



X-DREAMER



PARAGLIDING HARNESS

Please read this manual before flying with the X-Dreamer for the first time.

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Thank You...

Thank you for choosing the X-Dreamer harness. We are confident that this quality MAC PARA product will provide you with enhanced comfort, control, performance and fun in flight. The X-Dreamer harness features ergonomic and comfortable seating geometry. Foam protectors are part of the harness and support the back in flight. The clean shape helps to achieve low aerodynamic drag.

MAC PARA was founded in 1991 and is based in Czech Republic. Since the very beginning the company is well known for the quality. MAC PARA products belonged and are always among the top compared to other manufacturers. We are team of specialists who share the passion for flying. With motto „Relaxed Flying“ - our products are designed with orientation on performance, user friendliness and longevity.

This manual is important part of the harness and contains all the information you need to set up, trim, fly and maintain it. A thorough knowledge of your equipment will keep you safe and enable you to maximize your full potential.

If you have any further questions or difficulties by adjustment please contact your dealer or get in touch directly with us. We wish you a lot of enjoyment with your X-Dreamer.

Happy Flights and Safe Landings

The MAC PARA Team

Safety Notice

By the purchase of MAC PARA equipment, you are responsible for your identity as a paraglider pilot holding necessary pilot's licence and insurance. You accept all risks inherent with paragliding activities including injury and death. Improper use or misuse of MAC PARA equipment greatly increases these risks.

Neither MAC PARA nor the retailer of MAC PARA equipment shall be held liable for personal or third party injuries or damages under any circumstances.

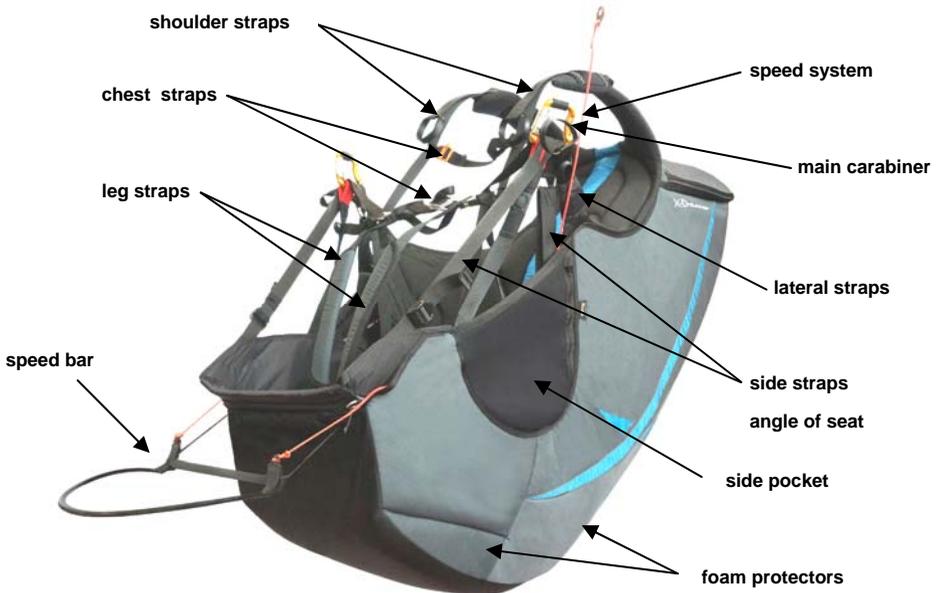
X-Dreamer certification is restricted exclusively to paragliding sport. It is not designed for free fall parachuting and for extreme loadings that are involved in an abrupt parachute opening. All harness adjustments should be made before the harness is flown.

The foam protectors can only absorb some of the energy impacts that could be caused by unlucky takeoffs and landings. No protector can offer complete protection against injury.

If any aspect of the use of our equipment remains unclear, please contact your local MAC PARA reseller or importer in your country.

Introducing the X-Dreamer

The X-Dreamer is comfortable open harness and meets the highest standards of the most demanding pilots. The X-Dreamer is suitable from the beginner pilot to the cross country or experienced pilot. It provides a positive influence to the pilot's confidence. The ergonomic design focuses on simplicity, eliminating the need for complicated adjustments.



