





PRO GUIDE

PACE

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# SKYWALK



## 1 INTRODUCTION

## Welcome to skywalk!

Congratulations on the purchase of your new PACE and thank you for your trust in us and in our products. In this manual you will find product-specific information that will help you quickly get to know your new paraglider to ensure your fun for a long time. General information about the most important safety-relevant points for handling your paraglider can be found in the attached "BASIC GUIDE".

We are always open for questions, comments or critique and are happy to provide you at any time with further information!

Your skywalk Team PURE PASSION FOR FLYING Edition 1.0 / 10\_23
The latest version of the manual can be found on www.skywalk.info

## **2 DESCRIPTION**

The PACE was designed as a minimalist descent aid in a single skin design. The PACE is so lightweight and compact that you can always take it with you during demanding activities such as trail running or mountaineering without it adding any weight.

#### PILOT REQUIREMENTS

The PACE has been tested according to the LTF/EN standard and has passed with a rating of B. In principle, any pilot can fly the PACE after training. However, a single skin paraglider differs in its handling compared to a conventional paraglider.

More detailed information on takeoff, flight, landing and extreme flight behavior can be found in the individual chapters. The ultra-lightweight construction requires a certain level of caution in handling.

#### SCOPE OF DELIVERY

The PACE comes standard with deflation bag, inner bag, compression strap, riser bag and "BASIC GUIDE".



# SKYWALK

## 3 TECHNICAL DATA

Size	70+	85+	95+
Cell number	41	41	41
Area flat (m²)	16,00	18,00	20,00
Wingspan flat (m)	8,39	8,90	9,38
Aspect ratio flat	4,4	4,4	4,4
Area projected (m²)	13,63	15,34	17,04
Wingspan projected (m)	6,72	7,13	7,51
Aspect ratio projected	3,31	3,31	3,31
min. profile depth (cm)	78	83	87
max. profile depth (cm)	229	243	256
Middle line length without risers (m)	5,37	5,70	6,00
Line consumption (m)	295	314	332
Weight (kg)	1,05	1,15	1,24
Take-off weight from - to (kg)	50-90	65-100	70-110
Winch certified	yes	yes	yes
JET FLAP Technology	no	no	no
Paramotor homologation	no	no	no
Accelerator	no	no	no
Brake line travel max. (cm)	61	62	66
Trimmers	no	no	no
Number of seats	1	1	1

## **4 LINE SYSTEM**

The layout of the suspension points is designed for optimal load distribution and a long lifespan. With all considerations and calculations however, our focus is always on safety. The mix of materials used on the lines of the PACE is an ideal combination of durability, low stretch and low drag.

The skywalk PACE has 3 A-, 3 B-, 1 C-, 1 D-, and 1 stabilo line.

The main-stabilo is connected with the B-riser. The brake lines are not load-bearing and lead from the trailing edge over the main brake lines through the brake pulleys on the C-risers to the brake handles. A marking on the main brake line indicates the position of the handle attachment.

This setting should not be lengthened, for example, to provide more brake travel in extreme flight situations or during landing, nor shortened such that the glider is flown constantly with some brake on

# To provide a better overview and to make sorting easier, the lines have different colors:

- → the A-main lines and the A-risers are red.
- → the B-main lines are yellow.
- → the C-line as well as the D-lines are blue.
- → the stabilo lines are orange.
- → the main brake lines are orange.

## The skywalk PACE has 3 risers per side:

- → the A-lines as well as the B-lines lead to the A-riser
- → the C-lines as well as the stabilo lines lead to the B-riser
- → the D-lines lead to the C-riser

A schematic drawing of the risers can be found at the back of the manual.

### 5 ACCELERATION SYSTEM

The skywalk PACE does not have an acceleration system but can be retrofitted with a trim system. However, when using the trim system, the type approval according to EN/LTF becomes invalid.

There are no other adjustable, removable, or variable devices present.

## **6 FLIGHT TECHNIOUES AND CHARACTERISTICS**

#### WINCHTOWING

The skywalk PACE is well suited for winch towing. Make sure that you only use certified winches and that you climb from the ground at a flat angle.

