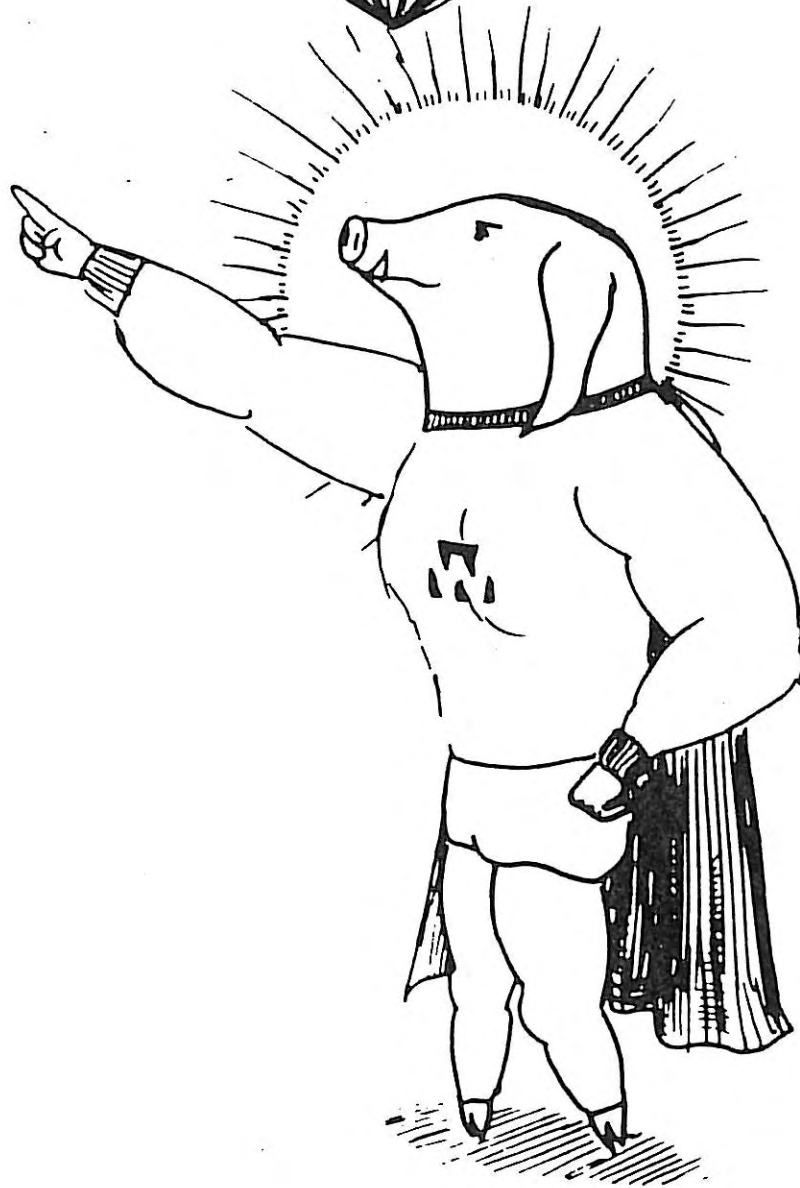


WONDERHOG



OWNER'S MANUAL

**Relative
Workshop**

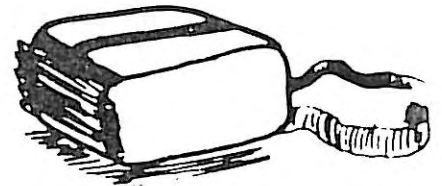
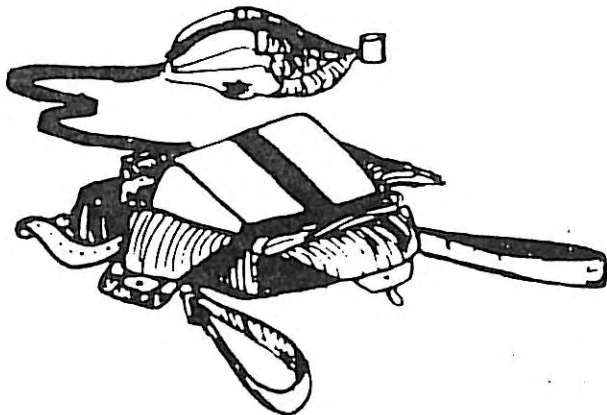
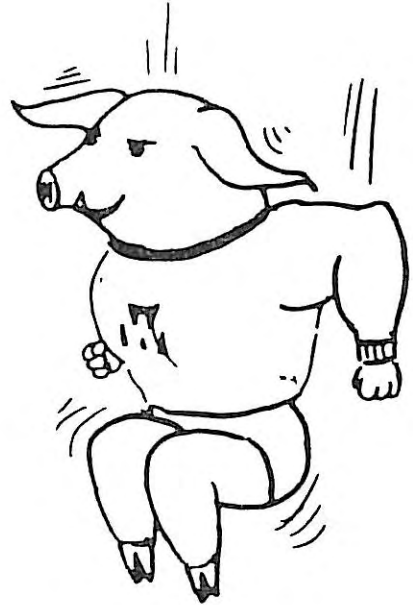
WONDERHOG

Main Packing Instructions

The Wonderhog has no stiffness to give it shape. It will look only as good as the packing job you put in it.

