Manual

KUAT 3

LTF / EN B

Version 1 6 / 2022

SOL PARAGLIDERS

Summary

WELCOME TO THE SOL TEAM

You have just acquired a high-quality product, manufactured under one of the most demanding industry standards worldwide. We are certain that this equipment will allow you to learn, increase and amplify your knowledge and technique during your flights.

We hope your paraglider Kuat 3 will provide you with many nice flights and that you're experiencing moments that will last forever in your memory. This way our philosophy will proof right: security, performance, easy handling and innovation.

Please, read this manual carefully. All necessary information you'll need for your new equipment is right here.

In case of questions or doubts regarding your paraglider or in case you simply are interested in our new products - we are at your dispose.

Thank you very much for choosing SOL PARAGLIDERS.

Symbols

Warnings and important notes - pay attention and read carefully

Additional information

Notes regarding environment protection

IMPORTANT NOTES

- As owner of a Sol Paraglider you are responsible for all possible risks existing by using this equipment. The inappropriate and/or abusive use of your equipment increases this risks.

- It's not possible to transfer this responsibility of risks, using this equipment, to the producer, distributor or seller.

- A regular training, whenever possible, especially on the ground, is indispensable and necessary. A poor handling and control of the glider, especially on the ground, is one of the most frequent causes of accidents.

- Always be prepared to improve your skills. Attending special workshops will improve your skills and maintain your knowledge about materials and techniques, which always are developing, up to date.

- Only use a certified paraglider, harness with protector and reserve and use them within the described and certified limits. Remember, if you fly a paraglider outside the certified norms your insurance will not pay the damage. It is in your responsibility as a pilot to know what your insurance covers.

- Sol Paragliders is flying and testing every single paraglider produced, to assure our clients full quality and function of every glider. We recommend that every new or reviewed paraglider will be tested on the ground and flew from the training hill by his pilot.

- Never take off without helmet, hand-gloves and boots.

- Check all your equipment before each flight. Never take off with an inappropriate or damaged equipment.

- As pilot you only are allowed to use a paraglider in accordance to your skills and in accordance to the instruction level required in each country.

- Before each flight check your physical and mental state. Are you fit to fly?

- Before take off choose the right Paraglider and environment, check the weather conditions, if you have any doubt - don't fly.

- Never fly during rain, snow, strong wind, turbulent conditions or if thunderstorm clouds are in the sky.

- If you are always flying with conscious - you'll be able to fly for many years your glider.

Kuat 3 - THE PROJECT

Recommendation

This paraglider is for specific use in tandem flight, requiring an advanced level of knowledge.

Certification

The Kuat 3 has a LTF / EN B certification. The certification details are available on: www.solparagliders.com.br.

Special characteristics

Comfort - Security - Performance - Easy handling - Long life

Delivered with

Along with your paraglider you receive:

REF - 4373

REF - 4379

REF - 4330

REF - 4047

REF - 4311

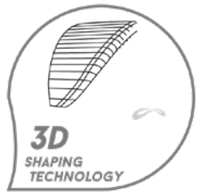
REF - 22153

REF - AC017

REF - 4350

REF - 4320

Technology


3D
SHAPING TECHNOLOGY


XBT
X BATTENS


TPT
TENSILE POWER TAPES


SLS
SEAMLESS STABILO


PBP
PRESSURE BOOSTER PROFILE


MINI RIBS


3RS
3 RISER SYSTEM

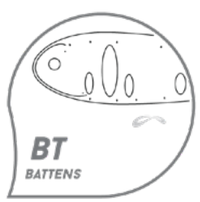

LDT
LOAD DISTRIBUTION TAPES


AES
AERODYNAMIC STABILOS


LCT
LASER CUT TECHNOLOGY


BOW
BOW TEC


HTM
HIGH TECH MATERIALS


BT
BATTENS


DVT
DOUBLE V-TABS

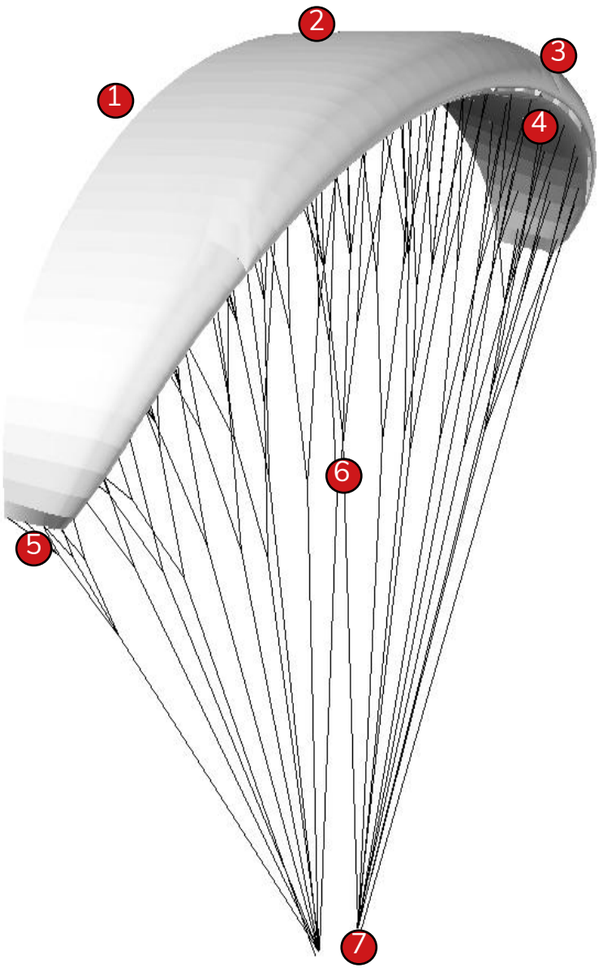

FHT
FULL HYBRID TECHNOLOGY


HPAR
HIGH PROJECT ASPECT RATIO


HTL
HIGH TECH LINE

Overview paraglider

1. Trailing edge
2. Top
3. Leading edge
4. Bottom
5. Stabilo
6. Lines
7. Risers



Overview risers

1. Riser A
2. Riser A'
3. Riser B
4. Riser C
5. Brake lines
6. Toggle connection
7. Toggle
8. Magnetic button
9. Trimmer
10. Trimmer progression system
11. Connection to harness

