

PARAGLIDE HARNESS INSTRUCTION MANUAL

excite

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1. Design and Safety

Excite Harness Design

The **Excite** is a harness designed for advanced and race pilots.

The **Excite** harness is comfortable, allowing easy seating for the pilot after take-off. It is equipped with lumbar support, which pilots will appreciate particularly during long flights. The support is made of special climatex sweat-absorbing material.

Easy moving while walking or during take-off has been enabled by a careful search for the ideal strap harness construction. Test pilots also appreciated increased comfort and easier steering of the glider due to the angle of the harness.

A wide range of harness sizes and adjustment enables selection of an almost “tailor-made” harness for any user (see Size Table on page 7).

The backup parachute is located under the seating board with a rigid, easily accessible trigger handle that can be attached to either the right or left side of the harness. The harness has an aerodynamic back pocket for carrying a backpack and other equipment. In the upper part of the back pocket there is a pop-up reinforcement brace. While the harness is packed, the reinforcement brace can be collapsed, making the harness more comfortable to store and transport. The reinforcement brace helps the back pocket keep its optimal shape. In the back pocket there is another smaller pocket which can hold a transmitter or a 2-liter drink pouch (Camelbag™).

The harness sides are wrapped in an elastic material which helps minimize total air resistance. On the harness sides, there are two oblong pockets for gloves, speed gauges, and the like.

The harness has a separate compartment for storing the foam spine-protector with fasteners inside the harness.

This harness can be connected to a front water pouch with an equipment board, which is not standard equipment.

Excite Harness Safety

During the development of the **Excite** harness, we focused especially on flight characteristics with great emphasis being put on the pilot's comfort. With the same care, we also worked on protective elements contributing to the pilot's passive safety. The **Excite** harness has undergone not only the stringent testing of the solid parts of the harness (many tests exceed all currently recognized standards for testing harnesses), but also a number of test flights carried out by race and test pilots.

The main factors contributing to passive pilot safety are detailed in the following chapters.

Backup parachute

We spent a long time thinking about the accessibility of the backup parachute handle, because what good is a backup parachute if it cannot be reached when needed? The location of the backup parachute is related to this issue. After a long series of tests we reached the conclusion that the best location for normal use is under the seating board.

The trigger handle is easily accessible, well reinforced, and easy to manipulate even when wearing gloves. The trigger can be attached to either the right-hand side or left-hand side of the harness. The container holding the backup parachute should have a tag to connect the trigger on the side.

Spine protector

The harness has a separate compartment for a foam spine protector (14 cm) with fixation handles inside the harness. While developing the protector, we kept in mind the necessity to preserve the fall absorption, in this case with thicker protectors. This was accomplished not only through a number of tests of the foam filling, but also by the shape itself and by the disposition of the protector chambers. Our spine protector is standard equipment, and we recommend its use, as it is designed specifically for the Excite harness. Spine protectors from other producers may not be totally compatible to the harness shape and method of fastening, even though this might not be obvious at first glance. An incorrectly shaped protector has a significant effect on the seating position in the harness.

Speed System – Excite

The harness includes pulleys for guiding the speed boom. The speed cord is routed partly through the harness. Along the speed cord, a rubber cable is routed, which prevents deeper sagging of the speed boom under the harness. This eliminates the risk of catching the boom on obstacles, particularly immediately after take-off. It also prevents the release of the backup parachute into the speed boom when the parachute is in use. The rubber cable in no way limits the functioning of the speed system.

ABS

This is a system of straps that has a substantial influence on the swaying of the pilot from side to side. The range of harness stiffness is adjusted by the breast strap (see chapter *Harness Adjustment*).

2. Backup Parachute Mounting

To ensure the reliable functioning of the backup parachute, we recommend packing of the backup parachute by the manufacturer or other authorised person according to the following procedure:

- The backup parachute's support straps must be connected to the support straps for the backup parachute, which are sewn onto the harness shoulders
- connection can be done in two ways:

a) support straps from the backup parachute are connected with the support straps for the backup parachute, which are sewn onto the harness, using a carabiner (minimum strength 2000 kg). The carabiner must be secured against turning. An elastic fabric sheath, which firmly grips the whole joint, is sewn onto the support straps for the backup parachute. The carabiner nut must be tightened! Finally, cover the carabiner with elastic fabric. (see Fig. 1)



Fig. 1

b) support straps from the backup parachute are connected with the support straps for the backup parachute by a knot. This connection is made by first threading support straps from the backup parachute through the strap eye, which is located at the end of the support strap for the backup parachute, and then passing the backup parachute in its container through the loop. Finally, cover the knot with elastic fabric.

