



G I N

## Tribe Owner's Manual



Thank you for taking your time to read this manual.

## Thank you...

Thank you for choosing the Tribe. We are confident that this paraglider will provide you with countless exciting experiences in your flying. This manual contains all the information you need to fly and maintain your paraglider. A thorough knowledge of your equipment will keep you safe and enable you to maximize your full potential.

Please pass on this manual to the new owner if you do resell your glider.

Happy Flights and Safe Landings,

The GIN Team

## Safety Notice

By the purchase of our equipment, you are responsible for being a certified paraglider pilot and you accept all risks inherent with paragliding activities including injury and death. Improper use or misuse of GIN equipment greatly increases these risks. Neither Gin Gliders Inc nor the seller of GIN equipment shall be held liable for personal or third party injuries or damages under any circumstances.

Please note: This glider is an EN and LTF standard class C intermediate and it is not suitable for inexperienced pilots or for beginner training. To fly the Tribe safely you must fly at least 50 hrs. per year, have several years flying experience and you must have flown with EN & LTF B(DHV 1-2) or higher class gliders before.

If any aspect of the use of our equipment remains unclear, please contact your local paragliding instructor, GIN reseller or the importer in your country.

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# 1. Gin Gliders

Gin Gliders was formed in 1998 by paraglider designer and competition pilot Gin Seok Song and his team of engineers and test pilots.

Gin's philosophy is simple: to design gliders that he, and any other pilot, will love to fly. This philosophy applies equally for a cross country intermediate wing such as the Tribe, as for the world-beating competition glider, the Boomerang. No glider is released to the market without Gin's complete satisfaction.

Gin has over 20 years' experience of designing and manufacturing paragliders, and is backed by an equally experienced team, both within the company in Korea and throughout a worldwide network of distributors and dealers. The GIN Team dominated the Paragliding World Cup from 1998 till now and has had countless other competition successes in World Cups, World and National Championships. This high level of expertise provided by dedicated professionals ensures that you get the best possible product support and after sales service.



## 2. Introducing the Tribe

The Tribe is a new concept of cross country intermediate wing. Gin Gliders have drawn on all their years of experience to produce a wing that is uniquely in tune with the needs of today's pilots. The Tribe offers exceptional performance combined with a high security level and precise and dynamic handling. This allows the pilot to accurately feel the sensations of flight, and thus develop an active flying style. Rapid progression up the learning curve is enabled, as the pilot becomes acquainted with the myriad of different movements and moods of the air. The Tribe will allow you to experience the full pleasure of free flight, without ever compromising your safety.

### For Pilots Who ...

The Tribe is an ideal cross country glider and is suitable for the experienced pilot who flies frequently and wants a high performing glider with a good safety margin. The Tribe is designed for all kinds of flying, from ridge soaring to thermalling, but is optimized to go further in cross country

### Cutting-edge Design

Gin Gliders have made extensive improvements in the Tribe compared to its predecessors. Performance, take-off and handling characteristics have been improved without sacrificing security. The inflation is progressive and easy, the glider does not over-shoot the pilot even in strong wind.

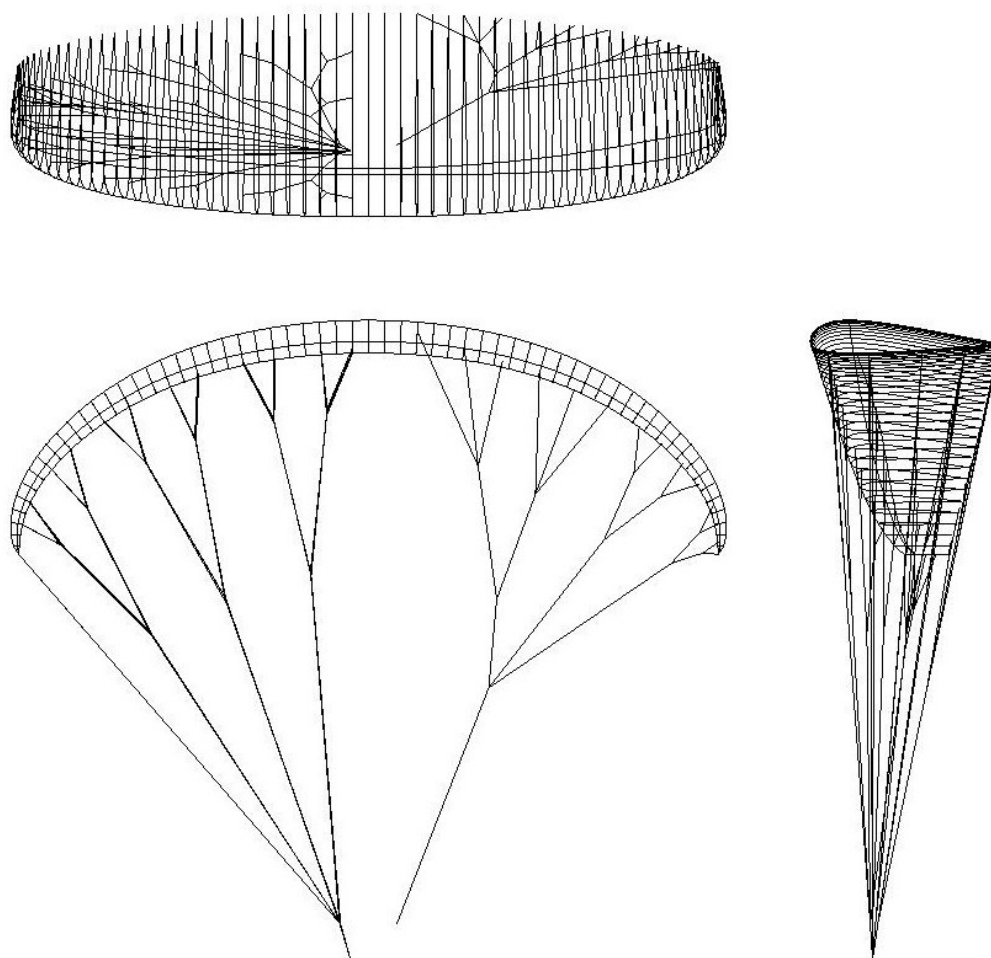
An aspect ratio of 5.82, a high number of cells (62) and reduced total line length gives the Tribe its high performance. An optimized trimming of sail and profiles helps to obtain a well coordinated, homogeneous and secure feeling for a glider of this performance level. The design objective for the Tribe was to create a performance XC glider with state of the art components (high arc, partial diagonals, efficient plan form and the Kick Down speed system) with a high level of performance that is also easy to use. The zigzag air inlets of the tribe are designed to allow optimum influx of air over a very wide speed range.

