



Light harness for beginner and middle-experienced pilots

User manual

v 1.2 09/2016



Please read this manual carefully before your first flight.



Congratulations!

Thank you for choosing the Disco harness. We have done our best to present you with a highest quality product, fulfilling all safety requirements and offering maximum functionality. Please read this manual carefully before using the harness for the first time. This will help you utilize all features of the Disco, thus maximizing comfort and fun factor of each flight. We wish you a lot of safe and enjoyable airtime!

Contents

1. Safety	2
2. Description	2
3. Footrest	3
4. Speedbar	3
5. Rescue chute installation	4
6. Harness/paraglider connection	9
7. Harness/tow connection	9
8. Straps adjustment	9
9. Pockets	11
10. Impact pad	12
11. Before flight	12
12. Using rescue chute	12
13. Landing	13
14. Water landing	13
15. Tandem flying	13
16. Cleaning and storage	13
17. Operation and repairs	13
18. Technical data	14

1. Safety

Paragliding is a potentially hazardous sport. When flying a paraglider you have to accept risks of injury and/or even death. Incompetent or improper use of the harness may add to those risks. In case of any doubts please ask your dealer or manufacturer.

Dudek Paragliders do not bear any responsibility for damages or injuries resulting from paragliding activities.

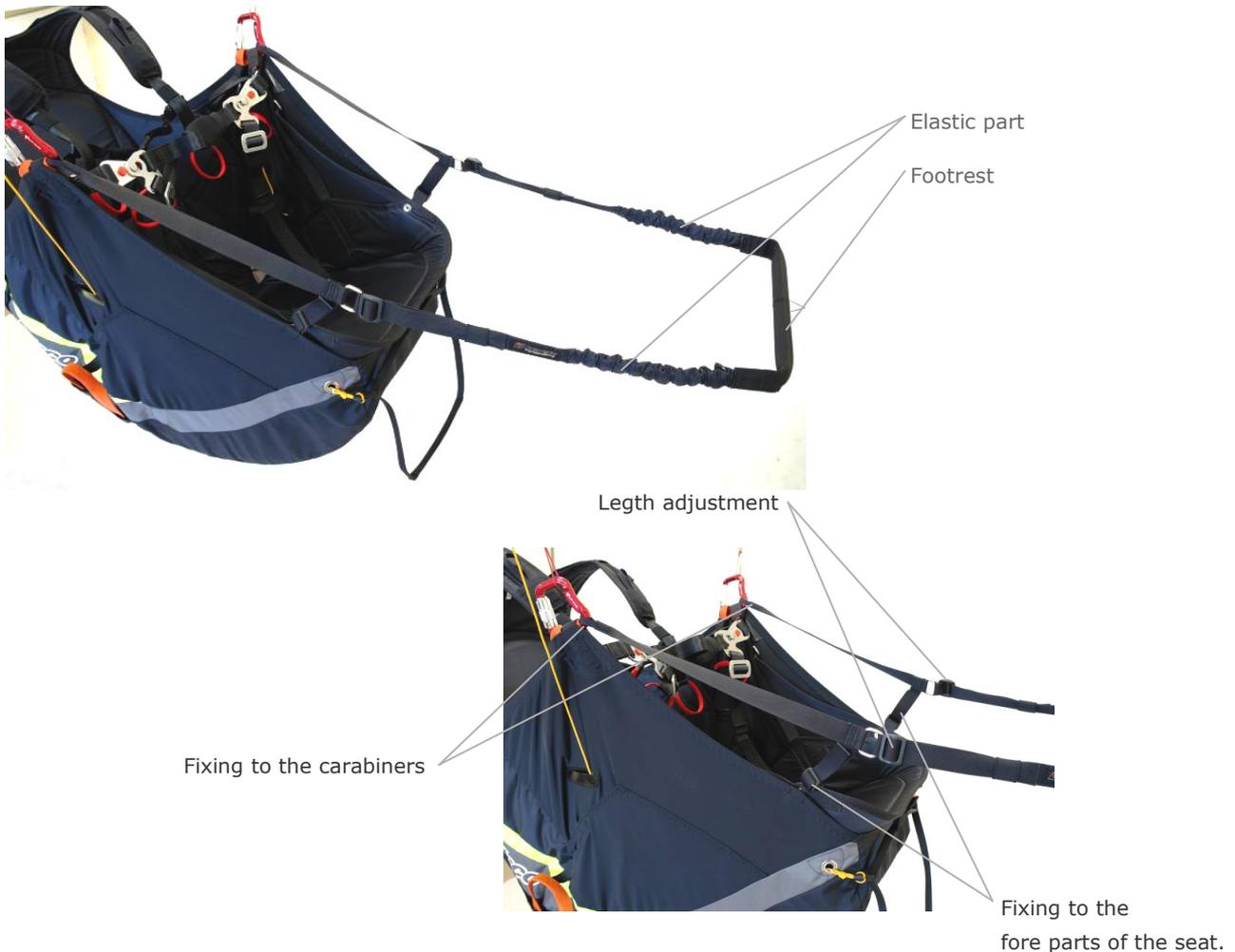
2. Description

