



PASHA⁷ Trike



USER MANUAL

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MAC PARA COMMUNITY



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GENERAL

Welcome to the MAC PARA Team

Dear Pilot,

Congratulations on your purchase of the **PASHA 7 TRIKE** paramotoring glider. We truly appreciate your trust in our wings.

The Pasha 7 Trike is a state-of-the-art glider, the result of extensive research and development. To ensure you can safely enjoy its high level of performance, the wing has undergone rigorous safety testing. The entire MAC PARA team welcomes you, and we wish you many incredible flights.

Safety First: For your own protection, you **MUST** read this manual carefully before your first flight.

Pasha 7 Trike Highlights

The Pasha 7 Trike is a dedicated paramotoring wing designed for **two-seat trikes**. It was engineered specifically for skilled, advanced trike who demand responsive handling in an easy-to-use package.

Key benefits include:

- **Effortless Launching:** Smooth inflation and easy take-off characteristics.
- **Low Landing Speeds:** Enhanced safety and control during touchdown.
- **Exceptional Stability:** A rock-solid feel even in active air.
- **Fuel Efficiency:** Optimized aerodynamics for better fuel consumption while motoring.

Important Safety Information

Please read and understand the following details **before** your first flight:

Get Proper Training

This manual provides information regarding the unique design features of the **Pasha 7 Trike** to ensure maximum enjoyment; it is **not** a training manual. Paragliding and paramotoring are high-risk sports that demand a high degree of attentiveness, sound judgment, and theoretical knowledge.



Warning: Paramotoring can be a dangerous sport that may lead to serious injury or death. You must receive proper instruction from a qualified professional and an accredited flight school before attempting to fly.

Assume Responsibility

The use of this paramotoring glider is **solely at the owner's risk**.

- The manufacturer and distributor accept no liability for any accidents or injuries.
- You are exclusively responsible for your own safety and for maintaining the glider's airworthiness.
- **MAC PARA** assumes no responsibility for the pilot's actions.
- We strongly recommend that every pilot possesses a valid license for the glider's category, as well as the appropriate insurance and training required by the country in which the glider is flown.

Manufacturing & Quality Control

Before delivery, every Pasha 7 Trike undergoes a strict visual inspection during production. Your dealer should also perform a test flight.

- Check the **placard stamps** and the **completed test-flight certificate** to confirm this has been done.
- It is your responsibility to verify that your new glider has been test-flown before you fly it for the first time. If the certificate is missing, contact your dealer immediately.

Minimize Your Risk

Any inadequate use or misuse of the **Pasha 7 Trike** increases flight risks considerably. The following conditions and behaviors **must be strictly avoided**:

- **DO NOT USE** outside the manufacturer's recommended weight range.
- **DO NOT USE** during rain or snowfall.
- **DO NOT USE** in high or gusty wind conditions.
- **DO NOT USE** in clouds or fog.
- **DO NOT USE** without sufficient knowledge, training, or experience.
- **DO NOT USE** while under the influence of drugs or alcohol, or when suffering from illness.
- **DO NOT USE** for aerobatics or extreme maneuvers.



IMPORTANT: Any unauthorized changes or modifications made to this paramotoring glider will immediately **invalidate the Certificate of Airworthiness**. Please review the warranty conditions located at the end of this manual. **Registration of your MAC PARA Pasha 7 Trike is required.**

MAC PARA Is Here to Help

Our mission is to design high-quality, performance gliders that provide the freedom of flight while keeping you as safe as possible.

If you have read this manual and still have questions, suggestions, or feedback regarding the Pasha 7 Trike or this documentation, please do not hesitate to contact your local dealer or MAC PARA directly.



PILOT LEVEL REQUIREMENTS

The Pasha 7 Trike is designed for experienced pilots with advanced paramotoring skills. It is not intended for beginners or pilots who lack the necessary expertise to manage its high-performance features. Pilots must hold a valid and current pilot license specifically for tandem paramotor flying (PPG Tandem) as required by their local civil aviation authority.

To safely operate the Pasha 7 Trike, we recommend that the pilot meets the following criteria:

A minimum of 200 flight hours in various meteorological conditions.

At least three full years of experience flying paramotor gliders equipped with adjustable trimmers.

Various Conditions

The Pasha 7 Trike can adapt to suit a full range of conditions and types of paramotoring. The exception is acrobatic flying. In strong turbulence and gusting winds a partial or complete collapse of the canopy can result. Never fly in such conditions.

Certification

The Pasha 7 Trike is approved in accordance with DGAC (French Airworthiness Requirements) for powered flying.

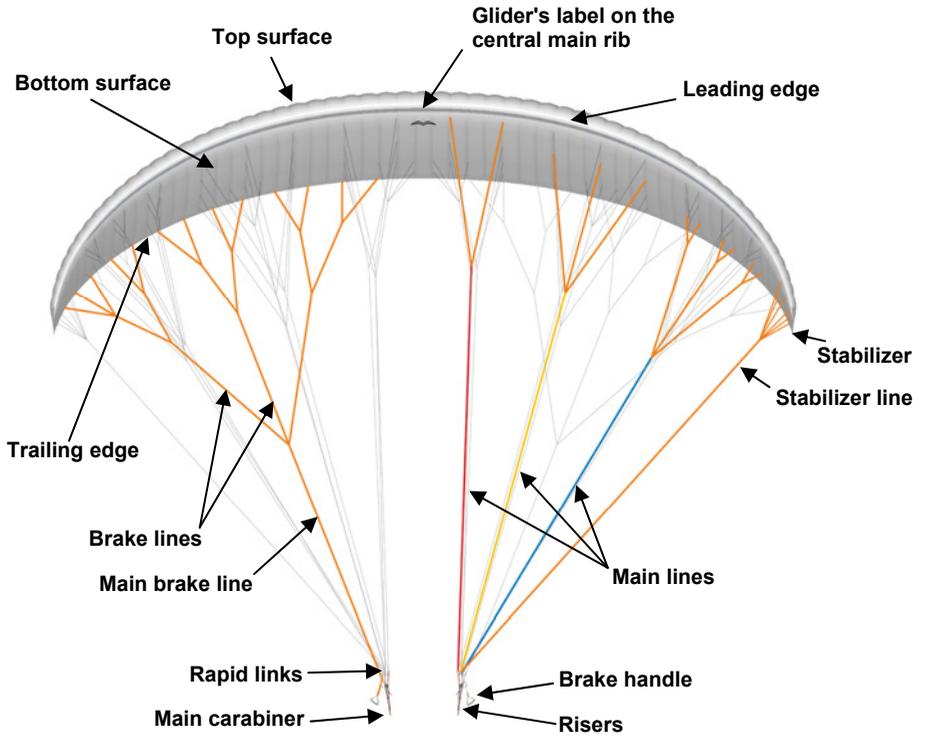
The Pasha 7 Trike was shock and load tested to a maximum weight of 359 kg.

