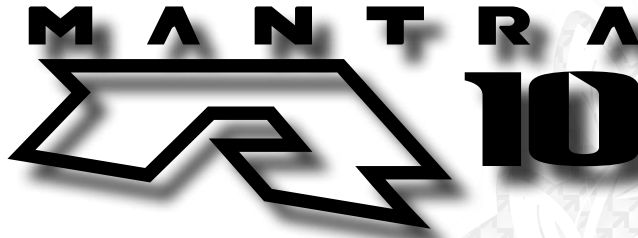




OZONE

Pilots manual

YOUR WING IS HERE



TRUE

REF



CONTENTS



Pilots Manual (Eng)	2 > 14
Materials	15
Line Diagram	16
Riser Diagram	17
Technical Specifications	17

PERFORMANCE



Thank you for choosing to fly Ozone.

As a team of free flying enthusiasts, competitors and adventurers, Ozone's mission is to build agile paragliders of the highest quality with cutting edge designs and performance. All our research and development is concentrated on creating the best handling/performance characteristics possible with optimum security. Our development team is based in the south of France, this area which includes the sites of Gourdon, Monaco and Lachens, guarantees us more than 300 flyable days per year. This is a great asset in the development of the Ozone range.

If you need any further information about Ozone, the Mantra R10, or any of our products please check www.flyozone.com or contact your local dealer or any of us here at Ozone.

It is essential that you read this manual completely, it contains important information that you need to be aware of before flying your Mantra R10 for the first time, especially where you see the ⚠ symbol.

Wishing you all the best success for your season ahead.

Safe Flying!
Team Ozone





WARNING

The Mantra R10 is an Open class competition paraglider, it has been successfully load tested but holds no EN or LTF flight certification. It should ONLY be flown by very competent and very experienced pilots, DO NOT fly this wing if you are inexperienced or unfamiliar with the characteristics of a high aspect ratio, high performance paraglider.

Paragliding is a potentially dangerous sport that can cause serious injury including bodily harm, paralysis and death. Flying an Ozone paraglider is undertaken with the full knowledge that paragliding involves such risks.

As the owner of an Ozone paraglider 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.

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 and always fly with a reserve parachute.

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.

Avoid flying your glider in rain, snow, strong wind, and turbulent weather conditions or clouds. Remember, PLEASURE is the reason for our sport.

TEAM OZONE



Everyone at Ozone continues to be driven by our passion for flying, our love of adventure and our quest to see Ozone's paraglider development create better, safer and more versatile paragliders.

Paragliding design is led by the ever thoughtful David Dagault; Dav has a wealth of experience both in competition, adventure flying and paraglider design. Also on the design team are test pilots Russell Ogden and Luc Armant. Russ is a top competition pilot and ex paragliding instructor, he can usually be found putting Dav's latest creation through a series of test manoeuvres. Luc, a dedicated XC addict has a background in naval architecture. He brings a wealth of knowledge and ideas to the design team and works closely with Dav in the design process.

Back in the office Mike 'Da Boss' Cavanagh generally keeps control of the mayhem. Promotion and Team pilots are organised by Matt Gerdes. Karine Marconi and Jill Devine make sure we don't spend too much money and look after the ordering system.

Our manufacturing facility in Vietnam is headed up by Dr Dave Pilkington, who works relentlessly manufacturing gliders and producing prototypes as well as researching materials and manufacturing processes for our future products. He is backed up by Khanh and 400 production staff.

YOUR MANTRA R10

The aim of the R10 project was to make a competition wing with more accessibility than the R09, whilst offering the levels of performance needed to win. Using the lessons learnt experimenting with the bbHPP, the Mantra R10 offers high levels of pure performance, great top speed, and incredible stability in accelerated flight.

Using new software, and a new construction technique, great improvements have been made generating the canopy to give a clean, wrinkle free surface. The R10 is a completely new wing with an updated profile and a new arc with a new tip shape to produce less induced drag. The new construction technique has led to weight savings in the region of 800gr, making it one of the lightest competition wings on the market which improves the safety and overall feel of the wing. Sail tensions have been revised in order to achieve a higher level of compactness and cohesion. The R10 is more 'together' which results in improved handling and less movement in the sail. It is easier to fly than the R09 so you will use less energy and concentration flying the wing and more spent on decision making.

