

MANUAL



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Icon Owner's Manual

Solo paramotor wing

Welcome to Bruce Goldsmith Design

BGD is a world leader in the design and production of paragliders. For many years Bruce Goldsmith and his team have been developing products with world-beating performance for pilots who want the best. We apply our competitive knowledge to design top quality products that combine the highest performance with the safe handling our customers value and respect. BGD pilots appreciate our quality and reliability. BGD's world-class status is based on the skills and expertise we have developed in combining aerodynamic design with cloth and materials technology. All BGD products are developed and made with the same skill and attention to good design that are synonymous with the ultimate performance and precision required by paragliders.

Congratulations on your purchase of the ICON

The ICON is a freestyle paramotor wing that's high on fun factor. It is for experienced pilots, and is not suitable for beginners.

It has been designed to a high standard of safety and stability, but it will only retain these characteristics if it is properly looked after. This manual has been prepared to give you information and advice about your wing. If you ever need any replacement parts or further information, please do not hesitate to contact your nearest BGD dealer or contact BGD directly.

QUICK SUMMARY

The ICON has paramotor risers with trimmers, a speedbar and tip steering system.

Launch

The best trimmer setting for launch, is position 2. This is the sweet spot where the sail rises easily but take-off speed is not too high.

Brakes

The brakes can be used at all trimmer settings

Flying at speed

The wing's top speed is achieved with full speedbar and fully open trimmers

When the wing is accelerated, it is more sensitive to turbulence and closer to a possible frontal collapse. We do NOT recommend flying accelerated in turbulent conditions or near obstacles. Flying in turbulent conditions should be for expert pilots only.

Releasing rear line loops

We recommend releasing the loops on the maillons of the rear lines and the stabi line after 100 hours' flight time or one year, whichever comes first, or earlier if the pilot feels the glider does not come up as easily on launch.

Inspection

Your wing should have a thorough check / inspection every 24 months or every 150 flight hours, whichever comes first.

INTRODUCTION

Operating Limitations

The ICON is a solo paramotor wing. It is not intended for tandem. It should not:

1. Be flown outside the certified weight range
2. Have its trim speed adjusted by changing the length of risers or lines
3. Be flown in rain or snow*
4. Be flown in strong turbulence or violent winds

*A wet canopy is much more likely to enter a parachutal or full stall. If you fly into a rain shower, you should immediately go and land somewhere safe, steering the canopy gently and avoiding manoeuvres such as Big Ears which can make it more likely to stall.

Weight range

Each size is certified for a certain weight range. The weight refers to the 'overall take-off weight'. This means the weight of the pilot, the glider, the harness, the paramotor and all other equipment carried with you in flight. We recommend flying your paramotor wing in the middle of the weight range.

If you fly in the lower half of the weight range the turning agility will be lower and the glider will be more damped, but it will have a slightly increased tendency to collapse in strong turbulence.

If you fly in the upper half of the weight range you will have greater agility and speed, and greater stability in turbulence, but your wing will be less damped in turns and after collapses. If you prefer a dynamic flight characteristic you should choose to fly higher in the weight range.

The ICON 16 and 18 have **extended weight ranges**. The extended weight range is intended for experienced pilots who wish to fly with wing loads above the standard range. A higher wing load makes the wing faster and more responsive, but reduces passive safety. This type of configuration is generally reserved for competition use.

The use of the ICON 16 with a total flying mass exceeding 110kg, and the ICON 18 with a total flying mass exceeding 120kg is reserved for very experienced pilots who have mastered flying under high wing loading.

Modifications

Any modification, e.g. change of line lengths or changes to the speed system, can cause a loss of airworthiness and certification. We recommend that you contact your dealer or BGD directly before performing any kind of change. However, the length of the brake and tip-steering lines should be adjusted according to whether the glider is being flown with high or low hangpoints, or a trike.

Test flight and warranty

All information about the BGD warranty can be found on the [Warranty page of our website](#). To benefit from the warranty, you must complete the warranty registration form on the website.

It is your dealer's responsibility to test fly the wing before you receive it. The warranty may be void if the test flight has not been completed by the dealer.

Line knots

Flying a glider with knots in the lines will affect its airworthiness and checking for knots should always be part of your pre-flight checks. If you do notice a knot in your glider's lines after you have pulled the canopy up, if you can safely abort the launch, then do so.

