Owners Manual and Service booklet

UP Ascent

Ascent

Version 1.0
Valid from 2007
Stand: January 2007

Table of contents

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 Ascent. 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 Ascent.

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 Ascent!

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 Ascent 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 Ascent, but it does not replace attending a paragliding school. It is important to note the following points:

- at the time of delivery the UP Ascent conforms to German Hang Gliding Association (DHV) and/or AFNOR (SHV and ACPUL) requirements (see certification information later in this manual)
- 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

UP International has an extremely successful history in the development of hang- and paragliders.

Developing a new glider begins with a detailed and exact market analysis, and on this basis a new product concept emerges. In close cooperation with our customers we define the characteristics we wish to incorporate in the new design.

Once we have these characteristics, and using the latest CAD software, we develop a three-dimensional computer model, which is subjected to initial tests and simulations. The model data are then transmitted directly to our production facility and the first prototype is built.

This prototype is then subjected to a rigorous series of flight tests and modifications. If necessary further prototypes are built, and testing continues until the team is happy that all the original criteria have been met or exceeded.

Finally, the last prototype is presented to the DHV and/or CEN for certification. Only when this is completed will the glider be released to join the rest of the UP range.

Technical description

The UP Ascent was developed by UP International to satisfy the demand for a fast and secure intermediate paraglider with outstanding take-off attributes and performance.

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 Ascent was tested by the DHV/OeAeC. The final note „1“ is the result of the lesser note assigned in ANY of the tests. This means that no test was rated higher than „1“.

Target group and recommended flight experience

The UP Ascent is recommended for pilots of all levels, from absolute beginners to cross country pilots looking for a wing with a high passive safety margin. On a more general note, pilots flying less than 15-20h/year are always recommended to stay within the DHV 1 category.

Necessary skills for normal flights

Flying a wing in this class requires insight into the basics of paragliding; launching, steering, landing. For thermal flying it is recommended that the pilot knows and understands active piloting.

Necessary skills for dealing with disturbances

The UP Ascent reacts very benignly to disturbances and requires no excess pilot insight or reactionary speed for dealing with these. A minimum of training and practise in dealing with disturbances will however increase the pilots’ enjoyment of the flight, and make the whole undertaking safer.

Rapid descent method skills

In order to perform rapid descents, like Big Ears, spiral dives and B-line stalls special skills are required. Should the pilot not already have these skills we recommend visiting an SIV training, preferably with a school with previous UP Ascent experience.

Suitability for training

The UP Ascent is very well suited for training.

Technical Data UP Ascent

Size	XS	S	M	L	XL*
Wing area real [m²]	24,35	26,60	28,80	31,18	34,30
Wing area projected [m²]	21,13	23,08	24,99	27,06	29,76
Wing span real [m]	10,92	11,41	11,88	12,36	12,96
Wing span projected [m]	8,73	9,12	9,49	9,88	10,36
Aspect ratio real	4,9	4,9	4,9	4,9	4,9
Aspect ratio projected	3,6	3,6	3,6	3,6	3,6
Number of Ribs	43	43	43	43	43
Number of Supported Ribs	30	30	30	30	30
Number of Cells	42	42	42	42	42
Total line length [m]	340,20	355,56	370,00	384,99	403,78
Total # of lines	246	246	246	246	246
Line diameters [mm]	1,1 / 1,3 / 1,5				
Weight [kg]	5,85	6,25	6,60	7,05	7,55
Trimmspeed [km/h]	≥ 36	≥ 36	≥ 36	≥ 36	≥ 36
Maximum Speed [km/h]	≥ 50	≥ 50	≥ 50	≥ 50	≥ 50
DHV Classification	1	1	1	1	1*
DHV take off weight [daN]	55-80**	70-90	80-105	100-125	120-150
Description	Basis Intermediate – XL* also Tandem				

*As of January 01th 2007. Technical Specifications could change during development)
** Recommended take off weight 60-75 daN

Canopy material

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

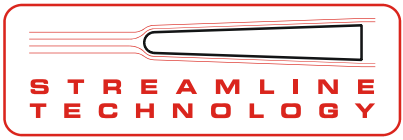
After an extensive series of tests and years of practical experience we have found that the best material is a high tenacity polyamide “New Sky-Tex”, from Porcher Marine (France), with the Designation 9092 E85A (top surface, cloth weight 46 g/m²), 9017 E38A (bottom surface, cloth weight 40 g/m²) and 9092 E29A (ribs and V-Tapes, cloth weight 45 g/m²).

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

Construction of the canopy

During the development of the UP Ascent we had one overall goal; to design the perfect total package paraglider, with the best of all worlds combined into one. With this in mind UP designer Stephan Stieglair drew the first drafts. He gave the new wing a sharp outline and perfected the shape with the distinct endings at the wingtips. A new concept for the curvature was used, as well as the new UP invention that we call the “Sharkfins ”, little aerodynamic Streamlines which mark the beginning of a new design era at UP. With all these innovations Stieglair has moved well ahead of the competition and designed on of the most refreshingly new basis-Intermediate wings in recent years. “On the screen in front of me a new all-rounder appeared which promised to be the de-facto perfect companion for a very large segment of the entire paragliding population” is how Stephan recalls the process. From his many years in the business he knows well what it is that most of us search for – flying pleasure and FUN. A sharp-looking wing with perfect safety characteristics and plenty of performance is the first prerequisite for experiencing what flying paragliders is really all about, and we believe we have built the wing that lives up to just that.
As preparation for Stephans first drafts he studied all the other wings in the class carefully: “They all seemed very basic, with uninspiring looks and very little innovation. They further lacked agility and the dynamic image that all UP wings must have. In short they looked like ploughs gouging through the air, rather than wings gliding through it”. To distance the new UP wing from this flock Stephan and his team created a concept with a distinct, sporty outline, beginning right at the elegant backswept wingtips and right to the innovative Airstream Streamlines on the top surface of the wing.
After extensive testing on a series of prototypes during more than 1½ years the new UP Ascent passed the DHV tests in late summer of 2006, with the desired “1” as the result.

Streamline Technology



The UP Ascent is the first exponent of the new UP technology that we have chosen to name Shark Streamlines,

after the most efficient carnivore of the seas. The Shark Streamlines are little shields aligned with the top surface. These vertical shields work by steering, controlling and calming the important airflow on the centre part of the wings' top surface.
Stephan Stieglair, technical manager of the UP development team: "One could see the new Shark Streamlines as a kind of winglets, however where winglets guide the airflow around the tip of the wing, our new Streamlines serve to guide the airflow in the even more important centre of the wing. They effectively stop the air from flowing sideways across the profile in particular flight situations and have an astounding positive overall effect on the entire behaviour of the wing. The roll dampening, which due to the relatively short lines on DHV 1 wings is always critical, has been refined to perfection through the incorporation of this new UP feature. In SIV manoeuvres and real-life testing they have also proven their worth – the wing actually feels like riding on invisible rails, a very reassuring sensation for the budding new, or the occasional, pilot".

