

2021/04/06 (rev. 1.01)

***SLT
LOW
MKII
Paramotor
Harness***

Manual

www.apcoaviation.com
7 Chalamish St., Ind. Park Caesarea, 3088900 ISRAEL



CONTENTS:

1	DISCLAIMER OF LIABILITY	3
2	INTRODUCTION	3
3	TECHNICAL DATA	4
4	CONSTRUCTION	4
5	PROTECTION	4
6	PARTS & ASSEMBLY	5
7	USE	9
8	INSPECTION AND MAINTENANCE	9



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.

1 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.

2 INTRODUCTION

SuperLight (SLT) universal paramotor harness is the most advanced and feature packed paramotor harness on the market – Now with EN Certification.

Designed for the optimal balance between maximum comfort and minimum weight, it will suit pilots who demand the absolute best.

The SLT Low will fit most low attachment paramotors on the market today, improving safety, ease of use and overall flying experience.

This new generation improves on all aspects of the harness.

The shape has been refined for additional comfort. A larger front flap has been incorporated for easier running and more support during flight.

Seat weight has been reduced using a lightweight polycomb material for the seat board and front flap.

Improved safety features have been incorporated, taking into account different frame geometries.

The shoulder scuff guards are replaceable – For paramotor manufacturers there is a custom branding option for these.

The main options available for SLT Low:

- Emergency parachute container can be zipped on either the left or right side of the harness.
- Additional accessory pocket can be zipped on either the left or right side of the harness.
- Safety straps attach to the CG (Center of Gravity), running under the seat – will protect in case of any side arm failure
- Ball bearing speed bar pulleys (smoother, lighter use of speed bar)
- Paramotor pod compatible
- Paramotor airbag compatible
- Replaceable shoulder cover for custom branding
- Replaceable abrasion resistant shoulder cover for wear and tear replacement – pull start cable damage
- Fuel gauge mirror.
- Wonderbar (speed bar)

This manual is best used in conjunction with the video manuals found online on the Apco Aviation YouTube Channel:

<https://www.youtube.com/user/ApcoAviation>

3 TECHNICAL DATA

SLT LOW MKII / Size	ZIP CLOSED	ZIP OPEN
Code	420425	
Pilot Size	155 – 185cm	180 – 210cm
Certified Max Load	120kg	
Weight	2450gr	
Optional Reserve container (80029) capacity	3000 - 7000 cc	
Certification	EN / LTF	

4 CONSTRUCTION

In line with APCO's tradition, the SLT Range 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.

5 PROTECTION

The SLT harness has several optional and unique safety features that can be installed to customise the harness to your needs. These are made up of: a Zip-on Reserve Container, Airbag protector that can be attached under the seat, and Dyneema Back-up / Safety Straps, in case of a side arm failure.

Reserve Container (Optional)

The SLT LOW MKII can be customised with a zip-on reserve parachute container. It can be installed on the left or right according to your preference.

The reserve bridles are attached to specially reinforced attachment points on the shoulders, designed to safely hold the pilot and motor.

Airbag (Optional)

The pilot protection environment of the SLT LOW MKII is as extensive as is possible in a paramotor harness.

The Airbag, with its energy absorbing capabilities will reduce impact in the case of an accident or bad landing. The Airbag is easily fitted to the harness below the seat, is very light and compact, but offers EN certified impact protection to the pilot. The airbag has a valve ram-air intake on the front, and fills with air once there is airflow from the front.

Safety Straps (Optional)

The Dyneema Back-up / Safety Straps will, in case of a side arm failure, keep you and the frame safely attached to the wing while retaining your seating position and frame angle, giving you the opportunity to land safely.

6 PARTS & ASSEMBLY

The following parts make up the SLT LOW MKII

1. Shoulder Strap Frame Attachment
2. Side Frame Attachment Strap
3. Frame to Shoulder Strap Attachment
4. Size Adjustment Zipper
5. Pod / Accessory Attachment Loops (x3)
6. Under seat Stowage Pocket
7. Side Pocket
8. Seat Angle Adjuster
9. Seat Pivot Point
10. Double Hang Point Loops
11. Ball Bearing Pulley Attachment Point
12. Side / Lumbar Adjuster
13. Reserve Bridle Guide
14. Dual Upper Frame Attachment Loops
15. Reserve Bridle Attachment Points
16. Dual Action Shoulder Adjusters
17. Replaceable Scuff Guard
18. Shoulder Retainer Strap
19. Chest Strap
20. Leg Straps
21. Safety Strap Attachment Loop
22. Mirror Pocket
23. Front Accessory Attachment Loops (x2)
24. Elasticated Speed-Bar Guide Rings
25. Accessory / Pulley Loops



6.1 Attachment to Frame

The SLT LOW MKII is designed to attach to almost all frames designed for use with low attachment hang points.