Disco is a light harness for beginner and middle-experienced pilots. Due to light and durable materials of best quality the Disco weighs just 3,05 kg in S size. It is an ideal proposition for freshly trained and week-end pilots. Small weight and dimensions make long treks on foot easier. Reduced, elastic seat plate used in Disco harness is an intermediate solution between a "hammock" and traditional, rigid seat plate harnesses. Comfortable back support and new, ergonomic seating present you with maximum snugness during long flight hours. Large adjustment range make sure every single pilot will be able to find his optimum. Redesigned strap scheme brings great stability and significantly reduces danger of launching with unclipped leg/chest straps. 15 cm thick airfoam impact pad offers very good protection of the pilot's spine. Integrated rescue chute container is located on the back, behind the impact pad. Release handle is fixed in easily accessible area on the right side of the harness. There is an additional cache under seat plate. The Disco features easily replaceable, ball-bearing Duroll pulleys in order to improve the speedsystem operation. The Disco is capable of flying with a footrest, available as option.



3. Footrest

The Disco is capable of flying with a footrest. It enhances comfort in long flights, help sitting into the harness after launch and positively influences steering. The footrest should be fixed in four points as shown. The footrest length is adjustable. Its lower part is elastic, contracting when not in use. Designed in this way the footrest does not disturb you during launch and is easier to find in flight. The footrest is an optional equipment, available in S, M, L, and XL sizes.