Another benefit of the Streamline Technology has been the freedom to actually design and fine-tune the curvature and the brake line attachments for handling perfection, because the Sharkfins overrule any adverse effect of setting these things for ideal handling. Past designs in this segment that were agile enough to satisfy discerning pilots have often suffered from demanding steep spiral exit behaviour. Traditional designs often incorporate a flatter curvature near the centre of the wing, plus a dampened brake line setting in order to counter the tendency towards stable steep spirals, but with the Shark Streamlines we have managed to build our optimal wing in terms of handling without suffering the drawbacks inherent in the class.

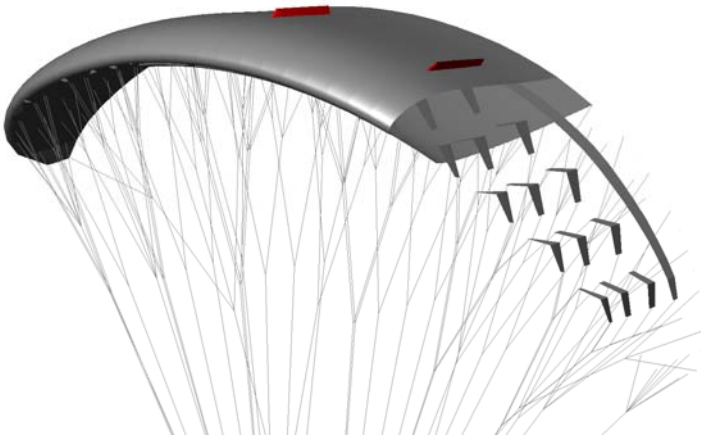


Illustration 1: CAD-Model UP Ascent

Line material

In the UP Ascent we use 1.1, 1.3 and 1.5 millimeter diameter Cousin Trestec Dyneema® lines. These lines are constructed using a special pre-stretched Dyneema core and have a significantly higher breaking strength compared to the customary Aramid®-

core lines. Furthermore they are far less susceptible to weakening through kinks than any of the Aramid® lines we have tested. And finally this new line shows much less tendency towards stretching than any other Dyneema lines. This is of great importance in order to avoid adversely influencing the flight characteristics through uneven stretching across the span of your new wing.

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
D/E-Lines: D1-D2
Brake Lines: BRK

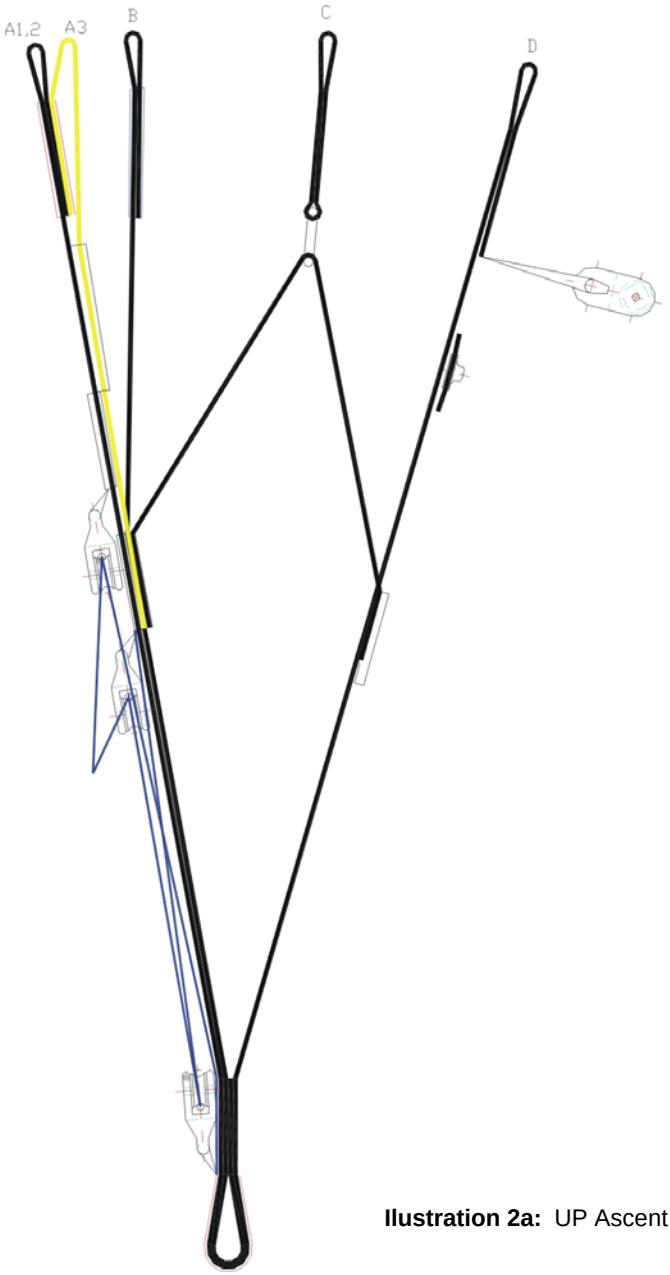
The brake lines are collected at one main control line per side. This control line runs through a pulley attached to the D-Riser and is marked with a black dot at the point where it should loop around the D-ring. The brake is pre-set so that the glider is at 0 degree brake when the toggle is free. Please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

The line bundles (A, B, C and D) are colour coded for easy identification and handling. All main lines of each level are looped together and attached to delta quick links, which are connected to the risers. The quick links have special line collectors to prevent lines slipping, and are secured using a strong thread-locking compound (Loctite©), to prevent unintentional opening. After maintenance work the delta quick links should be re-glued with thread locking Loctite©!

Risers

The lines are grouped into four risers and one control line on each side. The riser ends are colour coded for easy identification at take off as well as in flight for B Stall. The UP Ascent has a divided A riser (see illustration) to facilitate 'big ears'.
During normal flight all risers are 520 millimeter in length (480 millimeter for the S- and XS-size). As the accelerator is activated it shortens the effective length of the A, B and C riser.
When applying the speed system A to C risers are shortened. A reduction system between the risers ensures that each riser gets the right length and the angle of attack is reduced correspondingly.

The largest change in the angle of attack is reached when the speed system pulleys are pulled together.



Ilustration 2a: UP Ascent riser

T-Bar suspension system for Ascent XL

The UP Ascent was designed and certified for single and Tandem Paragliding.

For tandem use the UP Ascent has been tested and certified with the UP T-bar (also known as spreader bar) suspension system. Using the UP Ascent with other tandem suspension systems is not recommended as it could adversely affect both flight characteristics and the behaviour in extreme flight situations.

All participating persons and every piece of equipment has to have the necessary and proper licenses, certifications and ratings appropriate for the country where the flights are to be made.

