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Getting Started

ADVANCE XI

English

Welcome to ADVANCE

Our sincere thanks that you have decided on ADVANCE. As a worldwide leading paraglider manufacturer based in Switzerland we have been following our own ideas and concepts since 1988 – in both development and the production of paragliders, harnesses and accessories.

This guide gives a brief look at using the XI, but it does not replace the manual. The latest version can be found on:

www.advance.ch/xi

We wish you many enjoyable hours in the air with your XI, and always happy landings!





You as Pilot

As a Performance-Intermediate in the high end of the EN/LTF-B-class the XI calls for experienced thermal and cross country pilots who are looking for a high performing lightweight wing which will help to make all their ambitious dreams (e.g. Vol Bivouac, long XCs from remote takeoffs) come true. The XI's low weight (from 3.4 kg) also suits it perfectly for Hike & Fly and traveling.

A XI pilot flies actively, can recognise and oppose collapses at the first signs, and can confidently carry out the normal fast descent techniques. He will then be able to make the most of this Lightbuild Performance-Intermediate's high potential, and cross much countryside safe and relaxed.

Delivery and Basic Settings

Every ADVANCE paraglider has to be flown by the dealer to check for correct initial setup. Any personal alteration of the paraglider results in the loss of its certification. Brake line length should not be changed.

It is set at the factory so that the trailing edge remains unbraked when fully accelerated with brake lines fully released.

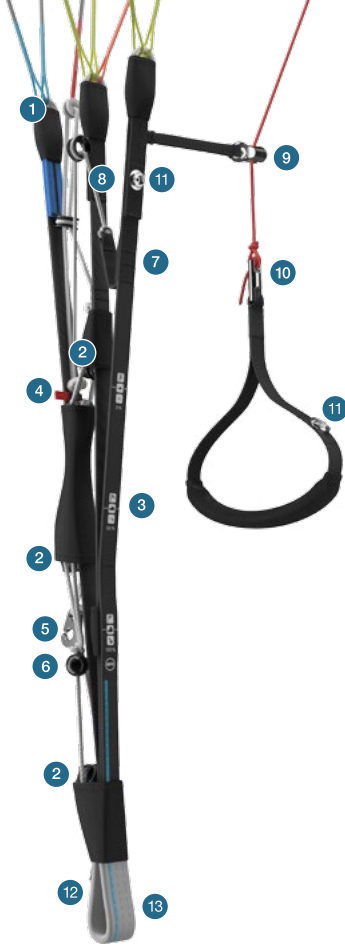
The XI package contains:

- COMPRESSBAG
- Repair-Kit
- Mini-Windsock
- Getting Started Booklet



Risers

- 1 Softlinks
- 2 Pulley Speed System
- 3 Speed Performance Indicator (SPI)
- 4 Red cursor for the SPI
- 5 Brummel Hook
- 6 2-Phase Speed System
- 7 C-Riser Control
- 8 Pitch Control Line
- 9 Easy-running Brake Pulley
- 10 Swivel
- 11 Popper
- 12 Easy Connect System
- 13 Support Point



2-Phase Speed System / SPI

The Speed Performance Indicator (SPI) helps you choose your speedbar position. In accelerated flight it indicates your relationship to the accelerated part of the wing's polar curve, and confirms symmetrical application.

Spend some time setting up your speedbar lines correctly:

- 1 Set their lengths so that the first speedbar step gives you the 50 % position on the SPI, and the second step reaches 100 % SPI.
- 2 By moving the knot **1** and therefore the ball position **2** on the risers you can adjust the ratio change position to suit your leg and body length. Pic 1 shows low gear – 3:1, **3** + **4** and Pic 2 shows high gear – 2:1 **3**.
- 3 If you move the knot **1** down the change from 3:1 to 2:1 happens earlier, and at this point foot load goes up, speed increase is more direct and total speedbar travel is reduced. If you move the knots up the opposite occurs; a later change to high gear, and longer overall speedbar travel for long legs.

