Papillon®

FANCY

LTF/EN **A**

MANUAL

English • Rev. 1.7 Effective: January 2018

Please read this manual
before you fly your new Papillon FANCY
for the first time.


Papillon
PARAGLIDING

PAPILLON FANCY: MAXIMUM SAFETY

Thank you for choosing the PAPILLON FANCY.
We thank you for your trust and wish you many happy flying hours!

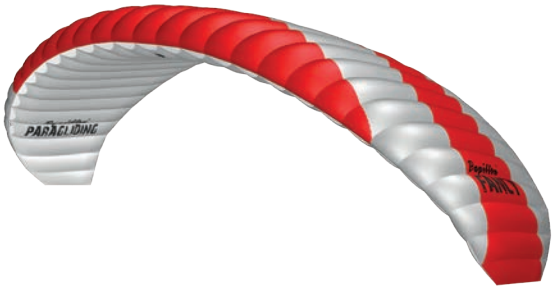
The first flights. Your heart beats to your throat. Launch your glider, feel the lifting power, lose the ground under your feet. Nothing has ever been more exciting. Maximum safety of the wing and confidence in the instructor are the basic requirements for starting your pilot career. The Fancy has achieved the highest marks in extensive tests for the passive safety of paragliders in 2017 and the flight instructor teams love their Fancy. Also if you want to fly in the mountains during your holiday, the Fancy is your right choice.

The FANCY is based on the experience of Papillon Paragliding, Europe's largest paragliding school. This glider combines all the features that allow you a safe and successful entry into the aviation sport. The Fancy accompanies you on your way from a pedestrian to a pilot.

According to the LBA, paragliding is the safest way to fly. In our opinion, the Fancy is considered to be one of the safest paragliders ever developed. The Fancy enables the safest flying since Lilienthal.

If you have any questions about your flight equipment, please do not hesitate to contact us.

See you UP in the sky!
Your Papillon Team



This manual is an important part of the glider.
Please read it carefully, because there is an OBLIGATION to deal with the glider and its special features. The manual is supposed to make the handling with the PAPILLON FANCY as easy and safe as possible.

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WELCOME
TO THE PAPILLON *WORLD OF PARAGLIDING!*

PAPILLON FANCY
MAXIMUM SAFETY

Uncompromising safety with the latest technology. The innovative Pressure Balance Valves (PBV) in the lower sail provide additional ventilation at extreme angles of attack and are activated when a quick pressure build-up is required. During a collapse, valve by valve opens and ventilates the canopy. The other side remains optimally filled and unaffected. In the B-stall, the valves open over the entire wing width, the canopy sinks smoothly and controlled with 8 to 10 meters.

The PBVs not only provide impressive collapse resistance and generally forgiving flight characteristics, but also incomparably uncomplicated take-off behaviour. The system works so well and quickly that it prevents any inclination to overshoot at take-off. The glider has been designed to ensure maximum safety and to forgive pilot errors.

In spite of all the safety, the FANCY does not miss out on the fun of flying. Therefore, the fancy is equipped with a flat aspect ratio of 4.5 and has an innovative line geometry: 2 main lines on the A level, 3 on the B level (incl. Stabilos) and again 2 on the C level minimize the resistance. Four line diameters from 0.95 to 2.2 mm represent the optimum balance between durability and the lowest possible cross sections. The FANCY can be turned flat and reaches 39 km/h in trim speed and accelerates up to 48 km/h.

FANCY

Usage

The FANCY is only designed for solo usage. The FANCY is a light aircraft with a mass of less than 120 kg in the class of paragliders.

The FANCY is suitable as a training glider making it ideally suited for beginnners as well as for advanced pilots. All sizes are certified according to LTF/EN-A.

Motorised Paragliding

The FANCY is not certified for paramotor usage.

Winching

Because of its excellent start characteristics and its high trimmed speed, the Papillon FANCY offers the best conditions for winching operations. Take the following points into account:

- Do not use a tow line tension over 100 kp with the Papillon FANCY.
- If you are not operating at your usual winch, get aquainted with the local procedures. Every visitor on unfamiliar flying grounds needs to get a good briefing by a local pilot.
- Never winch the Papillon FANCY with loads outside the permitted weight range.
- All involved persons, machines and accessories need to have the appropriate licenses, approvals or certification for winching. That applies to pilots, hoist operator, towing attachment, attachment points as well as all further machines and accessories for wich a certificate of competence is required.

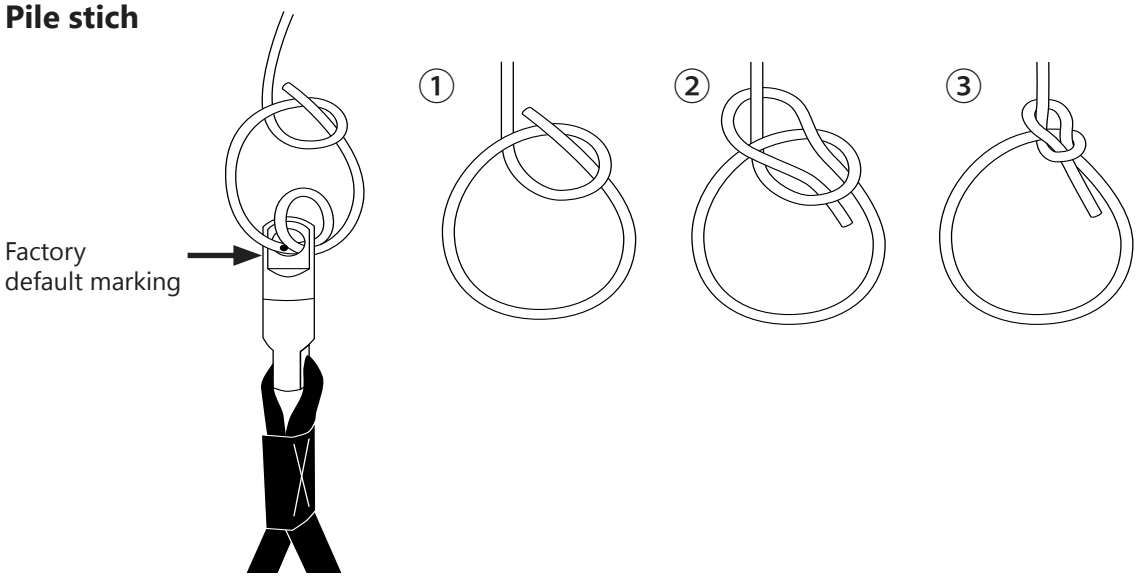
Base- and brakeline adjustment

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

The afore mentioned factory brake setting allows for ample brake travel in extreme flight situations as well as for landing.

At the same time it enables during flight at trim-speed a position of comfort for the pilots arms. In no case the setup A, B and C main lines should be changed before the wing has been flown in the original setup. Please also note that adjusting the height of the suspension to the hangpoints on the harness, changes the relative braking travel. When setting the adjustment it is to be made certain that both sides are symmetrical and that a permanent knot is used. The bowline works particularly well because of the fact that it weakens the lines the least with excellent slip resistance.

