

DISCLAIMER — NO WARRANTY

By using the system or allowing it to be used by others, Buyer waives any liability of the manufacturer for personal injuries or other damages arising from such use.

Because of the unavoidable dangers involved in the use of this system, Manufacturer makes no warranty of any kind, express or implied. The system is sold "With All Faults and Without Any Warranty."



Following form must be filled out and returned with the unused system. Manufacturer will bear the cost of postage.

Manufacturer whether caused by negligence on the part of Manufacturer or otherwise.

Any deviation from Manufacturer's specifications concerning maintenance, repair, and alterations or modifications constitutes willful negligence and will be done at the operator's own risk.

**HIGH PERFORMANCE
HARNESS AND CONTAINER
OWNER'S MANUAL**

NAME: _____

ADDRESS _____

DEALER'S NAME _____

DEALER'S ADDRESS _____

DATE OF PURCHASE _____

SWIFT SYSTEM # SERIAL # _____

Mail to: Para-File Incorporated
5800 Magnolia Avenue
Pennsauken, New Jersey 08109-1399
U.S.A.

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By using the system or allowing it to be used by others, Buyer waives any liability of the manufacturer for personal injuries or other damages arising from such use.

If Buyer declines to waive liability on the part of Manufacturer, Buyer may obtain a full refund of the purchase price by returning the system, **before it is used**, to Manufacturer within 30 days from the date of original purchase. In order to obtain the refund, the following form must be filled out and returned with the *unused* system. Manufacturer will bear the cost of postage.

NAME: _____

ADDRESS: _____

DEALER'S NAME: _____

DEALER'S ADDRESS: _____

DATE OF PURCHASE: _____

SWIFT SYSTEM® SERIAL #: _____

Mail to: Para-Flite Incorporated
5800 Magnolia Avenue
Pennsauken, New Jersey 08109-1399
U.S.A.

PARA-FLITE INCORPORATED®

SAFETY WARNING

For continuing safe and rewarding use of the Swift System® , please follow the following instructions:

The Swift System® contains high performance gliding parachutes with unique flight and handling characteristics.

A thorough understanding of these characteristics is imperative for safe and effective flight. Certain actions or maneuvers, improperly executed by the user, may result in serious bodily injury or death. Use of the Swift System® by an inexperienced or unprepared parachutist is extremely hazardous as it is intended for use solely by experienced parachutists.

The Swift System® is designed for intentional parachute jumping only. It is **not** intended as an aircraft emergency escape system.

The Swift System® is a sensitive device which may be easily damaged. A malfunction in flight may occur from improper use or maintenance, accident, striking, alteration, faulty repair, or abuse. Before each flight, the Swift System® should be carefully inspected for evidence of damage or wear in accordance with the instructions contained in the body of the manual. Any deviation from the Manufacturer's specifications concerning repair, maintenance, or alterations and modifications constitutes willful negligence and will be done at the operator's own risk.

As a Swift System® owner, you should not permit its use by an inexperienced parachutist. Neither you nor anyone else should attempt to use the Swift System® without having first carefully read and understood this entire manual, as well as **Para-Flite's Swift Reserve/Cirrus Reserve Manual** and the **Para-Flite, Inc. Ram-Air Flight Manual**.

PARA-FLITE INC.

5800 Magnolia Avenue • Pennsauken, New Jersey 08109-1399 • (609) 663-1275
Telex:831355

SWIFT SYSTEM® OWNER'S MANUAL

Introduction:

While Para-Flite, Inc. had been manufacturing sophisticated military harness/container systems for years, the Swift System® was the first sport tandem system we produced.

1981: The Swift System® was developed specifically because Para-Flite's new canopy construction techniques had yielded two completely new ram-air parachutes which were actually too light and packed too small to fit into any of the then commercially available rigs.

1985: We began production of a new system; one which retained the reliability record of the reserve system while updating, improving, and refining the main container design. The necessity for some of the Velcro® has been eliminated, riser covers completely cover and secure the risers, the pilot chute has been redesigned to deliver the feel of pilot chute inflation which many jumpers prefer, and the main container is more efficient, streamlined, and attractive.

In keeping with the design philosophy of our canopies, Para-Flite redesigned the Swift System® with the four primary objectives of our other products:

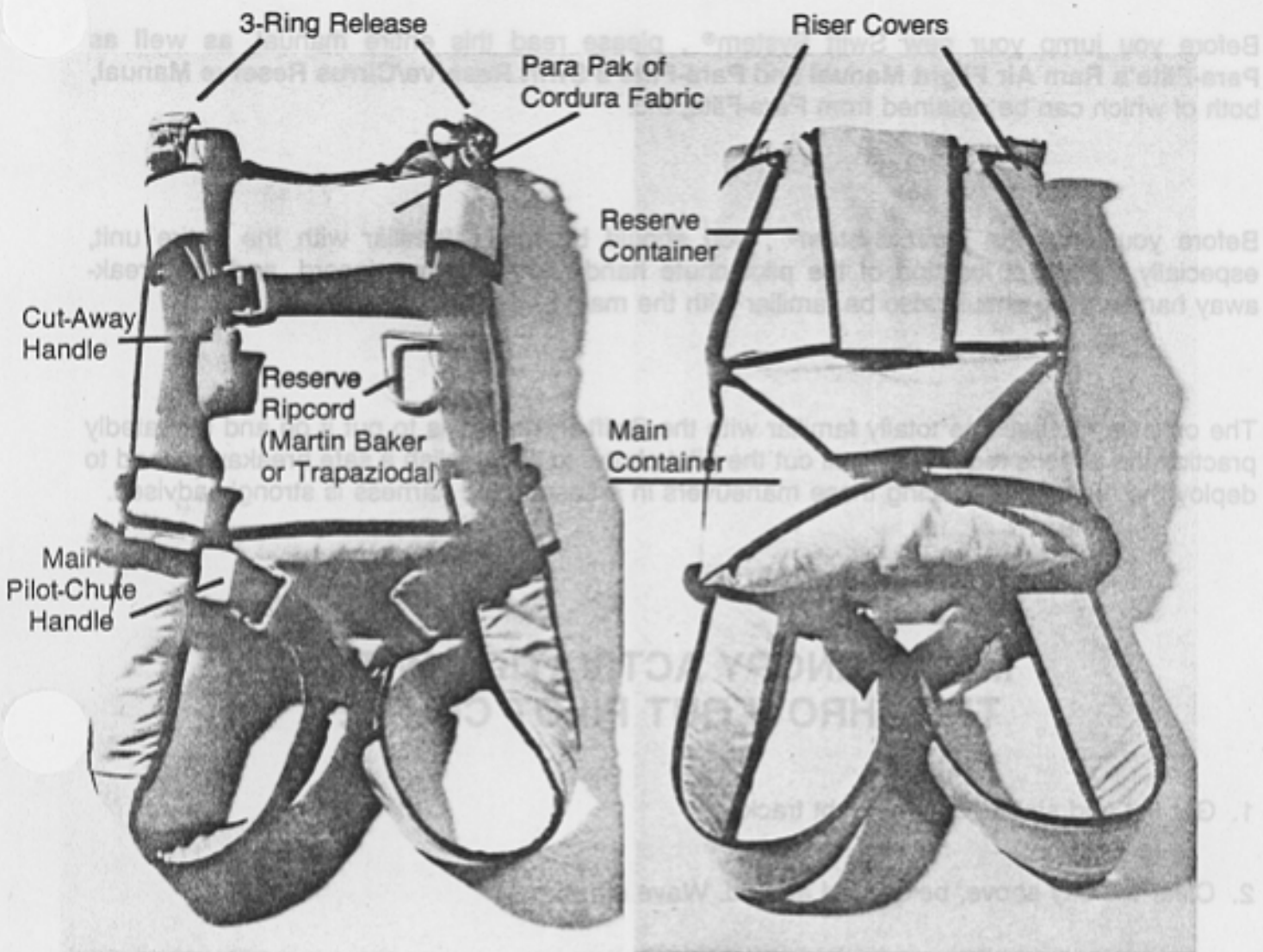
- 1) RELIABILITY
- 2) DURABILITY
- 3) LIGHT WEIGHT AND SMALL VOLUME
- 4) MAXIMUM COMFORT AND PERFORMANCE

The Swift Systems' harness and container were specifically designed to highlight our Swift® Reserve and Cirrus Reserve™, the most reliable parachutes in the world, as well as complement our fine line of main canopies including the Cruislite®, Cruislite® Beta, the Nimbus™ series, the Pursuit® series, the Strato-Cloud® Delta, and the DC-5®.

The Swift System's light weight, thin contour, and slender profile mean tighter exits and no shifting of the rig while in free-fall, as well as under canopy.