BEWARE! Since most pilots use the UP Ascent for solo flying, the glider is delivered with the brake line length adjusted for solo flying.

If you use the UP Ascent for Tandem Paragliding together with the T-Bar system you should extend the brake lines by approximately eight centimeter to avoid having the brake set too short (this adversely effects launch- and flying characteristics).

The T-bar suspension system

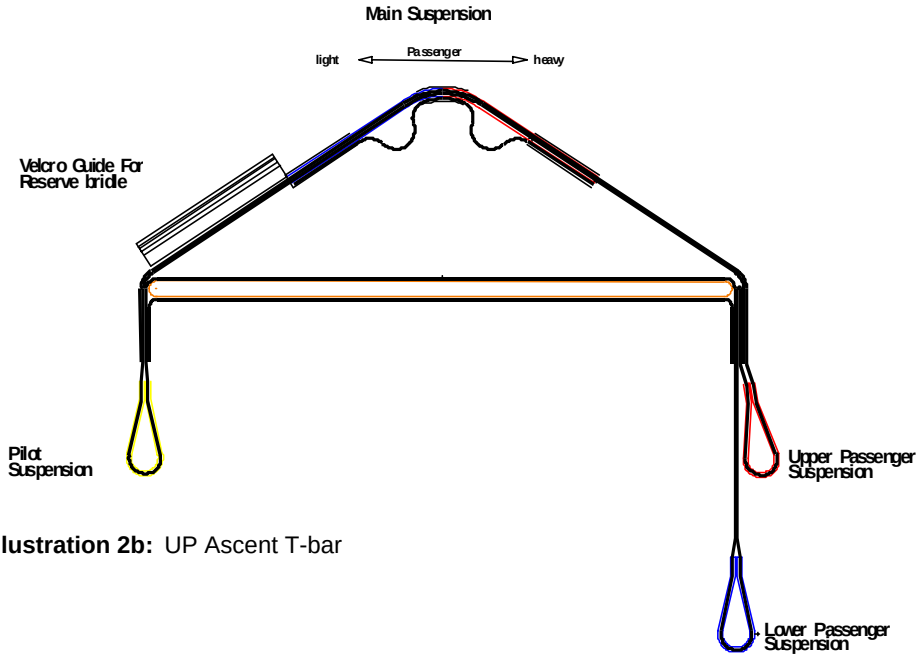
This A-shaped suspension system allows pilot and passenger to be suspended with a little distance between them. An approximately 32 cm long aluminum rod sewn into the webbing maintains a comfortable and tire-free position for both, even for longer flights.

The T-bar system consists of two colour-coded main suspension points. For the passenger you have two different, also colour-coded suspension points to choose from. The pilot suspension is coloured yellow.

By correctly combining all the different suspension points it is possible to adapt the system to all pilot-/passenger configurations. The incorporation of two main hang-points on the T-bar (see Illustration 2b) serves to eliminate the disadvantages of flying with passengers either much heavier or much lighter than the pilot. When flying with a heavier passenger use the foremost hang-point on the T-bar. When flying with lighter passenger use the rearmost hang-point. This is also the position to use when pilot and passenger are of equal weight.

At the passenger end of the T-bar there are also two attachment options. The upper one is intended for use with passengers of the same height or taller than the pilot. Is the passenger noticeably shorter than the pilot we recommend using the lower attachment point, to improve the launch handling of the setup.

A Velcro guide along the tandem suspension webbing prevents the twisting of the reserve bridle. This bridle must always be connected to the main carbines in the central suspension point.



Ilustration 2b: UP Ascent T-bar

Bi-Rescue system

Carrying a rescue system is not only mandatory; it is also extremely dangerous to fly without one. Make sure you choose the right rescue system; it is very important to use only a special Tandem Rescue System that has been designed and certified for Tandem Paragliding.

Using a normal rescue system with only 100-120 daN maximum load capacity is illegal, extremely hazardous and should be avoided totally. Neither is the use of two single reserves an alternative to a proper tandem reserve, for example the UP Profile Bi, developed especially for tandem use.

The connecting bridle from the reserve must be attached between the risers and the T-Bars to allow a controlled emergency landing with the passenger.

NEVER attach the reserve only to the pilot's harness; once deployed the passenger will swing below the pilot and both could suffer serious injury during landing.

Always mount the reserve so that unintentional opening by either passenger or pilot is out of the question. Please refer to the reserve manufacturers User Manual.

The reserve bridle should run along the pilots' back, then follow the T-bar through the Velcro guide and finally be attached to the main karabiners at the main suspension point (where the risers are attached). Any other mode of attachment will compromise the safety of pilot and passenger in the event of a reserve opening.

UP Backpack

The UP Ascent is delivered with a special paraglider backpack, which fulfills the demands of very high luggage volume and optimized ergonomically 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.

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.

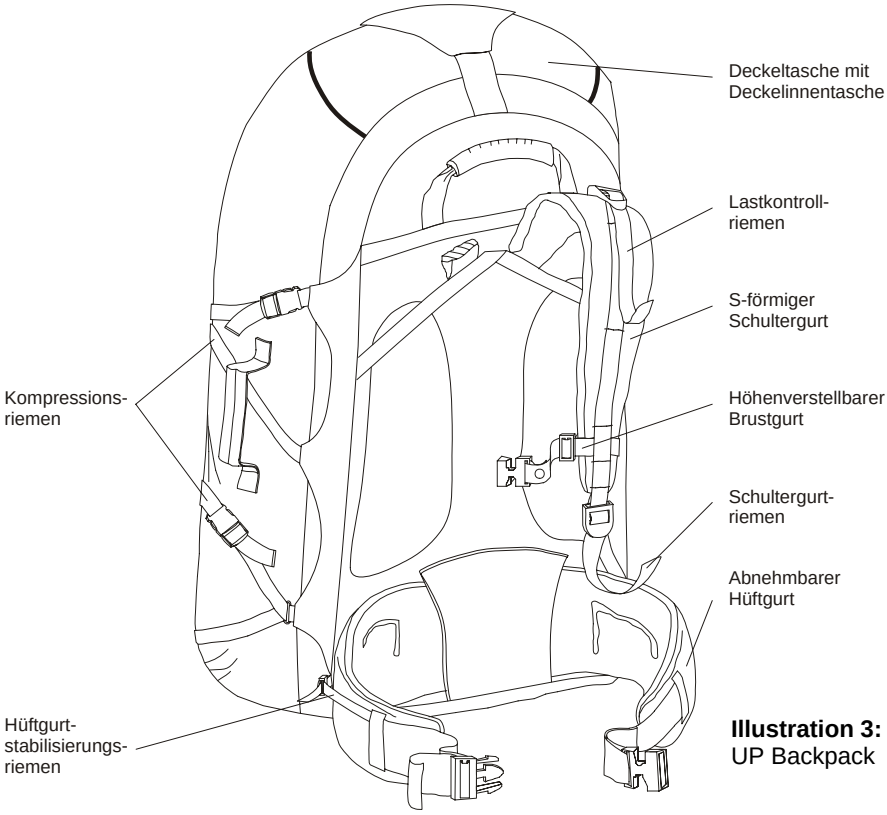


Illustration 3:
UP Backpack

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.

