

Manual

PARAMOTION

PPN
TECHNOLOGICAL
AFS
AUTOMATIC FLIGHT STABILIZATION



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Please read the manual before you fly your
new U-Turn PARAMOTION



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All technical details in this manual have been carefully checked by U-Turn. However we like to mention that we don't take any liability for possible mistakes, neither in legal responsibility, nor in liability cases that derive from mistakeable details. We preserve the right to change this manual in any way to achieve technical improvements.

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U-Turn your airline

U-Turn GmbH was incorporated in 2002 by Thomas Vosseler and Ernst Strobl after some years of market analysis. Vosseler, hobby-pilot and successful entrepreneur in the computer and software business, is the sales and marketing specialist, while Strobl is in charge as Head of Development.

The company grew fast in Germany and Austria, and in 2004 the international distribution started. Today U-Turn gliders and related products such as rescues, helmet or flight-wear are available all over the world. the company's headquarter is in Tuningen near the Black Forest and 30 minutes by car to the lake Constance.

U-Turn paragliders are in a class of their own. U-Turn doesn't compromise on safety, and uses the best quality components and hallmark flight characteristics. Congratulation on your purchase of U-Turn glider, as it is the brand for those who appreciate the difference.

The laws of physics are well defined. We aspire to achieve to possible within the framework of its laws. We admit this is ambitious but you will always find U-Turn at the cutting edge of technology. As Oscar Wilde once said in this very British understatement: "His taste is very basics; only always the best is good enough." Nothing more and most certainly nothing less. U-Turn staff takes notice of its customer wishes, so we appreciate any comments or feedback!

Please feel free to contact your competence center or U-Turn directly for any advice or direction.

Thank you

the U-Turn team would like to congratulate you on the purchase of your new U-Turn paraglider. You have made an excellent choice. We wish you long and enjoyable flights and many happy landings with your U-Turn PARAMOTION.

The research and Development team at U-Turn can proudly look back at many successful years in the flight sport industry. Our own concepts not only meet but exceed industry standards.

The combination between the latest computer based technology and the know-how of experienced test pilots and professional competition pilots provides an excellent basis for quality. We certainly keep our customers need in mind, and always appreciate your input and constructive criticism. Should any questions occur, please don't hesitate to ask your U-Turn dealer or the U-Turn team.

In order to provide you with the latest information on technical development and innovations at U-Turn, we ask you to complete the questionnaire attached. Please mail it to the following address:

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Have fun and we wish you many flights on your new
U-Turn Paramotion, your U-Turn Team



Please study this manual extensively, there is an obligation toward this recreational aircraft and its user manual to inform yourself about its specific features prior to its first use.

We composed this handbook, in order to make the handling of your new U-Turn PARAMOTION as safe and easy for you as possible.



The U-Turn PARAMOTION

With the PARAMOTION U-Turn is offering a real quick-change artist. Under the motto one plus one makes one, the further development of the greatly successful EMOTION represents the solution for all pilots who like to fly alone, as well as with a passenger as tandem or with motor.

The trick, that chief designer Ernst Strobl used, is as easy as genius: through a zipper fastener on the upper sail 2 cells can be taken out of the wind, if you want: they can be stored folded in the inside of the glider. The surface of the PARAMOTION thereby sinks from 35,5 to 33,1 square meters. Therefore the wing is providing variability and application range, that is looking for his peers on the market.

The PARAMOTION by U-Turn possesses besides the EN-B certification as safe glider also the paramotor and tandem certification. Of course the high weight range makes the glider also suitable for the use as a trike. „But the variability is not only usable for miscellaneous operating areas with additional weights ,“ says Strobl. The pilot can also use the zipped up version in windy conditions and with weak thermal and very calm conditions he can choose the open version.

„That is the huge advantage of the PARAMOTION: The glider allows, for different operating areas and even different weather conditions to fly in the optimal weight range“, adds U-Turn Co-founder Thomas Vosseler, „that won't be outdone anytime soon.“

Through the Launch Control, the PARAMOTION possesses another innovation by U-Turn. The newest technical innovation brings a wide range of advantages, for the pilots at the beginning of their experiences as well as for experienced leisure pilots, who for example are starting at a new, unknown starting place and would like the help that Launch Control offers. That is why the system is easily activated and just as easily deactivated again - according to the preferences of the pilot. The two loops are mounted with a distance from one another of 3 cm, so the pilot can choose, with which intensity the Launch Control will be used in. That means, that thereby also the starting speed can be altered, because the angle of attack can be slightly altered. So for example when starting in a steep place with short start-up, the starting speed can be chosen lower.

During the start and the flight, the PARAMOTION behaves just like the unzipped brothers, uncomplicated and mistake forgiving. Responsible for that is the AFS-System of the newest generation. The canopy also glides extremely good, when accelerated and in thermal lift the wing makes good height. The PARAMOTION thereby stands in the series of the successful gliders of U-Turn: for the good feeling of safe fun. During all that, Ernst Strobl, placed ultimate importance to the longevity of the glider, because on the merits of the case the PARAMOTION will be used especially often due to its variability. On the leading edge, the glider has the PPN-technologie by U-Turn. The Precision-Profile-Nose (PPN), plastic-reinforcements between the cell openings, are providing constantly stable flying features. The usage of a special tape at especially strained conjunction points of the lines and the selection of exclusively highest quality components is emphasizing the high demand of the glider.

Operation

This instruction manual only pays attention to those points of flying technique which are important for the U-Turn PARAMOTION. It is not meant to substitute a basic flying education in an approved flying school! If a flying education and the appropriate experience is missing, paragliding is dangerous to life. Also note that when using the U-Turn PARAMOTION with motor, a paramotor licence is necessary. The same goes for the tandem area, a tandem licence is a requirement.

Safety Precautions

We recommend the following precautions:

- Make your maiden flight in a familiar flying site and calm conditions .
- Test your PARAMOTION only over water.
- In a „dynamic flight“ are not only you exposed to high loads but also the glider. Please don` t underestimate this.
- Only fly the PARAMOTION with at least one reserve parachute.
- observe and abide to the local aviation laws which rule in the respective country in question.
- Successful completion of appropriate training/schooling, having the needed knowledge as well as the actual flight experience are a prerequisite to operate your U-Turn PARAMOTION.
- The use of suitable, certified and in the respective country approved accessories (helmet, harness, reserve) is a requirement for the use of the U-Turn PARAMOTION.
- Execute before every take off a thorough inspection of your equipment (topsail, undersail, ribs, especially the lines, carabiners, buckles, cloth speed system etc.) A flight with a tear in a glider or lines can be life threatening.
- Make sure that your flying gear is in good condition and all checks are done.
- Be aware that you as a pilot have to be in a physical and mental state to control each flight unimpaired. You have to concentrate completely on flying, in order to avoid potential distressing flight conditions. Most accidents are caused by pilot error.
- Never fly in close proximity to high voltage transmission lines, airports or motorways, over people or with lightning! You could endanger your life and the physical well being of yourself as well as third parties and at the same time act reckless and negligent. At no circumstance should the minimum distance fall below 50m at any given time. At airports this minimum distance to maintain is 5km.
- Inform yourself on the weather forecast and/or the predominating local weather conditions. Use the U-Turn PARAMOTION only in wind strengths, in which you are able to control the wing for 100%. Do not use the U-Turn PARAMOTION, in wind with a great gust factor. Never use the glider with approaching thunderstorms or if probability of those of the development of thunderstorms is high. Land with thunderstorms approaching near immediately!
- The flying of aerobatics is generally forbidden and is dangerous. Unforeseen flight orientations can occur, which can spill out of control, arising the danger of overload on pilot and equipment.



Ignoring one or several safety precautions can lead to a leisurely fun flight, turning into a fatal event.



Baseline and brakeline adjustment

The factory brake-line setting corresponds to 0-free travel plus 5 cm. It is recommended to adjust your brake line travel after the first flight to your personal preferences. Be aware not to adjust the brakes too short, otherwise the glider may fly with a little, but continuous applied brake pressure. This could be extremely dangerous during takeoff , flight and landing!

The afore mentioned factory brake setting allows for ample brake travel in extreme flight situations as well as for landing. At the same time it enables during flight at trim-speed a position of comfort for the pilots arms.

In no case the setup A, B and C main lines should be changed before the wing has been flown in the original setup.

Please also note that adjusting the height of the suspension to the hangpoints on the harness, changes the relative braking travel. When setting the adjustment it is to be made certain that both sides are symmetrical and that a permanent knot is used. The bowline works particularly well because of the fact that it weakens the lines the least with excellent slip resistance.



Glider description

Lines and risers

On the U-Turn PARAMOTION we use Liros lines: LTC65, LTC80, LTC120, LTC160, LTC200, DC60, DC100, DC200 , specially braided competition lines made of sheathless kevlar with Nanokoating as well as TSL220, TSL380 and TSL500 (TSL= Aramid core). Lines proven by their high tensile strength and are virtually immune to breaking. Their stretch resistance prevents a change in the flight characteristics by uneven lenghtening after short period of use. The use of different line diameters allows a good correlation of uncompromised safety, between line tension and minimized line drag in flight.