The Swift System® has been tested and approved under TSO-C23b only with the Swift Reserve and Cirrus Reserve™ parachutes.

Description



SWIFT SYSTEM: FRONT VIEW

SWIFT SYSTEM: REAR VIEW

Specifications:

The Swift System® complete with risers, ripcord, breakaway handle, pilot chute, and bridle weigh 5.7 lbs.

The Reserve container measures 14" x 11" x 3¼".

The Main container measures from 15½" x 7½" x 3½" to 15½" x 10" x 5" depending on the main canopy to be used.

Procedures for Using the Swift System® :

Before you jump your new Swift System®, please read this entire manual, as well as Para-Flite's Ram Air Flight Manual and Para-Flite's Swift Reserve/Cirrus Reserve Manual, both of which can be obtained from Para-Flite, Inc.

Before you jump the Swift System®, you should be totally familiar with the entire unit, especially the exact location of the pilot chute handle, the reserve ripcord, and the break-away handle. You should also be familiar with the main bridle routing.

The only way to become totally familiar with the Swift System® is to put it on and repeatedly practice the actions required to pull out the pilot chute, to accomplish a safe breakaway, and to deploy the reserve. Practicing these maneuvers in a suspended harness is strongly advised.

MAIN CANOPY ACTIVATION WITH THE THROW OUT PILOT CHUTE:

1. Get flat and stable, or in a slight track.
2. Clear the sky above, below and around. Wave off.
3. Look at the handle located on your right leg strap.
4. In a smooth and continuous motion, pull your pilot chute from the pocket and throw it to the side as far as you can. **Do not release the pilot chute by pulling it out of the pocket and just letting it go. It could fall into the burble and hesitate momentarily.**
5. Do not hold onto the pilot chute or wave off with it. The drag on the bridle may open your main container while the pilot chute is still in your hand.

Breakaway and Reserve Activation:

Familiarize yourself with the Swift System®, and practice cut-aways from a suspended harness, BEFORE actually jumping it.

For maximum ease of operation, the soft cut-away handle (Velcro® on the right main lift web) must be peeled away from the attaching Velcro®, THEN pulled downward about 8" to effect the release. If the handle is not peeled away and just pulled straight down, considerably more force will be required to release the handle from the Velcro®.

If you pull the cut-away cable completely out of its housing during a cut-away, THROW IT AWAY before pulling the reserve ripcord.

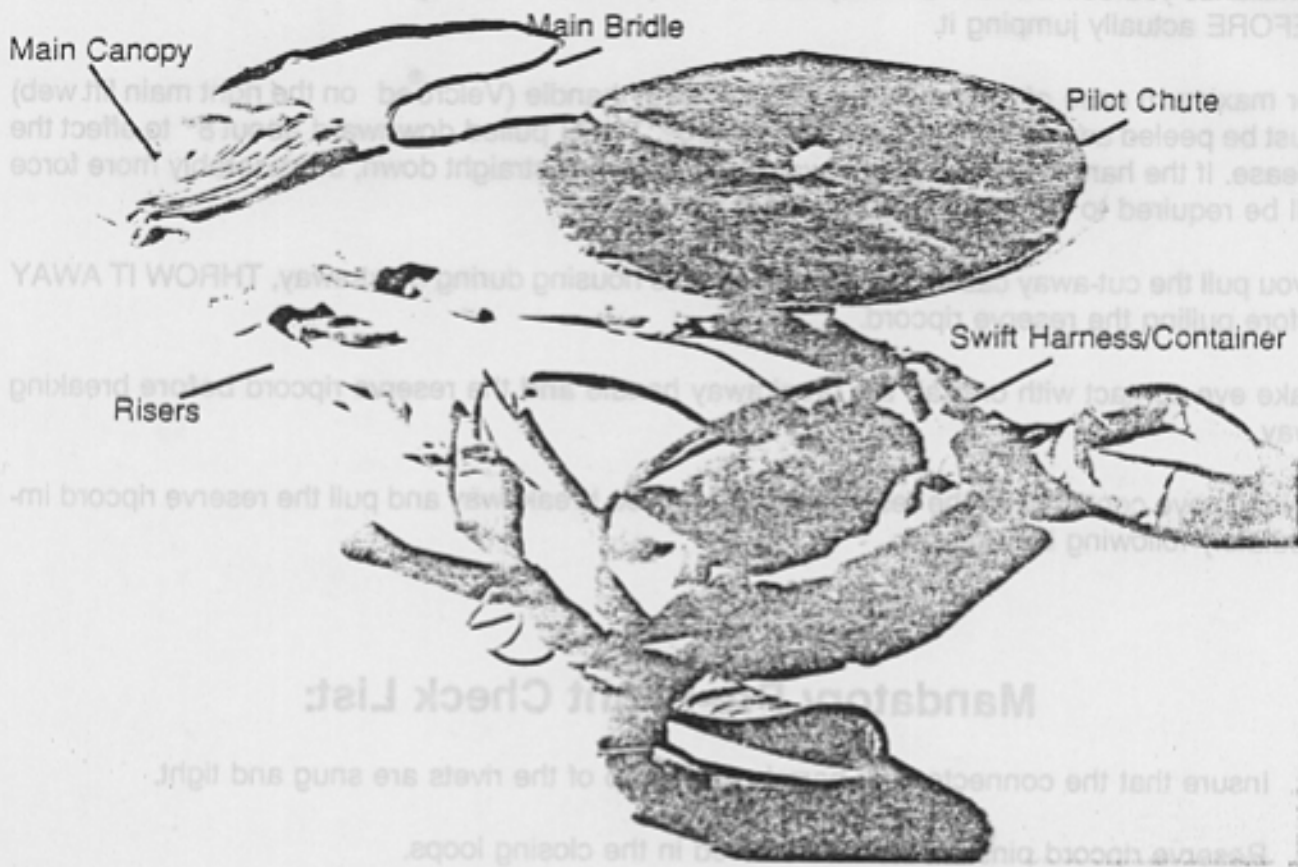
Make eye contact with or grab the breakaway handle and the reserve ripcord before breaking away.

Maintain eye contact with the reserve ripcord as you breakaway and pull the reserve ripcord immediately following breakaway.

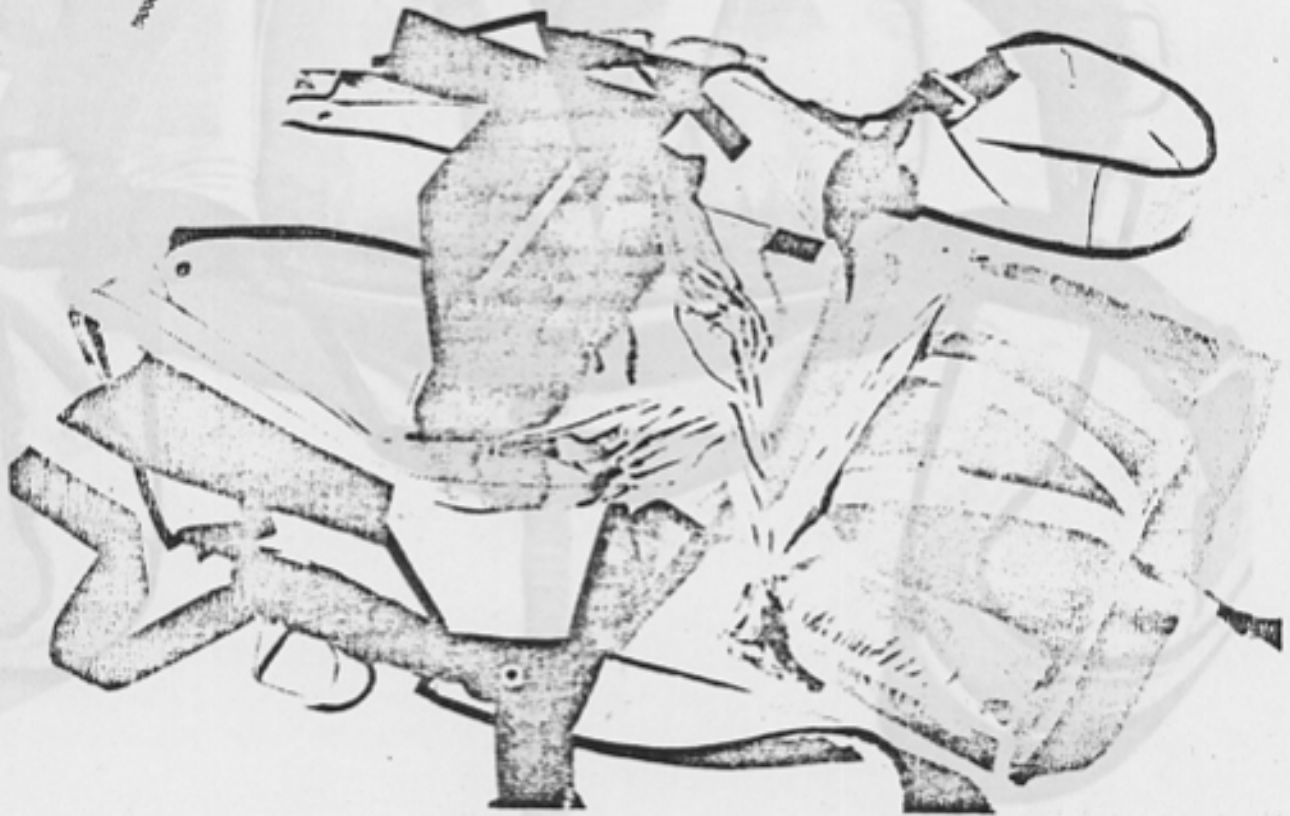
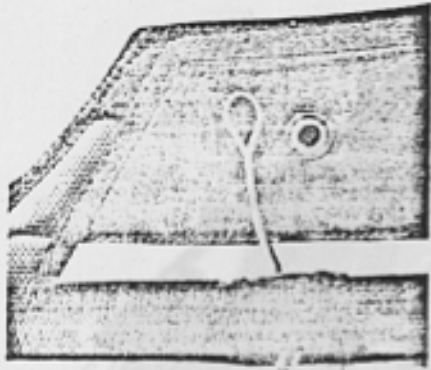
Mandatory Pre-Flight Check List:

1. Insure that the connector link barrels at the top of the rivets are snug and tight.
2. Reserve ripcord pins should be centered in the closing loops.
3. Reserve ripcord pins should not be caught under the ripcord cable near the closing loops.
4. The reserve ripcord cable should be free in the housing.
5. The reserve ripcord handle should be properly installed in its pocket.
6. The 3-Ring Release should be properly assembled and flexible.
7. The pilot chute should be properly inserted in the pocket with no excess fabric or bridle hanging out.
8. The main container pin and bridle should be properly assembled and ROUTED.
9. The breakaway handle should be properly seated on the Velcro®.
10. Check your harness to be absolutely certain it is not twisted.

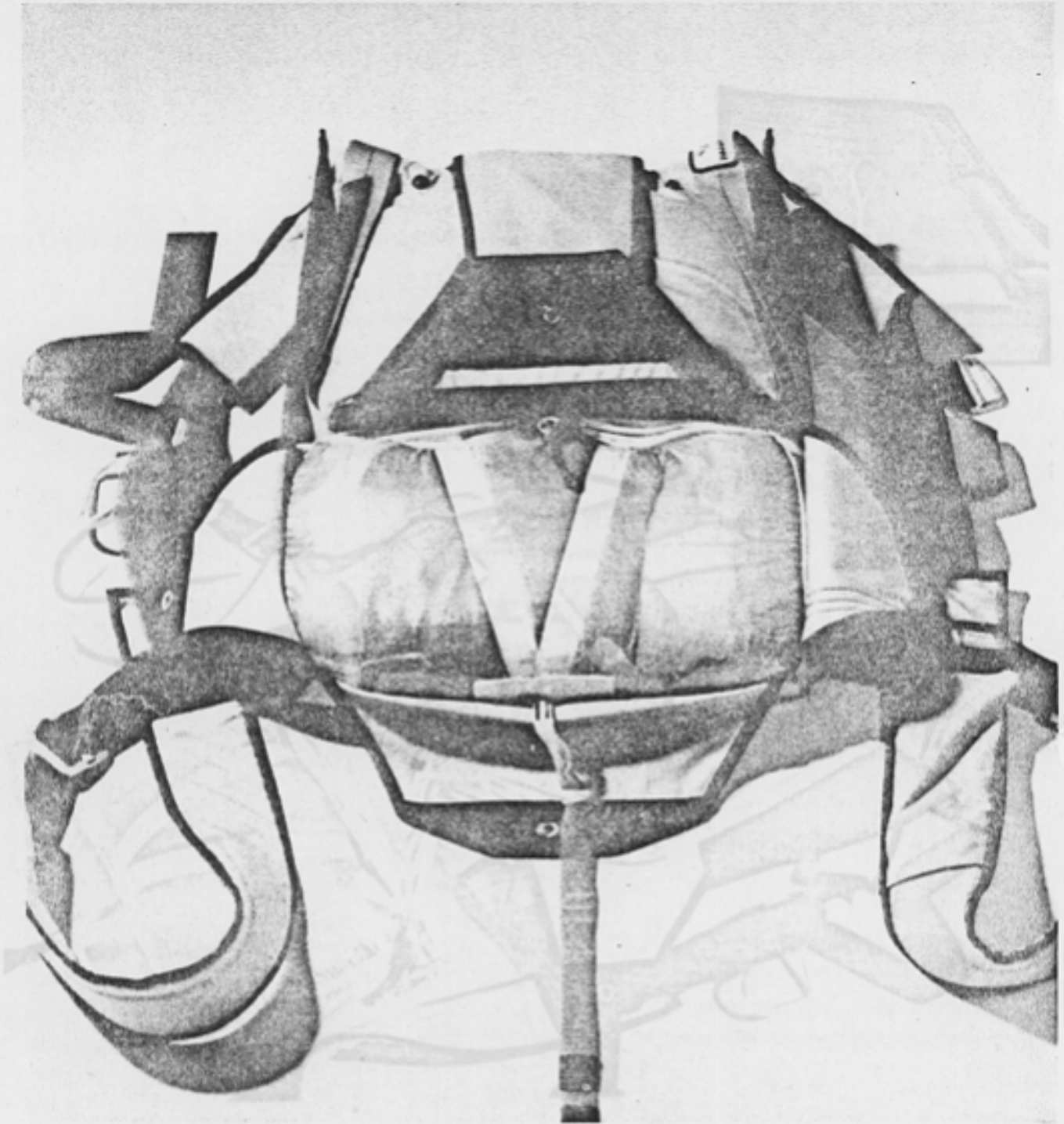
PACKING THE MAIN PARACHUTE IN ITS CONTAINER



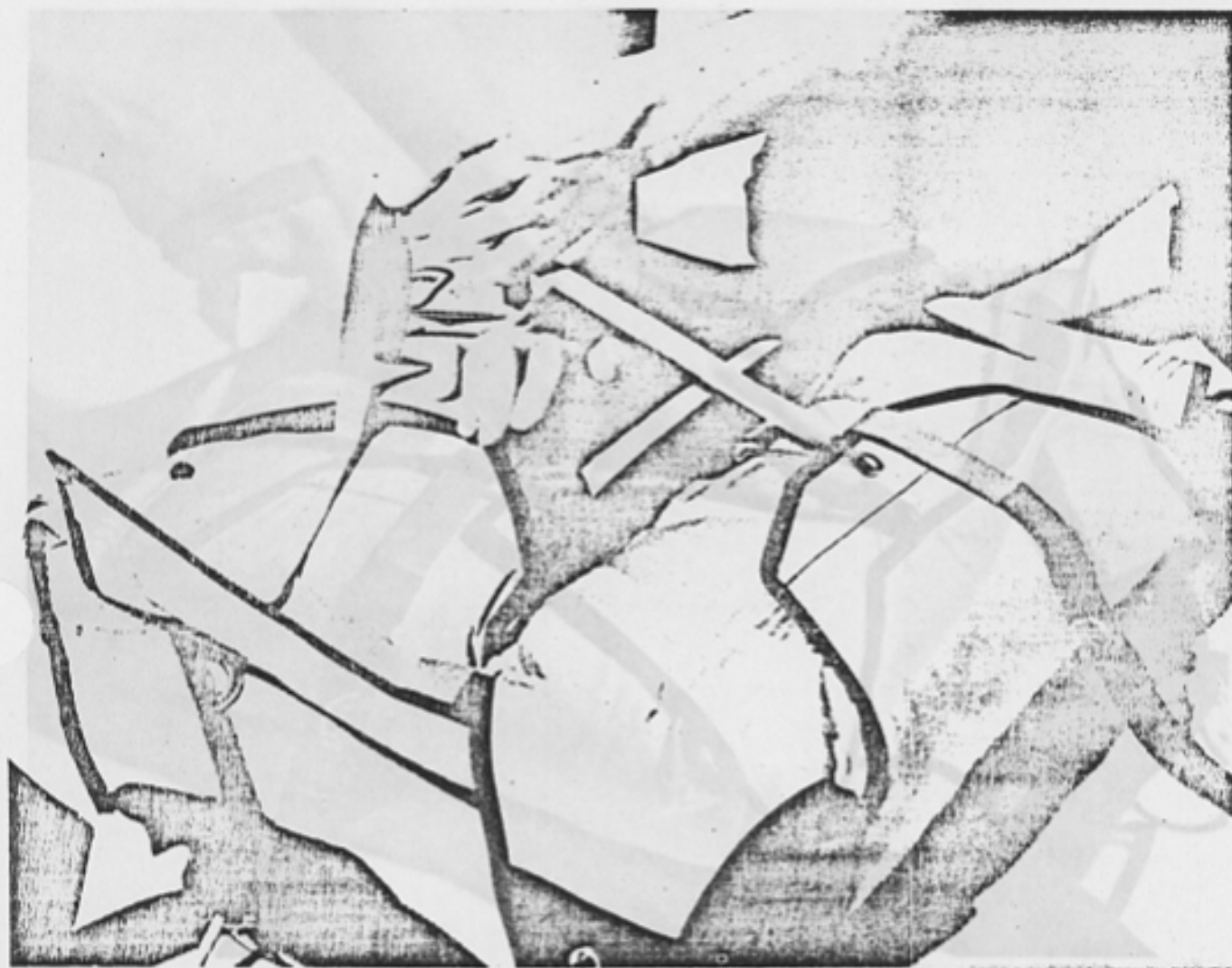
The main canopy should be packed according to the manufacturer's instructions, to the point where the canopy is packed into a deployment bag ready to be placed in the pack tray.



