
TORRE

Operating Manual and Service Booklet

Serial Number: _____

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Important

Where necessary, important information is highlighted using the following terms and symbols:

**WARNING!**

These notices draw 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 INTERNATIONAL

Congratulations on purchasing your new **UP TORRE**.

UP International is known worldwide for the development and manufacture of first-class paragliders, with maximum safety, optimal performance, and top quality as the primary focus. UP paragliders are designed and continuously developed based on the requirements and feedback of our customers.

We therefore welcome all suggestions and ideas for improvement. Your feedback and constructive criticism allow you to actively contribute to the ongoing development of our products.

To ensure that we can keep you informed about technical updates for your UP paraglider and the latest developments at UP, please register your paraglider after purchase. Product registration also ensures preferential treatment in all service matters should any issues arise.

You can register your UP TORRE online at:

<http://www.up-paragliders.com/en/service/product-registration>

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

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

info@up-paragliders.com

+49 (0)8821 73099-0

We wish you many enjoyable and safe flights with your UP TORRE. - Your UP International Team

SAFETY INSTRUCTIONS

Please read this operating manual carefully before your first flight with the UP TORRE. This will help you become familiar with your new paraglider more quickly. The manual provides information about all important characteristics and features of the UP TORRE, but it does not replace professional flight training.

The following points are especially important:

- 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. Any unauthorized modification beyond the permitted adjustment options will void the operating license!
- The use of this paraglider is entirely at your own risk. The manufacturer and distributor accept no liability.
- The pilot is responsible for their own safety and must ensure before every launch that the aircraft is airworthy.
- The pilot must hold the required licenses and comply with all applicable legal regulations.

Environmentally Responsible Behavior

Paragliding is a nature-oriented and environmentally friendly sport. Respectful behavior toward nature should therefore be a matter of course for every pilot.

Please avoid noise, stay on marked paths, and do not leave any litter. This helps preserve the natural environment for future generations. Before each flight, inform yourself about applicable nature conservation regulations in the flying area and along the planned route.

TECHNICAL DESCRIPTION

The UP TORRE was developed by UP International to meet the special requirements of a safe intermediate performance paraglider with excellent launch characteristics and a remarkable performance spectrum. Like all UP products, every material used is of a high quality standard. To ensure a long service life, materials are carefully selected and subjected to extensive testing before use. Further details of the design and dimensions, including the line dimensions of the UP TORRE can be found in the type approval certificate issued by the certification authority or in this manual.

Further details on the construction, dimensions, and line lengths of the UP TORRE can be found in the appendix to this manual. Any technical changes are documented in the appendix or published on the UP website.

Intended Use

According to LTF-HG/GS 2-565-20 the UP TORRE is to be used as "light air sports equipment" with an empty weight of less than 120 kg in the paraglider category.

LTF and EN Classification

The UP TORRE was classified as EN 926-2:2013+A1:2021 / LTF NfL 2024-2-785 EN C (all sizes).

Target Group and Recommended Flight Experience

The UP TORRE is ideally suited for pilots with extensive experience flying no less than 75h/year in a variety of conditions. Perfect for the performance oriented XC pilot.

Requirements in Normal Flight

The flight and control behavior of paragliders in this class requires an advanced, precise and sensitive control technique, due to shorter control travel, lower roll and pitch damping and more dynamic handling corresponding to EN-C category. A advanced active flying style is expected.

Requirements in Case of Malfunctions

After disturbances, the behavior of the glider places increased demands on pilot skill and reaction speed. The pilot should have sufficient practical experience in avoiding and managing common disturbances, particularly asymmetric and frontal collapses. If this experience is insufficient, type-specific instruction—ideally during a safety training course—is strongly recommended.

Requirements for Rapid Descent Maneuvers

Rapid descent maneuvers such as steep spirals require higher pilot proficiency due to the more demanding handling characteristics. Sound practical knowledge of these maneuvers is essential. Otherwise, specialized instruction in a safety training environment is recommended.

Suitability for Training

The UP TORRE is **not** suitable for training.

Recommended weight range

The UP TORRE must always be flown within the approved takeoff weight range specified in the technical data section. The takeoff weight includes the pilot, clothing, glider, harnesses, and all equipment.

The easiest way to determine takeoff weight is to weigh the pilot with full equipment.

In the upper half of the weight range up to the certified limit, the handling of the UP TORRE is more precise and direct. Trim and top speed are slightly higher than in the middle to lower weight range, the UP TORRE maneuvers and extreme flight characteristics are more dynamic. This weight range is particularly recommended for performance oriented flying. In the medium to lower weight range, the sink rate and brake pressure are lower, and the wing also reacts less dynamically. This weight range is particularly preferable for pilots who fly a lot in flatlands. On thermally active days, the desired higher take-off weight can be compensated for by carrying ballast.

