OWNER'S MANUAL

INFINITY

Northern Lite Enterprises, Inc.

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LIMITATIONS OF EQUIPMENT

INFINITY Harness/Container Systems are manufactured with FAA authorization under TSO-C23c Category B of SAE Aerospace Standard AS-8015A. The use of the ***INFINITY*** is limited to a maximum weight of 254 lbs. (115 kg) and a maximum airspeed of 150 knots. Further weight and speed limitations are imposed by Northern Lite Enterprises, Inc. based upon the maximum recommended or approved weight and speed limitations defined by the manufacturer of any and all attached components (i.e. main or reserve canopies).

It is the responsibility of the individual jumper to familiarize himself with the operation, maintenance, and limitations of all components of the assembled ***INFINITY*** harness/container system. Any questions or concerns regarding the compatibility, assembly, packing, maintenance, or use should be directed to an FAA certificated parachute rigger, instructor, or the manufacturer as applicable.

TO THE OWNER:

Your new rig has been crafted from the finest materials available. Treat it well and it will last a lifetime of jumps. Keep it out of the sun, avoid dirt and stains. Store it away from oils, moisture, acids, abrasives, etc. Inspect it frequently for wear or damage.

To clean your gear occasionally of heavy soil it may be soaked in warm water in a mild soap solution and brushed clean.

When it is time to assemble or repack your reserve, choose a rigger you know and trust, one who will let you watch. You (and your rigger) will appreciate the ease with which the ***INFINITY*** container closes around your reserve, allowing a clean launch pad for your pilot chute. You will also gain a better understanding of your reserve system and how it works.

The ***INFINITY*** harness and container system is a custom made sport tandem rig. It is fully approved under FAA TSO C23c. It is custom built to fit specific volume canopies. Check the tag on the packing data card pocket (located in a pocket under the reserve top flap) to find out what size reserve canopy will fit in the reserve container. No attempt will be made in these instructions to show you how to flake and fold the canopies to be packed in the ***INFINITY***. Refer to canopy manufacturer's instructions for that information.

Your new ***INFINITY*** comes with all parts required for assembly with your reserve and main canopies. The main risers with toggle system are provided with either 3-ring or mini 3- ring releases. Although the size differs, they operate in the same manner. Your rig is also supplied with a reserve bridle and pilot chute, or a reserve free-bag, pilot chute, toggles, and guide rings (for square reserve canopies), a main pilot chute, main bridle, and main deployment bag.

The ***INFINITY*** comes with a reserve ripcord. When activated, it should be pulled hard to full extension of the user's arm. Also provided is a main canopy jettison handle (cutaway handle). It too, should be pulled to full extension of wearer's arm when used. Housings for both reserve activation and main jettison cables are provided and tacked in place at the factory. These tacks should be checked periodically for secureness.

EQUIPMENT MAINTENANCE:

Requirements for maintenance per FAR 105.43:

A) A certificated parachute rigger or the person making the parachute jump must have packed the main parachute within 120 days before the date of its use.

B) A certificated, **BACK** rated FAA Senior or Master parachute rigger must have packed the auxiliary/reserve parachute within 120 days before the date of use if made of synthetic fiber; or 60 days before the date of use if made of silk, pongee, or other natural fibers.

USER MAINTENANCE:

Prior to each jump the jumper should examine the general condition of the ***INFINITY*** Harness/Container System. Any questions or concerns should be directed to the proper authority (i.e.: rigger, instructor or the manufacturer). The following is a list of specific items which should be examined prior to the use of this equipment.

1) Check for the proper seating of the main container pin, examine the integrity of the closing loop and check the main bridle for proper routing and general condition.

2) Check the reserve pin to assure proper seating, examine the closing loops for wear and assure the outer flap is secure.

3) Check all visible harness and container stitching.

4) Check all housings for excessive wear, dents, and proper tacking.

5) Examine all velcro to be sure it is clean and holds securely.

6) Check the reserve ripcord for freedom of movement in housing and the secure seating of the handle in the velcro pocket.

7) Check the hardware for operation, cracks or chips in the plating

8) Assure the proper assembly of the Booth 3-Ring Release System. (refer to page 45)

9) Verify that the main pilotchute is fully inserted in its pocket and the handle is easily accessible.

10) Assure the RSL is connected per your preference. (note: the installation or use of the RSL is encouraged, but not required.)

INFINITY
CONTAINER VOLUME CHART

CONTAINER SIZES	RESERVE SIZE RANGE (CUBIC INCHES)	MAIN SIZE RANGE (CUBIC INCHES)
SP2	200-250	200-250
SP3	200-250	250-300
SP4	200-250	300-350
I1.2	250-300	225-275
I1.3	250-300	275-325
I1.4	250-300	325-375
I2.2	280-350	250-300
I2.3	280-350	300-350
I2.4	280-350	350-400
I2.5	280-350	400-450
I2.5	280-350	450-500
I3.4	330-400	300-400
I3.5	330-400	385-475
I3.6	330-400	425-475
I3.7	330-400	450-500
I3.8	330-400	500-550
I3.9	330-400	500-600
I4.5	385-475	425-475
I4.6	385-475	450-500
I4.7	385-475	500-550
I4.8	385-475	550-600
I4.9	385-475	600-700
I5.5	400-475	385-475
I5.6	400-475	450-500
5.7	400-475	500-550
I5.7D	400-475	550-650
I5.8	400-475	650-800
I6.6	450-550	450-500
I6.7	450-550	500-550
I6.7D	450-550	550-650
I6.8	450-550	650-800

RESERVE LOOP LENGTHS

Best results will be obtained by using the following loop lengths:

Round reserves:	3 ½ inches to 4 ½ inches
Square reserves:	SP-I2-----2 ¾ inches I3---------3 ½ inches I4 & 5----4 ½ inches I6---------5-6 inches

ATTN.: RIGGERS: These are approximate lengths. While the loop lengths provided should be correct, discretion should be used to keep reserve ripcord pull within TSO C23c limits (5 lbs. minimum applied force to pull reserve handle and 22 lbs.. maximum).

ASSEMBLING THE MAIN CONTAINER

1. Lay out main parachute, flake canopy, and check lines for straightness and continuity.

2. When lines check out, attach connector links to risers in correct manner (nose of canopy on front riser, tail on rear riser).

3. Run steering lines through guide ring on rear riser.

4. Attach toggle to steering line with a minimum of three (3) half hitches.

5. Attach right riser to right side of harness. Attach left riser to left side of harness.

6. Run bridle loop through grommet at top of bag, (mouth of bag toward canopy), with bag-stop ring positioned on the outside of the bag.

7. Thread the bridle through the ring at the top of the canopy (or nylon loop if provided with canopy), and thread back through the grommet at top of bag.

8. Thread the pilot chute through the loop in the bridle and pull to secure.

9. Install retainer bands on bag.

10. Main parachute is now ready to pack according to manufacturer's instructions.

NOTE: IT IS RECOMMENDED THAT THE PROPER ASSEMBLY BE INSPECTED AND VERIFIED BY A CERTIFICATED PARACHUTE RIGGER.

11. Flake and fold the canopy per the manufacturer's instructions or recommendations. Note: fold the canopy narrow enough to fit into the deployment bag and wide enough to completely fill the corners of the bag.

12. Stack the canopy on itself so that it is approximately the same depth as the bag.

13. Slide the stacked canopy into the deployment bag, assure the corners are completely filled.

14. Close the deployment bag, place the first stows into the retainer bands after passing them through the grommets on the edge of the locking flap. (There may be 2, 3, or 4 grommets)

15. Stow the remaining suspension line along the bottom of the bag in the retainer bands (side to side). The stows should be 1 ½ to 2 ½ inches long. Leave no more than 15 inches of line unstowed.

16. Pull the pilotchute bridle out of the bag until you seat the metal ring against the grommet. **(IF A KILL LINE COLLAPSIBLE IS USED, VERIFY THAT IT IS COCKED!)**

17. Place the bag in the container (lines up or lines down). Fill in the corners. Stow the risers in the container. If your ***INFINITY*** has come equipped with a pull-out pilotchute, now is the time to stow the bridle and pilotchute in container on top of bag and insert pilotchute handle in the pocket provided.

18. Thread a pull-up cord into the locking loop at the top of the main container compartment. Route it over the main bag and through the grommet on the bottom flap.

19. After pulling the loop through the bottom grommet thread it through the flap grommets in the following sequence:

1. BOTTOM
2. TOP
3. LEFT SIDE
4. RIGHT SIDE

The bridle should be placed above the main top flap prior to closing the side flaps allowing at least a 2-3 inch loop between the top of the side flaps and the right side flap grommet.

After pulling the loop through each grommet, pull it tight, smooth the flaps, then use an extra thumb or knee to hold the looped grommets in place while threading the next grommet. Insert curved pin after the right side has been pulled tight. Close the cover flap. Dress the corners and riser covers.

20a. (Leg mount) Starting at the pocket end, mate bridle velcro to harness/container velcro.

20b. Fold pilotchute to best fit in pocket and install in pocket. Before jumping the first time, test-pull pilotchute from pocket (while wearing the rig) to insure proper installation.

21a. (BOC) Fold the pilotchute to best fit into the pocket and insert into the pocket. Allow sufficient excess bridle to be properly stuffed under the right main side flap.

NOTE: CHECK FOR PROPER ROUTING OF PILOTCHUTE BRIDLE. THE BRIDLE SHOULD GO DIRECTLY FROM THE POCKET TO THE CURVED PIN. ROUTING BETWEEN CURVED PIN AND BAG IS OPTIONAL.

SEE FIGURES 1 THROUGH 8

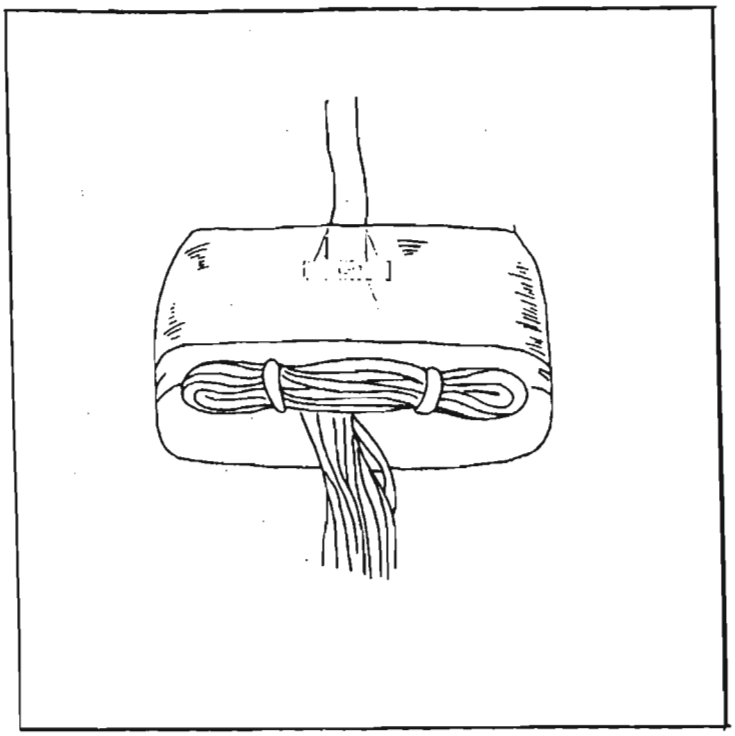
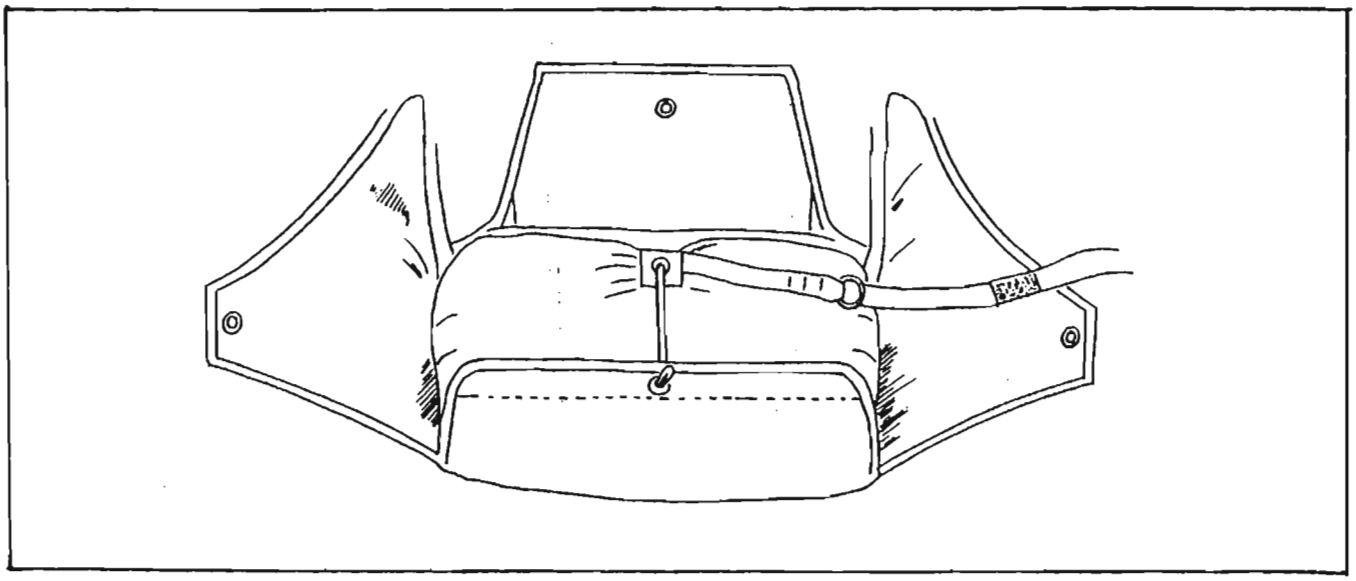


Fig. 1



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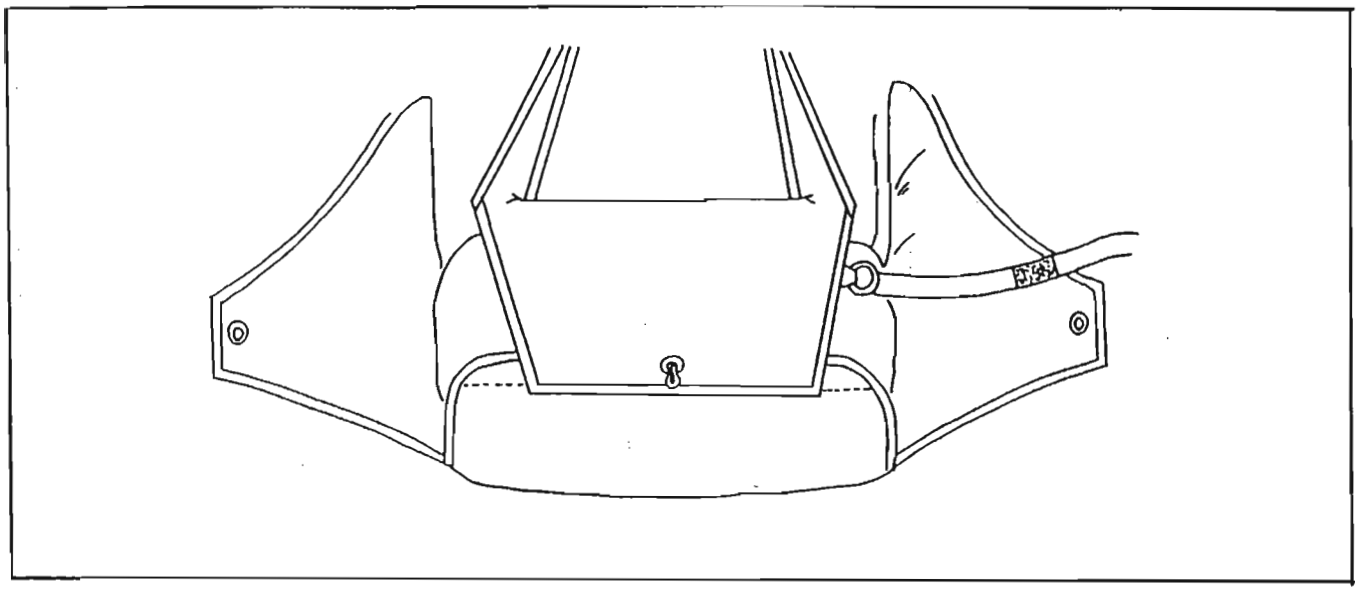

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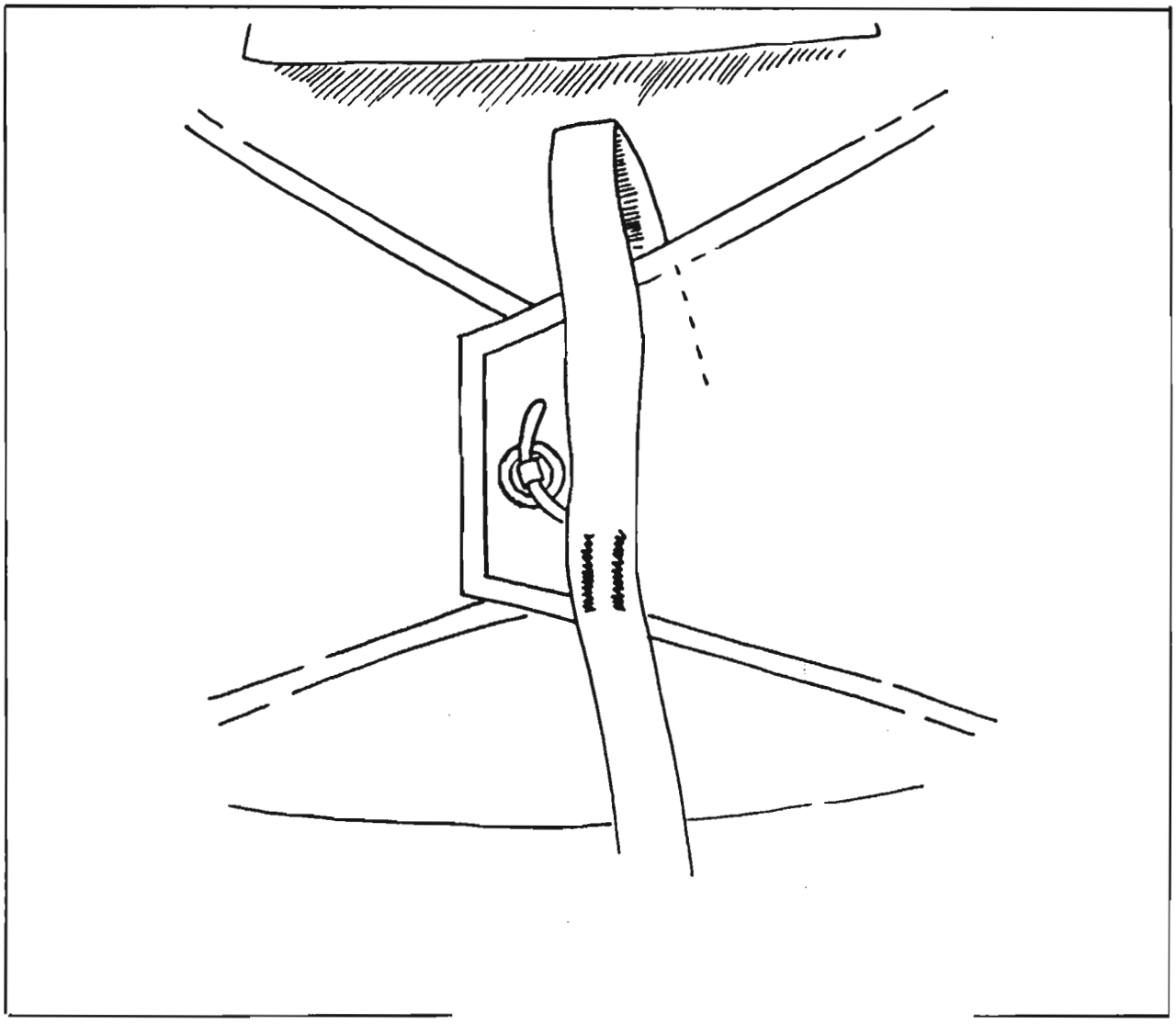

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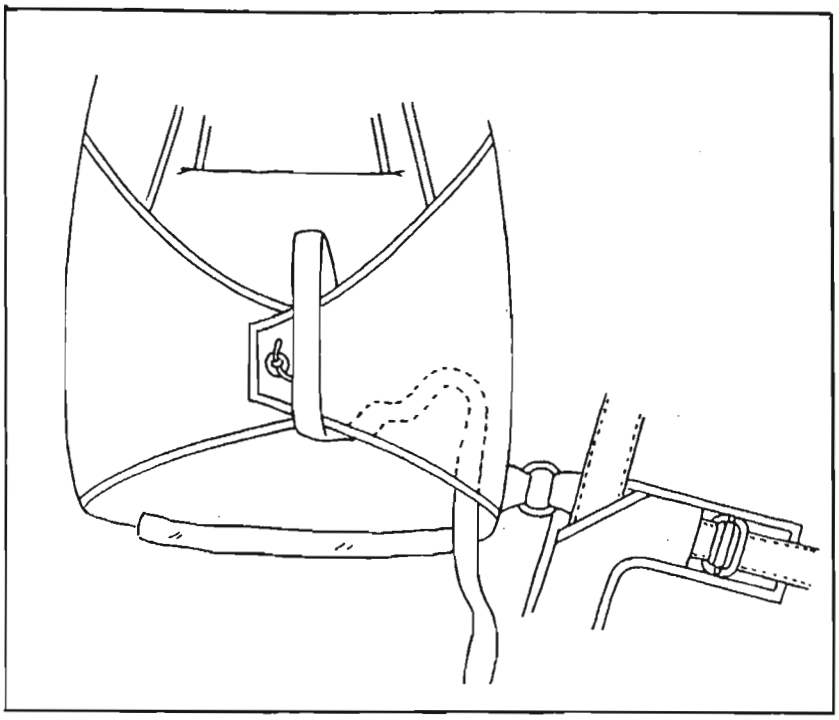

