



Kiwi

MANUAL

Verification of repairs

<p>KIWI</p> <p>Serial number:</p> <p>First check by ICARO / date:</p>	<p>.....</p> <p>Name/ Stamp</p>
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Repair (R)	Which repair?	Performed by/ date

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Congratulations on buying your
KIWI
and welcome to the family
of ICARO - pilots!

Before you get to know your glider please read the manual, there is important information inside.

The KIWI is a paraglider with an extremely small surface which is characterized by very good glide especially against the wind as well as by its very high trim speed.

The small area makes the KIWI very stable against disturbances and gives it an extremely high dynamic. The use of the KIWI for flying requires very high flying skills, high self-discipline and self-assessment. Active flying is an absolute MUST for gliders of this size.

The KIWI is a glider with potentially violent reactions to turbulence and pilot failure. Returning to the normal flight requires precise piloting. It is only suitable for pilots who have a lot of practice in discharging abnormal flight conditions that fly very actively, have gained significant experience in turbulent conditions, and who accept the possible consequences of flying with such a paraglider. The pilot must always be aware of the fast reaction of the glider to deformation or flying in thermally / dynamically active conditions.

For the above reasons, ICARO Paragliders therefore recommends the following:

Use the KIWI exclusively for ground handling, as it is not suitable for the average pilot for flying.

Flying with this paraglider is done at your own risk.

If you want to use the KIWI for flying, despite the recommendation of ICARO Paragliders you should not only place your paraglider on a flat surface for the first time, but also carry out the first start and handling exercises.

Ground handling is a good training for the start-up technique. You can get to know the reactions of your paraglider in a conscious and stress-free manner.

The KIWI may be only used for those purposes described in this manual. It was exclusively developed for ground handling must not be flown.

It is strictly prohibited to utilize the KIWI for ground handling

- *under the influence of drugs or alcohol,*
- *with damaged canopy, lines, risers or harness*
- *in the rain, in snow, in the fog and in turbulent weather conditions.*

There is no sample testing performed by an accredited body.

Our products are made with great care and state of the art. Each glider, before it is delivered to the dealer or flight school, is checked by ICARO paragliders (incoming test). This date is entered in the identification plate and as well guarantee as the first 2-year-check period starts.

On that score an approved ICARO dealer or teacher of the flight school must inflate a new ICARO paraglider in the wind or should carry out the first flight before the wing is handed over to you.

The use of this paraglider is entirely at your own risk. Every pilot bears the responsibility of his/her own safety.

All technical data and instructions were drawn up with great care. ICARO paragliders cannot be made responsible for any possible errors in this manual.

Important information in this manual is written in *fat cursive writing*.

Any important changes to this manual will be published in our homepage (www.icaro-paragliders.de).

Should you decide to sell this glider at a later date, please pass on this manual to the new owner.

Each alteration of the glider (lines, canopy, and riser) is dangerous and reactions of the glider are not predictable.

The manufacturer or distributor assumes no responsibility for accidents occurring while using it.

Environmental aspects:

The materials of which a paraglider is made require a special waste disposal. So please send disused gliders back to us. We will care about a professional waste disposal without costing for you.

Please do our near-to-nature sport in a way which does not stress nature and environment!

Please do not walk beside the marked ways, do not leave your litter, do not make unnecessary loud noises and respect the sensitive balance in the mountains.

Also when you are playing in the wind with your glider site consideration is needed!

To get to know your *KIWI*

Number of cells	36
Number of risers	3+1
Weight	3,4 kg
Wing Area Flat	15 m ²
Wing Area Projected	12,4 m ²
Wing Span Flat	8,8 m
Wing Span Projected	6,7 m
Aspect Ratio	5,1
Aspect Ratio projected	3,6
Recommended storage temperature	+ 5 ^o bis + 30 ^o Celsius
Recommended storage humidity	55% bis 75% rel. LF

Pulling up in flat gradients is great practice for fine tuning your launch techniques. Here you can get to learn the reactions of your glider without any stress and hectic. Ground practice pays off in the air.

The smaller area of KIWI has a distinct advantage over a normal paraglider for ground handling: The canopy can be controlled generally easier; therefore it is possible to perform practice inflations with somewhat stronger wind conditions.

When there are very strong wind conditions even the small area of the KIWI can lift a pilot during ground handling. At which windspeed depends on factors such as e.g. Pilots skill, pilot weight, slope, etc

Canopy

Very light cloth, less suspension points and weight different profiles over the entire wing and various cloth materials provide optimal lift distribution.