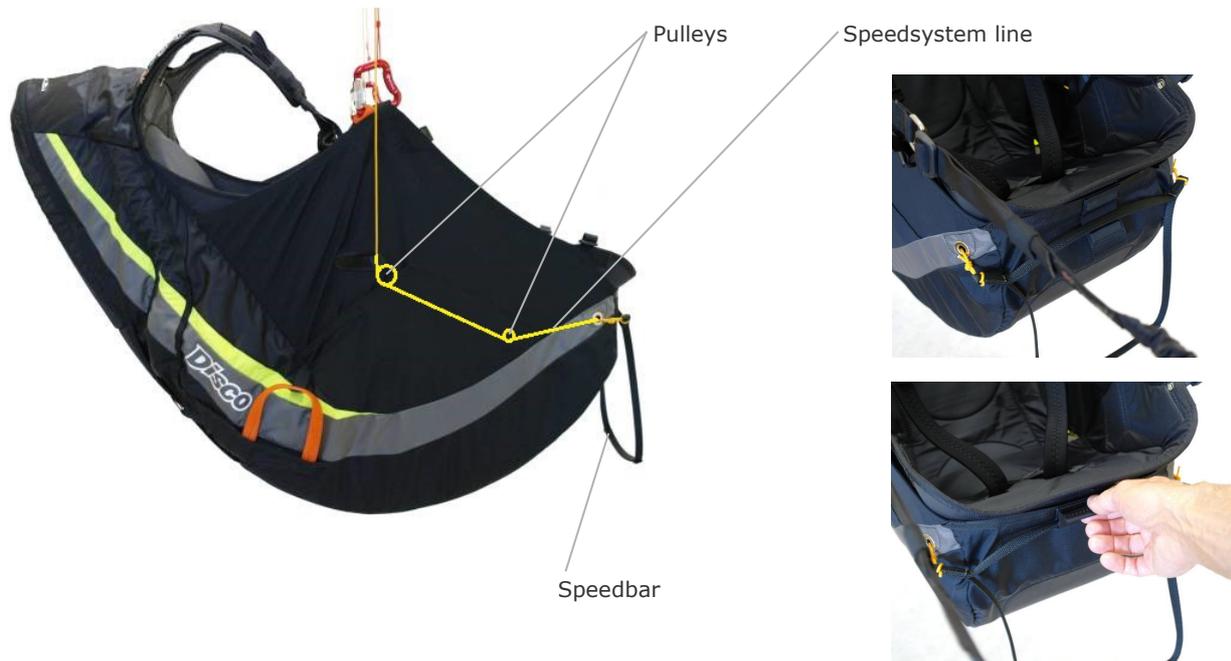


4. Speedbar

Speedbar lines must be led through respective rings and pulleys (under the seatplate and on the back support). Then put it through metal loops in the pod and fix a stoper, accompanied by speedsystem clip. Connect the speedbar to the footrest with a rubber band (if there is one). Find the best length of the rubber so that speedbar will be easily accessible in flight. In order to adjust the whole system you have to sit in the harness while it is hanged by the paraglider's risers. At full speedbar the pulleys on the risers should touch. When necessary, adjust the lines later according to your experience in flight.



Do not adjust the speedsystem lines while in flight.



5. Rescue chute installation

The Disco has an integrated container for the rescue chute, located on the back behind the impact pad. Release handle is fixed in easily accessible place on the right side of the harness. It is possible to install a steered rescue chute as well in the Disco. The volume of container min/max – 5800/6500 cm³.



Pictures below show the attachment of a steered reserve chute. You need two rectangular links like Maillon Rapide C6. Tighten them with a wrench so that they will stay closed firm.



1



Attach the release handle to the rescue chute bag.



The handle must be attached to the side of the bag, as shown on the picture. Do not fix it to the loop on the middle of the bag.

2



Connect the rescue chute riser to the V-strap of the harness with locked quicklink Maillon Rapide C6 or C7. It should be locked with a wrench so that a chance opening is impossible.

3



After locking the quicklink safeguard the straps by applying neoprene cover to keep them in place.

4



Put the rescue chute in the container with suspension lines facing downward. The lines and riser of the canopy must be stowed in the rear part of the container. It is a bit deeper there.

5

5



Lead the assist lines through the loops of the #1 flaps.

6



Flap #1 is divided in two. Place the strap connecting release handle to the rescue chute between both parts of the flap. Lead the assist line through the fragment equipped with metal loop.



7



Lead the assist lines through the loops of the #2 flap. In order to facilitate closing it may be a good idea to use temporary pins beside assist lines.