Mandatory

The user of this paraglider is responsible for installing an emergency parachute system and making sure that it complies with the regulations (in particular the additional technical conditions for an emergency parachute).



DESIGN





TECHNICAL DESCRIPTION

Construction of the canopy

The Pasha 7 Trike features a high-performance 61-cell wingspan. The wingtips are slightly swept downward to serve as stabilizers. The canopy is equipped with winglets on the upper surface, collectively improving directional tracking, stability, and flight comfort.

Internal Architecture of the Canopy

- **Rib Design:** The wing utilizes a sophisticated **diagonal-rib construction**. Every main rib is supported by 4 or 5 suspension lines.
- **Intermediate Ribs:** These are positioned between the main ribs and supported by diagonal segments, ensuring a smooth top surface and a precise airfoil shape. This complex internal structure is key to the wing's high performance and passive safety.
- **Reinforcements:** Internal support panels and diagonal ribs at the suspension points ensure even load distribution throughout the canopy.
- **Airflow & Reinflation:** Large internal **cross-ports** allow for efficient airflow between cells, ensuring rapid reinflation and maintaining internal pressure without compromising the profile's integrity.

Leading & Trailing Edge

- **Leading Edge:** Cell openings on the under-surface are optimized for consistent airflow into the glider.
- **Trailing Edge:** Stretch-resistant **Mylar strips** are integrated into the top and bottom panels along the trailing edge. This defines the span-wise tension, optimizes sail shape, and guarantees high canopy stability.

Materials & Durability

The Pasha 7 Trike is constructed from industry-leading, high-quality Nylon fabrics from **Porcher Marine**:

- **Materials:** Skytex 38 Universal, Skytex 32 Universal, and Skytex 32 Hard.
- **UV Protection:** Like all synthetic materials, these fabrics are susceptible to degradation from ultraviolet light. To maximize the lifespan of your glider, avoid unnecessary exposure to direct sunlight when not flying.



Rigging & Line System

The Pasha 7 Trike utilizes a sophisticated rigging system designed for maximum durability and safety.

Line Configuration

- **Suspension Lines:** The system consists of **upper cascades** (attached to the under-surface), **middle cascades**, and **main lines**.
- **Main Lines:** These lead directly to the **delta quick links** (Maillons) that connect the lines to the risers.
- **Stabilizer Lines:** These connect the outer wing tips (stabilizers) to the quick links.
- **Brake Lines:** These are non-load-bearing lines running from the trailing edge to the main brake line pulleys positioned on the D-risers.

Brake Adjustment & Safety

The main brake lines feature **two black marks** indicating the recommended positions for the brake handles. Proper adjustment is crucial:

- **Correct Length:** Ensures sufficient brake travel for steering and a safe flare during landing.
- **Warning:** Brakes must not be set too short. This can cause permanent trailing-edge deformation (braking) during flight, especially when accelerated. **Flying with overly short brakes is dangerous.** Always exercise caution when modifying factory settings.

Color Coding

For easy identification during pre-flight checks:

- **A-Lines:** Red
- **Brake Lines:** Orange
- **B- Lines:** Yellow
- **C & D lines:** Blue
- **Main Attachment Loops:** The reinforced loops at the bottom of the risers are **Red (left) & Blue (right)**. Those are the only correct point for the positioning of the main carabiners.



Materials & Load Strength

The lines are manufactured from high-strength, stretch-resistant materials:

- **Main Suspension:** HMA Aramid/Kevlar (yellow core) with Polyester sheathing.
- **Brake Lines:** PES/Dyneema (white core).

Individual Line Strengths:

- **Main Lines:** 190 kg to 500 kg
- **Middle Cascades:** 80 kg to 190 kg
- **Upper Cascades:** 50 kg to 180 kg
- **Brake Lines:** 100 kg to 300 kg

The cumulative strength of the rigging system ensures an exceptional safety factor, providing pilots with maximum confidence in the wing's structural integrity.



RISERS

Risers and Line Configuration:

The Pasha 7 Trike is equipped with a **5-riser system** (A, A1, B, C, D) per side:

A-Risers (Red): Hold the two central A-main lines.

A1-Risers: Hold the outermost A-main lines.

B-Risers: Hold the three B-main lines, stabilizer lines.

C-Risers: Hold the three C-main lines.

D-Risers: Hold the two D-main lines.

Brake Line Routing

The main brake lines run through the upper brake pulleys on D riser. In case of low attachment the brake lines run through both brake pulleys on D riser.

Higher Pulleys: For low-attachment point paramotors.

Lower Pulleys: For high-attachment point paramotors.

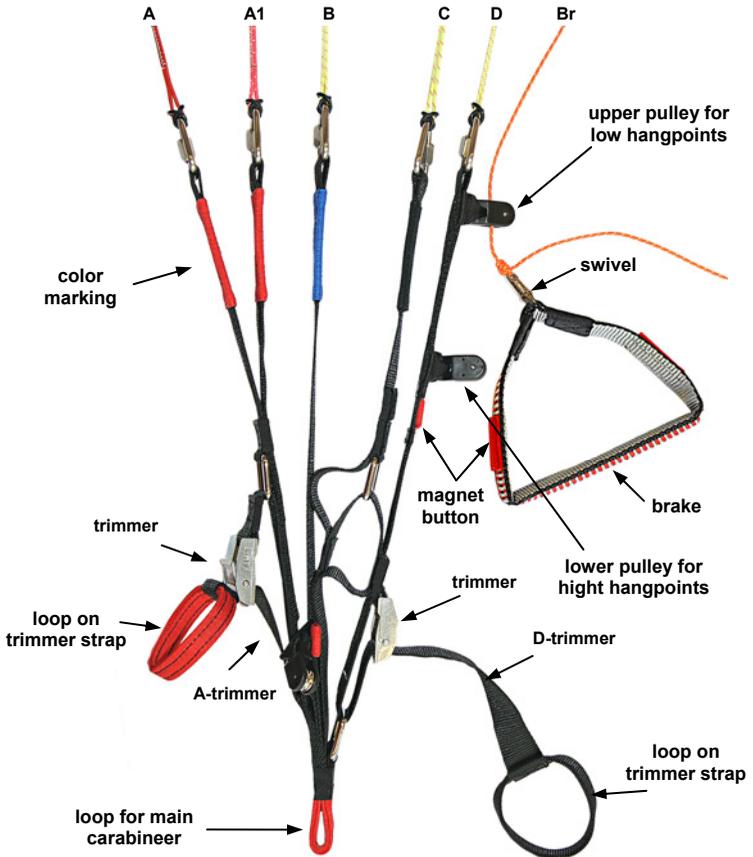
Low B Strap Pulleys: For very high-attachment point paramotors.

Line Connections

All lines are secured to **triangular delta quick links** (Maillons). Each link is fitted with a rubber **O-ring** (in a "figure-eight" configuration) to prevent the lines from slipping or shifting on the connector.