Pile stich



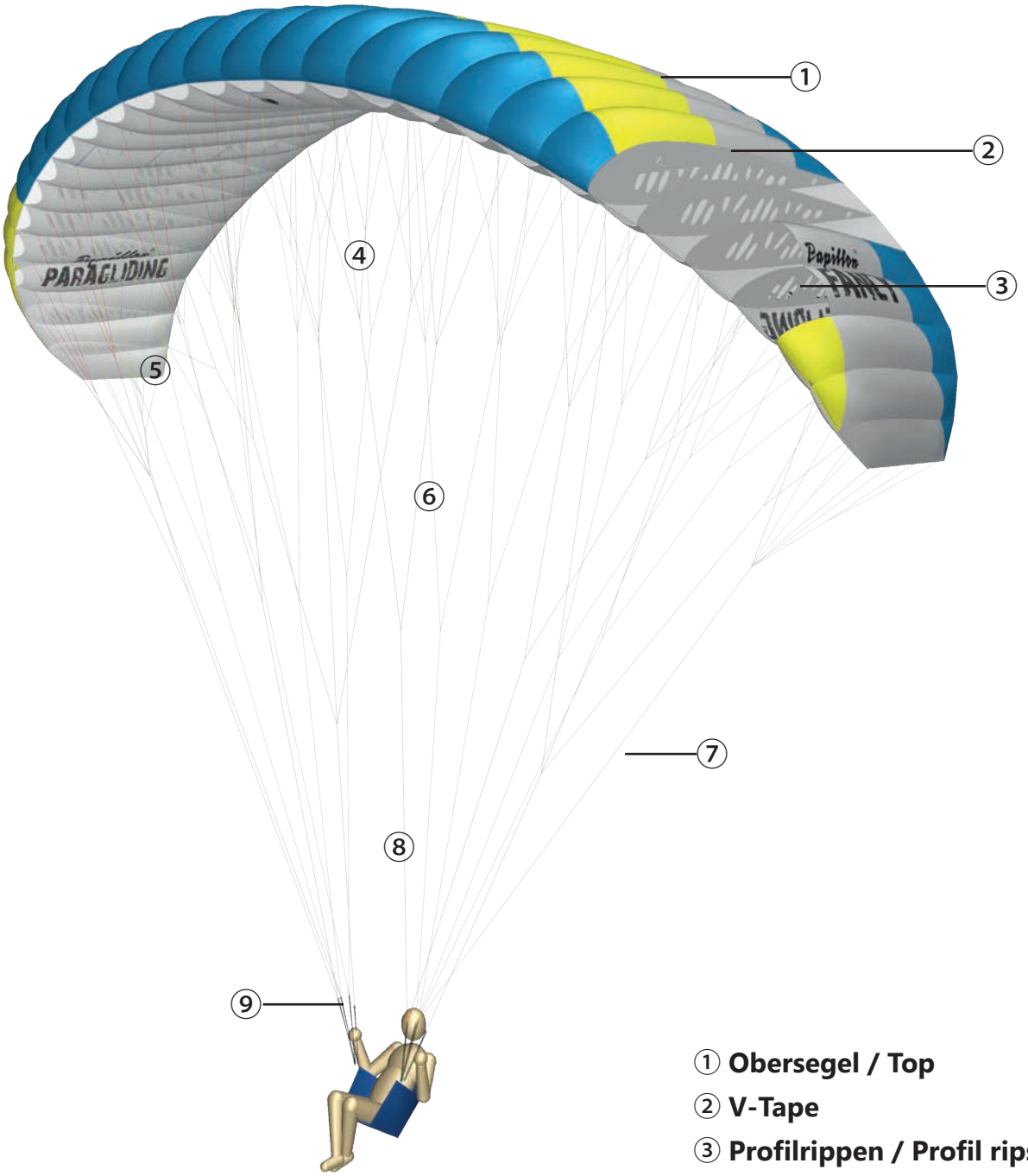
Safety precautions

- Before the first flight, the canopy, lines, all connections and sutures, the shackles and brake lines, as well as any twisted lines must be checked by appropriately trained personnel and confirmed in the type plate.
- Make your maiden flight in a familiar flying site and calm conditons.
- Test your Papillon FANCY only over water.
- In a „dynamic flight" not only you are exposed to Hike loads but also the glider. Do not underestimate this!
- Only fly the FANCY with at least one reserve parachute.
- Observe and abide to the local aviation laws which rule in the respective country in question.
- Successful completion of appropriate training/schooling, having the needed knowledge as well as the actual flight experience are a prerequisite to operate your Papillon FANCY.
- The use of suitable, certified and in the respective country approved accessories (helmet, harness, reserve) is a requirement for the use of the Papillon FANCY.
- Before every take off execute a thorough inspection of your equipment (top sail, bottom sail, ribs, especially the lines, carabiners, buckles, cloth speed system etc.) A flight with a tear in a glider or lines can be life threatening.
- Always make sure that your flying gear is in good condition and all checks are done.
- Be aware that you as a pilot have to be in a physical and mental state to control each flight unimpaired. You have to concentrate completely on flying, in order to avoid potential distressing flight conditions. Most accidents are caused by pilot error.
- Never fly in close proximity to high voltage power lines, airports or motorways, over people or with lightning! You cold endanger your life and the physcial well being of yourself as well as third parties and at the same time act reckless and negligent. At no circumstance should the minimum distance fall below 50m at any given time. At airports this minimum distance to maintain is 5km.
- Inform yourself on the weather forecast and/or the predominating local weather conditions. Use the Papillon FANCY only in wind strengths, in which you are able to control the wing to 100%. Do not use the Papillon FANCY in wind with a great gust factor. Never use the glider with approaching thunderstorms or if probability of those of the development of thunderstorms is high. If a thunderstorm is approaching land immediately!
- The flying of aerobatics is generally forbidden and is dangerous. Unforeseen flight orientations can occur, which can spill out of control, arising the danger of overload on pilot and equipment.

ATTENTION: Ignoring one or several safety precautions can lead to a leisurely fun flight turning into a fatal event!

EQUIPMENT DESCRIPTION

Short description

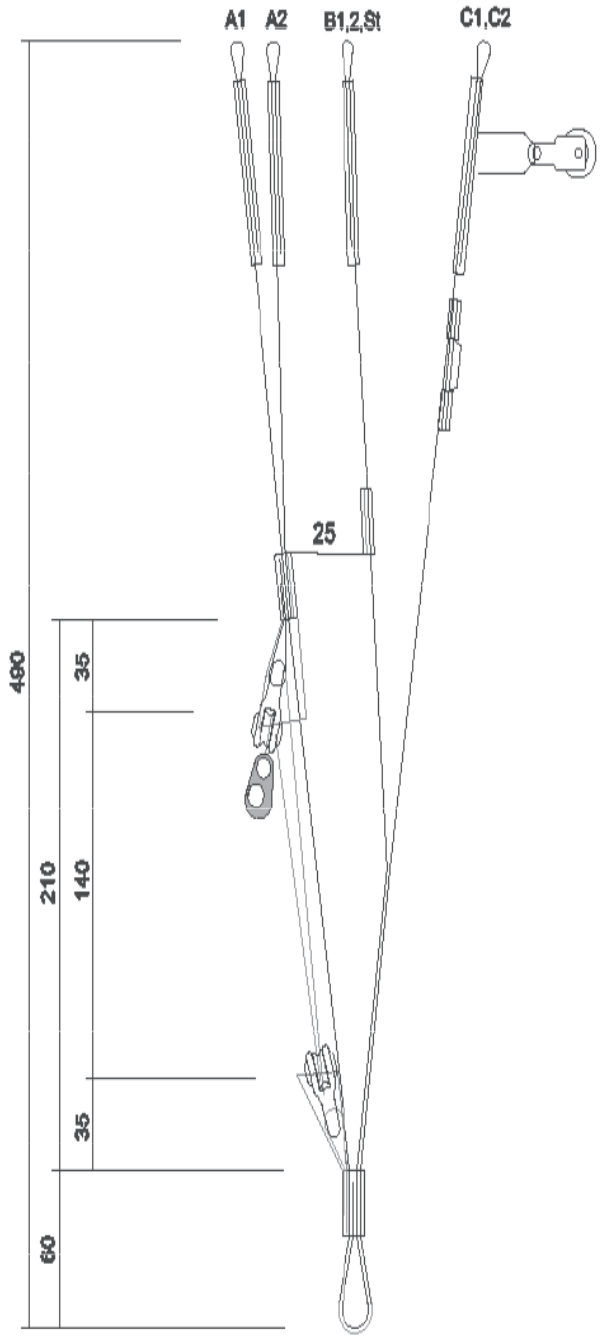


① **Obersegel / Top**
② **V-Tape**
③ **Profilrippen / Profil rips**
④ **Galerieleine / Galeryline**
⑤ **Untersegel / Bottom**
⑥ **Gabelleine / Gabelline**
⑦ **Stabiloleine / Stabiloline**
⑧ **Stammleine / Mainline**
⑨ **Tragegurte / Riser**

Risers

The A- and B-risers have different colors to ensure positive identification at take off and during a B-stall decent.

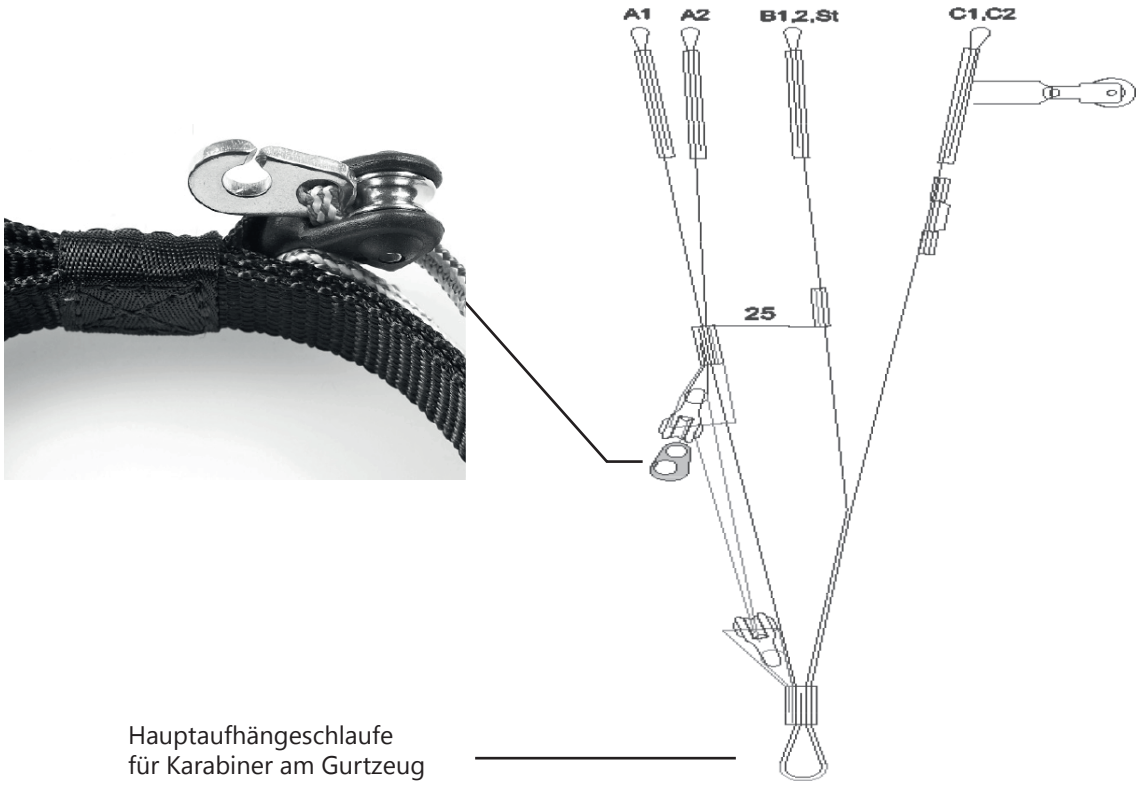
The risers of the Papillon FANCY consist of 22 mm High Tanacity Polyester Yarn from Techni Sangles, France.



Speed system

The Papillon FANCY is equipped with a very effective foot actutated speed system. It increases the speed when applied up to approx. 18 km/h, depending on the wing size and pilot weight or surface loading.

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



The speed system needs to be adjusted before the first flight. Therefore the connection lines of the foot extensor are being connected through the Brummel hooks with the speed system on the riser.

To be able to untertake the right adjustment the harness should be hung up so you can sit in flying position. The attached risers are best held up by someone else.

It should be adjusted in a way so that the pulleys are on top of each other and you have your legs stretched out. And you are also responsible to watch out that the speed system is adjusted symmetrically and not too short so the glider is not pre-accelerated in the flight.

THE FLIGHT

Flying experience

This manual is only focusing on the points of the technique of flying that are important for the Papillon FANCY. It cannot and should not replace a profound flight training in an approved flying school! Without flight training and according experience paragliding is life-endangering!

The Launch

The 5-point pre-launch check must be performed before each flight. It is helpful to have the check conducted additionally by a second pilot (partner check).

1. PILOT: All buckles, straps and clips of the harness closed? Leg straps closed? Carabiner untwisted and closed properly? Helmet on? Radio on?

2. LINES: Lines free? A–lines on top? Risers untwisted? Speed system attached and untwisted? Control lines free and not twisted?

3. CANOPY: Laid out in an arch? All chambers open?

4. WIND: From the right direction? Is the wind speed right?

5. AIRSPACE: Free on all sides?

The paraglider is laid out symmetrically in an arch, so that the canopy behind you can fill evenly from the centre. The center of the Papillon FANCY is marked on the leading edge.

