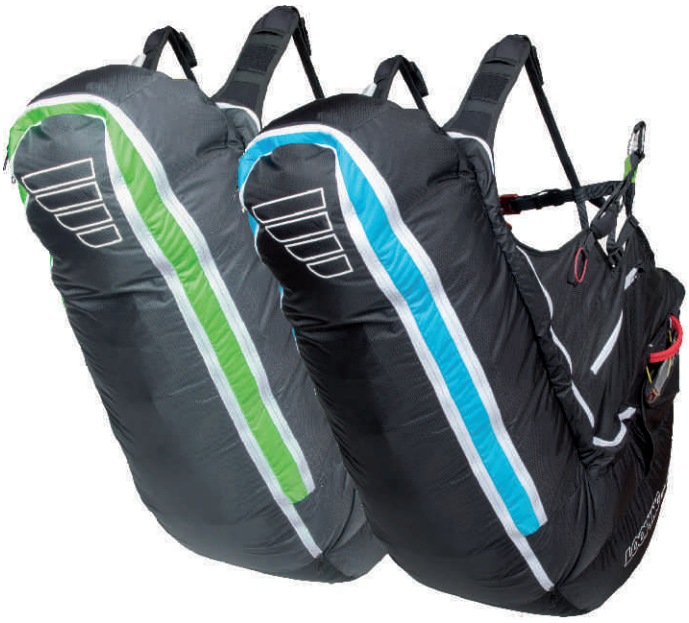
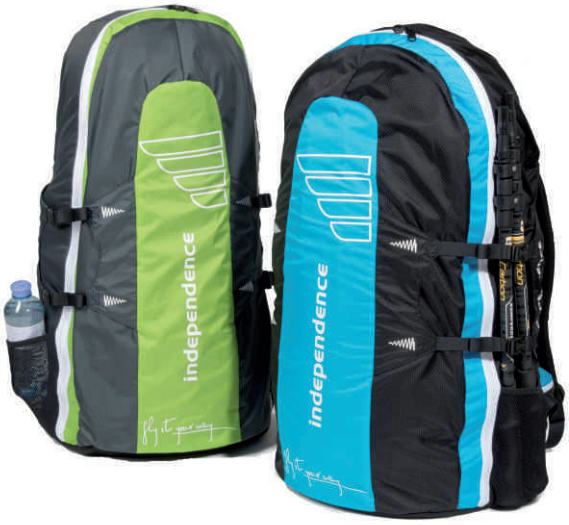
independence

paragliding





Owner's manual

Revision 1.0. Fassung vom 18.07.2017

Looping Blue - Looping Green

Fly-market GmbH & Co. KG
Am Schönebach 3
D-87637 Eisenberg
Tel.: +49-8364-98330
Fax: +49-8364-983333
e-mail: info@independence.aero

With the harness system Looping Blue - Looping Green you bought one of the most comfortable and functional harness series, which is available on the market at present. Thank you for your confidence. Please read this instruction carefully and consider, that Independence is not liable for accidents and damage, which result from disregarding of this operating instructions.

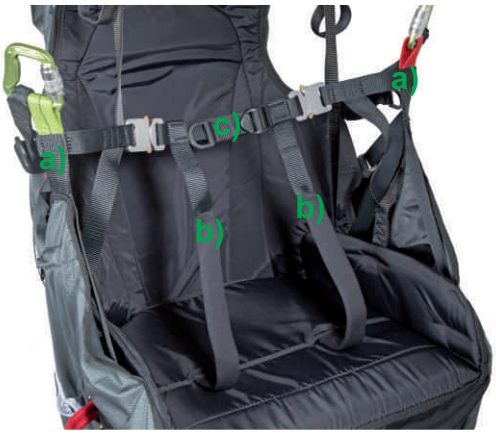
Technical description:

The Looping Blue - Looping Green are harnesses for the use in a not motorized paraglider. The Looping Blue harness has leg straps and a safety T-System. The Looping Green has combined leg and chest belts (Get-Up System). Certification No.: Looping Blue: EAPR GZ-0675/17, Certification No.: Looping Green: EAPR GZ-0674/17.

