english

ADVANCE|OTA

Getting started

Welcome to ADVANCE

Many thanks for choosing ADVANCE. We are one of the world's leading paraglider manufacturers and are based in Switzerland. Since 1988 we have consistently followed our own paths and concepts, both in development and production. We hope that your IOTA will bring you many rewarding hours in the air.

The IOTA is perfect for all those cross country enthusiasts who would like EN-B level passive safety, but really want the handling, precision and performance of an EN-C wing.

Getting started

This guide gives you a brief look at using your IOTA, but it does not replace the official manual, where you will find detailed instructions about setting up, flying characteristics, manoeuvring, upkeep and service. The manual can be downloaded from www.advance.ch/iota. Register your IOTA online within ten days of purchase on www.advance.ch/warranty for our comprehensive cover.

You as the pilot

The IOTA is suitable for the experienced thermal pilot who wishes to step down a glider category, as well as for the keen improver who is ready to try long cross countries. The IOTA pilot flies actively, recognises and can prevent collapses at their onset, and can competently manage the recognised descent techniques. This pilot will be able to make use of the IOTA's impressive performance potential.

Delivery and initial settings

Every ADVANCE paraglider has to be flown by the dealer before delivery to check for correct basic settings. Any personal alteration you make to the paraglider will result in it losing its certification. The brake line lengths should not be altered. They are set at the factory so that, with brakes fully released, the trailing edge remains unbraked in accelerated flight.

IOTA delivery includes:

- Speed lines with speedbar
- COMFORTPACK 2
- Inner bag
- Compression strap
- Repair kit
- Mini windsock
- Getting started booklet

Speed system with SPI

The Speed Performance Indicator (SPI) uses the IOTA's polar curve and the McCready theory, and tells you the best speed to fly. The SPI gives you an indication of the speed increase to choose taking into account headwind, sinking air and the expected quality of the next thermal.

Take the time to set up your speed system.

1 Make sure that the speed lines run freely through the harness pulleys.

2 Pullthespeedlinesthroughtheharnessand connect them to the glider risers using the Brummel hooks.

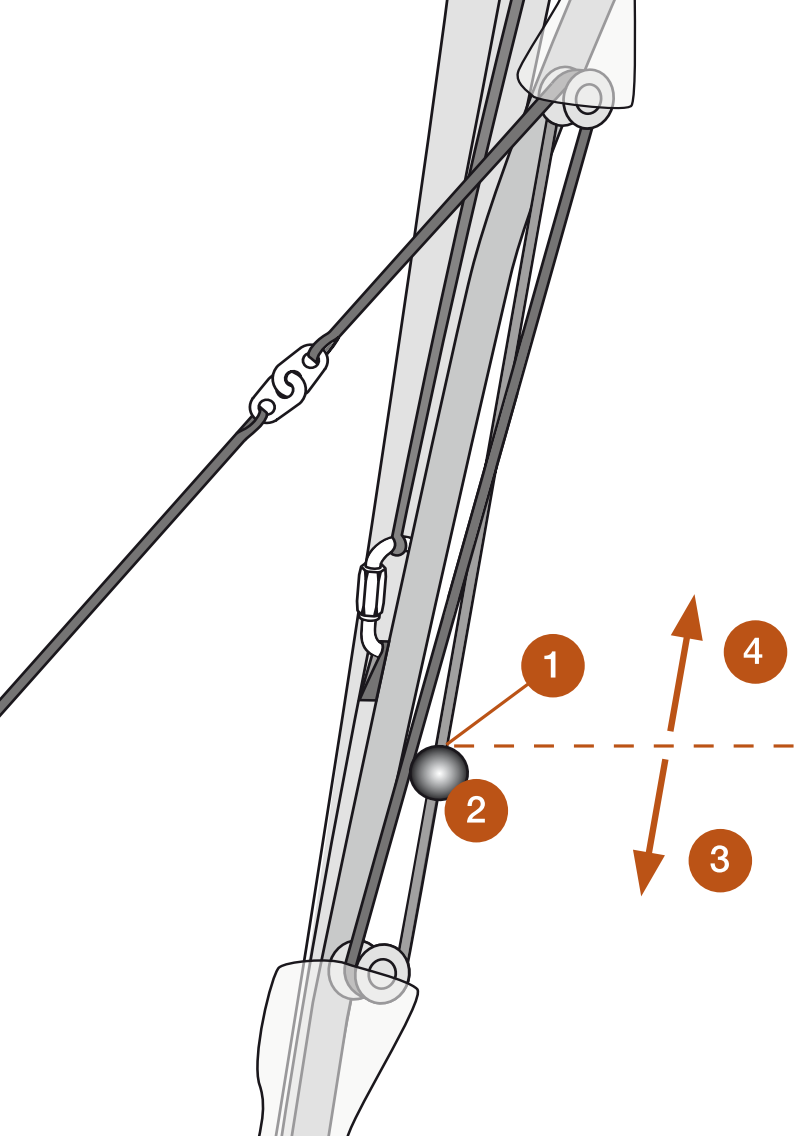
3 Adjust the length of the speed lines so that pushing the first and second speed bar steps reach SPI position 1 (30%) and position 2 (80%) respectively.