Operating limits

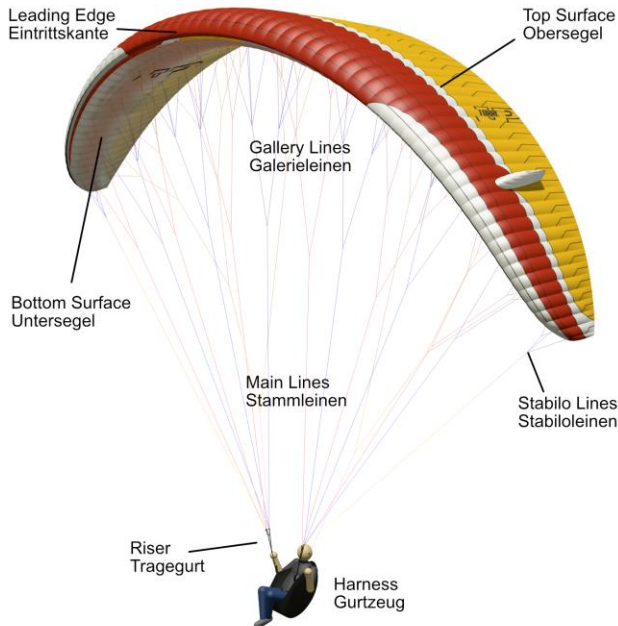
For safe operation of the UP TORRE, all operating limits must be respected throughout the entire flight, including preparation and post-flight handling. The operating limits are exceeded if any of the following conditions apply:

- Flying with number of seats not corresponding to the certification.
- Flying with a take-off weight beyond the certified range.
- Temperatures below -30° C or above 50° C, respectively.
- Flying in rain, snowfall, clouds, fog, or with the canopy wet for any other reason.
- Unauthorized modifications to the canopy, lines or risers.
- Acrobatic flying and flight maneuvers over 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 likely to produce extreme flight situations beyond those tested in the certification.

Technical data of the UP TORRE

Size	S	SM	M	L	XL
Surface area flat (m ²)	21.6	23.2	24.9	26.5	28.0
Surface area projected (m ²)	18.6	20.0	21.5	22.8	24.1
Span flat (m)	11.8	12.3	12.7	13.1	13.4
Span projected (m)	9.6	10.0	10.3	10.6	10.9
Aspect ratio flat	6.5	6.5	6.5	6.5	6.5
Aspect ratio projected	5.0	5.0	5.0	5.0	5.0
Number of cells	67	67	67	67	67
Total line length incl. brake (m)	199	207	214	220	226
Total # of lines incl. brake	198	198	198	198	198
Maximum symmetrical steering travel at maximum weight (cm)	52	54	56	58	60
Accelerator travel (mm)	140	145	150	155	155



Glider weight (kg)	4.7	4.9	5.1	5.3	5.6
Take-off weight (kg)	65 - 85	75 - 95	85 - 105	95 - 115	105 - 130
EN / LTF Category	C	C	C	C	C
Description	Performance Flying (Solo)				

Construction

- Maximum performance airfoils
- Tripple 3D panel shaping
- Negative 3D panel shaping
- Mini ribs
- Front section support
- Rear section support
- Bottom section support
- Winglet stabilizers
- Optimized line scheme
- Break tension system

For more details, see the UP TORRE [Product Page](#)

Canopy Material

- Top surface front: Dominico D30
- Design stripe: Dominico D30
- Top surface rear: Dominico D20
- Bottom surface: Dominico D20
- Ribs / tapes: Porcher Skytex 40 Hard / Dominico D32 Hard

Line Material

The UP TORRE uses unsheathed Dyneema® and aramid lines from Edelrid and Liros, in various diameters. Detailed information is provided in section [Line Map](#).

Line System

The lines of each half of the canopy are grouped into two levels and the brake lines:

- **A level:** Amain1, Amain2, Amain3, STI
- **C level:** Cmain1, Cmain2, Cmain3
- **Brake lines:** BRI

Each brake line is gathered into a main brake line, which is routed through a pulley on the C riser. A marking indicates the factory brake handle attachment point.

For ease of handling and inspection, the line levels are color-coded. All main lines are connected to the risers via separate Maillon Rapide® connectors equipped with line collectors to prevent line slippage.

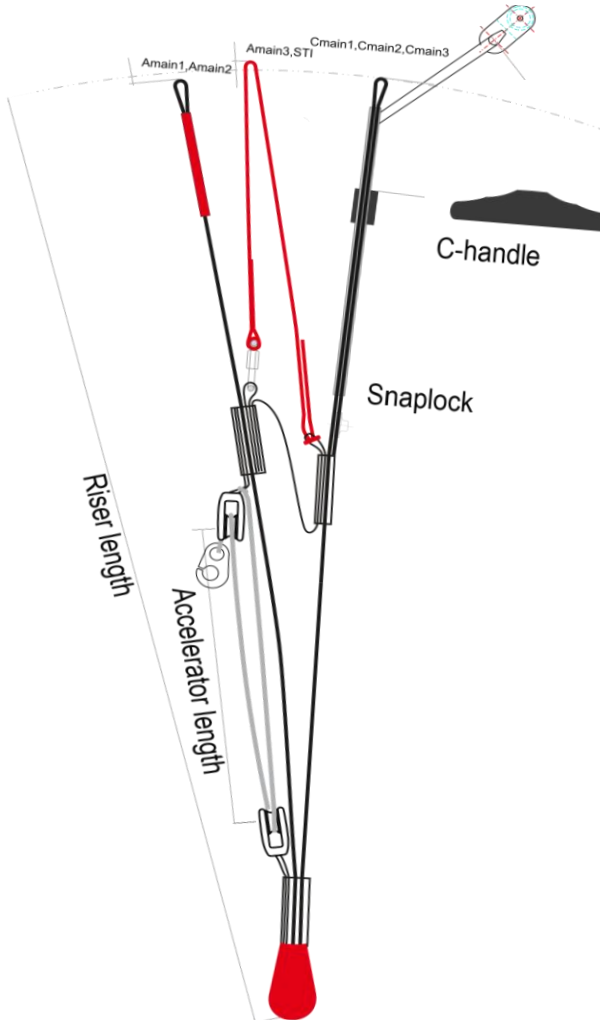
Risers

The new risers of the UP TORRE are supplied in 4 different lengths for S, SM, M and L/XL respectively. This improves the ergonomics of the different sizes and makes the handlining easier. It also optimizes the accelerator travel for different wing sizes. When the speed bar is activated, the A- riser is shortened. The largest change in angle of attack is achieved when the front upper accelerator pulley of the riser overlaps the lower accelerator pulley and the limiter is stretched.

