Owners Manual and Service booklet

UP Edge

Edge

Version 1.0
Valid from 2008
Stand: February 2008

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Important

The following symbols are used to draw attention to particular sections:

WARNING!

Failing to comply with instructions given here may lead to injury or death!

BEWARE!

Failing to comply with instructions given here may cause undue wear to, or even damage, your new wing.

NOTICE

This pictogram indicates a tip or some helpful extra knowledge.

Welcome in our team

Congratulations on the purchase of your new UP Edge. UP International is renowned across the globe for designing and building the finest paragliders available – paragliders characterised by maximum safety, performance and quality in every aspect.

Please take a little time to complete and send the reply card found in the back of this manual. This way we can keep you informed of all new products and developments at UP, as well as any technical information about the UP Edge.

We would also be delighted to hear any feedback you have concerning the glider. This is only possible once we have received your product registration, either through completing and sending the attached product registration card, or by doing the same Online via www.up-paragliders.com>service>product registration. Your completed product registration is also needed should any warranty issues arise.

If you have any questions regarding your paraglider or auxiliary equipment please ask your local dealer or feel free to contact us here at UP directly.

Have fun with your new UP Edge!

Your UP International Team

Safety instructions

Paragliding is an extremely demanding sport requiring the highest levels of attention, judgment, maturity, and self-discipline. Due to the inherent risks in flying this or any paraglider, no warranty of any kind can be made against accidents, injury, equipment failure, and/or death. This glider is not covered by product liability insurance. Do not fly it unless you are personally willing to assume all risks inherent in the sport of paragliding and all responsibility for any property damage, injury, or death, which may result from use of this paraglider.

Please read this owner's manual thoroughly before your first flight with the UP Edge so that you are fully acquainted with your new glider. This manual gives you information on the entire specific and general flying characteristics of the UP Edge, but it does not replace attending a paragliding school. It is important to note the following points:

- The UP Edge has been tested extensively by the UP test pilots and has further been subjected to a LTF load test. It is however not a certified wing, and in Germany and Austria may only be flown with the so-called "Breitenerprobung". Outside of these two countries it is up to the pilot to ensure that they are flying within the regulations.
- any changes being made outside the permitted range of adjustment invalidate any and all claims under the warranty
- using this paraglider is exclusively at the risk of the user; the manufacturer or distributor assumes no responsibility for accidents occurring while using it.
- it is assumed that the pilot is in possession of the necessary qualifications and provisions of any relevant laws are observed
- when reselling the wing please make sure you also give this manual to the new owner. The manual is an integrated part of the paraglider and is required for the wing to keep its certification.

Development of paragliders

Admitted; we're proud of our history. No other company in the free flying world can look back on such an expansive history as we can. The UP story started back in 1970 when Pete Brock graduated from the Art Center, a world famous school for design and engineering in Pasadena, California, and promptly created some of the most legendary race cars ever – the Daytona Coupe from General Motors was one – and then went on to become fascinated by the emerging sport of hanggliding – at that time probably the maddest pastime of them all. After founding Ultralite Products he introduces his first wing, the Dragonfly, and soon the new company becomes known under the UP acronym..

Pete Brocks spirit survives to this day in everything we do at UP International – we still have our very own way of seeing things and designing things. This entails building paragliders that are not only as safe as they come, they must also meet the very high

standards we set ourselves. Among these are the continued use of the most advanced technology available both in the designing and manufacturing process, but also the feel, the handling and the performance of the finished product. All this because we're addicted to building wings that will fascinate you. A good paraglider is comprised of a number of interacting factors of which looks, feel, handling and performance are but a few. Only when all these come together in the final product can we claim to have built a wing that is homogenous and pleasurable to fly; and only then we're happy, and ready to introduce our new UP baby to the free flying world.

Our gliders are developed using state-of-the-art CAD software. Our programs allow us to do the initial flight testing in a virtual environment where we can simulate a great many things before even assembling the first prototypes.

Once we're happy with the new prototypes' behaviour in the virtual environment the program generates the templates after which the glider is sewn. When a new prototype arrives from our proto-building experts everyone at UP is excited about the prospects of trying it out in real life. The practical tests may show that further modifications are needed – these may be carried out on the existing wing, or a new prototype is built with the mods already incorporated. In exceptional cases this may continue through several prototypes, for only when we're 100% satisfied do we submit our new wing to testing by the DHV. We owe it to our customers, and to our own history, to be particular about which products earn the UP badge.

Technical description

The UP Edge is a full-blooded competition glider and was developed by UP according to the special demands to a top level high performance glider.

As with all UP products, the materials used have been carefully chosen for their outstanding quality and strength, to guarantee a long and trouble-free service life.

Further construction details, including line lengths, are included in the certification specification sheets, which form part of this manual. Any technical changes will appear in the appendix.

Certification class

The UP Edge is not a certified paraglider. It is the pilots' responsibility to ensure that all local and national legislation is adhered to when flying this wing. In Germany and Austria the UP Edge may be flown by pilots possessing the so-called "Breitenerprobung-zulassung

Target group and recommended flying experience

Competition pilots with extensive experience, flying no less than 120h/year in a variety of conditions. For pilots who are looking for maximum performance for their XC or competition flights.

Necessary skills for normal flights

Managing a competition paraglider requires above-average flying skills acquired during several years of very frequent flying in the most diverse conditions.

Necessary skills for dealing with disturbances & rapid descent methods

Dealing correctly with competition paragliders following disturbances in the air demands quite a lot from the pilot in terms of reaction speed and skills. Safely controlling such a wing during spiral dives or other extreme SIV manoeuvres requires continuous training in order to remain on top of the situation. Besides, pilot mistakes following collapses could rapidly lead to cascade incidents and must thus be avoided.

Suitability for training

The UP Edge is not suited for training.

Recommended weight range

The UP Edge should be flown within the stipulated takeoff weight limits, found in the “Technical data” section of this manual. The weights mentioned are total launch values, including glider, pilot, harness, all clothing etc. The easiest way to find your own total launch weight is to jump onto your scales with the complete backpack containing all your kit on your back.

UP International manufactures the Edge in 8 different sizes. If you find yourself having to choose between two not entirely ideal sizes we recommend you let your choice be guided by your personal preference for being either a little light or a little heavy on a wing.

Many pilots prefer flying their high-performance paragliders fairly well loaded. If the predicted climb rates are high, some will even opt to go one or two kgs over the recommended upper weight limit. Loading up the wing like this will make it noticeably faster and also more dynamic to fly. Others prefer going somewhat lighter on the wing, to enable them to core tighter and enjoy a more relaxed ride.

The UP Edge responds to changes in the wing loading with changed speed characteristics. The glide ratio remains unchanged, and the climb ability is only changed insignificantly. This means that you may as a pilot set your weight to your own exact preference without worrying about performance.

Technical Data UP Edge

Size	XS	S	SM	M	ML	L	XL	XXL
Wing area real [m²]	23,36	24,47	25,52	26,53	27,50	28,43	29,31	30,16
Wing area projected [m²]	19,72	20,66	21,55	22,40	23,22	24,00	24,75	25,47
Wing span real [m]	13,23	13,54	13,83	14,11	14,36	14,60	14,83	15,04
Wing span projected [m]	10,25	10,49	10,71	10,92	11,12	11,30	11,48	11,64
Aspect ratio real	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5
Aspect ratio projected	5,32	5,32	5,32	5,32	5,32	5,32	5,32	5,32
Number of Supported Ribs	28	28	28	28	28	28	28	28
Number of Cells Top Sail	75	75	75	75	75	75	75	75
Total line length [m]	328,07	335,75	342,93	349,65	355,96	361,90	367,50	372,79
Total # of lines	188	188	188	188	188	188	188	188
Line diameters [mm]	0,6 / 0,8 / 1,1							
Weight [kg]	5,9	6,2	6,4	6,7	6,9	7,1	7,4	7,6
Trimmspeed [km/h]	41-42	41-42	41-42	41-42	41-42	41-42	41-42	41-42
Maximum Speed > [km/h]	65+	65+	65+	65+	65+	65+	65+	65+
Classification	Breitenerprobung (BEP)							
Best take off weight [+/-3 daN]	83	89	95	101	107	113	119	125
Description	Competition							

*As of Februar 01th 2008. Technical specifications could change during development.

Construction

The brand new UP Edge is the most uncompromising UP design ever. This is performance at its purest, the finest we can make it today, and it demonstrates exactly how far we have come in terms of innovative design ideas, maximum performance and outstanding design.

