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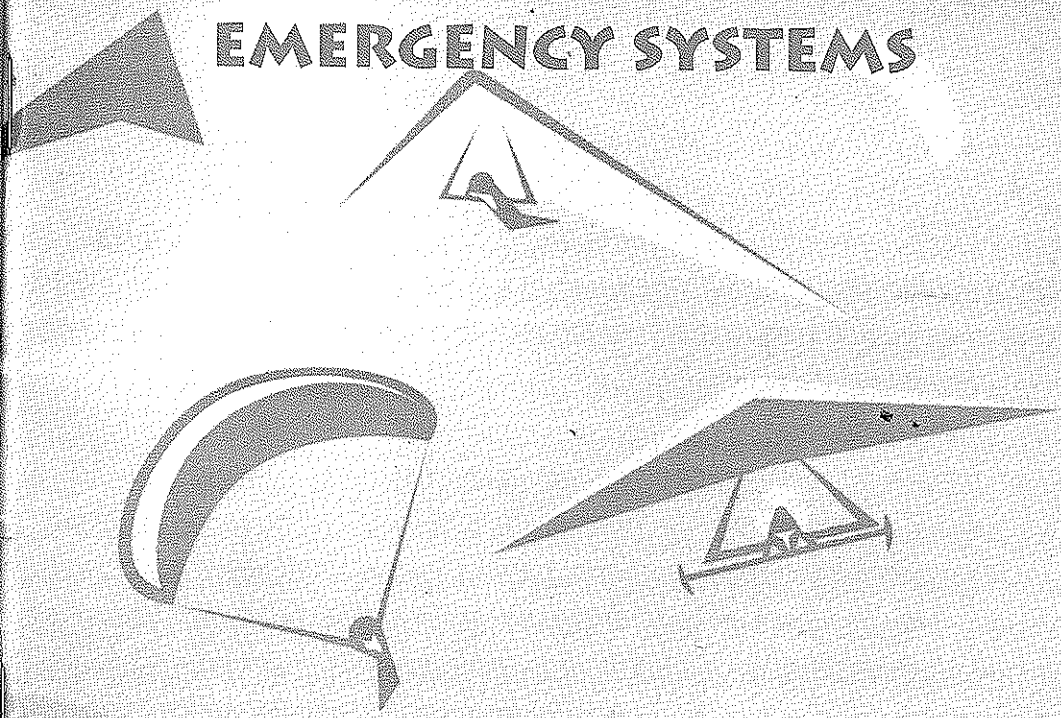
OWNERS MANUAL AND FOLDING INSTRUCTIONS FOR APCO

EMERGENCY SYSTEMS



2ND REVISED EDITION - MARCH 2001

APCO Aviation Ltd.

OWNER S MANUAL AND FOLDING INSTRUCTIONS
FOR APCO

EMERGENCY SYSTEMS

2ND REVISED EDITION
MARCH 2001

Owner's Manual And Folding Instructions
This Manual covers the
Mayday 16, 18, 20 and Bi
for Hang Gliders and Paragliders.

INTRODUCTION

Even pilots flying the safest paragliders or hang gliders, can sometimes find themselves with their glider damaged, disabled or tangled and out of control. In such cases a reliable emergency system with a fast opening parachute can make the difference between a simple scare and a fatal accident.

APCO is happy and proud that its emergency systems, developed and perfected over nearly three decades have saved the lives of many pilots, from beginners to world champions. This manual describes 8 such emergency systems: four for paragliding and four for hang gliding.

WARNING
The Apco Mayday range of parachutes have been designed for a fast opening at a low air speed. Do not, under any circumstances use this emergency system for free fall parachuting.

MAINTENANCE

The materials we use to manufacture the Mayday range of parachutes are carefully selected from the best mil. spec. products available on the market today. These materials are however sensitive to sunlight (UV). The container or harness will protect the canopy from ultra-violet rays. When storing the parachute it should be kept in a cool dry place. Beware of mildew. Should your parachute be exposed to any moisture, it must be opened and air dried, out of direct sunlight, and re-packed when completely dry.

Cleaning

If your parachute requires cleaning, it should be soaked in luke warm water with a little mild soap. No rubbing or scrubbing of the canopy fabric! It should then be thoroughly and repeatedly rinsed with fresh water and allowed to drip dry out of direct sunlight.

Repairs

Should your Mayday parachute require any repairs or you suspect it may be damaged, it must be referred back to APCO Aviation Ltd or a professional parachute loft, with a certified parachute rigger to carry-out the repair.

Periodical Repacks

Even though the Mayday Emergency System should remain in good condition and work properly over a number of years, we strongly recommend that the parachute be re-packed by a qualified person once every six months. Packing by a unqualified person is undertaken at the pilots own risk, and is not recommended by Apco.

Identification

In the corner where the #1 suspension line meets the skirt, there is an Apco stamp, along with the individual serial number, canopy type and manufacture date. This data is repeated on a label attached to the bridle in post 1995/6 models. In any correspondence to Apco regarding your Mayday, please quote this information.

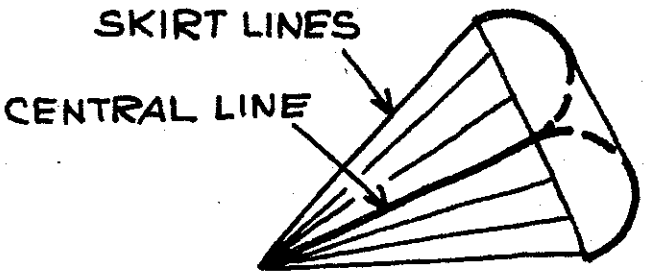
Attachment Procedure

There are many different harnesses on the market today, with several different reserve stowing systems. Make sure your harness is certified and has a adequate instruction manual. For attaching and fitting your reserve to your harness follow your harness manual instructions carefully.

GENERAL DESCRIPTION

The Apco Mayday series of parachutes are flat circular pull-down apex reserves. This means that in addition to the conventional lines around the perimeter (skirt),

there is a single line in the center pulling the apex down to the level of the skirt running from the apex to the bridle. The main line attachments to the skirt are reinforced with V-Tabs, and the skirt and apex skirt are reinforced with 1"Tape, and sewn with a four needle machine for an exact finish. This proven design offers the best combination of sink-rate, deployment speed, packing size and weight.



DISCLAIMER OF LIABILITY AND WARRANTY

In designing and manufacturing the Mayday parachutes and any of its subassemblies or accessories, our aim has been to create a rescue system that will allow the user to engage in the sport of paragliding or hang gliding in a safe and confident way.

However, both paragliding and hang gliding are high risk activities, which may cause or result in serious injury or death. When you take it upon yourself to participate in one or both of these sports, you accept the risk inherent therein. You may reduce the risk by receiving proper instruction and by following the basic safety requirements. The Mayday Reserve Parachute System is a sensitive device, which may easily be damaged. Before each flight, the container should carefully be inspected for evidence of damage or wear and proper closure. Any deviation from the manufacturers specifications concerning maintenance, repair, alterations and modifications constitutes willful negligence.

It is expressly understood and agreed that by the use hereof by the buyer or any subsequent user that Apco Aviation Ltd. And/or the seller shall in no way be deemed or held liable or accountable and makes no warranty, either expressed or

implied, statutory, by operation of law or otherwise, beyond that expressed herein. Paragliding and Hang gliding equipment is sold with all faults and without any warranty of merchantability or fitness for any purpose, expressed or implied. Apco Aviation Ltd. Disclaims any liability in tort for damages, direct or consequential, including personal injuries, resulting from a malfunction or from a defect in design, manufacturing, materials or workmanship, whether caused by negligence on the part of Apco Aviation Ltd. or otherwise. By using any Paragliding or Hang gliding equipment manufactured or sold by Apco Aviation Ltd., or allowing it to be used by others, the buyer and/or user waives any liability on the part of Apco Aviation Ltd., for personal injuries or any other damages arising from such use.
The liability of Apco Aviation Ltd. is limited to the replacement of defective parts found under examination by manufacturer to be defective in material or workmanship within 120 days after purchase, and which has not been caused by an accident, striking, improper use, alteration, tampering, excessive use, misuse or abuse.

The damages of the buyer and/or user shall be deemed liquidated in the costs of replacement as above.

SPECIFICATIONS

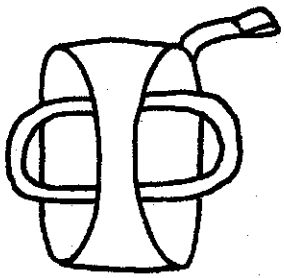
Mayday	16	18	20	Bi
Area	25m^2	30m^2	37m^2	47m^2
Gores	16	18	20	18
Line Length	4700mm	5150mm	6720mm	5875mm
Center Line Length	4700mm	5150mm	7300mm	6310mm
Weight*	1.863 kg	2.220 kg	2.690 kg	3.250 kg
Load kg	106	75-120	100-160	120-200
Sink Rate m/s (@maxload)	6.1	5.4	5.4	5.4
Certification	DHV	SHV	AFNOR/CEN	AFNOR/CEN

* Excluding Long Bridle for Hang Glider versions. Add an additional 550gram for long bridle.

