



Assembly instructions for Aft Bulkhead Assembly, VLC-3-14-100

Tools required:

1. Phillips screwdriver (steps 2, 3, 4, 5, 6, & 8)
2. 11/32" socket driver (steps 2, 3, 4, 5, 6, & 8)
3. Measuring tape (step 7)
4. Scissors (step 7)
5. 7/16" socket driver (step 12)

Step 1. Ensure all parts are available. Contact matt@velocolutions.com for any missing parts or visit your local hardware store.

Step 2. On a large, flat surface place the **Hat Shelf – Back** (VLC-3-14-104) such that the flanges are pointing up as shown in Figure 1.



Figure 1. **Hat Shelf – Back** and hardware for installing – **Top** and – **Bottom**.



Step 3. Using the #8-32 x 3/8" machine screws and their associated lock washers and nuts, fasten the **Hat Shelf – Top** and – **Bottom** (VLC-3-14-102) to the Hat Shelf Back as shown in Figure 2. These parts are symmetrical so it doesn't matter which one becomes the Top.

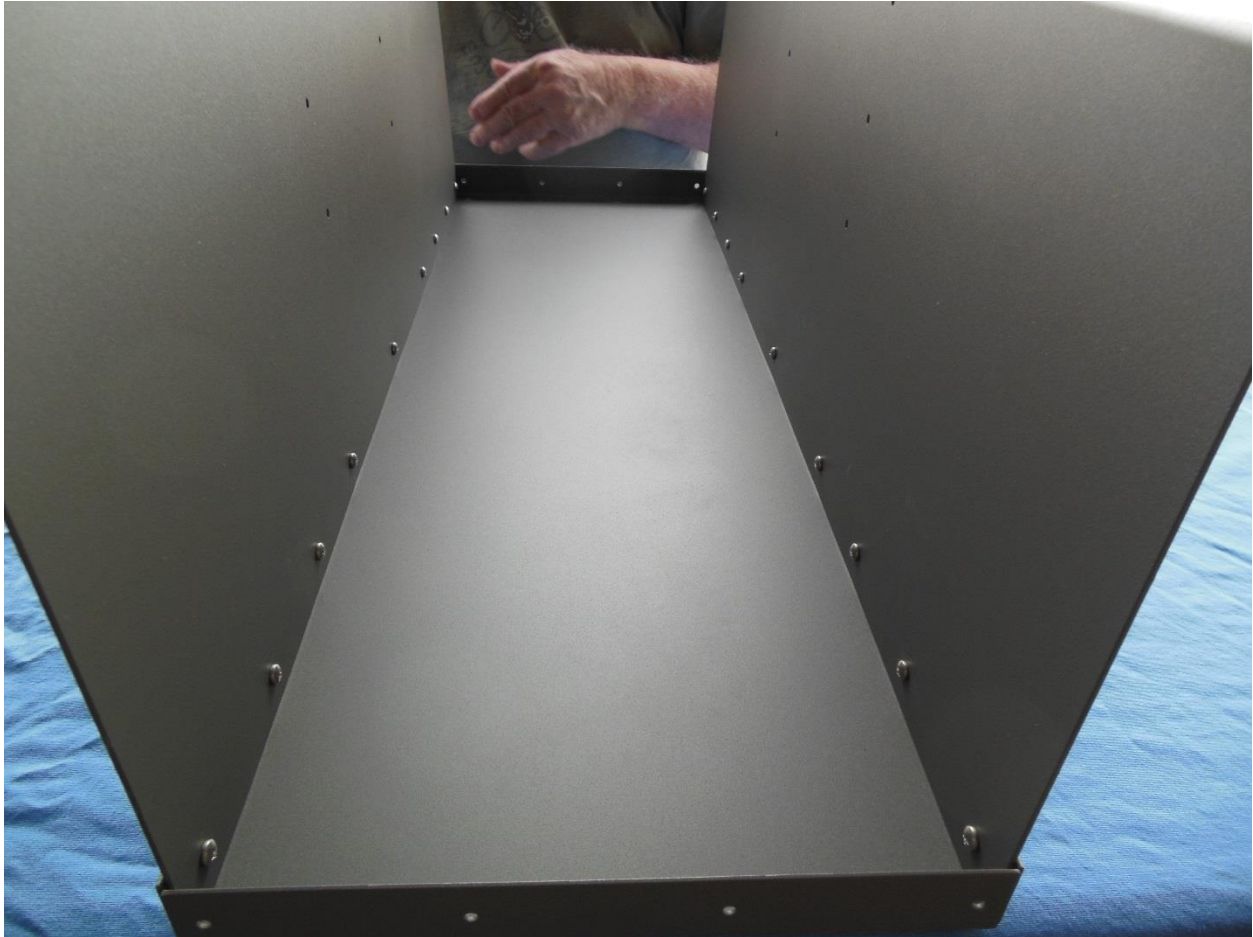


Figure 2. **Hat Shelf – Top** and – **Bottom** installed on **Hat Shelf – Back**.



The heads of the screws should be oriented from the inside of the structure and the lock washers/nuts should be on the outside as shown in Figure 3. Ensure the flanges on the Top and Bottom are pointing outward.

Tip: Best practice to reduce misalignments later is to start at the middle of the structure and work your way to the corners.

