MANUAL

Kiss

Version 1.0 August 2020

BRUCE GOLDSMITH DESIGN

Contents

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KISS Owner's Manual

LIGHTWEIGHT PARAGLIDER | LOAD TESTED

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 BGD KISS

The KISS is a lightweight, small-packing wing for hike-and-fly and mountain flying. It's made from light but durable materials and has very wide weight ranges. Its behaviour depends on wing loading. Flown lower in the weight range it is an easy and safe soaring and thermalling wing suitable for all qualified pilots; at high wing loadings it is much more fast and dynamic, and should only be flown by experienced pilots.

Your paraglider 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 paraglider. If you ever need any replacement parts or further information, please do not hesitate to contact your nearest BGD dealer or contact BGD directly.

Please read this manual carefully from the first to the last chapter to ensure you get the best out of your new wing.

2. Introduction

Limitations

This is a single-seat paraglider. It is not intended for tandem use, nor for aerobatic manoeuvres.

The KISS has not been tested for winching.

This paraglider must not:

1. Have its trim speed adjusted by changing the length of risers or lines
2. Be flown in rain or snow
3. Be towed with a tow-line tension in excess of 200kg

Test flight and Warranty

It is your dealer´s responsibility to test fly the paraglider before you receive it, to check the trim settings are correct. The test flight record of this is in the service booklet at the end of this manual. Please ensure that this has been completed by your dealer.

The warranty may be invalid if the test flight record has not been completed by the dealer.

In order to enjoy full benefits of the BGD warranty, you are required to complete the warranty form on the website. For further information, please refer to the corresponding page on www.flybgd.com.

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.

Brake lines
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, the brake lines are made from Dyneema, and it is possible that shrinkage can occur. It may therefore be necessary to lengthen the brake lines. This can be done by adjusting the knots.

3. Preparation

Connecting the speedbar

Your paraglider is sold with accelerator risers, and can be flown with or without a speedbar. The speedbar should be connected and adjusted following the instructions in your harness manual to ensure correct routing of the lines. Connect the Brummel hooks on the speedbar to those on the risers' speed system, ensuring the lines run freely and are not caught around anything (reserve handle, risers or lines).

To adjust the speedbar length, sit in your harness and ask an assistant to hold the risers up in their in-flight position. The speedbar length should 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 used 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. Unroll the canopy so that the bottom surface is facing upwards, with the cell openings at the downwind end of the take-off area, and the harness at the trailing edge at the upwind side.

3. Open the canopy out to each side so that the leading edge openings form a semicircular shape, with the trailing edge drawn together as the centre of an arch. The harness should be drawn away from the canopy until the suspension lines are just tight.

Pre-flight inspection

Your paraglider 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 paraglider check the outside of the canopy for any tears where your paraglider may have been caught on a sharp object or even have been 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. It is particularly important that 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 brake lines should be the same length and this can be checked by asking an assistant to hold the upper end of the brake lines together whilst the pilot holds the brake handles. The brake lines should be just slack with the wing inflated when the brakes are not applied. After checking the brake lines lay them on the ground.

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 strapping in to 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 paraglider is now ready for flight.

4. Flight Characteristics

This manual is not intended as an instruction book on how to fly your paraglider. You should be a qualified pilot or under suitable supervision, but the following comments describe how to get the best from your wing.