The shape reveals the pretensions right from first glance. We have built a wing that radiates performance and aggressiveness. High aspect ratio hints to the performance one can expect form this machine, and the actual behaviour confirms it. The swept-back tips and the curvature of the canopy offer the elegant solution to the drag issue and give the whole package a purposeful air, this is the shape of the future in competition paragliding.

Illustration 1: CAD-Model of the UP Edge canopy

UP has always focussed a great deal on building high-performance competition wings, made to win the biggest and most prestigious events. We have nurtured that tradition, and won big events like the World Championships, the Overall World Cup, and even the RedBull X-Alps twice. All of these results, and the wings that were used to win them, have been successfully blended with our technological progress of recent years to come together in the new UP Edge. The result is unmistakable; the crown in our turban, the star of our product line, a performance wing like no other, built using the latest software innovations and the finest “feel” for the trade. Performance you can rely on to take you into the top echelons of any event you set your eyes on.

Flight dynamics

UP refined the brakeline attachment system so that the trailing edge would be even more precisely managed than before. We combined this with a new brakeline geometry that, even if it does sound like a marketing phrase, allows the Edge to cut through the air like a hot knife in butter. The Edge is equally impressive on fast soaring tasks as on slow days with weak climbs. The conflict between comfort and dampening as opposed to agility and tightness of handling is simply perfectly balanced so that it becomes a non-conflict. The bank angle is easily adjusted and the Edge has no tendency to go on its nose in the turn.

The second generation of Pitch trimmers allow the pilot to fine-tune the Edge to their own preference and the conditions at hand. Closed trimmers are perfect for weak climbs and slow conditions where every metre counts, whereas open trimmers make the wing bite into thermal cores harder, allowing easier centring in strong, tight cores. With trimmers closed, the wing will also suffer less from turbulence-induced pitching, something that could be used on rough glides.

Performance

Approaching full speed, the GPS is closing in on the 70km/h figure. But

almost more impressive than this borderline value is the way that it is reached. Any delayed reaction to pilot input is a totally alien concept for this wing – it converts any engagement of the speed bar into speed almost alarmingly fast. The layout of the new 3-riser speed system was a particular challenge; in order to unfold the full potential of the design, a second generation of Pitch trimmer system was called for. Made with delimiters to curb unwanted behaviour, the elaborate risers have a very linear AoA effect to the benefit of the glide ratio and speed of the Edge.

Canopy material

The UP Edge is constructed from polyamide cloth, which is particularly stretch-resistant and durable, and is specially treated for maximum UV resistance.

After an extensive series of tests and years of practical experience we have found that the best material is a high tenacity polyamide “New Sky-Tex”, from Porcher Marine (France), with the Designation 9092 E85A (top surface front, cloth weight 45 g/m²), 9017 E38A (top surface front and bottom surface, cloth weight 40 g/m²), and 9017 E29A (ribs and v-tapes, cloth weight 40 g/m²).

This material consistently exhibits excellent air permeability and has a remarkably good colourfastness with the latest PU coating.

Line material

The lines in the UP Edge are a completely new mix of unsheathed Liros Dyneema lines in the upper levels and unsheathed Aramid lines from Edelrid for the lower ones.

We use 0.6, 0.8 and 1.1 millimetre diameter. Note that the lines are of the unsheathed variety and must be treated with even more care and attention than normal paraglider lines. Gliders equipped with unsheathed lines are in no way suited for acro- or even extreme flight manoeuvres!

Time and again we encounter pilots who do not adhere to the stipulated check intervals when it comes to their comp wings. Combine this with the fact that line failures have in the past led to more than one fatal accident in competition paragliding and we cannot stress enough the importance of having your lines checked by an approved checking facility in accordance with the checking intervals stipulated by UP! The current situation shows that this is too often ignored.

WARNING! Make absolutely sure that you adhere to the maintenance schedule prescribed by UP. It may be found in the chapter "Checks and Repairs". Doing so is important for your own safety in flight!

Line system

The entire line system is formed from individual lines, which are sewn and looped at both ends. The single line levels are connected over a special hoop technology ("handshake") to prevent a weakening of the core and a loss of strength. The lines and stitching are subject to rigorous production controls, to ensure high and consistent manufacturing quality.

The lines of each wing section consist of four groups and the brake lines:

A-Lines: A1-A3
B-Lines: B1-B3
C-Lines: C1-C3 / S1
Brake Lines: BRK

The brake lines are collected at one main control line per side. This control line runs through a pulley attached to the C-Riser and is marked with a black dot at the point where it should loop around the C-ring. The brake is pre-set so that the glider is at 0 degree brake when the toggle is free. Please don't change the main brake lines without checking the new length carefully at a suitable training hill before flying!

All main lines of each level (A, B, and C) are looped together and attached to „UP Line Links", which are connected to the risers. The „UP Line Links" links have special line collectors to prevent lines slipping. After maintenance work the „UP Line Links" must be closed according to the description in the previous paragraph!

Risers

Whilst the UP Targa 3 had risers with two trimmer systems for adjusting both pitch stability and speed, the UP edge has moved one Step further and now employs only one trimmer to attain both of these objectives. The new trimmers are constructed for the 3-riser design of the Edge and can be considered the 2. generation of UP comp wing trim system.

We further managed to design the trimmers so that the pitch dampening has no effect on the brake line travel and the feel of the wing does not suffer in any way. This means that the Edge can safely be cored tighter and flown slower, to the benefit of the attainable climb rates.

Using the positive trimmer

The UP Edge has a very high trim speed, and a further increase of this should normally not be necessary. However, when flown very light the pilot may wish to use the positive trimmers. These lengthen the C1/C2 and the C3/Stabilo lines. Using the full travel of the trimmers should be done with extreme caution, and we recommend never using more than ¾ speedbar in combination with fully opened trimmers or the stability of the wing will be compromised.

Adjusting the trim speed can be done with far smaller trim movements of maybe 1-2cms, and if more speed than that is needed we recommend using the very efficient speed system instead.

Negative trimmer setting

When the negative trimmer travel is employed, the C1/C2 and the A1/A2 lines are shortened. This gives the profile more camber and thus improves the min. sink of the wing. The pitching is also reduced and the canopy will become more neutral above the pilots head. This setting is ideal for tight thermals close to the slope since it allows the wing to be turned almost on the spot in spite of the very high AR. The reduced pitching moment of the wing also makes it easier to remain inside the core. We do not hesitate to claim that in this setting, flying the Edge will feel like flying a Serial Class wing, also due to the reduced brake line pressure. The trimmers may also be used for adjusting the speed in tight gaggles so as to avoid flying up into the back of the pilot in front.

Neutral trimmer setting

We recommend setting the trimmers in the centre position for flying straight and gliding between thermals. The increased profile camber of the negative trim will reduce the glide ratio, and is really only useful for climbing/thermalling. The central, neutral setting is suited for almost all other flying.