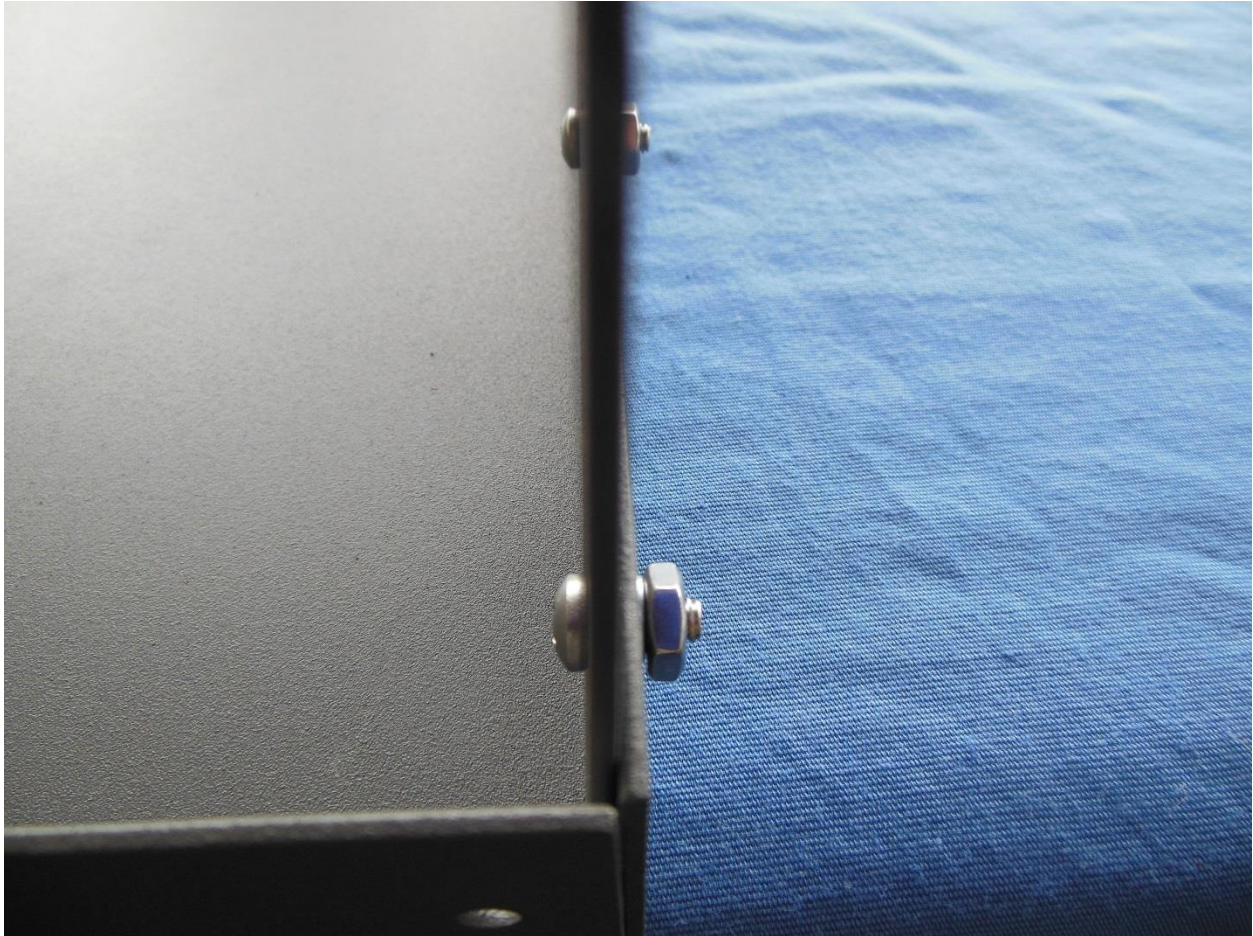


Figure 3. Correct orientation of screw heads, lock washers, and nuts.



Step 4. Fasten the **Hat Shelf – Left** and – **Right** (VLC-3-14-103) to the **Hat Shelf – Back** as shown in Figure 4. Ensure the flanges on the Left and Right are pointing outward. These parts are also symmetrical.

Note: Due to the powder coating, the holes in the **Hat Shelf – Left** and – **Right** don't quite line up with the holes in the **Hat Shelf – Back**. Use the screwdriver to drive the screws through the misaligned holes. This will draw the parts into alignment.



Figure 4. The **Hat Shelf – Left** and – **Right** as installed.



Step 5. Fasten the **Bulkhead** (VLC-3-14-101) to the structure assembled so far as shown in Figure 5. Do not insert #8-32 x 3/8" screws in the four corners nor in the two center holes (identified by arrows in Figure 5.) on what will become the bottom of the hat shelf.