The pilot must have had proper towing instruction and must ensure that the winch operator has had proper training that includes paragliders. When launching on a winch, always fly with a lot of feeling and don't brake too much as your glider will already have an increased angle of attack. We recommend the use of a towing adapter.

#### FLYING WITH A MOTOR

Currently, the PACE has no certification for flying with a motor.

You can find out the current status of motor certification at any dealer or importer, or by asking skywalk directly.



#### LAUNCH

The ultralight PACE rises very quickly above the pilot without overshooting, so it is not necessary to hold the A-risers in hand. For a forward launch, simply place the risers over your arms, a comfortable walk forward is sufficient and the PACE will be positioned above the pilot. Lateral deviations are best corrected by walking underneath. Keep the brakes in your hand during the launch, but typically, the PACE does not require corrections using the brakes.

#### FLYING IN TURBULENT CONDITIONS

The PACE stabilizes itself and levels itself above the pilot when necessary. In turbulent conditions, it is advisable to fly the PACE with some brake pressure. This enhances overall stability by increasing the angle of attack. Unlike a conventional paraglider, the PACE does not produce a pitching motion in front of the pilot.

This leads to a significant speed reduction of the wing and a reduction in performance in turbulent conditions.

Therefore, we recommend flying the PACE in less turbulent conditions to achieve the best possible performance.

#### LANDING

In the final approach with a single skin wing, it is essential to fly as fast as possible to create a smooth flare.

Applying the brakes too early can completely destroy the lift.

The PACE has been equipped with the NUDGE system. This system generates additional lift during landing.

#### **FULL STALL**

The PACE reacts differently in a full stall compared to a conventional paraglider. During recovery, the canopy rises extremely quickly above the pilot but does not shoot in front of the pilot. However, because the canopy rises so rapidly above the pilot, there is a risk of twisting during an asymmetric recovery.



WE DO NOT RECOMMEND FLYING A FULLSTALL WITH THE PACE!

#### SIV

The PACE has no inertia, which makes the wing's movements extremely quick and strongly encourages oversteer when recovering from maneuvers. The concept of the PACE is to fly down from mountains in calm conditions.

However, to ensure safe flying for users, this wing's design offers an exceptionally high resistance to collapses and outstanding inherent stability. These features have been specifically developed for comfortable flying and optimal stability in calm conditions and are not suitable for use in SIV-trainings..



WE STRONGLY DON'T RECOMMEND TO DO A SIV-TRAINING WITH THE PACE!

You can find further information on practices and characteristics of flying in the enclosed "BASIC GUIDE".

## **7 DESCENT TECHNIQUES**

#### **PULLING BIG EARS**

In contrast to the spiral, your forward speed with »big ears« is higher than your rate of descent. This rapid descent aid is used to quickly exit danger zones by flying straight ahead in a desired direction.

The risk of collapses in turbulent air is significantly reduced with big ears. To perform this maneuver, proceed as follows (according to DHV teaching instructions):

- ightarrow Grab the outer A-lines (AllI) above the risers with your palms facing outward and pull the lines down.
- $\,\rightarrow\,$  Keep the brake handles and the outer A-lines in your hands during the maneuver.
- ightarrow Check the symmetry of the collapsed glider.
- ightarrow To recover, slowly release the A-lines. The glider usually will reinflate by itself.
- $\,\rightarrow\,$  During the maneuver, the ears of the PACE are not stable and will therefore flutter.
- → To speed up reinflation, pull lightly on the brakes. Another proven technique is to first reinflate one side of the glider, then then other. This can reduce the risk of a stall



### **Examples:**

- → If the pilot is surprised near a summit with little ground clearance by strong wind or a thundercloud, neither a B-stall nor a spiral dive can help.
- → If the pilot is stuck in very strong lift, it is advisable to exit the lift band with the use of big ears and to find sinking air in which to lose altitude.

#### **B-LINE STALL**

This maneuver is not possible with the PACE. For fast descent use a spiral dive or big ears.

You can find further information about descent techniques in the enclosed "BASIC GUIDE".

## 8 MATERIALS

The skywalk PACE is manufactured from the highest quality materials. skywalk has selected the best possible combination of materials with regard to resilience, weight and longevity. We are aware that the durability of the glider is a deciding factor in the pilot's satisfaction.

