



GIN





Gingo

Airlite

pilot manual

v1.0 12/2014





Intermediate lite
airbag harness



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Thank you...

...for choosing Gin Gliders. We are confident you'll enjoy many rewarding experiences in the air with your GIN harness.

This manual contains important safety, performance and maintenance information. Read it before your first flight, keep it for reference, and please pass it on to the new owner if you ever re-sell your rescue.

Any updates to this manual, or relevant safety information, will be published on our website: www.gingliders.com. you can also register for e-mail updates via our website.

Happy flying and safe landings,
GIN team

Warning

Like any extreme sport, paragliding involves unpredictable risks which may lead to injury or death. By choosing to fly, you assume the sole responsibility for those risks. You can minimize the risks by having the appropriate attitude, training and experience and by properly understanding, using and maintaining your equipment. Always seek to expand your knowledge and to develop self-reliance. If there is anything you do not understand, consult with your local dealer as a first point of contact, with the GIN importer in your country or with Gin Gliders directly.

Because it is impossible to anticipate every situation or condition that can occur while paragliding, this manual makes no representation about the safe use of the paragliding equipment under all conditions. Neither Gin Gliders nor the seller of GIN equipment can guarantee, or be held responsible for, the safety of yourself or anyone else.

Many countries have specific regulations or laws regarding paragliding activity. It's your responsibility to know and observe the regulations of the region where you fly.

About Gin Gliders

Dream

In forming Gin Gliders, designer and competition pilot Gin Seok Song had one simple dream: to make the best possible paragliding equipment that pilots all over the world would love to fly—whatever their ambitions.

At Gin Gliders, we bring together consultant aerodynamists, world cup pilots, engineers and paragliding school instructors, all dedicated to fulfilling this dream.

Touch

We're a "hands-on" company that puts continuous innovation and development at the center of everything we do.

At our purpose-built R&D workshop at head office in Korea, we are able to design, manufacture, test-fly and modify prototypes all in a matter of hours. Our international R&D team is on hand both in Korea and at locations worldwide. This guarantees that your equipment has been thoroughly tested to cope with the toughest flying conditions.

Our own production facilities in East Asia ensure the quality of the finished product and also the well-being of our production staff.

Believe

We believe that the product should speak for itself. Only by flying can the pilots understand their equipment and develop trust and confidence in it. From this feeling comes safety, comfort, performance and fun. The grin when you land should say it all!

Introducing the Gingo Airlite 2

The GIN Gingo Airlite 2 is an airbag harness that has been modeled after our top selling reversible harness, the Verso 2. The Gingo Airlite 2 offers comfort, safety and convenience in a lightweight package. The Gingo Airlite 2 is targeted for pilots looking for a safe and lightweight harness, it is a perfect choice as a first harness.

Safety

The Gingo Airlite 2 has been designed with a built in airbag for back protection. Airbags offer a high level of safety, compactability and decreased harness weight. The airbag on the Gingo Airlite 2 has an new and improved airbag design that aids with pre-flight inflation. A replaceable foam insert works like a spring inside the airbag compartment to partially pre-inflate the airbag for safer launching.

The T-lock safety system is used in each of our “all-round” harnesses and adds an extra level of safety to your preflight check. The safe T system incorporates the leg and chest straps to help prevent a pilot from falling out of the harness if forgetting to fasten the leg buckles.

Comfort and durability

The Gingo Airlite 2 is the first GIN harness to feature the new Triplex seat plate. Incorporating a seat plate into a harness both adds extra back protection and improves the handling and control of the wing in flight through weight shifting. At 50% the weight of a wooden seat plate and the extended durability of plastic, the Triplex seat plate is the next generation of harness innovation.

New materials like the Honeycomb outer fabric add extra durability and extend the life of your harness. And new structural designs like the ergonomic seat with its airmesh fabric increase the breath-ability and pilot comfort.