“THINK FLAT”

1. Pack the deployment bag “wide”. fill the top and sides.
2. “Walk” on the bag until the middle is no fatter than the sides.



3. Prop the bag up loosely in the container, with the lines at the bottom, as illustrated.

4. Now tuck the lines well down into the container, then push the top of the bag down into place.

5. Kneel on the top center of the bag and pull up on the side flaps until the back of the bag is flush with the back of the reserve container and the entire unit will present a streamlined profile.



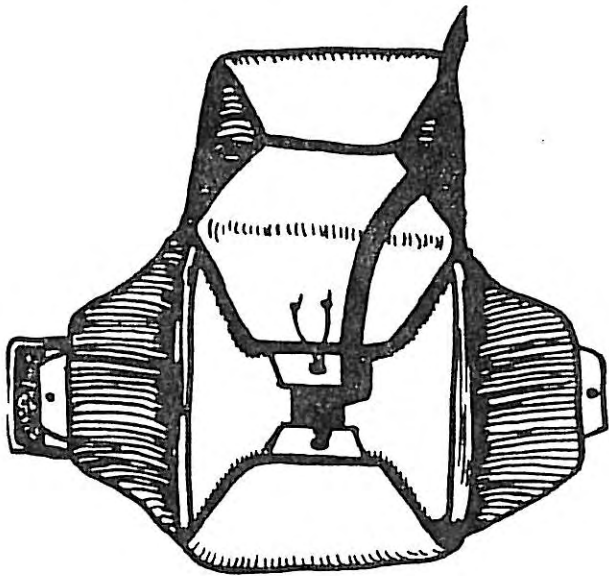
CAUTION:

DO NOT STOW ANY OF THE PILOT CHUTE BRIDLE CORD

NOTE:

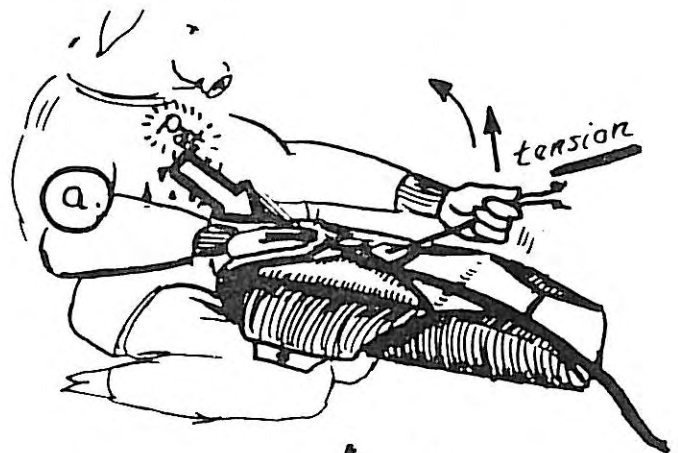
ONLY FOR UNITS WITH REEFING OR CROWN LINES: Stow the reefing or crown lines in the rubber bands tied to the two loops on the divider flap at the top of the main container. Use four rubber bands for Strato Star reefing lines. Do not stow any of the pilot chute bridle cord.

6. Kneel on the floor facing the bottom of the bag and lift the unit up onto your knees, as shown.

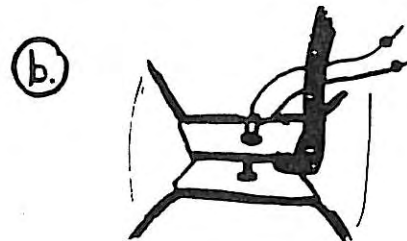


7. Insert pull-up cord through the sheathing loop on the bottom flap, then through top flap grommet, being careful to keep the pilot chute bridle to the right of the loop.

8. Applying tension to the pull-up cord, "pat" the bottom flap (applying upwards friction as well as inwards compression) with the palm of the hand (a.) until it almost meets the top flap. (b.)



