

TRIPLE SEVEN 



  
**KING**  
EN/LTF D

TRIPLE SEVEN

# USER MANUAL

Version 1.2, Date: 23.3.2017



# Introduction

## Welcome

Welcome to the Triple Seven Team! We are excited that you have chosen to fly the King. King is developed for maximum performance while maintaining the ease of flight of EN/LTF-D class glider. This glider is designed to be your next step in XC and competitions flying. We wish you exciting flying adventures!

## Triple Seven Mission

Our company's goal is to produce high quality products and technologically innovative gliders of all types and classes. We are striving to develop state of the art paragliders, with the optimum compromise between safety and performance. Your success is our inspiration; our goal is your success.

# Manual

This document contains complete product information and instructions to familiarize you with the main characteristics of your new glider. It contains instructions on how to use and maintain the wing, however, its purpose is not to serve as learning material to pilot this kind of wing. As such, this is not a flying manual. Flying instructions can only be taught by flying schools and specially certified instructors.

It is important that you take time to read this manual carefully before the first flight, as thorough knowledge of your equipment enables you to fly safely and to maximize your full potential. If you borrow or give your glider to another pilot, please pass this manual on with it.

If any use of Triple Seven equipment remains unclear after having read this manual, please contact: your local paragliding instructor, your Triple Seven importer or Triple Seven. This product manual is subject to changes without prior notice. Please check [www.777gliders.com](http://www.777gliders.com) for the latest information regarding our products.



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# KING

- » Reinforced leading edge (RLE), Smooth trailing edge reinforcements (STE) together with (BPI) for greater stability and good gliding performance on wide speed range
- » BPI - back position intake technology for spin and stall resistance and good stability at accelerated flight.
- » Low induced drag wing tip (LDW), optimized washout with two additional floating cells.
- » Three liner concept, with considerable line reduction (LR)
- » 4 cells diagonals (RLE) reinforced leading edge
- » Good pitch stability and ease of piloting
- » Trim speed optimized for good climbing
- » Clean canopy with refined sail tensions
- » Direct handling with precise control
- » Full span distributed panels orientation streamlined to airflow direction
- » Improved double 3d shaping (ballooning) at the leading edge
- » High top speed
- » Easy launch control
- » Highend EN/LTF-D glider



## Designer's thoughts

During the designing process my main goal was to produce a wing that will feel very safe in hands of wide range of pilots flying in D class. While using all of the newest technologies, the King proved itself to be a really good performance glider that is capable to cope with turbulence in a very kind manner which made my testing hours a pure joy. The ideas that have been raising on the desk for some time now, reflect in this wing in best possible way. I am really satisfied with the final product and I believe many pilots will be able to benefit a lot from the overall good feel of the King.  
Aljaž Valič

## Who is this glider for?

King is an EN/LTF D class wing designed for advanced pilots. Its safe feel and behaviour makes the King suitable for very wide range of pilots whilst it is still a classic D class wing with great performance.

The pilot of this wing should be comfortable with the advanced active flying techniques of controlling a glider in active air, naturally preventing pitch or roll movements. As with any glider, we recommend constantly improving your basic and advanced flying skills.

## Certification

The King has passed the European EN-D certification for all commercially available sizes. The homologation results are enclosed at the end of this manual.





# Before flight

## Elements, components

The King is delivered together with a backpack, inner bag, glider strap, Triple Seven T-shirt and USB key with this manual.

## Assembly

Before you rush to the first take-off we recommend you take your time to unpack and test your equipment on a training slope. In this way you will have time and will not be distracted or rushed to prepare your equipment, and you will be able to do your first pre-flight check properly.

The place should be flat, free of obstacles, and with light wind. This will enable you to nicely inflate the wing and also familiarize yourself with it while ground handling. Every glider has to be checked by a Triple Seven dealer, however, as a pilot you want to do a proper pre-flight check yourself.

Firstly, prepare and spread out the glider like you would normally do. While you are spreading out and walking along the glider, observe the fabric material for any abnormalities. When you are done with the inspection of the canopy, grab the risers and spread the lines, check if the risers and maillons (carabiners) are properly closed. Identify and disentangle the A1, A2, B, C risers and the lines including the brake lines. Connect the risers' main attachment points correctly to the harness, watch for any twists

and make sure that the main carabiners are properly closed.

## Harness

The King has passed EN-D certification testing using a GH - ABS type harness. This certification allows the King to be flown with most of the harnesses on the market, but keep in mind that the change of a harness greatly influences the feeling of the glider, depending on the effectiveness of the harness weight shift. Check with the harness manufacturer or with your instructor whether your harness is of the proper type.

The length of the harness chest strap affects the distance between the main carabiners and the wing's handling as well as your stability in the harness. Tightening the chest strap increases your stability, but greatly increases the risk of twisting after a collapse. A tight setting also increases the tendency to maintain a deep spiral. As a rule of thumb, a more opened chest strap gives you more feedback from the glider, which is good for your climbing efficiency and increases safety in a flying incident. But we strongly recommend adjusting the length of the harness chest strap according to the lengths used during certification. This setting varies according to the harness size from 42cm to 50cm.

Check the settings used during testing under the certification specimen section. We recommend that your first flight with the King is not also with a new harness. Another rule of thumb is if you want to experience the feeling of new equipment, change only one part of equipment at a time.

## Accelerator settings

The King speed system increases the speed of the glider by 20km/h with the accelerator at full travel, from trim speed at 40km/h to full speed at 60km/h.

Before attaching the accelerator system to the King risers, check that the speed system inside your harness is correctly routed and that all pulleys are set correctly. Make sure there are no knots or other obstacles that might make the accelerator get stuck during usage.

The length of the speed bar lines should be adjusted on the ground so that your legs are fully extended at the point of full accelerator travel. While setting the speed line lengths make sure they are long enough, so that the speed system does not accelerate the glider by itself. If in doubt how to properly set the accelerator system, please consult your instructor or Triple Seven dealer.

## Brakes adjustments

The length of the brake lines has already been adjusted by the manufacturer and is the same as used during the certification test flights. The length is set and fine-tuned during the development of the glider, therefore generally there should be no need to adjust them. We recommend flying this setting for a while, and you can still change it afterwards if you wish to do so. If you change the length of the brakes, do it in a step by step process of 2 cm at a time. Bear in mind that if you make the brake lines too short, they might be applied unintentionally while the speed system is being used.

## Weight range

Each size of the King is certified for its own weight range. The above mentioned weight includes the weight of the pilot and complete paragliding equipment, together with the glider, harness, all accessories and optional ballast. Every glider changes its characteristics by changing the take-off weight. We recommend that you always fly your glider in the specified weight range. To measure your take-off weight, step on a scale with all your equipment packed in the rucksack.

### Lower half of the weight range

Flying the King, as any other glider, in the lower part of the weight range, causes the agility of the glider to decrease, and when flying through turbulence its tendency for collapses relatively increases as compared to flying it in the upper wing loading range. However, reactions after a collapse are less dynamic and sink rate improves. Therefore, if you mainly fly in weak conditions, you might prefer this weight range.

