

# spiral 2.4

## Manual

Thanks to read this guide before the first utilisation

Thank you for your interest for Opale-Paramodels. You will have lots of fun, spend lots of beautiful time with our RC paragliders and you will have lots of news sensations.  
You will need some informations to fly with your RC paragliders and to take care of your equipment, this book will be useful for that.  
You will be able to fly with your RC paragliders in safe environment and you will maximize the performance and enjoyment if you know your equipment.

Thank you to give this guide if you resell your RC paraglider

Best regards.

Opale-Paramodels Team.

## **Security informations**

Buying our products, you must have an insurance, (all companies do not accept this kind of activity, make sure with your insurance compagny ) and you accept all inherent risks of the RC paragliders activity.  
A misuse of products may increase the inherence risks in this activity. In any case, Opale-Paramodels, or the seller, cannot be blamed for the damage occurred as a result accident in any circumstances. The user of the product remains in all circumstances, responsible for the use he makes of it.

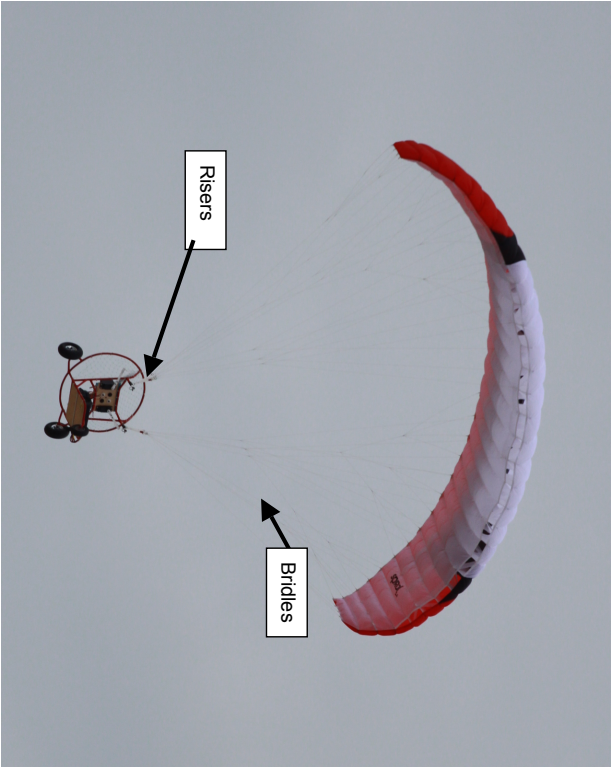
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## 1. Opale-Paramodels

Opale-Paramodels was created in 2009 by Mathieu Charles, model concepthor and paragliding pilote.  
Opale-Paramodel's philosophy is simple : have lots of fun with accessibility maximum.  
Our products come from a long conception. We choose our products because of their quality and their sustainability.

## 2. Utilisation de la Spiral 2.4m<sup>2</sup>

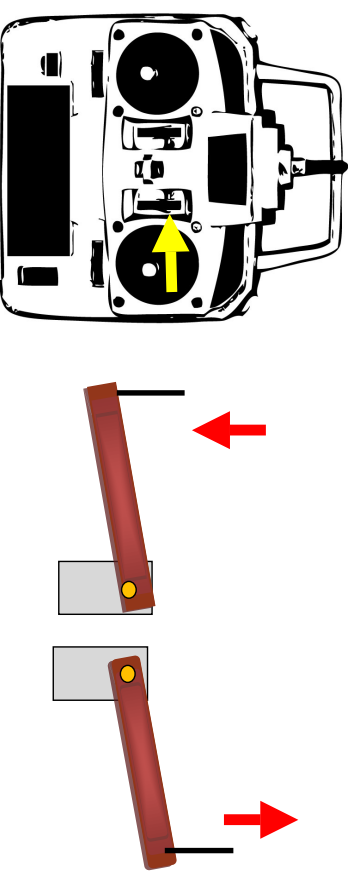
Composition :



