



CONTENTS

Welcome	3	Landing	22
Quick Summary	4	Recovery Techniques	23
Introduction	5	Line knots.....	23
Intended use	5	Loss of brakes	23
Modifications	7	Stalls	23
Harness dimensions.....	7	Spins.....	25
Test flight and warranty.....	7	Asymmetric Collapse	25
Glider overview	8	Symmetric Front Collapse	25
Risers	9	Releasing a trapped tip (cravat)	26
Setting Up.....	10	Storage, Repairs & Servicing	27
Brake handles.....	10	Storage and care	27
Installing or removing the brake legs.....	11	Cleaning	27
Installing or removing the elastic bungee.....	12	Packing	27
Changing brake handles	13	Small Repairs	28
Brake Line lengths	14	Servicing / Inspection	28
Attaching the speedbar	14	Environmental protection and recycling.....	29
Laying Out	15	Servicing Lines	30
Pre-flight checks	16	Releasing loops on the rear lines	30
Flight Characteristics	17	Installing Replacement Lines.....	30
Launch	17	Technical data	34
Straight Flight	18	Materials.....	34
Turning	18	Specifications	35
Active piloting	18	Line Layout.....	36
Thermalling	19	Brake and Accelerator travel.....	37
The stall point.....	19	Line length checks	38
Using the accelerator	19	Closing Words.....	49
Rapid descent procedures.....	20		

EPIC FREESTYLE 2 OWNER'S MANUAL

Solo paraglider | EN/LTF B

Welcome

Thank you for buying a BGD product, and welcome to the family! Bruce Goldsmith and the BGD team have been developing paragliders and paragliding equipment for many years, for pilots who value performance combined with safety and enjoyable handling.

We focus on designing high-quality products that are reliable, well-crafted, and rewarding to fly. Our approach combines aerodynamic expertise with a deep understanding of fabrics and materials, gained through decades of experience in the industry.

Every BGD product is developed with care, attention to detail, and a commitment to good design. We hope your BGD equipment gives you many years of safe and enjoyable flying.

The EPIC FREESTYLE 2 is aimed at pilots starting out and progressing in acro and freestyle paragliding. It is certified EN / LTF B and suitable for pilots who have completed their initial training. It is capable of all the accessible freestyle tricks and connections. Its minimal shooting means it is forgiving of pilot timing and input errors, which makes it an excellent glider to learn freestyle on.

As with all aircraft, regular maintenance and checks are mandatory. Proper care will ensure your new glider keeps its original characteristics and lasts for many years.

This manual contains information on how to look after your paraglider and how to get the best out of it in the air. If you ever need replacement parts or advice, do not hesitate to contact your nearest BGD dealer or contact BGD directly.

QUICK SUMMARY

Brake Handles

The EPIC FREESTYLE 2 is delivered with BGD’s new Acro handles. They have T-bars for precise inputs, and elastic tethers for pilots who wish to fly without brake legs.

The Acro handles can be replaced with Standard handles if preferred.

Recommended checks and inspections

Release loops on rear lines	After 1 year or 100 hours, whichever comes first
Trim check	2 years
Full inspection	Every 2 years or 150 hours, whichever comes first
Change the line set	If line strength check is failed

INTRODUCTION

Intended use

The EPIC FREESTYLE 2 is a solo paraglider. It is not intended for tandem use.

It can be flown for site-flying, cross-country etc as well as freestyle.

It is suitable for winching. The pilot and winch operator should both have the necessary training and qualifications for winching, and the winch system should be certified for paraglider use.

It can be used with a paramotor. A paramotor riser set with trimmers can be purchased from the BGD online shop. We recommended a professional should mount the new riser set.

Suitable for ...	
Tandem	No
Towing	Yes
Paramotor	Yes

Weight range

Each wing 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 and all other equipment carried in flight.

We strongly recommend that you fly within the certified weight range. The characteristics of paragliders are affected by wing loading. Gliders are more damped when flown at the lower end of the weight range. At higher wing loadings, gliders are faster, more agile and more energetic. If you are starting out in freestyle or learning new tricks, it is better to start in the low to middle part of the weight range. You can fly with a higher wing loading to benefit from the greater energy, as you progress.

Safe Operation

For your safety, do not:

1. Fly outside the certified weight range.
2. Adjust the trim speed by changing the length of risers or lines.
3. Fly in rain or snow. 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 a stall more likely.
4. Fly in strong turbulence or violent winds.
5. Perform spiral dives with big ears or asymmetric collapses. The high G-loading on fewer lines could overload and break the lines.
6. Fly with knots in the lines. Checking for knots should always be part of your pre-flight checks. If you 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.

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.

Harness dimensions

Your paraglider was tested with a 'GH' (without rigid cross- bracing) type harness. The GH category includes weightshift harnesses as well as ABS style (semi-stable) harnesses.

The EN standard harness dimensions have a seat board width of 42cm.

The horizontal distance between the attachment points of the paraglider risers (measured from the centre line of the karabiners) should be:

- Total flight weight < 80 kg: karabiner distance 40 +/- 2 cm, height 40 +/- 1 cm
- Total flight weight 80 - 100 kg: karabiner distance 44 +/- 2 cm, height 42 +/- 1 cm
- Total flight weight over 100 kg: karabiner distance 48 +/- 2 cm, height 44 +/- 1 cm

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.

