



S.E.A. PARAGLIDER
COCOON RUNA

RUNA
PILOT MANUAL



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A WARNING

Paragliding, like any other aviation sport, is an activity associated with increased danger for life and health. It is strongly recommended that you take training in a proven paragliding school, as well as choose the equipment and flight conditions appropriate to your level of training.

Having made his choice, the pilot takes full responsibility for these risks. Taking paragliding seriously, training and pilot experience can reduce these risks. Knowledge, including knowledge related to equipment, is a necessary part of this. Seek new knowledge and rely on this knowledge — this is an important component of your safety. If you still have questions about your equipment, do not hesitate to contact your nearest dealer, importer or manufacturer directly. The varied conditions of the paragliding situation cannot be predicted in advance and this manual does not answer all safety questions. Neither the manufacturer nor the supplier of the equipment can guarantee your safety and the safety of third parties. The various local requirements and laws of the countries where you fly cannot be considered within the framework of this manual. This is the sole responsibility of the pilot.

INTRODUCTION

S.E.A. Paragliders follow the philosophy of “paragliding is not just flying”. We believe that paragliding does not start after takeoff and does not end with landing. For us, lightweight and reliable equipment is a means to expand the pilot's possibilities in choosing starts and flying places. Free the pilot from thinking about logistics, give the pilot more options outside the flight without sacrificing the quality of the flight itself.

DESCRIPTION OF RUNA HARNESS

Runa was designed to be the lightest harness for regular cross-country pilots who want more freedom of movement without sacrificing flight quality. The Runa is lighter, but without compromising on flight comfort, safety, aerodynamics or usability.

The Runa power structure is made with a large margin of safety and does not require special handling, but do not forget that the outer skin of your harness is made of almost the same fabric as your paraglider. Treat the harness with the same care as your wing and it will serve you for a long time.

SPECIFICATIONS

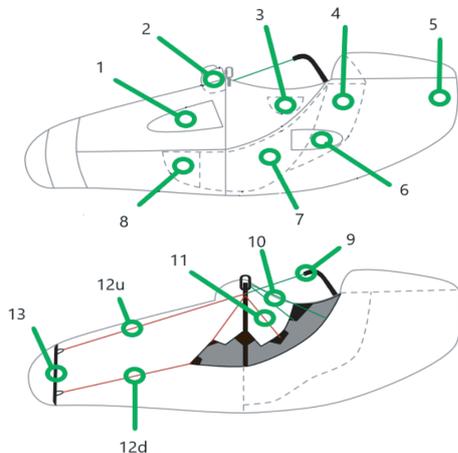
RUNA - technical data				
Size	S	M	L	XL
Pilot height, cm	160–172	170–182	180–192	190–202
Carabiner height, cm	44	46	48	50
Protector certification	EN, LTF/NFL			
Harness certification	EN 1651:2018 / LTF			
Maximum load, kg	100			
Reserve parachute	Integrated frontal container			
Volume of frontcontainer, cm3	2100 - 3100	2100 - 3250	2200 - 3900	2250 - 4200
Harness weight, kg	2.1	2.46	2.6	2.7

Package of delivery:

- Harness
- Inflatable S.E.A. protector (EN certified)
- Speed system (2-step speedbar with lines and pulleys)
- Acrylic footplate
- 2 aluminium main carabiners
- Rescue bridle
- Rescue parachute handle
- Outer cover for harness

GENERAL INFORMATION

FEATURES



- 1. Outer pocket (twin)
- 2. Rescue parachute container
 - a) container pocket
 - b) container fastener
- 3. Inner pocket (twin)
- 4. Back big pocket
- 5. Rear fairing
- 6. Air inlet (twin)

- 7. Back inflatable protector
- 8. Bottom pocket
- 9. Shoulder strap (twin)
- 10. Side adjustment strap (twin)
- 11. Lumbar adjustment
- 12. Footplate cords:
 - a) upper (twin)
 - b) lower (twin)

- 13. Footplate
- 14. Main carabiner (twin)
- 15. Left cocoon panel
- 16. Get-Up closing system
- 17. Speedbag closing line
- 18. Speedbar



POWER STRUCTURE

Runa has a hammock design. The harnesses of this type does not have a rigid board under the pilot. This design saves weight, and allows more precise tuning of the harness to the individual proportions of the pilot.