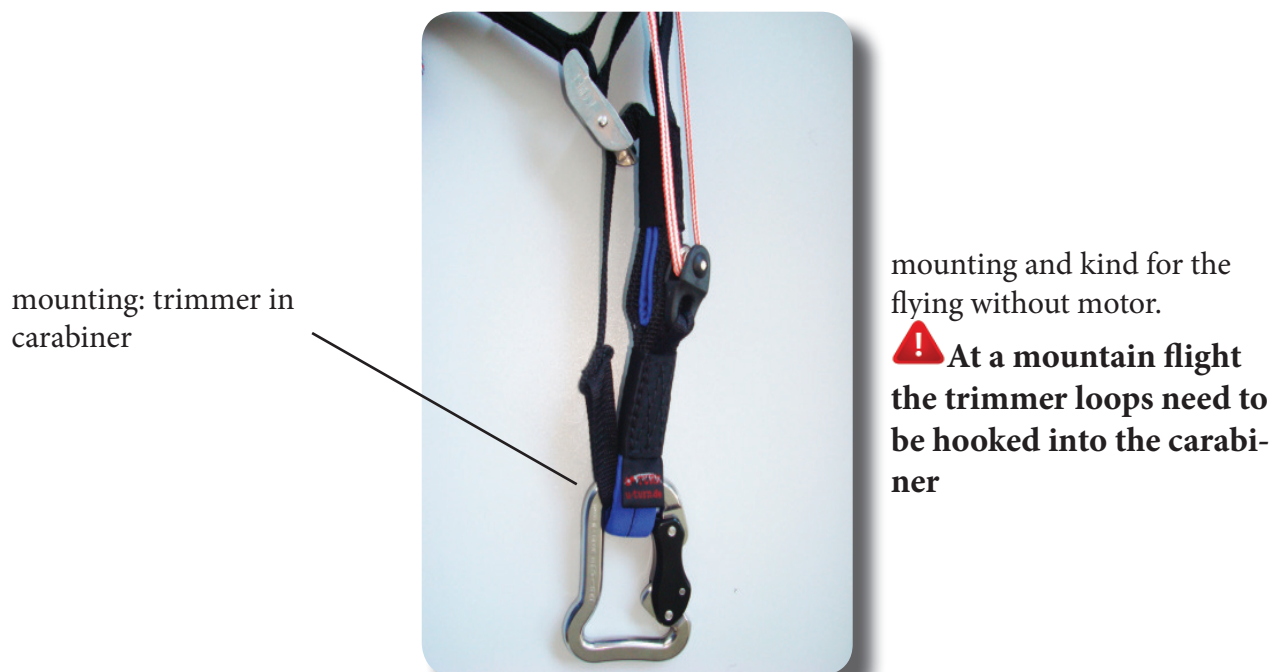
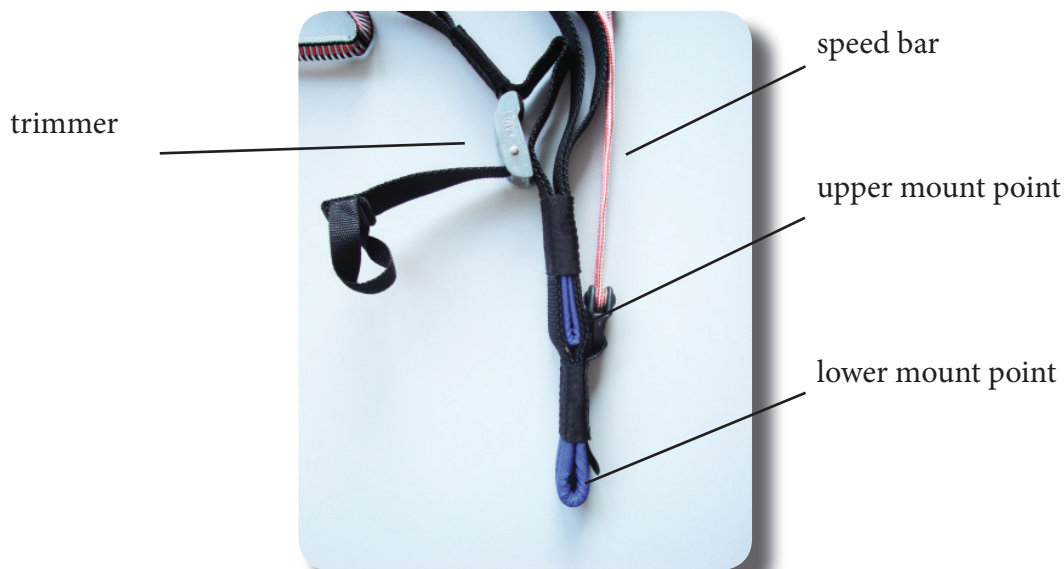
Harness and motor

To fly comfortable, we recommend, to use the time on the ground to adjust your harness in the right way. The best way to do that is to hang up your harness and check if you are seated comfortably, if you can reach the brake lines and can operate the speed bar without problems.

Since the U-Turn PARAMOTION was conceived for the usage with motor, it fits all kinds of motors. But it is very important that you choose a motor, that is suitable for your demands. Try to get different opinions from experienced pilots, before purchasing the motor and harness.

It will help you to better coordinate the harness and the motor to you.

Structure of the risers and brake lines



Speed system

The U-Turn PARAMOTION is equipped with a trimmersystem and a foot operated speed system. This enables the adjustment of the glider to the motor in the motorised flight not to fly slightly braked. It increases the speed at triggering of the speed system up to circa 18 km/h, depending on the size of the glider and the weight of the pilot respective the given surface load.

Therefore it should not be activated in extreme flight situations or deactivate immediately when their occuring. All extreme flight attitudes (e.g. a-collapses) happen at accelerated speed more dynamically. Since the maximum acceleration is part of the safety behavior of the glider, it can happen that with some harnesses the speed bar to full speed cannot be used.



Fußstreckerbeschleunigungssystem

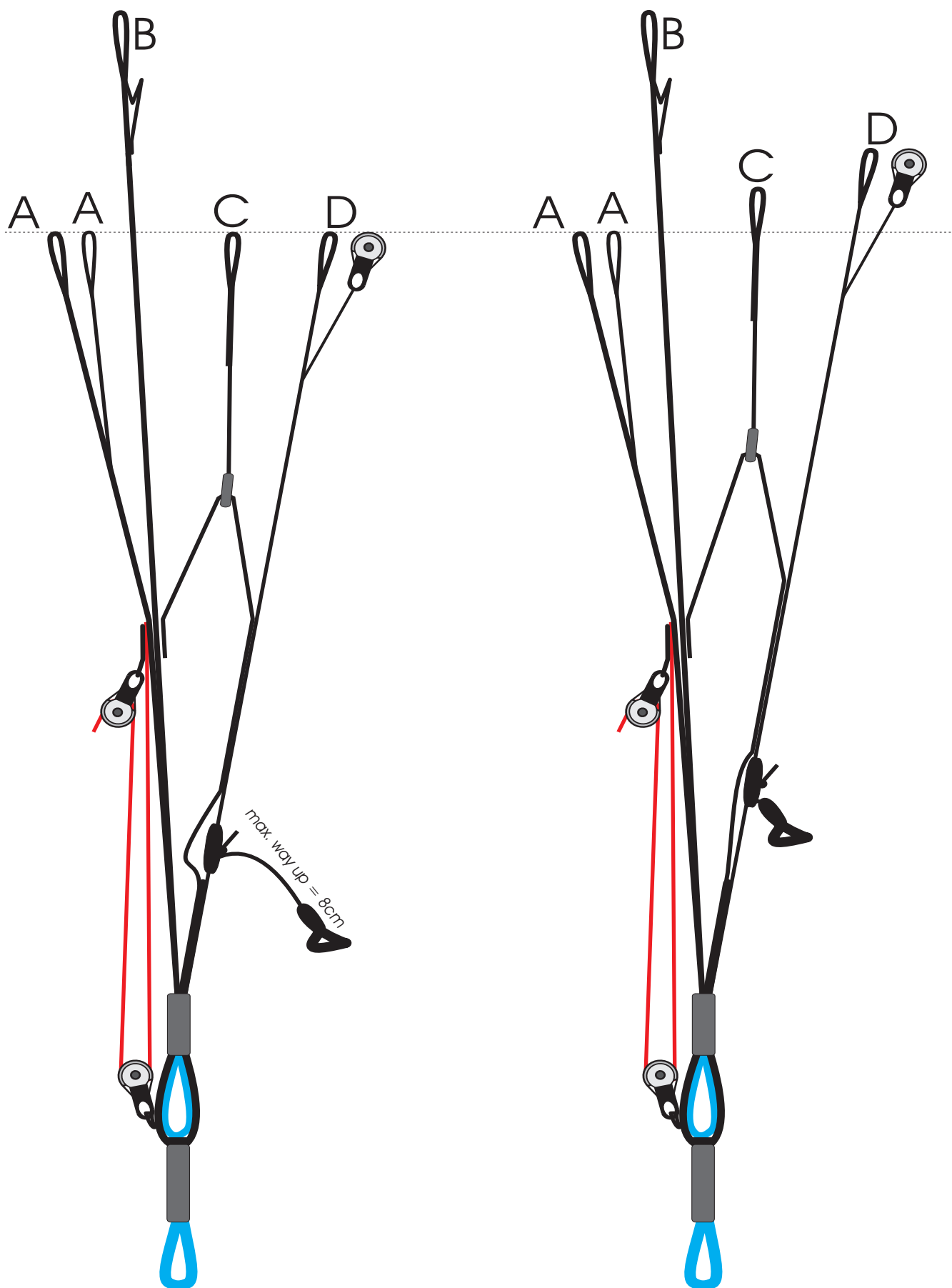
The foot bar is adjusted before the start. The best way to do so, is when a friend holds up the riser, while you are in flight position in your harness. Activate the speed system. It should be adjustet, so the pulleys are on top of one another and your legs are completely stretched. Although you need to take care, that the speed bar is not too close to your seat during the start. We recommend you to activate your speed bar on multiple occations during the flight and watch, that the speed bar pulleys touch at the riser and your legs are completely stretched. You also need to take care that the speed system is adjusted symetrically.



