USER'S MANUAL TECHNO 2018

EDITION 1_03/2018


TECHNO

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 Techno, maximizing comfort and fun you get out of each flight.
We wish you a lot of safe and enjoyable airtime!

Contents

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 increase those risks. In case of any doubts please ask your dealer or manufacturer.

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

2. Description

The Techno was designed for cross country and competition pilots, looking for very light and comfortable harness. Thanks to its large back pocket and low weight the Techno is perfectly suited to bivouac flying. Main points on the wishlist were improvements in ergonomics and further weight reduction. Due to light, carbon seat board and footrest, as well as other materials the Techno weighs just 3,1 kg in M size. Comfortable, ventilated backrest and a new, ergonomic seat with profiled board ensure maximum comfort during the flight. Large adjustment range makes sure that every single pilot will be able to find his/her optimum. Redesigned strap scheme brings great stability and significantly reduces danger of launching with leg/chest straps not clipped in. The Techno is equipped with a certified, 15 cm thick airfoam protector. The rescue chute is located in the frontcontainer which is equipped with additional instrument shelf, housing the safety knife too. When the rescue chute is activated the pod opens automatically too, enhancing overall safety. The pod improves aerodynamics of the harness and protects the pilot against cold. Its four-point length adjustment allows for any footrest inclination as well. There is a ballast pocket under the seat plate. The harness features easily replaceable, ball-bearing Duroll pulleys for better speedsystem operation.

3. Rescue chute installation

Connect the release handle to the point in the middle of the bag.

Connect the v-strap to the rescue chute riser with a lockable C6 quicklink.
Fix the V-riser with an o-ring
(see picture on the right) and tighten the nut with a wrench.

Lay open frontcontainer as in the picture on the right.

Place the V-riser as shown on the left picture.

Arrange the rescue parachute in the frontcontainer as in the picture on the right.

Lead the assist lines through the loops of the #1 flap. Then lead the assist lines through the loops of the #2 flap and lock it with temporary pins.

Lead the assist lines through the loops of the
3 flap and lock it with temporary pins.

Put the pod locking balls on the assist lines and replace the temporary pins with those of the release handle.

Gently pull the assist lines out.

Tips of the pins are to be shoved into pouches on the #3 flap.

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

Close the pins cover with a velcro strap.

Push the remaining parts if the #1 flap inside and form the frontcontainer.

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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. The Techno harness will best accommodate light rescue chutes Globe Light 90 or Globe Light 110 manufactured by Dudek Paragliders It is possible to use rescue parachutes by other manufacturers too, as long as their dimensions when packed do not exceed those of the container.

Container capacity:

Max	5100 cm3
Min	4300 cm3

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After each installation of a rescue chute in a frontcontainer a compatibility test is necessary.
In order to do that, hang the harness, equipped and packed as for flight. Seat down in the harness and assume the usual position in flight. Grab the frontcontainer release handle and pull it to the side in a resolute effort, so that the parachute is completely out of the container. Still, do not throw it away, so that the bag remains closed.
If the trial was successful, put the rescue back into the frontcontainer.

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Red balls closing the pod will most probably get lost after a rescue chute use. That's why there is a spare set included in the harness. Further balls can be also purchased when necessary.

4. Frontcontainer

The rescue chute frontcontainer with a centrally placed, well visible release handle is fixed to the chest strap. Short v-strap is integrated with the chest-strap and together clipped into the main carabiners. The container has an additional instrument panel attached, featuring a safety knife.

4a. Installing the frontcontainer on the chest strap.

The container 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 chest strap.

The instrument panel is fixed to the chest strap and frontcontainer as shown on the pictures below.

The safety knife is placed on the front side of the instrument panel. It can be moved to the left or right.

5. The pod

The pod improves aerodynamics of the harness and protects the pilot against cold.
There is and adjustable (length/angle) footrest and a two-step speedbar inside the pod.
The pod is permanently fixed to the harness and closed in two points (1 and 2).
The front of the pod automatically inflates after launch, then after landing you can easily squeeze that air out e.g. for packing. The length and inclination of the footrest is adjusted in points 3 and 4.

Pictures below demonstrate how to close the pod.

6. 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 the 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.

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Do not adjust the speedsystem lines while flying.

1 – speedsystem line
2 – two-step speedbar
3 – rubber connecting speedbar and the footrest

7. Straps adjustment

Before adjusting the straps please install your rescue chute and fill the back pocket as for normal flight. Watch out for symmetry – left and right side should be adjusted the same. The first, test flight should be done in easy weather conditions, with necessary corrections to be applied afterwards. Do not adjust the speedsystem lines while in flight.

1 – shoulder straps
2 – side straps
3 – leg straps
4 – chest strap
5 – seat inclination lines
6 – lumbar part lines

7.1 Shoulder straps

Thanks to adjustable shoulder straps (1) 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. You can use it wherever help is needed.

