



DUON

**User manual
Rev 1**

SEP 2021



Thank you

Thank you for choosing the Davinci DUO harness.

This harness is for the beginner and hike'n'fly.

It has been designed to effectively protect the pilot from the any unexpected condition.

Although the HARNESS has been certified of EN 1651 and LTF NfL II 91/09, paragliding is a dangerous sport that can be caused injury, physical disability and even death.

To reduce the risk to the pilot, we invest and challenge a lot of research and development. As a result, there are many Davinci's innovative technology like the airbag protection system, In sight rescue parachute handle and it has clean zipper shape and modern design.

We wish you a comfortable and safe flight with the DUO

-Davinci Gliders team-





WARNING!

THIS IS NOT TRAINING MANUAL. ATTEMPTING TO FLY THIS OR ANY OTHER PARAGLIDER WITHOUT PROPER INSTRUCTION FROM A CERTIFIED PROFESSIONAL INSTRUCTOR IS EXTREMELY DANGEROUS TO YOURSELF AND BYSTANDERS.

DAVINCI GLIDERS are carefully manufactured and inspected at the factory. Please use the harnesses only as described in this manual.

Do not make any modifications to the harnesses.

As with any sport – without taking the necessary safety precautions, paragliding can be dangerous.



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Introducing the Harness

Harness speck	S	M	L
Height (cm)	150-170	165-185	175-195
Weight (kg)	50-70	60-85	75-100
Board Width (cm)	31	33	34
Board Depth (cm)	37	39	41
Height of Suspension Point (cm)	44	45	47
Harness Weight (kg)	2.8	3.1	3.5
Back protection type	Air bag		
Min/Max container volume (cm ³)		5500-6500	

Certification

The DUO has EN 1651 and LTF NfLII 91/09 certification, max load 120 DaN



Components and Features

Components

- 1 Harness
- 2 30mm Al Carabiner
- 3 Honeycomb Seat Plate
- 4 Rescue handle+Inner container



Chest buckle

Leg buckles

Shoulder adjustment

Back Storage Container

1. Harness

Rescue Parachute handle

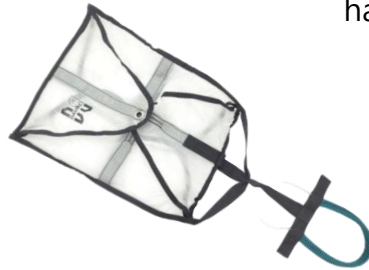
Airbag protection



2. 30mm Carabiners



3. Honeycomb Seat Plate



3. Rescue handle+Inner container

Before you fly

Double check that your dealer has checked the integrity and basic settings of the harness. The harness should be assembled by appropriately qualified paragliding instructor.

- **Connecting the carabiner**

Before your flight, you have to make sure the connection with the Harness with the carabiner like this picture.



Installing the seat plate

The seat plate can be removed and accessed on the back of the seat. Disconnect the leg strap and pull it back to remove it. Place the leg straps on the back edge of the sheet when installing the seat plate. The seat plate must be installed with the rounded edge to the backward and the front curve facing downward.

You have to check the leg straps pass the rounded edge like last picture



Installing the speed system

- (1) After second pulley, route the line through the metal ring at the bottom edge of the seat
- (2) Connect the line to the speedbar using a certain knot



Rescue Installation and compatibility check

Davinci gliders recommends that rescue installation should be performed by a instructor who has the license of rescuepacking. Rescue parachute is a last resort for pilots and can cause death or serious injury if the preparatory parachute is not packed or connected in the right way. The pilot is responsible for ensuring the parachute is properly installed. This harness is compatible with the Davinci Gliders's Comma # lite. The rescue from other manufacturers can also be used, we do not guarantee each function.

The pilot must be responsible for checking compatibility. Whenever a rescue system is first installed on the harness, a qualified paragliding professional instructor should check compatibility. To check the valid of that installation, you need to perform the test at the simulation hanger.

Rescue parachutes should be repacked at least every 6 months

WARNING: If you have any doubts regarding installation, find the expert's advice!
IMPORTANT: You must perform a trial test at the simulator to verify the installation.



Attaching the rescue container bag to the harness rescue parachute handle

Harness is included the rescue parachute handle. The handle have to be connected to the rescue container bag. For the connection, you have to check the length of the strap. It must be longer than the connecting plastic pin not being pulled before the strap tightens on the reserve. But it is not so long, the movement may be restricted before the plastic pin exits.

The containers of other manufacturers may have different shape, pin and position. It could be caused a operation failure to opening reserve.