The trimers can be adjusted during the flight. With open trimmer, you have the maximum accleration rate (without the foot bar). with closed trimmer, the glider is in normal flight. We recomment to fly the PARARMOTION with closed trimmer in turbulent conditions.

- ⚠ CAUTION: Trimmer and speed system must not be activated at the same time.**
- ⚠ CAUTION: Trimmer must not be opened during the normal flight without motor. The trimmers are only to be used in combination with a motor.**

Speedsystem- Survey
PARAMOTION TRAGEGURT REV2



Flight

Take off

After the paraglider is unpacked and laid out in the shape of a horseshoe, the following points are to be considered:


- The paraglider should be laid out in such a way that when pulling up by the A-risers, the center lines are evenly, and earlier tensioned than those towards the wing tips. This ensures an easy and symmetrical inflation at launch.
- Take into consideration the wind direction when laying out, so that when pulling up into the wind, both sides of the paraglider can rise symmetrically.
- Ensure the risers are without twists, and the brake lines run freely through the pulleys to the trailing edge of the glider.
- No lines should pass underneath the sail. A line-over at take-off can have fatal consequences.
- The 5-point check shouldn't be forgotten of course.

The center of the glider in the U-Turn PARAMOTION is marked by the U-Turn-logo on the leading edge. It suffices to only hold the main A-risers in the hand. Since the U-Turn PARAMOTION has only minor tendency to overshoot, it requires only minimal brake input during launch. If needed, directional corrections with the brakes should be undertaken only if the wing already is overhead, since too much brake input could drop the glider back. The other risers should, during take off, be left alone. With an even pull but overall light input only, the glider is to be inflated. Unlike other gliders, it is not necessary to inflate the U-Turn PARAMOTION with aggressive pulling or even fast running.

This is also true with little or no wind. Measured pulling up is the simplest and safest way to launch the U-Turn PARAMOTION. Once the pilot made sure that the glider is overhead and fully inflated, the final decision is made whether to take off. After some dynamic steps the pilot takes off.

 **Caution:** The trimmers need to be closed during the mountain flight.

At the paramotor start: After a few dynamic steps and accelerating of the motor, the pilot takes off. Of course you can also start the U-Turn PARAMOTION backwards. Lie the glider out the same way as starting forwards, but you are turning, and during which take one complete riser over your head, facing towards the glider. The risers should be crossed in front of you. Take the A-risers so no other lines are on top of them. Make sure that the brakes are held the right way. Now you can pull up the PARAMOTION through the A-risers. Take care that if the wind is strong you need to take a few steps towards your glider. Thereby you take the energy out of the glider, and the tendency of the canopy going to excess is smaller. Only turn around if the canopy stands stable above your head. Now accelerate calmly and step on the gas progressively.

 **Tip:** Try to train that as often as possible on the ground. It's not only fun but will give you a better feeling towards the glider and a secure starting behaviour from your side.

Rising phase at paramotor start

to gain height faster, you should fly against the wind in the rising phase, and adjust the trimmer to the slowest point. Thereby try not to rise too steeply.

Curve flight

The U-Turn PARAMOTION has a high mobility and reacts directly and without delay to your control pulses. At about 75% of brakeline travel, the U-Turn PASSION increases bank significantly and performs a fast steep turn that can be continued to a diving spiral. The diving spiral has to be initiated and terminated slowly. The bank angle is controlled by increasing and decreasing the pull on the inner brakeline.



Warning: A rapid pull on the brakeline may cause a spin.

Active Flying

The U-Turn PARAMOTION should be flown with light braking on both sides when there is turbulent air. An increase in angle of attack provides better stability. When entering heavy thermals or strong turbulences be mindful of that the canopy does not get behind the pilot. To avoid that, release the brakes a bit to get an increase in speed when entering the updraft.

If the canopy gets in front of the pilot when leaving an updraft or entering a downdraft the brakes have to be applied to counter that. Accelerated flight however is advisable when flying through a downdraft zone. The U-Turn PARAMOTION is naturally very stable due to the way it's constructed and the built-in AFS - System. Collapsing and deforming of the canopy can be avoided by active flying (as above mentioned) in turbulent air.

Landing

Start your landing preparation at sufficient altitude. Due to its excellent flaring characteristics, the PARAMOTION is very easy to land. Glider in fairly normal to a straight-in final against the wind and get up in the harness early enough. According to the wind, the brakes have to be pulled firmly and dynamically, about one meter above ground, beyond the stalling point. If there is a strong headwind, be careful with the amount of braking. Don't perform landings out of steep turns and big directional changes short prior landing, to avoid PLF.



Warning: During a strong wind takeoff attempt, ground handling and landing the leading edge can hit the ground with high speed. Avoid this! Otherwise the ribs, the sewings or the fabric can be damaged.

Rapid Descent

In any situation where you have to get down ASAP for different reasons (weather, extreme updraft, or other dangers,) there are a couple of techniques that are described in this chapter.



Caution: The described manoeuvres stress you paraglider more than normal and should only be performed for practise or in a real emergency!

„Big Ears“

Pull down simultaneously both designated outer A2-risers (by grabbing at or above the maillons), about 15-20cm to fold in the wingtips. The brake toggles are to be held in hand together with the pulled down A-risers. For additional stability and for an increased sinkrate the speedsystem should be actuated. The glider remains fully steerable by weightshifting and descends at a rate of 4-7m/s straight forward.

Once you release the A-risers, the folded wingtips reinflate automatically, if not, you may pump the brakes gently. „Big earing“ is due to the high wingload a very stable flight condition and well suited even in turbulent air.

Please be aware that you reduce the trimspeed during „big ears“, but this can be compensated by applying speedbar. „Big earing“ in combination with weight shifting in order to get the glider to spiral dive, will achieve the highest sink rate. This descent method is often taught in SIV training. Be mindful this exposes the glider to extreme loads, should one need to use this maneuver again we recommend an equipment inspection.

B-Stall

Another very efficient descent method is the B-stall. It allows for a rate of descent of 6 to over 9 meters per second. Check the airspace under and behind you prior to initiating a B-Stall. To initiate it you hold the two B-risers above the lines carabiner. While holding the brakes in your hands at all times, pull the B-risers down progressively and symmetrically down to the shoulder to about chest level. Hold this position. Your sail will stop flying forward, partially empty, and stabilize itself overhead. During this the wing will fall back a little, which shouldn't tempt you to release the risers again. The glider would then shoot forward and oscillate vigorously. Only once the glider has stabilized overhead it is ok to exit the B-line stall. For this release the risers symmetrically into their original position.

We recommend not to simply let the risers snap shut as this puts a lot of pressure on the material. In the paragraph titled „advanced handling“ you can read what to do if you get caught unexpectedly in a stall.

Advanced Handling

Even with its high stability and good flight characteristics it is possible that the PARAMOTION gets into an extreme flight condition due to pilot mistakes or turbulent air. To be prepared for such situations and able to handle them in a calm and superior manner it is best to take part in a flight safety course. Advanced manoeuvres may only be flown at sufficient altitude, in calm air and with professional supervision (i.e. during a safety course). Once again we mention that a rescuesystem is required by the law.

The following extreme manoeuvres can be either caused intentionally, by pilots mistakes or by bad weather conditions. Every pilot can get in such a situation! All mentioned extreme manoeuvres are dangerous if they are performed without the appropriate knowledge or enough altitude or the necessary introduction. A wrong execution of these manoeuvres may have fatal consequences!

Spiral Dive

Like a normal turn, it is very easy to get the PARAMOTION into a spiral dive. The spiral dive gets you a descent rate up to 20 m/s. To prepare oneself in case of, practise it in optimum conditions. The diving spiral gets the pilot down faster than other techniques and is therefore best suited for an emergency descent. They move down vertically within the air-mass. Don't forget the G-forces when diving down, and take that into consideration before initiating a rapid descent.