You launch the wing by a metered pull on the front risers with your arms stretched back and down and running against the wind.

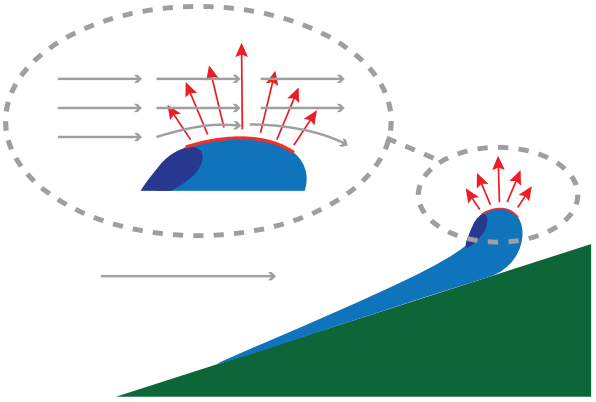
⚠ **NOTE: Unlike other gliders, it is not necessary to inflate the Papillon FANCY with aggressive pulling or even fast running. That is also true when there is little to zero wind. Measured pulling up is the simplest and safest way to launch the Papillon FANCY.**

Once the canopy is above you, you let go of the risers and only keep the control lines in hand. Keep running quickly, but not too fast, adapted to the wind situation. After a visual check of the canopy, for which you possibly apply some brake pressure to stabilize the wing, the acceleration phase begins. With big, bold steps and still arms you reach take-off speed.

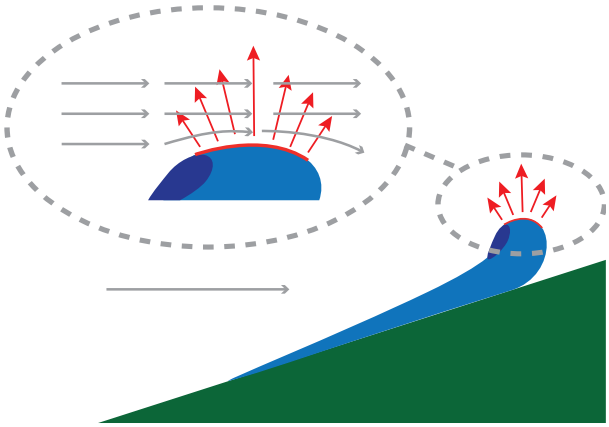
You take off the ground but remain ready to run in order to react to an unexpected drop. Only sit down with sufficient ground clearance. The control lines are not released.

In flat launch sites you pay attention to the acceleration phase. Large, long and expansive steps with little brake are ideal here. In steep terrain, on the other hand, you pull gently and apply brake pressure to stabilize. The glider must not be allowed to over shoot as collapses in the lift-off phase on steep slopes can become unpleasant. Since take off is very quick in steep terrain, it is a good idea to have an experienced pilot friend who observes and checks the take-off during the lift-up phase.

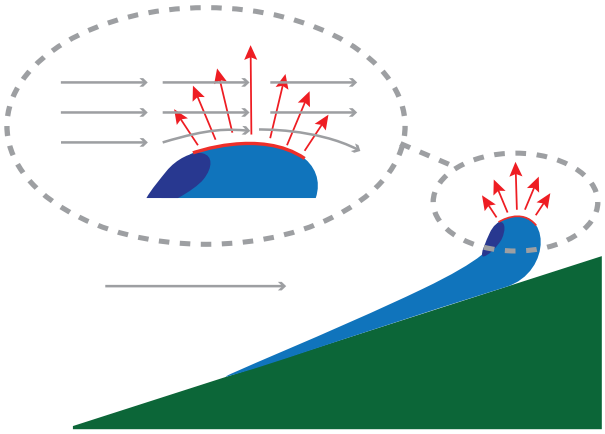
In flat terrain take-off may be more impulsive. After inflating and lifting the paraglider, perform a detailed visual check of the canopy. The running speed is reduced and adapted to the wind situation. In the steep launch site, the start is initiated with a small impulse and then a clear brake pull.



With an adequate launch impulse/input the canopy lifts off. The lifting force caused by the pronounced curvature of the profile at the leading edge is sufficient to lift a portion of the wing with its own weight.



As the canopy rises, the effective curved surface increases and with it the lifting force until it is strong enough to lift off the entire weight of the canopy.



Thereby and by the air entering the cell openings in the canopy's leading edge the profile becomes fully inflated. The forward force of the aerofoil profile accelerates the canopy forward. In order to stabilize the wing above the pilot a slight brake pull is used.

Reverse Launch

In strong winds and challenging conditions a reverse launch is recommended, as this allows better control of the canopy. Possible cravats and disorders of the canopy can be detected in the launch phase already. Thus, the control phase is simpler and an asymmetric rising of the wing can be corrected early on.

To perform a reverse launch, face the canopy and cross the risers when clipping in. If you want to turn to the right, turn the risers to the right before hooking-in and after sorting the lines. Make sure that the green loop is hooked into the carabiner on the right and the red loop into the carabiner on the left side.

Always untwist in the direction in which the upper riser is attached to the harness. Before lifting the wing, hold the brake lines and make sure that they are not twisted or reversed! Then take all the A-risers in one hand and step slightly out of the middle of the glider onto the side where you have only the control loop in your hand. With this control loop the ascent of the canopy is controlled until the canopy can be stabilized centrally above you.

Thereafter, take all A-risers in one hand. With the second hand, the rising of the canopy is controlled. To perfect the reverse launch technique, we recommend taking part in a reverse launch training.

Turning

The Papillon FANCY has a high agility and reacts to steering inputs directly and instantly. You can fly flat turns with little altitude loss by shifting your body weight. A combined steering technique of appropriate pull on the inner brake line and shift of body weight is the best way for a coordinated turn. The turn radius depends on the amount of pull on the brake line. At about 75 % of the brake line travel, the Papillon FANCY increases bank significantly and performs a fast steep turn that can lead to a spiral dive.

ATTENTION: A rapid pull on the brakeline may cause a negative spin!

Active Flying

The Papillon FANCY should be flown with light braking on both sides when there is turbulent air. An increased angle of attack provides better stability. When entering heavy thermals or strong turbulences be careful that the canopy does not get behind you. To avoid that, release the brakes a bit to get an increase in speed when entering the updraft. If the canopy gets in front of you when leaving an updraft or entering a downdraft, the brakes must be applied to counter that. Accelerated flight, however, is advisable when flying through downdraft zones.

The Papillon FANCY is naturally very stable due to its unique way of construction. Active flying in turbulent air (as described above) significantly increases safety. Collapsing and deforming of the canopy can be avoided through active flying.

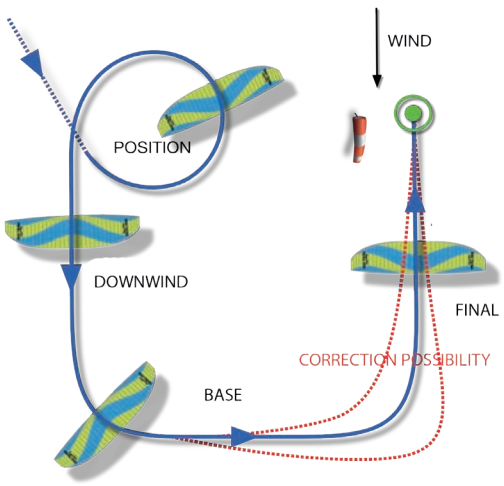
Landing

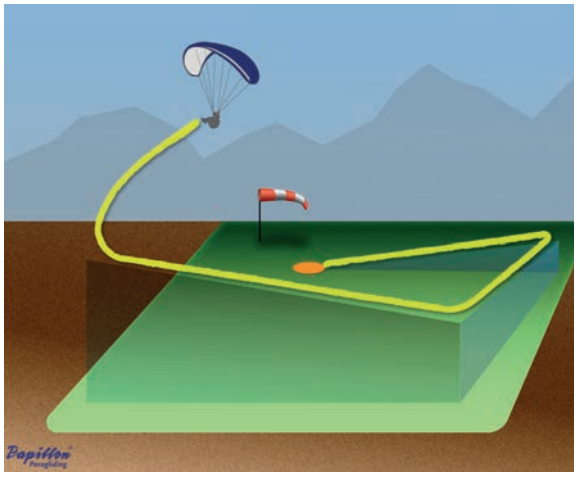
The landing should always be upwind. At a safe altitude the wind direction and strength are judged and the landing pattern and approach are planned.

The normal landing pattern begins at the position, where any remaining excess altitude is decreased, in case of a left pattern by flying left circles. The downwind, base and final legs follow. Final approach is into the wind.

Throughout the entire pattern the paraglider is flown with a slight brake pull for maximum canopy stability. The landing spot serves as a reference point and is constantly observed.

On the approach legs you have good correction possibilities (dashed red lines).





Straighten up in the harness at least 5 metres above ground. In about one metre above ground pull the brakes fully to perform a landing stall in order to reduce the rate of descent and airspeed. The touchdown is simplified and standing landings are easily possible.

Don't pull the brakes too early. Especially in the final approach it would be dangerous if a stall occurred in 3, 4 or 5 metres already. The best landings are those with a nice flare.

Due to its excellent flaring characteristics the Papillon FANCY is very easy to land, when the brake is applied at the right moment.

The final approach is carried out in trim speed, if possible. In thermal conditions a final approach with maximum canopy stability (10-20% brake pull) is recommended.

ATTENTION: Remember that landing requires your highest concentration again. So plan your landing in such a way that you are safely on the ground before your mental and physical performance diminishes.

Strong Wind Landings

In strong winds you fly several base legs before the landing point with semicircles into the wind (called an "eight setup"). Begin a short final approach into the wind in about 10 to 20 metres above ground using slight brake pressure.

Do not turn with the wind as airspeed and wind speed add up. A landing at a high ground speed could be dangerous.

After touchdown turn around quickly and bring the canopy down by using the C-risers in order to avoid being dragged across the ground.

Landing on Slopes

A landing on the slope is always done sideways to the slope and never against it due to the increasing risk of injury. Hang landings require some routine. At the beginning of the flying career areas with large landing fields are recommended.

Top Landings

Landings at the launch site require wind or thermals. Therefore, they are recommended only for experienced pilots with lots of groundhandling experience.

ATTENTION: During a strong wind take off attempt, ground handling and landing the leading edge can hit the ground with high speed. This is to be avoided because otherwise the ribs, the sewing or the fabric can be damaged!