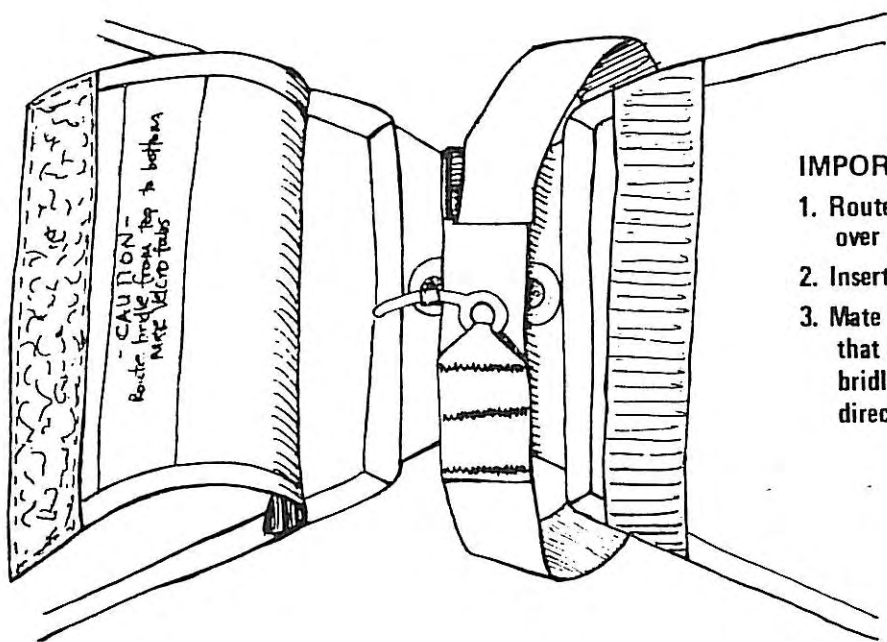
9. Lay the bridle cord up over the top flap and reserve container. (b.)



10. Close the right, then the left side flaps using the same patting technique. Be careful not to let the top & bottom flaps separate.

11. With the sheathing loop now through all four flaps, insert the curved bridge pin from right to left. Remove the pull-up cord.

Now mate the white Velcro tabs on the main bridle. (It may be necessary to gently pull a couple inches of bridle out from where it passes under the top of the side flap.



IMPORTANT

1. Route bridle from top to bottom over plastics (and under cover flap.)
2. Insert pin from the right side.
3. Mate white Velcro tabs to insure that there is enough slack in the bridle to allow pin to release in any direction.

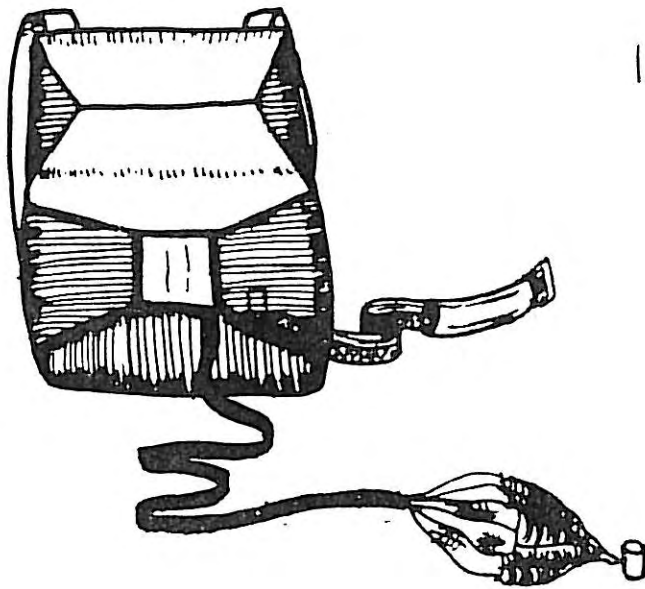
Adjust the length of the sheathing loop so that the cover flap pile Velcro mates with the side flap hook Velcro and the rig presents a neat appearance.

(The sheathing loop may be short enough to allow the rig to be packed very tightly. In any case, a pull of about 10 pounds on the bridle should release the pin.)

- WARNING -

The bridle and pin **MUST** be positioned as shown in the drawing above. Deviation from this procedure may cause a total malfunction of the system.

(In the unlikely event of a towed pilot chute, do not waste any time by trying to correct the problem. Assume a flat and stable position and pull your reserve.)



12. Route the remainder of the bridle cord down to the bottom of the container, then close the main protector flap over the bridle and locking loop.

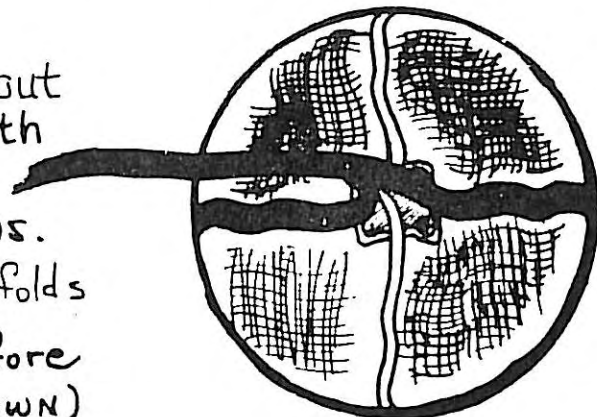
It is important that the bridle be routed from top to bottom under the protector flap so the bridle will "rip" the velcro on the flap open when it pulls from the locking loop on deployment.