Caution: If initiation is too fast there is a danger of a spin, in this case release the brake and try a smoother initiation.

Warning: The symmetric spiral is exclusively a maneuver for amusement. It's often recommended as a descent method, however we do not recommend to do so. This is because no spiral dive can be initiated in strong thermal conditions.

Wingover

The pilot has to perform right and left turns with increasing bank until the desired angle is reached. Collapsing wingtips is prevented by gently applying brake pressure in the up and/or downswing of the wingover.

Full Frontal

A negative AoA caused by turbulences or the simultaneous pulldown of the A-risers by the pilot, results in a frontal collapse of the leading edge. The PARAMOTION comes out of a frontsall by itself very quickly. Smooth and symmetric applying of the brakes assists the opening of the canopy positively. Even, symmetrical, subtle pumping of the brakes can assist the reopening.

Collapses

Even with its high stability and very responds well in turbulence, strong turbulences can cause the PARAMOTION to collapse. That situation is not really dangerous and clears itself automatically, without any further input required. To support the recovery, firmly apply brakes on the affected side and simultaneously steer opposite on the open side. When a large part of the canopy is collapsed be careful and smooth when applying opposite steering to avoid a complete disruption of airflow and entering a fullstall.

In case of larger deflations the counter steering is to be exercised with restraint / in moderation, in order not to completely interrupt the airflow to the positive side of the wing and spin the glider.

How to avoid collapses

Single side collapses close to the ground are the number one reason for accidents with paragliders. To avoid them, or how to handle the situation when it happened, some tips and tricks from U-Turn test- and competition pilot Ernst Strobl:

The best way to avoid collapses upfront is the right choice of the paraglider. A lot of pilots fly a glider that is a little too hot to handle for them. So why don't you get a glider with a lower rating but in the end fly better and higher in the updrafts and have a lot more fun and by the way be safer, too. To optimize the feeling for your glider on the ground, try the following:

Practice on the ground with the right wind at a suitable location. Slowly pull up the canopy and try to hold it up as long as possible without looking **towards??** it. That is a good way to improve the feeling for your glider and is a prerequisite for „active flying“ (the key to avoid collapses). Very important is also a close look at the terrain. Watch for obstacles that could cause turbulences (buildings, trees, ...). On certain days, for example a freshly mowed meadow as landing field, could cause a lot of thermal activity. Fly very alert on a thermal active day. Watch your canopy, collapses most of the time, announce themselves. Light braking in turbulences mostly avoids a collapse. You should have already practiced that on the ground. Should a collapse occur close to the ground don't always try to prevent a turn away. There is a danger when the braking on the open side is too strong, to lose the airflow on this side and stall the glider. Rather use the turn away motion to try to open the collapsed side.

Apply smooth braking on the open side, depending on the size of the collapse, and maybe a little pumping action. Some canopies open a lot better when the brakes are fully applied once on the according side, but that depends on the brakelines adjustment and your armlength. Wrapped lines are cleared by braking the opposite side at enough altitude and pumping the affected side a couple of times. Watch out for a possible stall. If that does not clear the situation, try to pull down the outer lines as much as possible. If you are too low for that, stabilize the canopy on the opposite side avoid turning away, and leave the lines like they are. Instead of any - risky manoeuvres rather concentrate on the landing. In the end one more advice in order to have all kinds of situations under control.

Visit a safety-training above water. There is no better way to practice the right behaviour than simulating a dangerous situation. Don't get caught off guard by your first collapse. In addition, during safety-training you can familiarize yourself with the particulars of your equipment and you gain confidence in your gliders as well as your own abilities.

Thus far the expert advises concerning collapses, by Ernst Strobl.

Cravat

A cravat describes the situation when the wingtip becomes trapped in the glider lines. Cravats can lead to uncontrollable turning movements. One possibility to open a cravat is to pull hard on the stabilo line (outer B-line). Another possibility would be to fold this side of the wing. Thereby be cautious not to tear the wing on the open side, while steering in the opposite direction. In case all of this is not working the second-last possibility is a full stall. If the cravat is still there, you need to assess by yourself if you can land with it or not. if you notice that you are close to the stall border with your steering in the opposite direction, throw your rescue parachute.

ACRO flying

The U-Turn PARAMOTION was built exclusively for the motorised use and not for acro maneuvers. In Germany acro flying is forbidden! Although the U-Turn paramoter glider is on the highest standard, the glider could not cope with the extreme loads of flying acro. We recommend not to fly acro maneuvers with the U-Turn PARAMOTION.

Deep Stall

The U-Turn PARAMOTION is not stall sensitive. If in a stall, caused by overpulling on the brakes, the rear risers or a delayed B-stall exit, the release of the brakes or the rear risers, recovers the stall. Should the stall be caused by an extreme flight condition or configuration (i.e. takeoff weight too low), a symmetric forward push on the A-riser or step the speed system recovers the stall.



Warning: Practicing stalls should be done with enough safe altitude. Never apply asymmetric brakes during a stall, it could cause a spin. If the PARAMOTION in deep stall, one should only brake release the brake the glider is in front.

Fullstall

To initiate a full stall, pull both brakes without a wrap slowly to the point of stall. As soon as the point of stall is reached, hold both hands up. The glider falls back. At point, under no circumstance should the hands let up or release the brakes. To recover from a full stalls the canopy should be stabilized overhead and prefilled. For this slightly let up both brakes symmetrically. To exit completely, let up both brakes symmetrically and slowly in its entirety. With a correct symmetrical exit the glider returns swiftly, as soon as the glider shoots strongly forward, it must be checked by a brief brake input. An asymmetrical recovery is to be avoided, this could lead to falling into the glider.

Negativ Turn

A negative turn/spin is initiated, when the pilot pulls the brake on one side fast and completely though the point of stall while letting the other side of the wing fly freely. With a negative turn the glider turns relatively fast around its center, while the inside flies backwards. In order to exist a spin, the applied brake released, where stalled side of the wing can pick up speed or one exit though a full stall, by braking the flying side into a stall also.



Warning: The Spin and the Fullstall and unpredictable and dangerous flight attitudes and should only be executed in a safety training under guidance and never be intentionally executed. There is danger of riser twist. With a riser twist the brake lines can get blocked.



Warning: The glider has been overloaded. Fullstalls and negative turns / spins as a descent method is dangerous, because a wrong exit, independent of glider type, can have fatal consequences.

Emergency Piloting

In any situation where normal steering with the brakelines is not possible, the U-Turn PARAMOTION can be steered with the back risers easily. Turns can be flown with weightshift, however be mindful that the glider doesn't lock into a spiral.

Maintenance and Care

Because U-Turn only uses high quality materials, your PARAMOTION will be airworthy for many years if you take good care. The aging of your PARAMOTION depends on the total flying time, the conditions you fly in, the amount of UV radiation it is exposed to and the intensity and quality of care. A couple of tips for maintenance and care:

Long lasting exposure to UV radiation and normal use stress the material

- Don't expose your glider to the sun when there is no need to
- Consider the choice of terrain where you lay out the glider for takeoff
- Asymmetrical and changing folding patterns prolong the lifetime of the material
- especially in the middle section.

Please take following points into consideration:

- regular checks for damage
- no unnecessary bending
- lines after overloads (tree landing, water landing, etc.) for its strength and correct length to be checked and exchanged if necessary
- in case of changing in! ight handling characteristics, the line have to be checked for their correct length
- don't tie the brakelines on the grips if not needed, it weakens the lines

To clean the canopy use warm water and a soft sponge.

If you use a detergent for hard stains, make sure that you rinse intensively afterwards.

Never apply any chemicals for cleaning, they weaken the material and damage the coating.

Store your glider at a dry and dark location away from any chemicals. After two years or 300 flighthours, whichever occurs first, your PARAMOTION has to be inspected by the manufacturer, in case of extreme use we are glad to do that earlier. Only you know about the condition of your glider. Should there be a need for any repairs they are to be done by the manufacturer.

Nature and environment friendly behavior

We ask you to perform our sport in a manner, that impacts nature and environment with minimum intensity. Please do not walk beside marked paths, don't leave any waste, please be not noisy and respect the sensitive biological equilibrium in the mountains. Especially at starting areas maximum care for nature is necessary.

The synthetic materials your U-Turn glider is build must be depolluted appropriately.

Please send your U-Turn glider at the end of its life-cycle back to U-Turn. We will take care for recycling and removal.

Flight accesories

Suitable Rescue Sytsem

It is required by law and absolutely neccessary for safe operation of your paraglider that you always carry a rescue system with you. When choosing a rescue system, watch out that it is approved and suitable for the intended takeoff weight. With the innovative rescue systems of the SECURE-series by U-Turn light-weight, convenient and safe reserves are available. The SECURE rescues offer extremely short opening times and low sink-rates.



