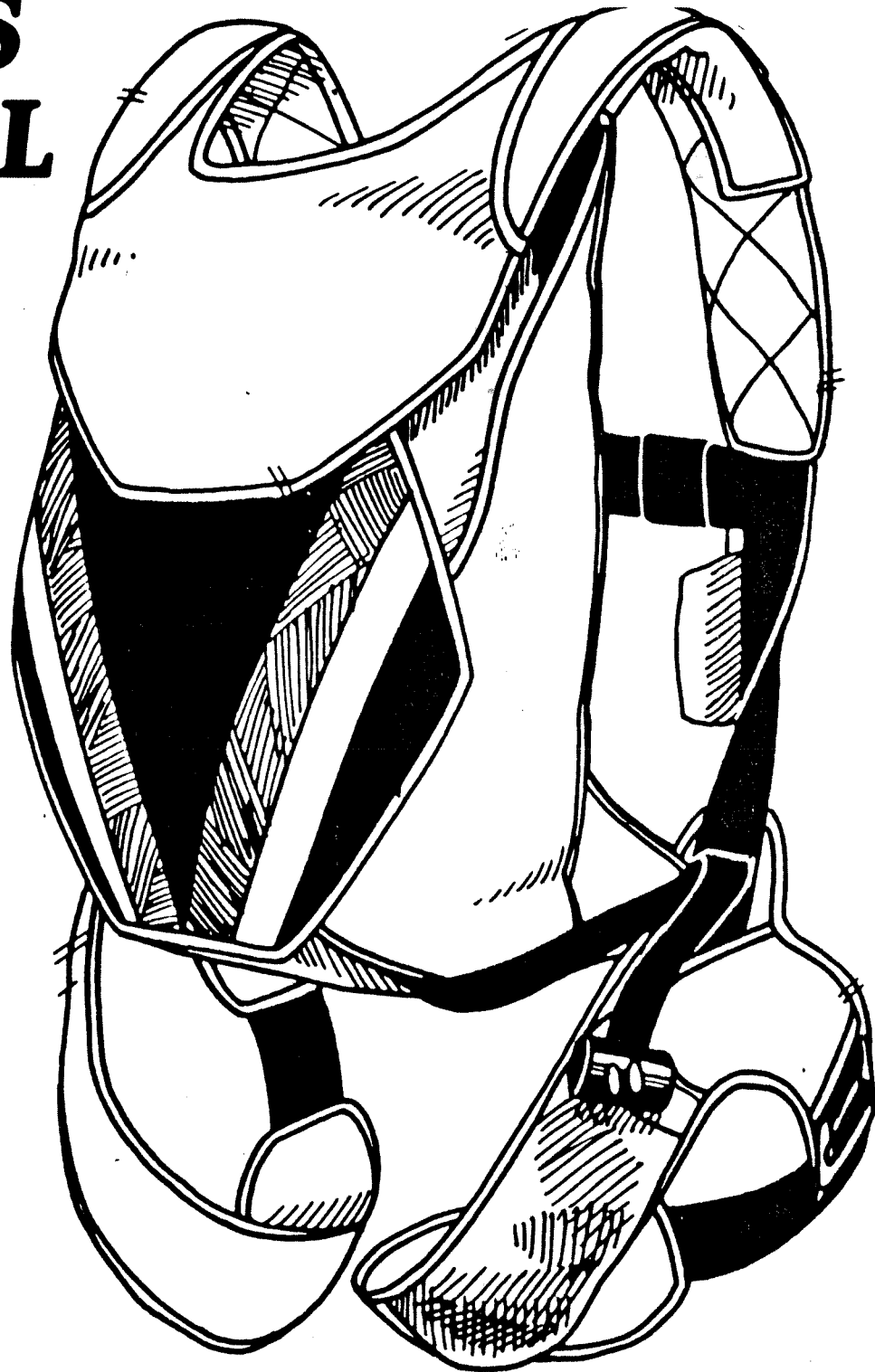


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# **THE INNOVATOR OWNERS MANUAL**



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# IMPORTANT!

The purpose of this manual is to acquaint the prospective user with the functions, packing procedures and other features of the INNOVATOR harness/container system. It is NOT intended to be a course in parachute jumping. This manual should be read and understood by anyone who intends to use a INNOVATOR system for sport parachuting, however, it is the responsibility of the owner to be sure that the INNOVATOR is correctly assembled, packed, maintained and used. It is also the jumper's own responsibility to assure that he is qualified for participation in sport parachuting activities.

## !!! WARNING !!!

PARACHUTING IS A HAZARDOUS ACTIVITY, AND THERE ARE DANGERS WHICH SOMETIMES CANNOT BE FORESEEN. NO ONE SHOULD ATTEMPT TO MAKE A PARACHUTE JUMP UNLESS HE HAS BEEN THOROUGHLY TRAINED BY AN EXPERIENCED AND QUALIFIED INSTRUCTOR. THERE ARE NO GUARANTEES THAT ANY EQUIPMENT WILL FUNCTION AS INTENDED, REGARDLESS OF HOW IT IS ASSEMBLED, PACKED, MAINTAINED OR USED. SERIOUS INJURY OR DEATH CAN RESULT FROM THE USE, MISTAKE, OR ATTEMPTED USE OF ANY PARACHUTE EQUIPMENT.

## !!! THE USER ASSUMES ALL RISKS !!!

COMPONENTS SUPPLIED WITH THE INNOVATOR

- Harness & container
- Main pilot chute & bridle
- main deployment bag
- Main closing loop
- Main risers
- Main toggles
- 3 Ring release handle
- Reserve closing loop
- Reserve pilot chute bridle
- Owner manual