RAPID DESCENT

In any situation where you have to get down ASAP for different reasons (e.g. thunderstorms, extreme updraft or other dangers) there are a couple of techniques to do so:

ATTENTION: The described maneuvers stress your paraglider more than normal and should only be performed for practice or in a real emergency situation!

„Big Ears“

Another important and in many cases recommended rapid descent method is called „Big Ears“. By pulling on the outer A-lines, the „ears“ of the paraglider (usually two to four cells) are collapsed. The sink rate increases, while the airspeed remains approximately constant. This can help, for example, to escape cloud suck, whereas in a spiral the paraglider would still remain in the area of suction under the cloud.

Both designated outer A2-risers (grab at or above the quick links) are being pulled down simultaneously for 15-20 cm to fold in the wing tips. The brake toggles are to be held in hand together with the pulled down A-lines.

For additional stability and for an increased sink rate the speedsystem should be actuated. The glider remains fully steerable by weightshifting and descends at an elevated sink rate (4-7m/sec, depending on how many cells are folded in).

Once the A-risers are released, the folded wingtips re-inflate automatically, if not, you may pump the brakes gently.

Due to the high wingload “big earing” is a very stable flight condition even in turbulent conditions. Please be aware that you reduce the trimspeed during “big ears”, but this can be compensated by applying the speedbar.

Since the wing loading increases and the airspeed remains roughly the same due to the greater drag, the stall speed increases.

The FANCY shows an unproblematic behaviour during this manoeuvre.

NOTE: The FANCY facilitates big ears with a special big ear aid (seperate riser with big ear icon).

B-Stall

This maneuvre offers the possibility to descend comfortably and safely: By pulling down the B-risers the wing is folded along its lateral axis and thereby stalled, which causes a sink rate of about 6 to 9 metres per second.

Entry

Keep the brake handles in your hands. Sit up and at the same time take the B-risers. Make sure that really the B-risers are taken and not the C-risers. This could happen if a pilot incorrectly starts counting from the trailing edge instead of the leading edge of the wing.

NOTE: The FANCY facilitates big ears with special big ear aid (separate riser with big ear icon).

With the Papillon FANCY the B risers are labelled to avoid confusion.

The B-risers are pulled down slowly, thus slowing down the entire paraglider. After a pull of about 15-20 cm the stall occurs. Slowed down like this, the canopy barely falls behind the pilot with an increasing sink rate.

The Manoeuvre

Look immediately upwards, if the desired B-stall occurred. Then look down to control the loss of altitude and the area below you. Then alternately look upwards and downwards.

Should an atypical deformation of the canopy occur, immediately release the B-risers and recover from the manoeuvre. A slight turning tendency is normal, because the manoeuvre often cannot be initiated 100 percent symmetrical. The wind may also have an influence. If the change in direction feels unpleasant, just recover and repeat the manoeuvre.

Recovery

By a brisk - but most importantly symmetrical - release of the B-risers, the manoeuvre is terminated. The canopy dives forward to reattach the airflow and end the stall. Do not prevent this pitching forward by braking. Pilots with an active flying style tend to stop this desired pitching moment.

The difference of the forward pitching moment after a B-stall and the pitching moment after a thermal flight is that the paraglider needs to accelerate after a B-stall while it simply swings back and forth in the turbulences caused by thermals.

ADVANCED HANDLING

Even though the Papillon FANCY has a very high aerodynamic stability it is possible that the glider gets into an extreme flight situation due to pilot errors or turbulent air. The best method to stay calm and react correctly is to take part in a flight safety course. The pilot will learn to manage extreme flight situation under professional supervision. Extreme flight maneuvers may only be executed in calm air and in sufficient altitude under professional supervision (e.g. safety training). Once again we mention that a rescue system is required by the law. The following extreme flight figures and flight maneuvers can either be caused intentionally, through turbulences or through pilot errors. Every pilot can get into these flight situations! All mentioned extreme flight figures and maneuvers are dangerous if performed without the appropriate knowledge, enough altitude or necessary introduction. A wrong execution of these described figures and maneuvers may have fatal consequences!

Spiral Dive

Like a normal turn, initiating the spiral dive is easy with the Papillon FANCY.

ATTENTION: The spiral is considered an extreme manoeuvre and should be flown only under expert guidance above water. Owing to the high physical stress the manoeuvre is only recommended for experienced pilots.

Entry

For a first circle a turn is flown tighter with body weight and inner brake. For the 2nd circle the bank is increased. The outer brake line is also pulled with increasing speed. In the 3rd circle the wing banks into the spiral and reaches sink rates of about 10 m/s.

Spiral phase

With the outer brake (10 to 30%) you can control the bank angle, the sink rate and the speed during the manoeuvre. Thereby a G-load of about 2.5 to 4 acts on the body.

Note: The wing should not be forced into the spiral too quickly as this could cause a stall on one side with extreme sink rates, the wing could even flip over.

Recovery

To recover from a spiral release the brake pressure on the inner brake, neutralize the body weight and increase the pressure on the outer brake. Before being fully recovered, the paraglider will continue to turn for one or two more circles. The speed and bank angle will be reduced. The regulation takes place via the outer brake.

Note: Trying to recover too quickly can cause a collapse when the wing swings behind the pilot. When recovering too slowly, a full recovery might not be achieved and the rapid loss of altitude may continue. If that happens, the dynamic may be reduced by applying brakes on both sides. The brake pressure increases during the manoeuvre because of the increased G-force. If the recovery is not possible, deploy the rescue!

⚠ **ATTENTION: If the initiation is too fast there is a danger of a spin, in this case release the brakes and try a smoother initiation.**

Wingover

The pilot has to perform right and left turns with increasing bank until the desired angle is reached. Collapsing wingtips are prevented by gently applying brake pressure in the up- and/or down-swing of the wingover. Normally there is no danger of collapsing wing tips with the Papillon FANCY except for when there is a very high bank. With shifting the bodyweight while applying the brake it is possible to fly the highest possible wingovers.

Full Frontal

A negative AoA caused by turbulences or the simultaneous pull-down of the A-risers by the pilot, results in a frontal collapse of the leading edge. The Papillon FANCY recovers from a frontstall by itself very quickly. Smooth and symmetric applying of the brake positively influences the re-opening of the canopy.

Collapses

Even with its high stability and very well responses in turbulences, strong turbulences can cause the canopy of the Papillon FANCY to collapse. Usually that situation is not dangerous and resolves itself automatically without any further input. To support the recovery, firmly apply the brakes on the affected side and simultaneously steer opposite to the open side. When a large part of the canopy collapses the counter steering is to be exercised in moderation in order to avoid a complete interruption of the airflow.

How to avoid collapses

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

The best way to avoid collapses upfront is the right choice of the paraglider. A lot of pilots fly a glider that is a little too hot to handle for them. So why don`t you get a glider with a lower rating but in the end fly better and higher in the updrafts and have a lot more fun and by the way be safer, too. To optimize the feeling for your glider on the ground, try the following:

Practice on the ground with the right wind at a suitable location. Slowly pull up the canopy and try to hold it up as long as possible without looking at it. That is a good way to improve the feeling for your glider and is a prerequisite for „active flying" (the key to avoid collapses). Very important is also a close look at the terrain. Watch for obstacles that could cause turbulences (buildings, trees, ...). On certain days, for example a freshly mowed meadow as landing field, could cause a lot of thermal activity.

Fly very alert on a thermally active day. Watch your canopy, collapses most of the time, announce themselves. Light braking in turbulences mostly avoids a collapse. You should have already practiced that on the ground. Should a collapse occur close to the ground don`t always try to prevent a turn away. There is a danger when the braking on the open side is to strong, to lose the airflow on this side and stall the glider. Rather use the turn away motion to try to open the collapsed side.

Apply smooth braking on the open side, depending on the size of the collapse, and maybe a little pumping action. Some canopies open a lot better when the brakes are fully applied once on the according side, but that depends on the brakelines adjustment and your armlength.

Wrapped lines are cleared by braking the opposite side at enough altitude and pumping the affected side a couple of times. Watch out for a possible stall. If that does no clear the situation, try to pull dow the outer lines as much as possible. If you are too low for that, stabilize the canopy on the opposite side avoid turning away, and leave the lines like they are. Instead of any risky manoeuvres rather concentrate on the landing. In the end one more advice in order to have all kinds of situations under control.

Visit a safety-training above water. There is no better way to practice the right behaviour than simulating a dangerous situation. Don`t get caught off guard by your first collapse. In addition, during safety-training you can familiarize yourself with the particulars of your equipment and you gain confidence in your gliders as well as your own abilities.

Thus far the expert advice concerning collapses by Ernst Strobl.

Deep Stall

If the wing stalls but is still filled with air, you are in a deep stall. Strictly speaking, this is not a flight because no airflow is attached to the canopy. Further brake pull leads to a full stall, a stall with partial emptying of the canopy, forward folded ears and backward flight.

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

ATTENTION: Practicing stalls should be done with enough safe altitude. Never apply asymmetric brakes during a stall, it could cause a spin.

ATTENTION: If the FANCY is in deep stall, the brake should only be released after approx. 3 seconds if the height above ground is sufficient. The glider will finish the manoeuvre on its own. In case of low altitude or little flight experience we recommend deploying the rescue system.

Fullstall

The stall is recognized by the decrease of wind noises and by a high rate of descent (5 - 20m/s).

There can be several causes: pilot errors (too much brake application, changing wind conditions or deficiencies of the canopy (high air permeability due to aging).

The pilot should allow the wing to re-establish airflow. Modern paragliders like the Papillon FANCY recover independently. To do so, release the brakes (but keep them in your hands), so that the wing can accelerate again.

Partial Stall

A stall can also occur on one side only by a rapid strong pull on one brake. The wing enters a sudden, highly accelerated rotation around its vertical axis, with almost no bank. This uncontrollable flight condition is called (flat) spin. The pilot releases the brakes.

The secure paragliders of the new generation end a spin independently and immediately. In a stable spin with sufficient altitude, the manoeuvre can be terminated with a full stall, at a lower altitude you have to deploy the reserve.

Negative Turn

A negative turn/spin is initiated, when the pilot pulls the brake on one side fast and completely through to the point of stall while letting the other brake partly free. With a negative turn the glider turns relatively fast around its center, while the inside flies backwards.