The AIII riser made of Liros DC300 can be replaced independently if it shows signs of wear. Detailed information is provided in section [AIII Riser Replacement](#)

Riser length (mm) Trim / Acc.	S	SM	M	L	XL
AI, AII	500 / 360	520 / 375	540 / 390	560 / 405	560 / 405
AIII, STI	505 / 435	525 / 452.5	545 / 470	565 / 487,5	565 / 487,5
CI, CII, CIII	500 / 500	520 / 520	540 / 540	560 / 560	560 / 560
Acc. Travel	140	145	150	155	155

Riser Overview



BEFORE THE FIRST FLIGHT

The UP TORRE is delivered with parasleeve, compression strap, inflatable rod protector and repair material. The manual is available as download on the UP homepage.

Each UP TORRE undergoes a thorough individual inspection at the factory to ensure conformity with the certified reference model.



CAUTION! The UP TORRE 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 and Adjustments

During development, the UP TORRE was finely tuned by test pilots and designers to achieve optimal trim with respect to safety, handling, and performance. The riser settings of the UP TORRE are highly precise and must not be altered under any circumstances.



WARNING! Any unauthorized modification to the aircraft will void the operating license. Only the brake handle position and Rear riser handle may be individually adjusted.

Positioning of the Brake Handles

The UP TORRE is delivered from the factory with a brake setting suitable for most pilots.

For very tall or very small pilots, for harnesses with particularly high or low hang points, adjustment of the brake handle position may be necessary.

When shortening the brake setting, it is essential to ensure that the UP TORRE is not permanently braked even when fully accelerated. Excessively shortened brakes can negatively affect performance and launch behavior and may lead to serious safety issues. A free travel of several centimeters must always remain to prevent unintentional braking. Note that aerodynamic drag on the brake lines already produces a braking effect.

When lengthening the brake setting, it must still be possible to fully control the glider during launch and to reach the stall point during landing without wrapping the brakes.

Adjustments should always be made in small steps (3–4 cm) and tested on a training slope. Symmetrical adjustment of both brake lines is essential.

Incorrect or loose brake knots can lead to loss of control.



Caution! Loose or unsuitable brake line knots can lead to severe accidents due to loosening brake handles and temporary loss of control!

Positioning the Rear Riser Handles

The rear riser handle position can be adjusted to fit personal preferences by moving along the C riser. The higher the handle is placed the bigger operating range it provides. On the other hand, it must not be too far from the pilot to ensure comfortable reach.

In order to Change the position of the handle, undo two hexagonal screws. The handle disassembles into two parts. Assemble the handle on the desired position and tighten with the screws together.

Acceleration System

The correct attachment and adjustment of the acceleration system is an important for smooth use in flight. Therefore, the length of the harness accelerator line 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, contact the respective harness manufacturer.

Suitable Harnesses

The UP TORRE is compatible with all tested and certified harnesses featuring a chest-level suspension, classified as GH without cross-bracing.

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 reserve parachute is not only mandatory but essential for safe operation.

Always follow the instructions provided by the reserve and harness manufacturers.

Intended Use

The UP TORRE has been developed and tested exclusively for use as a paraglider for foot and winch launch. Any use beyond the intended use is prohibited.

Aerobatics

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



WARNING! Performing acrobatic maneuvers with the UP TORRE poses a serious risk to life due to unpredictable flight states and potential structural overload!

FLIGHT PRACTICE

Preflight check

Before every flight, a thorough pre-flight inspection must be carried out to ensure maximum safety.



NOTE Before every take-off, the take-off check (five-point check) is necessary. 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 centre A-risers (red), the lines in the centre of the glider are tensioned slightly earlier than those at the wing ends. This ensures an easy and directionally stable launch. When launching, 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 lean sideways.
2. 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 take-off. Ensure that no lines run under the canopy. Launching with a line over the wing is extremely dangerous!
3. 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 and the carabiners are secured.
4. Immediately before take-off check if the airspace is clear (also behind you).
5. The last step is to check the wind direction. If everything fits, you may start.

The take-off phases

UP TORRE provides easy take off behavior for its class. A light pull on the center A lines (red) is sufficient for the canopy to inflate evenly and rise immediately above the pilot. During the inflation phase, the UP TORRE shows no tendency to hang back.

During inflation, the pilot holds the center A risers (red) and the brake handles in their hands. A final visual check of the laid-out canopy is mandatory. The center of the UP TORRE canopy is identifiable by the UP logo on the leading edge. Careful layout of the canopy according to the wind direction, as well as a launch run aligned with the canopy center, facilitates the inflation phase.

With consistent and even pull, the canopy fills. The arms should be held slightly bent, aligned with the A lines. As soon as the pulling force decreases during inflation—at which point the canopy is above the pilot—the pilot looks up and ensures that the canopy is fully open and correctly positioned overhead. Depending on the initial impulse, wind strength, and slope inclination, it may be necessary to apply light braking at the apex to stabilize the UP TORRE.

Any directional corrections using the brakes should only be made once the canopy is already overhead; otherwise, excessive braking may cause the glider to fall back.

Only at the end of the control phase is the final decision to take off made. With an appropriate running speed, the pilot lifts off during the acceleration and takeoff phase, which—depending on the launch terrain—can be supported by careful brake input.

