



INSTRUCTIONS

FORD BRONCO M.A.S.S. CARGO SHELF

Thank you for purchasing your Ford Bronco - M.A.S.S. Cargo Shelf from AAL! We greatly appreciate your trust in our company. We take that purchase and your commitment to us very seriously. If you have any questions along the way, please don't hesitate to give us a call at 385.202.4188.

Tools Required:

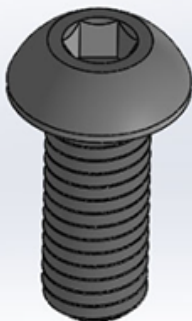
There is more than one tool for every job, but below is the list of tools we use for this installation.

- Ratchet
- M4 Hex Socket/Wrench
- M5 Hex Socket/Wrench
- 10mm Wrench
- 13mm Wrench

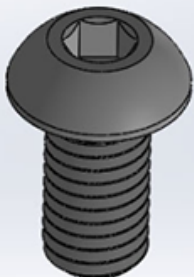
Verify Hardware

Below is a list of included hardware. Please familiarize yourself with each component as we will be calling them out by name during the installation.

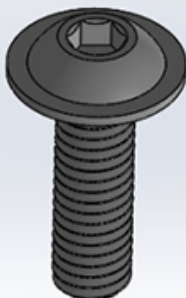
[4] M8X20MM
BUTTON HEAD



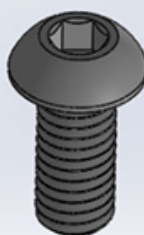
[10] M8X16MM
BUTTON HEAD



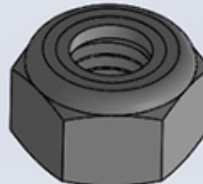
[10] M6X20MM
BUTTON HEAD
FLANGE



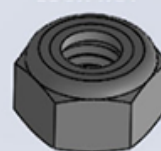
[26] M6X14MM
BUTTON HEAD



[16] M8
LOCK NUT

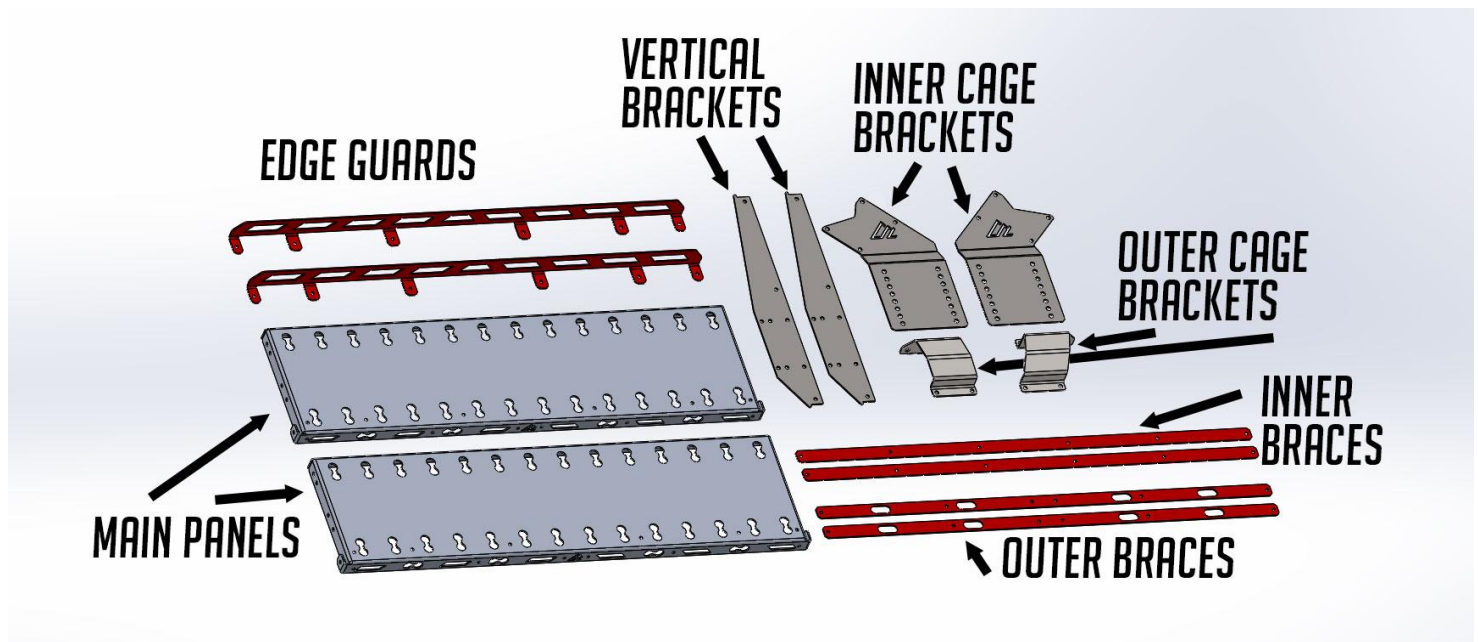


[36] M6
LOCK NUT



Step 1 - Lay Out All Components

To prepare the installation, it's beneficial to familiarize yourself with the individual components. Identify the metal components using the diagram below.



