Mana²

Operating manual
and service booklet

Seriennummer: _____

UP AIRBORNE SENSATIONS since 1979

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Table of contents

Important
Where necessary, we point out important facts with the following words and symbols:

WARNING!
These notices call attention to hazards that can result in injury or death if ignored.

CAUTION!
These notes draw attention to hazards that may cause damage to the paraglider or premature wear.

NOTE
This is a hint or additional information that is considered helpful.

Welcome to UP

Congratulations on the purchase of your new UP Mana^2 . UP International is known for designing and manufacturing world-class paragliders - paragliders that focus on maximum safety, optimal performance and top quality. UP gliders are designed and developed based on the demands our customers place on UP products. We are therefore open to all suggestions and ideas for improvement from you. Through your suggestions and constructive criticism you can actively contribute to the continuous development process of our products. We want to be able to provide you with the latest technical innovations for your UP paraglider and information about the latest developments at UP at any time. However, we can only do this if your glider is registered with us after purchase. The product registration also ensures that you will receive preferential treatment in all service matters in the event that, contrary to expectations, any irregularities should occur. You can register your UP Mana^2 online at:

http://www.up-paragliders.com/de/service/product-registration

If you have any questions, please contact your UP dealer or UP International directly:

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Have fun and enjoy your UP Mana^2 - Your UP International Team

Safety instructions

Please read this manual before your first flight with the UP Mana^2 . This will help you to become familiar with your new glider. The manual gives you information about all the important features and characteristics of the UP Mana^2 , but does not replace a visit to a flying school. Please pay special attention to the following points:

- At the time of delivery, this paraglider corresponds to the type tested according to EN 926-1: 2015, EN 926-2:2013+A1:2021 and LTF NFL HG/GS 2-565-20 in the type test.
- Any unauthorized modification beyond the permissible setting options will result in the invalidation of the operating permit!
- The use of this paraglider is exclusively at your own risk. Any liability of manufacturer and distributor is excluded.
- Each pilot is responsible for his or her own safety and must also ensure that the aircraft in which he or she is flying is checked for airworthiness before each takeoff.

- We also assume that the pilot is in possession of the required certificate of competence and complies with the applicable legal regulations.

Behavior compatible with nature and the landscape

Paragliding is a very close to nature and environmentally friendly sport. For this reason, respectful treatment of the environment should be a matter of course for every (paragliding) sportsman. When practicing our sport, we have to make sure that nature and landscape are protected. We therefore ask you not to make noise, not to go off the marked trails and not to leave any garbage behind, in order to be able to preserve the ecological balance of our nature also for our children. Please inform yourself before each flight about the valid nature protection regulations in the respective flight area, or on the planned flight route, in order not to annoy hunters, landscape protection authorities and property owners unnecessarily.

Technical description

The UP Mana^2 was developed by UP International to meet the special requirements of a safe basic paraglider with excellent launch characteristics and a remarkable performance spectrum. All materials used, like all UP products, have a high quality standard. To ensure a long service life, they are carefully selected and subjected to extensive testing before use. Further details of the construction and dimensions, including the dimensions of the lines of the UP Mana^2 , can be found in the type data sheet of the certification authority or in this manual. Possible technical changes can be found in the appendix to this manual.

Intended use

The Mana^2 is to be used according to LTF 91/09 as "light air sports equipment" with an empty mass of less than 120 kg in the paraglider division.

LTF and EN classification

The UP Mana^2 was classified in EN 926-2:2013+A1:2021 / EN A (size 23,25,27) during the final classification. Size 21 is classified in the weight range 58-85kg LTF/EN-A and from 86 to 100kg EN-B.

Target group and recommended flight experience

Depending on the selected weight range of the respective glider size, the Mana^2 is either suitable as a light training glider for beginners, with a higher load the Mana^2 is intended for advanced pilots who need a particularly light glider with a small pack size for their adventures due to its higher dynamics.

Requirements in normal flight

For take-off weight in the LTF/EN-A certification range, the flight and control behavior of paragliders in this class requires mastery of the basic flight techniques taught in the

A license flight training. For safe performance of thermal flights as well as for flights with higher loads in the LTF/EN-B range, mastery of the basic techniques of active flying is required.

Requirements in case of malfunctions

The equipment behavior after malfunctions does not place above-average demands on the pilot's skill and reaction speed. However, the basic knowledge of pilot behavior to avoid and control malfunctions must be present. With a higher load, a correspondingly higher dynamic can be observed.

Fast descent requirements

Flight maneuvers, such as spiral dive or B-stall, place higher demands on the pilot due to the overall more demanding control behavior. Good practical knowledge of these maneuvers should be available. Otherwise, special instruction on the respective glider type is recommended, preferably in a safety training course.

Suitability for the training

The UP Mana^2 is suitable for training as long as it is flown in the weight range with LTF/EN-A certification. Recommended weight ranges for training are shown in the table "Technical data of the Mana^2 ".

Recommended weight range

The UP Mana^2 must be flown within the respective approved take-off weight. This can be found under "Technical Data UP Mana^2 ". The weight refers to the take-off weight (pilot weight plus clothing, glider, harness equipment, etc.). The easiest way to determine your take-off weight is to stand on a scale with your pack including equipment. UP International offers the UP Mana^2 in four different sizes, each optimized for the medium weight range. Each size can be flown within the certified weight range without any problems. To help you find the size that best suits your needs, here are a few practical tips. Pilots who are within the middle weight third of a size are ideally on the road. They should opt for this size. Within this weight range, they can center the thermals more tightly and fly the Mana^2 with slightly less momentum. This variant UP recommends especially for pilots from the flatlands. Pilots who have a choice between two sizes because they are either in the upper third of a smaller size or the lower third of a larger size should proceed as follows: Experienced pilots should assess for themselves how they prefer to travel, with a buffer to the top or preferring a high load. Pilots who prefer a high wing loading should fly the UP Mana^2 in the upper weight range. This will make your Mana^2 a bit faster and more dynamic. The UP Mana^2 reacts to weight changes with a slight increase or decrease in trim speed, but there is hardly any effect on glide performance. Therefore, the size can be selected according to your personal flying style.

Operating limits

For commissioning of the Mana^2 , compliance with the operating limits must be ensured for the entire duration of the flight, including preparation and post-processing. These are exceeded as soon as one of the following points applies:

- Flying with number of seats not corresponding to the certification
- Failure to comply with the respective weight upper and lower limits of the starting weight.
- Temperatures of more than -30° C or more than 50° C, respectively.
- Flying in rain, snowfall, in clouds or fog, or with the canopy wet for any other reason.
- Unauthorized modifications to the canopy, lines or risers.
- Acrobatic flying and flight maneuvers with more than 90° bank angle
- Wind speeds at the take-off site and expected wind speeds in flight higher than 2/3 of the flyable speed with the take-off weight intended for the flight
- Turbulent weather conditions that are expected to produce extreme flight conditions outside those tested in certification

Technical data of the UP Mana^2

Size	21/21+	23	25	27
Surface area flat [m²]	21,2	23,3	25,3	27,1
Surface area projected [m²]	18,0	19,8	21,5	23,0
Flat span [m]	10,1	10,6	11,1	11,5
Projected span [m]	7,8	8,2	8,6	8,8
Flat aspect ratio	4,9	4,9	4,9	4,9
Projected aspect ratio	3,4	3,4	3,4	3,4
Number of Chambers	33	33	33	33
Total line length incl. Brake [m]	255	268	279	289
Total # of lines incl.Brake	212	212	212	212
Glider weight [kg] (with light risers)	2,5	2,7	2,9	3,1
Takeoff weight [kg] with LTF/EN Category certified	55-85: A 86-100: B	65-100: A	70-115: A	80-130: A
Takeoff weight [kg] recommended for Training	55 - 75	65 - 85	70 - 100	80 - 115
maximum symmetrical steering travel at maximum weight [cm]	60	60	65	65
Accelerator travel [cm]	120	120	140	140
Number of risers (split A-risers)	3+1	3+1	3+1	3+1
Trimmer	No	No	No	No
Description	Basic			

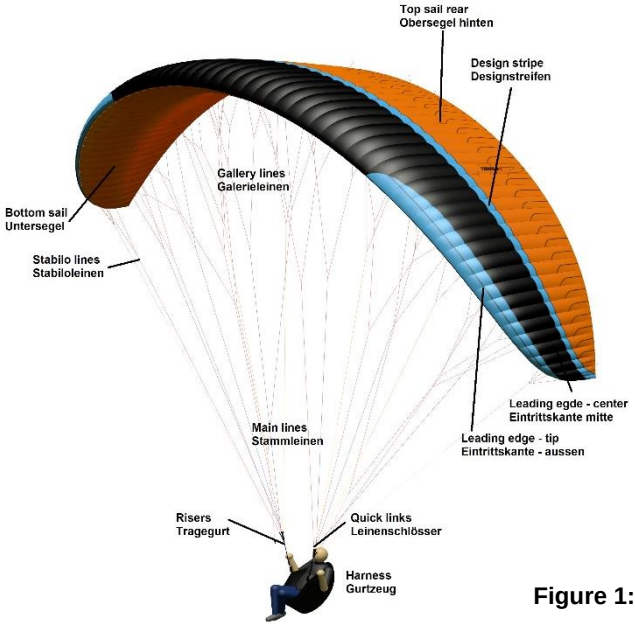


Figure 1: Overview

Front Section Support

The Front Section Support, FSS, developed by UP and meanwhile copied by numerous companies, is used in a modified form in the Mana^2 . Instead of the nose reinforcements (Mylars), a flexible plastic rod is used in the nose radius. These plastic rods have virtually no aging tendency, unlike conventional Mylar. Therefore, even after many flights, the UP Mana^2 still has the same good launch characteristics as it did at the beginning.