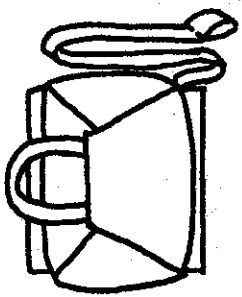
Container Code	Parachute Type	Deployment bag code	Application
81305	Md HG 16	81303	for Hang Gliding
82305	Md HG 18	82303	for Hang Gliding
81955	MdBi PP/HG	81905	for Hang Gliding and Paragliding (External)
81155	Md PP16 &18	81133	for Paragliding (External)
80015	Md16, 18, 20	44120	for front mount - Paragliding
80015	Md 20 & Bi	44120L	for front mount - Paragliding
Harness	Md 16, 18 & 20	44120*	for Contour, Silhouette, Top, Top Secura and others
Harness	Md 20 & Bi	44120L	for Contour, Silhouette, Top, Top Secura and others

MATERIALS:

Apex Lines	180kg Nylon
Apex Reinforcement Tape	Mil T 5038-3 1"
Gore Reinforcement Tape	Mil T 5038-3 5/8"
Gore Fabric	F111 or equal
Skirt Reinforcement Tape	Mil T 5038-3 1"
V-Tabs	Mil W 4088-1 9/16"
Suspension Lines	180kg Nylon
Bridle Webbing	6000 lb UV Treated 1"
Center (Apex) Line	1500 lb Nylon Cord



PP/16 & PP/18



HG/16 & HG/18

PRELIMINARY NOTES ON PACKING

The following Instructions apply to ALL models of the Mayday Range, unless otherwise stated.

When first delivered, your new emergency parachute system has been inspected and packed by Apco or an Apco approved dealer and is ready for use.
The following set of folding instructions is intended for a qualified packer familiar with conventional parachute packing, to guide him/her in packing of these particular types of parachutes.

THE MODULARITY OF APCO EMERGENCY SYSTEMS:

Although the above specifications list eight separate models, with slightly different inner and or outer containers, the "heart" of the system, the parachute and its bridle, are only a combination of four different parachutes, and three different types of bridles:

THE PARACHUTE:

The smallest, MD16 parachute, for a maximum hook-in weight (pilot, glider, harness, and emergency system) of 106kg; the MD18 for a maximum hook-in weight of 120kg; the MD20 for up to 160kg and the MD Bi Tandem parachute for a maximum of 200kg.

THE BRIDLE:

The Mayday parachutes are available with different bridles, for various uses:

- **Short:** About 30cm in length, for solo paragliding systems, because of the short distance between the packed parachute, and its attachment point to the harness (the parachute is designed to open slightly below the paragliding canopy).
- **Long:** About 6 meters in length, for all hang glider systems, due to the need of clearing the glider frame on opening.

- **V-Bridle:** For Tandem and some Solo Paragliding systems. Attached to the shoulder-strap attachment points on harnesses that do not have a integral V-bridle or when using a front or externally mounted parachute container. In tandems it is attached to the top of the spreader system, so that both pilot and passenger is suspended at a equal height. Apco also offers a separate V-Bridle to attach onto parachutes with a short bridle.

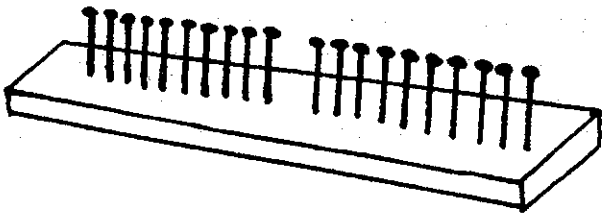
TOOLS AND EQUIPMENT

Table

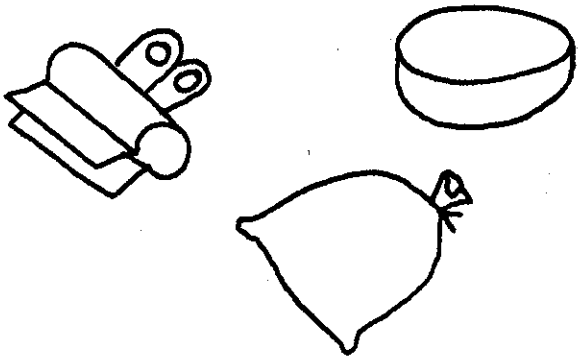
Although the Mayday can be folded on the floor, provided it is smooth and clean, the best arrangement is to use a long table, or several tables placed end to end, with a smooth surface, at least 8m long, 1m wide and about 80 cm high. At each end of the table there should be a hook-up point for attaching and tensioning the reserve.

Comb

This is a wooden board with a row of two groups of 11 nails each, which serves to keep the lines separated and in correct order during folding. The nails protrude about 20mm above the board. The central gap between the two groups of nails is 20mm. The general nail spacing is 10mm. The board measures approximately 30cm long, 7-10cm wide and around 20mm thick. The board and the nails should be smooth, without any sharp corners or edges that may damage the parachute or lines.



Clamps or weights
Six lightly spring-loaded clamps, such as paper clamps are ideal. It is also possible to use weights, such as small sandbags, solid weights or even books. Whichever you use, they should have smooth edges and no sharp corners.



Carabiners
It is useful but not essential to have two carabiners for attaching the apex and lines to the table hook-up points. Some string such as old glider lines will also do.

Tie-down Straps (2)
This is also useful but not necessary, it is used to tension the lines. Some rope or line will suffice.

ARRANGEMENT AND INSPECTION OF THE CANOPY AND LINES:

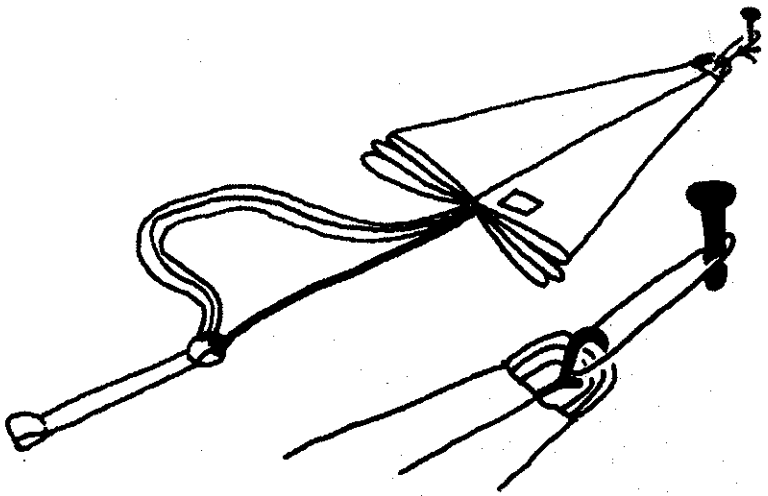
This chapter applies to all the models in the Mayday range.
Please note: The illustrations in this manual are schematic and simplified for the sake of clarity. They may, for example, show fewer gores and lines, than there really are or leave out details which have no bearing on a particular stage of folding.

Airing

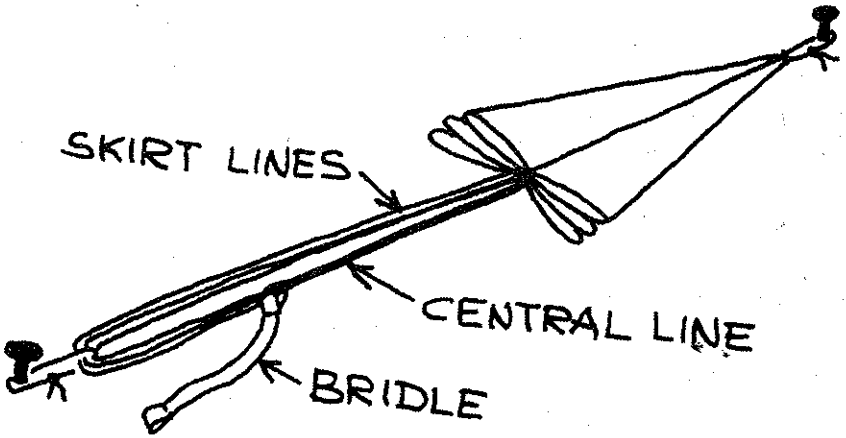
Before starting the repack procedures it is recommended to "air" the canopy for 24 hours. This is best done by suspending the canopy from its apex, from a point on the ceiling. This should be done in a cool dry place out of direct sunlight.