The Tribe is made from 100% Skytex on the top surface for the best durability and Skytex 9017 on the rest of the glider to reduce the weight.

The brake line layout is designed for fast and flat turning, with proportional brake pressure for light and direct handling. This enables efficient and easy climbing in thermals as well as using weak lift when ridge soaring. The brake handle is attached with a swivel to avoid the brake line twisting after use.

The new leading edge reinforcements made of supple battens are designed to make the wing lighter and the profile more durable.

These and other innovations ensure that by purchasing the Tribe, you are getting the best possible glider in its class.



## Manufacturing

All GIN gliders are produced in the company's own facilities using the most modern techniques. Highly skilled staffs take extreme care during the entire manufacturing process. Stringent quality control is made after each step, and all materials that go into each wing can be traced. These measures guarantee that pilots fly with the assurance that their wing meets the most exacting safety standards.

## 3. Before you fly

### Pre-delivery Inspection

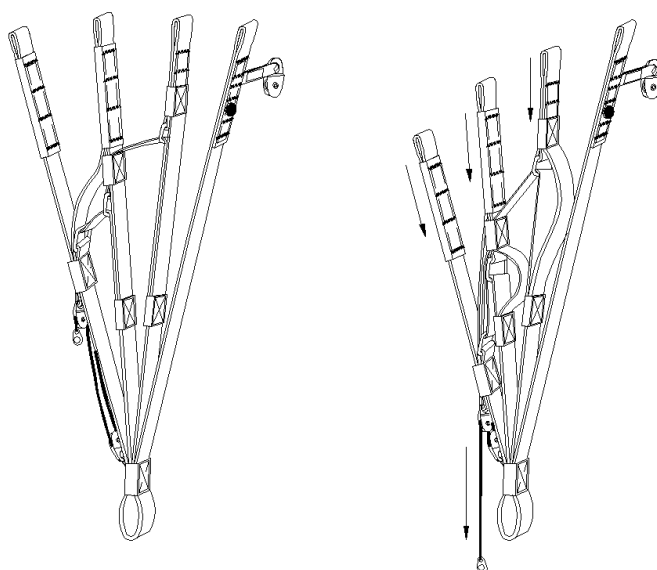
The Tribe is delivered with speed system, rucksack, inner bag, compression strap, repair tape and this manual. Your instructor or dealer should have made a test inflation followed by a test flight before delivery.

### Speed System

The speed system increases the maximum speed by lowering the angle of attack with a pulley-guided, foot-operated system. Approx. 14 to 16 km/h gain in speed can be realized with the accelerator at full travel.

It is important to have your accelerator system correctly routed through your harness and attached to the risers with the supplied Brummel hooks. The length of the speed bar should be initially adjusted while on the ground, sitting in the harness so that the legs are fully extended at the point of full accelerator travel. It is helpful to have an assistant hold the risers taut while making this adjustment. Subsequent fine tuning can be done on the ground following the first flight with the speed system. If in doubt about this procedure, consult your instructor or dealer.

Riser	A	B	C	D
length at trim speed (XS, S, M, ML, L)	50cm	50cm	50cm	50cm
length at full speed (XS, S, M, ML, L)	32cm	35.5cm	43cm	50cm



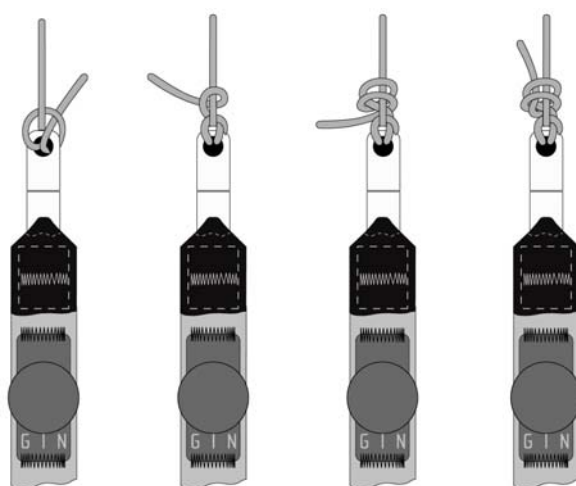


## Brake line adjustment

The main brake line lengths of the Tribe are the same as on the sample that has been used for the DHV certification test flights. These line lengths have been fine tuned by GIN test pilots, and it should not be necessary to adjust them.

