

**RPM**



**Flow**  
PARAGLIDERS



## WELCOME

*“Flow is a term used to describe the complete (body-mind-soul) feeling of being so totally engaged in an activity that there is a sense of complete immersion in the experience. Self-conscious thoughts give way to feeling at one with the activity and the environment, and time is no longer an ever-present consideration.”*

The experience of flying a paraglider is what inspires us. The pure, focused concentration, the feeling of complete immersion with the environment and the intrinsic pleasure in the activity itself are all sure signs of the flow experience.

Thank you for flying Flow Paragliders. We recommend that you **read this manual before the first flight**. This manual is designed to help you to quickly familiarize with this beautiful glider.



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## 1. General Information

### *User manual for RPM*

*Sizes : 17,18,20 & 23*

This manual offers all the necessary information that will familiarize you with the main characteristics of your new glider. Although this manual informs you about your glider, it does not offer the instruction requirements necessary for you to be able to pilot this type of wing. Flying instruction can only be taught at a paragliding school recognized by the flying federation of your country. Nevertheless, we remind you that it is important that you carefully read all the contents of the manual for your new RPM.

The RPM has been **DGAC certified**, having met all the requirements of **EN 926-1**.

Please note that any changes to the glider will invalidate the result of the certification. Correct usage of the glider is the pilot's responsibility. The manufacturer and distributor do not accept liability for loss or damage as a result of the misuse of this glider. It is the pilot's responsibility to comply with legal regulations and to maintain the airworthiness of the aircraft.



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## 2. Your RPM

RPM is a purebred XC paramotor wing with a design focus on 3 key aspects that work in harmony side by side:

- SPEED
- EFFICIENCY
- STABILITY

RPM is our Cross-Country PPG full reflex wing.

Extremely efficient and stable especially in extreme configurations.

## 3. Design overlook

A glider made to cover big kms in the fastest and most efficient way. Offering an extremely comfortable experience and safety assurance due to the stability of our **“Full Reflex Efficient Profile”**. The **RPM** is extremely efficient, and it can be flown 2 to 3m<sup>2</sup> smaller than your traditional PPG glider.

**RPM** offers remarkable pitch stability and efficiency due to our “Efficient Full Reflex” profile and low-drag line plan. The new aerofoil represents the forefront in paramotor glider design as it brings benchmark fuel efficiency, stability and speed, only to be found in modern paramotor wings. We say “efficient” because full reflex aerofoils traditionally used in PPG wing designs are not efficient aerofoils by any means. However, we have managed to combine some of the key elements of our high-end free-flying gliders and technology into our full reflex paramotor profile, making it extremely efficient and stable.

The result is in an incredibly efficient aerofoil with the same outstanding levels of pitch stability found on full reflex gliders. The RPM’s aerofoil not only gives increased levels of safety and stability also increased efficiency at extremely high AoA’s when flying at speed.

The combination of 60 cells and an AR of 5.8 gives the RPM a very efficient platform making it the perfect cross-country glider. Its compact and playful feel also makes this glider extremely fun to fly and big sweeping turns, wingovers and light Acro manoeuvres can easily be performed on the RPM.

A glider where the intermediate | advanced PPG pilot will feel at home on the very first flight.



## 4. SPECIFICATIONS

## TECHNICAL DATA



	17	18	20	23
FLAT AREA	17.00m <sup>2</sup>	18.00m <sup>2</sup>	20.00m <sup>2</sup>	23.00m <sup>2</sup>
PROJECTED AREA	14.70m <sup>2</sup>	15.562m <sup>2</sup>	17.30m <sup>2</sup>	19.89m <sup>2</sup>
FLAT WINGSPAN	9.93m	10.21m	10.77m	11.65m
PROJECTED SPAN	8.15m	8.38m	8.42m	9.57m
ASPECT RATIO	5.85	5.85	5.85	5.85
PROJECT AR	4.52	4.52	4.52	4.52
NUMBER OF CELLS	60	60	60	60
GLIDER WEIGHT	4.8kgs	5.1kgs	5.4kgs	5.7kgs
PPG RECOMMENDED WEIGHT RANGE	65-130 kgs	75-140 kgs	85-150 kgs	95-160 kgs
PG WEIGHT RANGE	50-95 kgs	55-105 kgs	65-115 kgs	75-125 kgs
CERTIFICATION	EN 926-1 / DGAC*	EN 926-1 / DGAC*	EN 926-1 / DGAC*	EN 926-1 / DGAC*

## 5. TAKE-OFF, FLIGHT, AND FLYING TECHNIQUES

We know that for the PPG pilot, the take-off and landing phase are crucial, and RPM's design is such that launching and landing are both straight forward and predictable. RPM's good efficiency allow for low take-off and landing speeds with good flair characteristics and short take off distances. RPM is damped in both roll and pitch with a good speed range, making it ideal for relaxed cruising flights.

### *5.1 Hang point*

Select the appropriate hang point (upper or lower) according to your harness/power unit system, connect to your power unit and adjust the brake line length accordingly (standard or +10cm from standard).