Folding

1. Lay the extended parachute on the table as shown. One of the gores bears an Apco tag in a lower corner, next to the attachment point of the No. 1 line. The first and Last lines (No.1 and 16, 18 or 20) are numbered in this way on all parachutes. The remaining lines (no.2 and up) may or may not be numbered depending on the year of manufacture. If they are not numbered, count them in a counter-clockwise fashion, (When standing near the skirt looking toward the apex, starting at the bottom). Line No.1 should be at the "bottom", in the middle, just to the right of the center, as shown. The central line, which joins the apex of the parachute to the bridle, is easily identified, being much thicker than the skirt lines.
2. Attach a carabiner or tie a length of line through all the apex lines and through the loop of the center apex line (the one that leads to the bridle, and is thicker than the other lines). Now clip or tie this to the hook-up point on one side of the table. The Apex should be clipped or tied through all the apex cross-over lines AND the Apex center line (which runs down inside the canopy to the Bridle).

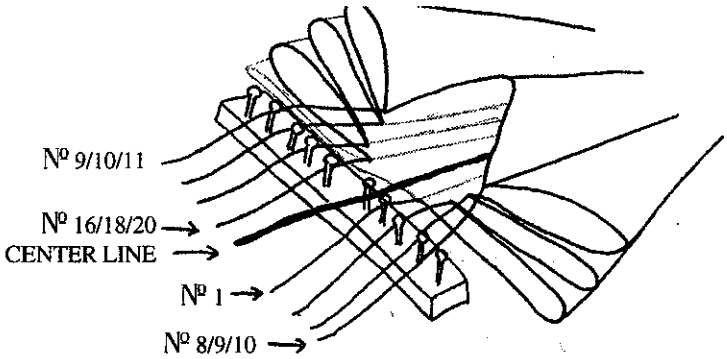


3. Clip another carabiner or tie another length of line around all the suspension lines except the central (Apex) line, as shown and attach it to the second hook-up point on the opposite end of the table from the apex. Apply some tension until all the lines are straight. Please note: with the apex attached, the central line, which is of the same length as the skirt lines, and which will later bring the apex down to the skirt level, ends, at this stage, much higher than the skirt lines; therefore the lower attachment holds only the skirt lines The bridle should now be somewhere in between the skirt and the carabiner attached to the suspension lines.

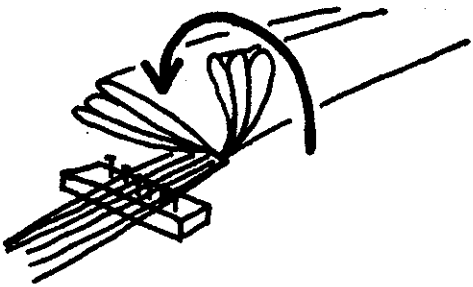


4. Place the comb under the lines near the skirt of the canopy. The purpose of the comb is to ensure that all the lines run parallel to each other all the way from the skirt to the bridle, without crossing, twisting or tangling.

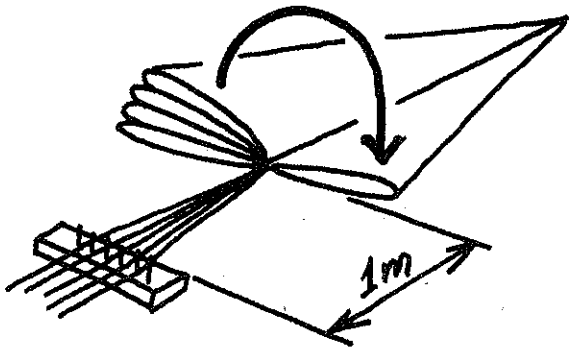
Place the Center Line in the wider gap in the center of the comb. Place line No.1 in the first gap immediately to the right of the Center Line, then Line No.2 immediately right of line No.1. and continue in this fashion until half of the lines are used. It is important to ensure that you use the lines in the correct order. The easiest way to do this is to flip the right hand gores over onto the left hand side. The amount will be 8 for the Mayday 16, 9 for the Mayday 18, 10 for the Mayday 20 and 9 for the Mayday Bi. Now use a strong elastic to secure these lines in place including the center line, by hooking the elastic over the first and last nails in the group.



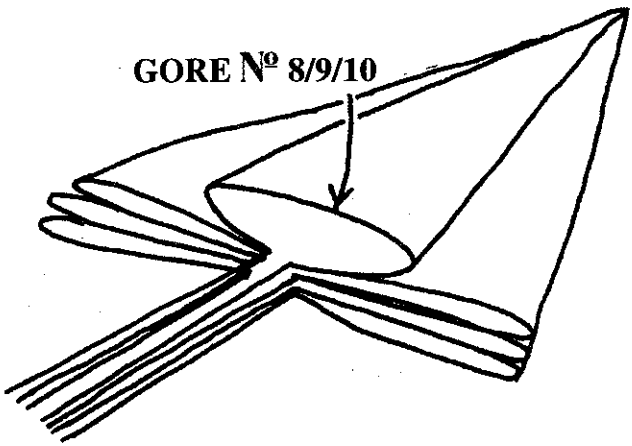
5. Flip all the gores over to the right hand side and start with the lines on the left hand side in a similar fashion to the right. Place the last line (No.16, 18 or 20), in the gap immediately left of the Center Line, then follow it with the line before last, and so on until you have an equal number of lines on either side of the comb. Secure the lines with a second strong elastic band.



6. Move the comb approximately one meter down the lines away from the skirt. Clamp or hold all the lines together at the hook-up points(where the skirt lines meet the skirt). Bring the flipped gores back one by one, lifting them with one hand by the point halfway between the two line attachment points, while holding all the lines down together on the table with the other hand. Make sure to lift the complete gore up by applying a little tension with the lifting hand against the apex. While doing this carefully inspect each panel on both sides for wear, damage, stains, deterioration, mildew, etc.



7. Flip the left hand-group of gores over the right-hand group and repeat the above steps, for the left hand group of gores. Bring the flipped gores back one by one, lifting them with one hand by the point halfway between the two line attachment points, while holding all the lines down together on the table with the other hand. Make sure to lift the complete gore up by applying a little tension with the lifting hand against the apex. While doing this carefully inspect each panel on both sides for wear, damage, stains, deterioration, mildew, etc.
8. Inspect all the lines for signs of wear or damage, and check that they are all of an equal length.
9. Keeping the lines clamped or held close together, arrange the No.8, 9 or 10 gore (depending on the particular size of Mayday parachute) as shown. This arrangement ensures the fastest inflation when the parachute is opening.

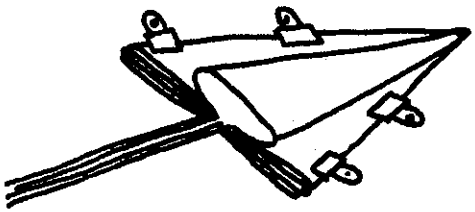


The Number of gores under the top No.8, 9 or 10 gore should now be as follows: For the Mayday 16, 8 gores on the left and 7 gores on the right.

The Mayday 18 should have 9 gores on the left and 8 on the right.

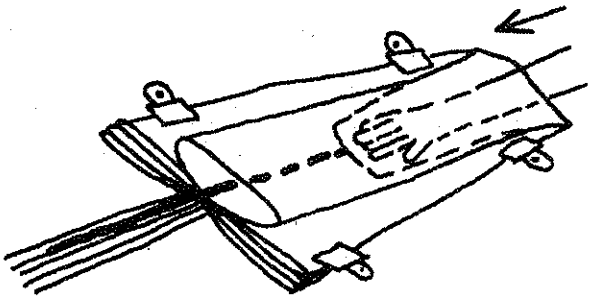
While the Mayday 20 will have 10 on the left and 9 on the right. Finally the Mayday Bi will have 9 gores on the left and 8 on the right.

10. Fasten the lower outer corners of the gores with clips or weigh them down with weights or sandbags. Place another set of clamps just less than halfway up the sides of the folded gores towards the apex.