6

8

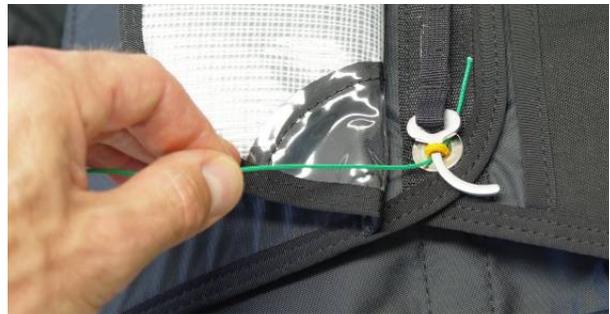
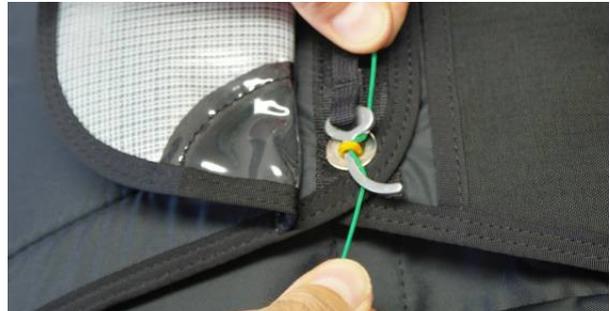


Lead the assist lines through the loops of the #3 flap, with optional use of temporary pins.

9



Close the container with regular pins and remove the assist lines. Put them under the pins first, so that container loops are not damaged by friction as shown on the picture.



10



Close the lid covering the pins.

7

11



See that #1 flaps inside the container are not folded and properly guard the rescue chute.

12



Fix the the release handle on a Velcro strap. Close the V-strap channel, hiding the excess under #3 flap.



8



If you are installing the rescue chute for the first time, it is necessary to run a test opening in order to make sure the container was correctly closed and to get familiar with release force required. In order to do that hang the harness, sit in it, grab the release handle and pull it vigorously away from the harness, perpendicular to the flight direction. When running this exercise it is not recommended to throw the rescue away, as it will result in opening the canopy bag. Pack the chute into the container again.



To avoid accidental opening of the rescue system, pins closing the container must be checked before each flight!

The rescue chute must be periodically aired and repacked, according to its manual. Proven equipment for the Disco harness is the Globe 120 or Globe 90 rescue chute, manufactured by Dudek Paragliders. Installation of many other parachutes (including steered reserves) is possible, as long as they fit in the container.

6. Harness/paraglider connection

The Disco harness is equipped with aluminium carabiners Dudek 20 kN strength. Use them to connect the harness to the risers. Another thing to connect before launch are the speedsystem lines of the harness to the speedsystem of the risers. It is recommended to replace main carabiners with new ones after 300 hrs airtime.



Before launch check if the carabiners are locked and guarded against accidental opening.

7. Harness/tow connection

The only safe way of attaching the tow line is a dedicated tow release. The Disco does not feature any additional points to fix the tow release, therefore it is to be mounted directly on the harness carabiners or the canopy risers.

8. Harness straps adjustment



Before adjusting the straps please install rescue chute and fill the back pocket as for normal flight. Watch out for symmetry – left and right side should be adjusted the same. First, test flight should be done in easy weather conditions, with necessary corrections applied afterwards.

Do not adjust the harness while flying.

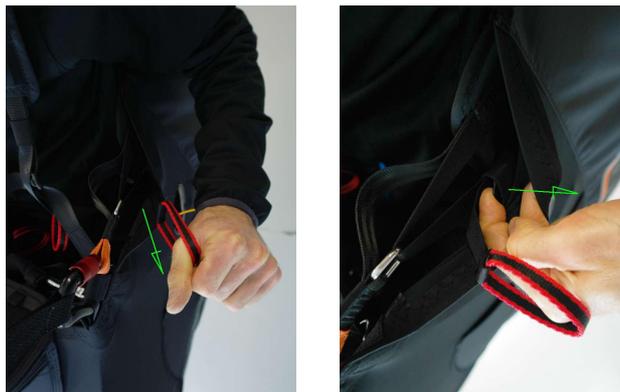
8.1 Shoulder straps

Thanks to adjustable shoulder straps the Disco can accommodate pilots of almost any height. They should stay on your shoulders rather tight, with just a little play. Too short straps will make difficult comfortable seating after launch and can limit your movement in flight. A clip on the shoulder straps will make sure they stay in place during launch and flight. Additionally, there is an alarm whistle fixed to the clip.