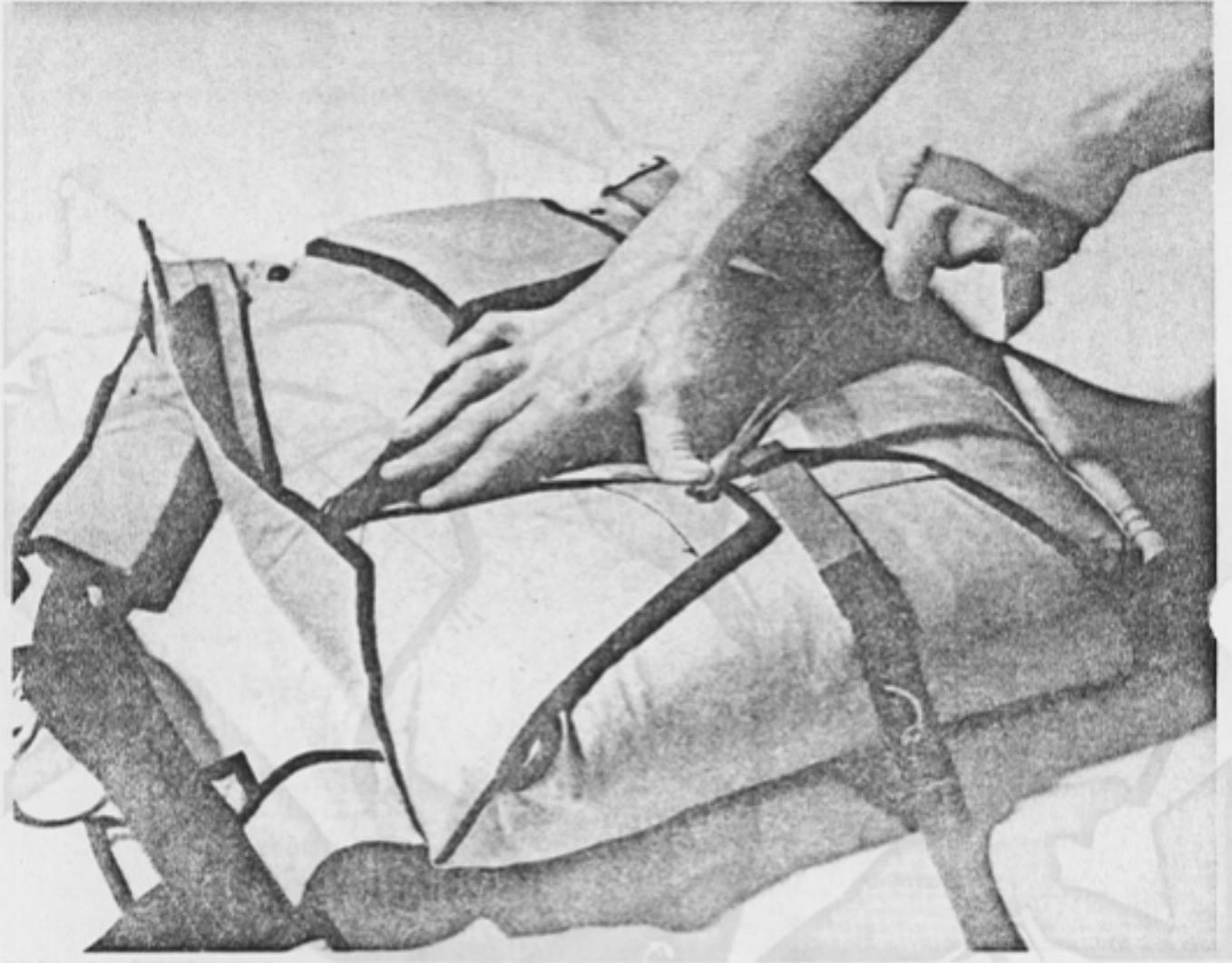
Spread the main container flaps and place the deployment bag close to the pack tray. Run the risers over the top of the rig and down the sides so that they lie within the riser covers. Place the remainder of each riser and the connector links up against the bottom of the reserve container.



Spread the main container flaps and place the deployment bag close to the pack tray. Run
Arrange the unstowed line neatly and place the deployment bag within the pack tray with the line
stows facing the reserve container.



Pass a pull-up cord through the closing loop. Make sure the loop isn't frayed. Then pass both ends of the pull up cord through the grommet in the bottom flap. Position the main bridle up and over the bottom flap.



Then pass both ends of the pull-up cord through the left side flap (the side without hook Velcro®) and pull until the grommets nearly overlap.

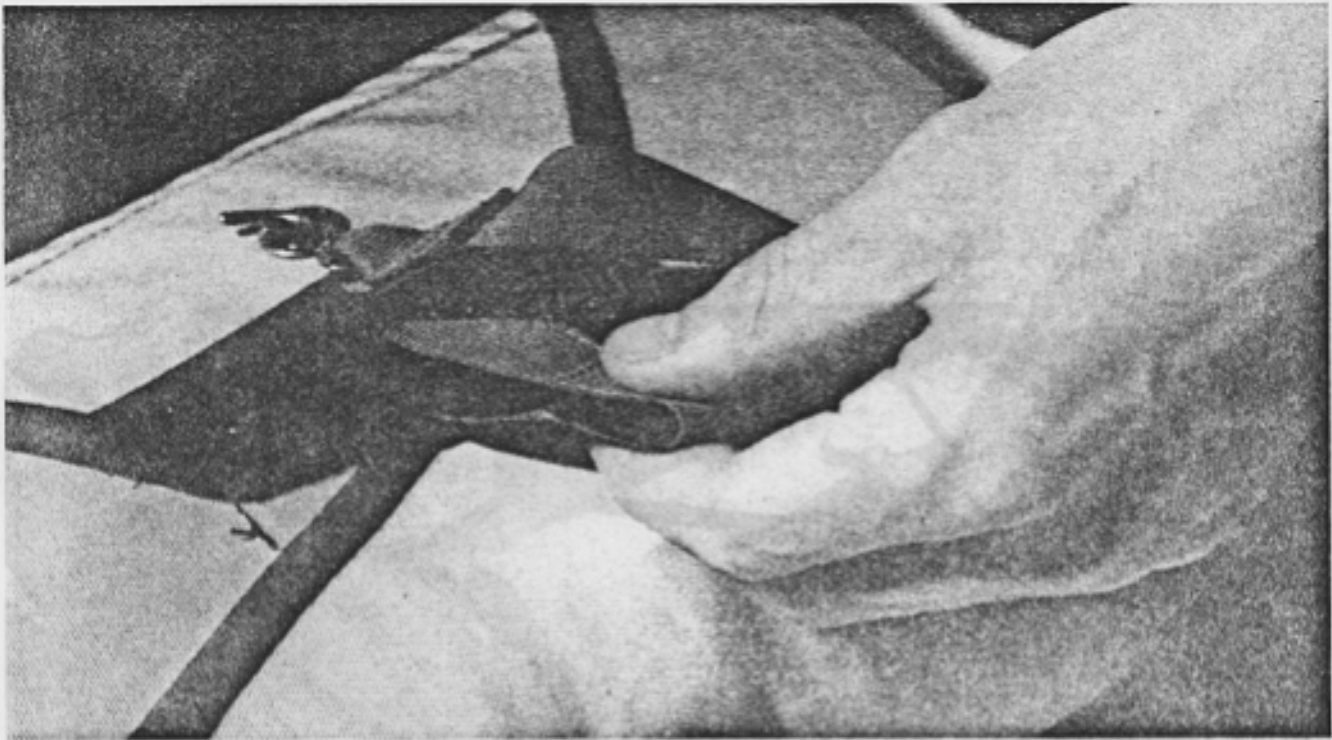


Close the right side flap the same way as the left side flap.