Riser's scheme





Trimmers:

The Pasha 7 Trike features an extensive in-flight speed range thanks to its versatile dual-trimmer system. By adjusting the angle of attack, pilots can optimize the wing for everything from slow thermalling to high-speed cruising.

Trim System Mechanics

The wing utilizes both rear and front positioned trimmers to adjust the C, D, and A risers:

Neutral Position: Marked by white stitching/lines on the trimmer straps. In this position, all risers are of equal length (46 cm to the bottom edge of the rapid links).

Rear Trimmers (C&D): Pulling the straps shortens the C-risers by up to 2.5 cm and D-risers by 5 cm. Releasing the buckles extends the C-risers by 2.5 cm and D-risers by 5 cm.

Front Trimmers (A): Pulling the red loops shortens the A-risers by up to 3.5 cm.

Note: Front A-trimmers should only be engaged when the rear D-trimmers are in released position.

Flight Configurations & Performance

Setting of Rear Trimmers	Speed (approx.)	Characteristics
Fully Closed (Pulled down)	39 - 43 km/h	Best sink rate, lighter brake pressure, and minimum engine thrust required. The wing is more sensitive to turbulence.
Neutral (White line)	43 - 47 km/h	Most versatile setting for navigation and precision tasks. Excellent energy retention and handling.
Fully Released (Extended)	48 - 52 km/h	Increased stability and less sensitivity to turbulence. Requires higher engine RPM.

Attention! **Symmetry:** Always ensure trimmers are set to the same position on both risers before take-off and during flight to avoid unwanted turns.



CRITICAL OPERATIONAL WARNINGS

WARNING: UNSTABLE TRIMMER CONFIGURATION! NEVER FLY with the A-trimmers shortened (pulled) while the D-trimmers are also shortened. Combining these settings creates a dangerous wing profile. Use the A-trimmers **ONLY** when the D-trimmers are fully released.

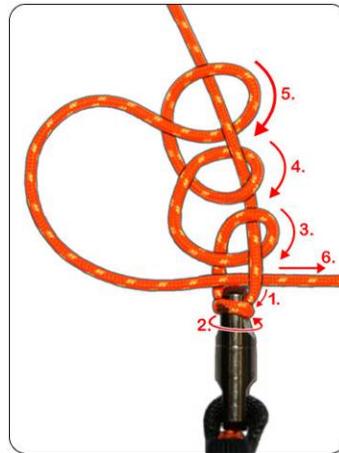
WARNING: BRAKE USAGE AT FULL SPEED DO NOT apply the brakes when the Pasha 7 Trike is in the fully accelerated configuration (A-trimmers pulled / D-trimmers released). Using brakes at maximum speed can compromise wing stability and increase the risk of collapse.

Brake handles:

The brake handles are equipped with swivels and neodyme magnets. Strong neodyme magnets hold the brake handles perfectly to the D straps. Attaching and releasing the brakes from the risers work very easily and quickly during flight. This minimises the danger of getting them caught in a spinning propeller.



Brake handles



Brake line knot



TRIMMER SETTINGS

DANGER !

Accelerated + trim closed

Trim closed

Trim neutral

Trim open

Accelerated + trim open

Slower

Faster

460mm

Change of the angle of attack

brakeline pulley

Color marking

Loop for main karabiner

Trimm



MATERIALS

Tissue

(PORCHER SPORT, FRANCE)

- Top Sail - Leading Edge - SKYTEX 38 Universal, 38 g/m²
- Top Sail - Trailing Edge - SKYTEX 32 Universal, 32 g/m²
- Bottom Sail - - SKYTEX 32 Universal, 32 g/m²
- Main ribs, Diagonals - SKYTEX 40 HF, 40 g/m²
- Ribs - SKYTEX 32 HF, 32 g/m²
- Reinforcement Ribs - W382 Polyester 180 g/m²
- Reinforcement Ribs attach. points - F06098 Polyester 90 g/m²

Lines

(ROSENBERGER TAUWERK, GERMANY)

- Main lines mA1, mA2, mA3, B2, B3, - Aramid/Polyester TSL 500 , Breaking Load 500 kg
- Cascade lines A,B,C - Dynema/Polyester PPSL 180, Breaking Load 180 kg

(EDELMAN+RIDDER+CO, GERMANY)

- Upper cascade E - Aramid 8000/U-050, Breaking Load 50 kg
- Upper cascade D - Aramid 8000/U-070, Breaking Load 70 kg
- Upper cascade - Aramid 8000/U-090, Breaking Load 90 kg
- Upper cascade - Aramid 8000/U-130, Breaking Load 130 kg
- Middle cascade, Stabiliser lines - Aramid/Polyester A-7343-140, Breaking Load 140 kg
- Middle cascade - Aramid/Polyester A-7343-190, Breaking Load 190 kg
- Main lines mB1 - Aramid/Polyester A-7343-420, Breaking Load 420 kg
- Main lines mC1, mD2, mD3 - Aramid/Polyester A-7343-230, Breaking Load 230 kg
- Main lines mC2, mC3 - Aramid/Polyester A-7343-340, Breaking Load 340 kg
- Brake lines - Dynema/Polyester A-7850-100, Breaking Load 100 kg
- Brake lines middle cascade - Dynema/Polyester A-7850-130, Breaking Load 130 kg
- Main brake line - Dynema/Polyester A-0010-300, Breaking Load 300 kg

Attachment straps

(STAP a.s., CZECH REPUBLIC)

- STAP-POLYESTERBRIDLE 13 mm, Breaking Load 70 kg

Risers

(MOUKA TISNOV Ltd, Czech Republic)

- Polyester 367 040 025 912 25x1,5 mm Breaking Load 800 kg

Thread

(AMANN SPONIT Ltd, CZECH REPUBLIC)

- Lines-SYNTON 60, Main lines-SERAFIL 60, Canopy-SERAFIL 60, Riser-SYNTON 20

Rapid links

(PEGUET, FRANCE)

- MRDI 04.0 DELTA INOX S10 B100 - Breaking Load 1000 kg

Rigifoils

- Rigifoils - Nitinol 0.6 mm, 0.8 mm



GLIDER CHECKLIST

Before delivery, as well as during production, every **Pasha 7 Trike** paramotoring glider undergoes a strict visual inspection. Additionally, we recommend that you check your new glider in accordance with the points listed below.

The Pasha 7 Trike is a form of aircraft and should be treated as such. We also recommend performing these checks after flying extreme maneuvers or experiencing similar events.

- **Canopy:** Inspect for tears or damage, paying particular attention to the seams. Examine where the ribs join at the upper and lower surfaces, as well as the areas around the attachment tapes and brake-line connections.
- **Lines:** Inspect for damage and check for frayed or broken stitching. Line lengths must be checked after **50 hours** of flying time and/or whenever the flight behavior of the glider changes.
- **Attachment Points:** Inspect for damage to the stitches. It is equally important to ensure brake-lines are free from tangles before every flight.
- **Risers & Links:** Inspect the risers for overall condition and check for frayed seams. Ensure all rapid links (maillons) are fully secured.

