2015
v1.0

User's manual

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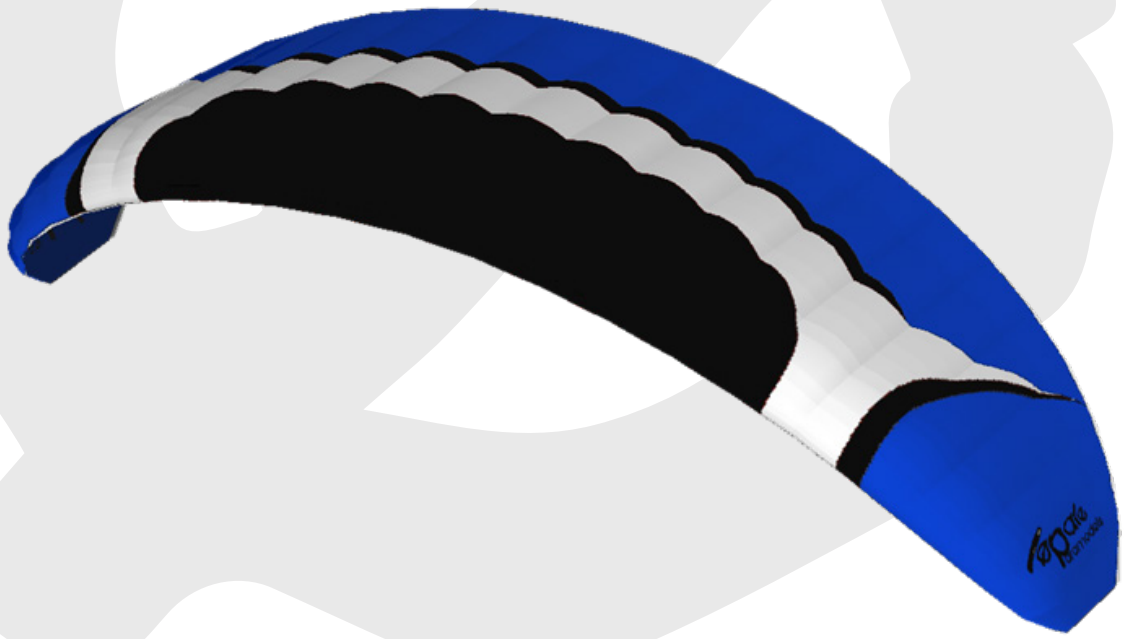

Merci de lire ce manuel avant la première utilisation.

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Thanks for having chosen an Opale-Parmodels product. We truly believe this remote-controlled paraglider is going to give you hours of enjoyment and will enable you to go through new outstanding piloting experiences. This user's guide content includes all the information you need to get your wing in flight and to ensure you will take good care of it. A good knowledge of your equipment will allow you to safely obtain most of its performances for your greatest pleasure! Thanks for giving this manual to the new owner in case you decided to sell your radio-controlled paraglider.

Best regards,
The Opale-Paramodels Team

Safety Information

You should be properly insured according to the country regulation you are using our equipment in. You hereby accept the inherent risk of flying radio-controlled models.
Using our equipment in a bad way may increase risks. Neither Opale-Paramodels nor any other seller will be liable for any damage caused by any accident whatever the circumstances are. The way our equipment is used is incumbent upon the final user, including towards the law.

Contents

Warranty

The wing is guaranteed against any manufacturing defect.
If, while using, the pilot cut or damage a bridle, tear any part of the wing,repair and replacement of damaged parts are not taken in account by the warranty and the user will be charged for it.