The latest modifications to the Gingo Airlite 2 will be a noticeable improvement to its predecessor and we hope will bring you many hours of pleasure and comfort.

Specifications

The Gingo Airlite 2 has EN and LTF certification (see p.35)

Size	XS	S	M	L
Weight (kg)	3.1	3.4	3.6	3.8
Pilot height (cm)	under 165	160-175	170-185	over 180

Delivery package

- 1 Harness
- 1 Triplex seat plate
- 2 GIN carabiners
- 1 Rescue deployment handle
- 1 Rescue Y-bridle (sewn in)
- 1 Classic speed bar

Optional items

Foot strap with release system

-Weight: 160g



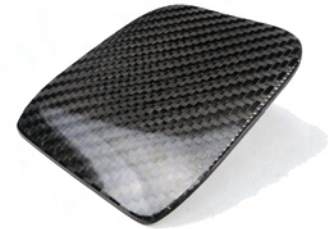
Carbon seat plate

-XS- 180g

-S- 200g

-M- 240g

-L- 260g



Flight deck 5L

-Instrument holder and 5L ballast

-Volume: 5L

-Weight: 380g



Main rescue

-One G: #38 or 42

-Yeti rescue: #27,35,40



Components of the Gingo Airlite 2

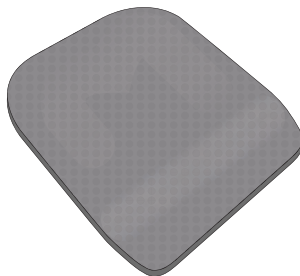
Back protection
(p. 12)



GIN carabiners
(p. 12)



Triplex seat plate
(p. 12)



Back Protection

The Gingo Airlite 2 is a harness with a built-in airbag. The airbag helps to absorb the force of an impact by allowing air to dissipate progressively. This protects the pilot as much as possible in the event of an incident, but it cannot completely eliminate the risk of injury. The Gingo Airlite 2 back protection is EN / LTF certified.

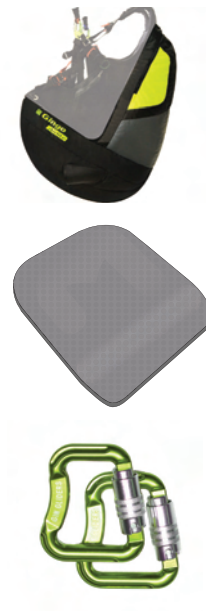
The Gingo Airlite 2 is designed with a foam structure that helps pre-inflate the harness before take-off. After launch the airbag will fully inflate via the air vents located on either side. Be sure not to pack anything into the “rear compartment” during flight or this may block the air intake and prevent the back protector from fully inflating. (see p. 25)

Triplex seat plate

Included with the Gingo Airlite 2 is the new Triplex seat plate. 50% lighter than a wooden seat plate with extended durability, the Triplex seat plate is the perfect fit for the new lightweight harness. Pilots can also choose to upgrade to the carbon seat plate for additional weight reduction.

GIN carabiners

Included with your harness is a pair of GIN 30mm green carabiners. Other carabiners may also be used with this harness but it is up to the pilot to check with a professional and ensure they are compatible with this harness.



Before you fly

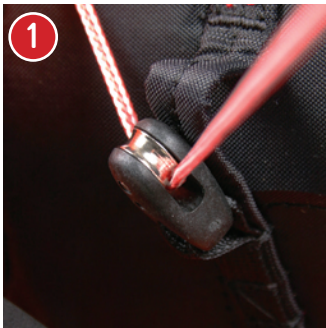
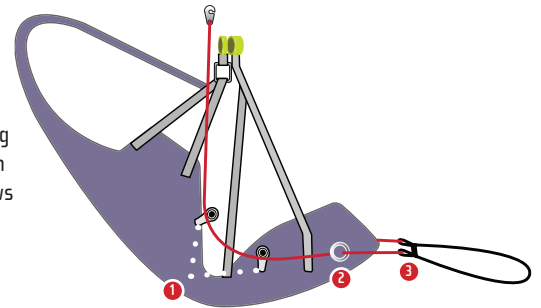
Make sure your dealer has checked the harness for completeness and basic settings. Your harness must be assembled by a suitably qualified paragliding professional, for example, your instructor.