Lines have been further optimised with a 24% reduction in drag, this results in a 'free' performance gain without sacrificing safety.

New brake handles have been introduced with swivels to prevent the main brake line twisting.

↗ Brake Lines

The brake line lengths have been set carefully during testing, however, if you do choose to adjust them, please bear in mind the following:

- Do not reduce the set lengths, this may cause the wing to engage the brakes whilst at full speed.
- Ensure both main brake lines are of equal length.
- If a brake handle has been removed, check that its line is still routed through the pulley when it is replaced.
- When the brake handles are released in flight, the brake lines should be slack. There must be a substantial "bow" in them to guarantee no deformation of the trailing edge.
- There must be a minimum of 10cm of free play before the brakes begin to deform the trailing edge. This prevents the trailing edge from being deformed when using the speed system.

IMPORTANT: In the unlikely event of a brake line snapping in flight, or a handle becoming detached, the glider can be flown by gently pulling the rear risers (C-risers) for directional control.

⚠ ↗ Risers

The Mantra R10 has been designed with 3 risers.

There are 2 sets of trimmers for each riser: the bottom (trimmer 1) and the top (trimmer 2). See page

Trimmer 1 is used to slow the wing in thermals and to set a higher speed for gliding. Normal trim speed is marked with a row of stitching in the trim tab, and is achieved when all of the risers are at the same length. For optimal climb rate it is best to slow the glider down. To do this pull both trimmer 1's to their limit, the reduced air speed gives a better sink rate and lighter feel on the brakes.

It is also possible to climb using the trimmers asymmetrically; this way gives a good compromise between handling and brake pressure. To do so, engage trimmer 1 on the inside of the turn and leave the outside trimmer 1 at neutral.

IMPORTANT: Do NOT fly in strong or turbulent conditions with the trimmers in the fully closed position.

To increase speed you can release both trimmers, this has exactly the same effect as using the speed bar, there is no difference in efficiency between releasing the trimmer or using the same amount of speed bar. However Ozone strongly recommends to accelerate the wing using the speed bar rather than the trimmers.

WARNING: In turbulent conditions it is safer to leave the trimmer 1 in the marked neutral position.

The top trimmer (trimmer 2) controls the amount of 'reflex' (CM+) in the wing during accelerated flight, at trim speed using trimmer 2 does not alter the glider in any way.

For maximum glide performance whilst using the accelerator system (or trimmer 1), trimmer 2 should be left in the pulled (closed) position. In this setting the profile is cambered for optimal performance and sink rate. For an increased top speed and for extra stability whilst using the speed system, for example whilst on final glide, trimmer 2 should be released. This adds a further 2-3 kms to the maximum speed and the more positive CM is helpful for giving extra stability, however this is at the expense of glide performance. Trimmer 2 is fully adjustable in flight so that you can choose between prioritising stability or glide performance. When you release the speed bar, no matter how you have the top trimmer 2 set, the wing will return to neutral trim (trimmer 2 only has an effect whilst accelerating the wing).

IMPORTANT: Do not fly with the trimmers (1) released in turbulent conditions.

➤ Accelerator System

To set up an accelerator on the ground, ask a friend to pull your risers into their in-flight position while you sit in your harness. Now adjust the length of the line so that the main bar sits just beneath your seat.

The accelerator must be slack enough to ensure that the front risers are not pulled down in normal flight, but not so long that it is impossible to use the full speed range of the glider.

Once set up, test the full range of the accelerator in calm flying conditions: ensure that both risers are pulled evenly during operation. Fine-tuning can be completed when you are back on the ground.

IMPORTANT: Using the accelerator decreases the angle of attack and can make the glider more prone to collapse, therefore using the accelerator near the ground or in turbulence should be avoided.

➤ Harness

It is worthwhile checking the adjustment straps of your harness to double check for symmetry.

The chest strap should be set between 42cm and 50cm (between the centre of the risers) to your taste.