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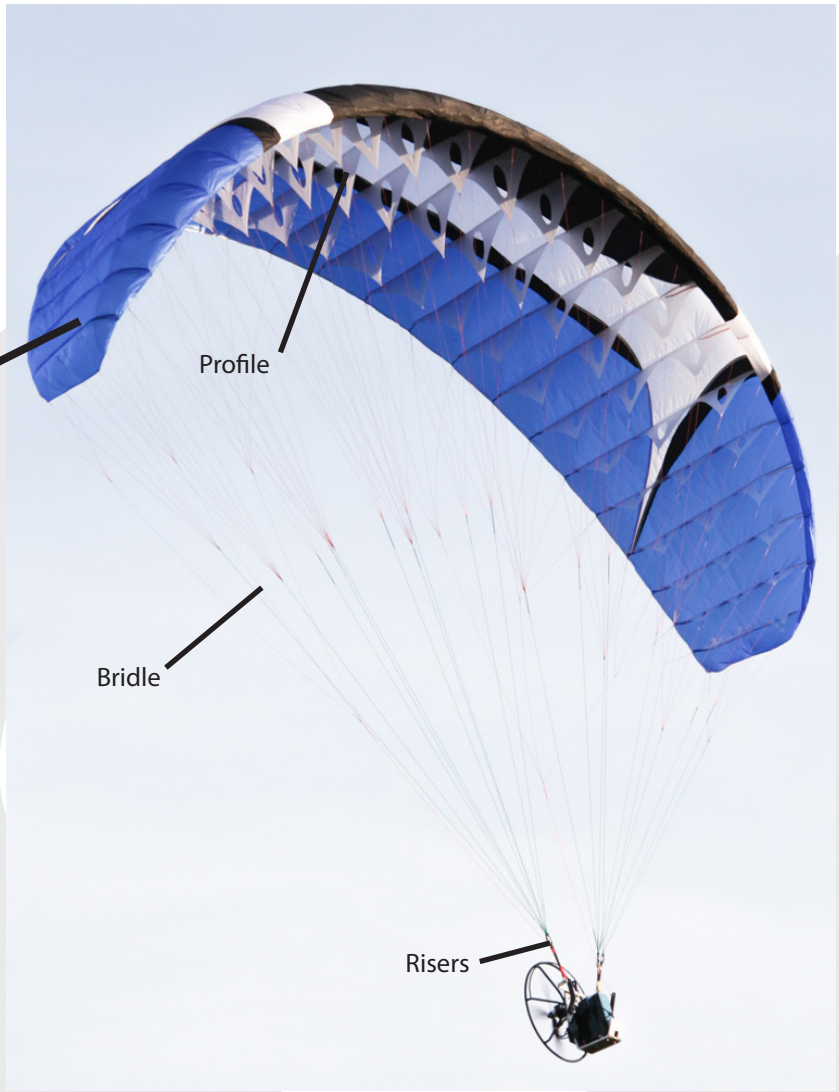
Wing composition



Specifications

Flat wingspan: 5,10m
Ratio: 5.1
Flat surface: 5m2
Bridle: Spliced Aramid 50daN / DFL 120
Tissue: Nylon Ultra light 20D 32gr
Cells: 25
Space between risers: 15 to 25cm

Total weight (incl RTF Backpack)	5kg	7kg	10kg	12kg	15kg
Wind speed	5km/h	10km/h	15km/h	20km/h	30km/h

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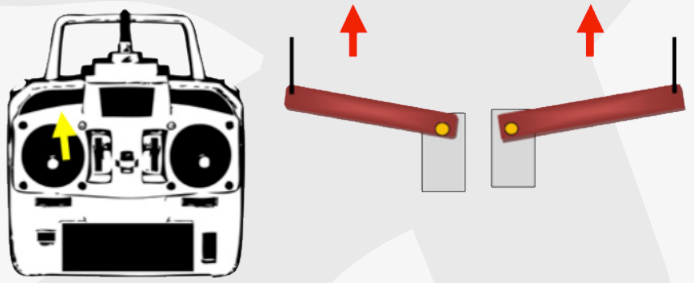
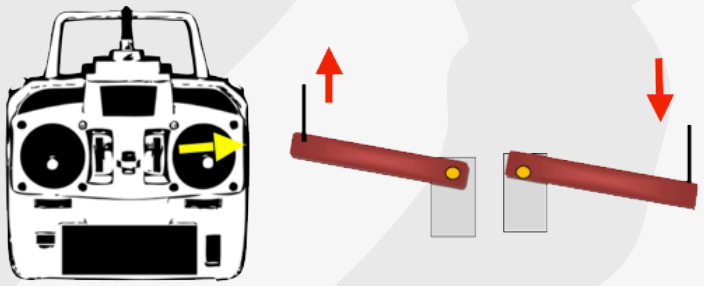
Radio Setup