technical datas	Small	Medium	Large
max. load	120 daN	120 daN	120 daN
harness weight	2,8	3,1	3,4
hangpoint height	40 cm	42 cm	44 cm
protector system	Airbag	Airbag	Airbag

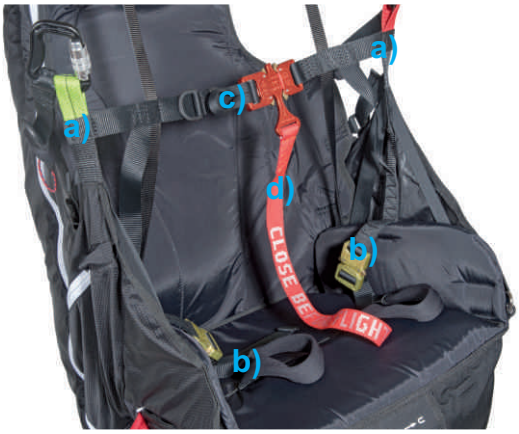
Overview:

Looping Green

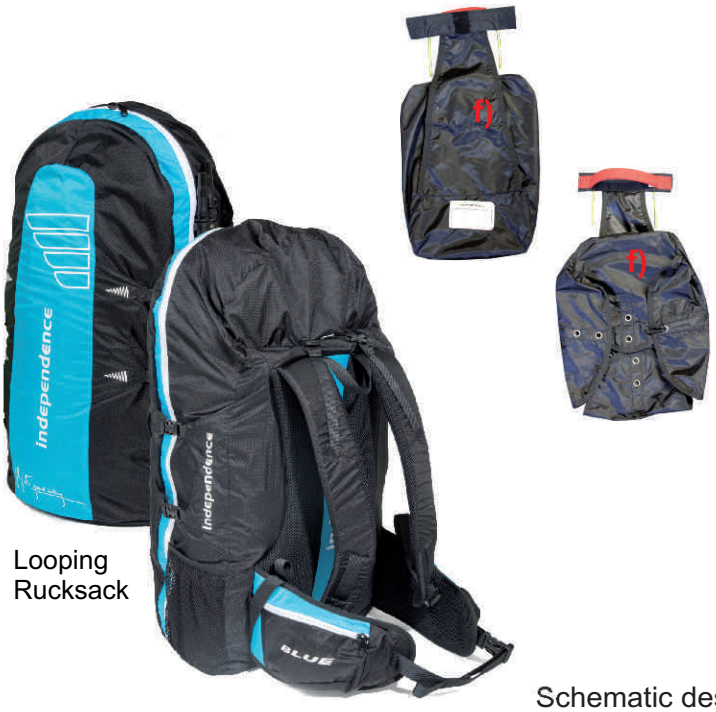


a) main suspension
b) Get-Up leg belts with chest belt
c) chest belt adjuster

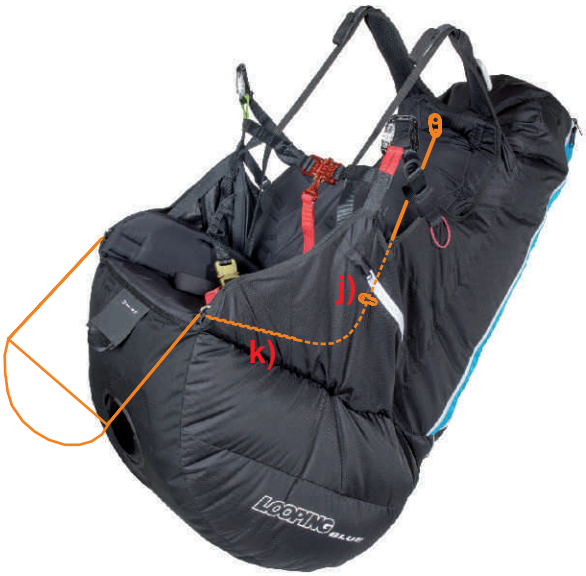
Looping Blue



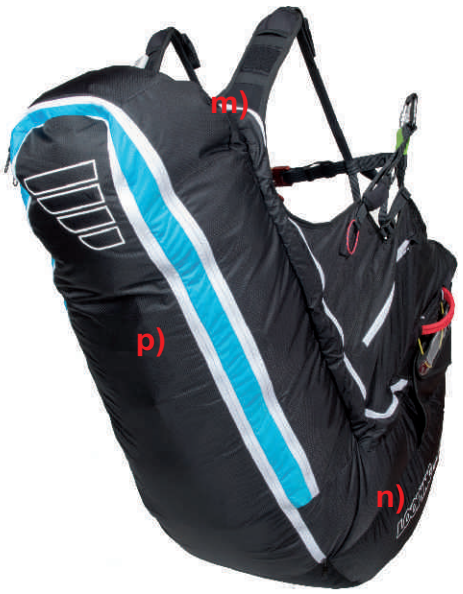
a) main suspension
b) leg belt
c) chest belt adjuster
d) safety T-System

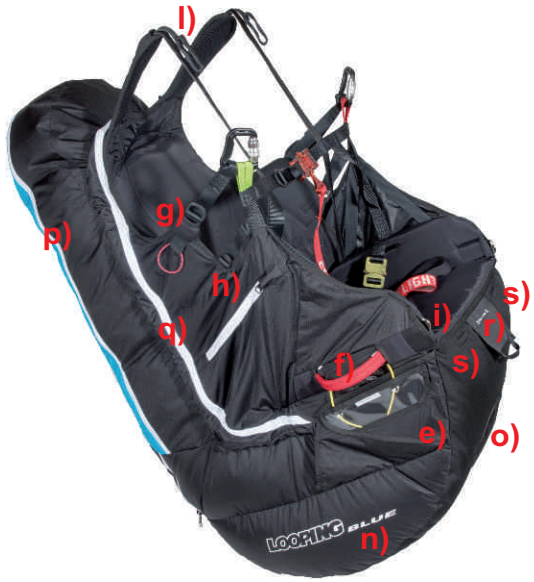


Looping Rucksack



Schematic description of how to mount the speedbar (Components partly covered)





e) rescue system container
f) rescue system release handle with deployment bag
g) lateral chest belt / adjustment buckle
h) adjustment buckle Lordose
i) guiding ring + elastic rope for speed bar
j) pulley for speed bar line
k) guiding tube for speed bar line
l) shoulder belt with adjustment buckle
m) attachment point for rescue system
n) Airbag - protector
o) air intake for airbag
p) storage bag
q) channel for rescue system bridle
r) velcro attachment speed bar
s) magnet attachment speed bar

Adjustment possibilities:

Adjustment possibilities are existing at the shoulder belts, the chest belt, the lateral chest belts and the leg straps.
By the versatile adjusting possibilities of the Looping series we recommend in any case that all adjustments and settings are done in a simulator **before** the first flight to guarantee an optimal comfort.

