

**OWNERS MANUAL  
PACKING INSTRUCTIONS  
PARAGLIDER EMERGENCY SYSTEM  
B-SAFE 120 L**

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## **(1) GENERAL DESCRIPTION**

The PRO-DESIGN emergency system B-SAFE 120 L was developed exclusively for paragliding. Under no circumstances should it 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**

### **GENERAL WARNING !**

If you pull one bridle fast through the loop of another bridle, the bridle will melt. Looping the bridle of the B-SAFE 120 L through the 'reserve bridle' of the harness will have the same effect if the knot can slide and will lead to a total failure.

Instead of looping the bridle you can also connect it with a safety carabiner of adequate strength.

### **STANDARD HARNESSES (old type without reserve container)**

The (optional) outer container 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 bridle should be looped through the 'reserve bridle' of the harness in a way, that the knot cannot slide. In case there is no 'reserve bridle' connect the bridle to one of the main carabiners on the harness. Always check that the carabiners are both locked. Do not hook the bridle into the gate side of the carabiner!

### **COMFORT/INTEGRAL HARNESSES**

Most of these harnesses are fitted with a reserve container on the side or in the back. Usually this container is suitable for the B-SAFE 120 L reserve system and replace the original outer container. To be certain about the suitability please contact your dealer or PRO-DESIGN. 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. The bridle should be looped through the 'reserve bridle' of the harness in a way, that the knot cannot slide.

## **(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 usually pull in the rear lines of the paraglider to deflate the paraglider.

### **DECENT**

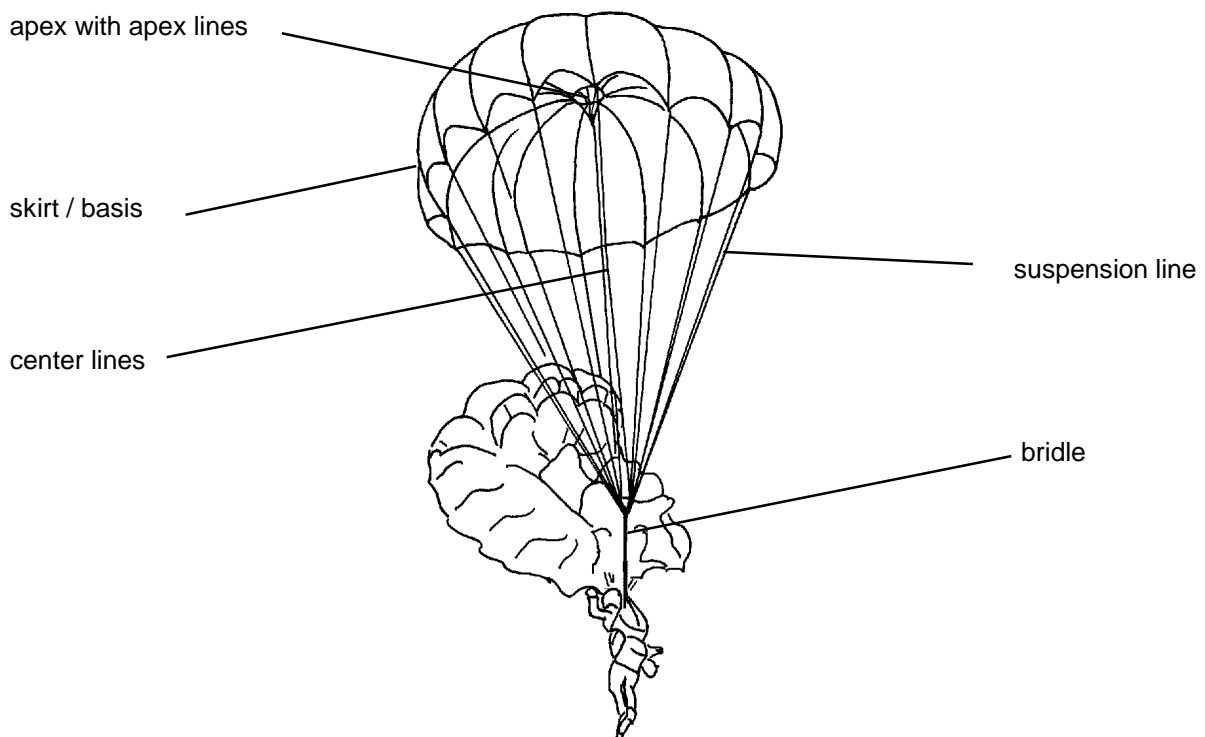
The goal is to keep the reserve on top of you in a stable position. There are two problems :