ACCELERATOR

The harness is supplied with a compact two-step speedbar. The speed system contains two pulley, the speedbar with lines and elastic cords.

RESCUE PARACHUTE COMPARTMENT

Runa allows the installation of one rescue parachute in the forward (upper) container. The mount of Y-bridle is placed on the shoulders, which is safer compared to the mount on carabiners, but makes it little bit difficult to deploy the rescue parachute to the left side.

The internal container of the cockpit is designed for the installation of lightweight rescue parachutes and is limited in volume.

FLIGHT INSTRUMENTS

The panel of container intended for flight instruments mounting. It is small in size and is located close enough to the pilot's face. We made it so that the small-sized instrument screens were easy to view. You will find it convenient to use a small (and light) smartphone or flight instruments.

CARGO SPACE

Runa has two storage compartments: main and under the seat. The main luggage compartment (behind the pilot's back – big pocket) has a compartment for installing a drinking system. Small lockable cockpit pocket is meant for power bank. There are also four pockets available in flight: two outer ones on the sides of the harness and two inner ones, under the carabiners.

BACK PROTECTOR

The inflatable protector — is a key element of the harness Runa concept. Thanks to him, the packing volume of the harness is so small that it can be used instead of a roller inside the glider, taking care of its long plastic rods.

AEROBATICS

Runa harness is not intended for acrobatic maneuvers in order to avoid getting into dangerous flight situations.

TOWING

Runa harness is suitable for towing. There is no any special points on the harness for mounting of tow bridles. So, the tow bridle must be connected to main carabiners only.

Always remember that during towing paraglider can react differently to pilot control actions. When towing, it is necessary to control the wing with less brake effects than normal flight to avoid dangerous flight situations.

Before flying, make sure that your equipment meets the safety requirements for towing. Follow the instructions of towing team.

MOTORIZED FLIGHT

The Runa harness is not suitable for flying with any paramotor.

TANDEM FLYING

The Runa harness is not designed for tandem flying. Please, see sea-wings.pro for details of our harnesses specifically designed for tandem flying.



BEFORE YOU FLY

Before the first flight, the harness must be prepared at home: install a reserve parachute, adjust the harness for the pilot, adjust the accelerator. Harness adjustments can require serious attention, with many pilots adjusting the new suspension after several flights to achieve maximum comfort and control. It is very important to understand here that fitting the harness is a long process, but the reward is high. We ask you to treat this section with all your attention and do not hesitate to ask us questions directly.

If Runa is your first cocoon harness, please note that landing in any cocoon, as well as piloting techniques, is quite different from open harnesses.

ATTACHMENT TO THE WING

To do this, install main carabiners in webbings on left and right sides of the harness – main hangpoints loop and side adjustment straps. Locks of carabiners must be oriented forward in flight direction.



INSTALLING SPEEDSYSTEM

Runa harness delivered with pre-installed speedbar.

In case of need, you can install the speed system by yourself – before first flight in the new harness or if replace of speedbar needed.

It is convenient to install the speed system using a simulator — by hanging the harness on it.

Begin installing from front part of harness to back.

First, attach the speedbar to footplate by rubber lines.





Second, pass the lines through metal rings on front end of harness seat board.



Third, route the lines through both pulleys on the sides of harness.



Fourth, route the lines through both eyelets under the carabiners.

Then tie the line to the brummel hook with a bowline knot and attach the speed system to the corresponding cords on risers of paraglider.