Notes:

- The two Vertical Brackets are identical
- The two Inner Braces are identical
- The two Outer Braces are identical
- The two Main Panels are identical
- The Inner Cage Brackets are mirrors of each other
- The Outer Cage Brackets are mirrors of each other

Important Metal Finishing Note - if you ordered your shelf in raw, you have several steel pieces that arrived with no coating on them. It is highly suggested that you apply some type of coating (spray paint, powder coating, etc.) as they will corrode over time if left in a bare metal state. All of the components except the Main Panels are steel. The Main Panels do not need to be coated if so desired, as they are 5052 aluminum.

Step 2 - Attach Cage Brackets to Roll Cage

****Note - If you have the Bronco Raptor, skip to step 2R!****

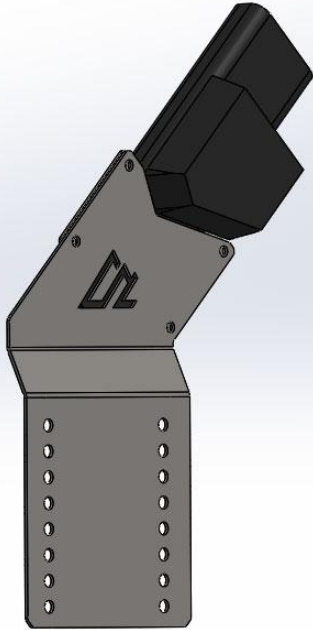
You have received two pieces of adhesive-backed felt. Each of those should be applied to the inside corresponding Outer Cage Bracket. This is provided to prevent the Outer Brackets from making direct contact with the Roll Cage. See the diagram below to determine the proper orientation as applied to the Roll Cage.

To aid in the process of attaching the brackets to the cage, insert the M8x16mm Button Head bolt through the single round hole in each Outer Bracket and into the bung on the bottom side of the Roll Cage. This should be left very loose at this point. See the second diagram below for the location of this bolt.

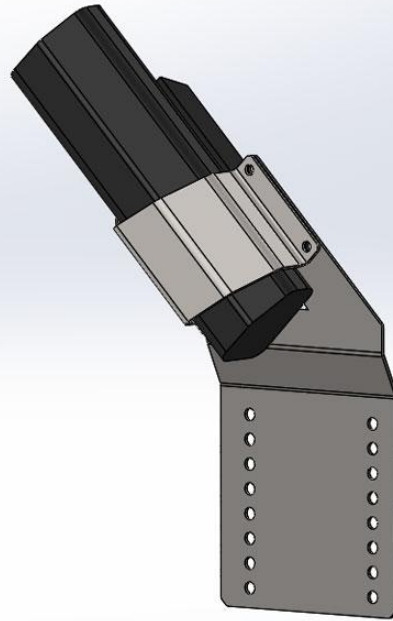
Notes for this step:

- The AAL logos should be towards the center of the vehicle.
- The top edge of the bracket will follow the angle of the roll cage.
- The black tubes in the following diagrams represent the OEM roll cage