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

GLIDER OVERVIEW

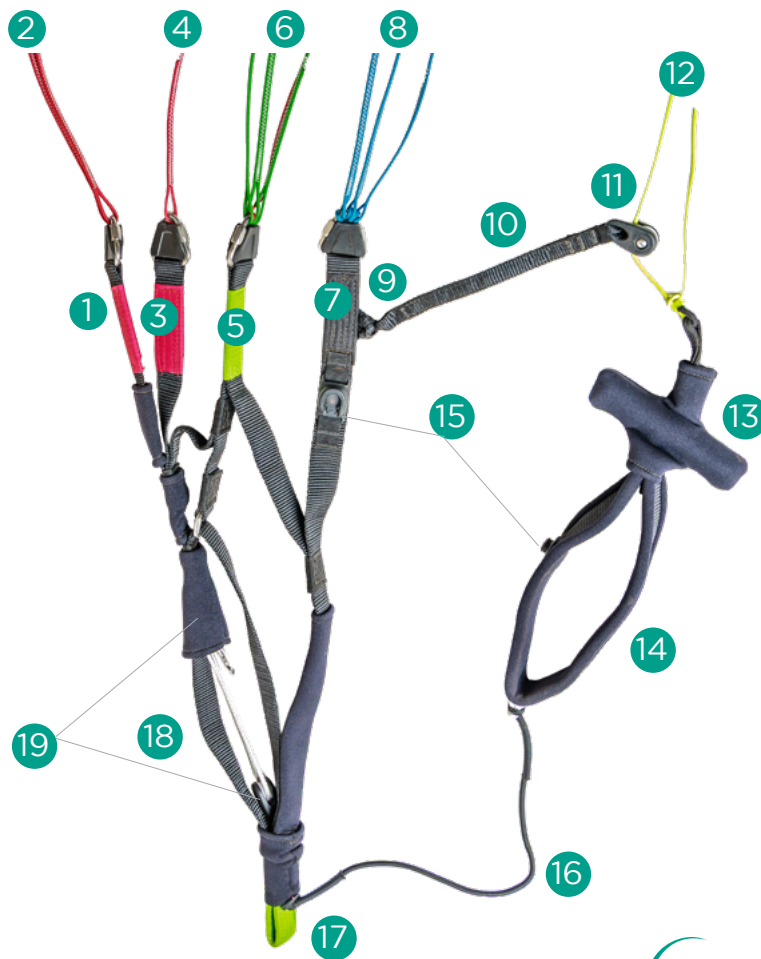


RISERS

- 1) A riser
- 2) A lines
- 3) A' (big ears) riser
- 4) Outer A line
- 5) B riser
- 6) B lines
- 7) C (rear) riser
- 8) C lines
- 9) Brake leg attachment
- 10) Brake leg
- 11) Brake pulley
- 12) Brake line
- 13) T-bar
- 14) BGD Acro handle
- 15) Snaplock
- 16) Bungee (brake-handle tether)
- 17) Main hangpoint
- 18) Speed system
- 19) Speed system pulleys

Shown as delivered, with BGD acro handles, brake legs and bungees installed.

The riser set does not have trimmers or any other adjustable or removable devices.



SETTING UP

Brake handles

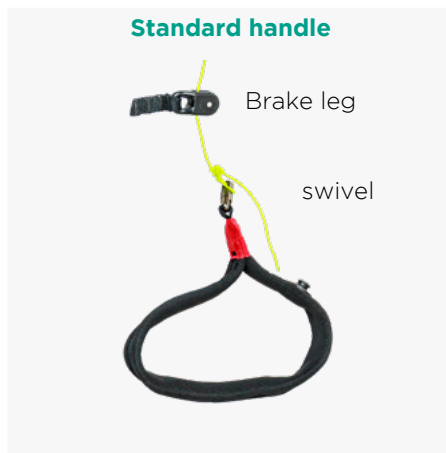
The BGD Acro handles are tethered to the risers with an elastic bungee.

If you choose to remove the brake legs and pulleys to fly with free brakes, the tethers mean you can release the handles without losing them. If you fly with brake legs you can remove the tethers.

You should always have either the brake legs, the tethers, or both installed.

Tethers are compatible only with the Acro handles. There is no loop on the Standard handle to attach them.

Video instructions for removing and installing brake legs and tethers, and for changing brake handles, can be found on the BGD website.



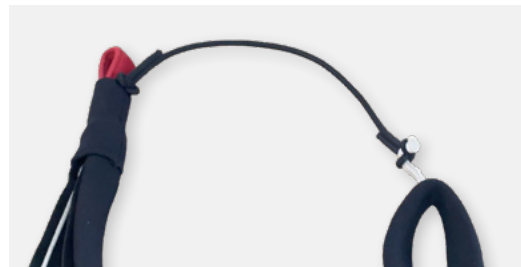
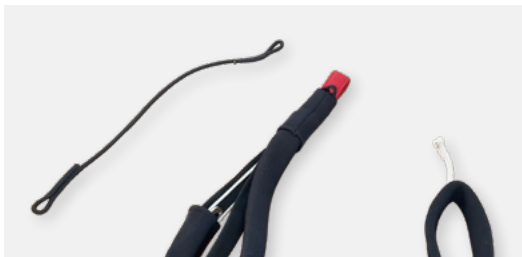
Installing or removing the brake legs

The brake legs have a looped end. They attach to a loop on the rear risers, with a larksfoot.

To remove them, you first need to untie and remove the brake handles and pull the brake line through the pulley.



Installing or removing the elastic bungee



The elastic bungee has sewn-in loops at both ends.

It attaches to a loop at the base of the riser with a larksfoot, and to the knotted loop on the base of the brake handle with a kite knot.

