



INSTRUCTIONS

JEEP JKU M.A.S.S. CARGO SHELF

Thank you for purchasing your Jeep JKU - 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.

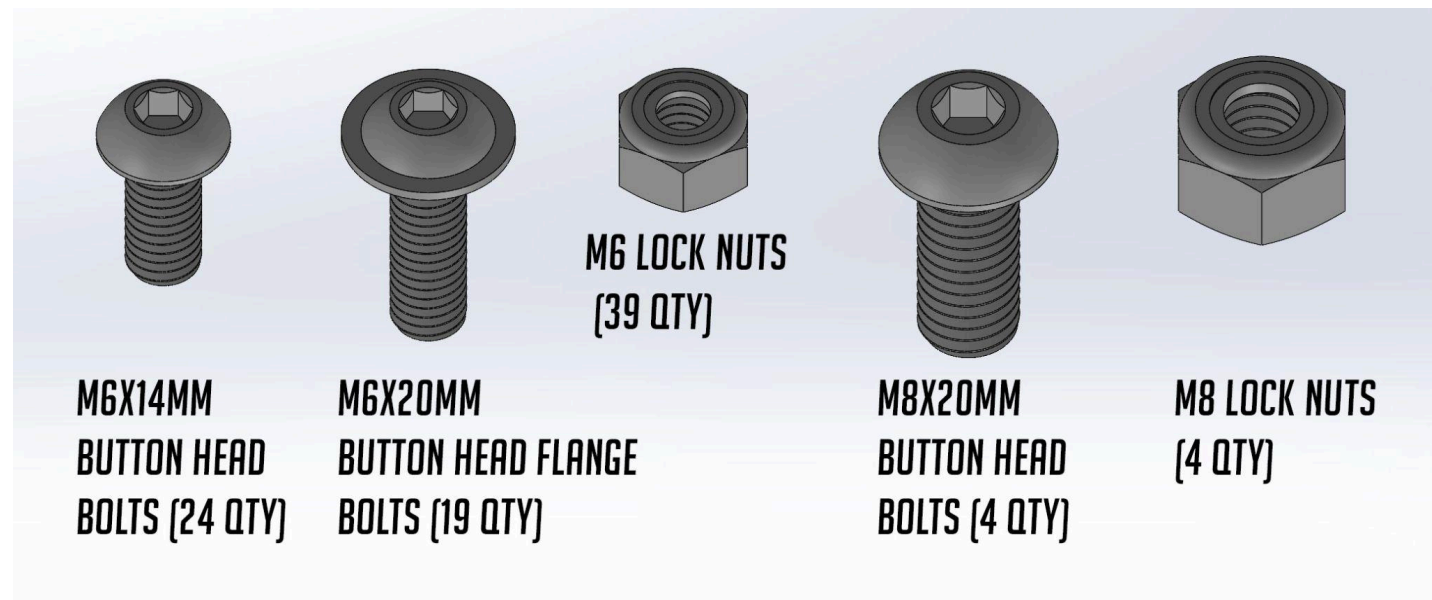
Suggested Tools

#2 Philips Screwdriver M5 Hex Socket/Wrench M4 Hex Socket/Wrench	10mm Wrench 13mm Wrench
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Verify Hardware

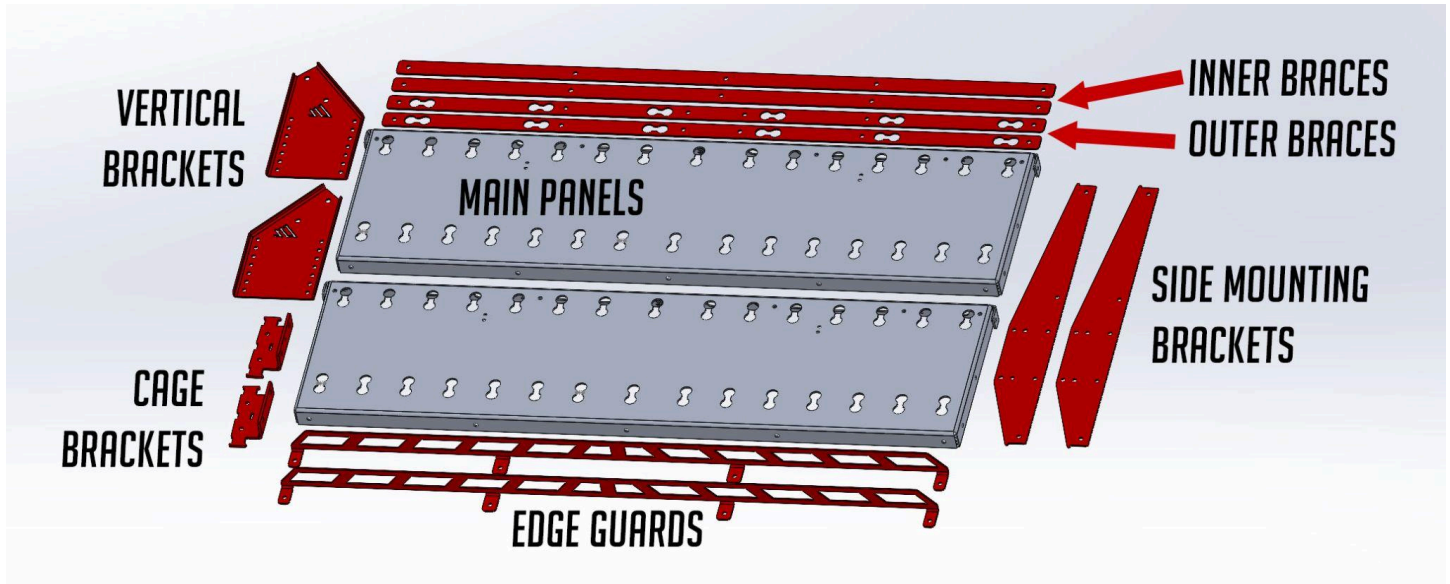
Below is a list of included hardware. Please familiarize yourself with each component as we will be calling them out by name during the installation. You will also have (4) Hose Clamps. The hose clamps are not pictured.