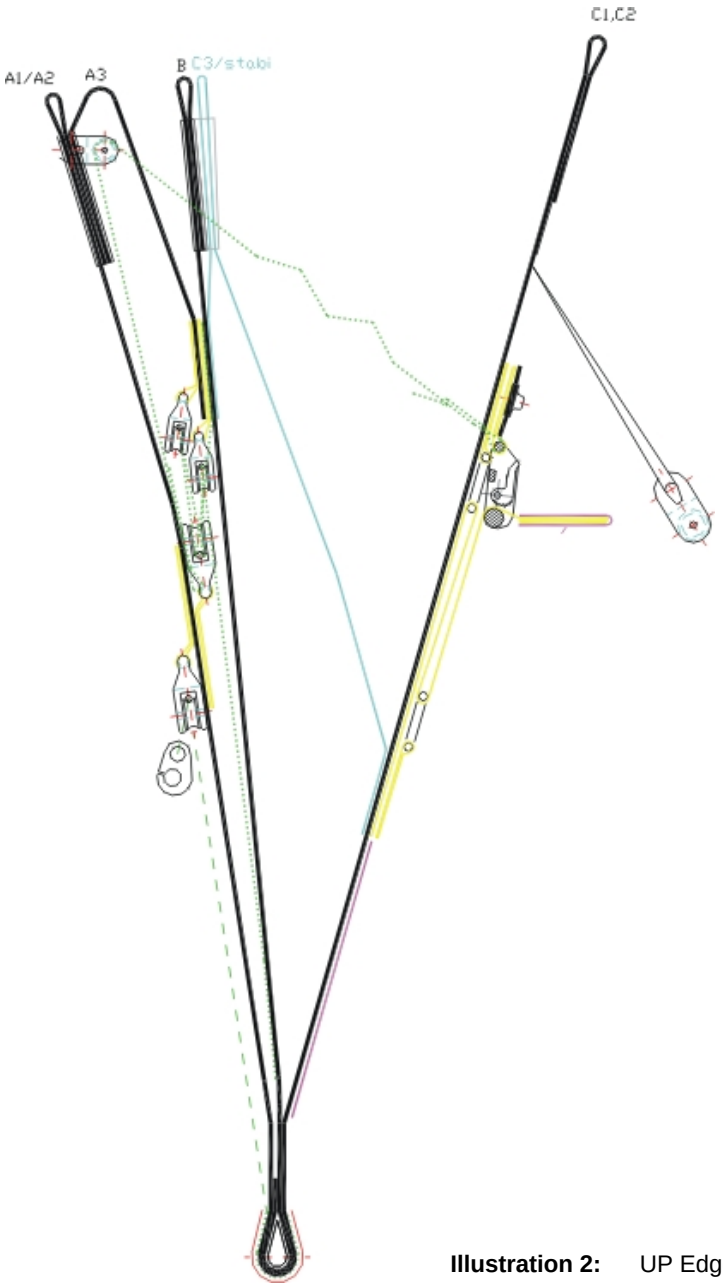


Illustration 2: UP Edge riser

UP Backpack

The UP Edge is delivered with a special paraglider backpack, which fulfils the demands of very high luggage volume and ergonomically optimised comfort.

We have built in an anatomical carrying system that allows an optimised load distribution for maximum comfort. The S shaped shoulder straps allow full adjustment and the detachable chest strap prevents the shoulder straps from slipping off the shoulders.

The load control straps attached to the shoulder straps can be set either loose, to aid ventilation, or tight, for extra stability. They should rise from your collarbone at about a 45° angle.

A hip belt is also incorporated to assist overall comfort. If the hip belt is tightened then the shoulder straps can be released slightly to transfer the load away from the shoulders. The hip belt is fitted with stabilisation straps, which can be tightened to help stability, or loosened for extra freedom of movement. The hip belt is removable for when packing size is critical, or the pack is being transported by air.

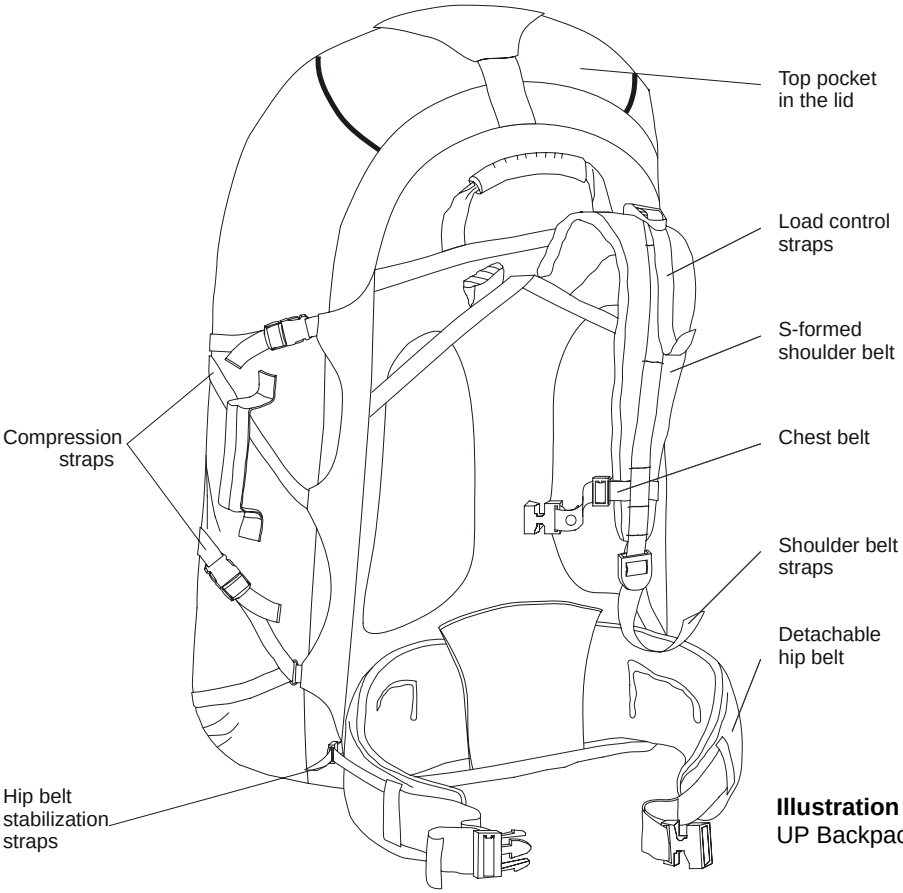


Illustration 3: UP Backpack

It is important, especially when there is a long trek involved, that the backpack is adjusted for maximum comfort. The following advice should be considered when packing.

Adjustment of the backpack

When fully loaded, all compression straps should be tightened to secure the load in the pack. All carrying straps should be set fully loose and the pack then put on your back. The hip belt should be fastened and tightened to rest approximately in the middle of the hip. Any slack should be taken out of the shoulder straps, and the chest strap should be done up. The load control straps at the shoulders and hips can now be tightened to achieve the desired stability.

Packing tips

Packing the UP paraglider rucksack correctly will make it a pleasure to carry. A couple of easy tips can help you get it right. Failing to follow these tips will adversely affect you carrying comfort.

The centre of gravity of the load should be as close to the vertical centre axis of the carrier, while also being situated as high on the back as possible. This allows for a vertical posture and minimises the leverage of the load against the natural posture of the carrier. It also helps by reducing the oscillations of the load while walking.

The drawing shows the ideal load distribution in the UP rucksack. Loaded like this the carrying comfort will be optimal. Start by placing the heaviest items close to the shoulder blades, with lighter items over and under this region. The lightest items should be placed the furthest from your back.

Do not fasten any objects to the exterior of the rucksack, as these are unprotected against theft and can also get caught on protruding points when entering or exiting lifts, cars or buses.

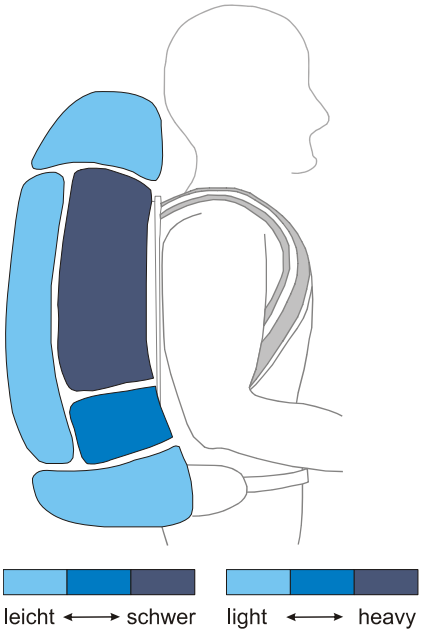


Illustration 4: Ideal load distribution in the UP rucksack

Before the first flight

The UP Edge is delivered with a speed system, rucksack, compression bag and –strap, repair materials and this manual. The manual may also be downloaded from the UP website. Every Edge delivered has been minutely checked at the factory, and corresponds exactly to the archetype.

BEWARE! Before the first flight the UP Edge must be inflated in the wind on a flat surface. Ensure that all lines run according to the line plan, that none of the lines are crossed and that all line/riser connectors are firmly closed.

Adjustments

The UP Edge has undergone an extensive development program and series of flight tests to ensure that the production model exhibits the optimum characteristics with regard to safety, handling and flight performance.

As with all products from UP International, the UP Edge is manufactured to the highest quality and precision. The line lengths of each glider are individually checked and recorded before dispatch.

Under no circumstances should the lengths of the lines or risers of the UP Edge be altered in any way.

WARNING! Any changes to line lengths or riser configuration will invalidate certification! The only change allowed is to the length of the lower brake line. This should only be done by an experienced person.

Position of the brakes

The UP Edge is delivered from the factory with what we feel is the best brake position for most pilots. But tall or short pilots, or those with a harness with non-standard attachment points might feel it necessary to change the position of the brake handles.

If the brakes are to be shortened, it is extremely important to avoid the adjustment affecting the glider's trim speed. There must always be some slack in the brakes when they are fully released. This can be checked with the glider inflated above the pilot's head. There should be a noticeable bow in the brake lines, and the brakes should be having no effect on the shape of the trailing edge.