INSTALLING THE DRINK SYSTEM

The Runa harness allows you to install a drinking system.

To install the drinking system, place it in the dedicated compartment in the rear storage pocket. Next, pass the drinking tube through the opening in the shoulder strap.

FILLING THE INFLATABLE PROTECTOR

The Runa harness is equipped S.E.A. inflatable protector. It is located in a special compartment behind the pilot's back. Thanks to its size and length, it perfectly protects the pilot's waist, back and pelvis. S.E.A. inflatable protector is EN certified. The protector can be removed (e.g. for the check or replacing) through a zippered pocket in the lower part of the harness - just behind the lower pocket under the pilot's knees.

Inflate the protector before each flight to maximize its protective properties. You can even use a small electric pump for this. It is important not to pump up the protector too much. Close the cap on the pipe in 2 seconds after filling.

After landing, simply open the cap on the filling pipe of protector, the air will out on its own without additional action. Then you can fold and pack the harness.



PRE-FLIGHT CHECK-LIST

Before each take-off you must do next check:

- there no any damage on the harness or carabiners;
- the rescue chute container closed correctly;
- deployment handle attached correctly;
- all buckles, belts, zips are securely fastened;
- all flight instruments are secured;
- paraglider connected correctly to the harness;
- both carabiners secured by their lockers;
- the speed bar are attached correctly to the glider;
- all pockets are closed properly;
- Is both air intakes open;
- the back protector is filled correctly;
- your Get-Up system is closed.

You should always training to use a complete and consistent system of pre-flight checks and repeat the same procedure before every flight.

LANDING

Before landing always pull your legs out in forward direction of the speedbag of the harness. NEVER do the landing in the seated position — it is very dangerous even if you have back protector. Stand up before landing for increasing safety.

CONNECTION OF THE RESCUE PARACHUTE

1. Connect the handle to the inner container of the rescue parachute. Use a loop in the middle of your inner container.
2. The main riser of the rescue parachute must be connected to V-bridle of the harness.

Two methods of this connection are commonly used:

- by the steel carabiner (it must be tightened):



- by loop "bridle-to-bridle" method:



The chosen link must have the breaking load at least 2300 daN. Make sure the link connection or loop are secured from the slipping and wearing.

INSTALLATION THE RESCUE PARACHUTE

Lightweight compact parachutes such as the S.E.A. Paragliders WTF are better suited for Runa harness. It is best to leave the rescue parachute installation to an experienced instructor or harness manufacturer's representative. It is very important that the rescue parachute is repacked shortly before being installed in the harness - this directly affects the safety of the pilot.

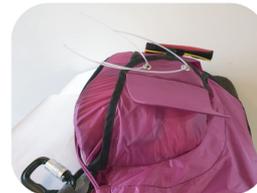
1. Place the inner reserve parachute container with the tied handle next to the harness container. Make sure the harness and parachute bridles are not twisted. When installing the reserve make sure the reserve handle is up and the reserve lines are facing down.
2. Guide the Y-bridles of the harness through all covers from the shoulder straps to the rescue parachute positioning on the harness.
3. After installing the parachute into the harness, the harness container must be closed with the pins on the reserve parachute handle. To do this, use the two special packing devices (included in the harness kit), which are threaded through two loops on the bottom flap of the outer container.



4. Close the top flap.



5. Close the left flap (in the flight direction).



6. Close the right flap (in the flight direction).



7. Pass the lower pin of the parachute handle through the lower loop and the upper pin through the upper loop.

8. Remove the packing devices carefully and slowly.

9. Pass the plastic cover on the right side flap through the parachute handle and put it into the corresponding pocket on the left side flap (in the direction of flight).



COMPATIBILITY BETWEEN HARNESS AND RESCUE PARACHUTE

After installation of the rescue parachute, it is necessary to check the compatibility of the parachute and harness. Use the harness simulator - put on the harness with installed parachute, fasten all the buckles and attach the harness with main carabiners to the simulator. You must check that the rescue parachute can be used according to the procedure described in this manual.