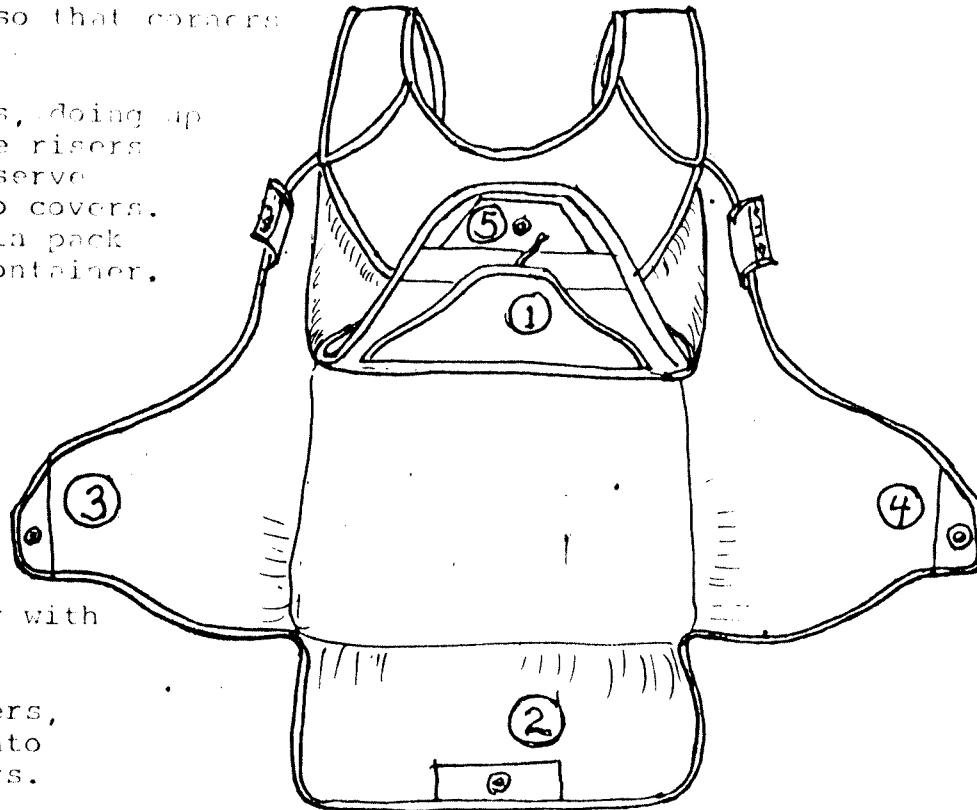
SQUARE RESERVE

- Square reserve bag & bridle
- Square reserve toggles

# MAIN PACKING

Fill the deployment bag so that corners are filled.

Route risers under covers, doing up stiffener tongues. Place risers down the sides of the reserve container doing up velcro covers. Lay the risers in the main pack tray along the reserve container. Spread the links out.



Prop the bag in container with lines towards the bottom.

Tuck lines into the corners, and fit the top of bag into upper corners above risers.

Make sure bridle cord is on top and clear, not stowed.

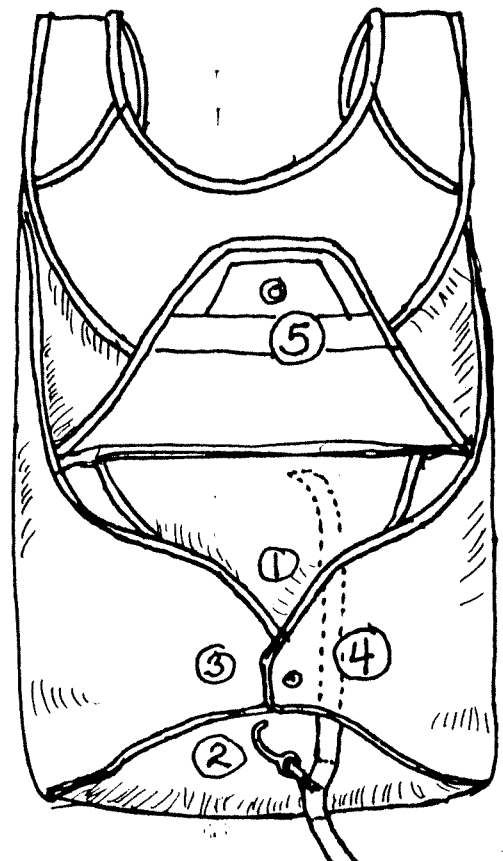
Insert pull-up cord in loop on top flap - #1. Push the bag into the pack tray filling container as you pull the top flap up.

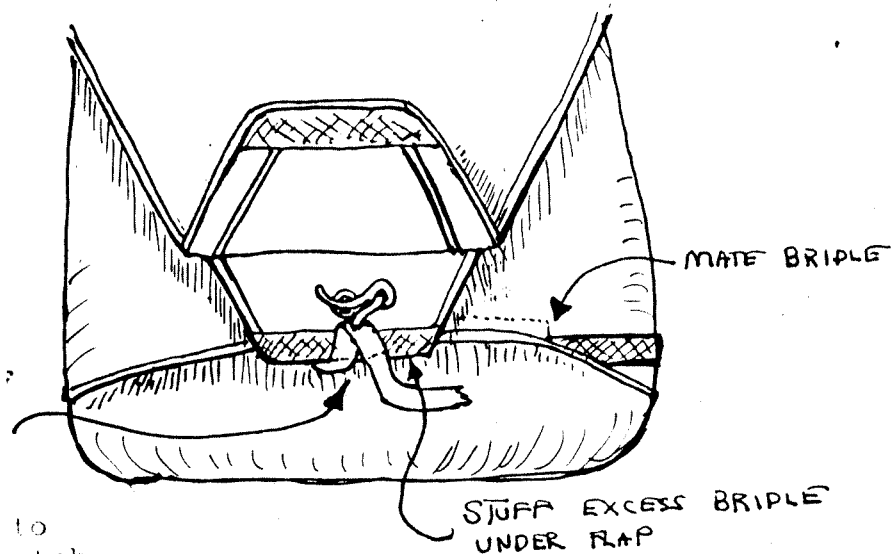
Thread pull-up cord through the bottom flap - #2, patting and shaping as you pull loop through.

Route bridle cord from top to the bottom, on the right side of the closing loop.

Thread pull-up cord through left side flap - #3, then right side flap - #4.

Now thread pull-up cord to top flap #5. As you pull on cord, push up on bottom flap.