DRIVER'S SIDE BRACKET ASSEMBLY

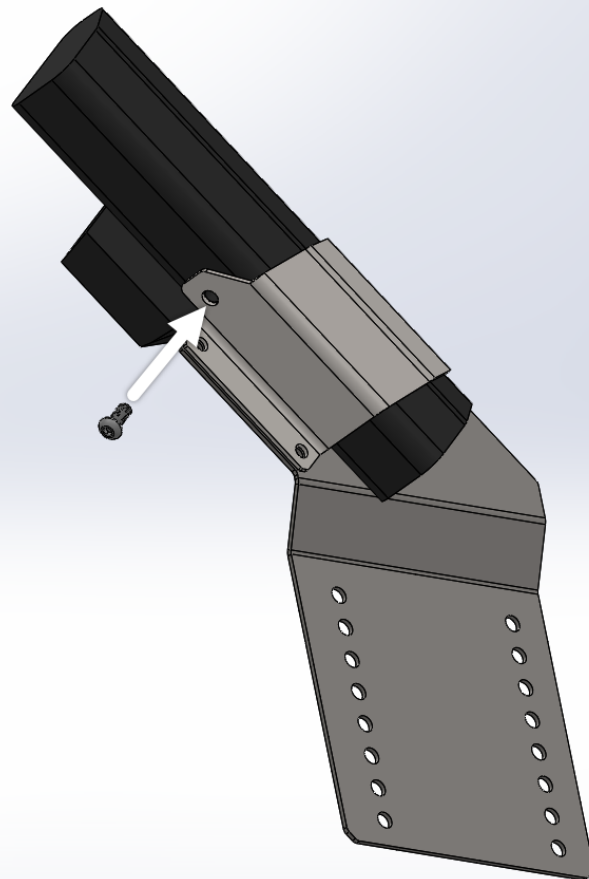


INSIDE VIEW

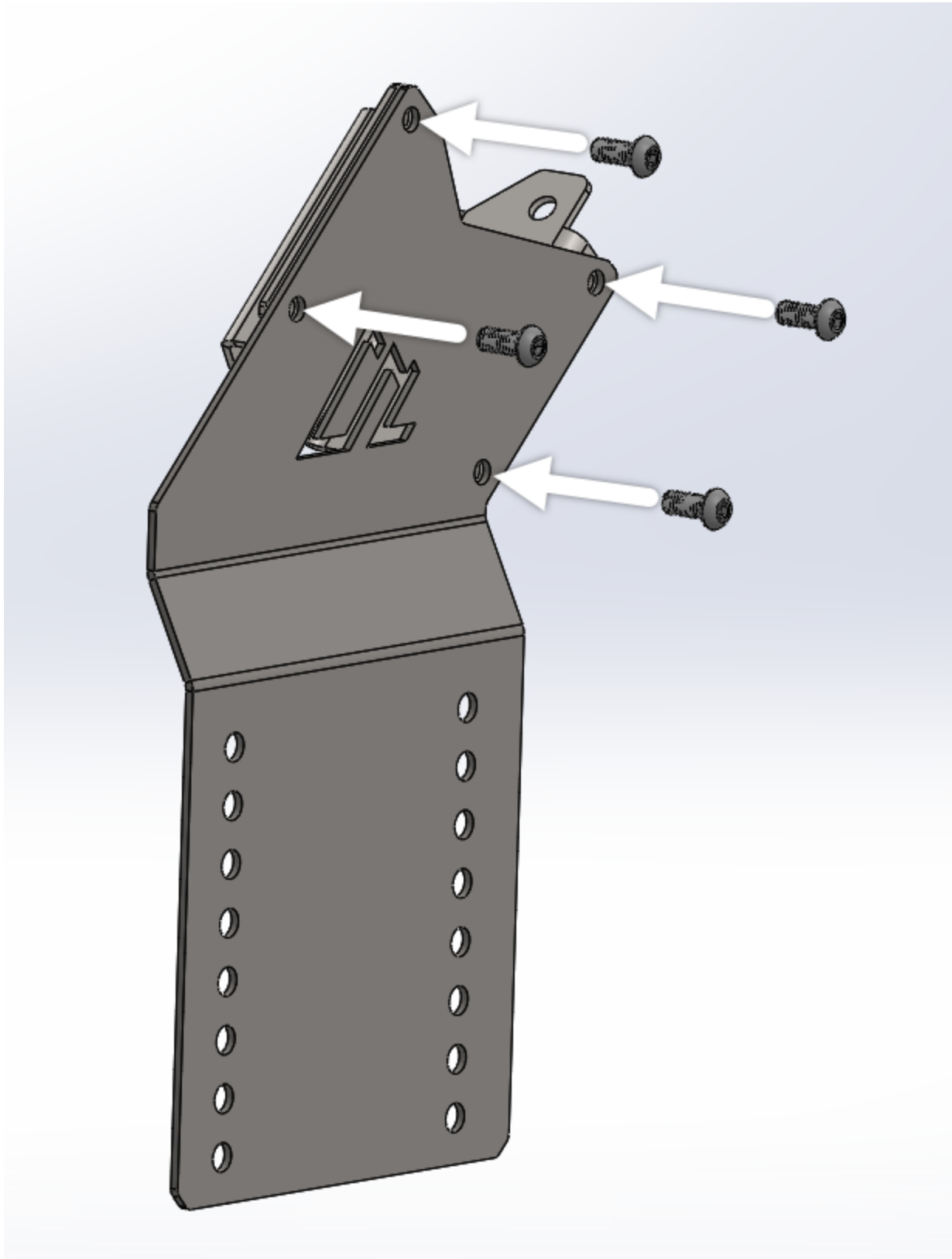


OUTSIDE VIEW

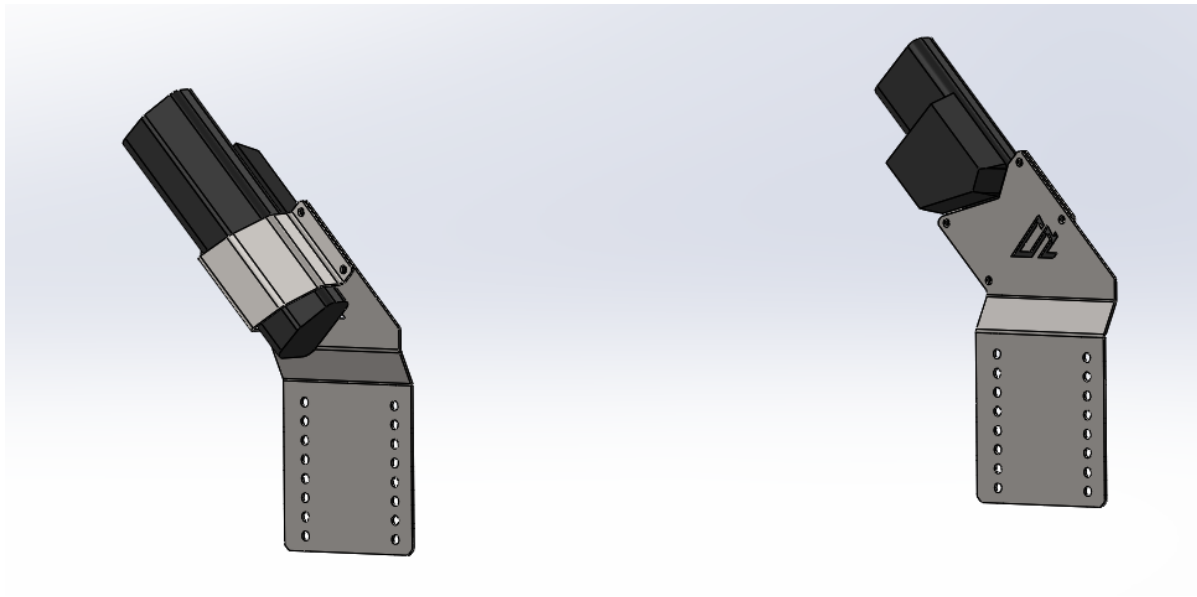
Bottom Bolt Location



Use (4) of the M8x16mm Button Head Bolts and (4) M8 Nylon Lock Nuts to assemble each pair of brackets. The bolt locations are identified below. The nuts should go on the outside of the brackets. You will use the M5 Hex Wrench and the 13mm wrench for the nuts and bolts. These should be left loose at this point. Repeat this process for the passenger side.