In soaring flight, it is common to fly with half a wrap on the brakes. However, care should be taken to release the wraps in any extreme situation.

If you do need to make adjustments to suit your harness, body and flying style, we strongly recommend that you test fly the glider with every 2cm of adjustment. There should be a minimum of 10cm of free brake travel when the glider is flown hands-off. This prevents the brakes being applied unintentionally when the speed system is fully engaged. We recommend a double sheepshank or a bowline knot for the brake handle attachment as shown in the diagram.



## Rucksack

All Gin gliders are delivered with a durable ripstop Cordura rucksack, designed for ergonomic carrying comfort and ease of use.

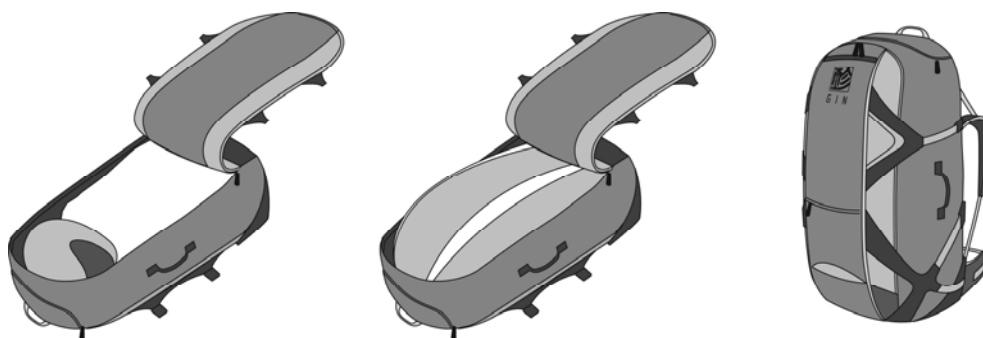
The X Load system of the rucksack is a new compression system created by the GIN R&D team, using Hypalon material. Its concept is based on a 4 point cross bracing at the bottom of the rucksack to obtain an optimum distribution of weight.



The rucksack should be packed carefully to achieve maximum comfort. First, place the glider inside the harness and then put the top of harness in the bottom of the rucksack with the glider side next to the back of the rucksack. Finally, tighten the internal and external compression straps and adjust the shoulder and waist straps to ensure the equipment stays firmly in place when walking. There are also two storage pockets for accessories.

An XXL rucksack (200L capacity) is available as an optional extra for pilots that require it.





## Your harness

The Tribe is certified for use with all harnesses with variable cross-bracing (GH type). 99% of harnesses produced after 1993 are of the GH type. Older harnesses with fixed cross-bracing (GX type) are not certified and should not be used. Check with the manufacturer of the harness or your paragliding instructor if in doubt.

The adjustment of the harness chest strap controls the distance between carabiners and affects the handling and stability of the glider. Tightening the chest strap increases stability, lengthening it gives more feedback from the glider but decreases stability.

Gin calculates and draws the plan of the glider with a distance between the carabiners of 46cm. EN and LTF flight tests are also carried out at this setting. We recommend setting a distance of 42cm to 50cm between the carabiners, depending on the size and design of the harness. There is no need to fly with a tight chest strap setting with the Tribe, as there is no tendency for it to feel unstable, unlike older gliders.

## Certified Weight Range

The Tribe must be flown within the certified weight range given in the reference section at the back of this manual. The weight range is quoted as the total weight in flight, i.e. the weight of the pilot, glider, harness and accessories. The easiest way to check your total weight is to stand on weighing scales with all your equipment packed into your rucksack.

## Pre-flight safety

To fly this equipment you should:

- Have appropriate practical and theoretical training and experience for this class of glider.
- Have the necessary insurance and licences.
- Be in your right mind, unaffected by extreme stress, recreational or prescribed drugs.
- Only fly in conditions suitable for your level of paragliding.
- Wear suitable head protection, use a certified harness and emergency parachute.
- Make a thorough pre-flight check.

## 4. Flying the Tribe

We recommend that you first practice inflating your glider on a small training hill or flat ground. Make your first flights with your new paraglider in gentle conditions on a familiar flying site.

### Preparation for launch

Following a consistent method of preparation and pre-flight checks is vital for safe flying. We recommend the following:

- On arrival at the flying site, assess the suitability of the conditions: wind speed and direction, airspace, turbulence and thermal cycles.

- Inspect your glider, harness, reserve handle and pin, helmet and any other equipment.

- Choose a sufficiently large take-off area with even ground and no obstacles.

- Lay the glider out according to the planform, and get the lines and risers sorted out.

- Put your helmet on. Secure yourself in your harness and don't forget the leg loops!