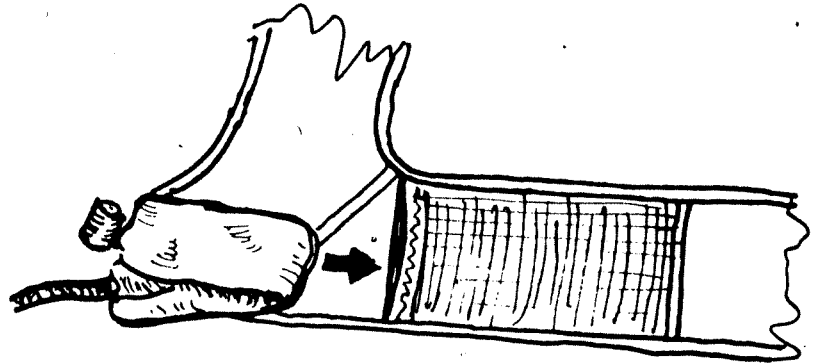
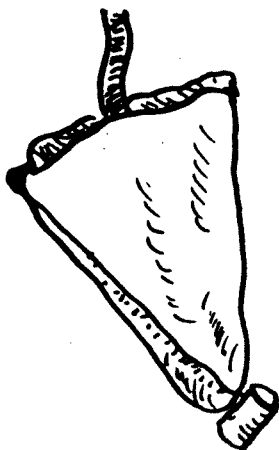
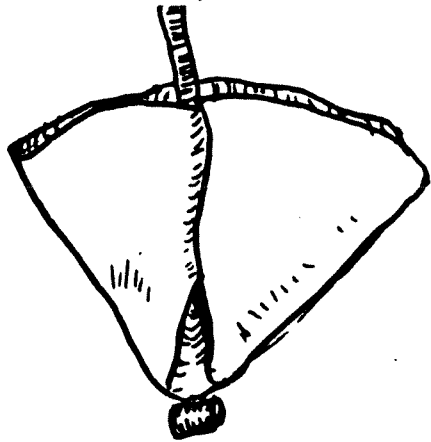
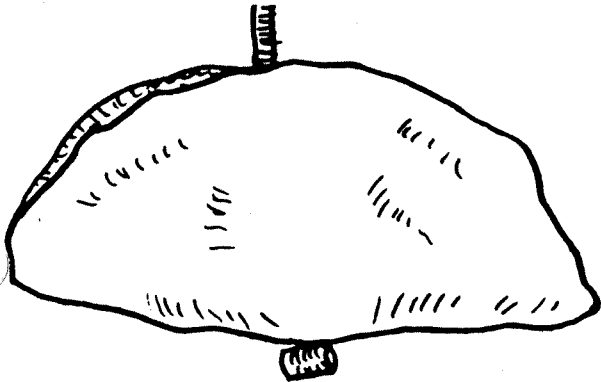
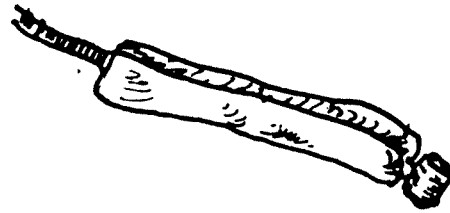
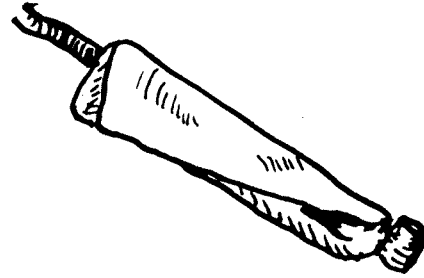
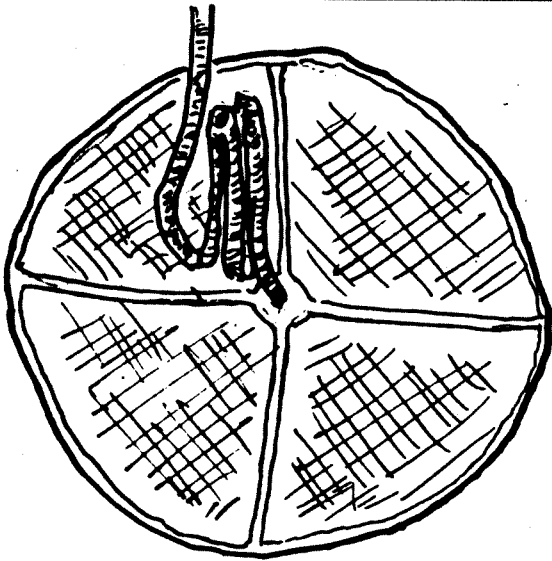


Insert curved pin from right to left and mate velcro on slack tab to closing flap velcro. Tuck bridle cord slack under stiffener.

Mate velcro on bridle to container.

Fold pilot chute and insert in the pouch. See illustration.

# PILOT CHUTE: packing and deployment.



Clear sky above and below.

Get flat and stable or stay in a slight track.

Pull pilot chute out of pouch and with one smooth motion, throw it as far to the side as possible (do not hang onto pilot chute, and do not sit up before deploying).

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# RESERVE PACKING

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## Tools Required

### Round Reserves

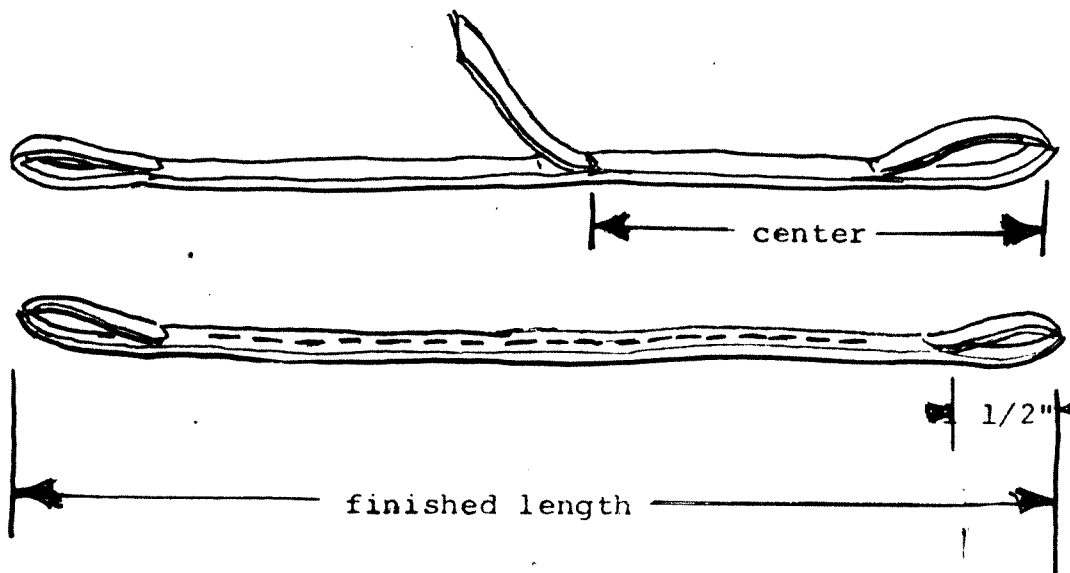
- 2 pull-up cords, (T-3 sheathing) 48"
- 2 temporary pins
- 1 Packing paddle

### Square Reserves

- above plus :
- 2 cordlock loops
- 2 cordlock ties
- 2 reefing rings

## Closing Loops

Closing loops are made of T-2 or T-3 sheathing, finger trapped from both ends forming 1/2 inch loops at both ends. The finished length varies depending on canopy volume and the type of pilot chute being used.