➤ Total Weight in flight

Each Ozone glider has a defined weight range. We recommend that you respect these weight ranges. If you are between sizes the following information may help you make a decision as to which size to buy:

If you want better speed, precise handling, if you generally fly in mountains and/or in strong conditions, you should choose to fly in the top part of the weight range. If you want a better sink rate, or if you generally fly in flat lands and/or in weak conditions, you may choose to fly near the bottom part of the weight range. Remember, you can always add ballast for when conditions are stronger.

BASIC FLIGHT TECHNIQUES

To familiarise yourself with the glider it is a good idea to perform practice inflations and small flights in smooth conditions. This will enable you to set up your equipment correctly.

➤ Preparation

Lay out the wing on its top surface in a pronounced arc, with the centre of the wing higher than the tips. Lay out the lines one side at a time. Hold up the risers and starting with the brake lines, pull all lines clear. Repeat with the stabilo, C, B and A lines, laying the checked lines on top of the previous set, and making sure no lines are tangled, knotted or snagged. Mirror the process on the other side.

Take-off checklist:

1. Check reserve parachute - pin in and handle secure
2. Helmet on and fastened
3. All harness buckles closed - check leg-loops again
4. Karabiners and maillons tight
5. Holding the A's and your brake handles
6. Leading edge open
7. Aligned directly into wind
8. Airspace and visibility clear

➤ Launching

Your Mantra R10 will launch with either the forward or reverse techniques.

⚠ Note: The glider rises overhead quickly so be prepared to modify your technique, especially if your last wing was slow in this respect.

Forward Launch - Nil to Light winds

When the wind is favourable, move forward positively: your lines should become tight within one or two steps. The Mantra R10 will immediately start to inflate. You should maintain a constant pressure on the risers until the wing is overhead.

Do not pull down or push the risers forward excessively as this may cause the leading edge to deform and possibly collapse, making taking-off more difficult and potentially dangerous. Move smoothly throughout the entire launch, there is no need to rush or snatch at it. You should have plenty of time to look up and check your canopy before committing yourself.

Once you are happy that the Mantra R10 is inflated correctly, accelerate smoothly off the launch.

Reverse Launch - Light to Strong Winds

Lay out your wing as you would for the forward launch. However, this time turn to face it, passing one entire set of risers over your head as you turn. Now you can lean backwards and smoothly inflate the glider using the A-risers. Once the wing is overhead, brake gently, turn and launch.

In stronger winds, be prepared to take a few steps towards the glider as it inflates. This will take some of the energy out of the glider and it will be less likely to overfly you. The reverse-launch technique can be used in surprisingly light winds too.

IMPORTANT: Never take off with a glider that is not fully inflated or if you are not in control of the pitch/roll of your wing.

➤ Speed System

For better penetration in headwinds and improved glide performance in sinking air, crosswinds or headwinds, you should fly faster than trim speed by using the accelerator system. Using up to half bar does not degrade the glide angle or stability significantly and will improve your flying performance. At full speed the Mantra R10 is very fast but less stable; only use max speed in very calm air conditions.

⚠ IMPORTANT: Ozone strongly recommends when flying at full speed (with the speed bar) that the trimmers are set to the neutral position. Do not fly full speed (speed bar) with the trimmers released.

➤ Turning

The R10 has relatively light brake pressure and is very responsive to inputs. To familiarise yourself with the new wing your first turns should be gradual and progressive. Application of too much brake will cause excessive roll and dive in the turn or cause the wing to spin.

➤ Active Flying

To minimize the likelihood of suffering collapses in turbulent conditions, it is essential to use active flying.

Flying with some brake applied (approx. 20cm) will give you the required feedback from the wing. Inputs can be symmetric or asymmetric; you may have to apply both brakes or just one to maintain equal pressure across the span/chord of the wing. These subtle adjustments will keep the glider flying smoothly and directly above you

Avoid flying with continuous amounts of deep brake in rough air as you could inadvertently stall the wing. Always consider your airspeed.

