



Techno

Light harness with a pod

User's manual



Please read this manual carefully before your first flight.

DUDEK
paragliders

Congratulations!

Thank you for choosing the Techno 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. Speedbar	3
4. Rescue chute installation	3
5. Frontcontainer installation	8
6. The pod	11
7. Harness/paraglider connection	13
8. Harness/tow connection	13
9. Straps adjustment	13
10. Pockets	15
11. impact pad	16
12. Before flight	16
13. Rescue chute installation	16
14. Landing	16
15. Waterlanding	16
16. Tandem flying	17
17. Cleaning and storage	17
18. Operation and repairs	17
19. Technical data	17

1. Safety

Paragliding is a potentially dangerous 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

Techno is a light harness with a pod. Due to light and durable materials of best quality it weighs just 3,5 kg in M size. It is a perfect proposition for cross-country and bivouac pilots. Small weight and dimensions make long treks on foot easier. Reduced, elastic seat plate used in Techno 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. Certified, 15 cm thick airfoam impact pad offers very good protection of the pilot's spine. The pod 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 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. Its four-point adjustment of its length allows for any footrest inclination as well. The rescue chute is located in a frontcontainer. When the rescue chute is activated, the pod opens automatically too. There is a ballast pocket under the seat plate. The harness features easily replaceable, ball-bearing Duroll pulleys for better speedsystem operation.

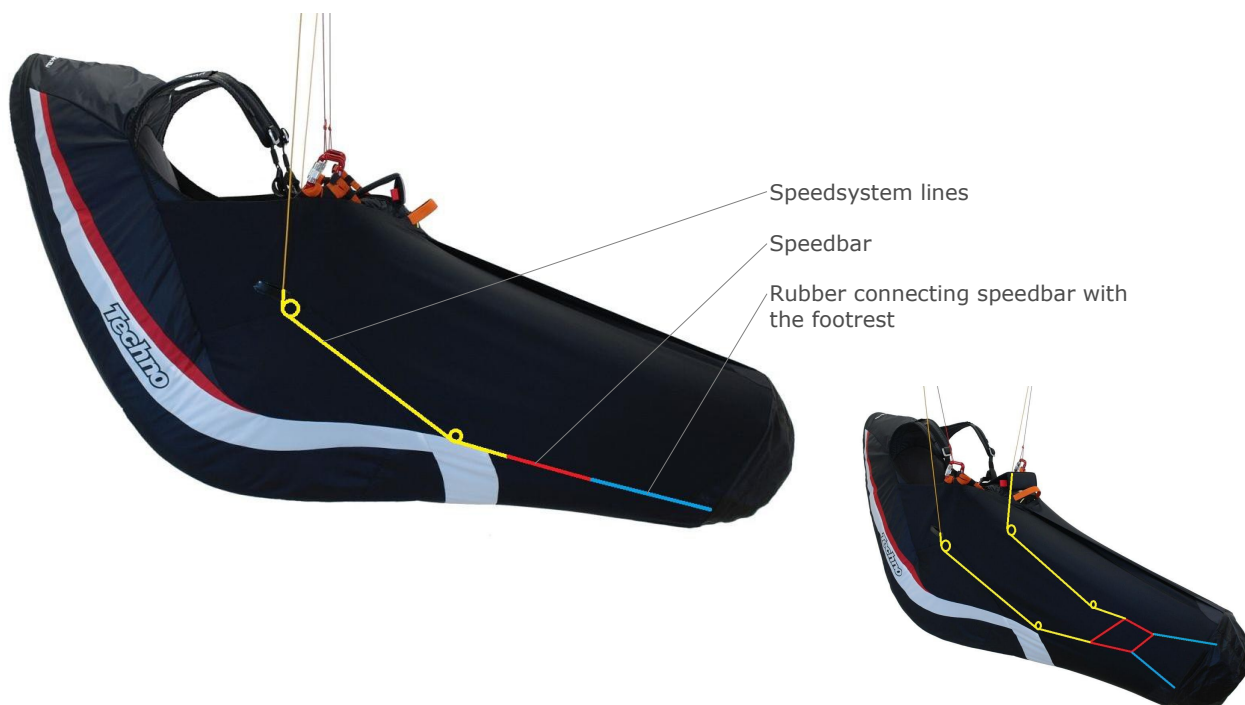


3. Speedbar

Speedbar lines must be led through the pulleys (under the seatplate and on the back support). Then put it through the slits in the pod and fix a stopper, accompanied by speedsystem clip. Connect the speedbar to the footrest with a rubber band. 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.



4. Rescue chute installation

The Techno harness has a frontcontainer to hold the rescue chute. It is fixed to the chest strap with a central, well-visible release handle. Short v-strap is integrated with the chest-strap and together clipped into the main carabiners.