### Determining the proper length

When the container is packed and the pins are in, pull up on the pull-up cords. If the closing loops can be pulled up 1/2 inch the length is probably correct. If there is no clearance, the container is too tight and the ripcord pull force will likely be too high. If 1 inch or more can be pulled up, the container is too loose and the pilot chute will not be properly compressed. It is up to the Rigger to ensure that the pull force to move the ripcord pins does not exceed 22 lbs. and is not less than 6 lbs. The average pull force is 13 lbs.

### Guide to finished loop lengths

<u>CANOPY</u>	<u>FINISHED LENGTH (inches)</u>
Phantom 22	10 - 11
Phantom 24, Micro Raven	11 - 13
Phantom 26, Raven I	12 - 14
Phantom 28, Raven II	14 - 16
Raven III, Strong LoPo	15 - 17

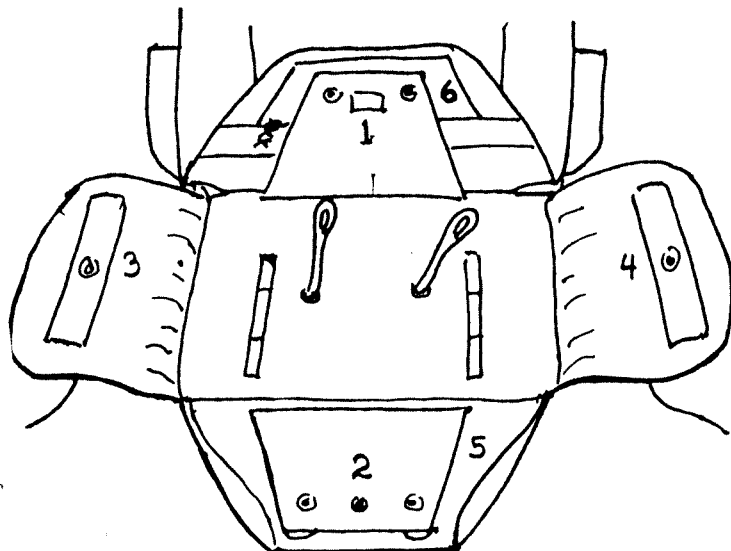


# RESERVE PACKING

## RESERVE CLOSING ORDER

The reserve container flaps must be closed in the following order:

- inside top flap - #1
- inside bottom flap - #2
- elastic staging loop
- side flaps, left #3 and right #4
- compress pilot chute on top of bottom inside flap - #2
- close bottom flap #5
- close top flap #6, insert ripcord pins



Flake canopy as per canopy manufacturer instructions.

Fold skirt up parallel to radial seams.

Fold sides in just short of middle.

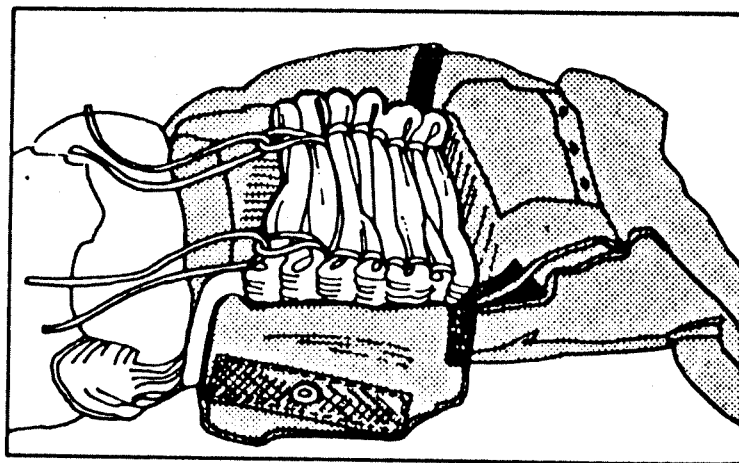
Fold canopy in thirds overlapping centre.

NOTE: If using only two risers, use front risers T-13 and tack back risers into container.

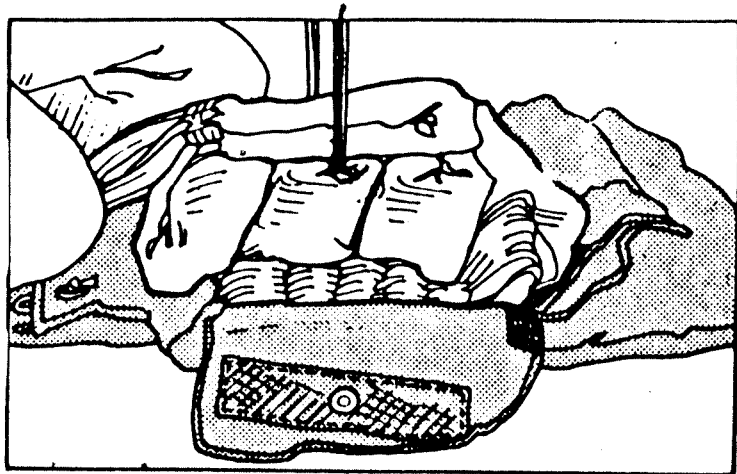
Insert pull-up cords in closing loop.

NOTE: Closing loop should come up between line groups (not through them).