13. Find the end of the velcro strip under the right side flap. Begin mating the velcro on the pilot chute bridle here and continue mating out the velcro bridle path, ending with the pilot chute and the pilot chute pouch. Stow the few inches of slack bridle cord from the protector flap under the right side flap.

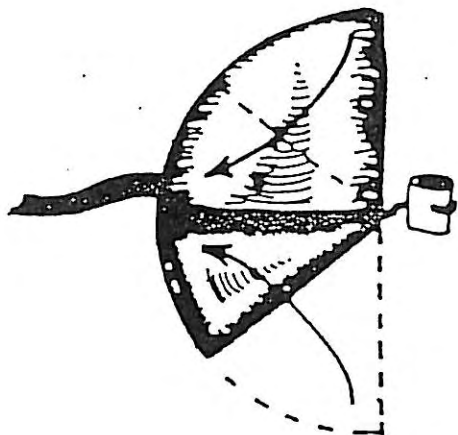
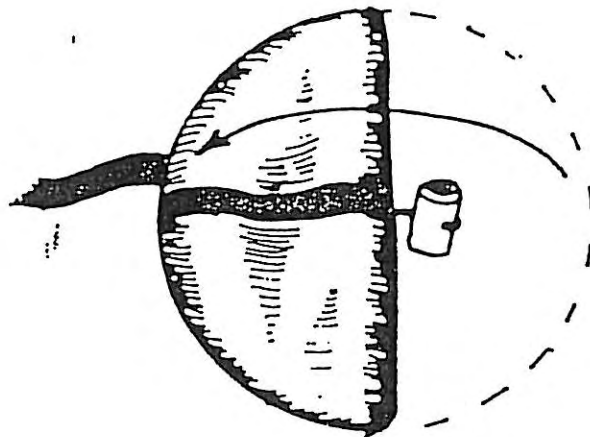


PACKING THE PILOT CHUTE

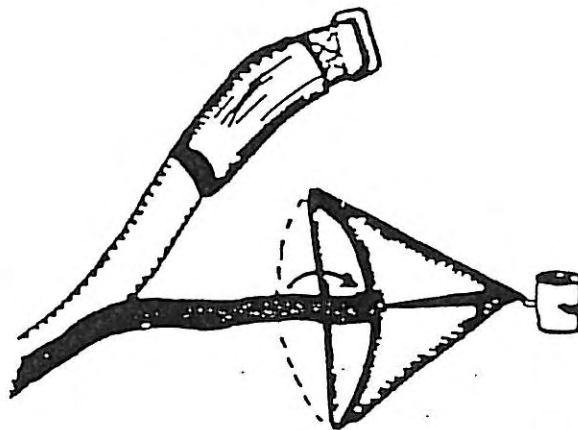
14. Lay the pilot chute out flat, mesh side up, with the bridle along one of the reinforced ribs. MAKE TWO 12" "S" folds of SPARE bridle before next fold. (NOT SHOWN)



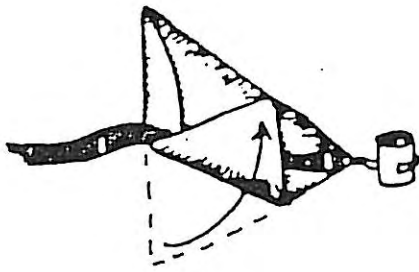
15. Fold the pilot chute in half over the bridle.



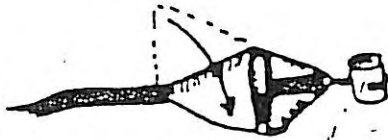
16. Fold the corners up to the center of the arc to form a triangle.



17. Fold the curved edge of the triangle back over the body of the chute, so a straight-sided triangle is formed. The pilot chute should now be the length of the pilot chute pouch.

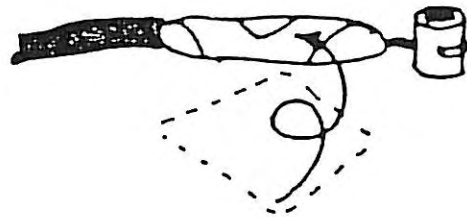


18. Fold bottom corner up to far side, as shown.



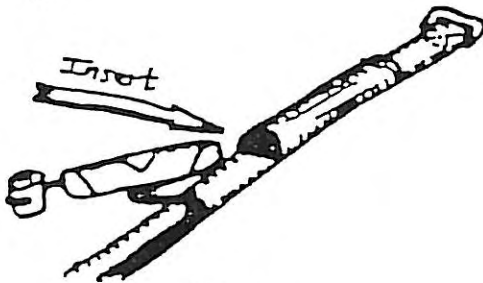
19. Fold top corner all the way to the bottom edge.

