



GOAL

# USER MANUAL

2025/05/12 rev1.3

# THANK YOU

We are happy to be chosen to take you to your future adventures. As manufacturers of sports aviation equipment for over 45 years, we understand how important is to have a reliable and durable equipment, with this in mind, we carefully choose the best materials and technologies available in the market, produce them under the supervision of our team with the high standards at our own facility located in Israel.

With this manual, we would like to share and introduce you to our new harness model, the "GOAL". Following our philosophy, like all of our products, this harness was intensively tested by our team to be launched.



Here you will find important information on using your paraglider, we strongly recommend you to read it carefully before flying your wing for the first time, if you have any doubts or suggestions, please, don't hesitate to contact your APCO dealer or us at [www.apcoaviation.com](http://www.apcoaviation.com).

We wish you awesome and safe flights.

TEAM APCO.

# GOAL

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## WARNING

This is not a training manual. It is extremely dangerous to yourself and others to use this product without first completing a flying course given by a qualified instructor.

Apco Aviation's products are carefully manufactured and inspected by the factory. Please use the product only as described in this manual. Do not make any changes to the product.

***AS WITH ANY SPORT - WITHOUT TAKING THE APPROPRIATE PRECAUTIONS, PARAGLIDING CAN BE DANGEROUS.***

## DISCLAIMER OF LIABILITY

Taking into consideration the inherent risk in paragliding or hang gliding, (free flying and motorized), it must be expressly understood that the manufacturer and seller do not assume any responsibility for accidents, losses and direct or indirect damage following the use or misuse of this product.

APCO Aviation Ltd. is engaged in the manufacture and sale of hang gliding, paragliding, motorized Para/hang gliding and emergency parachute equipment.

This equipment should be used under proper conditions and after proper instruction from a qualified instructor. APCO Aviation Ltd. has no control over the use of this equipment and a person using this equipment assumes all risks of damage or injury.

APCO Aviation Ltd. disclaims any liability or responsibility for injuries or damages resulting from the use of this equipment.

The equipment is designed to perform in the frame of the required certification.

# INTRODUCTION

The Goal is an open harness, with seat-board intended of solo free flight use. It is an all-round harness, that can be used from your first solo flights, Hike and Fly, first XC, and travel, but is great for general flying, and no compromise comfort, safety or durability was made. Weighing in at 2.7kg including the Lexan sheet, the Goal is light, but in line with APCO's tradition, it does not compromise whatsoever on durability, safety or comfort.

The Goal harness is designed to accompany you from your first steps to the skies, and to be the right tool for you to reach your goals, made to deliver good stability without compromising the feedback that the wing gives to you, it will be comfortable for hours without compromises.

Goal is protected by a combination of air foam + Lexan - unique to APCO, providing superior protection qualities.

The reserve container and bridle arrangement are separately and neatly secured with a zipper closing system which allows for very fast, low friction opening.

The Goal is compatible with our Flight Panel (80053), which is quick to install and remove as needed. The harness is supplied with air foam protector and lexan plate.

## TECHNICAL DATA

Goal / Size	S/M	L/XL
Code	45510	45520
Pilot Size	155 - 175cm	170 - 195cm
Pilot Weight (Recommended Max)	95kg	120kg
Certified Max Load	120kg	120kg
Weight [kg]	2.20	3.35
Reserve container capacity	3000 - 5000 cc	3000 - 5000 cc
Certification	EN / LTF	EN / LTF

*\*Weight of the harness does not include foam and back protector.*

## CONSTRUCTION

In line with APCO's tradition, the Goal does not compromise whatsoever on durability, safety or comfort.

We carefully chosen materials, and where they are used on the harness using past experience to guide us, in the quest to make a lightweight yet durable harness.

We chose to use Dyneema lateral support lines rather than webbing, which reduces weight and bulk significantly.

# PROTECTION

The Goal is full featured, complete with 17cm Air foam lumbar protector with lexan plate.

## *Air Foam*

A 17 [cm] Air foam protector combining a Lexan sheet which aids in spreading the load over the absorbing area of the Air foam, offering the maximum protection available on any harness.

The Air foam with its energy absorbing capabilities will reduce impact in the case of an accident or bad landing. The Lexan plate will spread the load of a sharp impact (Rocks etc) over the area of the Air foam and will prevent penetration of object sharp objects (usually tree branches) through the harness.

