

**DAVINCI**  
GLIDERS

**CLASSIC<sup>2</sup>**



REV. 1

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## Congratulations!

Congratulations!  
Thank you for choosing the CLASSIC2.

The CLASSIC has been designed for who are willing to progress in the sport safely, chasing their first XC flights but who are also comfortable with the technical control of this type of glider. The CLASSIC is an easy and fun paraglider with excellent glide and a very efficient speed system designed as a Low EN-B class glider.

This manual will help you to get all information about your glider . We strongly recommend that you read this manual carefully in order to be aware of any general limitations , performance characteristics , take - off and flight characteristics , landing procedures , dealing with emergency situations , and general maintenance.

This is information about the design of the CLASSIC2, advice on how to use it best and how to care for it to ensure it has a long life,

**-DAVINCI GLIDERS TEAM-**

### **WARNING!**

THIS IS NOT A TRAINING MANUAL. ATTEMPTING TO FLY THIS OR ANY OTHER PARAGLIDER WITHOUT PROPER INSTRUCTION FROM A CERTIFIED PROFESSIONAL INSTRUCTOR IS EXTREMELY DANGEROUS TO YOURSELF AND BYSTANDERS.

DAVINCI GLIDERS are carefully manufactured and inspected at the factory. Please use the glider only as described in this manual.

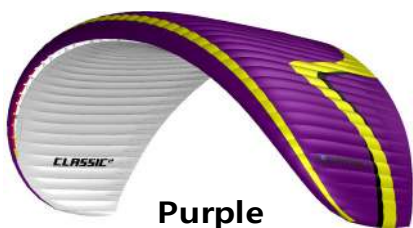
Do not make any modifications to the glider.  
As with any sport – without taking the necessary safety precautions, paragliding can be dangerous.

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# 1. Technical DATA

CLASSIC2			XS	S	M	L
CELLS	NUMBER		48	48	48	48
	CLOSED		10	10	10	10
FLAT	AREA	m <sup>2</sup>	22.8	24.9	26.9	29.2
	SPAN	m	10.8	11.3	11.7	12.2
	ASPECT RATIO		5.1	5.1	5.1	5.1
PROJECTED	AREA	m <sup>2</sup>	19.2	21.0	22.7	24.6
	SPAN	m	8.51	8.89	9.24	9.63
	ASPECT RATIO		3.77	3.77	3.77	3.77
FLATTENING		%	15.7	15.7	15.7	15.7
CORD	MAX	m	2.53	2.65	2.75	2.86
	AVER	m	2.1	2.2	2.3	2.4
LINES	HEIGHT	m	6.69	6.99	7.26	9.63
	MAIN		3/4/3			
RISERS	NUMBER	3	A,A'/B/C			
	TRIMS		NO	NO	NO	NO
	ACCELERATOR		140	140	140	140
WEIGHT RANGE	MIN-MAX	KG	60-85	70-95	80-105	90-120
CERTIFICATION	EN-926-1/2 LTF	KG	EN-A	EN-A	EN-A	EN-A
GLIDER WEIGHT		KG	5.1	5.4	5.7	6.1



## 2. Materials DATA

CANOPY	FABRIC CODE	SUPPLIER
UPPER SURFACE	MJ40 MF	MYUNGJIN TEXTILE
BOTTOM SURFACE	MJ40 MF	MYUNGJIN TEXTILE
PROFILES	MJ38 HF / MJ32 HF	MYUNGJIN TEXTILE
DIAGONALS	MJ32 HF	MYUNGJIN TEXTILE
Smart Nose Plus/ Smart Double layer	MJ 38 HF	MYUNGJIN TEXTILE

SUSPENSION LINES	FABRIC CODE	SUPPLIER
UPPER CASCADES	TNL 80	Daegu Braiding Co
MIDDLE CASCADES	TNL180/145	Daegu Braiding Co
MAIN	TNL 280/220/180	Daegu Braiding Co
UPPER STABLE	TNL 80	Daegu Braiding Co
MAIN STABLE	TNL 180	Daegu Braiding Co
UPPER BRAKE	TNL 80	Daegu Braiding Co
MIDDLE BRAKE	TNL 145	Daegu Braiding Co
MAIN BREAK	TNL 400	Daegu Braiding Co

RISERS	FABRIC CODE	SUPPLIER
MATERIAL	WEBBING 20MM	GUTH&WOLF GMBH
PULLEYS	RIELY	LW RILEY PTY LTD

### 3. Introduction and Pilot Target

The CLASSIC2 has been designed for who are willing to progress in the sport safely, chasing their first XC flights but who are also comfortable with the technical control of this type of glider.