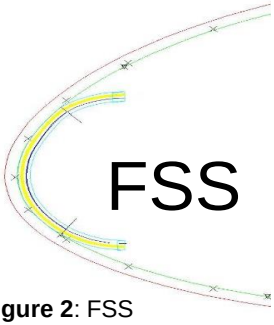


Figure 2: FSS

Sail material

The sail material of the UP Mana^2 is a particularly stretch-resistant, high-strength polyamide high tenacity cloth with a special impregnation for improved UV resistance. After extensive test series and practical trials, we have decided to use the sailcloth of the company Porcher Marine from France:

- Leading edge/top sail front: Skytex 32 Universal (32 g/m²)
- Topsail back/design stripes/lining: Skytex 27 Classic II (29 g/m²)
- Ribs and horizontal tapes: Skytex 27 Hard (26 g/m²)

This mix of materials allows for the best durability with low canopy weight.

Linen material

The UP Mana^2 uses sheathed Dyneema® lines from Edelrid and Cousin as well as non-sheathed aramid lines from Edelrid in various diameters. Details can be found in the current line schedule on the website.

Line system

The lines of one canopy half are combined into four groups and the brake lines:

A level: AI-AII
A level divided: AIII
B level: BI-BIII, STI
C level: CI-CIII
Brake lines: BRKI

The individual brake lines are each combined at a main brake line. This main brake line is guided through a pulley on the C-riser. There is a marker on it at the height of which the brake handle is knotted.

For easy handling and control, the line levels are differentiated by color. All trunk lines of one level are looped separately into Rapid links and connected to the risers. Special line collectors are located in the Rapid links to prevent the lines from slipping.

Carrying straps

The split A- and B-risers are differentiated by color to ensure clear identification during takeoff, when putting on the ears, as well as during rapid descent by means of the B-stall. In addition, the risers of the standard risers are labeled.

A riser: Red

A3 harness (ear fitting): Red

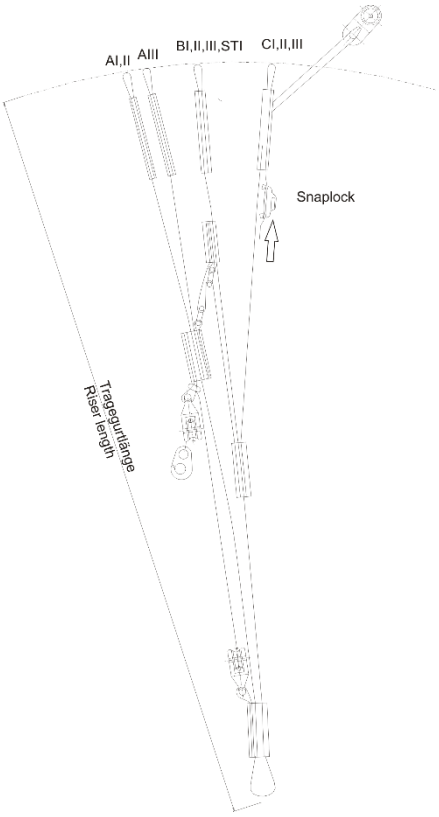
B-strap: Blue

C strap: Black

The new risers of the Mana^2 are delivered in different lengths for sizes 21 and 23 as well as 25 and 27. This improves the ergonomics of the different sizes and thus facilitates in particular maneuvers such as takeoff, ears on, B-stall, etc.. In addition, this also optimizes the accelerator travel for different glider sizes.

The risers used are also used in modified form in the UP competition gliders and allow a very high final speed in conjunction with low sink rates and high canopy stability even in accelerated flight. When the speed bar is activated, the length of the A- and B-risers is changed at the same time. The greatest change in angle of attack is achieved when the front accelerator roller of the riser hits the stop in the main suspension area.

As standard, the Mana^2 is equipped with 12mm wide Kevlar reinforced polyester risers. Lighter risers are optionally available, which do not differ in geometry and function from the standard risers.



Tragegurtlängen [mm]	21/23	21/23 beschl.	25/27	25/27 beschl.
A I, II	490	370	510	370
A III	490	370	510	370
B I, II, III, STI	490	430	510	440
C I,II, III	490	490	510	510
Gesamter Beschleunigerweg		120		140

Figure 3: UP Mana risers^2

Accessories

The UP Mana^2 comes with FlexBag, compression strap and repair material. The manual is available as download on the UP homepage. Every UP^{Mana2} is subjected to a precise routine test at the factory and is checked for its construction conformity with the test sample.

Before the first flight

CAUTION! The UP Mana^2 must be inflated on a flat field before the first flight. The first flight should be carried out by a recognized DHV flying school or an authorized representative before the glider is delivered to the end customer .

Settings

The UP Mana^2 has been tuned by the test pilots and designers during its development process so that the production product has the optimal trim in terms of safety, handling and flight performance. Due to the high quality standards UP International applies to all its products, all line and harness lengths are manufactured with the utmost precision. Each glider is fully measured and catalogued again before delivery. The line length and riser settings of the UP Mana^2 have a high precision and must not be changed under any circumstances!
The UP Mana^2 has no adjustable, variable or removable devices other than the brakes and the accelerator system.

WARNING! Any unauthorized modification to the aircraft will void the operating license! Only the adjustment of the brake handle position allows an individual modification.

Positioning of the brake handles

The UP Mana^2 is delivered from the factory with a brake setting that provides optimal use for most pilots when flying. However, for very tall or short pilots and when using harnesses with high or low pilot suspension, it may be necessary to change the position of the brake handles.

When shortening the brake setting, special care must be taken to ensure that the UP Mana^2 in trim flight and accelerating is not slowed down by brake lines that are too short. In addition to a deterioration of performance and take-off characteristics, safety problems can also occur with severely shortened brakes. Therefore, there should always be an "empty travel" of a few centimeters to prevent the glider from braking unintentionally. It should also be noted that the brake already causes a pulling force due to its air resistance. If the brake setting is extended, it must be ensured that in extreme flight situations and during landing the pilot has the possibility to fly the stall point without winding the brakes. Changes in brake travel should always be made in small increments (3 to 4 centimeters) and should be checked on the practice slope. Make sure that the left and right brake lines are adjusted symmetrically! An individually correctly adjusted brake is the prerequisite for active and fatigue-free flying. If you have questions about body size and the harness in connection with the brake settings, these must always be clarified before a change is made. Please contact a UP dealer or UP International directly for personal advice.

To prevent unintentional **loosening** of the brake handles, it is essential to ensure that the brake line knot is correctly executed and firmly seated.

Caution! Loose or unsuitable brake line knots can lead to serious accidents due to loosening brake handles by temporarily missing controllability of the paraglider!

Acceleration system

The correct attachment and adjustment of the acceleration system is an important prerequisite for later smooth operation in flight. Therefore, the length should be adjusted individually and the rope guidance checked before the first take-off.

The connection between the foot accelerator and the riser is made using special Brummel hooks or screw carabiners. The accelerator itself usually consists of one or more steps, two cords and two Brummel hooks. Starting from the treads, the two cords are pulled through the eyelets and pulleys provided.

If problems or questions arise regarding attachment and rope routing, you should contact the respective harness manufacturer.

Suitable harnesses

The UP Mana^2 can be used with all certified harnesses with a suspension point at about chest height. The lower the suspension point of the harness, the easier it is to control the UP Mana^2 by shifting your weight.

The harness should ensure that you can accelerate the UP Mana^2 to maximum speed via the speed system pulleys (both Riley pulleys of the riser lie on top of each other).

Furthermore, it should be noted that the relative braking distance changes with the height of the harness suspension. Please note that different harnesses can lead to different extreme flight characteristics (for example, increased risk of twisting with recumbent harnesses). If you have any questions or doubts regarding the use of your harness with the UP Mana^2 , please contact a UP dealer or UP International directly. We will be happy to advise you.

Harness dimensions at certification

The sample test uses harnesses with the following dimensions:

Total flying weight	**Width**: horizontal distance between the attachment points of the risers (measured from the center lines of the carabiners).	**Height**: normal distance from the attachment points of the risers (measured from the center lines of the carabiners) to the seat board surface.
< 80 kg	40 +/- 2 cm	40 +/- 2 cm
80 - 100 kg	44 +/- 2 cm	42 +/- 2 cm
> 100 kg	48 +/- 2 cm	44 +/- 2 cm

Rescue parachute

Carrying a suitable rescue parachute is not only required by law, it is absolutely vital for the safe operation of a paraglider. When selecting a rescue parachute, make sure that it is suitable and approved for the intended take-off weight.

The prescribed rescue system must be attached according to the manufacturer's instructions. The reserve bridle is normally passed over the pilot's back and hooked into the loops of the shoulder straps there.

Application area

The UP Mana^2 has been developed and tested exclusively for single-seat operation as a paraglider for foot and winch launch. Any use not in accordance with the intended use is not permitted.

Aerobatics

The UP Mana^2 has not been built and tested for aerobatics. It is not suitable and certified for this purpose.

WARNING! Performing aerobatics with the UP Mana^2 puts your life in danger. When performing aerobatic maneuvers, unpredictable flight situations can occur as well as the danger of overloading the material and pilot!

Motorized operation

The UP Mana^2 is not yet certified for motorized operation. If you want to operate the UP Mana^2 with a motor, please contact UP International, the manufacturer of the motor and the DULV (Deutscher Ultraleichtflug Verband) for certification.

Flight practice and flight safety

The following two chapters, Flight Practice and Flight Safety, describe basic aspects of paragliding. They serve the completeness of this manual, but should be self-evident for pilots who have decided to fly with an LTF/EN A classified glider.

Flight practice

Preflight check

A thorough pre-flight check is required for every aircraft, including the UP Mana^2 . Please make sure that you perform each check with the same care.

The start check (five-point check) is necessary before every start. In order not to forget anything, it is advantageous to always do it in the same order.

1. The paraglider should be laid out in an arc so that when it is pulled up with the center A-risers (red), the lines in the center of the glider are tensioned slightly earlier than those at the wing ends. This ensures an easy and directionally stable launch. When deploying, please pay attention to the wind direction so that both halves of the paraglider are symmetrically filled when pulling up against the wind and the canopy does not break out sideways.
2. Then carefully sort all the lines and risers. The A-lines deserve special attention. They must run freely and without entanglements from the A-riser to the canopy. It is equally important that the brake lines are free and cannot get caught during takeoff. Care must be taken to ensure that no lines run under the canopy. A line overthrow during takeoff can have momentous consequences.
3. Then make sure that all straps on the harness are closed. This should be checked from bottom to top in a consistent order by grasping the respective buckles. Also check that the helmet is closed, the rescue parachute is hooked in (when using a front container) and the carabiners are secured.
4. Immediately before takeoff you must check if the airspace is clear (also behind you).
5. The last step is to check the wind direction. If everything fits, you can start.