From the factory RPM is setup as a mid-hang point. Both main brake line and tip steering line are setup perfectly for that setup.

- For a high hang point setup make sure you lengthen the brake lines by about 3cm (main brake line and tip steering line).
- For a low hang point setup make sure you shorten the brake lines by about 3cm (main brake line and tip steering line).

### *5.2 Before Take-off*

- Check the canopy for rips or tears. Also, inspect the internal structure (ribs, diagonals) and seams.
- Check if lines are not damaged or tangled.
- Check if the quick links connection between lines to the risers are undamaged and tightened.
- Check if the risers are not damaged or twisted.
- Check if the speed system works freely and that the lines are long enough.
- Check that the brake handles are correctly attached and that each line runs freely through the pulley.

### *5.3 Take-off*

- Lay the paraglider out with the leading edge in a horseshoe shape.
- The glider should be trimmed "neutral" with the rear riser system pulled shut (see trimmer section below). With the trimmer system fully closed the aero foil is at its most efficient and at its slowest speed.
- Hold the A risers close to the quick links and move forward until the lines get stretched. You should now be perfectly centred with your wing. With no wind or light headwind, with lines stretched, RPM inflates rapidly and rises over your head with some dynamic steps. We recommend that you do not pull risers too forward or down, which could cause a collapse of the leading edge, but simply follow them until the glider reaches its angle of flight. It is important that the centre of gravity of your body stays in front of your feet during the inflation of the glider to constantly load the risers. A controlled inflation allows you to check the canopy and lines during the last phase as it comes up



and thus avoids the need to use brakes. Depending on the wind conditions a gentle and adequate use of brakes can help you to take-off quicker.

#### 5.4 Turning

RPM is designed to turn efficiently and will turn without the need for weight-shift piloting if you choose.

- RPM is designed to be responsive in turns. Trimmers in neutral the turns are docile and predicable; trimmers in “FAST” the turns are dynamic and carry energy, take it slowly to familiarize yourself with the behaviour.
- RPM can also be flown slowly for efficient climb **and** to maintain a flatter turn to minimize sink rate during the turn (with 15% brake).
- Whilst in fully accelerated mode, (full speed bar -& full out trimmers or just full speed bar), the brakes should not be used to turn the wing since the foil will be destabilised.
- Remember finesse is essential when flying a paraglider. Gentle but firm inputs will always keep your glider under control.

#### 5.5 Tip Steering control

It's the second brake line connected to the brake handle (thinner yellow line) and is designed to turn the wing when the trimmers and accelerator are used together. However, the tip steering controls can be used for steering when flying normally at all speed configurations. The controls give a positive turn rate with a recommended operational range of approximately 0 – 40cm. It is not recommended to attempt a landing or flare using the tip steering controls.

See “2D Tip Steering” on page 16 for further instructions on turning the glider in reflex mode.

#### 5.6 Landing

The glider should be trimmed “neutral” with the rear riser system pulled shut (see trimmer section below). With the trimmer system fully closed the aero foil is at its most efficient and at its slowest speed.

Because of the exceptional glide and speed for this type of glider, high caution is recommended in the stages of approaching and landing. RPM is a fast glider, any action on the brakes may cause significant reactions. It is therefore recommended to execute the first flights in a familiar environment and under easy conditions.

On the final leg before and touching down it is recommended to have hands up, to let the glider build energy just prior to landing. This action allows a more effective flare and therefore a gentler landing.

## 6. FLIGHT ENVELOPE & LIMITATIONS

The RPM has been designed as a single **place** high performance paramotor wing for experienced pilots. The RPM is not suitable for beginners. Please contact your local FLOW representative to discuss if this is the correct wing for you.

### ***6.1 Trike Flying***

Keeping within the MTOW (max take-off weight) the RPM can be flown with a trike power unit and does not present any unusual characteristics when doing so.

### ***6.2 Free Flying (without power)***

The RPM can be flown without a power unit, care to be taken when flying within the gliders weight range - see technical data above.

### ***6.3 Towing***

The RPM can be used with conventional methods and the glider does not present any unusual characteristics when being towed correctly.

### ***6.4 MTOW***

Flow paragliders are designed and tested within the recommended weight range as listed in the technical specifications. Flying above or below the recommended weight range can cause the glider to react outside of the tested criteria. Flying the RPM as high wing loading creates a very dynamic wing that requires great care and precise control. It is therefore recommended to stay in the middle of the recommended weight range.

## 7. RISER OVERVIEW

The risers on the **RPM** feature long travel rear trimmers, multiple brake handle magnets for optimized geometry when flying high, low or mid hang points, trimmer magnets for safe storage of trimmer handles, A-Line speed system and a two dimensional tip and brake steering system.



The RPM is extremely efficient throughout the full speed range. The optimized aero foil geometry system located in the risers sets the RPM at a new benchmark for full reflex paramotor wings.

Extremely efficient while inherently stable throughout the full speed range.