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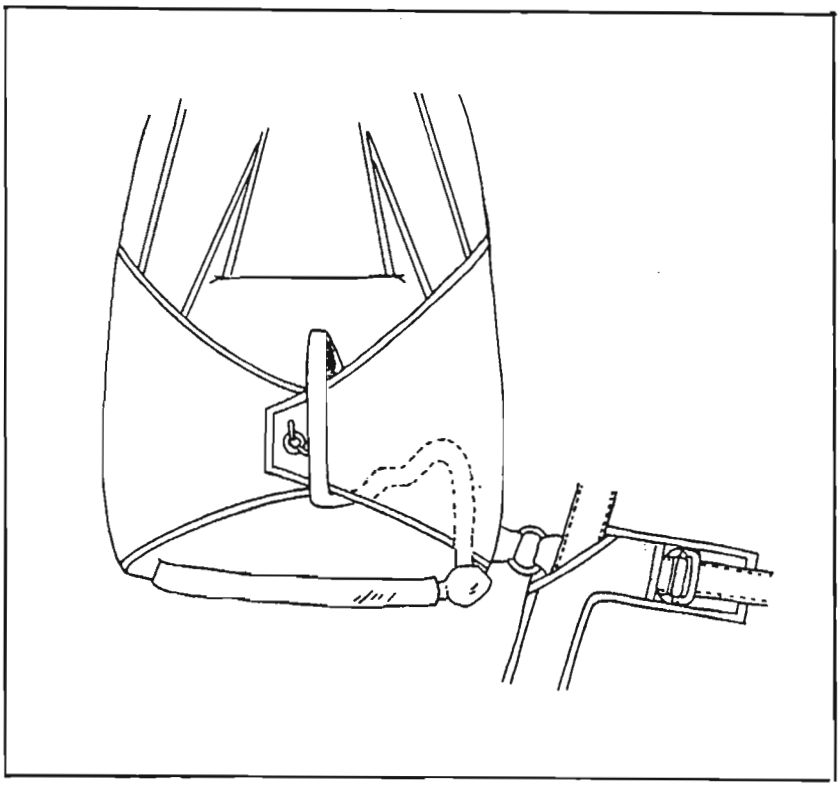
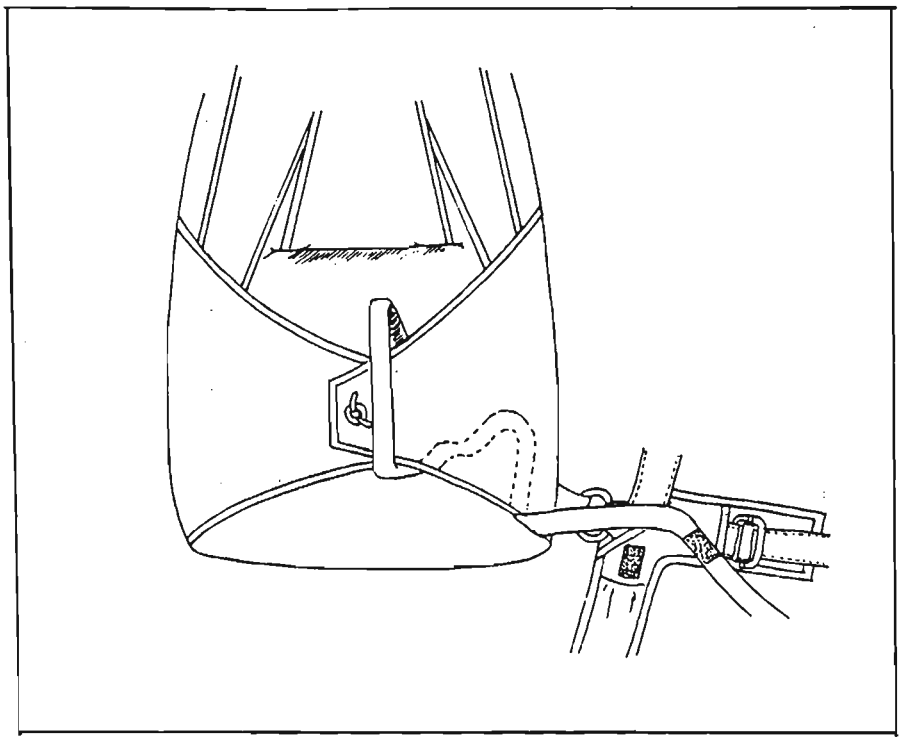


Fig. 5a



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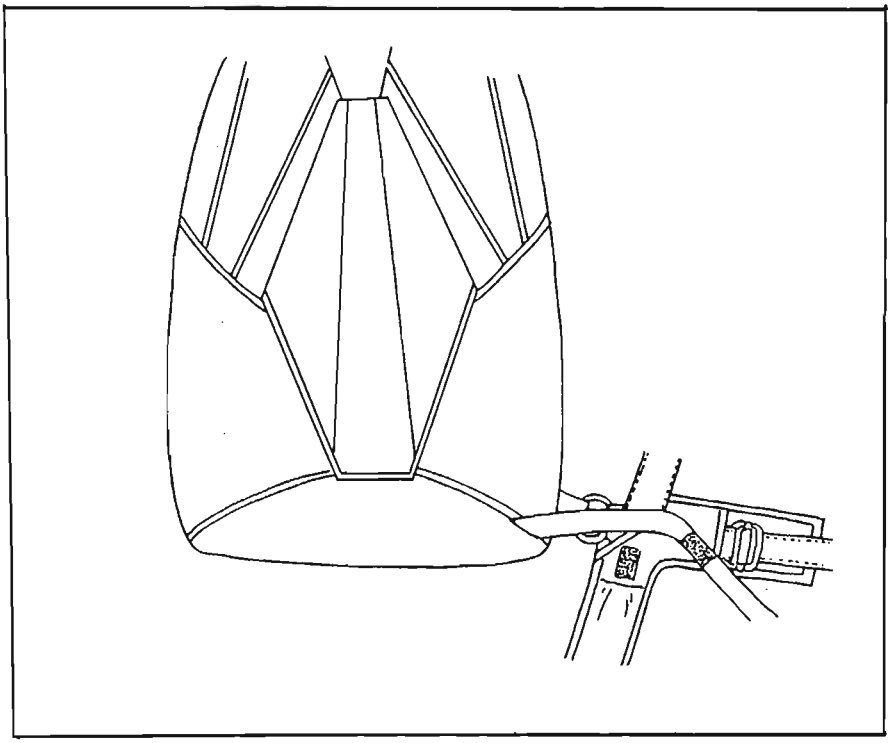
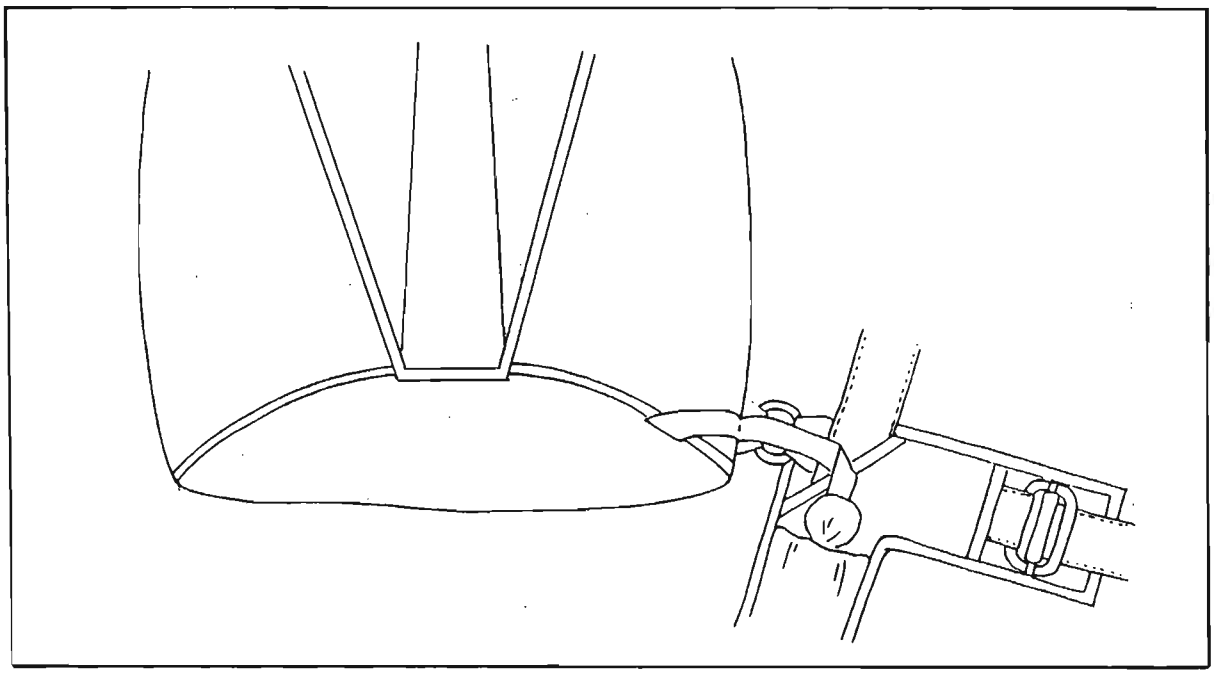


Fig. 6a



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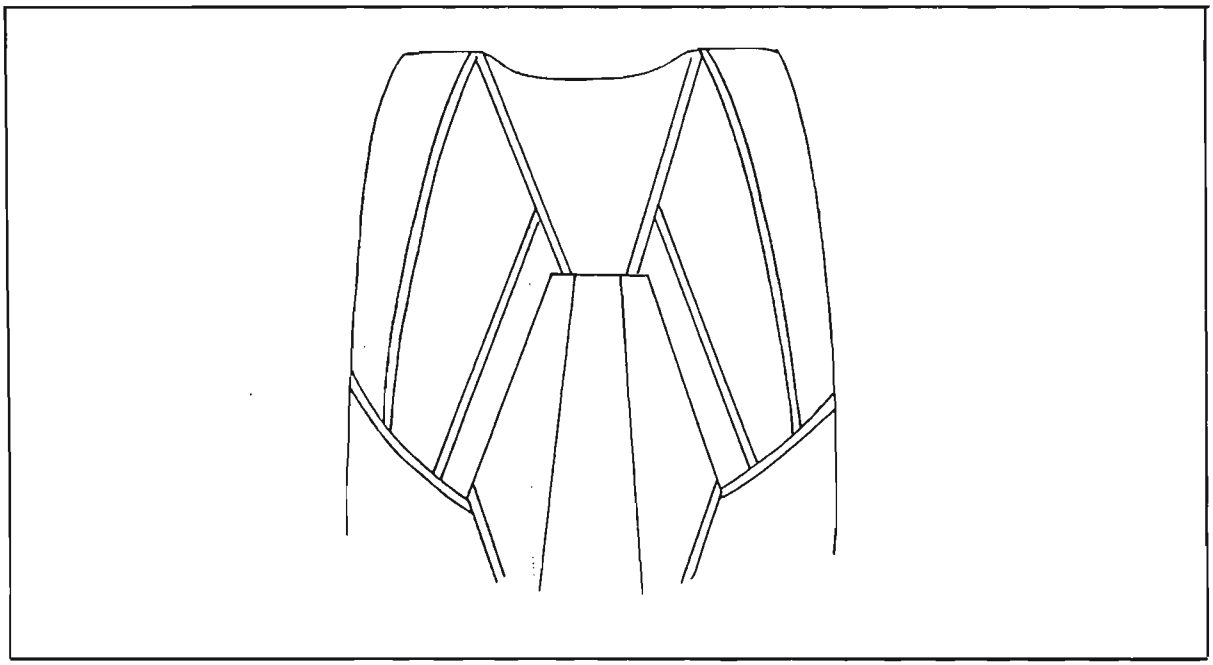
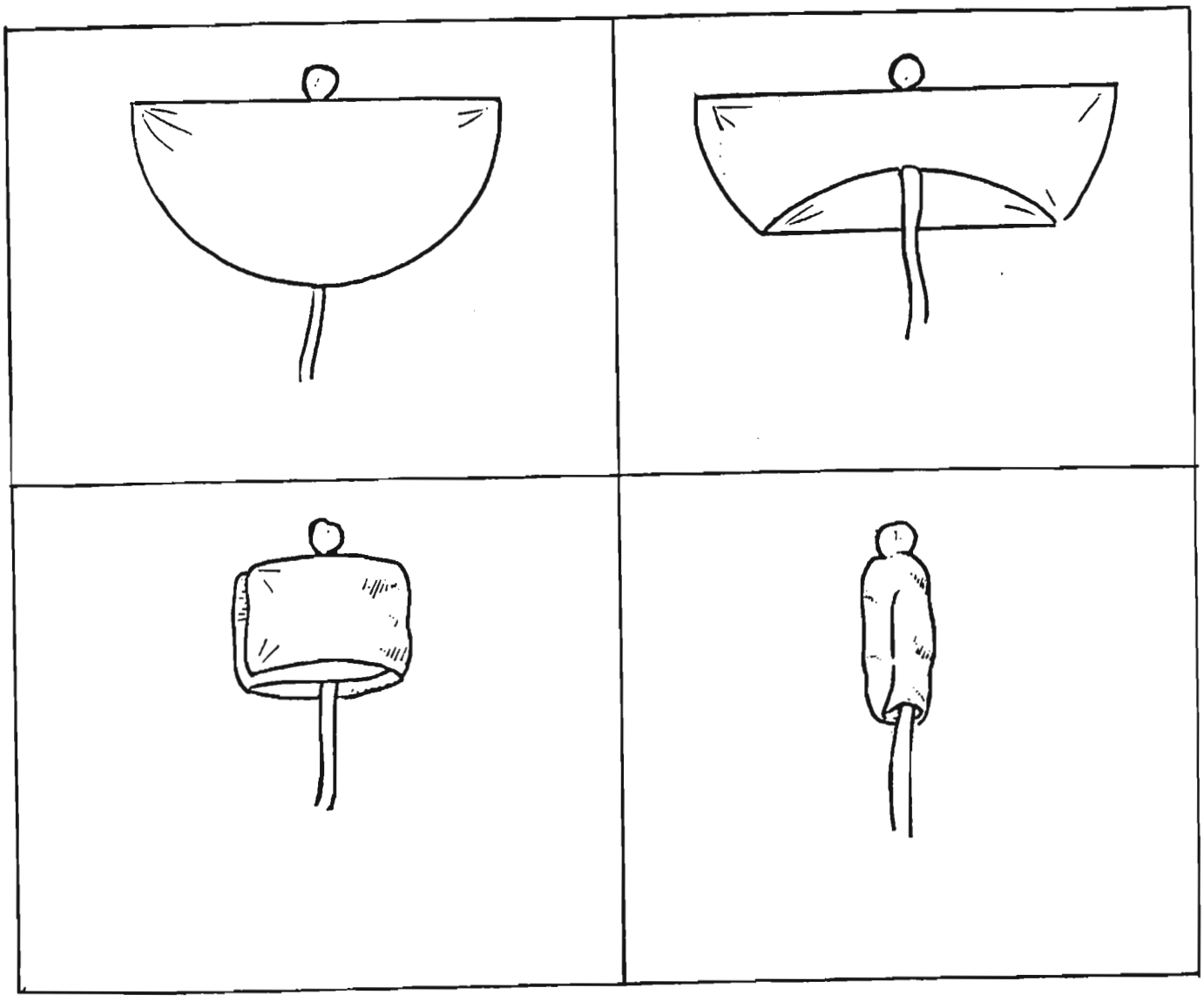


Fig. 8

FOLDING THE HAND-DEPLOYED MAIN PILOTCHUTE

Lay the pilotchute flat with the mesh facing up. Fold the pilotchute in half over the bridle. Fold the outer edge up toward the handle. Fold the pilotchute into thirds and roll into a tight cylinder. Push the excess bridle into the spandex pocket leaving sufficient slack between the pocket and the pin. Insert completely into the spandex pocket leaving the handle out .



PULL-OUT PILOTCHUTE

Fold the pilotchute bridle side to side(approximately 6-8 inches long) and lay across the upper portion of the main bag(as shown). Be careful not to allow the bridle to slip between the bag and the reserve container wall. This may inhibit the proper functioning of the pilotchute.

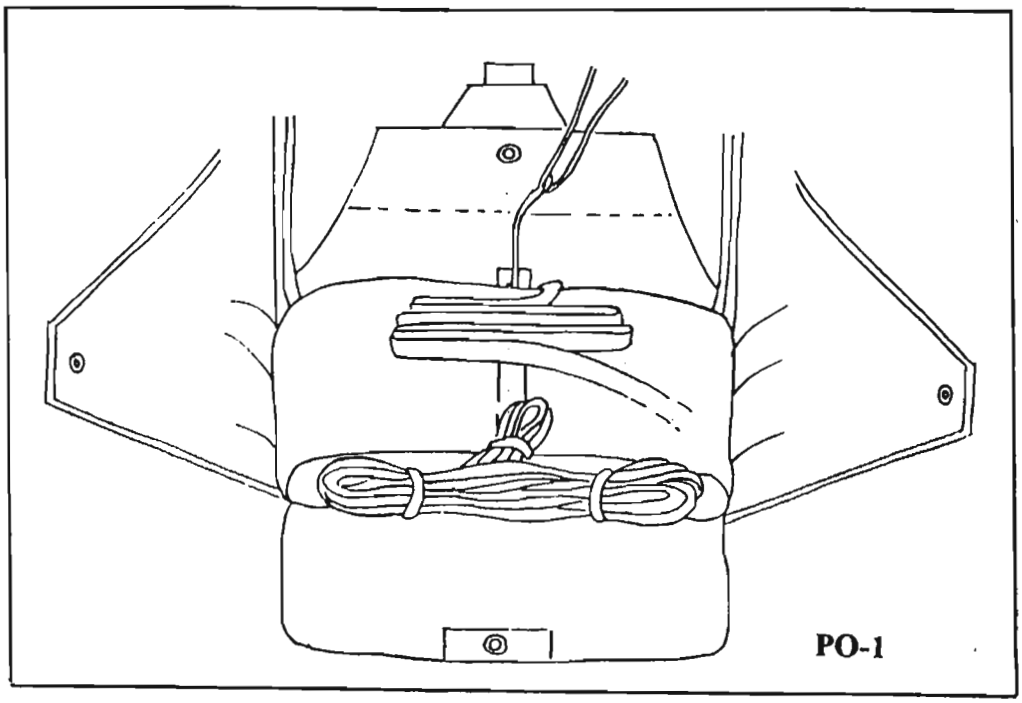
Fold the pilotchute(loosely) and lay it across the bag(as shown).The handle and the pin must exit the container at the lower right side. **IF A KILL-LINE COLLAPSIBLE IS USED ASSURE THAT IT IS COCKED NOW!**

Close the bottom flap then the top flap with the handle and pin outside the main container at the lower right.

Close the left side flap, then the right side flap and secure with the pin. Mate the two small tabs of velcro where the handle passes through the grommet.

Tuck the excess bridle under the right side flap and attach the velcro on the handle to the velcro under the flap on the lower right side of the container.

Close the outer main flap and secure with the tuck tab.