Speed Control

Using the brake lines

The UP TORRE features a very wide speed range combined with high aerodynamic stability. By using the brake lines, the airspeed can be adjusted so that optimal performance and safety can be selected for any flight situation.

In calm air, the UP TORRE achieves its best glide speed in the unbraked configuration. When both brake lines are pulled approximately 15–20 cm, the glider enters the range of minimum sink. If brake input is increased further, the sink rate no longer decreases, control forces increase noticeably, and the pilot reaches minimum airspeed.



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

Using the Accelerator system

The UP TORRE is equipped with a very efficient acceleration system that is activated by a foot stretcher. When activated, this speed system increases the speed very effectively. Using the speed system is very useful in certain situations and should be part of an active flying style.

If the speed is increased to the maximum via the leg extension, you can fly out of downwind zones more quickly, achieve a better glide angle in headwinds or still arrive upwind. The action radius of the UP TORRE increases considerably when fully accelerated and noticeably increases the performance potential that can be achieved.

When using the speed system, it is important to ensure that it is deactivated immediately in extreme flight situations or is not activated in extreme flight situations. The advantage of using the speed system is that fluctuations in lift and the resulting collapse of the glider can be detected by sudden differences in pressure on the leg

extensions. 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 situations (e.g. collapses) become more dynamic at increased speed. Therefore, the accelerator system should be operated carefully in low altitude or very turbulent air.

Turning

By shifting weight, flat turns can be achieved with minimal loss of altitude. A combined steering technique - weight shift and pulling the brake line inside the turn - is ideal for flying turns in any situation. The radius of the turn is determined by the amount of brake line pulled. If it is necessary to turn the TORRE in a tight space, it is advisable to control the pre-braked glider by releasing the outside brake line and pulling the inside brake line sensitively (opposite movement of the brake lines). From approx. 50 percent brake line pull on one side, the UP TORRE makes a fast and steep turn, which can be extended into a spiral dive (see chapter "Spiral Dive").

C-Riser Control

The UP TORRE can also be steered by pulling down the handle on the C-Riser. That is especially advantageous during accelerated flight. Make sure that you only pull until there is a noticeable increase in brake pressure. If for any reason it is no longer possible to fly the UP TORRE with the brake lines (e.g. loss of the brake handle due to loosening of the attachment knot), it can also be steered and landed using the C-Riser. You should react carefully and sensitively. The stall occurs on shorter steering travel when using C-Riser than when steering via the brake lines

Landing

Approach the landing area with sufficient height and into the wind if possible. Perform a smooth and progressive flare to reduce speed and ensure a gentle touchdown. steep turns and rapid turn changes before landing should be avoided due to the associated pendulum movements.

Winch Towing

The UP TORRE does not require any special technique. Anyway, following points should be always considered:

- Unless you are towing on your "home winch", where you know both the winch and the tow area and how to tow, it is 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 inflated above the pilot before giving the launch command. Any brake corrections should only be made when the canopy is already in the flight position, otherwise the glider may stall, or rotate sideways.
- The launch command must not be given before the glider is completely under control.
- Try to avoid large brake inputs until you are reasonably high. Emphasize weight shift if any course correction is necessary close to the ground.
- Do not try to climb steeply during the first part of the tow. Good airspeed is essential.
- Do not use a towline tension greater than 150 daN at any time during the tow.
- All persons involved with the towing operation should be suitably qualified and experienced. All equipment used should, where necessary, be certified, and a tow permit should be valid for the field being used.

Towline Release System Attachment

The optimum towing point for the tow rope should be as close as possible to the system's center of gravity. The ideal pulling point is at the main. When using spreader bar pawls, the pawl/shackle distance should be sufficiently extended (cord or webbing) and the pawl must be secured with a hold-down rubber to prevent it from kicking back. The distance between the risers must not become narrower when using the ratchet attachment (risk of twisting)!



CAUTION! If towing with a chest container, it must be ensured before every launch that the release of the reserve parachute is always unhindered. If this is not the case, you may only tow with a webbing release.

FLIGHT SAFETY

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

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

Thermals and Turbulence

In turbulent air, the UP TORRE should be flown with a little brake to increase the angle of attack and provide greater stability. While flying in strong or broken thermals, it is important that you concentrate on keeping the wing centrally above your head. Do this by allowing the glider to fly faster while entering a thermal, and by dampening the surge of the canopy while exiting the thermal by braking gently. Flying fast is useful for getting through sink or when flying into a headwind. The UP TORRE possesses a high inherent stability due to its construction and design, however an active flying style in turbulence will help increase safety by preventing unnecessary collapses and deformation of the canopy.

Rapid Descent Maneuvers

Rapid descent techniques are used to quickly lose height in situations such as approaching bad weather, entering controlled airspace, or avoiding terrain. These maneuvers place increased demands on pilot skill and must be trained in advance.



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!

Big ears

After preparing the speed system, the outermost A-lines on both sides are pulled down simultaneously by approx. 20 to 30 centimetres to collapse the outer wings. Hold the brake handles together with the pulled down A-lines. After folding in the outer wings, the angle of attack of the wing should be reduced again using the speed bar. The wing remains fully controllable by shifting your weight and flies straight ahead at an increased sink rate (3-5 m/s depending on the number of folded cells and the use of the speed system). After releasing the A-lines, the pilot deactivates the speed system and the collapsed cells open automatically. If this is not the case, the flight condition can be actively exited by applying the brakes alternately and gently to help the reinflation.