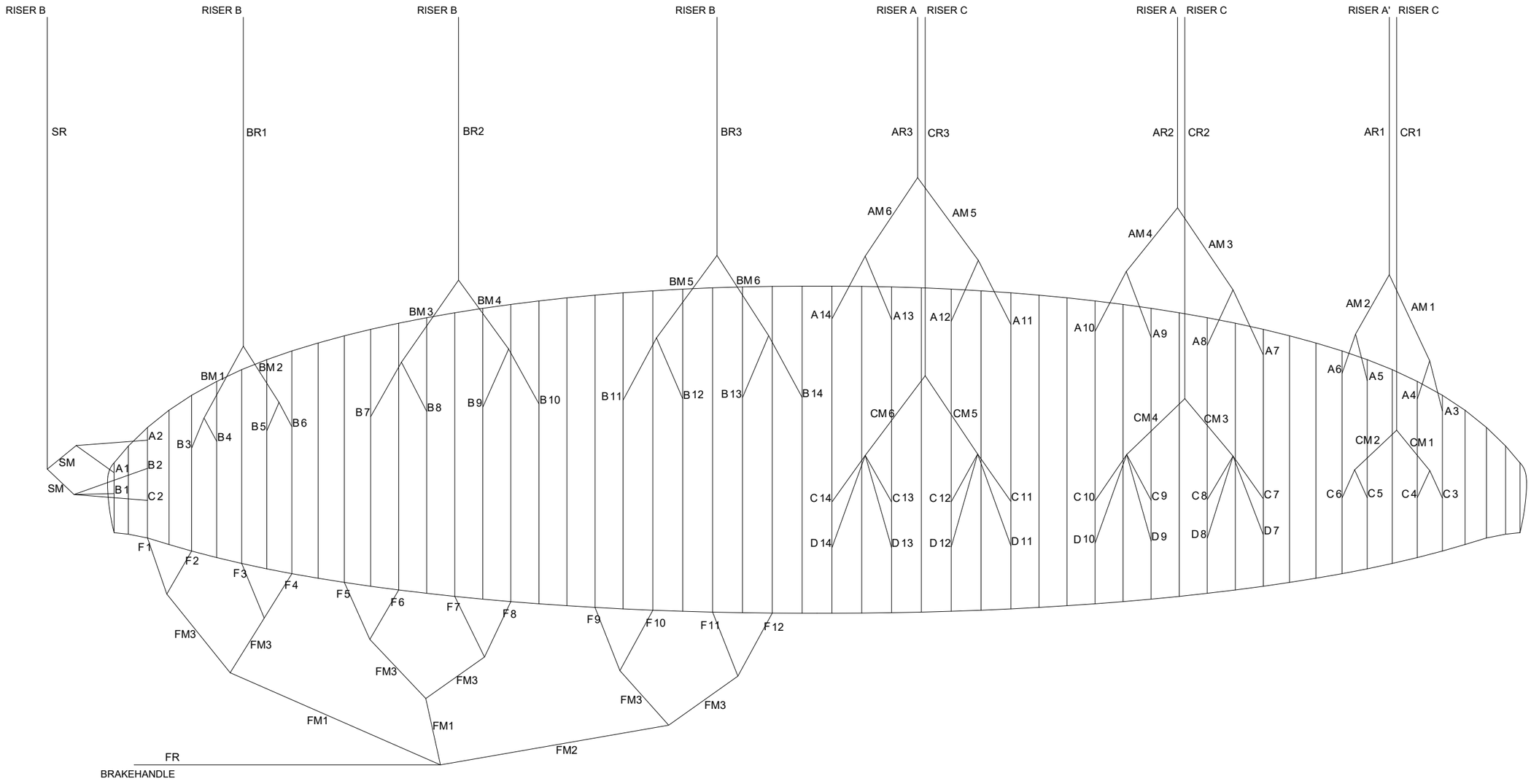
KUAT 3

Line plan

The suspension point design was developed for an ideal weight distribution and long life. During all consideration and calculation, security always is our first goal.. The used material mix for the lines of the Kuat 3 forms an ideal combination: long life with little deformation and aerodynamic drag.

Never and under no circumstances the line length can be altered!

KUAT 3

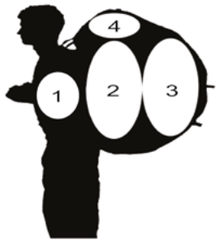


THE PARAGLIDER - INFORMATION

Take off weight

Each paraglider seize is dedicated to a certain weight range, from a minimum take off weight to a maximum. The take off weight is the sum of the weight of:

1. the pilot and passenger.
2. the paraglider
3. the harness with reserve
4. all flight accessories



It’s not recommended to fly outside the weight range.

If your take off weight is between two weight ranges we suggest the following procedure:

- For a more accurate and dynamic handling or if you usually fly in the mountains and/or turbulent conditions, you should choose to fly in the upper weight range.

