MANUAL

Base3

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BRUCE GOLDSMITH DESIGN

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Contents

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BASE 3 OWNER'S MANUAL

Solo paraglider | EN / LTF B

Introduction

Welcome to BGD, a world leader in the design and production of paragliders. For many years Bruce Goldsmith and 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 BASE 3. The BASE 3 is a safe, fun and performant paraglider for intermediate pilots and above. It is not suitable for beginners.

In order to ensure your wing retains its original flight characteristics, it should be properly looked after. Please read this manual from the first to the last chapter to ensure you get the best out of your wing. Do not hesitate to contact your nearest BGD dealer if you need any advice or information about your paraglider, or any replacement parts.

Limitations

Suitable for ...	
Tandem	No
Towing	Yes – Both pilot and winch operator should have the necessary training and qualifications for towing, and the tow system should be certified for paraglider use.
Paramotor	Not yet tested

Warning

Do not perform spiral dives with big ears or asymmetric collapses. The high G loading on fewer lines could overload and break the lines.

This paraglider must 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 towed with a tow-line tension in excess of 200kg

Warranty

Information about the BGD warranty can be found on the Warranty page of our website. In order to benefit from it, you must complete the warranty registration form on the website.

It is your dealer's responsibility to test fly the paraglider before you receive it, to check the trim settings are correct. Please check that this has been completed. The waranty may be void if the test flight has not been completed by the dealer.

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 recommend pilots fly in the 'ideal' part of the weight range, as shown in the Specs table.

If you fly in the upper half of the weight range, the glider will be faster and more agile. You will have greater stability in turbulence, but there will be reduced self-damping in turns and after collapses. If you prefer dynamic flight characteristics, want more speed or regularly fly in strong conditions you might choose to fly higher in the weight range.

If you mainly fly in weak conditions you might wish to fly towards the lower end of the weight range to benefit from a better sink rate. In the lower half of the weight range the glider will be more damped and less agile in turns. In strong turbulence a more lightly-loaded wing will have a greater tendency to deform or collapse.

Modifications

Any modifications to your glider e.g. changing the line lengths, can cause a loss of airworthiness and certification. We recommend that you contact your dealer or BGD directly before performing any kind of modifications.

Brake line lengths
The length of the brake lines is set at the factory so that the trailing edge is not deformed at all when brakes are not applied. There should be around 7cm slack in the brake lines, before they take effect on the canopy. It should not be necessary to shorten the brake lines. However, it is possible that shrinkage can occur. If necessary, the brake lines can be lengthened by adjusting the knots.

Harness

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

The EN standard harness dimensions are 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:

- 38cm for pilots under 50kg
- 42cm for pilots from 50-80kg
- 46cm for pilots above 80kg

Preparation and Pre-flight Checks

Setting up the speed bar

The BASE 3 has accelerator risers, with Brummel hooks to attach a speed bar. The glider can be flown with or without a speed bar attached. The speed bar should be connected and adjusted following the instructions in your harness manual to ensure correct routing of the lines.

To adjust the speed bar lines to the correct length, sit in your harness and ask a helper to hold the risers up in their in-flight position. The speed bar 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 to attain full bar extension (the two pulleys touching) 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 can be useful to fine-tune the length, ensuring it is even on both sides.

On launch

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. Take your paraglider to the top of the take-off area, and allow the canopy to unroll itself down the hill if on a slope. This should leave the paraglider with the bottom surface facing upwards, the openings at the downwind/uphill end of the take-off area, and the harness 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.

Pre-flight checks

Your paraglider is designed to be simple 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 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. Avoid having too many knots, as there is a risk the knots could become stuck in the brake pulleys. 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.

Your paraglider is now ready for flight.

Flight Characteristics

This manual is not intended as an instruction book on how to fly your paraglider – you should be a qualified pilot. The following describes how to get the best from your wing.