### Upper half of the weight range

Again, as with any other glider, flying the King in the upper part of the weight range increases the stability and agility of the glider. Consequently, there is a slight increase in the glider's speed and also gliding performance, especially when flying against the wind. If you normally fly in stronger conditions and you prefer relatively more dynamic flying characteristics, you should set the take-off weight in the higher weight range. Reactions after a collapse may be more dynamic in the upper half of the weight range.

## Wing inflation

Still being on the training slope and having prepared and checked everything, inflate your wing and play with it to get a feel of your new glider while ground handling. By doing this you are making a final check of the canopy and lines, and that everything is in order. You will find that the King inflates very easily and smoothly without excessive energy and with minimum pressure while moving forwards. For inflation and lifting the glider you may use only the A1 riser tab. Do not pull on the risers just with your hands, instead use your whole harness. Your hands should only accompany the rising movement of the wing. When the wing is above you, apply correct pressure on the brake lines and the glider will stay above you.

## Modifications on the glider

Any modifications of the lines or risers' speed system cause the loss of the certification, similarly to flying the wing outside the weight range.

## Preflight safety

Before flying the King, you should obtain all practical and theoretical training and the certification for flying this kind of wing. Pilots should be physically and mentally fit, using complete paragliding equipment and flying only in conditions suitable for their level of flying expertise.



# Flying King

## First Flight

Now that you have already familiarized yourself with your new glider while ground handling on a training slope, you are ready for your first flight. For the first flight it is recommended that you choose a familiar flying area and to fly your new glider in calm conditions.

## Preflight check equipment

Before every flight you need to do a pre-flight check and the inspection of other equipment. Learn to do this, as it takes no extra time. This procedure may vary, depending on the instructor, pilot or equipment settings. Some pilots have their wing always connected to the harness. However you should have a consistent method of checking and preparing your equipment and doing the final pre-flight check.

1. After the arrival on take-off, assess the suitability of flying conditions.
2. While walking around the canopy preparing and spreading out the wing, you should at the same time inspect the canopy.
3. After you check the lines and connect the risers to the harness, grab the lines and slide them through your fingers as you walk towards the canopy. In this way you double check that the lines are not tangled, stuck or damaged. If meanwhile the canopy moves, walk around and correct it again.

4. Inspect the harness, reserve, speed system and all connections.

## Final preflight check

1. Strap into the harness. The leg straps should be the first to be connected on the take-off and the last ones to be released after the flight. Make sure you are strapped in correctly and wearing a helmet.
2. Check the risers for a twist and that the carabiners are properly closed. Check if the speed system is not affecting your risers – accelerating unintentionally.
3. Check the lines. The A riser lines should be on top, and all lines untangled. Check if none of the lines are lying over or below the canopy.
4. Check the canopy. The glider should be spread out in the shape of an arch and all cells open.
5. Check the wind, take-off and airspace. The wind should be favourable for take-off and the pilot's level of expertise. Airspace should be cleared, together with the take-off area.

## Inflation, control, take-off

The King has easy take-off behavior and does not require any additional advice regarding the forward or reverse launch. Try to divide and practice the take-off procedure in three steps.

1. Inflating and raising the glider
2. Controlling the wing and wing check
3. Accelerating and take-off

It is always advisable to practice and improve proper launching

techniques as this reduces unnecessary additional stress before the take-off.

Wind speeds up to 25 to 30km/h are considered strong and extra care is required for the flight. If you are launching in strong winds we recommend the reverse launch technique, with your brakes in the right hands at all times. Launch the glider with a gentle pull and then walk towards it if necessary to reduce the relative wind force. When the glider is above you, gently control the wing and take off.

## Line knots or tangles

If you fail to observe a line knot or you find yourself flying with a knot before being able to prevent the unintentional, uncontrolled take-off, try to stay away from the ground or other pilots by flying away from the mountain, before taking any corrective action on the wing. This means that you weight shift and/or counter brake the opposite side of the wing and control the flying direction with the least amount of force needed for the wing to fly straight away from the mountain. Be careful not to apply too much brake or to fly too slowly to avoid a stall or spin. When you are at a safe distance away from the mountain and you have gained relative height by flying away, you may want to gently and briefly pull the lines that are tangled with the knot. If the knot is on the brake lines you might want to gently and briefly “pump” the appropriate brake line. Please note that by pulling the lines, the knot may get stuck in a worse position and the situation may escalate also to a stall or spin. Therefore, if you estimate that you can control the wing relatively safely and that the knot is not released by gently and briefly pulling the tangled lines, immediately fly to the landing zone and land safely.

## Normal flight, best glide

Without any brakes applied and without using the accelerator, the wing flies at the so called “trim speed“. In calm air this is theoretically the best glide speed. The best speed glide depends on the glider's polar and air mass, vertical and horizontal speed. We recommend reading more about the theory of the best glide and McCready theory.

## Minimum sink

If you apply brakes on both sides for about 10 -15 cm you will slow the glider to the theoretical minimum sink speed. But we do not recommend using this speed even for thermalling, as you achieve much better climbing and control by letting the glider fly with its “trim speed” and natural energy. With a proper take-off weight you will find that the glider has great climb, reactions and agility.

## Accelerated flight

After you get comfortable flying the King, you can start practicing using the speed system, which will provide better performance while gliding against the wind and through a sinking air mass. The King was designed to be stable through its entire speed range, but this requires the use of active flying techniques. Note that any glider becomes less stable while flying accelerated and that the risk of a collapse is higher in accelerated flight. Additionally, the reaction of the glider to a collapse in accelerated flight is more radical in comparison to the one which occurs at trim speed.

We recommend that you avoid accelerated flight near the ground and to be very careful using the accelerator in turbulent conditions. Use a soft speed bar, which enables you to accelerate the glider by using only one leg. To control the direction use weight shift. To control the pitch change the amount of the speed bar. Do not use or pull the brakes while using the speed bar. Use the speed bar progressively when accelerating and instantly release when you feel a slight loss of tension, pressure or even a collapse. If you encounter a collapse while using the accelerator, release the speed bar immediately before taking any other corrective action. Always keep more distance from the ground when using the speed bar.

## Active flying

This is a basic flying technique for any pilot. It implies permanent control and the correction of pitch and roll movements together with the prevention of any deflations or collapses. In a nutshell this means flying straight through active or turbulent air, so that the pilot keeps the glider above his or her head at all times, compensating and correcting any unwanted movements of the wing.

### **Few examples:**

- While entering a strong thermal, the wing will stay a little bit behind relative to the pilot. The pilot should let the brake up allowing the wing to fly faster and to catch up.
- If the wing surges in front of the pilot, the pilot should counter brake until the surge is controlled and then release the glider to let it fly normally.
- If the pilot feels a loss of tension on the wing or a loss of pressure on the brakes on one side of the wing, he should smoothly apply the brake on the side with loss of pressure and/



or weight shift to the opposite side until the pressure returns. After that, again release the brake and/or weight shift to the neutral position and let the glider fly normally.