Note: (4) of the M6x20mm Button Head Flange Bolts and (4) of the M4 Lock Nuts are already attached to the Main Panels. They are securing the shipping spacers which will be removed in a later step.



Step 1 - Lay Out All Components

To prepare the installation, it's beneficial to familiarize yourself with the individual components. Lay out the pieces like below.

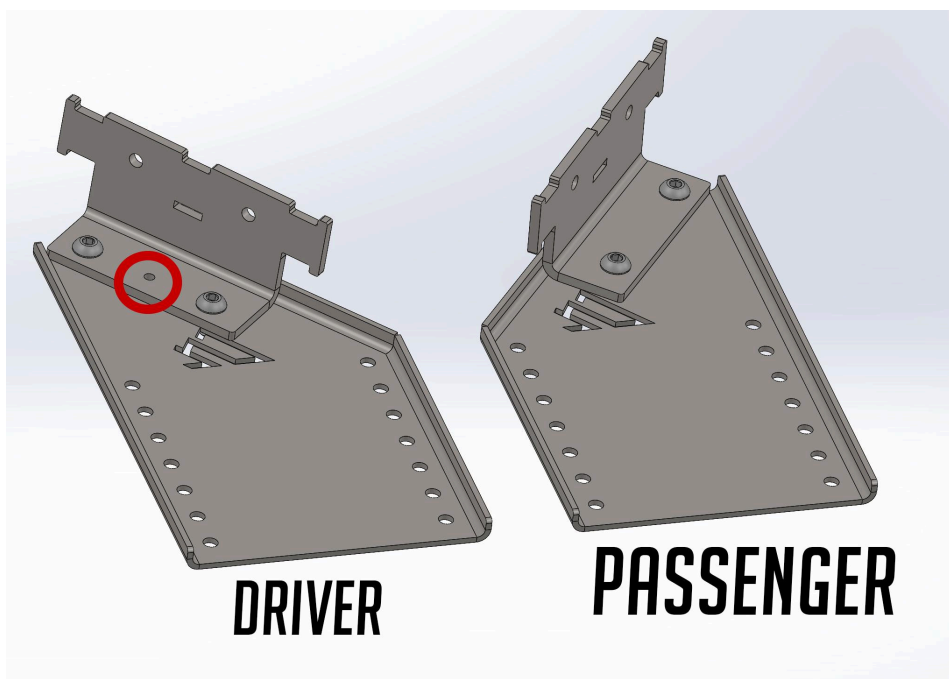


Notes:

- The two Side Mounting Brackets are identical
- The two Inner Braces are identical
- The two Outside Braces are identical
- The two Main Panels are identical
- The Cage Brackets are mirrors of each other
- The two Cage Brackets are almost mirrors (driver's side has an additional identifying hole)

Step 2 - Attach Cage Brackets to Vertical Brackets

Use (4) M8x16mm Button Head Bolts and (4) M8 Nylon Lock Nuts., assemble the Cage Brackets as shown below, paying special attention to the hole circled in the diagram below. The Cage Bracket that has the hold in it is the Driver' side bracket. You will use the 5mm hex socket/wrench and 13mm wrench.



