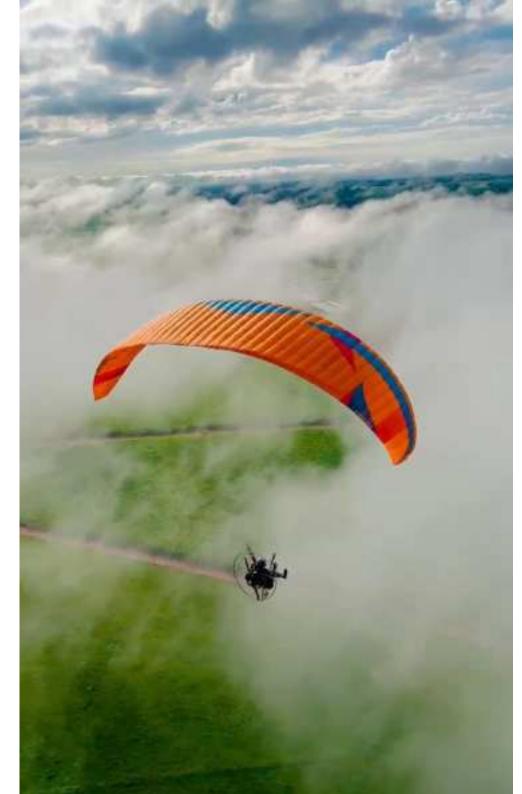
COSMOS







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 drives us. The pure, focused concentration, the deep connection with the environment and the simple joy of the flight are all unmistakable signs of being in flow.

Thank you for choosing Flow Paragliders. We recommend reading this manual before your first flight. It's designed to help you quickly get familiar with this beautiful glider.







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1. General Information

User manual for Cosmos Power 2

Sizes: 19, 21, 24 & 27

This manual provides all the essential information to help you familiarize yourself with the key features of your new glider. While it covers important details about your glider, it does not include the necessary flight training for piloting this type of wing. Paragliding instruction should be received through a recognized school accredited by your country's flying federation. However, we strongly recommend that you carefully read through the entire manual for your new Cosmos Power.

Please note that any modifications to the glider will invalidate the certification. Proper usage of the glider is the pilot's responsibility. The manufacturer and distributor are not liable for any loss or damage resulting from misuse. It is the pilot's responsibility to comply with all legal regulations and to ensure the aircraft's airworthiness.



This user manual version V01 is dated: 11/2024. Flow Paragliders PTY LTD – 2 Executive Drive, Burleigh Waters, QLD 4220 Australia – <u>info@flowparagliders.com.au</u>





2. Your Cosmos Power2

Cosmos Power is a dedicated intermediate paramotor wing. It shares the same line layout, AR and materials as our free-flying EN B Cosmos. **However, Cosmos2 and Cosmos Power2 are two different wings**. Cosmos Power is a completely new design, specially made for intermediate ppg pilots.

- STABILITY
- EASE OF USE
- EFFICIENCY

Extremely efficient and stable, especially in all configurations.

3. Design overlook

The Cosmos Power2 is an exceptionally efficient and stable intermediate paramotor wing, featuring our latest "Efficient Full Reflex" technology, a shark nose aerofoil, optional 2D tip steering, trimmers, and a speed bar.

Designed primarily as a dedicated paramotor glider, the Cosmos Power2 is equally at home in free-flight, delivering a smooth, enjoyable experience across disciplines.

Thanks to its "Efficient Full Reflex" profile and low-drag line plan, it offers outstanding pitch stability and remarkable efficiency. Its newly developed airfoil, combined with advanced design features, sets a new benchmark in paramotor glider performance, perfectly balancing fuel efficiency, stability, and speed.

We call it "efficient" because traditional full-reflex profiles are not known for efficiency. By integrating key elements from our high-performance free-flying gliders, we have created a full-reflex paramotor wing that excels in both efficiency and stability. The result is an airfoil that delivers exceptional pitch stability, comparable to conventional full-reflex wings, while dramatically improving efficiency—even at high angles of attack and maximum speeds.