IMPORTANT: No pilot and no glider are immune to collapses however active flying reduces any tendency to collapse. When the conditions are turbulent, be more active and anticipate the movements of your wing. Always be aware of your altitude and do not over-react. We advise you to keep hold of your brakes and not to fly in very turbulent conditions.

ADVANCED FLIGHT TECHNIQUES

➤ Big Ears

Folding-in the wingtips increases the sink rate whilst maintaining forward speed, this is useful for staying out of cloud. To pull big ears, keep hold of your brake handles and take the outermost A-line and the stabilo line on each side, then pull out down (preferably one at a time) until the tips of the wing fold under.

Do not use the brakes other than for re-inflation. For directional control while using the Big Ears, you should use weight shift steering.

To reopen your big ears, release both A lines at the same time. To help reinflation, brake gently one side at a time until tips regain pressure. Avoid deep symmetric applications of the brake as this could induce parachutal or full stalls.

➤ Big ears and accelerator

Once the big ears are in you can further increase the sink rate by pushing on the accelerator bar.

NEVER try to pull the Big Ears in with the speed bar already applied. This can lead to a major asymmetric deflation.

➤ Big ears and spiral dive

Whilst it is possible to enter a spiral dive whilst holding in Big Ears, the high forces applied to the lower lines could exceed the breaking strain of the lines leading to equipment failure!

⚠ IMPORTANT: Ozone strongly recommends to NOT use this manoeuvre!

➤ Wingovers

The Mantra R10 is not designed for aerobatic flying. The limit is tightly banked S-turns, commonly known as wingovers. These must not exceed 90 degrees of bank

WARNING: Uncoordinated wingovers can lead to large

asymmetric collapses and therefore should never be executed near the ground.

➤ B-Line Stall

B-stall is for fast descents in emergency situations only. B-stall is performed by symmetrically pulling down on both B-risers.

If you pull too much B-line the glider may horseshoe and move around a lot.

To exit the B-stall the B-risers should be released symmetrically and in one smooth, progressive motion. The glider will resume normal forward flight without further input. Check you have forward flight again before using the brakes.

IMPORTANT: We do not recommend the use of B line stalls with the Mantra R10. Pulling too much B line and or turbulence can cause the tips to fly forward and become unstable. Spiral dive is a safer way to loose height effectively.

➤ Spiral Dives

The spiral dive is the most effective descent method to lose height rapidly. The Mantra R10 will turn almost 360 degrees before it drops into a spiral dive, once in the spiral you should apply enough outside brake to keep the outer wing tip pressured and inflated.

Safe descent rates of 8m/s and beyond are possible, the associated high speeds and G-forces can be disorientating, so pay particular attention to your altitude.

To exit the spiral dive, return your weight shift to a central position and then slowly release the inside brake. As the Mantra R10 decelerates allow it to continue to turn until enough energy is lost for it to return to level flight without an excessive climb and surge.

You should always be prepared to pilot the wing out of a spiral dive. To do so smoothly use opposite weight shift and apply a small amount of outside brake and the glider will start to resume normal flight. Never

attempt to recover from a spiral with hard or quick opposite inputs as this will result in an aggressive climb and surge.

IMPORTANT: Spiral dives with sink rates over 8 m/s are possible, but should be avoided. They are dangerous and put unnecessary strain on the glider. Spiral dives cause disorientation and need time and height to recover. Do not perform this manoeuvre near the ground.

INCIDENTS IN FLIGHT

➤ Deflations

If you have a collapse, first priority is to maintain your direction and fly away from the ground, obstacles and other pilots. Asymmetric collapses can be controlled by weight shifting away from the collapse and applying enough brake to control your direction, this act alone will normally be enough for a full recovery of the wing. In your efforts to stop the glider turning towards the collapsed side you must be very careful not to stall the side of the wing that is still flying. If you are unable to stop the glider turning without exceeding the stall point then allow the glider to turn whilst you reinflate the collapse.

If you do have a deflation which does not spontaneously reinflate, make a long smooth progressive pump on the deflated side. This pumping action should take about 2 seconds per pump. Pumping too short and fast will not reinflate the wing and pumping too slow might take the glider close to, or beyond, the stall point.