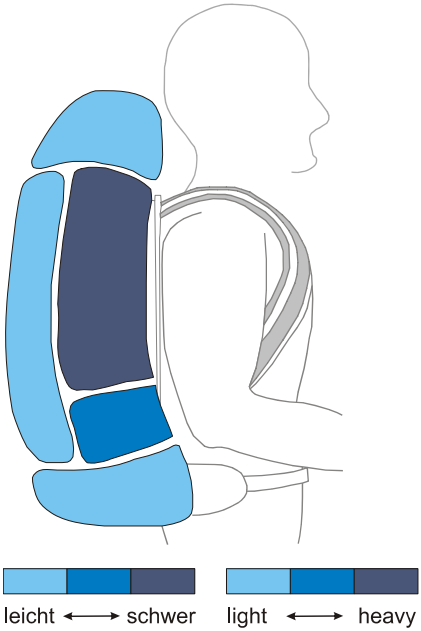


Illustration 4: Ideal load distribution in the UP rucksack

Before the first flight

The UP Ascent 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 Ascent delivered has been minutely checked at the factory, and corresponds exactly to the wing certified by the DHV

BEWARE! Before the first flight the UP Ascent must be inflated in the wind on a flat surface. The first flight should be carried out by an approved UP dealer before the wing is handed over to the end customer.

Adjustments

The UP Ascent 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 Ascent 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 Ascent 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 Ascent 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, only change them by a little (3 to 4 centimeter) at a time, and preferably 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!

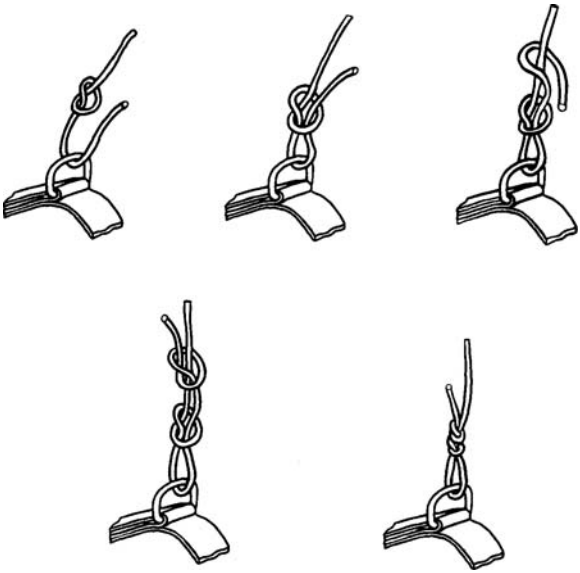
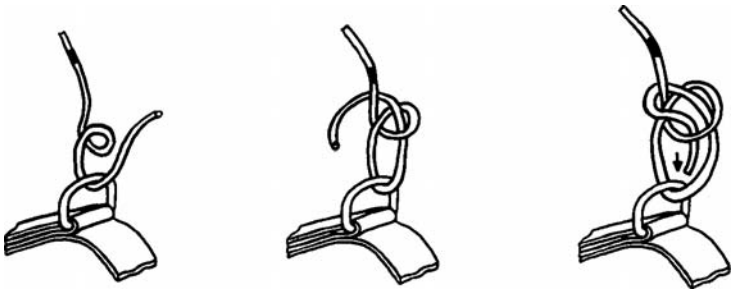


Illustration 5 and 6:
Spierenstich- and Palsteg-knots



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 pulleys on the risers are just touching each other. 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. UP harnesses have two elastic loops or a Velcro webbing to facilitate this.

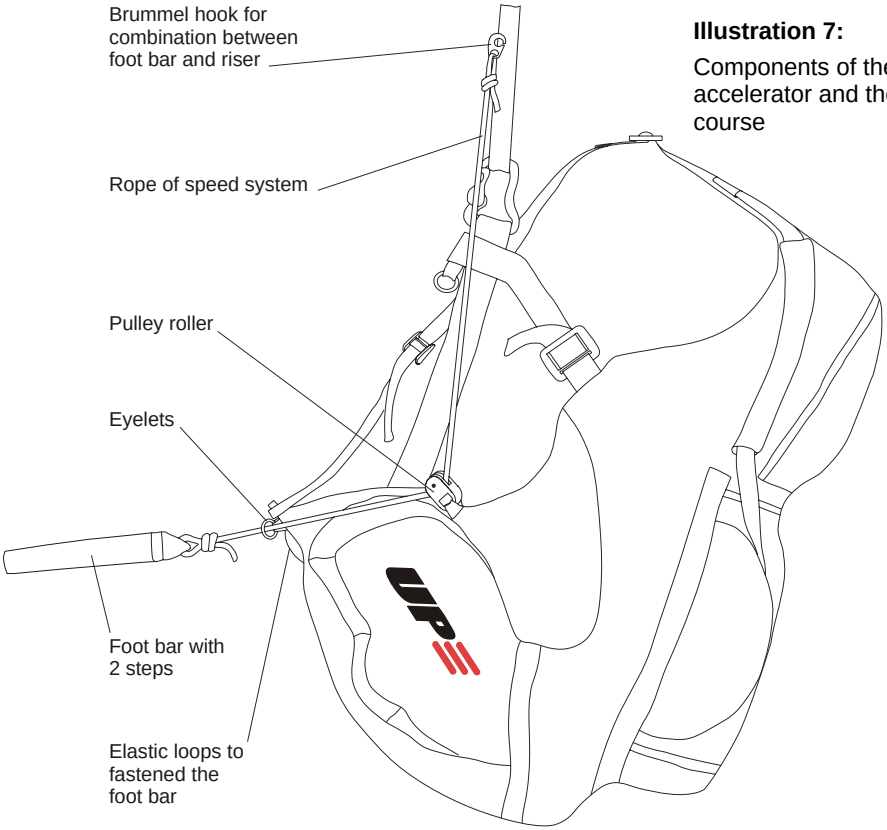


Illustration 7:

Components of the foot accelerator and the cord course

Suitable harnesses

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

The harness design should also guarantee that it's possible to accelerate the UP Ascent 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.

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 Ascent

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

If you wish to fly your UP Ascent 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

Pre-flight check

Make sure whenever you get your UP Ascent 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 Ascent. Please apply the same care and attention before EVERY flight!

Before every launch you should carry out the standard 5-point checking procedure. It is a good idea to do the checks following the same sequence every time to minimize the risk of omitting something.

