



G I N

Genie 4 Owner's Manual



Please read this manual before flying with the Genie 4 for the first time.

Thank You...

Thank you for choosing the Genie 4 harness. We are confident that this harness will provide you with enhanced comfort, control, performance and fun in flight. This manual contains all the information you need to set up, trim, fly and maintain your harness. 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 harness.

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. If any aspect of the use of our equipment remains unclear, please contact your local GIN reseller or 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 paragliding equipment that he and any other pilot would love to fly. This philosophy applies equally for a harness such as the Genie 4, as for the world-beating competition glider, the Boomerang. No product is released to the market without Gin's complete satisfaction. Gin Gliders produce a complete range of accessories and can provide you with many useful items for flying that are all manufactured in Gin Gliders own production facility to guarantee highest quality standards.

Gin has over 20 years' experience of designing and manufacturing paragliders and is backed up by an equally experienced team, both within the company in Korea and throughout a worldwide network of distributors and dealers. The "GIN Team" has won the Paragliding World Cup overall several times 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 Genie 4

The Genie 4 was developed by the R&D team of Gin Gliders to meet the highest standards of the most demanding pilots - the Genie 4 is the harness used by GIN test pilots during the development of high performance paragliders. The Genie 4 is suitable from the experienced pilot to the cross country or the competition pilot who prefers a harness without cocoon.



The Genie 4 can be flown with all types of paraglider unless the manufacturer of your paraglider requires a specific harness to be used with his paraglider. Please refer to the manual of your paraglider to find out if this might be the case. The Genie 4 is a sleek and easy harness, designed for maximum comfort and ease of use. The elegant design focuses on simplicity, eliminating the need for complicated adjustments.

The overall geometry of the harness enables the pilot to feel the feedback from the glider sensitively, whilst retaining a secure feeling in flight. This increases the precision of turns while thermaling and aids active flying. On long flights, the comfort of the Genie 4 is second to none.

The leg and chest straps are integrated into the "Get-up system" that prevents the pilot from being able to fall out of the harness by forgetting to fasten the leg straps.



The safety has also been improved by optimising the position of the back protection; the rear pocket has been moved upwards, offering protection for the pilot in case he accidentally falls on his back.

The bottom rescue container is designed to enable a fast and easy deployment of the parachute. The bottom position is ideal because the weight of the rescue stays near the centre of gravity and therefore provides you with the most balanced comfort and feeling in flight.

The speed system runs through ball bearing pulleys that help to reduce friction and thus, helps the pilot to feel less fatigued when using the speed system often during long flights.

The new elastic speed bar retainer prevents the bridle of your rescue becoming entangled in case of a rescue deployment.

Features of the Genie 4:

- Back protector

- Rescue attachment bridle and handle

- Carabiners

- Large dorsal storage pocket and numerous small pockets for long flight convenience

- Foot strap

- Option:

 - Flight deck that takes up to 10L ballast

 - 2 step speedbar, lines and Brummel hooks

The Genie 4 is available in sizes S, M and L.

Weight: 5.2 kg (M size complete with GINSOFT III, Carabiners)

Weight of GINSOFT III back protection: 0.8 Kg

Foot stirrup

The foot stirrup offers increased comfort and control. By pushing the foot on one side of the bar, the pilot can weight-shift more effectively to the opposite side. On a long glide, the pilot can make small, efficient corrections without touching the brakes and stronger thermals can be cored more easily. The foot stirrup can also help the pilot to get seated comfortably in the harness just after take-off and maintain an aerodynamic position.

The foot stirrup may be detached if the pilot prefers to fly without it.

Optional Extras

The following items are available as optional extras.

Back protection

The Genie 4 is equipped with GINSOFT III back protection of 17cm thickness. A hard foam layer is integrated into the Genie 4 harness to



protect the Genie 4 back protection against punctures. The back protector is divided into separate compartments, to prevent air escaping too rapidly in the event of a hard impact.

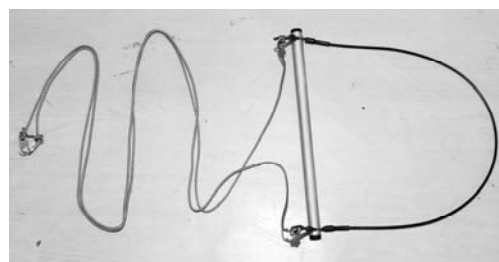
The Genie 4 back protection is designed to protect the pilot in case of an impact and to reduce the energy of the impact as much as possible, but it cannot completely eliminate the risk of injury.

