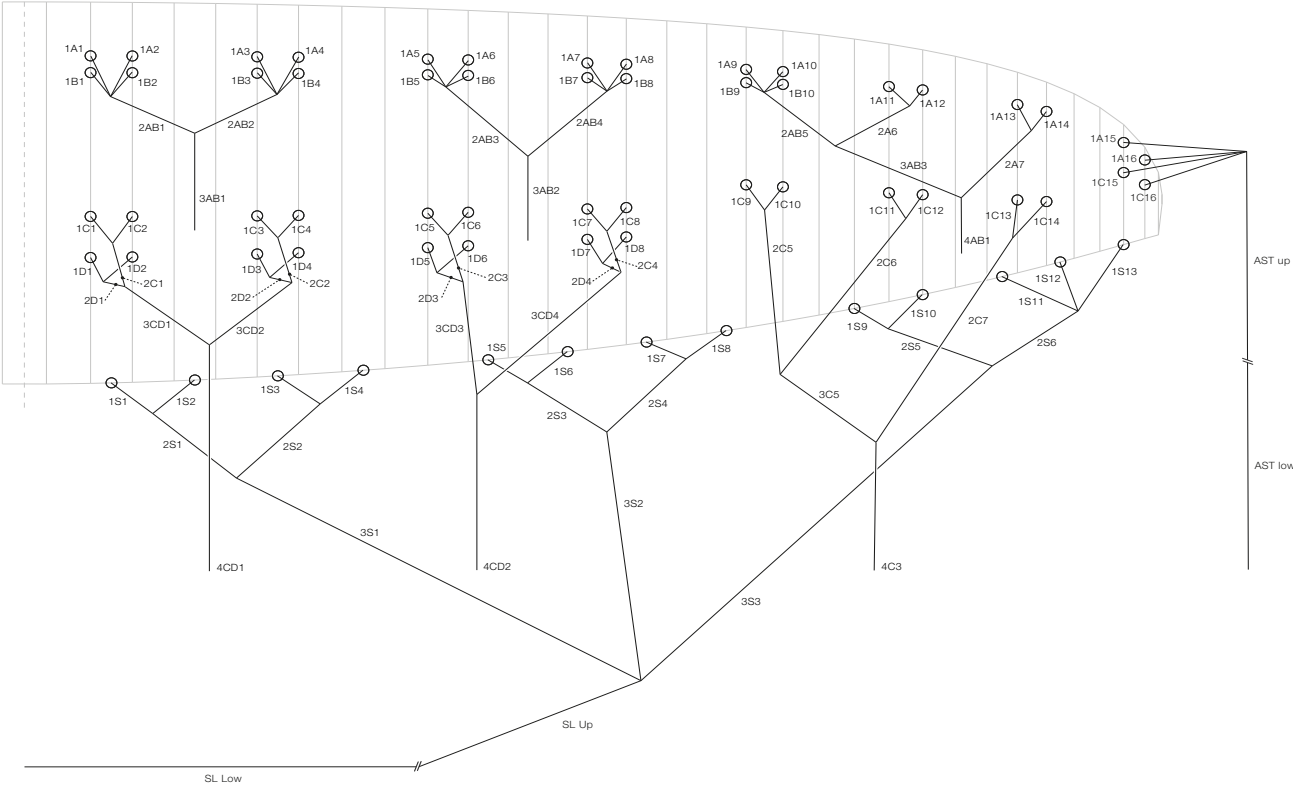
of the product). This warranty is valid for three years from the date of purchase of the product.

The ADVANCE warranty does not cover any claim other than those listed above. 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.

# List of parts



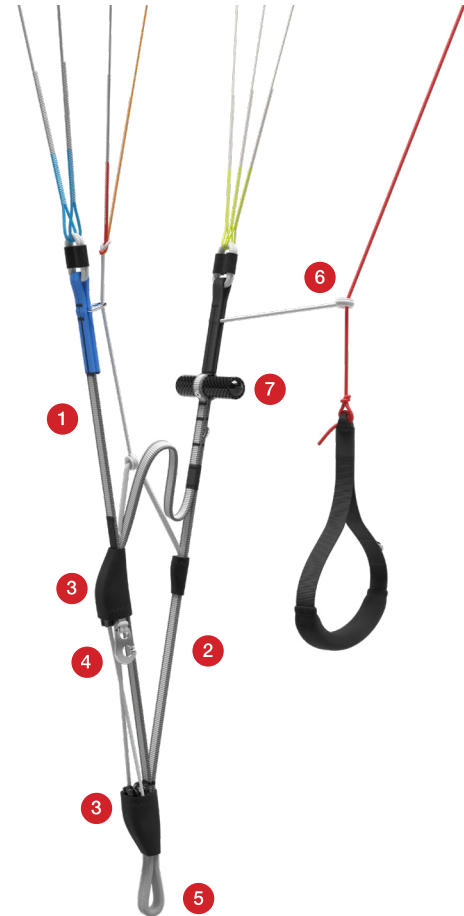
# Lineplan





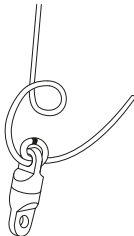
# Risers

1. A-Riser
2. B-Riser
3. Speedsystem pulleys
4. Brummelhook
5. Attachment point for the harness
6. Brake line guide
7. Pitch Control System (B-handle)