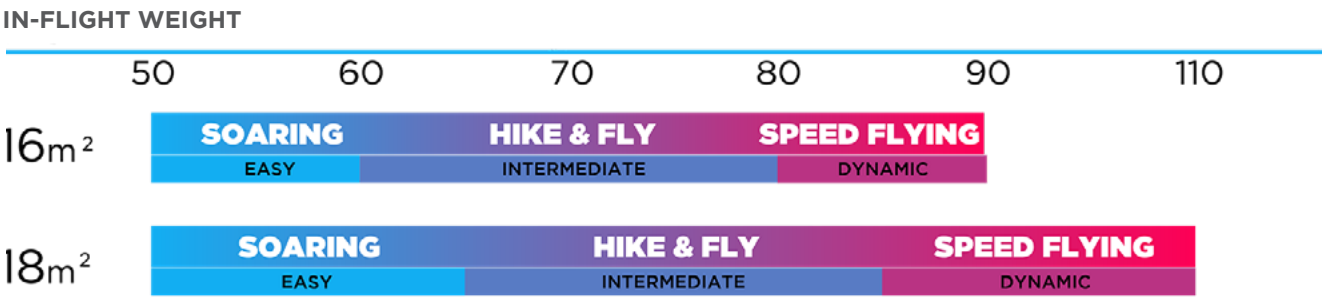
Weight range

Each paraglider size is approved for a certain weight range. The weight refers to the 'overall take-off weight', which is the weight of the pilot, the glider, the harness and all other equipment carried in flight.

The KISS has a very wide weight range, and wing loading greatly affects its characteristics.

Lightly loaded, it is an easy soaring wing with safe flight characteristics and a trim speed of approximately 35km/h, that is suitable for all qualified pilots.

Flown at the top of the weight range, it is a fast (estimated trim speed of 45km/h) and dynamic wing, which is more demanding to fly, and suitable for experienced pilots only.



Active Piloting

'Active piloting' is a tool that will help you fly with greater safety and enjoyment. It means flying in empathy with your paraglider. This means not only guiding the glider through the air but also being aware of feedback from the wing, especially in thermals and turbulence. If the air is smooth the feedback can be minimal but in turbulence feedback is continuous and needs to be constantly checked by the pilot. Such reactions become instinctive in good pilots.

In order to get the best performance from the wing, you should try to control it though small brake inputs and weight-shift, rather than constantly being present on the brakes. A small movement early is more efficient than a big brake movement later to control the wing. The more you let the glider fly at trim speed, the better performance you will get out of it. The objective of active piloting is to get the glider to fly smoothly through the air with a stable position above the head, and controlled angle of incidence. Your paraglider is highly resistant to collapse without any pilot action at all, but learning how to fly actively will increase this safety margin even further.

Take-off

Your paraglider is easy to inflate in both light and 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) and needs very little pressure on the A-risers to launch.

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 (the A-risers are marked with red) and begin your launch run, gently and smoothly guiding the A-risers. As soon as the canopy starts to rise off the ground, release the pressure on the A-risers, but apply pressure on all the risers evenly through the harness. 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 using the A-risers, whilst facing it. The paraglider has little tendency to overshoot, and releasing pressure on the A-risers when it is at about 45° will help to avoid overshooting. The stronger the wind and the greater the pressure on the A-risers, the more quickly the canopy will rise.

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. To attain a more efficient turn at minimum sink, apply some brake to the outside wing to slow the turn and prevent excessive banking. The glider flies very well like this, but care must be taken not to over-apply the brakes as, even though the glider has a low spin tendency, this could result in a spin. The wing will turn far more efficiently if you weight-shift into the turn in the harness. Remember that violent brake application is dangerous and should always be avoided.

Straight Flight

The paraglider will fly smoothly in a straight line without any input from the pilot. At the maximum in-flight weight, without the accelerator your glider will fly at approximately the trim speed noted in the Specifications table.

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 weight-shifting 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).

Rapid descent procedures

Big Ears
The wingtips of your paraglider can be folded in (big ears) to increase its sink rate. The Big Ear facility does not mean you should fly in stronger winds, but it allows you to descend quickly without substantially reducing the forward speed of the canopy. B-line stalls also allow for fast descent, but they result in greatly reduced forward speed.

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 30 cm 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 by weight-shifting with Big Ears in is possible. If the Big Ears do not come out quickly on their own, a 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 is a fast descent method and is a useful emergency procedure. Keeping hold of both brakes, take hold of the top of the B-risers, one in each hand, and pull them down by around 50cm. 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 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, normally 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 (see also also Chapter 5).