The key in all cases is to avoid an over-correction and not to maintain any correction longer than necessary. After each action let the glider fly normally again. To re-establish its required flying speed. You can train or get a feeling for most of these movements safely on the ground while ground handling your glider. Good coordination of your movements and coordination with the wing on the ground will enable you a quick progression when actively flying in the air. The next step is to attend SIV courses where you should also get a better understanding of the full brake range and the glider's speeds.

## Flying in turbulence

Wing deflations can occur in a strong turbulence. The King is designed and tested within EN-D certification rules it means it needs pilot's input for faster rerecover from deflations. The King is designed and tested to recover without pilot's input in almost all situations by simply releasing the brakes and letting the glider fly. To train and understand all the manoeuvres described, attend SIV courses.

### **Cascade of events**

Many reserve deployments are the result of a cascade of over-corrections by the pilot. Over-corrections are usually not problematic because of the input itself or its intensity; but due to the length of time the pilot continues to over-handle. After every input you have to allow the wing to re-establish its normal flying speed. Note that over-corrections are often worse than no input at all.

### **Asymmetric deflations**

Strong turbulence may cause the wing to collapse asymmetrically. Before this occurs the brake lines and the feeling of the harness will transmit a loss of pressure to the pilot. This feedback is used in active piloting to prevent a collapse. If the collapse does occur, the King will easily re-inflate without the pilot's reaction, but the wing will turn towards the collapsed side. To prevent this from happening turn and actively recover the asymmetric collapse by weight shifting and applying appropriate brake input on the side that is still flying. Be careful not to over-brake your wing's flying side. This is enough to maintain your course and give the glider enough time to recover the collapsed side by itself. To actively reopen the collapsed side after course stabilization, pull the brake line on the collapsed side firmly and release it. You can do this several times with a smooth pumping motion. After the recovery, release the brake lines for your glider to regain its trim speed. You must be aware of the fact that asymmetric collapses are much more radical when flying accelerated. This is due to the difference in weight and the inertia of the canopy and the pilot hanging below.

### **Symmetric deflations**

Symmetric or frontal deflations will normally reopen immediately by themselves without pilot's input. The glider will then regain its airspeed accompanied by a small surge forwards. To actively control this event, apply both brakes slightly when the collapse occurs and then instantly release the brakes to let the glider fly. Be prepared to compensate for the glider's slight surge forward while returning to normal flying.

### **Wing tangle, cravat**

A cravat is very unlikely to happen with the King, but it may occur after a severe deflation or in a cascading situation, when the wing tip gets caught in the glider's lines. A pilot should be familiar with the procedure of handling this situation with any glider. As King glider is stabilless glider outer B3 line has to be pulled down- Familiarize yourself with the stabilizer's main line ("stabilo" line (outsied line on B riser) already on the ground. If a cravat occurs, the first thing to do is to try to keep the glider flying on a straight course. Do this by weight shifting and counter braking the untangled side. After that, grab the stabilizer's main line on the tangled side and pull it down until it becomes tight again. At this point the cravat normally releases itself.

Possible solutions of the cravat situations (consult your SIV instructor):

- Pulling the wing tip B3 "stabilo" line
- Using a full stall, but it is essential to be very familiar with this manoeuvre. You also want to have a lot of relative height.
- If you are in a situation where you have a cravat and you are low in rotation or even with twisted risers, then the only solution is the reserve parachute.

### **Negative spin**

In normal flight you are far from negative spin. But, certain circumstances may lead to it. Should this occur, just release the brake lines progressively and let the wing regain its flying speed. Be prepared for the glider to surge forward, compensating the surge with brake input if necessary.

### **Full stall**

A full stall does not occur unintentionally on its own – it happens if you pull both brakes for 100% and hold them. The wing then performs a so called full stall. Releasing the brakes improperly may lead to massive surge of the glider with danger of falling into the canopy. This is a complex manoeuvre and as such outside the scope of this manual. You should practice and learn this manoeuvre only on a SIV course under professional supervision.

### **Deep stall**

Generally when in deep stall, the wing has no forward motion and at the same time high sink speed. When in deep stall the wing is almost fully inflated. With the King it is very unlikely to get into this situation unintentionally. This could possibly happen if you are flying at a very low speed in turbulent conditions. Also the porosity of the material and line stretch on a very old glider can increase the possibility of the deep stall tendency. If you trained this manoeuvre on a SIV course you would realize that it is very hard to keep the King in deep stall. If you apply the brakes a little bit too much you enter the full stall. If you release the brakes just a little bit too much the wing returns to normal flight. If you want to practice the deep stall on SIV courses, you need to master the full stall first. Sometimes –King can stay locked in stable stall and Trailing edge of glider starts to flutter, if you get in this situation pull symetrically both brakes for 10-20 cm and and reelease them after 1-2 seconds gradually glider shoud pull forward after this and start to fly if not reapeat procedure. You need to pendulum glider with brakes to put it out of stability in stall.

# Fast decent techniques

Fast descent techniques should be well familiar to any pilot as they are important resources to be used in certain situations. These manoeuvres should be learned at your flying school as a part of paragliding pilot training. Nevertheless, we recommend practicing these manoeuvres on SIV courses under professional supervision.

## Big ears

This is a safe method to moderately loose altitude while still maintaining forward speed. To do big ears, release any brake line loops around your wrist, set your leg on the speed bar, but do not push it. Now pull the outer A lines (the A2 risers in the drawing) on both sides. As long as you keep the A2 risers pulled, the wing tips stay folded and the sink speed increases. To regain normal flight, release the A2 risers, and if necessary apply the brakes with short impulse movements. Release big ears at least 100 meters above the ground. While using big ears, the wing speed decreases, which is why we also recommend using the accelerator half way in combination with big ears to maintain enough horizontal speed and to also additionally increase vertical speed. Be careful not to pull the brakes while making the ears! Steering is done by weight shift only. Always do the big ears first and then accelerate; not the other way around as you will risk getting a frontal collapse.

## B line stall

While in the B-stall the glider has no horizontal speed and the sink rate increases to about -10m/s. To enter the B-stall reach for the B risers just above the maillons and pull both B line risers symmetrically for about 20 cm. To exit the manoeuvre, simultaneously release both risers quickly. On exit the King gently

dives without deep stall tendencies.

## Spiral dive

The spiral dive is the most demanding of all three manoeuvres (Big ears, B-stall, Spiral) and should only be trained gradually and always at high altitude. The spiral dive should be practiced and learned on a SIV course under professional supervision. To enter the spiral, weight shift to the desired side and gradually apply the brake on the same side. Then let the wing accelerate for two turns and you will enter the spiral dive.

While in the spiral, you can control your descent rate and bank angle by applying more or less inner brake. Depending on how steep the spiral is you may need to use also outer brake. To exit the spiral dive we recommend that the pilot is in the neutral weight shift position. If you release the inner brake, the wing exits the spiral dive by itself.