Features of the X-Dreamer:

- light construction with 2 buckle closing system
- EN/LTF certified foam back protection
- carbon seat plate and two carabineers Lock Jaw serial
- 2 step speed bar, lines and Brummel hooks
- shoulder strap Velcros (e.g. for small varios)
- Reserve V-connection channel with zip
- outside zip-up on the left side
- inside mesh pocket on the right side
- large dorsal storage pocket with pocket inside for drink system
- drink tube opening
- excellent comfort

The X-Dreamer can be flown with all types of paragliders unless the manufacturer of your paraglider requires a specific harness to be used with his paraglider. Please refer to the manual of your paraglider to find out if this might be the case.

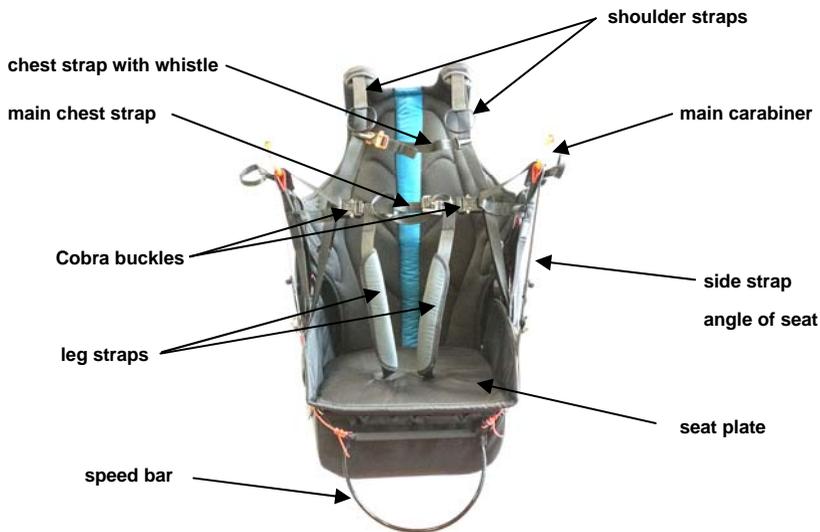
The harness is serial delivered with two self-locking carabiners. These are placed on red support loops. The paraglider risers are attached without twisting to the harness using the self-locking .

Leg and chest straps are integrated into 2 buckle closing system. The pilot has just to fasten left and right buckles. The overall geometry of the harness enables the pilot to feel the feedback from the glider sensitively, whilst retaining a secure feeling in flight. This increases the precision of turns while thermaling and aids active flying. On long flights, the comfort of the X-Dreamer is second to none. A well-designed back pocket system enables easy assembly of the harness and packing in a rucksack.

The X-Dreamer is available in four sizes (S, M, L and XL) that fit to pilot`s height starting from 155 cm up to 200 cm. Volume space for the rescue: 10,0 dm³

Harness weight: starts on 4.30 kg (S size complete with X-DREAMER foam protectors, carabiners, 2 step speed system).

The X-Dreamer harness was load tested to 15 g of max. weight 120 kg.



The bottom rescue container is designed to enable a fast and easy deployment of the parachute. The bottom position is ideal because the weight of the rescue stays near the centre of gravity and therefore provides you with the most balanced comfort and feeling in flight. The speed system works through pulleys and tubes that help to greatly reduce friction when using the speedbar, it also reduces wear when used often and reduces pilot fatigue during long flights.

Back protection

The X-Dreamer foam protectors are designed to protect the pilot in case of an impact and to reduce the energy of impacts that could be caused by unlucky takeoffs and landings.

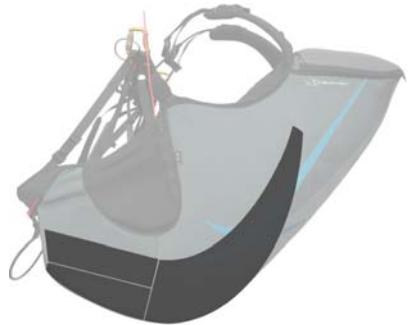
The four-chamber back protector has 17 cm thickness. The protector is divided into separate compartments, to prevent air being dissipated too rapidly in the event of a hard impact.

The lower frontal foam protector forms the shape of the harness and is located beneath the space of the rescue system.