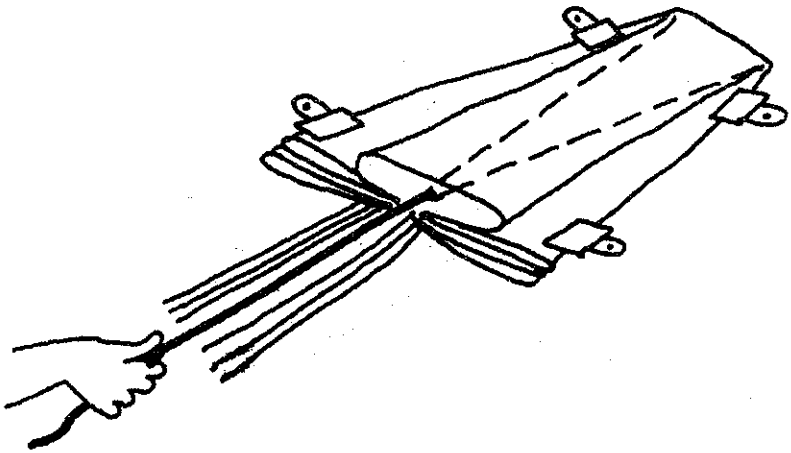


11. Undo the top fastening.

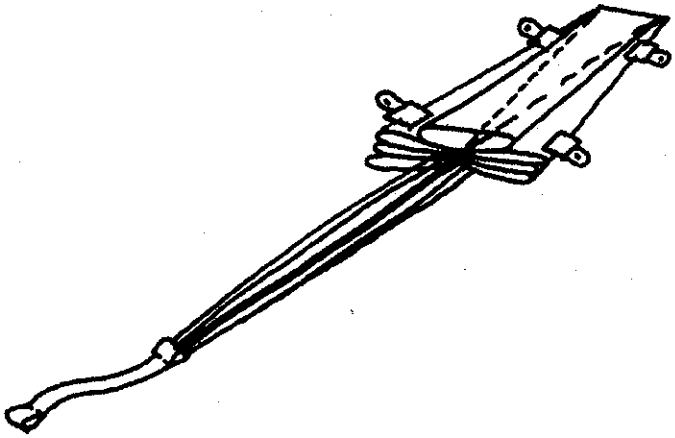
12. By hand, gently insert the apex into the top of the canopy, between the gores, as far as you can reach.



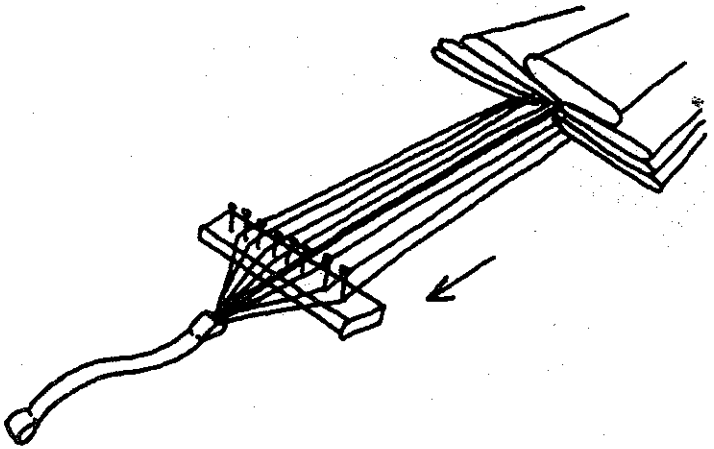
13. Undo the bottom fastening. Take the bridle and slowly pull it away from the skirt, little by little, so as to tension all the lines. Have a assistant do this while you ensure that the top end folds neatly as the apex is pulled down into the canopy. After each pull, check that the apex is traveling centrally between the gores. All the lines, including the Center/Apex Line should now be straight and of a equal length. The Apex lines should come down the inside the parachute up to or near its skirt.



14. Hook the bridle to the lower fastening point and tension the lines (move the parachute if necessary). By now the parachute should look four sided, and slightly trapezoid.



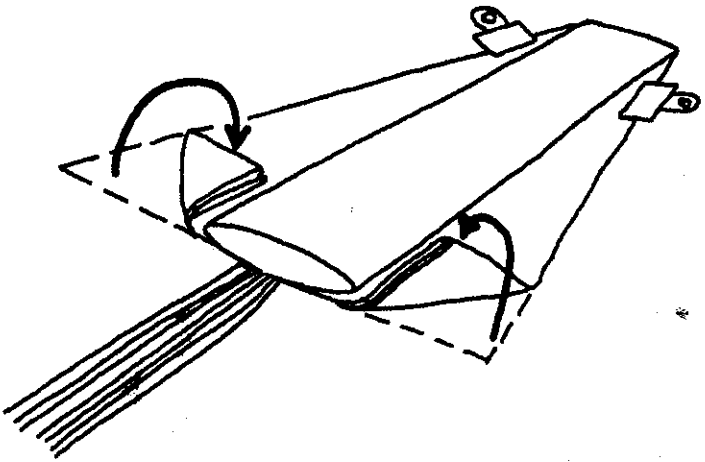
15. Move the comb all the way towards the bridle, "combing" the lines all the way to their attachment points on the bridle.



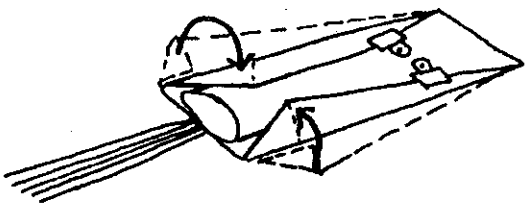
IT IS OF UTMOST IMPORTANCE THAT THE LINES SHOULD RUN STRAIGHT AND PARALLEL TO ONE ANOTHER ALL THE WAY FROM THE CANOPY SKIRT TO THE BRIDLE, WITHOUT ANY CROSSING OR TWISTING, AND THAT THE BRIDLE SHOULD LAY SO THAT THEY JOIN IT SIDE BY SIDE. THE BRIDLE SHOULD NOT BE TURNED OR TWISTED IN THE SUBSEQUENT STAGES OF FOLDING.

Any twists or tangles can be undone by manipulating the bridle in the correct direction. If not, you have laid some of the panels incorrectly and you will have to start over. Remove the comb and pull the ripstop line attachment cover over the lines after inspecting each attachment carefully. Make sure there is no wear or unraveling of stitching.

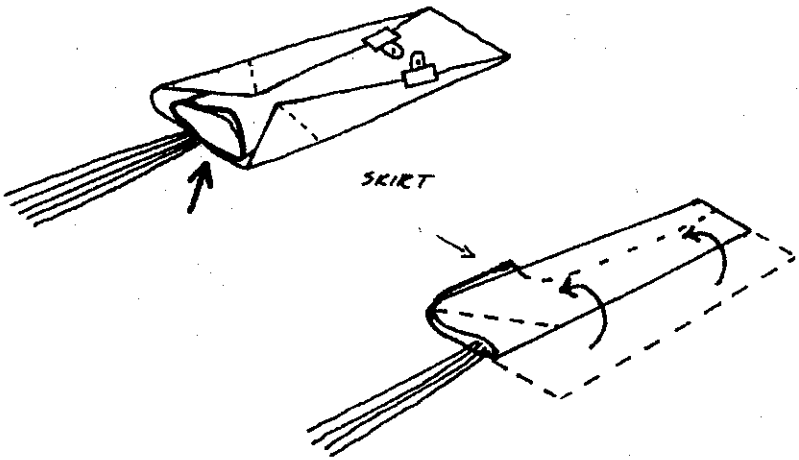
16. Remove the lower left hand clamp/weight on the skirt, make a 45° fold on the corner and replace the clamp to hold the fold in place. Repeat for the right hand side. The folds should meet but not overlap with the central gore that has been specially arranged for fast opening.



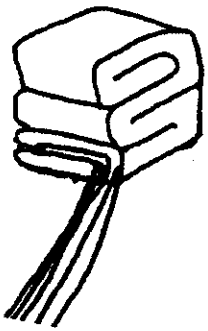
17. Remove the lower clamps. Now fold the triangular side sections of the gores inwards over the central gore, to meet in the center, a little way above the skirt, and then widening toward the top. The partly folded canopy should now be rectangular. Remove the top clamps and replace them on the outer edge to hold the folds in place. Replace the lower clamps to hold the new folds.



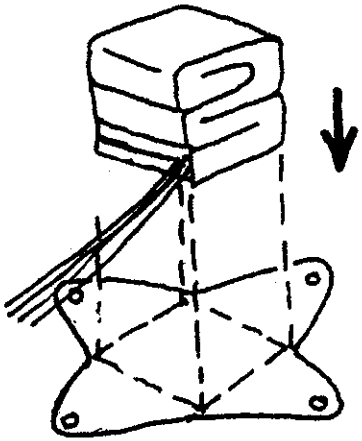
18. Open the wind channel (the specially arranged gore) a little more, pulling the central part of its skirt slightly upwards.



19. Fold the canopy in half, lengthwise along its center line, right over left. Take the opening channel and pull it out to make a "mouth", by laying it neatly along the edge of the parachute, so that it will channel air to the inside of the canopy the moment the main fold you have just made opens. Remove all the clamps and replace only two to hold the fold in place. The lines should now all be leaving the parachute from the right hand corner of the parachute.
20. Fold the parachute **(removing the clamps as you progress!)** starting from the skirt, to obtain a square package. All but the last fold are S-folds. The last fold is tucked under the top layer. The edges of the wind channel should protrude about 2cm on one side of the folded parachute.



The size of this package should be similar to that of the central part of the particular deployment bag, you intend to use. It is possible to make the S-folds slightly longer or shorter to make a slightly rectangular package if necessary. Make sure that all the clamps have been removed and that nothing was packed inside the parachute!