The CLASSIC2 is an easy and fun paraglider with excellent glide and a very efficient speed system designed as a low EN-B class glider but received EN-A grade in all conditions of maneuver. Long brake travel and excellent passive safety, as well as the good stability make the good ideal for progression.

CLASSIC2 has EN-B performance, but EN-A safety is secured by applying the Smart Double Layer System(SDL) to ensure safety in flight, starting from Davinci's R&D.

-LTF and EN certification

-The CLASSIC2 is certified during official testing as LTF /EN-A.

-The glider has been type-tested for "one-seated" use only. -

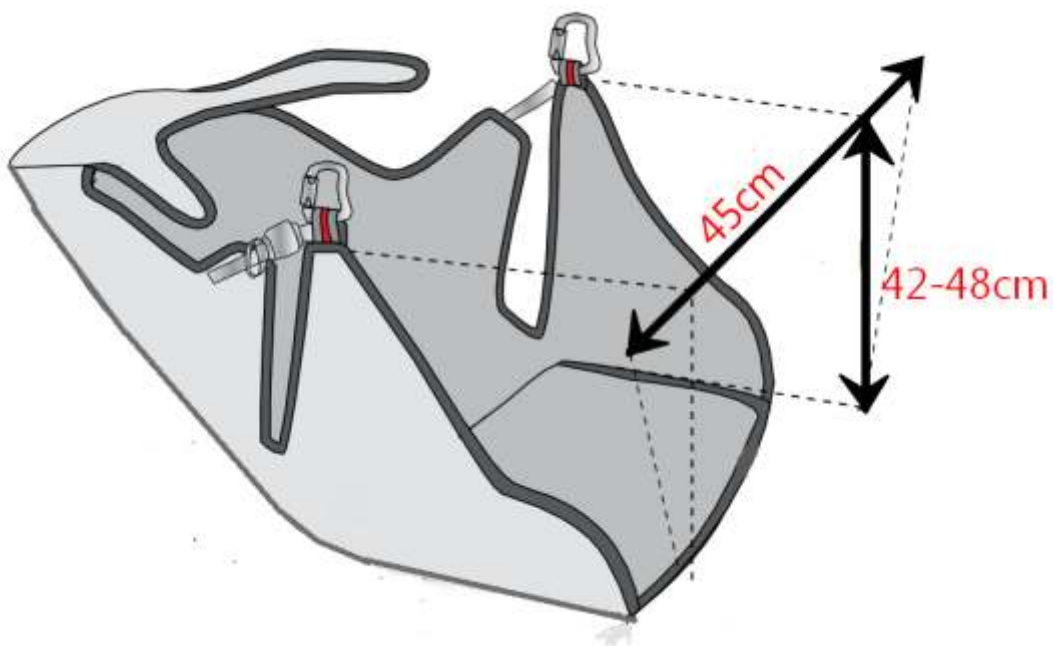
Suitability for training : The CLASSIC2 is suitable for use in school and educational XC flying.

-For the CLASSIC2 has a maximum of 65cm symmetrical travel length at maximum total-load.

It would be dangerous to use the brake travel according to those numbers, because it is not practicable to measure the brake travel during flight, and in turbulence, the stall might occur with less brake travel. If you want to use the whole brake travel of your glider safely, it is necessary to do many intended spins and full stalls to get a feeling for the stall behavior.

### 4. Harness

The CLASSIC2 is certified for harnesses in Group GH(without rigid cross-bracing). The suspension points of the chosen harness should ideally have a carabiner distance of approximately 45cm and a height of 40 to 48cm.