In real-world testing, the Cosmos Power2 has demonstrated unprecedented fuel efficiency across its entire speed range when compared to traditional non-reflex and full-reflex wings.

In short, the Cosmos Power2 is a responsive glider that inflates and launches easily in both light and strong winds. Whether cruising at trim or flying fully accelerated, pilots will enjoy enhanced stability throughout. With trimmers, speed bar, and tip steering, exploring the wing's full performance range is intuitive and straightforward. The Cosmos Power2 is also highly roll-stable, with no unwanted oscillations, and its excellent energy retention ensures smooth, predictable landings with a strong, reassuring flare.







4. SPECIFICATIONS

	19	21	24	27
FLAT AREA	19.00m2	21.00m2	24.00m2	27.00m2
PROJECTED AREA	16.30m²	18.01m2	20.59m2	23.16m2
FLAT WINGSPAN	10.08m	10.60m	11.33m	12.01m
ASPECT RATIO	5.4	5.4	5.4	5.4
PROJECTED AR	4.1	4.1	4.1	4.1
NUMBER OF CELLS	50	50	50	50
GLIDER WEIGHT	4.5kg	4.8kg	5.2kg	5.4kg
TAKE OFF WEIGHT INTERMEDIATE	75-105	85-110	95-120	100-130
EXTENDED TAKE OFF WEIGHT ADVANCED	75-12	85-13	95-14	100-160
CERTIFICATION	EN 926-1	EN 926-1	EN 926-1	EN 926-1





5. TAKE-OFF, FLIGHT, AND FLYING TECHNIQUES

We understand that for the PPG pilot, the take-off and landing phases are crucial. The Cosmos Power2 is designed to make both launching and landing straightforward and predictable. Thanks to its excellent efficiency, the Cosmos Power2 allows for low take-off and landing speeds, smooth flare characteristics and short take-off distances. Its roll and pitch damping, combined with a broad speed range, make it ideal for relaxed cruising flights.

5.1 Hang point

Choose the appropriate hang point (upper or lower) based on your harness/power unit system. Connect to your power unit and adjust the brake line length accordingly (standard or +10cm from standard).

- The Cosmos Power2 is set up from the factory for a mid-hang point, with both the main brake line and tip steering line configured for this 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, Cosmos Power2 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

Cosmos Power2 is designed to turn efficiently and will turn without the need for combined weight-shift piloting if you choose.

- Cosmos Power 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 in flying with trimmers fully open to familiarize yourself with the behaviour in different configurations.
- Cosmos Power2 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 & trimmers fully open or just full speed bar), the brakes should not be used to steer the as touching the breaks will break the reflex airfoil, 2D tip steering must be used. (See 2D tip steering mod on page 18)
- Remember finesse is essential when flying a powered paraglider. Gentle but firm inputs will always keep your glider under control.

5.5 2D Tip Steering control.

The tip steering line is installed on its dedicated mini toggle as standard from the factory. However, it can be modified to connect the tip steering line to the main brake handle, converting the system to 2D steering. More advanced pilots prefer this configuration, as it allows them to steer the glider with the main brake handle rather than releasing the brake lines to use the tip steering mini toggle. When both the tip steering line and main brake line are connected to the main brake handle, you can apply more input to the tip steering by moving your hand toward your body. For further instructions on turning the glider in reflex mode, refer to "2D Tip Steering" on page 16.

5.6 Landing

The glider should be trimmed to "neutral," with the rear riser system fully closed (see the trimmer section below). With the trimmer system fully closed, the airfoil operates at its most efficient and slowest speed.

Extra caution is advised during the approach and landing phases. The Cosmos Power is a fast glider, and any input on the brakes can cause significant reactions and oscillations. Therefore, it is recommended to perform your first flights in a familiar environment and under calm conditions.





During the final approach, just before touching down, it's best to keep your hands up. This allows the glider to build energy for the final flare, resulting in a more effective flare and a smoother, gentler landing.