Lateral protection

The Genie 4 can be equipped with GIN lateral protection.

Speed bar

The Genie 4 is compatible with all common types of speed systems. We recommend the 2 step GIN aluminium speed bar.



Flight Deck

The Genie 4 may be fitted with a GIN Flight Deck Race, allowing easier viewing of instruments and/or carrying of ballast. The angle of view is automatically adjusted and remains optimally positioned through all positions in flight.

This Flight Deck is also compatible with all other common types of harness.



Rescue parachute

The Genie 4 is designed for use with GIN rescue parachutes, like the ONE G. Other manufacturers' rescue systems may also be suitable. 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. This is called a "compatibility check". In this compatibility check the pilot himself, who will be flying with this harness, must always sit in the harness while hanging from a simulator and test deploy the rescue from the harness.

container. This check must also be done after each time the rescue has been repacked and re-installed.



Other Accessories

For up-to-date information on additional accessories, visit www.gingliders.com or contact your local GIN dealer or the distributor in your country.

3. Before you fly

The Genie 4 must be assembled by a suitably qualified paragliding professional, for example your instructor. In particular great care and attention must be paid to the fitting of the rescue parachute **into** the harness. The pilot should then adjust the harness for comfort.

Assembly

Gin Gliders recommend that assembly be carried out in the order below. If there is any doubt whatsoever about this procedure, please seek professional advice from your instructor, GIN dealer or importer.

Back and Lateral Protection

When you receive the GINSOFT III it may be folded in two. Please let it lay open for several hours before you install it into the harness. To install it, open the zipper on the opposite side to the rescue bridle cover and slide the GINSOFT III back protection inside. It needs to slide into the space underneath the seat plate and behind the back support. Do not put it underneath the cross straps in the back of the harness. Attach the Velcro found on back of the GINSOFT III to the Velcro tapes on the inside of the Genie 4. The protection should be not compressed in normal use and should not hamper the space of the rescue or move into an incorrect position.

You can add lateral protection to the Genie 4 by fitting a pair of GIN side impact plates into the side pockets on the harness, either side of the back protection





Rescue Installation

The Genie 4 is compatible with GIN rescue parachutes. Other manufacturer's rescues may be used as well, but as already mentioned earlier in this manual:

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. Prior to the installation, you should also ensure that you have the necessary materials to complete the procedure, for example, suitable maillons and thread.

Rescue parachutes should be repacked at least once every 5 months or as recommended by the manufacturer of your reserve; so installing your rescue in a new harness may also provide a good opportunity for a repack. Check your rescue manual for further details.

To attach the rescue bridle to the harness webbing

A Maillon Rapide type connector is recommended. The connector should be rated at least 9 times the maximum weight, for example, a 7mm Stainless Steel square Maillon – 3125 Kg - provides a suitable connection.

The Maillon should be held in place with rubber bands, tape or plastic heat shrink tube. Webbing to webbing connections are not recommended, due to the potential danger of friction and melting of the webbing during a deployment, which would significantly weaken or even cut the connection. The Genie 4 bridle has a leather protective cover to help prevent this from happening.

Attaching rescue deployment bag to the harness deployment handle

The rescue container of the Genie 4 comes with its own deployment handle. This handle and its strap must be connected to the deployment bag of the parachute. Connect it with the loop at the side of the deployment bag when installing it into the Genie 4. If your parachute's deployment bag does not have the proper loop, please contact your parachute dealer or a qualified professional to attach the deployment handle by sewing or to add a new loop in the correct position on the deployment bag.