20. Roll the chute tightly from the bottom.

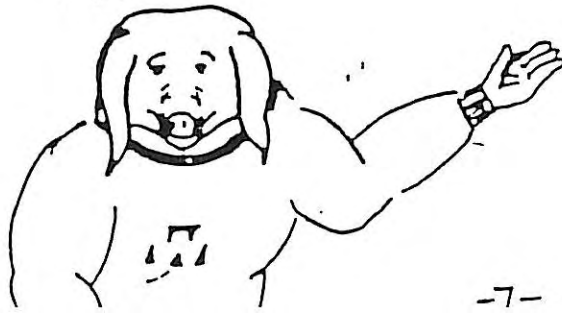
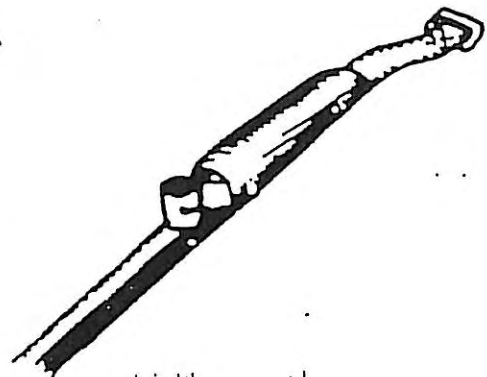


2.1. Fold the remaining free bridle down the length of the pilot chute, then insert the folded end all the way into the pilot chute pouch, so only the plastic apex handle is left showing.

a.



b.



Helpful Hints



1. When donning the harness, do not twist the belly band or pass it under the main lift web. This would prevent the bridle cord velcro from separating. (Total Malfunction.)
2. Dump flat and stable, or slightly left-side-low, as it is not necessary, and possibly even hazardous, to sit up prior to chute release.
3. It is not recommended to "wave off" with your pilot chute, as this practice in combination with an improperly mated bridle or a loose elastic loop can cause an out-of-sequence opening.
4. DO NOT alter the bridle cord length.



Reserve Packing Instructions

Required Tools:

- Two temporary pins
- Two pull-up cords (36" of 550 sheathing)
- One packing paddle

Notes:

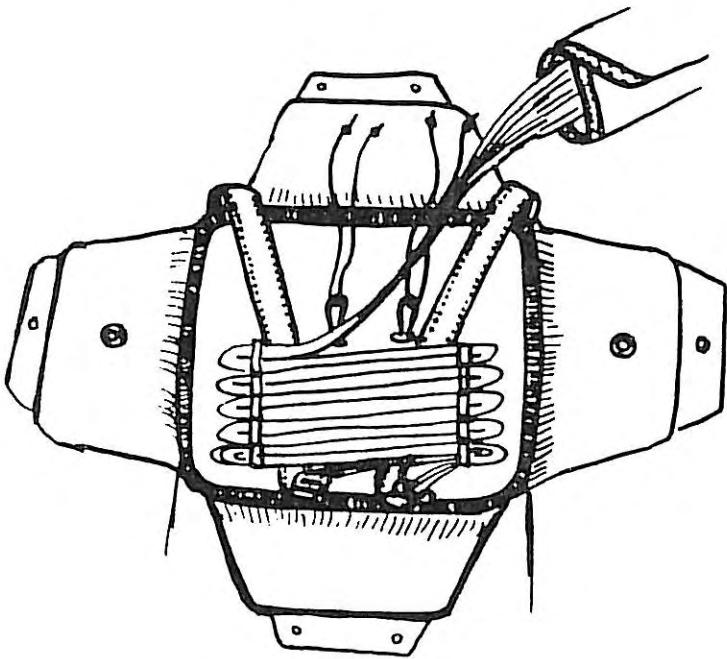
- To facilitate pulling up loops, always tie a bow knot in the pull-up cords as close above the holes as possible, and insert your packing paddle as a pull-up handle.
- Mate the velcro which forms the joint between the bottom and side flaps before starting to pack.

Riggers: Consult the "WONDERHOG Technical Update" for important instructions. This publication is available from the manufacturer.

(NOTE: SPECIAL INSTRUCTIONS ON PACKING THE SAFETY-FLYER RESERVE INTO THE SAFETY-FLYER MODEL OF THE WONDERHOG ARE AVAILABLE AT NO COST FROM THE MANUFACTURER. DO NOT ATTEMPT TO PACK A SAFETY-FLYER WITHOUT THESE INSTRUCTIONS!)

PART ONE

1. Flake canopy.
2. Fold skirt up parallel to radial seams.
3. Fold both sides inward to middle (don't overlap).
4. Fold remaining canopy width in thirds (do overlap).



5. Place reserve risers in container as shown.
6. Make the first stow of the suspension lines at the bottom and stow upwards towards center, packing wide to fill all space to the sides.