ACTIVATING THE RESCUE PARACHUTE

It is recommended to throw the rescue parachute with the right hand, throwing it to the right side. The design features of the harness (the bridles of the rescue parachute runs along the right side of the harness) make it difficult to deploy it to the left side. Throw the rescue parachute with your left hand as a last option, only if the right hand is injured / blocked.

In a situation requiring the deployment of a rescue parachute, it is very important to correctly estimate the height. If the height is low, any delay can be very expensive. On the other hand, the deployment of a rescue system in a situation, where the paraglider is able to return to the flight state, leads to unnecessary injuries. Remember, a reserve parachute saves not your health, but only your life! Landing with a rescue parachute can be quite tough and is not acceptable at every location on the earth's surface.

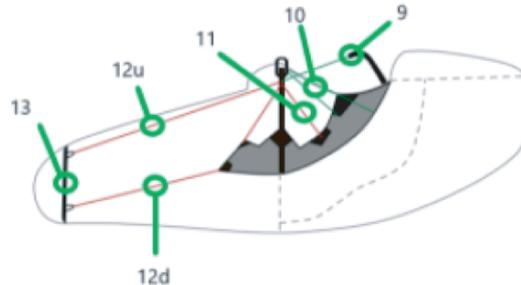
Deployment procedure:

- find and firmly grab the reserve parachute handle (on the harness or external container);
- pull the handle so that the parachute comes out of the harness (or outer container) shaft. The parachute must remain in its inner container. You have to pull the handle in forward direction.
- throw the parachute away from you as much as possible towards the open space - where the canopy or paraglider lines will not interfere with it. The stronger the throw, the faster the parachute will open. If there is a height / time for the throw, it is advisable to make a swing with a preliminary swing. The harness release handle have to be thrown away together with the inner container!

- Immediately after opening the parachute it is necessary "to kill" the canopy of the paraglider to avoid the "bell" regime. To do this, tighten the B- or C-risers of the glider firmly and deeply. If this is not possible, you need to deeply tighten the brakes of the paraglider until it enters a complete stall;
- when descending under the canopy of a rescue parachute, it is necessary to control the height and the environment. Before touching the ground, you need to take the right position - take the maximum "standing" position in the harness, bend your knees, tighten the muscles of the legs, abs and back to absorb the impact energy;
- to avoid the injury, always try to land on your feet;
- after landing in a strong wind, you need to kill the canopy of the parachute by tightening either one main (side) line, or the central line.

ADJUST AND FIT THE HARNESS

The harness Runa is available in four sizes, each designed for a specific pilot's height (see "Specifications"). For a more precise adjustment for a specific pilot, we recommend using a simulator. Adjustments must take into account not only height, but also the shape and proportions of the pilot's body. When choosing the backrest angle, take into account the individual piloting style and your own preferences.



ADJUSTMENTS PRINCIPLES

The cocoon frontal lines (12) defines the overall harness pitch adjustment.

The relative lengths of the upper (12u) and lower (12d) frontal lines defines the angle of footplate (13).

The lumbar adjustments (11) reflect the shape of the pilot's body and their adjustment depends on his body size.

The side straps is adjusted with strong plastic buckles (10).

To tighten: pull the shoulder webbing forward.

To loosen: pull sideways on the front of the slide buckle.

The last step is to adjust the shoulder straps (9), they is needed for fix the pilot in the longitudinal axis.

The optimum setting for the shoulder straps depends on the height of the pilot.

Step into the harness and stand upright, symmetrically adjust the shoulder straps until they are a snug fit, but not tight.

To tighten: pull the shoulder webbing forward and down. To loosen: pull up on the front of the slide buckle.



ANGLE OF FOOTPLATE

The footplate can be adjusted with a 4-knot cords. Make sure both pairs the lines (on both sides – left and right) is symmetric — have equal tension.