In order to exit a negative spin, the applied brake is released, where the stalled side of the wing can pick up speed or one exits though a full stall, by braking the flying side into a stall as well.

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

ATTENTION: Fullstalls and negative turns/spins as a descent method are dangerous, because a wrong exit, regardless of glider type, can have fatal consequences.

Emergency Piloting

In any situation where normal steering is not possible, the Papillon FANCY can easily be steered and landed with the back risers. Turns can be flown with weightshift, however be careful that the glider doesn`t lock into a spiral.

Transport and storage

When transporting the glider don't expose it to any liquids. It has to be packed completely dry. Always store the FANCY away from UV radiation. Furthermore never store the wing together with acids or similar goods. A dry storage is of utmost importance!

ATTENTION: After a longer storage period the glider needs to be checked.

Repairs

Basically only authorized service centers may execute repairs on paragliders. Small damages like tears or small holes up to a size of 2 x 2 cm, where a repair without special equipment is possible, the pilot may do by himself. The included self-sticky tape from the repair-kit is to be used for that. Tears or holes need to be fixed from both sides. Please take care that the repair tape sticks out at least 2cm beyond the damaged area on all sides. The self-sticky tape can be cut into the right form. Rounding off the corners prevents it from becoming detached.

MAINTENANCE AND CARE

Maintenance and care

Since only high-quality material is used for the Papillon FANCY it will be unrelievedely airworthy for many years at good care and maintenance. The aging of your Papillon FANCY depends on the total flying time, the conditions in which you fly in, the amount of UV radiation it is exposed to and the intensity and quality of care. A couple of tips for maintenance and care:

Long lasting exposure to UV radiation and extreme acro maneuvers reduce the strength of every material over time.

- Do not leave your Papillon FANCY out in the sun more than necessary, but put it back into the backpack after your flight.
- Consider the choice of terrain when choosing a take-off site to lay out your glider.
- Placing the opening reinforcements on top of each order prolongs the life time of your glider.
- Do not drag your glider on the ground and pack it on a patch of grass.

Please consider that:
- the lines need to be checked for damage regularly.
- the lines are not being bent unnecessarily and you don't step on the lines when laying out the glider.
- lines need to be checked after overloads (tree or water landings etc.) for their strength and correct length and exchanged if necessary.
- lines need to be checked for their correct length in case of changing inflight handling characteristics.
- the main brake lines aren't knotted too many times at the grip since every knot weakens the line.

To clean the canopy only use warm water and a soft sponge. Never apply any chemicals for cleaning, since they weaken the material and damage the coating. Store your glider at a dry and dark location away from any chemicals. After 24 months or 150 flighthours, whichever occurs first, your Papillon FANCY has to be inspected by the manufacturer or importeur. In case of extreme use we are glad to do that earlier. You know best about the condition of your glider.

Nature and environment-friendly behaviour

We ask you to perform our sport in a manner, that impacts nature and environment with minimum intensity. Please do not walk off marked paths, don`t leave any waste, don't make noise uselessly and respect the sensitive biological equilibrium in the mountains. Especially at take-off areas maximum care for nature is necessary.

The synthetic materials your glider is build of must be depolluted appropriately. At the end of its life-cycle please return your glider to us, we will take care of recycling and removal.

FLYING ACCESSORIES

Harness

All certified harness systems with mounting at about breast height are compatible with the Papillon FANCY. The lower the mounting point of the harness, the better you can steer the Papillon FANCY by shifting your bodyweight.

Please keep in mind, that also your harness is exposed to extreme loads.

If you have any questions regarding the use of your harness with the Papillon FANCY, please contact us. We are happy to help!

Suitable Rescue Systems

It is required by law and absolutely neccessary for safe operation of your paraglider that you always carry a rescue system.

When choosing your rescue system, watch out that it is approved and suitable for the intended takeoff weight.

In the Papillon Shops we will be pleased to advise you personally and assist you with the choice of the flight equipment, which best suits your needs and requirements.

PRESUMPTION OF RISK

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

Liability claim and renouncement of exclution

With the completion of the purchase of a Papillon FANCY you express your in consent with the following points of legal specifications:

THE RENOUNCEMENT EXCLUSION OF ALL LIABILITY CLAIMS,

deriving from the use of the Papillon FANCY and or either compenents thereof, now or in the future, against the PAPILLON PARAGLIDERS - GLEITSCHIRM DIREKT GmbH and all other contracting parties.

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

Safety Advice and Liability

This glider complies with EAPR regulations, for the tested type, at time of delivery (see appendix). Any unauthorized alteration is followed by the expiration of the operating licence! The operation of the glider is at your own risk and the pilot needs to make sure that the aircraft is checked for its airworthyness before every flight. We also take it as a given that the pilot is in posession of the required certificate of qualification and that the given legal requirements are met. Use of the equipment is at your own risk! The manufacturer and the dealer don`t take any liability for accidents and possible consequential damages. Please consider all safety notes, cautions and warnings for safe flying.

RELEASE OF LIABILITY, RENOUNCEMENT OF ENTITLEMENT

Hereby you declare, that - prior to use of the Papillon FANCY - you have read and understood the Papillon FANCY user manual in its entirety, including directions and warnings, which are included in this user manual.

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

Place and date

Signature of the first pilot

Place and date

Signature of the second pilot

Place and date

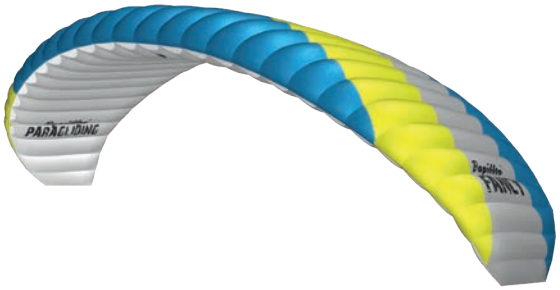
Signature of the third pilot

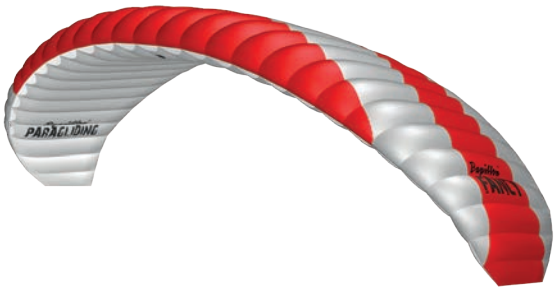
PAPILLON PARAGLIDERS - GLEITSCHIRM DIREKT GmbH does not take responsibility, liabiltiy and/or guarentee for inspections and repairs that are not porformed by Papillon.

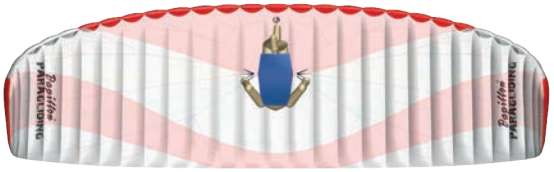
TECHNICAL DATA PAPILLON FANCY

	55	60	65	75	90	110
Start weight Startgewicht	55-75 kg	60-80 kg	65-90 kg	75-100 kg	90-120 kg	100-140 kg
Flat area Fläche ausgelegt	22 m^2	24 m^2	26 m^2	28 m^2	30,5 m^2	33,5 m^2
Projected area Fläche projiziert	18,81 m^2	20,52 m^2	22,23 m^2	23,94 m^2	26,8 m^2	28,65 m^2
Flat wingspan Spannweite ausgelegt	9,95 m	10,39 m	10,81 m	11,22 m	11,71 m	12,27 m
Projected wingspan Spannweite projiziert	7,9 m	8,26 m	8,59 m	8,92 m	9,31 m	9,75 m
Flat AR Streckung ausgelegt	4,5	4,5	4,5	4,5	4,5	4,5
Projected AR Streckung projiziert	3,32	3,32	3,32	3,32	3,32	3,32
Chord: center / wingtip Flügeltiefe: Mitte / Stabilo	2,67 / 0,752 m	2,788 / 0,786 m	2,902 / 0,817 m	3,012 / 0,849 m	3,143 / 0,885 m	3,294 / 0,928 m
V-trim V-Trimm	37-38 km/h	37-38 km/h	37-38 km/h	37-38 km/h	37-38 km/h	37-38 km/h
V-max V-Max.	47-48 km/h	47-48 km/h	47-48 km/h	47-48 km/h	47-48 km/h	47-48 km/h
Bridle height Abstand Tragegurt-Kappe	6,368 m	6,651 m	6,923 m	7,184 m	7,498 m	7,858 m
Nr. of cells Zellenanzahl	29	29	29	29	29	29
Glider weight Gewicht	4,4 kg	4,7 kg	4,95 kg	5,25 kg	5,6 kg	6,1 kg
Bridle length Gesamt Leinenlänge	242,5 m	255 m	266,9 m	278,3 m	292,1 m	307,9 m
Line diameter Leinenduchmesser	0,95 / 1,65 / 1,8 2,2 mm	0,95 / 1,65 / 1,8 2,2 mm	0,95 / 1,65 / 1,8 2,2 mm	0,95 / 1,65 / 1,8 2,2 mm	0,95 / 1,65 / 1,8 2,2 mm	0,95 / 1,65 / 1,8 2,2 mm
Speed system / trimmer Fuß Beschleuniger / Trimmer	Yes / No Ja / Nein	Yes / No Ja / Nein	Yes / No Ja / Nein	Yes / No Ja / Nein	Yes / No Ja / Nein	Yes / No Ja / Nein
Certification Zulassung	EN-A / LTF-A	EN-A / LTF-A	EN-A / LTF-A	EN-A / LTF-A	EN-A / LTF-A	EN-A / LTF-A
Certified standards and procedures Angewandte Testverfahren	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2	LTF 91/09 EN 926/1 & 926/2
Folding lines used for certification Faltleinen für Testflüge benutzt	No Nein	No Nein	No Nein	No Nein	No Nein	No Nein
Certification No. Zulassungsnummer	DHV GS-01-2099-13	DHV GS-01-2045-13	DHV GS-01-2049-13	DHV GS-01-2044-13	DHV GS-01-2050-13	–