If you are already airborne, you should avoid accelerating the glider and avoid deep brake inputs. Use weightshift or minimal brake inputs to steer the glider to a safe landing place as soon as possible.

Glider overview



Risers

Brakes / 2D steering

- 1) Brake line
- 2) Brake pulley
- 3) Brake handle
- 4) TST line

Trimmer

- 5) Trimmer buckle
- 6) Trimmer webbing
- 7) Trimmer handle

Speed System

- 8) Brummel hook
- 9) Speed system pulleys

10) Hook-in loop



Brake handles / 2D steering

- 1) Brake line
- 2) TST line
- 3) Finger loop

The ICON is set up for 2D steering. The tip-steering line is attached to a second loop on the brake handle, allowing for very precise turning using a combination of tip steering and brakes.

The brake handles are stiffened, and have a loop for your first two fingers. This means your hand is less likely to slip out of the brake handle, and it leaves your other fingers free to hold the throttle. The brake handles can be held in the traditional way, without using the loop, if preferred.



PREPARATION

Connecting the speedbar

The ICON comes with accelerator risers and can be flown with or without a speedbar attached. The speedbar should be connected and adjusted following the instructions in your harness manual to ensure correct routing of the lines.

To adjust the speedbar line to the correct length, sit in your harness and ask an assistant to hold the risers up in their in-flight position. The speedbar line length can be adjusted by moving the knots, so that the bar sits just beneath your harness seat. You should be able to hook your heels into the bar and attain full bar extension (the two pulleys touching) when you push your legs out. Once you have set the length on the ground, a test flight in calm air can be useful to fine-tune it, ensuring it is even on both sides.

Laying out and connecting to motor/chassis

1. Select a suitable take-off area determined by wind and terrain, clear of any obstacles that may catch in the lines or damage the canopy.
2. Open out the glider so that the bottom surface is facing upwards with the openings at the downwind end of the take-off area and the harness and motor at the trailing edge at the upwind side.
3. Unroll the canopy to each side so that the leading edge openings form a semicircular shape, with the trailing edge drawn together to form an arc. The harness should be drawn away from the canopy until the suspension lines are just tight.
4. Prepare and check your paramotor according to the manufacturer's instructions.

5. Connect the wing to the chassis, ensuring the risers are connected the right way round and that the maillons or karabiners are correctly closed
6. Prepare your paramotor. Take care to protect yourself and other people from the propeller, ensuring you start your motor up at a safe distance from other people. The blades can pick up and fire out debris which could injure people several metres away. Remember there are inherent risks with petrol, oil and volatile or flammable materials.

Pre-flight inspection

Your wing is designed to be as simple as possible to inspect and maintain but a thorough pre-flight procedure is mandatory on all aircraft. The following pre-flight inspection procedure should be carried out before each flight.

1. Whilst opening out the glider check the outside of the canopy for any tears where it may have been caught on a sharp object or even damaged whilst in its bag.
2. Check that the lines are not twisted or knotted. Divide the suspension lines into groups, each group coming from one riser. By starting from the harness and running towards the canopy remove any tangles or twists in the lines. Partially inflating the canopy in the wind will help to sort out the lines.
3. Ensure the brakes are clear and free to move and are not twisted multiple times (which effectively shortens them). Check the knot which attaches the brake handles to the brake lines. Avoid having too large a knot, as there is a risk the knot could get caught in the brake pulleys. Both brakes should be the same length. You can check by asking an assistant to hold the upper end of the brake lines together whilst you hold the handles. The brake lines should be just slack with the wing inflated when the brakes are not applied.

4. Always check the buckles and attachments on the harness. Ensure the two main attachment maillons/karabiners from the harness to the main risers, and the individual shackles which attach the risers to the lines, are tightly done up.
5. Set the trimmers to position 2, the recommended take-off position, and ensure the maillons are at the same height.
6. Before getting into the harness you should be wearing a good helmet. Put on the harness ensuring all the buckles are secure and properly adjusted for comfort.

Your paramotor wing is now ready for flight.

FLIGHT CHARACTERISTICS

This manual is not intended as an instruction book on how to fly your paramotor wing. The following comments describe how to get the best from your glider.

Take-off

We recommend having the **trimmers set to position 2** for launching. Never try to launch if the wing is not perfectly inflated above your head and you do not have full control of pitch and roll.