Your brackets should now look like the diagram below and should move slightly when moving the bottom of each bracket. This movement is necessary for the assembled shelf to slide in.

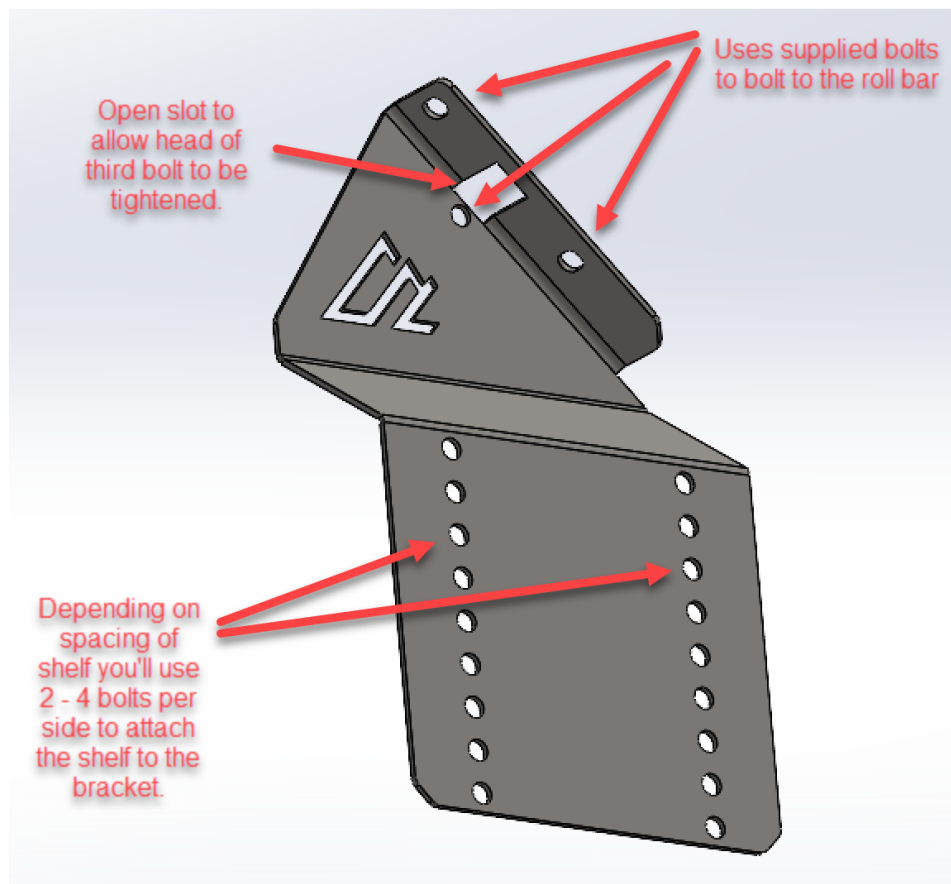


Step 2R! - Bronco Raptor Cage side Brackets

The Bronco Raptor version of the cargo shelf is just a little different than the standard 4 door bronco. Instead of using the “c” clamp brackets, it gets bolted straight to the roll bar using the supplied bolts.