## *Reserve*

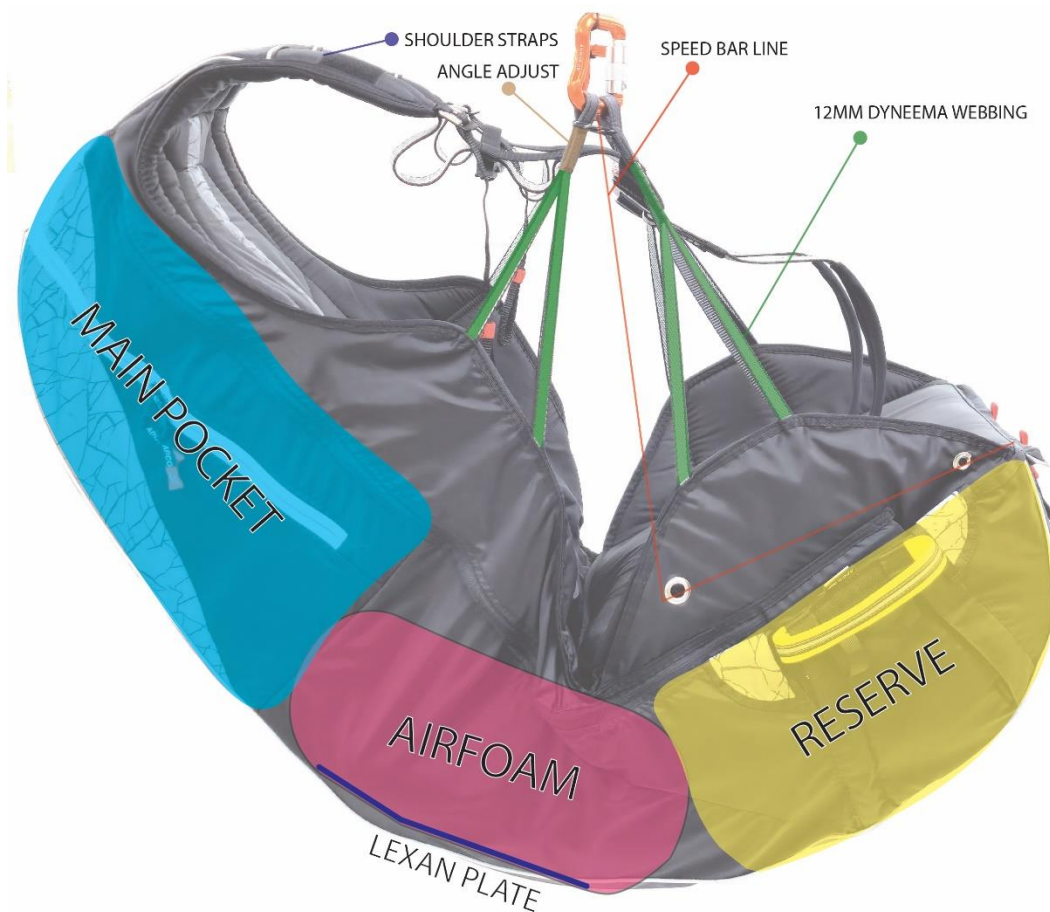
The Goal's Reserve Parachute System is a result of many prototypes and deployment tests, and the end result is a system that is easy to assemble, safe and intuitive to deploy. The reserve is situated on the bottom of the harness, with a volume of 5.0 liters, it is large enough to accommodate a modern reserve parachute such as our MD SQ, Mayday LT or GMD SLT. The position of the reserve is as close as possible to the body's CG (Centre of Gravity) making the harness stay compact and cohesive with the movement of the pilot, both during take-off and in the air.

The reserve container and bridle arrangement are separately and neatly secured with a zipper closing system which allows for very fast, low friction opening.

## PARTS & ASSEMBLY

The following parts and accessories make up the Goal

Harness, Air foam Protector, Lexan Plate, Speed Bar, Speed-Bar Bungees, Reserve Handle, Reserve Parachute in Deployment bag.

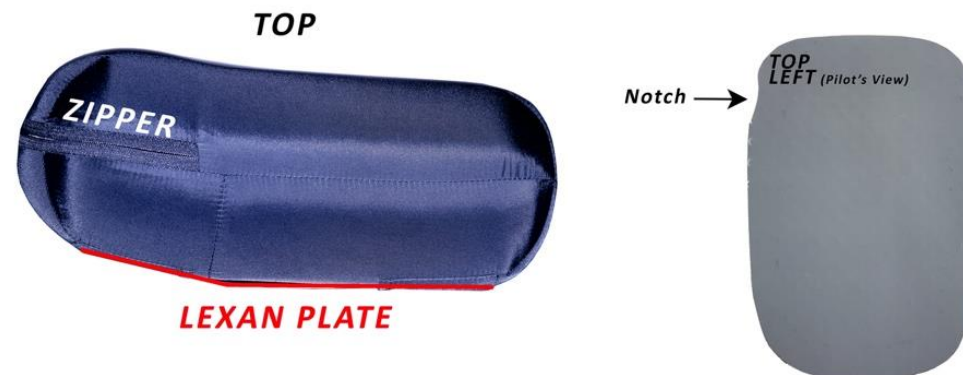




The following sections describe the assembly of each item.