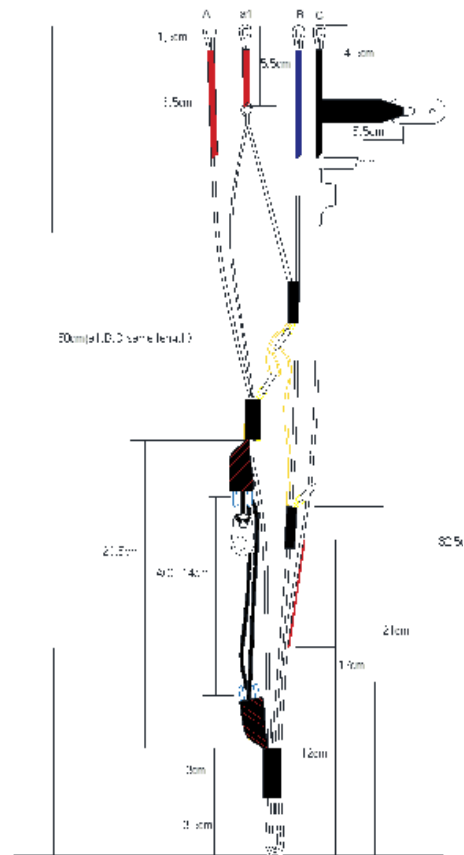
## 5. Risers

CLASSIC2 has 3 risers. The A riser has a red cover to easy identification. There is another line with red mailon. There is A' and is for the big ears.

The Difference of riser length should be no more than  $\pm 5$  mm

S, M, L	Standard (With biner) [mm]	Accelerated (With biner) [mm]	Travel length [mm]
A	500 (525)	500 (525)	0
B	500 (525)	430 (465)	70
C	500 (525)	360 (405)	140

XS	Standard (With biner) [mm]	Accelerated (With biner) [mm]	Travel length [mm]
A	480 (505)	480 (505)	0
B	480 (505)	410 (435)	70
C	480 (505)	340 (365)	140



## 6. Lines

They come in different diameters of Kevlar and Dyneema with sheathed cover. They must be inspected every 150 hours or 24months maximum.

In the case of Brake lines, it was cut a little longer, so every pilot can adjust it according to his personal taste.

But you must always leave 10cm before the brakes line starts acting in order to avoid trailing edge deformation when the wing is fully accelerated. In case the brake handle comes loose during flight or any brake lines are cut you can use the C riser softly for directional control instead of the brake line.

## 7. Accelerator system

The accelerator has been limited in travel up to a safety point, however, you can gain 8-12 km of extra speed. The speed system length is 14cm.

You have to adjust the harness to the speed system so you can use all the speed travel.

To do so you have to be seated in the ground meanwhile you are in your harness and adjust the lines by pulling up the risers with tension. Another person's helps to do this is recommended. Make sure also that the speed bar is not pulling down the risers when you are not using it.

Once all the gear is rigged you have to test the whole speed travel in calm air. The use of the speed system reduces the angle of attack and the canopy may be more sensitive to collapses therefore do not use near the ground or in turbulent air and in case you are hit by turbulence remove your feet off the speed bar as quickly as possible. Always far away from the ground when using the speed bar.

## 8. Pre-flight check

To know yourself with the glider it is a good idea to perform practice inflations and ground handling in advance. You should have no difficulties flying the CLASSIC2 for the first time in suitable conditions, but as with all new equipment.

When you have the new glider, the below points should be inspected.

- Check the lines are clear and not twisted.
- Connection points between the glider and harness.
- All harness buckles are closed.
- The Karabianers are fully closed and not damaged.
- The sewing, condition of the lines, and connection of the lines are right
- Internal damage to ribs and diagonal ribs.
- Damage to the top and bottom panels and seams between panels

## 9. Take-Off

CLASSIC2 has easy inflation behavior at the forward/reverse launch because of its profile system. To get the right-wing shape for the take-off, pull the brake until the canopy shows the perfect banana shape on the flat ground. While inflating the CLASSIC2, you should hold both of the A risers in your hands. Smoothly and gradually inflate the wing. It does not need excessive energy and you feel the lift force very fast. It does not tend to over-shooting characteristics and provides

### 9.1 Tow launch

The CLASSIC2 is easy to launch using a winch and it has no special skills. To practice this launching technique special training is needed and you have to know the procedures and dangers, which are specific to winching. We do not recommend using any special towing device which accelerates the glider during the winch launch.



## 10. In flight characteristics

CLASSIC2 has the best stable glide performance in a normal position with no any brakes. In strong thermals and turbulence, we recommend gently pull both brakes without acceleration to increase stability. The brakes provide feedback about the surrounding air, which is needed for active flying.