If the UP TORRE is flown at the lower weight limit, the canopy can enter a deep stall if the outer wings are folded in over a very large area and the brakes are applied. If this happens, which is not normally the case, the stall is terminated by a standard recovery (see the chapter “Stalls”).

Steep Spiral Dive

The steep spiral dive provides the highest descent rate but also results in high G-forces. Therefore it requires mastering this maneuver on a solo glider during a safety training (SIV).

Initiate the spiral with progressive inside brake input and weight shift. Keep a steady tension on the inside brakes and observe the increased angle of bank and sink rate. The descent rate and G-forces increase with tighter turns. A little brake on the outer wing will help stabilize the glider at a high sink rate.

To exit the spiral, slowly release the inside brake and shift weight to the outside. As soon as the glider starts exiting the spiral dive, it is important to maintain the glider in a turn in the same direction as the spiral dive, to lose the pilots momentum gradually.



WARNING! Spiral dives with high sink rates expose the pilot and material to very high centrifugal forces – incidents caused by pilots falling unconscious during spiral dives may happen, if the maneuver is not mastered. Approach spiral dives with caution.

B-Stall

This maneuver cannot be performed with two-liners due to the lack of a B-level.

EXTREME FLIGHT MANEUVERS

Behavior in Extreme Flight Situations

The UP TORRE is designed to be aerodynamically stable. However as with all paragliders extreme turbulence or piloting error may induce unwanted behavior. To ensure handling these situations correctly we strongly recommend to attend a safety training (SIV) and mastering extreme flight situations on a solo glider.

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

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



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

Collapses

The UP TORRE belongs to the new generation of gliders which are combining very good performance with high degree of stability. However, all paragliders may collapse due to significant turbulence and UP TORRE is no exception. Normally the UP TORRE reinflates quickly and reliably and it is easy to control during the maneuver.

Asymmetric collapse

In the event of an asymmetric collapse, the UP TORRE starts to recover immediately.

- If the collapse is significant, maintain direction with gentle brake input on the open side.
- Avoid excessive braking to prevent spins or stalls.

The recovery may be assisted by carefully pumping the brake on the collapsed side.

Cravatte

Our test pilots have found absolutely NO tendency towards cravattin in all the test flights the UP TORRE has been subjected to. But under extraordinary circumstances any paraglider may cravatte, and if this happens the situation must be handled properly.

The first step is to STOP any rotation, or, if this is not possible, to slow down the rotation as much as possible – a cravatted wing that is left to its own devices may very quickly enter into a spiral dive of such vehemence that the pilot cannot stop the rotation any more. Once the rotation is under control the pilot attempts to free the cravatte by appropriate techniques:

- Pulling the wingtip out of the cravatte by stabilo line.
- Fully controlled brief negative spin – advanced technique that needs to be trained beforehand on a solo glider.
- Collapsing the hanging part of the wing span so that the cravatte loses tension for untangling.
- The last resort in case of a huge cravatte is Full Stall. It is an advanced technique that needs a significant practice during safety training (SIV).



WARNING! If it is not possible to stop the glider rotation, 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!

Frontal collapse

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

Stalls

When a paraglider flies through the air, a laminar and a turbulent airflow forms around the surface of the wing. When the laminar airflow along the top surface is interrupted, dangerous flight configurations follow – the wing stalls. This is most often the consequence of attempting to fly with too low speed, and therefore with too high angle of attack. In more detail we differ between three different forms of stall.



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!

Deep Stall

The UP TORRE has no tendency towards deep stall. It will recover from a induced deep stall spontaneously as soon as there is no pilot input reducing the speed (breaks, rear risers, maintained ears)

If the glider does not recover from a stall due to special conditions following techniques can be used to restore normal flight:

- Gentle and symmetrical push in the A risers
- Using accelerator
- SHORT symmetrical intensive break input to disbalance the stalling canopy. This may lead to an overshoot.

Full Stall

Performing a full stall requires a significant experience. The full stall is a configuration when there is no more laminar airflow along the surface of the canopy, and the wing has gone from being a wing to being just a bunch of material at the end of lines. When the air speed falls below the minimum speed, the break pressure drops. The pilot feels like falling backwards. In this situation, the brakes must not be released under any circumstances, as it leads to a massive overshoot of the canopy. In extreme cases the glider may shoot below the pilot and the pilot may subsequently fall into the canopy. After the backward dive the canopy forms a rosette where the wingtips start flapping. These flapping movements are transmitted to the pilot via the brakes and harness. 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 by releasing both brakes slowly and symmetrically until the glider opens majority of the wing span and goes to back flight. If there are any pitch movements during the back flight, the final release of the breaks to exit is done with the canopy in front of the pilot. With proper symmetrical release, the canopy accelerates forward without collapsing. However, it must always be expected that the canopy may dive in front or sideways, which needs to be stopped accordingly, otherwise a collapse will occur.



CAUTION! Reaching the minimum speed is indicated by a noticeable decrease of the air noise and an increase of the break pressure. Up to this point, the glider can regain normal speed by simply releasing the brakes.

Spin

The spin (negative turn/spin) is a one-sided stall and occurs when brake is applied quickly and completely at trim speed, or, the glider is slowed below the minimum speed in a turn. During a spin, the glider spins rapidly. The inner wing flies backwards. To

stop the spin, both brakes must be released. This allows the glider to regain speed. On exit, canopy can shoot forward and collapse, in not controlled.



WARNING! Spinning with subsequent one-sided folding of the wing can lead to cravattes!

Wingover

Wingovers are performed by alternating turns in the correct rhythm, each time letting the pendulum effect increase the bank angle.