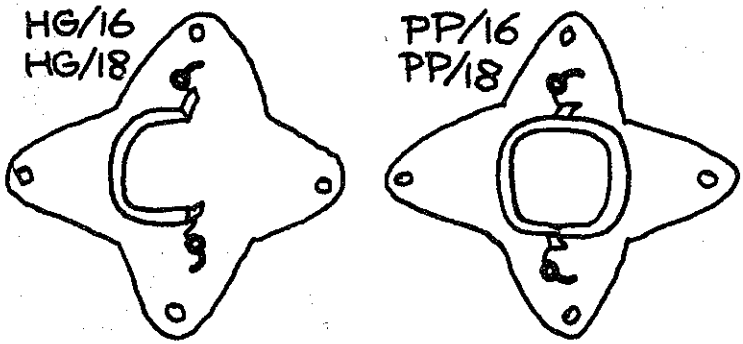


If you are installing your parachute in a non Apco container or harness you should from this point follow the specific instructions provided with your system. The following instructions apply to the external container systems for hang gliding and paragliding and the internal containers for Apco harnesses (also used on many other harnesses and reserve containers - check with your dealer for compatibility or check the table below):

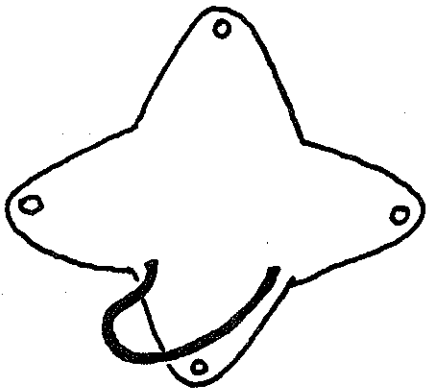
Parachute Type	Deployment bag code	Application
MD HG 16	81303	for Hang Gliding
MD HG 18	82303	for Hang Gliding
MdBi PP/HG	81905	for Hang Gliding and Paragliding
MD PP 16/18	81133	for Paragliding
MD 16/18	44120	for front mount - Paragliding
MD 20	44120L	for front mount - Paragliding
MD 16, 18 & 20	44120*	for Contour, Silhouette, Top, Top Secura and others
MD 20 & Bi	44120L	for Contour, Silhouette, Top, Top Secura and others

* Most common type and compatible with many non Apco systems.

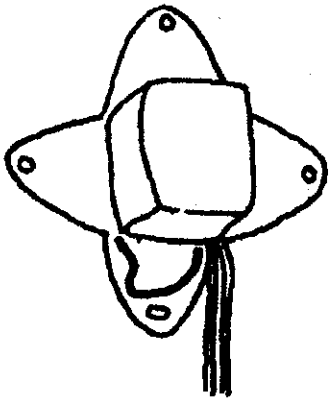
21. Now inspect the deployment bag (slightly different for different containers, and harnesses - make sure you use the appropriate deployment bag). The internal container resembles a postage envelope before the flaps have been folded and glued. The central section (between the four flaps is either square or rectangular, and the four flaps are either rounded or trapezoid in shape. There are webbing reinforcements on the four flaps each with a grommet (eyelet) on it.



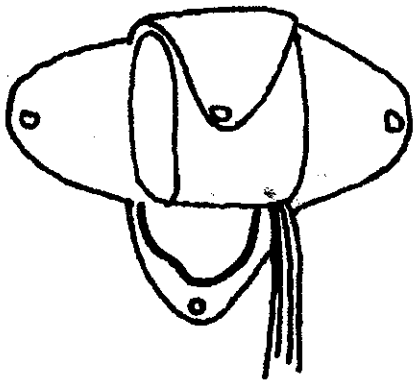
On the inside of the container there is a elastic bungee cord attached at two points, and on the outside there is either a webbing attachment point for attaching various types of deployment handles, or there is a handle sewn in place with the curved metal locking pins attached. Check the fabric, grommets, elasticity and condition of the bungee, all the sewing and strength of all attachments. If anything appears abnormal, replace the deployment bag.



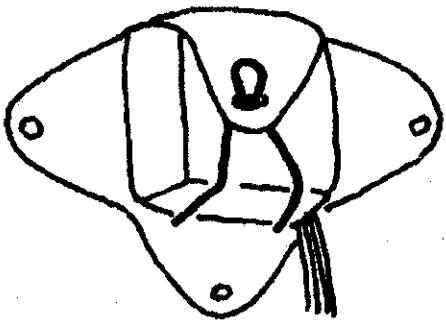
22. Lay the deployment bag out with the inside (side with the bungee) upwards, next to the folded parachute. The bungee should be lying towards the side where the lines exit the parachute. Gentle lift the folded parachute unto the deployment bag. The lines should exit the parachute on the bottom right of the parachute, if viewed from the direction of the lines.



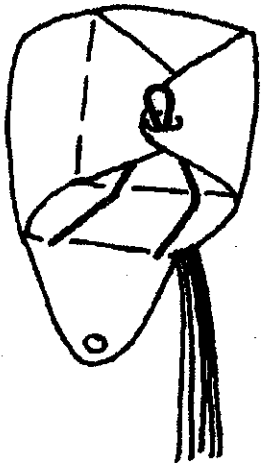
23. Fold the flap (No.1) opposite the bungee over the folded parachute.



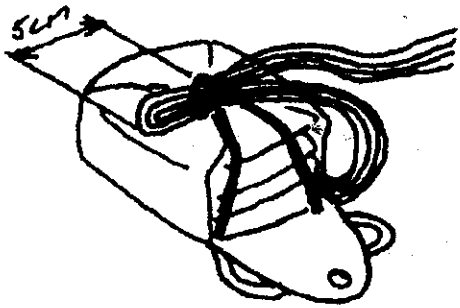
24. Stretch the bungee over the folded canopy and thread it through the grommet on the No.1 flap, from below.



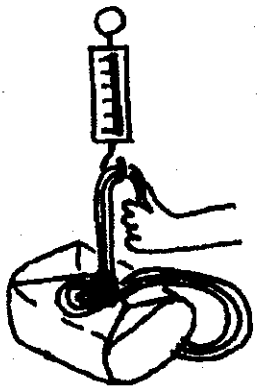
25. Now fold the flap on the left (No.2) over the pack and thread the bungee through its grommet from below. Do the same for flap No.3. Three sides of the deployment bag are now closed, and the fourth side is held closed by the bungee, which passes through the three grommets, to close the first three flaps.



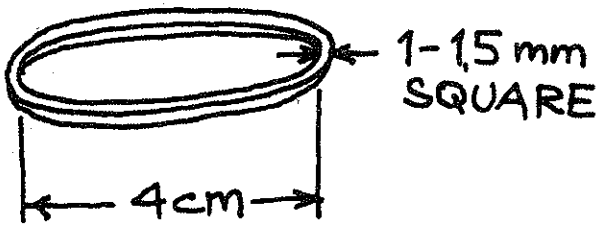
26. Lock the bag by passing a loop of the parachute lines through the bungee. This loop should pass only about 5-6cm through the bungee.



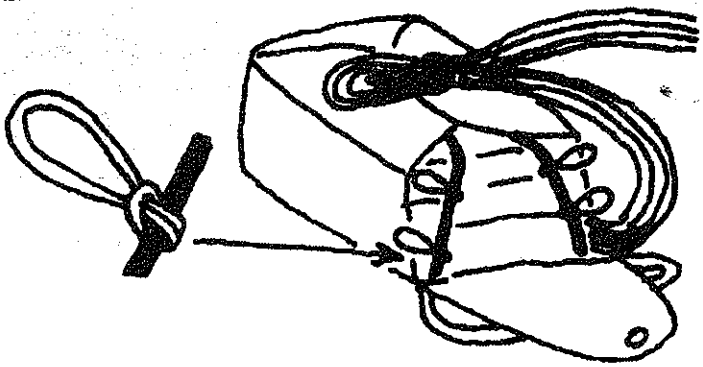
27. An additional check of the bungee: the loop of the lines should begin to slip out under a force of not more than 200 grams. If you are using a spring balance as shown, the reading should be no more than 400 grams (remember your physics?), since half of the load is taken by the other side.



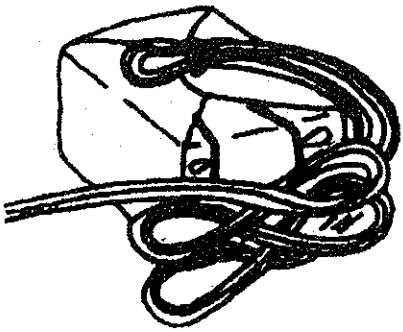
28. Take four new light latex-rubber bands and inspect them for cracks, wear, and fatigue. It is best to use special parachute grade elastics obtainable from Apco, or your Apco dealer. If, however, you must use simple office rubber bands, they must be approximately 4cm in diameter, with a square section of 1-1.5mm, fresh and of good quality and of uniform cross-section.