Warning: Even slight damage can cause the glider to lose its airworthiness. Prioritize your safety by spending the extra time necessary to perform regular gear checks.



SETTING UP THE CONTROLS

Brake lines adjustment:

Professional Guidance

We **strongly recommend** that brake adjustments be supervised by a paramotoring instructor or an experienced pilot who understands the critical nature of brake line length. Improper adjustment can lead to unsafe flight characteristics; for example, brake lines that are too short will negatively affect the glider's take-off behavior.

Setting Your Brake Lines

Before flying the **Pasha 7 Trike**, check the brake line settings and adjust them according to your hang points. As shown in the riser diagram, there are two pulleys on each riser (upper and lower). The brake lines feature two black marks to identify the recommended positions:

- **Low to Middle Hang Points (50–70 cm from seat plate):** The brake lines should lead only through the **upper pulley**. The handles should be tied at the **upper black mark**. *Note: All Pasha 7 Trike gliders are delivered from the MAC PARA factory in this configuration.*
- **High Hang Points or Trikes (Higher than 70 cm):** The brake lines should lead through **both the upper and lower pulleys**. The handles should be adjusted and tied at the **lower black mark**.

Verification and Testing

Once you have selected the appropriate length for your setup, verify it by inflating the glider in an open area with a constant breeze (**engine off**).

1. With the canopy stabilized overhead, ensure the trailing edge is not being pulled down while the brakes are released.
2. When you gently pull the brakes, there should be **5–10 cm of "free play"** (movement) before the trailing edge begins to move.
3. **Ensure symmetry:** Double-check that the brake length is identical on both sides.



FLYING THE PASHA 7 TRIKE

IMPORTANT: Training & Safety Advisory

The following information is **NOT**, under any circumstances, a manual for learning or practicing the sport of paramotoring.

The purpose of this section is to provide specific technical information to enhance the safety and security of your flights while operating the **Pasha 7 Trike**. It does not replace the need for certified, professional flight instruction.

Paraglider Preparation

After unpacking and laying out the **Pasha 7 Trike** in a slight horseshoe pattern (leading edge open and lines tensioned), perform the following checks:

Pre-Flight Inspection: The Wing & Lines

- **Canopy:** Is the fabric free of tears, and are all cells clear of debris (grass, sand, or stones)?
- **Risers:** Are the risers in good condition, with no signs of fraying or twisting?
- **Maillons (Quick Links):** Are all rapid links fully closed and tightened?
- **Line Stitching:** Is the stitching on the main lines (especially near the riser attachment points) intact and secure?
- **Line Clearance:** Do all main lines run freely from the risers to the canopy without tangles or "cross-overs"? Are the brake lines clear and running smoothly through the pulleys?

Before putting on the trike:

Complete these checks **before** putting on the harness or entering the trike:

- **Engine:** Warm up your engine to operating temperature, then **stop the engine** completely before clipping in the risers.
- **Rescue System:** Are the reserve handle and deployment pins fully secure and in the correct position?
- **Buckles:** Are all harness buckles (leg straps, chest straps, and front risers) securely closed and locked?
- **Carabiners:** Are the main carabiners attached correctly and properly locked/screwed shut?



Final Pre-Take-Off Checklist

Perform these checks immediately before starting the launch sequence:

- **Line Protection:** Specifically inspect the main line covers where they pass near the propeller frame.
- **Safety Gear:** Ensure all occupants have helmets on and chin straps securely fastened.
- **Risers:** Verify that the risers are not twisted.
- **Trimmers:** All trimmers are set to the neutral or preferred position.
- **Brakes:** Check that brake handles and lines are free, clear, and not twisted.
- **Propeller Clearance:** Confirm no loose items or lines can come into contact with the propeller.
- **Centering:** Ensure the trike is centered relative to the wing with even tension on all lines.
- **Environment:** Check wind direction and verify the take-off path is free of obstacles or tripping hazards.
- **Airspace:** Identify free airspace and look for obstructions in your intended flight path.

Layout and Launch Strategy

To ensure a successful launch, the wind direction must be carefully observed.

The Horseshoe Pattern

The canopy should be oriented directly into the wind so that both sides load symmetrically. Arrange the glider in a **semicircle (horseshoe)** against the wind. This layout ensures the A-lines in the center section tension before the wingtips, inflating the canopy evenly and allowing for a straight, easy launch.

Line Integrity

All lines and risers must be carefully checked and untangled. It is critical to ensure the brake lines run freely through the pulleys to the trailing edge.

- **Twisted Risers:** Even a single twist can prevent the brake lines from running freely.
- **Line-Overs:** Ensure no lines are looped around the canopy. A "line-over" (cravat) can have **disastrous consequences** during take-off.
- **Final Connection:** Connect the risers to the trike using the main carabiners. Double-check that they are fully closed and locked.



Warning: It is nearly impossible to untangle lines once you are in the air. If the layout is not perfect, stop and reset.

Launch Technique

The **Pasha 7 Trike** is designed for effortless inflation and stable launches. For a successful take-off, follow these essential steps:

1. Preparation

- **Final Check:** Verify canopy layout, trimmer settings (**Neutral**), wind direction, and clear airspace.
- **Line Management:** Place the B, C, and D lines on the propeller frame hooks.
- **A-Risers:** Identify the A-lines by the **red sleeves**. Hold the A-risers and brake handles with arms outstretched behind you.
- **Take-off Devices:** If using a "take-off assistant" (A-assist straps), ensure it is properly attached and tensioned.

2. Inflation

- **Zero or Weak Wind:** Hold all A-risers. Use steady forward momentum from the trike's thrust to pull the canopy up.
- **Stronger Wind:** Hold only the **central A-risers**. Use less thrust, as the headwind will assist the inflation.
- **Hands-Off Option:** With trimmers set to neutral, the wing is capable of inflating without holding the A-risers manually.

3. Transition & Take-off

- **Control (The Check):** As the canopy reaches approximately **80°**, apply the brakes briefly to "catch" the wing. This stops forward momentum and prevents overshooting or collapsing.
- **Full Power:** Once the wing is stable and centered overhead, apply full throttle.
- **Lift-off:** As you reach take-off speed, gently apply brakes (**max 30%**).

4. Initial Climb

- **Direction:** After lift-off, maintain your heading into the wind.
- **Optimal Climb:** Avoid climbing too steeply. Applying excessive brake creates additional drag, which actually **decreases your climb rate** and reduces your safety margin.



Golden rule! For any aircraft the most important thing on take-off is proper amount of speed. High angles of attack and low speeds are more likely to cause a stall.

ATTENTION! You should always be able to land safely in case of engine failure.