### 7.1 Trimmer System

The trimmers are a system to modify the glider profile, altering the angle of attack of the wing to set a desired trim speed. The 'neutral' or standard position is when the trimmers are pulled all the way down. The standard trim setting is ideal for climbing under power, for taking off and landing. Brake pressure is lighter, and the handling is at its best on the standard trim setting. To increase cruise speed, you can use the speed system or release the trimmers or use both in unison.

The wing is most stable on its slowest setting, i.e. with trimmers in the standard position and no accelerator applied. To activate (to open the trimmers) the pilot should gently push the "trimmers" cam lock to allow the straps to slide, lowering the angle of attack. Release the cam lock to lock the straps at the desired setting. To close the trimmers, to increase the angle of attack, the pilot should pull the straps down vertically until the desired setting is achieved.

When launching and landing, the glider should be trimmed "neutral" with the rear riser system pulled shut (see trimmer section below). With the trimmer system fully closed the aero foil is at its most efficient.



**SAFETY NOTE:** TRIMMERS SHOULD BE OPERATED EVENLY AND SMOOTHLY IN BOTH DIRECTIONS. AGGRESSIVE OR ASYMETRIC OPERATIONS ARE NOT RECCOMENDED.



### 7.2 Trimmer settings

The RPM can be flown at NEUTRAL (trim speed), FAST (trimmers open) and SUPER FAST (trimmers open and speed system fully open).



NEUTRAL

Trimmers closed, speed system not activated



FAST- REFLEX

Trimmers open, speed system not activated



SUPER FAST- FULL REFLEX

Trimmers open, speed system 100% activated

### 7.3 “Neutral” Trim

The neutral trim setting can also be known as the “slow trim position” or “trim speed”. This is the recommended position for launching and landing. Best for minimizing sink rate and maximizing handling.

This is the most efficient position **and** better fuel consumption.

If caught flying in turbulent air it is recommended to trim the glider to this position. In the event of a collapse, this position will aid in the recovery fastest.

2D steering can also be operated when the glider is trimmed in this position.



#### 7.4 "Fast Reflex" Trim

With the trimmers released (open) the glider is in REFLEX mode. The risers are setup with a pulley system that creates our optimized aerofoil geometry allowing the aerofoil to be FAST and as efficient as possible.

Whilst in fully accelerated mode, (full speed bar & full out trimmers or just full speed bar), the brakes should not be used to turn the wing, since the aerofoil will be destabilised.

2D tip steering only should be used to steer the glider under this configuration.



**SAFETY NOTE:** WHEN FLYING FAST – REFLEX AIRFOIL ACTIVATED, NO MAIN BRAKE USE SHOULD BE USED. OPERATE THE 2D TIP STEERING FOR DIRECTIONAL CHANGES.

### 7.5 "Super-Fast Reflex" Trim

Flying with the trimmers fully open and fully accelerated the RPM is extremely fast and will require an increase in power to keep a straight and level flight.

When using the accelerator system, the gliders AoA (Angle of Attack) is reduced. This can make the gliders recovery from a collapse more aggressively; caution should be taken when flying the glider in this configuration.

2D Tip steering only should be used to steer glider under this configuration.



**SAFETY NOTE:** WHEN FLYING IN "SUPER FAST" MODE, FULL REFLEX AIRFOIL IS ACTIVATED, NO MAIN BRAKE USE SHOULD BE USED. OPERATE THE 2D TIP STEERING FOR DIRECTIONAL CHANGES.



## 8. SPEED SYSTEM

The accelerator system is located at the front of the RPM's riser set.

Prior to flight it is recommended to perform a "Dry Run" of operating the speed system. When using a speed bar, it is recommended that the 2 pulleys should be touching at "full bar" with the pilots' legs straight.

Attachment of the Brummel bungs should be carried out before flight as any loose rope or fitting could cause potential damage to the aircraft's power unit. Careful inspection should be made of the fittings prior to flight.



**\*\*\*IMPORTANT\*\*\***

When flying in turbulent air, the shark nose aero foil and full reflex plan form will resist reasonable levels of turbulence. If conditions deteriorate and require pilot input to maintain control, then the glider should be returned to neutral trim where the brakes can be used to control to pitch surges and collapses.

Operation of brakes when the aero foil is in its FULL REFLEX state will reduce the inherent stability created by the aero foil.

### 9. "THE SWEET SPOT" FOR XC

When flying long distances or looking to maximize fuel efficiency/ speed it is recommended to fly with the trimmers 30% released. In our test flying this has proven to be the "the sweet spot" with many pilots showing an impressive increase in ground covered in comparison to their previous wing of choice.