Initial Climb

Once in the air you should continue to fly into wind while gaining altitude. Leave the trimmers in the take-off position to get the best climb rate.

Do not attempt to increase your climb rate by braking, as using the brakes combined with the engine's thrust can increase the angle of attack to the point where the wing can stall. In addition, this high angle of attack can result in a big dive if the motor suddenly dies, which could be dangerous if you are near the ground.

Do not initiate a turn until you have enough height and speed to do so.

Turning

Your first turns should be gradual and progressive. The initial action to change direction should be the movement of your weight in the harness towards the side of the intended turn. Then gently relax the pressure on the outer brake, and gently apply pressure to the inner brake until you attain the desired bank angle.

To adjust your speed and turning-circle size, coordinate your weightshift with pressure on the outer brake. How your glider reacts to weightshift will depend on the type of paramotor set-up you use; with a trike no weightshift at all is possible.

Remember that to violently apply high force on the brakes is dangerous and should be avoided. Never initiate a turn if you are flying slowly, as you risk the glider entering a spin.

Brake Line lengths

There should be enough slack in the brake lines so that in flight with ‘hands up’ the glider’s trailing edge is not deflected either at trim speed or accelerated. The brakes have a knot at the handle so the pilot can adjust them if necessary. They should be adjusted for your paramotor set-up (high/low hangpoints or trike).

As a glider ages the brake lines can shrink; even the presence of multiple twists in the brake lines can effectively shorten them. You should make it a habit to check for this and untwist the brake lines on launch or lengthen them at the knot. Avoid over-shortening the brake lines.

It is a good idea as a pilot to check from time to time that when you fly hands up, you can see a slight bow or slack in the brake lines and there is no deflection of the trailing edge.

Loss of brakes

In the unlikely event of a brake line snapping in flight, or a handle becoming detached, the glider can be flown by gently pulling the rear risers for directional control.

2D Steering System

The 2D steering system allows precise control of the trailing edge of the glider. Brake lines and tip-steering lines are attached to the brake handle. The way in which you use the brakes affects where the trailing edge is deflected most: pulling the brakes away from your body deflects the middle of the trailing edge while pulling them towards you acts more on the wing tips via the TST lines. Pulling them straight down uses a combination of both.

The length of the brake and TST lines should be adjusted to suit your paramotor set-up.

Flying accelerated

The trimmers and speedbar both increase the speed of the paraglider and activate the reflex system. When the wing is accelerated, it is more sensitive to turbulence and closer to a possible front collapse. It is not recommended to fly accelerated in turbulent conditions or near obstacles.

Trimmers

When the trimmers are closed (position 0), the paraglider is trimmed slowly; when they are completely open, the paraglider is trimmed fast.

The best trimmer position for take-off and landing is position 2.

After take-off, once you have gained a safe altitude, you can open up the trimmers progressively to increase your speed. The speedbar can be used at the same time for a significant increase in speed.

Note on using the trimmers

The trimmers should be pulled backwards or down when applied. They should not be pulled to the side or in towards the pilot, as this will cause the webbing to rub on the trimmer buckle causing premature wear on the trimmer. Take care to avoid this especially when flying with a trike.

It is important to regularly check the wear on the trimmers and that the system is functioning cleanly with no sticking points. If they are showing signs of wear, the trimmers should be replaced. This can be done by the pilot.

Speedbar

To increase speed using the accelerator, pressure must be applied gradually to the speedbar. To fly at full-bar the speedbar should be applied gradually until the two pulleys

on each A-riser touch. Do not exceed this point by using excessive force to try to make the paraglider go faster, as this can cause the wing to collapse.

Maximum speed is with the trimmers released and the speedbar pushed out fully so that the pulleys touch.

Using the speedbar is not as comfortable as using the trimmers, but it is safer because, in the event of unexpected turbulence, the pilot can react immediately by releasing the bar. If you are flying in turbulence or thermal conditions where brakes may be necessary, it is safer to avoid opening the trimmers completely.

Active Piloting

Active piloting means flying in empathy with your paraglider. This means not only guiding the glider through the air but also controlling the movements of the wing, especially in thermals and turbulence. If the air is smooth the wing does not need much input from the pilot, but in turbulent air a continual action of the pilot on the brakes and in the harness is necessary. These reactions are instinctive in experienced pilots. It is essential to maintain contact with the paraglider by a light pressure on the brakes. This allows the pilot to feel decreases in the wing's internal pressure which often precede collapses. Remember, you should not fly a paramotor in windy or turbulent conditions.