The King has no tendency of a stable spiral until -14m/s descent, but you should be aware of the procedure for exiting a stable spiral. The King can have tendency of a stable spiral until -14m/s descent, so you should be aware of the procedure for exiting a stable spiral.

To exit a stable spiral dive, weight shift to the opposite side of the turn and apply the outer brake until feeling the deceleration of the wing rotation. Then release the outer brake and let the glider decelerate for the next couple of turns. To avoid a big pendulum movement after exiting the spiral, apply a short brake input on the inner side before the glider exits the spiral.

Warnings (Spiral dive):

- There is a possibility of losing consciousness while in the spiral dive. Never make a spiral with more than 16-18m/s sinking speed.
- In fast spirals it may be necessary to apply the outer brake to begin exiting the spiral dive.
- If practicing the spiral dive low, a pilot may not have enough altitude or time to safely exit this manoeuvre.

# Winch launch

The King is easy to launch using a winch and has no special characteristics considering this kind of launching. To practice this launching technique special training is needed and you have to be aware of the procedures and dangers, which are specific for winching. We do not recommend using any special towing device which accelerates the glider during the winch launch.

# Aerobatics

The King was not designed for aerobatics, therefore, these may not be performed and should be extremely avoided, also increased stress will have influence in long term glider performance on this glider. In addition to this, any extreme manoeuvres place unnecessary stress on the glider and shorten its lifespan.

# Primary controls failure

If for any reason you cannot use the brake lines, you have to pilot the wing to the landing place by using weight shift. Weight shift should be enough to safely land the glider. You can also use the C risers to control and steer the wing. Be careful not to over-handle the glider by using the C riser technique when steering. By pulling

the C risers too strong you can cause a stall or a negative spin. Land your glider at trim speed without using the C risers, to avoid over-handling the glider low above ground. We recommend using weight shift.

## Landing

Similarly to the take-off, the King landing characteristics are easy. In turbulent conditions it is advisable to apply about 15% of the brakes, to increase stability and the feeling of the glider.

Before landing, adopt the standing position as this is the most effective and the safest way to compensate the touch down with your legs. Again we recommend training the landing manoeuvre, as it might be useful to be able to land in small places, especially in an unknown cross country terrain. Learn to evaluate the wind direction by observing the signs on the ground and also your drift while making turns. This proves to be useful for cross country, when landing outside of your usual landing field. Another advice we suggest taking into account in stronger winds is to go higher for the landing fields and thus assuring you reach them. Likewise, always look for possible alternatives downwind.

# Maintenance

## General advice

Careful maintenance of your glider and the following simple guidelines will ensure a much longer airworthiness and performance of your wing:

- Pack your glider after you land and do not unnecessarily expose it to UV radiation by leaving it on the landing site unpacked. The sun UV radiation degrades the cloth and lines material.
- Fold your glider like recommended under the section of packing instructions.
- If the glider is damp or wet when you pack it, partially unfold it at home to allow it to dry. Do not dry it in direct sunlight.
- Avoid exposing the glider to violent shocks, such as the leading edge hitting the ground.
- Avoid dragging the glider on the ground or through rocky terrain as you might damage the lines or canopy.
- Avoid stepping on the lines or canopy, especially when they are lying on a hard surface.
- Avoid exposing the glider to salt water, as it damages the lines and the canopy material (wash with fresh water).
- Avoid bending your lines, especially in a small radius.
- Avoid opening your glider in strong winds without first untangling the lines.
- In general, avoid exposing your glider to very hot or humid environments, UV radiation or chemicals.

## Packing instructions

It is important to correctly pack your glider as this prolongs its lifespan. We recommend that you fold the glider like a harmonica, neatly aligning the profiles with the leading edge reinforcements side by side. The wing should then be folded in Two parts or one folds. The wing should be packed as loosely as possible. While packing be careful not to trap any grasshoppers inside your canopy as they will tear the canopy cloth. This technique will make your glider last longer and ensure its best performance.

## Storage

Correctly packed, store your glider in a dry place at room temperature. The glider should not be stored damp, wet, sandy, salty or with objects inside the cells of the glider. Keep your equipment away from any chemicals.

## Cleaning

If necessary always clean your glider with fresh water and a cloth only, without using any cleaning chemicals. This includes also the lines and canopy. More importantly, always remove any stones or sand from the canopy as they will gradually damage the material and reduce the glider's lifespan.

## Repair

To repair small damages (less than 5cm) on the canopy cloth, you can use the rip stop tape. Greater damages, including stitches and lines must be repaired by a specialized repair shop. Damaged lines

should be replaced by a Triple Seven dealer. When replacing a line it should always be compared with the counterpart for adjusting the appropriate length. After the line was repaired, the wing should be inflated before flying, to ensure that everything was done correctly. Major repairs, such as replacing panels, should only be carried out by a Triple Seven distributor or Triple Seven. If you are unsure about the damage or in any doubt please contact Triple Seven.

## Checks and control

To ensure the wing's airworthiness the King has to be periodically serviced and checked to guarantee that the glider continues to fulfil the EN certification results and to extend your glider's lifespan. We recommend a line check and trim inspection every 100 hours or 12 months depending what happens first. After that, the glider needs to be fully checked after 150 hours or 24 months of usage, whichever comes earlier. This inspection includes checking the suspension lines, line geometry, riser geometry and the permeability of the canopy material. A certified inspector can then define the check interval depending on the glider's condition. Please note that the condition of the glider can vary considerably depending on the type of usage and environment. Salty coastal air or dunes will considerably affect your wing's material. For more information please visit our website.

## Retrim of the glider

After 25 of flying hours, we suggest to release all loops on sizes M and S. On the L size, release all loops except B1, and B2 which should be changed from cowboy to loops.