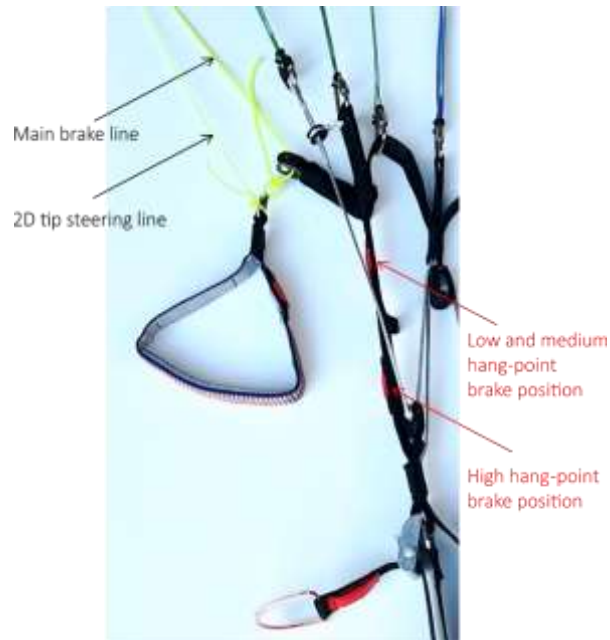


### 10. 2D TIP STEERING

The RPM is fitted with a 2D steering system (2-dimensional steering) which allows the operator to use the brakes and tip steer in unison with the same brake handles.

Two main uses:

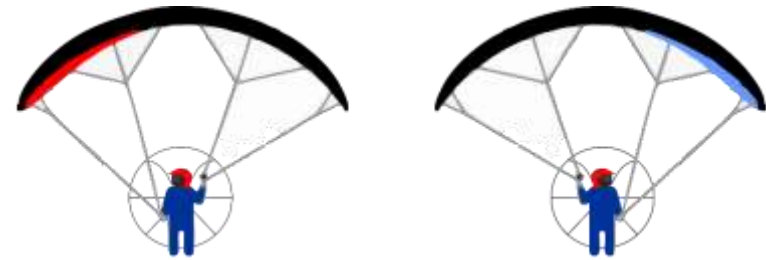
- To **steering** the glider when in reflex mode.



- To increase the turn radius and agility in turns, even when flown in neutral configuration.

#### 2D tip steering main uses

Tip steering line comes installed directly on RPM's main brake handle, so it is always at the pilot's access. There are a few different configurations for 2D steering, depending on the amount of bias the pilot wants to add to the wingtip.

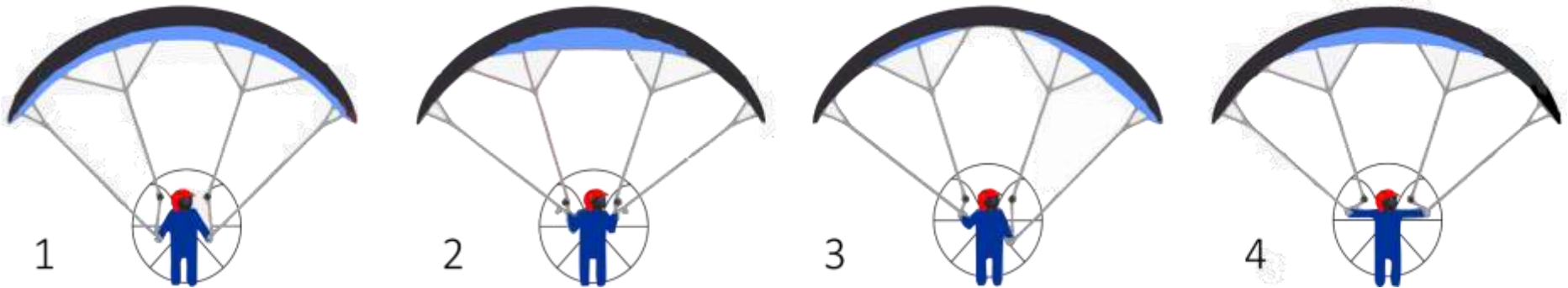


**NEUTRAL- main brake + 2D tip steering**  
Combination of 2D tip steering line and main brake line



**FAST and SUPER-FAST- 2D tip steering ONLY**  
2D tip steering line only

The possibilities it offers are endless but have a special use in configurations of low AoA (trimmers open). More precise control of the canopy can be achieved with 2D steering and the pilot must spend some time exploring the system and perfecting his own technique to harvest RPM's full potential.



1. Both tip steering the main brake line – for landing or to slow down the glider
2. Only main brake line – for landing or to slow down the glider
3. Slow turn or flat turn – tip steering + main brake on side and light main brake line on opposite side
4. To increase climb rate – light main brake line applied symmetrically.



## 11. RISER SAFETY



Magnetic brake storage positions

The risers on the RPM have multiple magnetic brake storage locations. From the factory the gliders are shipped ready for use with mid hang points with the brakes captured on the magnet nearest to the pulley.

Flying with high hang points will require the brake lines to be lengthened and the brakes stored on the lower magnets.

The Rear riser trimmers also have magnetic safety attachment points, after adjustment store the handle securing the excess bridle

**SAFETY NOTE:** WHEN RELEASING THE BRAKE HANDLES IN FLIGHT, STOW THEM ON THE MAGNETS PROVIDED. BRAKE HANDLES CAN BECOME A SAFETY HAZARD IF LEFT LOOSE WHEN THE MOTOR AND PROPELLOR ARE RUNNING.