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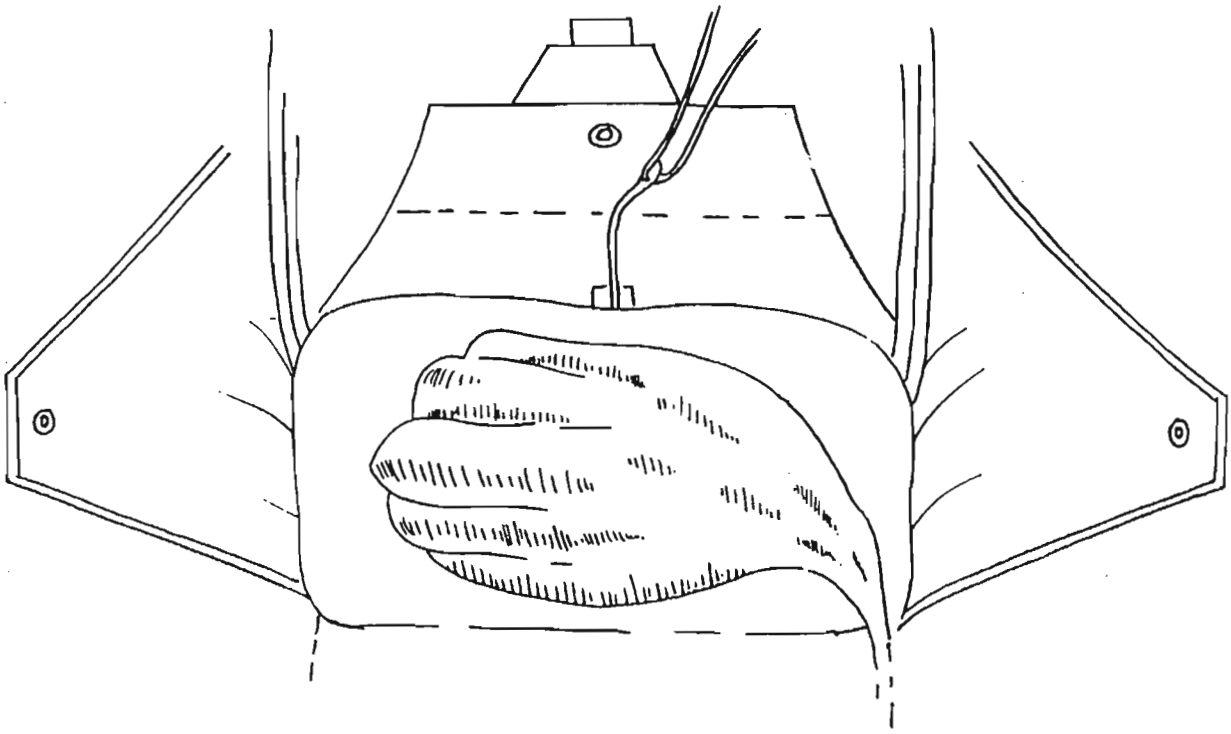

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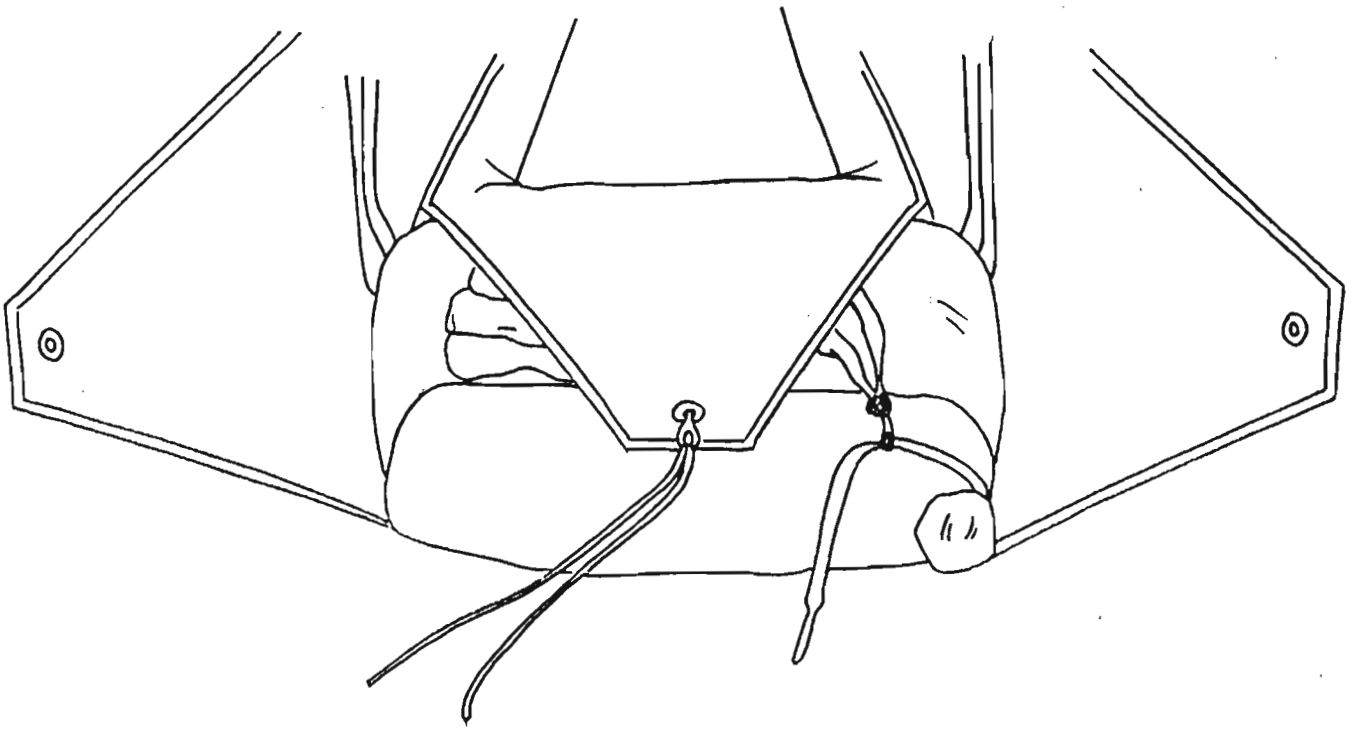

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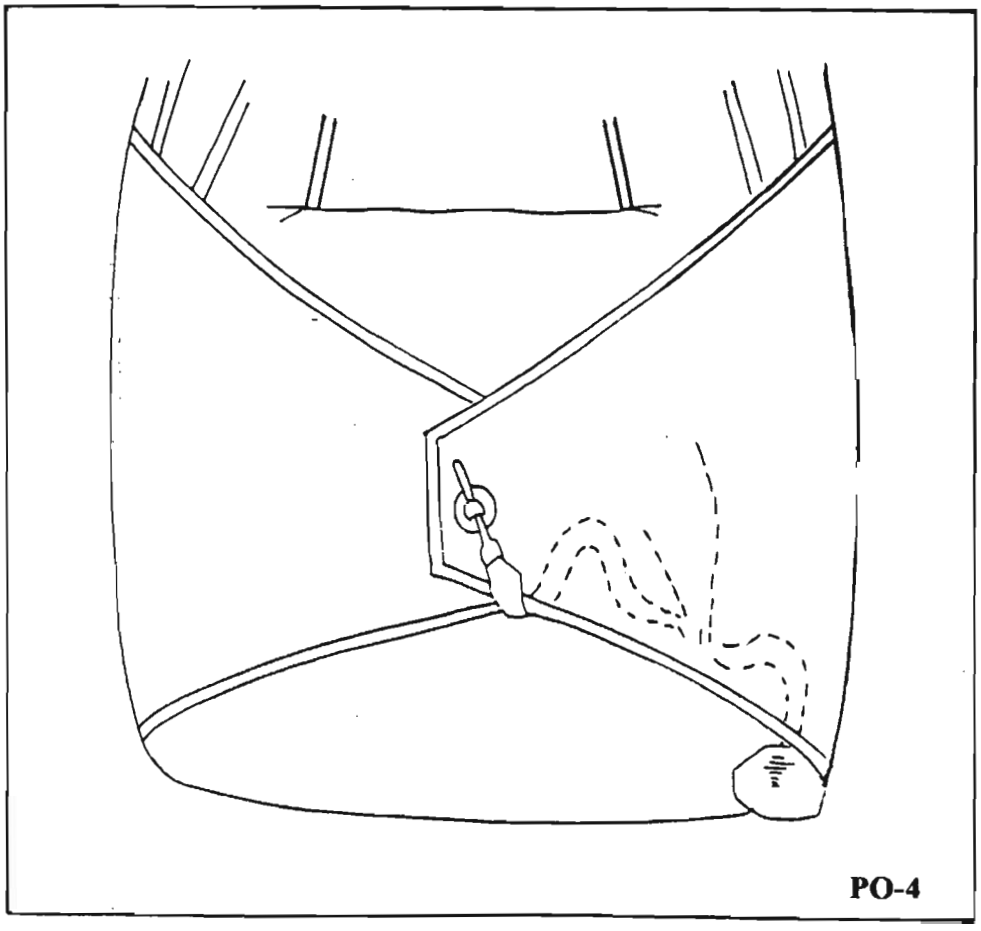

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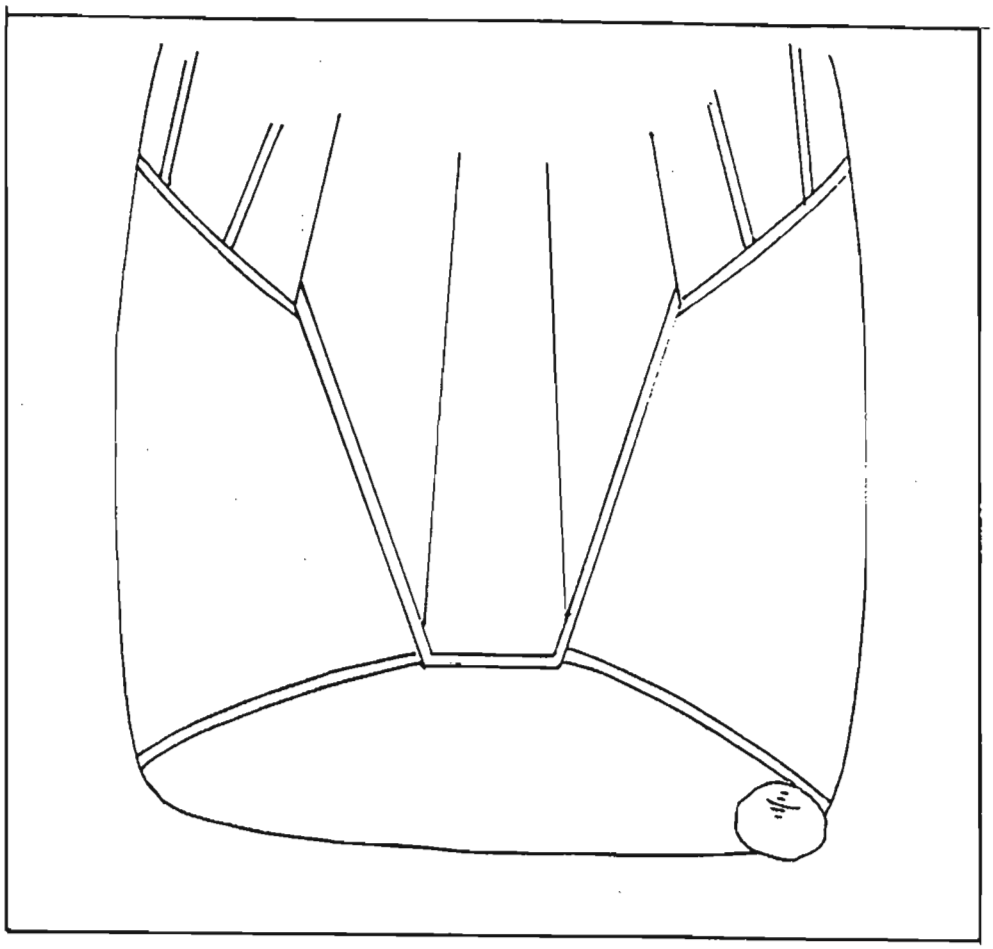


ASSEMBLING THE RESERVE CONTAINER

This document is to be used as a guide for packing reserve parachutes into the ***INFINITY*** reserve container.

A certificated FAA senior or master rigger, is required to pack any reserve or emergency parachute that will be carried in the United States.

Due to the great variety of parachutes available for use as reserves, no instructions for inspection or assembly are contained in this document. THE RIGGER MUST FOLLOW THE CANOPY MANUFACTURER'S INSTRUCTIONS FOR THESE STEPS.

Before you start, record the pertinent data from the canopy. (Many reserves have been packed twice in the same day for want of a number and a date).

PARTS REQUIRED:

1. ***INFINITY*** Harness/Container System
2. INFINITY OWNERS MANUAL
3. Compatible Volume Reserve Canopy (See Chart)
4. Reserve Pilotchute **"LIL GRABBER"** or **"SKYHOOK"** (Provided)
5. Reserve Bridle or Free-bag (for Square) (Provided)
6. Canopy Packing Instructions
7. Rubber Bands (Round Reserve only)
8. Reserve Closing Loop (Provided)
9. Reserve Ripcord (Provided)
10. Lead Seal and Thread
11. Packing Data Card (Provided)

TOOLS REQUIRED: (Round or Square)

1. Needle and Tack Cord (Cotton No. 6)
2. Large Blade Screwdriver or 6" Adjustable Wrench
3. Shot Bags, Line Separator, Etc.
4. One (1) Pull Up Cord 72" long
5. One (1) Temporary Pin
6. Seal Press / Seals / Sealing thread
7. Scissors or Knife
8. Packing Paddle
9. Pilotchute threading tool

ADDITIONAL TOOLS REQUIRED: (SQUARE ONLY)

1. Molar Strap (optional)
2. CYPRES pull-up cord and temp pin (if a CYPRES is installed).

PACKING INSTRUCTIONS: ROUND RESERVE

ASSEMBLY:

1. This container system requires a **FULL STOW DIAPER** system on a round reserve.

2. Attach compatible canopy to reserve risers (2 or 4) with both canopy and container/harness system face down on table. Use the front set of risers for single link set up.

3. If two (2) "L" links are used, the riser end must be tacked to eliminate the links from rotating. French links are recommended.

4. Using the bridle provided, tie and tack the reserve pilot- chute to the apex of canopy in the accepted fashion. **NOTE:** A 6 ft. length of 1in. Type IV tape (1in. square weave) should be used. A "**Lil Grabber** or **SKYHOOK** RESERVE PILOTCHUTE IS REQUIRED.

START HERE FOR REPACK:

5. After line continuity has been established, tighten all connector links. Inspect the pilotchute, bridle, apex, canopy, skirt, lines, toggles, and harness/container system for integrity.

6. Tack steering toggles, if applicable.

7. Flake, fold and diaper canopy according to canopy manufacturer's instructions.

8. Leave a minimum of excess line between the diaper and the risers. (12-15 inches)

9. Be sure closing loop is in place and install the pull up cord in closing loop. (See chart on page 6 for proper loop length)

10. Turn the harness/container system 90 degrees clockwise on table. Install the diaper in lower left (or right) corner of container.

11. Completely fill corner opposite diaper with canopy material.

12. Return one fold to the diaper and place it directly on top of diaper (some types of diapers will require a partial fold to maintain symmetry). Fill corner again. There will now be three (3) layers of folded canopy material stacked in the lower portion of the container. **Note:** On some full stow diapered reserves, an extra fold in corner opposite diaper may be required to give a uniform stack of material.

13. "S"-fold the remainder of canopy into container, bottom to top. Pull the pull up cord through at the most convenient time during this procedure. You want approximately $^{2}/_{3}^{rds}$ of the bulk below the loop.

14. Close kicker plate flap (inside bottom). Install the temporary pin.

15. Thread the 72" pull-up cord through the grommet in the bottom of reserve pilotchute and then out the top., using the pilotchute threading tool.

16a. **(SKYHOOK ONLY)** Collapse the pilotchute while stuffing the pilotchute canopy fabric inside the coils. Place the arrow on the top of the pilotchute cap towards the top of the container. Secure with the temporary pin.

16b. **(LIL GRABBER)** Collapse the pilotchute in the normal manner. The pilotchute canopy material should end up under the collapsed pilotchute top. Secure with the temporary pin.

17. Close side flaps **(RIGHT FLAP FIRST)**.Reinstall the same temporary pin. If a CYPRES is installed, see the CYPRES section for additional information.

18. Dress upper corners (tuck in flap T-12).

19. Install bridle in lower portion of container on kicker plate flap (side to side).

20. Close inside top flap. Pull up closing loop and relocate the temporary pin.
NOTE: If RSL is to be used, place lanyard on ripcord cable now. (As shown)
21. Close bottom flap. Pull up closing loop and pin with ripcord. Insert ripcord pin into pocket on bottom flap.

22. **REMOVE TEMPORARY PIN.**

23. Sign the data card (previously filled out) and insert it in the pocket located behind the TSO tag on the inside of the outer top flap.