Careful manufacture of the reinforcements ensures the required strength in critical areas. Sticks in the nose region play an important role for optimized filling characteristics.

Lines

The KIWI is a hybrid 3 -liners (3- main line construction, in the top lines hanging D lines on the C - section). The suspension points have been shifted to the wing chord and the total line length is reduced. The arrangement of the rows of lines & fixation on sail guarantees an excellent ground handling.

The length of the break lines is set correctly at the factory and should not be changed. Any unauthorized change of the linen lengths which is not approved by ICARO paragliders, is dangerous and leads to unwanted reactions of the paraglider.

Risers

The glider has 3 fold risers with separated A-risers, an acceleration system which will be activated with a foot bar. The main brake line comes through a return pulley; the handle of the main break line is mounted on the C- riser.

The acceleration system is mounted on the A- riser but it is not to be utilized for ground handling.

Preparation for ground handling

Note that

- You have a barrier-free terrain (no obstacles such as trees, groups of trees, pedestrians etc. nearby)
- The wind comes from the right direction in the right strength,
- the wind should be laminar (about 10 - 15 km / h) or at least not very gusty (gusts below 25 km / h)
- you have solid shoes and thin gloves (so that you can easily reach the straps and lines)
- Do not forget the helmet !!

Prepare yourself as if you were starting forward. Then turn to the opposite direction of your bend direction.

You can also attach yourself with a view to the screen. The procedure is as follows:

When you **turn right**, face the paraglider, hold both A- risers in the hand, hold them parallel to one another and **turn them 180 degrees to the right**.

Then first hang the left riser (in the direction of the flight) in the left snap hook and then the right riser into the right snap hook.

Thus, the **right riser is located over the left**.



When you **turn left**, face the paraglider, hold both A- risers in the hand, hold them parallel to one another and **turn them 180 degrees to the left**.

Then first hang the right riser (in the direction of the flight) in the right snap hook and then the left riser into the right snap hook.

Thus, the **left riser is located over the right**.



The riser which is at the top shows how to reverse!

Techniques

These are very different. Basically, we are facing the glider with the back in the wind. This applies to all techniques (except for forward start).

During ground handling work directly with the lines not with the break lines. In practice, it has proven useful to grip the straps at the linen lock. To get more power, e.g. in strong winds one can also grasp higher. The brake lines are best used in low or moderate winds.

The most important thing to put on is, as with all the shields, not the force, but the constancy and uniformity of the train. When pulling up, the lines in the middle of the screen should be slightly tighter than the ones at the wing ends.

Low wind

For this, take the A-risers into the hands, the arms not cross but parallel to each other. This also feels most natural. As with the forward start, tighten the A- straps with light tension and pull up the screen with a uniform impulse. Then release the A-risers in time and brake.

All lines should always be under tension, otherwise the glider is stalling. Slightly braked, the glider is balanced with the body. So you can hold the glider up even in a light wind.

Moderate wind and light gusts

Here you can also take the A-risers to help. With one hand take both A-risers and the with other hand the rear risers. In doing so, the wind should fill the glider and form a "wall" so that almost only the rear edge of the sail touches the ground. By pulling and releasing the rear risers, we control the climbing of the glider.

A stronger pulling of the rear risers and a loosening of the A-risers will cause the glider to rest again. Now you can lead the glider either leisurely or quickly upwards, depending on your taste. Do not forget to leave the rear risers loose and the A-risers under tension. Finally, simply release the A-risers and use the rear risers (or brake lines) to control them with the hand that has now become free.

Strong Breeze and moderate gusts

Only use the rear straps in this technique. Each hand holds a rear strap. Slightly tense the A-straps, then slightly bent forward, take a quick step backwards and pull up the glider with impulse. The A-risers are only pulled from the body.

At the same time, the glider will be taken quickly. With the rear straps, counter-control if necessary to prevent overshooting.

If the pressure on the glider is too great, grab the rear straps and with strong, speedy pull down the glider and it falls back to the ground.

If you can hardly feel any pressure, the screen is probably too far ahead. Then brake something.

Strong wind with lively gusts

Here, in addition to the rear straps, we take the next front into the hands (the C- and D-plane only with 4-liners).

In hybrid gliders, the C and D lines are already grouped in the gallery area.