Spiral Dive

A normal turn can be converted into a strong 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.

If the pilot increases the descent rate of the spiral to over 16m/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 a special type of spiral dive 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 unless supervised by a qualified SIV instructor, as they can be dangerous.

Care should be taken when exiting from any spiral dive. To pull out of a steep spiral dive, release the applied brake gradually 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 potential dive with the brakes. Also be ready to encounter turbulence when you exit from a spiral because you may fly though your own wake, which can cause a collapse.

CAUTION: SPIRAL DIVES CAN CAUSE LOSS OF ORIENTATION (black out) AND TAKE SOME TIME TO EXIT FROM. THIS MANOEUVRE MUST BE EXITED IN TIME AND WITH SUFFICIENT HEIGHT!

Accelerated Flight

Launching and general flying is normally done without using the accelerator. The accelerator bar can be used when higher speed is important. A pilot flying at the maximum in-flight weight will be able to reach the glider's top speed when pushing the accelerator system fully. Glide angle is recuced with full speedbar applied, and the canopy is slightly more susceptible to deflations.

Using the speedbar can require some effort and the pilot's balance in the harness can be affected. It may be necessary to make some adjustments to the harness.

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

To fly at maximum speed the speedbar should be applied smoothly and gradually until 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.

IMPORTANT:

1. Practise using the speed system in normal flying.

2. Take care when flying fast in rough or turbulent conditions as deflations are more likely to occur at speed. Speed is increased by reducing the angle of attack, which means the canopy has slightly more collapse tendency.

3. Remember that glide deteriorates at higher speeds. Best glides are achieved when the risers are level and the brakes are off.

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

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. The glider can also be steered using the rear-risers but be careful not to cause a premature stall.

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

5. Recovery Techniques

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. A pre-release of the brakes and the reconstruction of the full span is recommended to avoid the tips getting cravatted during the recovery. Pilots are advised never to attempt this manoeuvre unless under SIV instruction. This manual is not intended to give instruction in this or any other area.

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.

If the deep stall is particularly stubborn and the previous methods do not work then a full stall will solve the problem. To do this apply both brakes fairly quickly, as if to do a strong stall, then immediately release both brakes and damp out the forward surge in the normal way. The canopy will swing behind you then automatically reinflate and surge forward in front of you before returning to normal flight. It is the surge forward that exits the canopy from deep stall.

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 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 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.

NOTE: Test pilots have tested your new paraglider well beyond the normal flight envelope, but 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.

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.

6. Storage and Servicing

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!

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

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 no longer than 100mm 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, 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 paraglider lines and repairs which we have produced and fitted or repaired ourselves.

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.

7. Technical data

Materials

The KISS is made from the following quality materials:

Top surface:	Porcher Skytex 27g/m^2, 32m^2
Bottom surface:	Porcher Skytex 27g/m^2
Internal structure:	Porcher Hard Skytex 27g/m^2
Nose reinforcing:	Plastic wire PA orange 2.4mm
Risers:	13mm Kevlar/nylon webbing
'Pulleys':	Low-friction rings
Top lines:	Edelrid 8000U (Unsheathed)
Middle lines:	Edelrid 8000U (Unsheathed)
Lower lines:	Liros TSL (Sheathed)
Brakes:	Liros DSL (Sheathed)