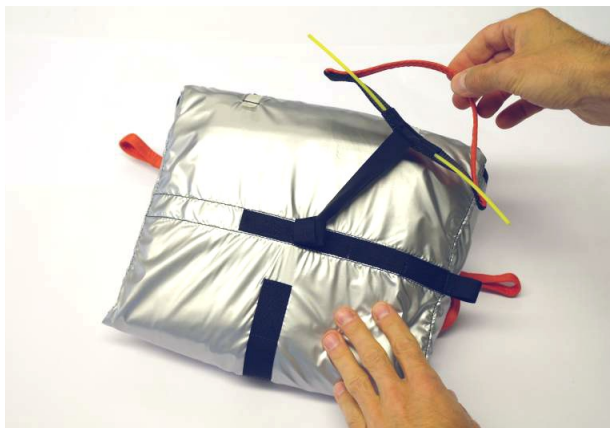
Connect the v-strap to the rescue chute riser. Tighten up the connection and cover it with a neoprene part attached to the frontcontainer.



If the rescue chute riser is finished with a big loop, make sure that the connection is placed exactly in the middle of the loop. After tightening the loop must be evenly loaded, and the connection place must not move.

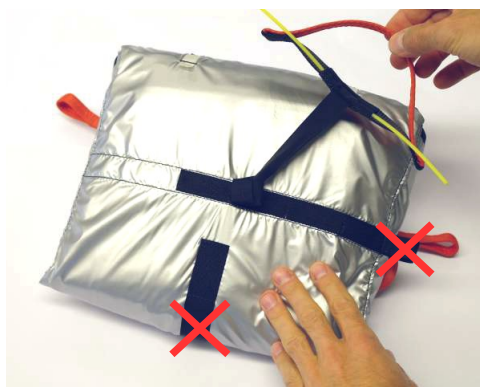


Fix the container release handle to a loop in the middle of the rescue chute bag.





Do not fix the release handle to the loops on the sides of the bag.



Put the rescue chute in the container.

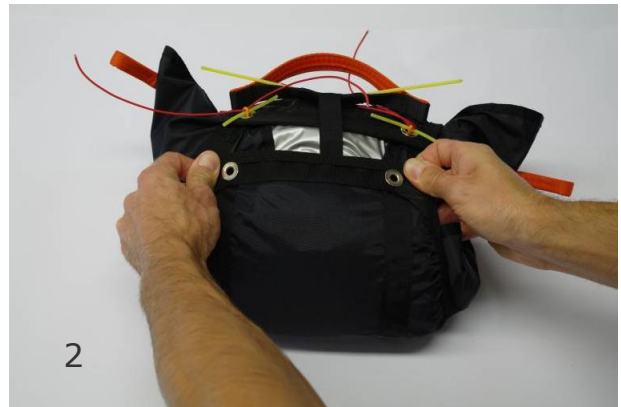


Partially close the container (flaps #1 and #2) using the auxiliary lines and pins.





Fix the release handle, put in place the #3 flap and close the container with release handle pins (replacing the auxiliaries). Put the ends of the pins into caches on the #3 flap.



Remove the assist lines (put them under the pins first, so that container loops will not be damaged by friction).

1



2



Place the ends of the release handle in dedicated caches on the #2 flap.

1



2



3



Push the remaining parts of the #1 flap inside.



5. Frontcontainer installation

The frontcontainer is installed on the breast strap. It is fixed in two points only, as shown below.





After fixing the frontcontainer connect both ends of the v-strap to the ends of the breast strap.





If you are installing the rescue chute for the first time, it is necessary to run a test opening, to make sure the container was correctly closed and to get familiar with required release force. In order to do that hang the harness, sit in it, grab the release handle and pull it vigorously away from the frontcontainer. 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 frontcontainer again.

The rescue chute must be periodically aired and repacked according to its manual. Recommended equipment for the Techno harness are 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.



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

The frontcontainer has a Velcro strap on its top to hold the instruments. If the instruments are placed at an inconvenient angle, you can use an additional instrument panel (included). The panel has an elastic cache on the underside (you can place e.g. auxiliary powerpack in it) and another pouch for a safety knife on the front.





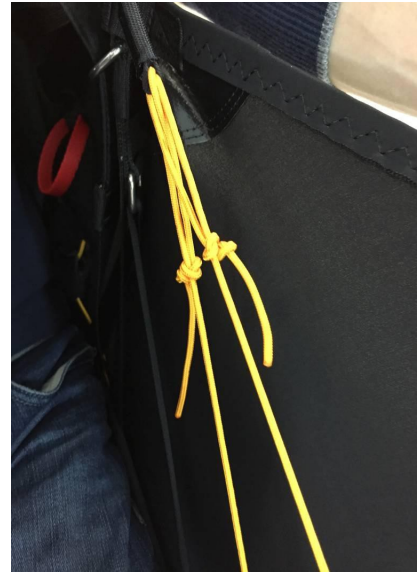
6. The pod

The pod improves aerodynamics of the harness and protects the pilot against cold. There is an adjustable (length/angle) footrest and a speedbar within the pod. The pod is integrated with the harness and is not removable.



The front of the pod automatically inflates after launch and can be easily deflated when needed (e.g. for packing).

Adjustment of the pod's length and the footrest angle is shown below.



The pod is closed in two places.