Wind	Trimmer settings	Launching technique & additional settings
under 1(m/s)	released 3-4 cm from neutral posititon	Forward launch - start with lines under tension - try to minimize use of the brakes. - use of full thrust when canopy at 80°
1-3 (m/s)	Neutral position	Forward launch - start with lines under tension - try to minimize use of the brakes. - use of full thrust when canopy at 80°
over 3 (m/s)	Neutral or pulled for 2-3 cm	Forward launch - start with lines under tension - try to minimize use of the brakes. - use of full thrust when canopy at 80°

In-Flight Characteristics

1. Handling Torque and Roll

After take-off, applying full power increases the angle of attack. Some paramotor configurations may experience "torque roll" due to engine rotation and gyro moments.

- **The Effect:** This can lift the pilot to one side, potentially creating a back-and-forth swinging motion (pendulum). This is more common with powerful engines, large propellers, or low wing loadings.
- **The Solution:** The safest way to counteract this is to **throttle back** and gently release any brake pressure. **Always maintain a grip on the brakes; never let them go.**

2. Speed and Trimmer Settings

- **Neutral Setting:** At the neutral position (white stitching mark), the Pasha 7 Trike reaches speeds of **43–48 km/h** depending on total weight. At this setting, the wing handles like a conventional paraglider.
- **First Flights:** We recommend your first flights be done at or just below the neutral setting. Fly with a small amount of brake - just until you feel the first point of resistance / weight.
- **Progression:** Only experiment with the full range of slow and fast trim settings once you are fully confident with the wing's behavior.



3. Glide Performance (Power Off)

- **Best Glide Rate:** Fly with brakes fully open and trimmers at neutral.
- **Minimum Sink Rate:** To stay up as long as possible with minimal altitude loss, lightly apply the brakes and ensure the **rear-trimmers are closed** (pulled all the way in).

4. Flying in Turbulence

In turbulent air, safety is maintained through internal wing pressure and active piloting:

- **Setting:** Keep rear trimmers **fully closed**.
- **Internal Pressure:** Fly with brakes lightly applied (**10–15 cm**) to keep the canopy pressurized and prevent collapses.
- **Active Corrections:** * If the canopy surges **forward**: Apply brakes promptly to catch it. If the canopy falls **behind**: Ease up on the brakes to allow it to move back over your head.

Safety Reminder: Always maintain sufficient clearance from the terrain and obstacles.

Trimmer Settings and Accelerated Flight

Adjusting trimmers in flight alters the wing's profile and requires increased pilot attention. Always ensure trimmers are adjusted symmetrically; **uneven settings will cause the wing to turn**.

1. Fast Settings (Trimmers Fully Open)

When the buckle is released past the white line, the wing's speed increases, making it ideal for long-distance cross-country flights.

- **Characteristics:** The canopy becomes stiffer.
- **Handling:** Brake pressure increases and the glider becomes less "playful."
- **Critical Warning:** Do not fly with brakes slightly applied while fully accelerated. Strong brake input at high speed can cause the wing to lose **stability**, potentially leading to a collapse.

2. Slow Settings (Trimmers Pulled In)

When the buckle is pulled below the white line, the wing's profile changes to favor lift over speed.



- **Benefits:** Sink rate improves and handling becomes lighter.
- **Use Cases:** Ideal for thermalling (climbing in lift), shorter take-off runs, and slower, safer landings.

3. Safety Guidelines for Accelerated Flight

Accelerated flight (fast trim) should only be used when you have **sufficient altitude and clear air**.

- **Avoid fast settings** in very turbulent conditions.
- **Avoid fast settings** when flying close to the ground or near other pilots/aircraft.
- **Always maintain a grip** on the brake handles.
- **Pre-Flight Check:** Trimmer symmetry and position must be a mandatory part of your checklist before every take-off.

Power-On Landing

The power-on landing is the preferred technique for trikes, as it allows for better control of the descent angle and the possibility of a "go-around" if the approach is not perfect.

1. The Approach

- **Angle:** Approach your desired landing area at a shallow angle.
- **Stability:** The final glide must be **straight**. Avoid steep or alternating turns, as they can cause dangerous pendulum movements too close to the ground.
- **Engine Management:** Maintain enough power to control your sink rate.

2. Touchdown and Flare and Deflating

- **The Flare:** Just before the wheels touch the ground, flare the wing by pulling the brakes to lose horizontal speed and soften the contact.
- **Engine Kill:** Switch off your engine **immediately** after touchdown.
- **Deflating:** In zero-wind conditions, the canopy will still have kinetic energy after the trike stops. Be prepared to turn the trike slightly and pull the brake in the direction of the turn. This causes the wing to fall to the side rather than crashing down onto the leading edge or tangling in the propeller.

Critical Warnings

Propeller Safety: The greatest danger in a power-on landing is the canopy falling into a spinning propeller. You **must** switch off the engine before the wing deflates or falls toward the trike.



Leading Edge Protection: Never do not allow the canopy to crash down hard onto its leading edge. The resulting internal pressure "explosion" can destroy the internal ribs and significantly shorten the lifespan of your glider.

Special Notes for Pilots

- **Field Reconnaissance:** If possible, familiarize yourself with the landing field's layout and obstacles before starting your approach.
- **Wind Check:** Always double-check the wind direction (via a windsock or smoke) before landing.
- **Power-Off Space:** Remember that landing with the engine off requires a much larger landing area due to the flatter glide and less controlled descent.
- **Practice:** Proficiency comes with repetition. Practice your power-on approaches until the coordination between throttle and flare becomes second nature.

Power-Off Landings

When preparing to land, verify the wind direction and your altitude. The next step is to **shut down your engine** at a safe height (typically around 30 m). Glide toward your landing spot as you would with a standard paraglider, with trimmers in the neutral position and brakes released. During your final glide, just before touchdown, you must **flare** the glider by pulling the brakes. This converts your excess airspeed into lift before the trike wheels touch the ground. The precise timing and rate of the flare depend on current conditions. As a general rule, initiate the flare when the wheels are approximately 0.2 - 0.3m above the ground.

If you pull too much brake too early, the glider may "balloon" (climb), resulting in a sudden drop. Conversely, landings in strong winds require a less aggressive flare. Every pilot should practice power-off landings regularly; engine failures (e.g., running out of fuel) can happen, and mastering this skill is essential for safety.

TOWING, JUMPS FROM AIRCRAFT, AEROBATICS

WARNING!! The Pasha 7 Trike is not suitable for towing.

WARNING!! The Pasha 7 Trike is not suitable for jumps from aircraft.

WARNING!! The Pasha 7 Trike is not designed to be used for aerobatics.

Alternative (emergency) steering:

If for some reason it becomes impossible to control the Pasha 7 Trike with the brake lines, the D-risers may be used to steer and land the canopy safely.

Attention: When using the D-risers the steering range is much shorter, about 5-10 cm.