You will first install the roll bar brackets using the supplied hardware and tighten them up so that the brackets are secure. There is an open slot at the top flange that is to allow the 3rd bolt to get installed to the roll bar.





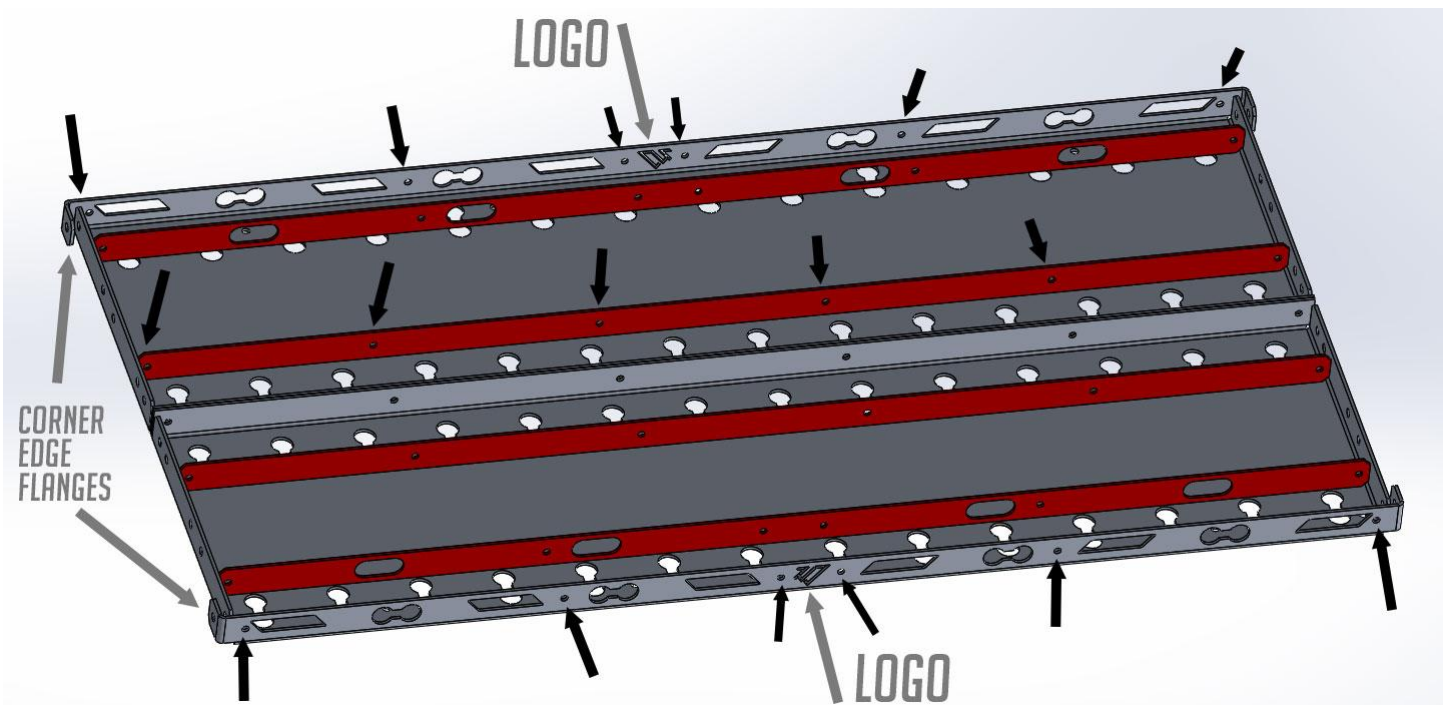
Step 3 - Assemble Shelf Panels and Braces

Lay the shelf halves on a flat surface, with the edge flanges pointed upward, like the diagram below. Be sure to position them with the AAL logos on the outsides (identified by the gray arrows in the below diagram). You can also pay attention to the corner edge flanges to help you orient the shelf halves. The corner edge flanges should be at each outside corner.