Connect the backpack servos (or pilot ones) to the radio receiver. Think of removing the propeller before handling.
To fly the wing effectively, your radio must absolutely include a "Delta/V-Tail" mixer.
In case of using a non-programmable radio, you will have to use an additional module between the receiver and the two servos, to do this mix. It is necessary to add a rubber band on the left stick (in Mode 1) in order to maintain constantly in flight the arms in high position.
The amplitude of clearance of each servos must be 90° on a full clearance with each stick.
The V-tail mixer offers the advantage to fly the wing as a real.
As below:

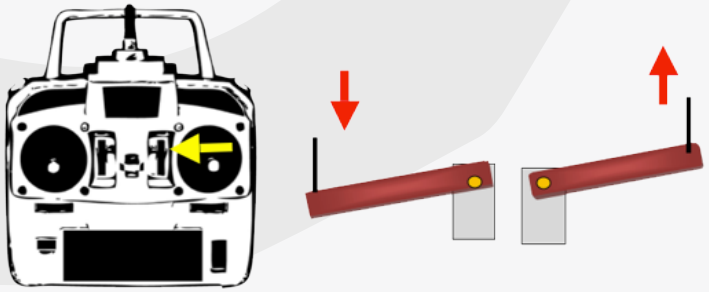
Flight position maximum speed :
the trajectory is rectlinear



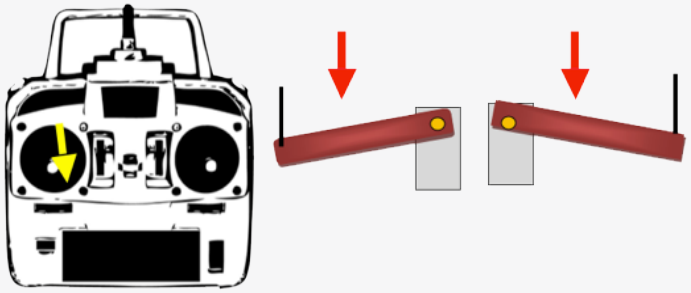
Right turn:
right arm move downwards, left arm move upwards



Left turn:
Right arm move upwards, left arm move downwards.



Flight position minimum speed:
both arms move downwards



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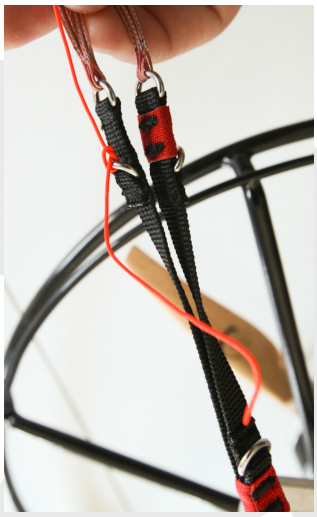
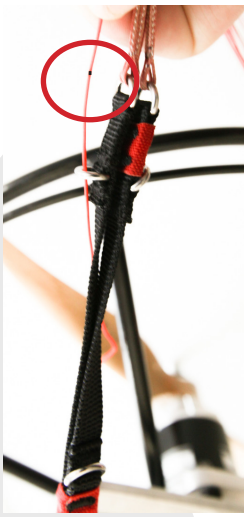
Brakes Setup

Brakes setup is a crucial step to use your remote controlled paraglider. Without it, it will be impossible for you to fly your model.
Before proceeding, unknot the orange brake bridle fixed on the riser's back ring.





Then, you just have to adjust the brake length according to the "two inflating" method in order to have a total control on the aircraft during the take-off.

Adjust approximately your brake's length, in a way to obtain the same distance on left brake and right brake, thanks to the black mark on the bridle (this mark must be at the same height than the last bridle attachment ring on the riser). Put the backpack in flight attitude, so the servos, in high position, pushing the depth stick.
Then, make a knot in a shoelace style to ensure its attachment at the arm's endpoint.

- FIrst step:

Put the servos in high position and perform an inflating by pulling the backpack in a horizontal way. If the wing encounters difficulties to inflate, increase brake's length until you obtain a satisfactory inflating.
If it inflates without problem, move to the next step.

- Second step:

Put the arms in low position.
Try to inflate the wing. If it inflates, reduce brake's length centimeter by centimeter until it can't inflate anymore.
If the wing doesn't inflate, the adjustment is correct.