Take-off

The glider is easy to inflate in light or stronger winds and will quickly rise overhead to the flying position. It will launch easily using 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). The A-risers are marked with red cloth to make them easier to find. Take an A-riser in each hand and begin your launch run, pulling gently and smoothly on the A-risers. As soon as the canopy starts to rise off the ground, release your hands and maintain pressure on all the risers evenly through the harness. Maintaining gentle pressure on the A-risers helps in very calm conditions. Be ready to slow up 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 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. For a fast turn smoothly apply the brake on the side to which the turn is intended. The speed with which the brake is applied is very important. If a brake is applied fairly quickly the canopy will do a faster banking turn, but care must be taken not to bank too severely. The wing will turn far more efficiently if you weightshift into the turn in the harness. To attain a more efficient turn at minimum sink, apply some brake to the outside wing to slow the turn and prevent excessive banking. Care must be taken not to over-apply the brakes, as this could result in a spin. Remember that violent brake application is dangerous and should be avoided.

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 though 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 collapse 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.

Care must be taken not to apply so much brake as to stall. This is easy to avoid as the brake pressure increases greatly as you approach the stall point. Only fly near the stall point if you have enough height to recover (at least 100m).

Speed System

Launching and general flying is normally done without using the accelerator.

Full speed is achieved when the accelerator bar is pushed so that the two pulleys on each A-riser touch. Do not go beyond this point by using excessive force to attempt to make the glider go faster as this may result in the glider collapsing.

When you come off the bar it is important to do so smoothly and progressively, to manage the glider's pitch. It is possible for paragliders 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 speed bar applied, so that you have 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 speed-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. It can also be replaced if necessary. This line can be adjusted for length or replaced where it is looped on the maillon of the B-riser.

The component parts of the speed system should be regularly checked for signs of wear, and to ensure the system works smoothly.

C-steering

The BASE 3 has an effective and light C-steering system that allows you to actively pilot the wing without using the brakes, which is particularly useful when flying accelerated.

The risers have a 'speed riser': this is an extra riser that is attached to the back of the speed system and to the front of the C steering handle. It balances the load on the C steering handle, giving the pilot more control over the glider when using the C-steering.

To fly with the C-steering system, keep hold of the brakes, and grasp the C-steering handle with your fingers as shown in FIG. 1. You can apply tension to the C's to make small adjustments to the pitch when gliding, especially when you are flying accelerated

The C-steering can also be used to control direction, but you must take care not to accidentally accidentally stall the glider as the range is much less than on the brakes.

C-steering

FIG. 1: Keeping the brake in your hand, grasp the C-steering handle with your fingers to apply pressure to the C's.

Rapid descent procedures

Big Ears
The wingtips of your paraglider can be folded in to increase its sink rate. Big Ears allow you to descend quickly without substantially reducing the forward speed of your glider.

To engage Big Ears, lean forward in the harness and grasp the outer A-lines, or the maillons of the 'Baby-A' risers, keeping hold of both brake handles if possible. Pull the outer A-lines or Baby-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 weightshifting. When you let go of the outer A-lines or the Baby A risers, the Big Ears may come out on their own. If not, a pump on the brakes is all that is 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 also allow for fast descent, but they result in greatly reduced forward speed.

Keeping hold of the 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. 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 the B-line stall. It is normally better to release the B-risers fairly quickly rather than slowly, as the latter 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.

B-line stalls are useful if you need to lose a lot of height quickly, perhaps to escape from a thunderstorm. They 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 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.

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.

Do not perform spiral dives with big ears or asymmetric collapses. The high G loading on fewer lines could overload and break the lines.

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 with plenty of height.

Landing

Landing is very straightforward. When landing in light winds, flare in the normal way from a height 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 in strong winds, 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.

The B-risers can also be used to collapse the canopy after landing, although it is more difficult to control the collapsed canopy on the ground with the B-risers.

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.

Stalls

Full stalls

Stalls are dangerous and should not be practised in the course of normal flying. 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. Pilots are advised never to attempt this manoeuvre unless under SIV instruction.

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. 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 revert 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 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. Your glider will resist spinning, but if a spin is inadvertently induced you should release the brake pressure but 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.

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 this 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.

A pilot can reproduce the effect during an SIV course by taking hold of both the A-risers and pulling down sharply on them, then immediately releasing. Make sure that you pull all four A-risers at the same time, two risers in each hand (make sure to include the baby-A risers). 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 paraglider 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 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 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.

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.

Maintenance

Packing

We recommend concertina-packing the wing as it helps to extend its life. Always start with a bunched glider. Do not lay it out, 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 with the glider strap 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 stuff sack. Remove the strap from the leading edge, and close around the whole glider, before placing it into the stuff sack.