Step 3 - Attach Assembled Brackets to Roll Cage

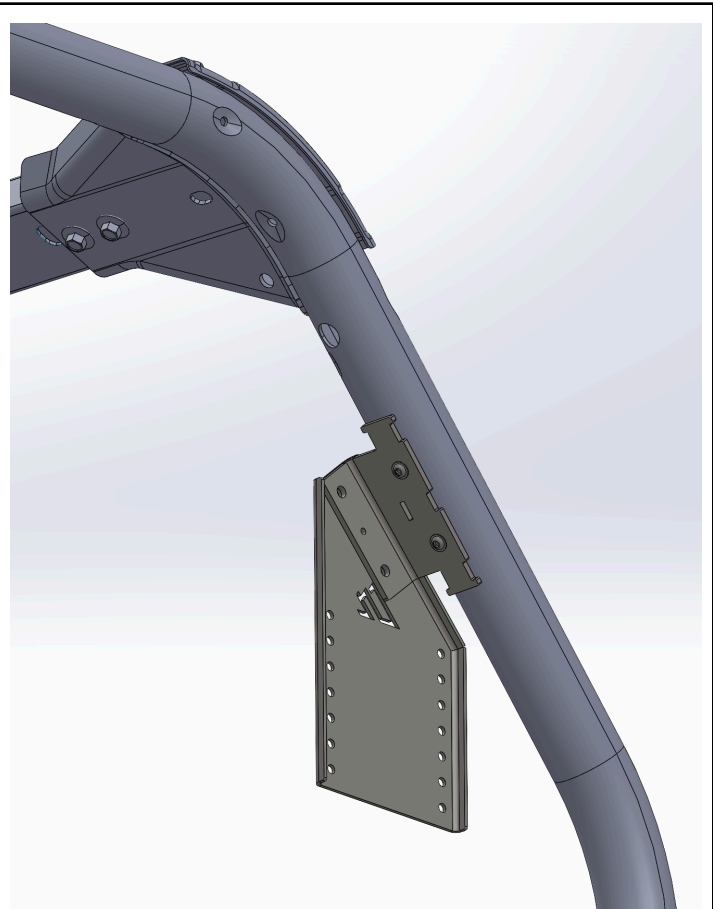
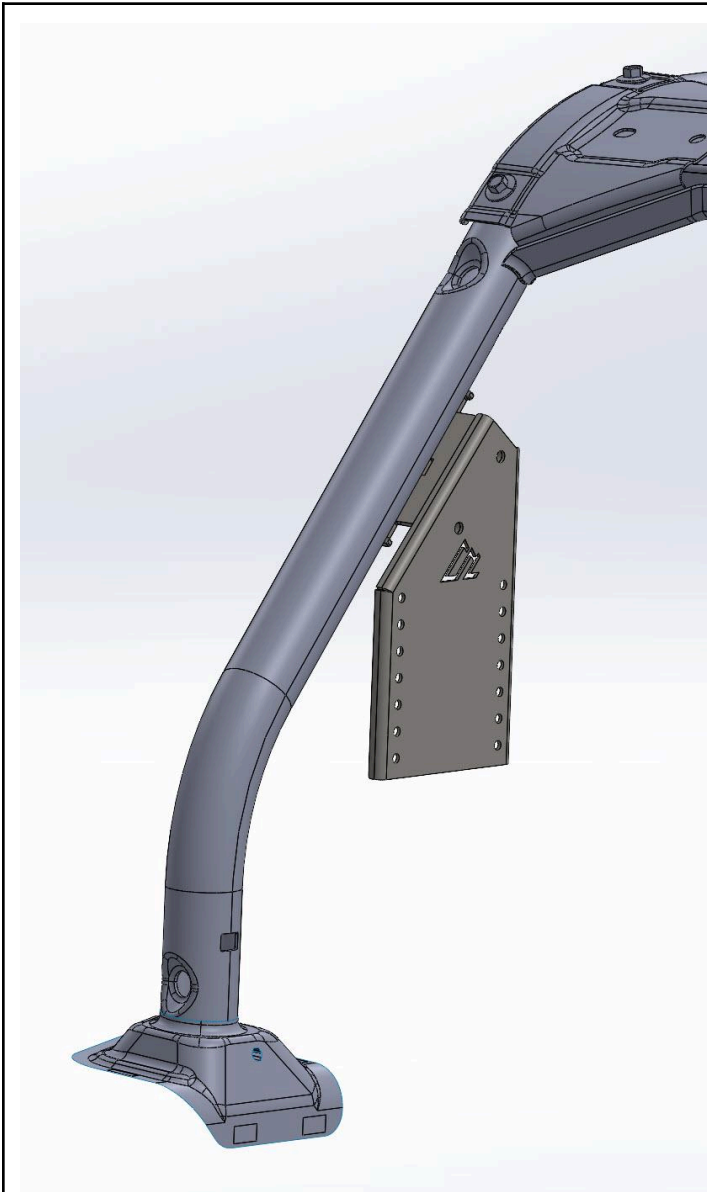
If your JK still has the cloth cover over the roll cage, unzip the cover all the way up to the upper portion of the roll cage. Then, open the hook-and-loop flap on the inside of the roll bar fabric, adjacent to the mounting location shown below. Next, insert the Cage Bracket into the open slot.

Next, using two of the M6x20mm button flange head bolts, attach the assembled Cage Bracket to the bottom of the roll cage. There are two threaded bungs at this location we will use to secure the bracket. Keep these bolts very loose at this point.

Repeat this process for the passenger side.

Do not zip the roll cage cover at this time.

Note: both of the images below are of the driver's side.



View from the bottom, showing the location of the threaded bungs in the bottom side of the roll cage.

