

**OWNERS MANUAL
PACKING INSTRUCTIONS
PARAGLIDER EMERGENCY SYSTEM
XS360/HELP
XS400/HELP**

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(1) GENERAL DESCRIPTION

The PRO-DESIGN emergency systems XS360/HELP and XS400/HELP were developed exclusively for paragliding. Under no circumstances should they be used for any other purposes such as skydiving. Deployments should only be done if the paraglider collapses irrecoverably.

(2) FITTING THE SYSTEM TO THE HARNESS

STANDARD HARNESSES

The emergency system should be attached with the velcro's to the harness either on the left or on the right hand side main strap. Take care to have the velcro's properly attached so as to guarantee a firm binding between the outer container and the harness when deploying the reserve. The deployment handle should be within easy reach when sitting in the harness, whatever your position. The bridles/risers should be connected to both of the main carabiners on the harness. Check that the carabiners are both locked. Do not hook the bridles into the gate side of the carabiners. The bridles/risers should go along the back of the harness and should be attached with velcro to avoid entanglement.

Beware! - Make sure, that the right hand bridle is attached to the right hand side carabiner of the harness and the left to the left hand side (see marking labels left and right). This is important for the correct hanging position (facing flight direction) after having deployed the reserve.

COMFORT/INTEGRAL HARNESSES

Most of these harnesses are fitted with reserve containers. They are all suitable for the XS360/HELP and XS400/HELP reserve systems and replace the original outer container supplied with the reserve. To be certain about the suitability please contact your dealer. It is important to use the correct deployment handle which is normally supplied with the harness. Exchange the handle on the inner container with the one supplied with your harness. Most reserve containers on harnesses have the same systems. Connect the bridles/risers to the main carabiners of the harness as you would on the standard harness described above, or, if there are shoulder attachments, attached them to the loops provided on the shoulder straps by using carabiners which should be supplied with the harness (especially strong rapid links).

Caution! - Take care to attach the left bridle to the left side and the right bridle to the right side! (see description above)

(3) DEPLOYMENT AND OPERATION

DEPLOYMENT

The reserve fitted to the right hand side of the harness should be released with the right hand (on comfort/integral harnesses, the deployment handle is on the right side only). The reserve fitted to the left side should be released with the left hand (on comfort/integral harnesses, the deployment handle is on the left side only). The inner bag, or deployment bag, should be firmly pulled from the outer container and thrown into free air. As the suspension lines become tight, the deployment bag will fall away and the reserve will open.

OPENING

After the reserve inflates the pilot should pull in the C- or D-lines of the paraglider to ensure the correct operation of the reserve. Unless the paraglider is completely deflated there could be excessive instability or pendulum motion due to interference from the 'still flying' paraglider. This would

result in side slipping of the reserve thereby substantially increasing the rate of decent, because the reserve would have less projected area.

DECENT

The XS360/HELP and the XS400/HELP emergency system is a steerable round canopy, designed to have a slight glide ratio. The less of the paraglider wing flying, the more effective the glide of the reserve will be. After having completely pulled in your paraglider, it should be kept between your legs leaving your hands free to steer with the brake handles provided on the bridles/risers. If you cannot pull in your paraglider the reserve will still work as a steerable canopy but with much less effect. Should you not have time to steer at all, the XS360/HELP; XS400/HELP will work as a normal round reserve. The best result would be achieved by cutting away your paraglider after complete deployment of the reserve. This is done with special quick-out carabiners or by simple cutting the risers with a cut-away knife. This would result in best sinkrate, the least amount of pendulum motion with maximum glide ratio and excellent steerability.