- Connect the risers to your harness carabiners, ensuring there are no twists or loops around the lines.

- Connect the speed system to the risers with the Brummel hooks.

- Do a final line check by pulling gently on the risers or lines to ensure there are no new knots, tangles or interfering branches or rocks. Take extra care in nil or light winds.

### Pre-flight check list

- Reserve parachute: pin in and handle secure.

- Helmet and harness buckles closed.

- Lines free.

- Canopy open and into wind.

- Airspace clear.

## Take off

The key to a successful launch technique is to practice ground handling on flat ground whenever you can.

### Light or Nil Wind Launch

The Tribe inflates steadily in nil-wind conditions. Simply guide the glider with the A-risers, keeping your arms bent and hands at the level of the shoulders. Allow your arms to rise in an arc and wait for the glider to inflate and come above your head – do not push the risers. **There is no need to pull the risers hard.** Run positively as the glider comes above your head. Be sure to look up and **check that the canopy is fully inflated before you take-off**, and that there are no tangles in the lines. If any irregularity should occur and you are not yet airborne, abort the launch immediately by stalling the glider. On steep launches, stall one side of the glider and run parallel to the hill.

If the glider should come up sideways, and the situation is recoverable, run towards the lower side rather than trying to struggle against the force.

An impulse launch where you start running with slack lines close to the glider is not needed.

### Strong Wind Launch

The reverse launch technique is recommended. Holding the brakes, turn around to face the wing passing one set of risers over your head as you turn. We suggest building a "wall" by partially inflating your glider on the ground, thus sorting out the lines thoroughly. Check the airspace is clear and gently pull the glider up with the A risers. When the glider is overhead, check it gently with the brakes, turn and launch. In stronger winds, be prepared to take a couple of steps towards the glider as it inflates and rises.

### Line knots or tangles

If you do take off with a line knot or tangle, try to get clear of the ground and any traffic before taking corrective action. Weight shift and/or counter brake to the opposite side and pump the knotted side with your brake. Be careful not to fly too slowly to avoid a stall or spin. If the knot or tangle is too tight to pump out, immediately fly to the landing zone and land safely.

### Min sink / best glide

The minimum sink speed is achieved by pulling approximately 15 cm of brake. The theoretical best glide speed in calm air is realized at the hands-off position.

### Accelerated flight

Once you have become accustomed to flying the Tribe, you can practice using the speed system, which allows improved glide in headwinds and greater penetration in strong winds.

Apply the speed system by pushing the speed bar progressively with your feet. Be prepared to control roll by using weightshift and pitch by varying the amount of bar. Keep a very light pressure on the brakes in order to feel the canopy.

Avoid flying accelerated near the ground, and be careful using the accelerator in turbulence.

If you do encounter a collapse while using the accelerator, immediately step off the bar completely before taking any other corrective actions.

## Active flying

The Tribe has a high internal pressure, resistance to tucking and a good degree of passive safety. However, it is recommended that you always practise an active flying style. This will help you avoid deflations in all but the most turbulent conditions. The key to active piloting is keeping the glider above your head at all times. If it falls back behind you, let up the brakes. If it surges in front of you, counter brake until the surge is controlled. If you sense a loss of pressure on one side of the canopy, smoothly apply brake and/or weight shift on the appropriate side until you feel pressure return. In all cases, maintain adequate airspeed and avoid overreaction.

## In turbulence

Deflations of the canopy can occur in strong turbulence. The Tribe will recover without pilot input in most situations, so whenever in doubt, let up the brakes and let the glider fly. Only if the wing surges very fast in front of you should you stop it with the brakes. However, it is recommended that you follow the advice below in order to help the wing recover more rapidly.

## Asymmetric deflation

In the event of encountering strong turbulence and suffering an asymmetric deflation (collapse on one side), the Tribe will easily re-inflate without strong interference from the pilot, but the wing will turn towards the collapsed side. This might be unwanted close to the ground or other gliders. Maintain your course by weight shifting away from the collapsed side. This action can be aided by applying a little force on the brake opposite to the deflation. This will normally be sufficient for recovery. However, if the deflation fails to come out, pump the deflated side with a firm and smooth pumping motion. Let the glider regain its flying speed after it has re-inflated.

If you have a big collapse - especially when flying accelerated - you must observe the following:

When a big collapse happens, due to the difference in weight and inertia of the canopy and pilot, the pilot will continue to travel forward and the canopy will fall behind the pilot. You must wait until you pendulum back below the canopy before reacting and carefully counter braking the open side of the canopy. If you react too early, you risk stalling the collapsed canopy completely and the following scenario can become uncontrollable.