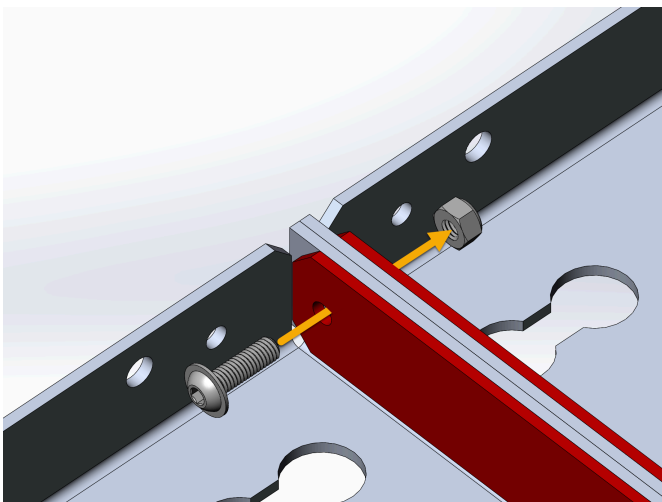
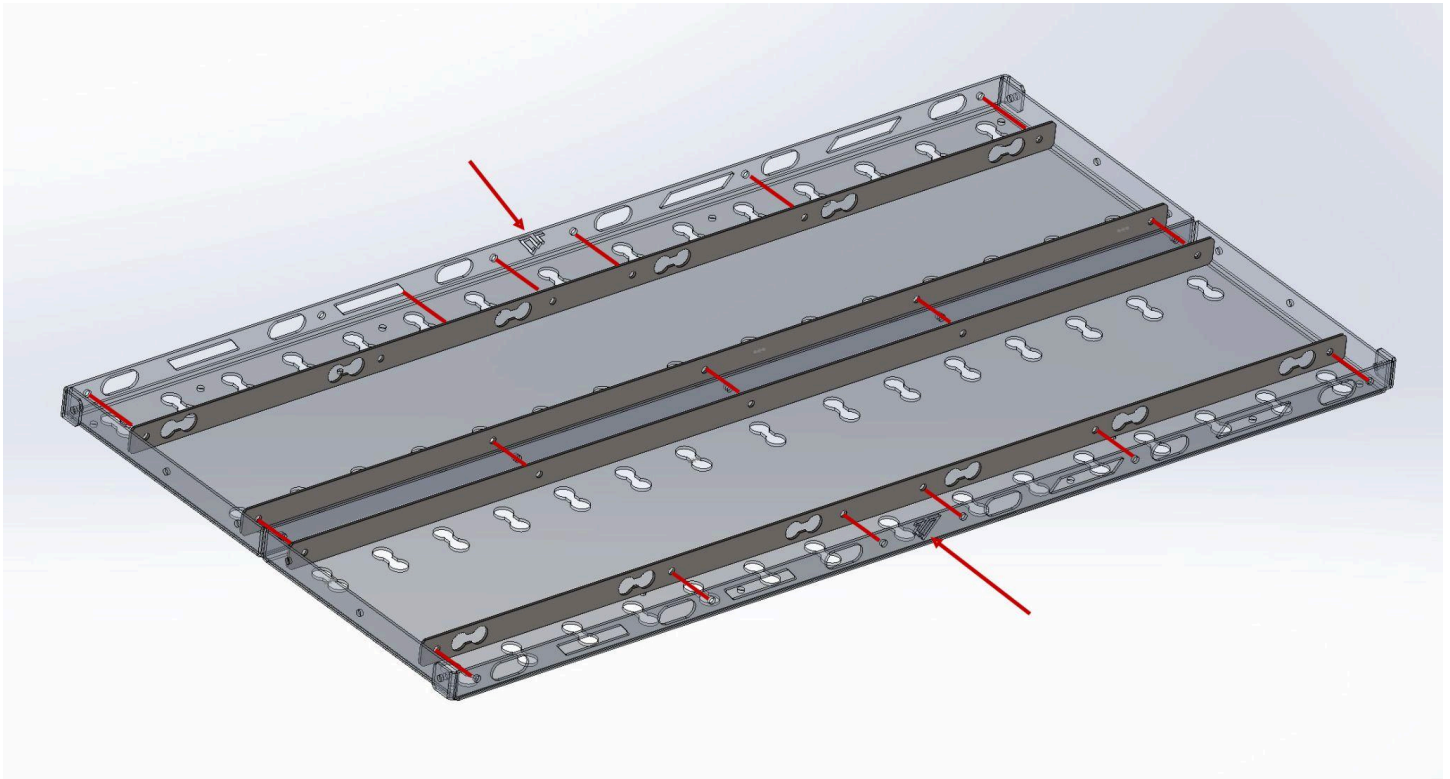
Step 4 - Assemble Shelf Panels

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 arrows in the below diagram). You can also pay attention to the corner edge flanges to help you orient the shelf halves.

Next, attach the braces as shown below. The inner braces are the ones without the larger holes in them. The inner braces will use the M6x20mm **Flange** Button Head Bolts. The outer braces will use the “non-flange” M6x14mm Button Head Bolts. 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, just do all of the inner bolts the same way.

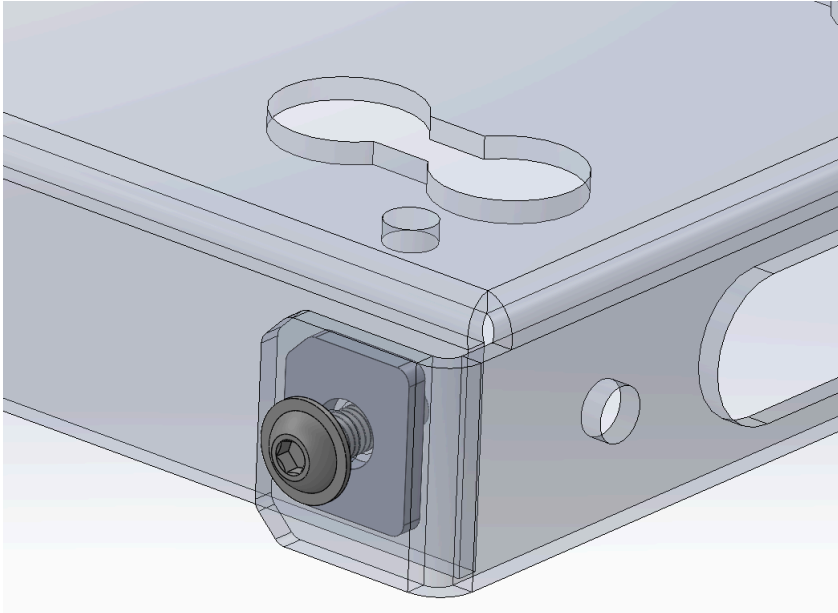
The red lines below indicate where a bolt and nut will go. Use the supplied M6 Lock Nuts to secure the bolts.