COLOR-INFO



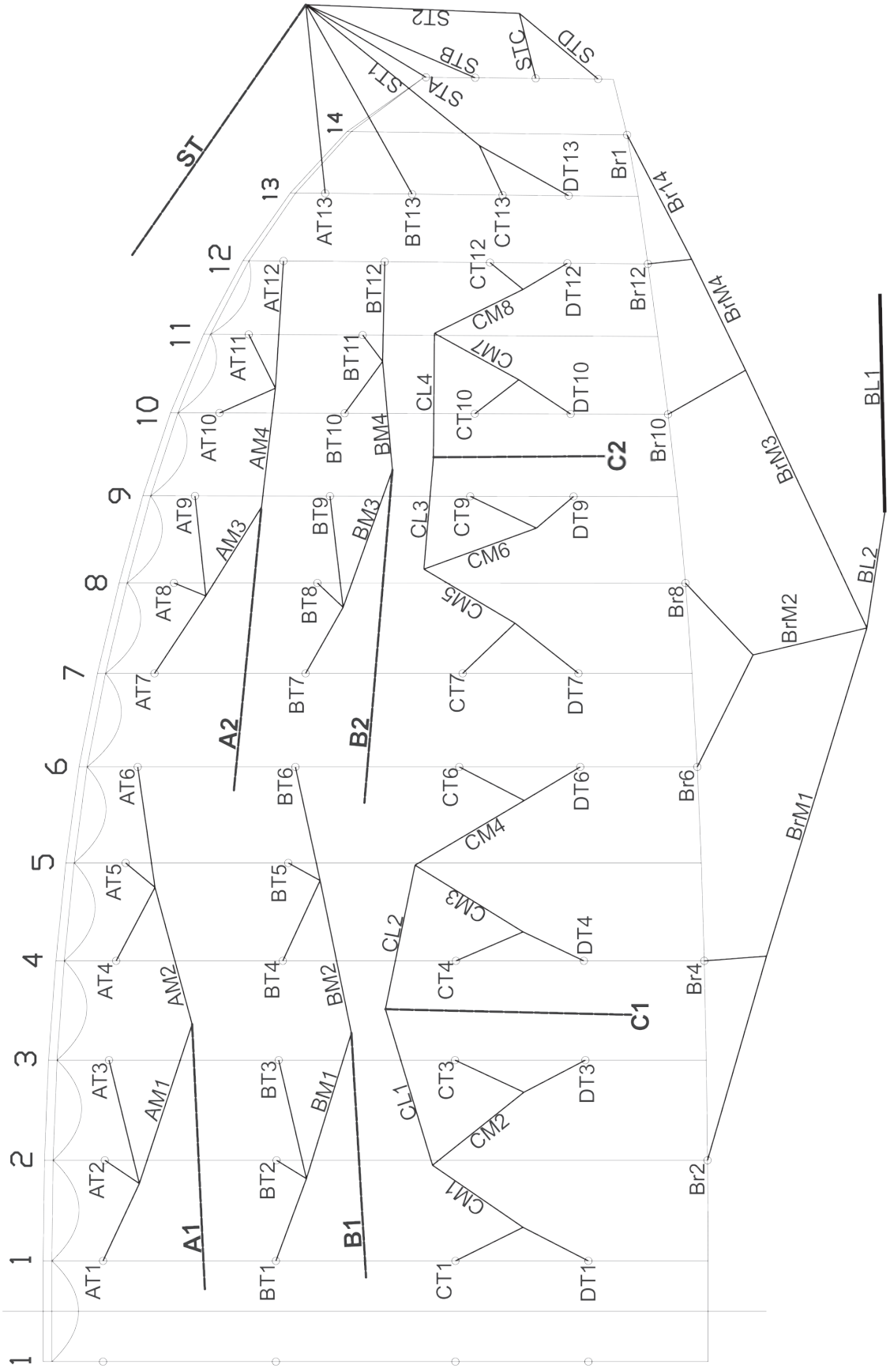




Color 1

Color 2

LINE CODE FANCY



LINE PLAN FANCY 55

Fancy 55 line plan rev4						From Line plan
A-Lines						
Rib # 1	1413	1906	2668			5987
Rib # 2	1330					5903
Rib # 3	1330					5903
Rib # 4	1348	1870				5887
Rib # 5	1325					5864
Rib # 6	1384					5922
Rib # 7	1319	1640	2903			5862
Rib # 8	1241					5784
Rib # 9	1241					5784
Rib # 10	1210	1640				5753
Rib # 11	1176					5719
Rib # 12	1186					5729
b # 13 to Stabi	1401					5549
Rib # Stabilo	1046					5194
B-Lines						
Rib # 1	1413	1906	2584			5903
Rib # 2	1330					5819
Rib # 3	1330					5819
Rib # 4	1350	1870				5804
Rib # 5	1330					5784
Rib # 6	1391					5845
Rib # 7	1315	1640	2850			5804
Rib # 8	1241					5731
Rib # 9	1241					5731
Rib # 10	1214	1640				5704
Rib # 11	1185					5675
Rib # 12	1190					5679
b # 13 to Stabi	1320					5468
Rib # Stabilo	1096		4148			5244
C-Lines						
Rib # 1	904	749	1596	2730		5979
Rib # 3	893	674				5893
Rib # 4	882	674	1596			5881
Rib # 6	858	749				5933
Rib # 7	846	665	1418	2952		5880
Rib # 9	766	665				5801
Rib # 10	745	656	1418			5770
Rib # 12	722	656				5748
b # 13 to Stabi	853	532				5533
Rib # Stabilo	629					5310
D-Lines						
Rib # 1	1068					6143
Rib # 3	1057					6056
Rib # 4	1042					6041
Rib # 6	1006					6081
Rib # 7	987					6021
Rib # 9	894					5929
Rib # 10	860					5886
Rib # 12	805					5831
b # 13 to Stabi	960					5640
Rib # Stabilo	745	532				5426
Brake-Lines						
Rib # 2	1684	3058		265	1650	6657
Rib # 4	1425				**. +200**	6398
Rib # 6	1464	2792				6172
Rib # 8	1399					6106
Rib # 10	1728		2482			6125
Rib # 12	905	847				6148
Rib # 14	832					6076

FANCY 60

FANCY 60	line plan		Rev. 5 final		DHV Vermessung Final Check Sheet
A-Lines					
Rib # 1	1476	1991	2764		**6221**
Rib # 2	1389				**6134**
Rib # 3	1389				**6131**
Rib # 4	1408	1953			**6114**
Rib # 5	1384				**6087**
Rib # 6	1445				**6150**
Rib # 7	1378	1713	3032		**6108**
Rib # 8	1296				**6024**
Rib # 9	1296				**6026**
Rib # 10	1264	1713			**5992**
Rib # 11	1229				**5956**
Rib # 12	1239				**5966**
Rib # 13 to Stabilo	1475				**5799**
Rib # Stabilo	1095				**5416**
B-Lines					
Rib # 1	1476	1991	2687		**6145**
Rib # 2	1389				**6058**
Rib # 3	1389				**6059**
Rib # 4	1410	1953			**6040**
Rib # 5	1389				**6019**
Rib # 6	1453				**6082**
Rib # 7	1373	1713	2967		**6041**
Rib # 8	1296				**5962**
Rib # 9	1296				**5964**
Rib # 10	1268	1713			**5938**
Rib # 11	1238				**5903**
Rib # 12	1237				**5903**
Rib # 13 to Stabilo	1379				**5704**
Rib # Stabilo	1144		4333		**5468**
C-Lines					
Rib # 1	944	782	1666	2847	**6223**
Rib # 3	933	704			**6134**
Rib # 4	921	704	1666		**6122**
Rib # 6	896	782			**6174**
Rib # 7	883	694	1481	3080	**6120**
Rib # 9	800	694			**6037**
Rib # 10	778	685	1481		**6007**
Rib # 12	755	685			**5984**
Rib # 13 to Stabilo	891	555			**5764**
Rib # Stabilo	657				**5531**
D-Lines					
Rib # 1	1115				**6397**
Rib # 3	1107				**6310**
Rib # 4	1062				**6265**
Rib # 6	1025				**6304**
Rib # 7	1005				**6245**
Rib # 9	909				**6147**
Rib # 10	873				**6103**
Rib # 12	841				**6064**
Rib # 13 to Stabilo	1003				**5874**
Rib # Stabilo	779	555			**5660**
Brake-Lines					
Rib # 2	1820	3194	**390**	**1650**	**7073**
Rib # 4	1489			**. +200**	**6742**
Rib # 6	1529	2916			**6512**
Rib # 8	1461				**6439**
Rib # 10	1804		2592		**6455**
Rib # 12	945	884			**6478**
Rib # 14	869				**6402**

FANCY 65

FANCY 65 line plan rev5						Check Sheet Final
A-Lines						
Rib # 1	1536	2072	2885			6479
Rib # 2	1445					6389
Rib # 3	1445					6388
Rib # 4	1466	2033				6368
Rib # 5	1441					6343
Rib # 6	1504					6404
Rib # 7	1434	1783	3156			6357
Rib # 8	1349					6272
Rib # 9	1349					6272
Rib # 10	1315	1783				6236
Rib # 11	1279					6201
Rib # 12	1289					6206
Rib # 13 to Stabilo	1523					6018
Rib # Stabilo	1137					5632
B-Lines						
Rib # 1	1536	2072	2793			6388
Rib # 2	1445					6297
Rib # 3	1445					6291
Rib # 4	1468	2033				6275
Rib # 5	1445					6252
Rib # 6	1512					6318
Rib # 7	1429	1783	3098			6290
Rib # 8	1349					6214
Rib # 9	1349					6210
Rib # 10	1320	1783				6182
Rib # 11	1288					6150
Rib # 12	1293					6154
Rib # 13 to Stabilo	1435					5932
Rib # Stabilo	1191		4510			5688
C-Lines						
Rib # 1	983	814	1735	2953		6459
Rib # 3	971	732				6366
Rib # 4	959	732	1735			6351
Rib # 6	933	814				6408
Rib # 7	919	723	1542	3200		6358
Rib # 9	833	723				6275
Rib # 10	809	713	1542			6246
Rib # 12	775	713				6209
Rib # 13 to Stabilo	927	578				6003
Rib # Stabilo	684					5757
D-Lines						
Rib # 1	1161					6641
Rib # 3	1149					6543
Rib # 4	1132					6527
Rib # 6	1094					6568
Rib # 7	1073					6511
Rib # 9	972					6416
Rib # 10	935					6374
Rib # 12	875					6303
Rib # 13 to Stabilo	1044					6114
Rib # Stabilo	810	578				5876
Brake-Lines						
Rib # 2	1831	3325		470	1650	7240
Rib # 4	1550				**. +200**	6959
Rib # 6	1592	3035				6714
Rib # 8	1521					6642
Rib # 10	1878		2698			6661
Rib # 12	984	920				6680
Rib # 14	905					6601

