



OWNER'S MANUAL

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Rotor

Owner's Manual

Thank you for purchasing a Rotor harness. Please, read all instructions before flying with your new equipment.

Introduction:

Rotor creates and develops free flight equipment since 1984, always aiming to combine comfort, performance and quality in its products. Every equipment is specially designed for each pilot, as we believe that a perfect flight is only possible when equipment and pilot become one.

Over these 30 years of history, Rotor has become synonym for quality and creativity, having its equipment sold in over 20 countries.

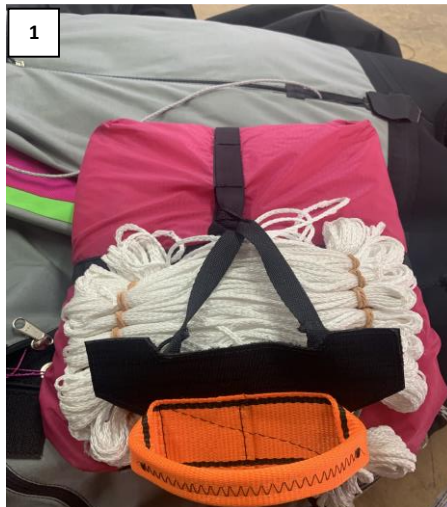
In 2003, Rotor harnesses were certified by DHV, a German certification agency.

For more information, please visit our website <http://www.nenerotor.com>

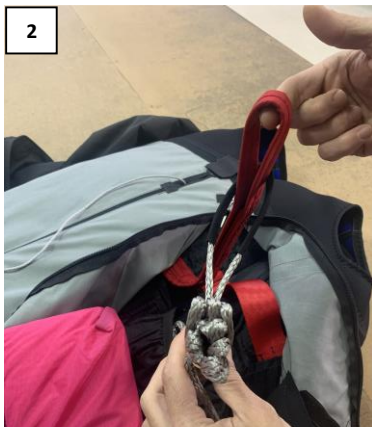
Our team is at your service to clarify any questions.

Have a great flight and enjoy it!!!

- **Installing Emergency Parachute (step by step):**



Tie the grip that comes in the harness to the small strap of the parachute container.



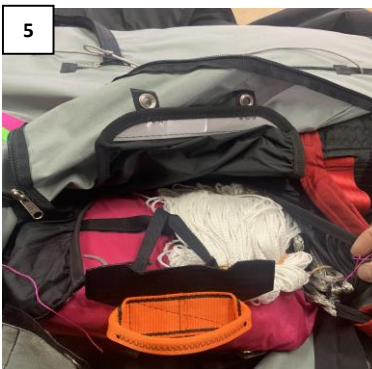
Pass the security webbing inside the parachute bridle.



Loop the parachute through security webbing.



Tie the parachute bridle to the security webbing. Certify that the tie is correct



Put the bridle inside the bag and insert parachute over the bridle.



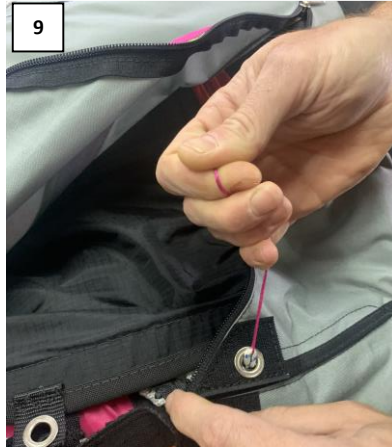
Use the thin rope as a guide to pass the rubber band through the first eyelet.



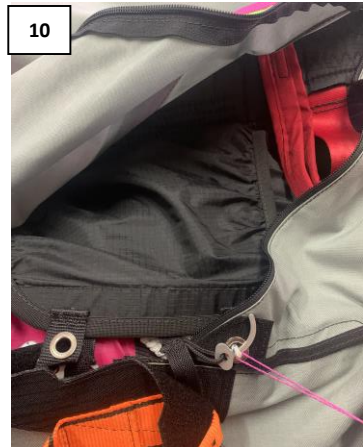
Pass the rubber band through the second eyelet.



Pass the rubber band through the third eyelet.



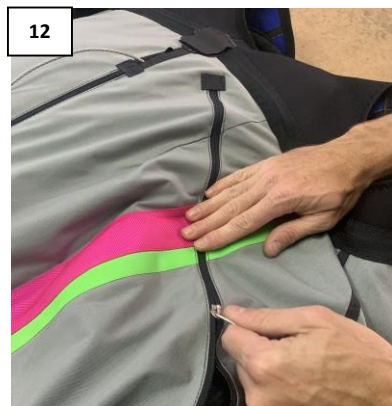
Pass the rubber band through the fourth eyelet.



Insert the curved pin inside the rubber band and lock the system. Repeat the same process on the other side.



Insert the slider into the bag zipper (there are three zippers to close the bag).



Close the zippers and remove the sliders.



Attach the handle to velcro.

Warning: We recommend that the parachute is folded every six months as a safety measure.