The start phases

The Mana^2 is characterized by very good launch behavior. Even a slight pull on the middle A-lines (red) is enough for the canopy to fill evenly and immediately rise above the pilot. The Mana^2 has no tendency to hang up during the inflation phase.

In the inflation phase the pilot holds the middle A-risers (red) and the brake handles in his hands. A final check of the deployed glider is obligatory. The center of the Mana^2 canopy can be seen by the UP logo on the leading edge. Careful deployment of the canopy according to the wind direction and a take-off run in line with the center of the canopy will facilitate the inflation phase.

The canopy is filled with a consistent and even pull. The arms are held slightly bent in extension of the A-lines. As soon as the pull decreases during inflation - the canopy is above you at this point - look up and make sure that the canopy is fully open above you. Depending on the initial impulse, wind strength and slope, it may be necessary to brake the UP Mana^2 slightly at the apex.

Any directional corrections with the brakes should only be made when the canopy is already above you, otherwise the glider could fall back again by braking too hard.

The final decision to launch is only made at the end of the control phase. During the acceleration and lift-off phase, you lift off from the ground at an adapted running speed, which can be supported by dosed use of the brakes depending on the take-off terrain. After a pendulum-free take-off and reaching the safety altitude, you take your seat in your harness without letting the brake handles out of your hands. If you cannot get into the upright sitting position without additional help, transfer the brake handles to one hand. With the help of your free hand you now reach the desired sitting position.

Speed control

By means of brake lines

The Mana^2 has a very high speed range combined with great aerodynamic stability. The respective speed can be adjusted via the brake lines so that the optimum performance and safety can be selected for every flight situation.

The best glide speed in calm air is achieved with the Mana^2 in the unbraked state. If the brake lines are tightened on both sides by about 10 to 15 centimeters, the glider is in the area of least sink. If you increase the tension on the brakes further, the sink rate is no longer reduced, the control forces increase noticeably and the pilot reaches the minimum speed.

CAUTION! Flying too slowly near stall speed carries the risk of unintended stall or spin, so this speed range must be avoided at all costs.

By means of acceleration system

The UP Mana^2 is equipped with a very efficient acceleration system that is activated by a foot stretcher. When activated, this accelerator system increases the speed very effectively by about 11 to 13 km/h. Using the accelerator is very useful in some situations and should be part of the active flying style.

If the speed is increased to the maximum via the leg extension, you can fly faster out of downwind zones, achieve a better glide angle in headwinds or still arrive against the wind. The range of action of the UP Mana^2 increases considerably when fully accelerated and noticeably increases the flyable performance potential. When using the speed system, make sure that the speed system is deactivated immediately when an extreme flight situation occurs or that it is not activated in extreme flight situations. The advantage of using the accelerator system is that lift fluctuations and a resulting collapse of the glider can be detected by sudden pressure differences at the leg extension. If the pilot senses that the back pressure is suddenly reduced, the speed must be immediately reduced to trim speed in order to avoid possible collapses in advance.

CAUTION! All extreme flight conditions (for example collapses) occur more dynamically at increased speed. Therefore, the acceleration system should be operated little or not at all in case of low ground clearance or very turbulent conditions.

Curved flight

The first 15 to 20 centimeters of control travel allow for smooth turns, with the glider responding nimbly to control inputs, but without the canopy taking on a high bank angle. If the pilot increases the control travel, the glider becomes more agile and extremely maneuverable, especially when flown in the LTF-EN B range.

Weight shifting makes it very easy to fly flat turns with minimal loss of altitude. A combined control technique - weight shift and pull of the brake line inside the turn - is

best suited for flying turns in any situation, with the turn radius determined by metered brake line pull.

If it is necessary to turn the UP Mana^2 in a very tight space, it is recommended to control the pre-braked glider by releasing the outer brake line and sensitively pulling the inner brake line (counter-rotating movement of the brake lines).

From approx. 50% brake line pull on one side, the UP Mana^2 will take on a distinct lateral tilt and fly a fast and steep turn, which can be extended to a steep spiral (see chapter "Steep Spiral").

The landing

The UP Mana^2 is easy to land. From a straight, pendulum-free final approach into the wind, let the glider glide out at normal speed and then, at an altitude of about one meter above ground level, apply the brakes decisively and quickly. If there is a strong headwind, the brakes should be applied more lightly. Landings out of steep turns and fast turn changes before landing should be avoided because of the associated pendulum movements.

Winch tow

The UP Mana^2 has no special features for winch towing. To ensure a safe and accident-free towing operation, the following points should be observed:

- Unless you are towing on your "home winch", where you know both the winch and the towing area and how to tow, it is absolutely necessary to familiarize yourself with the local conditions. Any "guest" at a foreign flying site is sure to be gladly briefed by the local pilots.
- When launching, make sure that the glider is completely above the pilot before giving the launch command. Any directional corrections with the brakes should only be made when the canopy is already above the pilot, otherwise the glider may fall back again due to excessive braking, or the glider may be dragged away while not yet airworthy.
- Under no circumstances should the launch command be given before the glider is fully under control. Strong directional corrections during the launch phase and before reaching the safety altitude are to be avoided.
- Care should be taken to descend at a shallow angle from takeoff to safety altitude.
- The UP Mana^2 must not be towed with a towline tension of more than 90 daN.
- All persons and equipment involved in winch operation must be in possession of the correspondingly prescribed certificates of competence or approvals in order to be able to guarantee safe towing operation. This applies to the pilot, towing equipment, towing pawl and winch operator, as well as all other equipment for which a special certificate of operational capability is required.

Latch attachment for paraglider towing

The optimum pulling point for the towing rope should be as close as possible to the system's center of gravity. With a paraglider the ideal towing point is at the height of the riser attachments, or directly on the risers. UP International offers special pawl

adapters for the UP Mana^2 , which are hooked between the paraglider risers and the towing pawls.
When using spreader tube latches, the distance between latch and shackle should be sufficiently extended (cord or webbing) and the latch must be secured with a retaining rubber to prevent it from swinging back. The distance between the risers must not be tightened by using the latch attachment (risk of twist)!

CAUTION! If a chest container is used for towing, it must be ensured before the first take-off that the release of the rescue reserve is unhindered at all times. If this is not the case, only tow with a webbing latch.

Flight safety

From the rectangular jump parachute to the low-drag high performance glider, a development has taken place that offers new flying possibilities, but at the same time demands a foresighted and sensitive flying style from the pilot. Every glider, whether beginner or high performance, can collapse in turbulent conditions or if the pilot reacts incorrectly. It is therefore all the more important to master the paraglider, to have a feeling for the controls and to recognize natural processes.

Today, the pilot has a wide range of different types of UP canopies at his disposal. The main difference within the individual classes lies in the aerodynamic stability of the canopies. Entry-level gliders react less dynamically to disturbances and have a largely forgiving flight behavior, while high performers allow only a very small margin for pilot error. Choosing the right glider is thus critical to flight safety. The pilot should therefore self-critically review his skill and knowledge level before deciding on a glider.

A safe and effective way to familiarize yourself with your new paraglider is ground training. On a suitable meadow and in light to moderate wind, control impulses can be trained very well and glider reactions can be observed. Launching can be practiced as well as flight maneuvers (for example, folding the outer wings or other small disturbances).

Before and during flying, it is important to plan your route in advance. Very few turbulences occur suddenly, but have a causal cause. If you think about the weather conditions of the day and the flight area in advance, you can avoid many dangers later on.

Flying in thermals and turbulent conditions

In turbulent air the UP Mana^2 should be flown with a light brake line pull. This will increase the angle of attack and thus the canopy stability. When flying into strong thermals or in broken thermals, make sure that the paraglider canopy does not lag behind the pilot. This is prevented by slackening the brake line as the glider enters the upwind area to pick up some speed. Conversely, the paraglider must be slowed down if the canopy gets ahead of the pilot by flying into a downwind area or flying out of the thermal.
Flying faster makes sense for crossing downwind zones. The UP Mana^2 has a very high stability due to its construction. However, an active flying style in turbulent air as

described above adds further safety. A collapse and deformation of the canopy can be largely prevented by an active flying style of the pilot.

Descent aids

All descent aids should be practiced in calm air and at sufficient altitude to be able to use them effectively in extreme conditions! Basically, there are three different ways to increase the descent rate safely and controllably.

WARNING! All other flight maneuvers, such as full stalls and negative turns, are to be avoided as descent aids, since you will not achieve higher sink rates and incorrect recovery can have dangerous consequences regardless of the glider type!

Steep spiral

The highest sink rates of over 15 m/s can be achieved with the aid of the steep spiral. However, it is advisable to approach the high sink rates slowly.

The initiation of the spiral dive is easy with the UP Mana^2 and has already been described in the chapter "Turning Flight". It is important that the transition from turn to spiral dive is flown slowly and steadily. If the brake lines are pulled too abruptly, there is a danger of spinning. In this case, the brake must be released immediately so that the glider can pick up speed again. The bank angle and sink rate are controlled by pulling or releasing the inner brake line in a controlled manner. The brake of the outer wing can also be used to stabilize the canopy at very high sink rates.

The steep spiral is released in the same way as it is introduced, slowly and steadily. The brake on the inside of the curve is released in a controlled manner. The exit can be supported by lightly braking the outside of the curve. Excessive oscillation can be prevented by controlled and soft counter-braking. As the sink rate increases, the outer wing of the Mana deforms^2 . This condition is intentional and improves safety in the spiral dive. The pilot must know that in a steep spiral with large sink rates, high forces act on him and the material.

WARNING! In steep spirals with high sink rates, very large forces can act on the pilot and material. The high centrifugal forces can lead to unconsciousness of the pilot and consequently to loss of control of the paraglider. This flight condition can have life-threatening consequences! Never fly a spiral dive with your ears attached! There is a danger of overloading the paraglider, pilot and equipment.

