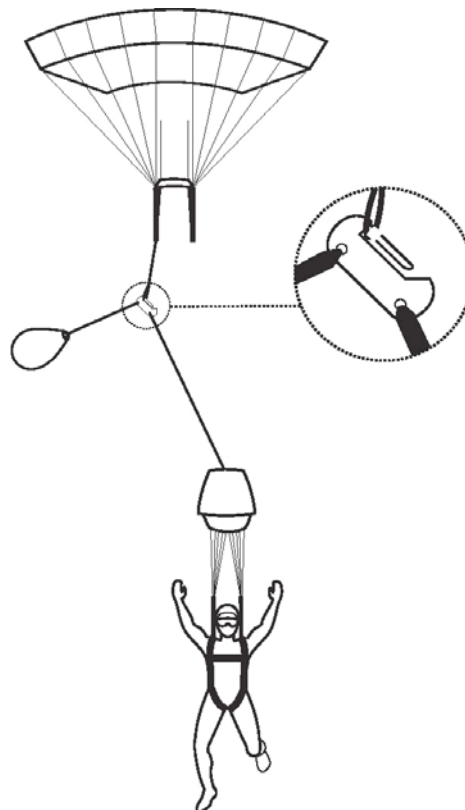




## SkyHook RSL Packing Instructions for Vector 3/Vector 3 M-Series/Micron/Sigma



### **ENGINEERING DEPARTMENT**

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## INTRODUCTION

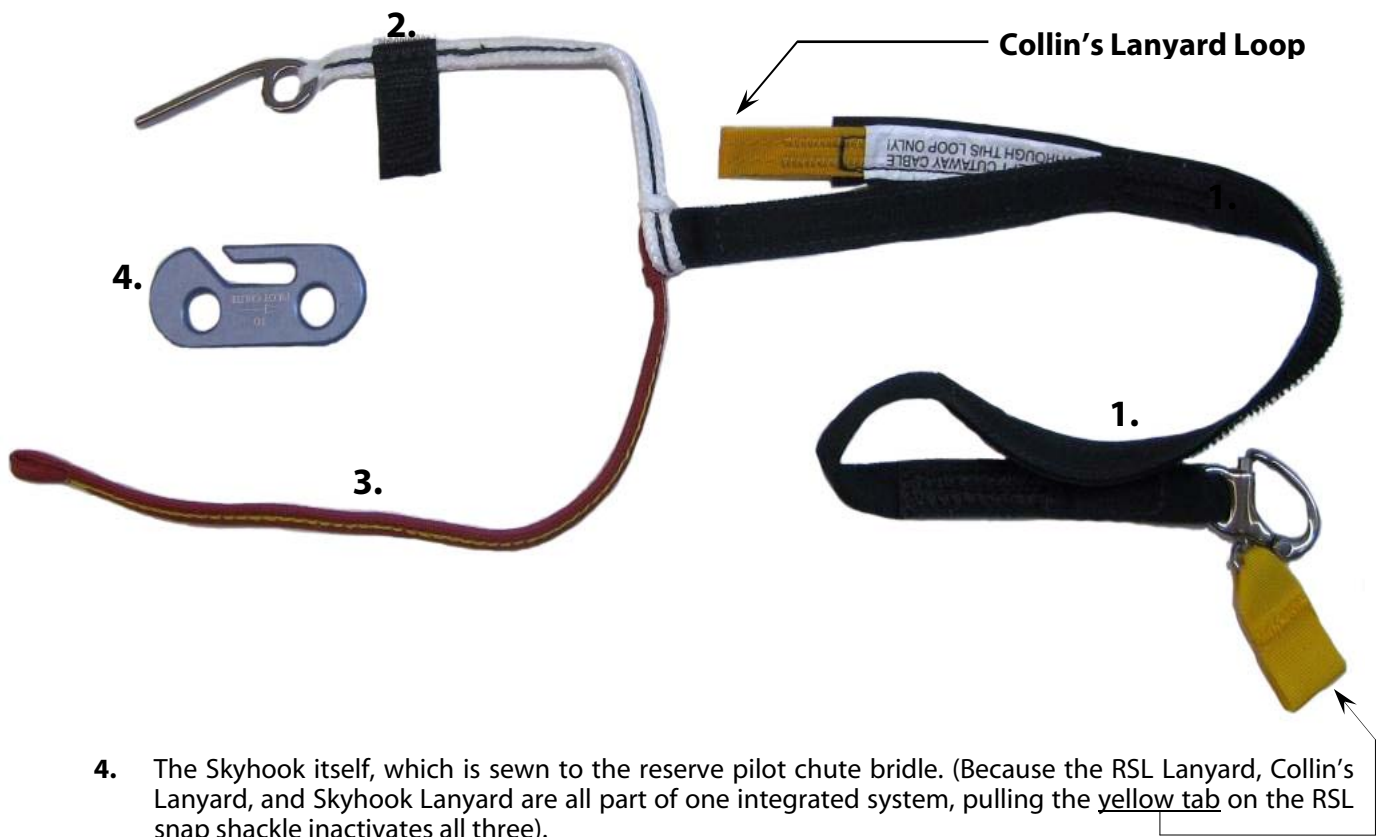
A traditional RSL does one thing. It pulls the reserve ripcord pin automatically after a breakaway. The Skyhook RSL does this, and then goes two steps further.