Gin Gliders recommends that assembly be carried out in the following order. If you are in any doubt whatsoever about this procedure, please seek professional advice from your instructor, GIN dealer or importer.

Installing the speed system

Assemble the speed system from top to bottom. Pass the cord along the inside of the harness and route it through both pulleys (1). From the second pulley, route the cord through the metal ring at the bottom edge of the seat (2). Connect the cord to the speedbar using a secure knot (3). Finish by attaching the speedbars elastic cord (located next to the metal ring) to the speedbar. This allows easy access to the speed bar and prevents tangling in case of a rescue deployment.

CAUTION: Make sure that the speed system is not too short. The front risers of your paraglider must not be pulled down in normal (unaccelerated) flight.



*See page 27 for speed system adjustment

Installing the footstrap with quick release system

The optional footbar with quick release system consists of a footbar with a specially designed rescue handle. In the event of a reserve deployment, the footbar is automatically released. This is to eliminate the possibility of the footbar interfering with the reserve.

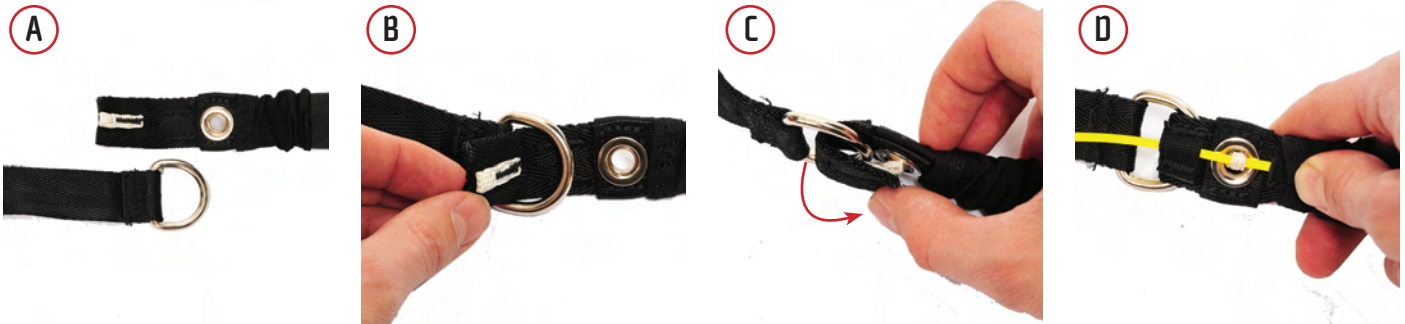
To install the optional quick release footstrap, wrap the webbing of the footstrap through the side buckle (1). Route the long yellow plastic line through the neoprene tunnel (2). Then pass the yellow plastic line through the quick release connection (A,B,C,D) (p.15). Finally, tuck the plastic line into the neoprene cover of the footstrap.

If the plastic line is too long, trim it to fit your leg.



NOTE: We recommend that you do not use other types of footbar with the Gingo Airlite 2.





Adjusting the optional footstrap

There are 4 red adjustment strips sewn onto the footstrap. To ensure that the footstrap is adjusted symmetrically, position the appropriate red strip over the bar of the plastic buckle, and then on the opposite side of the harness, adjust the length of the footstrap to the same red strip.



Connecting the carabiner

Connecting the harness straps to the main carabiners needs to be done in a specific order. Follow the sequence from the image below.

