# TOM



Please read this manual before first use.



Thanks for having chosen an Opale-Parmodels product. We truly believe this pilot 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.

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# Warranty

The pilot 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.



# Kit content



#### Content:

- Glassfiber G10 frame
- 1 x head/ 2 x hands / 2 x feet made of polyurethan resin
- 1 x hardware kit
- 1 x flight suit
- 1 x harness
- 2 x 24kg.cm (333oz.in) servomotors
- 2 x brake handles
- 1kg ballast

# **Specifications**

Height: 70cm / 27.6in

Scale: 1/2.5

Minimal weight: 2.25kg / 4.4lb Masse maximale: 10kg / 22lb

Servomotors:

- 2x 24kg.cm 60x30x66mm (arms) 2 x 333oz.in 2.4x1.18x2.6in (arms)

- 2 x 10kg.cm 40x20x40mm (speedbar system)2 x 139oz.in 1.6x0.8x1.6in (speedbar system)

Compatibility: Wings with 5 to 6m (16.4 to 19.7ft) wingspan



# **Pilot assembly**

## Pilot's thorso preparation:

Take the back pilot's plate and 4 hexagonal spacers M3x30.

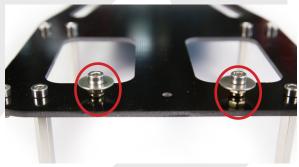
Assemble the spacers with 4 CHC M3x8 screws on the plate.



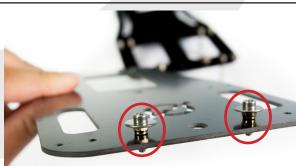
As shown on the picture on the right, affix 4 CHC M3x8 screws with 4 M3 nuts on the same plate. thos screws will have the function of holding the servomotors.



Prepare 2 CHC M3x12 screws. Insert between the head of the screw and the plate 1 large M3 washer and 1 M3 nut. Then tighten the all thing with 1 M3 nut.



Then do the same on the other plate.



Place the leg holding parts on the pilot's back plate. And hold them with 2 CHC M4x12 screws and 2 M4 nuts.





Add the 24kg.cm servomotors. Then Place the wires between the 2 servomotors Mount the pilo'ts front plate. Use 2 CHC M4x12 screws and M4 nuts to attach the plate on the side of the leg holding parts, and unse 4 CHC M3x8 screws for the spacers. **Legs preparation:** Use 2 CHC M4x12 screws and M4 nuts to start the legs mounting. Use also 2 CHC M4x12 and M4 nuts to attach the opposite side of the leg. Affix the lower part ( which is the same than the upper part), with 4 CHC M4-12 and M4 nuts.



Set on both legs ends, 2 silent blocks D15H25 with CHC M4x12 screws and M4 washers. Do the same operations on the other leg. Take the following parts, as shown on the picture. Set the 2 parts together with 1 CHC M3x8 screw, 1 M3 washer and 1 M3 nut. Note: the middle part has un shoulder of 3mm and 2mm. Use the 3mm shoulder for this operation. Attach the plate with 1 CHC M3x8, 1 M3 washer and 1 M3 nut.





Insert the pilot's foot (the 2 feet are symetrical). Use 2 CHC M3x10 screws.

Note: do not go up to the screw tightening in order to void the resin from damages.

Realize the same operation with the other leg, and mount the second foot.

Maintain the whole leg flat, and connect the lower part and the upper part of the leg thanks to the silent block which is the junction between those 2 parts (it has the function of the pilot's knee) with 1 CHC M4x12 screw and 1 M4 washer.





Do the same operation on the other leg.



To connect the leg with the body, the knee and the angle between the leg and the body have to make an angle of 90°. Then hold the whole thing with 1 CHC M4x12 screw.



Do the same operation with the other leg.



## **OPTIONAL:**

You can install 1 x 10kg.cm(139oz.in) servomotor (not included ) inside each legs in order to have the speedbar system on board.

Note: respect the servo orientation, meaning the sprocket is shifted towards the knee.



Lock the servomotor with 2 CHC M3x8 and M3 nuts.





Place the head on the upper part of the body. Use the elastic included in the kit and place it, as shown on the picture. This elastic allow to hold the pilot's head, and mainly to keep it mobile during a strong impact. It will void the risk to damage the pilot's head. The head can be dislocated from its initial position during an impact.



Take the rounded horns included with the 24kg.cm (333oz.in) servomotors.

Drill the ends of each horns with a 3 or 3.2mm drill.





Install the glassfiber plate.

The left silent block has an integrated threaded rod. This rod has to be inserted through the plate and and the horn. Hold it with 1 M3 nut.

The opposit hole located on the horn locks the plate with 1 CHC M3x10 screw and 1 M3 nut.



Mount the last silent block( this one hasn't an integrated threaded rod), with 1 CHC M3x8 screw. Do the same operations on the second horn.



Add the glassfiber arm with 2 CHC M3x8 screws.