Frontcontainer

We reccomend you to carry the rescue parachute in a front container, therefore we offer from our U-Turn Frontcontainer series the following models:



U-Turn Frontcontainer with Cockpit



U-Turn Frontcontainer SECURE XL/UL

Assumption of Risk

Flying the U-Turn PARAMOTION is inherent with certain dangers of bodily harm or even death of the user of this product or third party equipment. With the use of the PARAMOTION you assume all known and unknown risks and accept probable and improbable risks to injury. The dangers innate with the practice this kind of sport can be reduced by adhering to the warning notes in the manual, as well as the required attention to detail on each flight. The risks inherent to the sport can be reduced to a large degree, if one adheres both to the maintenance guidelines, which are listed in this operating manual, as well as using common sense.

Liability claim and renouncement of exclusion

With the completion of the sale of a U-Turn PARAMOTION you express your in consent with the following points of legal specifications:

THE RENOUNCEMENT EXCLUSION OF ALL LIABILITY CLAIMS

deriving from the use the U-Turn PARAMOTION and or either compenents thereof, now or in the future, against the U-Turn GmbH and all other contracting parties, that could arise.

Releasing U-Turn GmbH and all other contracting parties of all liability claims concerning loss, damage, injury or expenses to you, your next of kin, relatives or any other user of the U-Turn PARAMOTION as a result could suffer. This includes but is not limited to lawful or contractual liability on behalf U-Turn GmbH and all other contracting parties as a result of the of production and processing the U-Turn PARAMOTION and all its components. With the occurrence of death or disability, all directives stated here come into force and bind their beneficiaries, next of kin, trustees, legal successors and/ or representatives. The U-Turn GmbH and all other contracting parties express no verbal or written representation and denial expressively that this was done, with exception of what is specified in and in the manual the U-Turn PARAMOTION.

Safety Advices and Liability

This glider complies with EAPR, AFNOR (SHV and ACPUL) regulations, for the tested type, at time of delivery (see appendix). The operation of the glider is at your own risk. The manufacturer and the dealer don't take any liability for accidents and follow on damages. Please consider all safety notes, cautions and warnings for safe flying. Further, we assume that the pilot has the necessary certifications and that the legal limitations are being followed. Use of the equipment is at your own risk. Follow the safety instructions for a safe flight.

Release of Liability, Renouncement of Entitlement

Hereby you declare, that you -prior to use of the U-Turn PARAMOTION- the U-Turn PARAMOTION user manual in its entirety, including directions and warnings, which are included in this user manual, have read and understood. Moreover to carry responsibility - prior to granting the use by a third party of U-Turn PARAMOTION - through transferring ownership temporary or permanently, for this other user to have read and understood the U-Turn PARAMOTION user manual in its entirety, including directions and warnings, which are included in this user manual.

Date

Signature first Pilot

Date

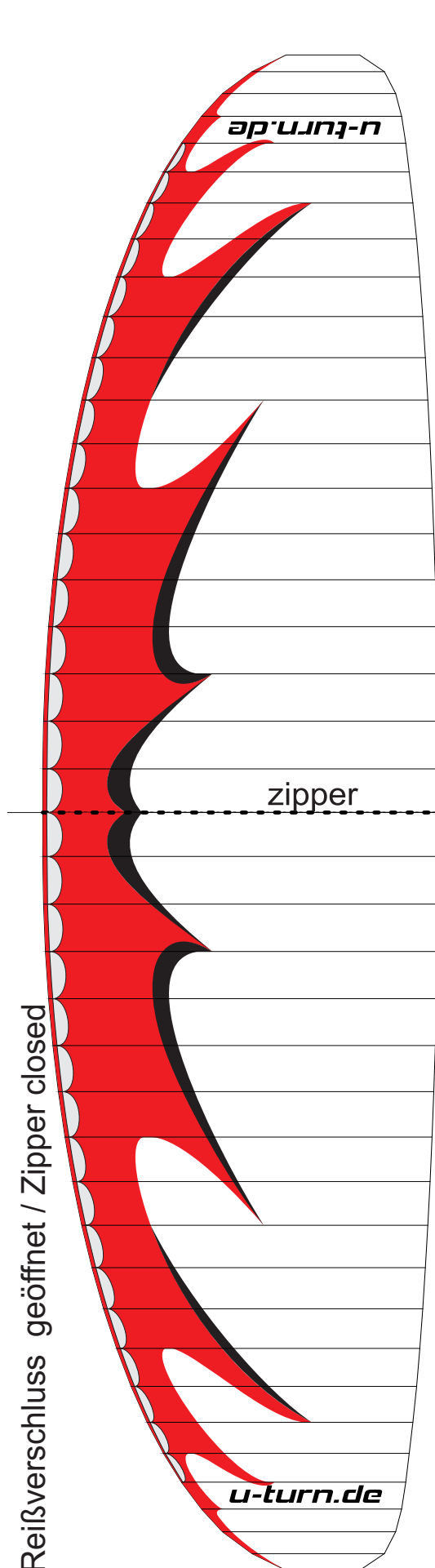
Signature second Pilot

Date

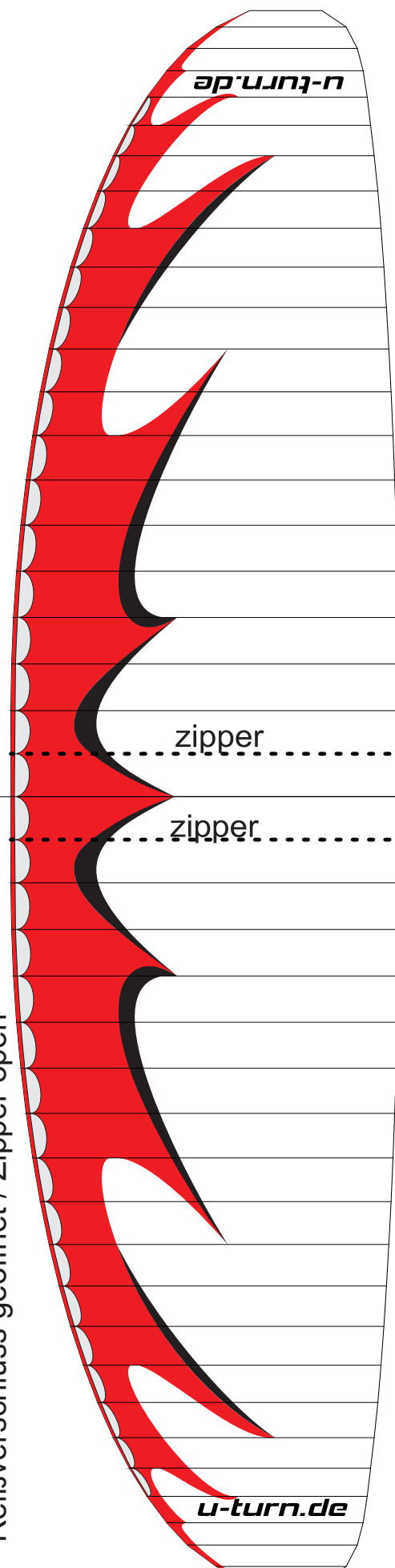
Signature third Pilot

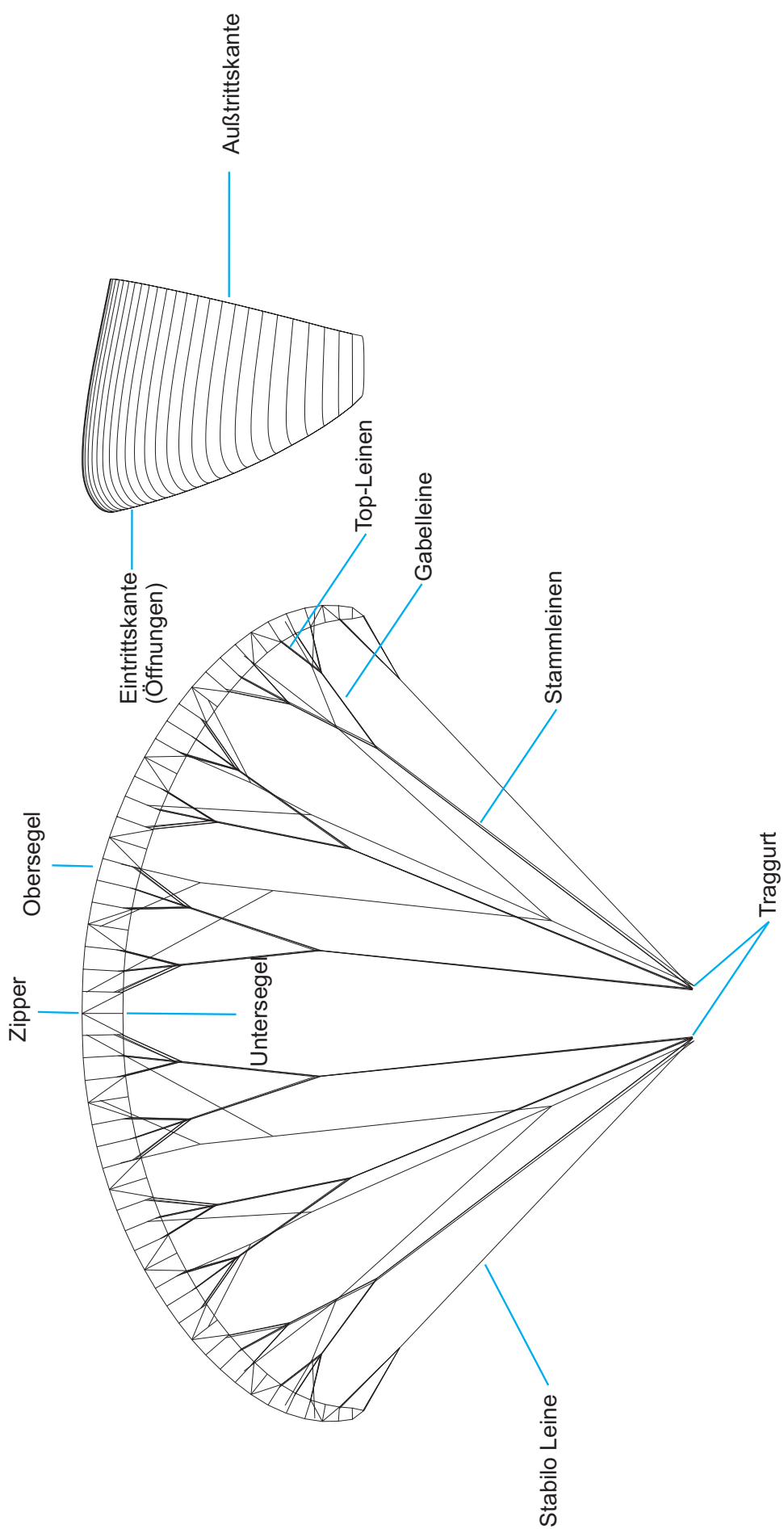
**U-Turn cannot be hold responsible for any 2-year inspection and
any repairs not performed by U-Turn or an U-Turn authorized dealer.
Any checking or repairing performed by people not authorized by U-Turn will
cause denial of any warranty!**