- Third step:

During first flight, look if your wing deflect on the left or on the right while pulling simutaneously on both brakes.
Then, you just have to adjust the concerned brake's length until you obtain a perfectly rectilinear trajectory.

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Folding of the wing

A correct folding is important to optimize the wing's longevity.
It is strongly recommended to fold it acording to the following method (valid for any wing):

Bring the wing's endpoints to the center of the wing. Put the risers at the bottom of the central cells in order not to mix the bridle and avoid any overflowing.

Then, bend the wing in two taking care of not folding the stabilizing rushes. Then insert the wing in its carry bag.

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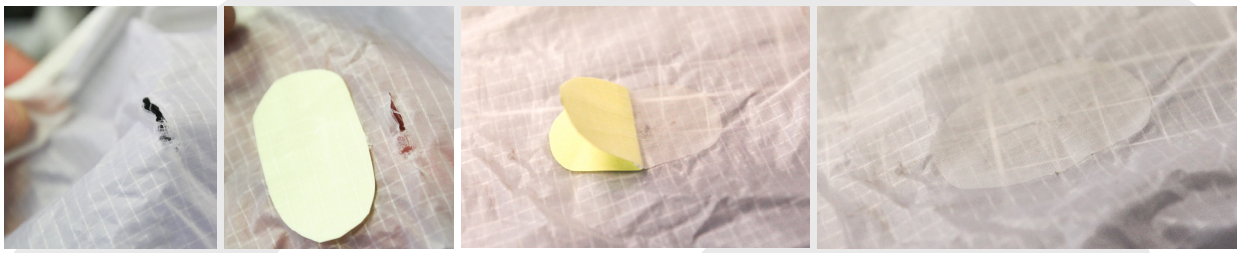
Repair

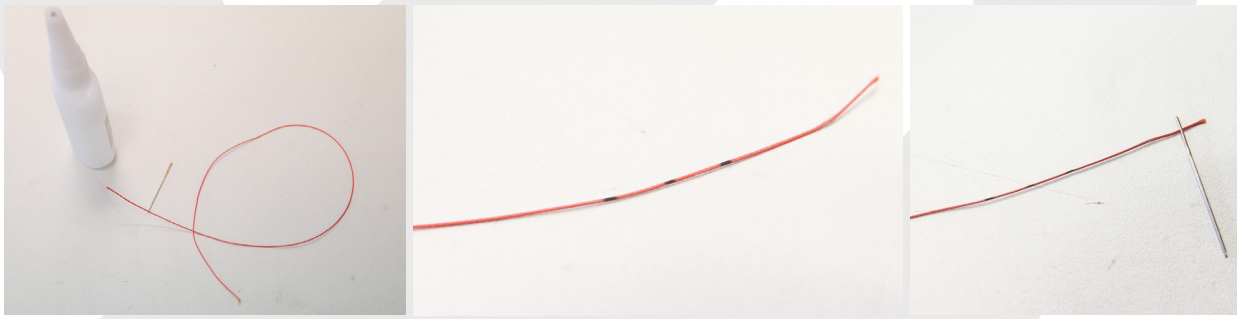
Repair a tear (if it don't exceed 10cm)

Some adhesive tissue is provided with the wing at purchase.
Arm yourself with the good color, and cut an oblong shape pad with 2 cm outside outlines regarding to the tear shape.
Position this pad on the wing's extraback and be careful to not make any folds. Teared parts must be put edge to edge.
Press firmly on the adhesive tissue in order to remove the air.