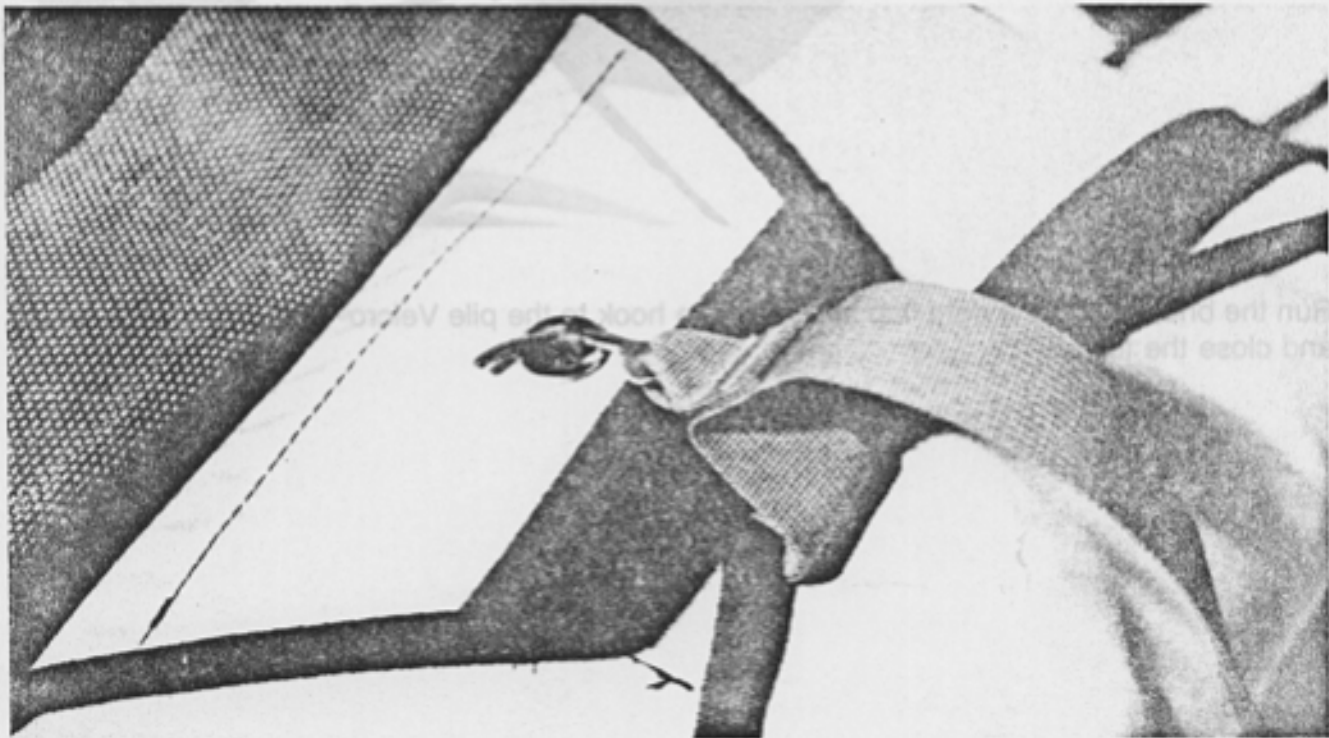
Pass the pull-up cord through the top flap grommet to insert the main locking pin. Insert the main locking pin into the loop from bottom to top.



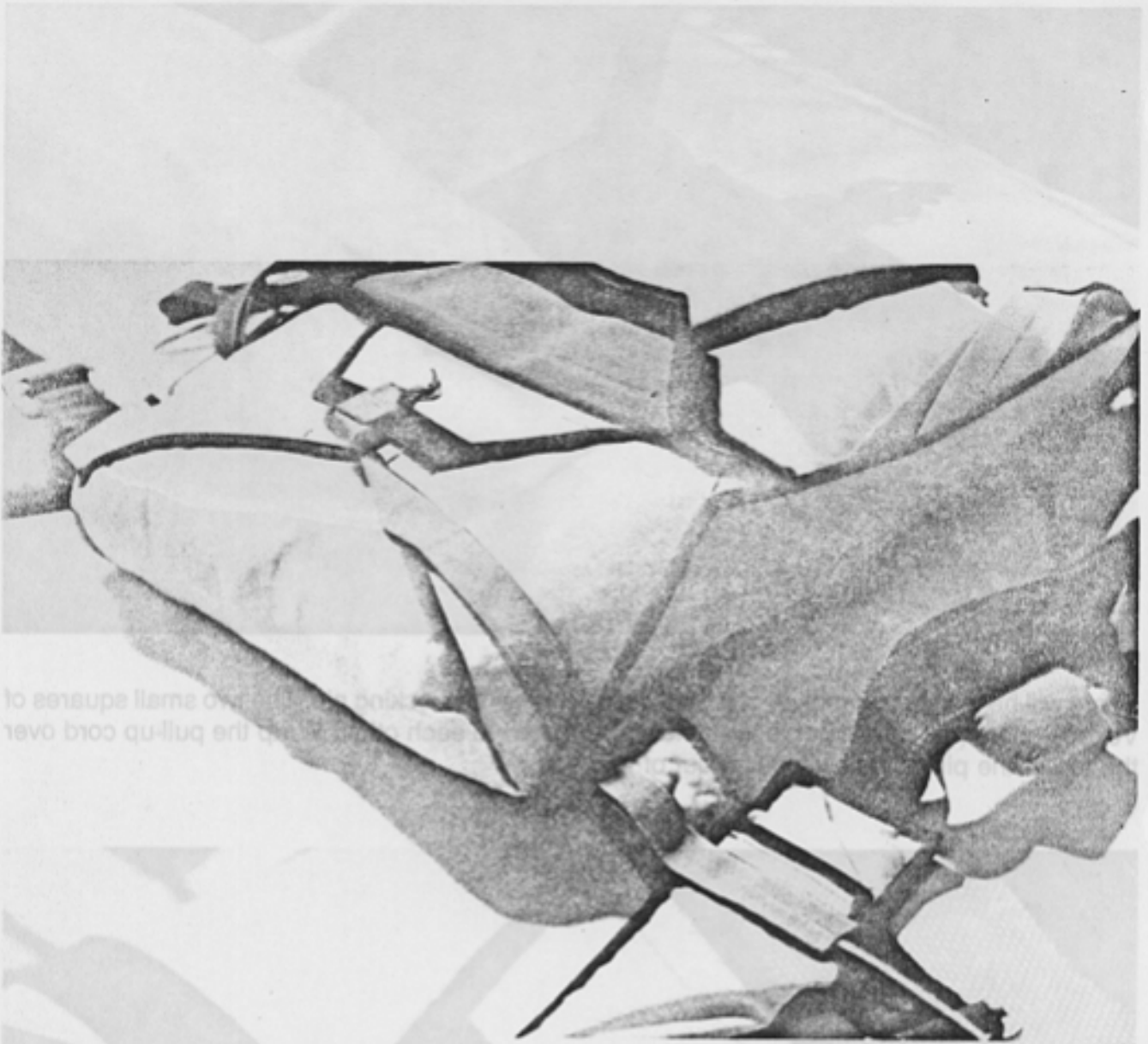
Pass the pull-up cord through the top flap and tighten it down until there is enough loop above the top flap grommet to insert the main locking pin. Insert the main locking pin into the loop from bottom to top.



There will be a couple of inches of doubled bridle below the locking pin. The two small squares of Velcro® here (the "hesitator loop") should be mated to each other. Wrap the pull-up cord over the top of the pin and slowly pull it out of the loop.