# Packing King

1. FOLD THE GLIDER LIKE HARMONICA AND ALIGN THE CELLS



2. FOLD THE GLIDER WITH THE HELP OF PACKING BLADDER



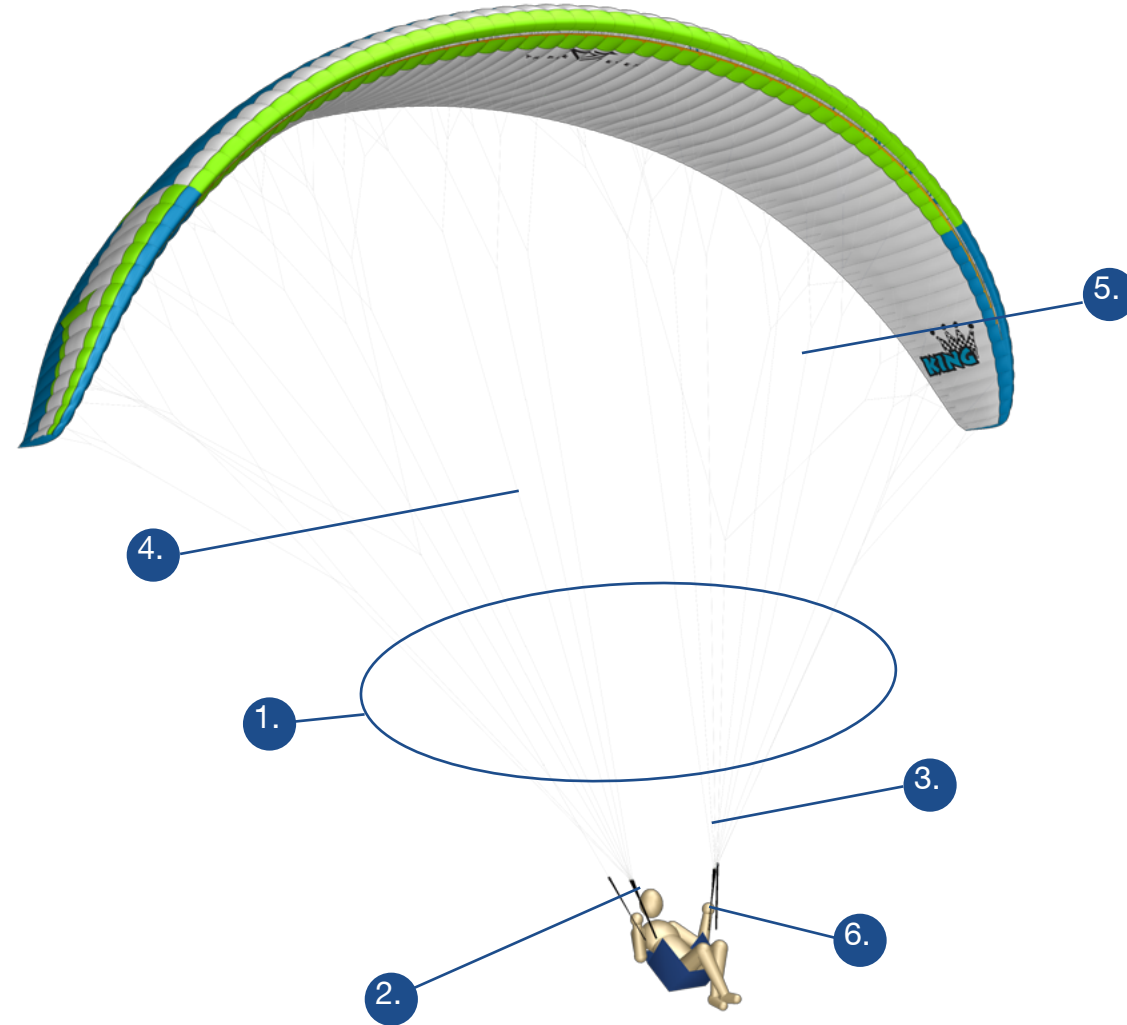
3. SLIDE THE GLIDER INTO THE BAG AND FOLD THE TRAILING EDGE. USE SPECIAL POCKET FOR THE RISERS



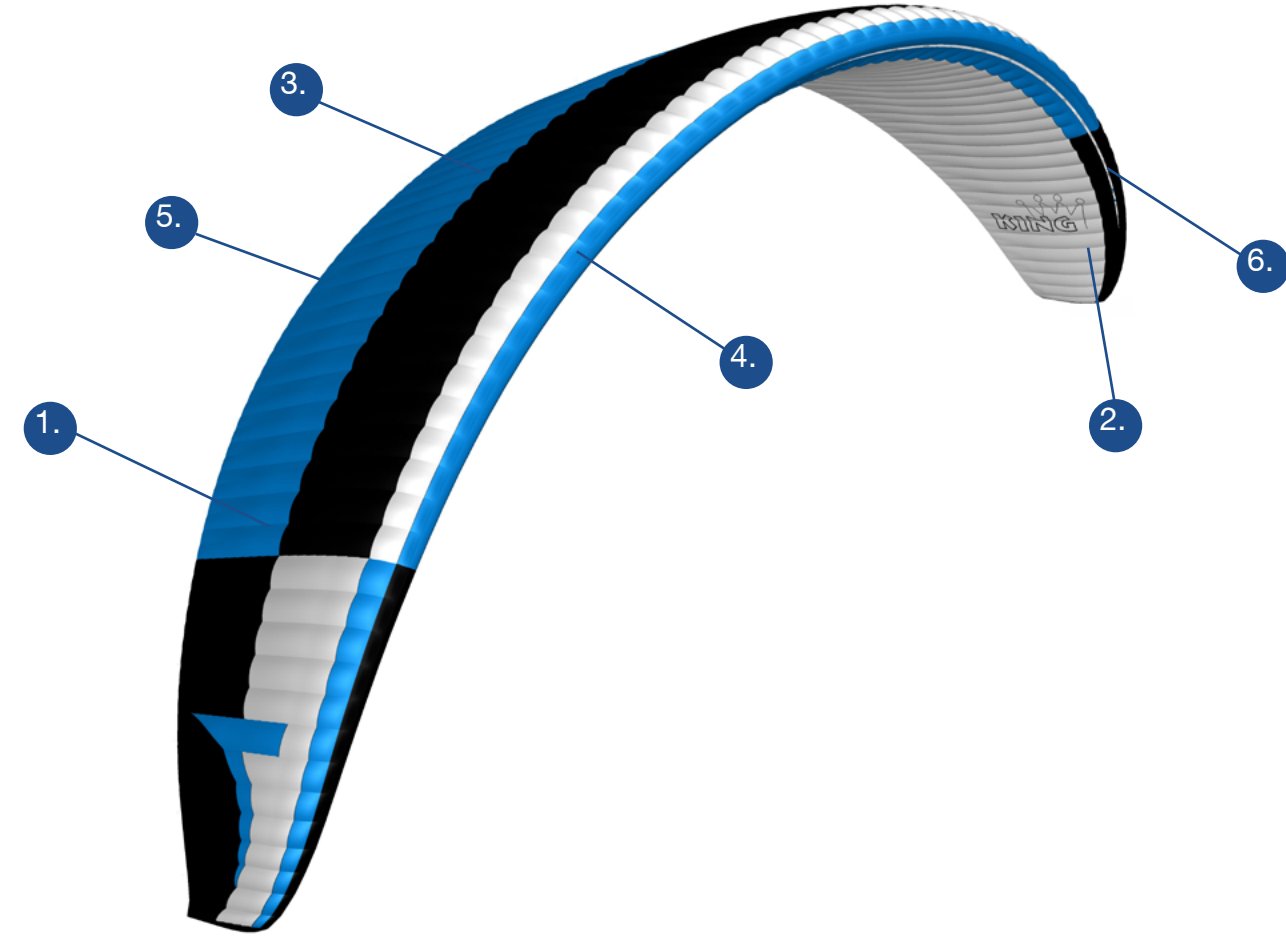
5. FINISHED



# Technical data



1. Suspension lines
2. Risers
3. Main lines
4. Middle cascades
5. Upper cascades
6. Brake lines



1. Canopy
2. Bottom surface
3. Top surface
4. Leading edge
5. Trailing edge
6. Intake cell openings

## Technical data

<b>SIZE</b>		<b>King S</b>	<b>King M</b>	<b>King L</b>
CELLS	NUMBER	72	72	72
FLAT	AREA	m <sup>2</sup> 22.2	24.6	26.4
	SPAN	m 12.5	13.2	13.6
	ASPECT RATIO	6.98	6.98	6.98
PROJECTED	AREA	m <sup>2</sup> 18.5	20.5	21.9
	SPAN	9.8	10.3	12.6
	ASPECT RATIO	5.272	5.272	5.272