Unintended Oscillations

In certain circumstances, a pilot can unintentionally induce oscillations. This can be caused by a combination of the engine/propeller and pilot's weightshift and/or action on the brakes. To stop these oscillations you should reduce the power, ensure that you are seated centrally and not accidentally applying weightshift, and that you are not acting on the brakes. Once the oscillations have stabilised you can gently reapply power.

Rapid Descent Techniques

Big Ears

The 'baby A-riser' allows the wing tips of the glider to be folded in simply and easily to increase its sink rate. This big ear facility does not mean you should fly in stronger winds, but allows you to descend quickly without substantially reducing the forward speed of the canopy. (By contrast, B-line stalls substantially reduce the canopy's forward speed.) To engage big ears, lean forward in the harness and grasp the baby A-risers (one in each hand) at the maillons, keeping hold of both brake handles if possible. Pull the risers out and down at least 30cm so as to collapse the tips of the glider. It is very important that the other A-lines are not affected when you do this, as it could cause the leading edge to collapse. Steering is possible by weightshifting with big ears in. If the big ears do not come out quickly on their own, a gentle pump on the brakes will speed things up.

Before using the big ears facility in earnest it is essential to practise beforehand with plenty of ground clearance in case a leading edge collapse occurs. Always keep hold of both brakes in order to retain control.

B-Line Stall

This fast descent method is a useful emergency procedure. Keeping hold of the brake handles, take hold of the top of the B-risers, one in each hand, and pull them down by around 10-15cm. This will stall the canopy and forward speed will drop to zero. Make sure you have plenty of ground clearance because the descent rate can be over 10 m/s. To increase the descent rate pull harder on the B-risers. When you release the B-risers the canopy will automatically start flying again, usually within two seconds. Sometimes the canopy will turn gently when it exits from a B-line stall. It is better to release the B-risers fairly quickly, as releasing them slowly may result in the canopy entering deep stall. Always release the risers symmetrically, as an asymmetric release from a B-line stall may result in the glider entering a spin.

This manoeuvre is useful if you need to lose a lot of height quickly, perhaps to escape from a thunderstorm. It should not be performed with less than 100m of ground clearance.

Spiral Dive

A normal turn can be converted into a spiral dive by continuing to apply one brake. The bank angle and speed of the turn will increase as the downward spiral is continued. Be careful to enter the spiral gradually as too quick a brake application can cause a spin or an over-the-nose spiral.

BGD gliders are designed and tested to recover from normal spirals with a descent rate inferior to 16 m/s automatically without pilot input. If the pilot increases the descent rate of the spiral to over 16 m/s or initiates what is known as an over-the-nose spiral, the glider may require pilot input to recover. In this case all the pilot needs to do is to apply some outside brake and steer the glider out of the turn. The over-the-nose spiral is where the glider points almost directly at the ground.

It will enter this if you make a sudden brake application during the spiral entry so that the glider yaws around. The nose of the glider ends up pointing at the ground, after which it picks up speed very quickly. This technique is very similar to SAT entry technique, and like the SAT it is an aerobatic manoeuvre, which is outside the normal safe flight envelope. Please do not practise these manoeuvres as they can be dangerous.

Care should be taken when exiting from any spiral dive. To pull out of a steep spiral dive, gradually release the inner brake or gradually apply opposite brake. Releasing the brake too abruptly can cause the glider to surge and dive as the wing converts speed to lift. Always be ready to damp out any potential dive with the brakes. Also be ready to encounter turbulence when you exit from a spiral because you may fly through your own wake turbulence, which can cause a collapse.

CAUTION: Spiral dives can cause loss of orientation (black out) and some time is needed to exit this manoeuvre. This manoeuvre must be exited in plenty of time and with sufficient height!

Landing

Set the trimmers to the landing position (2) and set up your approach downwind of the landing field. When your height above the field is around 40m and you are in a good position to land in your intended landing spot, switch the engine off* and make your final approach, keeping your hands up to keep plenty of energy in the wing until you are about a metre above the ground. Flare, braking slowly and gradually to slow down the wing until you are close to the stall-point and able to land on your feet.