6. FLIGHT ENVELOPE & LIMITATIONS

The Cosmos Power2 has been designed as a solo paramotor wing for intermediate and experienced pilots. Cosmos Power2 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 Cosmos Power2 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 Cosmos Power2 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

Cosmos Power2 can be used with conventional methods and the glider does not present any unusual characteristics when being towed correctly.

6.4 MTOW

Cosmos Power2 was 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 Cosmos Power2 on the very top of the wing loading creates a more dynamic wing that requires great care and precise control, only recommended to advanced pilots. For intermediated pilots, it is therefore recommended to stay in the middle of the recommended weight range.





7.RISER OVERVIEW

The risers on the Cosmos Power2 feature:

- Colour coded "A" riser
- Long travel "Rollercam" trimmers
- Speed system
- Two brake handle magnets attachment points for optimized geometry when flying paramotors with a low, mid or high hang point.
- Mini toggle for tip steering that can be converted to 2D steering
- Main brake handle.

The Cosmos Power2 delivers exceptional efficiency across the entire speed range. Its optimized aerofoil geometry works in perfect synergy with the riser system, setting a new benchmark for reflex paramotor wings.

Extremely efficient with inherently stability at all speeds.







7.1 Speed Bar System

The accelerator system on the Cosmos Power2 is located at the front of the riser set, specifically on the A riser.

Before your first flight, it's recommended to perform a "dry run" to practice operating the speed system on the ground.

The speed bar can be used at various levels—10%, 30%, 50%, 100%—or any setting the pilot prefers.

For maximum comfort and performance, when applying 100% speed bar, the two pulleys should meet while the pilot's legs are fully extended.

Before flight, ensure that the **Brummel hooks** are properly attached. Any loose rope or fittings could cause damage to the power unit. **Always** inspect the fittings carefully before take-off.







7.2 Trimmer System

The trimmers allow you to set your desired trim speed and increase overall speed by changing the angle of attack.

The "neutral" or standard trim position is with the trimmers fully pulled down. This setting is ideal for powered climbs, take-offs, and landings. Or just relaxing cruising and best full efficiency.

At the neutral trim, brake pressure is lighter, and handling is at its most responsive.

To increase cruising speed, you can either release the trimmers, use the speed system, or combine both.

The wing is most stable at its slowest setting—that is, with the trimmers fully closed and no accelerator applied.

To open the trimmers, gently press the cam lock gate to allow the straps to slide, reducing the angle of attack. Release the Rollercam gate once you reach the desired setting.

To close the trimmers and increase the angle of attack, pull the straps downward vertically until the desired trim is achieved.

For launching and landing, always set the glider to "neutral" with the rear riser system fully closed. In this position, the airfoil operates at peak efficiency.



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





7.3 Trimmer settings

Cosmos Power2 can be flown at NEUTRAL (trim speed), FAST (trimmers open) and FASTEST (trimmers open and speed system fully open).



*Trimmers closed * Speed system not activated



*Trimmers closed *Speed system activated



*Trimmers open *Speed system not activated



*Trimmers open
* Speed system 100% activated





7.4 "Neutral" Trim

The neutral trim setting, also referred to as the "slow trim position" or "trim speed," is the recommended configuration for launching and landing. It offers the best sink rate and maximizes handling performance.

This is also the most efficient trim position, promoting better fuel economy.

If you encounter turbulent air, it is advised to return the glider to the neutral trim setting. In the event of a collapse, this position will support the fastest recovery.

Additionally, 2D steering can be used effectively when the glider is trimmed to this position.







7.5 Fast trim - Reflex mode 01

When the speed bar is fully applied (100%), the glider enters REFLEX mode.

The speed bar system, equipped with an easy-to-operate pulley setup, should always remain within easy reach of the pilot.

On the Cosmos Power2, the speed bar system functions similarly to the trimmers: it not only alters the angle of attack but also reshapes the profile into a semi-reflex aerofoil. This configuration is designed to optimize the aerofoil geometry, making the wing both fast and highly efficient.

