

Manix



PARAGLIDING HARNESS

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Introduction

We congratulate you on your purchase of a new Manix harness.

The Manix harness is built to comply with the high standards and demands for paragliding harnesses. You have chosen a state of the art product which is one of most comfortable lightweight paragliding harnesses available on the market today.

Please read this user manual carefully and use it as a guide to adjusting the harness properly for your size and shape; and to obtaining the most comfortable flight position. In addition to adjusting the harness please pay special attention to the insertion of the reserve parachute and its connection to the harness. In addition to instructions you will find a few important suggestions and tips on how to care for, clean and use your new harness.

By purchasing our equipment, you accept responsibility for being a certified paraglider pilot and you accept all risks inherent with paragliding activities including injury and death. Neither the manufacturer nor the seller of this product shall be held liable for personal or third party injuries or damages under any circumstances.

We thank you for placing your trust in us, and hope that comfortably seated you will get maximum enjoyment during many pleasant flights. We wish you maximum enjoyment from your discovery of this fantastic aerial sport and of course happy landings.

MAC PARA TEAM

Technical description

The Manix is harness for light sport aircraft with an empty weight of less than 120 kg in the category paraglider. The Manix harness was developed to satisfy the demands for a modern paragliding harness, and incorporates feed-back from the most demanding pilots. MAC PARA's long experience of the design and development of harnesses combined with the use of the best selected materials guarantees a combination of longevity and comfort during use combined with perfect flying characteristics.

The Manix harness is suitable for all pilots, from beginner to the experienced pilot who prefers a slightly inclined sitting position. The Manix can be flown with all types of paraglider unless the manufacturer of your particular model requires a specific harness to be used with their glider.

The breathable back material provides comfortable sitting position. The harness is equipped with a foam protector against the shock caused by impact. The rear pocket provides large storage space. The harness has one lateral pocket on left side for small objects. The Manix harness is supplied inclusive of relax-bar and speed bar system with Brummel-hooks, as usually delivered on MAC paragliders.



Features of the Manix

- thick foam protector for increased safety
- two step speed light speed bar with brumel hooks
- comfort sitting position, leg support
- large dorsal storage pocket and pocket on left side
- light rest bar , kevlar plate option

The Manix is available in sizes S, M, L, XL and XXL.

Weight: 5.30 kg (Medium size complete with back protection, 4,80 kg with Kevlar plate).

Volume space for the rescue: 7.2 dm³

Adjusting your Manix

The Manix harness offers you several adjustment choices, making it possible for the pilot to find his ideal position according to his size and shape. The harness is adjustable using shoulder, back, chest and legs straps. The harness is correctly adjusted when you feel comfortable without any pressure on shoulders or back.

Individual settings

Setting the angle between your back and the vertical axis.

Please devote sufficient time to setting the harness correctly. Preferably hang it on a simulator or similar, and check it, spending long enough to simulate long periods of flight. This gives you the opportunity, to easily try a number of different settings at one time before undertaking your first flight.

Adjusting of lateral straps

Adjustments can be made to the lateral straps leading through the flat buckles to your back.

When correctly adjusted you feel only light pressure on both back and shoulder. If the lateral straps are too loose you will feel pressure on your shoulders from the shoulder straps. By pulling on them you change the position. If you feel pressure on your back, release the lateral straps by pulling the loop on the flat buckles within the tunnel of Neoprene material.



Adjusting of lateral straps



Adjusting of shoulder straps

Adjusting of shoulder straps

Adjustments can be made to the shoulder straps leading through the flat buckles to your shoulders.

When correctly adjusted you should feel only light pressure on both back and shoulder. If the shoulder straps are too loose you will feel pressure on your back from the lateral straps. By pulling on them you can change the position. If you feel pressure on your shoulders release the shoulder straps by pulling the loop on the flat buckles.

Adjusting of the chest strap

The chest strap is secured with a T-lock system buckle. This prevents any chance of the pilot falling out of the harness if he forgets to fasten the legs straps. The clicks must be audible! By adjusting the chest strap the pilot determines the sensitivity of the harness and the ABS system.

Adjustment of the distance between the main carabineers is made using the narrow chest strap leading through an adjustable flat buckle. The harness is most sensitive to weight-shift when the chest strap is released. The shorter the distance between the main carabineers the less sensitive the harness becomes to weight shift and the effect of the ABS-system is increased. By pulling the black colored "release" loop the chest strap can be slackened.

Additional chest strap with whistle

Additional chest strap with plastic buckle with whistle provides better position of padded shoulder flaps and prevents their sliding by wide adjustments of the chest strap. Whistle on plastic buckle can help in emergency cases.