# Bowline

Step 1



Step 2



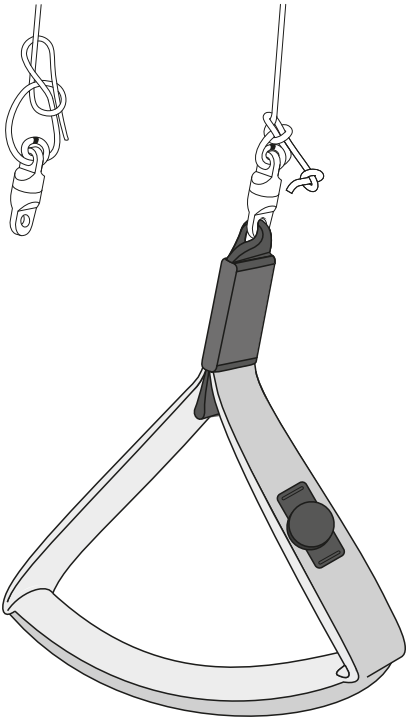
Step 3



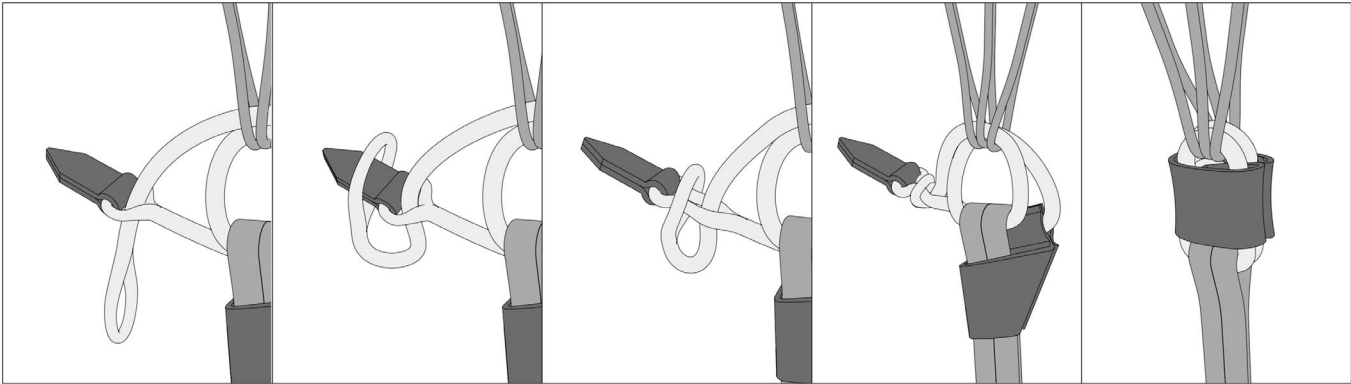
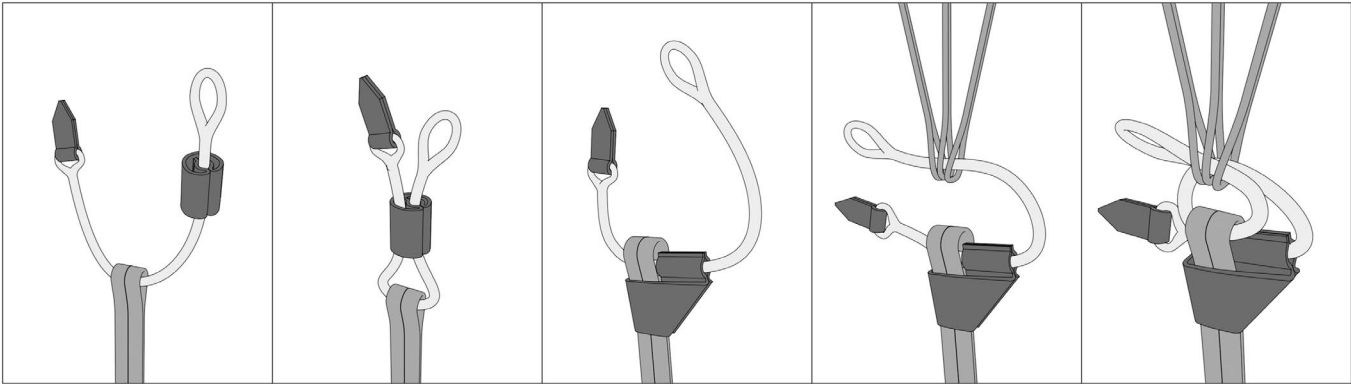
Step 4



Step 5



# Installation instructions Softlink



# ADVANCE

advance thun ag  
uttigengstrasse 87  
ch 3600 thun

+41 33 225 70 10  
[www.advance.ch](http://www.advance.ch)

[info@advance.ch](mailto:info@advance.ch)  
[support@advance.ch](mailto:support@advance.ch)