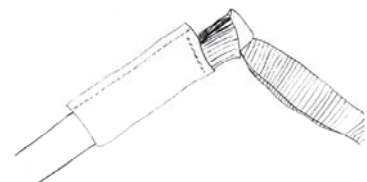


Fig.2

- Connect the trigger to the container by threading the loop on the trigger through the eye on the container and then pass the handle through the loop – a knot between the trigger and container eye shall result (see Fig. 3).
- Place the backup parachute's support straps into the guide flaps from the shoulders through the harness sides to the backup parachute cover.

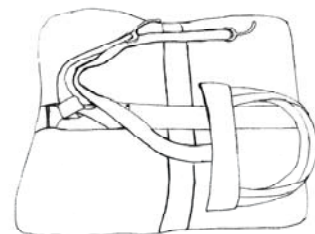


Fig.3

- Place the support straps of the parachute at the bottom of the cover.

- Place the backup parachute into the cover, connecting the trigger so that it is located on top!
- To close the backup parachute cover, you will need two packing laces about 40 cm long. Thread the laces through the closing eyes sewed to flap “A” and “B” (see Fig. 4).

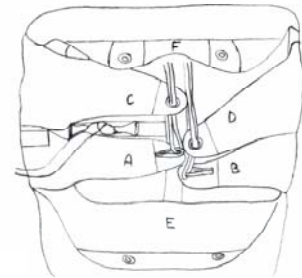


Fig.4

- Gradually (A, C, E, F and B, D, E, F respectively) thread the packing lace through the metal eyes (see Fig. 5), so that you pull the closing eye from the final metal ring and secure it with a metal pin (see Fig. 6).

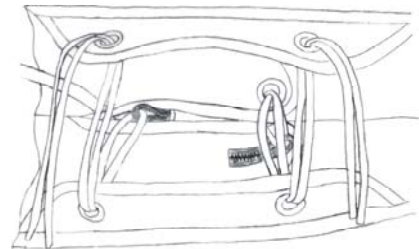


Fig.5

- **Do not forget to pull the packing lace from the closing eye**, best under the pin, thereby increasing the durability of the lace.

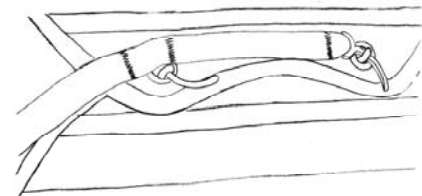
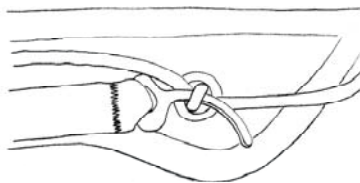


Fig.6 and 7

- Cover the connecting strap between the handle and backup parachute with a small flap which you put between the side flaps. Secure the handle to the side of the harness using a velcro strap.

3. Harness Adjustment

Excite provides the pilot with several possibilities of adjusting the best flying position. We recommend adjusting the harness before the very first flight. In adjusting the harness it is advisable to put into the harness the spine protector as well as attach the backup parachute to the harness. You can make fine adjustments during the flight, too. You should always carry out the adjustments at a sufficient altitude and in a free flight zone!

Side straps adjustment

On the sides of the harness there are two straps, a wide one (43mm) and a narrow one (24mm), which is threaded by a adjustable buckle. By pulling the side adjustment strap towards the support carabiner, your sitting position will be more upright and loosening the strap will put you in a more reclined position. Adjust both straps according to personal preference, take care to adjust both straps identically.

Shoulder Straps Adjustment

We recommend adjusting the shoulder straps only after adjusting the side straps. Shoulder straps should not be too tight, as they could limit your reach to the free ends (support cords), for example when closing the external parts of the paraglider (“ears”). However, they should also not be too loose so they do not fall off your shoulders.

Breast strap adjustment

The length of the breast strap is limited to 39 to 52cm. Shortening the breast strap to a minimum length results in greater stiffness of the harness and the maximum extension of the strap allows you better active weight transfer from one side to another, which is very useful for circling in a thermal.

Leg straps adjustment

When tightened, the leg straps should not be too tight or too loose. The recommended length is attained when the strap matches the shape of the leg plus one palm length inserted under the strap.

Leg rest adjustment

The length of the leg rest should be adjusted so that it supports the legs slightly. At the same time, the pilot should not move on the seat when s/he pushes against the leg rest. In other words, s/he should always sit in the same place whether s/he uses the leg rest or not. The length is adjusted by the symmetrical loosening or pulling of the straps.