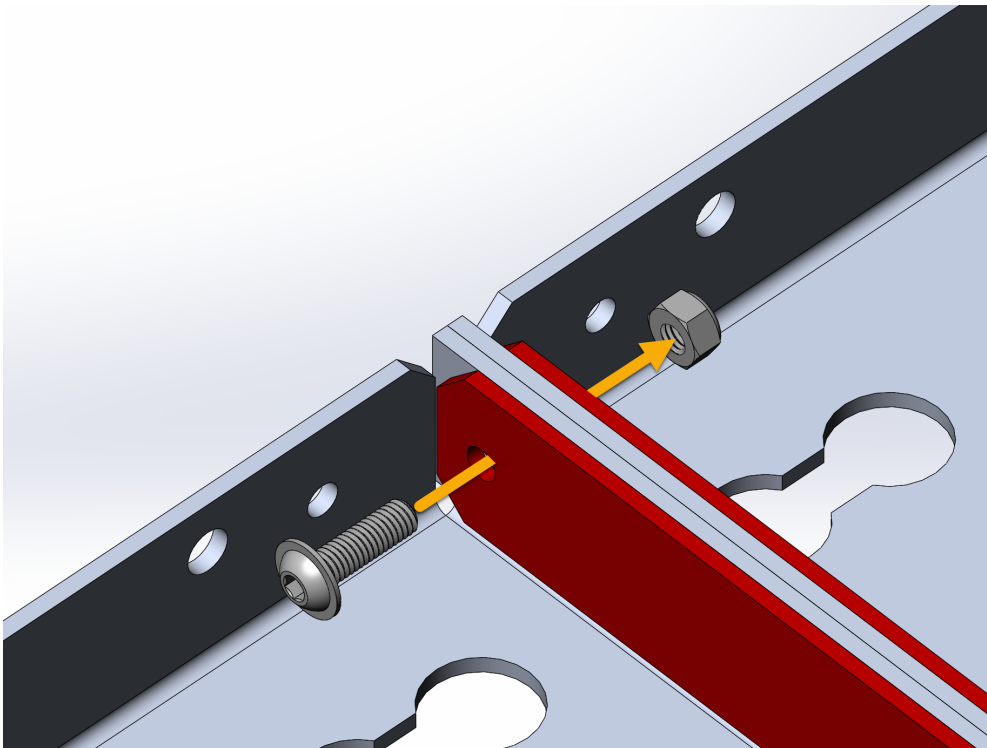
Next, attach the braces as shown below. The inner braces are the ones without the cutout holes in them. The inner braces will use the longer M6x20mm **Flange** Button Head Bolts since we are going through four layers of metal with these bolts. The outer braces will use the “non-flange” M6x14mm Button Head Bolts since we are only attaching two layers of metal. Ensure that the nuts are placed on the “inboard” side of the shelf, so you see the head of the bolts from the outside, not the nuts. For the inner braces, you can pick a side for the heads to show since we won’t see those anyway, just do all of the inner bolts the same way.

The arrows below indicate where a bolt and nut will go. Use the supplied M6 Lock Nuts to secure the bolts. The bolts will take the M4 hex wrench and the nuts will use the 10mm wrench.

IMPORTANT: keep all these bolts very loose at this point.



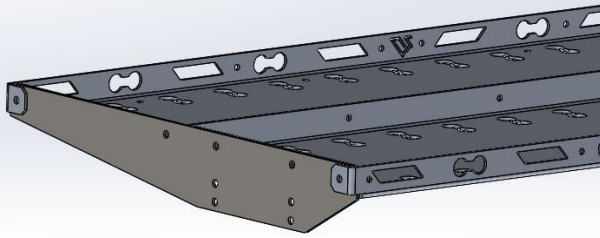
Inner Brace Hardware Process



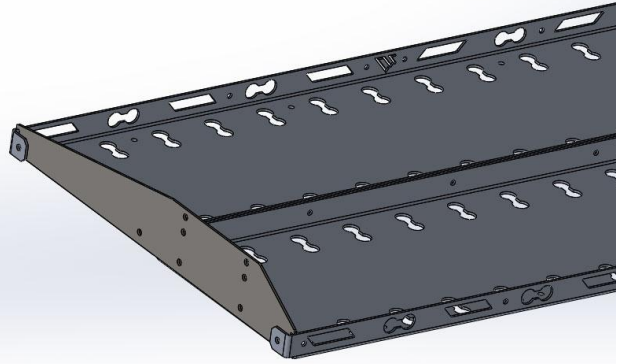
Step 5 - Attach Side Brackets

The “standard” installation arrangement of the side brackets is shown below to the left. If you need the maximum height from your cargo shelf, install the Side Brackets as shown on the right. The Side Brackets “flip” to achieve maximum height.