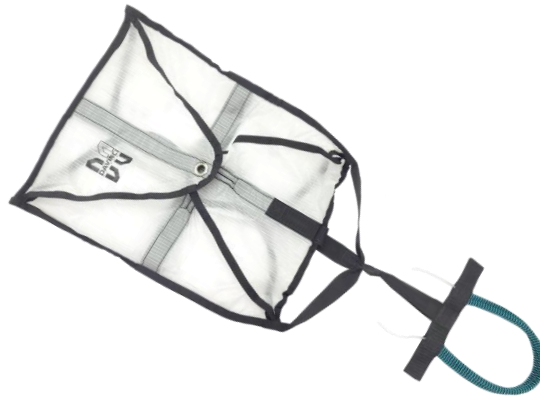
So, we strongly recommend that you have to check contact your dealer or instructor to check the condition of your rescue which is installed like the manual.



THE RESCUE DEPLOYMENT BAG AND THE HARNESS DEPLOYMENT HANDLE

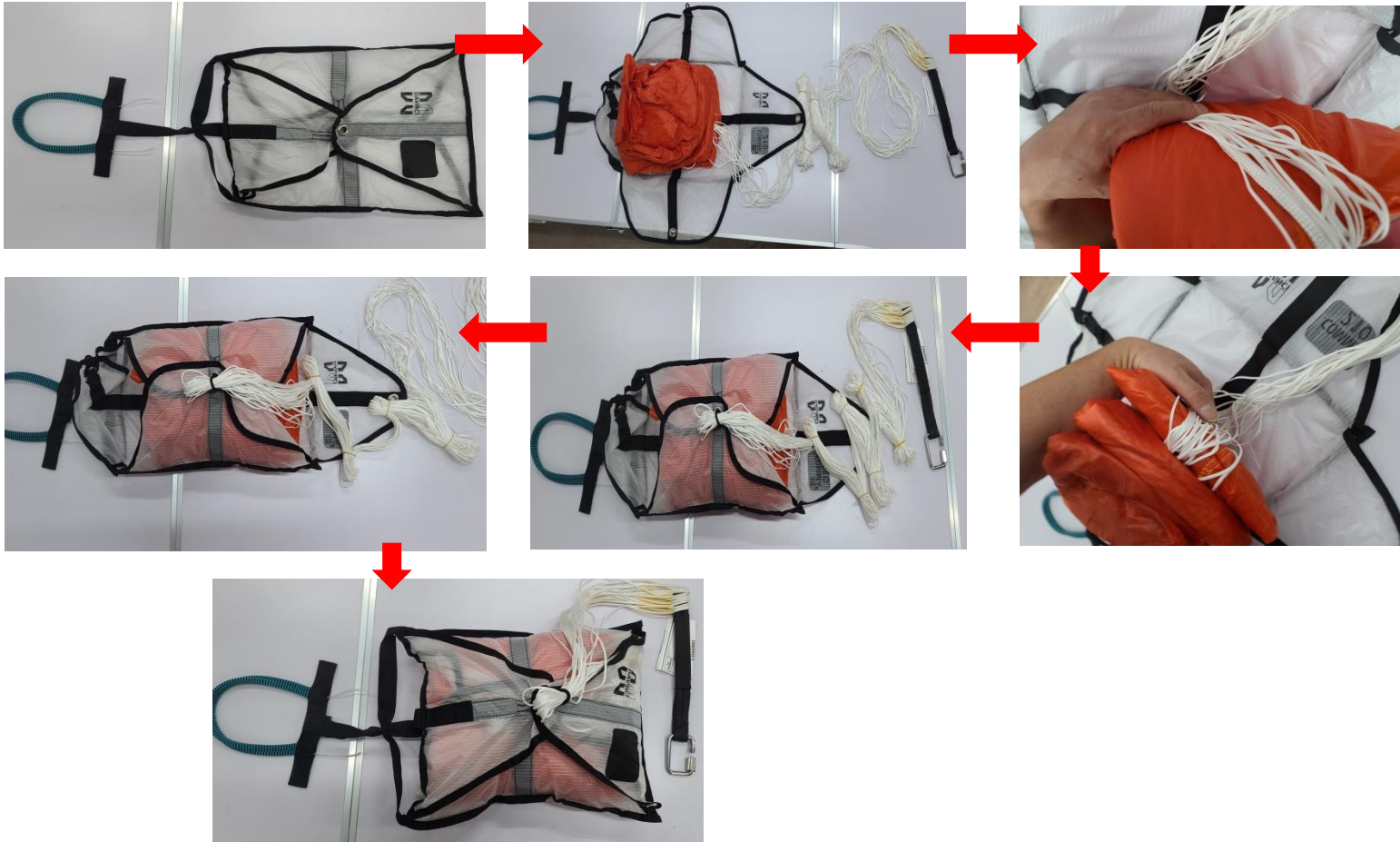
The rescue container for this harness comes with its own deployment handle. This handle and its strap must be connected to the deployment bag of the parachute. In particular, check the length of the strap connecting the rescue deployment handle to the rescue inner container. It should be long enough that the reserve can be extracted without the danger of the pins not being pulled before the strap tightens on the reserve, but not so long that there is excessive slack that extends the movement required for deployment.