B-Stall

The initiation takes place from unaccelerated straight flight by pulling down the two B-risers (blue) briskly and simultaneously about 20-25 centimeters. The pilot can keep the brakes in hand during this process. For the first few centimeters, a relatively high amount of force is required to pull off the B-risers. Once the flow at the top of the airfoil has been largely torn off, the glider enters a stall-like flight condition with no forward

speed. By pulling the B-risers further, the area can be reduced and the sink rate increased. After about 25 cm, the sink rate reaches its maximum at 7-9 m/s. The risers should then not be pulled down any further, otherwise the glider may assume an unstable flight attitude or form a front rosette. If the B-risers have nevertheless been pulled down too far, they must be given some slack immediately so that the glider can again assume a stable flight attitude and the B-stall can then be flown further.

CAUTION! During B-stall, constant visual inspection of the canopy is necessary in order to detect a possible front rosette in good time.

If you release the B-risers at the same time, quickly and without using the brakes, the paraglider picks up speed again independently and goes into stationary gliding flight. It is normal for the canopy to pitch about 30-50 degrees in front of the pilot. The glider must not be braked during this phase! Should the UP Mana^2 enter a deep stall due to too slow release of the B-risers, which is normally not the case, it will be terminated by standard recovery (see chapter Deep Stall in the description of extreme flight situations).

WARNING! An incorrectly executed B-stall can lead to dangerous flight conditions! Inexperienced pilots should practice this maneuver under guidance in a safety training course.

Putting on ears

After preparing the acceleration system, pull down the outermost A-lines (green) on both sides at the same time by about 20 to 30 centimeters, thus causing the outer wings to fold in. Keep the brake handles together with the pulled down A-lines in your hand. After folding the outer wings, the angle of attack of the Mana^2 should be reduced again by means of the foot accelerator. The glider remains fully controllable by weight shift and flies straight with increased sink rate (3-5 m/s depending on the number of collapsed cells and the use of the accelerator system). After releasing the A-risers, the pilot deactivates the acceleration system and the collapsed cells open automatically. Should this not be the case, the flight condition can be actively deflected by alternately and lightly applying the brakes. No extreme flight maneuvers may be flown in this configuration!
If the UP Mana^2 is flown in the area of the lower weight limit, the canopy may enter deep stall if the outer wings are collapsed over a very large area and the glider is braked. If this happens, which is normally not the case, the deep stall is terminated by standard recovery (see chapter deep stall in the description of extreme flight situations).

Extreme flight maneuvers

Behavior in extreme flight situations

Although the UP Mana^2 has very high aerodynamic stability, it is possible to get into an extreme flight situation due to turbulence or pilot error. The proven best method in

such a case to be able to react calmly and correctly is to attend a safety training course. Here you learn to master extreme flight situations under professional guidance.

Extreme flight maneuvers should be performed in calm air, sufficient altitude and only during safety training over water under professional guidance. The existing rescue parachute obligation is again expressly pointed out here.

The extreme flight maneuvers and flight conditions described in the following section can be caused either intentionally, by turbulence, or by pilot error. Any pilot flying in turbulence or making a mistake in the control of his paraglider can get into these flight conditions. All extreme maneuvers and flight conditions described here are dangerous if performed without adequate knowledge, without sufficient safety altitude, or without proper instruction.

WARNING! Incorrect execution of the flight maneuvers and flight conditions described here can be life-threatening!

Folding the screen

Folding in on one side

As with all paragliders, stronger turbulence can cause the UP Mana^2 canopy to collapse. This is normally not critical. The automatic reopening is fast and reliable and can be easily controlled by experienced pilots with the UP Mana .^{2}

If a one-sided collapse has occurred with the UP Mana^2 , the pilot should stabilize and control the direction of flight by adjusted weight shift and dosed brake line pull on the "healthy side". If the glider is braked too much on the intact wing half, there is a danger of spinning (see chapter Spinning). If the wing tip of the collapsed side of the glider threads itself between the lines after a very large collapse, large tangles can occur in extreme cases. (see the following subsection).

Hanger

During the extensive test phase of the Mana^2 , our test pilots could not detect any tendency to hang up. However, if a tangle should occur, the glider must be prevented from turning away IMMEDIATELY, or the rotation must be slowed down. Afterwards you can try to free the tangled wing end by pulling on the specially marked stabilizer line (fluored). Short braking impulses can also help to free the tangled wingtip.

Other maneuvers to release tangles are the "full stall" or "short negative wing tilt". However, these measures should only be practiced in a special safety training course.

WARNING! Should you not be able to stop the glider from spinning away, the rescue system must be activated IMMEDIATELY! Otherwise a very dangerous, uncontrolled spiral dive may occur. This flight condition can have life-threatening consequences - also for third parties!

Front rattle

A negative angle of attack due to turbulence or the pilot pulling down the A-risers on both sides causes a frontal stall of the leading edge. The UP Mana^2 normally terminates a front stall quickly and independently. Short, steady, light symmetrical braking on both sides can assist the reopening. Excessive braking can lead to a stall.

Types of stall

A laminar and turbulent boundary layer zone always develops as the air flows around the paraglider. Extremely dangerous flight conditions can occur when the laminar boundary layer detaches, causing virtually the entire flow on the upper side of the wing to break away. This occurs mainly at large angles of attack of the wing.

Specifically, there are three types of stall in paragliders.

CAUTION! Spins and full stalls are dangerous and partly incalculable flight maneuvers. They should therefore not be flown intentionally. Rather, it is important to know the beginnings of the stall so that it can be prevented by immediate reaction of the pilot!

Stalled flight

The UP Mana^2 is not sensitive to deep stall. It will automatically recover from a deep stall caused by pulling the brake lines, the rear risers, or a too slow B-stall, as soon as the brakes or the rear risers are released. If the UP Mana^2 should stall due to a special flight situation or configuration (e.g. too low take-off weight), it will be terminated by symmetrically "pushing forward" the A-risers on both sides. Flight exercises in which one intentionally approaches stall should only be performed with sufficient safety altitude and absolutely under professional guidance (safety training). If you think you have entered a stall, you should not brake under any circumstances! Spinning or a full stall could be the consequences.

Fullstall

Flying full stall is only useful for very experienced pilots. This is a complete stall. If the speed falls below the minimum speed, the current breaks off. Pilot and paraglider are accelerated backwards. In this situation, the brakes must not be released under any circumstances, as a stall will cause the canopy to shoot far forward. In extreme cases the glider may accelerate to below the pilot and the pilot may subsequently fall into the canopy. After the backward tipping the canopy forms a rosette where the outer wings start to flapping. These flapping movements are transmitted to the pilot via the brakes. It requires a very high effort to keep the glider in the stalled condition.

Before releasing the full stall, it is essential that the canopy is stabilized. For recovery, both brakes are then released slowly and symmetrically until the glider has pre-filled over its entire span. During this phase the glider will pitch slightly around its transverse axis. If the canopy is then in front of the pilot, the remaining brake travel is released. With proper symmetrical release, the canopy accelerates forward without collapsing. However, it must always be expected that the canopy may collapse sideways or frontally in case of stronger forward thrust.

The asymmetric recovery of the full stall performed by test pilots only serves to check the glider and, like the full stall, should not be flown intentionally. Due to the dynamic forces that occur here, the reactions of the canopy during recovery are very demanding. An impulsive, large-scale collapse of the canopy is possible.

CAUTION! Reaching the minimum speed is indicated by a noticeable decrease of the driving noise and an increase of the control forces. Up to this point, the glider can be started by simply releasing the brakes.

Spin

The spin (negative curve/vrille) is a one-sided stall and occurs when the pilot applies a brake quickly and completely at high speed. The same effect is caused by asymmetric braking close to the stall. During a spin, the glider turns relatively fast. The inner wing flies backwards. To stop the spin, both brakes must be opened. This allows the glider to regain speed. Here the canopy can shoot forward on one side and collapse on the other.

WARNING! Spinning with subsequent one-sided folding of the wing halves can lead to hang-ups!

Wingover

In a wingover, the pilot flies alternating turns with increasing turn pitch until the desired degree of rocking is reached.

CAUTION! Due to its high maneuverability, the UP Mana^2 reaches a high bank after only a few turns. We recommend a slow approach to this flight maneuver, as parts of the sail may collapse if the pitch is too high. A bank angle of more than 135 degrees is illegal aerobatics!

Emergency control

If for some reason it is no longer possible to fly the UP Mana^2 with the brake lines (for example loss of the brake handle due to loosening of the attachment knot), then it can also be steered and landed well with the two rear risers. The reaction should be well dosed and sensitive. The stall occurs a little earlier when steering with the rear risers than when steering with the brake lines.

More hints

Railroad sack flight in rain

In general, there are two different reasons why a paraglider may stall in the rain:

Case 1: When flying in the rain for a longer period of time, the canopy weight increases and the center of gravity and angle of attack shift as a result. This can lead to a stall. The following applies: The more water a glider has already absorbed (for example,

older gliders because they lose their water-repellent coating over the years), the less water absorption is necessary to bring the glider into a stall.

Case 2: In very rare cases, when it starts to rain, exactly so many water drops can adhere to the upper sail of a paraglider that almost the entire surface of the glider is covered, but there is no closed water surface. This phenomenon is also known from hang gliding and gliding. This droplet formation makes the surface so rough that the flow is detached. The newer a glider is (the drops are absorbed less quickly by the cloth in newer gliders), the more drops adhere to the upper sail, and the larger these drops are, the greater the risk of stall or orbital stall. This phenomenon was reconstructed in practical tests and by means of computer simulation.

For both cases it is true that first the control and braking distances are significantly reduced and then the stall condition is triggered, usually by a change in braking or angle of attack, for example from a gust or a thermal break.

If you are surprised by a rain shower in the air, maneuvers with strong braking must be avoided at all costs. Also maneuvers like ears or B-stall should be avoided at all costs! Avoid turbulent areas, accelerate the glider and do not brake it too much during the landing approach.

WARNING! Flying in damp air or in rain should be avoided as a matter of principle. A wet canopy can massively impair flight performance and significantly increase the risk of premature stall.