To familiarize yourself with the CLASSIC2 your first turns should be gradual and progressive. To make efficient and coordinated turns with the CLASSIC2 first look in the direction you want to go and check that the airspace is clear. Your first input for directional change should be weight-shift, followed by the smooth application of the brake until the desired bank angle is achieved. To regulate the speed and radius of the turn, coordinate your weight shift and use the outer brake.

In the unlikely event that a brake line releases from the brake handle or breaks, the glider is maneuverable using the C-risers. By pulling gently on the C-risers it is possible to steer the glider and land safely.

### Alternative Steering:

In the unlikely event, that a brake line releases from the brake handle, or breaks, or the brake-lines are tangled up, the glider is maneuverable using the rear-risers. By pulling gently on the rear-risers, it is possible to steer the glider and land safely. Don't pull the rear-risers too much, to avoid a deep stall!

## 11. Deflations

In spite of the CLASSIC2 has great stability of the flight, strong turbulence or piloting error may cause a portion of the wing suddenly to be deflation.

### 11.1 Asymmetric collapse

The asymmetric collapse usually happens when the pilot has not foreseen this possible reaction of the wing.

Asymmetric collapses should be controlled by weight shifting away from the collapse and applying enough brake to control your direction. And you should use the brake to re-inflate the glider.

### 11.2 Frontal collapse

CLASSIC2 does not come out asymmetrical front collapse by itself. It has high internal pressure with its well-designed profile. However asymmetric collapse may occur in strong turbulent conditions, but It could be fast recovered if you apply the brake down to 15 to 20cm. Release the brake lines, you may recover to the normal flight.

### 11.3 Full stall

The full stall can occur when you fully pull both brakes enough a long time. This means that the wing loses its forward momentum. To recover to the normal flight you must release both brakes. After this usually comes a front dive with a possible front deflation. An asymmetric recovery (one control released faster than the other) from a full-stall can cause a big dynamic collapse. The full-stall is a hazardous maneuver and as such outside the scope of this manual. You should practice and learn this maneuver only on an SIV course under a professional instructor.

### 11.4 Deep stall

It is possible for gliders to enter a state of the deep stall. This can be caused by several situations including; a very slow release from a B-line stall; flying the glider when wet; a very old glider; or after a front/symmetric deflation.

When you meet this situation you should fully raise up both brakes and push the A-risers forwards or use the speed bar symmetrically to regain normal flight.

### 11.5 Asymmetrical stall

It can take place when you pull one of the brakes too hard, or while spiraling at a small speed in turbulence you increase the angle of attack. Rotation in the asymmetrical stall is called a negative spiral. This is one of the most dangerous flying situations. In order to get out of the asymmetrical stall, just release the brakes. There may follow side thrust forward with the following wing collapse.

### 11.6 B stall

The CLASSIC2 has a very clean stable B stall. To enter the B stall, the pilot has to pull the first 20cm slowly until the glider loses forward speed and starts to descend at around 6 m/s vertically. Do not release the brake handles during B stall. If you pull too much B-line the glider may horseshoe and move around a lot. If this happens, release the B risers.

To exit the B-stall the B-risers should be released symmetrically and in one smooth, progressive motion. The glider will resume normal forward flight without further input. Check you have a forward flight again before using the brakes.

## 11.7 Cravat

In case a cravat should occur from an asymmetric collapse or other maneuvers, it is important to keep your flying direction by applying some brake on the opposite side and weight shift.

You can also use strong deep pumps on the brake to the cravated side. If a pull of the brake line is unsuccessful, pulling the stable line which is the outermost line on the B-riser may work.

If you can not do it and the rotation is increasing, you must use the parachute.

# 12. Descent Techniques

## 12.1 Big ears

The sink rate can be decreased in a controlled way by folding both wingtips. While holding the brakes you should symmetrically pull the outermost A-risers.

In order to return to the normal flight, you should release the A-risers and pull the brake short times until wing tips regain pressure.

Spiraling is not permitted with big ears, because of the increased load on the remaining lines so that they can be physically deformed.

## 12.2 Spiral dive

The spiral dive is the most demanding descent technique and should be learned at enough height, preferably during an SIV course.

When you hold one-sided brake down for a long time, the glider goes into a fast sharp turn and loses a lot of height. The sink rate could be more than 15 m/sec. To get out of the spiral dive you must release the inner brake and use the outside brake to manage your sink rate. Mind that CLASSIC2 may take one more turn after releasing the brake.