24. Redress corners if necessary. Install seal in normal manner and close the top cover flap, secure with tuck-in tabs.

25. ***COUNT YOUR TOOLS!!!***

See Figures 9-19

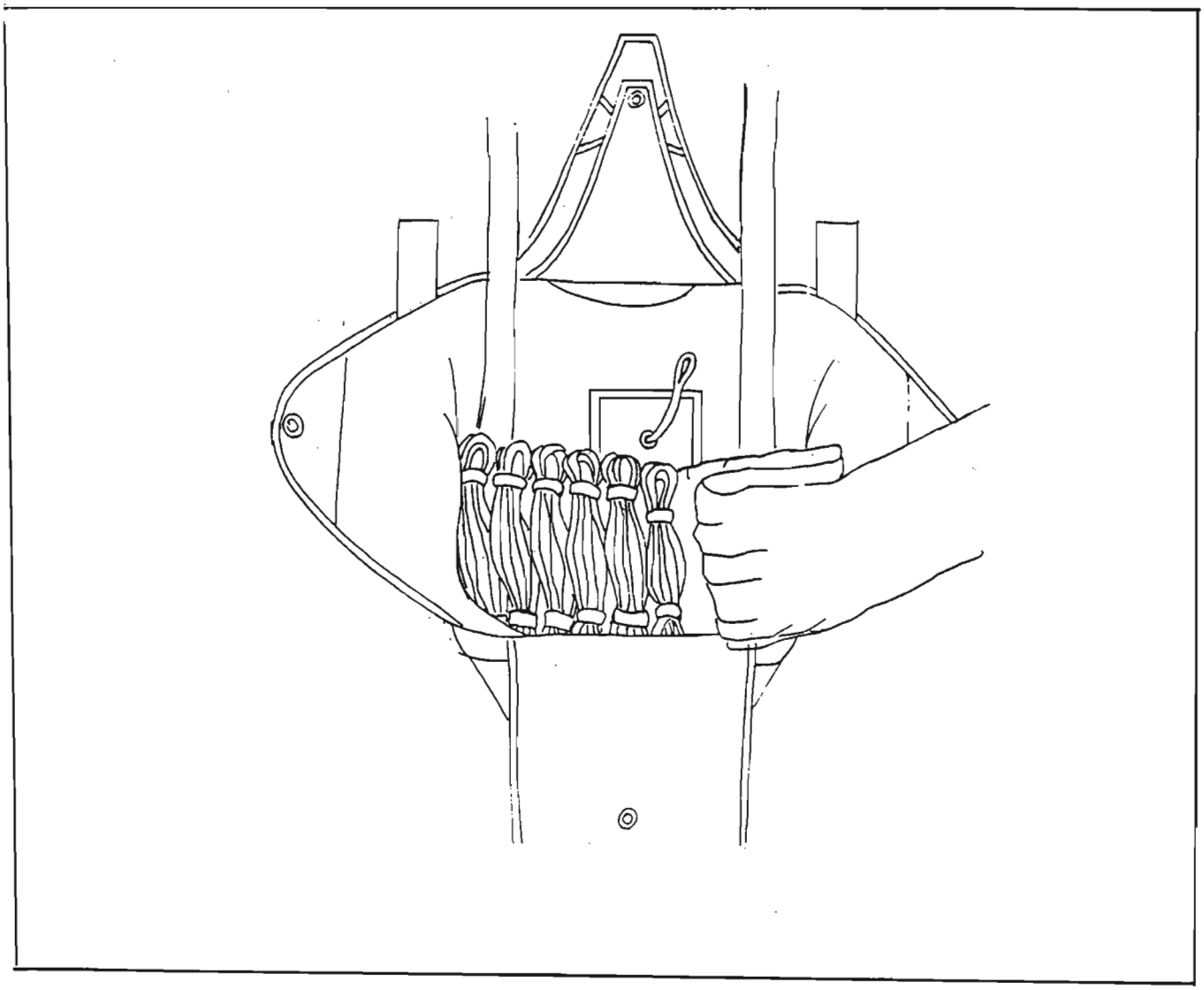


Fig. 9

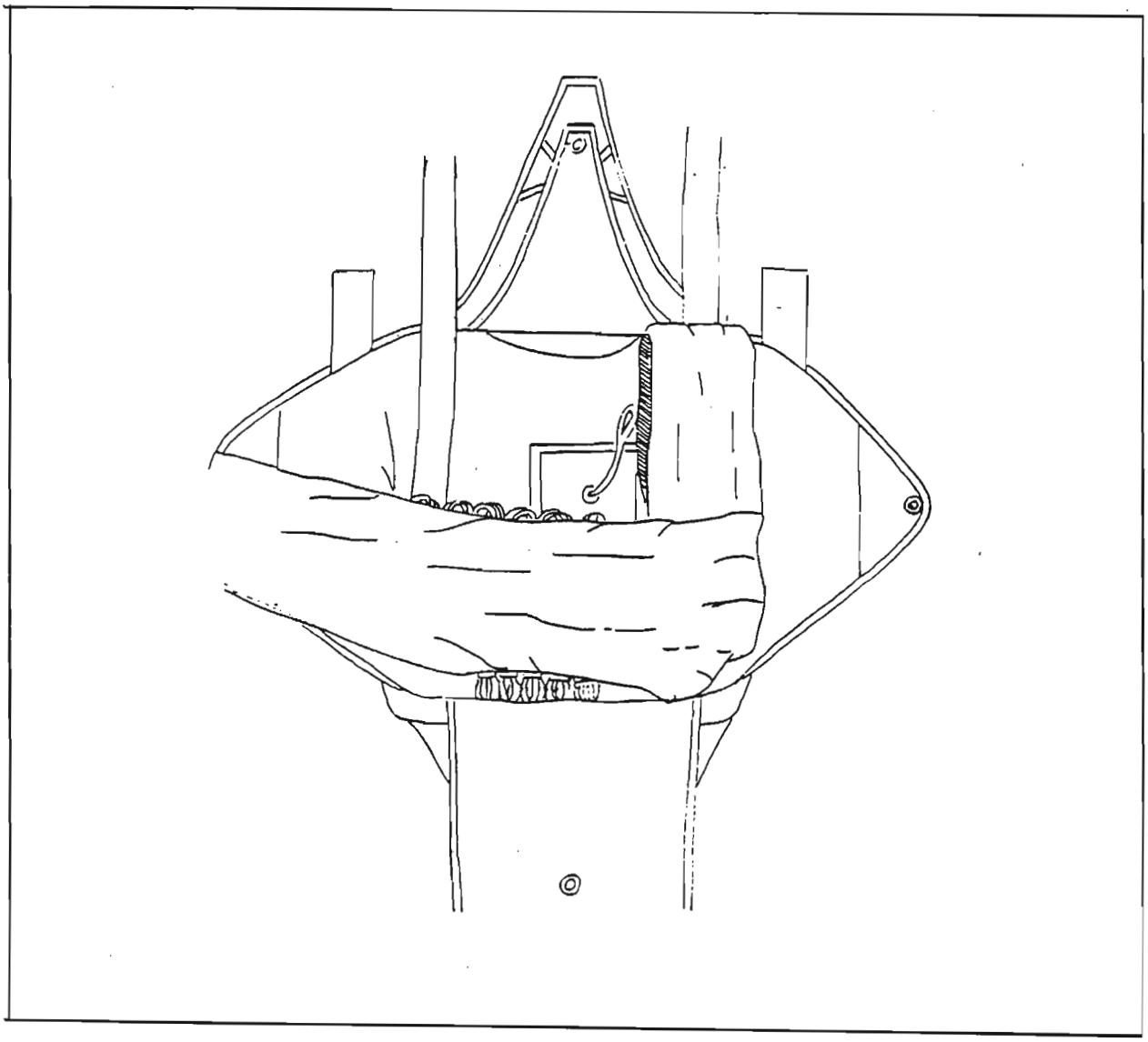


Fig. 10

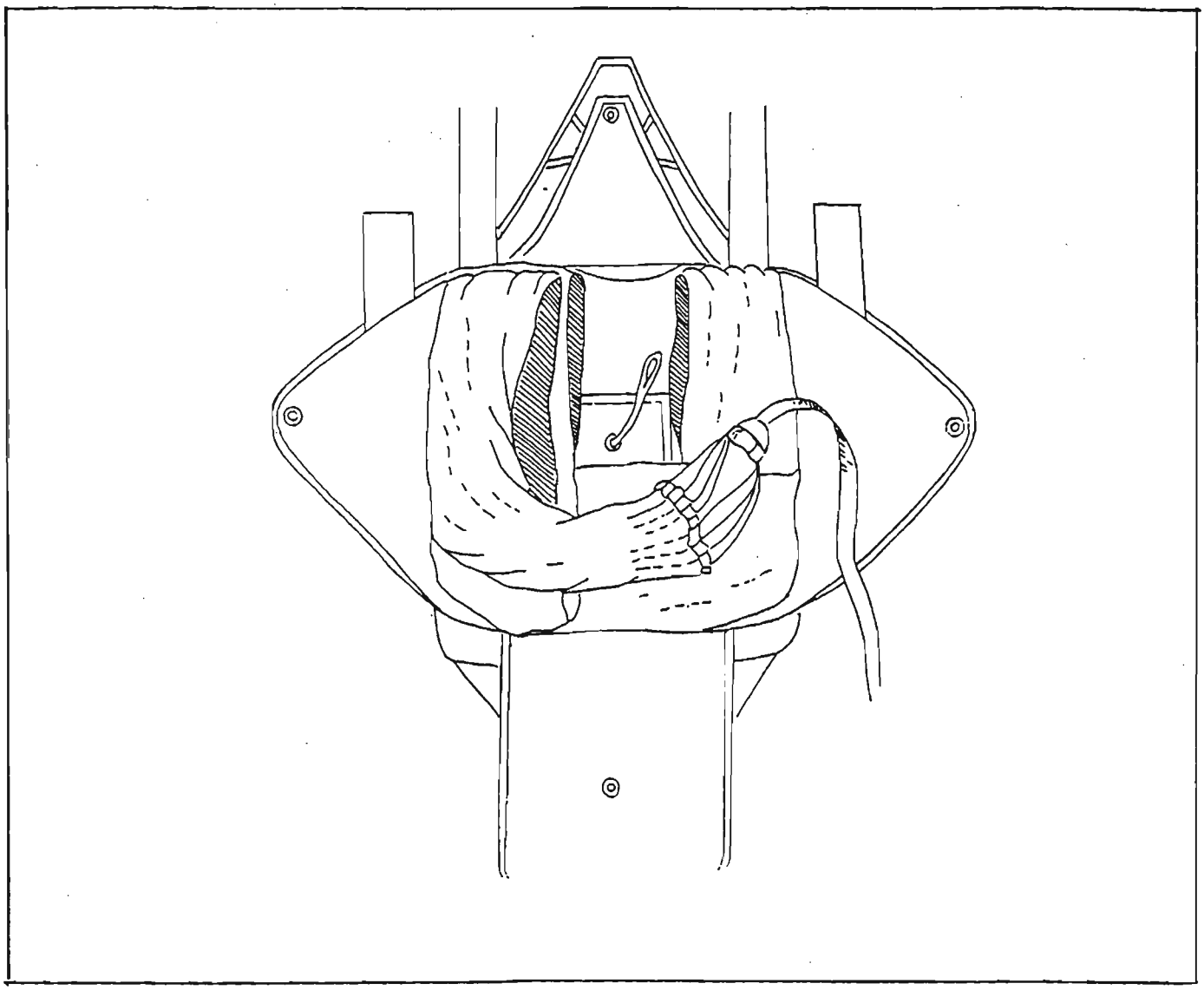


Fig. 11

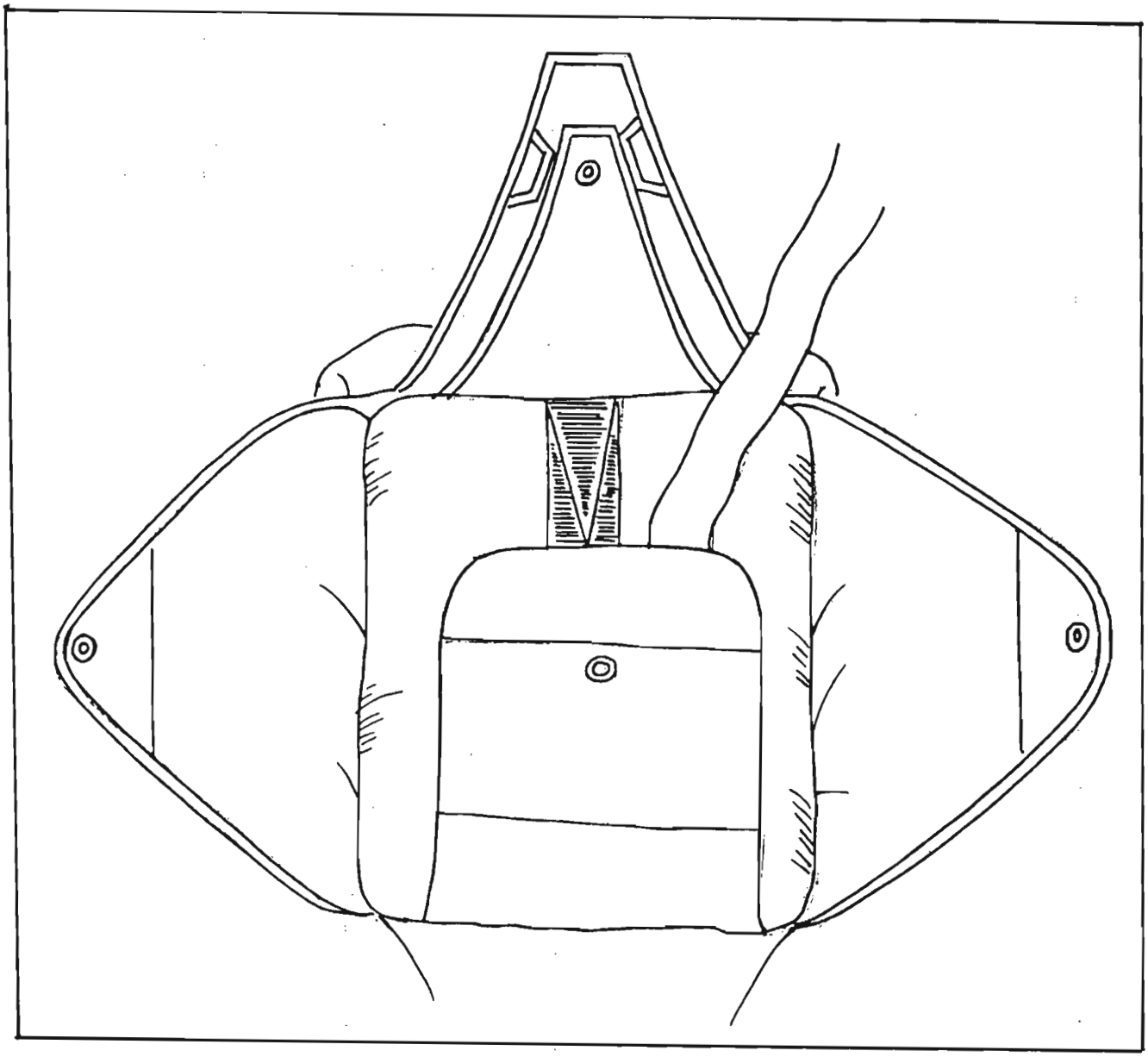


Fig. 12

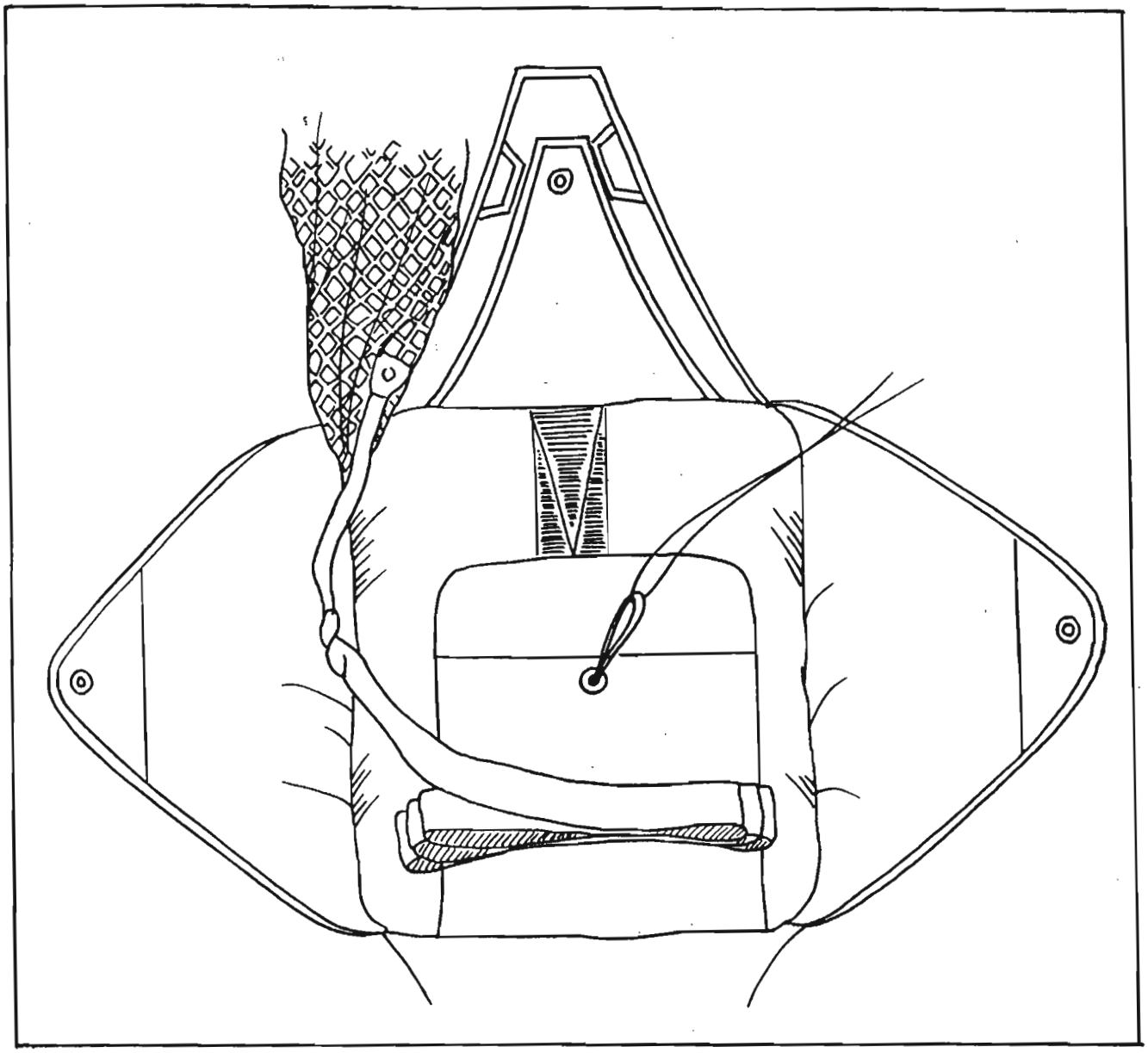


Fig. 13

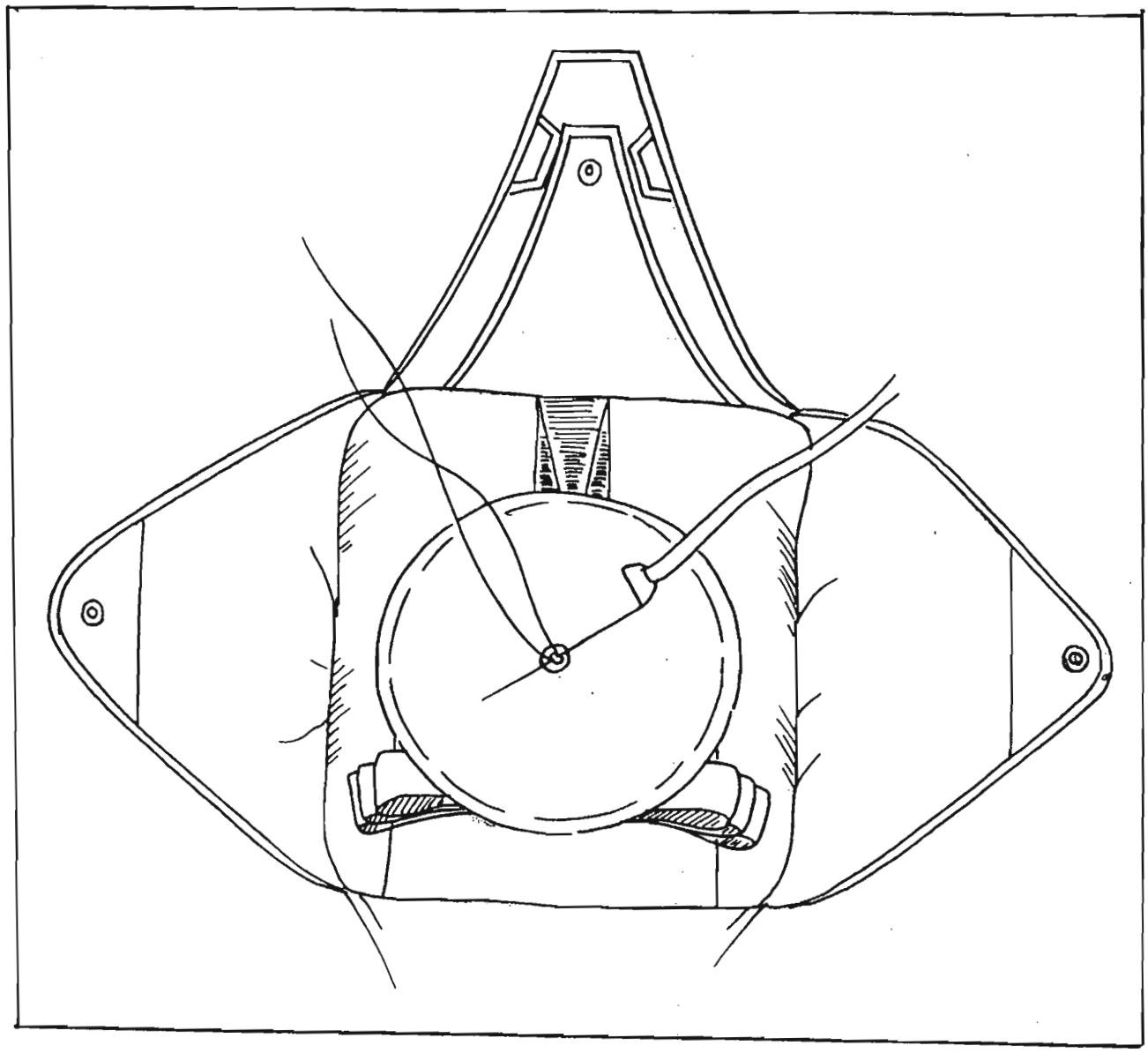
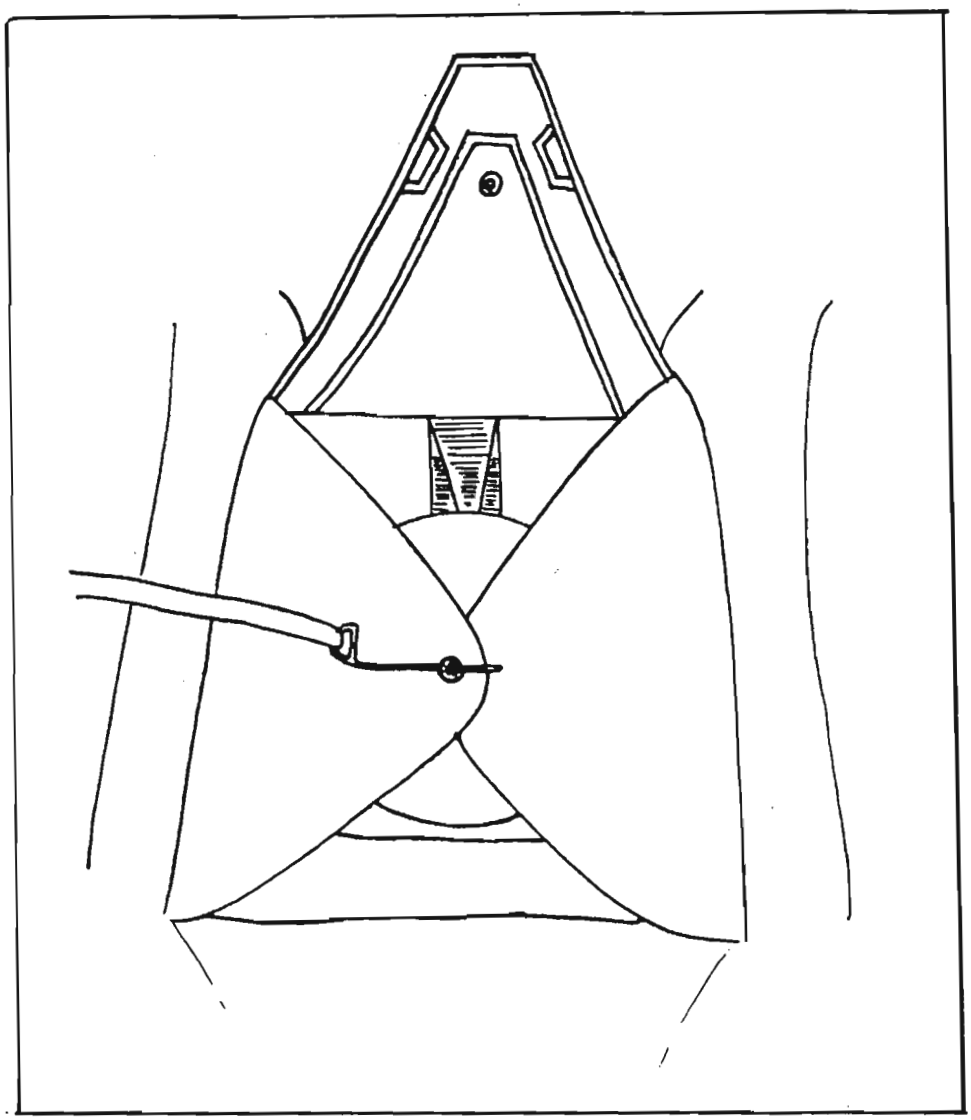


Fig. 14



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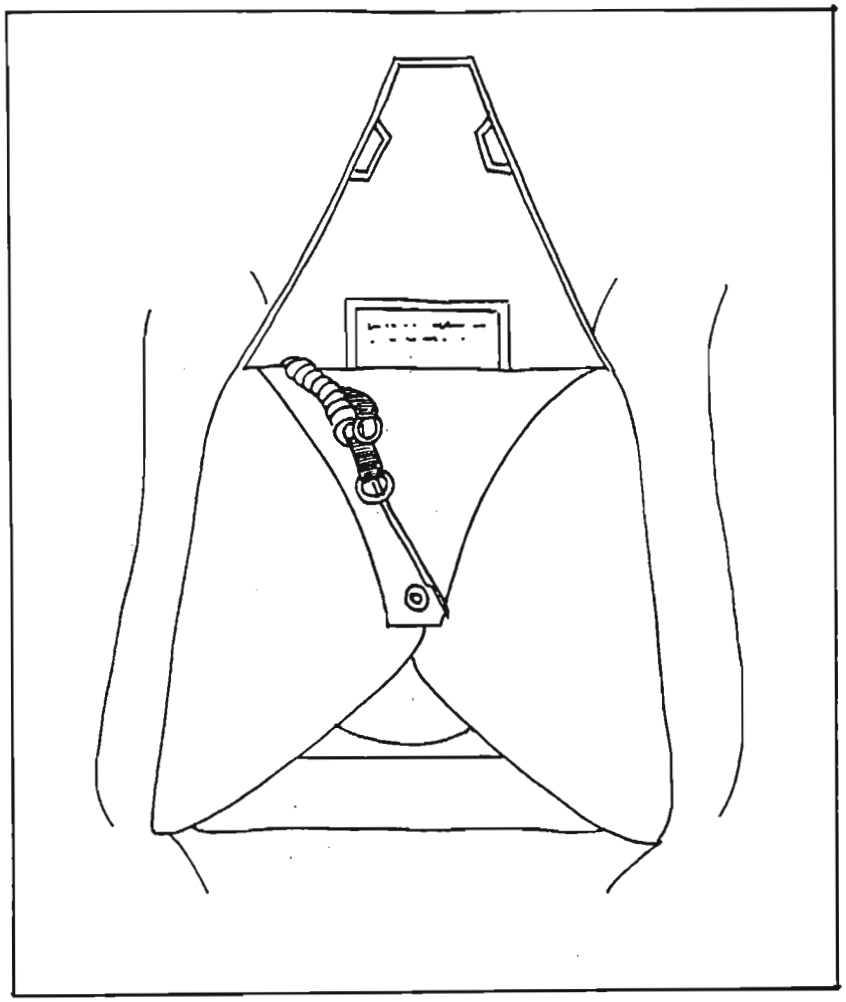