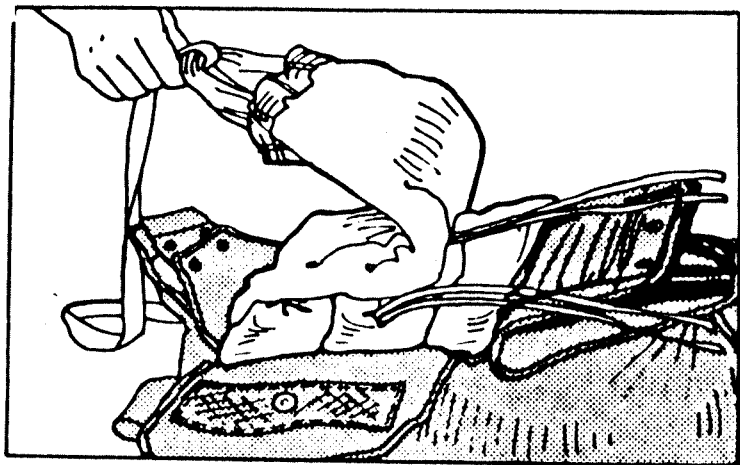
Place canopy skirt or diaper at bottom of the container (right or left) filling corners.



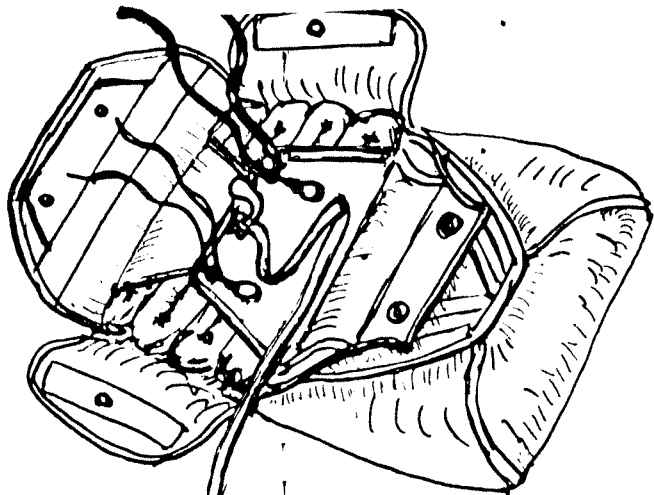
S fold canopy on its side up towards the top of the container until reaching closing loops. Lay pull-up cord over already stowed canopy, and continue S folding to the top of the container. NOTE: make S folds as wide as container. Also, S folds progressively lay on slight angle for shaping (closing loops should run straight up, usually 4th fold from bottom).



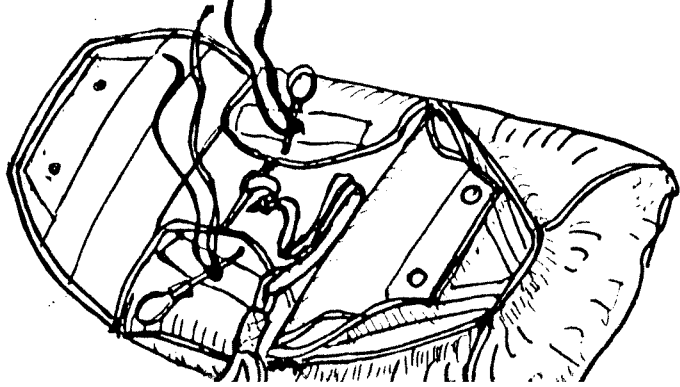
Bring apex down below closing loops, and fold back towards top keeping it in the bottom, under inside bottom flap #2.



Bring down top flap - #1 with elastic staging loop, thread pull-up cord through grommets, and insert temporary pins. Thread pull-up cords through grommets on inside bottom flap #2, and pin.

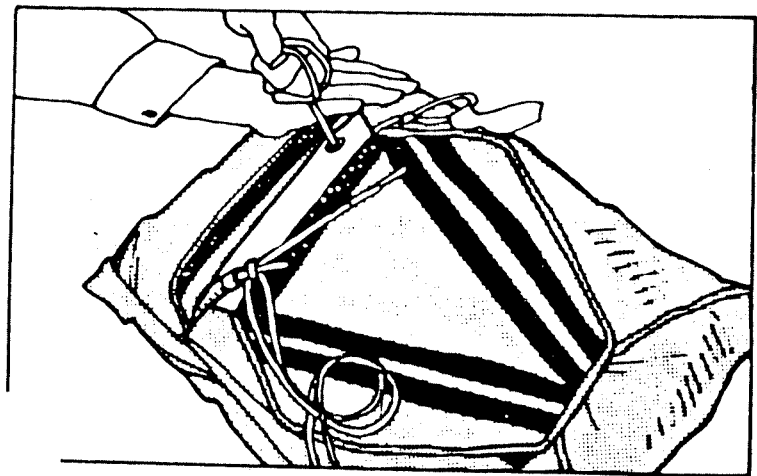
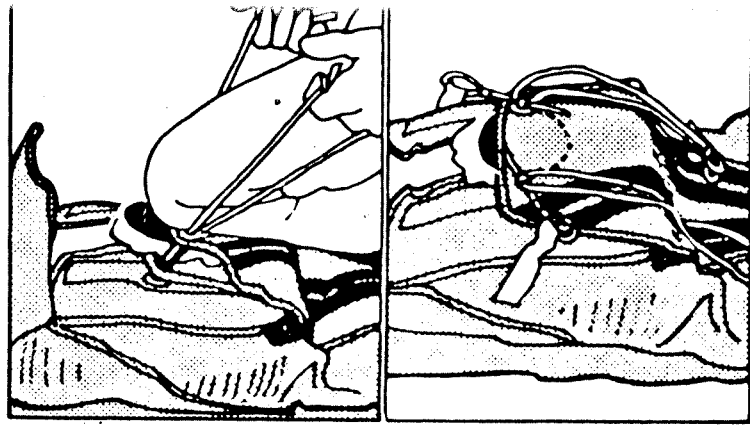


Pull elastic staging loop (optional) up through centre grommet in bottom flap and hold with a small bite of the bridle cord (1/2"), as close to the apex as possible. (If using Tyoe IV Tape, make a needle fold in order to insert through loop). NOTE: It must take less than 12 lbs. (usually 4 - 6 lbs.) to release the loop.



Thread pull-up cords through side flaps 3 & 4, close, and pin.

S fold bridle cord and compress pilot chute on bottom launching flap - #2. Thread pull-up cords through grommets on outside bottom flap #5. Hold down pilot chute with your knee and carefully pull up closing loops and pin.