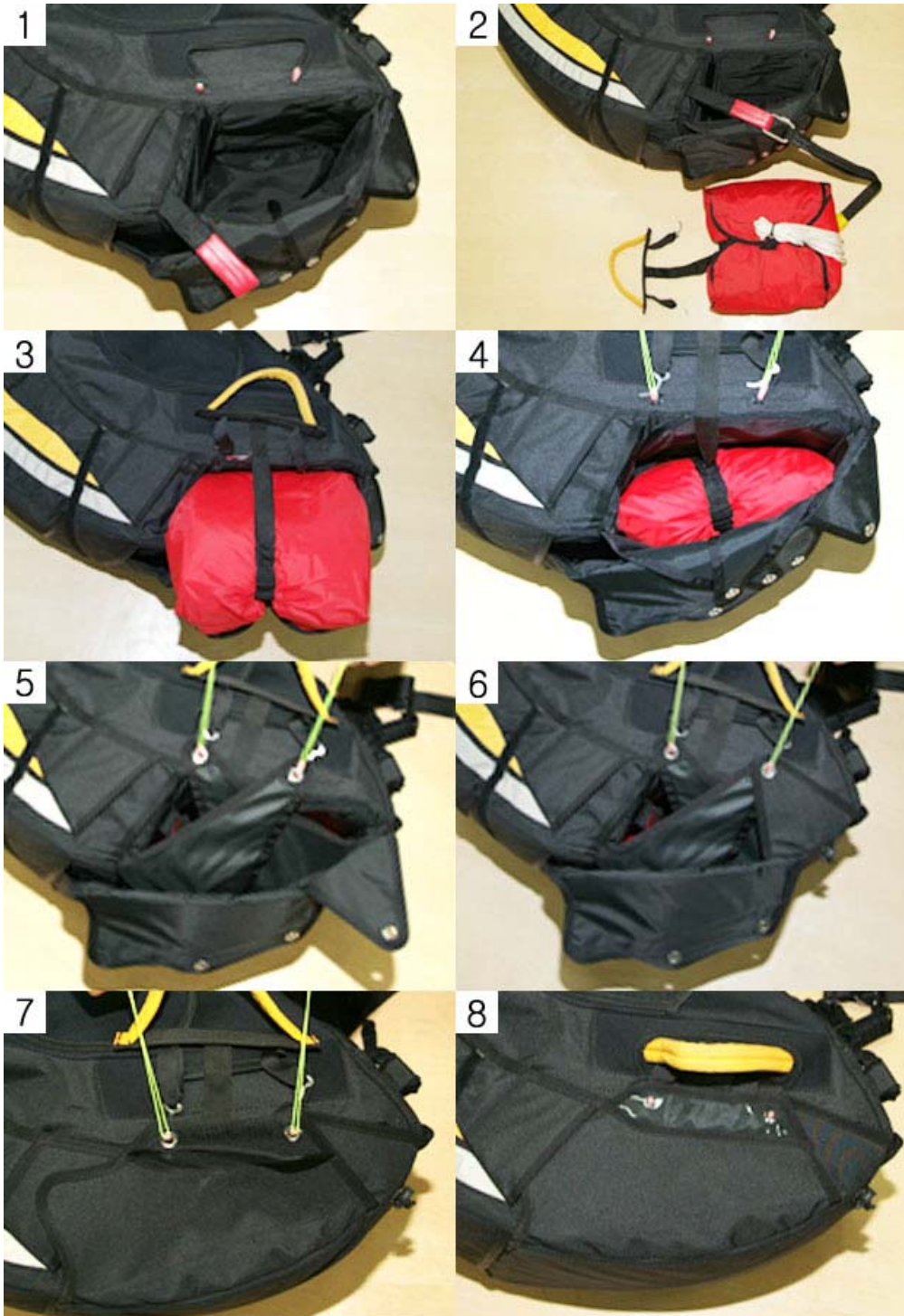


In any case a qualified professional must check the compatibility of the system; harness and rescue parachute, when a rescue parachute is installed for the first time. After every repack of the rescue parachute you can do this compatibility check yourself. Please observe carefully how the professional installs the rescue system, so that you can remember the procedure when you have to do it yourself the next time.

This compatibility check - that means to test if the rescue can be released from the rescue container in the harness - must be done by the pilot himself, sitting in the harness hanging from a simulator. It must be done after every repack of the rescue parachute to be sure that the rescue can be released without problems in case of an emergency

Rescue Installation guide

Take special care: The deployment handle must be attached to a side attachment loop on the deployment bag, not to a centre, top or bottom loop. This prevents the reserve from twisting in the harness when you draw the reserve out of the container.



Speed system

The speed system should be connected from the front of the seat. Pass the speed bar line from the foot end, through the steel eyelet below the seat, through the seat pulley at your hip, under the side protection pockets, through the pulley at your kidneys and up through the leather protected slot in the neoprene to the speed system attached to your risers, adjust the length and tie the line to the brummel hook. Be careful that the lines run freely and are not tangled.

Adjustments

The Genie 4 should be adjusted 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.

Adjustments should ideally be tested by hanging in a simulator prior to the first flight. Additional fine-tuning can be done during your first few flights.

Ensure that the rescue system, back and side protection have been installed before making adjustments.