Adjusting of the chest strap



Additional chest strap with whistle

Adjusting of leg straps

The leg straps are secured with adjustable automatic Finsterwalder buckles. The click must be audible!

Correctly adjusted, the leg straps control the freedom of movement of the legs, before and during take off. If the leg straps are too tight your upright position in the harness is limited and not comfortable. If they are too slack you can have trouble sitting in the harness after take off.

Attention! Never forget to close the buckles on the leg straps!



Automatic buckle on leg straps



Adjusting of bottom lateral straps

Adjusting of bottom lateral straps - angle of seat and back support

The Manix harness is equipped with lateral 25mm straps leading from back part through the D-rings placed under main carabineers to the rear of the seat plate. Using these straps you can change angle of the seat plate and support your back to find your preferred position. Adjustments are made with the narrower strap leading through the plastic buckles. The plastic buckles are hidden by side wall of the harness. When the straps are tightened you will feel better stabilization and support to the hips. You can release them by pulling down on the black plastic buckle. After preferred adjustment the loose part of the strap can be hidden on the side.

Attention: These straps are used solely to change the angle of the seat plate. They can not replace the function of the main straps and for this reason there is a stop point on the lateral straps. If you prefer a more prone position then we recommend the choice of either the XCL or Hawaii harness.

Emergency parachute assembly

The Manix harness is compatible with most available emergency parachutes. The envelope system outer container is integrated into the harness shape. The inner container is big enough to hold a rescue canopy up to 45 m² in size. The reserve bridle is integrated into the harness, being attached to the shoulder straps and covered by a tunnel on the right side of the harness. The rescue canopy must be inserted in the original Manix inner container with attached handle and pins. You must not use an inner container from other manufacturers.

Attention: Rescue canopies from other manufacturers must be refolded following original instructions into the supplied Manix inner container without their originally provided container.

Possibilities of emergency parachute connections

1. The lines of the rescue canopy are directly connected (slipped onto) the integrated connection bridle.
2. A rescue canopy with a short bridle can be attached directly to the integrated connection bridle. Alternatively connection can be made with a carabineer with a minimum strength of 2000 kg. (See pictures below).



Attention! If you are unsure of the correct assembly of your rescue system ask your dealer, or contact the MAC PARA importer in your country direct.

Assembly in outer container

1. Place the Manix inner container with rescue canopy onto the outer container as shown in the pictures below. The rescue canopy bridle leads to the tunnel on the right-hand side. The line loop of the rescue canopy is placed in the tunnel on the right side.

Attention! Other placements can lead to malfunction of the system!

2. You need 2 pieces of 50 cm spare line to place through the elastic loops on lateral flaps. Thread this spare line through each elastic loop. This will help close the pocket. Then lace the spare lines step by step through the bottom and followed upper front flap. Thread the elastic loops into the smallest of the eyelets on the pocket flaps. Close the flaps following the order shown in the photographs below. Push the metal pins on the handle into the elastic loops. It is essential to remove the cords after this operation. The cords should be pulled out slowly in order not to damage the elastic loops by excessive friction. Finally, the handle should be positioned using the Velcro.

The Manix harness is ready for the reserve parachute container to be attached, using the plastic buckles.

Correct assembly must be checked by a test release of the rescue system. If the system is working then reassemble in the same way as described. When connecting the reserve parachute to the harness, ensure that the parachute bridle passes outside the harness' main attachment strap, relax bar and then leads to the rescue bridle.

Attention! Before each take-off check the locking pins securing the outer container.

Assembly in outer container - step by step





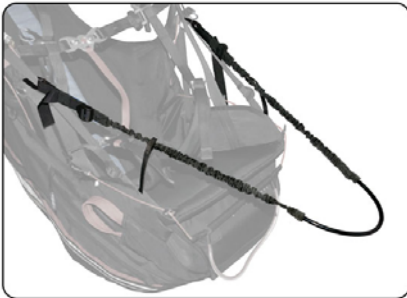
Reserve parachute deployment

The position of the reserve parachute deployment handle is visible in flight. We recommend practicing gripping the reserve parachute handle regularly, so that the action of reaching for the handle becomes instinctive. In emergency situations, the deployment procedure is as follows: Look for the reserve parachute handle and grasp it firmly with one hand. Pull the handle outwards in order to extract the reserve parachute from the ventral container. Look for a clear area, and, in a continuous motion, throw the reserve parachute away from yourself and the paraglider. After the reserve parachute has opened, avoid any chance of entanglement by pulling in the paraglider, gripping one of the brake lines, in order to collapse the glider. On landing, adopt an upright body position, and ensure that you perform a parachute landing fall to minimize the risk of injury.