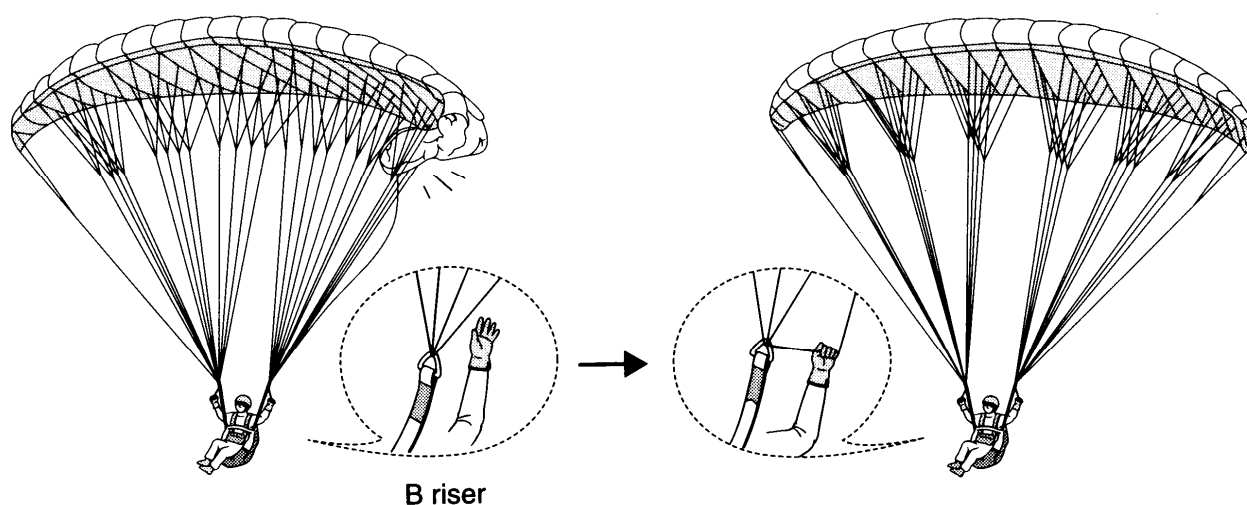
When you have a big collapse in accelerated flight you must first release the speed bar immediately. Stay neutral with your weight shift and brake the open side slightly. Let the glider turn, if you have enough space. This is the optimum action to avoid a spin or stall and help your glider to recover as fast as possible.

### Symmetric deflation

A symmetric (frontal) deflation will normally reopen by itself without any pilot input. The glider will regain airspeed with a small surge. If counter braking, be careful not to over-correct or to brake too early, when the glider is still behind you - danger of a stall!

### Cravat / glider wrapped around lines

A cravat occurs after a severe deflation when the wingtip becomes trapped in the glider lines. It is unusual to occur on the Tribe but can happen after big deflations or in cascading situations. Nevertheless, the pilot should be familiar with the procedure for correcting it. Counter brake and/or weight shift and pump the brake on the tangled side. On all Gin gliders, there is a separate stabilizer/winglet main line that goes down to the B riser. This line usually becomes slack in the event of a cravat. Pull it down completely until it becomes tight and the cravat normally comes out.



### Flat spin

In normal thermalling flight, you are very far from the limits of a flat spin. Nevertheless, should this occur, just let up the brakes and wait for the glider to surge forward, checking it with the brakes if it surges too far. Never release the spin if the glider is far back behind you, always try to release it, when it is above or in front of you!

## Cascade of events

Many reserve deployments are a result of a cascade of over-corrections by the pilot. Please note that over-corrections are often worse than no input at all.

## Losing altitude

Extremely strong and widespread lift is found, for example, in storm conditions. The best place to be in this situation is on the ground. Nevertheless, if you have been caught out by the weather and find yourself needing to descend rapidly, there are several ways to do so. The best way is, of course, to find sink. Failing that, try one of the techniques below. Most of these techniques place undue stress on your glider, and should be avoided if you wish to extend its lifetime. **We recommend you initially practice these manoeuvres under qualified supervision during a safety training course.**

**WARNING!** Modern high performance paragliders, with high aspect ratios, can enter into a stall under specific flying conditions when they recover. If this happens, push forward the "A" risers to come back to normal flight. To help avoid these stall problems, apply the speed bar when you use big ears.

## Spiral dive

The spiral dive should be considered an extreme manoeuvre. Practice spiralling with caution and lesser sink rates to get a feel for the Tribe's behaviour. Weight shift and pull the brake on one side gradually. Let it accelerate for two turns and you will enter the spiral dive. Once in the spiral, you can control your descent rate and bank angle with weight shift and the outer brake.

**WARNING! A pilot who is dehydrated and/or not accustomed to spiralling can lose consciousness in a steep spiral dive!** As with all types of aircraft, we advise you to assist the glider to exit from the spiral dive in a controlled manner. Let the glider decelerate for one or two turns by applying outer brake and/or weight shift.

## B-stall

To quickly loose altitude without straining your body with G-force you can use the B-stall. Reach up to the B-risers just below the maillons and twist your hands while gently pulling. It will be difficult at first, but become lighter the more you break the airfoil. Once pulled, do not release immediately. The glider needs to settle into a stable B-stall before releasing. On exiting the B-stall the Tribe has a very gentle dive without deep stall tendencies. We advise you to release the B-stall symmetrically with both hands in a decided manner.

## Full stall, dynamic stall

This is an extreme manoeuvre and there should never be any need to perform one.

Do not take wraps with your brakes before entering a full stall. Keep your hands close to your body during the stall, and lock them under your harness seat plate if necessary. In a stable full stall, the canopy will oscillate back and forth. Before releasing the stall, raise your hands slightly and evenly to fill the glider with air. If possible, let the brakes up when the glider is in front of you to avoid excessive surge. The Tribe will slow down the surge on its own, but you may counter brake the dive briefly for comfort if needed and then let up the brakes to regain airspeed. Be careful to not stall the glider again when damping the surge.