- A.** It automatically releases the Left (non-RSL) riser, if the right (RSL) riser releases prematurely for any reason (Collins Lanyard). (You wouldn't want your reserve container opened with one riser still attached, would you?)
- B.** It then uses your departing main canopy as a super pilot chute to get your reserve to line stretch faster than ever before. Breakaway, to canopy-out-of-bag and line stretch is  $\frac{1}{2}$  of a second, depending on the size of your reserve canopy. This is up to three times faster than a pilot chute can do it alone.

If you have a main total malfunction, or your AAD fires, the Skyhook Lanyard automatically releases, and therefore does nothing to hinder normal reserve deployment.

The Skyhook RSL System has four parts:

1. The RSL Lanyard (5/8 or 1", black webbing) with a snap shackle that connects to your right main riser at one end, and the Collins Lanyard loop at the other.
2. The White Ripcord Lanyard, with one end sewn to the RSL loop, and the reserve ripcord pin at the other.
3. The Red Skyhook Lanyard, also sewn to the RSL loop, with the Skyhook attachment loop at its free end.



4. The Skyhook itself, which is sewn to the reserve pilot chute bridle. (Because the RSL Lanyard, Collin's Lanyard, and Skyhook Lanyard are all part of one integrated system, pulling the yellow tab on the RSL snap shackle inactivates all three).

## SKYHOOK II

**Your rig is equipped with the new Skyhook II. It differs from the original Skyhook in the following ways:**

1. It is anodized blue.
2. The "To Pilot Chute" instruction is laser etched on the top surface.
3. There is a holographic serial number label under the surface.
4. There are two Lexan cover pieces – one per side.
5. The Lexan pieces have small holes drilled in them for safety tie thread.
6. The upper attachment tape is red.
7. The label on the rig has been updated to reflect some of these changes.

The Skyhook II'S dimensions are exactly the same, and it functions in exactly the same way as the original Skyhook. Therefore, it is fully compatible with any United Parachute Technologies rig set up for the original Skyhook.

### Reasons for the Changes:

1. The blue anodizing makes it easier to see damage to the hook section, while the second Lexan cover piece better protects the hook from any damage.
2. The laser etching is much easier to read, and the holographic serial number seal makes it much easier for us to keep track of different Skyhook batches. Please notice that while the arrow on the Skyhook II points the same way as the original Skyhook, the "to pilot chute" text is flipped to make it "right side up" when viewed from the top of the rig.
3. Sealing the Skyhook lanyard with a single piece of red rigger seal thread passed through the holes in the two Lexan cover pieces (instead of tacking the red lanyard to the free-bag bridle, as was done in the original Skyhook) results in far greater percentage of free-bags still attached to the broken away main all the way to the ground. There is no chance of needle damage to the bridle from successive tacking with a dull needle.
4. Making the upper (toward the pilot chute) Skyhook attachment tape red makes it even less likely that someone will someday sew a Skyhook to the bridle backwards.

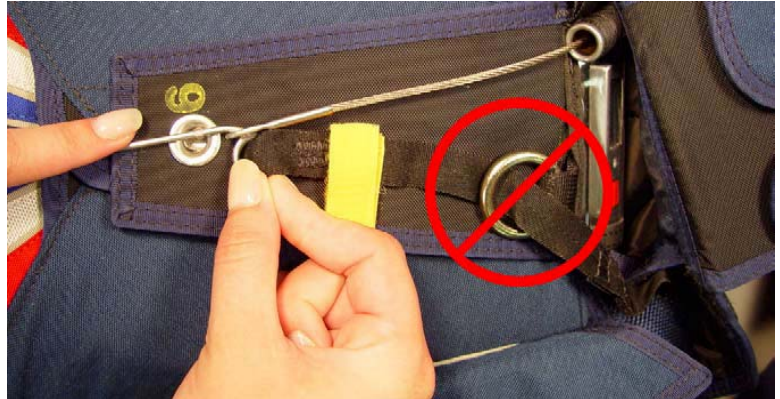


**Single pass of red rigger seal thread**



**WARNING - Before Packing:****Warning**

Note: There is no RSL guide Ring on flap #6 on Skyhook equipped rigs. Make sure the RSL guide ring has been removed on converted rigs. It was never really necessary, and someone might pass the Skyhook lanyard through it someday, causing a reserve total.