- For a better sink rate and if you usually fly above flat land and in light weather conditions, you should choose to fly in the lower weight range.

Tow release take off

The Kuat 3 can be used for towed flight. The used equipment must be certified, the team handling the equipment must be licensed and you must have done a workshop learning this take off. Always use the special tow connection. The take off only should be done if the canopy is filled completely and steady above the pilots head.

Flight with engine

The Kuat 3 was not designed and is not certified for engine flight. SOL Paragliders doesn’t recommend this type of flight.

Tandem flight

The Kuat 3 is designed and certified for tandem flight.

PREPARING FOR FLIGHT

Laying out the glider

- Choose an easy training elevation with less inclination for the first flight, without obstacles and a day with easy weather conditions.
- Open your canopy and lay him down in shape of a horseshoe.
- Check fabric and lines, if there is any damage or fatigue caused by wear.
- Check if all quick links are closed.
- Identify, separate and organize all risers A, A', B, C and the brake lines.

It is extremely important that there are no entanglements and/or bunched lines present.

Harness

The Kuat 3 was tested within the standard of LTF with a harness of type GH. We can recommend for the Kuat 3 all harness of type ABS, tested with a carabiner connection height between 42 and 48 cm, measured form the seat and depending on the seize. Attention: the suspension height will influence the “normal” brake position. Always use a harness with back protection.

The distance between the carabiners should be correct. Together with your glider comes an “Easy Check” measure tape which might help you to check the distance exactly.

If the distance is not within the range, the glider could have extreme, dangerous or abnormal reaction in flight.

PARAGLIDER SOL								
SIZE	XXS	XS	S	M	L	XL	XXL	TANDEM
MEASURE	38 CM	38 CM	40 CM	42 CM	44 CM	46 CM	48 CM	44 CM

Connecting paraglider and harness with tandem spreader bars

The pilot is connected behind the passenger on the shorter end of the tandem connection thus reaching easier the control handles and risers. In case of a big weight difference between pilot and passenger, the tandem connection offers various points to fix the passenger always maintaining the ideal position of balance.

Risers
A1 - Ears
D - Toggle
E - Trimmer

Tandem Spreads
1. Main carabiner
2. Rescue system connection
3. Pilot
4. Passenger heavier than pilot: position
5. Passenger with similar weight: position
6. Passenger lighter than pilot: position

Accelerator

The Kuat 3 has no foot speed system.

Riser lengths

Riser lengths actually measured shall not differ more than ± 5 mm from the lengths laid down in the user's manual.

Trimmer open

A = 35,5 cm
A' = 35,5 cm
B = 35,5 cm
C = 39,5 cm

Measure without quick links

Trimmer closed

A = 35,5 cm
A' = 35,5 cm
B = 35,5 cm
C = 35,5 cm

Measure without quick links

FLIGHT

Take Off Check List

- Helmet closed?

- Carabiners looked and closed?

- Harness all looks closed?

- Carabiner distance OK.?

- Risers A in hands?

- Brake lines free, toggles in hand?

- Pilot stays in the midst of the canopy?

- Take off area free?

- Paraglider and pilot lined up against the wind?

- Air space in take off direction free?

Forward Take off

When ready to takeoff, the pilot must have risers A and the toggles in hand. The arms must be extended to the side, as if they are extensions of risers A. A decisive run allows a quick and stable inflation. After the initial inflation momentum, the pilot must keep the tension forward on risers A, not pulling them downwards, until the canopy is above his head. At this point, the brakes must be carefully activated and the pilot must be prepared for possible directional changes. A move to underneath the center of the paraglider is the best method for corrections, provided there is room for it. The pilot glances at last upwards to ensure the canopy is properly located above, completely unobstructed and inflated. Only at this point, the pilot decides whether or not to takeoff.

Reverse Take off

The preparation is the same as to forward take off. But this time you have to turn towards the canopy. During the turn lift the hand which is turning away from the glider with the risers above your head. Now you can inflate the glider with the red A risers. Push the risers up and let them go when the canopy is over your head. If necessary use the brakes gently. Turn out and begin the start run. Attention: check to turn out to the right side. Example you turned with your left side to the glider you have to turn out with your left side to the glider. Otherwise you will have made a 360 degree turn and all your risers are twisted.

In case of strong wind it could be necessary to make some steps towards the canopy during inflation. This take off method can be used even with little wind.

Thermals and Soaring

In turbulent conditions, the paraglider must be flown with the brakes softly applied, resulting in greater canopy stability. The pendulum effect back and forth must be avoided! The canopy must remain on top of the pilot. For this purpose, the speed must be increased by releasing the brakes upon entering a thermal (depending on its intensity) or braking on exit. This is part of the basic technique on “active flying”.
During soaring, a minimum height of 50m over ground is highly recommended, for safety reasons. Knowing and respecting flight regulations is extremely important, especially when airspace within close proximities of mountains is shared among several pilots, where last minute anti-collision maneuvers are not executable.

Turns

The Kuat 3 is very sensitive, responding instantly to turn commands. Leveled turns can be achieved with the shifting of weight on the risers with minimum altitude loss. A combination of weight shifting and breaking technique is the most efficient way of executing turns in any situation. The given brake utilized determines the radius of turns. By activating the brakes on the outside edge of the turns, as well as applying maximum weight shifting on the risers, the efficiency and resistance to collapse in turbulences (at the edge of thermals) is increased.
In case it becomes necessary to perform turns in a constrained space we recommend to release the outside brake in the given turn and pull a little more the brake on the inside of the turn.
The paraglider glides best when no brakes are applied.

By pulling either brake too strongly or suddenly, there is a danger of creating a negative spiral!