Reißverschluss geöffnet / Zipper closed




Reißverschluss geöffnet / Zipper open





Technical Data U-Turn PARAMOTION

PARAMOTION <small>PPN AFS</small>	<u>Technische Daten</u>		 your airline...
	Zip closed	Zip open	
Start Weight	100 - 130 kg	130 - 160 kg	
Flat Area	33,0 m ²	35,5 m ²	
Projected Area	27,48 m ²	29,56 m ²	
Flat Wingspan	12,59 m	13,4 m	
Projected Wingspan	9,658 m	10,274 m	
Flat AR	4,81	5,06	
Projected AR	3,39	3,57	
Chord: Center / Wingtip	3,166 / 0,585 m	3,166 / 0,585 m	
V-Trim	39-41 km/h	39-41 km/h	
V-Max	52-53 km/h	52-53 km/h	
Bridle height	8,08m	8,08m	
Nr. of Cells	40	42	
Glider Weight	7,8 kg	7,8 kg	
Bridle length	373,2 m	373,2 m	
Line Diameter	0,9 / 1,3/ 1,5 / 1,7 / 1,9mm	0,9 / 1,3/ 1,5 / 1,7 / 1,9mm	
Speed System / Trimmer	Yes / Yes	Yes / Yes	
Certification	EN-B / LTF-B	EN-B / LTF-B	
Certified standards and procedures	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2	
Folding lines used for certification	No	No	
Certification No.	EAPR-GS-7592/12	EAPR-GS-7592/12	

Color-Info



PARAMOTION PPN[®]
REASON FOR LIFE
AFS
AUGUST 2011 UTAH/USA

Color Info

Color 1



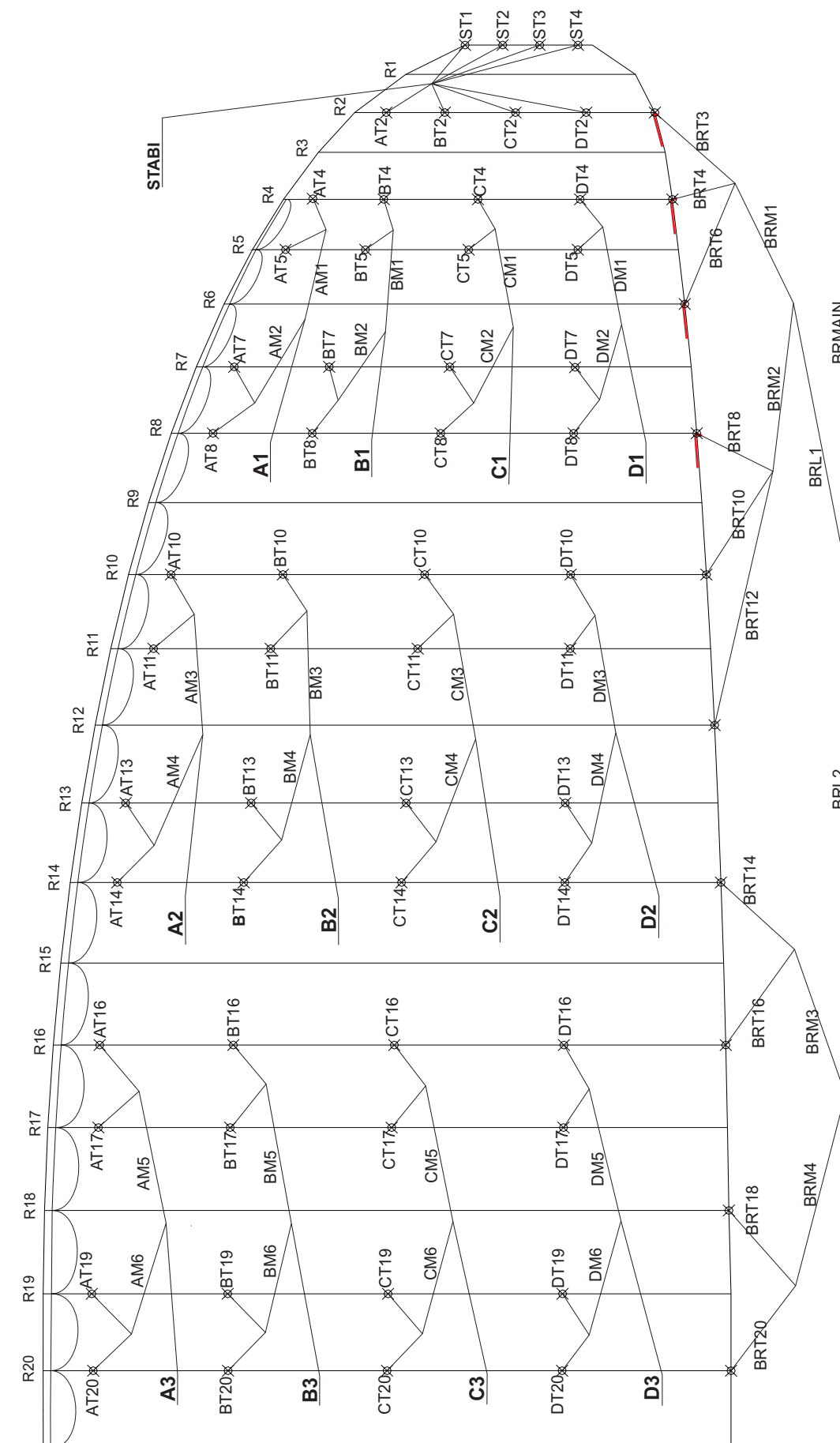
Color 2



You can make your own Special-Edition.

Material List U-Turn PARAMOTION

Marking of components	Material / product name	Technical data / Dimension weight / strength	Producer
Attachement loops	Nylon	7,2 g/m / breaking strength 110 kg / 13 mm spreads	Kolon Industrial Co, Korea
Accelerator lines	Nylon	Ø 4,0 mm = breaking strength 350 daN	
Accelerator - brakeroll	GIN Rolle		Gin Glider Korea
Accelerator lock	Brummelhook		Gin Glider Korea
brake attachments	Nylon	7,2g/m breaking strength 110 kg / 13mm spreads	Kolon Industrial Co, Korea
brake handhold	High Tanacity Poliester Yam 22mm	25 g/m / 1000 kg breaking strength	Techni Sangles, France
brake handhold attachment	High Tanacity Poliester Yam 22mm	25 g/m / 1000 kg breaking strength	Techni Sangles, France
brake handhold attachment	Magnet		Gin Glider Korea
Break main line 2,3 mm Ø	Dynema Lines	2,3 mm = 250 daN	Gin Teijin Korea
Lines: DC60, DSL 70, PSSL 120, 160, 200, 275	Liros Lines		Rosenberger Tauwerke Gin Gliders Korea
belt direction	Stainless Steel	8g/Ø 3,8 mm / breaking strength 800kg	Ansung Precision CO, Korea
lines lock	Stainless Steel	12g / Ø4,3 mm / breaking strength 1000kg	Ansung Precision CO, Korea
Top sai -A-B-C	Skytex 36 / Skytex 27	36 g/m² / 27g/m² (PA 6,6 HT)	Porcher Marine, NCV, France
V-Tape	Skytex 27	27 g/m² (PA 6,6 HA T)	Paratex, Germany
Nose reinforcement	P 260	283 g/m²	Dimension-Polyant, Germany
Rips, Profile	Skytex 36 / Skytex 27	36 g/m² / 27g/m² (PA 6,6 HT)	Paratex, Korea
Riser	High Tanacity Poliester Yam 22mm	25 g/m / 1000 kg breaking strength	Techni Sangles, France
Bottom sail - A-B-C	Skytex 27	27 g/m² (PA 6,6 HT)	Porcher Marine, NCV, France
Reinforcement pivot point B/C/D	W 420	180 g/m²	Porcher Marine, NCV, France
sewing thread canopy	High Tanacity Poliester Yam 150 D/2	0,05 g/m² / 2,9 kg breaking strength	Amann & Söhne GmbH, Germany
sewing thread lines	High Tanacity Poliester Yam 150 D/3	0,083 g/m² / 3,2 kg breaking strength	Amann & Söhne GmbH, Germany