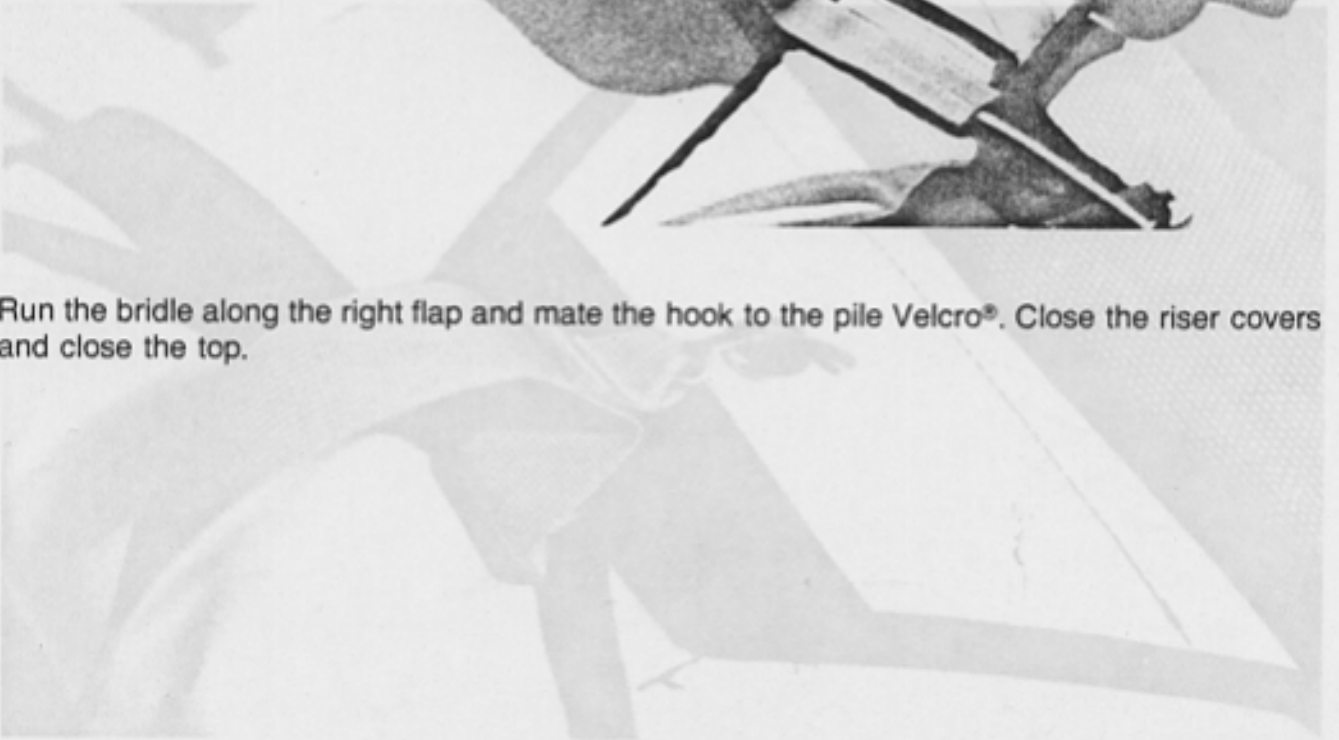


Tuck the (hesitator) loop underneath the top pinned flap. Close the top main protector flap securely.

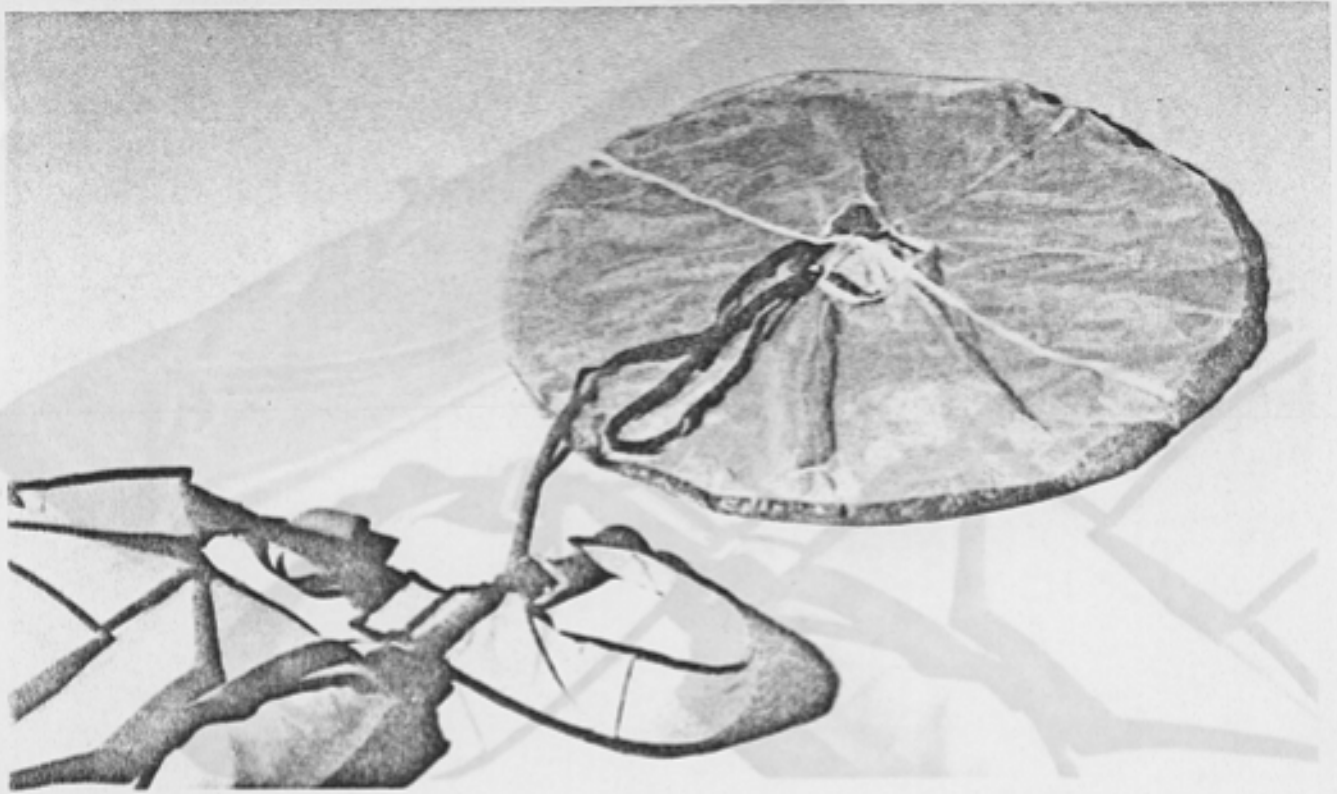


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the bul-up cord over

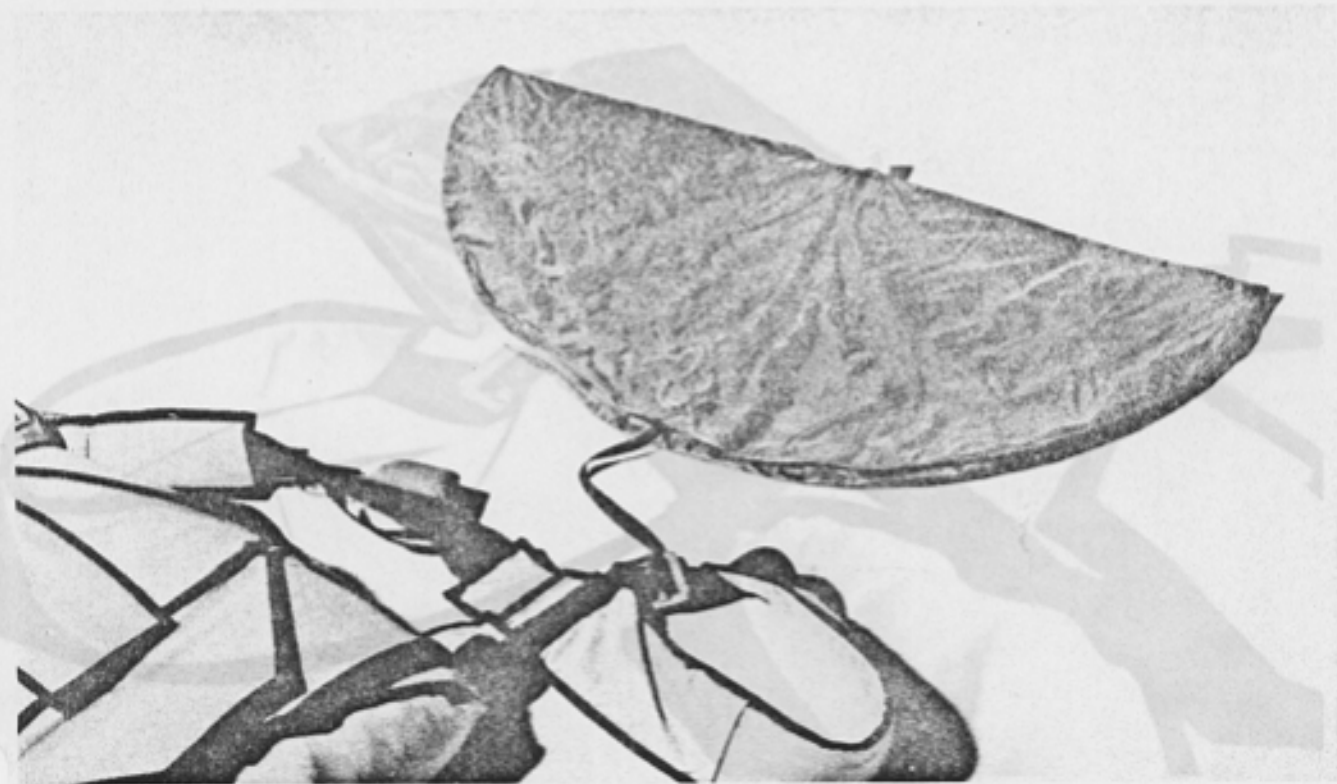
Run the bridle along the right flap and mate the hook to the pile Velcro®. Close the riser covers and close the top.



