

OZONE

HALO

Pilot Manual - EN



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WARNING

- Paragliding is a potentially dangerous sport that can cause serious injury including bodily harm, paralysis and death. Flying an Ozone harness is undertaken with the full knowledge that paragliding involves such risks.
- As the owner of an Ozone harness you take exclusive responsibility for all risks associated with its use. Inappropriate use and or abuse of your equipment will increase these risks.
- Any liability claims resulting from use of this product towards the manufacturer, distributor or dealers are excluded.
- Be prepared to practice as much as you can - especially ground handling, as this is a critical aspect of paragliding. Poor control while on the ground is one of the most common causes of accidents.
- Be ready to continue your learning by attending advanced courses to follow the evolution of our sport, as techniques and materials keep improving.
- Use only certified paragliders, harnesses with protector and reserve parachutes that are free from modification, and use them only within their certified weight ranges. Please remember that flying outside of certified configurations may jeopardise any insurance (e.g. liability, life etc) you have. It is your responsibility as the pilot to verify your insurance cover.
- Make sure you complete a thorough daily and pre-flight inspection of all of your equipment. Never attempt flying with unsuitable or damaged equipment.
- Always wear a helmet, gloves and boots.
- All pilots should have the appropriate level of license for their respective country and third party insurance.
- Make sure that you are physically and mentally healthy before flying.
- Choose the correct wing, harness and conditions for your level of experience.
- Pay special attention to the terrain you will be flying and the weather conditions before you launch. If you are unsure do not fly, and always add a large safety margin to all your decisions.
- NEVER fly your glider in rain, snow, strong wind, turbulent weather conditions or clouds.
- If you use good, safe judgment you will enjoy many years of paragliding.
- Respect the environment and look after your flying sites.
- If you need to dispose the harness, do so in an environmentally responsible manner.
- Do not dispose of it with the normal household waste.

Remember, PLEASURE is the reason for our sport!

THANK YOU

Thank you for choosing Ozone.

As a team of free flying enthusiasts, competitors and adventurers, Ozone's mission is to produce paragliding equipment of the highest quality using cutting edge designs and the best technical materials available. Our development team is based in the south of France. This area, which includes the sites of Gourdon, Monaco and Col de Bleyne, guarantees us more than 300 flyable days per year. This is a great asset in the development of the Ozone range. We know that quality and value for money are essential considerations when choosing equipment, so to keep costs low and quality high we build all our wings and harnesses in our own production facility. During production all Ozone products undergo numerous rigorous quality control checks. This way we can guarantee that our equipment meets the same high standards that we expect ourselves.

If you need any further information about Ozone, the Halo or any of our products please check www.flyozone.com. Or contact your local dealer, paragliding school or any of us here at Ozone.

It is essential that you read this manual before using your harness for the first time.

Safe Flying!

Team Ozone

YOUR HALO

The Halo is designed to carry you through the first stages of your progression. It is a solid option for students, schools, and new graduates. With a highly stable structure and geometry and an efficient ABS system, it is a safe and dependable choice for new pilots.

The Halo's seat-board design provides gentle and easily understandable feedback. The weight-shift response is balanced and progressive, enabling the pilot to maintain the amount of bank desired in the turn. Its design allows for an easy transition from standing to seated positions, making the most important parts of the flight (take-off and landing) easier, safer and less stressful.

The secure and easy to use speed-bar storage pocket and the padded chest-strap protection make ground-handling and take-off very comfortable. An elastic keeper maintains ideal positioning of the speed bar, when deployed. The Halo is equipped with an anti-forget harness system and the buckles were chosen to avoid confusion or mis-mating. Moreover, they are easy to inspect from the instructor's perspective. Colour coding differentiates left and right buckles. The new rescue system features a generously wide opening for easy extraction even in high-G situations. The rescue handle is strategically placed at the hip and is very easy to find. Harness storage options include a large rear compartment with a smaller pocket inside for valuables, a left-side pocket that is accessible in-flight, a radio pocket and Velcro vario mount. Highly visible printing on shoulders help instructors to easily find the right size of harness. High-wear areas are made from durable materials.

