



SOV3 PASSENGER HARNESS-RETRACTABLE Y STRAP INSTALLATION



ENGINEERING DEPARTMENT

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INSTRUCT.PASSENGER HARNESS-SOV3 Y STRAP INSTALLATION Rev 0.doc

Outline:

This document covers two major areas:

1. Retrofit instructions for preparation of Y strap installation on Student Harness's.
2. Installation of the Y strap.

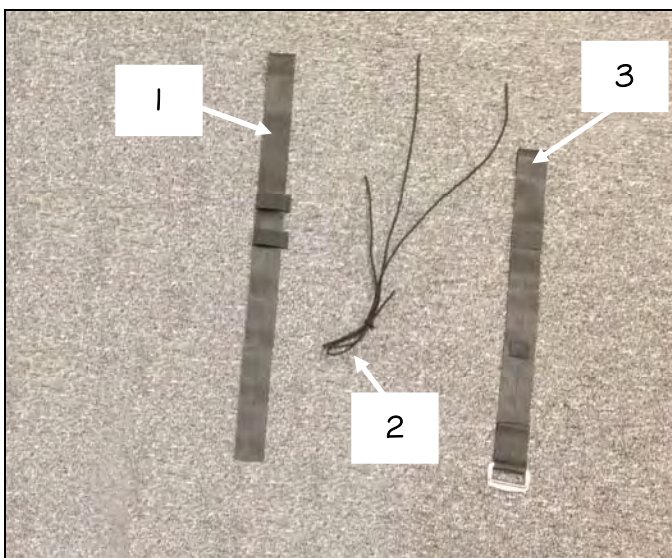
There are two (2) basic types of Passenger Harnesses in use with the Military. One version has the cross connector (Butt Strap) used to link the leg straps and the other does not. When requesting parts please make sure you understand the difference. The part numbers are shown below.

Who can do this work:

Qualified Senior Rigger, Master Rigger or Foreign equivalent

Parts:

Purchase UPT Part Number(s):

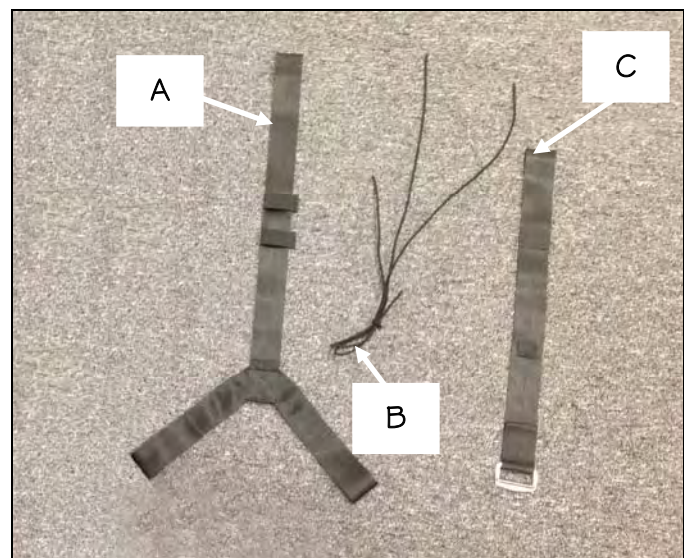


FOR USE WITH CROSS CONNECTOR (Butt Strap)

043-002-012
SOV3-PASSENGER HARNESS-OPTION-
RETRACTABLE Y STRAP-**FIXED**

Includes the following components:

1. Middle Adjustment assembly with elastic keepers.
2. Bungee cords – 31" & 38"
3. Upper Y Strap



FOR USE WITHOUT CROSS CONNECTOR (Butt Strap)

043-002-013
SOV3-PASSENGER HARNESS-OPTION-
RETRACTABLE Y STRAP

Includes the following components:

- A. Lower Y strap assembly with elastic keepers.
- B. Bungee cords – 31" & 38"
- C. Upper Y Strap

Tools:

Seam ripper
Rifle Cleaning rod or similar rigging tool
Snips
Scissors
Binding machine 301
Bartacker or Zigzag 304-308
Hot knife
Basting Tip
Clamps

Information:

The SOV3 Tandem Passenger Harness has back pad must be modified prior to Y strap installation. This applies to both types of SOV 3 Passenger harnesses.



The back pad cover has the bottom edge captured in the binding tape at the bottom of the back pad. This must be modified.

Before you begin:

Unthread the diagonal back straps from the lower junctions and remove the elastic keepers. This applies to both versions.