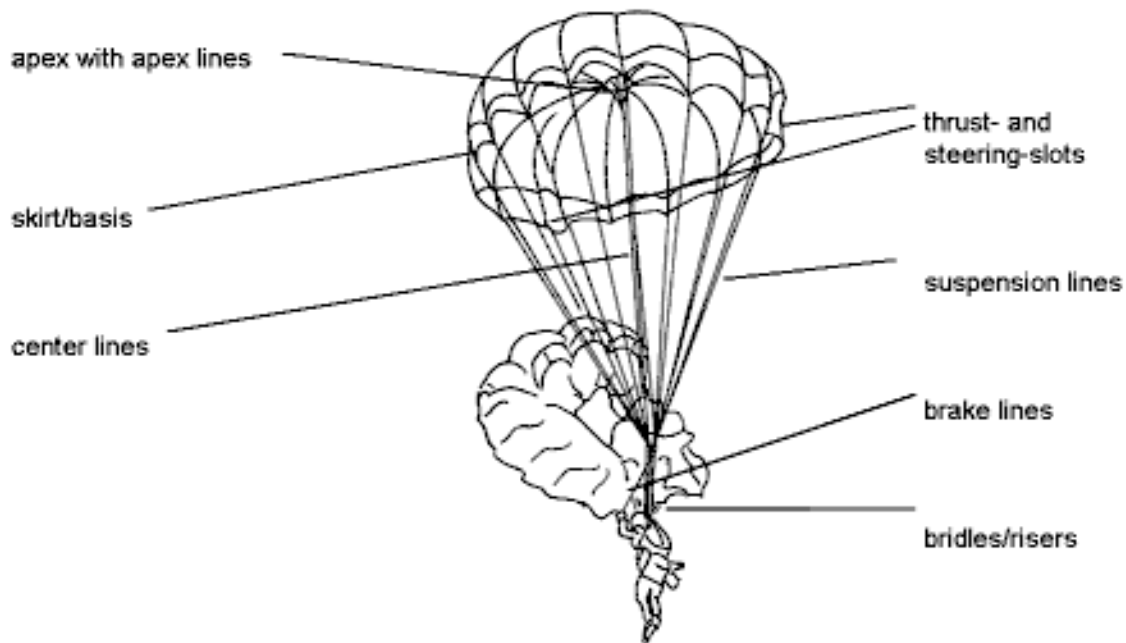
LANDING

Do not use your toggles as this would increase your sinkrate considerably. The reserve works with drag only. While braking or steering the reserve, the surface area will be reduced increasing the sink rate.

REFERENCES

We would like to point out, that due to the high risk of paragliding, the manufacturer and the distributor of the XS360/HELP, XS400/HELP emergency system do not accept any liability or responsibility for accidents, loss and any direct or indirect damage which may occur with the use of the emergency system. The XS360/HELP and XS400/HELP emergency system should be viewed as a last chance to reduce your sink rate in case of main canopy failure. The reserve is a last chance and not a guarantee for safe landing. This reserve should only be used in emergencies, or during properly supervised safety courses over water, not for recreational purposes. **DO NOT MODIFY OR CHANGE THE DESIGN**, as any changes or modifications to this system may result in incorrect or defective operation.

(4) DIAGRAM



(5) DESCRIPTION OF THE EMERGENCY SYSTEM

TECHNICAL DATA

Paraglider emergency system XS360/HELP - XS400/HELP

Manufacturer: PRO-DESIGN
Lärchenweg 33
6161 Natters
Austria

Weight: 2,7kgs - 3kgs

Surface: 36sqm - 40sqm

Material: Nylon fabric, low porosity, reinforced with tape,
Polyamid suspension lines.

Certification: XS360/HELP;
SHV/FSVL as per the AFNOR S52-318 standard, AFNOR Id.n.: PS 0993.008
DHV, certification no. GS 02-045-94
XS400/HELP;
DHV, certification no. GS 02-066-96

STRUCTURE

The canopy consists of 16 (18) panels, 16 (18) suspension lines, 2 centre lines, 2 bridles/risers with 2 brake handles. A nylon inner container with deployment handle and outer container.

USAGE LIMITATIONS

Permissible usage: 10 years (with proper storage and maintenance)
max. packing intervals: 4 month
max. recommended load: XS360/HELP; 120kgs - SHV
93kgs - DHV
recommended by manufacturer: 90kgs

max. permissible load: XS400/HELP; 119kgs - DHV
recommended by manufacturer: 120kgs
XS360/HELP; 120kgs - SHV, 100kgs - DHV
XS400/HELP; 120kgs - DHV

REQUIRED DOCUMENTS

Owners manual, packing-instructions and checklist.