A concertina packing bag can make this easier. It has a dedicated strap to hold the stacked leading edge in place. The rest of the glider can then be gathered and zipped into the bag, from the leading edge towards the trailing edge. Finally, the bag can be folded into three and secured with the outside strap. Bruce demonstrate how to use the concertina bag in this video.

Storage

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!

It is recommended to store your glider loosely packed, in a dry place out of direct sunlight. Avoid extremes of temperature – do not leave it for long periods in a hot car in summer, and avoid letting it 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.

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

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.

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 10 cm 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.

Lines

Left: loops on maillons; Right: loops released.

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.

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 2 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 recommended that a professional should mount the new lines. The airworthiness of your glider, and your safety, depends on it being done correctly.

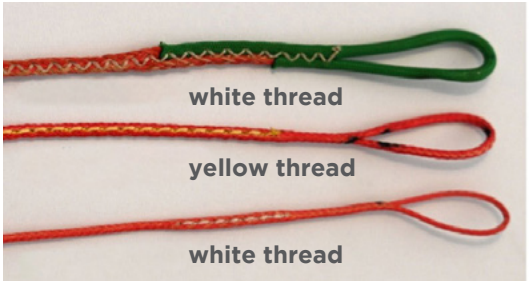
You can identify the line(s) you need to replace from the line layout diagram for your wing. Download the latest version from our Dropbox.

Replacement lines can be ordered from the Accessories section of www.flybgd.com. Check that the lines you have received correspond with the line plan and that it matches your glider.

The quickest way to remove the old lines is to cut them off. make sure you 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 lineset 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 the lines are mounted the correct way up.



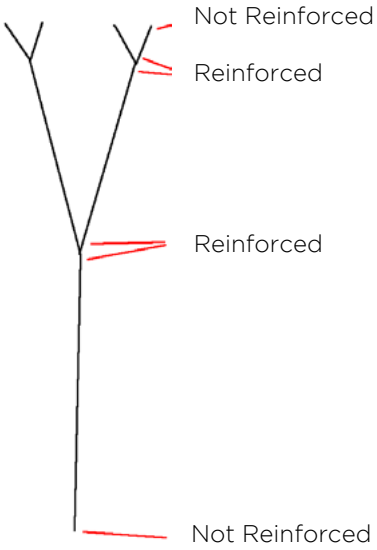
Sheathed lines have no additional reinforcing. They can be mounted either way up

Yellow thread marks the reinforced end of a microline

White thread marks the non-reinforced end of a microline.

Unsheathed lines have an internal reinforcement at one end, marked with a yellow thread. This is the line junction end. The non-reinforced end is marked with a white thread and must be attached to the glider attachment point or maillon. Sheathed lines have no additional reinforcement and can be mounted in both directions.

Alignment of attachment points
Lines should be placed symmetrically 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. So when assembling the lines, the A tab should be angled back, and the B, C and D tabs should be perpendicular to the undersurface of the wing.



Attaching the lines

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

Interlocked junction – correct

Looped junction – incorrect

Interlocked junction – correct

Looped junction – incorrect

BGD **maillons** have black **plastic inserts** to prevent them from accidentally coming undone and the lines from falling out. Always ensure that they are correctly installed after rigging the glider. If they are lost, use a line lock insert to hold the link closed. New inserts can be ordered from www.flybgd.com.

After rigging the wing, always do a full dimensional check of the lines, and inflate it to ensure that everything is correct before flying.

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.

Please print out the service pages from this manual, fill in the number of flights and hours flown in the Service Record, and send together with your glider when it goes for inspection or servicing. The manufacturer will only accept responsibility for lines and repairs which we have produced and fitted or repaired by an approved service centre.

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, please remove all metal parts and put the different materials in an appropriate waste/recycling plant.