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

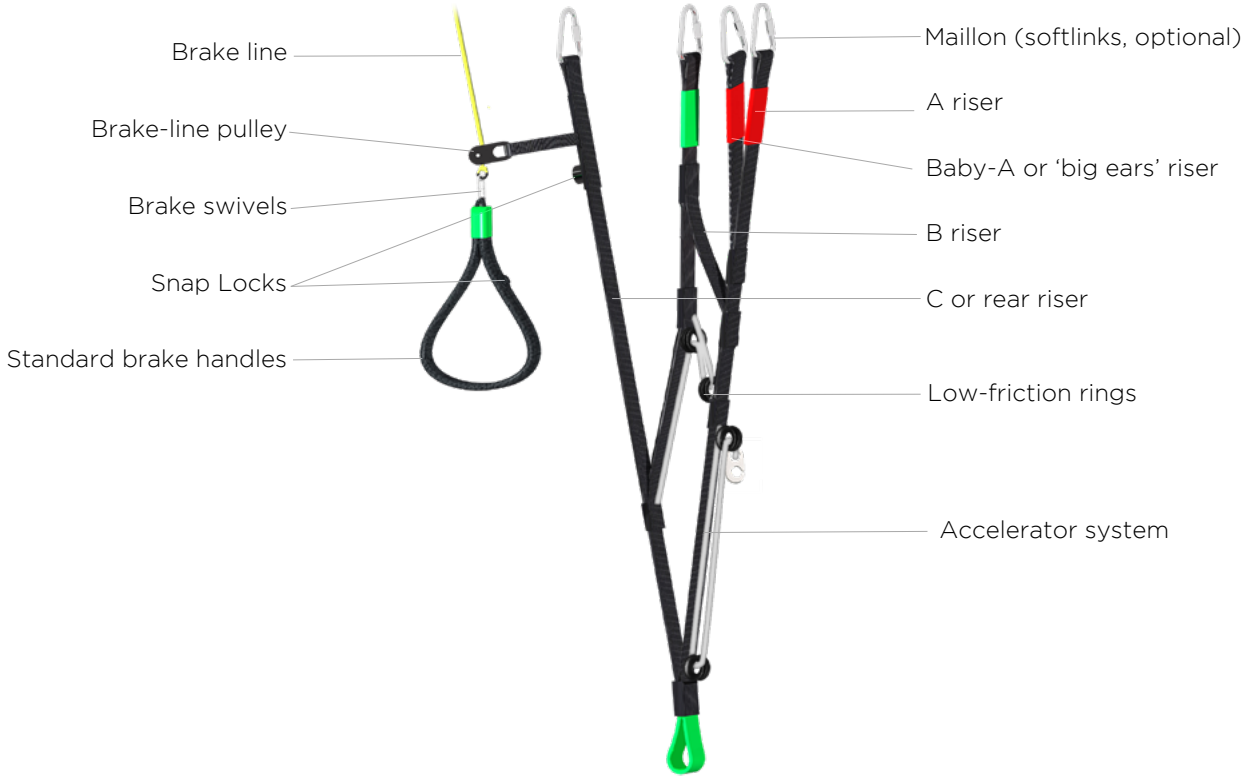
BRUCE GOLDSMITH DESIGN

Specifications

	16	28
Linear scaling factor	0.94	1
Projected area (m^2)	13.5	15.23
Flat area (m^2)	16	18
Glider weight (kg)	2.3	2.6
Total line length (m)	184	207
Height (m)	5	5.8
Number of main lines	3/4/3	
Cells	36	
Flat aspect ratio	4.9	
Projected aspect ratio	3.5	
Root chord (m)	2.3	2.4
Flat span (m)	8.8	9.3
Projected span (m)	6.9	7.3
Weight range (kg)	50-90	50-110
Min sink (m/s)	1	
Best glide	8	
Certification	Load test	