IMPORTANT: keep all these bolts very loose.



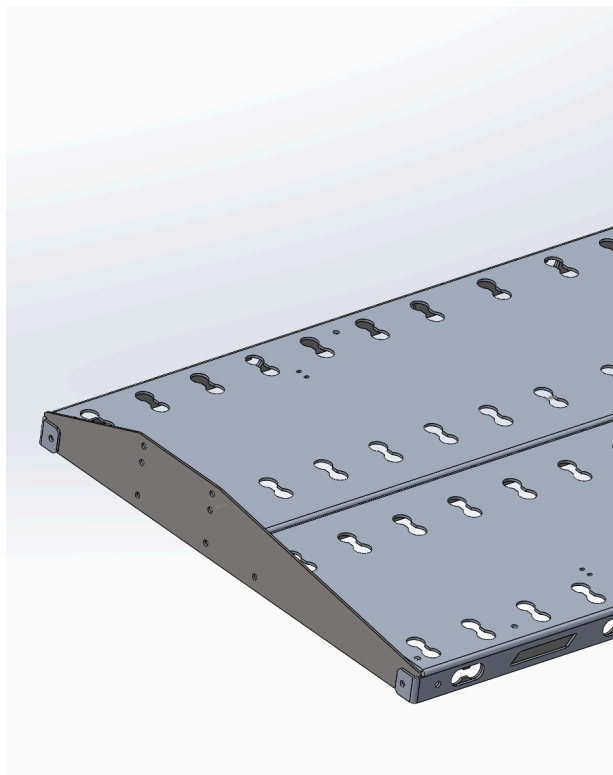
Step 5 - Attach Side Brackets

Before beginning this step, it is necessary to remove the shipping spacers added to each corner of the Main Panels. To do this, using your M4 hex wrench/socket and 10mm wrench, remove the bolt and nut. Hang onto the bolt and nut as we will reuse those, but you can discard the shipping spacers. The shipping spacers are shown in the diagram below.

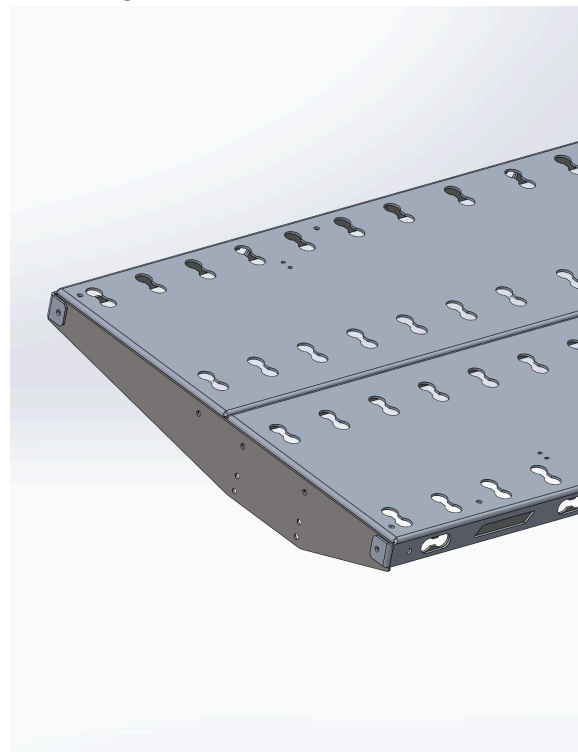


The “standard” installation arrangement of the side brackets is shown below to the left. If you need the maximum height from your cargo shelf, install the Side Brackets as shown on the right. The Side Brackets “flip” to achieve maximum height.