7. Insert pull-up cords in reserve closing loops.

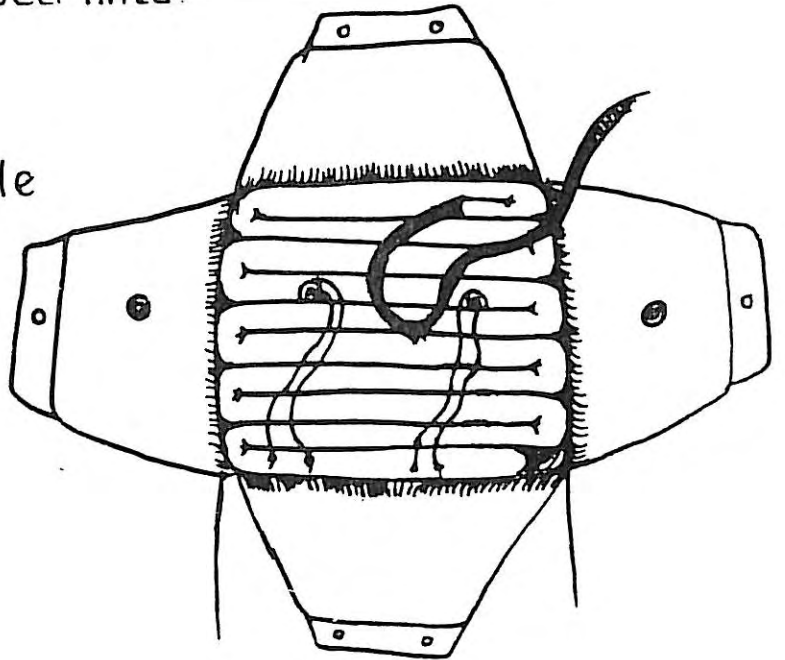
PART TWO

1. Place canopy skirt at the bottom (right or left) of the container.
- 2 "S"-fold the canopy beside (NOT on top of) itself halfway up the container, to the closing loops and on top of the line stows.
3. Lay pull-up cords up and over the already stowed canopy, then continue "S"-folding the remaining canopy to the top of the container.

NOTE:

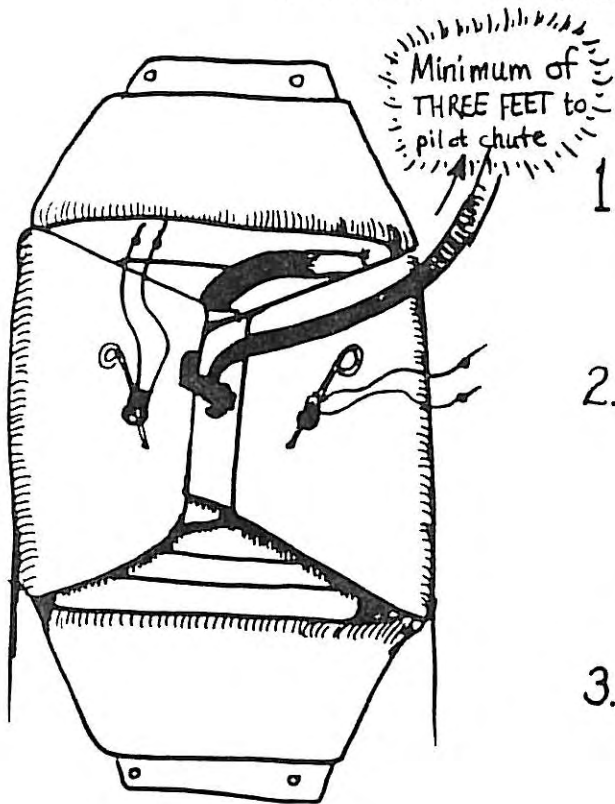
It is important that the closing loops pass straight up through the folded canopy and stowed lines.

4. Lay the reserve bridle over the folded canopy toward the bottom of the container.



5. Fold together the top and bottom flaps to keep the canopy from being squeezed out of the top and bottom of the container when closing the side flaps.

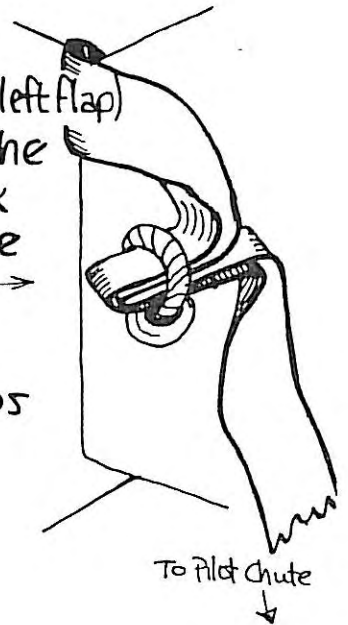
PART THREE



1. Thread pull up cords through grommets in the side flaps.

2. Pass the elastic loop (on left flap) through the grommet on the right flap plastic and lock with a short loop of reserve pilot chute bridle.*