1. Unpack and arrange your glider in a semi-circular manner. This shape ensures that the centre cells inflate before the tips. When unfolding your glider, observe the wind direction and arrange your glider so that it is pointed directly into the wind.
2. The lines must be arranged so that there are no tangles and the A-lines are uppermost. Once the lines are free and untangled, check to make sure that they all go directly from the riser to the glider without going over the top of the wing. Launching with a line over the wing is extremely dangerous! It is also important that the brake lines are free and not tangled.
3. Next check that you have put the harness on correctly, and ensure that both leg straps and the chest strap are closed and adjusted. Also check the rescue system pins and deployment handle.
4. & 5. Right before the launch you should, once again, check the wind direction. Then check the air space for other paragliders

Launching

The take-off characteristics of the UP Ascent are extremely straightforward. Only a gentle forward pressure on the A risers is necessary and the glider will inflate evenly and climb above your head. The glider has no tendency to hang back behind you or to overshoot over your head.

With the A risers and the brakes in your hands, have another look at your unfolded glider. By stronger wind the start can be facilitated if the UP Ascent is inflated solely with both the internal A-risers (front A-riser). Make sure that you are centrally positioned in the middle of the wing, and that the wing is facing into wind. The middle of the canopy is marked by the UP logo at the leading edge.

Inflate the glider with a steady run and remember to position your arms so that they are a continuation of the A risers. As the glider comes above your head, you should glance up to see that the entire canopy is inflated and flying. The UP Ascent has a low surge tendency, so there is usually no necessity to brake to stop the glider from over-flying you.

Directional control should only be attempted when the glider is above your head. Excessive braking will cause the wing to drop back.

Only after checking that the wing is properly inflated do you apply slight brake pressure and accelerate rapidly down the hill. After a few steps you will reach flying speed and become airborne.

Speed control

Using the brakes

The UP Ascent 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 15 to 20 centimeter 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 Ascent is supplied with a speed system, which is activated by a foot stirrup. Full application increases the speed by approximately 12 to 14 km/h. In certain circumstances the use of the speed system is extremely effective, and it should be an integral part of your flying.

The speed system should be used when you are flying through sinking air, when trying to achieve best glide in a headwind, or trying to cover the ground as quickly as possible. But 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.

BEWARE! 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 Ascent has been developed to meet the demands of intermediate pilots. The brakes have been designed so that the first 15 to 20 centimeter of travel will cause a soft and direct turning, whereas larger movements will give the glider an agile and nimble feel.

Brake input and amount of weight shift induced will define the radius and bank angle on the UP Ascent, and will allow it to be controlled with ease. Using weight shift in combination with brake input will result in flat turns with minimum height loss and is in fact always the most efficient control method. The radius of the turn is then controlled with the brake line whereas

the bank is controlled through weight shift.

If needed the UP Ascent will turn very tight. To do this, apply some brake input on both sides, then release the outside brake whilst applying further brake on the inside – this will reduce turning radius to a minimum.

When brake input is increased beyond approximately 50% on one side, the UP Ascent begins a fast and steep turn, which can be made into a steep spiral (refer to chapter heading "steep spiral").

Landing

The UP Ascent is easy to land. While pointing into the wind, the pilot should fly the wing fast until approximately one meter above the ground, and then apply both brakes completely. When landing in stronger wind, less brake is required. Landing from steep turns should be avoided due to the risk of an uncontrolled pendulum reaction.

Winch towing

The UP Ascent tows easily. There are no special techniques that need to be employed, but 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 Ascent 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 Ascent.

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

The development of high performance paragliders from square parachutes has meant vast improvements in speed, sink rate and handling. But, at the same time, it has also led to a requirement on behalf of the pilot for accurate, sensitive control and an acute anticipation of possible flying conditions. Any glider, whether beginner or competition class, may collapse in turbulent conditions and you must be able to react accordingly.

Today you have a wide choice between different gliders in the UP range. The main difference between the gliders is in the stability that each class offers. Beginner wings react to turbulence less dramatically and are more forgiving when compared to top performance gliders, which have more sensitive, but less forgiving handling. Making the correct decision when choosing a new glider is most important; you should critically examine your flying and your level of knowledge.

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 Ascent 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 Ascent 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 it is advisable to build up gradually to these sink rates when you first practice spiralling.

Getting the UP Ascent 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

To induce a B-line stall, start from normal, un-accelerated flight. Reach up and take hold of both B risers, still with your hands in the brake loops, and pull down simultaneously by approximately 10 to 15 centimeter. The first few centimeters of travel will be quite hard, but as the glider settles into the stall so the effort becomes less.

The glider will drop back a little as it stalls, and then centralize over your head. With 15 centimeter or so of pull a sink rate of up to 6 meters per second can be achieved. With less pull you will get a decrease in sink rate. The B-risers should not be pulled beyond this point, as it may result in the canopy entering an unstable phase or going into a frontal rosette. Should you inadvertently have pulled too far down on the B-risers, simply release them a little again until the wing is again stable above you, showing the characteristic deep crease along the B-level and being fully stretched out spanwise.

To recover from a B-line stall, let up both B risers simultaneously and quickly. The UP Ascent will dive forwards slightly as it regains forward speed, so be ready to dampen this out. If you release the B risers slowly there is a danger that the glider might enter a deep stall. The glider will almost always recover with no pilot input from a deep stall, but refer to the 'Deep Stall' section for correct recovery.

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 to 30 centimeter 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 reinflating on their own, otherwise light braking will assist the reinflation.

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 Ascent 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 Ascent is designed to be very aerodynamically stable. However as with all paragliders extreme turbulence or piloting error may induce unwanted behaviour from the canopy. To ensure that you are able to handle these situations correctly we strongly recommend that you attend a safety-training (SIV) clinic, where you can learn to master your wing outside the normal flying envelope under professional guidance.

Safety training manoeuvres should only be practiced in calm air with sufficient altitude, and under the instruction of qualified instructors. We would like to use this occasion to once again remind you to never fly without a reserve parachute!

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

The UP Ascent belongs to the new generation of paragliders that, as well as having very good performance, also exhibit a high degree of stability. Wing tip collapses can almost always be prevented through active flying.

Should an asymmetric collapse occur, it is best to stop the turn by opposite weight shift and counter steering. If you let the glider turn then it is possible that, although the collapse will clear quickly, the other wing might suffer a small closure. Any closure will normally reopen independently, but it is a good idea to help it with a good long pump (not short hectic pumps) with the brake on the affected side, whilst maintaining course with the other brake.

With large asymmetric collapses it is important to counter steer carefully to avoid stalling the open side. This can lead to the canopy entering a stall before it fully reopens.

Finally it is possible, although highly unlikely, that a wingtip gets caught in the lines following a collapse. Should this happen the pilot should attempt to maintain heading by weightshifting to the opposite side and carefully braking that same side. A big earnest pump with the brake on the afflicted side should clear the “cravatte”. If this fails all UP wings have a separate stabilo line going from the C riser to the stabile – a pull on this line will clear even stubborn cravattes.