Overview of glider parts

Risers



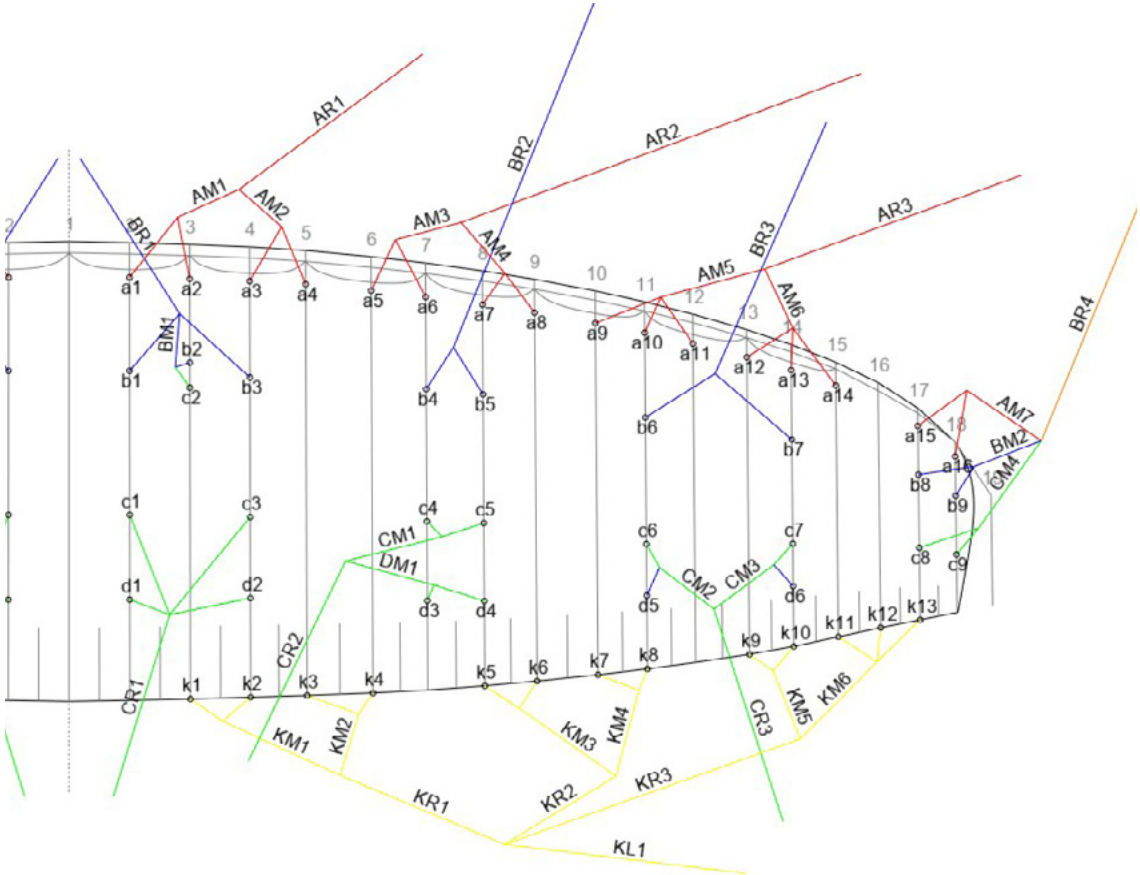
The riser set does not have trimmers, or any other adjustable or removable device.

Brake and Speedbar Travel

Size	Riser length (mm)*	Accelerator length (mm)	Brake range (cm)**
16	500	130	55
18	500	130	60

*Actual riser lengths may differ by not more than 5mm
** Maximum symmetric control travel at maximum weight in flight

Line Plan


AR1
AR2
AR3
BR1
BR2
BR3
BR4
AM1
AM2
AM3
AM4
AM5
AM6
AM7
BM1
BM2
CM1
CM2
CM3
CM4
DM1
CR1
CR2
CR3
KM1
KM2
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KM5
KM6
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k13

Line length checks

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.

Bridle check table, 16

	A	B	C	D	K
1	5489	5403	5445	5565	5623
2	5454	5361	5358	5526	5509
3	5446	5363	5406	5515	5399
4	5468	5329	5383	5510	5386
5	5440	5323	5376	5421	5262
6	5403	5258	5337	5301	5223
7	5391	5157	5232		5185
8	5403	4948	5022		5185
9	5387	4881	4962		5128
10	5327				5068
11	5307				4970
12	5258				4929
13	5200				4950
14	5176				
15	4996				
16	4889				