Shoulder straps

The optimum setting for the shoulder straps depends on the height of the pilot. Stand upright with the chest/leg straps closed and symmetrically adjust the shoulder straps until they are just tight. To loosen the shoulder straps, pull the narrow webbing loop that protrudes backwards from the neoprene buckle cover on the shoulder strap.

Lateral straps

The lateral straps adjust the angle between the thighs and the back. This angle can be set between 110° and 130°. 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", that means leaning back, reduces the stability of the harness and increases the risk of twisting after an asymmetric deflation.

Seat adjustment straps

The seat adjustment straps allow you to adjust the depth of the seat. You can control the angle of the seat in the seating position with the straps close to the side pockets. To get the optimum setting you can loosen these straps to the maximum then start pulling the straps by small increments until you get the comfort from the back support depending on the flying style of the pilot.



Leg straps

The correct adjustment of the leg straps allows the pilot to easily reach the sitting position after take-off without using his hands. In the standing position, use the buckles under the chest strap to adjust the leg straps so that they fit comfortably without being tight; make sure you do it symmetrically. If it is necessary to lengthen the leg straps, first check that the shoulder straps are not too tight. It is not normally necessary to make large adjustments from the default leg strap setting.

Chest strap

The adjustment of the chest strap controls the distance between the carabiners and affects the handling and stability of the glider. Widening the distance between the carabiners increases feedback from the wing and allows for easier weight shifting. Closing the strap gives you a more stable feeling in turbulence but increases the risk of stable spiral and also the risk of twisting!

We advise pilots of GIN paragliders to fly with a distance between the carabiners of approximately 44 to 48 cm.

The chest strap may also be adjusted in flight according to the conditions; for example, it may be tightened in turbulent air and flown at a looser setting in more stable or weak conditions.

Foot Stirrup

Adjust the foot stirrup once you have found your ideal sitting position. The foot stirrup should be adjusted so that the legs rest on the bar at full stretch while comfortably seated in the harness. As with the speed bar, get accustomed to the Genie III before attempting to use the foot stirrup.

Speed bar

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 and 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 ample clearance above the ground.

4. Flying with the Genie 4

Pre-flight checks

For maximum safety, use a complete and consistent system of pre-flight checks and repeat the same mental sequence *every* flight

Check that:

There is no visible damage to the harness or carabiners that could affect its airworthiness.

The rescue parachute container is closed correctly and the pins are in the right position.

The deployment handle is correctly inserted into the elastic pockets.

All buckles, belts, zips are 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.

The paraglider is connected correctly to the harness and both carabiners are correctly secured by their locking mechanisms.

The speed bar is attached correctly to the glider.

All pockets are closed properly and any loose items are tied down safely.

Check again that you have closed your leg and chest straps before you take off.

Rescue Deployment

It is vital to periodically feel the position of the rescue handle in normal flight, so that the action of reaching for the rescue handle is instinctive in case of an emergency.

In the event of an emergency, the pilot must quickly evaluate his or her height and the seriousness of the incident. Deploying the rescue when the glider is recoverable may increase the danger of injury. If you have sufficient height and the glider is in a flat spin, it is preferable to first try to stop the spin (e.g. full stall), due to the risk of entanglement. On the other hand, a second's hesitation in deploying the reserve could prove costly if there is insufficient height.



If the rescue is to be deployed, the procedure is as follows:

- Look for the rescue handle and grasp it firmly with one hand
- Pull the handle firmly outwards and upwards to release the deployment bag from the harness 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 and against the direction of spin
- After deployment, avoid entanglement and pendulum motions by 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 sure to do a PLF (Parachute Landing Fall) to minimize the risk of injury.

Storage/Pockets

The Genie 4 contains a large back pocket and smaller side pockets. They are positioned to prevent contents from falling out during flight if the pocket is opened. There is also a radio compartment inside the back pocket and a hole to pass the cable through for a handheld speaker-microphone or a Camel Back.

Landing with the Genie 4

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. Standing up before landing is an active safety system, and is much more effective than the passive system of back protection.

5. Miscellaneous

Towing

The Genie 4 is also excellent for towing. The tow release can be connected to the main carabiners or to the towing loops. The best position to attach a tow release is to use a towing adapter connected to the red tow loops at each end of the chest strap near the hang points. For further details refer to the documentation provided with your tow release or towing adaptor or ask a qualified towing instructor at your tow site.

Tandem flying

The Genie 4 is not recommended for tandem flying.