## 13. Landing

We recommend landing with trimmers to the normal slow position. Don't use sharp turns or radical maneuvers.

When you are 1-2m over the ground, you should face into the wind and standing upright and ready to run. Finally, you may pull the brakes smoothly for minimizing vertical speed.

Don't hit the ground by your overtake the glider. If you in windy condition, as soon as you touch the ground you have to turn around to face the glider and move towards it during full pulling break symmetrically.

## 14. Packing your CLASSIC2

Spread the CLASSIC2 completely out on the ground. Separate the lines to each side. The CLASSIC2 must be folded cell to cell to keep the plastic reinforcement at the leading edge lie flat on each other and don't get bent. Try to pack your CLASSIC2 as loosely as the rucksack allows because every fold weakens the fabric.

Avoid packing the glider where it is wet or abrasive conditions(sand, asphalt pavement, concrete)

## 15. Maintenance and cleaning

Cleaning should be carried out with only pure water. If the glider comes in contact with salt water, clean thoroughly with fresh water. Do not use solvents of any kind, as this may remove the protective coatings and destroy the fabric.

## 16. Caring tips

- Do not expose your glider to the sun any longer than necessary
- Keep it away from water and other liquids
- Do not let the front edge hit the ground
- Keep your glider away from fire
- Do not put anything heavy on your glider, do not pack it in a rucksack too tightly.
- Regularly inspect the canopy, lines, risers and harness. If you find any defects, contact your dealer or the manufacturer. Do not attempt to repair the paraglider by yourselves.
- If you detect a damaged line, inform the dealer or manufacturer about the line number according to the line plan
- Keep your CLASSIC2 in a bag in a dry well-ventilated place under neutral temperature and humidity conditions
- If you do not use the glider, then once a month you should unpack it, ventilate it well, and then pack it back in the bag

## 17. Warrantee

The producer guarantees the correctness of the declared characteristics and the paraglider's normal performance for two years after the purchase date. The producer conducts special, and after warranty repairs and maintenance at the owners' request for an extra price.

We recommend inspecting your paraglider (including checking suspension line strength, line geometry, riser geometry, and permeability of the canopy material) one time at two years, or every 150 hours of flying time (whichever comes first); that inspection must be made by the manufacturer, importer, distributor, dealer or other authorized persons.

The checking must be proven by a stamp on the certification sticker on the glider as well in the manual book.

There are not necessary spare items except the rubber ring to fix the main lines on the riser triangle carabiner. The rubber rings will be offered by us in the repair kit offering with the glider. You can exchange it by yourself when it has been disappeared or wears off. After you exchange the rubber ring, you must check again the triangle carabiner on the riser has been locked well before you fly.

## 18. Respecting nature and environment

Finally, we would ask each pilot to take care of nature and our environment. Respect nature and the environment at all times but most particularly at take-off and landing places. Respect others and paraglider in harmony with nature.

Do not leave marked tracks and do not leave rubbish behind. Do not make unnecessary noise and respect sensitive biological areas.

The materials used on a paraglider should be recycled. Please send old Davinci gliders back to us Davinci Gliders offices. We will undertake to recycle the glider.

# Checked line sheet(with riser)

The measured values at the lower surface of the tailing edge, cll depth and spacing of the articulation points were determined under tensile load of 50N. The length difference is not more than  $\pm 10$  mm.

## XS size

	A	B	C	D	Brake
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

## S size

	A	B	C	D	Brake
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					

# Checked line sheet(with riser)

The measured values at the lower surface of the tailing edge, cll depth and spacing of the articulation points were determined under tensile load of 50N. The length difference is not more than  $\pm 10$  mm.

## M size

	A	B	C	D	Brake
1	7212	7109	7197	7343	7729
2	7179	7070	7155	7300	7445
3	7169	7057	7128	7264	7247
4	7191	7076	7143	7272	7147
5	7193	7072	7147	7266	7066
6	7164	7043	7113	7226	6940
7	7148	7028	7088	7193	6900
8	7154	7036	7092	7188	6948
9	7103	6995	7051		6830
10	7053	6953	7009		6766
11	6963	6878	6932		6877
12	6890	6819	6871		
13	6877	6813	6861		
14	6678	6618	6709		
15	6451	6477	6589		