CAUTION! The UP TORRE is an agile glider, and it is quite easy to get to an excessively high angle of bank in just a few turns. Practice wingovers gently at first, as there is a chance of quite large collapses at high bank angles. Also notice that a wingover flown with more than 145 degrees bank angle is classified as illegal aerobatics in some countries!

Emergency Steering

If for some reason the UP TORRE cannot be controlled with the brakes, it can be steered and landed with the rear risers. Be aware that, when rear riser steering, the glider is less responsive to pilot input, so the maneuverability is lower.

OPERATIONAL HAZARDS

This section outlines critical flight safety risks and structural considerations that can impact the airworthiness of your wing.

Rain-Induced Deep Stall

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, 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, as 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 sailplanes. 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. The trimmers should be opened more than usual, to decrease the angle of attack. 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 extremely humid air or in rain should always be avoided. A wet canopy can massively impair flight performance and significantly increase the risk of deep stall.

Modifications: 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! The use of heavy and/or unsuitable sticky material for logo work on the canopy may compromise the certification and lead to the aircraft becoming unsafe to fly

Overload

Extreme flight maneuvers such as strong spiral dives as well as acro and freestyle maneuvers such as SAT normally do not pose danger to the structure of the UP TORRE. However, frequent overloading of the material will accelerate the aging process considerably. UP recommends having wings that are often used for acro or SIV-type maneuvers subjected to inspection at shorter intervals than normally.

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 inspection at shorter intervals than normally.

MAINTENANCE AND CLEANING

How quickly a paraglider ages depends on how often and where it is flown, how many UV hours it accumulates and how well it is looked after. Consider following tips.

Packing and Storage

The UP TORRE should be folded cell on cell using the supplied Parasleeve. Care must be taken not to bend the rods at too small a radius. The supplied inflatable protector can be used or a piece of equipment can be placed in between to prevent permanent deformation of the rods. Video instructions for the Parasleeve can be found on the UP Web

While stored in a backpack, wrapping the glider around the harness is good practice to prevent unnecessary bending



If unpacked long-term storage is not possible, loosen all compression straps on the storage bag as much as possible and leave the bag lid open to allow air circulation around the packed canopy.

Ensure that the glider is protected from animals such as mice or cats, which may cause damage. Store the wing well away from solvents, acids, and chemical substances. Petrol and other petrochemical products are particularly harmful to nylon materials and may dissolve or severely damage the canopy fabric upon contact.

For long-term storage, maintain a stable temperature between 10 °C and 25 °C, with a relative humidity between 50 % and 75 %.

Do not expose the UP TORRE to extreme heat, such as storing it in the luggage compartment of a vehicle parked in direct sunlight. Elevated temperatures may force residual moisture through the fabric, resulting in damage to the coating. High temperatures combined with moisture significantly accelerate the hydrolysis process,

leading to degradation of the fibers and coating. Chemical changes in the canopy material may begin at temperatures as low as 60 °C.

Paraglider Fabric

The paraglider canopy is manufactured from high-grade polyamide fabric. This material is treated with a protective coating designed to reduce air permeability and to provide resistance against ultraviolet (UV) radiation.

Despite these treatments, prolonged exposure to UV radiation—particularly bright sunlight—will accelerate fabric aging. UV exposure is the primary factor affecting the service life of a paraglider. Initial signs of degradation include color fading, followed by deterioration of the coating and a gradual reduction in the structural strength of the synthetic fibers.

UV Exposure Precautions

- Do not leave the glider exposed to direct sunlight longer than necessary.
- Unpack and rig the wing immediately prior to launch.
- Repack the wing promptly after landing.

Although modern paraglider textiles have significantly improved UV resistance, UV exposure remains the dominant limiting factor in canopy lifespan.

On UP gliders, the coated side of the fabric faces inward. This configuration minimizes mechanical abrasion of the coating while maintaining its air-retention properties.

Ground Handling and Layout

When selecting a layout area prior to launch, choose a place with minimum stones, sharp rocks, and abrasive materials. Particular care should be taken to protect the upper surface of the canopy while it is in contact with the ground.

Never step on the glider. Stepping on the fabric weakens it, especially when the underlying surface is hard or contains sharp objects.

Spectators at launch sites should be monitored closely. Many individuals, particularly children, may not recognize the fragility of paraglider lines and fabric. Clear and simple explanations are usually sufficient to prevent accidental damage.

Before folding and packing the wing, ensure that no insects are trapped inside the canopy. Certain insect species contain acids that can damage the fabric. Grasshoppers, in particular, may attempt to chew through folded material, causing multiple perforations. They may also release dark pigments that permanently stain the fabric.

Moisture and Drying

If the glider becomes wet, dry it as soon as possible in a shaded, well-ventilated area. Do not dry the glider in direct sunlight.

Packing the wing wet can result in mildew formation. If combined with heat exposure, moisture may cause decomposition of the fabric fibers.

Saltwater Exposure

If the UP TORRE is exposed to seawater, rinse the glider thoroughly with fresh water and allow it to dry slowly in the shade. See chapter “Cleaning” for more details.

Paraglider lines

The UP TORRE is equipped with high-grade, unsheathed Dyneema and Kevlar lines. To ensure continued airworthiness and operational safety, observe the following requirements:

- Inspect all lines at regular intervals for signs of wear, damage, or deterioration.
- Avoid abrasion and mechanical damage to the protective sheathing of the lines at all times.
- Do not knot, twist, or bend the lines unnecessarily, as this may reduce their strength.
- Minimize the number of knots in the main brake line at the handle. Each knot significantly reduces line strength.
- Following any event involving excessive line loading (e.g. tree landings, water landings, or other abnormal or extreme situations), all lines must be inspected for condition and correct length. Replace any line that shows damage or deviation from specifications.
- If any change in flight characteristics is observed, immediately inspect the line system and replace lines if required. If uncertainty remains, send the paraglider without delay to UP International or to an UP-certified inspection and service facility.