Symmetrical collapses normally reinflate without pilot input, however a quick input of 15 to 20cm of brake applied symmetrically will speed the process and reduce the likelihood of the wing tips coming together in a horseshoe and resulting cravats. Never let your tips come together in a front collapse, use enough input to stop this happening.

If your Mantra R10 collapses in accelerated flight, immediately release the accelerator, return trimmers to the neutral position (if

untrimmed) and actively control the glider.

➤ Cravats

The first solution to get out of a cravat situation is to maintain control of your direction and pull the stabilo line (red sheathed line on A risers) until you gain tension in the line. This action will clear most small tip cravats however larger cravats may need deep brake inputs to clear. You must be careful with any brake inputs or you may unexpectedly stall the wing.

If after repeated attempts this does not work, a parachutal or full stall (symmetrical or asymmetrical) are the next best solutions. This should only be done with a large amount of altitude and training. Remember if the rotation is accelerating and you are unable to control it, you should use your reserve whilst you still have enough altitude.

➤ Deep Stall / Parachutal stall

The R10 shows no parachutal tendencies, but should it happen, your first reaction should be to fully raise both brakes and the glider should return to normal flight. If nothing happens after a few seconds, make sure the trimmers are not in the fully slow position and apply some speed bar to regain normal flight.

Ensure the glider has returned to normal flight (check your airspeed) before you use the brakes again.

IMPORTANT: Only a few cms of input from your brakes can maintain your wing in the stall. Always release your wraps if you have taken them!

➤ Wingovers

The Mantra R10 is not designed for aerobatic flying. The limit is tightly banked S-turns, commonly known as wingovers. These must not exceed 90 degrees of bank

WARNING: Uncoordinated wingovers can lead to large asymmetric collapses/cravats and therefore should never be executed near the ground.

⚠ SIV

The R10 is a cutting edge performance paraglider that has been fully optimised for competitive flying and should therefore only be flown by very experienced pilots. Due to the nature of the tab positioning, induced collapses do not simulate real life collapses. Ozone strongly recommends to NOT perform SIV manoeuvres such as simulated asymmetric/symmetric collapses with this wing. To do so properly requires the addition of collapse lines to the leading edge which have to be mounted accurately, as a result we strongly advise against this sort of flying with this wing.

CARING FOR YOUR MANTRA R10

⚠ Packing

To prolong the life of your wing and to keep the plastic reinforcements in the best possible condition it is very important to pack the wing carefully.

Ozone strongly recommends that you use the concertina packing method exactly as shown so that all of the cells rest alongside each other and the plastic reinforcements are not bent. Using the Ozone Saucisse pack will help preserve the life of the wing and aid with the speed and ease of packing.

Step 1. Lay mushroomed wing on Saucisse pack. It is best to start from the mushroomed position as this reduces the amount of dragging the leading edge across the ground. Because of the plastic reinforcements dragging can cause damage to the material on the top surface.



Step 2. Group LE reinforcements with the A tabs aligned



Step 3. Strap LE...Note the glider is NOT folded in half; it is folded with a complete concertina from tip to tip. It is really important to not stress the middle cell or bend the plastic too tightly.



Step 4. Group together the centre of the wing, keeping the B tabs together.



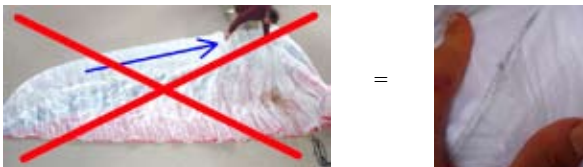
Step 5. Carefully zip up the Saucisse pack without trapping any material



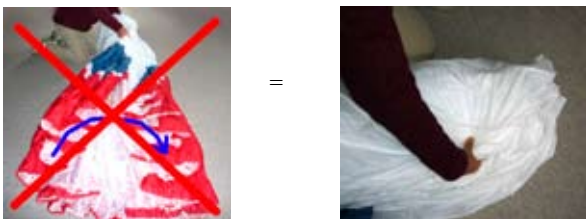
Step 6. Make the first fold just after the LE reinforcements. Do not fold the plastic reinforcements, use 3 folds around the LE.