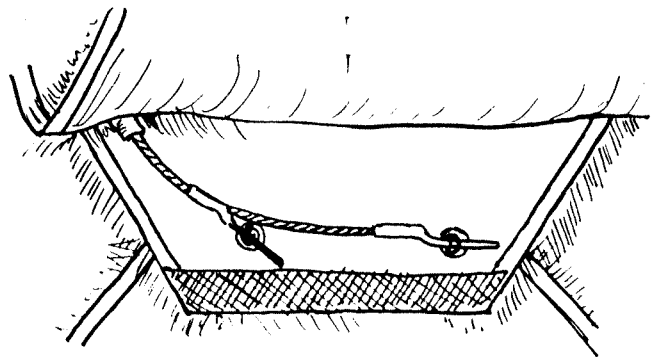


Insert ripcord in housing, thread pull-up cord through grommets in top flap. Start with the one closest to mouth of the ripcord housing. As you pull on loop, tap top flap to shape the container and align the grommets (do not pull on an excessive angle to avoid stress on the grommet, push plastic towards pull-up cord when closing to avoid stress on grommet). Pin with ripcord. Repeat on other side and pin. Remove temporary pins and pull-up cords.

NOTE: Make sure that the ripcord and pin alignment is as shown with the cable on top.

Shape the container. Mate the velcro on riser covers to velcro under shoulder pads (pull harness out 90 degrees from container and roll riser covers under).

Test pull force. Seal and log.



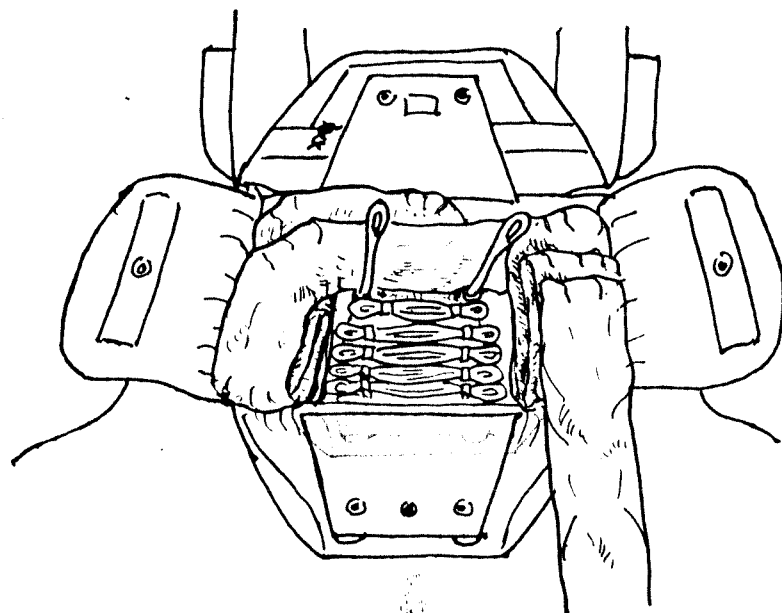
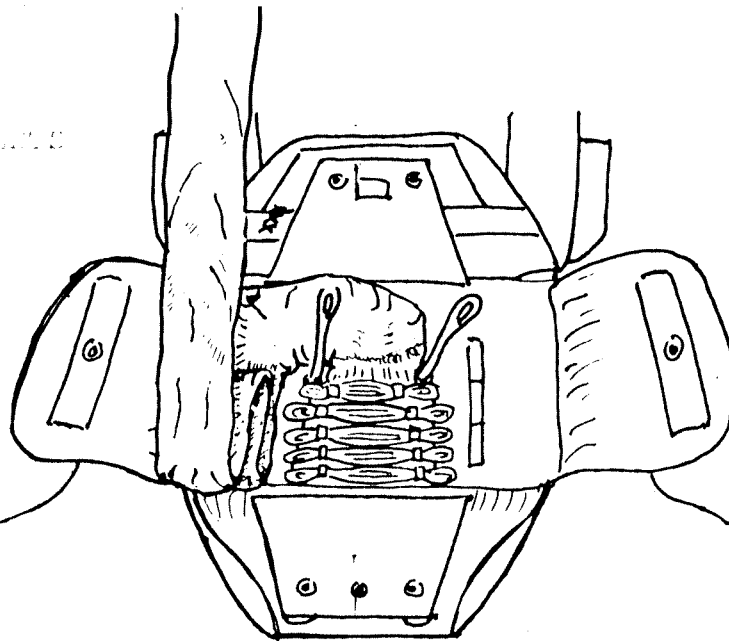
FOR TYPE III DIAPERS, PHANTOMS, FIELDS

Place diaper in bottom centre of the pack tray below pull-up cords.

Temporarily tie pull-up cords together at the top of the diaper to hold it in place.

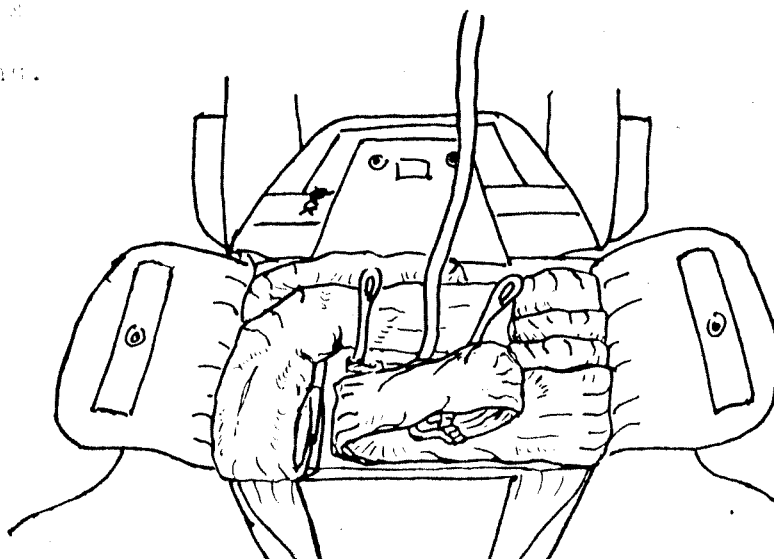
Fold the canopy to the left side and down to the lower left corner.

Do one short fold in lower left and run canopy across the container to the right side (just above the closing loops)



Run the canopy down and up the right side, making progressively shorter folds to create a taper.