Relax-bar

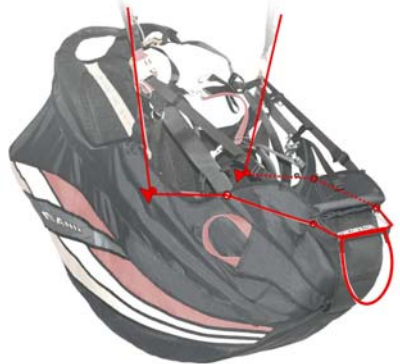
The Manix harness can be equipped with an adjustable relax-bar with rubber cords. The relax-bar is used to keep the legs stretched out and the feet resting on a support. Assembly: The relax-bar straps lead through narrow lateral straps placed on the sides in front of the harness and through strap loops placed just under main carabineers. The right position of the relax bar is adjustable by plastic buckles.

When flying without relax bar the front lateral straps can be hidden into small pockets closed to the straps. See pictures below.



Speed system

The Manix harness is equipped with a speed system and includes Brummel hooks as supplied on MAC paragliders. The speed bar lines feature stoppers preventing free movement of the speed bar unless required. The first step of the speed bar should maintain its position to the front after first use and be operated by foot without hand help.



Storage/Pockets

The Manix contains a large back pocket and smaller left side pocket. They are positioned to prevent contents from falling out during flight if the pocket is opened.

Flying with the Manix

Pre-flight checks

For maximum safety, use a complete and consistent system of pre-flight checks and repeat the same mental sequence every flight.

Check that:

- There is no visible damage to the harness or carabineers that could affect its airworthiness. The rescue parachute container is closed correctly and the pins are in the right position. The deployment handle is placed on its position.
- All buckles, belts, zips are securely fastened. Buckles should click into place as you close them, and a gentle pull on the fastened buckle verifies this. Secure any zips after fastening the buckles. Take extra care in snowy or sandy environments.
- The paraglider is connected correctly to the harness and both carabineers are secured by their locking mechanisms.
- The speed bar is attached correctly to the glider.
- All pockets are closed properly and any loose items are tied down safely.
- Check again that you have closed your leg and chest straps before you take off!

Attention! Pay special attention during winter in ice or snow. Always clear any ice or snow before fastening the buckles.

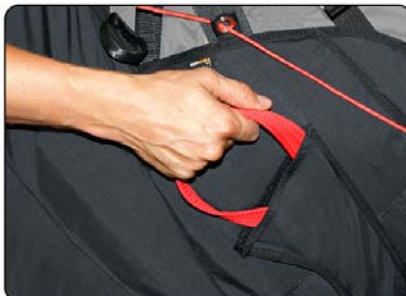
Take off with the Manix

Check that the leg straps allow proper leg movement by take off. All strap's adjustments should allow upright standing position without any pressure on shoulders.

Rescue Deployment

It is vital to periodically feel the position of the rescue handle in normal flight, so that the action of reaching for the rescue handle is instinctive in an emergency.

In the event of an emergency, the pilot must quickly evaluate his or her height and the seriousness of the incident. Deploying the rescue when the glider is recoverable may increase the danger of injury. If you have sufficient height and the glider is in a flat spin, it is preferable to first try to stop the spin (e.g. full stall), due to the risk of entanglement. On the other hand, a second's hesitation in deploying the reserve could prove costly if there is insufficient height.



If the rescue is to be deployed, the procedure is as follows:

- Look for the rescue handle and grasp it firmly with one hand
- Pull sideways / upwards on the handle to release the deployment bag from the harness container
- Look for a clear area, and in a continuous motion, throw (and RELEASE!) the rescue away from yourself and the glider, preferably into the air stream and against the direction of spin
- After deployment, avoid entanglement and pendulum motions by pulling in the glider as symmetrically as possible with the B, C, D or brake lines
- On landing take an upright body position and be sure to do a PLF (Parachute Landing Fall) to minimize the risk of injury

Landing with the Manix

Before landing, slide your legs forward in the harness so that you adopt the standing position. NEVER land in the sitting position; it is very dangerous for your back even if you have back protection. Standing up before landing is an active safety system, and is much more effective than the passive system of back protection.

Towing

The Manix harness is suitable for towing. The release system must be connected to the same main carabineers attached to the paraglider risers! To attach the release system properly, insert the release bridle in such a way that the release itself is in front of the risers, in the direction of flight. For further details, refer to the documentation provided with your tow release, or ask a qualified towing instructor at your flying site.