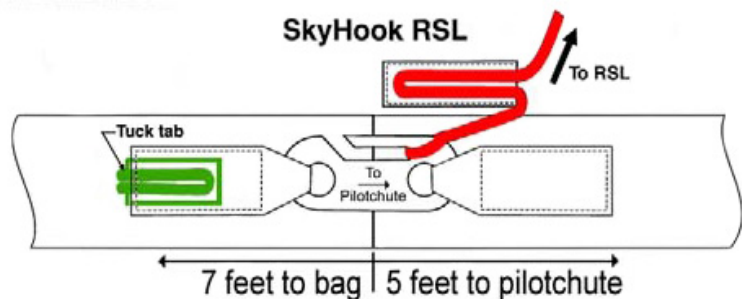
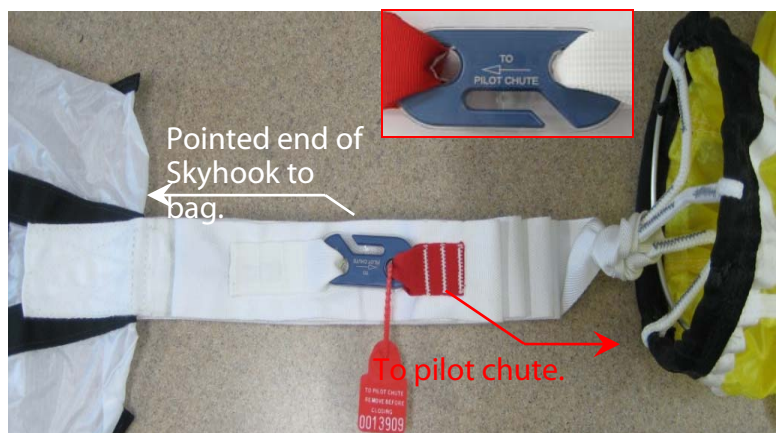
**Warning**

Make sure the left hand (exposed) yellow breakaway cable passes through the yellow Collins Lanyard loop at the end of the RSL. The Skyhook should not be used without a Collins' lanyard.

**Warning**

Make sure that the Skyhook is sewn to the reserve free-bag bridle correctly, with the pointed end of the hook facing toward the bag. If the Skyhook were sewn on the bridle facing the wrong way, a reserve pilot chute in tow would result if the reserve were pulled in response to a main total. (This pilot chute in tow could be cleared by pulling the yellow tab to release the RSL.) Remember, this malfunction can only occur if the Skyhook is SEWN to the bridle upside-down.

It cannot be caused by a packing error.





## PLACING THE BAG IN THE CONTAINER (WITH STAGING LOOP AND SKYHOOK)

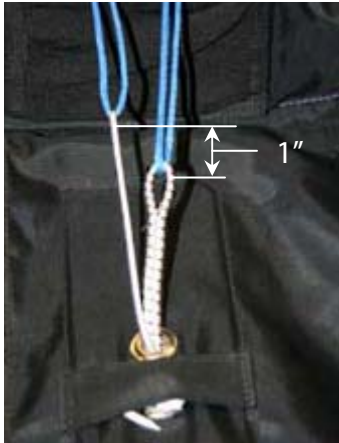
1. Place the bagged canopy on the main container and position the reserve risers in the reserve pack tray. Fan the links rather than stacking them on each other, placing the rear links to the outside. Be sure to place the reserve risers far enough in the pack tray so they will lie flat over the shoulders.

2. Pass a pull-up cord through the reserve closing loop and a second pull-up cord through the shock cord staging loop as shown.

Color coded pull-up cords are helpful.

### NOTE:

Regardless of the loop length, the staging loop will always be 1" shorter than the Cypres loop. This ensures proper tension on the reserve bridle for all V3 models.



3. Pass both pull-up cords through the bodkin and pull through to the top side.

### Note

If a T-bar was passed through the bag, thread the ends of the pull-up cord through the hole in the end of the T-bar.

Remove the T-bar from the bagged canopy, pulling the closing loop and pull-up cord through it.