The buckles of the chest and leg straps are secured against unintentional opening. To open these buckles you have to push both buttons of the buckle at the same time.

Looping Green:

Adjustment of chest belt:
The chest belt and the leg belts are closed together by 2 buckles (Get-Up System). The buckles must be closed audibly! The length of the chest belt can be adjusted by the plastic buckle and should not be tightened too much.

Adjustment of the leg belts:
The length of the leg belts can be adjusted by the two buckles underneath the seatboard. They are accessible from the top. The lenght should not be too short or too long, that after the take off a easy slipping into the harness and an easy raise up for landing is possible.

Looping Blue:

Adjustment of chest belt:
The chest belt is closed by the T-buckle. If the chest belt is closed, also the falling out safety device (Safe-T-System) is closed. The buckles must be closed audibly! The length of the chest belt can be adjusted and should not be tightened too much.

Adjustment of the leg belts:
When you put the harness on, please take care that the buckles are closed correct and audible. The leg belts should be fastened tight but should leave your legs still enough space to move during take off and landing phase.

Looping Blue - Looping Green

Adjustment of shoulder belts:
Please note that with correct adjusting the shoulder belts are felt with light pressure on the shoulders. With the shoulder belts you adjust the harness on the pilot's height, but also you adjust the seating position between upright and lying.