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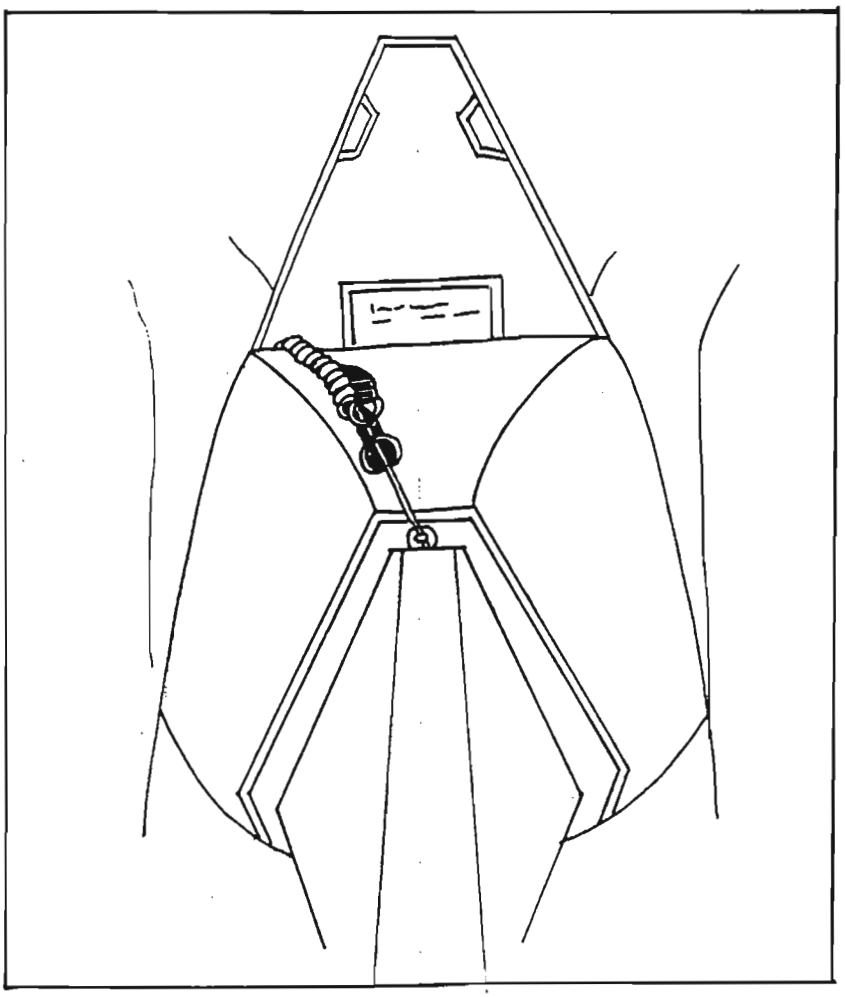


Fig. 17

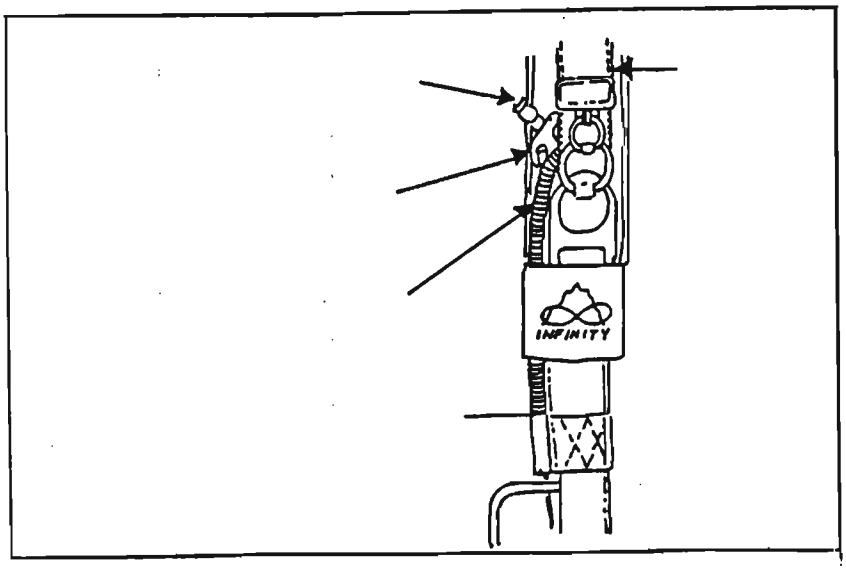


Fig. 18

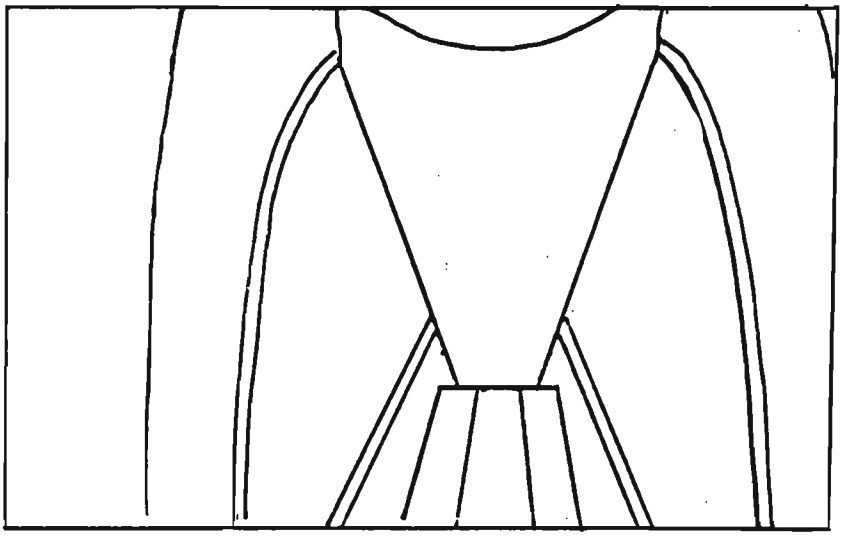


Fig. 19

PACKING INSTRUCTIONS SQUARE RESERVE

PREPARATION:

BEFORE PROCEEDING, BE SURE THE VOLUME OF THE RAM AIR CANOPY TO BE USED MATCHES THE VOLUME OF THE FREE-BAG AND RESERVE CONTAINER. FILL OUT THE PACKING DATA CARD WITH THE CANOPY SERIAL NUMBER, MANUFACTURER'S NAME, AND THE DATE OF MANUFACTURE. (Access to loop is at upper edge of the closing loop stiffener plate located in the center of the reserve container.) INSTALL THE 72" PULL-UP CORD IN THE END OF THE CLOSING LOOP.

PART I: FOLDING THE RESERVE CANOPY AND INSTALLING IN FREE BAG

1. Thoroughly inspect the pilotchute, bridle, D-bag, canopy, slider, lines, links, toggles, risers, locking loop, harness and container.

2. Follow the canopy manufacturer's instructions for attaching canopy to risers and steering lines to toggles. (The Northern Lite toggle system may be used with most canopies. Consult the canopy manufacturer's specific instructions for applicability.)

3. **Fold the reserve canopy according to the canopy manufacturer's instructions.** Distribute the canopy bulk evenly left and right will result in better looking pack job.

Once the canopy is folded:

4. (OPT.)Raise the center of the tail towards the top of the canopy and make a staking fold of the stabilizers and slider so that they are even with the trailing edge of the canopy. (We find this step is helpful on 170sq. ft and larger canopies.)

5. Return the center of the tail to its former position (covering the folded stabilizers and slider).

6. Fold the top of the canopy toward the container, exposing the nose. At this point split the nose evenly leaving the center cell in the center.

7. Fold the canopy back toward the top (away from the container) making another fold on top of the tail.

NOTE: WE WANT TO HAVE APPROXIMATELY $^{2}/_{3}^{rds}$ OF THE CANOPY BELOW THE GROMMET IN THE BAG.

8. Kneeling on the trailing edge and facing the top of the canopy, split the top of the canopy into two sections -- much like the shape of a molar tooth. (YOU WILL NOW SEE THE METHOD BEHIND OUR MADNESS. IT IS VERY EASY TO SPLIT THE TOP OF THE CANOPY IF YOU FOLLOW THESE INSTRUCTIONS PROPERLY. Install "MOLAR STRAP"(if used) around center of canopy.

9. Dress the two sections neatly and evenly.
THE MOLAR "EARS" SHOULD BE APPROXIMATELY 8-12 INCHES LONG.

10. Dress the canopy to a width about 4" wider than the bag.

11. Carefully slide the bag over the canopy, filling the upper portions of the bag with the two split sections of the top of the canopy.

12. Stack fold the remainder of the canopy into the lower portion of the bag. **DO NOT FORCE THE CANOPY TOO FAR INTO THE BAG.**

13. ***REMOVE "MOLAR STRAP" NOW!!!***

14. Close the locking flap with two short bites (2") of the suspension line in the elastic safety stow.

15. Roll the bottom of the bag up towards the container until the line stow pouch is facing upward. Install line protectors on the hook velcro.

16. Open the pouch on the bottom side of the bag and stow the remainder of the suspension lines in the pouch, leaving about 8" of line unstowed. Remove line protectors. Mate the nylon hook and pile to close the line pouch.

PART II: INSTALLING INTO CONTAINER AND CLOSING

17. Lay the D-bag into the container with the bridle going out to the top. Now raise the top of the D-bag. Pull the secured ends of the 72" pull-up cord up through the "0" grommet in the center of the bag. Completely fill the lower corners of the container. Pull the closing loop up through the bag and secure with the temporary pin. The end of the loop should be approximately even with level of the bag.

18 Feed the pull-up cord through the grommet on the kicker plate flap . Pull the closing loop through the grommet and secure with the temporary pin. **NOTE: AT THIS TIME MAKE SURE THE CORNERS OF THE RESERVE CONTAINER ARE FULL!**

19. "S" fold the bridle (side to side) across the kicker plate flap. Make these folds slightly wider than the kicker plate flap.

20. Thread the pull-up cord through the grommet in the bottom of the reserve pilotchute and the out the top, using the pilotchute threading tool.

21a. **(SKYHOOK ONLY)**Collapse the pilotchute while stuffing the pilotchute canopy fabric inside the coils. Place the arrow on the top of the pilotchute cap towards the top of the container. Secure with the temporary pin.

21b. **(LIL GRABBER)** Collapse the pilotchute in the normal manner. The pilotchute canopy material should end up under the collapsed pilotchute top. Secure with the temporary pin.

22. Close side flaps (**THE RIGHT ONE FIRST)** and relocate the temporary pin. If a **CYPRES** consult the CYPRES section for additional information.

23. Dress the upper corners of the container. (Tuck in the Type-12 flaps).

24. Close inside top flap. Pull up the closing loop and relocate the temporary pin.

25. Close bottom flap. Pull up closing loop and secure with ripcord. INSERT THE RIPCORD PIN INTO POCKET ON BOTTOM FLAP.
26. At this time verify the tension on the reserve pin is within specifications and the appearance is acceptable.

REMOVE THE TEMPORARY PIN!!

27. Sign packing data card (previously filled out) and insert it in the pocket provided inside the outer top flap.

28. Redress corners if necessary. Install seal in normal manner and close the top cover flap. Secure with tuck-in tabs. Tuck the outer top flap into the lower reserve flap.

29. Fill in the warning label with the pertinent data.

30. RECHECK THIS PROCEDURE TO ASSURE THAT ALL STEPS WERE COMPLETED AND THEN **COUNT YOUR TOOLS** TO BE ABSOLUTELY SURE THAT THEY ARE ALL OUT OF THE CONTAINER!