Never attempt a stall and then change your mind and release the brakes, as the glider will surge radically.

## Deep stall (parachuting, stable stall)

The Tribe does not have a tendency to get into nor stay in a deep stall. Should this nevertheless occur, put your hands on the A risers and push forward to gain speed. On some modern harness/accelerator setups, you can reach the speed bar without using your hands. If so, push the speed bar. Never try to steer out of a deep stall.

You can recognise a deep stall by the glider getting "mushy" and the airflow around your ears decreasing. This situation is usually achieved by flying in turbulence or exiting a deflation with too much brakes applied. A wet glider also has a higher deep stall tendency. If you pass some rain, accelerate a little and never induce big ears in this situation.



## Steering without brakes

If a brake is not operational for some reason, you can steer the Tribe with the D-risers. Add steering input by weight-shifting in your harness. Be careful not to steer too much with the riser to avoid any possibility of a spin.

## Flying under the rain

**WARNING!** We strongly advise you not to fly in the rain. High performance paragliders are very susceptible to deep stall when wet. If you see a shower coming during a flight, even a light one, we strongly advise you to go to land immediately. If you do fly in the rain, and if you enter a stall, which generally happens when you enter lift, do as follows. Do not perform any actions with your brakes, do not steer the wing, push on the "A" risers. If this is not sufficient to recover the flight, push the speed bar and maintain the action.

## Aerobatics

The Tribe is not designed for aerobatics and in most countries acro flying is forbidden. Besides the inherent risks, extreme manoeuvres of any kind place unnecessary stress on the glider and effectively shorten its lifespan.

## Landing with the Tribe

Select a familiar landing area free of obstacles and carefully note the wind speed and direction in the landing area. The low minimum flying speed of the Tribe will help you to make a soft landing in all conditions. Approach the landing with sufficient airspeed and don't leave your last turn too late or too steep.

Before landing, slide your legs forward in the harness so that you adopt the standing position. NEVER land in the seated position; it is very dangerous for your back even if you have back protection, which is only a passive safety system. Standing up before landing is an active safety system, and is much more effective.

## Tow launch

The Tribe is suitable and certified for towing by pilots who have the relevant towing rating. The Tribe has no tendencies towards deep stall/parachuting. There is sufficient margin to counter steer the glider in a normal towing situation. Make sure you use proper equipment, experienced personnel, the recommended techniques and all relevant safety precautions for towing.

## Motorized flight

Paragliding certification does not include motorized flight. However, motorized flying with the Tribe is possible due to its very easy take-off characteristics, good performance, stability and extraordinarily good handling. Always use certified combinations of engine/harness/glider. Always check with your federation if in doubt.

## 5. Care, Maintenance and Repairs

The materials used in the Tribe have been carefully selected for maximum durability. Nevertheless, following the guidelines below will keep your paraglider airworthy and will ensure a long period of continuous safe operation. Excessive wear is caused by careless ground handling and packing, unnecessary exposure to UV light, chemicals, heat and moisture.

### Ground handling

The following should be avoided:

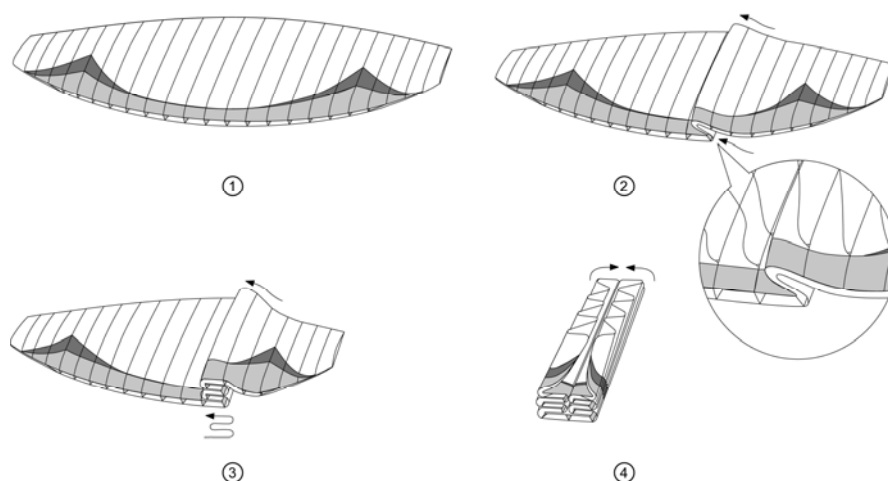
- Violent shocks to the upper surface (e.g. when the canopy crashes to the ground leading edge first whilst ground handling).
- Dragging the glider along the ground.
- Stepping on the lines or canopy. The Kevlar line inside the sheath can take lots of pulling force without stretching, but is sensitive to bending with small radius.
- Opening your wing in strong winds without first untangling the lines.

### UV damage

Avoid leaving the glider out in the sun unnecessarily. UV rays from the sun degrade paraglider cloth.

### Packing instructions

We advise you to pack the glider 'accordion wise' as shown in the diagram. This packing procedure takes slightly longer and requires an assistant, but it conserves the rigidity in the profile reinforcements.