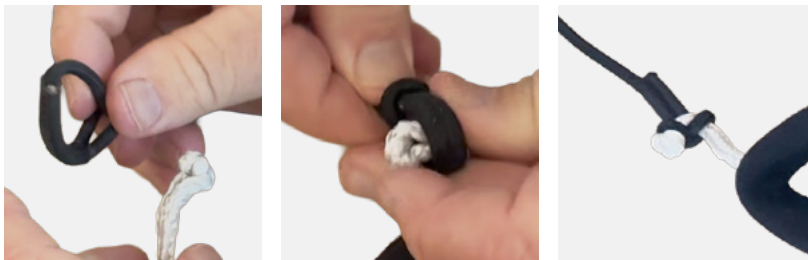
Larksfoot to riser

Push the looped end of the tether through the black loop on the base of the riser. Then pass the other end of the tether through its loop, and pull to tighten.



Kite knot to brake handle

Widen the loop at the other end of the tether. Place this loop over the knot on the end of the brake handle, then pull to tighten the tether around the knot.



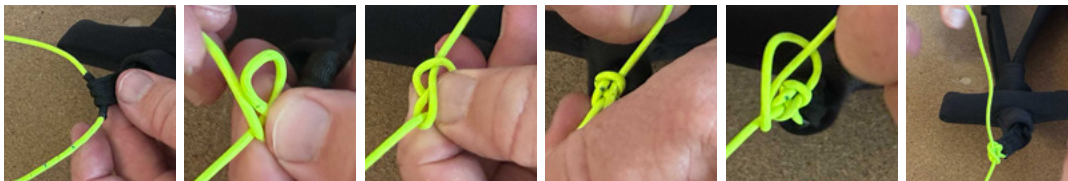
Changing brake handles

Untie the knot and remove the old brake handle.

The brake lines have a black sheath where the handle should be positioned. It stops the brake line from being damaged by the swivel.

If you are using brake legs, ensure they are fitted and the brake lines have been threaded through the pulley before attaching the new handle.

The handle should be tied on with a bowline and a half hitch. Avoid having too many knots, as bulky knots could get stuck in the brake pulleys.



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 when flying at trim speed or accelerated. The lengths can be adjusted via the knot at the handle if necessary.

As a glider ages the brake lines can shrink. The presence of multiple twists in the brake lines can effectively shorten them. You should regularly check for this and untwist the brake lines on launch, or lengthen them at the knot. Do not over-shorten the brake lines.

It is a good idea 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.

Attaching the speedbar

The EPIC FS 2 has accelerator risers. It can be flown with or without a speedbar attached.

When installing the speedbar, follow the instructions in your harness manual to ensure correct routing of the lines.

Adjusting the speed system length

The speed system length should be adjusted by moving the knots on the line at the harness end. To check the length is correct, sit in your harness and ask a helper to hold the risers up in their in-flight position. The speed system should be set to such a length that the A-risers are not being pulled when the bar is not applied. You should be able to hook your heels into the bar and attain full bar extension when you push your legs out.

Once you have set the bar up in this way on the ground, a test flight in calm air is advisable to fine-tune the length, ensuring it is even on both sides.

Laying Out

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.

Open out the canopy, drawing the wingtips away from the centre of the glider to form an arc facing into wind, with the undersurface facing up and the leading edge higher up the slope than the trailing edge. Draw the harness away from the canopy until the suspension lines are just taut.

Pre-flight checks

The following pre-flight inspection procedure should be carried out before each flight.

1. Whilst opening the paraglider check the outside of the **canopy** for any **tears** where it could have been caught on a sharp object or even have been damaged whilst in its bag. Visually inspect the **risers** for any signs of damage.
2. Check the **lines** for signs of **damage, twists** or **knots**. 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. Check the **knot** which attaches the brake handles to the brake lines. Both brakes should be the **same length** and this can be checked by having an assistant hold the upper end of the brake lines together whilst you hold the brake 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. Before getting in to the harness you should be wearing a good **helmet**. Check the **parachute** container is correctly closed and the **handle** is secure. Put on the harness ensuring all the buckles are fastened and that it is well adjusted for comfort.

You are now ready for flight.

FLIGHT CHARACTERISTICS

This manual is not intended as an instruction book on how to fly your paraglider but these tips will help ensure you get the best from your wing.

Launch

The EPIC FREESTYLE 2 can be launched with either the forward launch technique (best for light winds) or reverse launch (best for stronger winds).

Forward Launch

Stand facing into wind with your back to the canopy and all the A-lines taut behind you, then take one or two steps back (do not walk all the way back to the canopy). Take an A-riser in each hand and move forward smoothly, maintaining pressure on the A-risers. When the canopy starts to rise off the ground, release your hands and maintain pressure on the risers evenly through the harness. In very calm conditions, it can be helpful to maintain gentle pressure with your hands on the A-risers. Be ready to slow the canopy with the brakes if it starts to accelerate past you.

Reverse Launch

In winds over 10km/h it is recommended to do a reverse launch and inflate the canopy whilst facing it, using your body weight and the A-risers. Releasing pressure on the A-risers when it is at about 45° will help to stop it overshooting. The stronger the wind and the greater the pressure on the A-risers, the more quickly the canopy will rise. In stronger winds, taking a step towards the glider as it rises can take some of the energy out of the sail and it will be less likely to overshoot.

Straight Flight

Your paraglider will fly smoothly in a straight line without any input.

Turning

Your wing does not require a strong-handed approach to manoeuvring. The glider will turn more efficiently if you weightshift into the turn. The speed with which you apply the brake affects the way it turns. If a brake is applied fairly quickly the canopy will do a faster banking turn. Take care not to bank too severely. To attain a more efficient turn at minimum sink, apply some brake to the outside wing to slow the turn and prevent excessive banking. Be careful not to brake too violently, as this could result in a spin.

Active piloting

The objective of active piloting is to get the glider to fly smoothly through the air with a stable position above your head, and controlled angle of incidence. Active piloting means flying in empathy with your paraglider, guiding it through the air and being aware of feedback from the wing. If the air is smooth the feedback can be minimal but in turbulence feedback is continuous and needs to be constantly checked.