Figure 5. **Bulkhead** as installed with six holes unfilled.



Step 6. Fasten the **Hat Shelf – Braces** (VLC-3-14-105) to the **Hat Shelf – Bottom** as shown in Figure 6. These parts are also symmetrical but aesthetically it looks better if the flanges are pointing inward.



Figure 6. **Hat Shelf – Braces** as installed.



Step 7. Carefully, and with a minimum amount of handling, cut the foam tape into strips of the following lengths: 12" (x2), 8" (x4), & 15" (x1). The foam tape supplied in the kit is already cut into two strips of approximately 24" and 48" each. Cut the 24" piece in half to create the two 12" strips. Apply the foam tape along the edges of the back side of the **Bulkhead** as shown in Figure 7.

Note: The foam tape will stretch if you pull it up after a misaligned application so take care when applying it to the back of the Bulkhead.

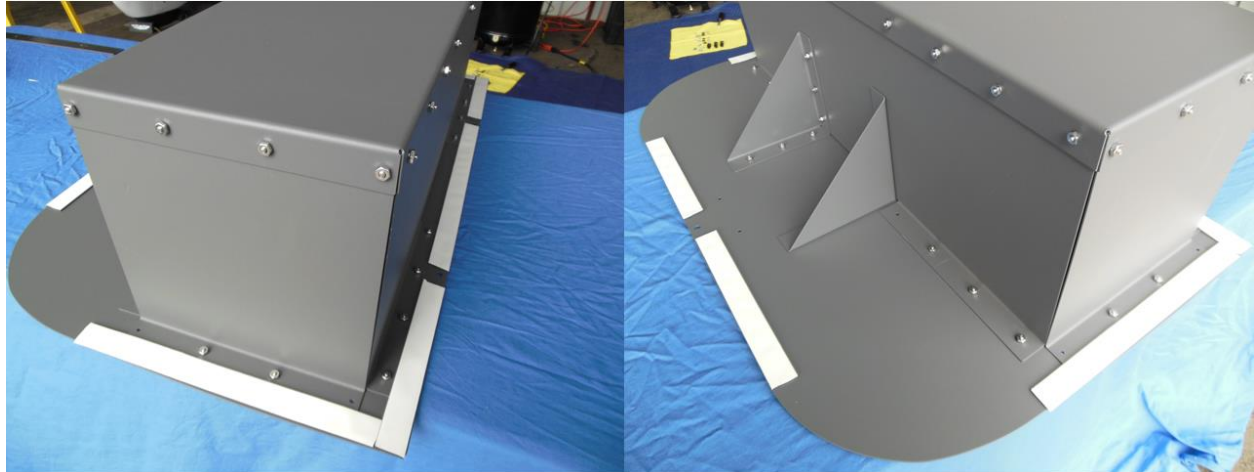


Figure 7. **Aft Bulkhead Assembly** with foam tape installed.