- **Internal Space (compartments):**

Rotor Harness have 10 compartments to carry glider accessories and every required equipment (radio, GPS, camera etc.), plus bag to insert the water bottle (camelback). In addition to the pockets, the fiberglass footrest also works as a compartment.



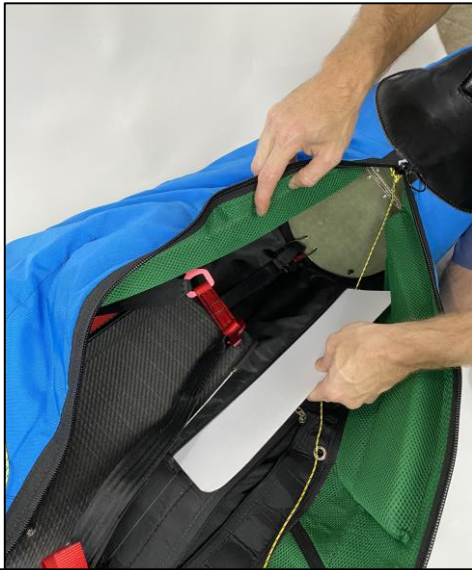
The central bag is ideal to store glider accessories.



Inner side pocket for bags and accessories.



Bolsas com elástico de segurança. (ideal para rádios, GPS e maquinas fotográfica).



Insert the rigid plastic into the bag.



Fiberglass foot rest Works as a compartment.

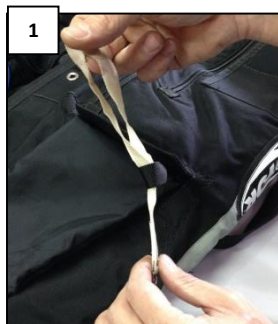


Camelback compartment.

***The radio bag has a 4 cm (1.5 in.) opening to pass the wires and antenna. On the top of the left shoulder there's a 5 cm (2 in.) unsewn area to pass audio accessories. That way, you can install your own device with no need for adaptation.**

- **Drogue Parachute:**

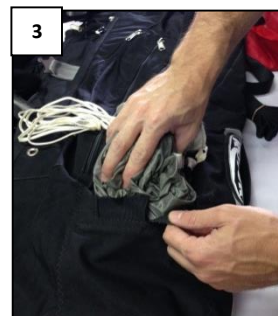
The drogue parachute works as an excellent aerodynamic brake, and it can be very useful in short landings and/or descents. It's recommended that you first practice using this equipment in a wide and obstacle-free landing.



1 Remove the bag from the drogue parachute.



2 Tie the parachute strap to the inner strap of the bag.



3 Fold the parachute and insert it in the



4 Keep the bag strap on the outside.



5 To trigger it, pull the bag strap.

Warning: Always put the drogue parachute over the Mylar tab latch.

- **Towing System:**

Rotor harness have a system for hang-glider towing.



- **Wearing the Equipment:**

We recommend that you first hook in the equipment to the hang glider before wearing it.



Adjusting the leg strap:

- You can adjust the size of the strap in the adjustable buckles. The best fit is to adjust the strap to the point it's stretched, but without causing discomfort when the pilot is laid down.



Warning: Please certify that the system is double checked and well tied!

- **Angle Adjustment System (“Kick Ass” System):**

The angle adjustment system, also known as “Kick Ass” system, enables the pilot to adjust to a perfect flight angle.

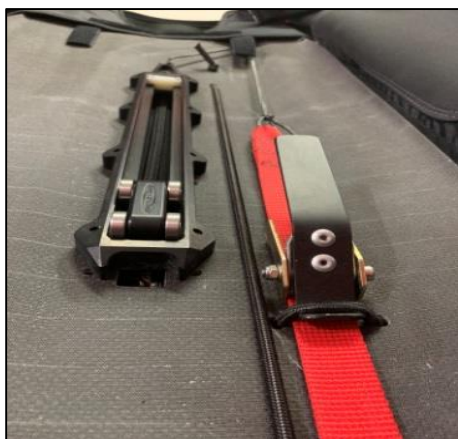
Lowering your head and lifting your feet: Just give a touch with your hip in the “Kick Ass” system aluminum plate.

Lifting your head and lowering your feet: Just lift your chest using the speed bar as a rest. As soon as you're in the desired position, give a touch with your hip in the aluminum plate to collect the rope and to keep the belt in the position of choice.

- System adjustment. The “Kick Ass” system has three different adjustments:

1 – Adjustment of the piece (aluminum plate) height, triggered by the pilot using his hips.

If the “Kick Ass” is too sensitive, triggering inadvertently or too easily, you should bent the aluminum plate slightly towards the board. Insert something (such as the handle of a screwdriver) in the grip opening to serve as a support, and then bent the aluminum plate by pressing it towards the board.



If the “Kick Ass” is too far from the hip, you should bent the aluminum plate slightly away from the board by pulling it up (in that case, you don’t need the grip opening as a support).