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 Ascent will normally reinflate quickly on its own, but can be assisted through the application of a light double-sided symmetrical brake input.

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 Ascent 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

Full stalling the glider is only really sensible and useful during the landing. When landing the pilot consciously stalls the wing by applying both brakes 100% just before touching down. The canopy falls behind the pilot and empties itself.

When the glider is tested before the release it is put through the same motions, but at greater altitude. First it 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!

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 reinflated. 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 performed by flying alternating turns; each time letting the pendulum effect increase the bank angle.

BEWARE! The UP Ascent 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!

Emergency Steering

If for some reason the UP Ascent 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

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!

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.

Adhesive logos

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

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.

Insects

When folding your wing please make sure that there are no insects caught inside. Many insect species contain acids that could damage the cloth.

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 Ascent

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 Mylar reinforcements in the leading edge are not bent or folded every time you pack away your wing after a flight. Undamaged Mylar reinforcements positively influence the launching characteristics, the performance and even the safety, as wrinkled Mylar tabs 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.

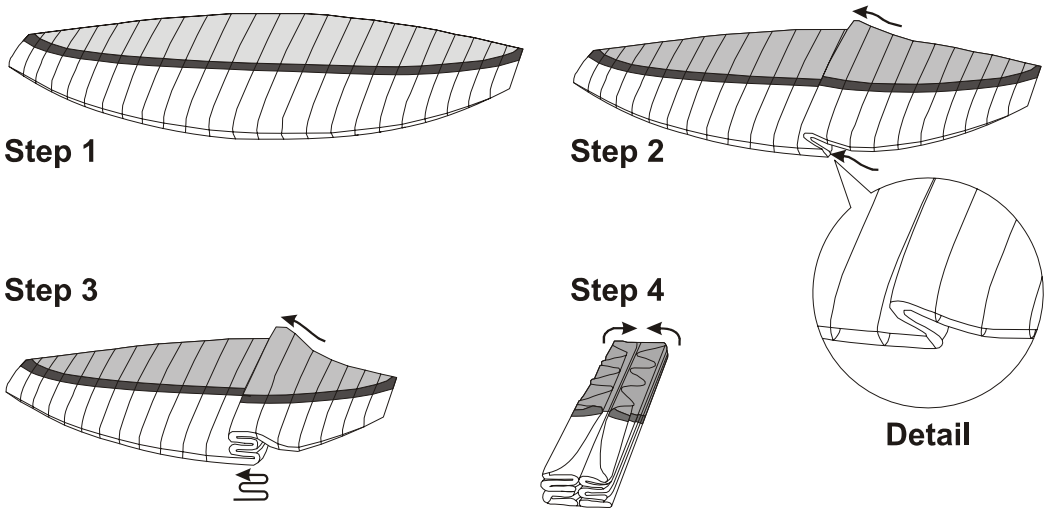


Illustration 8: Packing the UP Ascent

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.

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.

If the glider gets wet, then dry it as soon as possible, but not in direct sunlight! A wet or damp glider spending time folded away in its bag will age much faster than a dry one, both in lines and cloth.

The best place to store your paraglider is in a dry, dark and well-ventilated room. Do not store it where is could become contaminated by chemicals of any sort.

Do not expose your UP Ascent 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.

Should you accidentally put your UP Ascent into seawater rinse it out thoroughly with fresh water and dry it slowly in the shade.

Paraglider lines

The lines used on the UP Ascent are high grade Dyneema® lines from Cousin Trestec. 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 and replaced if necessary.

Cleaning

If you feel it necessary to clean your UP Ascent 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.

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.

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.

Our service team are all professional pilots with a wealth of experience examining and repairing paragliders. You can be sure that they will look after your equipment in a conscientious manner and the quality of work done will be second to none.

Care and 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 Ascent!

Airworthiness Check

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

- 2 years after purchase
- Every two years after that, or sooner if prescribed by the UP checking facility during the last check
- After 150 hours, or
- After 100 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 Ascent 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 Ascent

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 Ascent. The owner gets the so-called "Nachprüfanweisung" after completing a successful briefing 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.

UP International GmbH
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Fax: +49 (0) 88 51-92 92 60

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 Ascent, 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.

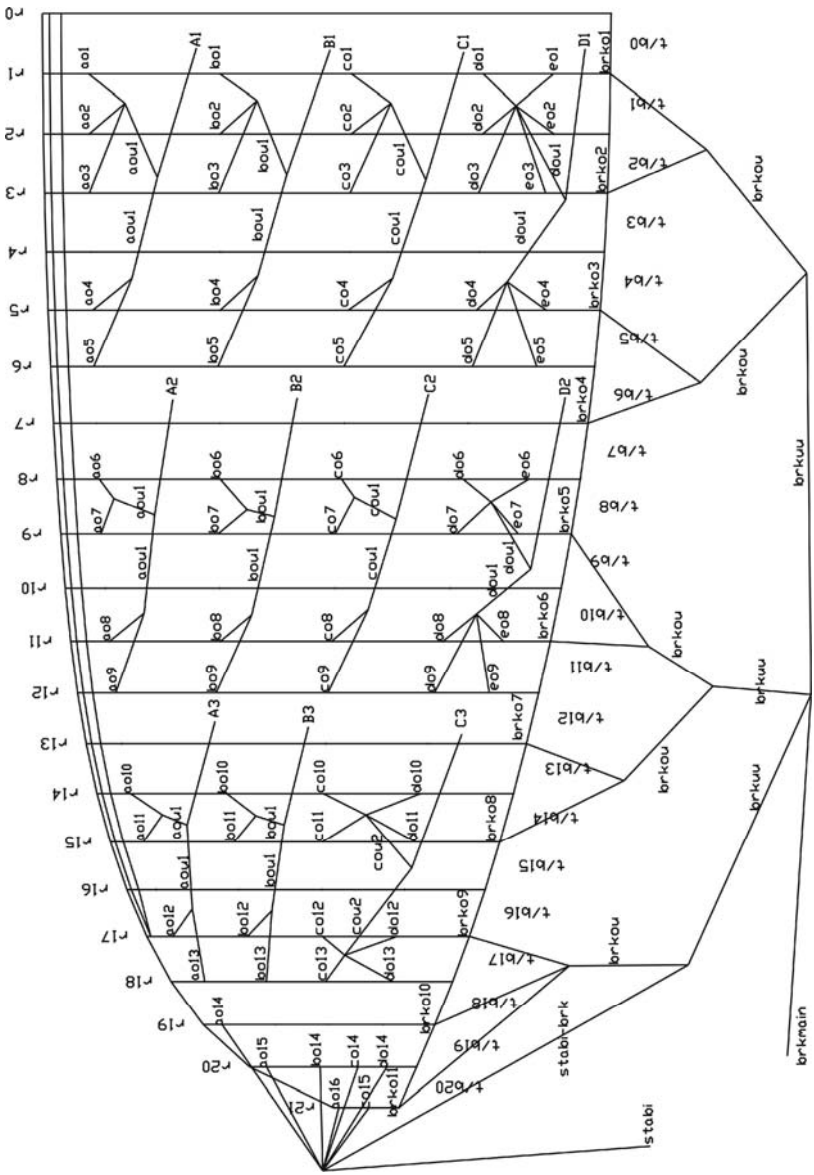
We at UP wish you delightful, beautiful and accident free flying with your UP Ascent.