⚠ IMPORTANT: Do NOT lay the wing flat on the ground before packing the glider, this will cause abrasion damage to the top surface as you pull the glider towards the middle. ALWAYS pack from a mushroom or lift the wing off the ground when gathering the wing and grouping the leading edge.



Important: Do not fold the glider in the center, instead pack the wing with a full concertina method from tip to tip before packing into the bag.



➤ Lines

The R10 has been optimised for absolute performance. The line set when new are very strong and pass the physical and theoretical load tests with ease. However due to the nature of the material, their thin diameters and the fact that there are not many of them in the first place, it is vitally important to be extra vigilant with the care of your lines.

⚠ NOTE: We recommend the line set is changed after 150hrs.

➤ Caring tips

- DO NOT drag your wing along the ground to another take-off position - this can damage the sailcloth and the lines. Lift up your wing and carry it.
- DO NOT try to open your wing in strong winds without untangling the lines first - this puts unnecessary strain on the lines.
- DO NOT walk on the wing or lines.
- DO NOT repeatedly inflate the glider and then allow it to crash back down. Try to keep this movement as smooth as possible by moving towards the glider as it comes down.
- DO NOT slam your glider down on the ground leading edge first! This impact puts great strain on the wing and stitching and can even explode cells.
- FLYING in salty air, in areas with abrasive surfaces (sand, rocks etc.) and ground handling in strong winds will accelerate the aging process.

IMPORTANT: It is recommended that you regularly CHECK your wing, especially after a heavy period of use, after an incident or after a long period of storage. Change your line set at the recommended interval..150hrs

Storage

- Always store all your flying equipment in a dry room, protected from the direct heat. Your wing should be dry before being packed away. Heat and humidity are the worst factors in damaging your glider. (Storing a damp glider in your car under the sun would be terrible for example).
- Dry your wing preferably out of the sun, in the wind. Never use a hair dryer, etc.
- If you land in the salt water, you must clean it with fresh water first and then dry it.
- Take care that no insects get packed away with the wing. They may eat the cloth and make holes in a bid to escape. They can also leave acidic deposits if they die and decompose.

➤ Cleaning

Any kind of wiping/scratching can damage the coating of the cloth. We recommend for cleaning to use a soft cloth dampened only with water and to use gentle movements little by little across the surface.

Never use any detergent or chemical cleaners.

➤ Wing Repairs

Amateur repairs can do more harm than good. Always let a registered dealer or the manufacturer carry out major glider repairs.

If you damage the sail:

If the rip is small however, you can fix it yourself. You'll find all the materials you need in the repair kit.

The Porcher Marine fabric can be mended simply with the sticky rip stop/spinnaker tape.

When cutting out the patch remember to allow ample overlap around the tear and round the corners of the patch.

You can find more information about repairing your wing on the Ozone website, including step by step instructions with pictures.

If you damage a line:

Any line that is visually damaged in anyway **MUST** be replaced. It is important that the replacement line is from the same material, has the same strength and the same length. You can check its length against its counterpart on the other side of the wing, to make sure that it is symmetrical. Once the line has been replaced, inflate and check the glider before flying. If you do not have access to an Ozone dealer you can order individual lines at www.flyozone.com

MAINTENANCE CHECKS

The Mantra R10 like any aircraft needs to be checked regularly to ensure proper airworthiness.

Your wing should be checked by a qualified professional for the first time after 80 hrs or 12 months, whichever comes sooner and thereafter annually. The checker should inform you about the condition of your glider and whether or not any parts need to be re-checked or changed before the next normal service check period.

The sail and the lines do not age in the same way: it will be necessary to change the line set during your wings life. This is why it is also important to do a regularly check up to know the condition of all of the components of your glider. We recommend that the check up is carried out by a qualified professional. The lines should be changed after approximately 150hrs to ensure that they retain their strength and correct lengths,

You are responsible for your flying kit and your safety depends on it. Take care of your equipment and have it regularly inspected. Changes in a wings flying behaviour, are also indicators of the gliders aging, if you notice any changes you should have the wing checked before flying again.