At only 3.15kg in size M, the Halo is compact and light for how durable and protective it is. It comes standard with lightweight honeycomb seat-plate.

The harness is available with two different back protector options (foam or inflated), which allow further reductions in weight and pack volume.

The three sizes cover a wide range of pilots from 145cm to 210cm. The Halo is certified EN and LTF up to 140kg!

In keeping with our mission to increase the sustainability of all of our products, much of the interior panels are made from Bluesign certified fabric, and the under-seat protective fabric is made from recycled materials.



PREPARATION

FOAM PROTECTOR

The Halo comes as standard with an under seat 17cm LTF/CE certified foam protector and a full length back comfort foam. The under seat protector is designed to absorb heavy impacts by dissipating the air through the seams progressively and smoothly.

Allow the airbag time to fully inflate after unrolling for the first time, this can take up to 12hrs so best left overnight before installation.

WARNING: No protector can guarantee complete protection. It does not replace your legs as the most effective way to absorb the energy of a hard landing. Always be prepared to use a PLF and do not rely on the mouse bag protection alone.



To install the under seat protection, open the lower zipped compartment found within the rear pocket. Slide the protector into the compartment with the arrow facing up and towards the front of the harness. Close the zipped compartment once the protector is in place.



WARNING: The maximum lifetime of the foam and inflatable protector is 10 years from the date of manufacture. During a major impact, the protector deforms to absorb the maximum amount of energy possible, sometimes to the point of destruction. An exceptional event can lead you to retire a product after only one use. The protector must be retired when: - It is over 10 years old. - You have any doubt as to its reliability. - The external layer is visibly damaged. - The internal foam/bladder is visible. - There are leaks in the bladder. Destroy retired equipment to prevent further use.



INFLATABLE PROTECTOR

A certified EN/LTF/CE inflatable under seat protector is also available for the Halo. Cleverly designed, it offers excellent impact absorption properties despite the low weight and volume.

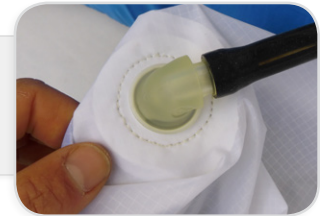


The protection replaces the foam protection located in the zipped pocket under the seat. Insert the deflated protector into the pocket, the inflation pipe should be routed through the hole.



The protection is inflated by hand using trapped air inside the supplied special stuff sack.

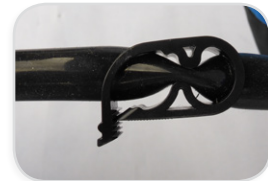
Make sure the stopper is in the open position and attach the inflation pipe to the outlet found on the stuff sack.



Close off the top of the stuff sac by rolling it tightly in the hands to trap the air inside and push/squeeze so the air is transferred into the protection.

Once the protection is fully inflated - to the point at which you cannot easily add any more air using the stuff sack - close the inflation pipe stopper. Make sure the stopper is fully closed..

WARNING: Ensure the inflation pipe stopper is properly closed before inserting the pipe into the pocket. Failure to do so will result in the air leaking out and the protection not functioning.



SPEED SYSTEM

The Halo is delivered with a fitted speed bar. If you need to replace the speed bar, remove it and follow this procedure.

Route the free end so that it passes through the pulley located near the hip, then through the slit on the side panel of the harness.



The line should then pass through the eyelet located at the front. Ensure the line runs cleanly between the pulley and the eyelet and ensure it is not entangled with the bungee elastic.

Attach the speed line and Bungee elastic to the looped corner of the speed bar with Bowline (or other suitable) knots.





Now set the length of the speed bar. This is best done on a static hang point or alternatively it can be done on the ground. Make sure the speed system is not set too short and that it is symmetrical.

Once in the air, and when it is safe to do so, check that you can place your foot on the bar easily and that the system operates smoothly all the way to full speed. Adjust the length accordingly.