SEE FIGURES 20-33

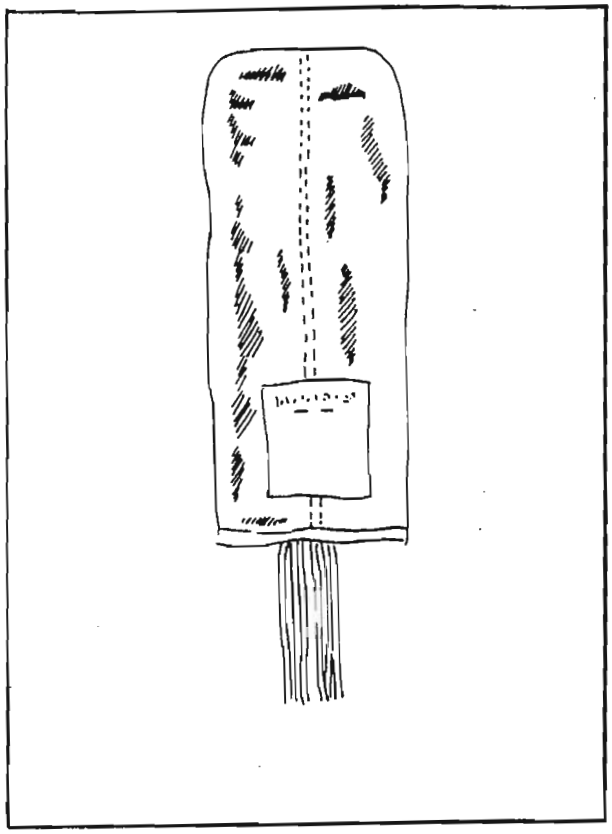


Fig. 20

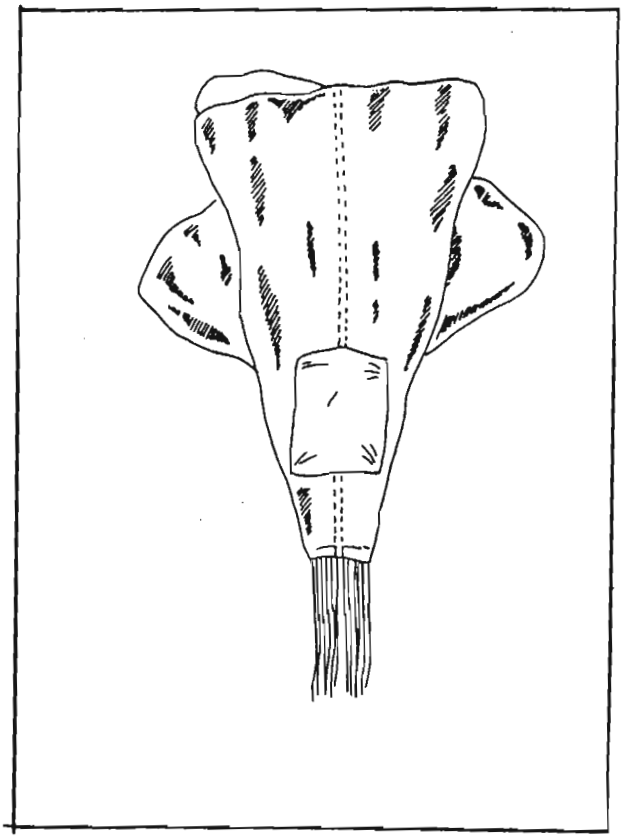


Fig. 21

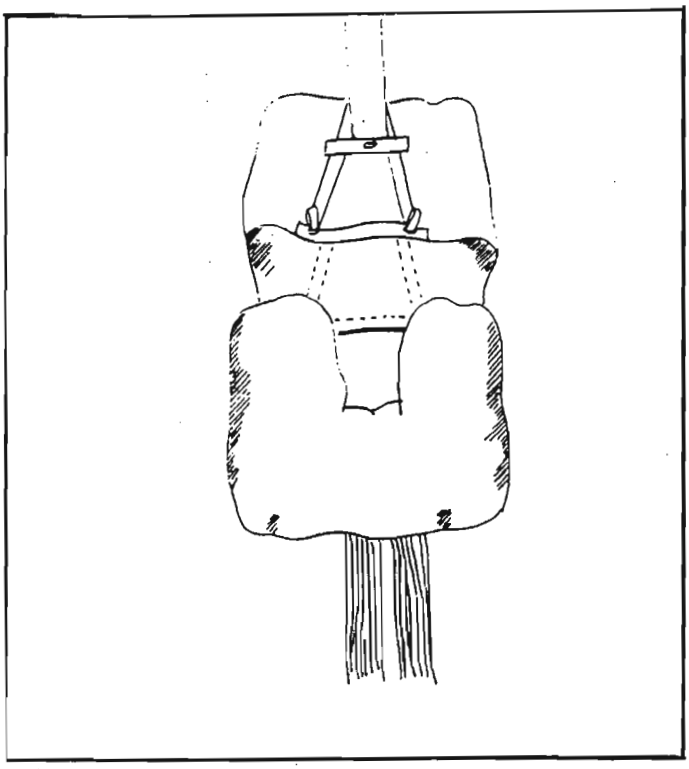


Fig. 22

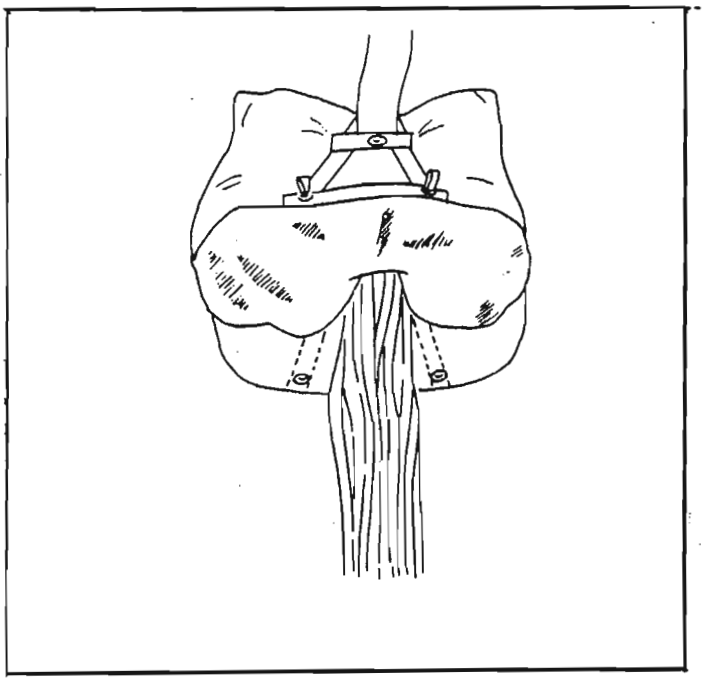


Fig. 23

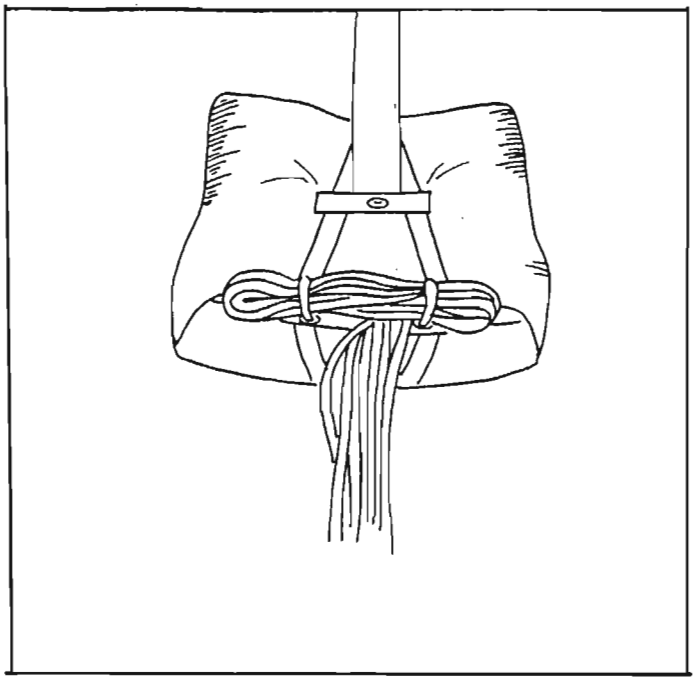


Fig. 24

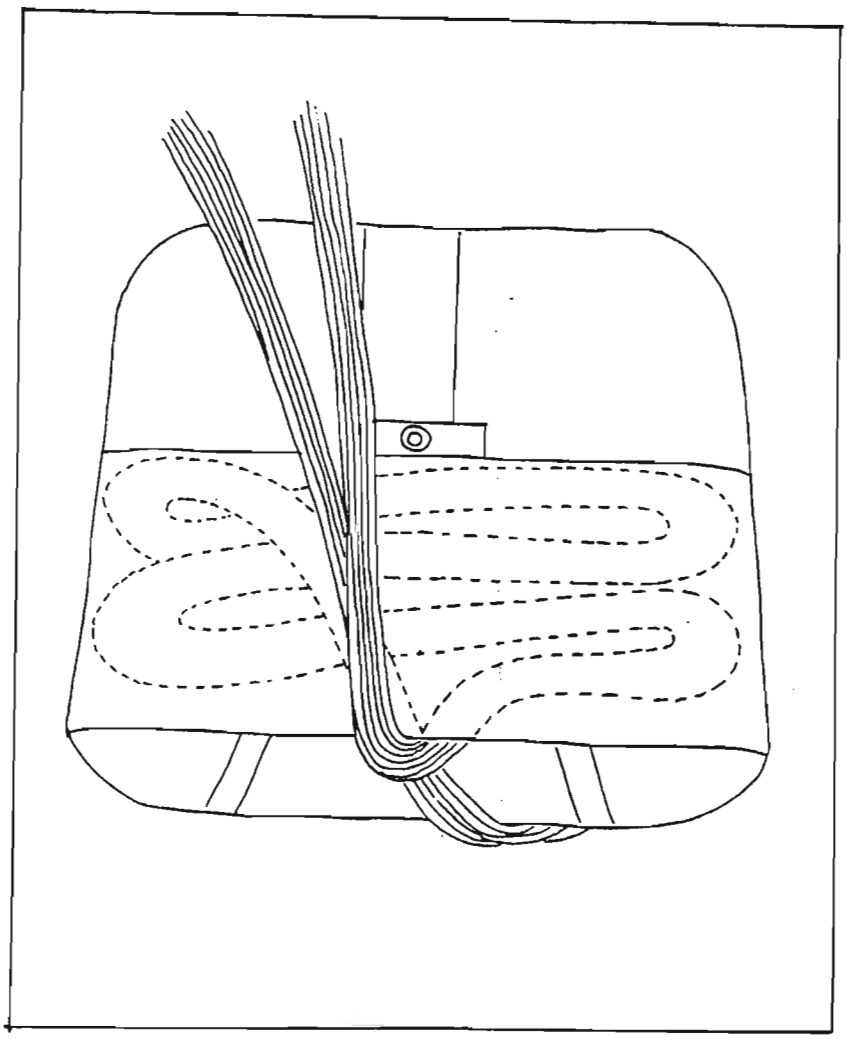


Fig. 25

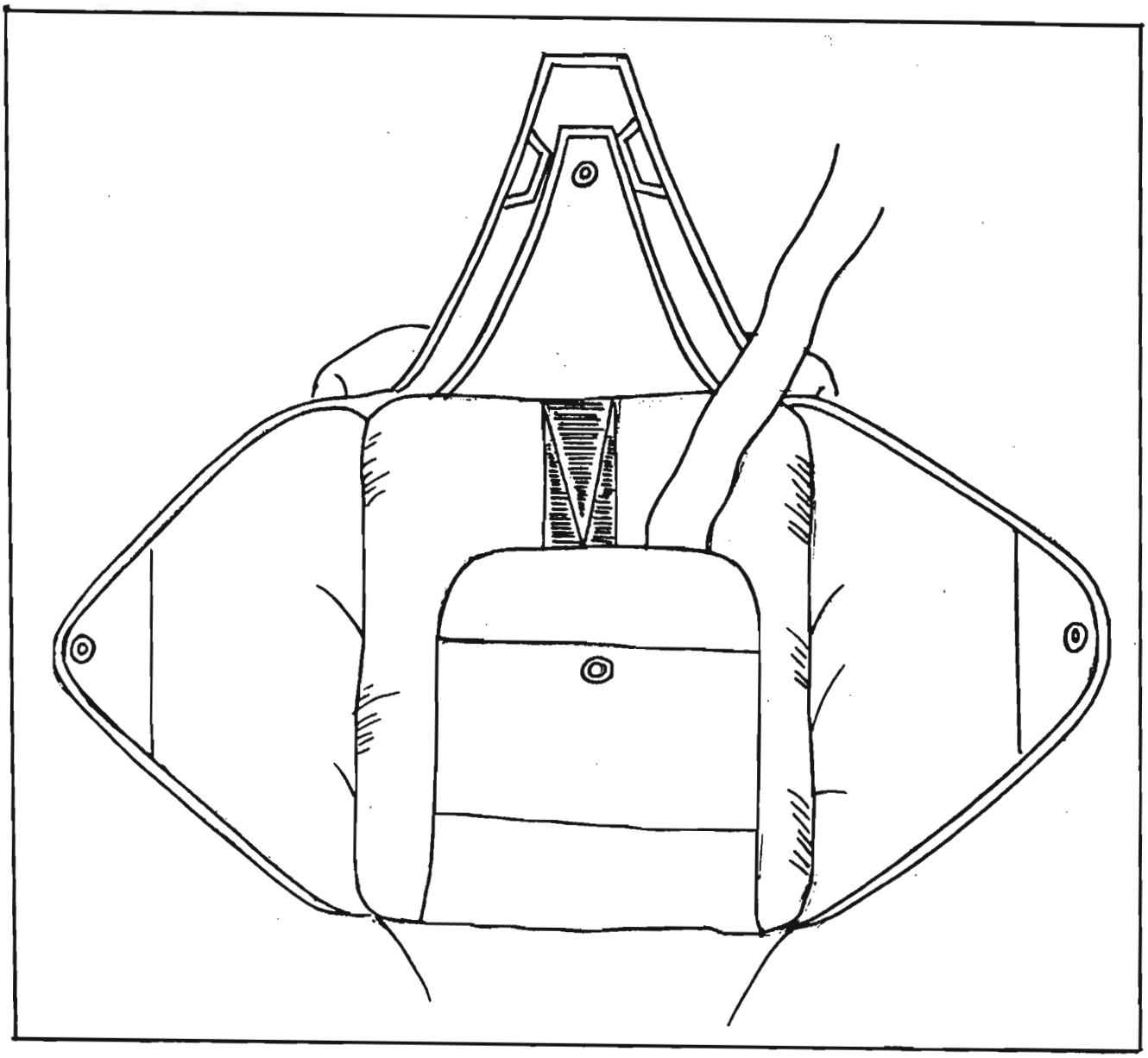


Fig.26

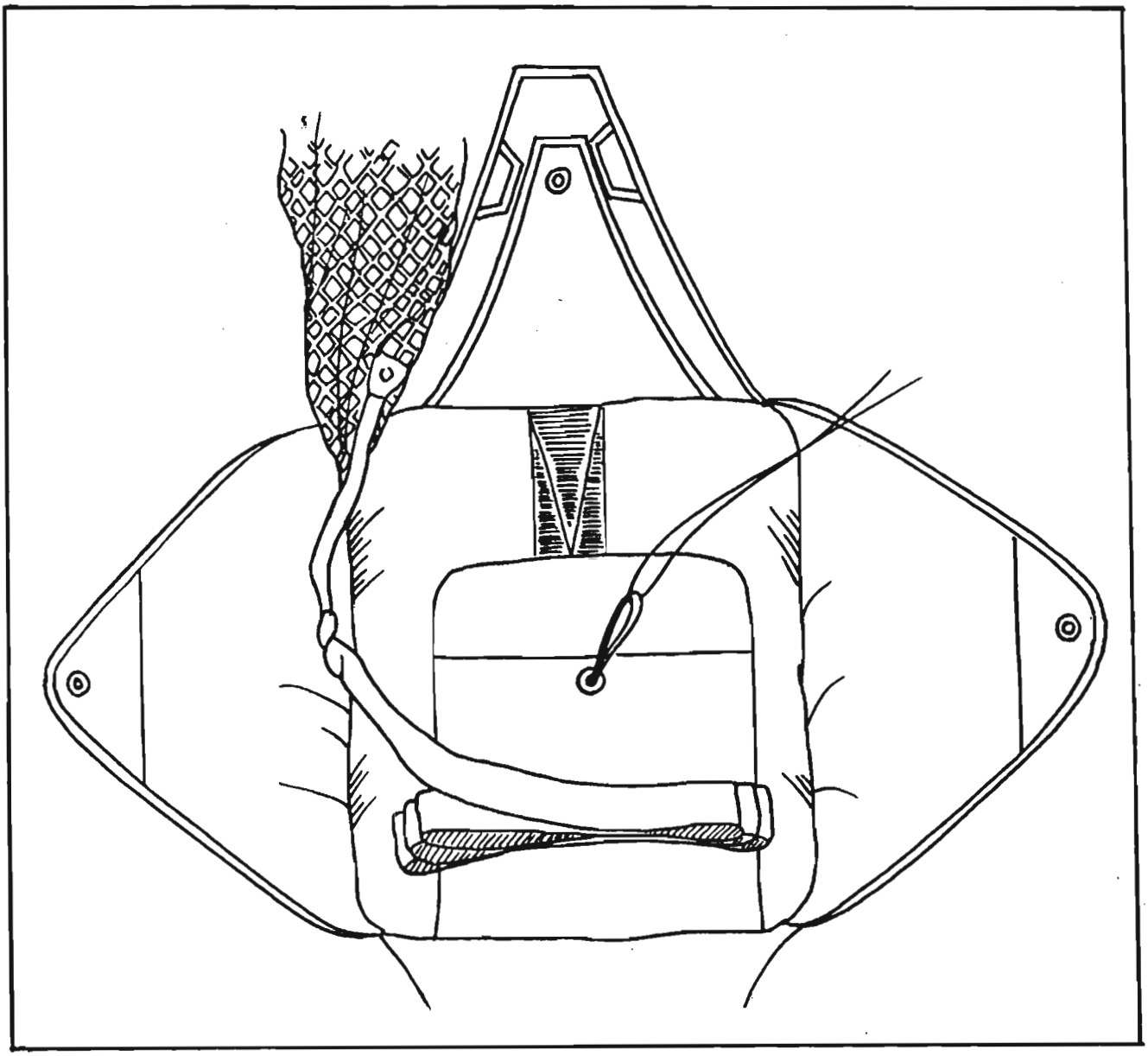


Fig.27

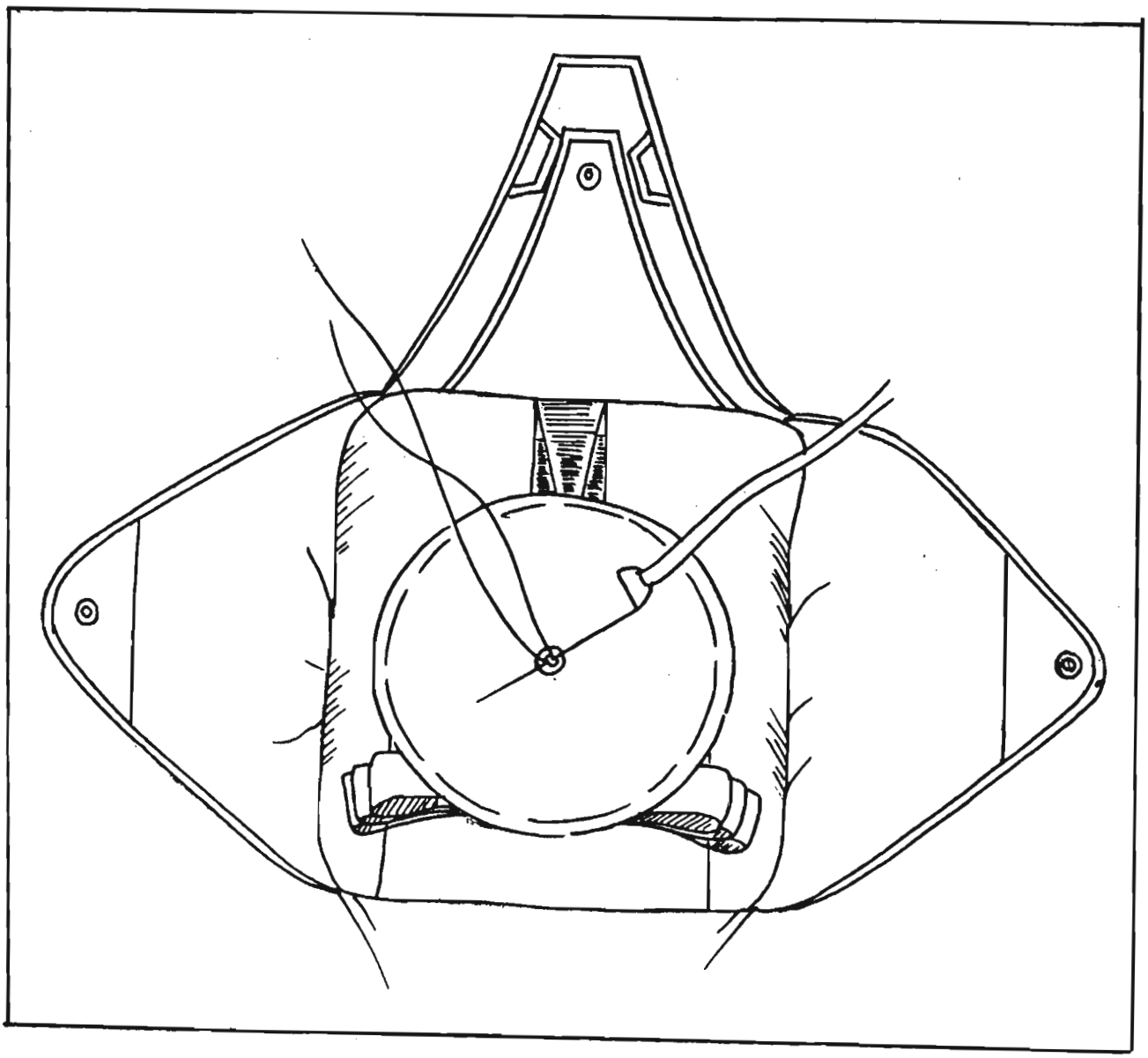


Fig.28

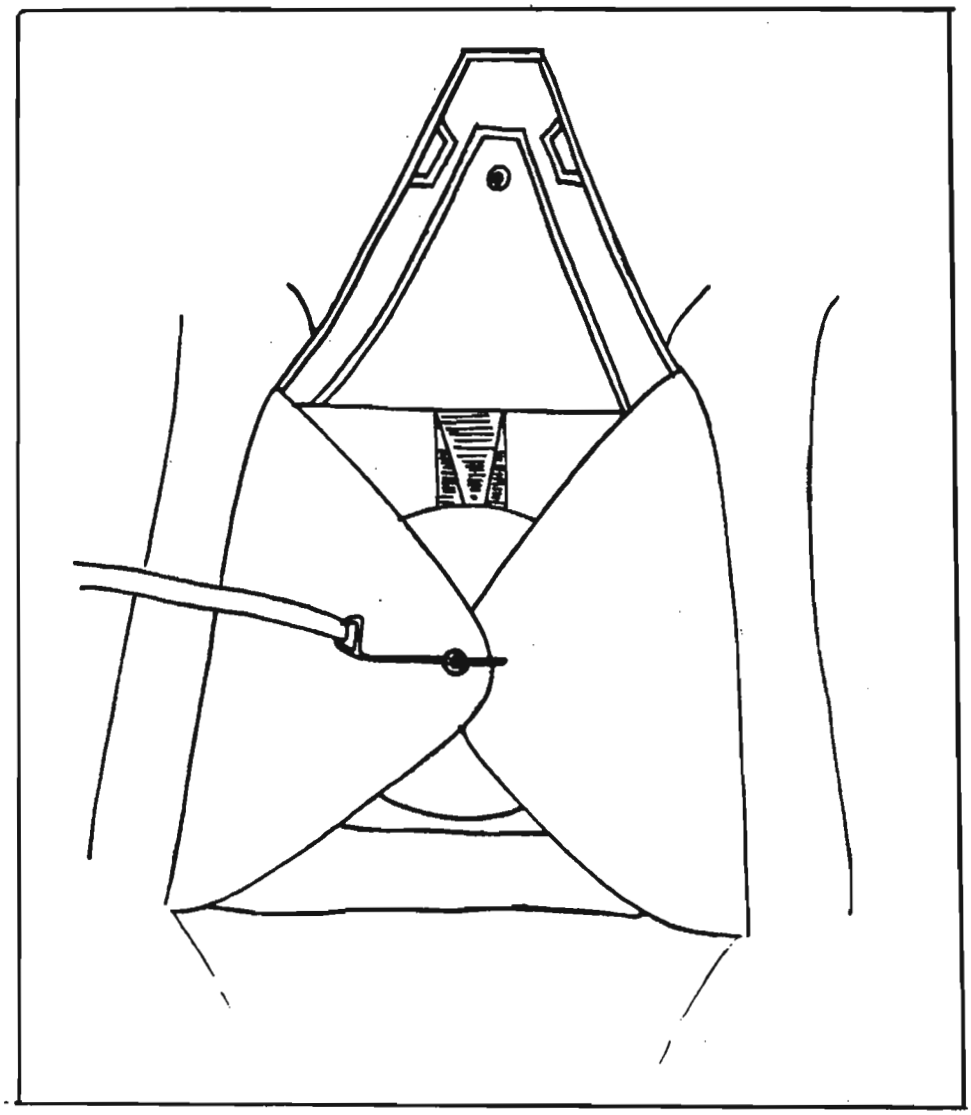


Fig.29

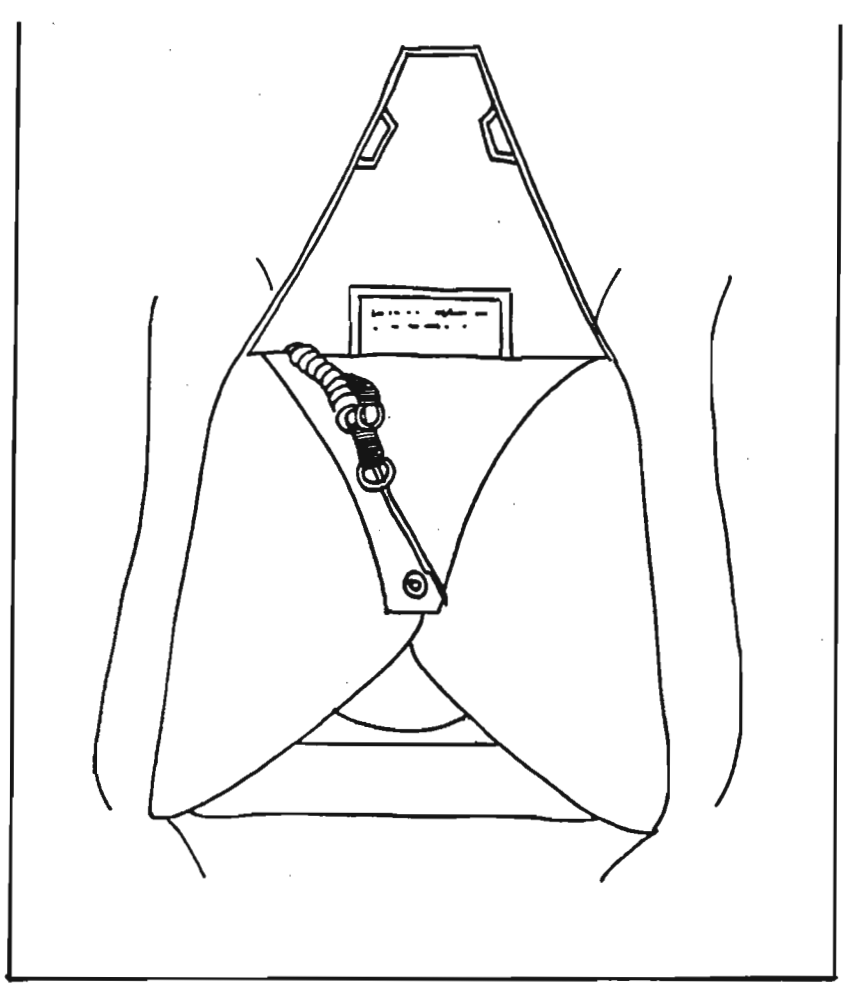


Fig.30

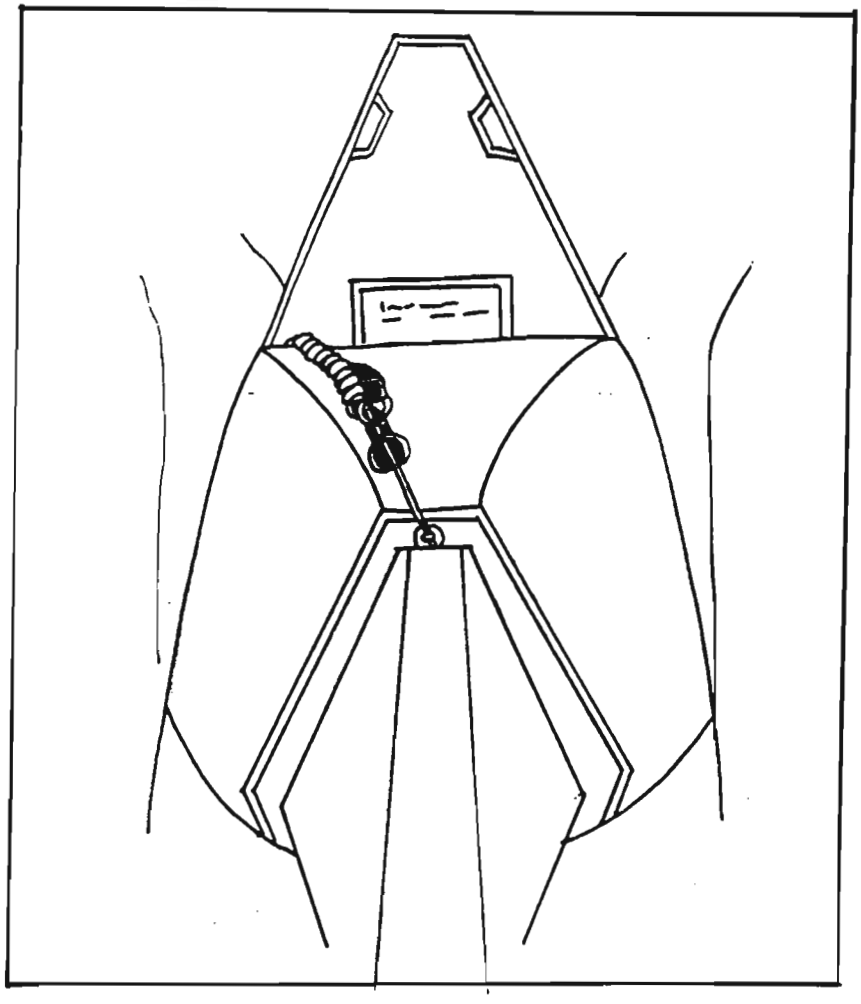


Fig.31

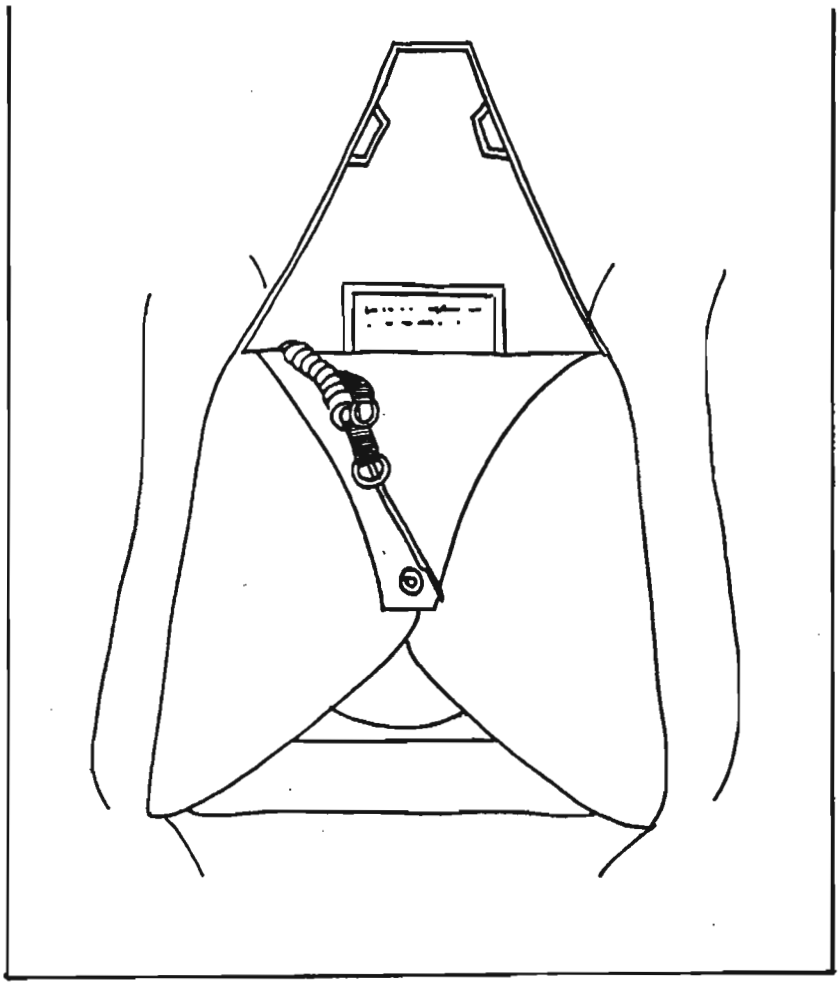


Fig.34

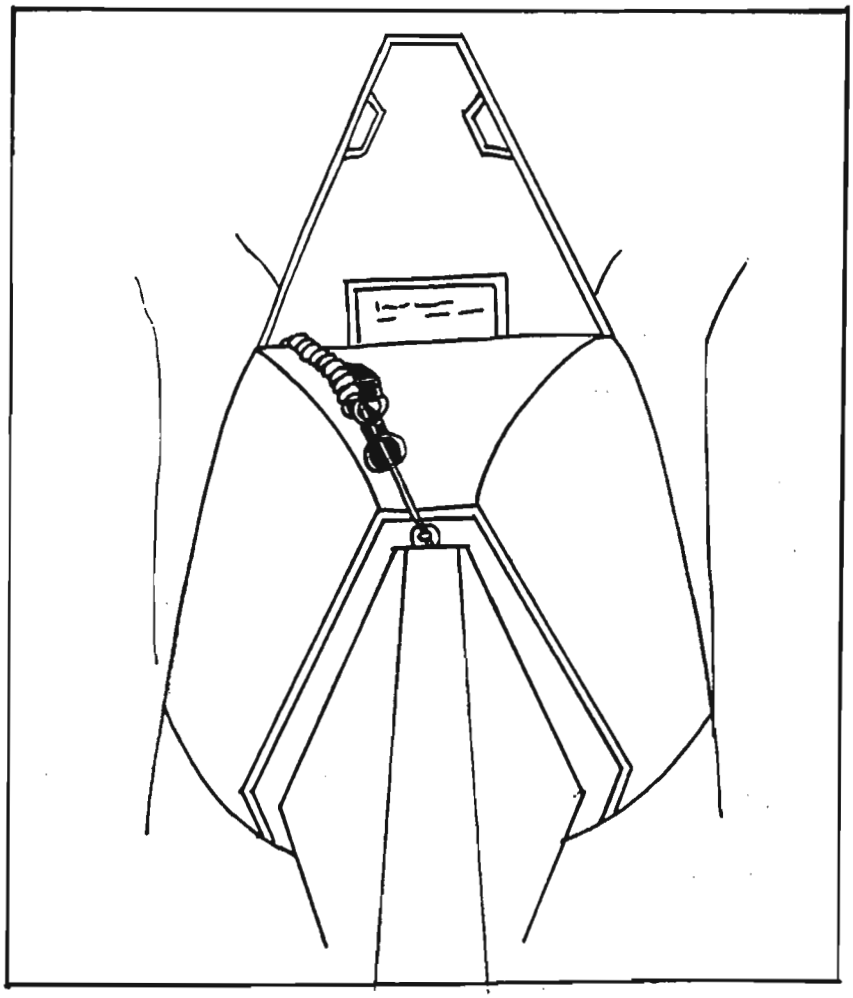


Fig.35

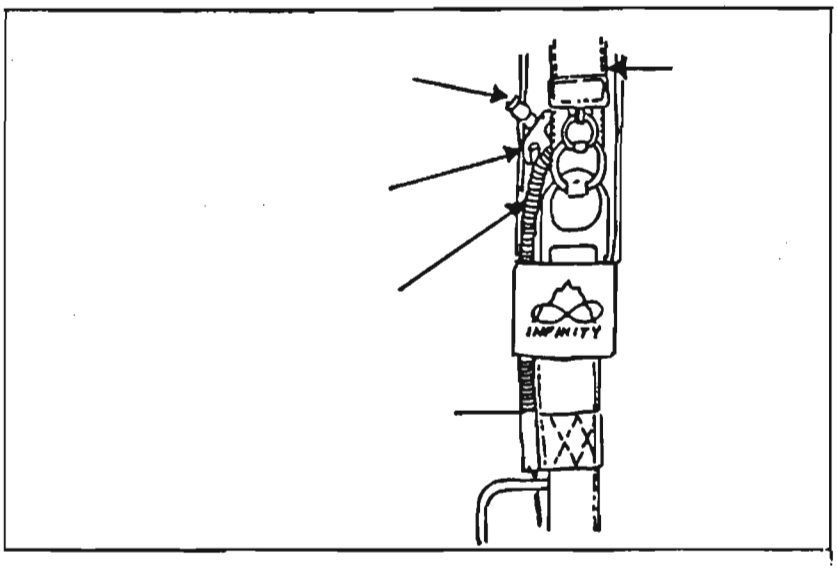


Fig.36

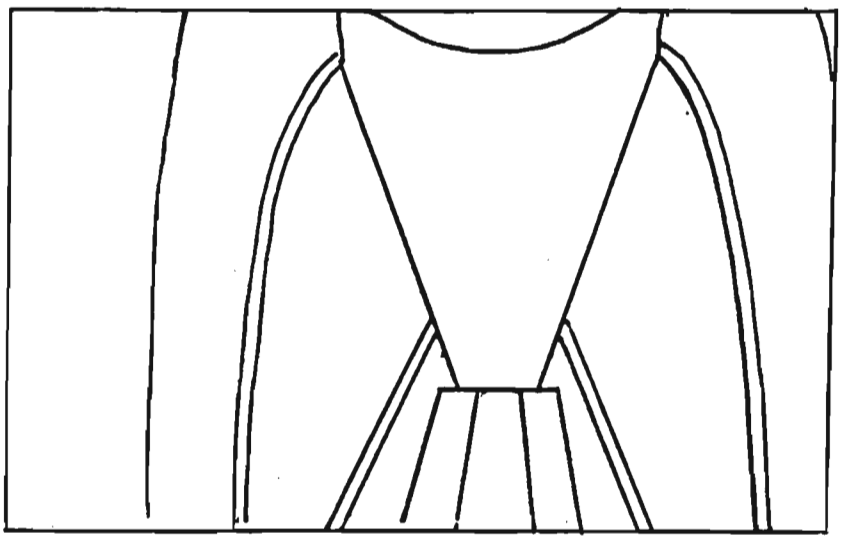


Fig.37

INFINITY Reserve Static Line

The INFINITY is delivered with a Reserve Static Line (RSL) as a standard feature. The attaching of the RSL is entirely optional, depending on personal preference. The RSL is a simple method of assuring the reserve ripcord will be pulled immediately after disengaging (via the 3-Ring release mechanism) from the main parachute. This action must be taken at an altitude sufficient for the proper functioning of the reserve parachute. T RSL is designed not to interfere with the manual activation of the reserve.

In cases where the immediate activation of the reserve is not desired the INFINITY RSL is equipped with quick release mechanism (snap shackle) allowing the user to disable the RSL prior to disengaging from the main. The snap shackle is located at lower end of the left side main riser, it is attached to the riser via a small ring on the riser. To disengage simply pull on the red tape attached to the snap shackle.

Remember, if the RSL is attached to the riser and you disengage from the main you will activate the reserve!

Ask an instructor or other knowledgeable parachutist for those situations where the use of an RSL may not be advised.

CAUTION

The RSL is a very dependable system, however it is only a backup. It should never be relied upon solely for the activation of the reserve. In the event of a cutaway situation, the jumper should make every attempt to pull the reserve handle as if there was no RSL present.

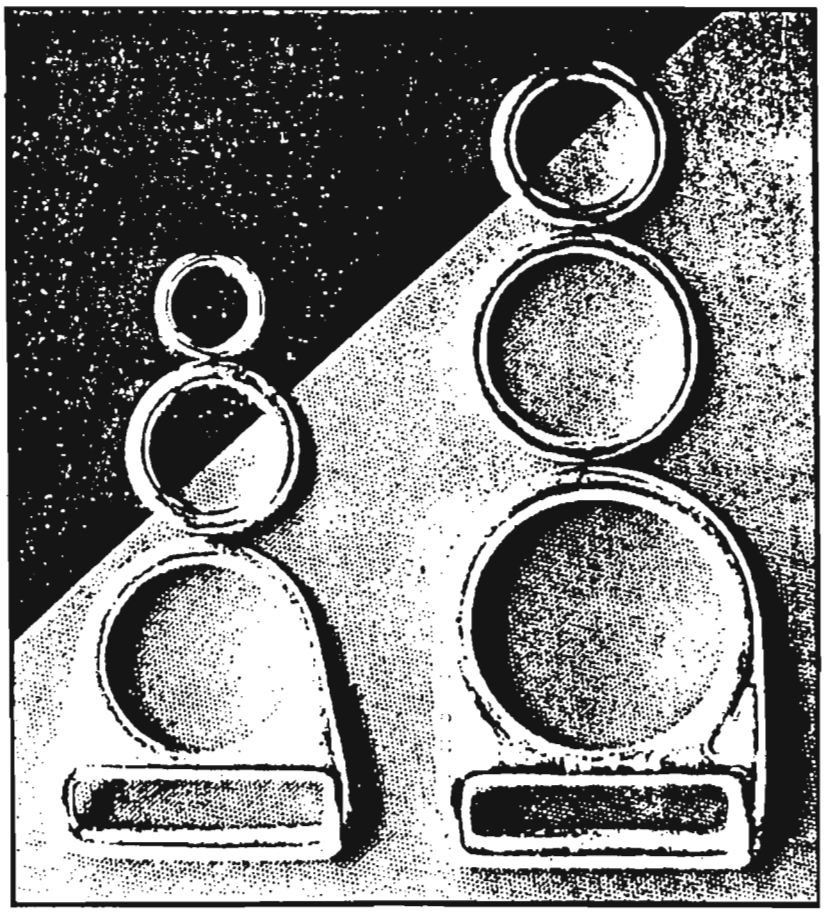
The INFINITY RSL **will not** operate in the event of a total malfunction of the main. (No main parachute out).

ASSEMBLING THE RSL

There are two small rings mounted on the reserve top flap near the end of the ripcord housing. Insert the reserve ripcord into the housing, after it exits the housing pass it through the ring nearest the housing. Pass the ripcord through ring on the end of RSL then through the second ring on the flap. Assure the RSL is not twisted between the ring and the velcro on the container.
After the reserve container is properly closed and sealed, mate the velcro and route the lanyard along the left shoulder of the container. After the main riser is attached to the harness connect the snap shackle to the main riser at the small ring on the rear inboard side of the riser...There should be sufficient slack in the RS to allow the main riser to move in all directions without applying any pressure on the reserve ripcord pin.

REFER TO FIGURES 34-37

The 3-Ring Release



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THE 3-RING RELEASE SYSTEM

Introduction

The 3-Ring Release System was invented by the Relative Workshop in 1976. It was the first practical release that allowed parachutists to jettison their main canopies in one motion by simply pulling a single handle.