When flying in full acceleration—whether with full speed bar and open trimmers, or full speed bar alone—brakes should not be used for turning, as this could destabilize the aerofoil.

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







7.6 Fast trim - Reflex mode 02

When the trimmers are released (open), the glider enters REFLEX mode.

In this configuration, the glider flies faster and becomes more dynamic.

The riser system is designed not only to reduce the angle of attack (AoA) but also to modify the wing's geometry. This combination, along with a forward shift of the center of gravity, increases internal pressure and enhances collapse resistance.

With the trimmers opened about 30–40%, the aerofoil reaches an optimized shape, allowing for maximum speed and efficiency.

When flying in full acceleration—whether with full speed bar and fully open trimmers, or full speed bar alone—brakes should not be used to turn the wing, as this can destabilize the aerofoil.

In this configuration, only 2D tip steering should be used for directional control.







7.7 "Fastest" full reflex

When flying with the trimmers fully open and full speed bar applied, the Cosmos Power2 achieves very high speeds and will require increased engine power to maintain straight and level flight.

In this setup, the combination of open trimmers and full acceleration significantly reduces the wing's angle of attack (AoA).

This is the fastest configuration for maximum speed. While the glider remains stable and solid, caution is necessary. It is not recommended to fly in this configuration in turbulent or strong thermic conditions, as severe turbulence can lead to more dynamic and aggressive recoveries in the event of a collapse.

Always exercise extra caution when flying at full speed.

Directional control in this configuration should only be made using 2D tip steering.



SAFETY NOTE: WHEN FLYING IN "FASTEST" MODE WITH THE FULL REFLEX AIRFOIL ACTIVATED, DO NOT USE THE MAIN BRAKES. USE ONLY THE 2D TIP STEERING FOR DIRECTIONAL CONTROL.





IMPORTANT

When flying in turbulent air, the shark nose aerofoil and full reflex planform provide resistance to moderate turbulence. If conditions worsen and require pilot input to maintain control, the glider should be returned to neutral trim, where the brakes can be used to manage pitch surges and collapses.

Using the brakes while the airfoil is in its FULL REFLEX configuration will reduce its inherent stability and is therefore not recommended.

8. The "SWEET SPOT" for XC

For long-distance XC flights or when aiming to maximize the fuel efficiency/speed ratio, we recommend flying with the trimmers 30% open. Our in-house testing has shown that this "sweet spot"—with the trimmers open by 30%—leads to a significant increase in distance covered, making the Cosmos Power2 one of the most efficient PPG wings in the market today







9. - 2D TIP STEERING (2-dimensional steering)

Cosmos Power2 comes from factory with the tip steering installed on its dedicated mini toggle.

An optional 2D steering modification is available for the Cosmos Power2. This allows the pilot to use both the brake and tip steering lines simultaneously, meaning, both lines are connected to the same brake handle.

This 2D steering setup is generally preferred by more experienced pilots, as it provides better control of the canopy across a wider range of configurations. Although it may seem like a more complex setup, it offers improved safety for experienced pilots.

For those new to the sport, we recommend practicing with the dedicated mini toggle first before making the modification.

Two main uses for tips steering:

- To steer the glider when in accelerated full reflex mode.
- To increase the turn radius and agility in turns, even when flown in neutral configuration.







9.1 – 2D Tip Steering Modification Instructions

Tip steering is installed as standard from the factory on its dedicated Mini-Toggle.

A modification to connect the tip steering line to the main brake handle is quick and simple.

Once the modification is complete, the Mini-Toggles should no longer be attached to the glider.

STEP 01
*Remove the Mini-Toggle from its sleeve



STEP 02

*Undo the knot on the Mini-Toggle and re-route tip steering line freely



STEP 03

*Bowline knot on main Brake Handle



STEP 04

- *Dispose of the Mini-Togle
- * Notice the tip steering line now is directly connected to the brake handle.