WARNING: The speed bar lines must be of equal length, ensure they are not too short as this will inadvertently activate the speed system when under tension in the air. Always double-check lengths and symmetry whilst on the ground before flying.

RESERVE PARACHUTE INSTALLATION

The Halo has an integral under seat reserve parachute container. The Halo is suitable for parachutes with a volume of between 3 and 6ltrs and will accept most modern rescue parachutes including the Angel SQ 140 and steerable Rogallo types.

WARNING: Ozone strongly recommends that the reserve parachute system is installed by a qualified professional. Always seek experienced advice if you have any doubts, your safety depends on it.

Connect the bridles to the dedicated shoulder attachment points. Ensure they are done up tightly, use pliers but do not over-tighten

NOTE: You must check that the length between the handle and the container does not allow entanglement with the parachute lines.



Attach the reserve parachute handle to the deployment bag using a larks foot knot. We recommend attaching the handle to the attachment point on the side of the deployment bag if it has one, otherwise it can be attached to the middle.



Attach the harness bridles to the parachute's bridle using a suitable connector (not supplied).

Please note; short bridle parachutes should be attached to the Halo's reserve bridles. If you have a parachute with long Y bridles, these should be attached directly to the shoulder points. Do not attach long parachute Y bridles directly to the harness bridles.

Place the deployment bag in the space provided with the rescue handle to the outside.

Pay attention to the harness bridles, they should be running neatly within the zipped channel down the side of the harness into the parachute pocket.

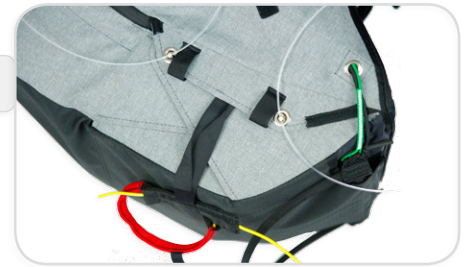




To close the container, use suitable pieces of magic string or plastic and pull the white loops on flap 1 through the eyelets of the flaps in numerical order.



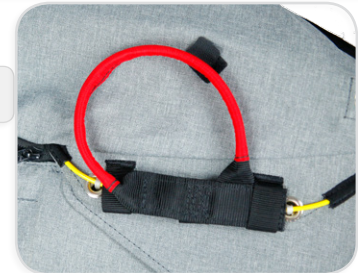
Before closing the final flap 4, make sure the handle is correctly positioned as shown.



With flap 4 closed, secure the white loops with the yellow pins of the reserve handle, the ends of which can be neatly inserted into the webbing channels.

Close the bridle zip fully.

WARNING: Make sure to perform a practice throw from a static hang point. Not only does this ensure the correct functioning of your deployment system it also allows you to become more familiar with the installation process.



FITTING

Before your first flight, we recommend to suspend the harness from a suitably strong point to check that it fits you correctly and to become familiar with the features and adjustments. You can set the shoulder adjustment-straps to find the best fit, and adjust the lumbar support so that they leave you in a comfortably reclined position. Only ever suspend from carabiners attached to the main hang points.

To put the harness on first place the shoulder straps over your shoulders.

Fasten the colour coded leg straps, the hooked part passes on the inside of the buckle. Ensure there is an audible click and that they are properly secured. Repeat for the other leg.





Connect the chest strap T lock buckles once again ensuring there is an audible click each time and slide the free end of the chest strap protector into the sleeve.



The shoulder strap retainer clip should now be fastened.



ADJUSTMENTS

SHOULDER STRAPS

The length of the shoulder straps can be modified using the adjustment tabs. Adjust the shoulders whilst standing up with the harness on so that they are comfortably snug. Whilst suspended in the seated position ensure the straps are comfortable and supportive, they should not be too tight nor too loose.



LUMBAR SUPPORT

The Lumbar support should be adjusted for a comfortable flying position. Precise adjustments can be made in the air so that your lower back is completely supported and there is no tension in your stomach muscles. Be sure to adjust the lumbar supports carefully, setting them too loose will result in a very reclined position in the air.



WARNING: Make sure any adjustments are symmetrical. If you make a change, take your time to find the position that suites you best, only make small adjustments each time.