Tuck the (resistor) loop underneath the top pinned flap. Close the top main protector flap securely.

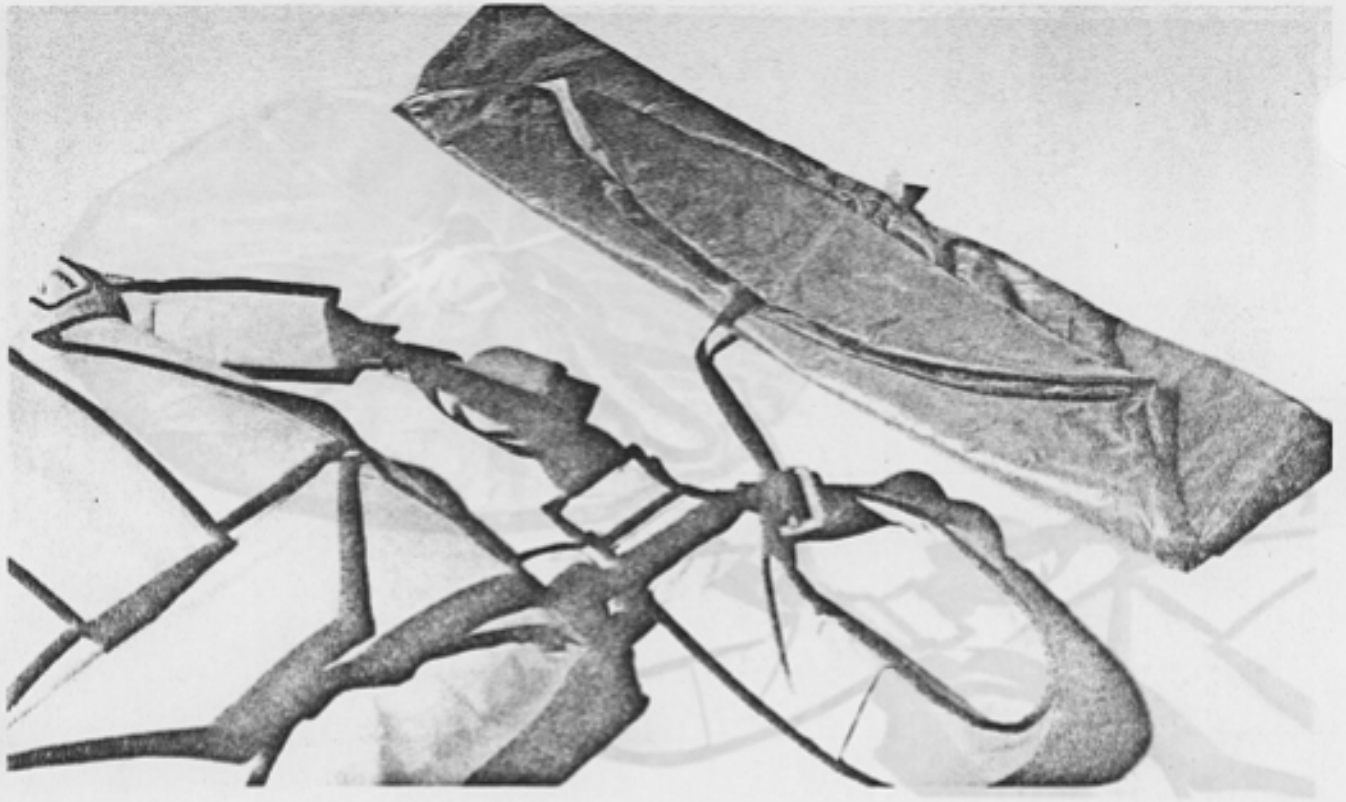


Lay out the pilot chute so the fabric is on the bottom and the mesh on the top. As shown, double back the bridle neatly so only four or five inches remain.

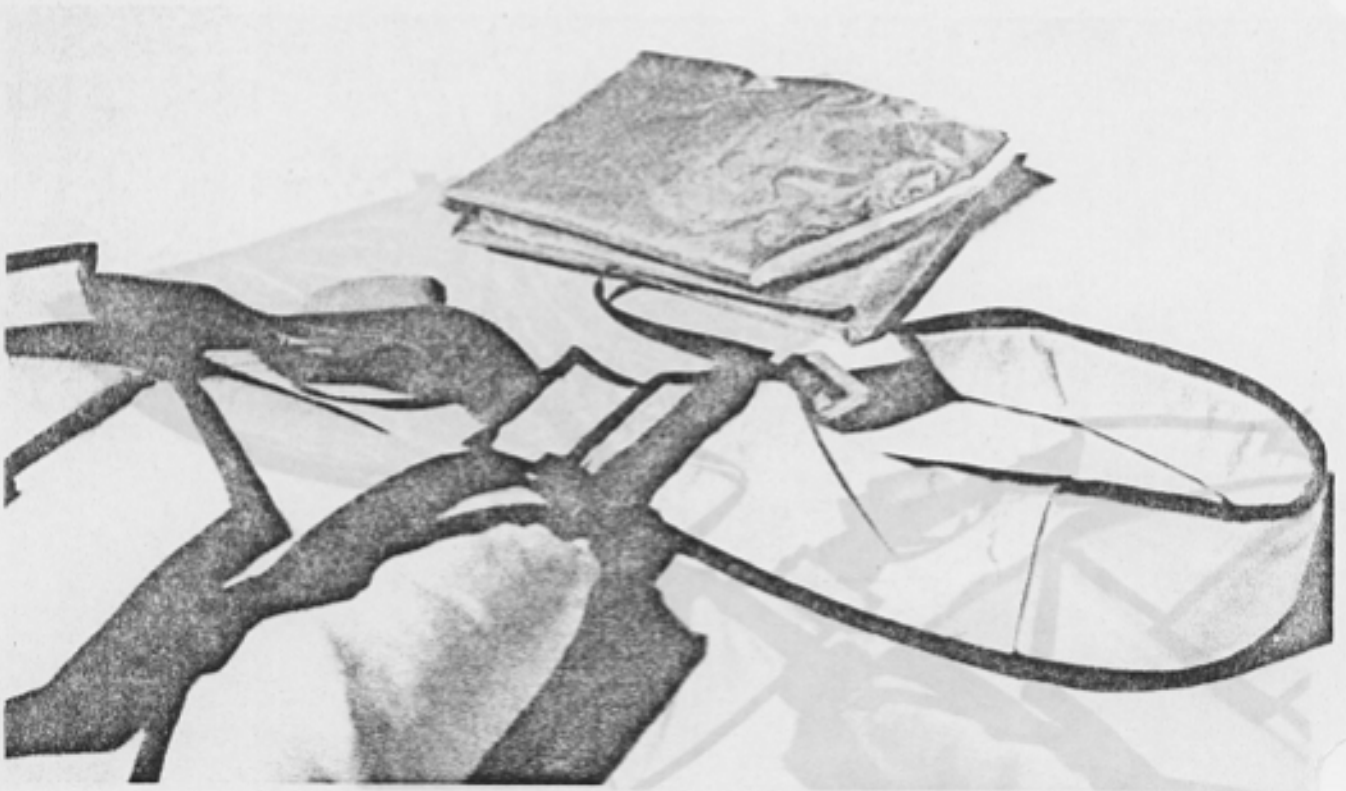


Fold the top of the pilot chute over to the bottom.

Fold the sides in to form a square.



Fold pilot chute into thirds. Lay out the pilot chute so the label is on the bottom and the mesh back the handle neatly so only four or five inches remain.



Fold the sides in to form a square. Fold the top of the pilot chute over to the bottom.