NOTE: Pictures depict the Sport Student Harness; however the method is the same for SOV3 Versions.

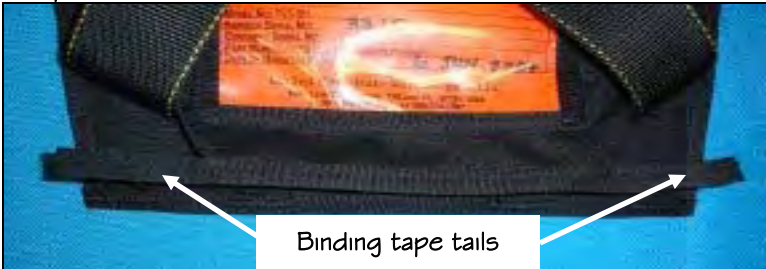
Back pad Modification

Step 1



Using scissors or hot knife, carefully separate the back pad cover below warning label at the binding tape edge.

Step 2

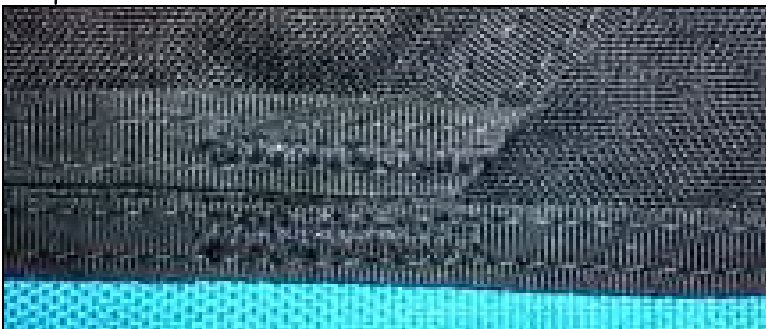


Tape the raw edge of the back pad cover, leaving approx $\frac{3}{4}$ " tails.



Fold back the tape ends and tack down using a basting tip or hot glue as shown.

Step 3



Install 2 bar tacks at the corners of the back pad cover.

The back pad is now ready for Y strap installation

Install the Y strap

Step 1



Thread one of the diagonal straps back through the back pad cover, exiting out of the other side.



Pull the strap all the way out as shown.

Step 2



Identify the adjuster strap which is part of the Y strap assembly. Make sure both the bungee loops are facing down wards.



Thread the loop end inside the opening at the bottom of the back pad cover.

Step 3



Exit the loop at the same location as both the diagonal back straps. Thread each diagonal strap through the loop from different sides making sure there are no twists.



Carefully return the diagonal through the back pad cover to its original location, feeding the loop of the Y Strap adjuster with it.



NOTE: It is important that the configuration of the webbing under the back pad cover is correct.

*Picture shows a lifted back pad cover for instructional purposes only.

Step 4



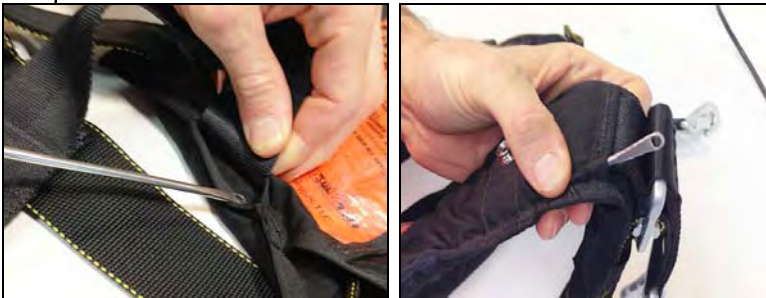
Identify the bungee cords; 2 pieces of 1/8" black braided shock cords that are included with the kit.

1 x 31"

1 x 38"