The pull-up is more dynamic and you have to visibly approach the glider when you put on. The control is done exclusively via the combined C / D-lines. In strong winds one should always keep them in their hands, unless the wind blows.

If the wind speed is higher than the trimm speed of the glider, ground handling will be broken by rapid and powerful pulling of the C / D lines.

In the case of heavy wind soil handling, an uncontrolled glider can hit the ground at a very high speed. This can lead to profile cracks, damage to the seams or the cloth.

The following links we commend:

https://www.dhv.de/web/fileadmin/user_upload/files/2015/Artikel_Sicherheit/Start-Landetechnik/2012_175_rueckwaertsaufziehen.pdf

<http://www.skymaster-paragliding.de/files/Rueckwaertsstart.pdf>

<https://www.youtube.com/watch?v=4NzKV7Co1zg>

Care instructions and repairs

Care Instructions

- If you clean your glider it is best to use warm water and a soft sponge.
- Store your glider in a dry and dark place, ideally between 5° and 30° Celsius and humidity between 55 and 65%. Do not store it near chemicals or petrol.
- If you are not going to use the glider for longer period, store the glider releasing all compression straps and take it out of its backpack so that the fabric is not compressed, creased or stretched.
- Avoid storing your glider for days at a time in a hot car.
- Unpack your paraglider shortly before ground handling and pack away immediately to avoid any unnecessary UV exposure.
- When unfolding the paraglider insure that neither the canopy nor the lines become too dirty. Dirt particles can damage the material and lines.
- Never use chemical cleaning agents, brushes or hard sponges on the material, as these destroy the coating and affect the strength of the cloth. The canopy will become porous and will loose structural strength.
- Never attempt to clean your paraglider in a washing machine. Even without using detergents the simple mechanical abrasion will quickly finish the canopy and leave it useless.
- Also avoid dipping it in a swimming pool; the chlorine will damage the cloth.
- If you must rinse or clean your glider do so with fresh water. Frequent cleaning will accelerate the ageing process.
- If the glider has become wet, lay it out so that air can get to all areas of the fabric.
- There is no special method packing your glider. ICARO paragliders commends the “Cell-to-Cell-method” because the reinforcements of the leading edge stay flex-free on top of each other and do not fold.

Repairs

Only use original ICARO parts for repairing your glider. If you don't you lose the guarantee for your glider.

Small holes in the canopy can be repaired by the pilot by using self-adhesive sail cloth on both sides of the perforation.

Damage to the lines or any other repairs should only be carried out at an authorized ICARO centre. Please contact ICARO paragliders for information about single line lengths. If your glider needs to be repaired, please contact your local ICARO Paragliders dealer.

Inspection interval

none

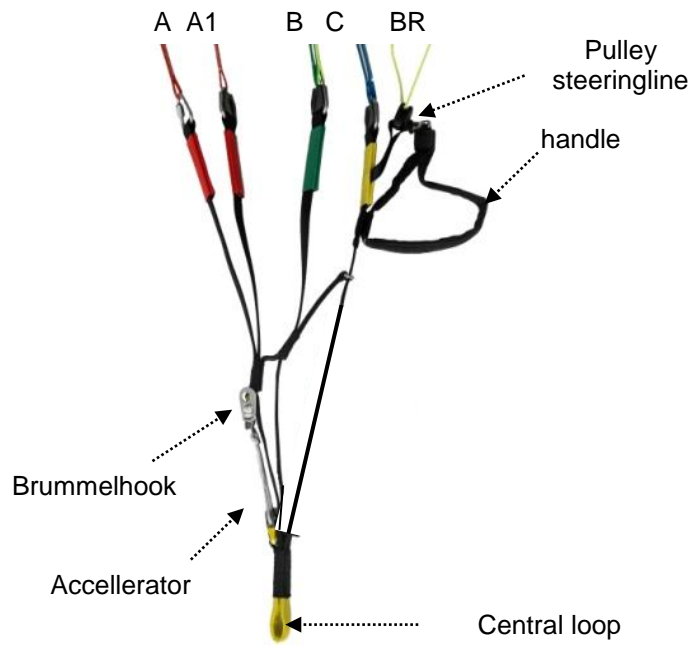
Terms of the guarantee

*Guarantee is only valid for ICARO products
with LTF/ EN certification.*

Annex

Lineplan (coming soon)

Description of the risers



Description of the canopy