The deployment bag of other manufacturers' rescue systems may have different loop positions which may cause a deployment failure. Be sure to contact your parachute dealer or a qualified professional to check the connection, position and secure deployment, and refer to the rescue manual for details. The rescue handle and inner container supplied with the DUO should already be connected.



Rescue inner bag packing

Your rescue should be repacked into the supplied inner containers as follows.



Connecting the rescue bridle

To connect your rescue to the DUO harness, we recommend using a Davinci Rescue Carabiner which has Min 28kN(2854kgf) of breaking load. It has more than 10 times of your maximum weight. Be sure to inspect your connector during normal maintenance and safety checks.

The Harness has a special Bridle installation system.

This system provides the comfort of the pilot when you open the parachute and the condition that the pilot is awarded lower on ground contact. The hanging point is positioned at the back of the shoulder and is designed to combine the advantages of the zipper system with a clean shape than Velcro.

So when you install a parachute, you have to pay more attention to it and set it up in order to fit the order of the pictures. Initially, the bridles will be placed on the right position!!

Bridle



Rescue

Rescue installation guide

The right installation of rescue parachute is the most importance process.

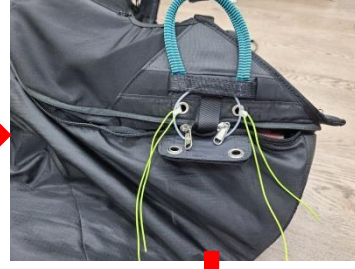
Begin by first connecting the bridle and the rescue handle to the rescue parachute (p.-).

-Set the rescue into the rescue pocket of the harness with the handle connection close to the pilot and the extra rescue

bridle and connection lines neatly folded at the bottom of the container. (-)

-Using the line included with your harness pull the built in loops through the metal rings in the order like below pictures (-)-Zipper up to the end (-) and fold the loose zipper spare only once and cover it with Velcro on the shoulders. (-)!





Adjustments

Adjust your harness to fit your body type and flight style. It is important to adjust correctly so that you can slide easily into the sitting position after takeoff. A misaligned harness can negatively affect the flying characteristics of a paraglider.

Hang on the simulator to make adjustments before the first flight and fine tune the right settings if necessary during the first few flights.

1. Shoulder straps
2. Lateral Straps
3. Chest Strap
4. Lumbar Strap
5. Leg Straps



(1) Shoulder straps

The optimum setting for the shoulder straps depends on the height of the pilot. Step into the harness and stand upright with the breast strap closed, symmetrically adjust the shoulder straps until they are a snug fit, but not tight.

To tighten: pull down on the BLACK webbing strap(1)

To loosen: pull up on the Black webbing strap(2)



(2) Lateral Straps

The lateral strap can adjust the angle between the thigh and back. Increasing the strap increases the angle, and decreasing the angle. The most comfortable position for yourself is to adjust in flight from calm weather. The attitude of flying in a reclining position reduces the stability of the harness and increases the possibility of twist of the riser.

To tighten, pull forward on BLACK webbing strap(1)
To loosen, pull back on the BLACK webbing strap(2)



(3) Chest Strap

The adjustment of the chest strap controls the distance between the carabiners and affects the handling and stability of the glider. Widening the distance between the carabiners increases feedback from the wing and allows for easier weight shifting. Closing the strap gives you a more stable feeling in turbulence but increases the risk of stable spiral and also the risk of twisting! The chest strap may also be adjusted in flight according to the conditions; for example, it may be tightened in turbulent air and flown at a looser setting in less turbulent or weak conditions.

To tighten, pull the black webbing strap to the left.
To loosen, pull the black webbing strap to the right.



(4) Lumbar support

For optimal ergonomic support in the lower lumbar region and adjustment of the sitting depth.

To tighten, pull forward on BLACK webbing strap(1)
To loosen, pull back on the BLACK webbing strap(2)



(5) Leg straps

The roots of the leg straps are positioned high, a characteristic of the Get-Up system, and this ensures great freedom of movement for the legs. Generally, the factory setting are correct. If it is difficult to enter the harness after launch, we suggest tightening the leg strap adjustment under the seat. This makes it easier for the pilot to enter the harness after launch without having to let go of the paraglider's control handles.