7.2 Side straps

They determine the seat/backrest angle. Initial adjustment should be done before first flight, with the harness hanged from a ceiling. In order to increase comfort, Techno features an additional adjustment of the lumbar part (6). You can increase the support of the lumbar spine by shortening the adjustment line, moving the red ball up until enough. 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.

7.3 Leg straps

The leg straps are the most important safeguard against falling out of the harness. Their adjustment must allow both easy launch 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 (3) are connected to the chest strap, significantly reducing risk of launching without leg straps closed.
In the strap scheme used in Techno harness the leg straps double as lateral stabilizers of the harness. Shortening of those straps limits the side swings of the harness.

7.4 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 feature neither length adjustment nor buckles. It is to be clipped directly into main carabiners together with the V-strap ends.

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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 leg/chest straps is extremely dangerous and is a known reason of fatal accidents!

7.5 Seat inclination lines

By adjusting the length of those lines the inclination of the seat plate is changed. It can be adjusted to match personal preferences, as long as symmetry is observed. In order to change the seat plate inclination first you have to loosen the lines, then sit comfortably in the harness keeping your feet on the footrest, and finally pick up the slack by moving the ball towards carabiners.

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While adjusting any of the shoulder, side and leg straps, as well as seat plate and lumbar lines you need to observe the symmetry. Left and right sides must be adjusted identically.

8. Pockets

The Techno has a spacious back pocket (some 28 l. volume) and two smaller ones on the sides of the pod. The back pocket can easily hold paraglider's backpack, camelback and much more.
Under the front part of the seat plate there is a small ballast pouch (ca. 3l). It can be used for anything else, too.

9. Protector

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

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The protector does not require special attention as long as there was no hard or water landing. Servicing in such cases is described under #17 „Cleaning and storage” and #18 „Operation and repairs”

10. Harness/paraglider connection

Techno harness is equipped with Dudek aluminium carabiners 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 and the speedsystem of the risers. It is recommended to replace the main carabiners with new ones after each 300 hrs airtime.

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Check before launch if the carabiners are closed and locked against accidental opening.

11. 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.

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If the tow release is fixed to the carabiners, it must be observed that they are mounted with their locks facing back, so that the tow release is placed on the smooth part of a carabiner.

By far the better method of attaching the tow release is to clip it directly into the riser of the paraglider with a pair of C5 quicklinks

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 free of 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, you should first 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 away 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 by pulling down its rear risers. Prepare for a parachute style landing, keeping your legs together with your knees slightly bent.

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 protector there is high risk of spine injury. Land always on your feet, with a few steps to bleed the speed off if necessary. The protector is NOT a landing aid and was not designed as such.

15. Waterlanding

Waterlanding can be potentially very dangerous, with possible death by drowning. If waterlanding is inevitable, once you are low over the water simply cut the breast strap including the V-strap where the carabiners are fixed. Keep your feet on the footrest then, so that you won't fall out of the harness indvertently. Instead, slid out of it just before touching the water in order to stay free of lines or any other paraglider part. Watching out that you are not entangled you can use your harness as floating device, since it won't sink.

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Waterlanding while still seated in the harness is extremely dangerous. The protector does not sink and will always float, forcing your head under water and rendering breathing very hard or impossible. Additionally, 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 neither 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 waterlanding) dry it in a well aired place, away from direct sun operation.
Soaked back protector must be taken out of the harness and dried with its zip opened. 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.
Harness can be stored in a backpack, but if you want to give it best service – keep it de-rigged in a well-ventilated place, away of sunlight. If the harness is not going to be used for a longer time, it is advised to get it out of the backpack. 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. Before packing the harness remove the stiffener from the upper area of the back pocket.

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 protector too, as the seams or zip quite often get ripped when absorbing impact and damaged protector 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.

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Techno harness has an airworthiness certificate for 10 years since the date of production.
The AF-15/2018 protector is allowed to remain in operation within 10 years from the date of production.

Environmental care

Paragliding is an outdoor sport. We believe that our clients share our environmental awareness. Exercising paragliding you can easily contribute to environment preservation by following some simple rules. Make sure you are not harming nature in places where we can fly. Keep to marked paths, do not make excessive noise, do not leave any garbage and respect fragile balance of the nature.

Recycling of used gear

Harness is made out of synthetic materials, which need to be properly disposed of when worn out. If you are not able to dispose of the paraglider properly, DUDEK Paragliders will do that for you.Just send your harness to the address given at the end of the manual, accompanied by a short note.

19. Technical data

Size	Suspension height (cm)	Seat width* (cm)	Seat depth (cm)	Back support height (cm)	Max. pilot weight (kg)	Harness weight ** (kg)
S	43	24 / 31	43	60	100	-
M	44	26 / 33	45	63	100	3,10
L	45	27 / 34	47	66	100	-
XL	46	27 / 35	50	69	100	-

* Seat plate width front/back, ** Weight including the protector, carabiners and speedbar.

Delivery package:

1 Harness eith integrated cocoon
1 Carbon seat plate and foot plate
1 Frontcontainer
1 Rescue deployment handle
1 V-strap
2 Carabiners Dudek 20 kN

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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