Technical Data

Materials

The BASE 3 is made from the following quality materials:

Sail

Top surface	Porcher Skytex 38 g/m^2
Bottom surface:	Porcher Eazyfly 40 g/m^2
Internal structure	Porcher Skytex 40 g/m^2 hard finish
Nose reinforcing	High modulus nylon rod 2mm, 1.5mm

Risers

Webbing	12 mm Kevlar / nylon
Pulleys	Riley / Sprenger

Lines

Top lines	Edelrid Magix Pro Dry 8001U (unsheathed)
Middle lines	Edelrid Magix Pro Dry 8001U (unsheathed)
Lower lines	Edelrid Magix Pro Dry 8001U (unsheathed)
Brakes	Liros DSL

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

For a full list check www.flybgd.com

Specifications

	XS	S	M	ML	L
Linear scaling factor	0.93	0.96	1.00	1.04	1.08
Projected area (m^2)	17.7	19.2	20.6	22.2	24
Flat area (m^2)	20.9	22.7	24.4	26.3	28.4
Glider weight (kg)	4.7	4.9	5.3	5.5	5.7
Number of main lines			3/2/3		
Cells			57		
Flat aspect ratio			5.7		
Root chord (m)	2.5	2.6	2.7	2.8	2.9
Flat span (m)	10.9	11.4	11.8	12.2	12.7
Certified weight range (kg)	55-75	65-85	75-95	88-108	100-125
Ideal weight range (kg)	60-73	73-84	84-95	95-108	108-125
Certification			EN+LTF: B		
Suitable for paramotor			Not yet tested		
Suitable for towing			Yes		

Overview of glider parts

Risers

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

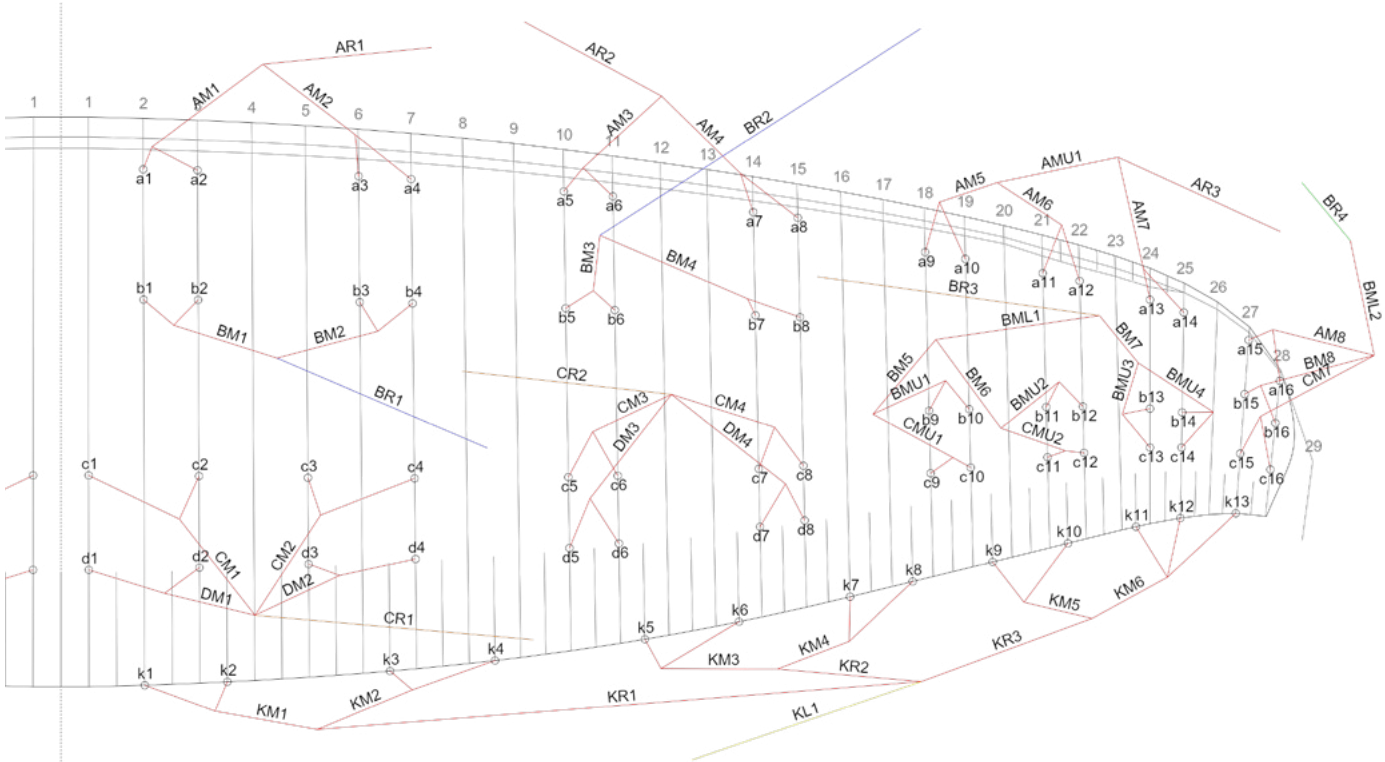
Accelerator and brake ranges

The actual measured **riser length** must be no more than 5mm different to the value in the table.

