

PSB#031898
Automatic Riser Release Lanyard Installation "Collins Lanyard"
March 18, 1998

Status: Mandatory Installation. Use of the RSL is also mandatory. This Product Service Bulletin supersedes PSB-071897.

Identification: All Relative Workshop Vector Tandem Systems Worldwide.

Background: Relative Workshop has had three main riser failures since 1994. Since the beginning of the tandem program, we've made approximately two million tandem jumps on Tandem Vectors worldwide. Main riser breakage is very rare, but it can happen. If the right riser breaks or prematurely releases for whatever reason, the RSL may deploy the reserve, possibly resulting in a two canopy entanglement. The "Automatic Riser Release Lanyard" was designed to minimize the risk of this potential entanglement by automatically releasing the left riser.

Service Bulletin: Installation Procedure:

Begin with a correctly assembled main canopy which is ready for packing.

1) Reference Figure 4. Measure Dimension X. It should be 7.5 inches \pm .12 inch.

Be sure your system falls within this tolerance. (if not, RWS can build you a custom lanyard).

2) Disconnect the Rapide link of the right-front main riser.

3) Slide the large loop of the lanyard over the front leg of the riser, and only the front riser. Slide the lanyard all the way down to the confluence wrap above the rings. (Figure 4)

4) Reattach the front riser's Rapide link. Inspect line continuity.

5) Hand tack the lanyard to the side of the riser using waxed, heavy tacking cord. (Figure 4A)

6) Insert only the long cutaway cable leading to the left riser through the small loop of the lanyard. DO NOT insert both cables. (Figure 4)

7) The yellow hook Velcro attached to the lanyard is mated with existing cutaway handle pocket Velcro, behind cutaway handle. (Figure 4B)

8) Make sure that slack in the lanyard is placed behind main lift web. (Figure 4)

Special Note: Lanyard is placed on top of everything during installation. Routing is direct from riser to cutaway cable. Excess lanyard is stowed behind the main lift web after installation.

Qualified Personnel: Certificated rigger may install this lanyard. Compliance Date: June 1, 1998

Authority: Relative Workshop, Deland, Florida, USA

Distribution: Parachutist, PIA, Skydiving, USPA, all Tandem Vector System owners, worldwide.

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Automatic Riser Release Lanyard Installation

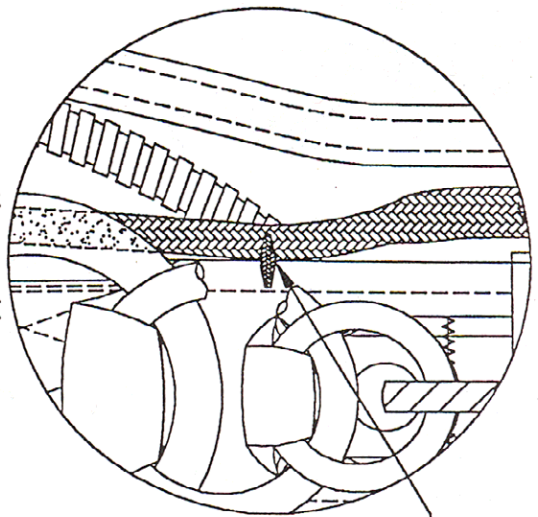


Figure 4A
Detail A

Hard Tack Lanyard
to Side of Riser Using
Waxed, Heavy Tacking
Cord

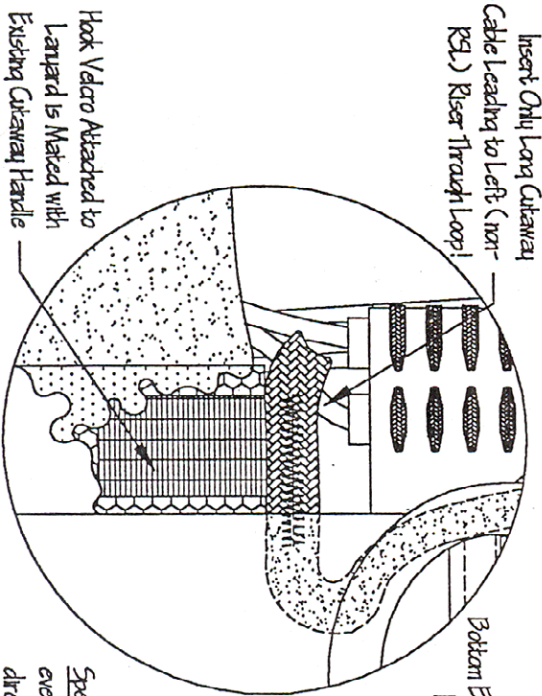


Figure 4B
Detail B

Dimension X
7-1/2" ($\pm 1/2"$)
For Standard,
12-1/4" ($\pm 1/4"$)
Lanyard Length