Not only is the 3-Ring easier to operate than previous canopy release systems, it is also more reliable. Failures of a properly built and assembled 3-Ring system are virtually unknown.

Once the main is jettisoned, the only things left on the harness are two smooth rings that cannot snag a deploying reserve. Some other popular release systems can—and have—interfered with the deploying reserve.

MODIFYING THE 3-RING RELEASE

The great reliability of the 3-Ring system results from the proper functioning of every one of its individual components. Therefore, the owner should not modify the system in any way, nor should he replace genuine 3-Ring parts with others.

These modifications (among others) will cause the system to not work properly:

- Substituting risers that don't have Type 2 sheathing for the locking loop. Don't use risers that have loops made of Kevlar or solid cord.
- Not using a breakaway handle with cable with the special yellow coating. This Teflon-impregnated coating is important; other plastic coatings may cause the cables to bind in the housings or loops, making it difficult or impossible to jettison the risers.
- Using a breakaway handle with cables of the wrong length. The length of the cables is critical to insure each riser releases in the proper sequence. Replacement handles are available from the Relative Workshop.

The 3-Ring Release is now found on other rigs besides Vectors as the Relative Workshop has licensed its use to other manufacturers.

GETTING TO KNOW THE 3-RING

Knowing how the 3-Ring release works will help you assemble and inspect it properly.

Begin by peeling the release handle from the Velcro on the harness. Peeling, rather than pulling, makes it easier to separate the handle from the webbing.

Look behind the risers near the harness and observe the movement of the yellow cable as you pull the handle. When the cable clears the white loop, the release is disengaged.

Now slowly pull one of the risers off the harness. As you pull, you'll notice that the white loop gets pulled through the grommet by the action of the smallest ring.

Each ring forms a lever with a ten-to-one mechanical advantage as it passes through the other. A force of 1,000 lb. on the large harness ring exerts a force of only ten pounds on the white loop. (Opening shock usually totals about 1,000 lb., or 500 lb. on each riser.)

Because of the mechanical advantage provided by the 3-Ring design, only a force of approximately a pound on the top ring keeps the release together.

That's why it's important to keep foreign matter like bits of grass and sticks out of the 3-Ring assembly. A small stick in the white loop could prevent a riser from releasing.

It is also important to understand one of the properties of the nylon components of the system.

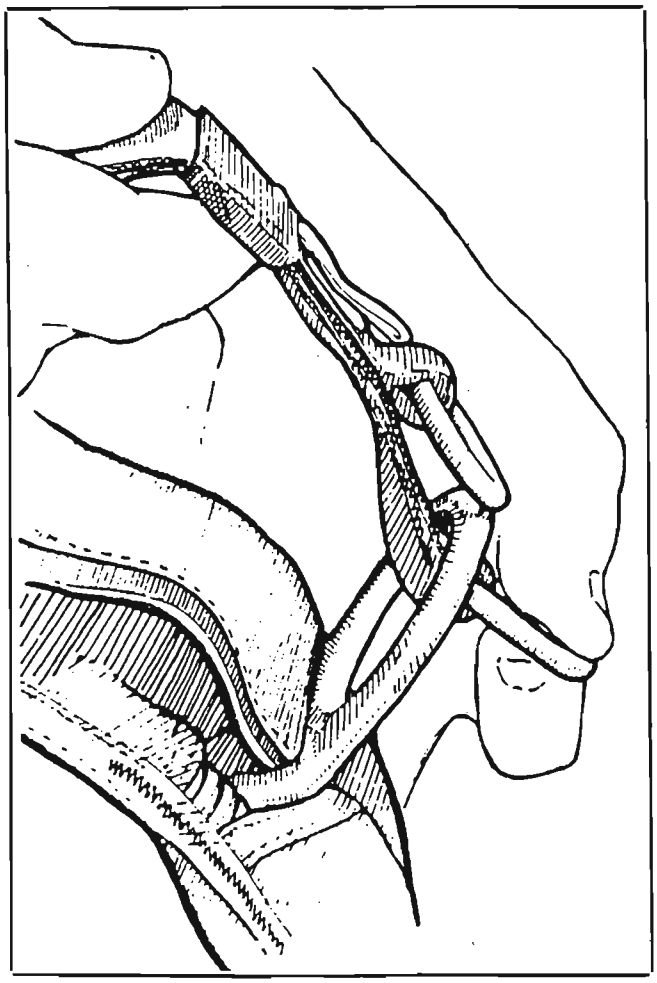
When nylon stays in the same position for a long time, it begins to conform to that position, or take a "set." If the 3-Ring release system stays assembled for too long, the nylon can become so stiff that the low drag from a malfunction (such as a streamer) won't pull the riser off the ring.

The 3-Ring release system must be disassembled, flexed and inspected every month. Procedures for this are listed in the care and maintenance chapter of the manual.

ASSEMBLY

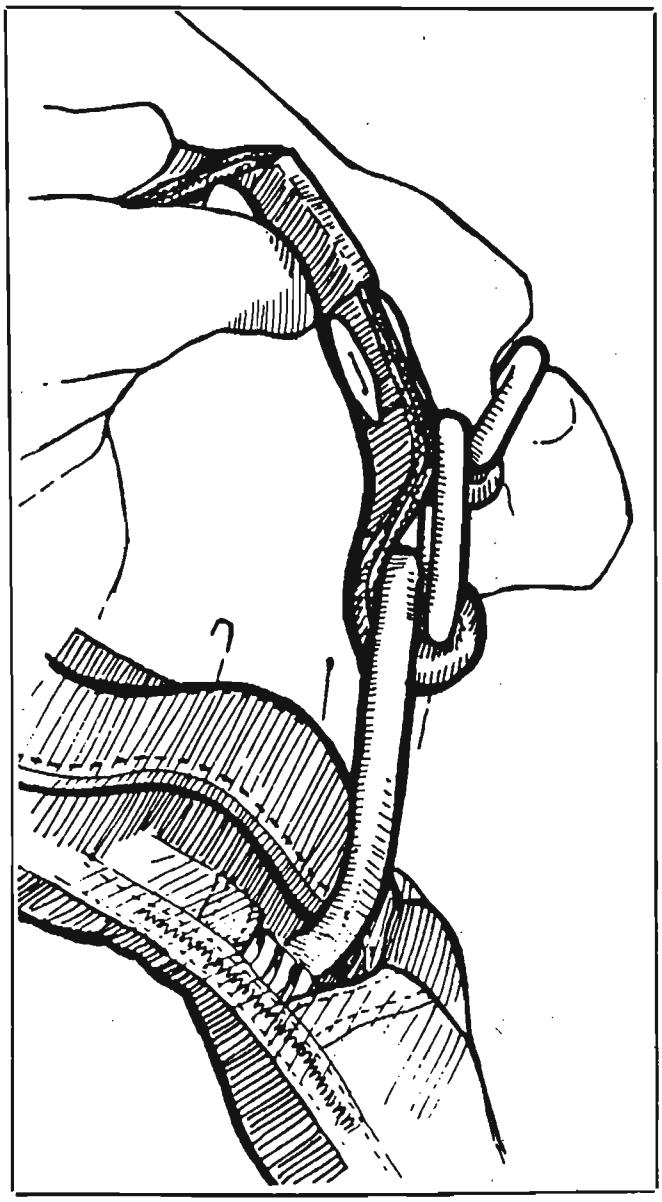
Before assembling the 3-Ring release, make sure the risers aren't twisted or reversed. Lay the **INFINITY** face down, as you would to pack it.

1) Thread the cable into its housing and stick the handle to the harness. The handle should be positioned as close to the ends of the housings as possible so that no cable is exposed.