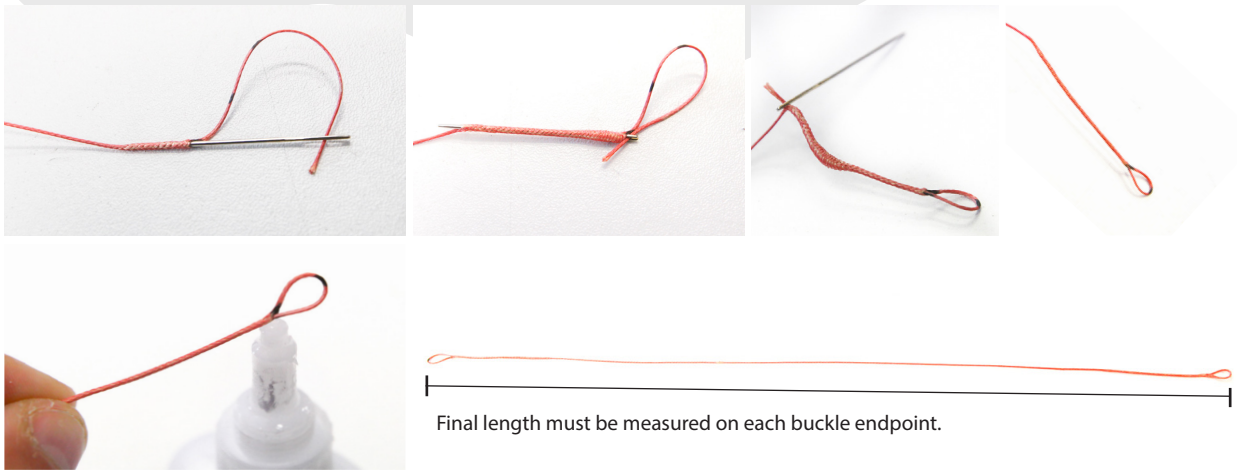


Replace a damaged bridle

Arm yourself with the raw material included with your wing. Natural color Aramid is 25 daN. It is used for the bridle connected to the wing, on the clip.
Red Aramid is 50 daN, used to connect the 25 daN bridle and the risers link.
If a bridle is cut, it is important to use exactly the same material and redo as before the same length, to the millimeter, by respecting the procedure below.



Use a needle to be papered, with a round endpoint and liquid cyanoacrylate glue.
To perform the first buckle, put a mark at 4 cm from the endpoint with a marker pen. Then, put 2 another marks with 1cm space between each. Then place the endpoint in the needle's hole.



Final length must be measured on each buckle endpoint.

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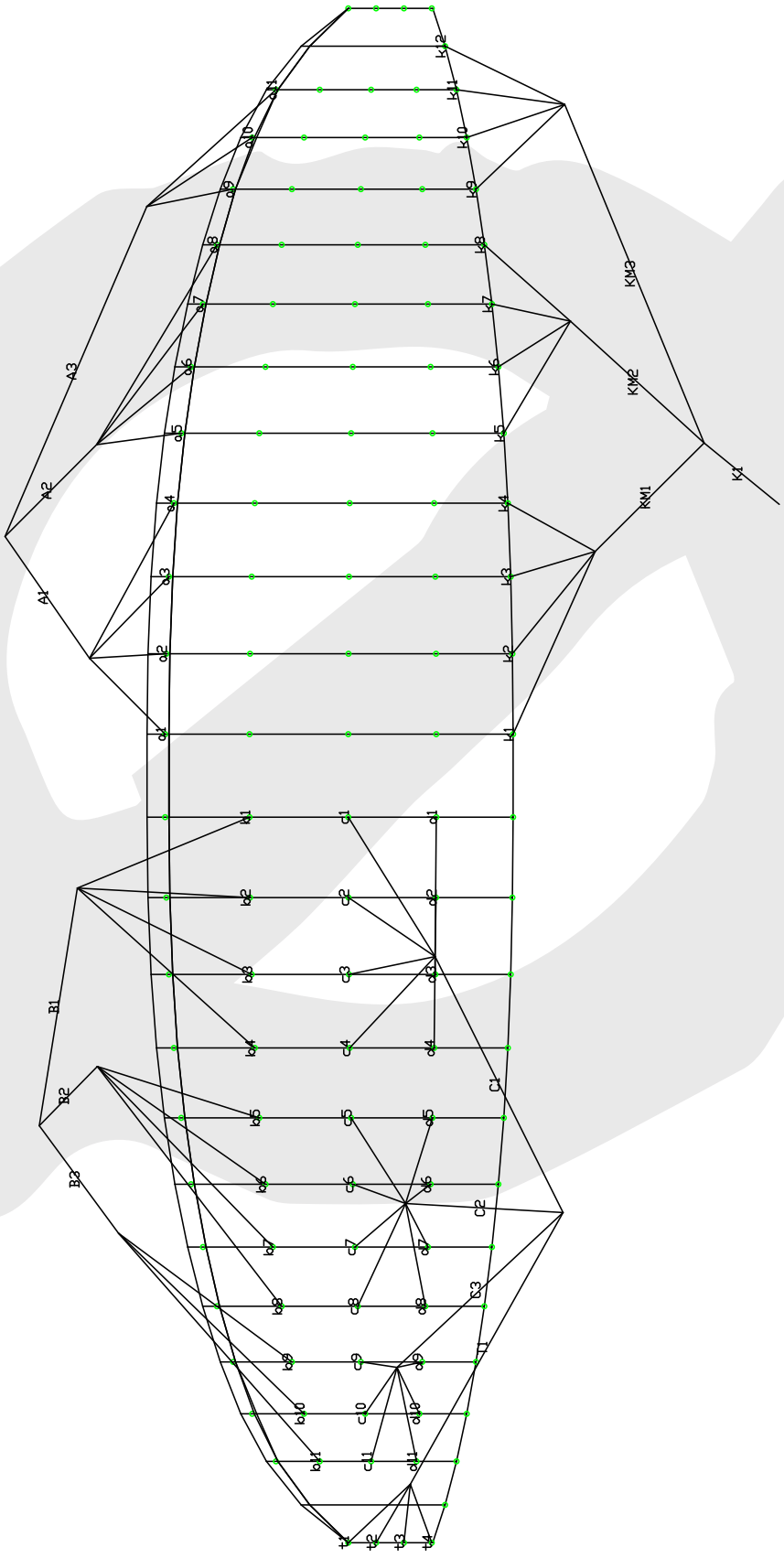
Bridle Layout