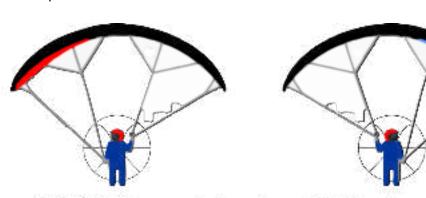






9.2 - 2D Tip Steering Main Uses.

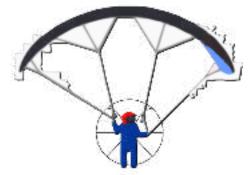
Once 2D tip steering is installed, there are a few different configurations for 2D steering, depending on the amount of bias the pilot wants to add to the wingtip.



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





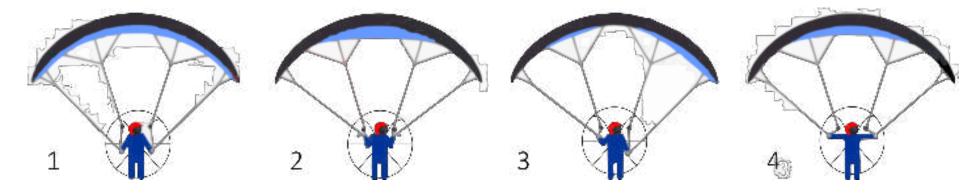


FAST and SUPER-FAST- 2D tip steering ONLY 2D tip steering line only





The possibilities it offers are endless but have a special when flying fast (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 Cosmos Power's full potential.



- 1. Both tip steering the main brake line are applied equally for landing or to fly slower.
- 2. Only main brake line in applied for landing or to fly slower.
- 3. Slow turn or flat turn tip steering + main brake on one side and light main brake line on opposite side
- 4. To increase climb rate light main brake line applied symmetrically.





10. RISER SAFETY



Magnetic brake storage positions

The risers on the Cosmos Power2 feature two brake storage locations. From the factory, the glider is shipped with mid hang points and the brake lines are secured on the magnet closest to the pulley.

If flying with high hang points, the brake lines will need to be lengthened and the brakes should be stored on the lower magnets.

The rear Camlock trimmers also include magnetic safety attachment points. After adjustment, secure the excess bridle by storing the handle on the magnets.

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.





11. FLYING TECHNIQUES

Most of the flying techniques described below are based on free-flying paragliding methods, which can also be applied to PPG.

11.1. 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 Dive*: The spiral is the most efficient descent technique. To initiate the spiral, progressively apply one brake to about 35% and hold it in position. As the spiral develops, both the rotation speed and brake pressure will increase, along with the G- forces experienced. The angle or speed of rotation can be adjusted by slightly releasing or pulling the brake. To come out of the spiral dive progressively ease off the brake to avoid sudden exit.

Once mastered, the spiral can achieve descent rates of over 10 m/s. However, abrupt or unsynchronized movements, or a rapid initiation, may cause an asymmetrical collapse or spin. Caution: A deep spiral is a high-energy manoeuvre. The accumulated kinetic energy should be gradually dissipated by slowly releasing the inside brake. This is a serious manoeuvre and pilot should learn the risks associated with it. An SIV course is the ideal setting to learn this manoeuvre safely.

- **B-line Stall:** A B-line stall can be initiated by grabbing the B risers at the quick links and pulling them down symmetrically. The paraglider will enter the B-line stall, dropping backwards before stabilizing overhead. The descent rate will increase to 6-8 m/s. To recover from the B-line stall, raise both hands simultaneously in a single, positive motion to fully extend the risers. Upon releasing the B risers, your Cosmos Power2 should immediately return 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.

11.2 PERFORMANCE & USE OF BRAKES WHEN FLYING THE COSMOS POWER2 IN FREE-FLIGHT

Use of Brakes

The Cosmos Power2 achieves its best glide at trim speed (no brakes), approximately 40 km/h. The minimum sink rate is reached with about 15% of brake input. When more than 30% of the brakes are applied, the glider's aerodynamics and performance begin to degrade, and maneuvering effort increases significantly. With excessive brake pressure, there is a high risk of a stall, which can occur when the brakes are fully applied (100% brake travel, about 50 cm). Under normal flying conditions, the optimal brake position for both performance and safety is within the top third of the brake range.