If, within your available leg extension, your first attempts at achieving the above configuration by adjusting the speedline lengths are not successful, you can fine tune the 2 stage ratio change position. By moving the knot 1 which locates the ball 2 you can adjust the speed system travel and load.

If the knot moves down 3, the change from 3:1 to 2:1 happens sooner, raising the loading but reducing the travel.

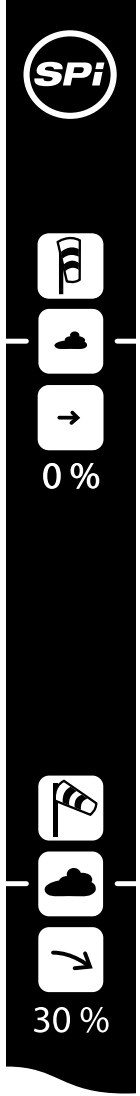
Moving the knot upward 4, reverses this process (longer leg travel – easier push).

Make sure that the speed lines are not so short that the wing would be permanently accelerated in flight.



Neutral Position

Position 30%



Active flying

To maintain the best gliding performance counter changes of angle of attack and pitch attitude using the speedbar or the brakes. If the wing pitches forward release the speedbar suitably (when applied) or brake as appropriate; if the wing goes back press the speedbar briefly but strongly, or release the brakes (as necessary). When flying in strong turbulence release the speedbar fully, and use the brakes if necessary. Do not apply speedbar and brakes at the same time.

By flying actively you'll prevent virtually all collapses. The IOTA's precise feedback gives you an intuitive feeling when the wing starts to unload.

Descent aids

The IOTA has split A-risers, which make **ear-folding** easier. To apply, pull both outer A-lines briskly downwards at the same time. To reopen, release the A-lines; the folded ears will open by themselves, due to the IOTA's high internal pressure. Sink speed can be increased by using the speed system while big ears are applied.

Make a continuous entry into a **steep spiral**. When you are in the spiral keep a neutral sitting position. Exit the spiral carefully, progressively releasing the inside brake and gently applying outside weight shift. The IOTA will only recover from a steep spiral by itself if the pilot adopts a neutral weightshift position, and the brakes are completely released.

Collapses

Caution: if you actively weightshift to the inside during the manoeuvre, acceleration will strongly increase, causing a stable spiral, and perhaps even more acceleration, g and vertical speed. To recover from this situation (sink rate of more than 14 m/s) you must actively apply outside brake, and weightshift to the outside.

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, lead up to it with un and partially accelerated collapses, and always take hold of all the relevant A lines at their quicklinks (include the outer A risers)!

More manoeuvres are extensively described in the manual on www.advance.ch/iota.

Flying with a wet paraglider

There's a risk of parachutal stall. Parachutal stall is often the result of a combination of factors. The water adds to the weight of the glider. The additional weight causes a higher angle of attack, putting the glider closer to the stall. Then again, water drops on the wing surface disturb the laminar airflow near the front of the wing, significantly reducing the maximum lift coefficient available.

In order to guard against the risk of parachutal stall with a wet wing the glider should braked as little as possible and big ears should not be used under any circumstance.

If the glider still goes into parachutal stall recovery should be achieved by use of the accelerate system (speedbar) only.

Packing and Maintenance

When packing up lay the nose sections cell to cell, so that the plastic rods lie flat on each other, and all at the same level. Fold the wing to the width of the inner bag. Lay the glider in the back of the rucksack and put the folded harness on top.

Gliders and harnesses are becoming ever more compact and light, so we are delivering the IOTA with its matching rucksack, the new COMFORTPACK 2.

Poor care shortens your IOTA's life. Do not leave it in the sun more than necessary, do not subject it to large changes of temperature, and only store it in a dry place.

Technical details

IOTA		23	26	28	30
Flat surface	m^2	23.0	26.0	28.0	30.0
Aspect ratio			5.5		
Take off weight **	kg	60 – 85	75 – 100	90 – 115	105 – 130
Glider weight	kg	4.45	4.85	5.15	5.45
Trim speed *	km/h		38.5 (+/-1)		
Max. speed *	km/h		53 (+/-2)		
Certification			EN/LTF B		