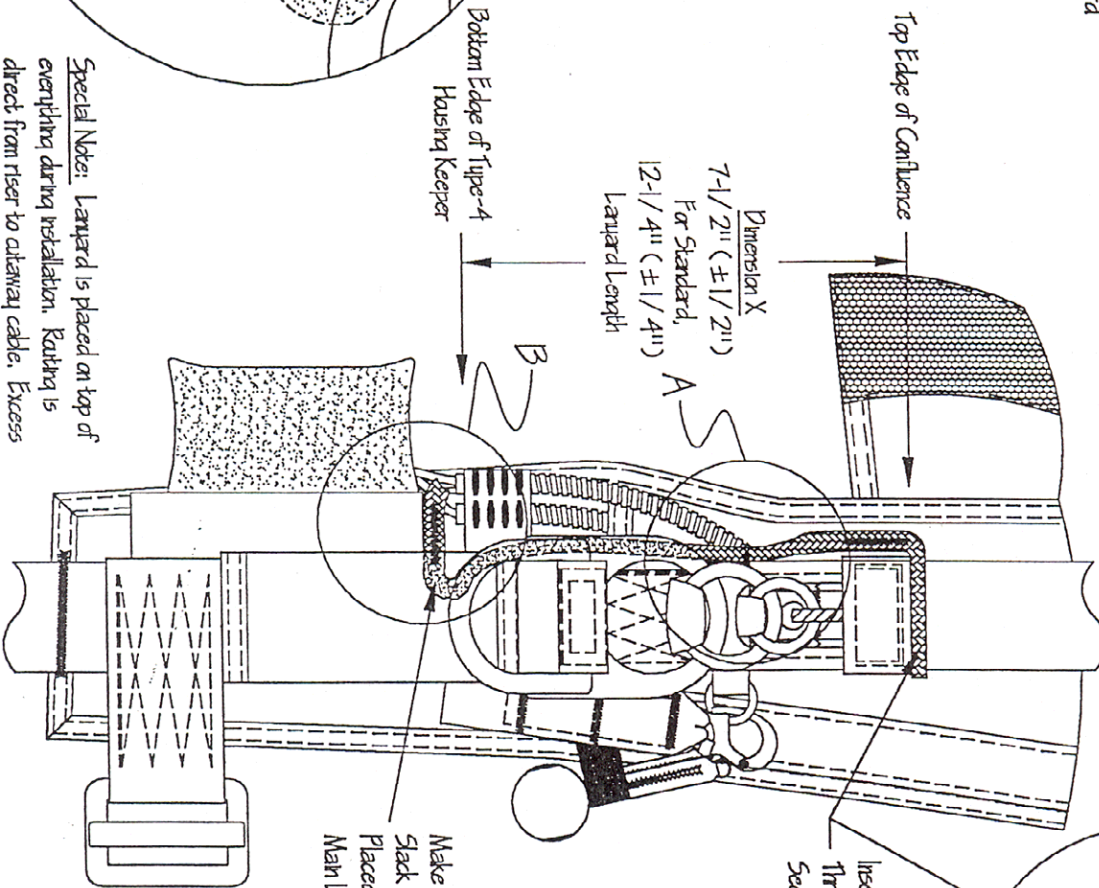


Figure 4

Special Note: Lanyard is placed on top of everything during installation. Raising is direct from riser to cutaway cable. Excess lanyard is stowed in main lift web after installation.

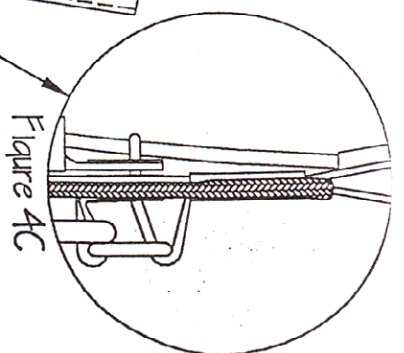


Figure 4C

Additional Background: The "Automatic Riser Release Lanyard" is now ready. It was originally conceived In August of 1997 to reduce the risk of a two canopy entanglement following a main riser failure on the RSL side. Relative Workshop completed its functional and non-functional testing by early November 1997.

Since then, we have continued the field testing portion of this project with the help of Skydive Deland, Skydive Las Vegas, and SkyDance dropzones to be sure users in the field wouldn't discover something during everyday use that we missed during its development and testing. All field evaluators were pleased with the results of their tests. We are now confident that the mandatory use of this lanyard will give you, the tandem instructor, another level of safety never before realized.

Please follow the enclosed instructions exactly. The lanyard must be installed exactly as specified. If you have any questions regarding the installation of this lanyard, contact Relative Workshop immediately. Beyond that, please be aware of the following.

Possible Problems:

1. It is possible to install the lanyard so that it passes under, instead of over the 1" square weave which secures the two breakaway housing ends. DON'T DO THIS.
2. These lanyards are about 12" long. This length is based on a 7 - 8" measurement from the top of the right main riser confluence wrap and the bottom of the 1" square weave which secures the breakaway housings. (See attached drawing on Page 2) This allows enough slack in the system so that no force is applied to the yellow breakaway cable during normal operations (ie:, handling or opening shock). Measure your rigs and make sure this dimension is right before installing the lanyard. If this dimension is different, notify us, and Relative Workshop will make a custom lanyard for you. Not enough slack could theoretically break you away during a hard opening shock. Too much slack might be snagged on exit or inadvertently hooked into the student's upper right snap.
3. If the small loop of the lanyard is hooked to the short, right riser cutaway cable, then it won't do it's job. Make sure it is hooked up to the long, left riser cutaway cable. ONLY! NEVER BOTH!!
4. It is possible to put both the front and back legs of the right main riser through the large lanyard loop. DON'T DO THIS. Only the front leg goes through.

After each of the first few jumps, check the following points to be sure your lanyard is working perfectly:

1. The small yellow velcro tab is always in place after landing, indicating that no force was applied to the lanyard during normal operations.
2. Tandem Instructors do not complain that it gets in the way during normal operations. In other words, they don't even know it is there. Please brief all persons using the system and ask them to report any problems.

This is a Patent-Pending retro-fit system for Tandem Vector Systems already in the field. This lanyard can only be used on Tandem Vector Systems. Only original Relative Workshop lanyards are to be used. The retail price is \$12.00 and they can be ordered through Relative Workshop or one of our authorized dealers.