The Harness is equipped with multiple attachment points. Due to the large variety of Frames and attachment methods available today, we recommend following the specific frame manufacturer's instructions for correct fitting and adjustment of the harness to the frame, or have your dealer assist.

6.2 Adjustment

Once the harness is correctly attached to the frame, do a thorough hang check, checking the frame / thrust angle with the tank at least half full, and wearing approximately what you wear while flying to ensure perfect balance. Make sure that the hang angle is not just optimised for thrust, but also that the brake handles are not too close to the frame. Practice getting into and out of the seated position, make sure the transition is easy both ways, and adjust before flight if needed.

6.3 Reserve Container Installation

The SLT LOW MKII is compatible with the Zipped-on Emergency parachute container (Code: 80029).

It can be installed on the left or the right-hand side of the harness, or even one on each side if so desired.

It is recommended to have this done by a professional – consult your dealer. Consider your preferred side for the reserve carefully, taking into consideration your dominant hand, and which side your throttle is installed etc.

Installation Instructions:

Install the Reserve into the container according to the container instruction manual, making sure that the bridle comes out of the container from the correct position, according to which side the reserve will be installed on the harness.

Install the pair of light universal bridles (Code: 42025) onto the shoulder reserve attachment points on the harness with larks head knots, using the bridle ends with the smaller loops. Close the Velcro scuff guards over the attachment points, and route the bridles through the Velcro bridle guides on the desired side of the harness.

Attach the reserve to the pair of bridles using a larks head knot by passing the two large loops of the bridles through the small loop of the parachute bridle, and then passing the reserve container through the two large loops. Ensure that the knot is neat and centred on the loops.

Zip the Container onto the harness and close the overlapping Velcro's at the ends of the zip.

Now stow the excess bridle and knot in the bridle inside the reserve container.

Do a hang check and logical inspection of the system, ensure that the bridles are not routed under any straps, speed bar lines or swing arms, so that once deployed, the bridles will be free to suspend the pilot directly from the shoulders.

Deployment Instructions:

The reserve is deployed by 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.

If running, cut the engine! Once the reserve parachute is inflated, it is recommended to disable the glider, ideally, if there is enough time, by pulling it in so that you are holding the entire canopy in your arms. If there is not enough time, try to stall the wing by wrapping the brakes and pulling as much as possible, or by locating the B-Risers and pulling them down. This will stabilize the decent by preventing the reserve and the main from opposing each other – aka down planning, which increases the sink rate significantly.

Repack Interval:

The reserve parachute should be repacked according to the reserve manufacturers recommendations, all other parts, such as the reserve bridles should be inspected regularly, and replaced if looking worn, or older than five years.



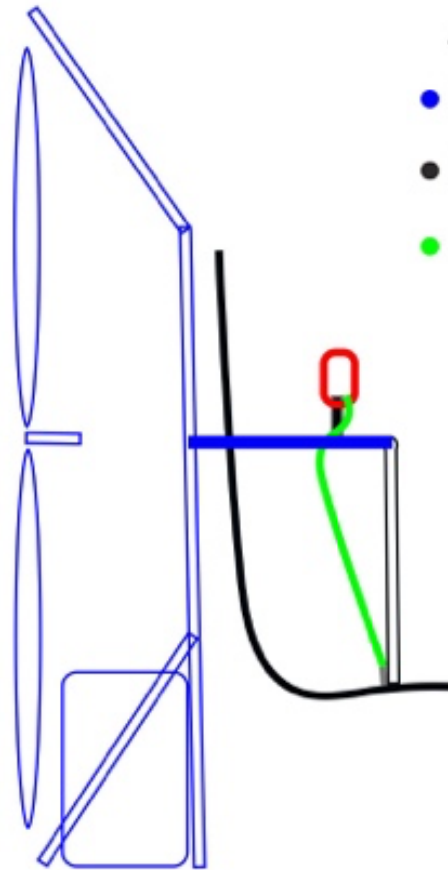
6.4 Safety Strap installation

The SLT LOW MKII is compatible with the Dyneema Safety Straps (Code: 80041 or 80042).

The choice of short or long is according to the type of frame / arm / swing-arm setup you use.

The Safety Strap was developed as a system that, in case of side arm failure, will retain the normal flight position as closely as possible.