Adjustment of lateral chest belts:
Adjusting the lateral chest belts take place as the third step and offers on one side again the variation of the seating

position. On the other hand you adjust with the lateral chest belts the most comfortable seating position. During the adjustment pay attention to the fact that the body load is distributed equal on shoulder belt and lateral chest belt.

Adjustment of lordosis belt:
By lengthing or shortening of belt h) the pressure on the lower back can be varied.

Attaching the speed bar:
You can see in the schematic description how the speedbar rope is running. The rope of the speedbar runs down from the risers to the pulley above the seatboard. Then through the guiding tube. The rope will leave the harness through the frontal edge. The rope is guided through the small lateral D-ring at the frontal edge of the seatboard. Here the line gets connected to the speedbar.

The length of the speedbar's line must be adjusted in a simulator before flight!

2. Mounting the rescue parachute

The Looping serie has got a deployment bag with integrated release handle. Out of this reason you have to find out the right size of the deployment bag before mounting the rescue parachute.
Therefore you need to know the volume of the rescue parachute. If it is not shown in the parachute manual, you can alternatively determine the volume of the rescue parachute by checking it's weight.

As a rule of thumb multiply the weight by 3. For example: 1500 gr x 3 = 4500 ccm Volumen

You have the choice of two deployment bag sizes. Only an original deployment bag is allowed to be used.

Container size small: 2300 ccm to 3500 ccm; Container size medium: 3200 ccm to 6500 ccm

Volumes of Independence rescue parachutes which are compatible with the Looping serie (selection only):

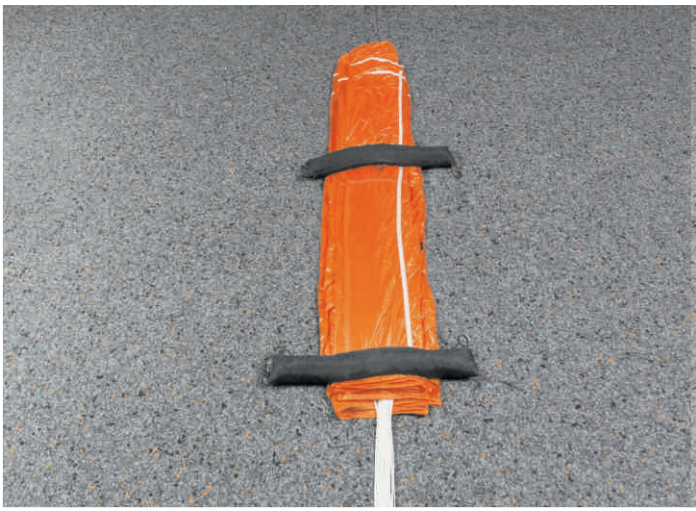
Annular 20 EVO:	4500 ccm	Evo Cross 100:	4500 ccm
Annular 22 EVO:	5000 ccm	Evo Cross 120:	5200 ccm
Annular 24 EVO:	5500 ccm	Evo Cross 160:	5700 ccm
Smart L:	5000 ccm	Ultra Cross 100:	2980 ccm
Cornetto 100:	4510 ccm	Ultra Cross 125:	5000 ccm
Cornetto 140:	5000 ccm	Ultra Cross 150:	5400 ccm

2.1. Placing the rescue parachute into the innercontainer:

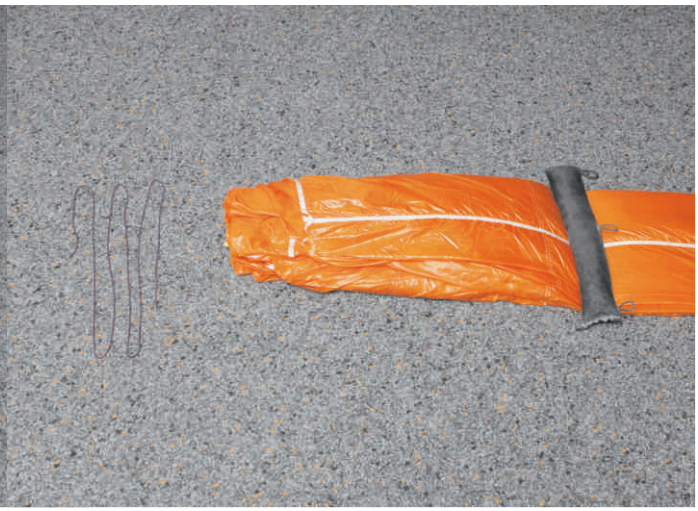
Caution: The mounting and installation of a rescue system requires expert knowledge and should be carried out only by qualified persons!