1 Main seat strap

2 Lateral strap

FRONT

BACK



Installing the seat plate

The seat plate is removable and can be accessed by a panel at the rear of the seat. Simply remove by separating the leg straps and pulling it out the back. When installing the seat plate be sure to loop the leg straps over the back edge of the seat (covered in Velcro). The seat plate should be installed with the Velcro edge to the back and the front curve facing down.

WARNING: Forgetting to loop the leg straps behind the seat plate will place the pilot in great risk of falling out of the harness.



*shown with optional carbon seat plate

Rescue Installation and compatibility check

Gin Gliders recommend that rescue installation is performed properly by a competent person. The rescue parachute is a pilot's last resort and failure to pack or connect the reserve parachute in the correct way may cause death or severe injury. The pilot is responsible for ensuring proper installation.

The Gingo Airlite 2 is compatible with One G and Yeti rescue parachutes (#27,35,40). Other manufacturers' rescues may also be used but we cannot guarantee their function. The pilot is responsible for checking compatibility.

Every first installation of a rescue system into the harness (that means every new combination of harness and rescue system) must be checked by a qualified paragliding professional for compatibility. To verify the installation, you must perform a test deployment by sitting in a simulator.

Rescue parachutes should be repacked at least every 150 days; so installing your rescue in a new harness may also provide a good opportunity for a repack. After every repack of the rescue parachute you should also do a compatibility check. Make sure that the rescue parachute can be released from the rescue container—it must be done by you, the pilot, sitting in the harness hanging from a simulator.

WARNING: If you are in any doubt about any aspect of rescue installation, seek professional advice!

IMPORTANT: You must perform a test deployment from a simulator to verify the installation.



Attaching the rescue deployment bag to the harness deployment handle



Handle attachment



Pass the handle through the center loop



Pass the handle through itself loop



Pull to make a clean, tight knot

The rescue container for this harness comes with its own deployment handle. This handle and its strap must be connected to the deployment bag of the parachute. In particular, check the length of the strap connecting the rescue deployment handle to the rescue inner container. It should be long enough that the reserve can be extracted without the danger of the pins not being pulled before the strap tightens on the reserve, but not so long that there is excessive slack that extends the movement required for deployment.

The deployment bag of other manufacturers' rescue systems (i.e. non-GIN rescue systems) may have different loop positions which may cause a deployment failure. Be sure to contact your parachute dealer or a qualified professional to check the connection, position and secure deployment, and refer to the rescue manual for details.

Connecting the rescue bridle

To connect a rescue to your harness we recommend using a GIN Rescue Carabiner. If you choose to use different type of connector, it should be rated at least 9 times the maximum weight. For example, our recommended 8mm Stainless Steel screwgate maillon (square) connector has a minimum breaking load of 28kN (2855 Kgf). It is the pilot's responsibility to check the compatibility of the rescue system and ensure that it is installed properly.

Be sure to inspect your connector during normal maintenance and safety checks. Replace it whenever there any signs of wear and check your rescue system with a professional after any deployment. We recommend that you cover the connection using the Maillon rapid cover to prevent excess friction. Tape and/or rubber-bands should also be used to secure the attachment and prevent excess friction.

Recommended by GIN: 8mm stainless steel screwgate maillon

8mm square maillon
Breaking load: 28kN

Maillon connection (Recommended by Gin Gliders)



Bridle attachment

Attach the Y-bridle to the maillon and secure it with a rubber band

Attach the rescue to the maillon and secure with a rubber band

Check your connection and close the maillon firmly

WARNING: When connecting the rescue bridle be sure to secure the connection using tape, rubber bands or heat shrink wrap. If the lines are not secure they may burn or cut from excess friction.

Rescue installation guide

It is very important to properly install the rescue parachute. If the parachute is not folded correctly or the lines are not placed properly then a serious if not fatal accident could result. If you have any doubts speak with your instructor or GIN dealer.

Adjustment of rescue container volume

The Gingo Airlite 2 has a Velcro system to adjust the volume of the container according to the size and shape of your rescue. This is to ensure that your rescue is held firmly in place in the rescue container.