Bridle check table, 18

	A	B	C	D	K
1	5820	5728	5772	5901	5898
2	5784	5685	5681	5860	5811
3	5776	5688	5733	5851	5748
4	5801	5654	5710	5846	5761
5	5771	5648	5704	5753	5611
6	5733	5582	5664	5628	5558
7	5721	5474	5555		5516
8	5733	5251	5329		5506
9	5718	5179	5266		5403
10	5652				5345
11	5631				5267
12	5581				5210
13	5521				5239
14	5494				
15	5303				
16	5189				

Line lengths, 16

a1	955	AM1	743	AR1	3267
a2	920				
a3	918	AM2	737		
a4	940				
a5	865	AM3	830	AR2	3221
a6	828				
a7	765	AM4	881		
a8	777				
a9	905	AM5	1594	AR3	2363
a10	845				
a11	825				
a12	846	AM6	1524		
a13	788				
a14	764				
a15	412	AM7	660		
a16	305				

b1	1088	BM1	710	BR1	3783
b2	342				
b3	1048				
b4	346			BR2	4451
b5	340				
b6	1949			BR3	2777
b7	1848				
b8	335	BM2	687	BR4	3406
b9	268				

c2	339						
c1	1216			CR1	3704		
c3	1177						
d1	1336						
d2	1297						
c4	400	CM1	516	CR2	3946		
c5	393						
d3	385	DM1	662				
d4	380						
c6	639	CM2	954	CR3	3223		
d5	723						
c7	524	CM3	964				
d6	593						
c8	296	CM4	800				
c9	236						

k1	492	KM1	917	KR1	2467	KL1	1755
k2	378						
k3	514	KM2	671				
k4	501						
k5	438	KM3	650	KR2	2427		
k6	399						
k7	433	KM4	578				
k8	433						
k9	431	KM5	871	KR3	2079		
k10	371						
k11	628	KM6	516				
k12	587						
k13	608						

Line lengths, 18

a1	1013	AM1	787	AR1	3496
a2	977				
a3	973	AM2	783		
a4	998				
a5	918	AM3	879	AR2	3450
a6	880				
a7	812	AM4	935		
a8	824				
a9	962	AM5	1690	AR3	2541
a10	896				
a11	875				
a12	897	AM6	1618		
a13	837				
a14	810				
a15	438	AM7	700		
a16	324				

b1	1154	BM1	753	BR1	4042
b2	364				
b3	1114				
b4	368			BR2	4754
b5	362				
b6	2069			BR3	2981
b7	1961				
b8	356	BM2	728	BR4	3647
b9	284				

c2	360				
c1	1289			CR1	3958
c3	1250				
d1	1418				
d2	1377				
c4	424	CM1	547	CR2	4218
c5	418				
d3	409	DM1	702		
d4	404				
c6	679	CM2	1011	CR3	3453
d5	768				
c7	557	CM3	1024		
d6	630				
c8	314	CM4	848		
c9	251				

k1	521	KM1	723	KR1	3161	KL1	1501
k2	434						
k3	532	KM2	562				
k4	545						
k5	445	KM3	610	KR2	3063		
k6	392						
k7	418	KM4	542				
k8	408						
k9	427	KM5	502	KR3	2981		
k10	369						
k11	402	KM6	391				
k12	345						
k13	374						

8. Service Booklet

Test Flight Record

Model	
Size	
Serial Number	
Colour	
Date of test flight	
Company signature and stamp	

BRUCE GOLDSMITH DESIGN

Service Record

Service No 1:
Date :

Stamp - Signature :

No flights :

Type of service :

Service No 2:
Date :

Stamp - Signature :

No flights :

Type of service :

Service No 3:
Date :

Stamp - Signature :

No flights

Type of service :

Owner Record

Pilot No 1

First name	
Family name	
Street	
City	
Post code	
Country	
Telephone	
Email:	

BRUCE GOLDSMITH DESIGN

Owner Record

Pilot No 2

First name	
Family name	
Street	
City	
Post code	
Country	
Telephone	
Email:	

9. Closing Words

The Kiss is an advanced, stable glider that promises 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 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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