In order to get the best performance from your wing it is best to control it through small brake inputs and weightshift rather than constantly being present on the brakes. A small brake movement early is more efficient than a big input later. The more you let the glider fly at trim speed, the better performance you will get out of it.

Your paraglider is resistant to collapses without any pilot action, but flying actively will increase the safety margin. Active piloting can make your flying experience safer and more enjoyable, and it becomes instinctive in good pilots.

Thermalling

To attain the best climb rate your wing should be thermalled using a mild turn as described above, keeping banking to a minimum. In strong thermals a tighter banking turn can be used to stay closer to the thermal's core. Remember that weightshifting in the harness will make the turn more efficient and reduce the amount of brake required.

The stall point

If you apply too much brake, the glider will stall. The more brake is applied, the greater the brake pressure. When you are close to the stall point the pressure is very high. Only fly near the stall point if you have enough height to recover from an inadvertent stall (at least 100m).

Using the accelerator

Launching and general flying is normally done without using the accelerator. To accelerate the glider, push with your feet on the speedbar. Full speed is achieved when the two speed-system pulleys on each A-riser touch. Using excessive force or pushing beyond this will not make the glider go faster!

When you come off the bar it is important to do so smoothly and progressively, to manage the pitch. It is possible for any paraglider to front-collapse if the bar is released too quickly.

We recommend you only fly in conditions where you can progress into wind with no speedbar applied, so that you have the extra airspeed in reserve should you need it.

IMPORTANT:

1. Practise using the speed system in normal flying and get fully used to using half bar before you use full bar.

2. The speed increase is achieved by reducing the angle of attack, which means the canopy has slightly more collapse tendency. Take care when flying fast in rough or turbulent conditions as deflations are more likely to occur at speed.
3. Remember that your glide deteriorates at higher speeds. Best glide is achieved when the risers are level and the brakes are off, or with a little accelerator applied (up to 25% speed).

The Dyneema line that connects the speed system in the risers is designed to have a small amount of slack in it in order to obtain the correct riser lengths when accelerated. The amount of slack in this line varies with wing size and determines the B riser length when fully accelerated. The length of this line can be adjusted where it is looped on the maillon of the B-riser. The line can also be replaced if necessary.

Check the component parts of the speed system regularly for signs of wear and tear, and ensure that the system always works smoothly.

Rapid descent procedures

Big Ears

The wingtips of the glider can be folded in to increase its sink rate (Big Ears). The Big Ear facility allows you to descend quickly without substantially reducing the forward speed of your glider. This contrasts with B-line stalls, which result in rapid descent with greatly reduced forward speed.

To engage Big Ears, lean forward in the harness and grasp the outer A-lines, or the maillons of the A' risers, keeping hold of both brake handles. Pull the outer A-lines or A' 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 pulling these could cause the leading edge to collapse. Steering with Big Ears in is possible by weight-shifting. When you let go of the outer A-lines or the A' risers, the Big Ears will come out on their

own. A pump on the brakes can speed this up if necessary.

Before using Big Ears in earnest you should practise 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

B-line stalls are useful if you need to lose a lot of height quickly, e.g. to escape from a thunderstorm. They should not be performed with less than 100m of ground clearance.

Keeping hold of both brake handles, take hold of the top of the B-risers, one in each hand, and pull them down by 10-15cm. This will stall the canopy and its forward speed will drop to zero. Make sure you have plenty of ground clearance because the descent rate can be over 10m/sec. To increase the descent rate, pull harder on the B-risers.

To exit, release the B-risers symmetrically and fairly quickly. The canopy will automatically start flying again, usually within two seconds. Releasing too slowly may result in the canopy entering deep stall. Releasing asymmetrically can result in the glider entering a spin.

Spiral Dive

Spiral dives are one of the most dangerous manoeuvres in paragliding and the high G-force and quick loss of altitude can easily catch pilots out. A mistake in judging these factors can lead to a very serious accident, so spirals must be treated with great respect. Pilots are advised to practise spiral dives under close supervision or during an SIV course.

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 spiral is entered. Be careful to enter the spiral gradually and with control, as too quick a brake application can cause a spin or a high-G spiral.

To pull out of a steep spiral dive, release the applied brake gradually and/or apply

opposite brake gradually. A sharp release of the brake can cause the glider to surge and dive as the wing converts speed to lift. Always be ready to damp out any dive with the brakes. Also be ready to encounter turbulence when you exit from a spiral because you may fly through your own wake, which can cause a collapse.

CAUTION: Spiral dives can cause loss of orientation or black-out and they take some time to exit from. This manoeuvre must be exited in time, and with sufficient height.

Landing

Landing is very straightforward. When landing in light winds, flare in the normal way from an altitude of around 2m. It may sometimes help to take wraps on the brakes to make the flare more effective.

Strong-wind landings require a different technique. If you use the brakes to flare in a strong wind the wing tends to convert this energy to height, which can be a problem. The best method is to take hold of the rear risers at the maillons just before landing, and collapse the canopy using these when you have landed. The glider will collapse very quickly using this method.

RECOVERY TECHNIQUES

Test pilots have tested the glider 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 paraglider are dangerous manoeuvres and are not recommended.

Line knots

Flying a glider with knots in the lines will affect its airworthiness – 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.

Loss of brakes

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

Stalls

Full Stall

Pilots are advised not to intentionally stall their glider unless under SIV instruction.

Unintentional stalls are caused by applying too much brake. When approaching the stall point the brake pressure increases. This is a warning to the pilot to let up the brakes.

As the canopy approaches the stall point it will start to descend vertically and finally drop back behind the pilot and collapse.