Make absolutely sure that the harness speed lines are not set too short: the wing must not be accelerated prematurely i.e. permanently accelerated in flight!



Pic. 1:
3:1 ratio

Pic. 2:
2:1 ratio

Pitch Control System

The XI can be actively flown in accelerated flight using speedbar or C-Risers. For the latter take hold of the C-Risers at the brake handle poppers, with the bottom edge of your hand/fingers where the line for the B level (pitch control line) meets the C-Riser. Make sure you unwind brake wraps first. Pitch movements in light turbulence can be opposed by careful pulling (wing back) or releasing (wing forwards) the C-Risers along a shoulder direction.

C-Riser movement influences B level risers through the pitch control lines. Active flying and steering via C/B-levels gives a more direct handling than using the speedbar for active pitch control with steering by weightshift.

i **Info:** effective and instinctive flying by C-Riser needs practice and experience. Too much or too abrupt a pull risks stalling.



Easy Connect

The XI has an 'Easy Connect System', compatible for ADVANCE harnesses and paragliders. It helps to ensure that you connect the wing to the harness correctly. The backs of the C-risers have coloured markings: red on the left, blue on the right in the direction of flight. When these markings appear correct from the pilot's point of view, and run correctly upward, this indicates that the risers are clipped in correctly.



Handle with care!

Every effort has been made to reduce the XI's weight, and this should always be borne in mind. Take good care of the XI's light material. Only then will you continue to enjoy the XI's special qualities.

Mechanical stresses, such as being dragged over the ground or allowed to fall on an inflated leading edge, will speed up the aging process; these should be avoided. Only pack and store your paraglider when it is completely dry. Your high quality fabric will appreciate this.



Fast Descents

The XI has a separated A-line, which makes **ear-folding** easier. To apply pull both outer red A-lines down briskly. Sink speed can be increased by use of speedbar. To reopen release both A lines at the same time. Delayed opening can be speeded up by a light pull (pump) on the brake, one ear at a time.



Enter a **spiral** progressively. When in the spiral keep your weight neutral in the harness. Exit the spiral carefully by progressively releasing inside brake and leaning body weight lightly towards the outside of the turn. The XI will recover itself from the spiral if neutral weight disposition is maintained and brakes are released completely. However, ADVANCE recommend an active exit.

! **Caution:** if you deliberately shift your weight to the inside of a spiral strong acceleration will result. This can lead to stable rotation and even more acceleration. In this case – with vertical speed of more than 14 m/s – you must use active outside brake and outside weightshift to recover.

Correct Handling of Collapses

If you have a collapse keep flying straight ahead by careful use of opposite brake, then open the closed side, if necessary, by pumping its brake. Be careful with brake on the open side so as not to stall the wing. Open a cravat using the orange-marked stabilo line.

At the onset of a full frontal collapse, the glider will pitch back behind you. Do not use any brake until you've swung underneath and the wing is back above your head. Then, after the glider re-inflates, restrict forward surging with careful brake.

When fully accelerated the wing reacts quite aggressively to front and side collapses. The side collapse at full speed can turn it to the side somewhat dynamically, but this can be well controlled.

If you want to simulate an accelerated collapse in SIV training, start with trim speed then partly accelerated attempts first. Always pull the A-Risers and the separate big ear line down together.

More manoeuvres are extensively described in the manual on:

www.advance.ch/xi



Lines in Use

The XI is exclusively fitted with length-stable, colour-differentiated High Quality Edelrid Aramid lines. The uncovered lines need no special everyday handling due to a comprehensive preparation process, mainly Thermo Shield and UV-Protec coating. Normal line care (e.g. store dry, no walk-on) should naturally be observed.