* Values depending on wing loading, harness/pilot and glider size

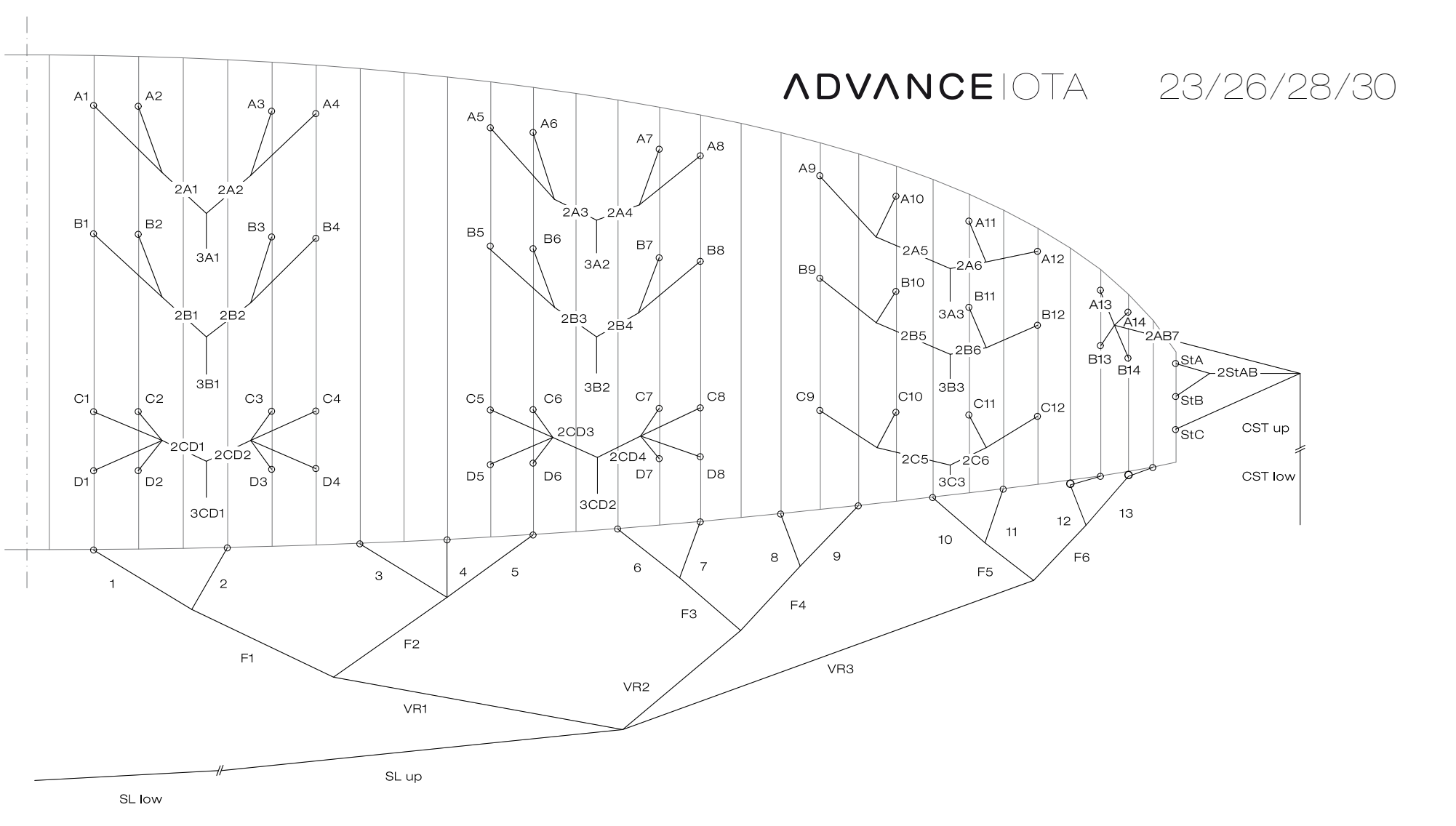
** Pilot, wing, equipment

Warranty and Service

The ADVANCE warranty is valid for 3 years to cover defects that are attributable to manufacturing faults. Register your wing after purchase. More details online on www.advance.ch/warranty.

Your IOTA has to have a check every 24 months – or every 12 months if used a lot. You can find detailed information about the worldwide ADVANCE Service Network on www.advance.ch.

You can find the up-to-date version of the detailed official manual, more advice about safety, and current information including answers to frequently asked questions (FAQs) on www.advance.ch.


ADVANCE IOTA
23/26/28/30
A1
A2
A3
A4
2A1
2A2
3A1
B1
B2
B3
B4
2B1
2B2
3B1
C1
C2
C3
C4
2CD1
2CD2
3CD1
D1
D2
D3
D4
A5
A6
A7
A8
2A3
2A4
3A2
B5
B6
B7
B8
2B3
2B4
3B2
C5
C6
C7
C8
2CD3
2CD4
3CD2
D5
D6
D7
D8
A9
A10
A11
A12
2A5
2A6
3A3
B9
B10
B11
B12
2B5
2B6
3B3
C9
C10
C11
C12
2C5
2C6
3C3
A13
A14
2AB7
B13
B14
StA
2StAB
StB
StC
CST up
CST low
1
2
3
4
5
6
7
8
9
10
11
12
13
F1
F2
F3
F4
F5
F6
VR1
VR2
VR3
SL up
SL low

ADVANCE

advance thun ag
uttigenstrasse 87
ch 3600 thun

www.advance.ch
info@advance.ch

fon +41 33 225 70 10
fax +41 33 225 70 11