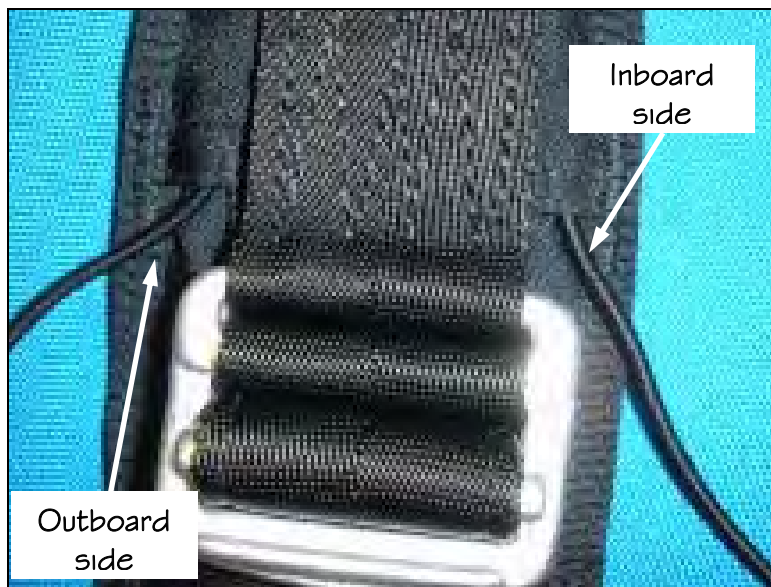
Tie one end of each together with an overhand knot as shown. The knot **MUST** be cinched down tight

Step 5



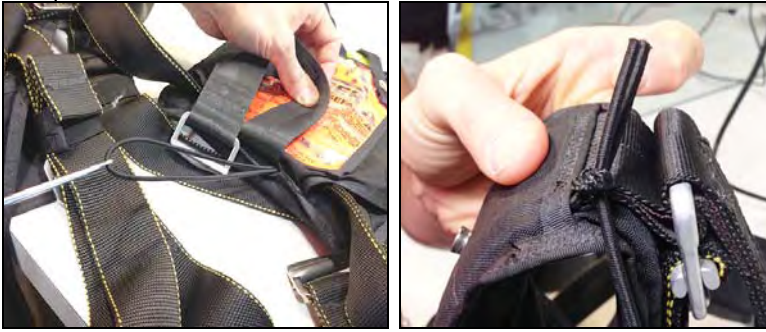
Locate a rifle cleaning rod of similar rigging tool. Pass the rod up through the back pad starting the opening where the adjuster strap is located.

Exit the rod from under the cover at one of the shoulder pad area's as shown. Exit on the outboard side first.



NOTE: The short bungee (31") will be installed inboard side and long bungee (38") will be installed outboard side.

Step 5 (Cont)



Attach the 38" bungee to the rod and pull down through the back pad as shown exiting on the outboard side of yoke.

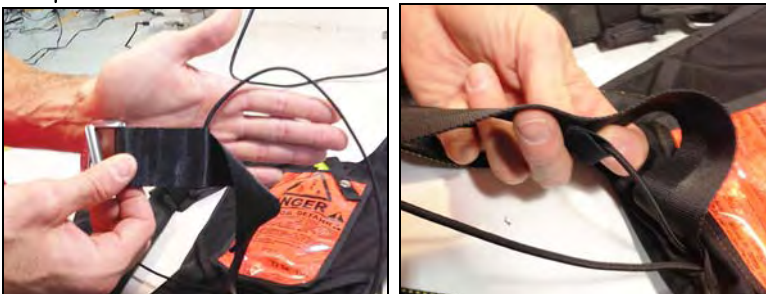
The knot should remain in the same side and bottom out against the cover as indicated.



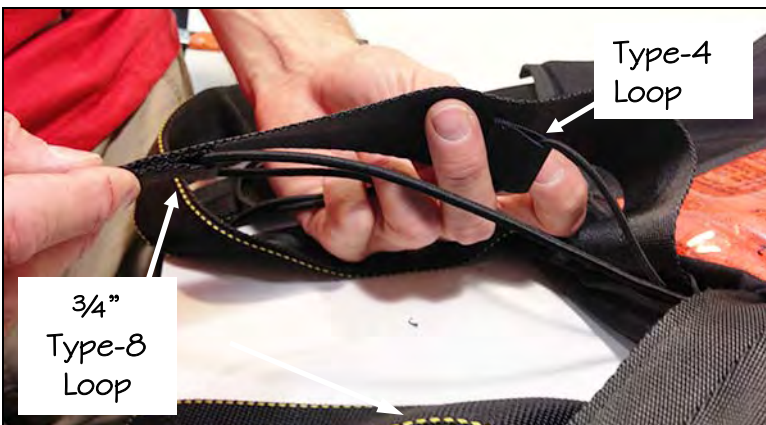
Pass the rod back through the back cover, exiting on the inboard side. Attach the 31" bungee and repeat.

Make sure that the Bungees are UNDERNEATH the diagonal webbing.