After you have choosen the right innercontainer size the rescue parachute is to be placed into the deployment bag. The steps of packing until you have reached the shown status below, has to be done according the rescue parachute manual!

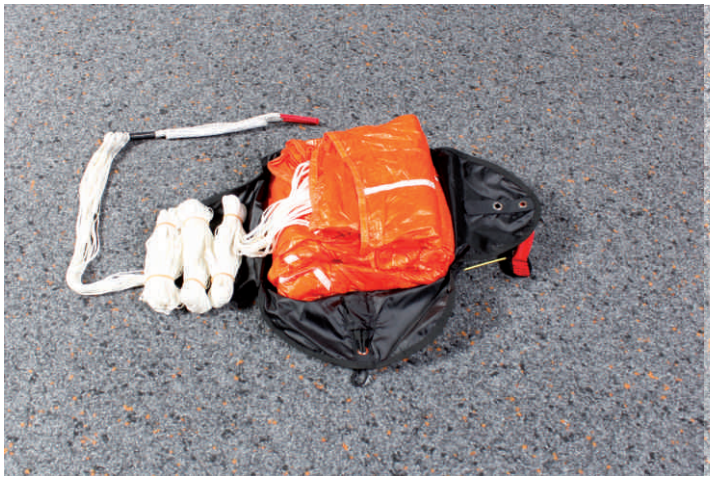
The following guide shows the assembling of an Evo Cross. Other systems have to be build in the same way analogously. Please check if there are special remarks in your parachute manual!
Steerable systems (example Rogallo systems) can be installed in the Looping serie only with explicit approval of the rescue parachute manufacturer!