8.2 Side straps

They determine the seat/backrest angle. Initial adjustment should be done before the first flight, with the harness hung from a ceiling. All settings are to be verified during first flight and can be further modified at any time. Bear in mind that when the backrest is reclined too much, there is increased risk of getting a twist in case of a big deflation.



8.3 Leg straps

The leg straps are the most important safeguard against falling out of the harness. Their adjustment must allow for easy launching and proper seating in the air. Too short straps can make you uncomfortable and restrain your starting run. Too long straps can make seating into harness impossible without using your hands. In the Disco harness both leg straps are joined with the chest strap, significantly reducing risk of launching without leg straps closed. Their length affects stability of the harness in flight, either. For increased comfort both of the leg straps are covered with soft neoprene.





In order to avoid falling out of the harness it is imperative to check before each launch if the chest and legs straps are closed. **Not closing the straps is extremely dangerous and is a known reason of fatal accidents !**

8.4 Chest strap

Chest strap controls the distance between carabiners. Increasing that distance makes the harness less stable, improving effectiveness of the weightshifting and relaying more information from the canopy. Reducing it will stabilize everything and make the paraglider less receptive to weight steering. Too narrow carabiner base can make recovery from extreme situations very hard or even impossible (in case of a spiral). If the manufacturer of the paraglider does not give any special instructions, the recommended width is 42-48 cm. In turbulent air you can pull in the strap to feel more comfortable, but always remember that it is more probable to get a twist in emergency then.

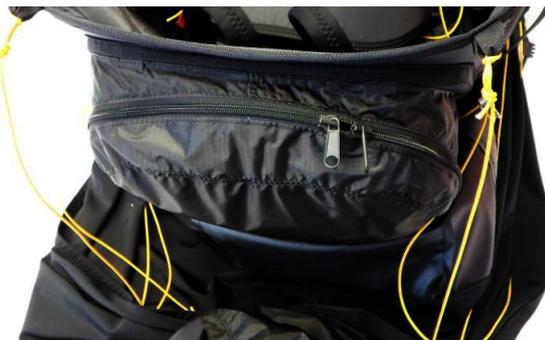


9. Pockets

The Disco has a spacious back pocket and two little side pockets. The back pocket can easily hold the paraglider's backpack, camelback and much more. There are openings in the upper part of the pocket (on both sides) to lead the drink pipe, antennas etc. Side pockets can be easily reached in flight. There is an additional pocket under the seat plate.



Additional pocket under the seat



10. impact pad

The Disco is equipped with a 15 cm thick airfoam impact pad. Fixing the impact pad is demonstrated below.



11. Before flight

Before each flight a thorough check of the harness is required. For your own safety make sure that:

- the harness is not damaged in any way
- rescue chute container is correctly closed and locked with pins
- rescue chute release handle is correctly set up and has the right shape (quite often it happens to be malformed in transport, so it's important to check if it's not flattened and easy to grab)
- all leg and chest straps are closed
- shoulder and side straps remain correctly adjusted
- all pockets are closed with their zips covered
- main carabiners are closed and locked, without any damage
- the speedbar is clipped to the paraglider.

12. Using rescue chute

The rescue chute should be used in case of emergency, when you can't recover the paraglider from dangerous flight state in any other way. Throwing the chute while in a fast spin is risky. If there is still some altitude to spare, first you should try to slow down or stop the spin altogether.

To use the chute grab the release handle, with fast and resolute move rip it from its velcro and throw it together with the canopy bag as far as possible, to the outside of the spiral (if present). After opening deflate your paraglider with its rear risers. Prepare for landing in a parachute style, keeping your legs together with slightly bent knees.