If the glider stalls it is very important to maintain the brake position until the glider is in a safe position. During the stall the glider will move back and forward in relation to the pilot.

The brakes should only be realised when the glider is overhead or in front relative to the pilot.

The brakes should be fully released fairly quickly, typically in about 2 seconds. It is important to release fully, hands up, as holding a small amount of brake will make the ensuing dive much stronger. Be ready to catch the dive.

For more experienced SIV pilots, a pre-release of the brakes and reconstruction of the full span is recommended to avoid the tips getting cravatted during the recovery.

Altitude is very important for recovery and professional training is highly recommended for manoeuvres such as this.

Deep Stall (or Parachutal Stall)

Your paraglider 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.

When in deep stall the pilot will notice the following:

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

To recover from deep stall, the first reaction should simply be to put your hands up. This should allow the glider to return to normal flight. If the glider does not resume normal flight, pulling gently on the A-risers will help the airflow to reattach to the leading edge. Be careful not to pull down too hard as this will induce a front collapse.

Spins

Spins are dangerous and should not be practised in the course of normal flying. 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. If a spin is inadvertently induced you should release the brake pressure and 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.

Asymmetric Collapse

If the canopy collapses on one side due to turbulence, your first reaction should be to control the direction of flight by countering on the opposite brake. The act of controlling the direction will likely reinflate the wing. However, with more persistent collapses it may be necessary to pump the brake on the collapsed side using a long, strong, smooth and firm action. Normally one or two pumps of around 80cm 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 using this technique.

Symmetric Front Collapse

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

During the early stages of a front collapse the pilot should apply brake symmetrically on both

sides for a maximum of one second. This will push the air from the back of the canopy towards the front, stopping the collapse from becoming deep. Make sure the brakes are fully released during the later stages of the collapse, or you may induce a full stall. The glider will normally recover on its own as long as the pilot keeps the brakes up. If the glider does not recover on its own it may be necessary to make a second pump on the brakes.

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 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.

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. Once you have finished flying, put your wing away. Do not leave it laying in strong sunshine unnecessarily.

Never drag or slide the surface of the glider over concrete or other hard surface as this can cause abrasion damage to the sail.

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.

Packing

We recommend concertina-packing the wing as it helps to extend its life. Always start with a bunched glider. Do not lay the glider out first, as this would mean pulling it across the ground when you gather the leading edge, risking damage from abrasion.

Stack the leading edge plastics together first, creating a single 'pile' from tip to tip (do not fold it in the middle). Turn the pile onto its side so the plastics are laid flat, and secure while you concertina-fold the rest of the glider. Push the air out, from the trailing edge towards the leading edge, and then fold the glider into three or four sections to fit the inner bag. Remove the strap from the leading edge, and close around the whole glider, before placing it into the inner bag.

A concertina packing bag or compression bag can make concertina-packing the glider much easier. Bruce demonstrate how to use the concertina bag in this [video](#).

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 of up to around 10cm can be repaired in this way providing they are not in high-stress areas. If you have any doubt about the airworthiness of your canopy please contact your dealer or BGD directly.

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, distributor or other authorised person.

A full check includes a thorough inspection of all components and includes visual and condition inspection, permeability of the canopy material (porosity), line strength, canopy strength, line geometry and line measurements including the risers. The results must be documented. If a line strength check is failed, the entire line set should be changed.

BGD will only accept responsibility for repairs carried out by an approved service centre, and lines which we have produced and which have been fitted by an approved service centre. A list of approved service centres can be found [on our website](#).

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.

SERVICING LINES

Releasing loops on the rear lines

All BGD gliders are rigged from new with loops on the maillons of the rear lines 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*

The loops should be released 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 2 years, the loops should already have been released, and this should be verified and fine-tuned by the check centre.

Installing Replacement Lines

If you need to replace lines on your glider, we recommend that a professional should install 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. You can download the latest version from <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, but 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.

Correct alignment of lines

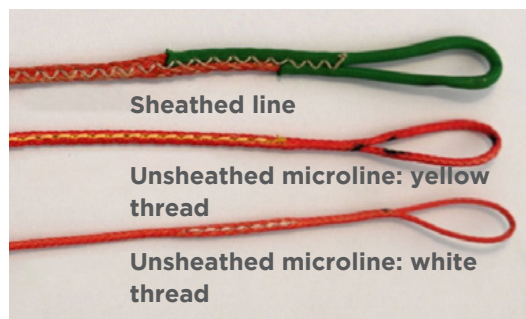
It is important that lines are fitted the right way up. Unsheathed lines are reinforced at one end, marked by a yellow thread. This is the line-junction end.

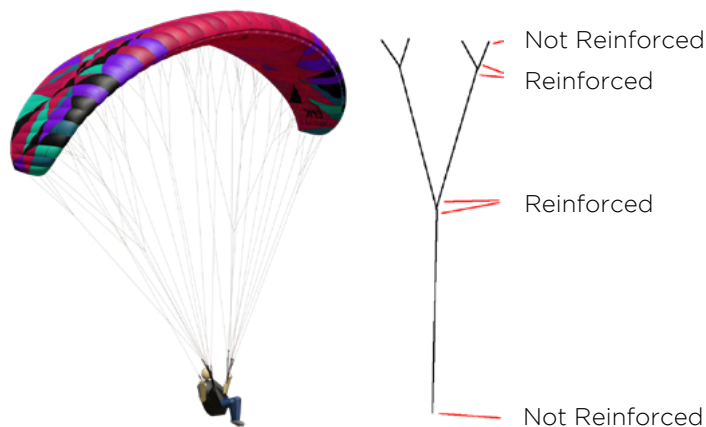
The non-reinforced end is marked with white thread and should be attached to the glider tab or the maillon.