4. Place the bagged canopy in the pack tray, taking extra care to fill the lower corners.

Pull firmly on both pull-up cords to ensure good separation of the 2 loops.

## Note

**When preparing the container for the bag, turn the upper reserve corners inside out.**

- This allows the reserve bag and canopy to drop straight down into the container.
- It also makes it easier to fill the bottom corners of the container.
- Leave the upper corners turned inside out until it is time to close flaps #4 and #5.



Using your knee, begin to produce room for the reserve pilot chute by pushing canopy fabric away from where it will seat.



The reserve flaps are numbered 1-6 for reference. Close them in proper sequence. Skyhook equipped rigs will have the additional 2A flap.





## CLOSING THE RESERVE CONTAINER (WITH STAGING LOOP AND SKYHOOK)

5. Close the inside bottom kicker flap (Flap #1) and secure it with the temporary pin.



6. While keeping knee on center of the bag, carefully pop the corners of the bagged canopy into the corners of the container. Pushing too hard can result in moving bulk away from the corners.



Firmly Push the AAD into the space made when closing the bag.

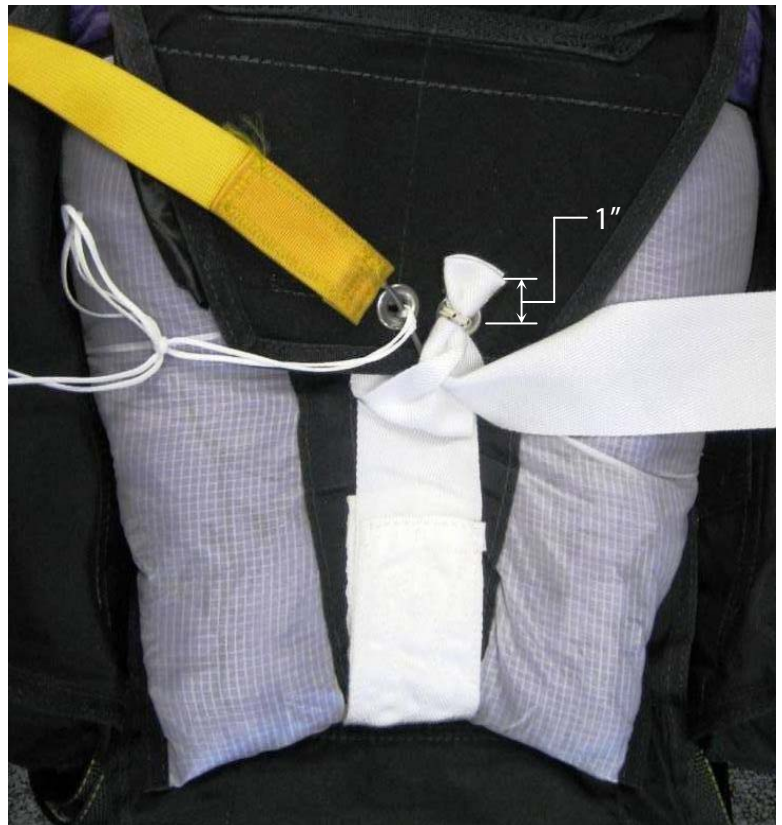


## Setting the staging loop

7. Begin by pulling the bridle line all the way to the top of the container as shown, and then fold it in half.



8. Stow 1" (25mm) of folded bridle as shown and tuck the excess slack under flap 1 as shown.



### Note

#### CHECK RESERVE RISER PLACEMENT BEFORE CLOSING FLAP #2

- Ensure that the risers are at the edge of the pack tray with the rear riser fanned to the outside.
- Adjust the risers so that they lay flat against the yoke or shoulder padding.



9. Then fold remaining 6' (1.83m) of bridle in the V shape ending with the Skyhook as shown.

10. Close and pin flap #2.

Attach the RED Skyhook lanyard to flap #2 by folding the stiffened section of the lanyard in half, and inserting it in the RED pocket on the flap. You may have to open the pocket a little with a pencil before inserting the flex-tab.

Lift the Lexan cover slightly, rotate the Skyhook enough to slip the loop on the end of the red Skyhook lanyard over the Skyhook, and rotate it back into position. The Skyhook should be held firmly in place between the two pockets with less than 1/4" (7mm) of play.

**NOTE:**

It should take a force of 5-7 lbs. to pull the red or green flex-tab out of its pouch pulling at a 180 degree angle to the mouth of the pouch.)