13. Landing

While on the final approach, assume upright position and prepare your legs. Touchdown when still sitting is unacceptable and very dangerous, as even despite the impact pad there is high risk of spine injury. Land always on your feet, with a few steps to bleed off the speed if necessary. Impact pad is not a landing aid and was not designed as such.

14. Water landing

Water landing is potentially very dangerous, with imminent risk of drowning. If it is unavoidable, prepare yourself by releasing all the buckles and straps beforehand. In the last moment get out of the harness to avoid getting tangled in suspension lines or other gear. The harness does not sink, so you can later grab it and use as a lifebuoy.



Water landing while still in harness is extremely dangerous. Impact pad does not sink and will always float, forcing your head under water and rendering breathing very hard or impossible. There is very high risk of getting tangled in lines and drowning.

15. Tandem flying

The Disco harness was not designed - and remains unsuitable - for tandem operations.

16. Cleaning and storage

All materials for the harness were carefully selected, keeping their quality and durability in mind. With help of your care they will keep your harness in good condition for a long time. The harness is best cleaned with a wet sponge, possibly a bit of soap. Do not use any detergents nor solvents. If there is a lot of mud, use the brush first before wet cleaning.

In case of completely soaked harness (e.g. after water landing) dry it in a well aired place, away from direct sun operation.

Soaked back impact pad must be taken out of the harness and dried with opened zip. If this will be not enough, remove the airfoam and dry it separately.

Soaked rescue chute always has to be completely removed from the harness, dried and packed again by a licensed person.

In case of a long-time storage keep the harness either in the backpack or loose, in a well ventilated room, away from the sun. Unfortunately some discoloration of the harness' parts is unavoidable over time and this is yet another reason for not exposing it to the sun more than necessary.

17. Operation and repairs

Periodic control of the harness condition will keep it in safe operation for a long time. After each hard landing check the back impact pad too, as the seams or zip quite often get ripped on absorbing impact and damaged impact pad will be ineffective. If you notice damage to its cover, send it back to the producer for a repair or buy a new one.

Correspondingly, after each use of rescue chute thoroughly check entire harness for damages, paying particular attention to the straps and seams.

Aluminium carabiners should be replaced each 5 years or 300 hours airtime. Scratched or damaged carabiners are not serviceable anymore and have to be replaced at once.



Using damaged harness is out of the question. In case of any doubts please contact your dealer or manufacturer and/or send it to an authorised workshop for closer inspection.

18. Technical data

Size	Suspension height (cm)	Seat width * (cm)	Max. pilot weight (kg)	Harness weight ** (kg)
XS	41	25/31	100	2,95
S	41	25/31	100	3,05
M	42	27/33	100	3,20
L	43	28/34	100	3,40
XL	44	29/35	100	3,60

Volume of container for rescue parachute - min/max (cm3) **5800/6500 *****

* Seat width front/back

** Weight (kg) including impact pad, carabiners and speedbar

*** For all sizes of harness

Size	Height back support	Length seatplate
	A (cm)	B (cm)
XS	60	44
S	64	46
M	67	48
L	70	49
XL	74	51



Impact pad	Airfoam 15 cm thick
Carabiners	Dudek 20 kN
Buckles	Finsterwalder, AustriAlpin
Textiles	5012 Cordura Ripstop 160 g/m ² Delinova 100 200 g/m ² Delinova 75 130g/m ² Dominico 41 g/m ² Lycra 210 g/m ²
Straps	Poliester 1780 daN Poliamid 1200 daN



Since Dudek Paragliders products are subject to constant improvements, some minor differences are possible between the manual and actual product. Dudek Paragliders withholds its rights to introduce such changes without individual notice.

This manual uses some pictures of the Soul harness when described features are identical.



Dudek Paragliders
ul. Centralna 2 U
86-031 Osielsko
Poland
tel. +48 52 324 17 40
fax. +48 52 381 33 58
export@dudek.eu
www.dudek.eu