Sheathed lines have no additional reinforcement and can be installed 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 other tabs should be perpendicular to the undersurface.





Line Junctions

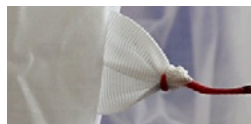
All lines are connected to other lines or to tabs with lark's foot junctions. Make sure that these are joined correctly with interlocked and not looped junctions.



Interlocked – correct



Looped – incorrect



Interlocked – correct



Looped – incorrect

Loops on rear lines

A and B risers: install new lines without loops.

C lines and stabi: Install new lines with a single loop.

Inflation Check

After installing new lines, you should always do a full dimensional line check of the wing, and also inflate it to check everything looks correct before it is flown.

TECHNICAL DATA

Materials

The EPIC FREESTYLE 2 is made from the following quality materials:

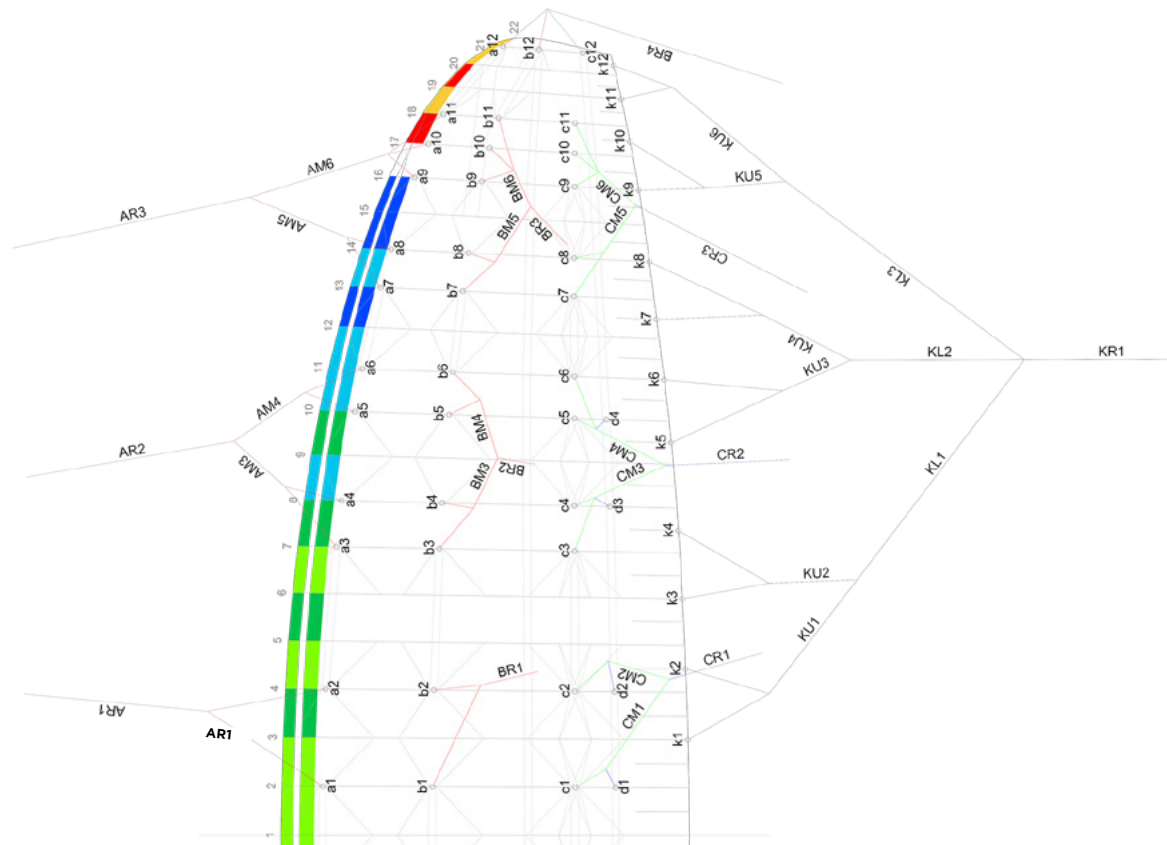
TOP SURFACE	Porcher Skytex 38g/m ²
TOP SURFACE LEADING EDGE	Porcher Skytex 38g/m ²
BOTTOM SURFACE	Porcher Eazyfly 40g/m ²
INTERNAL STRUCTURE	Porcher Skytex hard finish 40g/m ²
REINFORCING	Plastic wire 2,3 / 2,7mm
TOP LINES	Liros DC
MIDDLE LINES	Liros DSL – sheathed Dyneema
LOWER LINES	Liros TSL
BRAKES	Liros DSL

Spare parts can be obtained directly from BGD or through our network of registered BGD repair shops. For a full list see www.flybgd.com

Specifications

	XS	S	M	ML	L
LINEAR SCALING FACTOR	0.96	1	1.04	1.08	1.12
PROJECTED AREA (M²)	17.9	19.6	21.2	22.8	24.5
FLAT AREA (M²)	21	23	25	27	29
GLIDER WEIGHT (KG)	4.4	4.8	5.1	5.3	5.6
TOTAL LINE LENGTH (M)	210	230	250	268	289
HEIGHT (M)	6.7	7	7.3	7.5	7.8
NUMBER OF MAIN LINES (A/B/C)	3/4/3				
CELLS	42				
FLAT ASPECT RATIO	5				
PROJECTED ASPECT RATIO	3.6				
ROOT CHORD (M)	2.6	2.7	2.8	2.9	3
FLAT SPAN (M)	10.2	10.7	11.2	11.6	12
PROJECTED SPAN (M)	8	8.4	8.8	9.07	9.4
TRIM SPEED (KM/H)	38				
TOP SPEED (KM/H)	50				
CERTIFIED WEIGHT RANGE (KG)	50-65	60-80	75-95	90-110	105-125

Line Layout



Brake and Accelerator travel

Size	Accelerator range	Brake range	Brake range
		min weight	Max weight
XS	12 cm	> 55 cm	> 55 cm
S	14 cm	> 55 cm	> 60 cm
M	14 cm	> 55 cm	> 60 cm
ML	14 cm	> 60 cm	> 65 cm
L	14 cm	> 65 cm	> 65 cm

Line length checks

All measures are in millimetres, 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 given in the manual against the sample glider, after the test flights have been carried out. The difference in length between the manual and the sample may be no more than 10mm.