Optional additional protector for training purpose

In some countries it is allowed to fly without a rescue system up to certain height over the ground. e.g. First short flights in the teaching process in the school or personal training of ground handling. For these purposes the rescue pocket can be optionally fitted with third additional foam protector for added passive safety. With this additional foam protector chamber the laboratory tests show further improved G resistance.

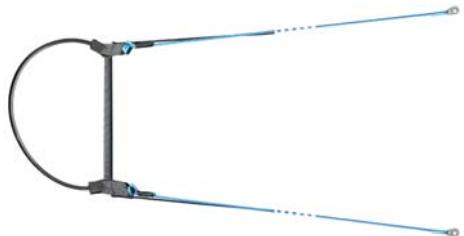


Note! No protector can offer complete protection against injury.



Speed bar

The X-Dreamer is serial supplied with a 2 step speed bar that allows accurate speed control of the acceleration.



Attaching the cockpit

There are two tape loops on the chest strap below main carabiners for attaching the cockpit. In according of cockpit design the main carabiners could also be used.

Other Accessories

For up-to-date information on additional accessories, visit www.macpara.com or contact your local MAC PARA dealer or the distributor in your country.

The X-Dreamer must be assembled by a suitably qualified paragliding professional, for example your instructor. In particular great care and attention must be paid to the fitting of the rescue parachute in the harness. The pilot should then adjust the harness for comfort.

Technical Specifications

Harness size		S	M	L	XL
Pilot height	[cm]	155 - 170	165 - 177	175 - 188	185 - 200
Pilot weight	[kg]	55 - 75	60 - 85	70 - 100	95 - 115
Harness weight incl. carabiners & foam protector	[kg]	4.3	4.35	4.45	4.6
Height (between seat/arch)	[cm]	56.5	59.5	62	66.5
Seat length	[cm]	45	46.5	48	51
Seat width	[cm]	35	36.5	36.5	38
Distance seat (main strap) - carabiners	[cm]	42	43.5	45	48
Distance between two carabiners	[cm]	39 - 50	41 - 52	42 - 53	43,5 - 54,5
Carbon plate length	[cm]	40	41.5	43	46
Carbon plate width	[cm]	34	35.5	35.5	37
Impact damping system - foam protector	[cm]	17	17	17	17
Certification		EN 1651 - LTF			

Material description

Description	Name & Dimensions	Manufacturer	Breaking load
Main & leg & back & shoulder straps	366036025 / 25 mm	MOUKA	1000 kg
Side straps	366005025 / 25 mm	MOUKA	900 kg
Clip-in buckle system	Cobra FY25KFF	AUSTRIALPIN	900 kg
Adjustment-flat buckles	FC05A&FC06A	AUSTRIALPIN	900 kg
Cloth bottom part	Cordura 5030	CF WEBER	
Cloth main parts	Cordura 5012	CF WEBER	
Breathable fabric	TEBOX	TEBO	
Cloth inner parts	Nylon 70*210	HEDVA	
Rescue connection strap	Dynema/PAD / 13 mm	MOUKA	1750 kg

Assembly & Installing the reserve

Assembly

X-Dreamer is delivered with the back protection and speedbar already installed from the factory. But when it is necessary to assemble the harness by yourself, MAC PARA recommend that assembly be carried out in the order below. If there is any doubt whatsoever about this procedure, please seek professional advice from your instructor, dealer or MAC PARA importer.

Back Protection

When you receive separate new back protector it may be folded. Please let it lay open for several hours before you install it in the harness. To install it, open the zipper inside of the large dorsal pocket and slide the backprotector inside. It needs to slide into the space underneath the seat plate and behind the back support. Do not put it underneath the cross straps in the back of the harness. Insert upper part of the back protector into the pocket placed on the back. Attach the velcro tapes at the bottom to each other. Velcro tapes must be connected properly. Otherwise it may have influence for sitting position and comfort or bad shape of the bottom part of the harness. The protection should be not compressed in normal use and should not hamper the space of the rescue or move into an incorrect position.