Trimmer flight

It is recommended to use the trimmer when flying against the wind or in zones with descending air. Due to a decreased angle of attack, the canopy may collapse easier than when set at the normal position. The pilot must remember that the higher the speed, the more dynamic the collapse response or symmetric closing will be.

- Exercise the use of the trimmer during calm conditions.
- Be cautious flying with trimmer in difficult and turbulent conditions.
- Remember: The higher the speed the higher the descent rate.
- Check always on all accelerator parts for good function and signs of wear.

Active flying

For best performance during your flight, it is important to be always sensitive to what your canopy is trying to communicate. The key elements of active flying are: controlling the canopy advancement and the canopy pressure. If you apply gently the brakes (about +- 15cm) you are getting a good feedback about the canopy pressure, which can alter easily in turbulent air. You can feel it very well on the brakes. The general idea: keep the pressure constant.
Avoid flying excessively with the brakes on, cause you might brake to the point of stopping the canopy from flying. Always consider your aerodynamic speed. Your movements can be symmetric or asymmetric and both or one brake can be applied. This corrections control your flight and reduce the risk of collapses. We suggest that you practice on the ground. Canopy advancement and pressure loss can be simulated well on the ground.

Landing

Always choose a secure and clean landing side with lots of space, great distance to natural obstacles and is not under the influence of turbulent air.

- The final approach stage must be done in straight line upwind.

- With less than 30m above ground avoid steer turns, they may result in dangerous pendulous movements and the pilot could crash to the ground with high velocity.

- Before landing get up in your harness with the weight against the chest strap, especially in turbulent conditions.

- Fly with hands up, without brakes, until more or less 1m over ground. In turbulent conditions fly active until the end. Than apply slowly and progressively the brakes to reduce velocity until you can almost without speed land on the ground.

- Always adapt your landing on space, circumstances and wind.

- If the wind is strong and you feel it might be possible been dragged or uplifted after landing, pull symmetrically the B risers. This movement kills the glider fast and controlled and avoids a re-inflation or that the glider turns into a great sail. After killing the glider pull him back to you using the B risers.

FAST DESCENT MANEUVERS

The following maneuvers should be used only in emergency situations and need a special training fore safety use. If possible attend a workshop to learn and practice this maneuvers.
This maneuvers are used by cloud entrance and in case of approaching thunderstorms.

Remember: a good weather analysis before flight helps to avoid this maneuvers during flight.

Big ears

Push the line AR 1 on the riser A' down and to the outside. Keep the line until the glider ear is closed. Do it first on one side and than on the other.
The paraglider handling stays exact the same: using the brakes or shifting your weight. If you want to return to normal flight, let go of the lines AR 1. Normally the canopy opens on its own, but you can help pushing the brakes lightly.

Positive spiral

A positive spiral has a high sink rate. But the high acceleration, G-Force, impedes to fly this maneuver for a long time. The G-Force may cause that the pilot looses his consciousness and spirals until he crashes the ground. The same high energy is acting on the equipment and will shorten his endurance.

A positive spiral never should be exercised in turbulent conditions or strong lateral wind. Under strong wind conditions the pilot has to remember that the lateral drift could be enormous.

When the pilot activates just one brake, slowly and progressively, the paraglider inclines sideways in a sharp angle and enters in a steep and quick turn, which may become a positive spiral. During a spiral the rotation radius can be controlled by the force applied to the inside brake.

In order to come out of the spiral, the pilot must release the brake slowly and shift his weight lightly to the outside of the turn. A sudden exit may result in an exaggerated forward movement of the canopy, and cause a collapse. For this reason, on the last turn, the inside brake of a given turn must be softly applied again.

In case the canopy collapses during this process, the spiral must be counter-acted, as the active canopy area will be reduced.

- Never combine big ears with spirals. The canopy active area reduction p l u s the 'G' force may result in line and/or canopy damage.
- Leaving a fast spiral must be executed slowly and progressively.
- The maneuver requires high altitudes (at least 600 meter over ground) and is dangerous, due high descent ratio the pilot can lose the altitude reference.

B-Stall

This maneuver provokes a parachute flight and as a result the paraglider is almost unable to be directed.
To initiate the maneuver get the B risers closely to the quick links and push them symmetrically and slowly downwards until the canopy profile is deformed. The glider stops to fly forward and descents vertically.
To end the maneuver let go symmetrically and at the same time of the B risers. The glider stops to sing and starts to fly forward again

In the event risers ‘B’ are pulled too quickly or too deeply, a horseshoe may occur towards the front. In order to regain normal flight, the pilot has to let go of the B risers and must apply the brakes lightly. In case the parachute flight continous, use the method described below in “parachutal”.

EXTREME FLIGHT SITUATIONS

Front-stall

Normally the paraglider opens on his own after a front-stall. In turbulent conditions it may happen that the canopy make a fast movement forward, in order to avoid another front-stall it is necessary to apply the brakes precisely.

Caution: If the brake lines are applied too much the glider could get into a full-stall.

Lateral closing

Active flying almost ever avoids lateral closing. If lateral closing happens, the canopy folds predictable and progressively from the tip to the center. This corresponds a collapse of 50% or more and results in a slight tendency for a turn. The glider can be held on course using the brake on the open side.
Normally the paraglider opens on his own.If the collapse happens during the flight with an open trimmer, the canopy has a more dynamic reaction, but even than the turn can be controlled without problems.
To facilitate the closed side to fill the pilot has to pull down slowly (ca. 2 seconds) the brake on the closed side and let go again (pump). Shifting the weight to the open side helps to re-inflate the sail and increases security, cause the brake has to be used less and this avoids a full-stall.
Without action, the paraglider will begin a positive spiral. The pilot must lightly apply the brake on the external side to stop a spiral and at the same time shift his weight on the same side until the canopy is stabilized. Exactly at this stage of pendulum effect under the canopy, it is important that the pilot controls carefully the amount of force applied on the brakes, and often it is needed to decrease the force. Once a straight flight is achieved, the closed side can be re-inflated by the pumping action.