If the brake lines are to be lengthened, it is important to ensure that the pilot can still stall the canopy (i.e. during extreme manoeuvres or landing) without the need to take wraps.

If you do feel the need to change the brake line lengths, do so a little (3-4cm) at a time, and preferably whilst at an easy training slope. Check especially that both lines are the same length, as any asymmetry will lead to tiring and possible dangerous flying characteristics.

If you have any questions or concerns with reference to the brake line lengths then seek advice from either your UP dealer or directly from UP International.

To tie the brake line onto the brake handle use one of the following knots: The simple fisherman's knot or the Bowline as shown in illustration 5 and 6. These knots guarantee the least amount of line weakening.

BEWARE! Loose or incorrect brake knots can cause serious accidents through loss of the steering of the glider!

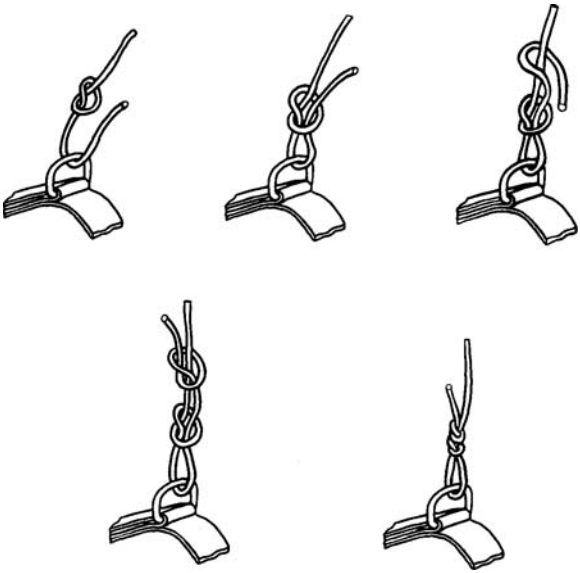
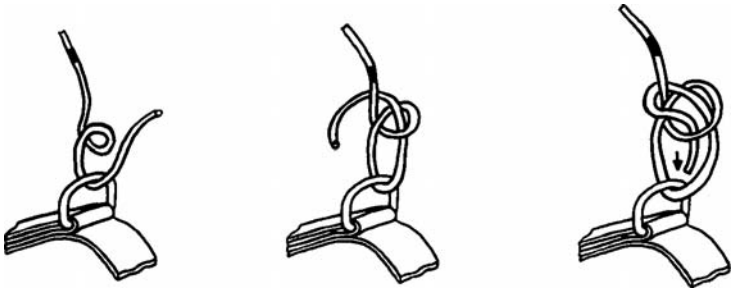


Illustration 5 and 6:
Fishermans- and bowline-knots



Speed system

It is important that the speed system is connected correctly, and the length checked, to ensure smooth operation in flight.

The link between the foot stirrup and the risers consists of two cords and two brummel hooks. The speed stirrup itself is composed of a foot bar and webbing with loops sewn on either end to attach the cords. These cords should be run up through the eyelets and pulleys on the harness to connect with the pulley system on the front of the risers (see Illustration). This illustration refers to the UP harness, but many harnesses are similar. If in any doubt, please ask the harness dealer/manufacturer.

The length of the cords should be set so that, at full leg extension, the pulley on the risers is just touching the lock at the end. Any shorter and the stirrup will be difficult to reach; longer and the top of the speed range will be unavailable.

During take off it is advisable to fix the accelerator stirrup underneath the harness to avoid any danger of tripping over it.

Suitable harnesses

Any harness with hang points near chest height is suitable for use with the UP Edge. The lower the hang point of the harness, the better the pilot can steer by weight shift. A LTF or EN certified harness is recommended.

The harness design should also guarantee that it's possible to accelerate the UP Edge up to the maximum speed.

Note that the height of the hang point also affects the brake line length. If you have a question about your UP harness, contact your dealer or UP International.

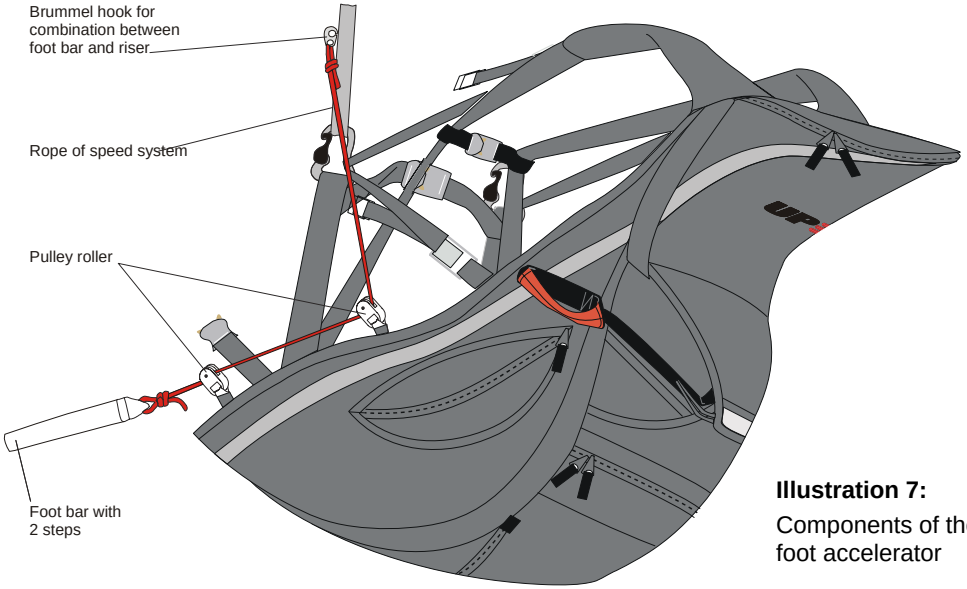


Illustration 7:

Components of the foot accelerator

Rescue system

It is strongly recommended that you have a rescue system (reserve parachute) fitted at all times. In some countries it is mandatory, so check if you plan to travel. Make sure that the reserve system you have is the correct size, and that you are fully conversant with it's use.

For fitting the reserve system, follow the instructions of the harness manufacturer.

Use of the UP Edge

The UP Edge has been developed and tested solely for foot launched and winch launched paragliding flights. It is not allowed and potentially dangerous to use the glider for any other purpose.

Aerobatics

The UP Edge has not been developed, constructed and/or tested for aerobatics use.

WARNING! The glider has not been certified for aerobatics. Performing aerobatics with the UP Edge or any other paraglider can be very dangerous. Doing aerobatics can induce flying configurations well beyond the tested flight envelope, and can lead to total loss of control. Aerobatics can also overload your glider and break it in flight.

Motorised Paragliding

The UP Edge has not been tested for use with any kind of engine.

If you wish to fly your UP Edge with a motor please get in touch with the manufacturer of the engine unit, with UP International GmbH and with the governing body for ultralight flying in your area, to check on certification of this configuration.

Flight practice and safety

Both of the following chapters (Flight practise and Flight safety) describe fundamental aspects of flying paragliders. In no way do they substitute proper training, nor should any of the content therein be unknown to any pilot who has chosen to fly a competition paraglider like the UP Edge.

Flight practice

Pre-flight check

Make sure whenever you get your UP Edge back from somebody else to check the glider very carefully if you are not the only pilot flying it. Ask if there was anything that could have damaged any part of the glider, if the pilot has found any part that needs to be replaced or if they noticed any strange flight behaviour. Make sure you do the same when you lend your glider to somebody else.

A thorough pre-flight inspection should be performed prior to each flight. A careful pre-flight check is a must for any and all airplanes – also the UP Edge. Please apply the same care and attention before EVERY flight!

Launching

The middle of the canopy is marked by the UP logo at the leading edge.

Due to the high AR of the Edge, we recommend launching it in reverse so that one may always keep the entire wing in sight during the inflation phase, and react to things along the way.

Should you wish to launch the UP Edge using the Alpine launch method (forward launch) it will pay to take extra care during the preparations, to lay out the wing in a slight V and to make sure the pull on the A-risers is constant and even. Failing to do so could cause the wing to come up in a front rosette.

Speed control

Using the brakes

The UP Edge has a wide useable speed range, coupled with excellent stability at all speeds. The speed can be set with the brakes to optimise performance in any situation.

Maximum glide speed is achieved with the brakes released completely, whereas minimum sink speed is with approximately 5-10cm of brake applied. Further braking will not improve the sink rate, but the brake pressure increases noticeably as the glider reaches minimum speed.