## L size

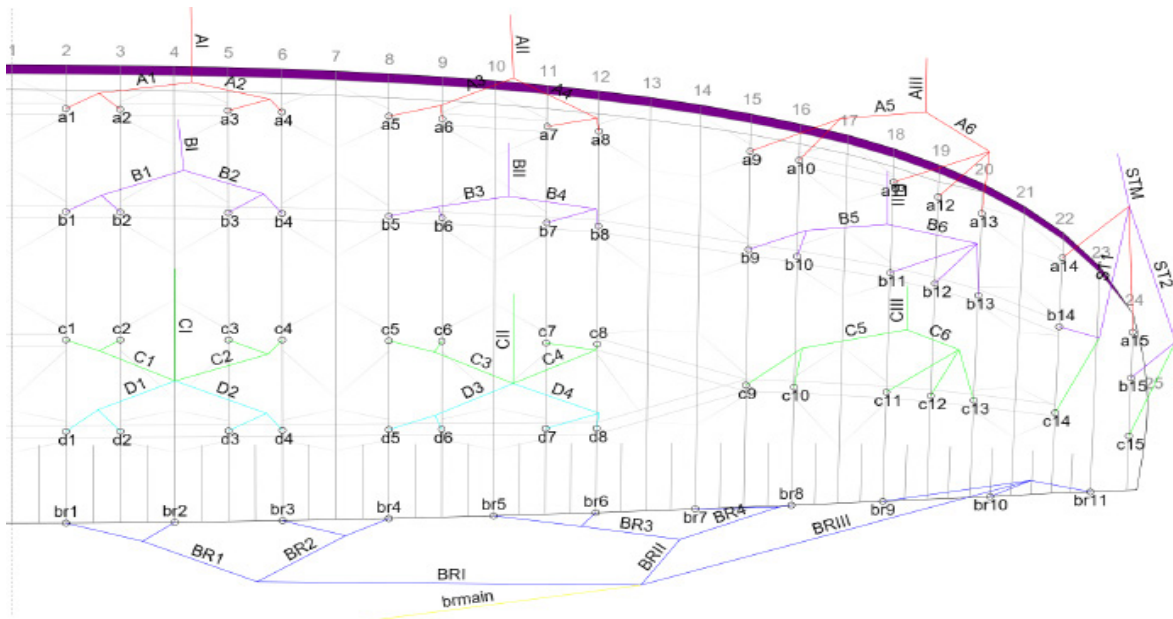
	A	B	C	D	Brake
1	7513	7407	7493	7645	8077
2	7480	7371	7450	7601	7782
3	7470	7354	7423	7564	7578
4	7494	7374	7438	7573	7474
5	7496	7371	7443	7566	7375
6	7466	7341	7407	7525	7245
7	7450	7325	7382	7491	7203
8	7457	7333	7386	7486	7252
9	7402	7290	7339		7130
10	7350	7247	7295		7064
11	7256	7168	7214		7165
12	7181	7107	7151		
13	7165	7099	7140		
14	6948	6886	6981		
15	6712	6739	6855		