- Side slip : The paraglider develops too much force. This would result in side slipping of the reserve thereby substantially increasing the rate of decent. Pull in more of the paraglider to reduce the force of the paraglider and in doing so bring the reserve on top of you.
- Pendulum motion : The paraglider doesn't develop enough force to dampen the pendulum motion. This pendulum motion is created by turbulence or a humid reserve and will substantially increase the rate of decent. Therefore you shouldn't completely pull in the paraglider.

## REFERENCES

We would like to point out, that due to the high risk of paragliding, the manufacturer and the distributor of the B-SAFE 120 L 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 B-SAFE 120 L 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 B-SAFE 120 L

Manufacturer: PRO-DESIGN  
Lärchenweg 33  
6161 Natters  
Austria

Weight: 2,4 kgs

Surface: 38 sqm

Sink rate: 6.8 m/sec with 120 kg load

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

Certification: DHV

## STRUCTURE

The canopy consists of 22 panels, 22 suspension lines, 2 center lines, 1 bridle. A nylon inner container with container release canopy, deployment handle and (optional) outer container.

## USAGE LIMITATIONS

Permissible usage:	10 years (with proper storage and maintenance)
max. packing intervals:	4 month
min. recommended load:	70 kgs
max. recommended load:	120 kgs
max. permissible load:	120 kgs

## REQUIRED DOCUMENTS

Owners manual, packing-instructions and checklist.

## (6) PACKING INSTRUCTIONS

### DESCRIPTION

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) Disentangle canopy and lines and lay out on the table/ground.
- 2) Pull in the apex (=lines and center lines same tight) and put a line through all the apex fixing loops. Knot up that line and fix to a hook or similar on table or ground (or: another person is holding tight/assisting).
- 3) On the side of the basis bring same tension to all lines and start folding the canopy, i.e. pull out panels one after the other and fold aside. Be sure no panel is inwards another panel.
- 4) Then fold panels on the apex side, pull out one after the other and fold aside.
- 5) Check that all panels are pulled out/folded properly.
- 6) Lay down folded canopy on one side (keep canopy spanned when you lay it down) on the table/ground.
- 7) Remove the line from the apex fixing loops.
- 8) Lay out canopy the way that each side left and right there are 11 panels symmetrically, the panel stamped with #1 is on top.
- 9) Check suspension lines and center lines for free running and disentanglement, lay left and right line bundles as well as center lines separately.
- 10) Lift top panel(s) to see underneath and check free running of center lines to apex.
- 11) Fold canopy into thirds, first fold one side –
- 12) – and then the other side. Fold canopy the way that it has all it's length the same width.
- 13) Lay down inner container opened aside the basis. Fold canopy in S-folds.
- 14) S-fold canopy the way that it has same length and width as layout size of inner container.
- 15) Turn canopy upside down and put in inner container so that basis and line attachments are up.
- 16) 8-fold suspension lines in three bundles.
- 17) Fix rubber rings to ends of line bundles.
- 18) Lay line bundles on top of canopy into the inner container.
- 19) Close flaps of inner container. Start with the flap where the rubber closing loop is attached, then close the opposite flap. Then close the other two flaps. Always put the rubber closing loop through the eyelets.
- 20) After all flaps are closed put a line loop through the rubber closing loop.
- 21) Finished packed reserve canopy.
- 22) Inner container with two attachment loops, one for fixing the container release canopy and the other one for fixing the rescue handle (part of the harness supply). Positions can be changed upon demand.



## **(7) INSTRUCTIONS FOR MAINTENANCE AND SERVICE**

### **GENERAL INSTRUCTIONS**

To insure safe operation, the system needs proper maintenance and care. When storing, prevent the B-SAFE 120 L 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 checked periodically. 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.

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PACKING- AND CHECKING BOOKLET

**RESERVE SYSTEM**

**B-SAFE 120 L**