BEWARE! Flying close to the stall point is very dangerous and should be avoided. At speeds below minimum sink the danger of entering an unintentional stall or spin is increased dramatically.

Using the Speed System

The UP Edge is supplied with a speed system, which is activated by a foot stirrup. Full application increases the speed by approximately 20 to 25 km/h.

It is important to remember that the glider will be more susceptible to collapses at high speeds, so the speed system should not be used in extreme turbulence. If, with the speed system

applied, a collapse occurs then it should be released immediately. Some warning of an imminent collapse is afforded by the tension felt in the speed system; should the tension suddenly reduce then the stirrup should be released and the glider returned to normal trim speed.

WARNING! All extreme flight situations, such as collapses, happen more dramatically at increased speed. Therefore the speed system should not be operated near the ground or in noticeable turbulence.

Turning

The UP Edge is, due to its high trim speed and dynamic handling, an agile glider that reacts immediately to pilot input.

The turn behaviour and the climb ability will be influenced by the trimmer settings and the wing loading. This means that the pilot may choose to fly it in a very agile and dynamic configuration, or alternatively have a more dampened and comfortable wing. Please refer to the „Wing loading“ and the „Risers“ chapters in this manual for further tips.

Landing

Beware that due to the very high glideperformance and the excellent energy retention, the landing will use up more space than you are used to.

Winch towing

The UP Edge is well suited for tow launching. Due to the high aspect ratio and the short brakeline travel we recommend particular attention during the launch- and cilimbing phase.

Consideration should be given to the following points:

- Especially when you are towing at an unknown field, make sure that you are fully aware of any local conditions and peculiarities. Ask the local pilots if you are at all unsure.
- During the launch, ensure that the glider is completely inflated and over your head before giving the 'start towing' signal. If the glider is not central over your head do not continue with the tow. Any corrections attempted through the brakes during this critical phase may result in the canopy deflating again, or in the tow progressing with a non-flying wing; if tow tension is applied when the glider is not correctly positioned then a 'lock out' or a stall could occur.
- Try to avoid large brake inputs until you are reasonably high. Emphasize weight shift if any course correction is necessary close to the ground.
- Do not try to climb steeply during the first part of the tow. Good airspeed is essential.
- Do not use a towline tension greater than 90 daN at any time during the tow.
- All persons involved with the towing operation should be suitably qualified and experienced. All equipment used should, where necessary, be certified, and a tow permit should be valid for the field being used.

Attaching the towline release system

The optimal attachment point for the towline release is always in the systems' centre of gravity. On a paraglider that means the connection point between the risers and the harness, preferably right onto the lower end of the risers. UP International has developed special tow-release connectors for the UP Edge to ensure the optimal connection between the pilot and the towline. For safety reasons we suggest that you always use these connectors when towing the UP Edge.

When using towline release systems incorporating distance-tubes between the risers it is important to ensure that the risers are not pulled together by the system (use webbing loops designed for climbing to increase the length of your release system). It is also very important to fit a bungee to the system that will keep it from hitting you in the face in the event of a towline failure

BEWARE! If you are using a front-mounted reserve system it is very important to verify the unhindered deployment before every flight. In case of doubt please only tow using a textile release system.

Flight safety

Competition wings have very little margin for pilot error. Choosing the right wing, in the right category, is essentil for the safety of the pilot. Noone can assess you abilities better than yourself, especially if you have reached a level where a wing in this class is among your options. Choose wisely for your own safety.

A safe and efficient way to get used to your new paraglider is by practicing your ground handling skills. We suggest finding a suitable area, like a playing field, and with light to medium wind it is quite easy to practice inflating the glider and feel the reaction to brake input, b-line stall, collapses etc.

Before takeoff and whilst flying it is very important to anticipate any likely turbulence and fly accordingly. Look well ahead, and as well as looking for areas of likely lift, try and predict, and avoid, areas of sink and rough air. If you do find yourself in turbulence then look for the cause, and adjust your flight plan to avoid other similar places.

Thermals and Turbulence

In turbulent air, the UP Edge should be flown with a little brake to increase the angle of attack and provide greater stability. While flying in strong or broken thermals, it is important that you concentrate on keeping the wing centrally above your head. Do this by allowing the glider to fly faster while entering a thermal, and by dampening the surge of the canopy while exiting the thermal by braking gently.

Flying fast is useful for getting through sink or when flying into a headwind. The UP Edge possesses a high inherent stability due to its construction and design, however an active flying style in turbulence will help increase safety by preventing unnecessary collapses and deformation of the canopy.

Getting down fast

All rapid descent manoeuvres should be practiced initially in smooth conditions with plenty of altitude before you need to use them 'for real'. It is important to distinguish between the three techniques, and to know the merits of each.

WARNING! All other manoeuvres, such as full stalls and spins, should be avoided as fast descent techniques. They are not very efficient, and incorrect recovery can have dangerous consequences (as with any paraglider)!

Steep Spiral Dive

A maximum sink rate of over 15 meters per second can be achieved in a steep spiral dive, but we recommend only using this descent method as a last resort on a comp wing. The thin comp lines could stretch from excessive use of steep spirals.

Getting the UP Edge into a spiral dive is very simple and has already been described in the chapter regarding turning. When entering the spiral it is essential to induce the turn gradually; if you apply the brake too quickly you may enter a spin. If this happens, release the brake immediately and let the glider recover before trying again. Keep a steady tension on the inside brake and observe the increased angle of bank and sink rate. A little brake on

the outer wing will help stabilize the glider at a high sink rate.

To recover from a spiral, simply release the inside brake. Do this gradually to prevent an uncontrolled steep climb caused by the excess energy built up during the dive. Be prepared for the glider to climb a little and to damp out the subsequent dive. Be warned that steep spiral dives are equal to high G loading on both you and your glider!

WARNING! Never pull Big Ears in a spiral dive, as it's relatively easy to overload the paraglider, pilot and equipment.

B-Line Stalls

Due to the high aspect ratio and the complex riser system, we recommend avoiding situations where you need to B-stall the wing.

Big Ears

To pull the ears in, reach up and get hold of the outermost A line on both front risers and pull them down, simultaneously, by about 20-30cm until the tips collapse. Keep these two lines in your hands, to prevent the wing re-inflating.

We suggest keeping the brake toggles in your hands while inducing Big Ears. The glider will remain fully steer-able through weight shifting during the manoeuvre. The sink rates will be around 2 to 3 meters per second. Releasing the two A-lines will normally have the tips re-inflating on their own, otherwise light braking will assist the re-inflation.

Do not perform other manoeuvres whilst using Big Ears, as the structure of the canopy could become overloaded.

Inducing large Big Ears on the UP Edge when flying near its lower weight limit requires great caution on the amount of brake input used, as it may deep stall in extreme cases. Should this happen use the recovery technique described in the ‘Deep Stall’ section.

Flying outside the normal flight envelope

Behaviour in extreme situations

The UP Edge is a thoroughbred competition paraglider and demands piloting of the highest level both in terms of skills and reaction speed.

The manoeuvres and possible flight configurations described in the following may occur following a conscious effort on the part of the pilot, through turbulence or through pilot input error. Any pilot flying in turbulent air or making piloting mistakes may end up experiencing these flight configurations and therefore find themselves in danger, particularly if they are not adequately trained to master them.

WARNING! Mistakes during the execution of the following manoeuvres may seriously compromise the safety of pilot.

Collapsing the paraglider

Asymmetric collapse

As with all paragliders, strong turbulence may cause the UP Edge to collapse. A large collapse must be anticipated by the pilot before it even happens, and preferably prevented in the first place. Any wrong or even delayed reactions may result in very dynamic behaviour and possibly tips caught in the lines.

If an asymmetrical collapse has occured, the pilot must try to counter any turn by adequately braking the open side. If nothing is done, or the wrong thing is done, the wing may rapidly enter a steep spiral dive that could be difficult to get under control, in rare cases the opposite canopy side may also collapse. Reinflating the collapsed side may require pilot input as well, best done by applying a few deep pumps on the collapsed side with the brake whilst the heading is controlled with the other brake. Small hectic brake input has no effect and may even worsen the situation.

Large collapses require even more attention, particularly the heading control via the brake line on the open side can be tricky. The risk of stalling the open side is high due to the high wing loading and the short brake travel.

It is also not unheard of to have a wingtip getting caught in the lines (cravatte) following a large collapse. To avoid the wing diving into a steep turn caused by the excess drag on the side with the cravatte, the pilot attempts to preserve their heading by braking the open side and weight shifting hard away from the turn. One big, authoritative pump on the collapsed side will usually clear the problem; otherwise all UP wings have a stabilo line in a conspicuous colour going from the C riser to the wingtip. Pulling on this line will almost certainly clear any cravatte.