FANCY 75

FANCY 75		line plan Rev. 6				Lineplan		DHV Check Sheet Length
A-Lines								
Rib # 1	1594	2150		2990		6734		**6726**
Rib # 2	1500					6640		**6633**
Rib # 3	1500					6640		**6632**
Rib # 4	1521	2110				6621		**6613**
Rib # 5	1495					6595		**6586**
Rib # 6	1561					6661		**6653**
Rib # 7	1488	1850		3275		6613		**6606**
Rib # 8	1400					6525		**6518**
Rib # 9	1400					6525		**6517**
Rib # 10	1365	1850				6490		**6483**
Rib # 11	1327					6452		**6445**
Rib # 12	1338					6463		**6454**
Rib # 13 to ST	1580					6260		**6253**
Rib # Stabilo	1180					5860		**5855**
B-Lines								
Rib # 1	1594	2150		2915		6659		**6652**
Rib # 2	1500					6565		**6558**
Rib # 3	1500					6565		**6558**
Rib # 4	1523	2110				6548		**6541**
Rib # 5	1500					6525		**6517**
Rib # 6	1569					6594		**6586**
Rib # 7	1483	1850		3215		6548		**6540**
Rib # 8	1400					6465		**6458**
Rib # 9	1400					6465		**6458**
Rib # 10	1370	1850				6435		**6428**
Rib # 11	1337					6402		**6396**
Rib # 12	1342					6407		**6400**
Rib # 13 to ST	1489					6169		**6163**
Rib # Stabilo	1236			4680		5916		**5910**
C-Lines								
Rib # 1	1020	845	1800	3080		6745		**6740**
Rib # 3	1008	760				6648		**6644**
Rib # 4	995	760	1800			6635		**6630**
Rib # 6	968	845				6693		**6688**
Rib # 7	954	750	1600	3330		6634		**6628**
Rib # 9	864	750				6544		**6538**
Rib # 10	840	740	1600			6510		**6504**
Rib # 12	815	740				6485		**6478**
Rib # 13 to ST	962	600				6242		**6238**
Rib # Stabilo	710					5990		**5986**
D-Lines								
Rib # 1	1205					6930		**6922**
Rib # 3	1192					6832		**6828**
Rib # 4	1175					6815		**6807**
Rib # 6	1135					6860		**6852**
Rib # 7	1113					6793		**6787**
Rib # 9	1009					6689		**6683**
Rib # 10	970					6640		**6633**
Rib # 12	908					6578		**6571**
Rib # 13 to ST	1083					6363		**6358**
Rib # Stabilo	841	600				6121		**6118**
Brake-Lines								
Rib # 2	1978	3450		**450**	**1650**	7528		**7535**
Rib # 4	1608				**. +150**	7158		**7167**
Rib # 6	1652	3150				6902		**6911**
Rib # 8	1578					6828		**6836**
Rib # 10	1949		2800			6849		**6855**
Rib # 12	1021	955				6876		**6882**
Rib # 14	939					6794		**6799**

FANCY 90

FANCY 90	line plan rev 5					Check Sheet Final
A-Lines						
Rib # 1	1664	2244	3133			7030
Rib # 2	1566					6929
Rib # 3	1566					6929
Rib # 4	1587	2202				6909
Rib # 5	1560					6880
Rib # 6	1629					6950
Rib # 7	1553	1931	3418			6890
Rib # 8	1461					6798
Rib # 9	1461					6799
Rib # 10	1425	1931				6759
Rib # 11	1385					6721
Rib # 12	1396					6730
b # 13 to Stabi	1649					6521
Rib # Stabilo	1232					6104
B-Lines						
Rib # 1	1664	2244	3033			6930
Rib # 2	1566					6831
Rib # 3	1566					6827
Rib # 4	1590	2202				6812
Rib # 5	1566					6788
Rib # 6	1638					6858
Rib # 7	1548	1931	3354			6820
Rib # 8	1461					6732
Rib # 9	1461					6730
Rib # 10	1430	1931				6699
Rib # 11	1395					6665
Rib # 12	1400					6669
b # 13 to Stabi	1554					6426
Rib # Stabilo	1290		4884			6162
C-Lines						
Rib # 1	1065	882	1879	3205		7010
Rib # 3	1052	793				6907
Rib # 4	1038	793	1879			6895
Rib # 6	1010	882				6954
Rib # 7	996	783	1670	3467		6898
Rib # 9	902	783				6805
Rib # 10	877	772	1670			6769
Rib # 12	843	772				6737
b # 13 to Stabi	1004	626				6502
Rib # Stabilo	741					6239
D-Lines						
Rib # 1	1258					7203
Rib # 3	1244					7100
Rib # 4	1226					7082
Rib # 6	1185					7128
Rib # 7	1162					7061
Rib # 9	1053					6958
Rib # 10	1012					6900
Rib # 12	948					6835
b # 13 to Stabi	1130					6621
Rib # Stabilo	878	626				6373
Brake-Lines						
Rib # 2	1983	3601		605	1650	7849
Rib # 4	1678				**. +200**	7544
Rib # 6	1724	3288				7276
Rib # 8	1647					7200
Rib # 10	2034		2922			7218
Rib # 12	1066	997				7249
Rib # 14	980					7160

PAPILLON FANCY 110

FANCY 110 line plan rev4					From Line plan
A-Lines					
Rib # 1	1744	2352	3292		7388
Rib # 2	1641				7285
Rib # 3	1641				7285
Rib # 4	1664	2308			7264
Rib # 5	1635				7236
Rib # 6	1707				7308
Rib # 7	1628	2024	3582		7233
Rib # 8	1531				7137
Rib # 9	1531				7137
Rib # 10	1493	2024			7099
Rib # 11	1451				7057
Rib # 12	1464				7069
b # 13 to Stabi	1728				6847
Rib # Stabilo	1291				6410
B-Lines					
Rib # 1	1744	2352	3188		7284
Rib # 2	1641				7181
Rib # 3	1641				7181
Rib # 4	1666	2308			7162
Rib # 5	1641				7137
Rib # 6	1716				7213
Rib # 7	1622	2024	3517		7162
Rib # 8	1531				7072
Rib # 9	1531				7072
Rib # 10	1499	2024			7039
Rib # 11	1462				7003
Rib # 12	1468				7008
b # 13 to Stabi	1629				6748
Rib # Stabilo	1352		5119		6471
C-Lines					
Rib # 1	1116	924	1969	3369	7378
Rib # 3	1103	831			7272
Rib # 4	1088	831	1969		7257
Rib # 6	1059	924			7321
Rib # 7	1043	820	1750	3642	7256
Rib # 9	945	820			7158
Rib # 10	919	809	1750		7121
Rib # 12	891	809			7093
b # 13 to Stabi	1052	656			6828
Rib # Stabilo	777				6552
D-Lines					
Rib # 1	1318				7580
Rib # 3	1304				7473
Rib # 4	1285				7454
Rib # 6	1241				7504
Rib # 7	1217				7430
Rib # 9	1104				7317
Rib # 10	1061				7263
Rib # 12	993				7195
b # 13 to Stabi	1185				6960
Rib # Stabilo	920	656			6695
Brake-Lines					
Rib # 2	2078	3774	713	1650	8215
Rib # 4	1759			**. +200**	7896
Rib # 6	1807	3446			7615
Rib # 8	1726				7535
Rib # 10	2132		3063		7558
Rib # 12	1117	1045			7587
Rib # 14	1027				7497

REQUIREMENT FOR LTF/EN A-CERTIFICATION

Harness-Dimensions

Weight	A-dimension	B-dimension
< 50 kg	38 cm	38 cm
50-80 kg	42 cm	42 cm
> 80 kg	46 cm	46 cm

Control Travel

FANCY Size	max. symmetrical control travel at max. weight
55	> 55 cm
60	> 60 cm
65	> 60 cm
75	> 60 cm
90	> 65 cm
110	> 65 cm

INSTRUCTION LEAFLET FOR REPAIRS & 2-YEARLY-CHECK

Last name:	First name:
Street address:	ZIP code, city:
Country:	Phone number:
E-mail address:	
Glider model and color:	
Serialnumber:	
Coments/notes:	

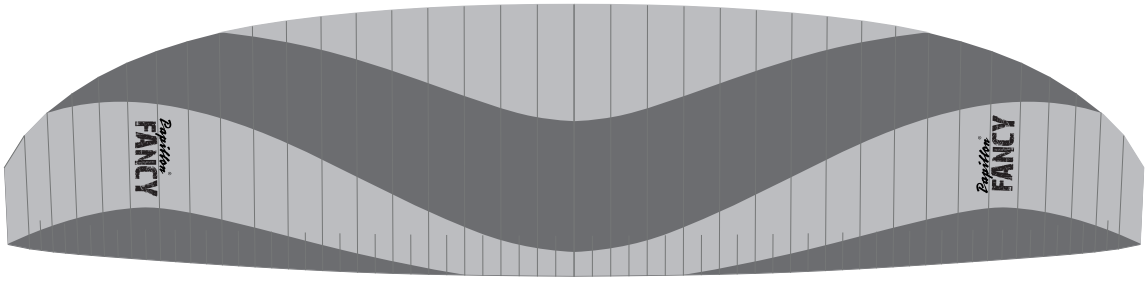
☐ 2-yearly-check

☐ Air permability check

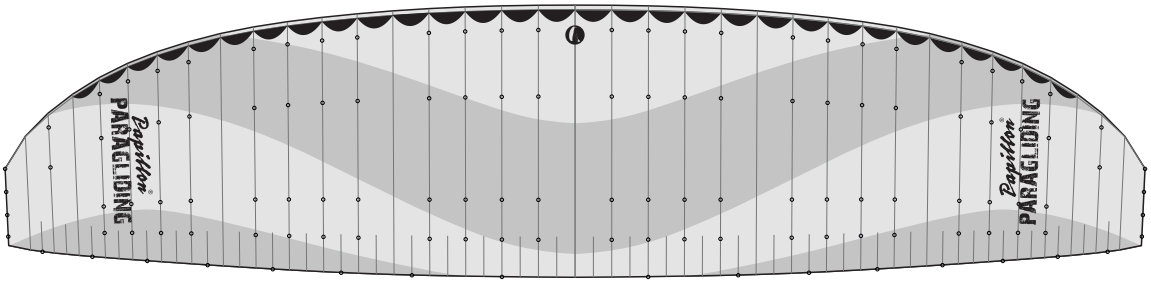
☐ Call-back at sighting of the glider

☐ Line check inkl. strength test

☐ Repair of the marked damage



Obersegel / Top



Untersegel / Bottom

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LINE ORDER FORM

Last name:	First name:
Street address:	ZIP code, city:
Country:	Phone number:
E-mail address:	
Glider model and color:	
Size:	
Serialnumber:	
Comment/notes:	

Line ID-code	quantity

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REPLY CARD

Last name:	First name:
Street address:	ZIP code, city:
Country:	Phone number:
E-mail address:	
Product:	
Serialnumber:	
Date of purchase:	
Purchased at:	
Pilot since:	
Number of flights per year:	
Club:	

☐ Yes, I would liket to get informed on the newest activities and developments of Papillon Paragliding.