Use of Speed Bar

The Cosmos Power2 is equipped with a speed system and trimmers and its profile is designed to maintain stability across its entire speed range. For proper installation and positioning of the speed bar, refer to the harness manufacturer's instructions. Before each flight, ensure that the speed bar operates freely and that the lines are long enough to prevent it from being permanently engaged. The use of the speed bar increases the maximum speed of the paraglider by up to 50% of its trim speed. However, it reduces the angle of attack, which increases the risk of a frontal or asymmetric collapse. For this reason, we advise against using the speed bar near the ground.

12.8 ASSYMETRIC & FRONTAL COLLAPSES

Cosmos Power2 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 excellent roll and pitch stability and collapse resistance of the Cosmos Power2's profile, strong turbulence may still cause an asymmetric collapse. This typically occurs when the pilot does not anticipate the wing's reaction. To help prevent a collapse, apply brake input on the side of the wing that feels compromised, which increases the angle of incidence.





If a collapse does occur, the Cosmos Power2 may react either gently or dynamically. The turn tendency might be gradual or more aggressive, but it remains easily manageable. Based on real-world experience, Flow's PPG aerofoils maintain high internal pressure, and the wing typically reopens within a split second after a collapse.

To counteract the turn during a collapse, lean your body toward the flying side and, if necessary, apply slight brake pressure on that same side to maintain your heading. The collapsed section will usually reinflate on its own. If it does not, apply a firm, complete brake input (100%) on the collapsed side for not more than 1 second (If 100% o brake is applied for more than 1 second a stall will accour). Be careful not to over-brake the flying side while controlling the turn.

Once the collapse is resolved, allow the wing to regain full flying speed by raising your hands back up promptly. For faster recovery, bring both brakes down symmetrically, then immediately release.

Frontal (Symmetric) Collapse

Cosmos Power2'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 and steer the Cosmos Power2 using the C-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.





13. MAINTENANCE & CHECKS

The Flow Cosmos Power2 is a robust hight performance equipment, but like any aircraft, it should undergo regular technical inspections to ensure continued airworthiness.

13.1 Maintenance Tips

The lifespan of your paraglider depends heavily on how well you care for and handle it. To maximize the life of your wing, follow these guidelines:

- Avoid dropping the canopy onto its top surface or leading edge during inflation or landing.
- Avoid dragging it across the ground when moving it.
- Minimize unnecessary exposure to sunlight.
- Use a packing technique that protects the plastic rods and prevents excessive creasing of the internal structure
- Always use the protective bag to prevent direct contact with harnesses or your motor.
- Never store your paraglider while it is damp.

If your wing comes into contact with seawater, rinse it immediately with fresh water and dry it in the shade. Do not use detergents. Dry your paraglider out of direct sunlight, in a dry, well-ventilated place.

Regularly remove any foreign objects such as sand, stones, or plant material, as these can cause damage or decay over time. Twigs, sand, and pebbles can damage the fabric through repeated folding, while organic debris like insects can promote mold growth.

13.2 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.





14. WARRANTY

The Flow Cosmos Power2 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

15. 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.