One final method to clear particularly obstinate cravattes will be mentioned here, the spin recovery technique. To employ this quite extreme recovery technique, spin the cravatted side briefly so that the reverse airflow can clear the cravatte out from the lines. This manoeuvre is only for the very experienced – but then again, so is the UP Edge!

WARNING! Wrong or delayed pilot reactions in connection with collapses may cause severe injury or death!

Full frontal collapse

A negative angle of attack occurring through turbulence or from simultaneously pulling down both A-risers results in a full frontal collapse of the leading edge of the canopy. The UP Edge will normally reinflate quickly on its own, but can be assisted through the application of a light double-sided symmetrical brake input.

Very large frontal collapses may result in the tips flying forward to meet so that the glider forms a rough “U”. In this case it is important to assist the reinflation in such a way that the glider reinflates symmetrically. Otherwise the tips may get caught in the lines.

The stalls

When a paraglider flies through the air a laminar and a turbulent airflow forms around the surface of the wing. When the laminar airflow along the top surface is interrupted, dangerous flight configurations follow – we say that the wing stalls. This is most often the consequence of attempting to fly with too high angle of attack.

In more detail we differ between three different forms of stall.

BEWARE! Spin and full stall are both dangerous and somewhat unpredictable manoeuvres. Do not stall or spin your paraglider on purpose. However it is very important to learn how to recognize the symptoms of a glider about to stall or spin so that you can take correct action to avoid it happening.

Deep Stall

The UP Edge has no inherent tendency towards deep stall. It will recover from a deep stall brought about by over braking, by pulling on the rear risers, or by releasing the B-risers too slowly after a B-stall, on its own without any pilot input as soon as the brakes or the risers are released.

Should you however find yourself in a deep stall (as described above this could happen through flying too light on the wing and pulling big ears) the situation can be rectified by simultaneously pushing both A-risers forward until the glider resumes normal flight. Avoid applying brake to one side if you think that you are in a deep stall as this could lead to a spin.

Always remember that practicing manoeuvres where you fly close to minimum airspeed must only be carried out under professional supervision and with plenty of altitude.

Full Stall

First the gliders is slowed down to minimum airspeed, then the airflow along the top of the wing breaks away and the wing falls back, pulling the pilot with it. It is important to not release the brakes again at this moment, as this will have the canopy violently shooting forwards and diving down in front of the pilot. In extreme cases it can dive below the pilot, who could then fall into the sail.

After dropping back into full stall the canopy will form a horseshoe where the tips flutter about quite violently. These movements are transferred to the pilot’s arms through the brake

lines. Holding the wing in a full stall requires considerable strength!

When full stalled, the tips may attempt to roll in along the leading edge towards the centre. This may result in cravattes and should be avoided by careful, symmetrical release of the brakes.

Before releasing the brakes and allowing the wing to resume level flight it is important to stabilize the stalled wing. This is done by releasing the brakes slowly until the entire wing is almost completely re-inflated. In this phase the wing will be pitching somewhat over the cross axis. The pilot waits until the wing is in front of him and releases the remaining part of the brake travel. When timed correctly the wing will then resume level flight by surging slightly forward whilst accelerating to normal trim speed. However you must be prepared to dampen the surge and deal with any subsequent collapses occurring because the wing surges too far or doesn't come out of the full stall completely symmetrically.

Test pilots also carry out tests where they release one brake before the other while in full stall. This manoeuvre only serves to test the wings behaviour and should not be flown purposely as this is a situation where all paragliders react very dynamically. It is often followed by very large, dynamic asymmetric collapses that must be dealt with correctly to avoid dangerous situations.

Spin

The negative spin occurs when one side of the wing is stalled whilst the other is still flying. This can happen when, if flying very slowly, one brake is pulled quickly to below the seat. When the glider starts to spin, it will turn quickly around the vertical axis, with the stalled side flying backwards. To recover from a spin, simply release the brake on the stalled side. The glider will immediately speed up and, most likely, suffer an asymmetric collapse. Recover as described above.

If you suspect that a spin is imminent then immediately release the inside brake. The glider will accelerate smoothly and resume normal flight with little altitude loss.

Wingovers

Wingovers are induced by flying alternating turns; each time letting the pendulum effect increase the bank angle. As mentioned under the description of the spiral dive we recommend avoiding large wingovers as much as possible in order to minimise line stretching.

BEWARE! The UP Edge is a agile glider, and it is quite easy to get to an excessively high angle of bank in just a few turns. Practice wingovers gently at first, as there is a chance of quite large collapses at high bank angles.

Also notice that a wingover flown with more than 90 degrees bank angle is classified as illegal aerobatics in some countries!

Emergency Steering

If for some reason the UP Edge cannot be controlled with the brakes, for example if the brake handle has come off the main brake line, it can be steered and landed with the rear risers. Be aware that, when rear riser steering, the glider is a great deal more responsive to pilot input, and the stall happens very suddenly.

Further references

Rain-induced deep stall

There are two reasons why flying with a wet wing increases the risk of deep stalling:

First reason is that the canopy cloth may absorb water, making it much heavier and moving the centre of gravity around in unpredictable ways, increasing the risk of a stall/deep stall. The more water a wing can absorb the higher the risk, which means that older wings with damaged coating are more prone to these deep stalls than new wings. It should also be noted that a wing already flying close to the edge due to line shrinkage or other factors will deep stall sooner due to water absorption.

Second reason has to do with the actual rain drops on the top surface – if enough large rain drops form that the entire top surface is covered, but they don't join together to either flow off or become a homogenous mass, the surface will become so rugged that the airflow separates and the wing stalls.

This phenomenon has been observed on hang gliders and gliders for years but only recently have we discovered that paragliders may also be affected. It is more likely to happen with new wings where the cloth is still highly hydrophobic and the drops thus do not penetrate but remain on the surface.

We know from computer simulations and practical tests that this is physically possible but we also suspect that it occurs very seldom in real life flying.

In both cases the brakeline travel becomes very short and even small input may suddenly induce an airflow separation; in some cases even a gust or a sudden thermal may change the angle of incidence enough to cause the deep stall.

If you find yourself flying in unavoidable rain we strongly recommend that you avoid any sudden movements or radical brakeline input, that you do not pull BigEars or B-stall, and that you steer clear of turbulence and avoid a deep flare on landing.

WARNING! Avoid flying in very humid air or in rain. A wet canopy may have very unpredictable flying characteristics, one of which is a radically increased risk of deep stall!

Adhesive logos

Always make sure that your intended logo will not in any way influence the glider behaviour. If in doubt we suggest avoiding the attachment of advertising logos on the wing. UP cannot be held responsible for any mishaps caused by intentional after-sales changes done to the wing.

BEWARE! Attaching heavy adhesive logos made out of unsuited material to the wing may result in the revocation of the glider certification.

Overloading

The UP Edge is a very strong paraglider, and flying all the usual SIV and acro manoeuvres will not normally pose a structural problem. However, frequent acro training does accelerate the ageing process dramatically, and UP recommends having wings that are often used for acro or SIV-type manoeuvres subjected to checkups at shorter intervals than normally stipulated.

Salt water

If you do most of your flying near the sea, where the air is humid and salty, the wing may age faster. In this case we suggest you have it checked more often than prescribed in this manual.

Maintenance and cleaning

Taking care of your paraglider

The wear and tear that your paraglider suffers depends on a number of factors; how frequently it's flown, whereabouts in the world you fly it, how much UV it gets and how well you look after it. Bear in mind the following maintenance points.

Packing your UP Edge

Fold your wing as shown in the illustration here below. By doing so you will increase the working life of your wing simply because the reinforcements in the leading edge are not bent or folded every time you pack away your wing after a flight. Undamaged reinforcements positively influence the launching characteristics, the performance and even the safety, as wrinkled reinforcements cause the leading edge to become wrinkled too, to the detriment of the in-flight behaviour following disturbances.

Pack the glider in a slightly different way every time, so that it's not always the same bit of material that gets the maximum exposure.

Also, to avoid mechanical abrasion we suggest you lay your wing on the compression sack every time you pack it.