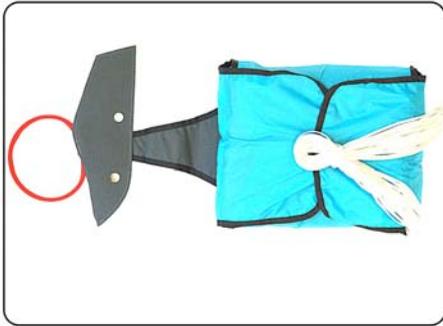
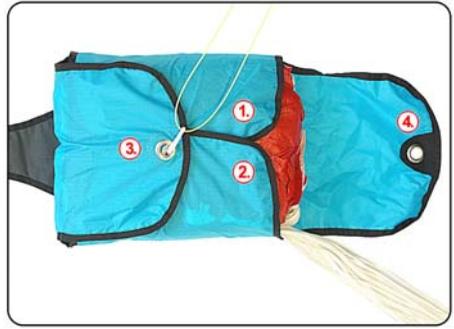
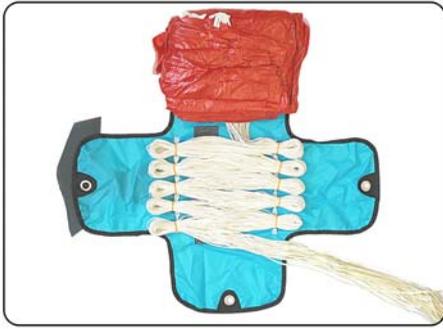
Speed system

X-Dreamer is delivered with the speed system from the factory. The speed system should be connected from the seat end upwards. Pass the speed bar line from the foot end, through the metal ring, under the frontal side straps, through tube, the pulley and up through the slot in the cover, adjust the length and tie the line to the hook. Be careful that the lines run freely and are not tangled.

Rescue Installation

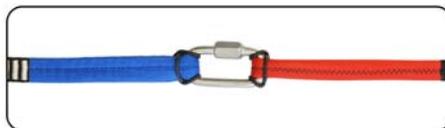
The X-Dreamer harness is compatible with MAC PARA rescues and other manufacturer's rescues. The rescue parachute must be folded in X-Dreamer's original deployment bag with lateral deployment handle.

Rescue parachutes should be repacked at least once every 6 months or as recommended by the manufacturer of your reserve; so installing your rescue in a new harness may also provide a good opportunity for a repack. Check your rescue manual for further details.



Attachment of the rescue bridle to the harness webbing by rapid link

A Maillon Rapide type connector (rapid link) or dynema soft shackle are recommended. The connector should be rated at least 15 times the maximum weight, for example, a 7mm Stainless Steel rapid link – 3125 Kg - provides a suitable connection. The rapid link should be held in place with rubber bands, tape or plastic heat shrink tube.



Webbing to webbing connection

Webbing to webbing connection is light and easy. The webbing knot must be kept as tight as possible. If loose these connections have potential danger of friction and melting of the webbing during a deployment, which would significantly weaken or even cut the connection. Tight both straps and secure them with rubber band or velcro.



The rescue container of the X-Dreamer comes with its own deployment handle. This handle is firmly and permanently connected to the deployment bag of the parachute.



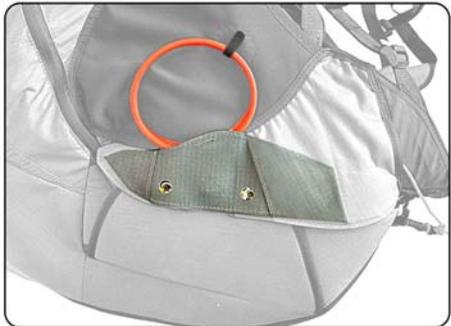
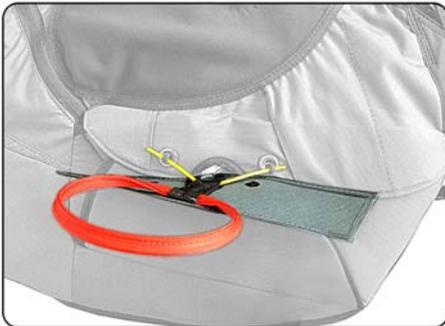
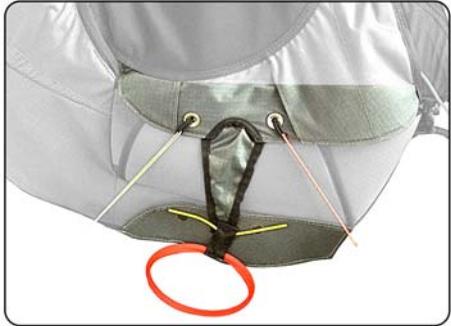
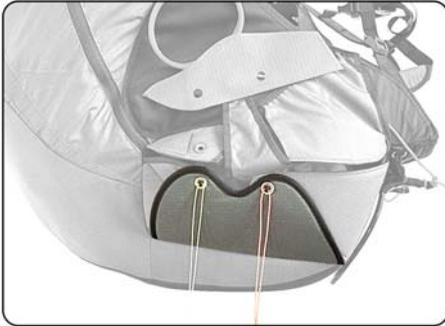
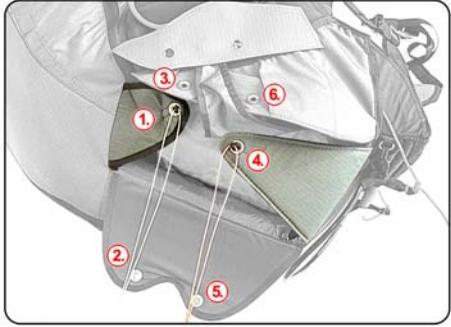
Placing the inner container with the rescue in the rescue compartment