LEG STRAPS

Leg straps should be adjusted whilst in a standing position so that they are not too loose nor too tight. If the leg straps are too loose you will find it difficult to rotate into the seated position after take off and if they are too tight you will find it difficult to run. As a general guide, adjust so that you are able to comfortably slide your hand behind the leg straps.



CHEST STRAP

The setting of the chest strap is very sensitive, only small adjustments have a significant impact on the feel in flight. It is possible to adjust to make the adjustment in the air but it is safer to do so on the ground. For less roll response and less glider feedback tighten the chest strap, for more roll response and more feedback release the adjustment tab. Refer to the manual supplied with your wing, do not fly outside of the recommended chest strap settings.

FEATURES

HYDRATION SYSTEM

The Halo includes a hydration access system with an opening on the left hand side of the top pocket and an anchor point on the left hand shoulder strap for your hydration tube.



RADIO POCKET

The radio pocket is located on the left hand shoulder strap.

VELCRO SHOULDER MOUNTING

The opposite shoulder strap has a lightweight Velcro mounting point for a small vario or GPS tracking device.



USE AND MAINTENANCE

CONNECTION TO THE WING



Attach the wing's risers to the carabiners at the main hang points. The A risers should be facing to the outside.

If you change the carabiners ensure that they are of a suitable dimension and fit correctly.

There are no other suitable attachment points for the risers on the harness.

PRE-FLIGHT CHECKS

Before take off it is important to carry out a thorough pre-flight check.

- Ensure the parachute pins are correctly in place and the zips around the parachute container are closed
- Visual check of structural webbing looking for any obvious damage
- Visual check of the carabiners looking for cracks or any signs of fatigue
- Risers connected correctly to the carabiners without twists
- Speed system attached and not tangled around the webbing
- Ensure all pockets are closed and zipped up
- Leg / Chest strap done up correctly
- Shoulder strap retainers fastened correctly
- Double check your leg straps

PARACHUTE DEPLOYMENT

If you are in the unfortunate situation of needing to throw your reserve, do so with conviction:

Look; Reach; Pull; Throw.

- Look at the handle, grab it and pull so the retaining pins are released. The parachute can only be thrown with the right hand.
- Pull out the deployment bag, it is best to pull towards the outside so that the parachute extracts sideways from the pocket, pulling the handle upwards may not allow the parachute to release properly. Know your equipment and adapt your technique accordingly.
- Throw the parachute away from you as hard as you can into clear space, not towards your wing. It is important at this stage to remember to LET GO of the handle. Aim to throw with the direction of airflow to aid a fast opening and against the direction of rotation.
- If after throwing the parachute does not deploy (possible in low energy emergencies e.g. parachutal stall), grab the reserve bridle and give it a strong pull. This will help encourage the parachute to open faster.
- As the parachute deploys, the next stage is to concentrate on disabling the paraglider. There are several ways to do this – B line stall; rear riser stall; gathering the canopy by working up the A lines until you have the material in your hands or using the brakes to stall the wing. The best technique depends entirely on the situation. The most important thing to remember is to completely disable the wing so that it does not act against the parachute and cause a down-plane. Whichever method you choose do so symmetrically, you do not want the paraglider to start rotating, this could cause the paraglider to fly into and effectively disable the parachute.
- Due to the position of the reserve bridle hang points on most harness, deploying the reserve parachute tends to automatically put you in to the PLF position (legs down), if you are not, do everything you can to get yourself into this position so you can absorb the landing impact with your legs.
- Always use a PLF when landing under emergency situations or under a rescue parachute.

TOWING

The Halo is suitable for towing. The tow bridles should be attached to the main carabiners, if you have any doubts ask a qualified towing instructor or see the operating instructions supplied with your tow release system.

EXTERNAL PARACHUTE CONTAINER

An additional parachute container (not included) may be added to the Halo. Use the main carabiners to secure the container and parachute bridles.