## AIR FOAM & LEXAN PLATE

The Air foam protector must be installed in the correct orientation, and its zippers must be closed completely for it to function properly. There are two compartments under the seat of the harness, the forward one is a storage / ballast container, and the rear one is the air foam container. Install the air foam with the zipper to the rear of the harness, and the Lexan plate at the bottom. The Lexan Plate should be slipped into the two sleeves on the bottom of the air foam that will hold it firmly in place under the air foam protector. The Lexan Plate distributes the load in the case of impact, and prevents point impact injuries if impact is on uneven terrain



## SPEED BAR

The Goal is supplied without a preinstalled speed bar, we recommend you to use our Wonder Bar.

The speed bar lines are routed through a single pulley near the waist of the pilot, and then exits through an eyelet in the side of the harness, followed by a cord-lock, which keeps the speed bar taught during take-off, and finally a Brummel hook for attaching the speed bar line to the speed system on the risers. Before the first flight in your Goal, Adjust the speed system while seated in the harness with your gliders risers attached.

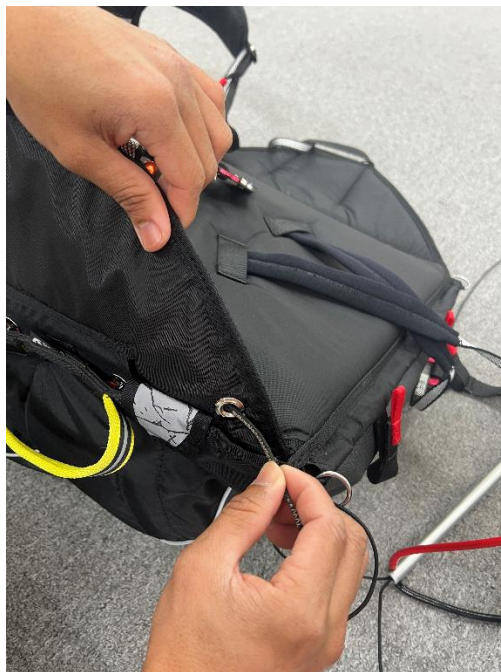


### CAUTION

***Adjusting the speed bar too short may cause it to be applied continuously during flight - make sure to test the adjustment by hanging the harness with risers attached to the check the adjustment is correct and safe.***



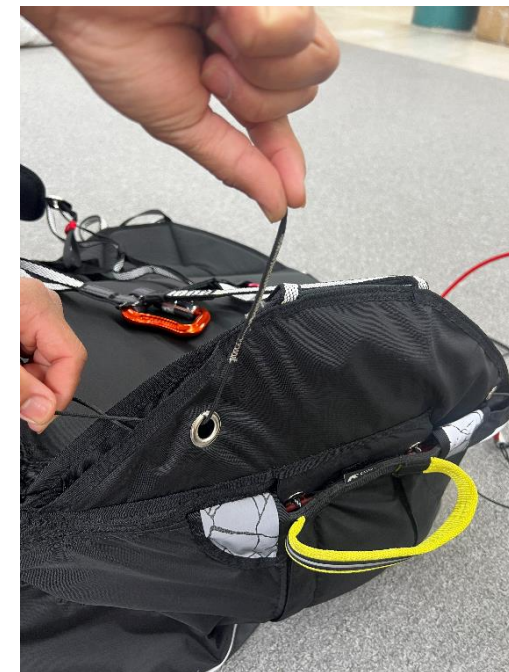
Speed bar line through first ring of the speed bar retainer.



Follow through the eyelet towards the pulley which is inside, near the second eyelet.



Pass the line through the pulley and then follow through the eyelet.



Finish following through the second eyelet.



## RESERVE PARACHUTE

The Goal is sold with the reserve handle in place, but with no reserve installed, unless specifically ordered with a reserve installed.

The reserve container is compatible with reserves between 3000 and 5000cc. Repack interval according to reserve manufacturers specification.

Installation and re-packing of the reserve should be done by a suitably qualified person only, using this manual as a guideline only.