4. Speed Boom Mounting

Pulleys for guiding the speed boom cord are sewn inside the harness, on its sides. A rubber cable which pulls on the speed boom under the board is tied to a tag located on the strap at the side harness adjustment, see Fig. 8.

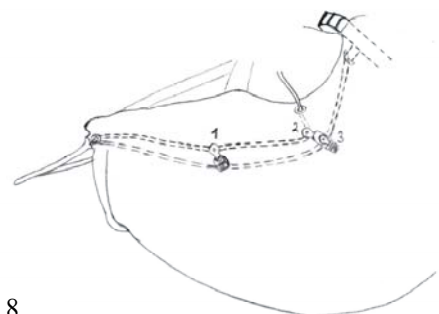


Fig.8

5. Spine Protector Mounting

- Unzip the back pocket and unzip the inside pocket for the spine protector.
- Insert the bottom part of the spine protector into the space under the seating board.
- Both ends of the protector are fitted with a velcro strap, the opposite pieces of velcro are located inside the harness under the seating board. Use the velcro straps to attach the protector to the harness.
- Now insert the top part of the spine protector under the loose transverse strap, which is sewn between both side seams.
- Close the zipper of the pocket for the spine protector.
- Try out the seating position in the harness

6. Leg Rest Mounting

The leg rest is already mounted as a standard part on the harness. The harness can also be flown in without the leg rest. The leg rest is attached by loops to the speed boom by means of a rubber strip.

7. Towing

When towing, use the support eyes for the attachment of the paraglider's loose ends. Observe all instructions given by the towing system manufacturer and tow operator.

8. Check Prior to Take-off

To connect the paraglider use only the main carabiners which are part of the harness. These carabiners are inserted in the support eyes marked **red**. The carabiners must be locked by a threaded securing nut to prevent accidental release!

Prior to take-off always make sure that the harness is secured to the paraglider in the direction of flight! Before taking off, make sure your leg straps and breast strap are untangled and secured. Always check to make sure that all seams and locks are undamaged. We also recommend checking the fixing of the backup parachute and trigger. If any damage to the harness' support parts, seams, or metal parts is found, send it to the manufacturer for inspection immediately.

9. Materials

Name of Material	Distributor	Use
43 mm Strap	Mouka	Main support and leg straps
24 mm Strap	Mouka	Adjustment straps
25 mm Strap	Mouka	Safety strap for the „T“ Buckle
Synton 60 Thread	Amann Sponit	Fabric sewing
Bonder Nylon 20	BARBOUR	Support straps sewing

Metal Pieces		
Click Lock Buckles	SUP Air	Leg and Breast Buckles
Main Binders	SUP Air	
Trimmer	SUP Air	Adjustment Buckles
Pulley	Rellay	Speed System

10. Size Table

weight (kg)/ size (cm)	140-155	156-170	171-185	186-200	over 200
up to 50	-	-	-	-	-
51-60	-	-	M	M	-
61-70	-	M	M	L	-
71-80	M	M	M	L	XL
81-90	M	M	L	L	XL
91-100	-	L	L	XL	XL
101-110	-	L	XL	XL	-
111-120	-	-	XL	-	-

11. Maintenance and Storage

Take care to prevent the harness coming in contact with oils or other chemicals. Contamination of the harness with fats, oils or other chemicals may lead to serious damage of the support parts of the harness, straps and locks, structure, as well as fabric, and thereby cause a dramatic reduction in harness strength. Clean the harness only with clean water!

Under no circumstances may the harness, particularly the straps, be cleaned using chemicals.

Store the harness in areas without chemicals and temperatures of -10 to $+40$ °C, and do not expose it to excessive sunlight.

The manufacturer strictly forbids any unauthorised modifications of the harness and reserves the right to any and all repairs!

12. Warranty Conditions

The manufacturer guarantees the correct and perfect functioning of this harness for a period of **24** months. The warranty comes into effect on the date of purchase. The Warranty Certificate must contain the date of purchase and dealer's signature.

A Warranty Certificate that is not filled shall be deemed void.

This warranty shall not cover defects caused by incorrect use, unqualified handling, unauthorised modifications of the harness, or inadequate storage.

We recommend the inspection of the harness by the manufacturer at least once a year!

13. Warranty Certificate

Type: _____

Serial number _____

Date of purchase: _____

Dealer _____

Inspection Record:

Date of inspection: _____

Harness condition: _____

Date of inspection: _____

Harness condition: _____

Date of inspection: _____

Harness condition: _____

Date of inspection: _____

Harness condition: _____

Date of inspection: _____

Harness condition: _____