Do the same operation on the second arm symmetrically in relation to the first arm.	
Drill the 2 hands with a 4 to 4.5mm drill bit.	
Use 2 CHC M4x30 screws with 2 M4 washers.	
Lock the whole thing with 2 M4 nuts and 2 M4 washers.	
Do the same operations with the opposit arm.	



# **OPTIONAL:** For more realism and comfort, it is possible to use foam(sold separately). For the arms, cut a 12x15cm piece of foam. Wrap it on the arm and hold it with some adhesive tape. Then cut a 12x30cm piece of foam for the legs, and hold it with some adhesive tape.



Open the flight suit lower part and insert the legs. Detach All the clips dispatched on the pilot's harness straps. Place the pilot on the bottom of the harness and fasten the strap located on the bottom of the harness.



Fasten the straps that hold the legs.

After this operation, fasten also the ventral red strap. This strap has for duty to properly maintain the pilot and to stabillize it during slope soaring.





Install the paramixer and the receiver of your transmitter

Installation and setting steps of the paramixer are available on the following video link:

https://www.youtube.com/watch?v=P2njCNCTudU



Place the receiver, the paramixer and the receiver battery inside the pilot's torso into the special location for that purpose.



Power up the receiver. Insert the pilot's first arm

Previously check that the servomotors are correctly connected in order to have the rightful movement. With the transmitter sticks on neutral position, they have to be on the highest mechanical position. (Have a look on the tutorial video to have more details).





Position the arm on the servomotor horn on that position. By actioning the elevator stick on the lower position, the arm has to be on this way. If you do not have this position, you must remove the arm from the horn and reset the right position. Lock the arm in position with 2 M2 screws included with the servomotor. Effectuer les mêmes opérations pour le bras opposé. Do the same opérations on the opposit arm. Once the arms are installed, fold the flight suit sleeves backwards. Place the brake handles as shown on the picture. Once the brake handle is installed, you will only have to link it to the wing brake line.



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The lower harness chamber is dedicated to the ballast

You can insert inside that chamber up to 5kg (11lb) of ballast.



Close the chamber with the velcro strip.



The fixation of the risers is done with 10mm stainless steel buckles.

In order to protect you from reversion, the yellow riser has to be connected to the yellow mark on the harness

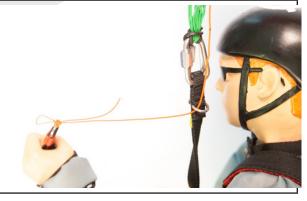
Do the same operation for the left riser and connect it to the red mark.



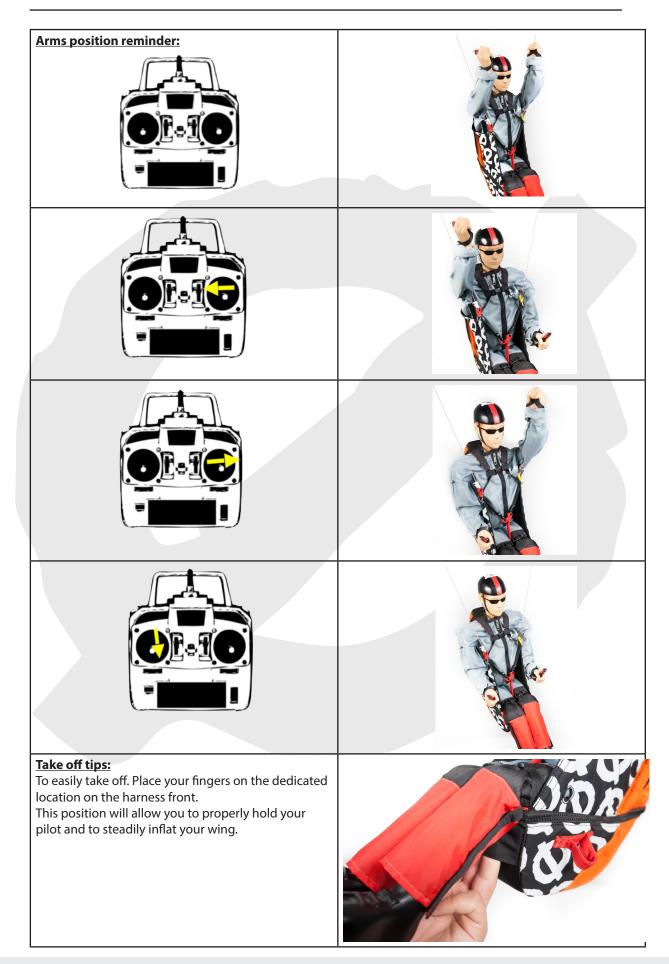
Connect the brake line to the brake handle by making a simple knot then a loop.

Hold the riser, with the pilot in suspension adapt the black mark position located on the brake line. This mark has to be located au niveau the upper riser D-ring.

This setting allows you to control the wing at the first take off (for a slope soaring use). it will be necessary to adjust this setting from 2 to 3 cm during the first flight according to your feelings. This setting has to be reset for a backpack or Trike configuration.









## 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.



## 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 takeaway 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.