<b>RISERS</b>		<b>1A</b>	<b>A2</b>	<b>B</b>	<b>C</b>	
<b>King S</b>	LENGTHS (mm)	510	510	510	510	STANDARD
<b>King S</b>	LENGTHS (mm)	364	384	436	510	ACCELERATED
S-Distance between pulleys: 140						

<b>King M</b>	LENGTHS (mm)	530	530	530	530	STANDARD
<b>King M</b>	LENGTHS (mm)	355	383	435	530	ACCELERATED
M-Distance between pulleys: 160						

<b>King L</b>	LENGTHS (mm)	550	550	550		STANDARD
<b>King L</b>	LENGTHS (mm)	*	*	*		ACCELERATED
L-Distance between pulleys: 180						

<b>SIZE</b>		<b>King S</b>	<b>King M</b>	<b>King L</b>
	TRIMS	NO	NO	NO

IN FLIGHT WEIGHT MINIMUM	kg	75	90	105
	MAXIMUM	kg 95	110	125
GLIDER WEIGHT	kg	5.1	5.7	6.2
CERTIFICATION	EN-LTF	D	D	D

## Materials description

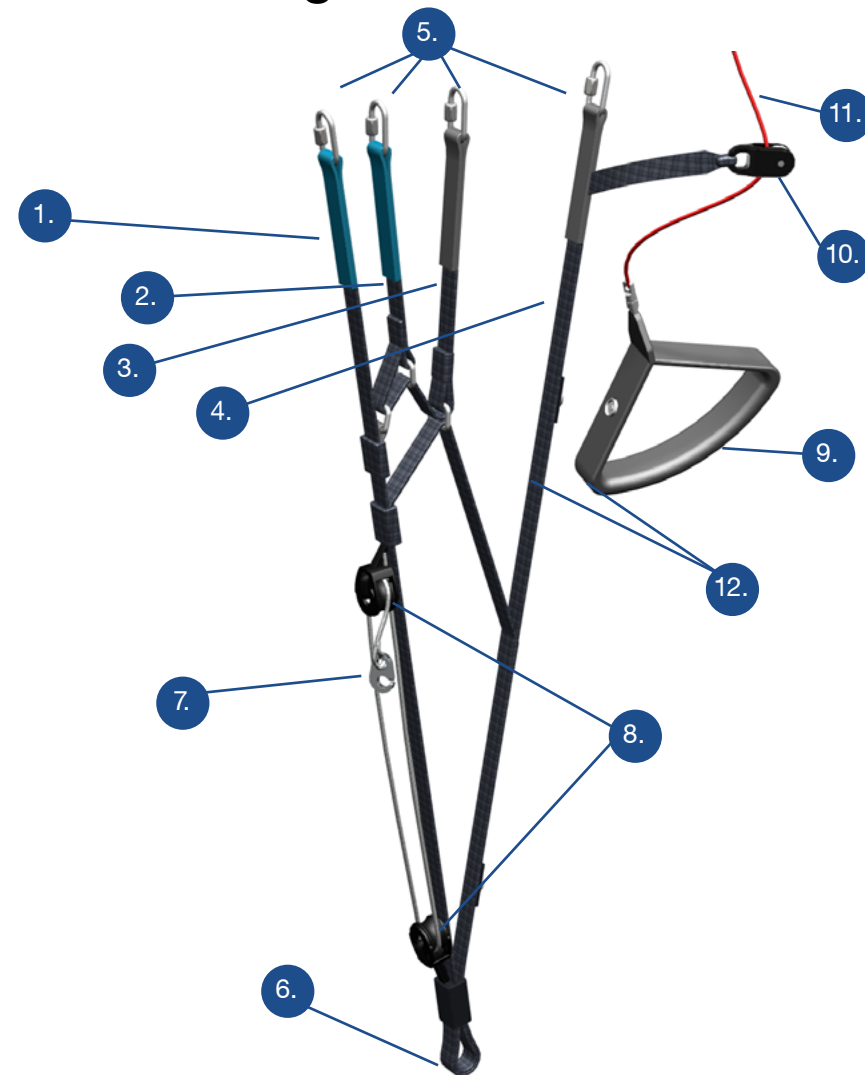
<b>CANOPY</b>	<b>FABRIC CODE</b>
Upper surface	Dominico N30 DMF
Bottom surface	Dominico N20 DMF
Profiles	Dominico N30 DMF
Nose reinforcement	Plastic wire 2.4mm 2.7mm 2.5mm

<b>SUSPENSION LINES</b>	<b>FABRIC CODE</b>
Upper cascades	EDELRID A9020-030
Upper cascades	EDELRID A8000U-025
Upper cascades	Liros DC60
Upper cascades	Liros DC 100
Middle1 cascades	Edelrid A8000U-200
Middle1 cascades	Edelrid A8000U-120
Middle1 cascades	Edelrid A8000U-070
Middle1 cascades	Edelrid A8000U-090
Middle 2 cascades	Liros PPSL 200
Middle 2 cascades	Liros PPSL 191
Middle 2 cascades	Edelrid A8000U-200
Middle 2 cascades	Edelrid A8000U-070
Main	Liros PPSL 191
Main stabilo	EDELRID A9020-030

Brake upper	Edelrid A8000U-025
Brake middle 1	EDELRID A9020-030
Brake middle 2	Edelrid A8000U-050
Brake main	Liros DC 100 connected DFL 1.5