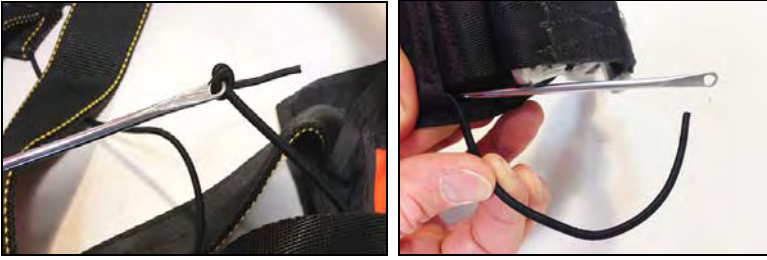
Step 6



With both bungees installed under the cover, they are now attached to the Y strap adjuster assembly. Thread the 38" bungee through the Type-8 Loop closest to the adjuster as indicated and the 31" through the Type-4 loop.



Step 7



Using the cleaning rod, the other ends of the bungees are now installed into the back pad cover, exiting on the other shoulder pad.



Secure the first bungee you install with a clamp or something similar so stop it from retracting back inside.

As before, make sure the short bungee (31") will exit on the inboard side and long bungee (38") will be exit on the outboard side.

Step 8



Before the bungees are tied together, make sure the adjuster is located correctly so the hardware sits/rests just below the bottom edge of the back pad.

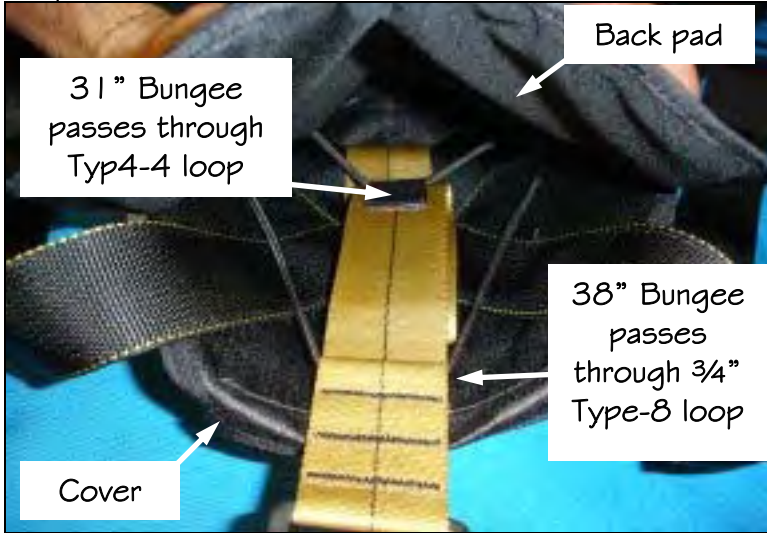


The ends of the bungees are now tied together using an overhand knot. You may have to do this step multiple times to get the adjustment of the adjuster correct. The knot **MUST** be cinched down tight



Once the adjustment is set, trim any excess bungee cord leaving 1 1/2" to 2" as shown.

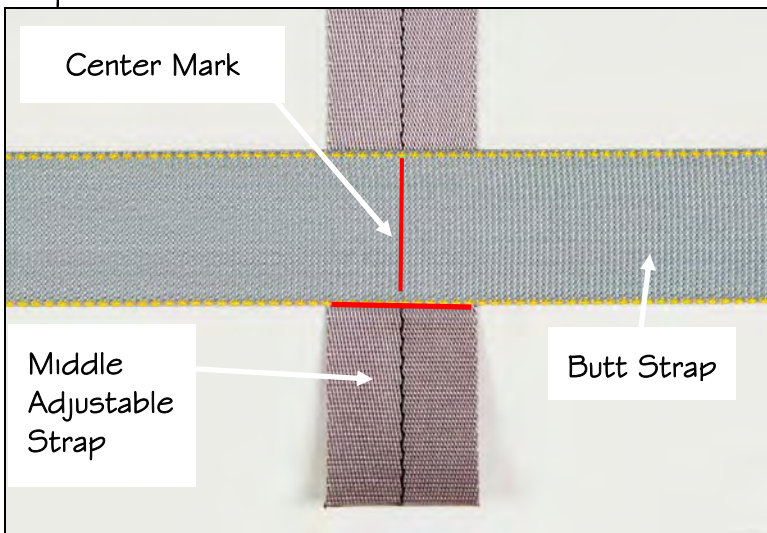
Step 8 (Cont)



NOTE: The configuration of the Bungees and the Type-8 shows how it "S-folds" behind the diagonal straps.