Advertising and adhesive sail

Every pilot should make sure that there are no changes in the flight characteristics before attaching advertising and adhesive sails. In case of doubt, adhesive sails should not be glued in place.

CAUTION! Sticking large, heavy or unsuitable adhesive sails on the glider (e.g. for advertising purposes) will void the operating license. This will render your paraglider unairworthy.

Overload

Extreme flight maneuvers such as steep spirals as well as acro and freestyle maneuvers such as SAT or tumbling do not normally pose an acute danger to the structure of the UP Mana^2 . However, frequent material overloads accelerate the aging process considerably. Gliders that are loaded beyond normal levels with these maneuvers must be sent for re-testing sooner.

Flying by the sea

If the glider is flown for a long time at the sea or in salty air, this will lead to premature material aging. In this case, the glider should be sent for re-testing at an early stage.

Care and cleaning

Care of the paraglider

How quickly a paraglider ages depends on how often and where it is flown, how many UV hours it accumulates and with what care and attention it is treated. Below are some tips on how to best care for, maintain and store your paraglider.

Packing the paraglider

Thanks to the FSS used, the Mana^2 can be folded in any span direction. Due to the lack of mylars in the nose area, it is not necessary to lay it on top of each other cell by cell. You can either fold the canopy from the outside to the center of the canopy, roll it up from the outside or fold it cell to cell in the classic way. With the classic cell-on-cell packing method, we recommend that you do not fold the canopy in the middle afterwards, but rather fold the entire right folded bundle downwards so that all cells point to one side.

The cell-on-cell packing method works even easier when the glider is folded out of the rosette from one Stabilo in concertina fashion to the other Stabilo cell-on-cell in a Parasleeve or similar packing bag. For longer storage, we recommend packing the glider cell to cell beforehand. To avoid mechanical abrasion, the umbrella should be placed on the supplied inner packing bag when rolled up. This will protect the cloth and coating as well as prevent damage So that the reinforcements and the FSS are stressed and bent as little as possible, it is recommended to pack the Mana^2 into a bundle at the end in the following order:


Lege den Schirm beliebig in Spannweitenrichtung zu einem schmalen Streifen zusammen.


Falte dann den Schirn von hinten beginnend...


...bis zur Eintrittskante zusammen.


Dabei sollte die Eintrittskante nicht nach innen gefaltet werden. Sie sollte Außen liegen


Fixiere das Bündel mit dem Kompressionsband.

Paraglider cloth

To build our paragliders we use a high quality polyamide cloth with a special protection for improved UV resistance and air impermeability. Prolonged UV exposure and normal use will reduce the strength of any paraglider cloth. Therefore, do not leave your paraglider in the sun unnecessarily, unpack it only just before take-off and pack it up again immediately after landing. Even though modern paraglider fabrics are increasingly better protected against the effects of solar radiation, UV radiation in particular is still one of the decisive factors in the aging of the cloth. First the colors fade, then the coating and the fibers begin to age.

During production of the UP Mana^2 , the coated side of the cloth is placed on the inside. This way the coating, which is crucial for the characteristics of the cloth, is well protected from mechanical damage. When choosing a launch site, however, you should choose a surface that is as free as possible from sharp-edged and protruding objects.

Do not step on the screen. Kicking weakens the fabric, especially on hard and stony ground. At the launch site, also pay attention to the behavior of spectators, especially children and dogs: Do not hesitate to call attention to the sensitivity of the cloth.

Please make sure that there are no insects in the canopy when packing the paraglider. Some species produce acids during decomposition that can etch holes in the cloth. Locusts bite through the material with their mouthparts, causing holes. They also secrete a dark, highly staining sap. Scare them away before folding. By the way, insects are not particularly attracted to any particular color - even though this misconception is widespread.

If the paraglider has become damp or wet, it should be dried as quickly as possible in a well-ventilated place (but never in the sun!). If it remains wrapped up damp, this can lead to the formation of mold and - especially in heat - to a decomposition of the fibers!

A brand new glider is often heavily compressed upon delivery. This compression is solely for the first transport. From the first use, the umbrella should not be packed too tightly. Also, one should not sit on a packing bag in which an umbrella is packed.

If the screen has come into contact with salt water, it should be rinsed out thoroughly with fresh water immediately (see chapter Cleaning).

Paraglider lines

The UP Mana^2 uses extremely high quality Dyneema and Aramid lines.
Please pay attention to the following points when handling your paraglider lines:

- Regularly check the lines for damage
- Make sure that the surface of the lines is not chafed by friction
- Avoid unnecessary buckling
- Do not knot the brake stem line unnecessarily at the brake handle. Each knot weakens the line.

- After overloads, such as tree landings, water landings or other extreme situations) all lines must be checked for strength and length and replaced if necessary. Send your glider directly to UP International or a UP Service Center for inspection.
- If the flying behavior changes, the lines must be checked for length and rewound or replaced if necessary. Send your glider directly to UP International or a UP Service Center for inspection.

Storage and transport

Even if your glider was completely dry when you packed it after the last flight of the season, if you are going to store it for a longer period of time you should take it out of the packing bag if possible and spread the canopy out slightly in a clean, dry place protected from light. If you do not have a suitable space, avoid compressing the paraglider too much and open the pack sack as much as possible for ventilation. The UP quick pack bag is also suitable for this purpose. Also make sure that no animals, such as mice or cats, use the glider as a sleeping place during longer storage. No chemical substances such as fuel should be stored in the immediate vicinity of the material. Gasoline will dissolve the cloth and can severely damage your glider. Store the pack in the trunk as far away as possible from reserve canisters or oil containers. The permanent storage temperature must be between 10° and 25° C with a relative humidity between 50 and 75%.

The UP Mana^2 should not be exposed to extreme heat (for example in the trunk of a parked car in summer). The heat will force any moisture that may still be present through the cloth, which can damage the coating. Especially when combined with moisture, high temperatures accelerate the hydrolysis process that damages fibers and coating. Also, do not store your screen near radiators or other heat sources. Already from 60° Celsius, heat-related changes of the material occur after a short time.

Cleaning

To clean the UP Mana^2 , it is best to use only lukewarm fresh water and a soft sponge. For more stubborn cases, a mild detergent is recommended, which must then be rinsed carefully and thoroughly. Let your umbrella dry in a shady and well ventilated place.

CAUTION! Never use chemicals, brushes or hard sponges to clean the screen. They could damage the coating and strength of the cloth. The sail will become porous and lose tensile strength.

Under no circumstances should a canopy be put in the washing machine: even without detergent, the cloth would be severely damaged by the mechanical stress. Never immerse the canopy in a swimming pool either: The chlorinated water attacks the fabric. If you absolutely have to rinse your canopy, for example after a water landing in the sea, spray it inside and out with a gentle stream of water. Frequent rinsing accelerates the aging process**!**

Inspection and repairs

Major repairs and inspections may only be carried out by UP International or a recognized service company. Failure to do so will invalidate the operating permit. See also the Service section at: **www.up-paragliders.com**

UP International not only brings its know-how to the development of paragliders and accessories, but also offers a range of services related to the safety of your *paraglider.* All services must be carried out at an authorized UP service center according to UP International recommendations. In order for the warranty to remain valid for new UP gliders, the conditions listed in the "UP International Warranty" section must be met. Current conditions can be found at www.up-paragliders.com in the *Service section.*

Maintenance and minor repairs

Adhesive sail

Small damages like cracks or small holes up to a size of 2 x 2 cm, which can be done without special equipment, may be done by the pilot himself. For this purpose, each glider is supplied with an appropriate adhesive sail. The adhesive sail must protrude at least 2 cm over the damaged area on all sides. The adhesive sail must be applied on both sides, rounding off the corners can prevent it from coming off.

Trim loops on the C-plane

The Mana^2 is delivered with a trim loop on the C-lines and the Stabilo. These trim loops serve to compensate for the unavoidable changes in length of the lines after the first flights. These changes in length depend, among other things, on climatic conditions, storage of the glider, maneuvers, type of line used, etc. As a rule, the A and B planes stretch somewhat due to the higher load in the front area of the canopy, while the C plane usually remains unchanged or may even shrink somewhat. This causes the canopy to slow down somewhat due to the higher angle of attack. We therefore recommend opening the trim loops on the C-plane (CI,II and CIII) after about 20 hours to counteract this effect. To do this, open the line lock and loosen the trim loop. This is shown in the two pictures as an example.

CAUTION! After opening the trim loops, please make sure that the line locks are secure and tight. Your dealer will be happy to assist you with this change.

Airworthiness review

If any of the following conditions occur, the Mana^2 must be checked for airworthiness:

- 2 years after the first routine test
- Every other 2 years or earlier if prescribed by the UP Service Center.
- After 200 operating hours

Of course, we will be happy to carry out the prescribed inspection earlier if you consider it necessary due to extreme use. You will receive the inspection instructions separately from this manual.

CAUTION! If you notice any changes in the flight behavior of your Mana^2 please have it checked immediately by UP or a UP service center.

Expertise

To ensure that your UP Mana^2 always offers the highest level of functionality and safety, you should commission UP International with its maintenance and repair. Our service staff has been extensively trained to perform any work on your glider professionally and correctly. In addition, UP International is equipped with all the special tools and equipment needed for fast and flawless repairs.

Airworthiness check

Due to its many years of experience in paragliding, UP International can guarantee a professional airworthiness check. The canopy including the "inner workings", the entire line system, the risers and all connecting parts are checked for damage of any kind. Our service workshop is specially equipped for the exact performance of airworthiness checks. In addition to specially developed suspension devices, calibrated and regularly maintained measuring instruments are used, which are essential for determining airworthiness. Our computer-aided laser measurement of the canopy system is the final step in the measurement process.
In addition to the measured values obtained in this way, the tester's assessment is decisive for the overall evaluation of the paraglider. This requires a high degree of expertise and experience. Individual gliders for which the tester suspects a change in flight characteristics based on the data obtained are re-flown and checked by UP test pilots. This way UP International can always guarantee a high quality in the testing of paragliders. Only through a thorough and professional airworthiness check can the certification requirements be met and the safety of the glider be guaranteed. In your own interest you should therefore only have your UP glider checked by the specialists of the UP Service Team or a recognized service company. You can find a list of these approved service centers in the *Service* section at *www.up-paragliders.com.*

ATTENTION: If your UP paraglider is not serviced and checked by a recognized service company or by UP International GmbH, its operating license will expire!