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Bridle Layout

Length in millimiters

a1 ,1435	c1 ,1300	t1 ,749
a2 ,1400	c2 ,1269	t2 ,741
a3 ,1393	c3 ,1265	t3 ,745
a4 ,1408	c4 ,1283	t4 ,759
a5 ,1387	c5 ,1254	
a6 ,1359	c6 ,1223	A1 ,1500
a7 ,1340	c7 ,1204	A2 ,1500
a8 ,1327	c8 ,1193	A3 ,1500
a9 ,1265	c9 ,1131	T1 ,1729
a10 ,1203	c10 ,1081	
a11 ,1144	c11 ,1040	B1 ,1500
		B2 ,1500
b1 ,1309	d1 ,1343	B3 ,1500
b2 ,1277	d2 ,1313	
b3 ,1272	d3 ,1308	C1 ,1500
b4 ,1291	d4 ,1325	C2 ,1500
b5 ,1268	d5 ,1287	C3 ,1500
b6 ,1242	d6 ,1249	
b7 ,1227	d7 ,1222	
b8 ,1220	d8 ,1204	
b9 ,1161	d9 ,1136	
b10 ,1111	d10 ,1082	
b11 ,1067	d11 ,1039	
k1 ,1071	KM1 ,1100	
k2 ,980	KM2 ,1100	
k3 ,839	KM3 ,1200	
k4 ,944		
k5 ,882		
k6 ,827		
k7 ,802	K1 ,1000+300	
k8 ,801		
k9 ,655		
k10 ,591		
k11 ,549		
k12 ,533		

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F.A.Q. Questions / Answers

My RC paramotor seems not to move forward very fast. How to remedy this problem?'
If your model advance a little bit, or if it even stays on-the-spot, it is because your model is too light. In that case, you have to land and increase the weight with additional ballast or batteries until you obtain a 5 to 10 km/h with regard to the ground.

How do I know if the brakes bridle are adjusted correctly?
Brakes bridle are perfectly adjusted when the trailing edge is completely loose while flying, with the depth stick pushed up. Also, as soon as you push laterally of some millimiters the aileron stick, the trailing edge must begin to fold immediately. Otherwise, you must shorten centimeter by centimeter until you obtain an immediate control. It is a matter of the RC paramotor stability. The "Two inflating" method let perform a correct adjustment in 80% of cases. Think of it!

How do I know if the wing is correctly connected to the backpack?
When holding the model by the backpack/pilot, wing downwards, none of the bridle must cross, or turn around another bridle. Otherwise, you will have to untangle your wing. Before first flight, check the tightening of your inox buckles.