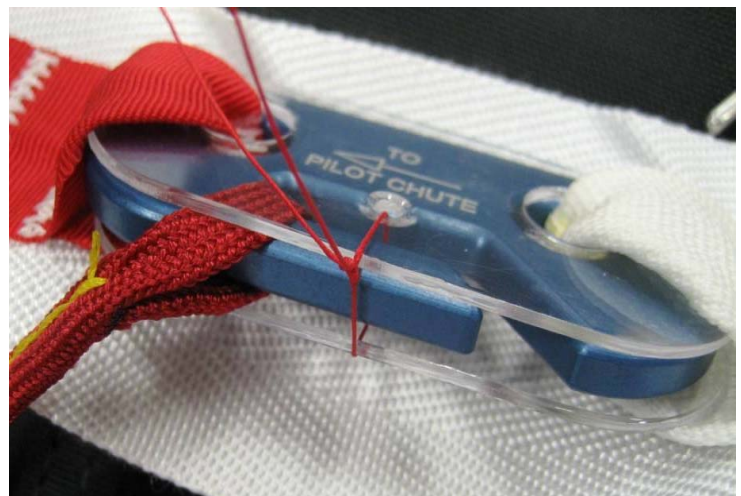


11. Pass a single length of riggers seal thread through the holes in the lexan covers and firmly tie off with a surgeons knot to hold the RED Skyhook lanyard in place.

## Note

The Skyhook has a Lexan cover piece designed to:

1. Hinder anything but the Skyhook Lanyard from entering the Hook-slot.
2. Lower the chance that the hook area might be damaged by use or misuse. Make sure this cover is in good condition. Make sure the hook area is smooth and free of burrs.

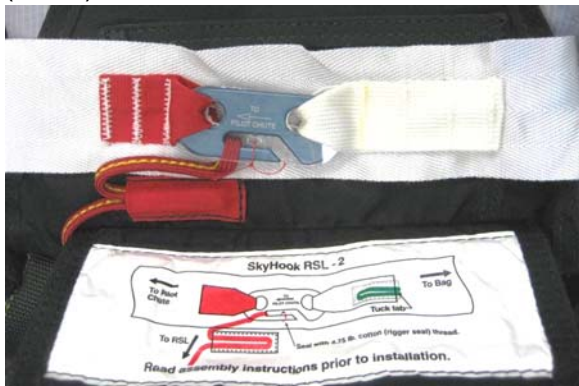


**12.** Insert the GREEN flex-tab on the free-bag bridle into the GREEN pocket on the #2 flap.



**13.** Complete the Skyhook assembly to the diagram on flap 2A.

Close and pin flap 2A then S-fold remaining 5' (1.52m) of bridle line as shown.



**14.** Thread the pull-up cord up through the pilot chute from bottom to top.





**15.** Make sure the pilot chute is centered over the loop, then compress it straight down and lock it with the temporary pin.

**16.** Pull all the pilot chute fabric out, away from the spring. After pulling the fabric away from the spring, check to make sure the pilot chute base is centered under the crown then accordion fold the material across the top.

## Note

Fully compress the spring to see how much loop can be pulled through the top of the pilot chute. If you can pull more than  $\frac{1}{2}$  to  $\frac{3}{4}$  inches (1.3 cm – 1.9 cm) through, then it is too long. This would be the best time to open the container and shorten the loop.

**17.** Thread the pull-up cord through the reserve bottom flap (Flap #3). Close and secure it with the temporary pin.

## Note

**DRAW BOTH SIDE FLAPS, #4 AND #5, TOGETHER AT THE SAME TIME.**

- This prevents the bulk of the pack job from pushing to the side that isn't closed, which then makes it more difficult to close that side.
- By closing both side flaps at the same time, the pack job is evenly compressed from both sides.

**18.** Thread the pull-up cord through the right side flap (Flap #4), then the left side flap (Flap #5) in that order. Close and secure with the temporary pin each time. Ensure the pilot chute folds stay flat and neat.



## Note

If the force necessary to close the last two flaps seems excessive, the loop may be too short. Use a scale to determine how much force is needed to extract the pin; 8lb (3.6 kg) to 12lb (5.4kg) is correct. A short loop can also bend the reserve loop anchor.

## Warning

Make sure that the Skyhook lanyard goes directly from the RSL lanyard to the Skyhook hardware, without going under or through anything. (Except flap #2A)

**19.** Thread the pull-up cord through the top center flap (Flap #6).

**20.** Replace the temporary pin with the reserve pin, seating it to the depth as shown the left.

**21.** Seal reserve in accordance with the regulations in your area and close the pin cover.

***ALWAYS COUNT YOUR TOOLS  
WHEN FINISHED!***