Parachutal

This paraglider does not have parachutal flight tendencies and recovers on its own from an intentional parachutal flight induced by braking commands. In case of a parachutal flight after an extreme situation loose the brakes. Before using the brakes again make sure that the glider flies normally.

If the glider is wet or the regular inspections weren't made, the risk of a parachutal flight exists.

Full-stall

The Kuat 3 has a long way on the brakes before he enters a full-stall. A full-stall happens if the brakes are pulled symmetrically and excessively downwards. Normally the glider starts to fly backwards and deforms to a horseshoe, the opening on the front.

Before terminating the canopy must be stabilized. Afterwards both brake lines have to be loosened symmetrically and slowly, to avoid that the canopy kicks forward.

Negative spiral

The Kuat 3 has a long way on the brakes and difficulties to enter in a negative spiral. But if one of the brakes is extremely pulled downwards it can happen.
The side with the brake pulled down enters in a stall, while the other side maintains open. In this case the brake must be loosened at once, before the glider turns 180°, in order to get the glider back to normal flight. Depending on the situation in which the brake is loosened, the canopy can react quite dynamic and kick forward provoking a collapse.

Line Over

If the tip of the wing is trapped in lines it could cause a positive spiral, which is difficult to control. To get out of this situation, first stabilize your wing and get him into normal flight. In other words control direction. Than pump on the side of the Line Over. During this procedure lean on the opposite side, otherwise there is a risk to turn or increase the spiral.
You also may try to pull the stabilo lines SR, the outer lines on the blue riser B, to free the canopy. Watch out for the brake to avoid a stall on the clean side.
If the Line Over is big and all the counter action does not help and the glider is not to manage, release the reserve, whilst you are having height enough.

Emergency flying

In case of a brake line crack or the brake line is trapped or anything else happened and doesn't allow to use the brakes, use the C risers and weight shifting to steer the glider. Land on the nearest possible side. This situation could happen in case of poor maintenance of the equipment or an extreme flight situation.

Attention: the steering commands on C risers are much shorter than on the brake lines.

PACKING YOUR PARAGLIDER

There are different ways who can help to extend the life of your paraglider. One way is to fold the glider right. It's most important to watch out for the reinforcements to maintain the take off characteristics and the performance. We are recommending the "Origami Method" and the use of a Origami-Pack Sack (see below). Together with your glider you get a traditional pack sack who also protects your glider. How to use it we describe after the "Origami Method".

Folding Bag

Step 1: Open the folding bag and pull the partially in. The outside will look like a cabbage. This way you're avoiding that the glider drags over the ground during folding.

Step 2: Begin with the center of the trailing edge. Put one profile over the other. Each side separate.

Step 3: Now do it in the same way with the leading edge profiles. Put the reinforcements of top and bottom in the right way, don't close the cell openings and push out the fabric.

Step 4: Fold the wing like an accordion from both sides and close the folding bag. Watch out for the lines and fabric closing the zipper.

Step 5: At last fold the sack as shown in the photo. This method is very gentle to the more stiffer parts of the glider.

Traditional-Method

Step 1: Bundle up your glider in form of a cabbage. This way you're avoiding that the glider drags over the ground during folding.

Step 2: Begin with the center of the trailing edge. Put one profile over the other. Each side separate.

Step 3: Now do it in the same way with the leading edge profiles. Put the reinforcements of top and bottom in the right way, don't close the cell openings and push out the fabric.

Step 4: Fold the wing like an accordion from both sides and put one side over the other. Now all reinforcements are laying side-wise one above the other.

Step 5: Fold the sack as shown in the photo. This method is very gentle to the more stiffer parts of the glider.

Step 6: At last put the glider into the protection bag.

Storing

Most part of the glider fabric is Nylon. As all other synthetic materials it suffers and deteriorates under the influence of ultraviolet radiation (UV). It looses his stiffness and gets more porous. Whenever it is possible avoid to submit your glider to the sun light, it has a high UV rate, especially in heights. It is recommended to store your paraglider very well whilst it not in use. It should be stored dry in a dry place, protected from UV rays, distant from chemical products. Avoid to store the glider in hot places like the trunk of a car.

Back Pack

We recommend that you store your equipment in the back pack. That way it is easy to transport and protect. Your back pack was designed to be useful and comfort. Do it this way:

Step 1: Open your back pack and put your glider in.

Step 2: Your harness put above the glider and close the zipper.

Step 3: Store your helmet and accessories between the glider and the harness or in the upper part of the back pack.

Step 4: Close all parts and pockets of the back pack.

TIPS FOR CARE

- Over-stressing of individual lines, more than normal load in flight, should be avoided. An excessive deformation is irreversible and can't be undone. For the same reason avoid stepping on the lines, bending or folding them, especially the main lines.

- Always open the glider on clean ground, otherwise dirt could penetrate the fabric, shorten the lines or damage the canopy. Lines should not be entangled to objects during the phase of inflation, otherwise they could be deformed or damaged. Never step on the canopy, especially not on hard ground.

- Take offs and landings under strong wind conditions could force the glider to crash uncontrolled with high velocity on the ground, the crash could damage fabric and sewings.