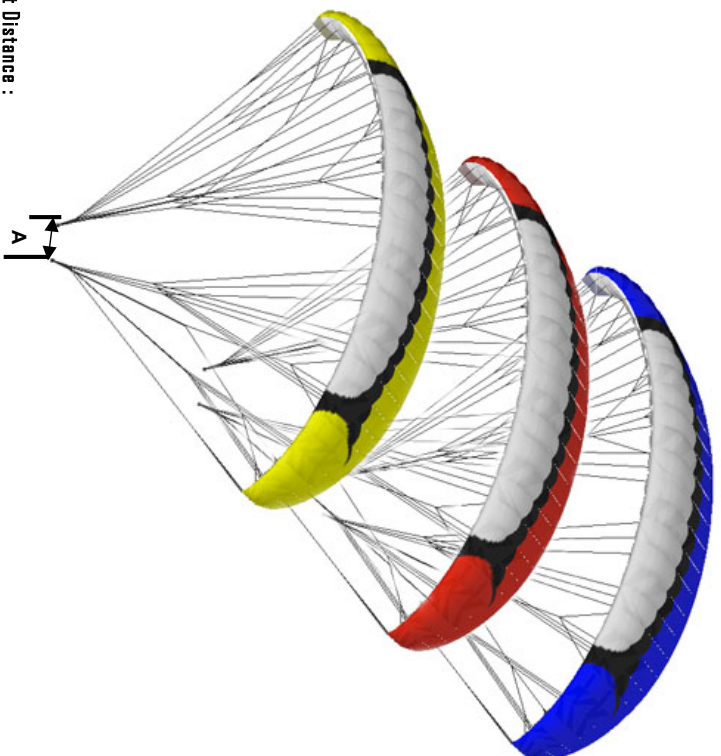
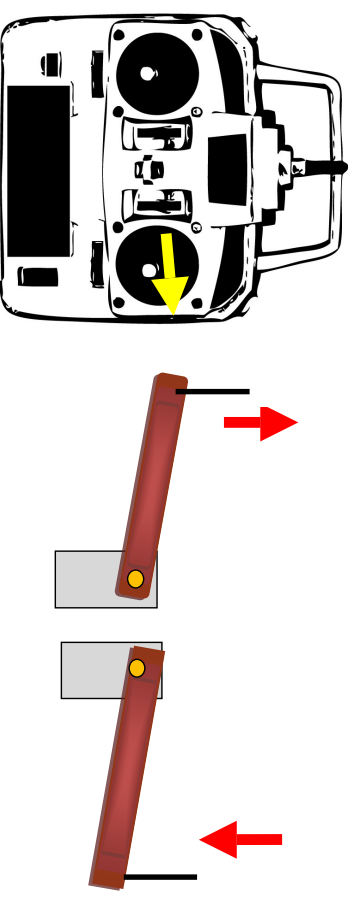
### 3. Transmitter settings

To pilot your glider with efficient, your transmitter must have the delta mix. If not you will need to add a module between the receiver and the both servomotors to create the delta mix. This delta mix will create the same piloting like a real one, see below :

- left order, left arm goes down, the one at the right goes up. The glider goes left.



- the right order, left arm goes up, the one on the right goes down, the one on the right goes down. The glider goes right.



#### • Towpoint Distance :

##### Slope / Soaring :

A = between 14 and 20cm

Pilote mass recommended : 4 to 7 kg

##### Paramotor :

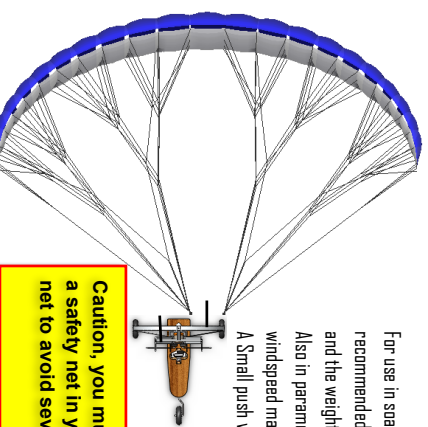
A = 20 to 25cm

Cart mass recommended : 4,5 to 7kg

Before the first flight, do some small Blow up to check the length of the brakes.