SEE YOU UP IN THE SKY –
UP International

* from Helmut Reichmann from the book "Streckensegelflug"

Attachments

Line plan


A1
B1
C1
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A3
B3
C3
brkmain
stabi
stabi-brk
brkuu
brkou

Deutscher Hängegleiterverband e.V. im DAeC
DHV/OeAeC-Technikreferat
LBA-anerkannte Prüfstelle für Hängegleiter und Gleitsegel
Beauftragter der österreichischen Luftfahrtbehörde

Herstellerangaben zum Luftsportgeräte-Kennblatt

Gleitsegel

I. Musterprüfung

1. Gerätemuster: **UP Ascent XS**
2. Hersteller: **UP International Sportartikel GmbH**

II. Merkmale und Betriebsgrenzen

1. Gerätemasse(kg): **5,85**
2. Zulässiges Startmasse minimal (kg): **55** maximal (kg): **80**
3. Anzahl der Sitze: **1**
4. Klasse: **1 GH**
5. Gurtzeugbeschränkung: **ja GH / GX**
6. Fußbeschleuniger: **ja**
7. Trimmer: **nein**
8. Projizierte Fläche (m²): **21,13**
9. Windenschlepp: **ja**
10. Tragegurtlängen (mm):

Tragegurt A:	Tragegurt B:	Tragegurt C:	Tragegurt D:
normal: **480**	normal: **480**	normal: **480**	normal: **480**
beschleunigt: **285**	beschleunigt: **325**	beschleunigt: **405**	beschleunigt: **480**

11. Leinenlängen (mm), **von der Kappenmitte beginnend**:

	A	B	C	D	E	Bremse	
S1							
S2							
S3							
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30

12. Sonstige Besonderheiten:

III. Betriebsanweisung in der Fassung vom: 01.01.07

Ort, Datum, Stempel und Unterschrift des Herstellers:

Bearbeitungsvermerk DHV:
Kennblatt geprüft
am:

von:

Deutscher Hängegleiterverband e.V. im DAeC
DHV/OeAeC-Technikreferat
LBA-anerkannte Prüfstelle für Hängegleiter und Gleitsegel
Beauftragter der österreichischen Luftfahrtbehörde

Herstellerangaben zum Luftsportgeräte-Kennblatt

Gleitsegel

I. Musterprüfung

1. Gerätemuster: **UP Ascent S**
2. Hersteller: **UP International Sportartikel GmbH**

II. Merkmale und Betriebsgrenzen

1. Gerätemasse(kg): **6,25**
2. Zulässiges Startmasse minimal (kg): **70** maximal (kg): **90**
3. Anzahl der Sitze: **1**
4. Klasse: **1 GH**
5. Gurtzeugbeschränkung: **ja GH / GX**
6. Fußbeschleuniger: **ja**
7. Trimmer: **nein**
8. Projizierte Fläche (m^2): **23,08**
9. Windenschlepp: **ja**
10. Tragegurtlängen (mm):

Tragegurt A:	Tragegurt B:	Tragegurt C:	Tragegurt D:
normal: **480**	normal: **480**	normal: **480**	normal: **480**
beschleunigt: **285**	beschleunigt: **325**	beschleunigt: **405**	beschleunigt: **480**

11. Leinenlängen (mm), **von der Kappenmitte beginnend**:

	A	B	C	D	E	Bremse	
S1							
S2							
S3							
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
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20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30

12. Sonstige Besonderheiten:

III. Betriebsanweisung in der Fassung vom: 01.01.07

Ort, Datum, Stempel und Unterschrift des Herstellers:

Bearbeitungsvermerk DHV:
Kennblatt geprüft
am:

von:

Deutscher Hängegleiterverband e.V. im DAeC
DHV/OeAeC-Technikreferat
LBA-anerkannte Prüfstelle für Hängegleiter und Gleitsegel
Beauftragter der österreichischen Luftfahrtbehörde

Herstellerangaben zum Luftsportgeräte-Kennblatt

Gleitsegel

I. Musterprüfung

1. Gerätemuster: **UP Ascent M**
2. Hersteller: **UP International Sportartikel GmbH**

II. Merkmale und Betriebsgrenzen

1. Gerätemasse(kg): **6,60**
2. Zulässiges Startmasse minimal (kg): **80** maximal (kg): **105**
3. Anzahl der Sitze: **1**
4. Klasse: **1 GH**
5. Gurtzeugbeschränkung: **ja GH / GX**
6. Fußbeschleuniger: **ja**
7. Trimmer: **nein**
8. Projizierte Fläche (m²): **24,99**
9. Windenschlepp: **ja**
10. Tragegurtlängen (mm):

Tragegurt A:	Tragegurt B:	Tragegurt C:	Tragegurt D:
normal: **520**	normal: **520**	normal: **520**	normal: **520**
beschleunigt: **325**	beschleunigt: **365**	beschleunigt: **445**	beschleunigt: **520**

11. Leinenlängen (mm), **von der Kappenmitte beginnend**:

	A	B	C	D	E	Bremse	
S1	6580	6515	6515	6550			
S2	6385		6400				
S3	6800		6455				
1	7250	7150	7175	7300	7390	8320	1
2	7150	7055	7080	7220	7310	7990	2
3	7165	7065	7090	7220	7315	7795	3
4	7160	7060	7085	7225	7305	7680	4
5	7200	7105	7130	7255	7335	7550	5
6	7140	7065	7090	7215	7300	7445	6
7	7110	7025	7060	7175	7250	7405	7
8	7080	7005	7025	7120	7190	7400	8
9	7090	7015	7015	7115	7160	7320	9
10	6990	6910	6910	7025		7185	10
11	6935	6865	6860	6955		7065	11
12	6860	6795	6785	6860			12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30

12. Sonstige Besonderheiten:

III. Betriebsanweisung in der Fassung vom: 01.01.07

Ort, Datum, Stempel und Unterschrift des Herstellers:

Bearbeitungsvermerk DHV:
Kennblatt geprüft
am:

von:

Deutscher Hängegleiterverband e.V. im DAeC
DHV/OeAeC-Technikreferat
LBA-anerkannte Prüfstelle für Hängegleiter und Gleitsegel
Beauftragter der österreichischen Luftfahrtbehörde