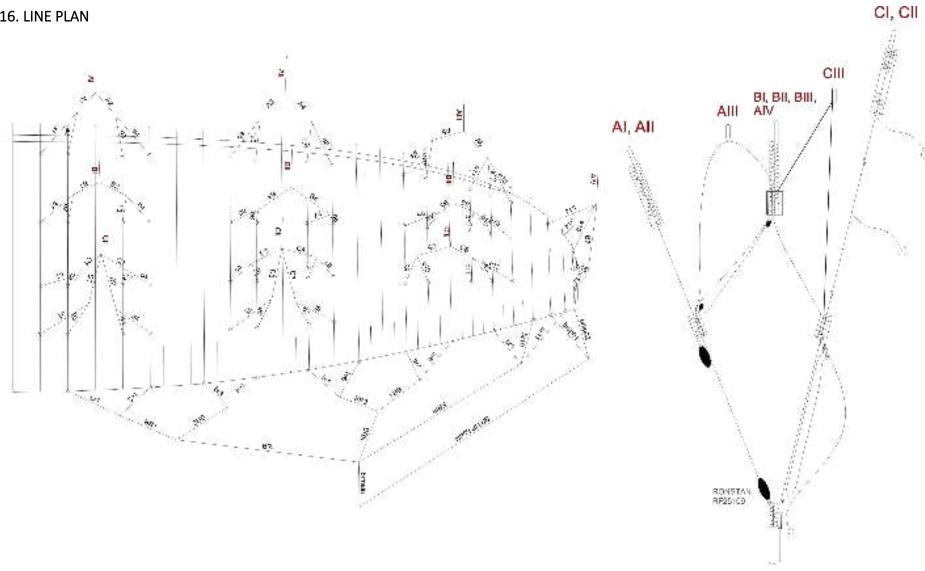
Please always respect the weather! Monitor the conditions and the forecast closely and understand which conditions are right for your level of flying or for flying in general. Lots of pilots get hurt due to misjudging weather conditions.

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.





16. LINE PLAN







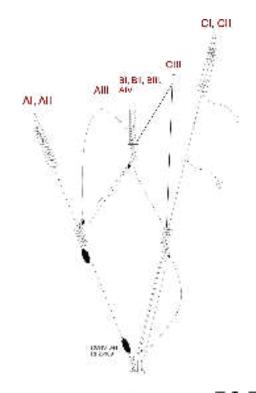
17. RISER DIAGRAM

Sizes 19, 21, 24 and 27

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

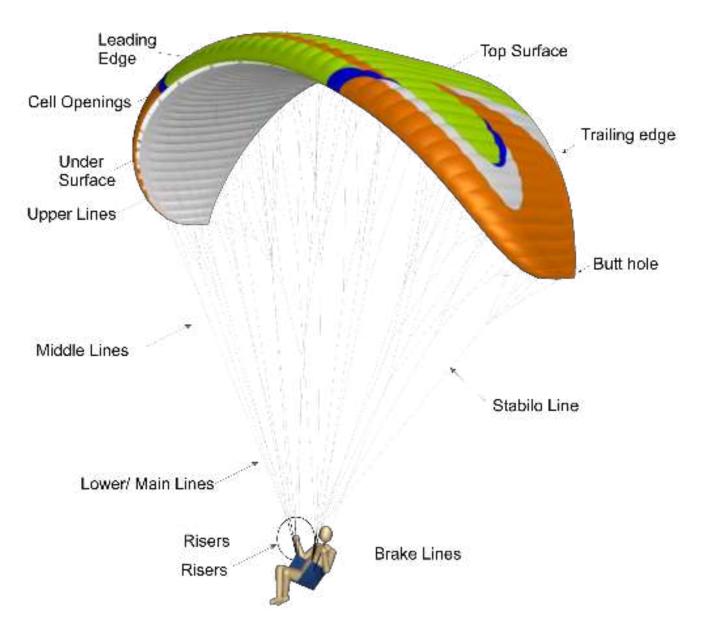








18. OVERALL ILLUSTRATION







19. MATERIALS

CANOPY	FABRIC CODE	SUPPLIER
Upper surface	Skytex38	Porcher Industries - France
Bottom Surface	MJ 32g	MJ Tech - Korea
Supported Ribs	Skytex 40 hard	Porcher Industries - France
Unsupported Ribs	Skytex 40 hard	Dominico Tech Corp Korea
Leading Edge Reinforcement	2.5/1.8/ Nylon rods	Porcher Industries - France
SUSPENTION LINES	FABRIC CODE	SUPPLIER
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
RISERS	FABRIC CODE	SUPPLIER
Shackles	Maillon Rapide	Maillon Rapide - France
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 in how to obtain them get in contact with us directly or with your local dealer.

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