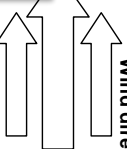
They should be slightly stretched without bending the trailing edge, with servomotors in High position.

The take-off must always be made with the wing, in an area devoid of obstacles, dry weather.



For use in soaring, the wind against the relief of a speed of 15 to 25 km/h is recommended. This speed may of course depend on the topography of the flying site and the weight of your pilote.  
Also in paramotor glider and the trike must always be oriented in this way with a laminar wind speed maximum 15/20 km/h speed.  
A Small push with the trike is enough to take off.

Wind direction

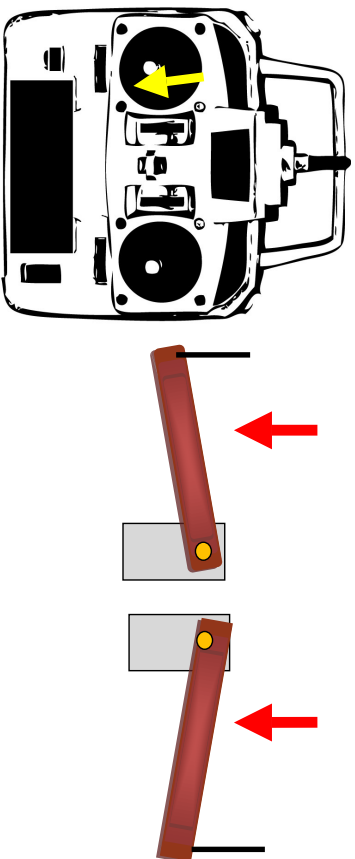


Caution, you must imperatively put a safety net in your cart of a safety net to avoid severing the bridle.

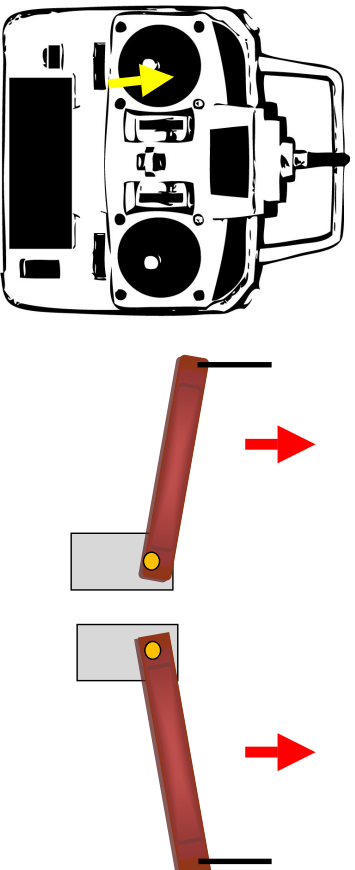
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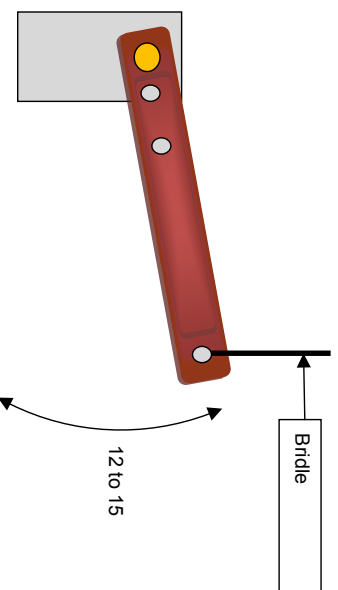
- the down order, both arms goes down and decrease the glider speed. You can find the lower speed and fullstall in this position.



- the up order, both arms goes up to the head. In this position, the glider speed is higher.



Distance arm recommended between the extremities, are from **12 to 15cm**, to have an efficient piloting.



#### 4. Servicing, maintenance at repair

Materials used for our RC gliders fabrics have a high quality to optimize the products performances.

You need to respect some advice to optimize the aging product too, your glider will have a better looking and a longest uptime.

Most of the time, a premature usury is due to a lack of cautions when you fold and you stock your glider, and also when there are some contacts with chemical products, humidity or heat.