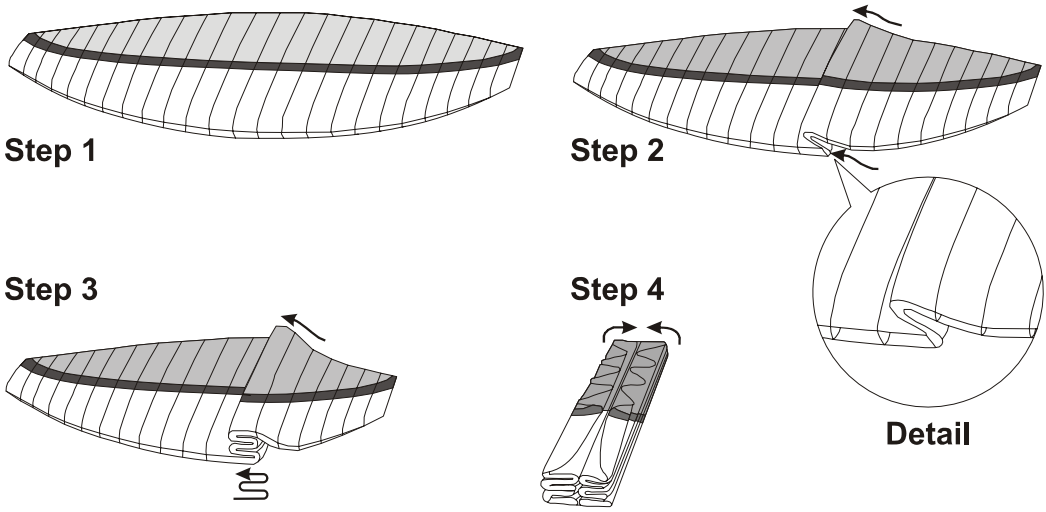


Illustration 8: Packing the UP Edge

Paraglider fabric

We use a top grade polyamide cloth to build our paragliders, which has a special protective coating against UV radiation and air permeability. The cloth will suffer though; if it's exposed to large amounts of UV (i.e. bright sunlight). Do not leave your glider lying in the sun for any longer than is absolutely necessary, only unpack and rig right before launching and do yourself the favour of repacking right after landing. Modern paraglider textiles have improved much in terms of UV durability but UV exposure remains the deciding factor of a paragliders' life expectancy. First the colours start to fade, then the coating and the structural integrity of the synthetic fibres begins to deteriorate.

On UP gliders the coated side of the cloth is facing inwards. This means that the coating is subjected to less mechanical abrasion while the porosity-limiting capabilities remain the same

When choosing an area to lay out the glider before launching, try to find somewhere that is relatively free of stones and sharp rocks. Pay particular attention to the top surface, where it lies on the ground.

Never step on your glider – stepping on it will weaken the cloth, especially if the surface beneath it is hard or contains sharp objects. We recommend keeping an eye on spectators on launch. Many, especially children, do not fully appreciate the fragility of the lines and cloth. It is usually easy to explain this to spectators and parents.

When folding your wing please make sure that there are no insects caught inside. Many insect species contain acids that could damage the cloth. Grasshoppers may use their sharp mandibles to attempt to gnaw their way out of a folded canopy, making it full of holes in the process. Beside they exude a dark and strong colorant that will stain the cloth if grasshoppers are packed inside. Shoo them off before packing. Note that, contrary to popular belief these particular insects are not attracted to any particular colours.

If the glider gets wet, then dry it as soon as possible, but not in direct sunlight! If you pack you wing away wet it may grow mildewy and, if also subjected to heat, the fabric fibres may begin to decompose.

A new wing straight off the shelves is often compressed hard. The compression serves to reduce shipping costs but should note be repeated once the wing has been unpacked and flown for the first time. Also note that, in spite of it being a comfortable seat, the glider bag should not be used as such.

Should you accidentally put your UP Edge into seawater rinse it out thoroughly with fresh water and dry it slowly in the shade (see Chapter Cleaning).

Paraglider lines

The lines used on the UP Edge are high grade unsheathed Aramid and Dyneema® lines. Keep the following points in mind:

- The lines should be checked regularly for damage.
- Please take care to avoid abrasion and damage to the lines' protective sheeting
- The lines should not be knotted or bent unnecessarily.
- The main brake line at the handle should not have too many knots. Each knot weakens the line.
- After any line over-stressing (tree landings, water landings and other extreme situations) all lines must

be checked for condition and length and should be replaced where necessary.

- If any change in flying characteristics is noticed then the lines should be checked possibly exchanged. Immediately send your wing to UP International or to a UP certified checking facility if you feel that something is wrong!

Storage and transport

A paraglider should always be dry when packed, but this is particularly important after the last flight of the season. But even a completely dry wing should still be stored open in a dry, clean and dark place. If you do not have room for such winter storage we recommend you open all compression straps on the bag as much as possible and leave the bag lid off so that air can circulate around the packed canopy. Make sure no mice or cats make their sleeping quarters in you wing, and keep it well distant from solvents and acids. Petrol and other petrochemicals is especially abrasive for nylon and will dissolve the cloth if allowed near.
The storage temperature should be between 10 and 25 degrees Celsius, and the relative humidity between 50 and 75%.

Do not expose your UP Edge to extreme heat (storing it the boot of a car parked in the sun). The heat may cause moisture to be pressed through the fabric, thereby damaging the coating. High temperatures in combination with moisture are a particularly volatile mix that will accelerate the hydrolysis process where the fibres and the coating are decomposed.

Cleaning

If you feel it necessary to clean your UP Edge at any time then use lots of lukewarm water and a soft sponge. More stubborn stains can be cleaned with a weak soap solution, and rinsed thoroughly. Then leave it to dry in a shady but well-ventilated area.

BEWARE! Never use chemical cleaning agents, brushes or hard sponges on the material, as these destroy the coating and affect the strength of the cloth.
The canopy will become porous and will loose structural strength. Never attempt to clean your paraglider in a washing machine. Even without using detergents the simple mechanical abrasion will quickly finish the canopy and render it useless. Also avoid dipping it in a swimming pool; the chlorine will damage the cloth. If you MUST rinse the parachute, f.ex. following a sea water landing, do so with a gentle spray with fresh water. Frequent spraying will accelerate the ageing process.

Checks and repairs

Paragliding is a wonderful sport; flying as free as a bird in the air, enjoying the peace and tranquillity. But the air is an alien environment that commands respect and a responsible attitude from the pilot. At UP we don't just put our knowledge and experience into the development of paragliders, but also into their maintenance, service and repairs to ensure that you can fly safely at all times.

Repairs or inspections must only be carried out by UP International or a UP approved repair/checking facility.

Maintenance

All care and maintenance must be carried out in accordance with UP recommendations. To ensure that this happens we strongly advise you to only let UP recognised service centres touch your wing – this is also a prerequisite for the UP Warranty to be valid. So there's a lot speaking for letting UP, or a UP affiliate, look after your Edge!

Airworthiness Check

In Germany and Austria all paragliders must be checked according to the following time schedule:

- 1 years after purchase
- Every year after that, or sooner if prescribed by the UP checking facility during the last check
- After 100 hours, or
- After 80 Flights

These limits have been set by the German Free Flight Federation (DHV) and make no less sense for wings flown outside of Germany/Austria. Contact your local dealer for information about the nearest UP approved checking facility.

We will happily service the glider more often, if you feel that it is necessary.

UP Craftsmanship

In order to ensure that your UP Edge maintains its very high inherent performance and safety we highly recommend that you employ UP, or a UP affiliate, with any repairs or maintenance. Our service staff is trained and skilled, and knows the UP wings better than anyone.

UP Warranty

Conditions and extent of the UP International Warranty can be found in the following pages. For further information please ask UP International directly, or you local representative. The UP importer in your country is always delighted to clear any questions with you.

National warranty conditions

In some countries the local laws stipulate different warranty rules than those outlined here. Please note that these local rules only apply in the country where you have purchased your wing. Information about local rules and conditions are available from your local dealer.

International UP warranty

Warranty conditions:
The international UP warranty covers material- and workmanship faults and is valid for 24 months from the delivery date. It can be extended for a further

12 months by letting UP do all service and maintenance, including the two-years compulsory check. Outside of Germany and Austria UP-approved service centres may perform these checks.

The UP warranty covers the cost of materials and workmanship on gliders accepted by UP to fall under the warranty. The UP warranty does not cover damage caused by accidents, or by changes made to the glider. Likewise, parts that are damaged due to normal wear and tear are exempt from warranty coverage. Fabric colour changes that do not influence the behaviour or safety of the wing are not covered by the warranty, and neither are faults caused by the exposure to solvents or salt water, or plain incorrect handling of the wing.