Brake travel is for maximum all-up weight.

Size	Riser lengths Trim speed (mm)	A-riser length Accelerated (mm)	Accelerator travel (mm)	Brake travel (mm)
XS	500	350	150	660
S	500	330	170	680
M	500	330	170	700
ML	500	330	170	720
L	500	330	170	740

Line Plan


AR1
AR2
AM1
AM2
AM3
AM4
BR2
AM5
AMU1
AM6
AM7
AR3
BR4
BML2
AM8
BM8
CM7
BR3
BML1
BM7
BMU3
BMU4
BM5
BMU1
BM6
BMU2
CMU1
CMU2
BM1
BM2
BR1
BM3
BM4
CR2
CM3
CM4
DM3
DM4
CM1
CM2
DM1
DM2
CR1
KM1
KM2
KR1
KL1
KM3
KM4
KR2
KR3
KM5
KM6
a1
a2
a3
a4
a5
a6
a7
a8
a9
a10
a11
a12
a13
a14
a15
a16
b1
b2
b3
b4
b5
b6
b7
b8
b9
b10
b11
b12
b13
b14
b15
b16
c1
c2
c3
c4
c5
c6
c7
c8
c9
c10
c11
c12
c13
c14
c15
c16
d1
d2
d3
d4
d5
d6
d7
d8
k1
k2
k3
k4
k5
k6
k7
k8
k9
k10
k11
k12
k13

Line Lengths

The latest versions of the line layout diagrams and line lengths for all BGD wings can be downloaded from Dropbox.

All measures are in mm, with 50 N line tension, the 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.

Compliance of the test sample's suspension lines, control lines and risers with the dimensions given in the user's manual are checked by the testing laboratory after the test flights have been completed

The difference in line lengths between the manual and the sample may be no more than 10 mm. The measured lengths are in the appendix.

Size S

	A	B	C	D	K
1	6,602	6,452	6,578	6,696	7,052
2	6,538	6,390	6,438	6,568	6,812
3	6,476	6,333	6,392	6,514	6,509
4	6,502	6,355	6,398	6,509	6,448
5	6,374	6,231	6,300	6,389	6,197
6	6,324	6,189	6,242	6,326	6,022
7	6,226	6,109	6,138	6,211	5,910
8	6,228	6,114	6,137	6,198	5,974
9	6,026	5,973	6,067		5,907
10	5,985	5,917	6,006		5,857
11	5,907	5,836	5,919		5,855
12	5,902	5,825	5,885		5,906
13	5,819	5,783	5,838		6,051
14	5,811	5,791	5,845		
15	5,740	5,750	5,872		
16	5,745	5,774	5,882		

Bridle check ▲
Single line lengths ▶

A		B		C		D		K	
a1	325	b1	347	c1	1049	d1	870	k1	460
a2	261	b2	284	c2	908	d2	741	k2	220
a3	282	b3	292	c3	1056	d3	805	k3	506
a4	308	b4	314	c4	1061	d4	800	k4	444
a5	309	b5	313	c5	337	d5	343	k5	490
a6	258	b6	270	c6	278	d6	280	k6	362
a7	277	b7	281	c7	330	d7	299	k7	290
a8	278	b8	286	c8	329	d8	286	k8	305
a9	314	b9	642	c9	313			k9	363
a10	271	b10	585	c10	252			k10	361
a11	283	b11	345	c11	286			k11	522
a12	278	b12	334	c12	252			k12	573
a13	272	b13	337	c13	392			k13	718
a14	263	b14	340	c14	394				
a15	408	b15	321	c15	264				
a16	413	b16	345	c16	274				
AM1	1501	BMU1	534	CMU1	956	DM1	1615	KM1	1491
AM2	1417	BMU2	614	CMU2	756	DM2	1498	KM2	901
AM3	1730	BMU3	265	CM1	1320	DM3	1782	KM3	939
AM4	1612	BMU4	270	CM2	1126	DM4	1648	KM4	899
AM5	1398	BM1	1512	CM3	1701			KM5	800
AM6	1307	BM2	1447	CM4	1545			KM6	588
AMU1	1906	BM3	1753	CM7	814			KR1	2539
AM7	3129	BM4	1661	CR1	3693			KR2	2158
AM8	539	BM5	624	CR2	3745			KR3	2133
AR1	4257	BM6	702					KL1	2530
AR2	3814	BM7	1509						
AR3	1893	BM8	635						
		BML1	509						
		BML2	3771						
		BR1	4074						
		BR2	3643						
		BR3	3153						
		BR4	510						