- In case of a Line Over the brake lines could wear of or a main line could be cut by a brake line or crack by friction.

- Handling the paraglider on a earthy ground under strong wind conditions accelerates the aging process of your equipment.

- After a water or tree landing the paraglider must be sent for inspection to an authorized dealer's workshop.

- It must be avoided that sand, stones or snow enter in the cells, otherwise the weight on the trailing edge could brake the glider and cause a full-stall. Besides, the sharped edges could damage the sail's fabric.

- After the landing be careful, avoid crashing the leading edge on the ground. Otherwise the material and sewings of the cell openings could be damaged.

- In case the paraglider gets in contact with salty water, he must be washed with sweet water and dry in the shadow. Never use tools to accelerate the drying process. Salty water could reduce the line resistance and increase the porosity of the fabric, even washed out with sweet water.

- After any kind of accident: the equipment must be sent for inspection to an authorized dealer's workshop or to the manufacturer.

- Keep up to the required inspection data, to assure that your equipment is always save for use and within the certification requirements.

INSPECTION

Paragliders must follow the inspection schedule. The first mandatory inspection must be done after completing 24 months, 100 flight hours or 100 flights, whichever comes first. After the first inspection, a sail needs to be inspected every 12 months, 100 flight hours or every 100 flights (whichever comes first). It may happen that in the inspection a shorter period for the next inspection is defined (for example 6 months, 50 flight hours or 50 flights). Without mandatory inspections, the paraglider loses its certification.
After any kind of accident or a long period without use: sent the paraglider for inspection to an authorized dealer's workshop or to the manufacturer. It's for your own good.
Minor repairs (see below) you could do by yourself, but all other repairs must only be made by an authorized dealer's workshop or the manufacturer.

REPAIRS

Repairs must only be made by an authorized dealer's workshop or to the manufacturer. In case of minor repairs you are receiving with your glider a basic repair kit. It contains adhesive labels in case of minor tears and quick link sealing.

FABRIC TEARS

Small tears up to 10 cm away from the line suspension points may be fixed by yourself. Beyond that the maintenance must be made by an authorized dealer's workshop or the manufacturer.

- Clean the spot where the adhesive label will be applied with a humid cloth.

- The adhesive label has to be at least 2,5 cm larger than the tear.

- Round the edges, otherwise the adhesive label could loosen after the aplication.

- Apply on both sides of the tear.

LINE CRACK

In case of a line crack we recommend to contact your dealer, an authorized dealer's workshop or the manufacturer. After the repair test the glider on the ground and check if everything is alright.

QUICK LINK SEALING

Along with your kit you're get sealing for the quick links. Don't leave your risers without them, because they avoid the movement of the screw nut, making it impossible to open.

WARRANTY

Every paraglider manufactured has a Warranty of 3 Years or 300 Hours of Flight, whichever comes first. Our research technology in combination with the use of highly quality material and the adoption of new production methods allow us to offer to you, our client, this great advantage. This guaranty includes the cost free repair or substitution of material with new ones that are in perfect conditions. The criteria depend on the manufacture.

1. This warranty is valid for all SOL Paraglliiders with LTF, EN or AFNOR certification, rated for leisure use only. The warranty includes defective materials and production errors.

2. This warranty does not include paragliders rated for professional use (school, competitions, aerobatics, etc). All paragliders used for competition or acro have a 1 year warrant for production errors.

3. This warranty is defined as repair or substitution of the defective paraglider parts determined by the producer.

WARRANTY TERMS

1. You must fill-out form (Fill the form here): within 30 days after purchase;

2. All flights must be logged providing information on date, place and length of flight;

3. The equipment must be kept in accordance with the instructions provided in this manual. All the storage, folding, cleaning and care instructions must be carefully taken;

4. Maintenance and inspections can only be performed by the manufacturer or authorized shop and must be properly documented;

5. Paragliders must follow the inspection schedule. The first mandatory inspection must be done after completing 24 months, 100 flight hours or 100 flights, whichever comes first. After the first inspection, a sail needs to be inspected every 12 months, 100 flight hours or every 100 flights (whichever comes first). It may happen that in the inspection a shorter period for the next inspection is defined (for example 6 months, 50 flight hours or 50 flights). Without mandatory inspections, the paraglider loses its certification and respective;

6. The owner is responsible for all shipping expenses to and from the manufacturer;

7. In order to make a plea for repair or equipment exchange, or equipment repair, which shall be decided and performed only SOL Paragliders, the owner must send the manufacturer the following:

- The Paraglider in question, and copies of all previous inspections and flight registry;

- Filled-out Warranty Registration Form SOL Paragliders.

TIS WARRANTY DOES NOT COVER

1. Any alterations on original fabric colors, lines and risers;

2. Any damage caused by chemical products, sand, friction, cleaning products or salt water;

3. Any damage caused as a result of errors during operation of the product, incidents or emergency situations;

4. Any damage caused by inadequate operation of the paraglider.

5. Products that may have been subjected of any alteration from the original design and without proper permission from SOL Paragliders.

6. Damages caused by inappropriate transport, storage or settings of the product.

7. Damages caused by the use of not compatible components with the product.

8. Damages caused by the use of inappropriate packaging for the transport.

9. Products without original identification label and serial number.

10. Handling inadequately to the instructions given in the owner´s manual.

ENVIRONMENT AND RECYCLING

Please be aware of our environment: don't toss your garbage into nature, respect the animals. Remember: nature is our gliders engine.

If your paraglider gets out of use remember it cannot be recycled. Please give it to your dealer or your flying-school, they should know how to handle it.