The latest line lengths and diagrams can be downloaded from <https://flybgd.com/lines>.

Size XS

Bridle check

	A	B	C	D	K
1	6599	6532	6646	6716	6749
2	6567	6499	6616	6683	6619
3	6567	6505	6626	6654	6529
4	6534	6471	6585	6641	6519
5	6530	6475	6581		6406
6	6569	6521	6625		6326
7	6450	6443	6556		6301
8	6398	6383	6491		6356
9	6311	6310	6418		6259
10	6235	6264	6391		6219
11	6231	6273	6396		6155
12	5905	5909	5988		6104

EpicFreestyle2_XS_V3_rev7_Lines_Manual

Size XS

Single line lengths

a1	1355	b1	1344	c1	678	d1	747
a2	1322	b2	1310	c2	659	d2	725
a3	562	b3	555	c3	672	d3	699
a4	529	b4	521	c4	630	d4	653
a5	483	b5	472	c5	594	k1	898
a6	521	b6	517	c6	637	k2	767
a7	542	b7	535	c7	543	k3	719
a8	489	b8	474	c8	477	k4	709
a9	594	b9	573	c9	581	k5	707
a10	517	b10	526	c10	553	k6	626
a11	513	b11	535	c11	558	k7	587
a12	1109	b12	1112	c12	1191	k8	641
AM3	1200	BM3	1070	CM1	759	k9	462
AM4	1241	BM4	1122	CM2	747	k10	421
AM5	1889	BM5	1066	CM3	1186	k11	321
AM6	1697	BM6	896	CM4	1219	k12	269
AR1	4723	BR1	4667	CM5	909	KU1	1151
AR2	4295	BR2	4370	CM6	732	KU2	1109
AR3	3502	BR3	4326	CR1	4702	KU3	839
		BR4	4286	CR2	4262	KU4	853
				CR3	4597	KU5	656
						KU6	692
						KL1	2000
						KL2	2159
						KL3	2440
						KR1	2699

EpicFreestyle2_XS_V3_rev7_Lines_Manual

Size S

Bridle check

	A	B	C	D	K
1	6942	6862	6982	7054	7038
2	6910	6829	6951	7021	6902
3	6921	6848	6956	6988	6810
4	6887	6813	6916	6973	6801
5	6881	6816	6913		6684
6	6920	6863	6955		6600
7	6785	6766	6885		6575
8	6729	6702	6816		6631
9	6637	6627	6741		6531
10	6555	6576	6711		6487
11	6550	6586	6717		6419
12	6200	6205	6291		6364

EpicFreestyle2S_V3_rev9_Lines_Manual

Size S

Single line lengths

a1	1419	b1	1406	c1	707	d1	781
a2	1387	b2	1373	c2	687	d2	759
a3	589	b3	581	c3	700	d3	734
a4	555	b4	546	c4	660	d4	685
a5	506	b5	494	c5	623	k1	940
a6	545	b6	541	c6	665	k2	804
a7	568	b7	560	c7	567	k3	752
a8	512	b8	496	c8	498	k4	743
a9	623	b9	600	c9	608	k5	740
a10	541	b10	549	c10	578	k6	656
a11	536	b11	559	c11	584	k7	615
a12	1157	b12	1162	c12	1248	k8	671
AM3	1257	BM3	1120	CM1	800	k9	484
AM4	1300	BM4	1175	CM2	789	k10	440
AM5	1979	BM5	1116	CM3	1278	k11	336
AM6	1776	BM6	937	CM4	1312	k12	281
AR1	4980	BR1	4917	CM5	950	KU1	1204
AR2	4532	BR2	4608	CM6	765	KU2	1164
AR3	3700	BR3	4553	CR1	4953	KU3	878
		BR4	4518	CR2	4456	KU4	894
				CR3	4846	KU5	687
						KU6	723
						KL1	2116
						KL2	2288
						KL3	2582
						KR1	2728

EpicFreestyle2S_V3_rev9_Lines_Manual

Size M

Bridle check

	A	B	C	D	K
1	7200	7116	7250	7323	7361
2	7168	7083	7219	7290	7222
3	7171	7093	7227	7257	7127
4	7136	7057	7183	7243	7120
5	7132	7062	7180		7000
6	7174	7112	7228		6913
7	7043	7018	7153		6888
8	6986	6952	7082		6948
9	6889	6873	7004		6839
10	6805	6821	6974		6794
11	6800	6831	6980		6724
12	6440	6440	6523		6673