GOLDEN RULES

Safety Rules & Pre-flight Procedures

- **Pre-flight Checks:** Always carry out a full pre-flight inspection before launching.
- **Trike Positioning:** Never place your trike downwind of the glider during setup.
- **Fuel Management:** Check for any fuel leaks. Ensure you have sufficient fuel for the flight; it is always better to have a reserve in case of an emergency or a missed approach.
- **Loose Articles:** Secure all loose items (clothing, cameras, straps) that could be sucked into or trail into the propeller during flight.
- **Helmet Safety:** Always put on and secure your helmet(s) before getting into the harness.

In-Flight Safety

- **Hazardous Terrain:** Do not fly over water, dense forests, power lines, or any area where an engine failure would leave you without a safe landing option.
- **Turbulence Awareness:** Always be mindful of wake turbulence caused by other aircraft, heavy trikes, or even your own paramotor—especially during sharp turns, spirals, or low-level flight.
- **Hands-on Flying:** Avoid flying "hands-off" (releasing the brakes) below 100 m as an engine malfunction at low altitude requires immediate control input.
- **Torque & Stalls:** Avoid making tight turns against the engine torque unless absolutely necessary (e.g., for collision avoidance). During steep climbs, high power settings can increase the risk of a power-stall or a negative spin.
- **Engine Reliability:** Never fully trust your engine; it can fail at any moment. Always fly with an "escape plan" in mind, constantly scanning for safe landing areas.

Landing & Post-flight

- **Immediate Action:** If you notice any problem, no matter how small, land and fix it immediately.
- **Landing Technique:** After touchdown, keep the wing facing the direction of flight to prevent lines from tangling in the propeller. In high winds, turn to face the glider once the engine is off to avoid being pulled backwards.
- **Engine Monitoring:** Listen for any changes in engine noise or vibration. A new tone or vibration often indicates trouble—do not wait for it to worsen; land and inspect the engine.

Airman-ship & Regulations

- **Navigation:** Always be certain of your position and navigation.
- **Noise Awareness:** Not everyone appreciates the noise of a paramotor. Respect local laws and regulations. Take extreme care when flying near livestock or wildlife to avoid scaring animals.



CARE AND MAINTENANCE

Proper care of your canopy will significantly prolong the lifespan of your paramotoring glider and ensure continued flying enjoyment.

Deterioration: Key Tips

- **UV Exposure:** The canopy is primarily made of Nylon. Like all synthetic materials, it deteriorates with excessive exposure to UV light. Keep your glider packed away when not in use. Even when packed, do not leave the bag in direct sunlight.
- **Cleanliness:** Keep the canopy and lines as clean as possible. Dirt and grit can penetrate the fibers, damaging the cloth and lines over time.
- **Line Care:** Avoid folding lines tightly or creating sharp bends, especially in the main lines. Any over-stretching (beyond normal flight loads) is irreversible and must be avoided.
- **Debris:** Ensure that snow, sand, or stones do not enter the cells. This extra weight can alter the angle of attack or cause a stall. Furthermore, sharp debris can damage the internal fabric.
- **Environmental Impact:** Check line lengths after tree or water landings, as moisture and tension can cause lines to stretch or shrink.
- **Abrasions:** Never drag the wing over rough ground. This causes wear at contact points. When preparing for takeoff on abrasive surfaces, do not pull the wing into shape using the brakes; try to pack and unpack on soft grass whenever possible.
- **Impact Damage:** Uncontrolled takeoffs or landings in strong winds can cause the leading edge to hit the ground at high speed, potentially ripping the profiles or damaging the internal ribs.

Water Contact

- **Salt Water:** If the glider comes into contact with salt water, clean it immediately with fresh water. Note that salt crystals can reduce line strength even after rinsing. **It is highly recommended to replace the lines immediately after any salt water immersion.**
- **Water Currents:** After a landing in moving water, inspect the fabric carefully. Currents can exert uneven forces, causing the cloth to distort. Always retrieve the glider from the water by holding only the trailing edge.

Cleaning

- **Method:** Use only fresh water and a soft sponge. **Do not** use water hoses, pressure washers, or washing machines.
- **Solvents:** Never use chemicals, spirits, or aggressive detergents, as these will permanently damage the cloth and its coating.



Packing Technique

When a compact package is required, pack your **Pasha 7 Trike** "accordion-wise" (cell-to-cell). Align the ribs and the Nitinol nose wires so that the rods in the leading edge lie as flat as possible on top of one another, all at the same height. This technique will prolong your paraglider's **lifespan** and maintain its **excellent inflation qualities** for takeoff.

- **Dryness First:** Only pack and store the paraglider when it is completely dry.
- **Compression:** Avoid unnecessary compression or overly tight packing, as this can damage the internal structure over time.
- **Daily Storage:** For regular use, it is best to store your powered glider loosely in the provided **Mac Pack** (quick-pack bag) to allow the material to "breathe."

Storage Conditions

- **Dry Environment:** Store in a dry space at ambient temperature, away from chemicals and UV light.
- **Never Store Wet:** Moisture leads to mildew and significantly weakens the fabric. Always dry the glider completely before storage.
- **Temperature:** Avoid extreme heat (e.g., car trunks in summer), as the materials are temperature-sensitive.
- **Pests:** Insects (grasshoppers, ants) can eat through the fabric if trapped inside. Rodents may nest in the canopy, and livestock may lick the coatings off the fabric. For long-term storage, hang the bag off the ground.

Repairs and Inspections

- **Tears:** Any tears in the canopy must be professionally sewn. Adhesive patches are suitable only for minor, emergency repairs.
- **Authorized Service:** Repairs must only be performed by the manufacturer, an authorized distributor, or an approved workshop using original spare parts.
- **Line Checks:** Line geometry must be verified every **50 flight hours** or whenever flight behavior changes.
- **Unauthorized Modifications:** Any changes to the lines or risers not approved by the manufacturer will void the Certificate of Airworthiness and the warranty.
- **Mandatory Inspections:** * The Pasha 7 Trike must undergo a professional check every **2 years or 100 flight hours** (whichever comes first).
 - For intensive use (over 100 hours per year or in demanding conditions), an **annual check** is required after the initial inspection.

Disposal

The synthetic materials used in a paramotoring glider require professional disposal. Please send retired or disused canopies back to MAC PARA for proper dismantling and environmentally friendly recycling.



What to do if you break a line Breaking one or multiple lines is unfortunate, but it is manageable. In most cases, lines can be easily replaced, restoring your glider to factory specifications within a short time.

- **Assessment:** Depending on the extent of the damage, repairs can be performed by the owner or a qualified, MAC PARA-approved service center.
- **Identification:** To identify the correct replacement, lay out your glider and reference the Line Plan Guide found at the end of this manual.
- **Ordering:** Consult your nearest MAC PARA dealer or contact us directly. Please specify the exact line type and position. Note that lines vary in material and thickness; using the incorrect line can compromise safety.

Damage to the Canopy Paramotoring involves high-speed moving parts, such as spinning propellers and hot engines. Contact with these components can cause immediate and severe damage. **ATTENTION:** Do not risk your life by flying a damaged glider. Any damage must be professionally repaired before your next flight.

