

## BAS four-point shoulder harness installation

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I recently selected the STC'd BAS four-point shoulder harness system to upgrade my 1965 B55 lap belts. The BAS instructions are very good, but there's nothing like a first-hand experience.

Essentially, the project took me two half-day sessions. So let's call it a total of 8-10 hours. I reviewed the install instructions with my IA, Bill Schmidt, and secured his blessing to proceed with the bracket installation.

My buddy and fellow ABS member Don Brenman (also an N35 owner) literally gave me a helping hand with the project. Working very slowly, we removed the headliner so as not to damage the retaining pins or scratch the interior metal framing with my prying tool. A 90° flat-bladed

screwdriver is perfect (see photo).

Placing my hand in the center of the headliner panels—I removed the front sections where the pins are to expose the center section—and bowing their centers down was very helpful to me in removing and reinstalling the headliner panels.

The first half-day was spent pulling the headliner sections and bracket placement/marketing/drilling/riveting, then hanging the inertia reels off the brackets. So by the end of the first half-day, it was ready for headliner cutting and reinstallation.

My IA reviewed and inspected the bracket installation and prepared the 337 paperwork for submittal to our FSDO.

The second half-day was spent on headliner cutting and reinstallation. In my humble opinion, this is the most tedious part of the BAS installation. Again, I worked at a very slow pace to be sure I got everything just right.

Don was so impressed with the quality of the BAS kit and the ease of install that he immediately placed an order to outfit his N35, and I returned the "helping hand" favor.

### HOW I MARKED AND CUT THE HEADLINER:

- Prepared a template out of a piece of a manila folder (any other piece of semi-rigid cardboard will do), then placed the manila folder up over the inertia reels.

- Poked holes in the template, matching the ones in the aircraft structure that holds the headliner in place.


- Marked the area around where the inertia reel was coming in contact with the manila folder material.

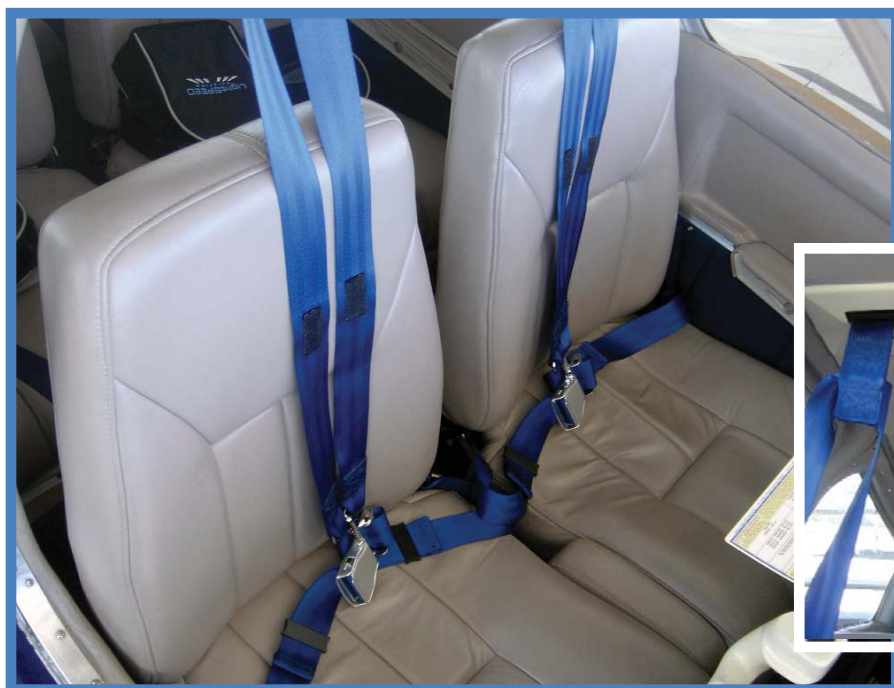
- Cut out the area of the template that I marked for the inertia reel with an Xacto knife and placed it back in position to confirm that the cutout fit over the inertia reel.

- Placed the template (remember to place it face down) on the back of the headliner and lined up the *same* holes from the airframe with the matching pins of the headliner.

- Cut the headliner metal area only; I did not cut the front fabric yet!

- Removed the metal piece that I cut out of the headliner, then cut an "X" in the fabric, folded the fabric back and glued it to the back of the metal headliner material. 3M spray adhesive #77 in a can worked well.

This got me right on target with the size opening I needed for the inertia reel. The BAS plastic escutcheons are a very nice finishing touch. 



A 90° flat-bladed screwdriver is perfect for removing the retaining pins on the headliner.



The BAS plastic escutcheons that fit around the headliner attach points, are a very nice finishing touch.