Step 8. Add the Net Hooks using the #8-32 x 1" screws and their associated lock washers and nuts to the four corners and two empty holes on the bottom edge of the hat shelf as shown in Figure 8. Orient the corner hooks so that they are pointing approximately 45 degrees away from the center. The two lower hooks should point straight down.



Figure 8. **Aft Bulkhead Assembly** with net hooks installed.



Step 9. Install the cargo net by looping the thick bungee cord around all six of the net hooks.

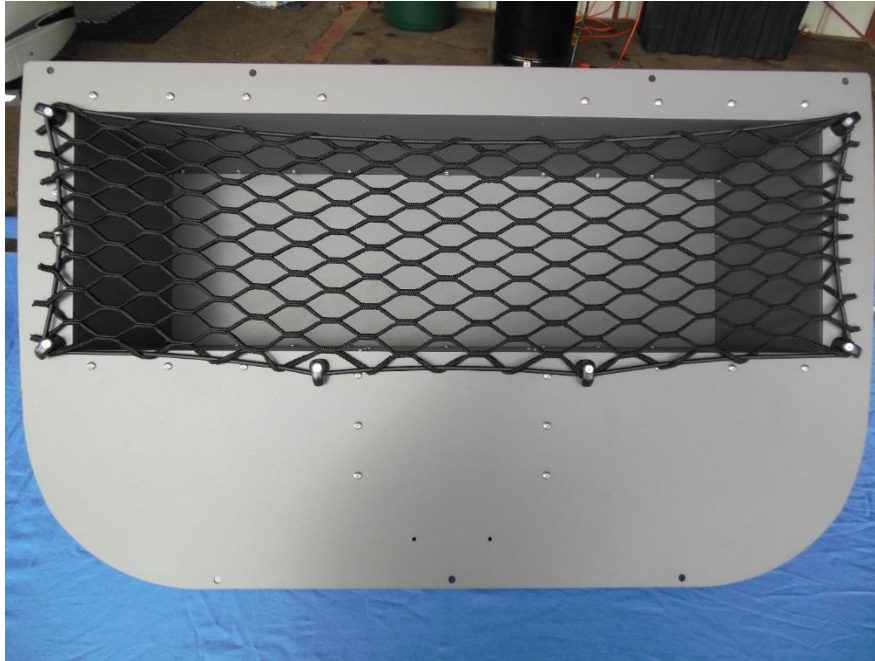


Figure 9. Aft Bulkhead Assembly with net installed.

Step 10. Insert the 1/4" x 3/4" bolts into your airframe with a metal washer between the bolt head and the airframe. It is recommended that you choose the two inner holes along the top of the airframe and the center hole along the bottom of the airframe. Snap the e-clip retaining ring onto the 1/4" bolt on the forward side of the airframe as close to the airframe as possible as shown in Figure 10. Ensure that the e-clip retaining ring is fully engaged over the bolt.



Figure 10. Lower mounting bolt as installed with the e-clip retaining ring.
There is a washer on the back side of this assembly (not visible).



Step 11. Place a neoprene washer on each of the three 1/4" bolts in front of the airframe as shown in Figure 11.



Figure 11. Mounting bolt showing washer, e-clip, and first neoprene washer.

Step 11. If not already done, remove the release liner from the foam tape and lift the **Aft Bulkhead Assembly** onto the three 1/4" bolts. If your airplane has cargo tie down eyelets like those shown in Figure 12, the easiest way to get the Bulkhead in place is to tilt it in at the top to clear the eyelets, then reach behind the bulkhead and guide the hat shelf up over the battery box.



Figure 12. Pointing out the eyelets that may interfere with a smooth installation.



Step 12. Once the bulkhead is resting on the three 1/4" bolts, apply neoprene washers, metal washers, and hex nuts as shown in Figure 13. Tighten the nuts until snug but do not torque them. If the bolt is spinning with the nut, then it is likely that your e-clip retaining ring has come loose.



Figure 13. Finished mounting bolt installation.



Figure 14. Finished installation. Image on the left has an optional (owner purchased) handle installed.

Remember to update your weight and balance!