#### WINGS AND RIBS

Upper sail: Porcher Skytex 27 double coated, Dominico 10D Ribs: Porcher Skytex 27g hard, Skytex 32g hard

#### LINES

A, B, C, S Main lines: Liros PPSLS 180/125; Edelrid 8001U - 70

A. B. C Middle lines: Edelrid 8001U - 130/90/70/50

A, B, C, D Top lines: Liros DC 35

Brake lines: Liros DFLP 200/32, PPSL 125, DC 35;

Edelrid 8001U - 90/50

#### RISERS

4 mm Amare

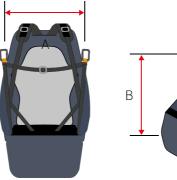
## 9 HOMOLOGATION

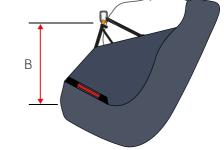
The PACE is certified to LTF II 91/09 and EN926-1, EN926-2 in the category B. The PACE is defined as a lightweight sport aircraft with an empty weight of less than 120kg in the paraglider category. The many homologation tests are the last hurdle in the development of a skywalk paraglider. The homologation test flights only take place when the test team is completely happy with the glider development.

We remark that the certification results will differ during flight in thermals or turbulent air. The homologation informs solely regarding the paraglider performance during extreme-flight-manoeuvres performed in stable air conditions. These extreme-flight-manoeuvres during the homologation process should thus not be over-valued.

Remember that certification maneuvers were carried out with a harness in the group GH with a carabiner distance (middle to middle) of 40-48 cm. If another harness is used, the glider may display flight characteristics that differ from those in the description.

### HARNESS MEASUREMENTS DURING THE TEST FLIGHTS





Width of harness attachment points

Height of harness attachment points

Total weight in flight (kg)
Width (cm-measurement ,A')
Height (cm-measurement .B')

←80	80-100	100 →
40 ± 2	44 ± 2	48 ± 2
40 ± 1	42 ± 1	44±1



## 10 CLOSING WORDS

The skywalk PACE is at the pinnacle of paraglider development in the market for single skin wings and shows what is possible regarding lightweight construction, safety and innovation. It cost us a lot of time to develop this glider, but it was also a lot of fun. In this development we recognize the challenge of making the right product for every area and individual taste. We are pleased if you notice this during your first flight and if you feel a certain unity with your glider from the very beginning.

The PACE will provide you with plenty of joy over many years if you treat it and care for it properly. Respect for the demands and dangers of our sport are essential for successful and beautiful flights.

Even the safest paraglider can be dangerous due to misjudgments of meteorological conditions or pilot error. Always remember that flying sports are potentially risky and that you are responsible for your own safety. We advise you to fly carefully and to respect laws in the interest of our sport, because every pilot always flies at his or her own risk!

# WE WISH YOU A LOT OF FUN WITH YOUR NEW GLIDER AND ALWAYS HAPPY LANDINGS!!

Your skywalk Team



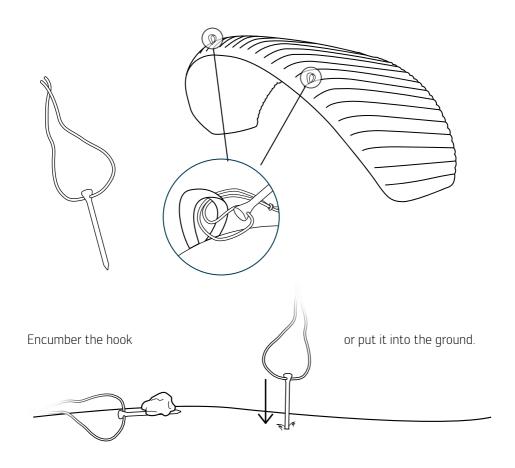
## 11 LOOPS & HOOKS

The PACE is equipped with "Loops & Hooks".

These are used to secure the canopy in difficult terrain. Proceed as follows:

Connect the line of the hook-pin with the loop on the canopy.