Cleaning Procedures

To maintain the structural integrity and aerodynamic performance of your UP TORRE, follow these cleaning protocols. Failure to adhere to these guidelines may void your warranty and compromise the airworthiness of the wing.

For routine maintenance, use only lukewarm fresh water and a soft sponge.

- **Light Soiling:** Gently wipe the affected area with a damp sponge.
- **Persistent Dirt:** Use a pH-neutral, mild detergent.

- **Rinsing:** If detergent is used, rinse the area thoroughly with fresh water to ensure no chemical residue remains on the fibers.

Proper drying is critical to prevent mold and fabric degradation.

- **Environment:** Dry the glider in a shaded, well-ventilated area.
- **Prohibition:** Never expose the wing to direct sunlight for drying purposes, as UV radiation accelerates the aging of the synthetic cloth.



- **No Abrasives:** Do not use brushes, hard sponges, or abrasive pads. These will strip the fabric coating and reduce the tensile strength of the sail.
- **No Chemicals:** Never use solvents or harsh chemical cleaners.
- **No Machine Washing:** The mechanical stress of a washing machine will cause irreversible damage to the internal structure and coating of the canopy.

Chlorine Exposure

Never immerse the canopy in a swimming pool. Chlorinated water is highly corrosive to paraglider fabrics and will lead to premature porosity and fabric failure.

Salt Water Exposure

If the glider is exposed to salt water (SIV / Water Landing), it must be rinsed immediately to prevent salt crystal formation, which acts like an abrasive inside the fibers. Use a gentle stream of fresh water to spray the canopy both internally and externally.



NOTE Minimize full-wing rinsing where possible, as frequent saturation accelerates the aging process of the fabric.

INSPECTIONS AND REPAIRS

Periodic inspections are mandatory to maintain legal certification and safety standards. All major repairs and scheduled periodic checks must be performed exclusively by UP International or an authorized UP Service Center. Unauthorized tampering or third-party inspections will result in the immediate forfeiture of the wing's certification and the UP warranty.

Find more details on the web in the [Service Section](#).

Field Repairs

Pilots are authorized to perform minor repairs on the sail under the following conditions:

- Damage Limit: Maximum tear size of 2 x 2 cm.
- Material: Use only the adhesive repair cloth provided in the original glider delivery package.
- Application: The adhesive patch must provide a minimum of 2 cm overlap on all sides of the tear to ensure structural adhesion.

All Riser Replacement

The All riser made of Liros DC300 can be replaced independently if it shows signs of wear. One pair is included in the scope of delivery.

To do this, open the Maillon-Rapide quick link (position a) and remove it from the riser (position b). The new All riser is then attached to the riser with an anchor stitch, passed back through the All/STI line buckle and attached to the quick link (position b). An additional loop must be attached here, which can be opened for trimming if the line shrinks. The quick link must then be tightened with a tightening torque of 0.60 Nm.

Airworthiness Check

To maintain the high-performance standards and inherent safety of the UP TORRE, owners must adhere to a strict inspection schedule and use only certified components for maintenance.

In compliance with German and Austrian legal regulations—and as a recommended safety standard worldwide—your paraglider must undergo a professional inspection according to the following schedule:

- Initial Check: 2 years after the date of the first flight.
- Recurring Checks: Every 2 years following the initial inspection.
- Usage-Based Check: Every 150 flight hours.

- Variable Intervals: If the last UP checking facility prescribed a shorter interval based on the wing's condition, that date takes precedence.



CAUTION! Immediate Inspection Required: If the wing exhibits any "new" or "unusual" flight characteristics (e.g., delayed inflation, sluggish handling, or increased sink rate), it must be grounded immediately and submitted to an authorized UP Service Center for inspection.

Airworthiness Self-Check Regulations

Per German and Austrian aeronautical legislation (§ 14 Abs. 5 LuftGerP), owners may technically perform their own airworthiness checks. However, the following legal prerequisites apply:

- The owner must receive a formal briefing from UP International specifically for the UP TORRE.
- Upon successful completion of the briefing, the owner receives the "*Nachprüfanweisung*" (Inspection Instructions).
- Any self-check or third-party check must adhere strictly to UP guidelines. Failure to follow these protocols voids the wing's certification.

UP International highly recommends using the manufacturer, importer, or an authorized service partner for all airworthiness inspections.

UP Craftsmanship

While third-party lofts exist, we highly recommend utilizing UP, or UP-affiliated service centers for all maintenance. Our technicians possess specialized training and model-specific expertise to take the best care for UP TORRE.

Certified Spare Parts

The use of non-original components can compromise the structural integrity and aerodynamic stability of the aircraft. Only original UP components are authorized for replacement.

The following parts are available through your local authorized dealer:

- Complete riser sets, clam cleats, trimmer webbing, snap locks, magnets, quick links, O-rings, and buckles.
- Original brake handles and swivels.
- Individual replacement lines (ordered according to the specific line plan for your size).
- Original canopy cloth and adhesive "sticky cloth" in matching factory colors.

UP WARRANTY

The UP International Warranty ensures your wing is free from defects in materials and workmanship. Please review the specific requirements below to ensure your coverage remains active.