EpicFreestyle2_M_V3_rev7_Lines_Manual

Size M

Single line lengths

a1	1478	b1	1464	c1	743	d1	815
a2	1445	b2	1430	c2	722	d2	792
a3	613	b3	605	c3	733	d3	762
a4	578	b4	569	c4	688	d4	711
a5	527	b5	514	c5	649	k1	979
a6	568	b6	563	c6	696	k2	839
a7	592	b7	583	c7	591	k3	782
a8	534	b8	516	c8	519	k4	774
a9	648	b9	625	c9	633	k5	771
a10	563	b10	572	c10	602	k6	683
a11	558	b11	582	c11	608	k7	640
a12	1216	b12	1215	c12	1298	k8	699
AM3	1309	BM3	1165	CM1	824	k9	504
AM4	1355	BM4	1224	CM2	813	k10	458
AM5	2061	BM5	1162	CM3	1292	k11	350
AM6	1850	BM6	976	CM4	1329	k12	293
AR1	5201	BR1	5131	CM5	989	KU1	1253
AR2	4739	BR2	4813	CM6	797	KU2	1215
AR3	3873	BR3	4757	CR1	5176	KU3	914
		BR4	4714	CR2	4696	KU4	932
				CR3	5066	KU5	715
						KU6	753
						KL1	2223
						KL2	2408
						KL3	2713
						KR1	2902

EpicFreestyle2_M_V3_rev7_Lines_Manual

Size ML

Bridle check

	A	B	C	D	K
1	7456	7375	7518	7597	7604
2	7424	7342	7488	7564	7461
3	7429	7360	7505	7538	7364
4	7393	7323	7459	7524	7358
5	7390	7329	7457		7234
6	7434	7381	7506		7145
7	7301	7292	7428		7118
8	7242	7225	7354		7181
9	7144	7143	7273		7070
10	7058	7090	7242		7023
11	7054	7101	7248		6949
12	6706	6710	6799		6895

EpicFreestyle2_ML_V3_rev6_Lines_Manual

Size ML

Single line lengths

a1	1530	b1	1517	c1	766	d1	844
a2	1497	b2	1483	c2	745	d2	820
a3	635	b3	627	c3	759	d3	791
a4	599	b4	590	c4	712	d4	738
a5	546	b5	533	c5	672	k1	1015
a6	589	b6	584	c6	720	k2	871
a7	613	b7	604	c7	614	k3	810
a8	553	b8	536	c8	539	k4	803
a9	671	b9	648	c9	657	k5	799
a10	584	b10	594	c10	625	k6	709
a11	580	b11	605	c11	631	k7	663
a12	1254	b12	1257	c12	1346	k8	725
AM3	1355	BM3	1208	CM1	856	k9	523
AM4	1404	BM4	1270	CM2	846	k10	475
AM5	2135	BM5	1205	CM3	1340	k11	363
AM6	1919	BM6	1013	CM4	1379	k12	303
AR1	5405	BR1	5337	CM5	1027	KU1	1298
AR2	4929	BR2	5015	CM6	828	KU2	1262
AR3	4036	BR3	4967	CR1	5389	KU3	947
		BR4	4942	CR2	4900	KU4	966
				CR3	5280	KU5	742
						KU6	780
						KL1	2321
						KL2	2517
						KL3	2834
						KR1	2966

EpicFreestyle2_ML_V3_rev6_Lines_Manual

Size L

Bridle check

	A	B	C	D	K
1	7738	7657	7780	7858	7905
2	7705	7624	7749	7824	7759
3	7712	7639	7770	7802	7659
4	7674	7601	7723	7788	7654
5	7671	7607	7721		7527
6	7716	7662	7772		7435
7	7576	7560	7692		7408
8	7515	7490	7616		7473
9	7412	7405	7532		7356
10	7321	7349	7500		7307
11	7316	7359	7507		7231
12	6938	6938	7027		7174

EpicFreestyle2_L_V3_rev5_Lines_Manual

Size L

Single line lengths

a1	1588	b1	1573	c1	799	d1	876
a2	1554	b2	1539	c2	777	d2	851
a3	659	b3	650	c3	788	d3	819
a4	621	b4	612	c4	740	d4	764
a5	566	b5	552	c5	698	k1	1052
a6	610	b6	606	c6	748	k2	905
a7	636	b7	626	c7	635	k3	839
a8	574	b8	555	c8	558	k4	833
a9	697	b9	672	c9	680	k5	828
a10	605	b10	615	c10	647	k6	735
a11	600	b11	625	c11	654	k7	688
a12	1307	b12	1306	c12	1395	k8	752
AM3	1406	BM3	1252	CM1	885	k9	542
AM4	1457	BM4	1317	CM2	875	k10	492
AM5	2215	BM5	1249	CM3	1388	k11	377
AM6	1989	BM6	1049	CM4	1429	k12	314
AR1	5629	BR1	5563	CM5	1063	KU1	1345
AR2	5137	BR2	5227	CM6	857	KU2	1311
AR3	4208	BR3	5169	CR1	5589	KU3	982
		BR4	5121	CR2	5088	KU4	1002
				CR3	5487	KU5	769
						KU6	808
						KL1	2424
						KL2	2632
						KL3	2960
						KR1	3080

EpicFreestyle2_L_V3_rev5_Lines_Manual

CLOSING WORDS

Paragliding is a wonderful sport, and we hope you enjoy many hours of flights and adventures with your new paraglider.

Please keep in mind that paragliding is a potentially dangerous activity. We work hard to make all our equipment as safe as it can be, but your safety always comes down to you. You should have the correct training before using this equipment, and flying in a club or a school with experienced pilots is highly recommended.

Use equipment and fly in conditions that are appropriate to your skill level. Check the weather forecast but don't always rely on it. Actual conditions might not be as forecast, and can change fast.

It is important to look after your equipment. The UV in direct sunlight degrades materials, whether in flight or on the ground. By minimising your equipment's exposure to sunlight and always keeping it dry, you can maximise its lifespan. It is important to have your paraglider serviced at regular intervals.

Your security is ultimately your responsibility. Please fly carefully keeping your safety in mind, and have fun!

See you in the sky!

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