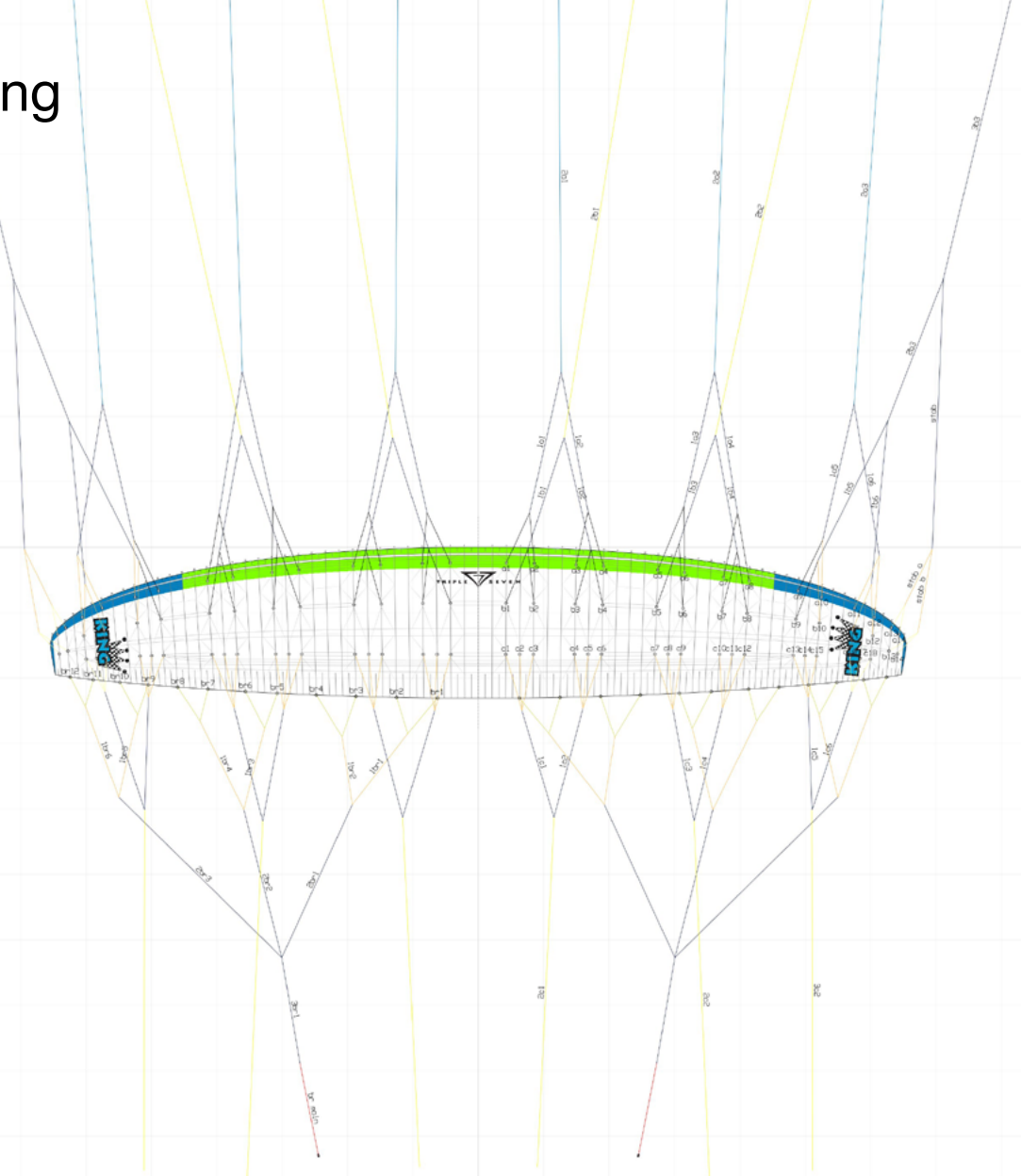
<b>RISERS</b>	<b>FABRIC CODE</b>
Material	Liros 13 mm black nylon webbing
Pulleys	4x Harken PA18

## King risers arrangement



1. A1 riser
2. A2 riser, (Ears)
3. B riser, (B-Stall)
4. C riser
5. Maillons
6. Main attachment point
7. Speed bar attachment point
8. Speed bar pulleys
9. Brake handle
10. Brake line pulley
11. Main brake line
12. Clip for brake handle
13. King has no trimmers or any other adjustable or removable device

# Line plan King



# Line lengths King S

## Triple Seven King S Lines Length (mm)

										<b>LINE CHECK</b>			
<b>First gallery</b>										a1	6822	c1	6816
<b>Lines A</b>	<b>mm</b>	<b>Lines B</b>	<b>mm</b>	<b>Lines C</b>	<b>mm</b>	<b>Lines C</b>	<b>mm</b>	<b>BR lines</b>	<b>mm</b>	a2	6741	c2	6727
a1	678	b1	668	c1	557	c17	524	br1	801	a3	6703	c3	6708
a2	597	b2	589	c2	468	c18	541	br2	527	a4	6750	c4	6672
a3	612	b3	603	c3	448			br3	674	a5	6650	c5	6678
a4	659	b4	651	c4	462			br4	658	a6	6556	c6	6754
a5	647	b5	635	c5	468			br5	622	a7	6483	c7	6646
a6	553	b6	546	c6	543			br6	452	a8	6495	c8	6556
a7	584	b7	573	c7	530			br7	458	a9	6237	c9	6529
a8	597	b8	589	c8	440			br8	557	a10	6139	c10	6462
a9	728	b9	673	c9	413			br9	534	a11	6007	c11	6456
a10	629	b10	579	c10	442			br10	460	a12	5978	c12	6512
a11	701	b11	671	c11	436			br11	302	a13	5821	c13	6240
a12	672	b12	647	c12	492			br12	447	a14	5798	c14	6163
a13	294	b13	289	c13	621					b1	6724	c15	6125
a14	270	b14	290	c14	544					b2	6645	c16	6007
				c15	507					b3	6608	c17	5987
				c16	545					b4	6657	c18	6004
<b>Second gallery</b>										b5	6561	br1	7600
<b>Lines A</b>	<b>mm</b>	<b>Lines B</b>	<b>mm</b>	<b>Lines C</b>	<b>mm</b>			<b>BR lines</b>	<b>mm</b>	b6	6472	br2	7326
1a1	1175	1b1	1159	1c1	914			1br1	1039	b7	6405	br3	7111
1a2	1122	1b2	1108	1c2	864			1br2	677	b8	6422	br4	7095
1a3	1092	1b3	1070	1c3	851			1br3	845	b9	6183	br5	6939
1a4	988	1b4	976	1c4	755			1br4	767	b10	6088	br6	6769
1a5	1386	1b5	1419	1c5	994			1br5	487	b11	5958	br7	6697
1a6	1182	1b6	1196	1c6	839			1br6	695	b12	5934	br8	6796
Stab a	408	Stab b	426							b13	5835	br9	6657
<b>Main Lines</b>										b14	5836	br10	6583
<b>Lines A</b>	<b>mm</b>	<b>Lines B</b>	<b>mm</b>	<b>Lines C</b>	<b>mm</b>			<b>BR lines</b>	<b>mm</b>			br11	6623
2a1	4984	2b1	4907	2c1	5362			2br1	2495			br12	6768
2a2	4926	2b2	4866	2c2	5281			2br2	2222				
2a3	4134	2b3	1761	2c3	4640			2br3	2386				
		Stab	2789					3br1	1973				
								br main	1237				