Standard Orientation



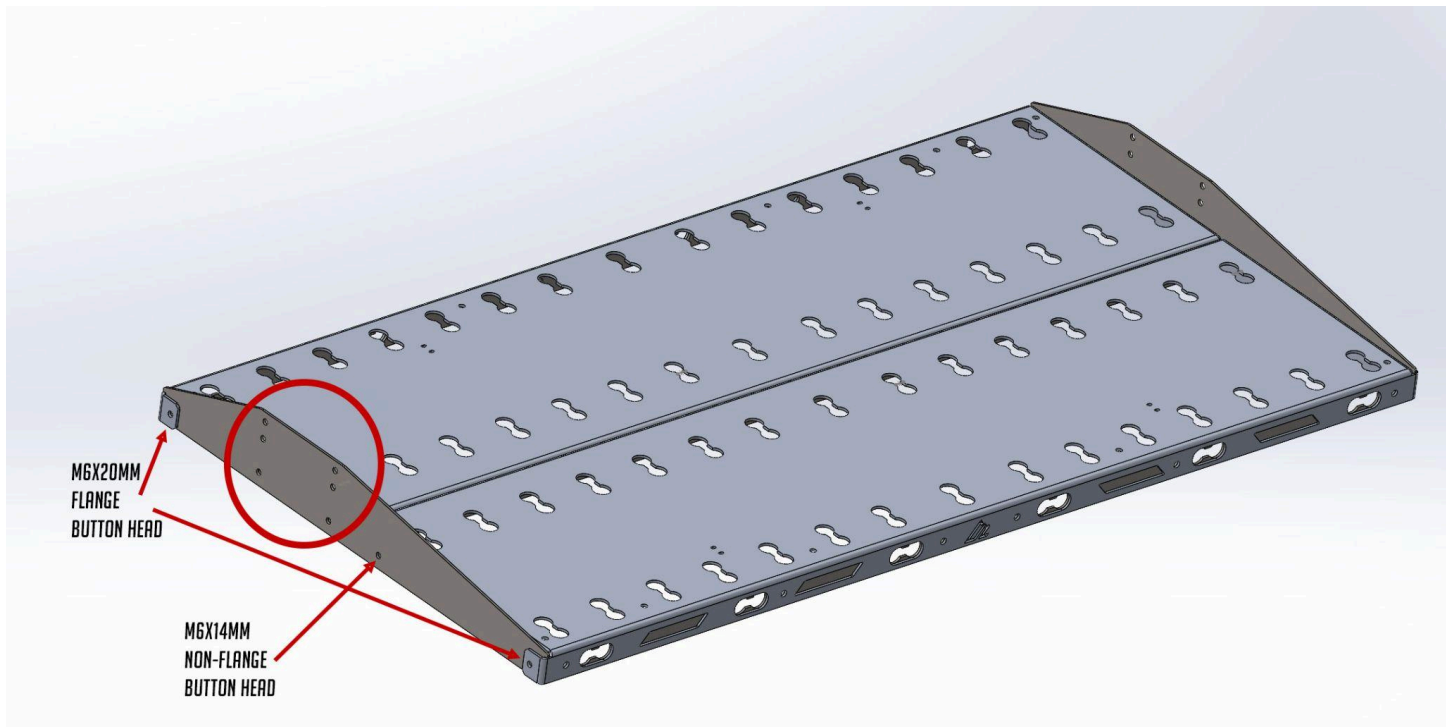
Max-Height Orientation



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 inner hole identified by the arrows below.

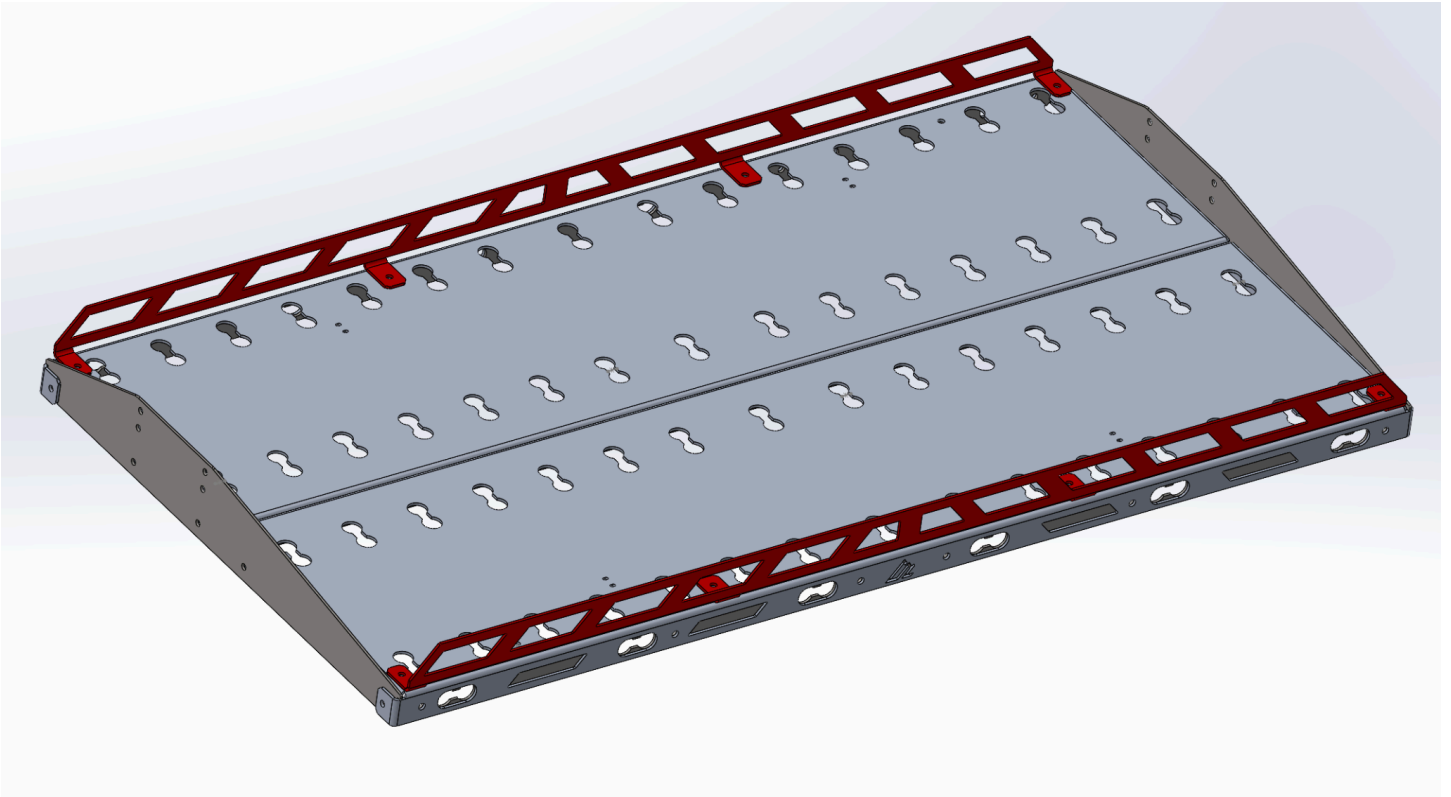
Next, install a M6 bolt and nut in each of the two holes that line up with the Main Panels that are within the circled area below. Repeat for the opposing side. Do not tighten these up. Putting a lock nut finger tight on these bolts is sufficient for this step. **These are just temporary placeholders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