(6) PACKING INSTRUCTIONS

DESCRIPTION

The packing of the steerable reserves XS360/HELP and XS400/HELP differs only in a few details to the packing of other reserve systems. Packing should be carried out on a flat, dry area (ground or large table). Make sure the canopy is completely dry and then proceed as follows:

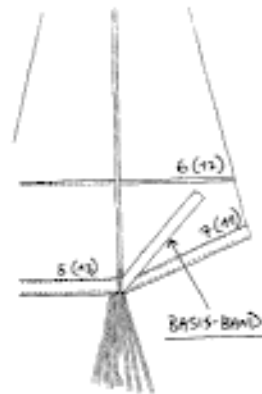
- 1) Fix suspension lines/risers to a solid point somewhere (hook on wall);
- 2) Tighten suspension lines as well as centre lines;
- 3) Fold panels with pulled apex i.e. suspension lines and centre lines must always be tight whilst folding the panels. Start folding panels #9/#10 (#10/#11) from the left side of the skirt. Fold the 8 panels over each other. Then fold the panels on the opposite side - also 8(9) panels in total. Fold the reinforcement tape of the skirt inside 45° (laying bottom panel underneath) on panels with slot #5 and #6 (#12 and #13) i.e. short panels. When all panels are correctly folded, panel #1 will be on top.
- 4) Disentangle suspension lines as well as centre lines. Take care not to twist risers with each other. Lay risers parallel to one another. Check centre lines are running free all the way to the apex.
- 5) Check control/brake lines are free running. Put brake handles with velcro onto the risers so that brake lines are not tight.
- 6) Lay risers on top of each other and fix them together with easily removable tape.
- 7) Fold the whole canopy lengthwise into thirds. Fold slightly over the middle, then fold canopy again in half lengthwise. To fit the canopy should have same width as the inner container. Now fold canopy in S-folds. The size of S-folds should be the same as that of the inner container. After folding, the apex is on top.
- 8) Fold canopy into the inner container. The middle rubber of the inner container to be guided through grommet of split flap of the opposite side. Close first flap of inner container by guiding through the same middle rubber. Then put one loop of the suspension lines through this particular rubber to keep the flap closed. Fold suspension lines into 8-folds, making two bundles. Put the two bundles between first and second flap of inner container. Fix ends of bundles with rubber bands, but not too tight! Close second/main flap of inner container by guiding the other two rubbers left and right through each particular grommet and fix flap by looping suspension lines through rubbers. It does not matter which side comes first to close. Distance of suspension lines from end of risers to first grommet of main flap of inner container should be approx. 10cm.
- 9) Lay outer container flat on the ground with all the flaps open and lay down inner container with deployment handle side up. Close side flaps - risers should come out between left flap and top flap of outer container - by guiding little loops of side flap through the appropriate grommets of the opposite flap and fixing upper loop with pin of deployment handle. The bridle of deployment handle should come out between the two grommets. Now close the bottom flap by also guiding the bottom little loop of side flap through the grommet on the bottom flap. Fix loop with appropriate pin of the deployment handle. Close top flap by going through the deployment handle and fixing it on the velcro of bottom flap.
- 10) Make a note of packing date as well as the result of checking in the packing booklet.

DRAWINGS WITH EXPLANATIONS



Fold panels starting left side with #9/#10 (#10/#11)

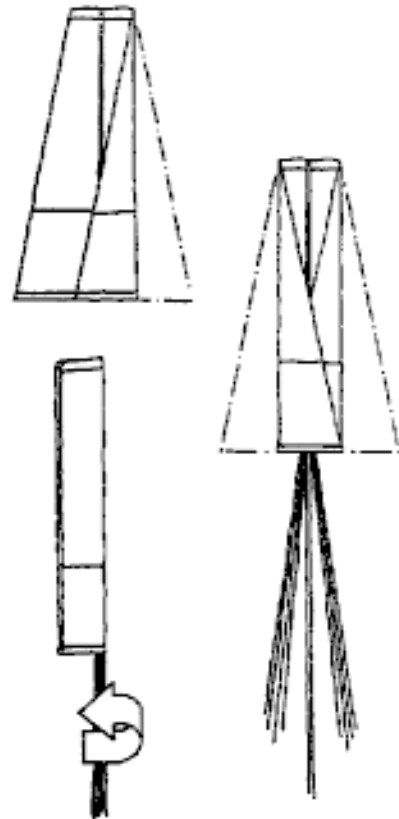
Panels #5 (#6) and #12 (#13) with reinforcement tape on skirt/basis