Since folding the glider weakens the materials, pack the glider as loosely as possible.

### Transport and Storage

Moisture is the worst enemy for your glider, adversely affecting the ageing of fabric, lines and reinforcements. The Tribe should therefore be kept dry and cool. Do not pack the glider away for a prolonged period if it is damp, sandy, salty, or if other objects have entered the cells. Always allow it to dry naturally before storage in a dry room. Leave the rucksack zip open whenever possible to

allow residual moisture to evaporate, and do not transport or store the glider in the proximity of chemicals such as gasoline, paints or other solvents.

## Cleaning

Use only lukewarm water and a soft cloth to clean your wing. Never use any abrasive materials or detergents. Only clean the wing if it is absolutely necessary e.g. after a landing in salt water.

## Maintenance Inspections

GIN Gliders require the Tribe to be inspected by an authorized Gin agent after every 100 hours flying time or every year, whichever is sooner.

To extend the validity of the EN/LTF certification a full inspection is required every 200 hours or every 24 months. This inspection should be made not only to the fabric, but also the lines. The maintenance instructions, which can be downloaded from our homepage [www.gingliders.com](http://www.gingliders.com), have to be observed.

A full inspection will give you peace of mind and extend your glider's lifetime. Additional inspections should be performed by a qualified person following a crash or violent landing on the leading edge, or if you note a deterioration of performance or behaviour.

You should also check for any damage to your lines, sail, risers and connectors before each flight.

## Maintenance Inspections for Certification

As mentioned, the Tribe requires regular inspections. Without these inspections, the EN/LTF certification will be invalid. Please check with an authorized agency or a specialist about flight time and regular inspections.

## Repairs

Very small holes in the sail can be repaired with the sticky back tape provided with your glider. Damaged lines should be replaced by your GIN dealer. Before fitting a replacement line, check it for length against its counterpart on the other side of the wing. When a line has been replaced, always inflate the glider on flat ground to check that everything is in order before flying.

Major repairs, such as replacing panels, should only be carried out by the distributor or manufacturer.

## Environmentally friendly disposal of the paraglider

When this paraglider cannot be used any longer after an extended period of life time, then you must ensure that it will be disposed of in an environmentally friendly way. Please observe the existing regulations and laws in your country.

## 6. Technical Details

### Testing and Certification

The GIN TRIBE has passed EN C and LTF C. The Tribe has also passed load tests and shock tests with a load exceeding 8G of the maximum weight in flight.




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**Class: C**

In accordance with EN standards 926-2:2005 & 926-1:2006: **PG\_0318.2010**

Date of issue (DMY): **28. 06. 2010**

Manufacturer: **Gin Gliders Inc.**

Model: **Tribe M**

Serial number:

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**Configuration during flight tests**

<b>Paraglider</b>		<b>Accessories</b>	
Maximum weight in flight (kg)	100	Range of speed system (cm)	14
Minimum weight in flight (kg)	80	Speed range using brakes (km/h)	15
Glider's weight (kg)	6	Range of trimmers (cm)	0
Number of risers	4	Total speed range with accessories (km/h)	27
Projected area (m2)	22.31		
<b>Harness used for testing (max weight)</b>		<b>Inspections (whichever happens first)</b>	
Harness type	ABS	every 12 months or every 100 flying hours	
Harness brand	Sup'Air	Warning! Before use refer to user's manual	
Harness model	Altiplume M	Person or company having presented the glider for testing: None	
Harness to risers distance (cm)	49		
Distance between risers (cm)	46		

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
A	A	A	A	A	A	A	A	A	B	A	A	A	A	C	A	A	A	A	A	B	B	A	A	0



**Gleitschirm / Paraglider Tribe M**

Prüf-Nr. / Test reference-No: **GS\_0318.2010**      Certification Date / Prüfungsdatum: **28-06-2010**

Angewandte Prüfrichtlinien/normen: **Lufttüchtigkeitsanforderungen für GS**      Klasse / Class: **C**

Testregulations/ Standards Applied:

Hersteller / Manufacturer: **Gin Gliders Inc.**      Anzahl Sitze / Number of Seats: **1**

Musterprüfbescheinigung Erteilt An: **Gin Gliders Inc.**      Fluggewicht / Weight in flight (kg): **80-100**

Declaration Of Conformity Issued To:

Serien- Nr:      Gerätengewicht / Weight of Glider (kg): **6**

Serial- No:      Projizierte Fläche / Projected Area (m2): **22.31**

Conformity Checked By:      Anzahl Tragegurte / Number of Risers: **4**

Stückepüft Durch:      Beschleuniger / Accelerator: **ja/yes**

Regelmässige Nachprüfung Nach:      Trimmer / Trimmer: **nein/no**

Periodic Inspection After: **every 12 months or every 100 flying hours**

Conformity tests according to 2. DV LuftGerPV §1, Nr. 7 c standards carried out by: LBA anerkannte Prüfstelle für Hängegleiter und Gleitsegel  
 Angewandte Prüfrichtlinien / Normen durch:

**para-test.de**

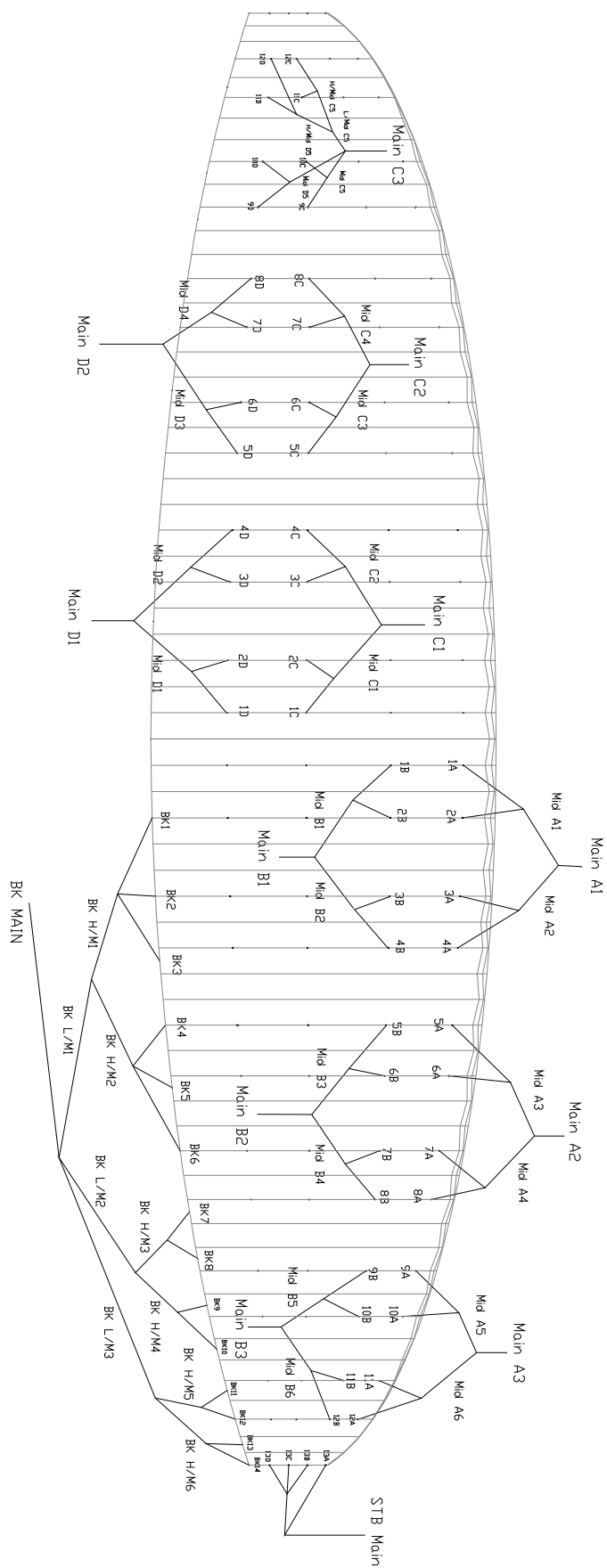
Air Turquoise SA  
 Rte du Pré-au-Compte 8 | CH-1844 Villeneuve  
 tel. +41 21 965 65 65 | mobile +41 79 202 52 30

Vor Gebrauch Betriebsanleitung lesen / Read instructions before use

## Technical Specifications

SIZE		XS	S	M	ML	L
FLAT	AREA	23 m <sup>2</sup>	24.5 m <sup>2</sup>	26 m <sup>2</sup>	27 m <sup>2</sup>	29 m <sup>2</sup>
	SPAN	11.56m	11.94m	12.30m	12.53m	12.99m
	A.R	5.82	5.82	5.82	5.82	5.82
PROJECTED	AREA	19.73 m <sup>2</sup>	21.00 m <sup>2</sup>	22.31 m <sup>2</sup>	23.16 m <sup>2</sup>	24.90 m <sup>2</sup>
	SPAN	9.12 m	9.42 m	9.7 m	9.89 m	10.25 m
	A.R	4.22	4.22	4.22	4.22	4.22
CELL NUMBER		62	62	62	62	62
GLIDER WEIGHT		5.4kg	5.7kg	6.0kg	6.2kg	6.5kg
WEIGHT IN FLIGHT		60-75kg	70-85kg	80-100kg	90-110kg	105-130kg
CERTIFICATION		EN-C / LTF-C				

## Line Plan



## Description

Fabric of Canopy	Top	Skytex 40
	Bottom	Skytex 40
	Profile	Skytex 40
	Diagonal	Skytex 40
	Reinforcement	SR-Scrim X15
	Bridle	Nylon 12mm
Suspension Line		Liros DC60, DSL 70, PPSL120, 160, 200, 275/ TGL 180, 220
Riser		Cousin Kevlar 12mm
Maillons		Peguet Stainless steel 3.0Ø
Thread		HT Polyester Yarn 150D/3, 225D/3

"Designing paragliders is a personal journey of challenge and discovery, an ongoing search for perfection."

- Gin Seok Song

Every effort has been made to ensure that the information in this manual is correct, but please remember that it has been produced for guidance only. It should not be used as a "how to fly" manual. This owner's manual is subject to changes without prior notice. Please check [www.gingliders.com](http://www.gingliders.com) for the latest information regarding the Bolero Plus and other GIN products.