STANDARD ASSEMBLY



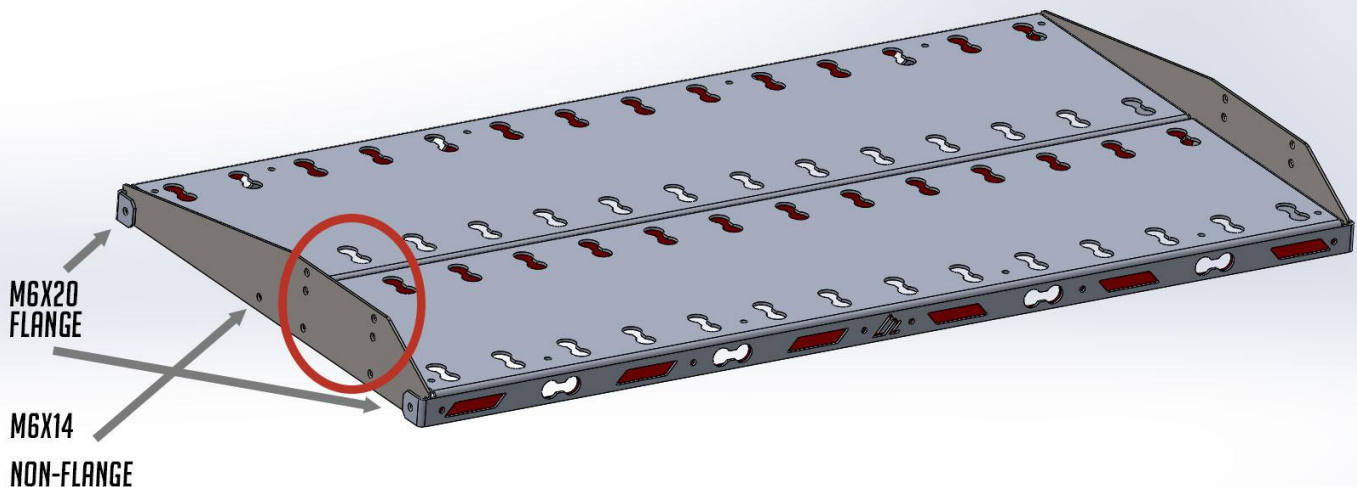
MAX-HEIGHT ASSEMBLY



After you have determined your Side Bracket installation orientation, attach the Side Brackets using M6x20mm Button Head Flange Bolts at the corners and M6x14mm Non-Flange Button Head Bolt on the single inner hole identified by the arrows below.

Next, install a M6 bolt and nut in two of the holes that line up with the Main Panels that are within the circled area below. Repeat for the opposing side. Do not tighten these. Putting a lock nut finger tight on these bolts is sufficient for this step. **These are just temporary placeholders to align the Side Brackets to the Main Panels before tightening.**

Then, tighten all of the bolts in both side brackets except the bolts that are within the circled area below. After all of the appropriate bolts are tightened, you can **remove the temporary bolts** from the previous operation. There may be some resistance on the way out, which is normal and dependent on the type of powder coating that was applied to your shelf.

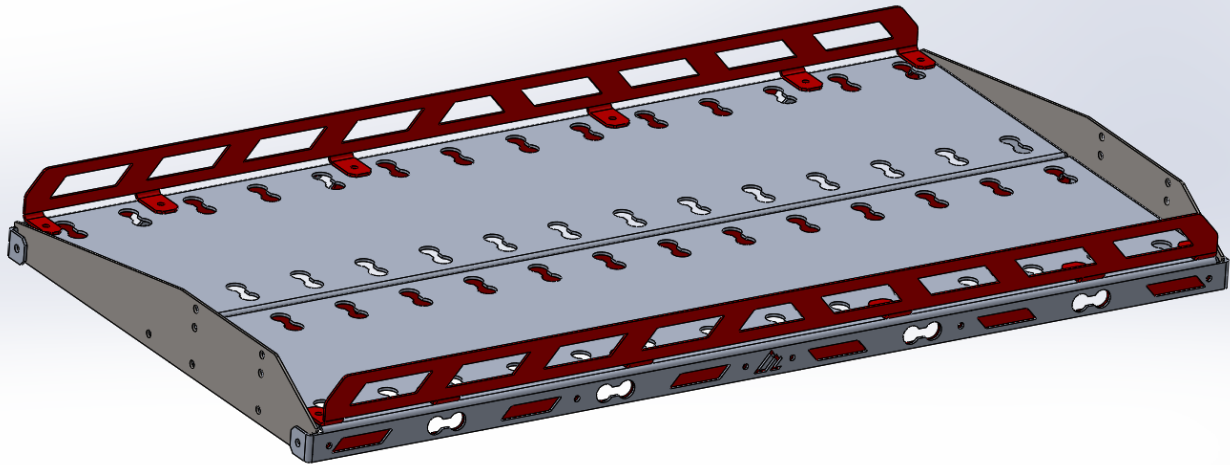


After all of the bolts for both side brackets have been tightened, you can now tighten all of the bolts for the shelf assembly (not the cage brackets) that were left loose in the previous operations.