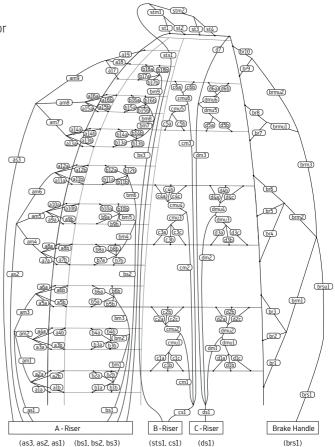
The loop is sewn on the upper sail about 20cm above the cell opening on rib 6.





## 12 LINE SCHEMATIC

This line schematic is only for illustration purposes.



## 13 LINE LENGTH

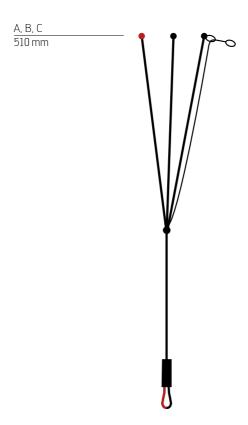
The total line length has to be measured under a tension of 50N. The difference between the measured length and the original length should not exceed  $\pm 10$  mm. Compliance of the test sample's suspension lines, brake lines and risers were checked by the testing laboratory after the test flights were completed.

Total line length PACE size: 70+, 85+ and 95+: www.skywalk.info

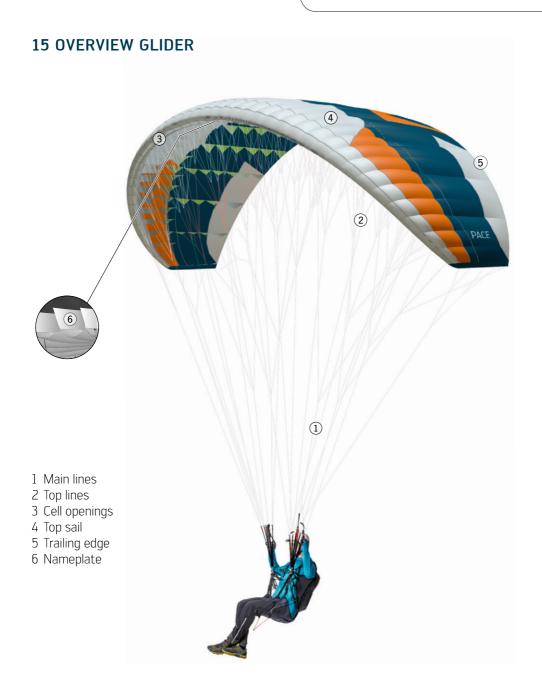
Single line length PACE size: 70+, 85+ and 95+: www.skywalk.info

# **14 RISERS**

The difference between the measured riser lengths and the original riser lengths should not exceed  $\pm\,5\text{mm}$ .



# SKYWALK



16 TEST PROTOCOL				Date:	
Customer, Name:					
Adress:				Phone:	
Glider:	Size:		Serial number:		
Type certificate number:	JIZC.		Date of last check:		
Date of first flight:	Year of o	construct			
Bace of first riight.	icui oi c	2011361 00			
Accomplished checking:	Results	[+/-]:	Description of failure:	Suggested repairs:	
Identification:	+	-			
Visual check of canopy:	•				
Upper surface:	+	[-]			
Lower surface:	+	<u> </u>			
Profiles:	+	-			
Line flares:	+	-			
Leading edge:	+	-			
Trailing edge:	+	-			
Crossports:	+	-			
Visual check of lines:					
Seams:	+	-			
Abrasion spots:	+	-			
Core withdrawals:	+	-			
Visual check of connectionparts:					
Suspension line screw locks:	+	-			
Risers:	+	-			
Length measurement:					
Risers:	+	-			
Lines:	+	-			
Examinations of the canopy:					
Firmness of canopy:	+	-			
Porosity:	+	-			



Examinations of the lines:			
Firmness of main lines:			daN
	Results [+/-]:	Description of failure:	Suggested repairs:
Visual check of trimming:	+ -		
Checkflight necessary?	+ -		
Type certificate patch?	+ -		
Identification plate?	+ -		
Condition:  New  Very good condition  Good condition  Well used  Heavily used, but within homologation standards, frequent checks required  No longer airworthy, outside of the limit values.			
Repairs made?:			
Signature of tester:		Date:	
Name of tester:		Firm stamp:	



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