Pulling the release handle simultaneously opens both the front container and the pod. In this case the balls closing the pod can get lost, so it's worthwhile to carry the additional set along (it's in the pod's equipment). It can be also purchased

7. Harness/paraglider connection

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



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

8. Harness/tow connection

The only safe way of attaching the tow line is a dedicated tow release. The Techno 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.

9. 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 to be applied afterwards. Do not adjust the speedsystem lines in flight.

9.1 Shoulder straps

Thanks to adjustable shoulder straps the harness can accommodate pilots of almost any height. The straps 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 movements in flight. A clip on the shoulder traps will make sure they stay in place during launch and flight. Additionally, there is an alarm whistle fixed to the clip.

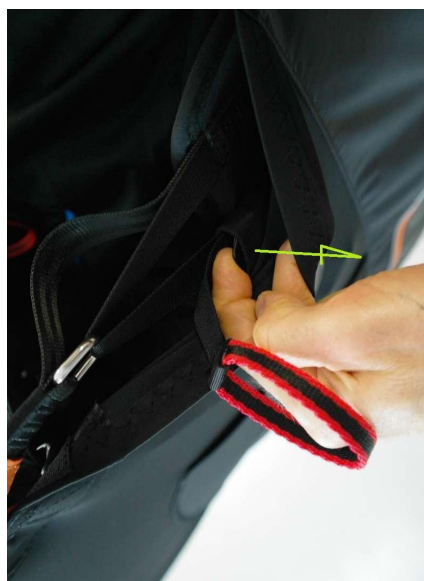
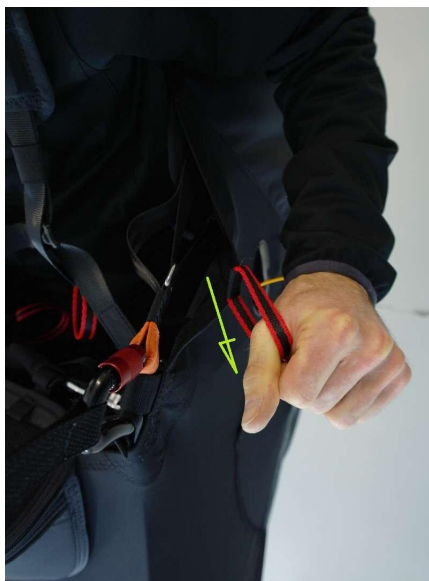


Buckles for adjusting shoulder straps



9.2 Side straps

They determine the seat/backrest angle. Initial adjustment should be done before the first flight, with the harness hanging 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.



9.3 Leg straps

The leg straps are the most important safeguard against falling out of the harness. Their adjustment must allow for both 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 Techno harness both leg straps are connected to the chest strap, significantly reducing risk of launching without leg straps closed. Their length affects stability of the harness in flight as well. For increased comfort both of the leg straps are covered with soft neoprene.



Buckles for adjusting the leg straps



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 !

9.4 Chest strap

Chest strap controls distance between the carabiners. In the Techno harness that distance is fixed at 43 cm. The chest strap does not have neither length adjustment nor buckles. It is to be clipped directly into main carabiners.



10. Pockets

The Techno has a spacious back pocket and two little ones on the sides of the pod. 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 out the drink pipe, antennas etc. Side pockets can be easily reached in flight. Under the seat plate you can find a waterballast pocket. It can be used for other purposes as well.



Ballast pocket under the seat plate



11. Impact pad

The Techno is equipped with a certified, 15 cm thick airfoam impact pad. Fixing the impact pad in place is shown below.



12. 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, locked and without any damage
- the speedbar is clipped to the paraglider.

13. Using the 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 the spin or stop it 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.

14. Landing

While on the final approach, assume upright position and get your legs ready for landing. 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.

15. Waterlanding

Water landing is potentially very dangerous, with imminent risk of drowning. If you can't avoid the waterlanding, when ca. 10m over the release both the legs and chest straps. 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 seated in the harness is extremely dangerous. The 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.

16. Tandem flying

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

17. Cleaning and storage

All materials for the harness have been carefully selected, keeping their quality and durability in mind. Your care and maintenance of the harness will keep 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.

18. 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 when 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 authorized workshop for closer inspection.

19. Technical data

Size	Suspension height (cm)	Seatplate width* (cm)	Max. pilot weight (kg)	Harness weight ** (kg)
S	39	27/31	100	3,35
M	40	27/33	100	3,50
L	41	28/34	100	3,65
XL	42	29/35	100	3,80

* Seat width front/back

** Weight incl. impact pad, carabiners and the speedbar

Size	Back support height A (cm)	Seatplate length B (cm)
S	64	46
M	67	48
L	70	49
XL	74	51



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Impact pad	Airfoam, 15 cm thick
Carabiners	Dudek 20 kN
Buckles	Finsterwalder, AustriAlpin
Textiles	5012 Cordura Ripstop 160 g/m2
	Delinova 100 200 g/m2
	Delinova 75 130g/m2
	Dominico 41 g/m2
	Lycra 210 g/m2
Straps	Polyester 1780 daN
	Polyamide 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.



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