Herstellerangaben zum Luftsportgeräte-Kennblatt

Gleitsegel

I. Musterprüfung

1. Gerätemuster: **UP Ascent L**
2. Hersteller: **UP International Sportartikel GmbH**

II. Merkmale und Betriebsgrenzen

1. Gerätemasse(kg): **7,05**
2. Zulässiges Startmasse minimal (kg): **100** maximal (kg): **125**
3. Anzahl der Sitze: **1**
4. Klasse: **1 GH**
5. Gurtzeugbeschränkung: **ja GH / GX**
6. Fußbeschleuniger: **ja**
7. Trimmer: **nein**
8. Projizierte Fläche (m²): **27,06**
9. Windenschlepp: **ja**
10. Tragegurtlängen (mm):

Tragegurt A:	Tragegurt B:	Tragegurt C:	Tragegurt D:
normal: **520**	normal: **520**	normal: **520**	normal: **520**
beschleunigt: **325**	beschleunigt: **365**	beschleunigt: **445**	beschleunigt: **520**

	A	B	C	D	E	Bremse	
S1							
S2							
S3							
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
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20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30

12. Sonstige Besonderheiten:

III. Betriebsanweisung in der Fassung vom: 01.01.07

Ort, Datum, Stempel und Unterschrift des Herstellers:

Bearbeitungsvermerk DHV:
Kennblatt geprüft
am:

von:

Deutscher Hängegleiterverband e.V. im DAeC
DHV/OeAeC-Technikreferat
LBA-anerkannte Prüfstelle für Hängegleiter und Gleitsegel
Beauftragter der österreichischen Luftfahrtbehörde

Herstellerangaben zum Luftsportgeräte-Kennblatt

Gleitsegel

I. Musterprüfung

1. Gerätemuster: **UP Ascent XL**

2. Hersteller: **UP International Sportartikel GmbH**

II. Merkmale und Betriebsgrenzen

1. Gerätemasse(kg): **7,5**

2. Zulässiges Startmasse minimal (kg): **[illegible]** maximal (kg): **150**

3. Anzahl der Sitze: **1 / 2**

4. Klasse: **1 GH**

5. Gurtzeugbeschränkung: **ja GH / GX**

6. Fußbeschleuniger: **ja**

7. Trimmer: **nein**

8. Projizierte Fläche (m²): **29,76**

9. Windenschlepp: **ja**

10. Tragegurtlängen (mm):

Tragegurt A:	Tragegurt B:	Tragegurt C:	Tragegurt D:
normal: **520**	normal: **520**	normal: **520**	normal: **520**
beschleunigt: **325**	beschleunigt: **365**	beschleunigt: **445**	beschleunigt: **520**

11. Leinenlängen (mm), **von der Kappenmitte beginnend**:

	A	B	C	D	E	Bremse	
S1							
S2							
S3							
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
13							13
14							14
15							15
16							16
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20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30

12. Sonstige Besonderheiten:

III. Betriebsanweisung in der Fassung vom: 01.01.07

Ort, Datum, Stempel und Unterschrift des Herstellers:

Bearbeitungsvermerk DHV:
Kennblatt geprüft
am:

von:

Standard Einweisungskontrollblatt für neu gekaufte UP Gleitschirme

Käufer Name/Vorname: _____

Adresse: _____

Befähigungsnachweis Nr. :_____ neuer Gleitschirm, Typ:_____

Bisherige Anzahl Flüge: _____ Seriennummer des Schirms:_____

Folgende Übungen sollten am Übungshang unter Aufsicht absolviert werden:

Auslegen und Sortieren der Leinen	☐	Durchführen mehrerer Starts	☐
Aufziehtechnik vorwärts und rückwärts	☐	Laufen mit gebremstem Schirm	☐
Aufziehen mit schlecht ausgelegtem Schirm	☐	Slalomlaufen	☐

Das Beherrschen der oben angeführten Manöver ist die Grundlage, um die Reaktionen des neuen Gleitschirmes kennenzulernen. Zugleich werden wichtige Reflexe eintrainiert, um den Schirm in turbulenter Luft angemessen handhaben zu können. Ungewollte Klapper und andere extreme Flugzustände können dadurch reduziert bzw. wesentlich besser beherrscht werden.

Folgende Manöver sollten während Höhenflügen unter Aufsicht mit Funk mit dem neuen Gleitschirm absolviert werden:

Übungen:		**Einweisungen:**	
Schnelle Kurvenwechsel	☐	Einweisung in das Beschleunigungssystem	☐
Enge Vollkreise in beide Richtungen	☐	Seitliches Einklappen mit Kurs halten	☐
Steilspirale	☐	Eventuellen Sackflug richtig ausleiten	☐
B-Leinen Stall	☐		
Ohren anlegen	☐		

Diese Übungen dürfen nur mit einem Rettungsgerät erfolgen. In Thermik und Turbulenzen können alle diese Flugzustände plötzlich auftreten und es dient der eigenen Sicherheit, diese mit jedem Schirm neu zu erfliegen.

Diese Übungen ersetzen nicht ein Sicherheitstraining, dessen Besuch wir jedem Piloten im Interesse seiner eigenen Sicherheit empfehlen. Deine Flugschule kann Dir dies sicher bestätigen.

Wir bestätigen, dass oben genannter Gleitschirm von uns testgeflogen wurde, und die aufgeführten Manöver vom Käufer beherrscht werden:

Unterschrift Fluglehrer: _____

Unterschrift Käufer: _____

Ort / Datum: _____

Service booklet

Glider- and pilot data

Model: **Ascent**

Size: ☐ XS ☐ S ☐ M ☐ L ☐ XL

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 undetaken:

Assignment Nr.
Stamp

2nd Service

Performed date: _____

Service jobs undetaken:

Assignment Nr.
Stamp

3rd Service

Performed date: _____

Service jobs undetaken:

Assignment Nr.
Stamp

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

4st Service

Performed date: _____

Service jobs undetaken:

Assignment Nr.
Stamp

5nd Service

Performed date: _____

Service jobs undetaken:

Assignment Nr.
Stamp

6nd Service

Performed date: _____

Service jobs undetaken:

Assignment Nr.
Stamp

Product registration card

Model: **Ascent**

Size: XS S M L XL

Serial number: _____

Kaufdatum: _____

Date of purchase: _____

Preflown by: _____

Owner

Name: _____

Family name: _____

Address: _____

_____

_____

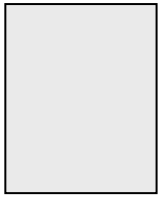
Telephone: _____

Fax: _____

Email: _____

Dealer stamp and signature

Cut out this card and mail it to UP within 14 days of purchase, or register your new UP Ascent via www.up-paragliders.com>Service>UP>Product Registration



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