To adjust the rescue container volume for a smaller rescue, first detach the edge of the Velcro flap inside the container. Pull on the Velcro flap and re-attach to decrease the height of the container. Then, check that the rescue fits in the remaining space. The rescue should fit comfortably in the container. The rescue should be held so that it can't move around, but not too tightly that extraction becomes difficult. If necessary, place a piece of foam behind the rescue to reduce the depth of the container.

Main rescue installation guide

Begin by first connecting the Y bridle and the rescue handle to the rescue parachute (p. 19,20). Install the rescue into the harness with the handle connection facing up and the extra para line neatly folded on the bottom of the container (2).

Using the paracord included with your harness pull the built in loops through the metal rings in the order shown below. First close flap "A", next "B", then "C", and finally "D." (3-6). After closing the container in the proper order, use the metal hook pins to secure the container flaps (7). Finish by inserting each side of the rescue handle into its neoprene sleeve and secure using the Velcro.

*Follow the instructions on the next page.

WARNING: When installing the reserve make sure the reserve handle is up and the reserve lines are facing down.





Storage

Rear compartment

The Gingo Airlite 2 has a “rear compartment” that inflates along with the underseat back protector to offer a larger safety margin. This compartment must be kept free of obstruction. Do not store your rucksack or any other items in this compartment or it may block the air intake at the base. For storage use the “back pocket”, a large black, zippered pocket that is located inside of the “rear compartment.”

Back pocket

Located inside the “rear compartment” you will find a black zipper pocket that can be used to store the rucksack and other gear during your flight.

Hydration pocket / personal belongings

Located inside the back pocket is a smaller zippered pocket that can hold a camelback or other small belonging. At the top of the “back pocket” you will find a small loop of black webbing, this can be used to hang a camelback with a hook feature.

Radio Pocket

Located inside of the “back pocket” is a radio pocket. this can be used to safely house a radio and at the top of the “back pocket” there are two holes, one can be used for a radio wire and the other can be used for your hydration hose.

Hydration / Radio hole

The two holes located at the top of the back pocket are covered by a small piece of neoprene. This helps prevent air from escaping the rear compartment. To use these holes simply stretch the fabric to one side to allow access to the opening.

Side pocket

Located on both sides of the harness, just under the carabiners, are two zippered pockets that can be used to store small items such as a snack or small digital camera during your flight.

WARNING: Do not store any belongings inside the “rear compartment!” Items must be stored inside the “back pocket” or they may block the air intake.



Adjustments

After choosing a harness that is close to your body size, adjust your harness to suit your physique and flying style. It is important to adjust it correctly to ensure you can easily slide into the sitting position after take off. A poorly adjusted harness can adversely affect the flying characteristics of your paraglider.

Perform adjustments before your first flight by hanging in a simulator and fine-tune the settings if necessary during your first few flights.

Shoulder straps (1)

The optimum setting for the shoulder straps depends on the height of the pilot. Step into the harness and stand upright with the breast strap closed, symmetrically adjust the shoulder straps until they are a snug fit, but not tight.

To tighten: pull the RED shoulder webbing forward and down.

To loosen: pull up on the BLACK loop on the top of the shoulder strap.

Breast strap (2)

After adjusting the shoulder straps, place the breast strap in a comfortable position and tighten so there is slight pressure on the shoulder straps.

NOTE: Make sure that the rescue system has been installed before making adjustments.



Lateral Straps (1)

The lateral straps adjust the angle between the thighs and the back. Lengthening the straps increases the angle and vice-versa. The easiest way to adjust them correctly is during a flight in calm air. Remember that flying in the supine position (i.e. leaning back), reduces the stability of the harness and increases the risk of riser twists after a deflation.

To tighten, pull forward on the red loop. To loosen, pull back on the black/green loop.