OPERATION LIMITS

In conformity of LTF standard:
Temperatures between -30 degree till +70 degree of Celsius during the storage shouldn't influence the use and security.
Temperatures between -30 degree till +50 degree of Celsius and a variation of humidity between 25% and 100% during the use shouldn't influence the use and security.

Remember: Your product is a high quality product and was made out of carefully chosen materials. Store your equipment carefully and keep up the maintenance. The operating temperature limit is below -30° C.

FINAL WORDS

Safety is the major theme of our sport. In order to fly safely, pilots must train, study, practice and be alert to the dangers around us. In order to achieve excellent safety levels, we must fly regularly as much as possible, don't go beyond our limitations and avoid exposing ourselves to unnecessary dangers. Learning to fly is a slow process and takes years, so don't pressure yourself. If conditions are not favorable, keep your equipment stored away.

Don't overestimate your skills and be honest with yourself. Every year we see many accidents which in most cases could be prevented with a minor adjustment.

We are a part of the community in which we live: friends, family and even people we don't necessarily know worry about us. Our obligation towards this community is to keep ourselves healthy and that at each landing we will be one landing happier than before. We fly so that we can feel more alive.

We wish you good and safe flights with your new paraglider.

SOL Paragliders Team !!

TECHNICAL DATA

Weight, measure and data

Model	41	
Cells	55	
Real Surface	38,10	m²
Real Span	14,31	m
Real A/R	5,38	
Projected Surface	33,36	m²
Projected Span	11,72	m
Projected A/R	4,12	
Line diameter	COUSIN DYNNEMA 1.0 -2.1 / LIROS PPSLS 1.05 - 1.2 - 1.58 / COUSIN TECHNORA 2.1	mm
Height	881	cm
Profile max.	333	cm
Profile min.	71	cm
Paraglider weight	7,7	kg
Take off weight	140 - 212	Kg
Certification	LTF / EN B	
Brake line length under max. load	85	cm
Accelerator	NOT	cm
Risers	3 + 1	
Trimmer	4	
Other connected or adjustable parts	NOT	

Weight can vary between 150g depending on the batch of materials and weather conditions.

Parts and materials

Top	WTX 40 PU + Silicon 40 gr/sm
Bottom	WTX 40 PU + Silicon 40 gr/sm - WTX 29 PU + Silicon 29 gr/sm
Profiles/Diagonal tapes	Pro-Nyl High Tenacity Nylon rip-stop Hard finish 36 gr/sm
Reinforcements	Nylon Maxfio 2,5 mm
Reinforcements inside/outside	Cetim Polyester 25mm
Loops	FRL0027 Polyester 10 X 1.0 mm white
Sewing thread on canopy	Graal Polyester filament continuous 60 white
Sewing thread on risers	Nylbond Polyester filament continuous 30 - 40 Black
Lines	Cousin Dyneema CTL 910085 / Liros PPSLS 125 / Liros PPSLS 180 / Liros PPSLS 260 / Cousin Dyneema CTL 910420 / Cousin Technora 988
Quick Links	Ansung Precision 20 mm. 800 kg
Risers	Polyester Venus 19 mm. 1.600 kg
Pulleys	ISR 16 mm ball bearing
Magnet clip	Imanes de Alnico 15 mm - ISR
Accelerator clip	Aluminum - ISR

For more information, contact one of our resellers
https://www.solparagliders.com.br/revendedores.php

Lines

Model	CTL 910085	PPSLS 125	PPSLS 180	PPSLS 260	CTL 910420	988
Manufacturer	COUSIN FRA	LIROS GER	LIROS GER	LIROS GER	COUSIN FRA	COUSIN FRA
Number resistance test	LI 1106.2022	LI 870.2020	LI 869.2020	LI 868.2020	LI 1107.2022	LI 879.2020
Diameter	1.0	1.05	1.2	1.58	2.1	2.1
Material	DYNEEMA	DYNNEMA	DYNNEMA	DYNNEMA	DYNEEMA	TECHNORA
Rope coating	POLIESTER	POLIESTER	POLIESTER	POLIESTER	POLIESTER	POLIESTER
Resistance after bending	69.1 daN	104.2 daN	148.3 daN	167.5 daN	269.8 daN	145.1 DAN

Line lengths

Kuat 3 41

	A	B	C	D	F
1	7818	7830			8316
2	8008	7972	8008		8353
3	8218	8195	8191		8419
4	8249	8226	8231		8521
5	8352	8319	8337		8584
6	8423	8382	8404		8562
7	8572	8513	8543	8644	8619
8	8544	8477	8517	8631	8759
9	8569	8498	8543	8668	8932
10	8657	8581	8629	8758	8990
11	8693	8614	8666	8803	9141
12	8657	8574	8630	8775	9371
13	8691	8607	8666	8812	
14	8794	8713	8769	8909	

Measuring incl. risers and carabiners with 5 daN load
Brake line measuring without riser