IMPORTANT: The line set must be replaced at the recommended interval...150 hrs.

IMPORTANT: Take care of your glider and make sure you have it checked according to the above schedule. This will ensure you hours of safe flying.

Full details of the check can be found here <http://www.flyozone.com/paragliders/en/learn/glider-inspections/>

TOWING

The Mantra R10 may be tow-launched. It is the pilot's responsibility to use suitable harness attachments and release mechanisms and to ensure that they are correctly trained on the equipment and system employed. All tow pilots should be qualified to tow, use a qualified tow operator with proper, certified equipment, and make sure all towing regulations are observed.

When towing you must be certain that the paraglider is completely above your head before you start. In each case the maximum tow force needs to correspond to the body weight of the pilot.

MODIFICATIONS

Your Ozone Mantra R10 was designed and trimmed to give the absolute optimum balance of performance, handling and safety. Any modification means that the glider will lose this balance and will be more demanding to fly. For these reasons, we strongly recommend that you do not modify your glider in any way.

QUALITY

At Ozone we take the quality of our products very seriously, all our gliders are made to the highest standards in our own manufacturing facility. Every glider manufactured goes through a stringent series of quality control procedures and all the components used to build your glider are traceable. We always welcome customer feedback and are committed to customer service. We will always undertake to fix problems not caused by general wear and tear or inappropriate use. If you have a problem with your glider please contact your dealer/distributor who will be able to decide upon the most appropriate action. 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 and ensure we are practised in emergency flight procedures. If you are lacking in any area you will be exposing yourself to more danger than is necessary.

Please think responsibly if you come to sell your Mantra R10, this wing is only suitable for very experienced and competent pilots. Pilots without the necessary experience or skills in flying high aspect ratio wings should not attempt or be encouraged to fly this glider.

Please take care to look after your wing and respect the recommended service intervals, this is especially important for the lines, any damaged lines must be replaced at the first sign of visual damage and the whole set must be changed after 150hrs of use.

Finally, always RESPECT the weather, it has more power than we can ever imagine.

Happy flying & enjoy your Mantra R10.

Team Ozone

MATERIALS

All Ozone gliders are made from the highest quality materials available. Porcher cloth has been used for all components of the glider due to its lighter weight and stretch resistance, which are two important factors in a high performance wing.

▮ Cloth

Upper-surface

Porcher Skytex 9017 E77

Lower-surface

Porcher Skytex 7000 E71

Supported Internal Ribs

Porcher Skytex 9017 E29A

Unsupported Ribs

Dominico 30D FM

Leading-edge reinforcement

Plastic P18 / P25

▮ Line Set

Lower cascade - Edelrid 8000UV,070/090/130190/230kg Aramid

Middle cascade - Edelrid 8000UV 050/070/090 Aramid

Upper cascade - Edelrid 8000UV 025/050/070 Aramid

▮ Risers and hardware

Shackles

High quality micro maillons from Maillon Rapide.