Flying over water

The Genie 4 is not recommended for extreme manoeuvres. For all flights over water, it is recommended that the back protection be removed, due to the increased possibility of drowning after a water landing.

6. Care, Maintenance and Repairs

The materials used in the Genie 4 have been carefully selected for maximum durability. Nevertheless, keeping your harness clean and airworthy will ensure a long period of continuous safe operation.

Care and Maintenance

Avoid dragging your harness over rough or rocky ground.

Unnecessary exposure to UV rays, heat and humidity should be always avoided.

Keep the harness in your rucksack when not in use.

Store all your paragliding equipment in a cool, dry place, and never put it away while damp or wet.

Keep your harness as clean as possible by regularly cleaning 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 all the sub-components: seat board, back plate, back protection, 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 remove it from the harness, dry it and repack it before putting it back into the container.

After a hard landing you must check your back protection for damage. A tear in the GINSOFT III could significantly reduce the efficiency of the protection it provides.

The zips and buckles may be occasionally lubricated with silicone spray, no more than once a year.

Inspection checklist

In addition to regular pre-flight checks, the Genie 4 should be inspected thoroughly on every rescue repack, normally every 5 months. 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 seat and back plates must be free from cracks.

The main aluminium carabiners must be replaced *at least* every 5 years *or* after 500 hours *or* if they have suffered any damage no matter how slight. 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.

7. Technical Data

Specification

Size	S	M	L
Pilot Height (Cm)	Below 175	170~185	Over 180
Height of main attachment points above seat plate (Cm)	41	42	43
Weight (without parachute) Kg	5.1	5.2	5.3
Carabiner Distance	35-55 cm		
Parachute Container	Integrated container underneath the seat plate		
Options	Back protection GINSOFT III		

DESCRIPTION

FABRIC OF HARNESS

1-1). OUTSIDE

FABRIC CODE		600D KODURA PU 60"
SUPPLIER	NAME	Dong Jin international Corp.
	ADDRESS	950-11 Daechi-Dong, Kangnam-Gu, Seoul-City, Korea
MATERIAL		100% NYLON F.YARN WOVEN FABRIC (OXFORD SHUTTLELESS LOOM)
FINISHED		P/D & W/R & W/P
YARN W'T		320GR/YD
FINISHING MATERIAL W'T		30GR/YD
TOTAL W'T		350GR/YD

1-2). INSIDE

FABRIC CODE		420D HD N/OXFORD PU 60"
SUPPLIER	NAME	Dong Jin international Corp.
	ADDRESS	950-11 Daechi-Dong, Kangnam-Gu, Seoul-City, Korea
MATERIAL		100% NYLON F.YARN WOVEN FABRIC (OXFORD SHUTTLELESS LOOM)
FINISHED		P/D & W/R & W/P
YARN W'T		290GR/YD
FINISHING MATERIAL W'T		30GR/YD
TOTAL W'T		320GR/YD

HARNESS WEBBING

MATERIAL		POLYESTER	
SUPPLIER	NAME	SIN KWANG CO	
	ADDRESS	752-1 Dogok-Ri, Wabu-Ub, Namyangju-City, Kyunggi-Do, Korea	
WIDTH(mm)		43	30
BREAKING STRENGTH (KS K 0411)		1613 KG	1409.6 KG
ELONGATION (KS K 0411)		23.3 %	22.4 %

BUCKLES/RING

Name		GET-UP SAFETY BUCKLE	
SUPPLIER	NAME	FINSTERWALDER & CHARLY	
	ADDRESS	Finsterwaler GmbH Pagodenburgstr. 8, 81247 Munchen	
WEIGHT(g/pc)		55.5	
BREAKING STRENGTH		800 DaN	

THREAD

MATERIAL		100% POLYESTER	100% POLYESTER
SUPPLIER	NAME	Coats Hong Kong Limited	WONANG Company
	ADDRESS	JOS Tower, Millennium City 2 378 kwun Tong Road Kowwon	Pocheon-Gun Kyeongki-Do, Korea
DENIER		P/F 210 D/9 Bonded	P/F 210 D/4 & 210 D/6 Bonded
BREAKING STRENGTH (KSK 0409)		11 kg	5 kg / 7.5 kg
ELONGATION (KSK 0409)		17-20 %	17-20 %

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.

This owner's manual is subject to changes without prior notice. Please check with www.gingliders.com for the latest information regarding the Genie 4 and other GIN products.