## 12. FLYING TECHNIQUES

Most flying techniques described below come from paragliding techniques which can be also used for PPG

### 12.1. Rapid Descend

#### Techniques

In order to descend, the paraglider must fly away from the areas of lift. In case any problems occur, the following techniques might be used to increase the sink rate.

- **Spiral Drive:** The most efficient descent technique. It's a manoeuvrable wing which responds to any input easily. To initiate the spiral, apply one brake progressively to about 35% and hold it in its position. The speed of rotation will increase progressively as well as the pressure on the brake and the centrifugal force that is perceived. The angle or the speed of rotation can be decreased or increased by releasing or pulling the brake by several centimetres. Once mastered the spiral allows you to descend by more than 10 m/s. Movements which are extremely abrupt, or badly synchronized or very quick initiation of the spiral can result in an asymmetrical collapse or a spin. CAUTION: A deep spiral is no harmless manoeuvre. The kinetic energy obtained must be reduced by slow releasing of the inside brake.
- **B-line Stall:** B-line Stall Grasp the B risers at the quick links and pull them down symmetrically. The paraglider will enter a B-line stall and drop backwards before stabilizing overhead. The descent rate increases to 6 - 8 m/s. To exit the B-line stall raise both hands together in a single, positive movement so that the risers are at full extension. On releasing the B-risers, your RPM should return immediately to normal flight.
- **Big Ears:** Big ears is a moderate descent method, reaching -3 or -4 m/s, speed reduces slightly between 3 and 5 km/h and piloting becomes limited. The angle of attack and the wing loading also increases.

Push on the accelerator to restore the wing's horizontal speed and the angle of attack. To activate ears, take the line **amain3** and simultaneously, smoothly pull them outward and downward. The wingtips will fold in. Let go of the lines and the ears will re-inflate automatically. If they do not re-inflate, gently pull on one of the brake lines first and then on the opposite side. For directional control while using the Big Ears, use weight shift.

## **12.7 PERFORMANCE & USE OF BRAKES WHEN FLYING THE RPM IN FREE-FLIGHT**

### ***1 Use of Brakes***

RPM's best glide is at a trim speed (no brakes) – about 40 km/h. The minimum sink rate is achieved by applying approx. 15% of the brakes. When using more than 30% of the brakes, the aerodynamics and the performance of the glider are likely to deteriorate and the effort to manoeuvre will increase quickly. In case of extremely high brake pressure there is a great risk of a stall. Which occurs at a full brake travel (100% of the brakes) **50cm**. In normal flying conditions the optimal position for the brakes, in terms of performance and safety, is within the top third level of the braking range.

### ***Use of Speed Bar***

Flow RPM is equipped with a speed system. The profile of Future has been designed to fly stable through its entire speed range. It is useful to accelerate when flying in strong winds or in extreme descending air. For fitting and positioning the speed bar consult the instructions of the harness manufacturer. Before every flight check that the speed bar works freely and that the lines are long enough to ensure that it is not engaged permanently. Use of the speed bar increases the maximum speed of the paraglider by up to 30% of the trim speed. However, it does reduce the angle of attack and therefore there is a risk of a frontal (or asymmetric) collapse. We therefore do not advise to use the speed bar near the ground.

## **12.8 ASSYMETRIC & FRONTAL COLLAPSES**

RPM is an intermediate/ advanced glider and active piloting is recommended in case of an asymmetric or frontal collapse. Active piloting will reduce the loss of altitude and a change of direction and it will always teach the pilot to be in control.

### ***Asymmetric Collapse***

Despite the great roll and pitch stability and collapse resistance of RPM's profile, heavy turbulent conditions may cause part of the wing to collapse asymmetrically. This usually happens when the pilot has not foreseen this possible reaction of the wing. To prevent the collapse from happening, pull the brake line corresponding to the compromised side of the wing, this will increase the angle of incidence. If the collapse does happen, the RPM may react violently or gently, the turn tendency can very gradual or dynamic, but it can be easily controlled and from our experience in real life scenarios Flow's PPG aerofoil are always highly pressurised and it will reopen and a split second after it collapses. Lean your body towards the side that is still flying in order to counteract the turn and to maintain a straight course, if necessary, slightly slow down the same side. The collapse will normally open by itself but if that does not happen, pull completely on the brake line on the side, which has collapsed (100%). Do this with a

firm movement. Take care not to over-brake on the side that is still flying (turn control) and when the collapse has been solved; remember to let the wing recover its flying speed.

Bring both brakes down symmetrically to speed up the reopening of the paraglider, and then raise your hands back up immediately.