First lay the harness-rescue bridle in the rescue compartment, then put the inner container on top. It is essential that the inner container closure flaps with rescue lines face the bottom (when in flight) of the harness. If a repacked reserve does not fit the shape of the inner container it must be refolded to the correct shape.

Close the rescue parachute compartment

The flaps of the outer container are closed with the rubber lock loops and nylon split pins. The release handle is held on the harness via pocket closures. The correct closing procedure of the outer container can be seen from the pictures on the next page.

The correct closure and position of the lock loops on the nylon split pins are clearly visible through the plastic windows on the release handle.



Compatibility check

Every first installation of a rescue system into the harness (that means every new combination of harness and rescue system) must be checked by a qualified paragliding professional. This is called a "compatibility check". In this compatibility check the pilot himself, who will be flying with this harness, must always sit in the harness hanging on a simulator and deploy the rescue from the harness container. This check must also be done each time after the rescue has been repacked and re-installed. Please observe carefully how the professional installs the rescue system, so that you can remember the procedure when you have to do it yourself the next time.

Steerable reserve

The X-Dreamer can be used with a steerable reserve. With the zipper open the channel of the rescue system bridle. Connect reserve bridles to the loops under the cover on the harness shoulders, using two maillons, each of 2400 daN minimum safe working load. Place the reserve bridles in the same way as the original reserve bridle into the channel at the side. The unused harness-rescue bridle can be led through the opening into the back pocket and stored there.



Adjustments

The X-Dreamer should be adjusted to suit your physique and flying style. It is important to adjust it correctly to ensure you can easily slide into the sitting position after take off.

Adjustments should ideally be tested by hanging on a simulator prior to the first flight. Additional fine-tuning can be done during your first few flights.

Ensure that the rescue system and back protection have been installed before making adjustments.

Height of main attachment points above seat plate varies from 42 up to 48 cm depending on the size of the harness.

Shoulder straps

The optimum setting for the shoulder straps depends on the height of the pilot. Stand upright with the chest/leg straps closed and symmetrically adjust the shoulder straps until they are just tight. To loosen the shoulder straps, pull up the narrow webbing loop that protrudes downwards from the buckle cover on the shoulder strap. The shoulder straps don't slip down thanks to an auxiliary strap with a plastic clip.



Lateral straps

The lateral straps adjust the angle between the thighs and the back. This angle can be set between 110° and 130°. Lengthening the straps increases the angle and vice-versa. The easiest way to adjust them correctly is during a flight in calm air. Remember that flying in the “supine position”, that means leaning back, reduces the stability of the harness and increases the risk of twisting after an asymmetric deflation.



Rear side adjustment straps

The seat adjustment straps allow you to adjust the depth of the seat. You can control the angle of the seat in the seating position with these straps. To get the optimum setting you can loosen these straps to the maximum in the sitting position and start pulling the straps until you get the comfort from the back support depending on the flying style of the pilot.



Side straps to control angle of seat

The seat adjustment straps allow you to adjust the angle of the front seat. You can control the angle of the seat in the seating position with the straps beside the seat. To get the optimum setting you can loosen these straps to the maximum in the sitting position and start pulling the straps until you get the comfort from the leg support depending on the flying style of the pilot. Don't tighten this strap too much; otherwise you take the load from the main straps. In this case the strap can slip out or break out of the material during flight.