##### On the ground

Avoid :

- Sharp blow
- Drag the glider on the ground
- Walk on bridles

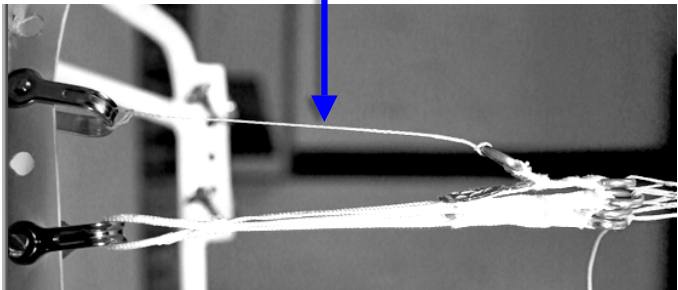
##### UV

Avoid leaving your glider in the sun in vain. Ultraviolet radiation damages the tissues irreversibly.

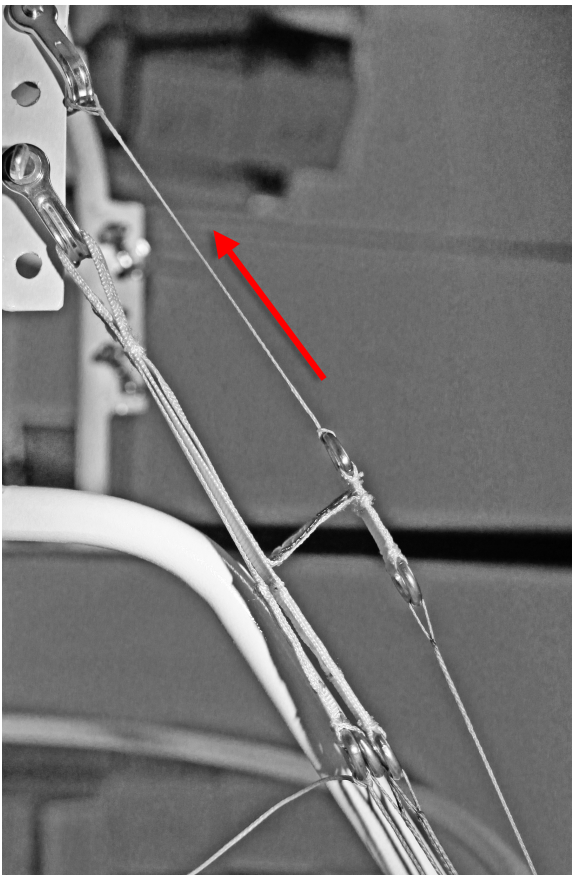




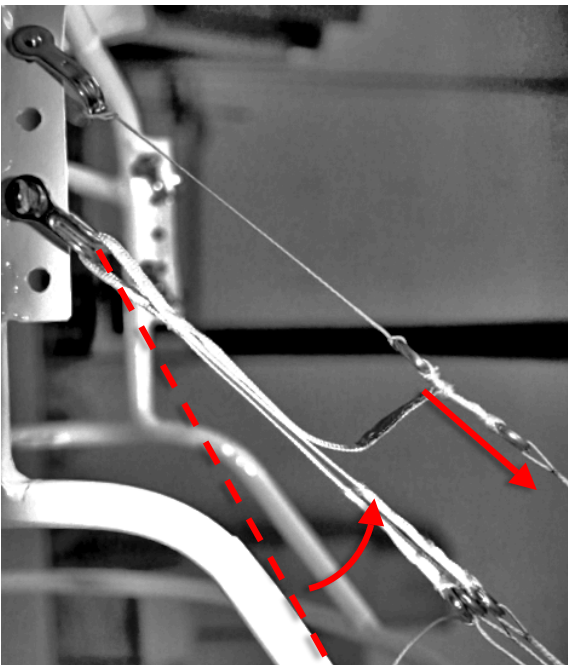
This new system makes the Spiral 2.4 blow up easier. It can fly shorter distance and reduce around 40% to 50% your take-off distance. When your glider is on the ground , this system makes the bridle A lines shorter of fews centimeters. This system is optimized if you respect this settings :