### ***Frontal (Symmetric) Collapse***

RPM's aerofoil has been designed to widely tolerate extreme changes in the angle of attack. A symmetric collapse is rare but it can occur in heavy turbulent conditions, on entry or exit of strong thermals or lack of adapting the use of the accelerator to the prevailing air conditions. Symmetrical collapses usually re-inflate without the glider turning, but you can symmetrically apply the brake lines with a quick deep pump to quicken the re-inflation. Release the brake lines immediately to recover optimum flight speed.

## ***12.9 FULL STALL***

Certain behaviour or weather conditions can cause a full stall. This is a serious deviation from normal flight and can be difficult to manage. If a stall occurs at less than 100 m above the ground, throw your reserve parachute. Main causes of a full stall:

- A poorly timed or an extensive use of brakes when the air speed of the wing is reduced.
- Soaked or heavily drenched leading edge (from rain or a cloud) can result in a stall due to an uneven airflow over the leading edge.

Whatever the cause, a full stall can be either symmetrical or a in a configuration of a spin.

Your first reaction should be to fully raise both hands. This normally allows the glider to return to normal flight but if nothing happens after a few seconds, apply the speed bar to encourage the wing to regain normal flight. Ensure the glider has returned to normal flight (check your airspeed) before using the brakes again.

## ***12.10 FLYING WITHOUT BRAKES***

If a brake line or pulley breaks, it is possible to fly the RPM using the D-risers (rear riser). The movements must be well controlled as the deformation of the wing, due to the traction on the B-risers, is greater than that produced by using the brakes.

### **12.11 CRAVATS**

If the tip of your wing gets stuck in the lines, this is called a cravat. Due to the large amount of drag, cravats can turn your wing into a spiral dive very quickly. This can be disorientating and difficult to control if allowed to develop. To recover from a cravat immediately, anticipate the movement of the wing, first stabilise the direction of your wing with outside brake and weight shift. Once you have control of the rotation and sink rate, apply strong deep pumps of the brake on the cravated side whilst weight shifting away from the cravat. It is important to lean away from the cravat otherwise you risk spinning or deepening the spiral. The aim is to empty the air out of the wing tip whilst it is unloaded. Correctly done, this action will clear the cravat. If it is a very large cravat and the above options have not worked, then a full stall is another option. This should not be attempted unless you know what you are doing and have a large amount of altitude. Remember, if the rotation is accelerating and you are unable to re-open the wing or control the decent rate, you should throw your reserve parachute whilst you still have enough altitude.

### **12.12 SIV**

All manoeuvres should be carried out under supervision of experienced paragliding instructors, above water and with a rescue boat.



## MAINTENANCE & CHECKS

The Flow RPM is a robust piece of equipment but as any flying aircraft it should be technically periodically checked to ensure proper airworthiness.

### *Maintenance Tips*

The life of your paraglider therefore depends largely on the care which you maintain and use it. To maximize life span of your wing, respect the following rules:

- Avoid dropping the canopy on its top surface or on its leading-edge during inflation or landing.
- Avoid dragging it across the ground when moving it.
- Don't expose it unnecessarily to sunlight.
- Choose a packing technique that doesn't damage the plastic rods and that doesn't crease the internal structure excessively.

**Always use the protective bag to avoid direct contact with the harnesses or your motor.**

**Never store your paraglider when it is damp.**

If immersed in sea water rinse immediately with fresh water and dry in the shade. Do not use any detergents. Dry your paraglider away from direct light in a dry and well-aired place.

Empty any foreign bodies from your paraglider regularly, for example sand, stones or animal or vegetable matter which may eventually decay. Twigs, sand, pebbles, etc. damage tissue in successive folds and organic debris of vegetable or animal origin (insects) can promote mould growth.

### *Periodic Inspections*

The paraglider has undergone a series of tests during the production process and consequent flight tests before the delivery. It is delivered with a standard brake setting same to the one used during the testing.

**Periodic Checks & Repairs:** for safety reasons, it is recommended that the paraglider is checked at least once **every two years**, or after **100 hours** and anytime there is a change in its behaviour. The checker should inform you about the condition of your glider and if some parts will need to be checked or changed before the next normal service check period.

## **WARRANTY**

The Flow RPM is guaranteed for two years or 250 hours against any production fault since the date of purchase.

The guarantee does not cover:

- Damage caused by misuse
- Neglecting the regular maintenance
- Overloading or misuse of the glider
- Damage caused by inappropriate landings