*If you land with the engine running there is a considerable risk of rotational propeller damage (lines passing through the propeller, or even injury).

RECOVERY TECHNIQUES

The following manoeuvres can be dangerous, and should only be practised in a secure environment such as an SIV course.

Stalls

Stalls are caused by flying too slowly. Airspeed is lost as brake pressure increases and as the canopy approaches the stall point it will start to descend vertically and finally begin to collapse. Should this occur it is important that the pilot releases the brakes at the correct moment. The brakes should never be released when the wing has fallen behind the pilot; the brakes should be released fairly slowly, to prevent the forward dive of the canopy from being too strong. A pre-release of the brake and the reconstruction of the full span is recommended to avoid the tips getting cravatted during the recovery.

Deep Stall (or Parachutal Stall)

Your wing has been designed so that it will not easily remain in a deep stall. However, if it is incorrectly rigged or its flying characteristics have been adversely affected by some other cause, it is possible that it could enter this situation. In the interests of safety all pilots should be aware of this problem, and know how to recover from it. The most common way to enter deep stall is from a flying too slowly, from a B-line stall or even from big ears.

When in deep stall the pilot will notice the following:

1. Very low airspeed.
2. Almost-vertical descent (like a round canopy), typically around 5m/s.
3. The paraglider appears quite well inflated but does not have full internal pressure. It looks and feels a bit limp.

Recovery from deep stall is quite simple: The normal method is to simply initiate a mild turn. As the canopy starts to turn it will automatically change to normal flight, but it is very important not to turn too fast as this could induce a spin.

The second method is to pull gently on the A-risers. This helps the airflow to re-attach to the leading edge, but be careful not to pull down too hard as this will induce a front collapse.

Spins

Spins occur when the pilot tries to turn too fast. In a spin the pilot, lines and canopy basically stay vertical and rotate around a vertical axis. Your glider will resist spinning, but if a spin is inadvertently induced you should release the brake pressure but always be ready to damp out any dive as the glider exits the spin. Failure to damp the dive on exiting the spin may result in an asymmetric deflation.

Symmetric Front Collapse

It is possible that turbulence can cause the front of the wing to symmetrically collapse, though active piloting can largely prevent this from occurring accidentally.

A pilot can reproduce the effect by taking hold of both the A-risers and pulling down sharply on them. The glider will automatically recover on its own from this situation in around three seconds. During this recovery period it is advisable not to apply the brakes as this could stall the wing.

Asymmetric Front Collapse

Your wing is very resistant to deflations; however if the canopy collapses on one side due to turbulence, you should first of all control the direction of flight by countering on the opposite brake. Most normal collapses will immediately reinflate on their own and you will hardly have

time to react before the wing reinflates automatically. The act of controlling the direction will tend to reinflate the wing. However, with more persistent collapses it may be necessary to pump the brake on the collapsed wing using a long, strong, smooth and firm action. Normally one or two pumps of around 80 cm will be sufficient. Each pump should be applied in about one second and smoothly released. In severe cases it can be more effective to pump both brakes together to get the canopy to reinflate. Be careful not to stall the wing completely if this technique is used.

Releasing a trapped tip (cravat)

Following a severe deflation it is possible for a wingtip to become trapped in the glider's lines (cravat). If this occurs then first of all use the standard method of recovery from a tip deflation as described in Asymmetric Front Collapse above. If the canopy still does not recover then pull the rear risers to help the canopy to reinflate. Pulling the stabilo line is also a good way to remove cravats, but remember to control your flight direction as your number-one priority. If you are very low then it is much more important to steer the canopy into a safe landing place or even throw your reserve.

NOTE: Test pilots have tested your paraglider well beyond the normal flight envelope. Such tests are carried out in a very precise manner by trained test pilots with a back-up parachute, and over water. Stalls and spins on any paragliders are dangerous manoeuvres and are not recommended.

STORAGE, REPAIRS & SERVICING

Storage and care

If you have to pack your canopy away wet, do not leave it for more than a few hours in that condition. As soon as possible dry it out, but do not use direct heat sources as it is inflammable!

Always store the canopy in a dry, warm place. Ideally this should be in the temperature range of 5°C to 25°C. Never let your canopy freeze, particularly if it is damp.

Your paraglider is made from high quality nylon which is treated against weakening from ultraviolet radiation. However, UV exposure will still weaken the fabric and prolonged exposure to harsh sunlight can severely compromise the safety of your canopy. Therefore once you have finished flying, put your wing away. Do not leave it laying in strong sunshine unnecessarily.