Tandem flying

The Manix harness is suitable for tandem flying as passenger harness. Thanks to a well designed leg strap system it offers an outstanding freedom of leg movement. This facilitates an easy run during take off. If the passenger is not an advanced pilot, then remove the emergency parachute from the harness to avoid an involuntary deployment.

Flying above water

It is inadvisable to use the Manix harness on flights over water. In the event of the pilot being forced to land on the water, the foam protector, which is filled with air, may force the harness into a position that holds the pilot underwater. For SIV trainings remove the foam protector from the harness. MAC PARA recommends the use of a suitable lifejacket when flying over water.

Maintenance and repairs

We suggest you have your harness checked by an authorized person once every two years. If you have your reserve repacked, ask for a harness check. The main aluminium carabineers can be used only under instructions and regulations of the carabineer manufacturer. Impacts may create undetectable cracks that, because of continual cyclic loads, could result in structural damage. Avoid dragging your harness on the ground and rocks etc. Protect from unnecessary exposure to UV rays, avoid storing when damp and avoid exposure to extreme temperatures.

The customer may not do any harness repairs or replacement of spare parts him/herself. This can lead to limitation of functionality, or can even endanger your life. For this reason any repair or corrections must be made directly by the manufacturer.

Looking after your harness

Looking after your harness correctly will prolong the life of your harness.

Deterioration: a few tips:

- The Harness is mainly made of NYLON cloth and Polyester straps which, like any synthetic material, deteriorates through excessive exposure to UV. Hence, it is recommended that you reduce UV exposure to a minimum.
- Keep the cloth and straps clean as dirt may penetrate into the fiber and damage the cloth.
- Be careful, not to allow snow, sand or stones to enter inside the harness. The sharp edges can destroy the cloth and damage the buckles!
- Never drag the harness over rough ground! This will damage the cloth on the wear points.
- Clean the harness with fresh water after contact with salt water. Pay high attention to clean the automatic buckles. Salt water crystal can reduce strengths, even after rinsing in fresh water.
- Clean the harness only with lukewarm water with a light soapy solution. Use of chemical cleaners or thinners is expressly prohibited. Keep automatic buckles clean. They may be lubricated once in a year with a silicon spray.

Storage:

- Store the harness a dry space at ambient temperature away from chemicals and UV light.
- Never store the harness wet. This shortens the life of the cloth. Always dry harness thoroughly before any packing or storage.
- During transport it has to be considered, that some materials of the harness are temperature sensitive. Avoid subjecting your harness to high temperatures (e.g. the luggage space of a parked car in the sun)!

Disposal:

- The synthetic materials used in a paragliding harness need professional disposal. Please send disused harness back to us: we will dismantle and dispose of it.

In Conclusion:

The Manix is a modern paragliding harness. You will enjoy many safe years of flying with your Manix if you look after it correctly and adopt a mature and responsible approach to the demands and dangers flying can pose.

It must be clearly understood that all air sports are potentially dangerous and that your safety is ultimately dependent upon you. We strongly urge you to fly safely. This includes your choice of flying conditions as well as safety margins during flying maneuvers. Every pilot should be suitably qualified, have a valid license and 3rd party insurance.

The Manix is delivered with a speed bar, brummel hooks, rest bar and user manual.

Treating nature with respect

Finally the call to practice our sport with respect for nature and wildlife! Don't walk outside marked routes, don't leave any waste, don't make needless noise and respect the sensitive biological balance in the mountain eco system: especially in the takeoff area!

Checks

Let check the harness by an authorized person once every two years.

Name	Company	Date	Signature & Stamp

Technical description

Description:	paragliding harness
Max. load:	120 kg
Distance between karabiner and seat:	size S-44 cm, size M-45 cm, size L-47 cm, size XL-47 cm
Distance between karabiner (min/max):	size S-34/45 cm, size M-34/45 cm, size L-34/46 cm, size XL- 34/52 cm
Size of Plate (width/length):	size S-34/38 cm, size M-36/38 cm, size L-36/40 cm, size XL- 38/42 cm
Recommended pilots height:	S - under 170 cm, M - 165/178 cm, L - 175/190 cm, size XL- 185/195 cm
Weight (without rescue chute and carabineers):	S - 4,90 kg, M - 5,30 kg, L - 5,45 kg, XL - 5,75kg
Back protection:	Styrofoam protection; 18 cm
Rescue system:	Integrated container (envelope system) under seat plate with a lateral handle
Certification:	Certified standards and procedures LTF 91/09 - EN 1651:1999 Type testing:



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