3. Pull up reserve closing loops and insert temporary pins.

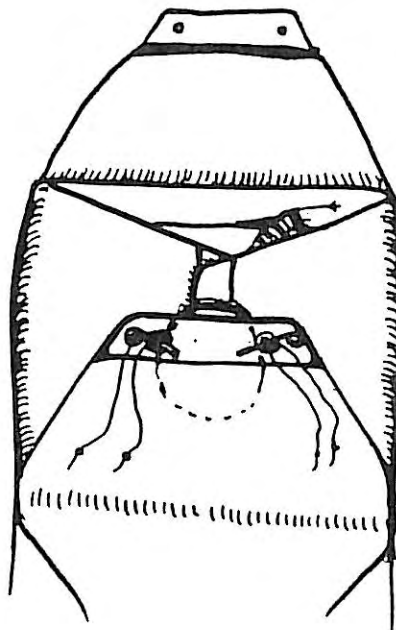


4. Compress pilot chute at the bottom center of the container on top of the side flap plastics. No kicker plate is necessary.

5. Insert pull up cords through bottom flap.

6. Push bottom flap to center using as little pressure as possible.

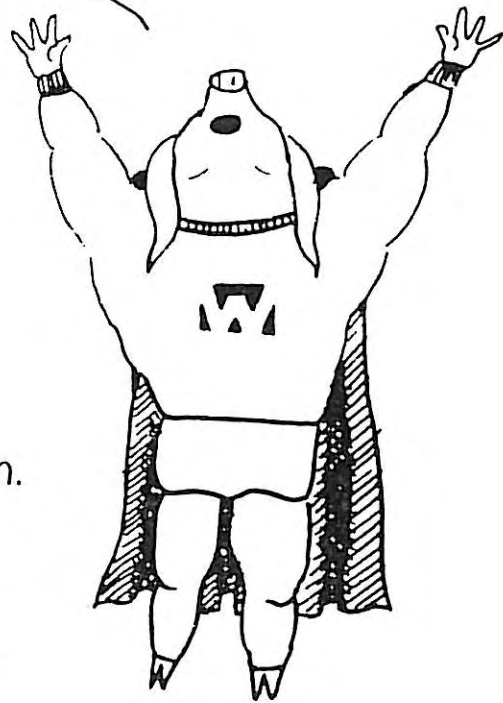
7. Pull up reserve closing loops and insert temporary pins.



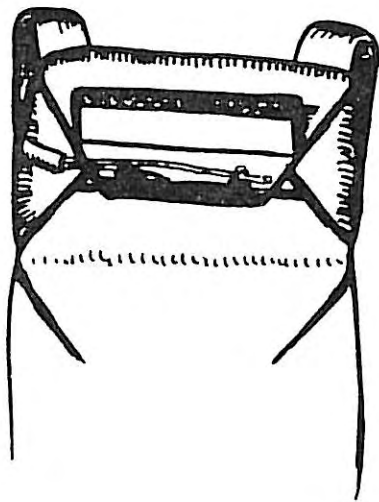
*the use of this loop is optional. Refer to the "Wonderhog Technical Update."

PART FOUR!

(AT LAST!)



1. Thread pull up cords through top flap.
2. Push top flap into position. (Do NOT pull it into position with pull up cords.)
3. Sit on the table, facing the rig from the top.



4. Place your feet on either side of one hole, then pull that cord toward your stomach (at a low angle) while pushing the flap back and down with your feet. Insert locking pin. Repeat on other side.
5. Thread ripcord, replace the temporary pins with the ripcord, and seal the velcro protector flap.

Notes:

- It is better to operate (in #4) with the concept of pushing the plastic to the cord rather than pulling the cord to the plastic.
- To provide for and to preserve a neat appearance, tack reserve top flap upper corners with two turns of "E" size thread or lighter. Be careful not to sew the canopy.

The Booth Three Ring Canopy Release System

The Three Ring Release is a new device.* It would be foolish to think that everything there is to be known about it is already known. Therefore, please consider yourself a test jumper.

However, as of this writing (October 1976), we have over 3500 jumps on the system, including 15 premeditated breakaways, 6 actual emergency breakaways, and literally thousands of suspended harness tests. . . all with perfect function, no accidental release, and no structural deterioration.

Here is a list of maybe's to look out for:

1. Assemble as the diagrams show. Be sure that the nylon cord loop on the risers passes over **only** the small ring. Do not pass the loop over the middle ring also.
2. Do not construct any sort of cover for the rings. They will not operate if covered, and there is no reason for a cover anyway.
3. Do not wet and then refreeze the nylon cord loop. If it is rigidly frozen, the rings may not release a low drag malfunction such as a bag lock or streamer.
4. Periodically inspect the system for wear. Check:
 - nylon cord loops
 - breakaway ripcord
 - cable housing endings
 - riser grommets
5. Avoid prolonged exposure to sunlight. Nylon will lose strength rapidly in sunlight, without apparent visual damage.