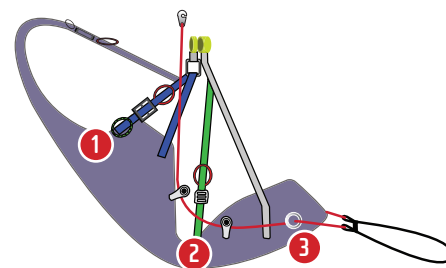
Seat Straps (2)




The seat straps change the depth of the seat. Adjust to find a comfortable position. In the sitting position, lengthen the straps to their maximum at first and then use the plastic buckles to shorten the straps to find a comfortable position with good back support. Lengthening the straps also helps you to slide easily into the harness at take off, while shortening the straps helps you to be in the standing position for landing.

To tighten, pull up on the red loop. To loosen, lift the plastic buckle.

Speed Bar (3)

Hanging in the simulator, adjust the length of the speed bar cord so that the bar hangs at least 15cm below the front of the harness. Making the cord too short could result in the speed system being constantly or unintentionally engaged during flight. It is safer to start with the speed bar a little long and shorten it following your first flights. Test the speed bar in flight only after you are comfortable with your new harness, and always do so in calm conditions with enough clearance above the ground.



- 1 Lateral strap 
- 2 Seat strap 
- 3 Speed bar 

Flying with the Gingo Airlite 2

IMPORTANT: Use a complete and consistent system of pre-flight checks and repeat the same sequence every flight.

General warnings and advice

Before every flight, check the following:

Are you in good physical and mental condition?

Are you familiar and compliant with all applicable laws and regulations in your area?

Are you within the certified weight range of your paraglider?

Do you have the necessary valid insurance cover (e.g. liability, medical, life)?

Are you briefed thoroughly about the site, airspace and expected weather conditions of the day?

Is your equipment and choice of site suitable for your level of experience?

Do you have a suitable helmet, gloves, boots, eye-wear and adequate clothing?

Are you carrying some form of identification, so that people know who you are in case of an accident? Take along a radio and mobile phone if possible.

Do you fully understand how to safely use your new equipment? If not, have your instructor or dealer explain anything you are not sure about.

When you go for your first flight on your new harness, be sure to pick a day and site that does not present you with any unfamiliar challenges. During your first flight, familiarize yourself with the in-flight characteristics of your new harness.

Pre-flight checks

As part of your normal pre-flight check routine, check:

Is there any damage to the harness or carabiners that could affect its airworthiness?

Is the rescue parachute container closed correctly with the pins in the right position?

Is the deployment handle correctly inserted or attached?

Are all buckles, belts, zips securely fastened? Buckles should click into place as you close them, and a gentle pull on the fastened buckle verifies this. Secure any zips after fastening the buckles. Take extra care in snowy or sandy environments.

Is the paraglider connected correctly to the harness with both carabiners secured by their locking mechanisms?

Is the speed bar attached correctly to the glider?

Are all pockets closed properly and any loose items tied down safely?

Is the air chamber intake open and clear?

Have you closed your leg and chest straps? Double check before you take off!

Rescue Deployment

In the event of an emergency, you must quickly evaluate your height and the seriousness of the incident. A seconds hesitation in deploying the reserve could prove fatal if there is insufficient height. On the other hand, deploying the rescue when the glider is recoverable may result in needless injury.

If you decide to deploy the rescue:

Look for the rescue handle and grasp it firmly with one hand

Pull forwards and upwards on the handle to release the deployment bag from the rescue container.

Look for a clear area, and in a continuous motion, throw (and RELEASE!) the rescue away from yourself and the glider, preferably into the air stream or against the direction of spin. After deployment, avoid entanglement and pendulum motions by promptly pulling in the glider as symmetrically as possible with the B, C, D or brake lines.

On landing take an upright body position and be prepared to do a PLF (Parachute Landing Fall) to minimize the risk of injury.

IMPORTANT: In normal flight, periodically feel the position of the rescue handle so that the action of reaching for the rescue handle is instinctive in an emergency.