Leg straps

The correct adjustment of the leg straps allows the pilot to easily reach the sitting position after take-off without using his hands. X-Dreamer is delivered with adjusted leg straps. Adjustment buckles are positioned under carbon seat plate. Take care that they are fit comfortably without being tight. Make sure you did it symmetrically. If it is necessary to lengthen the leg straps, first check that the shoulder straps are not too tight. It is not normally necessary to make large adjustments from the default leg strap setting.

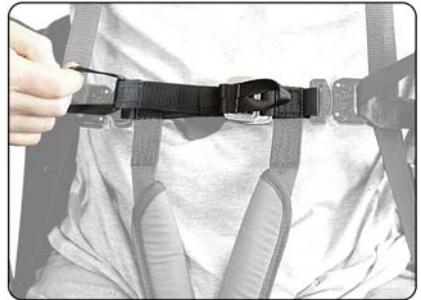


Chest strap

The adjustment of the chest strap controls the distance between the carabiners and affects the handling and stability of the glider. Widening the distance between the carabiners increases feedback from the wing and allows for easier weight shifting. Closing the strap gives you a more stable feeling in turbulence but increases the risk of stable spiral and also the risk of twisting!

We advise pilots of MAC PARA paragiders to fly with a distance between the carabiners of approximately 39 to 54,5 cm depending on the size of the X-Dreamer.

The chest strap may also be adjusted in flight according to the conditions; for example, it may be tightened in turbulent air and flown at a looser setting in more stable or weak conditions.



Upper chest strap with whistle

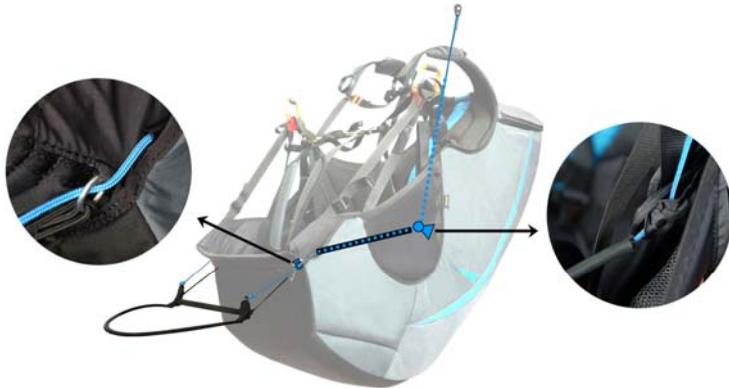
There is also a second chest strap which offers pleasant adjustment of the distance between the shoulder straps. In case the main chest strap is adjusted to the widest setting it prevents the sliding of shoulder flaps down from the shoulders by weightshifting. There is a whistle on the plastic buckle.



Speed bar

Hanging on the simulator, adjust the length of the speed bar cord so that the bar hangs max 10 m below the front of the harness. Making the cord too short could result in the speed system being constantly and unintentionally engaged during flight. It is safer to start with the speed bar a little long and shorten it following your first flights. Test the speed bar in flight only after you are comfortable with your new harness, and always do so in calm conditions with ample clearance above the ground.

When releasing the speed bar it automatically turns back under the front of the sitting plate. It is pulled back by rubber lines.



Flying with the X-Dreamer

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 carabiners that could affect its airworthiness. The rescue parachute container is closed correctly and the pins are in the right position. The deployment handle is completely inserted into the pockets.
- 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.
- Check for the risers to be properly positioned and untwisted. The «A» risers must be located at the front and facing the flight direction.
- Check for the main self-locking carabiners to be fully closed and locked in place.
- The speed bar is attached correctly to the glider.
- Check again that you have closed your leg and chest straps before you take off!

Take off with X-Dreamer

The ergonomic geometry of the X-Dreamer greatly simplifies takeoffs and landings. Leg's strap system and sliding shoulder straps enable to stand and run completely upright by takeoff and landing.

The pilot must only raise the thighs to a 90 degree angle to the body. Thanks use of different materials on the seat board it is easy to slide into the seat after takeoff. This is possible without the help of the hands.

The X-Dreamer is ideal for ground handling.