Step 6 - Attach Edge Guards

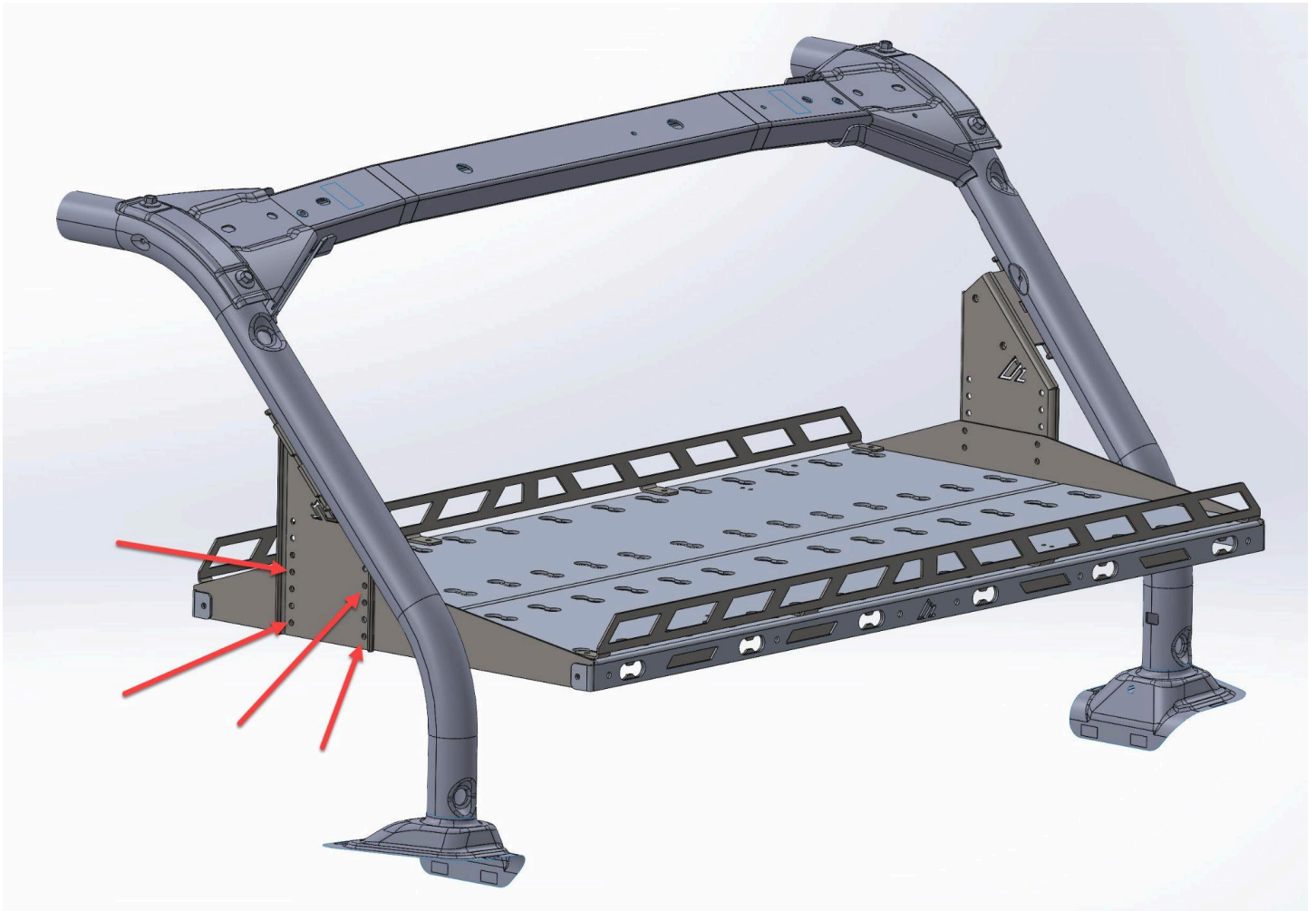
The edge guards are optional. If you do wish to use them, they are attached using M6x14mm Button Head Bolts and 10mm Lock Nuts. The Edge Guards should be oriented as shown below and the head of the bolt should reside on the top of the shelf, with the nut being below the shelf. You should now tighten 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 another set of hands.