WATER LANDING

After a water landing you should remove the reserve parachute, under seat protection, back comfort foam and seat plate and allow to dry. If you land in salt water it is necessary to thoroughly clean the harness and all parts with fresh clean water ensuring that all traces of salt are removed. Before reassembly make sure that the harness and all components are completely dry.

IMPORTANT: In the case of a water landing, the natural buoyancy of the back protection and rear section can cause the pilot to be turned face down in the water. It is recommended to immediately undo all straps and swim away from the harness taking care to not become entangled within the lines.

CARE

The Halo will last you many flights and many years if looked after correctly. To keep your harness clean and airworthy, please note the following:

- Avoid excessive exposure to UV, heat and humidity.
- Pack the harness dry and store in a cool dry place.
- Never drag your harness, especially when landing.
- Keep you harness clean of dirt and away from any oils or other corrosive substance.
- Use water and a cloth to clean.

INSPECTION

For safety, routine inspection of all of your equipment is vitally important. Ozone recommends a service interval of 12 months in addition to the usual pre flight checks. For inspection, visually check the stitching, webbing and all structurally important areas. Pay particular attention to the webbing around the hang point area under the carabiner, as this is where abrasion is most likely. The reserve parachute system should be checked every 6 months and the parachute repacked according to the manufacturer's recommendation. If you find any damage or if you are in any doubt make sure the harness checked by a professional.

DISPOSAL

When the harness comes to the end of its useful life, remove all the metal parts and dispose the rest in an environmentally friendly manner.

TECHNICAL SPECIFICATIONS

	S	M	L
Pilot height (cm)	145-165	165-185	185-210
Weight with Inflatable protector* (kg)	2.88	3.08	3.31
Weight with Foam protector* (kg)	3.23	3.35	3.65

*Harness weight is measured with protection, seat-plate, carabiners, rescue handle, chest-strap protection, and speed-bar

Foam protector

430gr

Inflatable protector

130gr, inflation bag - 80gr

MATERIALS

Fabric

Ripstop poly, Recycled poly 450D ripstop, Bluesign certified Nylon 70D ripstop

Main webbing

Gurth and Wolf 25mm Polyamide.

Buckles

Edelrid and Finsterwalder aluminium

Carabiners

Edelrid Foras

CERTIFICATION

The Halo is certified EN 1651:2018+A1:2020, EN 12491:2015+A1:2020 and NFL 2-565-20 with a maximum load of **140kgs**. In addition, the under seat protection is certified to the CE standard by Alienor (France).

OZONE QUALITY GUARANTEE

At Ozone we take the quality of our products very seriously. Our harnesses are made to the highest standards in our own manufacturing facility. Every harness manufactured goes through a stringent series of quality control procedures and all the components used are traceable. We always welcome customer feedback and are committed to customer service. Ozone guarantees all of its products against manufacturer's defects or faults. Ozone will repair or replace any defective product free of charge. Ozone and its distributors provide the highest quality service and repair, any damage to products due to wear and tear will be repaired at a reasonable charge.

If you are unable to contact your dealer then you can contact us directly at info@flyozone.com.

Summary

Safety is paramount in our sport. To be safe, we must be trained, practised and alert to the dangers around us. To achieve this we must fly as regularly as we can, ground handle as much as possible and take a continuous interest in the weather. If you are lacking in any of these areas you will be exposing yourself to more danger than is necessary.

Every year many pilots get hurt launching; don't be one of them. Launching is the time that you are most exposed to danger so practice it lots. Some launch sites are small and difficult and conditions aren't always perfect. If you're good at ground handling you'll be able to confidently and safely launch whilst others struggle...practice as much as you can. You'll be less likely to get hurt and more likely to have a great day's flying.

Respect the environment and look after your flying sites. When the harness comes to the end of its useful life, remove all the metal parts and dispose the rest in an environmentally friendly manner.

Finally, RESPECT the weather, it has more power than you can ever imagine. Understand what conditions are right for your level of flying and stay within that window.

Happy flying & enjoy your Halo.
Team Ozone

INSPIRED BY NATURE, *DRIVEN* BY THE ELEMENTS

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