2 – Adjustment of the “Kick Ass” system rope, which limits the pilot’s angle during flight.



The “Kick Ass” system alternates 40 cm (16 in.) between the pilot’s higher angle and lower angle during flight.

If the pilot wants to flight with his head a bit up, the limiting rope must be shortened.

If the pilot wants to flight with his head a bit lower, the limiting rope must be extended.

For that, you can adjust the knot in one of the two ends of the rope.

The ideal position is making your head stay 20-30 cm (8-12 in.) lower than your feet when the “Kick Ass” reaches its limit.

3 – Adjustment of the GC strap positioning.

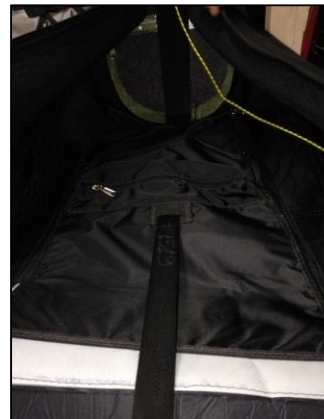
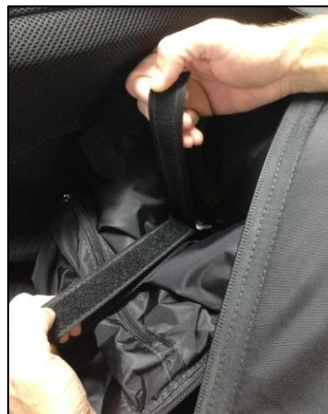
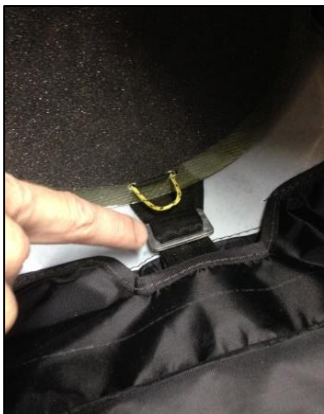
In order to make the angle adjustment system (“Kick Ass” system) work perfectly, the Gravity Center (GC) strap must be positioned in the back end of the zipper chain when the pilot lies down, stretches his legs and closes the chest zipper.



If the GC strap is not positioned in the back end of the zipper chain when the pilot is in flight position, you should shorten the strap that's fastened to the ankle region and passes through a buckle (the adjustment is made to the buckle). You can make the strap shorter or longer by adjusting it. Normally, you'll need to make the strap shorter, because it'll stretch over time.

Note that if you shorten the strap beyond the limit, the external part of the harness in the ankle region will not stretch, forming wrinkles. Therefore, you should extend it a bit more, until you make it even.

This is the most important adjustment of the harness, because with the GC out of position, the overall functioning is compromised.



- Aluminium Slider with gravity center adjustment:

The only harness on the market that allows you to change the equipment's center of gravity center, there are three adjustment options that allow you to find your best positioning. To change the gravity center of your Havana S, first remove the two screws that fix the back plate to the fabric, to access the back of the carbon plate. The next step is to remove the eight screws that hold the aluminum slider to the carbon plate. After removing the screws, place the slider in the desired setting and replace the

stainless steel screws. remember to pass the dyneema rope of the "kick ass" system in the hole corresponding to the chosen setting.

Note: - If the aluminium rail is moved forward towards the head, it means that the gravity center will also shift forward, decreasing the weight in the chest area. As consequence your body is shifted backwards in relation to the speed bar.

- The rail moved backwards to the foot, means that your gravity center will also be shifted backwards, increasing weight in the chest area, as a result your body is shifted forward in relation to the speed bar.



- Preparing for Landing:

First, open the harness with a safe height. Pull the string on your right side to open it. You should only remove your feet when you change to the landing position.



Rotor Havana S have a long aluminium slider (25 cm [10 in.]), allowing a safe and comfortable angle for landing.

Important: To remain in landing position (standing), it's not necessary to use the "Kick Ass" system.

To make the GC strap slide to the frontal end of the chain (maximum angle adjustment), the pilot must fold his knees, lift his chest with his hands using the speed bar as a rest, and aim his hip towards it. Only then, he must pass his hands to the side bars.

Warning: Changing to the landing position (maximum angle adjustment), using both hands in the side bars, may difficult the sliding of the GC strap, which makes the position uncomfortable and makes the landing more difficult.

We recommend that you change to the landing position at a safe height, especially during the first flights with your new equipment.

- **Equipment Maintenance:**

- The “Kick Ass” system strap that passes through the grip operates at all times, making it prone to wear and tear. This strap must be periodically checked and it must be replaced every 100 hours of flight.

- Keep your equipment in a dry place, away from the sunlight and from excessive humidity, since this can reduce its lifespan.

- When storing the equipment, remove the polycarbonate plate in order to avoid bending.- Keep the main zipper clean. We suggest that, after using it, you apply some wax (such as candle wax) to it, so that the sliders can run more easily, increasing the zipper’s lifespan.