# Line lengths King M

Triple Seven King M Lines Length (mm)										LINE CHECK			
<b>First gallery</b>										a1	7187	c1	7186
Lines A	mm	Lines B	mm	Lines C	mm	Lines C	mm	BR lines	mm	a2	7107	c2	7094
a1	712	b1	702	c1	586	c17	552	br1	842	a3	7068	c3	7075
a2	632	b2	623	c2	494	c18	570	br2	552	a4	7114	c4	7035
a3	647	b3	637	c3	475			br3	706	a5	7012	c5	7036
a4	693	b4	685	c4	494			br4	693	a6	6918	c6	7110
a5	681	b5	668	c5	495			br5	654	a7	6842	c7	7004
a6	587	b6	579	c6	569			br6	476	a8	6851	c8	6914
a7	617	b7	605	c7	556			br7	481	a9	6583	c9	6891
a8	627	b8	619	c8	466			br8	586	a10	6480	c10	6822
a9	766	b9	708	c9	444			br9	561	a11	6342	c11	6811
a10	663	b10	610	c10	472			br10	484	a12	6312	c12	6865
a11	738	b11	706	c11	460			br11	316	a13	6148	c13	6586
a12	707	b12	682	c12	515			br12	469	a14	6123	c14	6505
a13	309	b13	304	c13	654					b1	7076	c15	6466
a14	285	b14	306	c14	573					b2	6997	c16	6343
				c15	534					b3	6960	c17	6322
				c16	573					b4	7007	c18	6339
<b>Second gallery</b>										b5	6914	br1	7999
Lines A	mm	Lines B	mm	Lines C	mm			BR lines	mm	b6	6824	br2	7709
1a1	1256	1b1	1239	1c1	988			1br1	1092	b7	6755	br3	7486
1a2	1203	1b2	1188	1c2	929			1br2	715	b8	6769	br4	7473
1a3	1170	1b3	1146	1c3	924			1br3	887	b9	6526	br5	7309
1a4	1064	1b4	1051	1c4	827			1br4	809	b10	6428	br6	7131
1a5	1459	1b5	1493	1c5	1046			1br5	511	b11	6290	br7	7058
1a6	1245	1b6	1259	1c6	884			1br6	732	b12	6266	br8	7163
Stab a	431	Stab b	450							b13	6162	br9	7019
<b>Main Lines</b>										b14	6164	br10	6942
Lines A	mm	Lines B	mm	Lines C	mm			BR lines	mm			br11	6985
2a1	5228	2b1	5154	2c1	5628			2br1	2621			br12	7138
2a2	5171	2b2	5115	2c2	5539			2br2	2339				
2a3	4364	2b3	1854	2c3	4902			2br3	2518				
		Stab	2937					3br1	2152				
								br main	1237				

# Line lengths King L

Triple Seven King L Lines Length (mm)										LINE CHECK			
<b>First gallery</b>										a1	7449	c1	7444
Lines A	mm	Lines B	mm	Lines C	mm	Lines C	mm	BR lines	mm	a2	7362	c2	7348
a1	739	b1	728	c1	607	c17	572	br1	872	a3	7323	c3	7327
a2	652	b2	643	c2	511	c18	590	br2	570	a4	7376	c4	7290
a3	667	b3	657	c3	490			br3	730	a5	7270	c5	7298
a4	720	b4	711	c4	502			br4	718	a6	7169	c6	7381
a5	706	b5	692	c5	510			br5	677	a7	7091	c7	7266
a6	605	b6	596	c6	593			br6	494	a8	7105	c8	7168
a7	637	b7	624	c7	578			br7	497	a9	6826	c9	7140
a8	651	b8	643	c8	480			br8	607	a10	6719	c10	7069
a9	794	b9	734	c9	452			br9	581	a11	6576	c11	7063
a10	687	b10	632	c10	481			br10	501	a12	6545	c12	7125
a11	764	b11	732	c11	475			br11	326	a13	6376	c13	6829
a12	733	b12	707	c12	537			br12	486	a14	6351	c14	6746
a13	320	b13	315	c13	678					b1	7331	c15	6705
a14	295	b14	317	c14	594					b2	7246	c16	6578
				c15	554					b3	7209	c17	6556
				c16	594					b4	7263	c18	6575
<b>Second gallery</b>										b5	7162	br1	8281
Lines A	mm	Lines B	mm	Lines C	mm			BR lines	mm	b6	7066	br2	7979
1a1	1279	1b1	1262	1c1	994			1br1	1130	b7	6995	br3	7751
1a2	1226	1b2	1210	1c2	945			1br2	742	b8	7014	br4	7739
1a3	1189	1b3	1165	1c3	926			1br3	918	b9	6767	br5	7570
1a4	1079	1b4	1066	1c4	826			1br4	840	b10	6665	br6	7387
1a5	1511	1b5	1547	1c5	1083			1br5	528	b11	6523	br7	7312
1a6	1291	1b6	1305	1c6	916			1br6	759	b12	6498	br8	7422
Stab a	447	Stab b	467							b13	6390	br9	7273
<b>Main Lines</b>										b14	6392	br10	7193
Lines A	mm	Lines B	mm	Lines C	mm			BR lines	mm				br11 7239
2a1	5446	2b1	5364	2c1	5859			2br1	2712				br12 7399
2a2	5390	2b2	5327	2c2	5778			2br2	2423				
2a3	4531	2b3	1921	2c3	5084			2br3	2612				
		Stab	3043					3br1	2275				
								br main	1237				



# Safety and responsibility

Paragliding is a dangerous and high risk activity, where safety depends on the person practicing it. By purchasing this equipment you are responsible to be a certified paragliding pilot, and you accept all risks involved in paragliding activities, including serious injury and death. Improper use or misuse of paragliding equipment considerably increases these risks.

The designer, manufacturer, distributor, wholesaler and retailer cannot and will not guarantee your safety when using this equipment or accept responsibility for any damage, injury or death as a result of the use of this equipment. This equipment should only be used by qualified and competent pilots or by pilots under supervision of qualified paragliding instructors. You must not use this equipment if you are not trained.

You alone as a qualified and competent pilot must take full responsibility to ensure that you understand the correct and safe use and maintenance of this paragliding equipment and to use it only for the purpose that it was designed for and to practice all proper safety procedures before and during its use.

# Guarantee

Triple Seven WARRANTY:

All Triple Seven products are fully warranted for 24 months, against material defects that are not the result of normal wear or accidental damage.

# Registration information

To fully use all Triple Seven maintenance and warranty services you need to register your glider on our website. Wanting to provide good product support, we invite you to do so, even if you bought your glider second-hand.

## **Triple Seven Warranty & Product registration:**

<http://www.777gliders.com/tripleseven/support>

# Get involved

As a new Triple Seven pilot we invite you to contact us in case of any technical or practical issues regarding equipment or techniques. We also invite you to send us your flying photos, videos or even postcards. We would like to hear from you and your exciting adventures with your new glider! Finally, join our Facebook community and share the passion. Have fun!

# Contact

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## Online resources

**For complete help, the latest news, product information and support go to:**

**Official website:**  
[www.777gliders.com](http://www.777gliders.com)

**Facebook:**  
[www.facebook.com/TripleSevenParagliders](http://www.facebook.com/TripleSevenParagliders)

**Newsletter register:**  
[www.777gliders.com/newsletter/subscriptions](http://www.777gliders.com/newsletter/subscriptions)

## Ask questions, make suggestions

**General questions:**  
[info@777gliders.com](mailto:info@777gliders.com)

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