Riser webbing

12mm Cousin zero stretch webbing

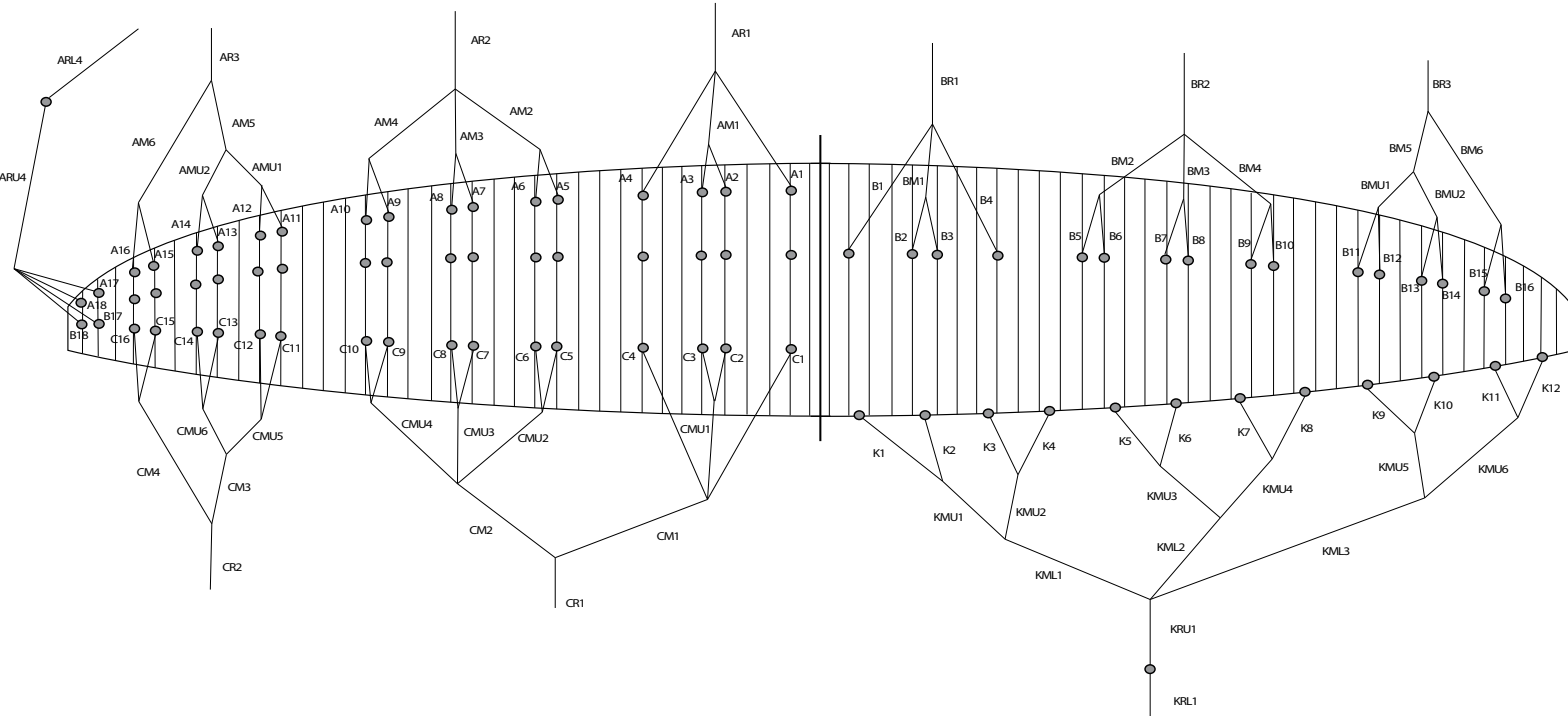
Pulleys

Ronstan ball bearings

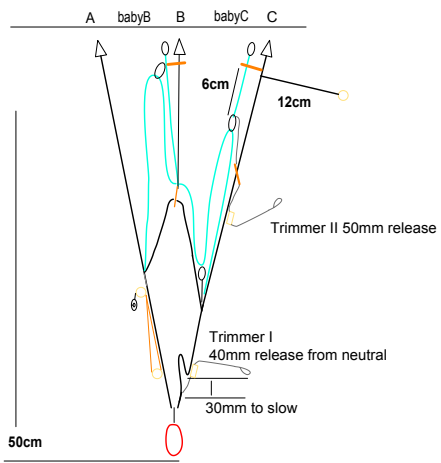


LINE DIAGRAM

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- Riser A - AR1/2/3/ARL4
- Riser babyB - BR3
- Riser B - BR1/2
- Riser babyC - CR1
- Riser C - CR2



	S	M	L
No. of Cells	73	73	73
Projected Area (m2)			
Flat Area (m2)	22.9	24.7	26.7
Projected Span (m)			
Flat Span (m)			
Projected Aspect Ratio			
Flat Aspect Ratio	7.3	7.3	7.3
Root Chord			
Glider Weight	5.6	5.8	6
In-Flight Weight Range	90-100	100-110	110-120
Load Test DHV	Yes	Yes	Yes

MANTRA
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Inspired by Nature, Driven by the Elements

WWW.FLYOZONE.COM