In what sense is it necessary to mount the propeller?
To obtain a maximal thrust, the propeller leading edge must be directed forward the backpack. It is easy to recognize the leading edge, because it is the bulged portion and non cutting side of the propeller. The trailing edge must be directed backwards. It is the cutting part of the propeller.
Generally, propellers have a logo or a marking. It is most of the time put on the leading edge.

How to inflate correctly his RC paramotor wing?
To inflate correctly his wing, it is essential to face it to the wind, at a sufficient distance from any obstacle. (generally 300m). Maintain your backpack at the basis and give a dry horizontal pulse while accompanying the rise of the wing. Throw smoothly the backpack straight away with a 50% engine speed.

I broke a bridle. How can I replace it?
The bridle can be replaced easily by following the splice method described in this manual.

My wife is fed up with looking at me sleeping with my RC paraglider. What can I do?
This is a very complicated situation at first sight. Nevertheless, two solutions can solve this problem. At first, you can lend her your credit card during sales period, or, in a second time, ask her for a friendly divorce. (But prefer the first solution, your RC paraglider's custody is in the game!).

There is a hole in my wing. How can I fix it?
A hole can be fixed in a few minutes thanks to the adhesive tissue provided with your wing. Follow the instructions described in this manual at the previous chapter.

Why my wing doesn't inflate, even when facing to wind?
If the wing doesn't inflate even when facing to the wind, the brakes bridle adjustment is too short. In that case, extend them centimer by centimeter then perform again the "two inflating" method, to ensure the control at first take off.

Is it possible to replace the risers ?
A riser can be replaced easily. Contact your Opale Paramodels dealer to obtain the correct reference.

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F.A.Q. Questions / Answers

Is it possible for the RC paramotor wing to take away some material for shooting/FPV? Until which mass?
Each wing has a maximal takeaway capacity. Check the model total weight and compare it with the wing's take-away capacity. You will obtain the payload value, compatible or not with your equipment. Be careful, if you make your paramotor strongly heavy, think of a more powerful motorization, by keeping a 150 W motor ratio / Kg of complete model.

Can I fly anywhere with my wing? Is it a danger for the goods and the people?
You can't fly anywhere with your wing. To practice aeromodelling, you must own a third-party insurance and practice on a ground with the owner's agreement. Ideally, contact your aeromodelling federation. It is forbidden to fly in an urban zone and close to the houses. This type of model is not light, it can causes heavy physical and material damages. Use it carefully and without going above your limits.

Until which height can I fly the wing?
In order to not disturb aerial traffic, maximum authorized height is about 150m from the ground. Contact your federation and the organism of aerial traffic management of your country to have reliable information about it.

Is it possible for my hamster to fly my RC paramotor? Which precautions to take?
Check if your hamster is solidly attached to the backpack. The wear of a helmet and flysuit is advised. If you perform several 360) and wingovers, think of install under the batteries, a little plastig bag near its paws with few menthol candies.

Can I do another use of the paramotor wing?
This wing can be used for slope soaring without backpack. In that case, you will have to attach a pilot as real paraglider discipline.

Is it possible that the wing deflates while flying? Which behavior to adopt in that case?
If your wing deflates while flying and begin to reverse, it is because you have too much requested the brakes. To remedy this phenomenon, slacken gradually the radio sticks and think of cutting the throttle.

Is it important to untangle correctly the bridle befor flying? How can I do? I am lost with all those strings!
It is essential to untangle well the bridle. If not, you can strongly distort the flight characteristics of the wing. To untangle all the bridle fastly, drop the wing out of the backpack. Hold the riser by the endpoint and seize one by one the bridle around the principal bridle package Always take first the most distant bridle.

My wing is caught in a thermal and gets altitude. What can I do to regain control?
This scenario is usual when convection conditions are present. In that case, no panic. Relax and maintain a trajectory as rectilinear as possible to fastly go out of the thermal.

How can I maintain and clean my wing?
If you made your wing dirty, you can clean it with a wet cloth. You can rince it with clear water as well. Never use chemical products! The tissue could be hardly damaged. Think of tidy your wing in a dry place, shielded from UV and humidity.

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