Original parts

Your UP glider consists of many high-quality components with a long service life. When replacing parts (lines, risers, canvas etc.) only original parts may be used. In addition to maintaining the airworthiness of your glider, this is also very important for your safety. The following spare parts can be ordered through your dealer or directly from UP International GmbH:

- risers complete or their individual components such as Brummel hooks, Snaplock or magnets, line locks, O-rings, brake handles
- Single lines according to line plan
- Cloth material
- Adhesive sail

Delivery service

Before your UP glider left the workshop, all the work carried out was checked again and carefully tested. In addition, a comprehensive inspection has been carried out by the UP service team or an approved service company before the glider is delivered to ensure that your Mana^2 complies with UP International standards and the type approved device.

Warranty conditions

The conditions and the scope of the UP International warranty are described on the following pages. For further information please contact your UP Service Center or UP International directly. The UP importer of your country is also available for customer service and warranty questions.

National warranty provisions

In some countries, UP importers/general agents assume special warranties due to national laws and regulations, which differ depending on the country. These national conditions only apply in the country where the glider was delivered. You will receive information about national warranty conditions when you purchase your paraglider.

Warranty in D-A-CH

In Germany, Austria and Switzerland the UP warranty is extended to 36 months if the first 2 year check is done directly at UP International or our Swiss service company (see UP homepage).

International UP Guarantee

The UP International warranty covers material and manufacturing defects and is valid for a period of 2 years from the date of delivery of the new glider. The international UP warranty includes the reimbursement of the costs for necessary spare parts and the working time in connection with the replacement or repair of the defective parts, provided that UP International has recognized a material or manufacturing defect as such.

The UP international warranty does not cover gliders that have been involved in an accident or have been rebuilt or modified. The warranty does not cover parts that need to be replaced due to normal wear and tear.

Furthermore, color changes of the used cloth material and damages caused by solvents and/or salt water as well as due to improper handling of the paraglider and force majeure are excluded from the warranty.

The warranty is valid under the following conditions

- The glider has been used normally and cared for and maintained according to the applicable specifications issued by UP International. This includes, in particular, careful drying, cleaning and storage.
- The screen has only been used within the applicable guidelines. All applicable approval regulations have been complied with.
- All flights performed must be fully verifiable by means of the flight log including the respective flight duration and the flight area.
- Only original UP spare parts were used and rechecks, replacements and/or repairs were carried out exclusively by UP International and properly documented.
- The screen was registered within 14 days from delivery at: http://www.up-paragliders.com/de/service/product-registration
- The warranty is granted only to the first owner of the glider.

UP International does not assume any responsibility or replacement beyond the above obligations. However, a goodwill arrangement is possible.

Re-testing of new devices

According to § 1 para. 5 LuftGerPV, the owner can inspect his equipment himself or commission a third party, such as the manufacturer/importer, with the inspection.

For an independent verification, UP International requires a briefing. The briefing takes place after consultation directly at UP International and is only valid for the corresponding device sample. The inspection instruction will be handed over to the owner after the instruction.

If the owner checks the device himself or commissions a third party to do so, it must be ensured under all circumstances that the specifications of UP International regarding the inspection are adhered to. In case of an improper or incomplete inspection, the operating license will expire.

Current regulations can be found in the *Service* section under
www.up-paragliders.com

Sending in the UP umbrella and other UP products

For submissions to us please use the form you can download from our website. If you live outside of Germany, please use our service phone to find the nearest UP service center.

UP International Ltd.
Kreuzeckbahnstraße 7
D-8267 Garmisch-Partenkirchen

E-mail: info@up-paragliders.com
Phone: +9 (0) 88 21-7 30 99-0
Fax: +9 (0) 88 21-7 30 99-16

Disposal

Despite careful material selection, even the best product has only a limited service life. The plastic material used in a paraglider requires proper disposal. Please have your paraglider disposed of properly. You can also send it back to us for disposal.

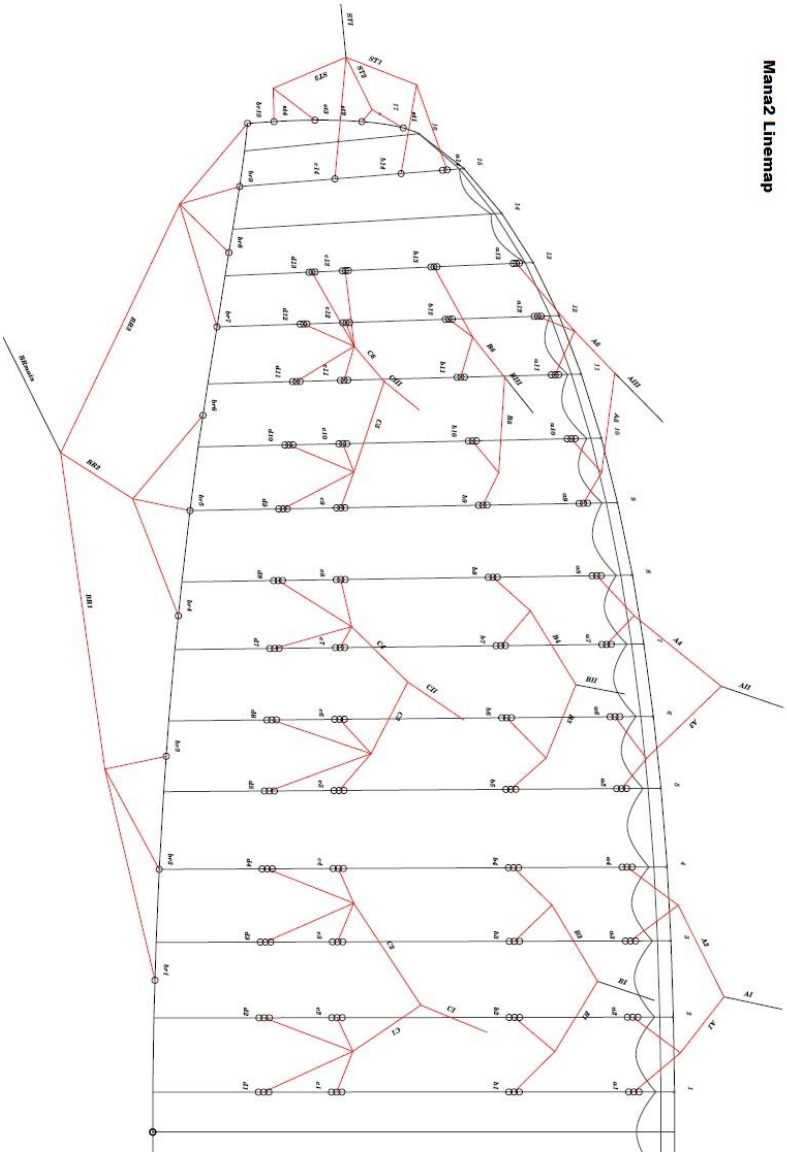
Closing words

We at UP wish you lots of fun and wonderful, accident-free flights with your UP Mana^2 .

See you UP in the sky - Your UP International Team

Attachments/Appendix

Line Plan/Line Plan



Current line lengths on our website:
http://www.up-paragliders.com/de/products/paragliders/Mana²

Line lengths

Leash	Mana² 21/21+	Mana² 23	Mana² 25	Mana² 27
a1	6347	6655	6933	7173
a2	6278	6585	6860	7098
a3	6263	6571	6846	7084
a4	6304	6614	6891	7130
a5	6268	6576	6850	7089
a6	6206	6512	6784	7021
a7	6190	6496	6768	7005
a8	6226	6532	6806	7044
a9	6196	6505	6777	7014
a10	6134	6441	6710	6946
a11	6070	6374	6640	6874
a12	6030	6332	6597	6831
a13	6027	6326	6591	6823
a14	5648	5930	6178	6395
b1	6253	6559	6833	7070
b2	6179	6483	6755	6990
b3	6164	6468	6740	6975
b4	6209	6515	6789	7026
b5	6184	6489	6763	6999
b6	6125	6429	6700	6936
b7	6115	6419	6690	6925
b8	6158	6463	6736	6972
b9	6121	6426	6694	6928
b10	6065	6367	6633	6865
b11	6012	6312	6576	6807
b12	5978	6277	6540	6770
b13	5975	6272	6534	6763
b14	5624	5905	6153	6369
c1	6362	6672	6952	7193
c2	6287	6596	6873	7112
c3	6268	6577	6854	7093
c4	6318	6628	6908	7150
c5	6299	6611	6888	7130
c6	6247	6558	6834	7075
c7	6232	6543	6819	7060

Leash	Mana² 21/21+	Mana² 23	Mana² 25	Mana² 27
c8	6262	6574	6850	7091
c9	6204	6510	6781	7017
c10	6131	6434	6702	6937
c11	6059	6360	6626	6860
c12	6020	6320	6584	6816
c13	6008	6305	6568	6798
c14	5679	5962	6212	6430
d1	6455	6772	7057	7304
d2	6382	6697	6980	7225
d3	6359	6674	6957	7202
d4	6399	6716	7001	7247
d5	6382	6698	6982	7227
d6	6325	6641	6922	7166
d7	6306	6622	6903	7146
d8	6324	6639	6921	7166
d9	6267	6579	6854	7094
d10	6184	6493	6765	7003
d11	6111	6417	6686	6922
st1	6510	6832	7117	7366
st2	6280	6592	6869	7111
st3	6185	6494	6769	7008
st4	6044	6348	6618	6853
br1	5934	6234	6501	6734
br2	5999	6303	6573	6809
br3	5895	6195	6463	6696
br4	5848	6147	6413	6646
br5	5828	6126	6391	6623
br6	5801	6096	6360	6590
br7	6347	6655	6933	7173
br8	6278	6585	6860	7098
br9	6263	6571	6846	7084
br10	6304	6614	6891	7130