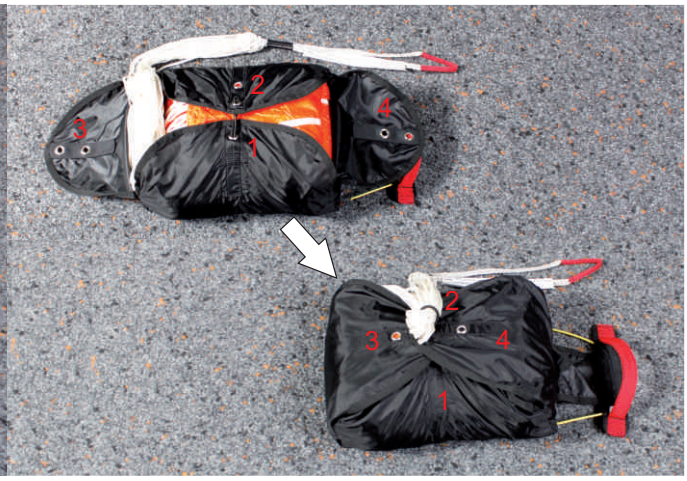


1. Fold the parachute like a "S" on the width of the deployment bag.



2. Remove the packing cord!



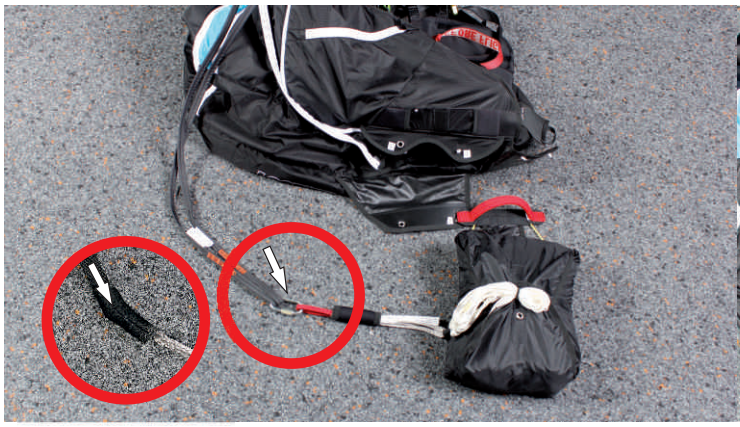


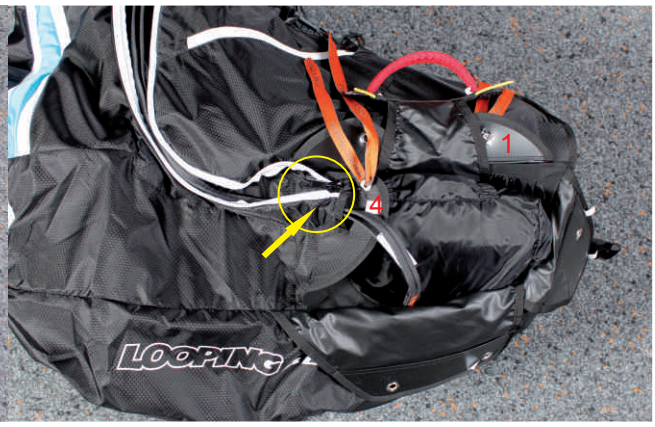
3. Fold the canopy in big, horizontal S-folds (stack pack) in the deployment bag. Bundle the lines in 3x3 “8-folds”. Do not bundle the last 50 cm of lines.

Attention: new rubber bands must be used for line bundles with every re-pack!

4. Close the deployment bag.
First the lower flap (1) with the upper flap (2). Then close the left (3), then right flap (4) and secure it with the lines.
Depending of the rescue system volume the inner or outer grommets can be used to adjust the deployment bag size.

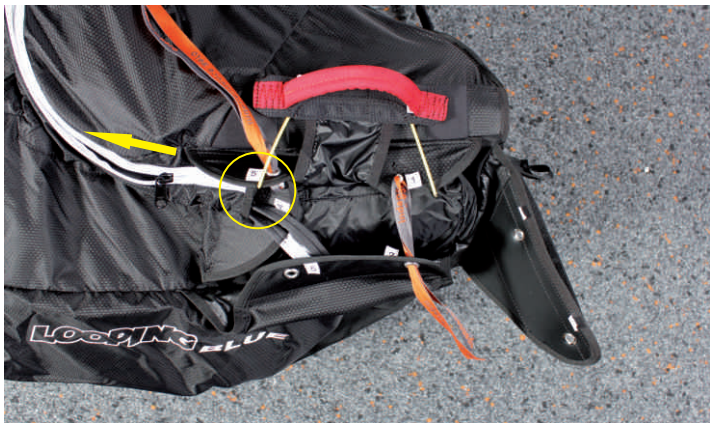
2.2. Mouting the deployment bag into the harness:

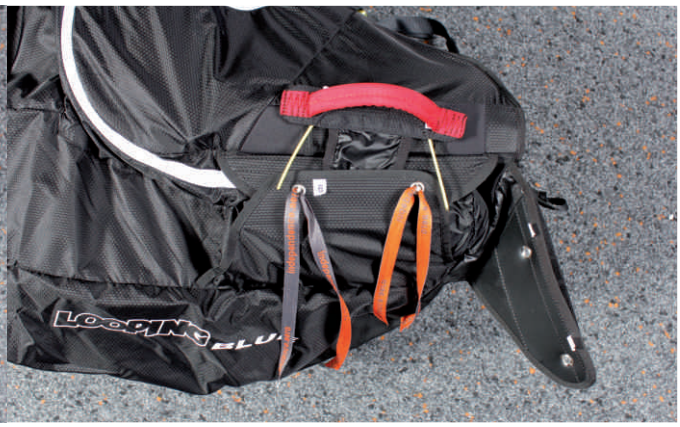




1. Connect the rescue bridle with the harness bridle by looping the bridles or with a quick link (strength > 2400 daN) and fix the connection to prevent slipping (for example by a neopren sleeve).
Depending on the volume of the rescue system the harness container size can be increased or decreased by flipping a partition inside the container (fixed by velcro).