### INSTALATION

Remove the reserve handle and open the zips, leaving the zip sliders in place where they were.

Attach a pair of light universal bridles (42025) to the shoulder reserve bridle attachment points using larks head knots.





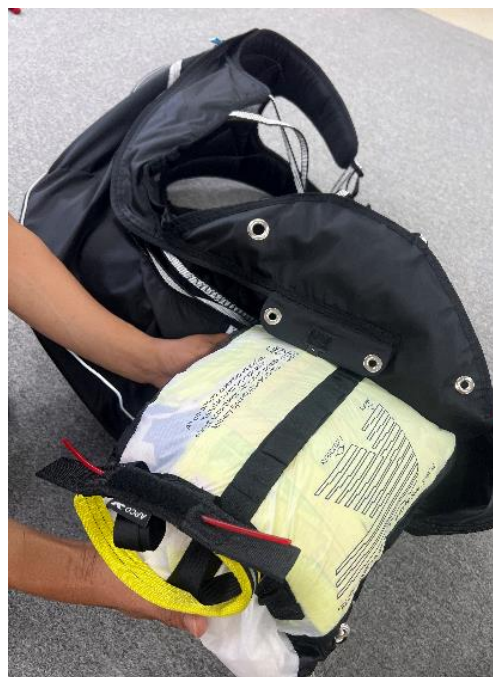
Attach the two bridles to the reserve with another larks head knot by passing the bridles through the reserve bridle loop, and then passing the reserve through the loops on the two bridles.





Attach the reserve handle to the deployment bag using a larks head knot and a second larks head completed with the supplied split ring.

*\*The user must check that the length between the handle and the container does not allow entanglement with the parachute lines.*



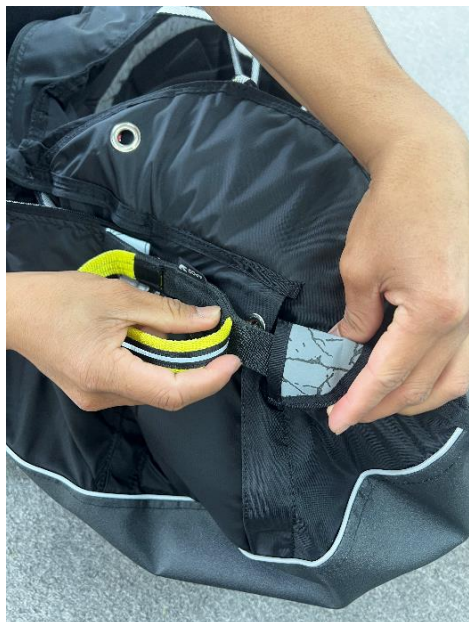
Place the reserve in the container with the handle attachments to the upper side and lines facing down as shown. In this way, the reserve container will be easily come out from the harness when you pull it. The reserve bridle should be in the bottom of the compartment, and exiting into the zipped bridle sleeve, which can be closed later in the sequence.



Close the reserve container flap following the order of the labels (1, 2, 3 and 4)



Using the two locking loops pass through the eyelets, and lock it using the red cables on the reserve handle. The handle straps should be routed between the two locks.



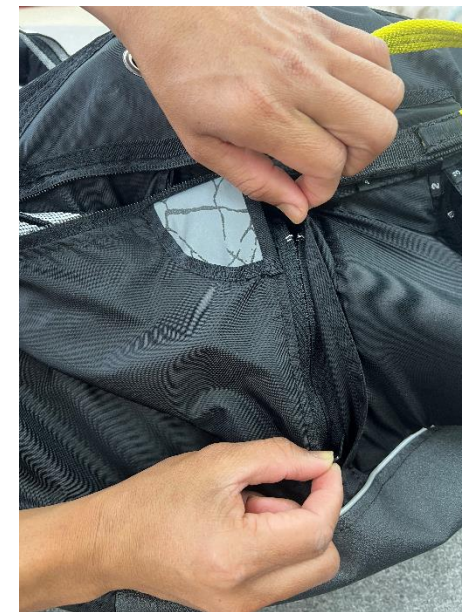
Stow the cable ends and reserve handle ends in the gray sleeves.



Close the two reserve container zips by running the sliders up to the locking loops (all the way).



Return them to their ends, zipping the zippers all the way.







Now you will finally close the bridle cover zip by bringing the zipper toggle all the way down from the shoulder to the container, and back up again to close the zip, and stow the zipper toggle in the provided pocket on the shoulder at the end of the zipper.