BRUCE GOLDSMITH DESIGN

Size M

	A	B	C	D	K
1	6846	6694	6834	6955	7301
2	6781	6631	6690	6824	7053
3	6718	6572	6641	6770	6740
4	6746	6596	6648	6765	6680
5	6613	6470	6547	6640	6431
6	6562	6426	6487	6576	6250
7	6461	6343	6380	6457	6104
8	6462	6348	6380	6444	6171
9	6254	6195	6273		6118
10	6213	6138	6209		6066
11	6131	6052	6120		6065
12	6126	6043	6085		6118
13	6043	6001	6057		6221
14	6033	6009	6064		
15	5961	5972	6098		
16	5966	5997	6108		

Bridle check ▲
Single line lengths ▶

A		B		C		D		K	
a1	337	b1	360	c1	1088	d1	902	k1	477
a2	272	b2	295	c2	943	d2	770	k2	228
a3	292	b3	302	c3	1094	d3	835	k3	524
a4	320	b4	326	c4	1100	d4	830	k4	461
a5	320	b5	325	c5	349	d5	355	k5	508
a6	267	b6	280	c6	288	d6	291	k6	374
a7	287	b7	292	c7	342	d7	310	k7	299
a8	288	b8	297	c8	341	d8	297	k8	317
a9	325	b9	665	c9	325			k9	377
a10	282	b10	607	c10	261			k10	373
a11	293	b11	357	c11	297			k11	541
a12	288	b12	347	c12	262			k12	594
a13	283	b13	350	c13	407			k13	745
a14	273	b14	353	c14	409				
a15	423	b15	334	c15	274				
a16	428	b16	358	c16	284				
AM1	1554	BMU1	553	CMU1	970	DM1	1674	KM1	1544
AM2	1470	BMU2	636	CMU2	763	DM2	1555	KM2	935
AM3	1792	BMU3	275	CM1	1368	DM3	1848	KM3	988
AM4	1671	BMU4	280	CM2	1169	DM4	1709	KM4	917
AM5	1448	BM1	1566	CM3	1762			KM5	828
AM6	1354	BM2	1499	CM4	1602			KM6	610
AMU1	1974	BM3	1817	CM7	843			KR1	2630
AM7	3243	BM4	1721	CR1	3852			KR2	2236
AM8	558	BM5	646	CR2	3909			KR3	2213
AR1	4429	BM6	727					KL1	2619
AR2	3973	BM7	1564						
AR3	1983	BM8	658						
		BML1	528						
		BML2	3948						
		BR1	4240						
		BR2	3796						
		BR3	3283						
		BR4	510						

Service Record

Service No 1

Date

Nº flights

Type of Service

Notes

Stamp / Signature

Service No 2

Date

Nº flights

Type of Service

Notes

Stamp / Signature

Service No 3

Date

Nº flights

Type of Service

Notes

Stamp / Signature

Service No 4

Date

Nº flights

Type of Service

Notes

Stamp / Signature

Service No 5

Date

Nº flights

Type of Service

Notes

Stamp / Signature

Service No 6

Date

Nº flights

Type of Service

Notes

Stamp / Signature

Owner Record

Pilot No 1

First name	
Family name	
Street	
City	
Post code	
Country	
Telephone	
Email	

Pilot No 2

First name	
Family name	
Street	
City	
Post code	
Country	
Telephone	
Email	

Closing Words

Your paraglider promises many hours of safe and enjoyable flying, provided you treat it with care and always respect the potential dangers of aviation. Please 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 to current international airworthiness standards, and these represent the current knowledge concerning the safety of a paraglider. However, there are still many unknowns, 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 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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