Single line lengths Mana^2 21

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
a1	833	140	8000U-090	Red		
a2	764	140	8000U-090	Red		
a3	749	140	8000U-090	Red		
a4	790	140	8000U-090	Red		
a5	755	140	8000U-090	Red		
a6	693	140	8000U-090	Red		
a7	677	140	8000U-090	Red		
a8	713	140	8000U-090	Red		
a9	598	140	8000U-070	Red		
a10	536	140	8000U-070	Red		
a11	942	140	8000U-070	Red		
a12	903	140	8000U-070	Red		
a13	899	140	8000U-050	Red		
a14	722	140	8000U-050	Red		
A1	877	140	8000U-190	Red	+	
A2	877	140	8000U-190	Red	+	
A3	877	140	8000U-190	Red	+	
A4	877	140	8000U-190	Red	+	
A5	1318	200	8000U-130	Red		
A6	848	200	8000U-130	Red		
AI	4141	260	7950-200	Red		
AII	4141	260	7950-200	Red		
AIII	3788	260	7950-150	Red		
b1	739	140	8000U-090	Red		
b2	665	140	8000U-090	Red		
b3	650	140	8000U-090	Red		
b4	695	140	8000U-090	Red		
b5	672	140	8000U-090	Red		
b6	612	140	8000U-090	Red		
b7	602	140	8000U-090	Red		
b8	645	140	8000U-090	Red		
b9	523	140	8000U-070	Red		
b10	467	140	8000U-070	Red		
b11	884	140	8000U-070	Red		
b12	850	140	8000U-070	Red		

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
b13	847	140	8000U-050	Red		
b14	698	140	8000U-050	Red		
B1	877	140	8000U-190	Red	+	
B2	877	140	8000U-190	Red	+	
B3	877	140	8000U-190	Red	+	
B4	877	140	8000U-190	Red	+	
B5	1318	200	8000U-130	Red		
B6	848	200	8000U-130	Red		
BI	4141	260	7950-200	Blue		
BII	4141	260	7950-200	Blue		
BIII	3788	260	7950-150	Blue		
c1	843	140	8000U-070	Natural		
c2	768	140	8000U-070	Natural		
c3	749	140	8000U-070	Natural		
c4	799	140	8000U-070	Natural		
c5	781	140	8000U-070	Natural		
c6	729	140	8000U-070	Natural		
c7	714	140	8000U-070	Natural		
c8	744	140	8000U-070	Natural		
c9	602	140	8000U-050	Natural		
c10	529	140	8000U-050	Natural		
c11	929	140	8000U-050	Natural		
c12	890	140	8000U-050	Natural		
c13	877	140	8000U-050	Natural		
c14	1631	140	8000U-050	Red		
C1	878	200	8000U-130	Natural	+	
C2	878	200	8000U-130	Natural	+	
C3	878	200	8000U-130	Natural	+	
C4	878	200	8000U-130	Natural	+	
C5	1319	200	8000U-090	Natural		
C6	848	200	8000U-090	Natural		
CI	4150	260	7950-200	Yellow		+
CII	4150	260	7950-200	Yellow		+
CIII	3797	260	7950-150	Yellow		+
d1	937	140	8000U-050	Natural		
d2	864	140	8000U-050	Natural		

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
d3	841	140	8000U-050	Natural		
d4	880	140	8000U-050	Natural		
d5	864	140	8000U-050	Natural		
d6	807	140	8000U-050	Natural		
d7	788	140	8000U-050	Natural		
d8	806	140	8000U-050	Natural		
d9	664	140	8000U-050	Natural		
d10	581	140	8000U-050	Natural		
d11	979	140	8000U-050	Natural		
br1	1683	140	8000U-050	Natural		
br2	1453	140	8000U-050	Natural		
br3	1358	140	8000U-050	Natural		
br4	1217	140	8000U-050	Natural		
br5	1107	140	8000U-050	Natural		
br6	1172	140	8000U-050	Natural		
br7	944	140	8000U-050	Natural		
br8	897	140	8000U-050	Natural		
br9	877	140	8000U-050	Natural		
br10	850	140	8000U-050	Natural		
BR1	2633	200	8000U-090	Natural		
BR2	2633	200	8000U-090	Natural		
BR3	2757	200	8000U-090	Natural		
BRmain	2194	300	989/2.1	Red		
st1	350	140	8000U-050	Red		
st2	306	140	8000U-050	Red		
st3	339	140	8000U-050	Red		
st4	422	140	8000U-050	Red		
ST1	878	200	8000U-070	Red		
ST2	1129	200	8000U-050	Red		
ST3	1129	200	8000U-050	Red		
STI	3558	260	7950-100	Orange		+

Single line lengths Mana^2 23

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
a1	894	140	8000U-090	Red		
a2	824	140	8000U-090	Red		
a3	810	140	8000U-090	Red		
a4	852	140	8000U-090	Red		
a5	816	140	8000U-090	Red		
a6	752	140	8000U-090	Red		
a7	736	140	8000U-090	Red		
a8	772	140	8000U-090	Red		
a9	655	140	8000U-070	Red		
a10	591	140	8000U-070	Red		
a11	1017	140	8000U-070	Red		
a12	976	140	8000U-070	Red		
a13	970	140	8000U-050	Red		
a14	786	140	8000U-050	Red		
A1	920	140	8000U-190	Red	+	
A2	920	140	8000U-190	Red	+	
A3	920	140	8000U-190	Red	+	
A4	920	140	8000U-190	Red	+	
A5	1383	200	8000U-130	Red		
A6	889	200	8000U-130	Red		
AI	4345	260	7950-200	Red		
AII	4345	260	7950-200	Red		
AIII	3975	260	7950-150	Red		
b1	797	140	8000U-090	Red		
b2	721	140	8000U-090	Red		
b3	706	140	8000U-090	Red		
b4	753	140	8000U-090	Red		
b5	729	140	8000U-090	Red		
b6	669	140	8000U-090	Red		
b7	659	140	8000U-090	Red		
b8	703	140	8000U-090	Red		
b9	576	140	8000U-070	Red		
b10	517	140	8000U-070	Red		
b11	956	140	8000U-070	Red		
b12	921	140	8000U-070	Red		

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
b13	916	140	8000U-050	Red		
b14	761	140	8000U-050	Red		
B1	920	140	8000U-190	Red	+	
B2	920	140	8000U-190	Red	+	
B3	920	140	8000U-190	Red	+	
B4	920	140	8000U-190	Red	+	
B5	1383	200	8000U-130	Red		
B6	889	200	8000U-130	Red		
BI	4345	260	7950-200	Blue		
BII	4345	260	7950-200	Blue		
BIII	3975	260	7950-150	Blue		
c1	906	140	8000U-070	Natural		
c2	830	140	8000U-070	Natural		
c3	811	140	8000U-070	Natural		
c4	863	140	8000U-070	Natural		
c5	845	140	8000U-070	Natural		
c6	793	140	8000U-070	Natural		
c7	778	140	8000U-070	Natural		
c8	808	140	8000U-070	Natural		
c9	657	140	8000U-050	Natural		
c10	581	140	8000U-050	Natural		
c11	1001	140	8000U-050	Natural		
c12	960	140	8000U-050	Natural		
c13	946	140	8000U-050	Natural		
c14	1739	140	8000U-050	Red		
C1	921	200	8000U-130	Natural	+	
C2	921	200	8000U-130	Natural	+	
C3	921	200	8000U-130	Natural	+	
C4	921	200	8000U-130	Natural	+	
C5	1383	200	8000U-090	Natural		
C6	889	200	8000U-090	Natural		
CI	4355	260	7950-200	Yellow		+
CII	4355	260	7950-200	Yellow		+
CIII	3985	260	7950-150	Yellow		+
d1	1006	140	8000U-050	Natural		
d2	931	140	8000U-050	Natural		

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
d3	909	140	8000U-050	Natural		
d4	950	140	8000U-050	Natural		
d5	933	140	8000U-050	Natural		
d6	875	140	8000U-050	Natural		
d7	856	140	8000U-050	Natural		
d8	874	140	8000U-050	Natural		
d9	725	140	8000U-050	Natural		
d10	638	140	8000U-050	Natural		
d11	1056	140	8000U-050	Natural		
br1	1767	140	8000U-050	Natural		
br2	1527	140	8000U-050	Natural		
br3	1429	140	8000U-050	Natural		
br4	1283	140	8000U-050	Natural		
br5	1169	140	8000U-050	Natural		
br6	1238	140	8000U-050	Natural		
br7	1001	140	8000U-050	Natural		
br8	953	140	8000U-050	Natural		
br9	932	140	8000U-050	Natural		
br10	902	140	8000U-050	Natural		
BR1	2763	200	8000U-090	Natural		
BR2	2763	200	8000U-090	Natural		
BR3	2892	200	8000U-090	Natural		
BRmain	2302	300	989/2.1	Red		
st1	394	140	8000U-050	Red		
st2	348	140	8000U-050	Red		
st3	382	140	8000U-050	Red		
st4	467	140	8000U-050	Red		
ST1	921	200	8000U-070	Red		
ST2	1185	200	8000U-050	Red		
ST3	1185	200	8000U-050	Red		
STI	3733	260	7950-100	Orange		+

Single line lengths Mana^2 25

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
a1	931	140	8000U-090	Red		
a2	858	140	8000U-090	Red		
a3	844	140	8000U-090	Red		
a4	889	140	8000U-090	Red		
a5	850	140	8000U-090	Red		
a6	784	140	8000U-090	Red		
a7	768	140	8000U-090	Red		
a8	806	140	8000U-090	Red		
a9	684	140	8000U-070	Red		
a10	617	140	8000U-070	Red		
a11	1062	140	8000U-070	Red		
a12	1019	140	8000U-070	Red		
a13	1013	140	8000U-050	Red		
a14	824	140	8000U-050	Red		
A1	959	140	8000U-190	Red	+	
A2	959	140	8000U-190	Red	+	
A3	959	140	8000U-190	Red	+	
A4	959	140	8000U-190	Red	+	
A5	1441	200	8000U-130	Red		
A6	926	200	8000U-130	Red		
AI	4526	260	7950-200	Red		
AII	4526	260	7950-200	Red		
AIII	4140	260	7950-150	Red		
b1	831	140	8000U-090	Red		
b2	753	140	8000U-090	Red		
b3	738	140	8000U-090	Red		
b4	787	140	8000U-090	Red		
b5	763	140	8000U-090	Red		
b6	700	140	8000U-090	Red		
b7	690	140	8000U-090	Red		
b8	736	140	8000U-090	Red		
b9	601	140	8000U-070	Red		
b10	540	140	8000U-070	Red		
b11	998	140	8000U-070	Red		
b12	962	140	8000U-070	Red		