Cleaning

Do not treat your canopy with chemical cleaners or solvents. If you must wash the fabric, use warm water and a little soap. If your canopy gets wet in sea water, wash it with warm water and carefully dry it.

Trimmers

It is important to regularly check the wear on the trimmers and that the system is functioning cleanly with no sticking points. If they are showing signs of wear, the trimmers should be replaced. This can be done by the pilot.

Lines

Releasing loops on the rear lines

All BGD gliders are rigged from new with loops on the maillons of the C lines (and D lines if any) plus the stabi line. The loops are there so that they can be released to compensate for any shrinkage of the back lines as the glider gets older.



Left: loops on maillons

Right: loops released

BGD recommends releasing the loops after 100 hours or one year, whichever comes first, or earlier if the pilot feels the glider does not come up as easily on launch. When the first line check is done, normally at two years, the loops should already have been released, and this should be verified and fine-tuned by the check centre.

Mounting Replacement Lines

If you need to replace lines on your glider, we re-recommended that a professional should mount the new lines. The airworthiness of your glider, and your safety, depends on it being done correctly.

You can identify the line(s) you need to replace from the line layout diagram for your wing. The line lengths can be downloaded from here: <https://flybgd.com/lines>. Replacement lines can be ordered from the [Accessories](#) section of the BGD website. Check that the new lines correspond with the latest update of the line sheet. Also check the line layout on the glider corresponds with the line layout in the manual.

The quickest way to remove the old lines is to cut them off. (Don't cut the old lines off if you have not received the new ones or you may end up not being able to fly!) Sometimes only a part line set is needed eg excluding top lines or brakes so take care not to cut any lines that need to be retained.

It is important that lines are fitted the right way up. Unsheathed lines are reinforced at one end, marked by a yellow thread. This is the line-junction end. The non-reinforced end is marked with white thread and should be attached to the glider tab or the maillon. Sheathed lines have no additional reinforcement and can be mounted either way up.

Tab Alignment

Lines should be symmetrically placed on the tab, except where the tab is inclined. The A tabs are inclined backwards on all BGD gliders, to align with the direction of pull of the line. When assembling the lines, the A tabs should be angled back, and the B, C and D tabs should be perpendicular to the undersurface.

Line Junctions

All lines are connected to other lines or to tabs with lark's foot junctions. Make sure that these are joined correctly with interlocked and not looped junctions.

Loops on rear risers

New lines should be mounted on the maillons without loops on the A and B risers. The Stabi line and the C risers should have a single loop on the maillon.

Maillons

The maillons have black plastic inserts to stop them coming undone accidentally and the lines falling off. Always install them correctly after rigging the glider. If they are lost then use a locktight to secure the maillon closed. Order new inserts on: flybgd.com.

Line Check

After changing lines, you should always do a full dimensional line check of the wing, and also inflate the wing to check everything is correct before flying.



Interlocked junction



Looped junction



Interlocked junction



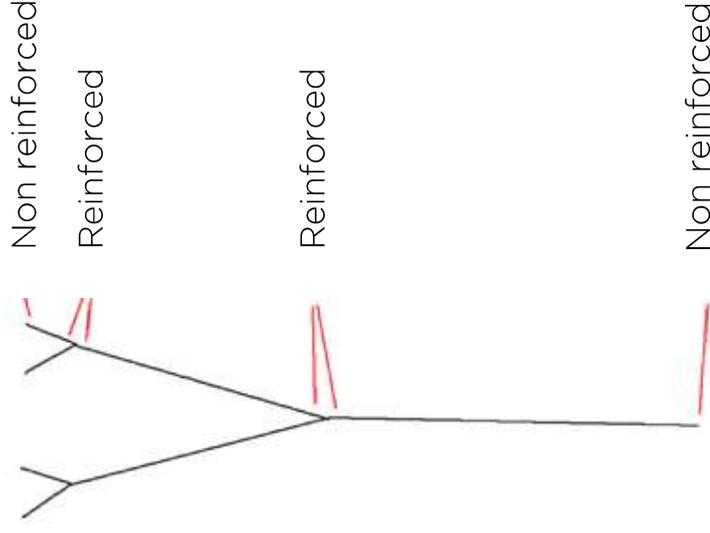
Looped junction

Correct alignment of lines

Sheathed lines have no internal reinforcing and can be mounted either way up

On unsheathed lines, yellow thread marks the reinforced end

On unsheathed lines, white thread marks the non-reinforced end



Small Repairs

Small tears in the top or bottom surface (not normally the ribs) of a canopy can be repaired with a patch of self-adhesive ripstop nylon. Tears no longer than 100mm can be repaired in this way providing they are not in a high-stress area.