If a rip or tear is minor, and you have first consulted with your dealer, you may perform the repair yourself using approved adhesive repair tape. When in doubt, send detailed photos to your MAC PARA dealer for advice. Attempting unauthorized repairs will void your warranty and may put you at risk.

In Conclusion

The **Pasha 7 Trike** is a state-of-the-art paramotoring glider. You will enjoy many years of safe flying if you maintain it correctly and adopt a mature, responsible approach to the inherent demands and dangers of aviation.

It must be clearly understood that all air sports are potentially hazardous and that your safety is ultimately **your own responsibility**. We strongly urge you to fly within your limits, choose appropriate weather conditions, and maintain high safety margins during all maneuvers.

Final Recommendations:

- Always fly with a **certified harness**, reserve parachute, and helmet.
- Ensure the **certification placard** is present on the glider (as required by local laws).
- Every pilot must be suitably qualified, hold a **valid license**, and carry 3rd-party liability insurance.



Package Contents: The Pasha 7 Trike is delivered with:

- Stuff-sack
- **MAC PARA Mac Pack** (Quick-pack bag)
- Repair kit
- User manual

Warranty:

MAC PARA guarantees free-of-charge repairs for defects caused by material or production faults according to the following scheme. For powered flying, the MAC PARA warranty covers **24 months (2 years) or 200 flight hours** (whichever comes first). With intensive use, an annual check is required after the initial 2-year period.

The warranty does not cover:

- Canopy color fading.
- Damage caused by chemicals or salt water.
- Damage caused by incorrect use or negligence.
- Damage caused by emergency situations.
- Damage resulting from accidents (whether airborne or otherwise).

The warranty is valid only if:

- Every flight is correctly recorded in the glider's logbook.
- Flight conditions and temperatures are recorded in the logbook.
- The paraglider is handled in strict accordance with this operating manual.
- The owner has not carried out any unauthorized modifications or repairs (excluding minor repairs using self-adhesive patches).
- The paraglider has been inspected according to the prescribed maintenance schedule described above.

If you have purchased your paraglider second-hand, please ensure you obtain a copy of the previous owner's logbook. This should list total flying hours since the date of original purchase and include details of all safety inspections.



RESPECT NATURE

Practise your sport with respect for nature, wildlife and neighbours. Not everyone is a friend of your paramotor noise. Follow the rules and the laws in the country you fly in. Extra care must be taken when flying near livestock and animals.

PASHA 7 TRIKE LINE PLAN

Line descriptions:

The following printed line plans show the line configurations and line lengths.

Line strengths in colours

Aramid/Polyester A-8000U-050

Aramid/Polyester A-8000U-070

Aramid/Polyester A-8000U-090

Aramid/Polyester A-8000U-130

Aramid/Polyester A-7343-140

Aramid/Polyester A-7343-190

Aramid/Polyester A-7343-230

Aramid/Polyester A-7343-340

Aramid/Polyester A-7343-420

Aramid/Polyester A-6843-080

PPSL 180

TSL 500

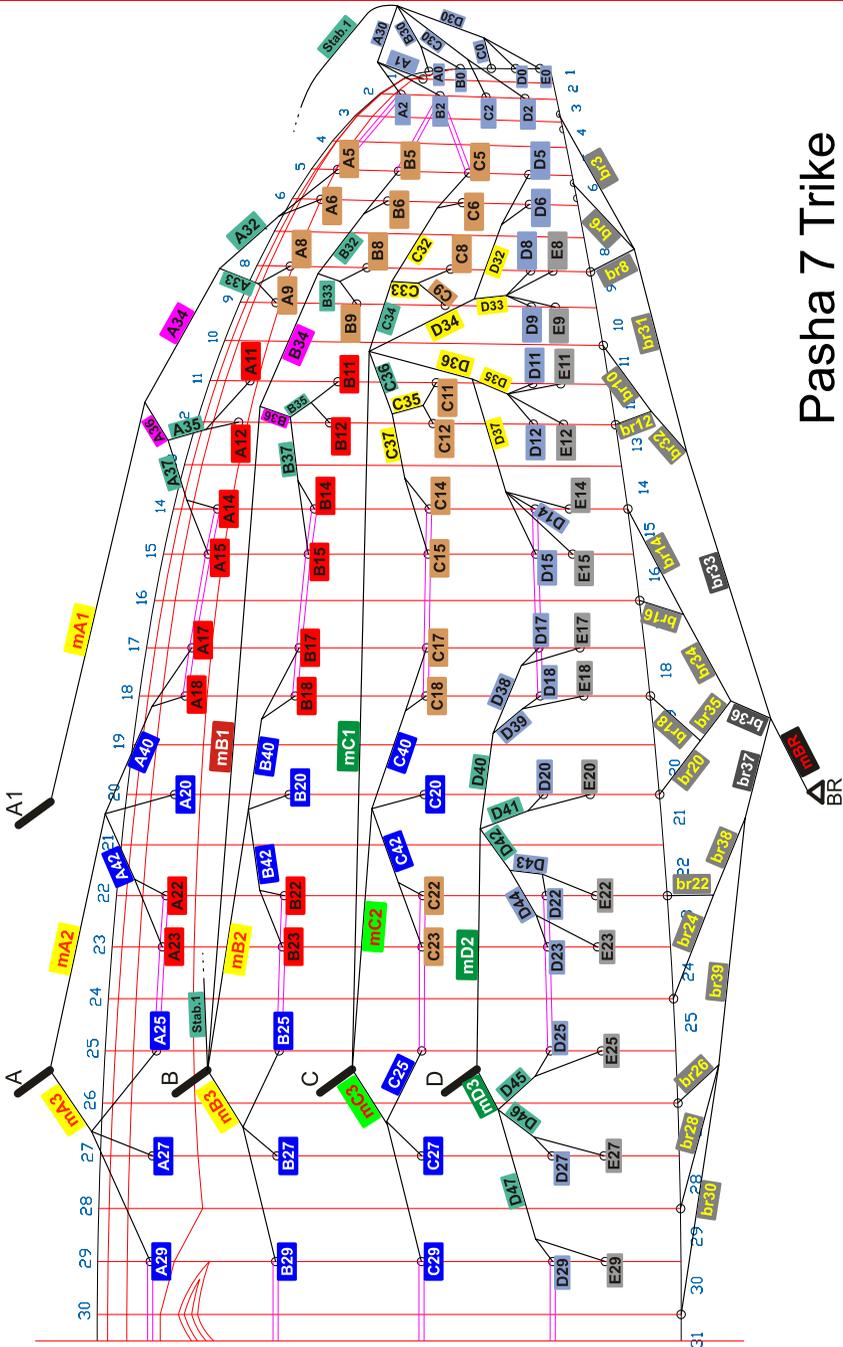
Dynema/Polyester A-7850-100

Dynema/Polyester A-7850-130

Dynema/Polyester A-0010-300



LINE PLAN PASHA 7 TRIKE – SCHEME



Pasha 7 Trike



PASHA 7 TRIKE RISER LENGTHS

The lengths are measured from main attachment point to the lower edge of rapid links.