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
b13	956	140	8000U-050	Red		
b14	799	140	8000U-050	Red		
B1	959	140	8000U-190	Red	+	
B2	959	140	8000U-190	Red	+	
B3	959	140	8000U-190	Red	+	
B4	959	140	8000U-190	Red	+	
B5	1441	200	8000U-130	Red		
B6	926	200	8000U-130	Red		
BI	4526	260	7950-200	Blue		
BII	4526	260	7950-200	Blue		
BIII	4140	260	7950-150	Blue		
c1	947	140	8000U-070	Natural		
c2	868	140	8000U-070	Natural		
c3	849	140	8000U-070	Natural		
c4	903	140	8000U-070	Natural		
c5	883	140	8000U-070	Natural		
c6	829	140	8000U-070	Natural		
c7	814	140	8000U-070	Natural		
c8	845	140	8000U-070	Natural		
c9	686	140	8000U-050	Natural		
c10	607	140	8000U-050	Natural		
c11	1046	140	8000U-050	Natural		
c12	1004	140	8000U-050	Natural		
c13	988	140	8000U-050	Natural		
c14	1817	140	8000U-050	Red		
C1	959	200	8000U-130	Natural	+	
C2	959	200	8000U-130	Natural	+	
C3	959	200	8000U-130	Natural	+	
C4	959	200	8000U-130	Natural	+	
C5	1441	200	8000U-090	Natural		
C6	926	200	8000U-090	Natural		
CI	4536	260	7950-200	Yellow		+
CII	4536	260	7950-200	Yellow		+
CIII	4150	260	7950-150	Yellow		+
d1	1052	140	8000U-050	Natural		
d2	975	140	8000U-050	Natural		

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
d3	952	140	8000U-050	Natural		
d4	996	140	8000U-050	Natural		
d5	977	140	8000U-050	Natural		
d6	917	140	8000U-050	Natural		
d7	898	140	8000U-050	Natural		
d8	916	140	8000U-050	Natural		
d9	757	140	8000U-050	Natural		
d10	668	140	8000U-050	Natural		
d11	1104	140	8000U-050	Natural		
br1	1841	140	8000U-050	Natural		
br2	1593	140	8000U-050	Natural		
br3	1493	140	8000U-050	Natural		
br4	1342	140	8000U-050	Natural		
br5	1225	140	8000U-050	Natural		
br6	1297	140	8000U-050	Natural		
br7	1052	140	8000U-050	Natural		
br8	1002	140	8000U-050	Natural		
br9	980	140	8000U-050	Natural		
br10	949	140	8000U-050	Natural		
BR1	2878	200	8000U-090	Natural		
BR2	2878	200	8000U-090	Natural		
BR3	3013	200	8000U-090	Natural		
BRmain	2398	300	989/2.1	Red		
st1	416	140	8000U-050	Red		
st2	369	140	8000U-050	Red		
st3	404	140	8000U-050	Red		
st4	492	140	8000U-050	Red		
ST1	959	200	8000U-070	Red		
ST2	1234	200	8000U-050	Red		
ST3	1234	200	8000U-050	Red		
STI	3885	260	7950-100	Orange		+

Single line lengths Mana^2 27

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
a1	979	140	8000U-090	Red		
a2	904	140	8000U-090	Red		
a3	890	140	8000U-090	Red		
a4	937	140	8000U-090	Red		
a5	898	140	8000U-090	Red		
a6	830	140	8000U-090	Red		
a7	814	140	8000U-090	Red		
a8	853	140	8000U-090	Red		
a9	726	140	8000U-070	Red		
a10	658	140	8000U-070	Red		
a11	1118	140	8000U-070	Red		
a12	1075	140	8000U-070	Red		
a13	1067	140	8000U-050	Red		
a14	873	140	8000U-050	Red		
A1	992	140	8000U-190	Red	+	
A2	992	140	8000U-190	Red	+	
A3	992	140	8000U-190	Red	+	
A4	992	140	8000U-190	Red	+	
A5	1491	200	8000U-130	Red		
A6	959	200	8000U-130	Red		
AI	4684	260	7950-200	Red		
AII	4684	260	7950-200	Red		
AIII	4285	260	7950-150	Red		
b1	877	140	8000U-090	Red		
b2	797	140	8000U-090	Red		
b3	782	140	8000U-090	Red		
b4	833	140	8000U-090	Red		
b5	808	140	8000U-090	Red		
b6	745	140	8000U-090	Red		
b7	734	140	8000U-090	Red		
b8	781	140	8000U-090	Red		
b9	640	140	8000U-070	Red		
b10	577	140	8000U-070	Red		
b11	1051	140	8000U-070	Red		
b12	1014	140	8000U-070	Red		

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
b13	1007	140	8000U-050	Red		
b14	847	140	8000U-050	Red		
B1	992	140	8000U-190	Red	+	
B2	992	140	8000U-190	Red	+	
B3	992	140	8000U-190	Red	+	
B4	992	140	8000U-190	Red	+	
B5	1491	200	8000U-130	Red		
B6	959	200	8000U-130	Red		
BI	4684	260	7950-200	Blue		
BII	4684	260	7950-200	Blue		
BIII	4285	260	7950-150	Blue		
c1	996	140	8000U-070	Natural		
c2	915	140	8000U-070	Natural		
c3	896	140	8000U-070	Natural		
c4	952	140	8000U-070	Natural		
c5	933	140	8000U-070	Natural		
c6	877	140	8000U-070	Natural		
c7	862	140	8000U-070	Natural		
c8	894	140	8000U-070	Natural		
c9	726	140	8000U-050	Natural		
c10	646	140	8000U-050	Natural		
c11	1101	140	8000U-050	Natural		
c12	1057	140	8000U-050	Natural		
c13	1039	140	8000U-050	Natural		
c14	1901	140	8000U-050	Red		
C1	993	200	8000U-130	Natural	+	
C2	993	200	8000U-130	Natural	+	
C3	993	200	8000U-130	Natural	+	
C4	993	200	8000U-130	Natural	+	
C5	1491	200	8000U-090	Natural		
C6	959	200	8000U-090	Natural		
CI	4694	260	7950-200	Yellow		+
CII	4694	260	7950-200	Yellow		+
CIII	4295	260	7950-150	Yellow		+
d1	1107	140	8000U-050	Natural		
d2	1028	140	8000U-050	Natural		

Leash	Length	Loops	Material	Color	Protection	Loop Maillon
d3	1005	140	8000U-050	Natural		
d4	1050	140	8000U-050	Natural		
d5	1029	140	8000U-050	Natural		
d6	969	140	8000U-050	Natural		
d7	949	140	8000U-050	Natural		
d8	968	140	8000U-050	Natural		
d9	801	140	8000U-050	Natural		
d10	710	140	8000U-050	Natural		
d11	1161	140	8000U-050	Natural		
br1	1906	140	8000U-050	Natural		
br2	1651	140	8000U-050	Natural		
br3	1548	140	8000U-050	Natural		
br4	1393	140	8000U-050	Natural		
br5	1274	140	8000U-050	Natural		
br6	1349	140	8000U-050	Natural		
br7	1096	140	8000U-050	Natural		
br8	1046	140	8000U-050	Natural		
br9	1023	140	8000U-050	Natural		
br10	990	140	8000U-050	Natural		
BR1	2978	200	8000U-090	Natural		
BR2	2978	200	8000U-090	Natural		
BR3	3118	200	8000U-090	Natural		
BRmain	2482	300	989/2.1	Red		
st1	450	140	8000U-050	Red		
st2	402	140	8000U-050	Red		
st3	438	140	8000U-050	Red		
st4	528	140	8000U-050	Red		
ST1	993	200	8000U-070	Red		
ST2	1277	200	8000U-050	Red		
ST3	1277	200	8000U-050	Red		
STI	4018	260	7950-100	Orange		+

Screen and pilot data

Model/Model: Mana²

Size/Size: ❒ 21❒ 23❒ 25❒ 27

Serial number: _____

Color/Color: _____

Date of purchase:_____

First flight date: _____

Pilot (1st owner / 1st holder)

First name/First name:_____

Surname/Surname: _____

Street/Street: _____

Town/Residence: _____

Postal code/PLZ: _____

Country/Country: _____

Phone/Telephone: _____

Fax: _____

Email:_____

Pilot (2nd owner / 2nd holder)

First name/First name: _____

Surname/Surname: _____

Street/Street: _____

Town/Residence: _____

Postal code/PLZ: _____

Country/Country: _____

Phone/Telephone: _____

Fax: _____

Email: _____

Pilot (3rd owner / 3rd holder)

First name/First name: _____

Surname/Surname: _____

Street/Street: _____

Town/Residence: _____

Postal code/PLZ: _____

Country/Country: _____

Phone/Telephone: _____

Fax: _____

Email: _____

Please verify that your UP Service Centre has correctly filled in the form!
Please make sure that your UP Service Centre stamps and signs after each inspection.

Service 1

Date / Date _____

Service performance / type of service

Stamp/Stamp

Service 2

Date / Date _____

Service performance / type of service

Stamp/Stamp

Service 3

Date / Date _____

Service performance / type of service

Stamp/Stamp

Please verify that your UP Service Centre has correctly filled in the form!
Please make sure that your UP Service Centre stamps and signs after each inspection.

Service

Date / Date _____

Service performance / type of service

Stamp/Stamp

Service 5

Date / Date _____

Service performance / type of service

Stamp/Stamp

Service 6

Date / Date _____

Service performance / type of service

Stamp/Stamp