Flying with the DUO

General warnings and advice

Before every flight, check the following

- Are you in good physical and mental condition?
- Are you familiar and compliant with all applicable laws and regulations in your area?
- Are you briefed thoroughly about the site, airspace and expected weather conditions of the day?
- Is your equipment and choice of site suitable for your level of experience?
- Do you have a suitable helmet, gloves, boots, eye-wear and adequate clothing?
- Are you carrying some form of identification, so that people know who you are in case
- of an accident? Take along a radio and mobile phone if possible.

Pre-flight checks

As part of your normal pre-flight check routine, check:

- Is there any damage to the harness or carabiners that could affect its airworthiness?
- Are all buckles, belts, zips securely fastened? Buckles should click into place as you close them, and a gentle pull on the fastened buckle verifies this. Secure any zips after fastening the buckles. Take extra care in snowy or sandy environments.
- Is the paraglider connected correctly to the harness with both carabiners secured by their
- locking mechanisms?
- Are all pockets closed properly and any loose items tied down safely?



Landing with the DUO

Before landing, slide your legs forward in the harness so that you adopt the standing position. AVOID land in the seated position—it is very dangerous even if you have back protection.

When you landed with the DUO, you have to check the rescue parachute handle which is the right position and whether the rescue is opened.

Miscellaneous

Towing

The DUO can be used for towing launches. Towing bridge release requires the carabiner to hang directly into the main carabiner with the opening bar facing backwards. For more information, see the documentation provided with the tow release, or contact an authorized tow instructor on the flight site.

Flying over water

The DUO has airbag system which has the risk of pilots floating under your head, so you must avoid landing water in any case.

Installation of outer container

You can connect the outer container to the main carabiners with risers.



Maintenance and repairs

The materials used in this harness are composed of the best materials to ensure durability. Nevertheless, in order to ensure the longest possible safe operation, keep the harness as clean and intact as possible.

Care and maintenance

Don't drag the DUO on rough or rocky ground. Avoid unnecessary exposure to UV, heat and moisture. Store all equipment in a cool, dry place and never store them in wet or wet conditions.

Use a plastic brush and/or a damp cloth to wipe off dirt regularly. If there is unusually dirty, wash it with water and mild soap. First remove the entire subcomponent. Allow the harness to dry naturally in a well-ventilated area, away from direct sunlight. Sometimes lubricate the pinch and buckle at least once a year with a silicone spray. After hard and harness landing, the seat belt must be checked for damage and make sure the sand does not enter the buckle.

Inspection checklist

The harness should be checked and rescue parachutes should be repacked at least every 6 months. Additional inspections should be carried out after a collision, landing or take-off, or if there are signs of damage or excessive wear. Always find the instructor or dealer's advice in case of doubt.

The main aluminium carabiners must be replaced at least every 5 years or after 500 hours, whatever comes first. Impacts may create undetectable cracks that could result in structural failure under continuous load.



Repairs

A authorized by the Davinci Gliders must carry out all repairs related to the important part of the harness. This uses the correct material and repair techniques.

Quality and service

We have great pride in the quality of the products produced and strive to correct all problems in the event of manufacturing defects that may affect the safety or function of the equipment. If there is a problem with the equipment, the Davinci dealer should be the first to contact you. If you are unable to contact the dealer or the importer of the Davinci, contact the Davinci Glider directly through our website (www.flydavinci.com)

Care of the environment

We have the privilege of flying, which is difficult for anyone to enjoy in outstanding nature. Try to respect and preserve nature with minimal environmental impact. When visiting a new area, contact your local club or team in advance for details on environmental concerns and regional limitations. At the end of the paraglider's life, discard it in consideration of it and follow local regulations



Activate the reserve parachute

It is a good idea to check the position of the reserve parachute handle frequently during flight whenever you can afford it.

By doing so, you will be able to maximize the time given the paraglider throws a reserve parachute out of control.

It is necessary to first estimate the altitude above ground level (AGL) and, if high enough, try to return the wing to normal flight. But if you're unsure at all times, deploy your emergency parachute quickly.

Rescue parachute deployment should only be done in an emergency situation only

With a strong lateral and vertical pull, pull the handle toward you and then throw the parachute (including container and handle) away into a clear, unobstructed area in the sky.

Gather as many gliders as possible while the parachute opens and falls. At this point, pull the "C" or "D" riser or toggle/brake toward you as symmetrically as possible.

Prepare to land by standing in an upright position with your knees together and your legs slightly bent.



Materials

Harness		Fabric code
Fabric	Outer	210D Rip stop Nylon
	Inner	70D EXTREEMA R/S
Webbing		Nylon 25mm
Thread		210D/9, D/6 Bonded Polyester



An attitude for altitude

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