Servicing / Inspection

It is important to have your glider regularly serviced. Your wing should have a thorough check / inspection every 24 months or every 150 flight hours, whichever occurs first.

This check must be made by the manufacturer, importer, distributor or other authorised persons. The manufacturer will only accept responsibility for paraglider lines and repairs which we have produced and fitted or repaired ourselves.

If you are concerned about any aspect of the integrity of your paraglider please contact your nearest BGD dealer or talk to BGD directly.

Environmental protection and recycling

Our sport takes place in the natural environment, and we should do everything to preserve our environment. A glider is basically made of nylon, synthetic fibres and metal. At the end of your paraglider's life span, please remove all metal parts and put the different materials in an appropriate waste/recycling plant.

TECHNICAL DATA

Materials

The ICON is made from the following quality materials:

TOP SURFACE	Porcher Skytex 38 / 27g/m ²
BOTTOM SURFACE	Porcher Skytex 27g/m ²
INTERNAL STRUCTURE	Porcher Skytex Hard 40g/m ²
NOSE REINFORCING	Perlon 2mm / Fishing line 1.5mm
RISERS	12mm black Kevlar/nylon webbing
PULLEYS	Sprenger / Ronstan P18
MAILLONS	Maillon Rapide
TOP LINES	Edelrid Magix Pro Dry 8001U
MIDDLE LINES	Edelrid Magix Pro Dry 8001U
LOWER LINES	Edelrid Magix Pro Dry 8001U and PPSL
BRAKES	Liros DSL

Spare parts can be obtained directly from BGD or through our network of registered BGD repair shops.