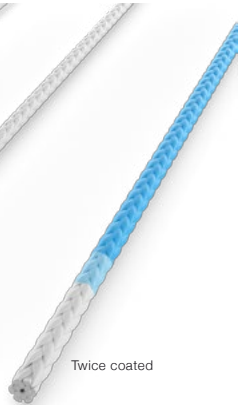
Outer loop reinforcement



Inner loop reinforcement



Twice coated

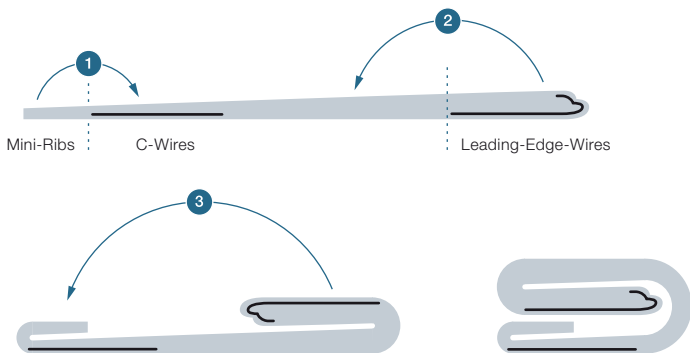


Packing & Care

To pack, lay the nose ribs one on the next, so that the wires at the leading edge lie as flat as possible one on the next, and at the same height. All C-Wires will then automatically lie at the same level (for correct folding). Fold the wing to the width of the wing's inner bag, and fold together as follows (see fig.): **1** first fold the trailing edge in behind the Mini-Ribs. **2** Then fold the leading edge over below the ends of the leading edge wires. **3** Then fold the upper (T.E.) half over the lower. Remember

that bad treatment of your XI will shorten its life. Do not leave the wing in the sun unnecessarily and never subject it to large temperature changes. Always store your XI in a dry place.

On www.advance.ch/xi in downloads, there is a film about correct packing.



Flying with a wet Glider

If you fly a wet paraglider the risk of parachutal stall is heightened. Parachutal stall is often the result of a combination of factors. Water increases the weight of a wet canopy. More weight results in an increased angle of attack, which brings the glider closer to the parachutal stall boundary.

In addition, water drops on the fabric have a bad effect on the laminar flow over the leading edge, and this significantly reduces the maximum achievable lift coefficient.

To minimise the risk of parachutal stall a wet glider should be braked as little as possible, and big ears never used. But, if the wing still goes into parachutal stall, recovery should be achieved by accelerating using the speed system only.

Technical Data

XI		21	23	25	27	29
Flat surface	m ²	21.8	23.7	25.7	27.7	29.7
Projected surface	m ²	18.8	20.4	22.1	23.9	25.6
Aspect ratio		5.6				
Ideal weight range * **	kg	65-75	75-85	85-97	97-110	110-125
Certified take off weight **	kg	60-77	70-88	80-100	92-114	105-128
Glider weight	kg	3.40	3.60	3.80	4.05	4.30
Certification		EN/LTF-B				

* Takeoff weight range in which the XI shows the best relationship between flying speed and climb.

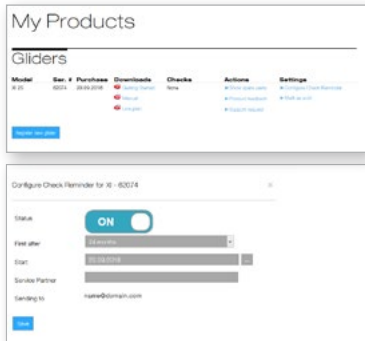
** Pilot, wing, equipment

Service & Warranty

Set up a MyADVANCE-Account on www.advance.ch/garantie and register your wing direct online after purchase. You will then benefit from the extended ADVANCE-Warranty. This is valid for 3 years and covers defects that can be attributed to manufacturing faults.

In the MyADVANCE-Account you can arrange for a Check Reminder by E-Mail. In addition you can find all the documentation for your wing as PDF, e. g. manual, line plan, check protocol and other information. You can also look at spare parts for your product, make orders and ask ADVANCE support direct.

Your XI has to be checked every 24 months, after 100 flights or 100 flying hours – whichever comes first. The current edition of the manual and more information is on www.advance.ch



MYADVANCE