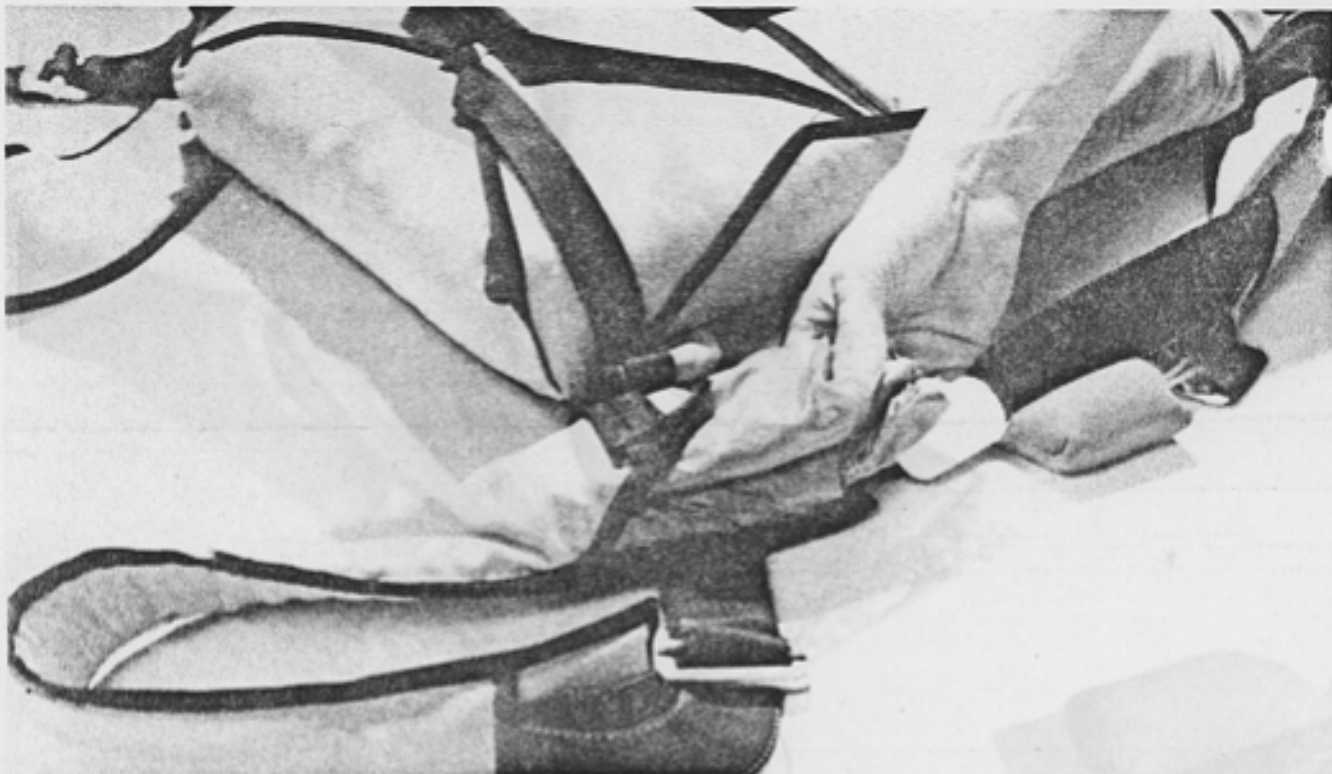


Carefully insert the pilot chute into the leg pouch.



fold the square to the approximate width of the pilot chute pouch.

Place the pilot chute handle to the outside and seal the top of the pouch.



Carefully insert the pilot chute into the leg pouch.



Place the pilot chute handle to the outside and seal the top of the pouch.

The Reserve Container:

THE RESERVE CONTAINER HAS BEEN DESIGNED AND TSO'D TO ACCEPT THE SWIFT® RESERVE AND CIRRUS RESERVE™ ONLY.

Maintenance:

The Swift System® is a high performance harness and container system. As such, it demands a high level of care, maintenance and performance from the jumper/owner.

As with any equipment which will be used in the air, you must "pre-flight" your rig each time it is jumped and you must periodically inspect it.

The Swift System® should be regularly examined for signs of wear. Any part of the system requiring maintenance should be marked for later repair/replacement.

Have a qualified rigger perform all repairs. Only a Master Rigger, a certificated loft, and the Manufacturer are allowed to perform repairs on the reserve system and structural portions of the harness/container system.

For any major damage consult Para-Flite, Inc.

Special attention should be given to the deployment bag. Loose grommets should be replaced immediately. When replacing these parts, make sure that they are installed properly.

Replacement parts for the Swift System® may be obtained from Para-Flite, Inc.

Avoid leaving the harness/container system uncovered in the sun. The sun's rays are very damaging to nylon. The amount of time that the rig is exposed to the sun is one of the deciding factors in how long the rig will last.

Use a packing mat under the Swift System® to avoid dragging it along the ground while packing.

FAA Part 91.15[a] and Part 105.43[a] state, in effect, that no person shall make a parachute jump without having had their reserve packed within the preceding 120 days. Only a rigger with the ram-air reserve certification is permitted to pack the Swift System® reserve container.

HOW THE SYSTEM WORKS

The riser rings are actually ten to one levers. When interlocked, their mechanical advantages multiply to equal 20 to 1. The nylon cord loop acts as a two to one pulley, yielding a total mechanical advantage of 40 to 1 per riser.

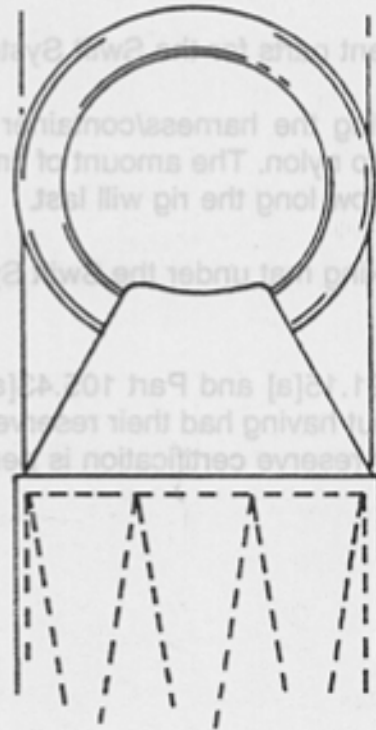
In other words, if the whole system were loaded to 2,000 lbs., the force each nylon loop/cable locking system would be exposed to would be only 50 pounds. Or, to release a 200 pound jumper from his canopy, the cable activator need only move against a 5 pound load from each nylon loop.

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.



3-RING RELEASE SYSTEM REQUIRED PERIODIC MAINTENANCE

The 3-Ring Release System has been in widespread use for almost ten 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 ensure 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. They must be followed exactly. Generally, it is NOT recommended that the risers be attached to the harness when new and "forgotten." Like all parachute 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 is subject 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 housing and disconnect the risers.
2. While the system is disassembled, closely inspect it for wear.

Check the white locking loops (the ones which 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 largest ring to the main lift web and the hand tacking which prevents the release housings from sliding through their 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 a 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, dirt, or other obstructions. Use the cable to do this. Inspect the housing for dents or other damage.
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.**
7. **Re-assemble the system properly**, ensuring that it is done in accordance with the Manual. **Double check it.** *Make sure the risers aren't reversed. This is the point at which mistakes are most common.*
8. If any wear is found, consult the manufacturer or a rigger immediately.

TECHNICAL MAINTENANCE AND USE OF THE THREE RING CANOPY RELEASE SYSTEM

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 allow the risers to become wet and frozen. If rigidly frozen, the rings may not release.

4. Periodically inspect the system for wear. Check:

- nylon cord loops
- cutaway handle
- cable housing ends
- riser grommets

5. Avoid prolonged exposure to sunlight. Nylon will lose strength rapidly in sunlight, without apparent visual damage.

The 3-Ring Release System has been in widespread use for almost ten years with excellent results. Although the system is as simple as the rest of the equipment, it requires periodic maintenance.

Feedback from users has shown that the system is easy to use and that the release handle is comfortable to hold. The 3-Ring Release System should be carefully inspected and maintained on a regular basis.

Specifically, the procedure for how 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 months) as the nylon is subject to drying out and becoming brittle. ON THE OTHER HAND, EXCESSIVE WETTING OF THE RIGS CAN COMPLETELY DESTROY THE RELEASE SYSTEM. Check the Velcro® on the release handle and main lift web to insure that it adequately holds the handle.

Check the white locking loops (the ones which pass over the smallest ring and through the grommet) to be sure they aren't frayed.

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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 CASING.
- THEN PASS THE CUTAWAY CABLE THROUGH THE LOOP.
- THEN SECURE THE CUTAWAY HANDLE TO THE ATTACHING VELCRO®.



Connecting the Risers to the Harness



After a careful point check, your Swift System is ready to skydive.