Line lengths individually

Kuat 3 41

Name	Line reference		Diameter / mm	Length / mm	Number of lines
A1	COUSIN / DYNEEMA	CTL 910085	1.0	1393	2
A2	COUSIN / DYNEEMA	CTL 910085	1.0	1583	2
A3	LIROS PPSLS	125	1.05	534	2
A4	LIROS PPSLS	125	1.05	565	2
A5	LIROS PPSLS	125	1.05	518	2
A6	LIROS PPSLS	125	1.05	589	2
A7	LIROS PPSLS	125	1.05	1538	2
A8	LIROS PPSLS	125	1.05	1510	2
A9	LIROS PPSLS	125	1.05	1535	2
A10	LIROS PPSLS	125	1.05	1623	2
A11	LIROS PPSLS	125	1.05	1659	2
A12	LIROS PPSLS	125	1.05	1623	2
A13	LIROS PPSLS	125	1.05	1657	2
A14	LIROS PPSLS	125	1.05	1760	2
AM1	LIROS PPSLS	180	1,2	1470	2
AM2	LIROS PPSLS	180	1,2	1620	2
AM3	LIROS PPSLS	180	1,2	1520	2
AM4	LIROS PPSLS	180	1,2	1520	2
AM5	LIROS PPSLS	180	1,2	1520	2
AM6	LIROS PPSLS	180	1,2	1520	2
AR1	LIROS PPSLS	260	1.58	5850	2
AR2	COUSIN / DYNEEMA	CTL 910420	2.1	5150	2
AR3	COUSIN / DYNEEMA	CTL 910420	2.1	5150	2
B1	COUSIN / DYNEEMA	CTL 910085	1.0	1405	2
B2	COUSIN / DYNEEMA	CTL 910085	1.0	1547	2
B3	LIROS PPSLS	125	1.05	517	2
B4	LIROS PPSLS	125	1.05	548	2
B5	LIROS PPSLS	125	1.05	491	2
B6	LIROS PPSLS	125	1.05	554	2
B7	LIROS PPSLS	125	1.05	1482	2
B8	LIROS PPSLS	125	1.05	1446	2
B9	LIROS PPSLS	125	1.05	1467	2
B10	LIROS PPSLS	125	1.05	1550	2
B11	LIROS PPSLS	125	1.05	1583	2
B12	LIROS PPSLS	125	1.05	1543	2
B13	LIROS PPSLS	125	1.05	1576	2
B14	LIROS PPSLS	125	1.05	1682	2
BM1	LIROS PPSLS	125	1.05	1470	2
BM2	LIROS PPSLS	125	1.05	1620	2
BM3	LIROS PPSLS	180	1,2	1520	2
BM4	LIROS PPSLS	180	1,2	1520	2
BM5	LIROS PPSLS	180	1,2	1520	2
BM6	LIROS PPSLS	180	1,2	1520	2
SM	COUSIN / DYNEEMA	CTL 910085	1.0	425	4
STB	LIROS PPSLS	125	1,05	5640	2
BR1	LIROS PPSLS	260	1.58	5850	2
BR2	COUSIN / DYNEEMA	CTL 910420	2.1	5150	2
BR3	COUSIN / DYNEEMA	CTL 910420	2.1	5150	2

Kuat 3 41

Name	Line reference		Diameter / mm	Length / mm	Number of lines
C2	COUSIN / DYNEEMA	CTL 910085	1.0	1583	2
C3	LIROS PPSLS	125	1.05	558	2
C4	LIROS PPSLS	125	1.05	598	2
C5	LIROS PPSLS	125	1.05	554	2
C6	LIROS PPSLS	125	1.05	621	2
C7	LIROS PPSLS	125	1.05	1562	2
C8	LIROS PPSLS	125	1.05	1536	2
C9	LIROS PPSLS	125	1.05	1562	2
C10	LIROS PPSLS	125	1.05	1648	2
C11	LIROS PPSLS	125	1.05	1685	2
C12	LIROS PPSLS	125	1.05	1649	2
C13	LIROS PPSLS	125	1.05	1685	2
C14	LIROS PPSLS	125	1.05	1788	2
CM1	LIROS PPSLS	180	1,2	1470	2
CM2	LIROS PPSLS	180	1,2	1620	2
CM3	LIROS PPSLS	180	1,2	1520	2
CM4	LIROS PPSLS	180	1,2	1520	2
CM5	LIROS PPSLS	180	1,2	1520	2
CM6	LIROS PPSLS	180	1,2	1520	2
CR1	LIROS PPSLS	260	1.58	5810	2
CR2	LIROS PPSLS	260	1.58	5110	2
CR3	LIROS PPSLS	260	1.58	5110	2
D7	COUSIN / DYNEEMA	CTL 910085	1.0	1661	2
D8	COUSIN / DYNEEMA	CTL 910085	1.0	1648	2
D9	COUSIN / DYNEEMA	CTL 910085	1.0	1685	2
D10	COUSIN / DYNEEMA	CTL 910085	1.0	1775	2
D11	COUSIN / DYNEEMA	CTL 910085	1.0	1820	2
D12	COUSIN / DYNEEMA	CTL 910085	1.0	1792	2
D13	COUSIN / DYNEEMA	CTL 910085	1.0	1829	2
D14	COUSIN / DYNEEMA	CTL 910085	1.0	1926	2
F1	COUSIN / DYNEMA	85	0.95	891	2
F2	COUSIN / DYNEMA	85	0.95	928	2
F3	COUSIN / DYNEMA	85	0.95	994	2
F4	COUSIN / DYNEMA	85	0.95	1096	2
F5	COUSIN / DYNEMA	85	0.95	1159	2
F6	COUSIN / DYNEMA	85	0.95	1137	2
F7	COUSIN / DYNEMA	85	0.95	1194	2
F8	COUSIN / DYNEMA	85	0.95	1334	2
F9	COUSIN / DYNEMA	85	0.95	1307	2
F10	COUSIN / DYNEMA	85	0.95	1365	2
F11	COUSIN / DYNEMA	85	0.95	1516	2
F12	COUSIN / DYNEMA	85	0.95	1746	2
FM3	COUSIN / DYNEMA	85	0.95	1275	12
FM2	COUSIN / DYNEMA	85	0.95	3250	2
FM1	COUSIN / DYNEMA	85	0.95	3050	4
FR	COUSIN / TECHNORA	988	2,1	3120	2

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