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 system 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

Storage/Pockets

The X-Dreamer contains a large dorsal storage pocket with additional inside pocket for drink system. Inside mesh pocket on right side is open and is featured with an inside loop for camera. The left side pocket is accessible from the outside and is equipped with a zipper. There is also an inside loop for the camera.

Landing with X-Dreamer

Before landing the pilot pushes the hips and legs forward. He will slip forward on the seat and can take an upright standing position for a proper landing. NEVER land in a 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.

Miscellaneous

Towing

The X-Dreamer is suitable for towing. The tow release system may only be connected to the main carabiners. Read the instructions in the user manual for your tow release and the tow adapter. If you are in any doubt you should always consult the winch driver or someone authorised by the manufacturer.

Tandem flying

Because of its size the X-Dreamer is not suitable for tandem flying - either for pilot or passenger.

Flying over water

In general, a high caution is advised when flying over water. By an unintentional water landing without a life jacket, the harness buckles must be unfastened immediately and the harness taken off. Otherwise the risk of drowning is very high.

During SIV safety training the foam back protector should be removed from the harness otherwise it would float and turn the pilot face down under water. Wearing a lifejacket is essential during SIV training.

Behaviour in the nature and preservation of flying site

Please observe the local rules at the respective flying site which you use. This is important not to endanger the preservation of flying sites which are necessary to maintain the possibility to execute our beautiful sport.

Care, Maintenance and Repairs

Lifecycle and changing intervals of parts

The materials used in the X-Dreamer have been carefully selected for maximum durability. Nevertheless, keeping your harness clean and airworthy will ensure a long period of continuous safe operation.

The dorsal foam protector must be replaced for a new one after a substantial impact or five years of use (whichever comes first). Let check it after any harder landing on it.

The self-locking carabiners must be replaced for new one after 500 flight hours or five years of use (whichever comes first). The self-locking carabiners must also be replaced if they have suffered any damage no matter how slight. Impacts may create undetectable cracks that could result in structural failure under continuous load.

Care and Maintenance

Avoid dragging your harness over rough or rocky ground. Unnecessary exposure to UV rays, heat and humidity should be always avoided. Keep the harness in your rucksack when not in use. Store all your paragliding equipment in a cool, dry place, and never put it away while damp or wet.

Keep your harness as clean as possible by regularly cleaning off dirt with a plastic bristled brush and/or a damp cloth. If the harness gets exceptionally dirty, wash it with water and a mild soap. Make sure you first remove all the sub-components: seat board, back plate, back protection, rescue parachute etc. Allow the harness to dry naturally in a well ventilated area away from direct sunlight.

If your rescue parachute ever gets wet (e.g. in a water landing) you must remove it from the harness, dry it and repack it before putting it back in the container.

The zips and buckles may be occasionally lubricated with silicone spray, no more than once a year.

Inspection checklist

In addition to regular pre-flight checks, the X-Dreamer should be inspected thoroughly on every rescue repack, normally every 150 days. Additional inspections should be performed after any crash, bad landing or take off, or if there are any signs of damage or undue wear. Every 2 years or 200 flight hours your harness has to be inspected from your dealer or a professional repair shop. Always seek professional advice whenever in doubt.

The following checks should be carried out:

- Check all webbing, straps and buckles for wear and damage, especially the areas that are not easily seen, such as the inside of the carabiner hook-in points.
- All sewing must be intact and any anomalies attended to immediately to avoid exacerbation of the problem. Special attention should be paid to the rescue installation, particularly the elastic and Velcro parts.
- The seat and back plates must be free from cracks.

Repairs

The manufacturer or an approved specialist should carry out any repair that involves critical parts of the harness. This will ensure that the correct materials and repair techniques are used.

Environmentally friendly disposal of the harness

When this paragliding harness cannot be used any longer after an extended period of life time, then you must ensure that it will be disposed in an environmentally friendly way. Please observe the existing regulations and laws in your country.

Checks

X-Dreamer harness must be checked at least every 24 months.

Name	Company	Date	Signature & Stamp

Every effort has been made to ensure that the information in this manual is correct, but please remember that it has been produced for guidance only.

This owner's manual is subject to changes without prior notice.

Please check with www.macpara.com for the latest information regarding the X-Dreamer and other MAC PARA products.



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