Carry the assembled shelf panels to your Jeep. Very carefully, 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 M6x20mm Button Head Flange Bolts to secure the shelf panels to the Roll Cage Brackets. This will take (4) pairs of nuts and bolts per side.



Step 7 - Tighten All Nuts and Bolts

Firstly, tighten the M6 bolts securing the Roll Cage Brackets to the roll cage. There are two bolts per side. You will use the M4 hex socket/wrench to do this.

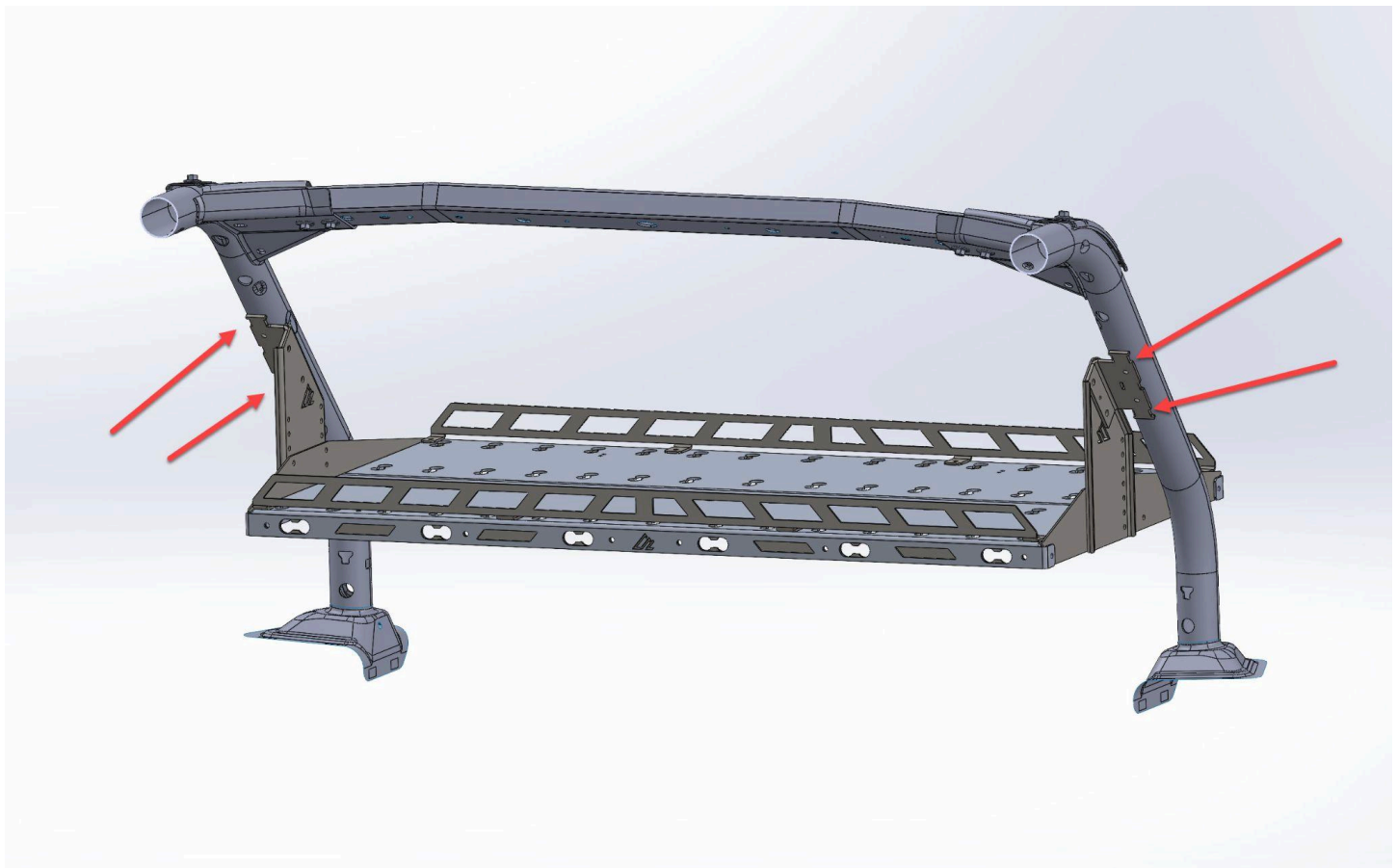
At this point, your shelf should move up and down slightly at the very end. This is so you can properly level the shelf to your vehicle. Once you have your shelf leveled, tighten the (8) bolts and nuts securing the shelf to the Roll Cage Brackets.

Yes, you can do this with only two bolts and nuts per side to achieve the maximum heights (low and high).

All nuts and bolts can be tightened now using the M4 hex socket/wrench and the 10mm wrench.

Step 7 - Install Outer Clamps

The final step in installing the shelf is to add the Outer Clamps to your Roll Cage Brackets. These should be added through the channels identified by the arrows below. The clamps reside INSIDE of the cloth roll cage cover if you are still using that cover. There are (2) clamps per side.



Step 9 - 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 JKU M.A.S.S. 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>