The Safety Strap is first looped onto the dedicated loop built into the harness, that runs under the seat of the harness, then passed through the guide on the side / lumbar strap, and then attached to the flying karabiner.



- Apco SLT LOW**
- **Straight Arm**
 - **Figure 8 and**
 - **Short Safety**



6.5 Side Pocket

The SLT LOW MKII is compatible with the zipped on Paramotor Harness Side Pocket (Code: 80035). It can be installed on the left, right or on both sides. It is installed in the same way as the Reserve container above.

6.6 Ball Bearing Pulley

The SLT LOW MKII is compatible with the Ball Bearing Pulley Assembly (Code: 43107C).

The Pullies are supplied in pairs, one for each side. They are installed by inserting the tube into the sleeve in the harness near the side/lumber adjuster. Open the zip at the top of the harness to access the washer/button lock, and pass the loop at the end of the pulley tube over the washer to lock it. Pull on the pulley end to tighten. Close the harness zipper when done.

6.7 Speed System

The SLT LOW MKII is compatible with the WonderBar (Code: 43107C) speed system line and stirrup. To install the WonderBar, remove the Brummel hooks and chord locks from the ends of the lines. Ensure to install the bar the correct way up. Route the speed system lines through the elasticated retainer rings, then through the black aluminum pullies, then through the ball bearing pullies. Put the chord locks back on the lines, followed by the Brummel hooks. The Chord locks are used to keep the speed system away from the ground and your legs for the takeoff. You can also raise it again before landing if time / conditions allow. Do a hang check and adjust the length of the Speed system to that enough free travel before engaging the speed system so that the speed system is not engaged when in a standing position or while seated during normal flight. Refer to the instructions of your wing for advice on how best to use the speed bar. Do not use the speed system in turbulence or at low altitudes above ground.



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.

6.8 Fuel Gauge Mirror

The SLT LOW MKII is compatible with the Paramotor Harness Mirror Kit (Code: 80031).

Install the Mirror by passing the line of the tensioner through the eyelet above the mirror pocket from the inside of the zipped pocket, and attach it to the mirror. Stow the mirror in the mirror pocket.

6.9 Paramotor Pod

The SLT LOW MKII is compatible with the zipped on Universal Paramotor Pod (Code: 80047).

The harness is equipped with loops for attaching the Pod. Follow the Pod Instructions for installation.



6.10 Airbag

The SLT LOW MKII is compatible with the Universal Airbag (Code: 80046).

The harness is equipped with loops for attaching the Airbag, which match up with buckles on the airbag, which are used like buttons, by passing the buckles through the loops on the harness. Ensure that the intake is to the front of the harness.

7 USE

7.1 Closing the harness

During your pre-flight, before putting on the harness, besides all the other points on your checklist, always check that the reserve container is closed correctly, and that the speed system is not interfering with the reserve system.

Lift the harness onto your back using the shoulder straps.

First close the legs straps, and then the chest strap, followed by the shoulder retainer strap.

Check that the speed system (if installed) is kept high with the chord locks.

7.2 Attaching the Glider / Risers

As the wing is not attached directly to the harness, and there are many different setups on the market, which is outside the scope of this manual, it should be attached to the flight carabiners according to the frame manufacturer's instructions.

7.3 Pre-flight

Do a thorough Pre-flight check;

- Harness is in airworthy condition, and attached correctly to the frame – ensure attachments are in good condition.
- Motor is in airworthy condition (follow motor/frame manufacturers checklist)
- Reserve container closed and handle in place
- All buckles and closures locked in correct sequence
- Wing attached to frame correctly
- Harness to frame connectors secure in and good condition
- Speed System attached, and not interfering with reserve container / handle (if present)
- Cockpit attached and secured (if present)

7.4 Take off, sitting, flight and Landing

After takeoff, first ensure your flightpath is clear and safe with sufficient height before sitting into the harness. To sit into the harness, lift and bend your knees and slide into the seat. During flight it is also possible to steer using weight shift.

8 INSPECTION AND MAINTENANCE

INSPECTION

Apco recommends annual inspection of all its products, including the SLT harness. This should be done by Apco or a qualified agent. More frequent inspection may be needed if the harness is used intensively, 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 karabiners 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 SLT 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.

ENVIRONMENT

Paramotor flying can disturb people and wildlife, make sure not to fly in restricted areas such as nature reserves, or other areas where sensitive wildlife may occur. Also take care not to disturb people, be considerate to others – in short, don't be a jerk.



Take Air
from the Apco Team

