



# SERVICE BULLETIN VSESB001

DATE: June 1, 2013 SERVICE BULLETIN VSESB001, REV 0 # PAGES: 4

SUBJECT: MAIN RISER, LOCKING LOOP WEAR

STATUS: MANDATORY INSPECTION

#### **INDENTIFICATION:**

1. All main risers manufactured by Velocity Sports Equipment(VSE)

#### **BACKGROUND:**

Several main risers have been found in the field with frayed/partially cut locking loops (the white type 2A loop). The amount and location of damage on the loops varies, leading VSE to conclude there may be several contributing factors.

A loop failure can result in an out of sequence main release and reserve deployment which can cause an entanglement. Due to this danger, VSE feels all main risers should be inspected according to the following Service Bulletin.

#### WHO CAN INSPECT:

Any FAA certified senior or master parachute rigger or foreign equivalent.

#### **INSPECTION PROCEDURE:**

- 1. Remove the cutaway handle / yellow cutaway cables from the rig and disconnect the risers.
- 2. Closely check the locking loops for damage.
  - a. See "WHAT TO LOOK FOR: NORMAL WEAR OR DAMAGE" to determining if the locking loop shows normal wear or signs of damage. If in doubt, please contact VSE.
  - If damage is found, the rig must be repaired before it can be jumped. See "RESOLUTION"
  - c. If normal wear is found, the rig can be jumped, but VSE suggests periodic checks moving forward. See "RESOLUTION" for more details
- 3. Reassemble the system, being careful not to reverse the risers or introduce a twist.

#### WHAT TO LOOK FOR: NORMAL WEAR OR DAMAGE?

Please review the following pictures to see the difference between loops with normal wear and damaged loops.



The following picture shows a new riser locking loop.



Figure 3: New Locking Loop

The following pictures show locking loops with normal wear.



Figure 3: Normal Wear, Front



Figure 4: Normal Wear, Back



The following pictures show locking loops with damage; heavily frayed and partially cut.



Figure 5: Damaged, Frayed



Figure 6: Damaged, Frayed







Figure 10: Damaged, Partially Cut





## **RESOLUTION:**

If the loop shows signs of damage, the rig should not be jumped and VSE should be contacted for further instructions. VSE may also ask for additional information to help determine the root cause and most effective repair. At minimum, VSE will need 2-4 photos, one of each riser loop and one of each housing grommet. Please have these available to send to VSE when you call in. In most cases, once the root cause is determined, VSE will provide a parts kit which can be installed by an FAA certified senior or master parachute rigger or foreign equivalent using the Housing Replacement Procedure provided at the end of this service bulletin. In certain cases, VSE will require the rig be returned to VSE for further inspection and repair.

If the loop shows normal wear, the rig can continue to be jumped and no immediate repair is needed.

<u>VSE recommends periodic checks</u> of the locking loops moving forward for all rigs. Minimally, these checks should be completed every three (3) months during the periodic maintenance of the 3 ring release system.

#### **COMPLIANCE DATE:**

Before next jump

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#### **DISTRIBUTION:**

- 1. All Velocity Sports Equipment Dealers
- 2. PIA Technical Committee
- 3. PIA Rigging Committee
- 4. National Aero Clubs, Parachuting Section
- 5. All Parachuting publications
- 6. FAA MIDO, Seattle
- 7. FAA FISDO, Portland





# **Housing Replacement Procedure:**

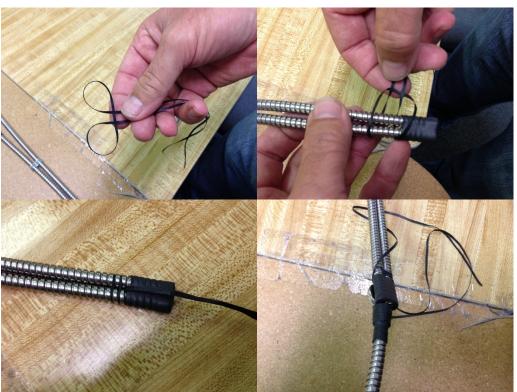
The following steps can be taken to replace the short and long cutaway housings on an Infinity Rig. This procedure can be used with slight modification whether a rig has a regular chest strap or an articulated chest strap. The housings can be replaced without the need to disturb a packed reserve. The steps below are organized assuming the new housings are in hand prior to starting, but can easily be used to remove the original housings prior to receiving the new housings.

1. Remove the cutaway handle/cables



- 2. In the case of chest articulation, the housings will need to be removed from the double housing clamp which is attached to the handle pocket.
  - a. To remove, twist the housings approximately 60 degrees in both directions. Take care not to bend the housing permanently. This will loosen the clamp to allow the housings to be removed from the clamp connected to the handle pocket.
  - b. Be sure to tighten this clamp once the new housings are installed.
- 3. Attach the tack cord to both sets of housings
  - a. Tie tack cord on new housings using the double loops shown (end with both housings shrink wrapped)
  - b. Tie tack cord end of old housing (end with amp connector/grommet)
  - c. Ensure the tack cord is secure so it doesn't come undone inside the yoke





- 4. Pull the old housings out as you feed the new housings in.
  - a. Partially expose the MLW and ¾" tape loop; both located within the left mudflap
  - b. Pull housing through from below the right side mudflap
  - c. Take care as you feed the tied ends through the binding tape loop
  - d. Take care as you feed the tied ends into the yoke
  - e. Once new housings are completely pulled through, position the new housings so short housing grommet is flat and facing back of rig
  - f. Remove tack cord
  - g. Feed housings through gap in chest strap



# SPORTS EQUIPMENT



## 5. Install cutaway handle

- a. Check cable lengths. The cable protruding from the RSL side housing must be 1" longer than the non RSL side.
- b. Cable should be 6" on non-RSL side; 7" RSL side when measuring from the end of the housing. If cables protrude less than 4/5" respectively, the handle should be replaced.





6. Re-assemble the cables and main risers.



7. Procedure complete