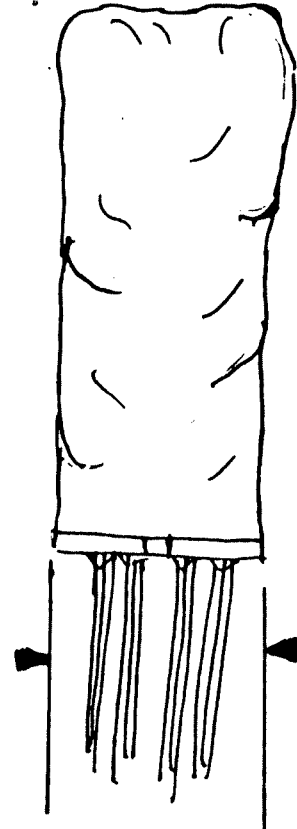
Fold the remaining canopy and open on top of the diaper, and close flaps as per previous instructions.



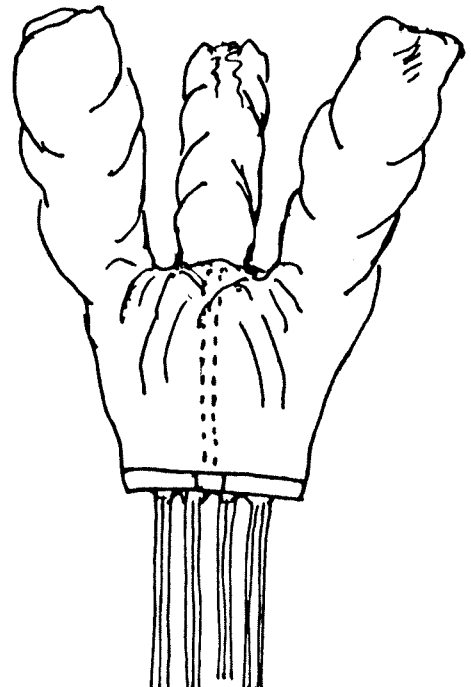
SQUARE RESERVES

Pack canopy according to the manufacturers instructions.

Pack the canopy to the width of the deployment bag.

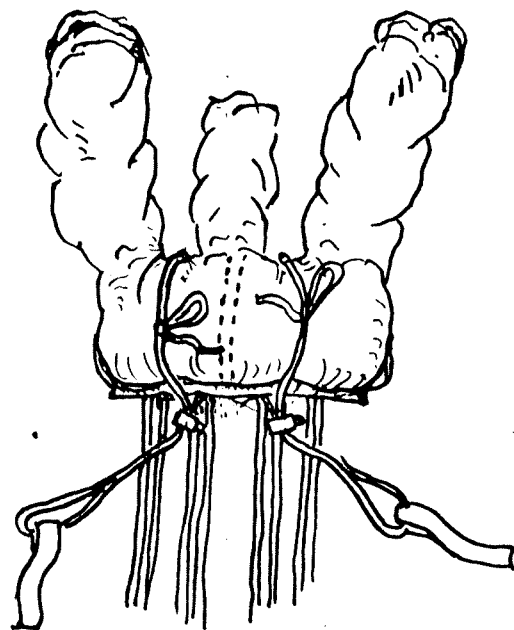


Make a short S fold (6-8") of the stabilizer and slider under the tail. Redress tail.

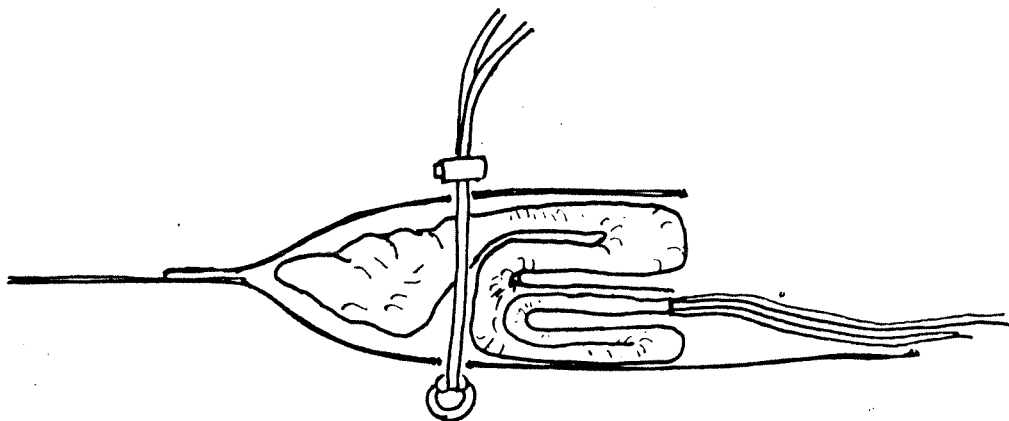


Fan the top in 3 sections, with the nose forming the middle section.

Lay packing paddle 6 - 8" up from the tail. Fold the canopy back on its' self and back again away from the trailing edge. (These two folds of the canopy must fit and fill the deployment bag from the closing loops to the bottom of the bag).



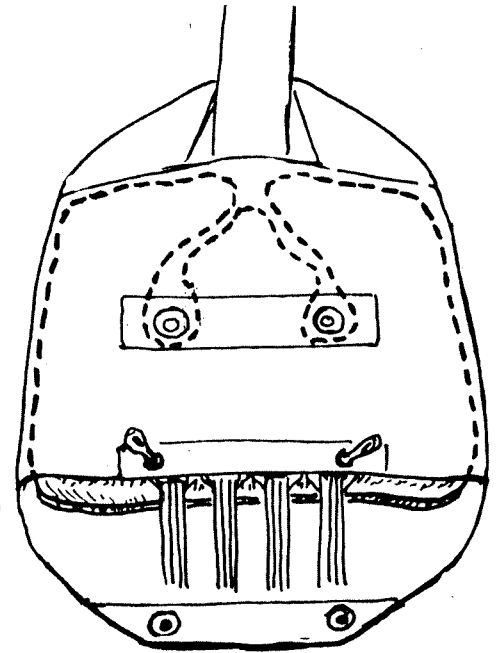
Use two (?) flagged cord lock packing aids at location aligning with the closing loop grommets in the bag, to secure the folded canopy.



Insert 2 cord lock loops down through grommets in bag. Hook head 1" reefing rings under the bag to hold them in place.

Slip the canopy into the bag filling corners, and working material around the 2 cord lock loops through the bag.