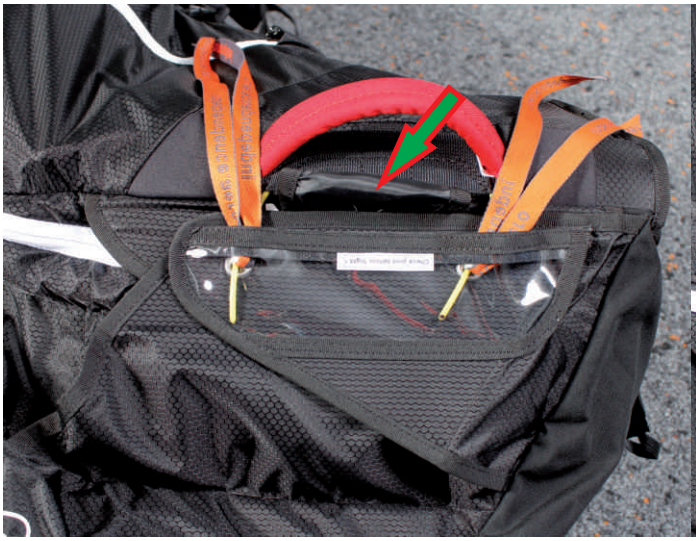
2. Guide the Y-bridle in the channel to the rescue system container and put the zipper slider down (yellow arrow). Stow the bridle in the harness container and place the deployment bag in the harness container. Lines of deployment bag are facing to the bottom side.
Place a packing cord in loops of flap 1 and 4.





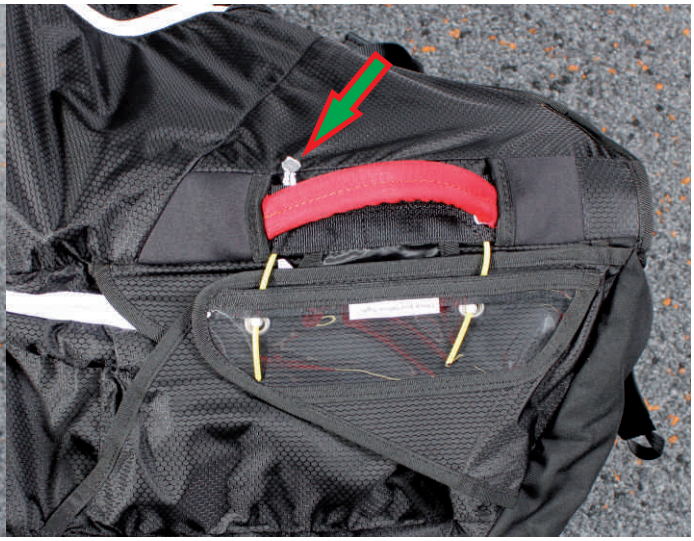
3. Close zipper of Y-bridle channel completely by sliding the slider from the bottom to the top of the shoulder straps. Make sure that the zipper is fully closed from the beginning of the zipper (yellow circle) to avoid unintended opening.

4. Close the container flaps by the help of the packing cords. Close No. 1 with 2; No. 4 with 5 and 6) Place handle-deployment bag connection in between.



5. Close the front flap with and put the cables through the loops. Place the release handle in the cover.

Check length of handle/deployment bag connection (arrow). It should be long enough to release the cables from the loops.
If it is not long enough then reduce the volume of the container by the partition described under point 1.



7. Remove all packing cords! Close pin covers and secure handle with a 2 daN seal threat (see arrow).

How to secure the release handle:

To avoid an unintentional opening it is obligatory to use a seal thread in the opening mechanism. This defines a minimum opening force. This special thread must be put through the loop at the release handle and harness and has to be fixed by a knot. (See picture 7, red arrow)

To secure the pin it is only allowed to use certified material because if the strength of this material is too high the save operation of the rescue system is not guaranteed.
This thread is supplied by Flymarket GmbH & Co. KG! Do **not use** other threads which may look the same!