## Line Materials

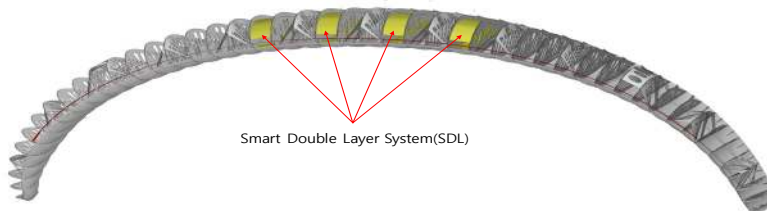
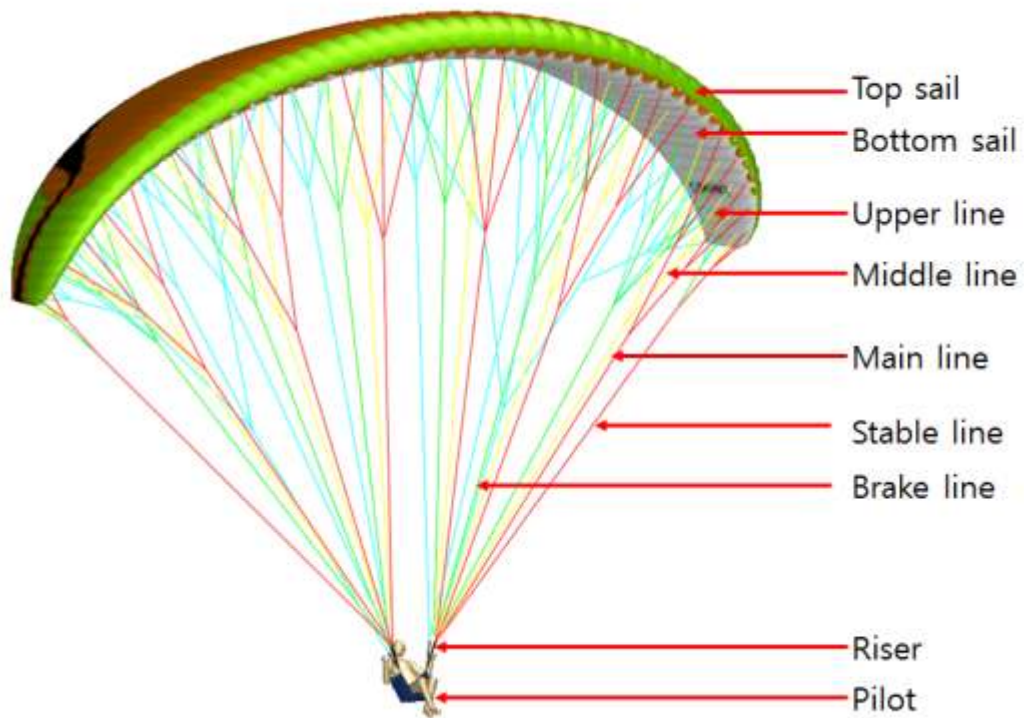
Name	Manufacturer	Name	Manufacturer	Name	Manufacturer	Name	Manufacturer	Name	Manufacturer
a1	TNL-80	b1	TNL-80	c1	TNL-80	d1	TNL-80	br1	TNL-80
a2	TNL-80	b2	TNL-80	c2	TNL-80	d2	TNL-80	br2	TNL-80
a3	TNL-80	b3	TNL-80	c3	TNL-80	d3	TNL-80	br3	TNL-80
a4	TNL-80	b4	TNL-80	c4	TNL-80	d4	TNL-80	br4	TNL-80
a5	TNL-80	b5	TNL-80	c5	TNL-80	d5	TNL-80	br5	TNL-80
a6	TNL-80	b6	TNL-80	c6	TNL-80	d6	TNL-80	br6	TNL-80
a7	TNL-80	b7	TNL-80	c7	TNL-80	d7	TNL-80	br7	TNL-80
a8	TNL-80	b8	TNL-80	c8	TNL-80	d8	TNL-80	br8	TNL-80
a9	TNL-80	b9	TNL-80	c9	TNL-80			br9	TNL-80
a10	TNL-80	b10	TNL-80	c10	TNL-80			br10	TNL-80
a11	TNL-80	b11	TNL-80	c11	TNL-80			br11	TNL-80
a12	TNL-80	b12	TNL-80	c12	TNL-80				
a13	TNL-80	b13	TNL-80	c13	TNL-80				
a14	TNL-80	b14	TNL-80	c14	TNL-80				
a15	TNL-80	b15	TNL-80	c15	TNL-80				
								BR1	TNL-145
A1	TNL-180	B1	TNL-180	C1	TNL-145	D1	TNL-145	BR2	TNL-145
A2	TNL-180	B2	TNL-180	C2	TNL-145	D2	TNL-145	BR3	TNL-145
A3	TNL-145	B3	TNL-145	C3	TNL-145	D3	TNL-145	BR4	TNL-145
A4	TNL-145	B4	TNL-145	C4	TNL-145	D4	TNL-145		
A5	TNL-145	B5	TNL-145	C5	TNL-145				
A6	TNL-145	B6	TNL-145	C6	TNL-145				
								BRI	TNL-145
								BRII	TNL-145
						ST1	PPSL 145	BRIII	TNL-145
AI	TNL 280	BI	TNL 280	CI	TNL 220	ST2	PPSL 145		
AII	TNL 280	BII	TNL 280	CII	TNL 220				
AIII	TNL 220	BIII	TNL 220	CIII	TNL 180	Stable	TNL 180	brmain	TNL-400



# Line Plan / Overview



Overview



Smart Double Layer System (SDL)

Smart Double Layer (SDL)