Step 6 - Attach Edge Guards

The edge guards are optional. If you do wish to use them, they are attached using M6x14mm Button Head Bolts and 10mm Lock Nuts. The Edge Guards should be oriented as shown below and the heads of the bolts

should reside on the top of the shelf, with the nut being below the shelf. You should now tighten the Edge Guard bolts.

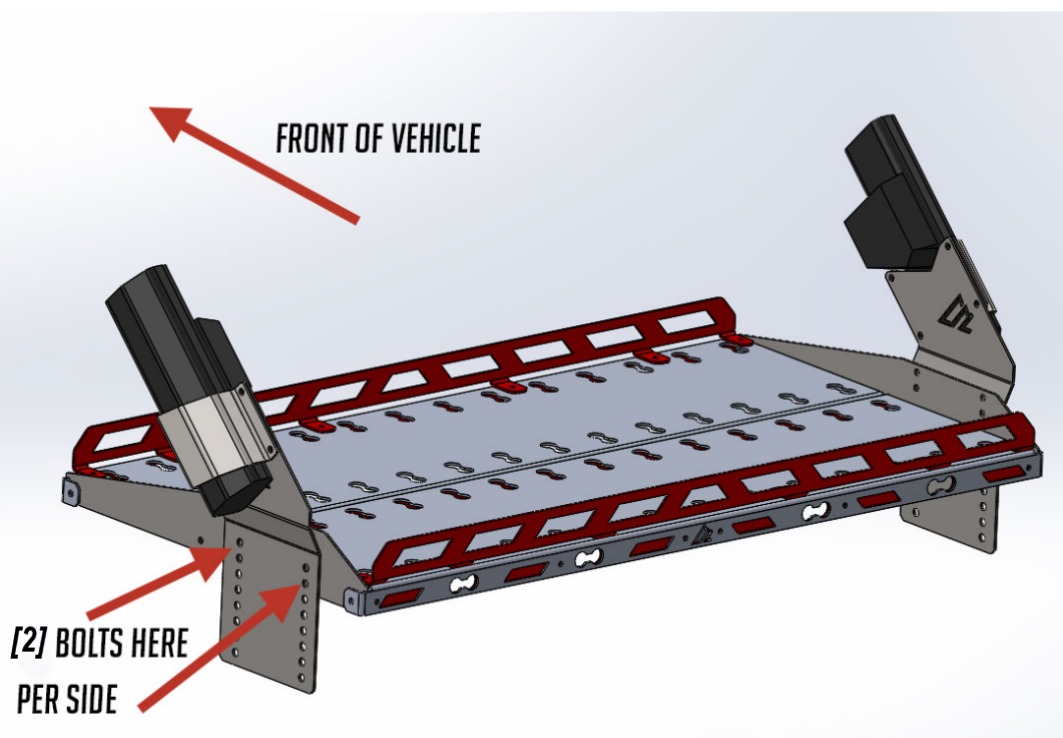


Step 6 - Attach Shelf to Roll Cage Brackets

Note: This step is easier if you can grab another person to lend a set of hands.

For this step, it is important to pay attention to the orientation of the shelf assembly before you get to the vehicle with it. The long slanted side points toward the front of the vehicle, as shown in the diagram below.

Carry the assembled shelf panels to your vehicle. Very carefully and slowly, slide the shelf panels between the attached Roll Cage Brackets. Now is when you need to determine the installed height of your shelf. You can move the shelf up and down freely to determine the proper mounting holes. After the holes are identified, use M8x20mm Button Head Flange Bolts to secure the shelf panels to the Roll Cage Brackets. This will take (2) pairs of nuts and bolts per side. You can use any of the four holes that line up with the cage brackets on each side.



Step 7 - Tighten All Nuts and Bolts

Firstly, tighten the Bottom Bolt on each of the Outer Cage Brackets. Then, tighten the bolts for each set of Cage Brackets. This will “clamp” the Cage Brackets to the roll cage.

At this point, your shelf should move up and down slightly at the very end. This is so you can properly level the shelf to your vehicle. Once you have your shelf leveled, tighten the (4) bolts (2 on each side) and nuts securing the assembled shelf to the now assembled Roll Cage Brackets.

At this point, all hardware should be tight. Ensuring everything is tight will ensure you don't hear rattles from loose hardware.

Step 8 - Show Off Your Handy Work

If you are able to post photos of the installed shelf, please tag us in your posts. We would love to see how it turned out.

- Instagram - @AmericanAdventureLab
- Facebook - @AmericanAdventureLab
- YouTube - @AmericanAdventureLab

Thank you again for purchasing your Cargo Shelf from AAL. We greatly appreciate your support.

Please let us know what you think about the product and installation process.

If you are so inclined, please share your installation photos with us online:

- Facebook - <https://www.facebook.com/AmericanAdventureLab>
- Instagram - <https://instagram.com/americanadventurelab>