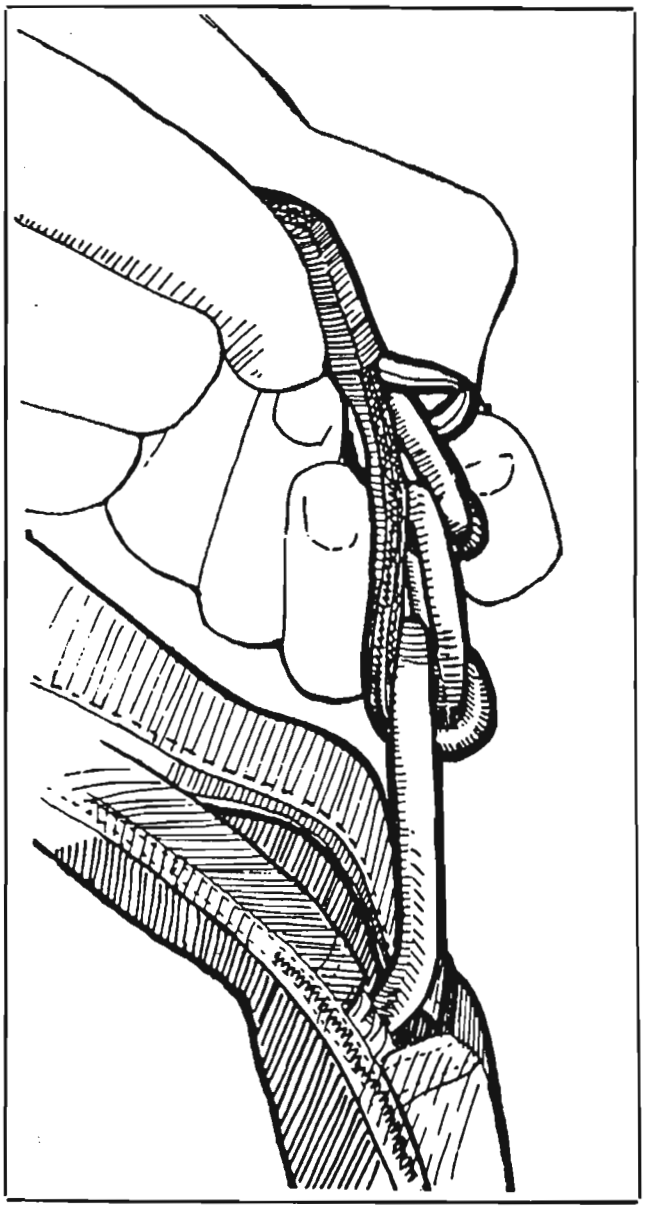


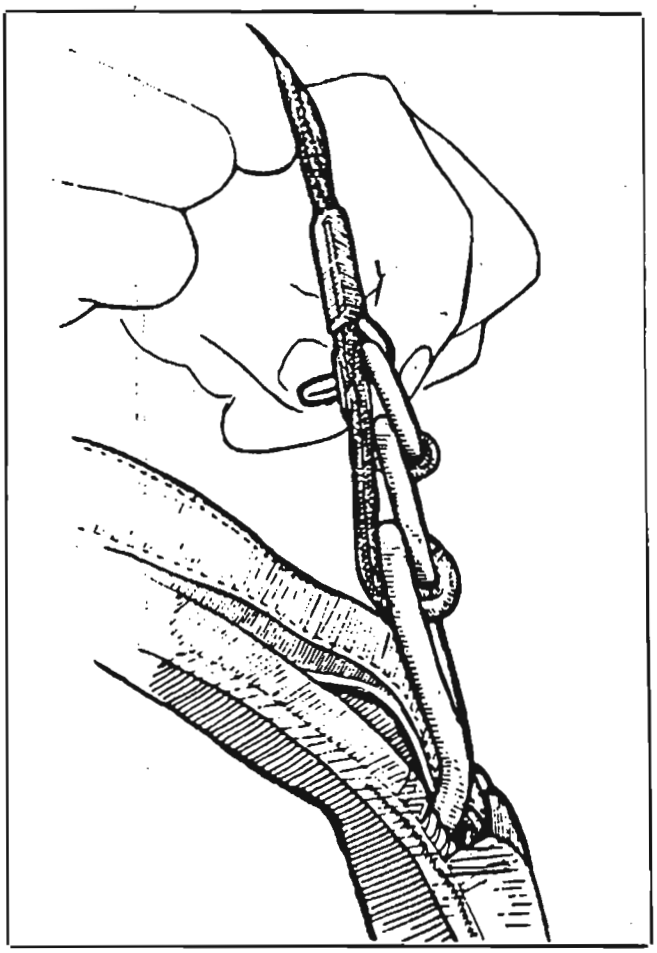
2) With the rings of the riser facing toward the floor, pass the ring on the end of the riser through the large harness ring from above. Fold it back toward the canopy and risers.

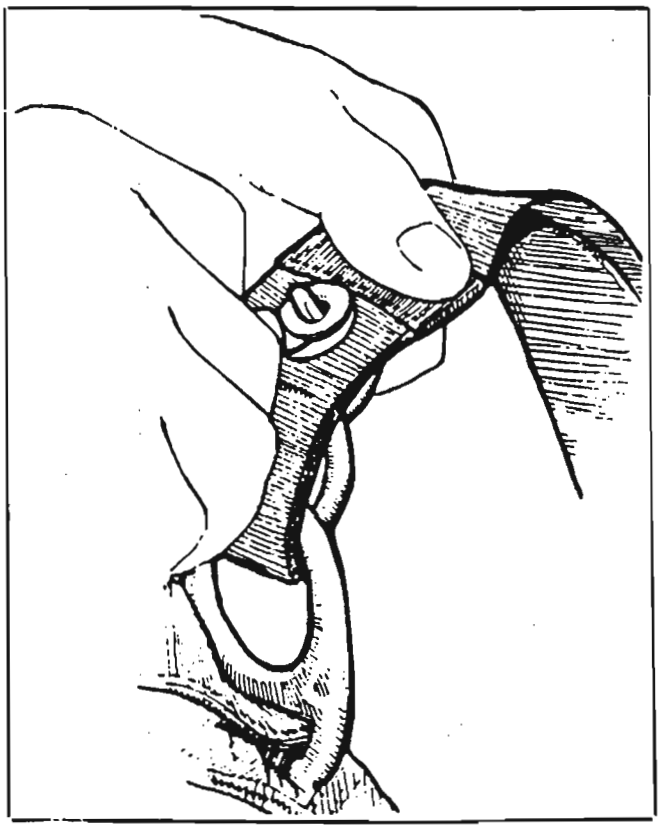
3) Thread the smallest ring through the middle ring in the same way, but make sure it doesn't pass through the large ring.



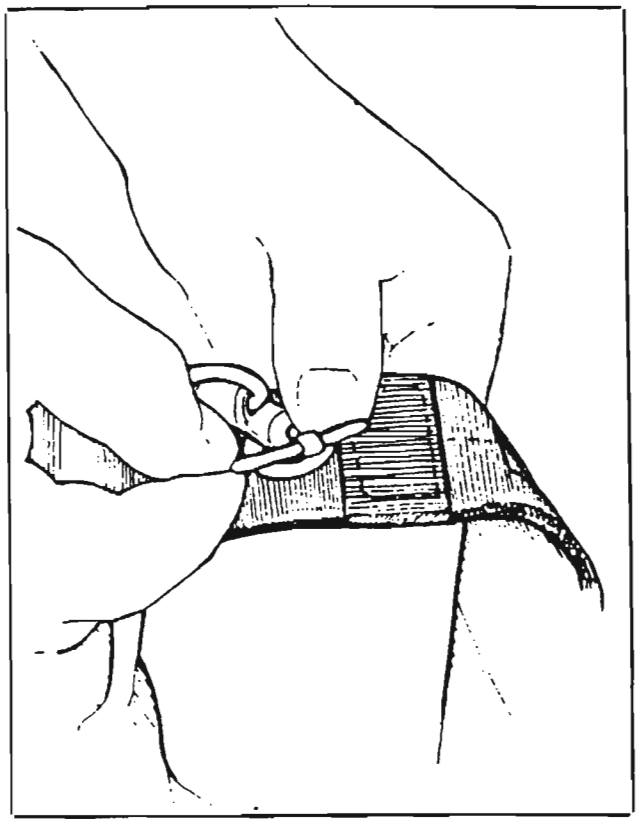
4) Bring the white loop over the small ring only and then through the riser grommet so it pokes out the back of the riser.

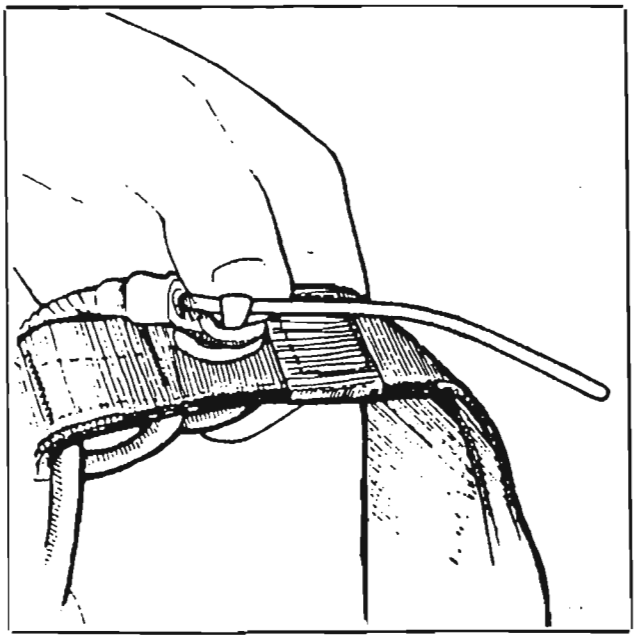






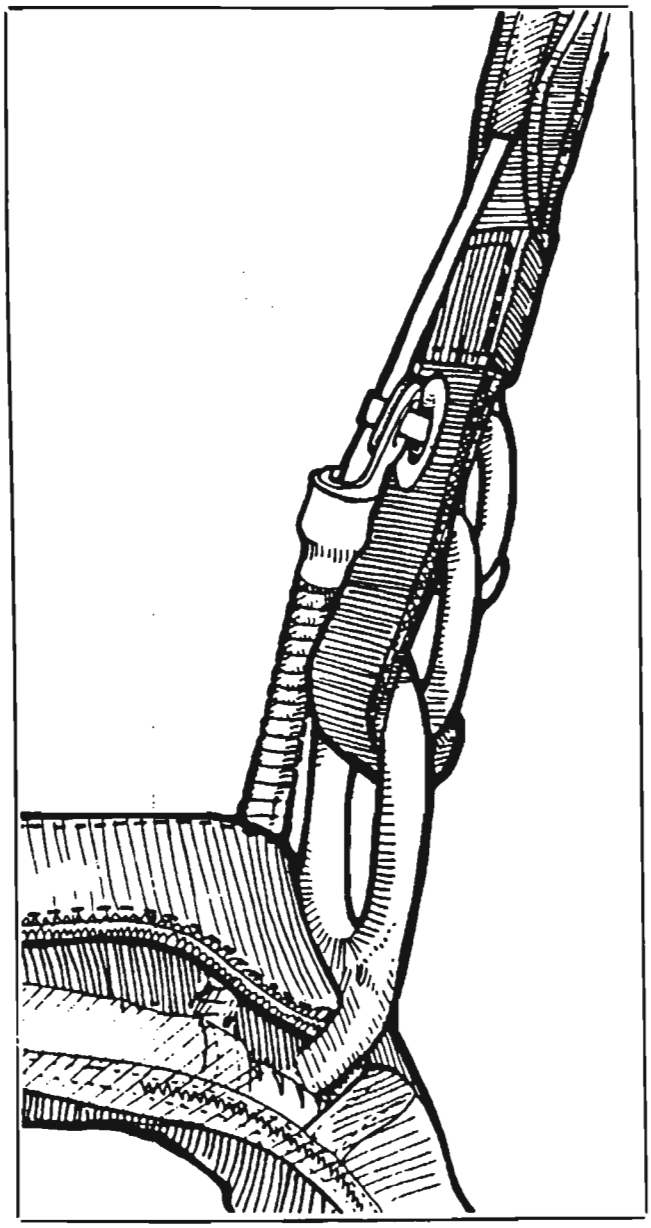
5) Continue threading the white loop through the grommet on the end of the cable housing. The flat side of the cable housing grommet should be against the riser.





6) Thread the yellow cable through the white loop, making sure the loop isn't twisted. Be careful with the cable so you don't bend it too sharply or kink it. Insert the free end in the channel on the back of the riser.

7) Repeat the above steps with the other riser.



REQUIRED PERIODIC MAINTENANCE FOR THE 3-RING

The Booth 3-Ring Release System has been in use for many years with excellent results. Although the system is as durable as the rest of the harness/container assembly, it requires periodic maintenance and inspection to ensure proper operation.

Generally it is NOT recommended that the risers be attached to the harness when new and "forgotten." Like all skydiving gear, the 3-Ring Release should be carefully inspected and operated on a regular basis.

The procedures below should be done at least every month. This is especially important if the rig has not been used for a month or more, such as during the winter. Immediate inspection is required if it has been subjected to some abuse such as a drag across the runway, a water landing or exposure to a lot of dust or sand.

1) Every month operate the 3-Ring release system on the ground. Extract the cable completely from the housings and disconnect the risers.

2) While the system is disassembled, closely inspect it for wear. Check the white locking loops (the ones that pass over the smallest ring and through the grommet) to be sure they are not frayed.

3) Check the Velcro on the breakaway handle and main lift web to be sure it is clean and adequately holds the handle.

4) Check the cable ends for a smooth finish. The ends are finished at the factory to have a smooth, tapered surface. This prevents the cable from hanging up in the loop. Check the cable ends and consult a rigger or the manufacturer if a burr or "hook" is present.

5) Check the stitching, including that which holds the large rings to the harness.

6) Pull downward on the housings. They shouldn't move downwards more than $\frac{1}{2}$ inch.

7) Take each riser and vigorously twist and flex the webbing near where it passes through each ring. The idea is to remove any set or deformation of the webbing. Do the same thing to the white loop. (See drawing, next page.)

8) Check the housings for dents or other obstructions. Use the cable to do this.

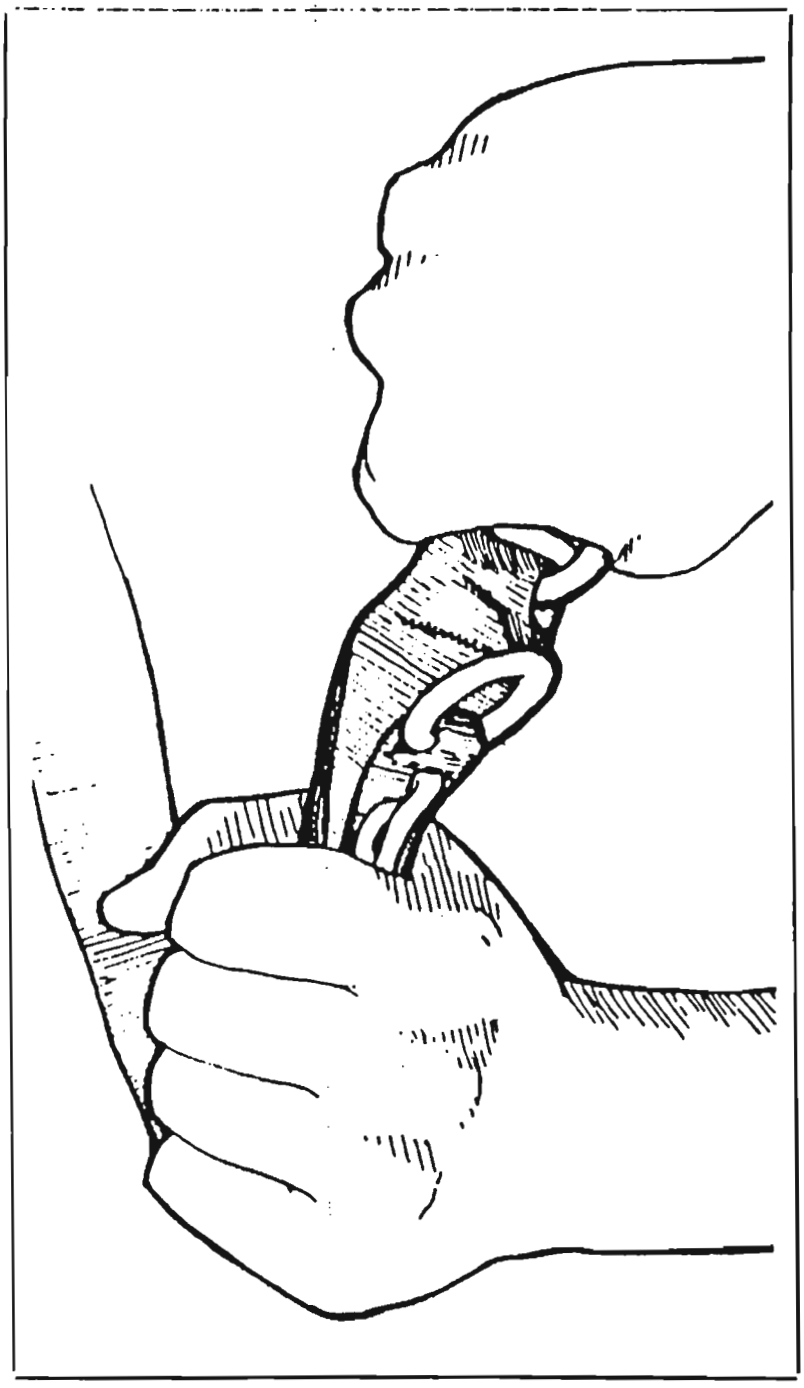
9) Clean and lubricate the release cable with a light oil such as a "3-in-1" brand. Put a few drops on a paper towel and firmly wipe the cable a few times. A thin, invisible film should remain—too much will attract grit and dirt, or the oil could become tacky in cold weather. Too much oil will require more force to extract the cable during a breakaway.

10) Inspect the fittings at the end of each housing. If one of these fittings were to come off the housing, a riser might release prematurely.

11) If any wear is found, consult a rigger or the manufacturer before using the **INFINITY.**

12) Reassemble the system. Double check it. Make sure the risers aren't reversed.

It's important to maintain the system even more frequently in humid, muddy or freezing conditions. If the **INFINITY** becomes immersed in mud or muddy water, clean the 3-Ring release system with a mild solution of soap and water. Any rusted components must be replaced.



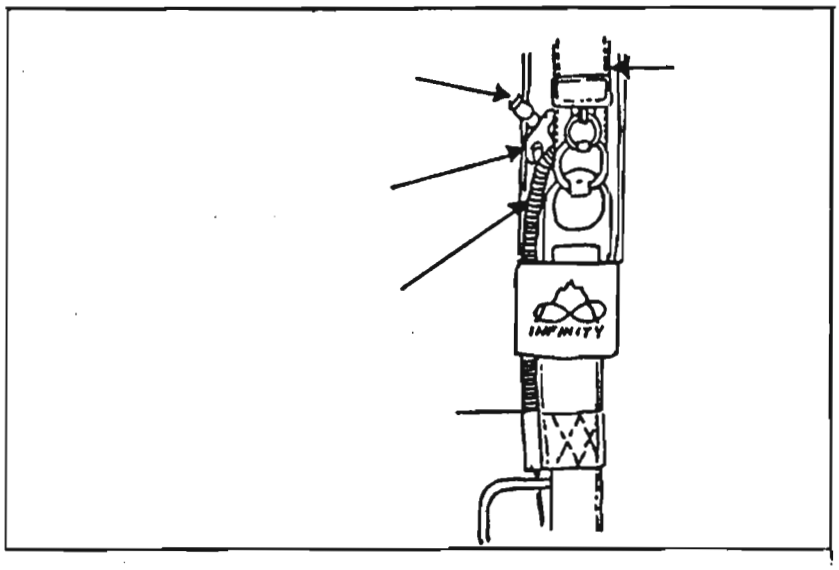


Fig.32

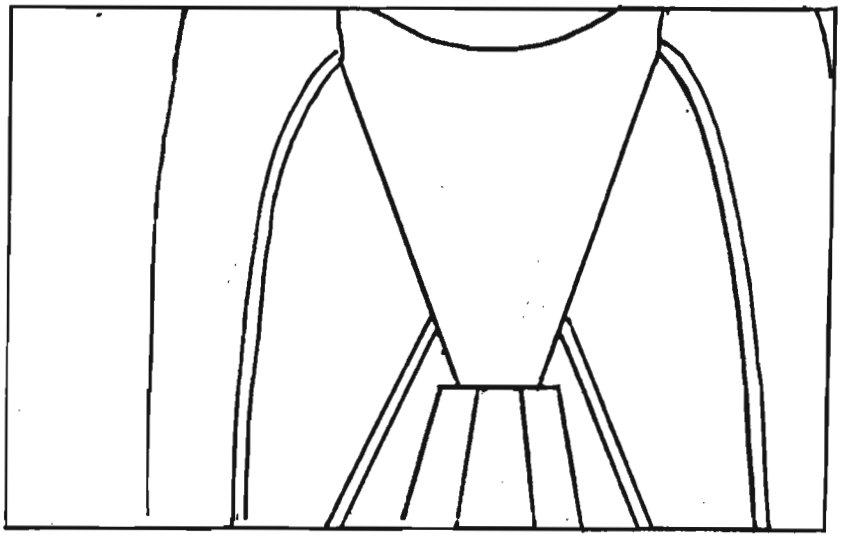


Fig.33

CYPRES

NOTE: THE FOLLOWING IS NOT MEANT AS AN INSTALLATION GUIDE. REFER TO AIRTEC DOCUMENTATION FOR FURTHER DETAILS.

The INFINITY harness/container is manufactured with an approved CYPRES set-up. Should one be encountered without the set-up contact Northern Lite Enterprises for the approved installation procedures.

If you are installing a CYPRESS AAD or packing an INFINITY with a CYPRES AAD installed refer to the AIRTEC documentation for proper procedures.