## DEPLOYMENT

The reserve is deployed using the right hand and should be done in the following sequence:

**Look, Grab, Pull, Throw.** The reserve handle is attached to the reserve deployment bag, and the handle must be released when throwing the reserve.



## FITTING



Lift the harness putting the shoulder straps on first.



Locate the "get-up" style leg straps and bring them up between your legs



Insert the corresponding buckles into the female parts next to the carabiners



Ensure they are both closed correctly



Finish closing your chest strap.

# ADJUSTMENT

It is important to set the harness to your needs before the first flight - make use of a simulator or other safe point to suspend the harness to this.

The harness adjustments are factory set to the most common configuration, and very little adjustments should be needed to fit the harness to you. Usually, only the shoulder straps and lumbar adjuster may need to be set. The Factory setting of the S/M size is for a person of approximately 175cm.

The Lumbar adjustment slider is not adjustable in flight, you can choose between two points to adjust the angle.

"ADJUSTMENT LOOP 1" you will have a more laid down position

"ADJUSTMENT LOOP 2" you will find a more upright seated position

After choosing the adjustment from your preference, put the retainer strap situated around it and then pass the carabiner through both webbings, the one that comes from the bottom and the one that comes from the back.





# ATTACHMENT POINTS



## RISERS

There are two main hook-up points for carabiners on the harness, one on the left and one on the right, these loops are gray. The carabiners should be installed on these loops, and the risers in turn attached to the carabiners.

## TOWING

The Goal is suitable for towing. The tow release should be attached by larks-head knots around the main attachment loops just below the carabiners, or according to the instructions of the tow release manufacturer.

## ACCESSORY ATTACHMENT

There are accessory attachment loops inside the side pockets, suitable for attaching a camera or other items you keep in the pockets.

## TOWING

Attach the tow release around the main (red) hook-in points using larks-head knots directly below the Karabiners.

## *TAKE OFF, SIT DOWN, FLIGHT & LANDING*

First of all, make sure that you have weather conditions suitable for your skills and experience level, if you have any doubts about that, we recommend you to stay in the ground. Once you took the decision to take off, wear the harness and clip all the buckles correctly and check that you have your legs passing through the leg loops.

After takeoff, first ensure your flightpath is clear and safe before sitting down inside the harness.

Before landing, slide your legs forward in the harness to assume a standing position. Never land whilst still in the seated position as this may cause a back injury.

### *PREFLIGHT CHECKLIST*

- Harness is in airworthy condition
- Reserve container closed and handle in place
- All buckles and closures locked in correct sequence
- Wing attached to harness correctly
- Speed System Attached
- Cockpit attached and secured (if present)

## *COCKPIT / FLIGHT DECK*

The Flight Deck is an optional accessory which can be ordered with the harness, or separately.

### *INSTALLATION*

The Flight deck is installed into the pocket on the pod. It is attached on the top with a popper, and below with a magnet. It also has a backup loop which should be clipped into the right-hand side carabiner.

### *USE*

The Flight deck has an inflight accessible zipped pocket, which has attachment loops inside for securing items in the pocket. There is ample space for instruments on the Velcro deck, and there are attachment loops for securing devices.

# *INSPECTION AND MAINTENANCE*

## *INSPECTION*

Apco recommends annual inspection of all its products, including the Goal harness. This should be done by Apco or a qualified agent every two years or 100 hours, whichever comes first, and after any incident which may have damaged the integrity of the harness. During inspection, all the webbing and structure must be inspected for wear. The reserve system must be checked that the deployment is free and easy and that the zippers are not damaged. Buckles and carabiners must be checked for damage.

## *CLEANING*

Do not use any chemicals or solvents on your harness. If the harness is exposed to salt water, disassemble all parts, rinse in fresh water and dry out of direct sunlight. Cleaning can be done with a damp cloth as and when needed. Never store your harness is wet or damp. Dry it first. If the reserve container / reserve is wet, it must be opened, dried, and repacked by a qualified person. If the reserve is exposed to any liquid other than fresh water, it may be permanently compromised, and must be inspected by a professional before being re-packed and installed in the harness.

## *REPAIRS*

Repairs should be carried out by a qualified person. Extra care must be taken if work is done in the area of the reserve parachute, and no sewing should be done while the reserve is in the harness, as it may be trapped in a seam.

## *LIFECYCLE*

Although the Goal is a durable product, and should last you for years of flying, discretion must be used, and it should be retired before it becomes unsafe for use.

Disposal should be in an environmentally conscious manner in line with your country's regulations.



# *Take Air*

*from the APCO Team*