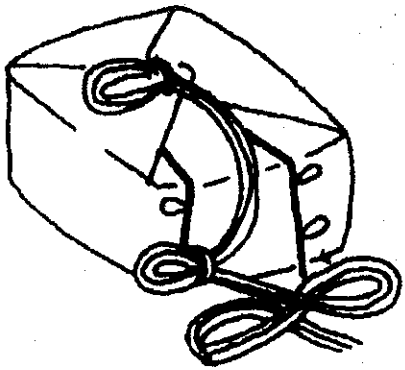
29. Attach two rubber bands to each side of the bungee cord, approximately 3cm apart, and 3cm away from the end (attachment point to the deployment bag) of the cord.



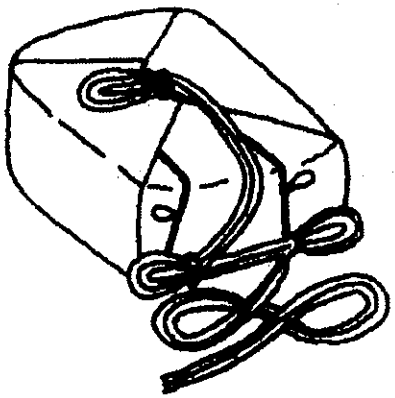
30. Begin to fold the lines into a zig-zag of a width equal to the width of the folded canopy package. It is easiest to do this properly by folding them into flattened figure-eights, on top of one another.



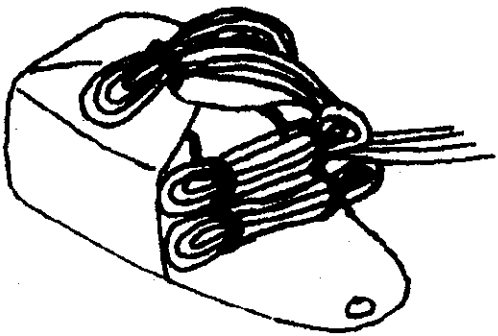
31. After using just less than half the total line length, stop and insert the "stack into the lower set of elastics attached to the bungee. First the left.



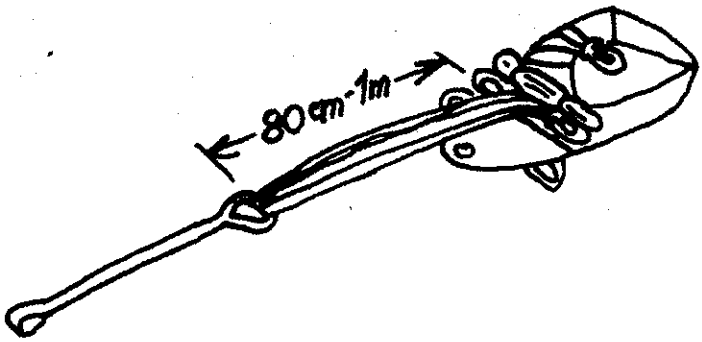
32. Now insert the right hand side of the stack into the elastic on the right. The right hand elastic should be to the left of the lines leading from the skirt to the first closing loop, but to the right of where the lines lead from the first closing loop to the line "stack".



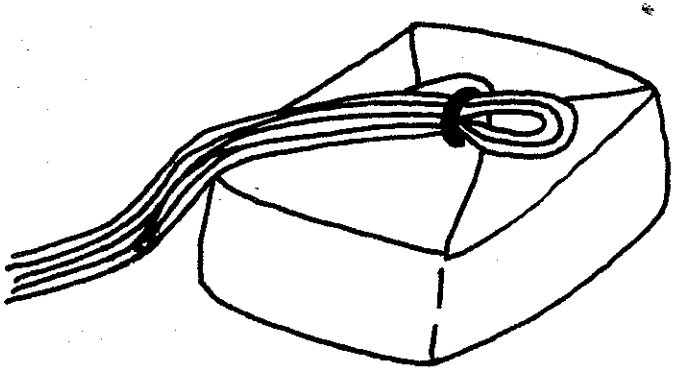
33. Now make a second "stack" of lines in a similar fashion to the first, using all but the last 60-70cm of suspension lines. Place this "stack" in the upper set of elastics. The right hand elastic should be to the right of the lines leading from the skirt to the first closing loop.



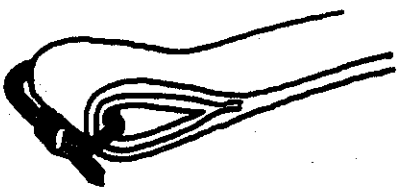
34. The bridle should now be around 80-100cm away from the pack. Make sure that all the lines are arranged neatly with out twists, line-overs, etc.



35. Now fold the remaining section of the suspension lines across the "pack". Fold the fourth flap of the container over the stacked lines. Lift the bungee on top of the first closing loop and pass the loop through the grommet on the flap.



36. Check that this loop also starts to slip at no more than 200 grams load, in a similar fashion as described above in "27".



Your parachute is now ready for installation into your outer container or harness. Follow the instructions provided with the specific system, or for the Apco MD PP and HG, external containers (80015, 81305, 82305, 81955 or 81155), follow the specific sets of instructions below.

THE FRONT CONTAINER FOR PP16 / 18 AND 20
80015

1. Attach the handle to the deployment bag containing your parachute (Figure 1). To do this thread the attachment trap that does not have a split ring on it through one of the loops formed by the webbing straps on the deployment bag. Pass the handle through the loop to form a larks head knot. Now thread the second strap with the split ring through another loop on the deployment bag. Open the split ring with a screwdriver or long nosed pliers and thread it unto the strap on the other side of the webbing loop to fix it to the container.

2. Attach the split bridle to the reserve bridle with a larks head knot and fix it in place with a heat shrink sheath (Figure2&3.)

3. Open the Front Container and lay it out on a table with the top (long split closing flap) at the top. Lay the reserve parachute face down (handle up) on the inner container on top of the reserve bridle(Figure 4). Place the bridle so that the joint between the split bridle and the reserve bridle is near the top left (or right if you want the bridle on your left) hand corner as shown (Figure 5)

4. Take a 40 or 50cm length of glider line and thread it through the lower of the two closing loops located on the right hand closing flap. Thread the line through the corresponding grommet in the closing flap on the left (Figure). Now pull the line through one (lower/looser for PP18 or 20and upper/tighter for PP16) of the grommets in the lower closing flap. Pull the line tight until the closing loop protrudes through the upper grommet and lock it closed by passing one of the yellow cables on the deployment handle through the closing loop (Figure 7). Carefully remove the line from the closing loop ,taking care not lo burn the closing loop or cable by pulling it out to fast. It is best to try to move the line until it is under the cable, and therefore under less presure.

5. Pass the line through the second and upper closing loop and then thread it through the corresponding grommet in the left hand closing flap. Make sure that both the straps running between the deployment handle and the deployment bag is situated between the upper and lower sets of grommets/closing loops. Now thread the line through the grommet in the top (split) closing flap and tension it until the closing loop is protruding through the top grommet. Pass the seclond locking cable through the closing loop (Figure 8) and stow its end into the small punched hole in the surface of the closing flap (Figure 9)

6. Tuck the edges of the closing flaps into the corners of the container, and attach the velcro tab on the lower closing flap to the deployment handle (Figure 10).

7. Attach the ends of the split bridle onto the shoulder attachment points of your harness or to the top attachment points of your tandem spreaders, and route them both around one side of your harness to the front.

8. Attach the front container on one side of your harness using the clip to attach it onto or near the flying carabiner, and the velcro attatchment system to attach it to the main webbing running down from the flying carabiner to the seat board.