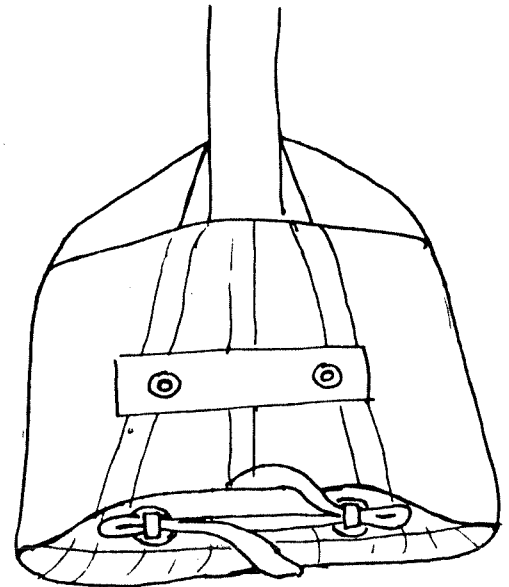
Remove cord lock packing aids around canopy.



Secure 2 safety stow closing bites on the bag.

Snug cord lock loops on the top of the bag, make sure they run straight through the bag.

Knead and shape the bag.

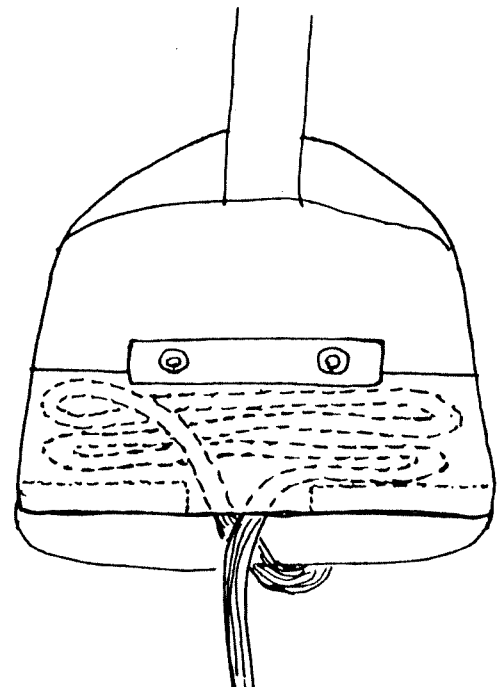


Stow line in velcro pouch.  
Place the risers and the bag into the container. Position links side by side.

Loosen cord lock loops. Remove reefing rings. Pass half the length of the pull-up cords through the ends of the cord lock loops. Pull the pull-up cords up through the bag.

Position the bag in the pack tray, filling corners and temporarily pin.

Close and pin flaps in the prescribed order.



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## **HELPFUL HINTS**

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When donning harness: Do up chest strap, and tighten leg straps. Stow the excess leg straps in the elastic keepers (so you do not pull them instead of a pilot chute).

Before exiting, check routing of bridle, run hand on routing from pilot chute to container; check 3-rings; check pilot chute handle; check release and reserve handles.

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## **CANOPY RELEASE**

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### Breakaway Procedures

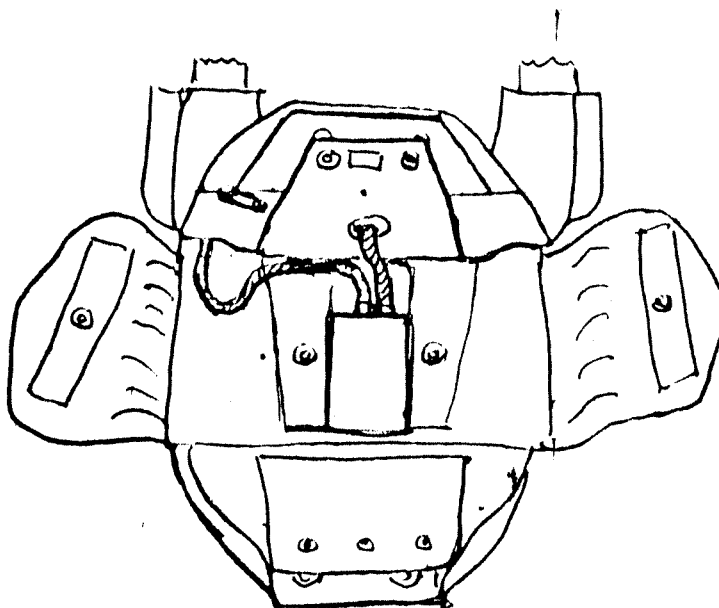
Familiarize your self with the system by practicing breakaways from a suspended harness, before actually jumping it. For maximum ease of operation, the soft breakaway handle (which is velcroed in place) should be peeled away from the main lift web, then pulled downward arms length to effect release. If the handle is just pulled straight down, considerably more force will be required to release the handle from the main lift web velcro.



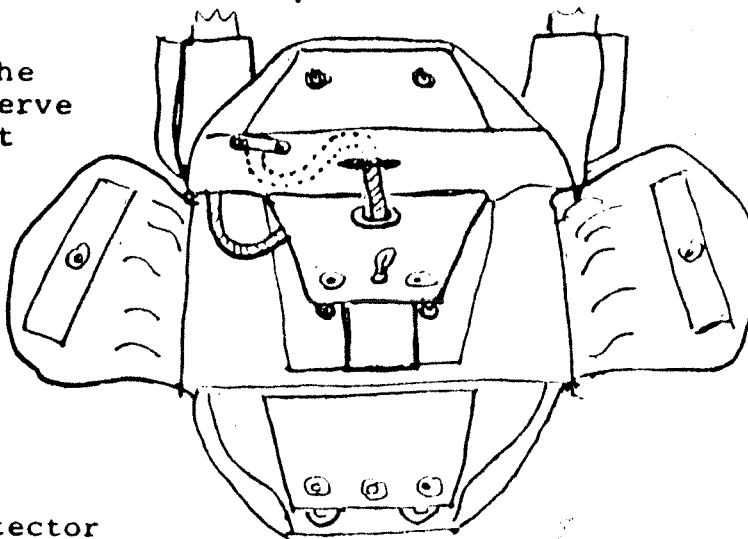
Supplement March 1990

FXC 12000 Installation In Innovator 2 Pin

Route power cable through the grommet in flap #1 and through the two slits above the last stiffener #6.



The sensing tube runs over the left shoulder, under the reserve riser cover, to the main lift web cover. Loosely tack the excess in the container.



Tack the ballistics cloth protector over the nuts on the bottom plate.