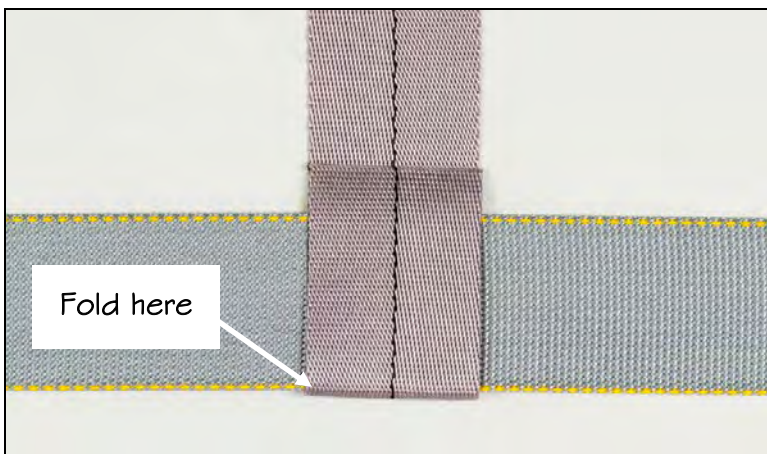
*Picture shows a lifted back pad for instructional purposes only.

Step 9



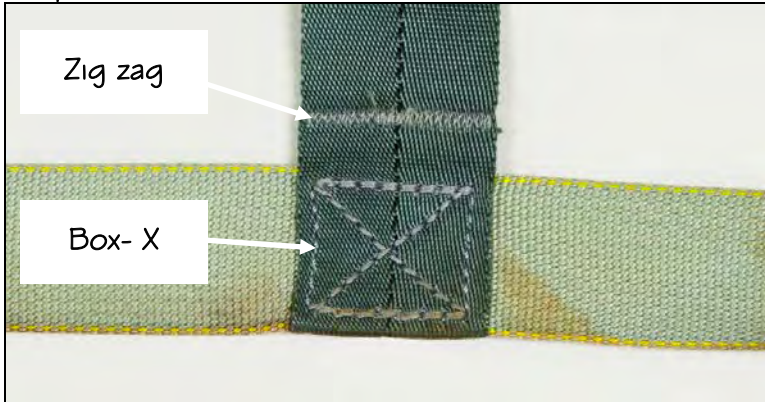
FOR PASSENGER HARNESS WITHOUT CROSS CONNECTOR, PROCEED TO STEP 11, PAGE 12

Align the cross connector located between the Passenger harness leg straps at the 2 3/4" mark on the adjuster strap as indicated. Make sure it is centered.



Fold the webbing around the cross connector and secure as shown.

Step 10



Sew down using a double pass Zig-Zag stitch pattern. Make sure to step over the raw end of the webbing.

Using 5-cord, install a boxed X stitch pattern.



The lower part of the Y strap is now installed. Thread the running end through the adapter.

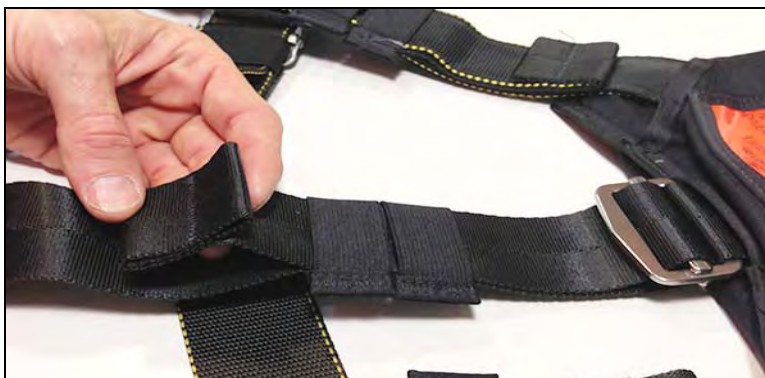
PROCEED TO STEP 12, PAGE 13

Step 11



FOR PASSENGER HARNESS WITHOUT CROSS CONNECTOR ONLY.

Disconnect the leg straps of the harness and thread the entire leg pad through the loop of the Y strap. Repeat this on the other side. Reconnect Leg straps.



Thread the running end through the adapter and back through the 2 elastic keepers.

Step 12**BOTH TYPE OF HARNESS.**

Reconnect the diagonal back straps to the lower harness. Do not forget the elastic keepers removed earlier.

Step 13

Confirm that the Y strap functions by extending and releasing. If there is any issue, double check that the bungees or straps are not entangled or crossed incorrectly.



The horizontal back strap must pass over the Y strap