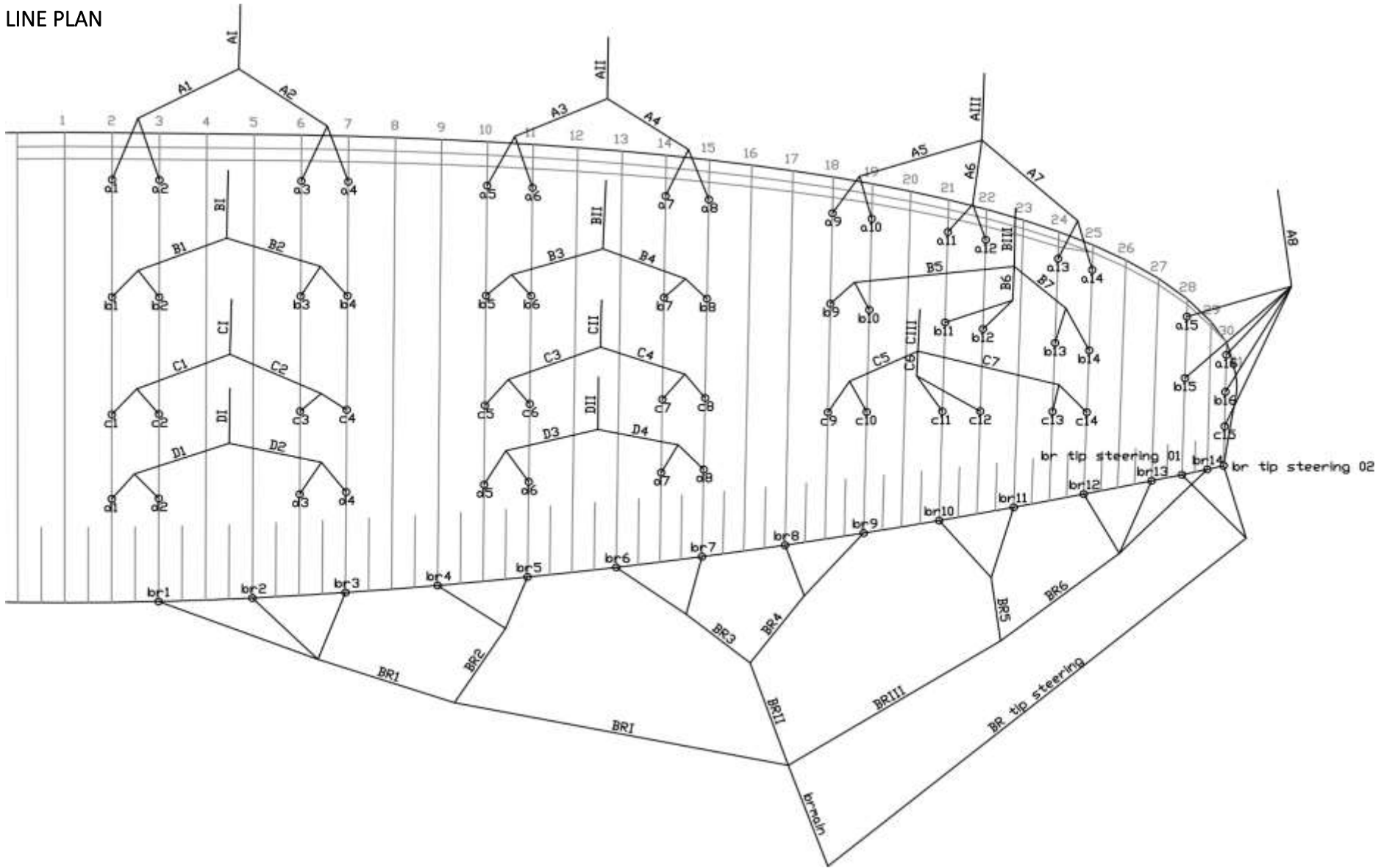
## **SUMMARY**

Safety is the single most important thing in our sport. We recommend to always be alert of the weather, fly as regularly as you can and ground handle as much as possible. Practicing ground handling will keep your skills alive and will support you especially when conditions at launch aren't perfect or the site is difficult.

Please always respect the weather! Monitor the conditions and the forecast closely and understand which conditions are right for your level of flying or for flying in general. Lots of pilots get hurt due to misjudging weather conditions.

We would also like to emphasise respecting our beautiful nature and looking after your flying sites. If you need to dispose the wing, please don't dispose of it in the normal household waste but in an environmentally responsible way. If you are unsure, please contact your local council.