WARNING: During any incident in flight, always monitor your altitude. If you have any doubt that you have sufficient height for recovery, deploy your reserve without hesitation. “If low, then throw”.

Landing with the Gingo Airlite 2

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 even if you have back protection. Standing up before landing is an active safety precaution.

Miscellaneous

Towing

The Gingo Airlite 2 can be used for towing with the proper equipment. Check with your dealer for more information.

Tandem Flying

The Gingo Airlite 2 is not designed for tandem flying. See www.ginglidgers.com for details of our harnesses specifically designed for tandem flying.

Flying over water

Water landings should be avoided at all costs, as the back protection increases the risk of the pilot floating in a head-down position. For safety training over water, we recommend wearing a proper flotation vest with a head support holding the wearer's head above the surface even when unconscious.

Maintenance and repairs

The materials used in this harness have been carefully selected for maximum durability. Nevertheless, keep your harness clean and airworthy to ensure the longest possible period of safe operation.

Care and maintenance

Don't drag your harness over rough or rocky ground. Avoid unnecessary exposure to UV rays, heat and humidity. Keep the folded harness in your rucksack when not in use.

Store all your equipment in a cool, dry place, and never put it away while damp or wet. Regularly clean off dirt with a plastic bristled brush and/or a damp cloth. If the harness gets exceptionally dirty, wash it with water and a mild soap. Make sure you first remove the entire sub-components for example, rescue parachute etc. Allow the harness to dry naturally in a well ventilated area away from direct sunlight. If your rescue parachute ever gets wet (e.g. in a water landing) you must separate it from the harness, dry it and repack it before putting it back in its separate outer container. Occasionally lubricate the zips and buckles with silicone spray, no more than once a year.

After a hard landing you must check your harness for damage, pay close attention to the rescue container and verify all of the attachments are secure.

IMPORTANT: Any repairs should only be carried out by the manufacturer or by an approved agent. This will ensure that the correct materials and repair techniques are used.

Inspection checklist

In addition to regular pre-flight checks, your harness should be inspected thoroughly on every rescue repack of 150 days. Additional inspections should be performed after any crash, bad landing or take off, or if there are any signs of damage or undue wear. Always seek professional advice whenever in doubt.

The following checks should be carried out

Check all webbing, straps and buckles for wear and damage, especially the areas that are not easily seen, such as the inside of the carabiner hook-in points.

All sewing must be intact and any anomalies attended to immediately to avoid exacerbation of the problem.

Special attention should be paid to the rescue installation, particularly the elastic and Velcro parts.

The main carabiners must be replaced at least every 5 years or after 500 hours, whatever comes first. Impacts may create undetectable cracks that could result in structural failure under continuous load.

Repairs

The manufacturer or an approved specialist should carry out any repair that involves critical parts of the harness. This will ensure that the correct materials and repair techniques are used.

GIN quality and service

We take pride in the quality of our products and are committed to putting right any problems affecting the safety or function of your equipment and which are attributable to manufacturing faults. Your GIN dealer is your first point of contact if you have any problems with your equipment. If you are unable to contact your dealer or GIN importer, contact Gin Gliders directly via our website.

Care of the environment

We are privileged to fly in areas of outstanding natural beauty. Respect and preserve nature by minimizing your impact on the environment. When visiting an area, contact the local club for details of environmentally sensitive areas and local restrictions.

When your paraglider eventually reaches the end of its useful life, dispose of it with consideration and follow any local regulations.

Final words...

Most of us today live in a dependent society where we are regulated and protected. There are few opportunities for individuals to develop the self-responsibility that is the foundation of safety in extreme sports such as paragliding.

Most accidents are caused by getting into situations that are too demanding for your level of experience. This happens if you lack fundamental understanding, are incapable of assessing the risk or simply do not pay sufficient attention to your surroundings or your own state of mind.