- Valid for 24 months from the date of delivery.
- Includes costs for materials and labor on gliders verified by UP International to possess manufacturing or material faults.
- Exclusions:
 - Damage resulting from accidents or unauthorized modifications.
 - Normal wear and tear of components.
 - Fabric discoloration (UV fading) that does not impact flight safety.
 - Damage caused by chemical solvents, salt water, or improper handling.

Mandatory Conditions for Claims

For a warranty claim to be considered valid, the owner must satisfy the following criteria:

- The wing must be operated within its EN/LTF certification limits.
- All cleaning, packing, and storage must follow UP's official technical guidelines.
- A complete flight logbook (detailing date, location, and duration) must be available for inspection upon request.
- Only original UP spare parts must be used, and all technical interventions must be performed by an authorized UP Service Center.
- The glider must be registered within 14 days of purchase via the [UP Registration Portal](#).

UP International reserves the right to reject claims that do not meet these criteria, though "ex gratia" (discretionary) settlements may be offered in specific cases.

National Warranty Conditions

Warranty rules may differ from those outlined here in case the national law regulates the warranty different way. Please note that these local rules apply in the country where you have purchased your wing. Information about local rules and conditions are available from your local dealer.

SHIPPING & LOGISTICS FOR SERVICE

- When submitting equipment (gliders, harnesses, or rescue parachutes) for service:
- Use a stable, rigid cardboard box.
- Attach the Goods Delivery Form available on the UP website.
- Shipping Address:

UP International GmbH

Kreuzeckbahnstraße 7

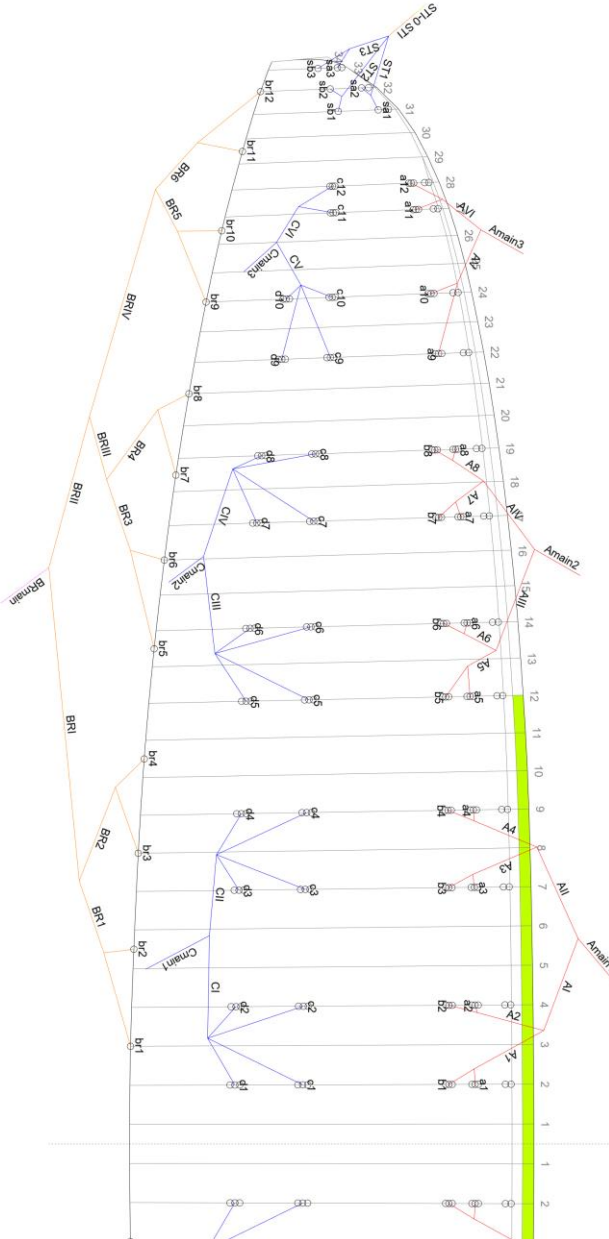
D-82467 Garmisch-Partenkirchen

GERMANY

Phone: +49 (0) 88 21-7 30 99-0

Email: info@up-international.com

LINE PLAN



SERVICE BOOKLET

Glider and pilot data

Model:	TORRE				
Size:	☐ S	☐ SM	☐ M	☐ L	☐ XL
Serial number:	_____				
Color:	_____				
Date of purchase:	_____				
First flight:	_____				
Dealer stamp and signature					

Pilot (1st holder)
First name: _____
Last name: _____
Street: _____
Residence: _____
ZIP CODE: _____
Country: _____
Phone: _____
Fax: _____
Email: _____

Pilot (2nd holder)

First name: _____

Last name: _____

Street: _____

Residence: _____

ZIP CODE: _____

Country: _____

Phone: _____

Fax: _____

Email: _____

Pilot (3rd holder)

First name: _____

Last name: _____

Street: _____

Residence: _____

ZIP CODE: _____

Country: _____

Phone: _____

Fax: _____

Email: _____



Please make sure that your UP service center stamps and signs after each inspection.

Service 1

Executed on _____

Order no.
Stamp

Type of service

Service 2

Executed on _____

Order no.
Stamp

Type of service

Service 3

Executed on _____

Order no.
Stamp

Type of service

Please make sure that your UP service center stamps and signs after each inspection.

Service 4

Executed on _____

Order no.
Stamp

Type of service

Service 5

Executed on _____

Order no.
Stamp

Type of service

Service 6

Executed on _____

Order no.
Stamp

Type of service