LINE PLAN



## RISER DIAGRAM

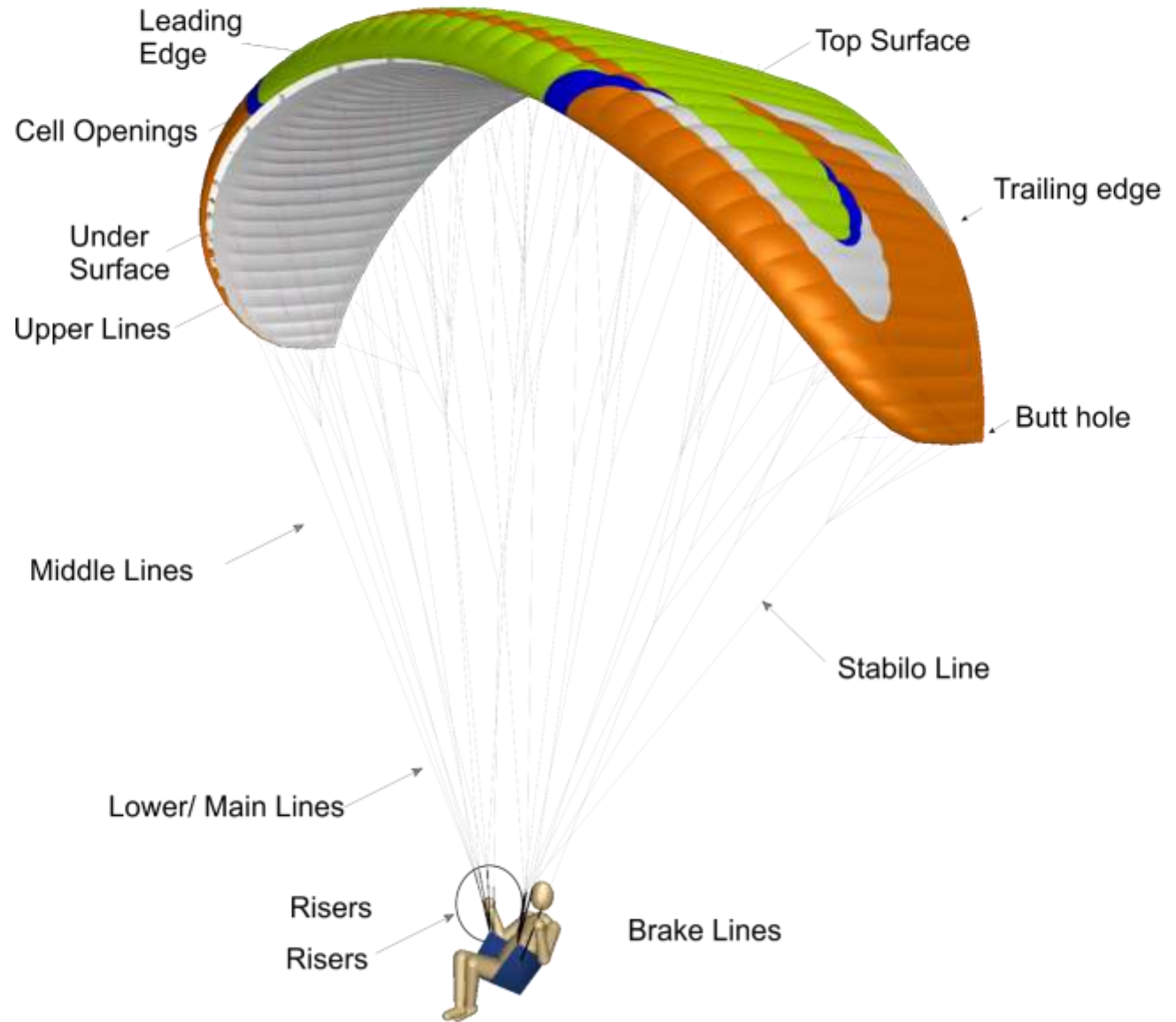
Sizes 17,18,20 and 23

TRIM SPEED (trimmers closed)	FAST (trimmers fully open)	SUPER FAST (trimmers open and full speed)
A = 500mm	A = 500mm	A = 415mm
A1 = 500mm	A1 = 510mm	A1 = 440mm
B = 500mm	B = 540mm	B = 505mm
C1 = 500mm	C1 = 555mm	C1 = 540mm
C2 = 500mm	C2 = 585mm	C2 = 590mm
D = 500mm	D = 625mm	D = 680mm

\*Difference should not be more than +/- 5mm



OVERALL ILLUSTRATION





**MATERIALS**

<b>CANOPY</b>	<b>FABRIC CODE</b>	<b>SUPPLIER</b>
Upper surface	Dominico DOKDO 30D MF	Dominico Tech Corp. - Korea
Bottom Surface	Dominico DOKDO 30D MF	Dominico Tech Corp. - Korea
Supported Ribs	Dominico DOKDO 30D hard	Dominico Tech Corp. - Korea
Unsupported Ribs	Dominico DOKDO 30D hard	Dominico Tech Corp. - Korea
Leading Edge Reinforcement	2.5/1.8/ Plastic pipe	Porcher Industries - France
Thread	210D/3, 420D/3	Coats Thread - Thailand
<b>SUSPENSION LINES</b>	<b>FABRIC CODE</b>	<b>SUPPLIER</b>
Upper Cascades	LIROS PPSL 65/125	LIROS GmbH - Germany
Middle Cascades	LIROS PPSL 65/ 125/180	LIROS GmbH - Germany
Main Lines	LIROS PPSL 180/225	LIROS GmbH - Germany
<b>RISERS</b>	<b>FABRIC CODE</b>	<b>SUPPLIER</b>
Shackles	Maillon Rapide	ANSUNG PRECISION - Korea
Riser Webbing	20mm zero stretch polyester webbing	Guth&Wolf GmbH - Germany
Pulleys	Pulleys Ronstan ball bearing	Ronstan - Australia

In case of any doubts regarding the information in the manual contact your FLOW PARAGLIDERS dealer.

**For spare parts or information on how to obtain them get in contact with us directly or with your local dealer.**

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