**Bow up: glider on the ground, A lines are behind from fews centimeters**

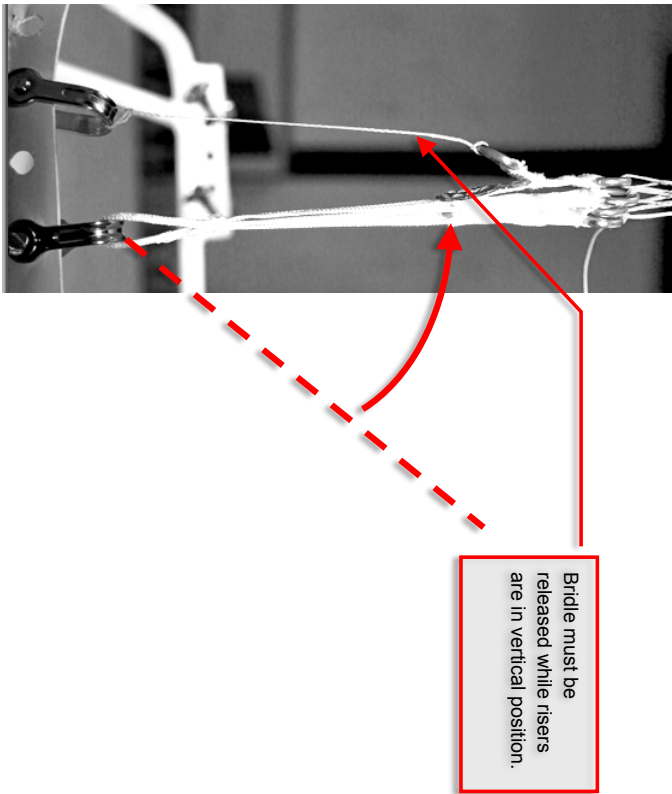


**Glider Blow up untill the middle high: A lines start to find their original position.**





Glider is Blow up. A lines riser is not pulled . Make sure to have a full released bridle from the blow up system bridle. to do not disturb the glider timing while it is flying.



## 6. Folding

A correct folding is important to optimize glider's life.

Our advise is to follow these intructions who Bellow : methode cell by cell folding :

- Put back glider extremity toward the center. Put risers like on the edge to avoid the line mix
- Putt all mylars from air entrance on each other



- Do the same thing for the trailing edge.
- Put back the half glider on each other.
- fold the trailing edge into the center, then the trailing edge
- Put everything into the bag.



### Storage

Moisture is the worst enemy of your paragliding, accelerating irreversibly bridle set aging and reinforcements part. Your glider should remain dry. Do not store your glider for a long period with sand, salt, mud or other material that may enter and rot in the cells. Always allow it to dry naturally before storing in a dry place. Leave the bag open as soon as you can to allow residual moisture to evaporate. Do not carry or store near chemicals such as gasoline, oils or other solvents. Do not leave in hot places such as the trunk/back of your car in direct sunlight.

### Cleaning

Clean only with water without the use of abrasives or detergents. Do not clean your sail only when absolutely necessary, after contact with salt water.

### Repairs

Small holes on the glider can be repaired with adhesive fabric. Damaged lines should be replaced  
- A Blow up will necessarily be done after any intervention.

Major repairs to the glider as replacement panels or partitions shall be performed by a specialist workshop.

### Guarantees

The glider is guaranteed against all manufacturing defect.

If during use, the user comes to cutting / damaging a bridle, to rip any part of the glider, defective parts repair and replacement are not considered in the context of security and is dependent the user.

## 7. Specifications

- Flat area:  $2,4m^2$
- Projected area:  $2,04m^2$
- Flat wingspan :  $3,4m$
- Projected wingspan :  $2,65m$
- Width max:  $0,85m$
- Aspect ratio: 5
- Cells number: 31
- Fabric : Ultra light nylon 200
- Bridle : Kevlar  $0,4mm$  fingertrapped
- Nylon risers with inox ring
- Weigh :  $280gr$

## 8. Bridle Set Map:

When one or several bridles need to be replace, give the reference to Opale paramodels.