Lineplan

PARAMOTION PPN AFS

Leinenplan / Line Plan



PARAMOTION rev1 28.08.2008					
A-Lines					
r 20	678	2023	5641		8342
r 19	611				8275
r 17	611	1978			8231
r 16	667				8286
r 14	678	1812	5713		8203
r 13	611				8136
r 11	611	1734			8058
r 10	667				8114
r 8	678	1389	5930		7997
r 7	584				7903
r 5	645	1212			7786
r 4	611				7753
r 2	1456				7169
Stabilo	1200				6914
B-Lines !Riser lenght is 700mm!					
r 20	678	2023	5380		8081
r 19	611				8014
r 17	611	1978			7969
r 16	667				8025
r 14	678	1812	5457		7947
r 13	611				7881
r 11	611	1734			7803
r 10	667				7858
r 8	678	1389	5702		7769
r 7	584				7675
r 5	645	1212			7558
r 4	611				7525
r 2	1400				7114
Stabilo	1200		5713		6914
C-Lines					
r 20	678	2023	5591		8292
r 19	611				8225
r 17	611	1978			8181
r 16	667				8236
r 14	678	1812	5691		8181
r 13	611				8114
r 11	611	1734			8036
r 10	667				8092
r 8	678	1389	5924		7992
r 7	584				7897
r 5	645	1212			7780
r 4	611				7747
r 2	1428				7141
Stabilo	1234				6947
D-Lines					
r 20	678	2023	5730		8431
r 19	611				8364
r 17	611	1978			8320
r 16	667				8375
r 14	678	1812	5819		8308
r 13	611				8242
r 11	611	1734			8164
r 10	667				8220
r 8	678	1389	6013		8081
r 7	584				7986
r 5	645	1195			7853
r 4	611				7819
r 2	1551				7264
Stabilo	1284				6997
Brake					
r 20	1984	3068	2223	1956	9231
r 18	1645			+200	8892
r 16	1723	2795			8697
r 14	1528				8503
r 12	2067	2190	2223		8436
r 10	1912				8281
r 8	1945				8314
r 6	1400	2645			8225
r 4	1334				8158
r 2	1262				8086

PARAMOTION rev 4 18.12.2010				
A-Lines				
r 20	DSL 70	TGL 140	TGL 280	
r 19	DSL 70			
r 17	DSL 70	TGL 140		
r 16	DSL 70			
r 14	DSL 70	TGL 140	TGL 280	
r 13	DSL 70			
r 11	DSL 70	TGL 140		
r 10	DSL 70			
r 8	DSL 70	TGL 140	TGL 220	
r 7	DSL 70			
r 5	DSL 70	TGL 140		
r 4	DSL 70			
r 2	DSL 70			
Stabilo	DSL 70			
B-Lines				
r 20	DSL 70	TGL 140	TGL 280	
r 19	DSL 70			
r 17	DSL 70	TGL 140		
r 16	DSL 70			
r 14	DSL 70	TGL 140	TGL 280	
r 13	DSL 70			
r 11	DSL 70	TGL 140		
r 10	DSL 70			
r 8	DSL 70	TGL 140	TGL 220	
r 7	DSL 70			
r 5	DSL 70	TGL 140		
r 4	DSL 70			
r 2	DSL 70			
Stabilo	DSL 70		TGL 140	
C-Lines				
r 20	DSL 70	TGL 140	TGL 280	
r 19	DSL 70			
r 17	DSL 70	TGL 140		
r 16	DSL 70			
r 14	DSL 70	TGL 140	TGL 280	
r 13	DSL 70			
r 11	DSL 70	TGL 140		
r 10	DSL 70			
r 8	DSL 70	TGL 140	TGL 220	
r 7	DSL 70			
r 5	DSL 70	TGL 140		
r 4	DSL 70			
r 2	DSL 70			
Stabilo	DSL 70			
D-Lines				
r 20	DSL 70	TGL 140	TGL 220	
r 19	DSL 70			
r 17	DSL 70	TGL 140		
r 16	DSL 70			
r 14	DSL 70	TGL 140	TGL 220	
r 13	DSL 70			
r 11	DSL 70	TGL 140		
r 10	DSL 70			
r 8	DSL 70	TGL 80	TGL 140	
r 7	DSL 70			
r 5	DSL 70	TGL 80		
r 4	DSL 70			
r 2	DSL 70			
Stabilo	DSL 70			
Brake				
r 20	DSL 70	DSL 70	TGL 140	200
r 18	DSL 70			
r 16	DSL 70	DSL 70		
r 14	DSL 70			
r 12	DSL 70	DSL 70	TGL 140	
r 10	DSL 70			
r 8	DSL 70			
r 6	DSL 70	DSL 70		
r 4	DSL 70			
r 2	DSL 70			

Instruction leaflet for repairs and 2 annual Check



U-Turn GmbH
Im Neuneck 1
78609 Tübingen
Germany

Tel: +49 (0)7464/8891280
Fax: +49 (0)7464/889128-28

Instruction leaflet for repairs and 2 annual Check

Name:	
Address:	
Land:	Telephone Number:
E-Mail:	
Peregrider type and Color:	Serial number:
Comments/notes:	

- | | |
|---|---|
| <input type="checkbox"/> 2 annual Check | <input type="checkbox"/> Line Check incl. strength test |
| <input type="checkbox"/> Air permeability check | <input type="checkbox"/> Repair of the marked damage |
| <input type="checkbox"/> Recall with sighting of the peregrider | |



Please, pretend the repair-desitute place in the top sail and / or bottom sail.

Line Order Sheet



U-Turn GmbH
Im Neuneck 1
78609 Tübingen
Germany

Tel +49 (0)7464/9891280
Fax +49 (0)7464/989128-28

LINE ORDER SHEET / BESTELLFORMULAR FÜR LEINEN

Name	
Address / Adresse	
Email	
Telephone Number / Telefon Nummer	
Paragliding name / Gleitschirm Name	
Size / Größe	
Other / Sonstiges	

Serial Number / Serien Nummer: _____

Line ID / Bezeichnung	Quantity/ Stückzahl	Line ID / Bezeichnung	Quantity/ Stückzahl

Business Reply Card

U-Turn GmbH
Im Neuneck 1
D- 78609 Tuningen



Name :

First name:

Street:

Zip code/ City:

Telephone:

E-Mail:

Paraglider type:

Serial number:

Date of purchase:

Dealership:

Tested by:

Flying hours:

Paraglider since:

Miscellaneous:

☐

Yes, I would like to get the newsletter by E-Mail



Maintenance manual

as developer and manufacturer for paragliders, harnesses and rescue parachutes

Manual Rev. April 2013

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Text: Stefan Preuss

Text and Graphics: Ernst Strobl

All technical details in this manual have been carefully checked by U-Turn. However we like to mention that we don't take any liability for possible mistakes, neither in legal responsibility, nor in liability cases that derive from mistakable details. We preserve the right to change this manual in any way to achieve technical improvements.

Topic of the inspection and reinspection intervals

Regular inspection according to aircraft inspection ordinance for standardized evaluated gliders. For school gliders after 1 year, aircraft for recreational use after 2 years. Tandem gliders for commercial purposes annually, non commercial use every 2 years to be inspected. The inspection shall take place in the aforementioned intervals, or no later than 150 hours. Ground handling needs to be included in the sum of flight hours.

 **Generally speaking:** in the case any abnormal flight behavior, the manufacturer should be informed and the canopy, if necessary, sent in for inspection.

Who may inspect/test?

Besides the manufacturer or the by him approved person or instance is authorized the owner of the glider to warrant the bi-annual inspection and only if in compliance with pre-requisites set forth.

Personal prerequisites for the inspection of individually owned solo gliders for recreational use only:

- Holder of a valid unrestricted license for paragliders or equivalent accredited license
- An adequate orientation in the operation by the manufacturer. For this a 3 month formation with the manufacturer is necessary
- If a glider was tested for personal use exclusively, then its use by a third party is not allowed

Individual personal prerequisites for the inspections

Individual personal prerequisites for the inspection of gliders, RG,GZ, used by third parties or for tandem purpose:

- A for the testing prescribed professional training
- A vocational activity in the production or maintenance of GS, RG, GZ or one of a technically similar nature. Of which 6 month within the last 24 in a manufacturing operation recreational free flight aircraft
- An at least 2 week, subject to charge, relevant training course at the operation of the manufacturer
- An applicable orientation for each type of device, which is to be refreshed annually.