Riser lengths	A	A1	B	C	D
Trimmers in neutral position	460	460	460	460	460
Trimmers fully closed (slower)	460	460	460	435	410
Trimmers fully open (faster)	460	460	460	485	510
Front trimmers fully closed + rear trimmers fully open	425	425	460	485	510

Brakeline lengths	Pasha 7 Trike 39	Pasha 7 Trike 42
Low attachment on trike	2,70 m	2,80 m
High attachment on trike	2,85 m	2,95 m



FULL LINE LENGTHS

Full line lengths

All lengths are measured from riser's main attachment point up to the tissue of canopy on attachment points. Brake lines are measured from the Swivel on brake handle up to the trailing edge.

Pasha 7 - 42 Trike

Center	A	B	C	D	E	BR
1	9005	8921	8984	9160	9254	10048
2	8946	8859	8923	9102	9197	9688
3	9006	8922	8987	9158	9250	9490
4	9042	8968	9025	9184	9276	9370
5	8982	8899	8964	9121	9211	9300
6	8923	8839	8900	9062	9147	9194
7	8985	8903	8966	9106	9180	9063
8	9030	8949	9010	9146	9214	9004
9	9033	8957	9004	9094	9166	8983
10	8935	8862	8914	8999	9071	8872
11	8791	8743	8790	8865	8926	8797
12	8783	8738	8784	8855	8911	8639
13	8659	8619	8654	8710	8750	8598
14	8608	8573	8605	8655	8690	8607
15	8569	8540	8559	8574		
16	8571	8540	8554	8572		
17	8146	8088	8113	8183		
18	8063					
19	8046	7986	7995	8026	8098	

Pasha 7 - 39 Trike

Center	A	B	C	D	E	BR
1	8663	8583	8643	8812	8902	9646
2	8607	8523	8584	8756	8848	9300
3	8664	8584	8646	8810	8898	9110
4	8699	8628	8682	8835	8923	8995
5	8641	8561	8624	8775	8861	8928
6	8584	8504	8562	8718	8800	8826
7	8644	8565	8626	8760	8831	8700
8	8687	8609	8668	8799	8864	8644
9	8690	8617	8662	8749	8818	8624
10	8596	8526	8576	8657	8727	8517
11	8458	8412	8457	8529	8587	8445
12	8450	8407	8451	8519	8573	8293
13	8331	8293	8326	8380	8418	8254
14	8282	8248	8279	8327	8361	8263
15	8245	8217	8235	8249		
16	8247	8217	8230	8248		
17	7839	7783	7807	7874		
18	7759					
19	7743	7685	7694	7723	7792	



GUIDELINES FOR PARAMOTORING GLIDER CHECKS

Check-intervals

All paramotoring gliders used in flight must be checked at least every 24 months. For paramotoring gliders used by paramotoring schools the period is 12 months.

Personnel authorised to carry out checks

A valid flying license and training course by National associations are the basis for permission to carry out paramotoring glider checks.

Identification of glider

An identity sticker with details of certification and serial number is attached to your glider.

Components of the check

Porosity

The porosity of your glider should be checked with a porosity meter (JDC). Compare the results with the producer's manual.

Porosity measures should be taken on at least three points of both the top and bottom surface. The first point should be placed 20-30 cm from leading edge in the middle of canopy. Second and third points are placed left and right from first measure point at 25% of the span. One additional measurement should be made on the top surface of the wing tip.

The identified time should be higher than 30 seconds (JDC). In the event of the result being less than 30 seconds, the result of the check is a fail.

Overall strength check

The top and bottom canopy strength check should be made with a Bettsometer (B.M.A.A approved Patent No. GB 2270768 Clive Betts Sales), a small hole with a needle at the A-line attachment points. The exact verification should be made in accordance with the Bettsometer user manual. Consult your local paraglider inspection facility.

Line strength check

Line strengths should be as specified in accordance with the certification requirements. One main line should be taken from each array and have its strength checked with a tension-meter.



Required strengths should be higher than:

- A + B main lines x measured value > 8 x maximum take-off weight and higher than 1600 kg for the A + B arrays.
- C + D main lines x measured value > 6 x maximum take-off weight and higher than 800 kg for the A + B arrays.

Replacements for damaged lines must be with new original lines. Line lengths are taken from the lines data page.

Line length measurement

Lines should be separated and each line measured under a tension of 5 kg. Measurement is made from the line carabineer to the canopy according to the method of certification. Rib numbering begins in the middle of canopy and leads to the wing tip.

Measured lengths of the lines should be documented in the inspection record and compared with certified full line lengths protocol. Lengths should not differ by more than 20 mm. The opposite side of the paraglider should be checked for symmetry.

Canopy line-attachment points check

Attachment points should be checked for damage and stretching. Defects, loops and flares should be repaired.

Canopy fabric check

Ribs, diagonal ribs, top and bottom surface should be checked. Any damage to sewing or tears to the fabric could influence flying characteristics and must be repaired.

Lines

All lines should be checked for tears, breaks, and any damage to the sheath or signs of wear. Special attention should be paid to the sewing of the line loops. Damaged lines must be replaced.

The results should be documented in the inspection record.

Connector check

All line carabineers, trims (if used), speed systems and pulleys should be inspected for visible damage. Open or improperly secured connectors should be secured in accordance with the producers recommendations.



Risers

Both risers should be checked for tears, signs of wear or any damage and measured with a pull of 5 daN strength. Measured data should be documented in the inspection record. The difference must not be higher than 5 mm when compared to specified lengths.

Final check

The glider sticker and check sticker must be inspected for readability and correctness. The check must be documented with date, signature and stamp on the canopy and in the user manual.





TEST FLIGHT CERTIFICATE

Paraglider type:

Serial number:

Manufacturing date:

.....

Commisioning date:

.....

TECHNICAL SPECIFICATION

Trike Size		Pasha 7 Trike 39	Pasha 7 Trike 42
Zoom flat	[%]	96	100
Area flat	[m2]	39,35	42,70
Area projected	[m2]	34,19	37,10
Span flat	[m]	14,42	15,02
Aspect ratio flat	-	5,30	5,30
Root cord	[m]	3,39	3,53
Cells	-	61	61
Weight	[kg]	7,25	7,75
Weight range powered*	[kg]	180 - 340	200 - 359
Weight range powered*	[lbs]	397 - 750	441 - 791
Min. speed	[km/h]	24-25	24-25
Max. speed	[km/h]	36-38	36-38
Top speed (accelerator)	[km/h]	46-48	46-48
Glide ratio	-	9,7	9,7
Min. Sink rate	[m/s]	1,10	1,10



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