An elastic insert at the front of the speedbag allows you to change the length of the cocoon without creating additional wrinkles on the side panels.

FOLLOW THE NEXT INSTRUCTION TO PUT ON THE HARNESS:



1. Place the shoulder straps over your shoulders. (Arms are inside the shoulder straps).



2. Lock the Get Up system



3. Pass the right ball through the left loop of the speedbag



4. Pass the closing line through the right eyelet on the speedbag and pass the left ball through the loop on the closing line.



5. Attach the rescue container with the plastic fasteners.

INSPECTIONS

We at S.E.A. Paragliders recommend to do a technical inspection of the harness every 24 months.

The full inspection can be done by the manufacturer or his representative.

It is highly recommended with regular pre-flight checks to do inspection thoroughly on every rescue repack of 6 months. Additional inspections should be performed after any accident, bad landing or take off, or if there are any signs of damage, tearing or some wear. Always ask professional advice if you are in doubt.

The following checks should be done:

- After a long period of storage, you should do visual inspection the main parts and units of harness.
- Check all webbings, straps and buckles for wear and damage, especially in the “hidden” areas, such as the inside of the carabiner hook-in points.
- All sewing and stitches must be intact.
- Special attention should be paid to the rescue installation, mounting of rescue handle with its pins.
- Check the integrity and impermeability of the protector.
- The main 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.

DISPOSAL, RECYCLING

At the end of service life the harness must be disposed properly. Please, send it back to manufacturer for correct disposal.



REPAIRS

Only the manufacturer or his approved specialist can perform any repair that involves critical parts of the harness. This will ensure that the correct materials and repair techniques are used.

CARE AND STORAGE OF HARNESS

- put the harness in a bag or backpack as carefully as possible;
- store the harness at a temperature between 10° and 30°C and in relative humidity between 40 and 75%;
- do not pack the harness with foreign objects and debris inside;
- do not leave the harness in the sun for a long time;
- do not leave equipment in a closed car under the sun;
- do not drag the harness on the surface of the earth;
- avoid contact of the harness with hot objects and open fire;
- avoid wetting the harness;
- do not walk in the shoes on the harness;
- do not put heavy objects on the packed harness and do not sit on it;
- in case of contamination - never wash the wing using chemicals, only wipe it with a slightly wet soft sponge;
- do not store the harness in a wet, not ventilated room;
- after getting soaked in sea water, immediately rinse the harness outside and inside in plenty of fresh water (for example, in a car wash), only then dry it in the shade in the wind.

ENVIRONMENTAL INFORMATION

Paragliding is a particularly nature-friendly sport. This makes it all the more important that we as paraglider pilots behave in a responsible way towards both the environment and the people sharing it with us. Please also make sure to comply with legislation regarding protected areas, privately owned property or hunting arenas - this ensures the least possible friction in relation to other users of the great outdoors, to the benefit of both yourself and the sport as a whole.

WARRANTY

We at S.E.A. Paragliders provides a 12-month or 100 flight hours warranty - for the correct and –flawless function of the harness. The warranty covers only manufacturing or functional defects. The warranty does not cover hidden defects in material, as well as defects caused by improper use, inappropriate storage, damages during transportation, or harsh handling and using that is not in appropriate accordance with the product design.

LIST OF MATERIALS:

Harness fabric: Oxford honeycomb 157g Nylon, 40g double ripstop Nylon, 80g ripstop Nylon,

Webbing: 25mm, 12mm and 15mm PES webbing,

Ropes: Liros DC 500, D-Pro 5mm, Abrax PES line,

Other: Chang ball bearing pulleys, acryl footplate, PET reinforcements, 2.5mm steel rods, carabiner Edelrid Foras, webbing buckles Edelrid SB



HARNESS DATA

SIZE	COLOR	Date of manufacturing
Serial number		

Checks and repairs:

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