HOW THE SYSTEM WORKS

The riser rings are actually ten to one levers. When interlocked, their mechanical advantages multiply to equal 100 to 1. The nylon cord loop acts as a two to one pulley, yielding a total mechanical advantage of 200 to 1 per riser, or 400 to 1 for both.

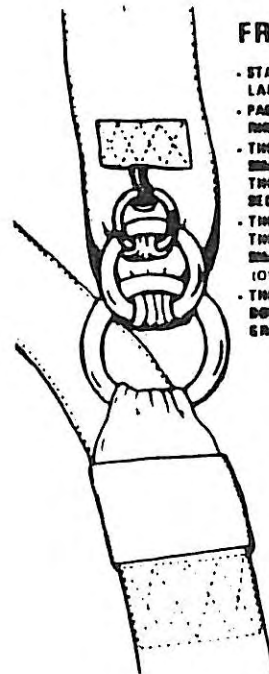
In other words, if the whole system were loaded to 2,000 lbs. (roughly equivalent to opening an unreefed ram-air at terminal), the force the nylon loop/cable locking system would be exposed to would be only *five* pounds. Or, to release a 200 pound jumper from his canopy, the cable activator need only move against a one-half pound load from each nylon loop.

BREAKAWAY PROCEDURES

Familiarize yourself with the system by practicing breakaways from a suspended harness, *before* actually jumping it.

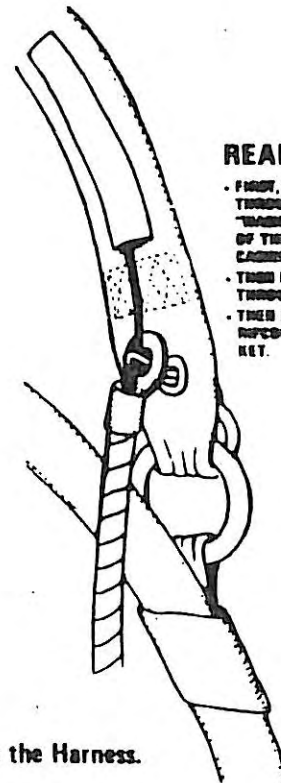
For maximum ease of operation, the soft breakaway handle (which is velcroed in place) should be peeled away from the main lift web, *then* pulled downward about 8" to effect release. If the handle is just pulled straight down, considerably more force will be required to release the handle from the main lift web velcro.

IF you pull the breakaway ripcord cable completely out of its housing during a breakaway, throw it away before pulling the reserve ripcord.



FRONT VIEW

- START WITH THE LARGEST RING.
- PASS THE SECOND RING THROUGH IT.
- THEN PASS THE SMALLEST RING THROUGH THE SECOND RING.
- THEN PASS THE LOOP THROUGH THE SMALLEST RING (OVER IT).
- THEN PASS THE LOOP DOWN THROUGH THE GROMMET.



REAR VIEW

- FIRST, PASS THE LOOP THROUGH THE "WASHER" ON THE END OF THE RIPCORD CABLE.
- THEN PASS THE RIPCORD THROUGH THE LOOP.
- THEN STAY THE RIPCORD IN THE POCKET.

Connecting the Risers to the Harness.

We would appreciate user comments that relate to safety, operation and maintenance of the three ring release. Please share your experiences with us so we may all learn from them.

* At the time this manual is being reprinted (May 1978), the Three Ring Release has been installed on nearly 2,000 rigs — and has earned worldwide acceptance.

3-Ring Release System Required Periodic Maintenance

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

Feedback from riggers and some of the thousands of users has made it possible to publish this set of maintenance and inspection instructions. It must be followed exactly.

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 cycled (operated) on a regular basis.

Specifically, 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 release 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 aren't frayed.
 - **Check the Velcro** on the release handle and main lift web to insure that it adequately holds the handle.

— **Check the stitching**, including that which holds the large ring to the main lift web and the hand tacking that prevents the release housings from sliding through its keeper. (This keeper is located a few inches above the padded release handle.)

3. **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 in the webbing. Failure to do this might make the release hesitate when activated in response to a low-drag malfunction such as a streamer.
4. **Check the inside of the release housing** for gravel or other obstructions. Use the cable to do this. Inspect the housing for dents or other damage (this is very unlikely unless the rig was smashed in a car door or suffered similar abuse).
5. **Clean and lubricate the release cable** with a light oil such as "3-in-1." 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. Failure to do this could require a higher-than-normal force to extract the cable during a breakaway.
6. **Inspect each release housing and assembly.** There are two kinds: an older hand-tacked one (with a flexible grommet) and a newer swedged version. It is recommended that the older type be replaced. Kits are available from the Relative Workshop at \$5 a set.
7. **Re-assemble the system properly**, insuring that it is done in accordance with the *Owner's Manual*. Double check it. Make sure the risers aren't reversed.
8. **If any wear is found, consult the manufacturer or a rigger immediately.**

**Relative
Workshop**