9. The opposite side can only be attached once you are wearing the harness.

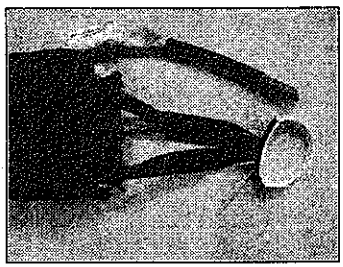


Fig. 1

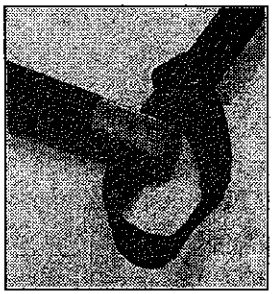


Fig. 2

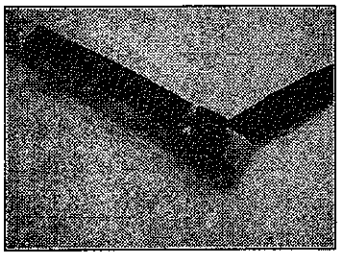


Fig. 3

Fig. 4

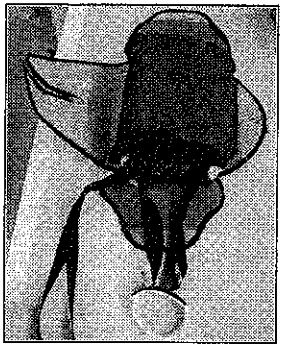


Fig. 5

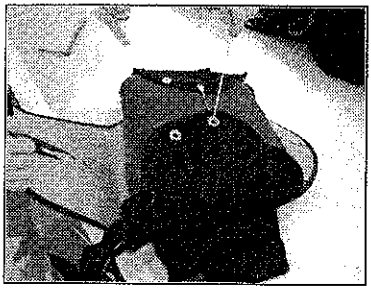


Fig. 6

Fig. 7

Fig. 8

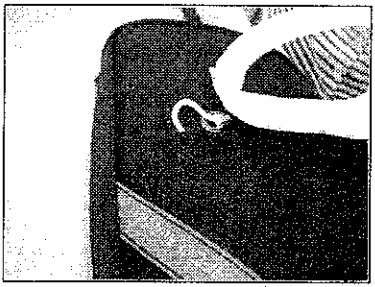


Fig. 9

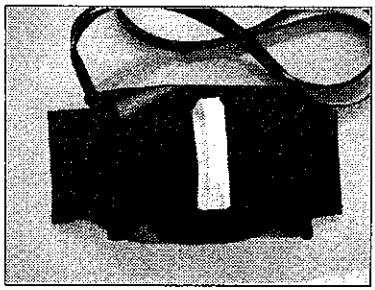
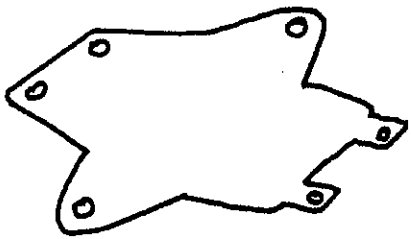


Fig. 10

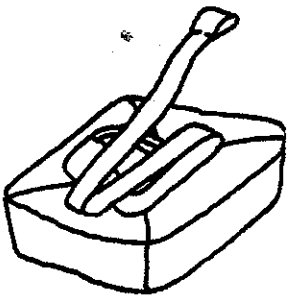
THE PP/16 AND PP/18 EMERGENCY SYSTEMS 81155 and 81955

If a UV (Ultra Violet) protection sleeve is not already in place on the bridle, slip one of suitable length (long or short according to bridle) over the free end of the bridle. The loop of the protection sleeve should fit over the loop of the bridle Fasten the two loops together with a cable tie. **Always double check when attaching the bridle to your harness that you attach it to the bridle and not just the loop of the UV Sleeve.**

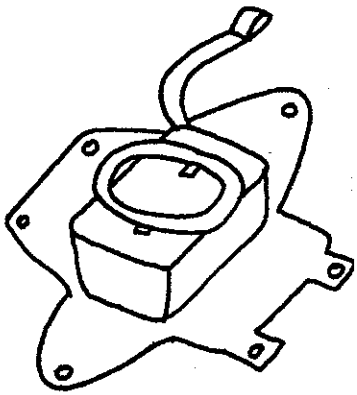
1. Lay the appropriate outer container on the table next to the inner container as shown, with the straps for attachment to the harness facing down.



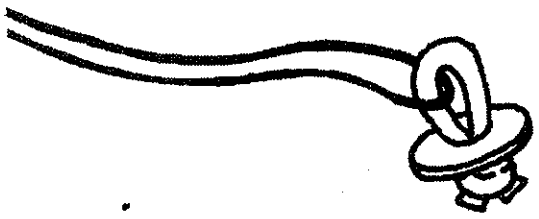
2. Fold the protruding lines and the bridle on top of the inner container so that the bridle protrudes from the left top corner.



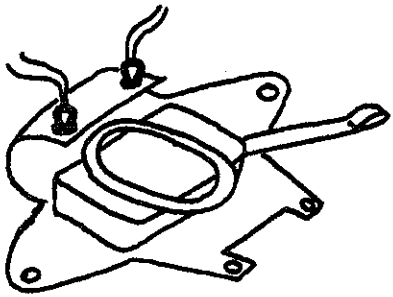
3. Turn the inner container over and lay it on top of the outer container so that the bridle loop now protrudes from under the inner container at the upper left-hand corner of the outer container, and the double deployment handle lies centrally and evenly on top of the inner container.



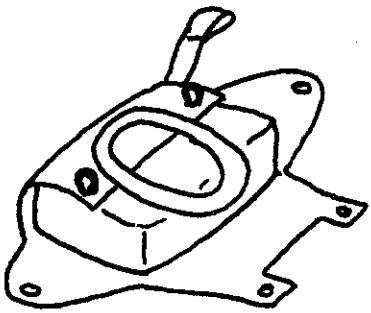
4. On some models of the outer container there are two short closing loops sewn onto the left-hand flap. On other models, these closing loops are supplied separately, together with two metal washers. (If separate, put a washer onto each closing loop, and thread a pull cord through each closing loop.)



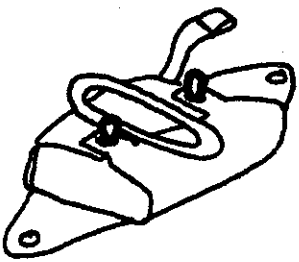
5. Thread the two pull cords through the grommets (eyelets) in the left-hand flap of the outer container in the direction shown to fix the closing loops with their washers in place. Or simply thread two pull cords through the closing loops on the left-hand flap if they are sewn in place.



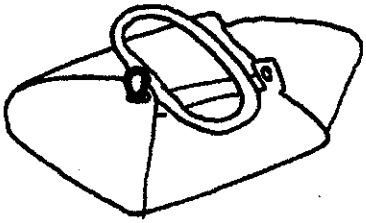
6. Fold the left-hand flap over the inner container under the handle as shown.



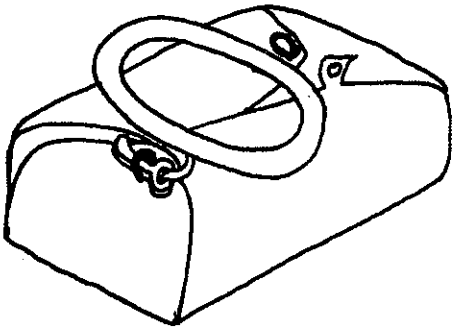
7. Fold the opposite flap over the inner container, once again leaving the handle on top and the handle attachment straps running in-between the two grommets. Individually thread the two pull cords through the corresponding grommets on the second flap as shown.



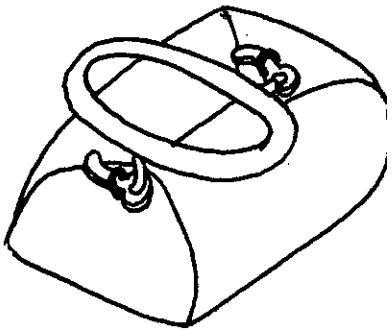
8. Bring up the lower flap and thread the relevant pull cord through the eyelet in the third flap.



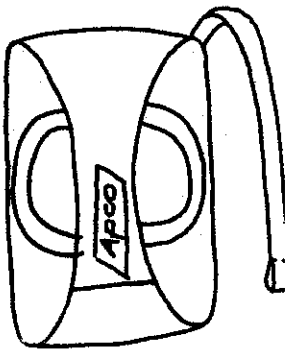
9. Lock the container by pulling the loop through the last eyelet with the pull cord and passing the curved locking pin through the closing loop. Carefully remove the pull cord by slipping it under the pin and pulling it out slowly so as not to damage or burn the closing loop.



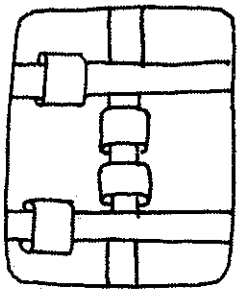
10. Repeat the steps in "8" and "9" to close the top (fourth) flap.



11. Finally fold the last flap (part of flap four) over the deployment handle and fasten it in place with the velcro.

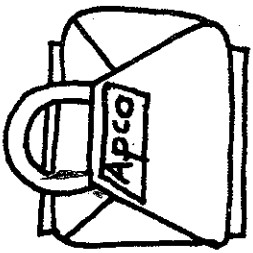


12. If the container does not have them yet, attach four velcro strips (supplied) at the back as shown, for attachment to any type of harness.



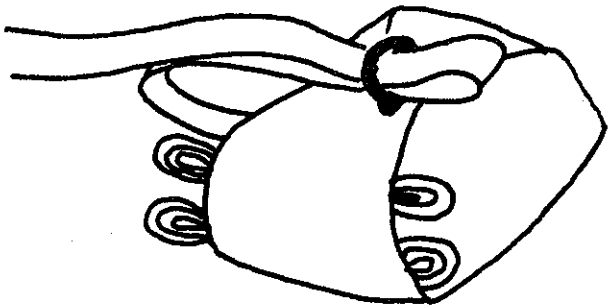
The parachute is now folded and ready for use.