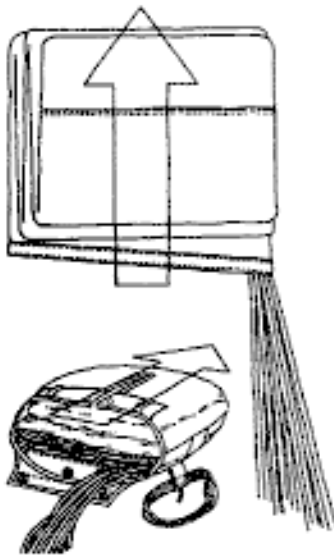
Check suspension lines and centre-lines for disentanglement.



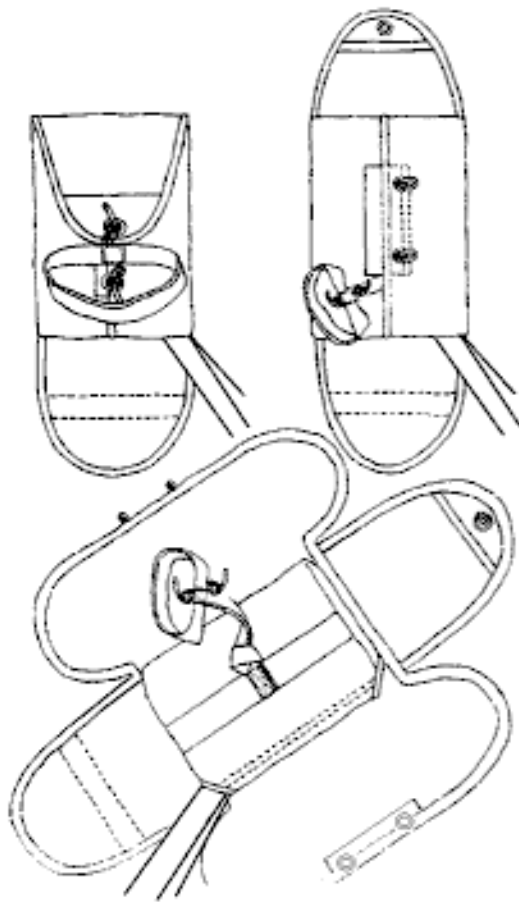
Fold canopy



Fold canopy into the inner container.



8-fold suspension lines and close the inner container



Packing inner container into the outer container

(7) INSTRUCTIONS FOR MAINTENANCE AND SERVICE

GENERAL INSTRUCTIONS

To insure safe operation, the system needs proper maintenance and care. When storing, prevent the XS360/HELP; XS400/HELP reserve from extreme temperatures and humidity. A humid or wet canopy needs re-packing. Exposures to UV-rays will lead to a reduction of strength and deterioration of the fabrics. If necessary clean only with plain water, do not use detergents or solvents. Look for a clean flat place when packing the canopy - the floor or a suitable table - make sure you do not pack any dirt or foreign elements into the canopy. This could damage the system or lead to a malfunction. After a deployment, we recommend to have the system checked by the manufacturer or dealer.

REPAIRS

Parts subject to wear f.e. the bridle have to be periodically thoroughly checked. Even if only slightly damaged they have to be replaced. Repairs are best done by the manufacturer.

INTERVALS FOR PACKING AND CHECKS

We recommend to have the reserve system re-packed and checked every 4 months. If you do not regularly check and repack your safety system, slow opening or even deployment failure may result.

(8) APPENDIX

There is a special Demo-Video of the XS360/HELP and XS400/HELP available, showing the functionality of the systems. Please contact your dealer or the manufacturer directly to obtain for self-costs plus shipping. The video is available in English as well as in German .

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