To stay safe, the best you can do is to increase your understanding, skill and experience at a rate you can manage safely. There is no substitute for self-responsibility and good judgment.

In the end, paragliding offers a unique opportunity to learn to take control of your own destiny. Memento mori, carpe diem!

Fly safely, and...E N J O Y!

GIN team

Technical data

Size	XS	S	M	L
Weight (kg)	3.1	3.4	3.6	3.8
Pilot height (cm)	under 165	160-175	170-185	over 180
Height of attachment points (cm)	40	42	44	46
Carabiner distance (cm)	33-45	33-47	33-51	33-53

Certification

The Gingo Airlite 2 has EN and LTF certification, max load 120kg

Gingo Airlite 2 harness: (EN) PH 098.2013 (LTF) GZ 098.2013

Parachute container

Integrated container underneath seat plate

Back protection

Airbag back protection

Materials

Harness fabric

Outer	100D JR HONEYCOMB, OXFORD 210D Ripstop PU
Inner	420D HD N/Oxford PU 60", Oxford 210D PU 60"

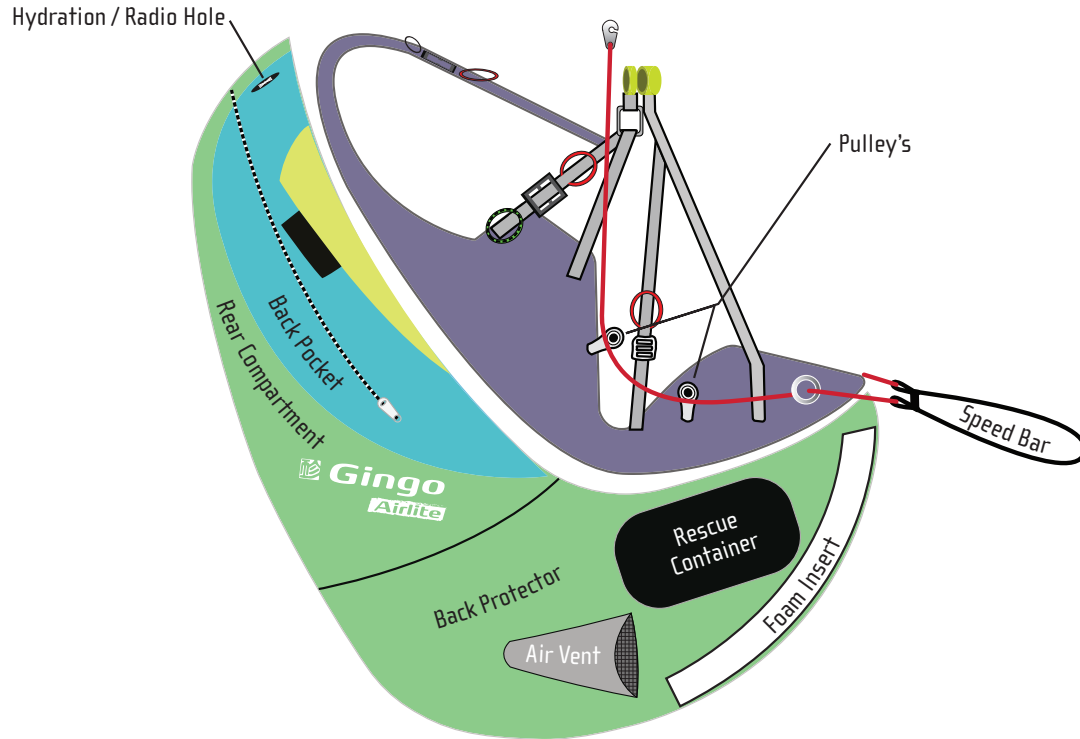
Webbing

Dyneema 25mm, 30mm

Thread

P/F 210 D/9 Bonded, P/F 210 D/4 & 210 D/6 Bonded Polyester

Harness diagram





GIN

www.gingliders.com

Dream. Touch. Believe