THE HG/16 AND HG/18 EMERGENCY SYSTEMS 81305 and 82305

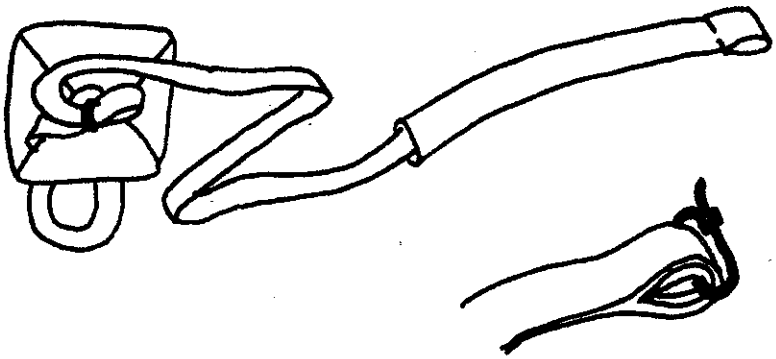


GENERAL NOTES: In both types, the longer (6 meter) bridle is fitted (to clear the hang-glider frame on deployment). There is only one deployment handle for right hand operation. The parachute must be folded into the correct inner container and then outer container according to the preceding instructions, except for the following differences:

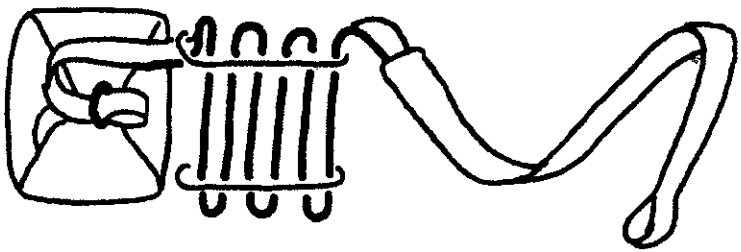
1. In the inner container, the whole length of the lines is folded and held in place by the small rubber bands, and the last flap is locked with the bridle through the bungee as shown.



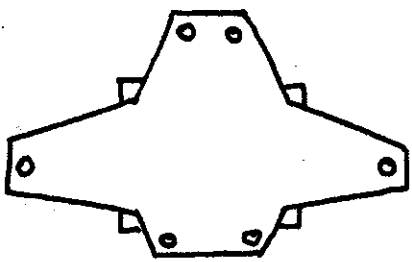
2. Unless it is already in place, fit the UV sleeve as described above.



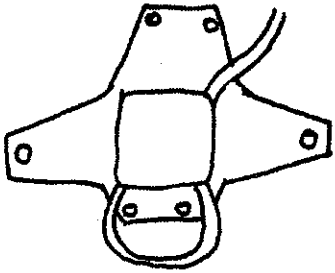
3. S-Fold the uncovered part of the bridle on one side of the inner container as shown, and fix it with two small rubber bands.



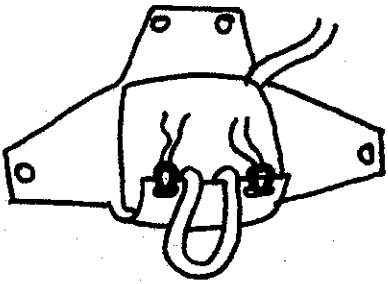
4. Lay the appropriate outer container on the table, with the narrow harness-attachment strips below the open flaps.



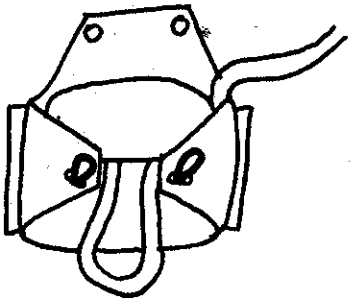
5. Lay the inner container on the outer as shown.



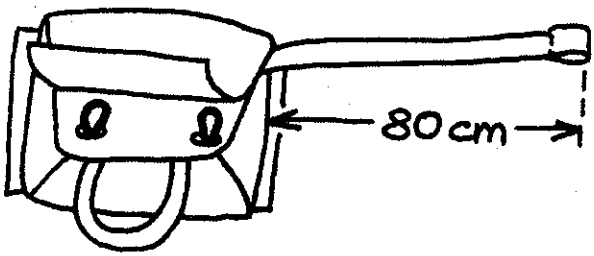
6. On the models without sewn-in closing loops, thread the loops with the washers through the eyelets in the lower flap as shown, and fold the lower flap upwards.



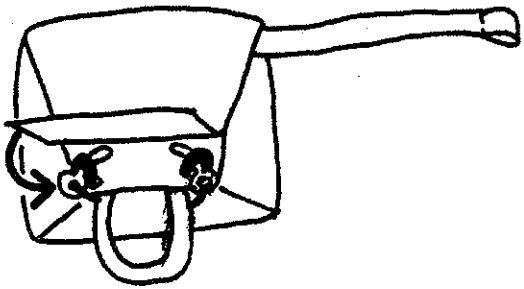
7. Fold the two side flaps and lock with the loops.



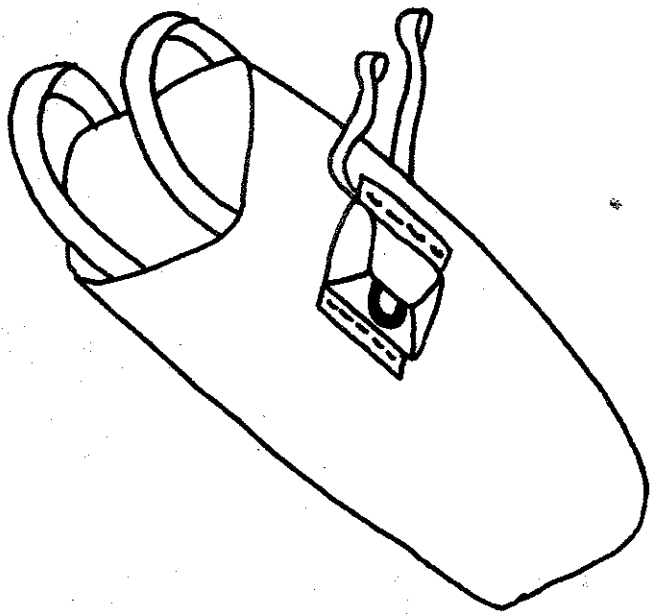
8. Fold the top flap and lock. About 80cm of the bridle should be protruding from the pack.



9. Lock the loops with the curved locking pins of the handle and close the velcro flap.



The system is now ready for use, after permanent attachment to any hang-gliding harness by sewing the side strips of the outer container to the harness.



FINAL NOTES ON FOLDING OF ALL TYPES.

If you have any questions or doubts during the assembly of the emergency parachute, please contact your dealer for assistance.

Your Apco Emergency System has been designed to provide maximum protection in emergencies. Please help it to fulfill this task by taking good care of it, and protecting it from damage and unnecessary exposure to harmful elements.

USING YOUR APCO SECURITY SYSTEM

It is of course best if you never have to use it, but even then, flying with an energency system provides peace of mind and a feeling of security, which make your flights even more enjoyable.

Some paragliding and Hang-gliding schools and clubs offer courses in the use of emergency systems, and it is recommended to take such a course. The openings are carried out over water and the pilot wears a flotation vest. Once in the water a boat retrieues you and your equipment. Such a course provides valuable experience, and adds confidence in your emergency system.

OPENING YOUR EMERGENCY PARACHUTE

The first step in opening your emergency parachute is the decision to do so. If you have lost control of your aircraft at a considerable height and there is a chance of regaining it, you still have time to try. Once you have opened your emergency parachute, you are commited to it, and where it is going, theres no turning back and you are commited to an emergency landing.

If on the other hand, the emergency arises at a low altitude, you should decide as quickly as possible. It is generally considered that emergency parachutes should be carried whenever you intend to fly higher than 50m above ground. There are recorded cases of saves occuring at even lower altitudes.

Once you have decided to open your emergency parachute, do it in the following steps:

1. Look for your emergency handle and identify it. This is no time for mistakes.
2. Grab the handle firmly with your thumb as well as the four fingers.
3. Give a strong pull. This undoes the velcro covers and pulls the locking pins out of the loops. The outer container opens and you are now holding the closed inner container attached to the handle with the canopy and lines stowed inside.
4. Throw the parachute as strongly as you can in the direction which is A). unobstructed by your paraglider or hang-glider, and B). which is also preferably the direction of the airsteam past you, this will help to open your parachute faster.
5. If you have been flying a paraglider, neutralize it as soon as the emergency parachute opens, and keep it neutralized. If it re-opens, it will interfere with the emergency parachute.
6. For landing, keep your knees together slightly bent, landing on your feet, and rolling to one side over your shoulder in a typical parachutists landing fall.