Necessary equipment and documentation

- Gauge, preferably Kretschmer (brand) with manual
- Bettsometer with manual
- Maintenance directions by manufacturer
- Original materials and -spare parts, as well as original material-record for the device
- Assertion of airworthiness for the device
- Airports device identification tag (see manual)
- Line length table (see manual)
- Line length logs (if available)
- Inspection log (collecting main) to the documentation
- Lighttable for visual inspection of the reserve

During the inspection the following steps are to be taken in

Positive identification of the device:

Positive identification of the aircraft (Type, size, etc.) on the basis certification seal or placard.

- Are the pertinent manufacturer documents available?
- If certification seal and/ or placard are in place, are they readable and correct?
- If not so: Please obtain from manufacturer or dealer in question.

The determined values / modification are to be noted in an inspection log!

Inspection of the reserve parachute

Before packing the reserve parachute this is to be checked by packer. If the parachute was deployed for a rescue, then it is subject to an inspection. If a folded reserve parachute is re-packed again a deployment check is to be staged, to be determined is if the force for deployment is between a minimum of 3kg and maximum of 6kg.

Testing of the topsail, undersail, seams, reserve parachute of

holes and tears

The topsail and undersail of both paragliders as well as reserve parachutes must, for each cell (paragliders) and each gore (parachutes), from the leading edge to the trailing edge, submitted to the following checks. If in one of the following attributes anomalies are discovered, the glider is to be sent in to the manufacturer for inspection.

- Check for holes smaller or larger tears, deformations and abraded areas
- Deficiencies in the coating, other aberrations in the canopy like e.g. old repairs
- With reserve parachutes a light-talbe is to be used for an inspection for holes, tears and deformations

Abrasion and deformities

With large and critical abrasion and deformations, the entire cell panel in question must be replaced by the manufacturer. The determined values/modifications are to be noted in the testin log!

Testing of the ribs

Visual inspection of the chambers (from the leading to the trailing edge) whether the stitching in the seams, cell partition ribs and reinforcements are in good shape, thus without tears, deformations, abrasions or damage of the coating.

With torn ribs, defective, loose or missing stitching in the seams the glider must be returned the to the manufacturer or authorized inspection operation. The determined values/modifications are to be noted in the inpection log!

Check of the tear resistance

Durchzuführen mit dem Bettsometer an folgenden Punkten (B.M.A.A. approved Patentnummer GB2270768 Clive Betts Sails).

Der Prüfablauf ist der Bedienungsanleitung des Bettsometer zu entnehmen.

- In both the top and undersail where the A-lines connect, push a needle-thick hole and check
- the tear resistance
- The limit value of the measurement is determined at 500g, and a tear width of fewer than 5mm.

The determined values / modifications are to be noted in the inspection log!

Porositycheck of the canopy

At all following measuring points the air porosity has to be more than at least 20 sec. (by Kretschmer).

At smaller air permeability values the paraglider must be returned to the manufacturer. Measuring points: The porosity measurements by the Kretschmer measuring method (please consider operating instruction) are to be conducted at the following points on the canopy check on both under and upper sail.

- Center cell approx. 20-30cm back from leading edge
- 3rd Cell off center both to the left /right approx. 20-30cm back from leading edge
- 10th Cell off center both to the left /right approx. 20-30 cam back from leading edge

The determined values / modifications are to be noted in the inspection log!

Connection parts

Check of the webbing and maillons

- are there abrasions, buckling, tears, strong signs of wear obvious?
- Is all the stitching fast and firm?
- Is the accelerator running free and intact?
- Are brake toggle attachments still firmly sewn on?
- Are the maillons corrosion free, are the sleeves of the gates free moving on the thread?

Measure under a load of 5 kg. The determined values are to be compared with the specifications from the EAPR-Technical data sheet. Allowable variations are to be inferred from the manufacturer directions. If the webbing or parts thereof are defective, spare parts are to be ordered from the manufacturer and replace the defective parts with original parts. The determined values/modification are to be note in the inspection log!

Lines

Test of the line tensile strength:

Line selection: select a middle, lower cascade of the A, B and a C- lines as well as if available a middle A and B upper cascade, and stress test for tensile strength testing device on their tensile strength.

Tension velocity of the tension cylinder: $v=30\text{cm/min}$

Tear/tensile strength values:

the determined values/modifications are to be noted in the inspection!



Attention: Each size (line diameter) is to be assigned a fixed value. In case the lines cannot withstand the indicated load/stress or pass tensile strength test, all other lines must also be changed. If the checked lines fulfill the test criteria, only those are replaced by new lines. All replaced lines are to be marked in the proximity of the maillon (seam) with a black felt marker pen and noted in the inspection log with the date of the exchange and the logged of hours of flight time of the glider. During the next test for tensile strength an original line, neighbouring the replaced line is to be sampled. The various line diameters are allocated a minimal Sewing length!

Check of the line length and line attachments

Bottom cascade, upper cascades and brake lines for, breaks, abrasions, visual check. First the A-lines, then B. etc.

- Are all lines adequately sewn and attached to the line attachments?
- Is the sheathing of the lines even are exactly?
- Are all loops, knots, seams in good shape?
- Are there any abrasions present?

Measuring the line lengths:

- The lines must be measured with a load of 5 kg, in order to obtain comparable results. The relevant line lengths are in the technical data sheet of the uster manual. The measurement takes place in accordance with LTF method, from the maillon to the canopy (inclusive attachment loop at the sail).
- The numbering takes place from the stabilo toward the center. Measuring the opposite facing of the wing can under same conditions also be conducted by a symmetry comparison.
- The results are again noted the inspection log and should be compared side by side to line lengths of the EAPR technical data sheet. The tolerance in deviation of these values should not exceed more than $\pm 1,5\text{cm}$
- If a line is defective, it is to be exchanged immediately. Please acquire the identification reference marking of the line from the line plan, order from the manufacturer and replace accordingly or have it replaced.

The determined values / modifications are to be noted in the inspection log!

Occasional check of trim and adjustment

Before a test flight a visual inspection of the canopy and lines is to be conducted with the glider laid out as well as pulled up inflated.

In particular attention should be paid to the length of the brake lines with the canopy inflated. Only if all doubts are cleared concerning faulty adjustment of the brake lines, a check flight may be conducted.

Description of the materials and technical data

See manual of your paraglider.

Miscellaneous

- All measurement and repair work at paraglider and rescue system must be documented completely in the inspection log.
- When packing or repacking the reserve parachute, special attention is to be paid to the particular packing directions of the manufacturer! See rescue / reserve equipment manual.
- With the exchange of parts or component modules only original materials or original replacement parts may be used!
- With sewing work the original sewing pattern is to be kept, patching and thread material of same strength and quality as original!
- The inspection survey and/or test log must be signed, complete with place and date!
- The period for recordkeeping is 4 years.

Completed check very important

Before you perform any checks and/or repairs yourself on your glider, we ask to read you the following pages carefully. You inform yourself hereby about prerequisites and conditions of a done in person bi-annual inspection.

- According to new LTF regulation, the customer (Glider-owner) can conduct the 2-yearly check of the canopy with the help of the inspection directions and all necessary testing equipment and documents in person on his own responsibility. In addition the wing does not have to be sent in to the manufacturer.
- The 2-yearly check may only be conducted by the glider owner personally, if he fulfills the prerequisites, or an inspection station authorized by the manufacturer. Inquire therefore with the manufacturer on authorized inspection stations.
- The owner of the canopy must be aware of the responsibility, which he takes with a self conducted 2-yearly check of the glider. The self performed 2-yearly check is only legally effective, if this is acknowledged after the check with date, name (in capitals) and signature on or beside the placard.
- Reserve equipment re-packing interval in accordance with LTF: Every 4 months a repacking is required. Allowed period of operation: 8 years, afterwards up to 12 years with an annual check
- About insurance-legal consequences of your self performed 2-yearly inspection you should inform with your insurer in a timely fashion..
- An inspection is valid only if the inspection log is completely filled out. Inform also about possible revisions of the inspection directions with the manufacturer before the inspection.
- **Important:** If the necessary efforts for the maintenance inspection cannot be carried out (required equipment and documents), should the canopy be sent in to the manufacturer.
- For paragliders, harnesses and reserve parachutes, which are checked, controlled, repaired, packed or repacked, test-flown and/or other maintenance work, by none U-turn authorized personnel forgo any guarantee and or warranty!
- All maintenance work must in be accordance with the maintenance specifications of the operation manual and the special maintenance directions of the manufacturer and the publications of the IHB to be conducted.
- With any abnormal appearances during the performance of maintenance is the technical manager to be informed, who has to decide on how to procede.
- With the replacement of parts or component modules only original materials or original party may be used!