For any warranty claim to be accepted the following conditions must be adhered to:

- The paraglider was used under normal circumstances and was maintained according to the instructions given by UP International. Note that these include instruction for the correct packing, storing and cleaning
- The paraglider was only used in accordance with its DHV certification
- A complete logbook showing all flights, with duration and location, must be presented upon request
- Only original UP spares have been used, and only UP, or a UP affiliate service centre, has performed repairs or service jobs on the paraglider
- A complete, correct registration card has been filled in and sent to UP within 14 days of the purchase. Note that you may also register your paraglider with UP via the UP homepage www.up-paragliders.com >service >UP Product registration

UP reserves the right to refuse any claims not honouring one or several of these conditions. However, in some cases an “ex gratia” settlement may be offered.

Checking the UP Edge

According to German and Austrian aeronautical legislation (§ 14 Abs. 5 LuftGerP) the owner of a glider can check the airworthiness by his own, or authorise a third person (for example manufacturer/importer) to do this.

To perform your own airworthiness check, UP International must give you a briefing. This briefing could be done after an agreement with UP International and is only valid for the UP Edge. The owner gets the so-called "Nachprüfanweisung" after completing a successful checking at UP International.

Should the owner decide to check the wing by himself, or employ a 3rd party to do so they must make sure that UP’s guidelines are adhered to. Failing to do so will void the certification.

DHV and UP International highly recommend that you let the manufacturer/importer or a DHV accepted service company do the check of airworthiness.

Packing and checking of the rescue system

Only by regularly having your rescue parachute repacked can you guarantee its flawless operation! As with the glider, the rescue parachute should be examined every 2 years by either the manufacturer or an Authorised Service Centre. We offer a certified service for re-packing,

checking and installing the parachute into your harness. We will also carry out any repairs necessary, all fully guaranteed.

Sending the UP glider and other UP products

The best way to send your paraglider, rescue parachute, harness etc. to our service team is in a stable box via post or UPS. Enclose a note of what requires doing (2 Year Check, repair, repack etc.) and also your daytime contact details. We will return your equipment either by post or UPS. Please indicate preferred method of payment (either bank cheque or C o d)/

Should you require any further information about the services we offer, please contact us at the address and phone number below. We are also able to give you information about your nearest Authorised Service Centre, as well as other manufacturers who are authorised to check and repair UP gliders and equipment.

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Kreuzeckbahnstraße 7
D-82467 Garmisch-Partenkirchen

Email: service@up-europe.com
Telefon: +49 (0) 88 21-7 30 99-19
Fax: +49 (0) 88 51-92 92 60-16

UP Homepage

The UP Homepage gives you information about the latest news and products from UP. You will find any technical information and accessories for your UP Edge, as well as many useful things that are necessary for flying.

Beside paragliders, harnesses and flying equipment you will also find the new “Skywear” collection with the latest flying garments and the “News” section, which will keep you updated with all activities around UP.

www.up-paragliders.com

Some final words

With paragliding a fundamental new air sport has emerged; one that makes independent flight possible for almost everybody. The technical simplicity, the mobility of the wing and the ease of learning the basic flight techniques have all combined to make paragliding appear simple and straightforward.

As long as you fly with the necessary respect for the demands and dangers, then these ideals of paragliding will be fulfilled. You should decide for yourself whether conditions are suitable before you proceed with the flight. You should always be aware that any kind of air sport is potentially dangerous if you overstep the natural and physical laws, whether from ignorance or unreasonableness.

“Probably there are only a few sports where success requires, besides physical fitness, understanding the processes in nature to such a high degree - a fact which distinguishes paragliding as sport especially.”* The charm of flying lies in “understanding the processes in nature”, because you have to try again and again to fathom the logic and fly with regard to the decisions you make.

If you want to realise the dream of flying, the dream of free movement in the air, fly not to impress others - fly for the sheer joy of it.

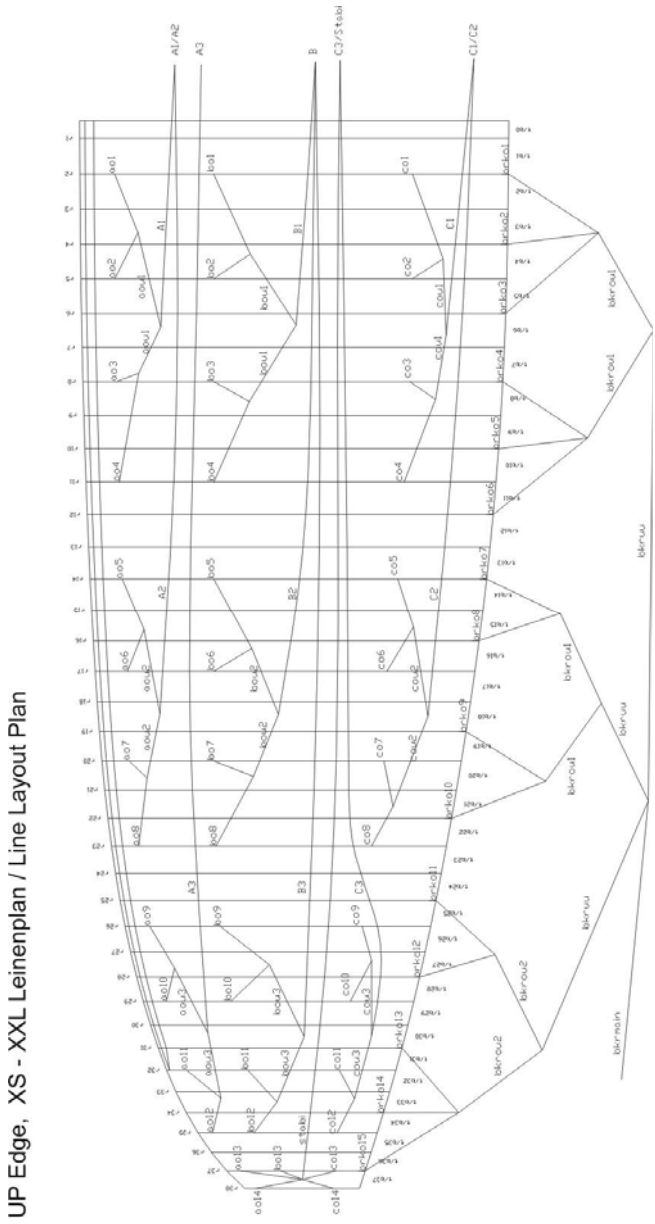
We at UP wish you delightful, beautiful and accident free flying with your UP Edge.

SEE YOU UP IN THE SKY –
UP International

* from Helmut Reichmann from the book "Streckensegelflug"

Attachments

Line plan



UP Edge, XS - XXL Leinenplan / Line Layout Plan

Service booklet

Glider- and pilot data

Model: **Edge**

Size: ❒ XS ❒ S ❒ SM ❒ M
❒ ML ❒ L ❒ XL ❒ XXL

Serial number:

Colour: _____

Date of purchase: _____

First flight date: _____

Dealer stamp and signature

Pilot (1. owner)

Name: _____

Family name: _____

Street: _____

Town: _____

Postal code: _____

Country: _____

Telephone: _____

Fax: _____

Email: _____

Pilot (2. owner)

Name: _____

Family name: _____

Street: _____

Town: _____

Postal code: _____

Country: _____

Telephone: _____

Fax: _____

Email: _____

Pilot (3. owner)

Name: _____

Family name: _____

Street: _____

Town: _____

Postal code: _____

Country: _____

Telephone: _____

Fax: _____

Email: _____

Please verify that your UP Service Centre has correctly filled in the form!

1st Service

Performed date: _____

Service jobs undertaken:

Assignment Nr.
Stamp

2nd Service

Performed date: _____

Service jobs undertaken:

Assignment Nr.
Stamp

3rd Service

Performed date: _____

Service jobs undertaken:

Assignment Nr.
Stamp

Please verify that your UP Service Centre has correctly filled in the form!

4th Service

Performed date: _____

Service jobs undertaken:

Assignment Nr.
Stamp

5th Service

Performed date: _____

Service jobs undertaken:

Assignment Nr.
Stamp

6th Service

Performed date: _____

Service jobs undertaken:

Assignment Nr.
Stamp

Product registration card

Model: **Edge**

Größe: ❒ **XS** ❒ **S** ❒ **SM** ❒ **M**

❒ **ML** ❒ **L** ❒ **XL** ❒ **XXL**

Serial number: _____

Date of purchase: _____

First flight: _____

Preflown by: _____

Owner

Name: _____

Family name: _____

Address: _____

_____

_____

Telephone: _____

Fax: _____

Email: _____

Dealer stamp and signature

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