For a full list check www.flybgd.com

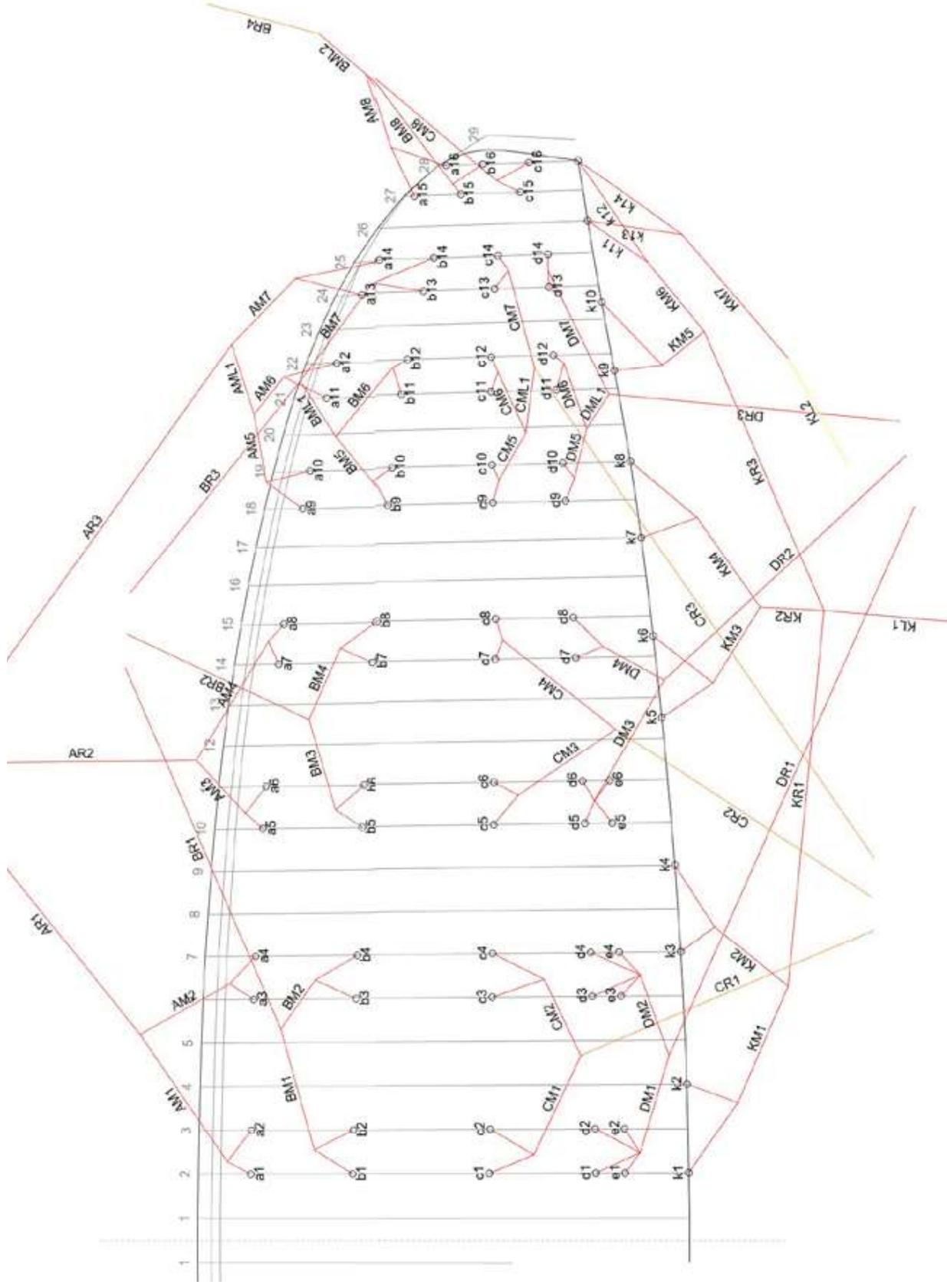
Specifications

	16	18	20	22
LINEAR SCALING FACTOR	0.94	1	1.04	1.11
PROJECTED AREA (M²)	13.7	15.4	17.1	18.8
FLAT AREA (M²)	16	18	20	22
GLIDER WEIGHT (KG)	3.8	4	4.3	4.7
NUMBER OF MAIN LINES (A/B/C)	3/4/3/2			
CELLS	57			
FLAT ASPECT RATIO	5.7			
PROJECTED ASPECT RATIO	4.4			
MIN SPEED (KM/H)	29	29	28	28
TRIM SPEED (KM/H)	49	49	46	46
SPEED TRIMMERS OPEN (KM/H)	58	58	55	55
TOP SPEED (KM/H)	73	73	70	70
MAX POWER (KW / HP)	20 / 27	27 / 36	20 / 27	27 / 36
PPG WEIGHT RANGE (KG)	60-110	70-120	80-130	90-140
EXTENDED WEIGHT RANGE (KG)	130	150		
DGAC REGISTRATION	In Progress	In Progress	Yes	Yes

All speed measurements are for the maximum all-up weight

The extended weight range is reserved for highly experienced pilots who are proficient in flying under high wing loading.

Line Layout



Line length checks

Line lengths can be downloaded from <https://www.flybgd.com/lines>

All measures are in mm, with 50N line tension, this tension being slowly and gradually applied before taking the measurement.

The lengths are measured from the lower surface of the canopy and include the risers and maillons.

Line lengths are for a flown glider. During the EN certification process, the test team has checked the lengths of the suspension lines, control lines and risers from the line length sheets against the sample glider, after the test flights have been carried out. The difference in length between the documented figures and the test glider may be no more than 10mm.

CLOSING WORDS

Your paramotor wing will give you many hours of safe and enjoyable flying, provided you treat it with care and always respect the potential dangers of aviation.

Please always remember that flying can be dangerous and your safety depends on you. With careful treatment your wing should last for many years. It has been tested internationally under current airworthiness standards, and these represent the current knowledge concerning the safety of a glider. However, since there are still many unknown issues, for example the effective lifespan of the current generation of gliders and how much material material ageing is acceptable without affecting the airworthiness.

There are natural forces that can seriously threaten your safety, regardless of the quality of construction or the condition of your glider. Your security is ultimately your responsibility. We strongly recommend that you fly carefully, adapt to the weather conditions and always keep your safety in mind.

Flying in a club or a school with experienced pilots is highly recommended.

We recommend that you fly with a standard harness with back protection and a reserve parachute. Always use good equipment and an approved helmet.

See you in the sky!

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