Attention:

After every installation of a rescue-system in a harness there must be a test if the opening force is between 2 and 7 daN. If harness and rescue parachute are combined the first time a compatibility check have to be performed by an authorized person!
The compatibility must be confirmed in the parachute repack log book.

Operating notes:

Operation of the protector:

The Freesstyle serie has a type certified back protector made out of a special foam, which is sewn in a nylon fabric cover. Before every take off you have to check that the protector is completely filled up with air. Especially on low temperatures and after long disuse of the protector (if compressed during storage) it may take a little longer to be inflated completely.

During a hard landing the air inside of the protector will be compressed and the air will be deflated through the seams of the nylon fabric cover. The resulting deceleration distributes the impact energy over a longer period and protects the spine from extreme peak loads. The G-forces achieved in the type certification were very good. However, even the best back protection does not guarantee the prevention of back injuries!!!

For this reason, the protector should not be used for unnecessary seat board landings. With every use the protector will be less efficient and the effect of protection less - even if no damage is visible.
If a damage is visible the protector is not to be used anymore as well as after a hard landing!! In this case the protector must be exchanged or repaired from an authorised dealer/workshop.

Behavior in particular cases

During water and strong wind landings the pilot should disconnect himself as soon as possible from the paraglider / harness after landing. For that please loosen the leg belts and then open the leg and chest buckles. We generally recommend to carry a webbing cutter!
For tree landings, etc. the pilot should first secure himself against a possible crash and should wait for professional help.
Contrary to above recommendations, it is possible that a different behavior as described is required. The variety of possible situations not allows an universal or general advise for the right behavior. The right behavior is a case-to-case decision in full responsibility of the pilot.

Lifetime and replacement of parts, repair advice

The Freesstyle serie is designed for high loads and stress. High demands were set in the choice of materials. The lifetime of the harness depends on a high degree of awareness and treatment of the pilot. We recommend to inspect the harness periodically for signs of wear. If necessary damaged components must be replaced.

Damaged components may only be repaired by the manufacturer or an authorized workshop. Only original parts are to be used!

If the harness is dirty, clean it only with water. Avoid mechanical stress as brush and rub. Chemical cleaners will damage fabric and webbing.

Except the sealing thread no spare part is necessary. An inexpensive purchase is possible through us.

Maintenance, inspection, periodic check:

The Freesstyle serie is almost maintenance free but it requires a regular check for damage. Regular inspection gives you the guarantee of a full function of the harness.

Take particulary care that no dirt gets into the mechanic of the buckles and that all moving parts of the buckle are running free and are not damaged. If needed you can oil the buckles a little bit.

The maintenence of the protector is described separate.

The harness must undergo at least after 24 months a complete check.
The buckles must be checked on wear and damage (if an inspection instruction of the buckle manufacturer is existing the buckles must be checked in accordance with its instructions) in order to guarantee faultless function.
The carabiner must be replaced according the carabiner manufacturer instructions, lately after 1000 hours or 5 years. Only original carabiners are to be used! The periodic check must be documented.

Storage and transport:

In order to prevent unnecessary weakening of the harness we recommend for storage and transport:

- avoid high temperatures (for example: closed car in summer)
- avoid dealing with fire, sharp objects and chemicals close the harness
- avoid unnecessary long exposure to sunlight as ultraviolet radiation destroys the molecular structure of the material
- avoid contact with salt water or acid liquids
- if the harness is not in use for a long time, especially the back protector should not be stored compressed. Store the harness in a cool, dry place.

Disposal:

The materials used in a paragliding harness require proper disposal. Please return the worn-out equipment to us. The equipment will be disposed properly by us.

Nature- and environment friendly behaviour:

Actually it’s self evident, but nevertheless mentioned particularly: Please do our nature near sport in a way which do not stress nature and environment!
Please do not walk beside the marked ways, don’t leave your litter, don’t make unnecessary loud noises and respect the sensitive balance in the mountains.
Especially at the take-off we have to take care for the nature!