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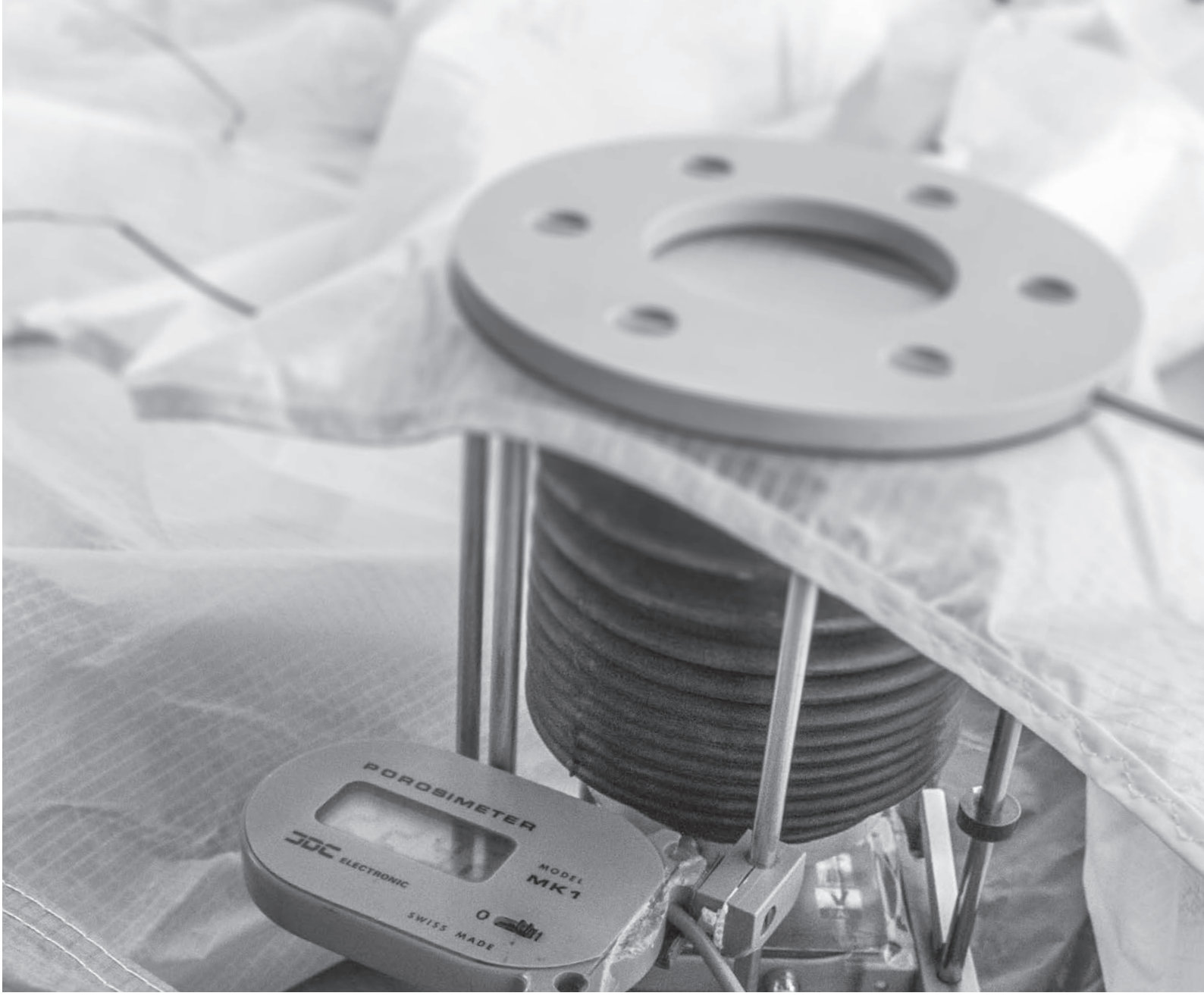

MAINTENANCE MANUAL

as developer and manufacturer for paragliders,
harnesses and rescue parachutes

English Rev. 1.2 Effective: June 2017

TOPIC OF THE INSPECTION AND REINSPECTION INTERVALS

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

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

Who may inspect/test?

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

Individual personal prerequisites for the inspections

Personal prerequisites for the inspection of individually owned solo gliders for recreational use only:
– Holder of a valid unrestricted license for paragliders or equivalent accredited license.
– An adequate orientation in the operation by the manufacturer. For this a 3 month formation with the manufacturer is necessary.
– If a glider was tested for personal use exclusively, then its use by a third party is not allowed.

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

Necessary equipment and documentation

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

DURING THE INSPECTION THE FOLLOWING STEPS ARE TO BE TAKEN IN:

Positive identification of the device:

Positive identification of the aircraft (Type, size, etc.) on the basis certification seal or placard.
- Are the pertinent manufacturer documents available?
- If certification seal and/or placard are in place, are they readable and correct?
- If not so: Please obtain from manufacturer or dealer in question.

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

Inspection of the reserve parachute

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

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

Holes and tears

The topsail and undersail of both paragliders as well as reserve parachutes must, for each cell (paragliders) and each gore (parachutes), from the leading edge to the trailing edge, submitted to the following checks. If in one of the following attributes anomalies are discovered, the glider is to be sent in to the manufacturer for inspection.
- Check for holes smaller or larger tears, deformations and abraded areas.
- Deficiencies in the coating, other aberrations in the canopy like e.g. old repairs.
- With reserve parachutes a light-talbe is to be used for an inspection for holes, tears and deformations.

Abrasion and deformities

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

Testing of the ribs

Visual inspection of the chambers (from the leading to the trailing edge) whether the stitching in the seams, cell partition ribs and reinforcements are in good shape, thus without tears, deformations, abrasions or damage of the coating.
With torn ribs, defective, loose or missing stitching in the seams the glider must be returned to the manufacturer or authorized inspection operation. The determined values/modifications are to be noted in the inspection log!

Check of the tear resistance

To be conducted with the Bettsometer at the following points (B.M.A.A. approved patent number GB2270768 Clive of bed Sails)
The test sequence is to be inferred from the operating instruction the Bettosometer.

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

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

Porosity check of the canopy

At all following measuring points the air porosity has to be more than at least 20 sec. (by Kretschmer).
At smaller air permeability values the paraglider must be returned to the manufacturer.
Measuring points: The porosity measurements by the Kretschmer measuring method (please consider operating instruction) are to be conducted at the following points on the canopy check on both under and upper sail.

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

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

Connection parts

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

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

Lines

Test of the line tensile strength:
Line selection: select a middle, lower cascade of the A, B and a C- lines as well as if available a middle A and B upper cascade, and stress test for tensile strength testing device on their tensile strength. Tension velocity of the tension cylinder: v=30cm/min Tear/tensile strength values:
the determined values/modifications are to be noted in the inspection!

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

Check of the line length and line attachments

Bottom cascade, upper cascades and brake lines for, breaks, abrasions, visual check. First the A-lines, then B. etc.
- Are all lines adequately sewn and attached to the line attachments?
- Is the sheathing of the lines even are exactly?
- Are all loops, knots, seams in good shape?
- Are there any abrasions present?

Measuring the line lengths:

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

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

Occasional check of trim and adjustment

Before a test flight a visual inspection of the canopy and lines is to be conducted with the glider laid out as well as pulled up inflated.
In particular attention should be paid to the length of the brake lines with the canopy inflated. Only if all doubts are cleared concerning faulty adjustment of the brake lines, a check flight may be conducted.

Description of the materials and technical data

See manual of your paraglider.

Miscellaneous

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

COMPLETED CHECK VERY IMPORTANT!

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

– According to new DHV regulation, the customer (Glider-owner) can conduct the 2-yearly check of the canopy with the help of the inspection directions and all necessary testing equipment and documents in person on his own responsibility. In addition the wing does not have to be sent in to the manufacturer.

– The 2-yearly check may only be conducted by the glider owner personally, if he fulfils the prerequisites, or an inspection station authorized by the manufacturer. Inquire therefore with the manufacturer on authorized inspection stations.

– The owner of the canopy must be aware of the responsibility, which he takes with a self conducted 2-yearly check of the glider. The self performed 2-yearly check is only legally effective, if this is acknowledged after the check with date, name (in capitals) and signature on or beside the placard.

– Reserve equipment re-packing interval in accordance with DHV: Every 4 months a repacking is required. Allowed period of operation: 8 years, afterwards up to 12 years with an annual check

– About insurance-legal consequences of yourself performed 2-yearly inspection you should inform with your insurer in a timely fashion.

– An inspection is valid only if the inspection log is completely filled out. Inform also about possible revisions of the inspection directions with the manufacturer before the inspection.

– Important: If the necessary efforts for the maintenance inspection cannot be carried out (required equipment and documents), should the canopy be sent in to the manufacturer.

– Any warranty and guarantee will be voided for paragliders, harnesses and reserve parachutes, which are checked, controlled, repaired, packed or repacked, test-flown and/or have other maintenance work done by personnel not authorized by Papillon Paragliders!

– All maintenance work must in be accordance with the maintenance specifications of the operation manual and the special maintenance directions of the manufacturer and the publications of the IHB to be conducted.

– With any abnormal appearances during the performance of maintenance is the technical manager to be informed, who has to decide on how to proceed.

– With the replacement of parts or component modules only original materials or original party may be used!

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