

# Defender 2 Winch Tray Install



 **LUCKY 8**  
OFF ROAD EQUIPMENT

The first thing to do is remove the front bumper cover.  
We will show you how in the next few steps.

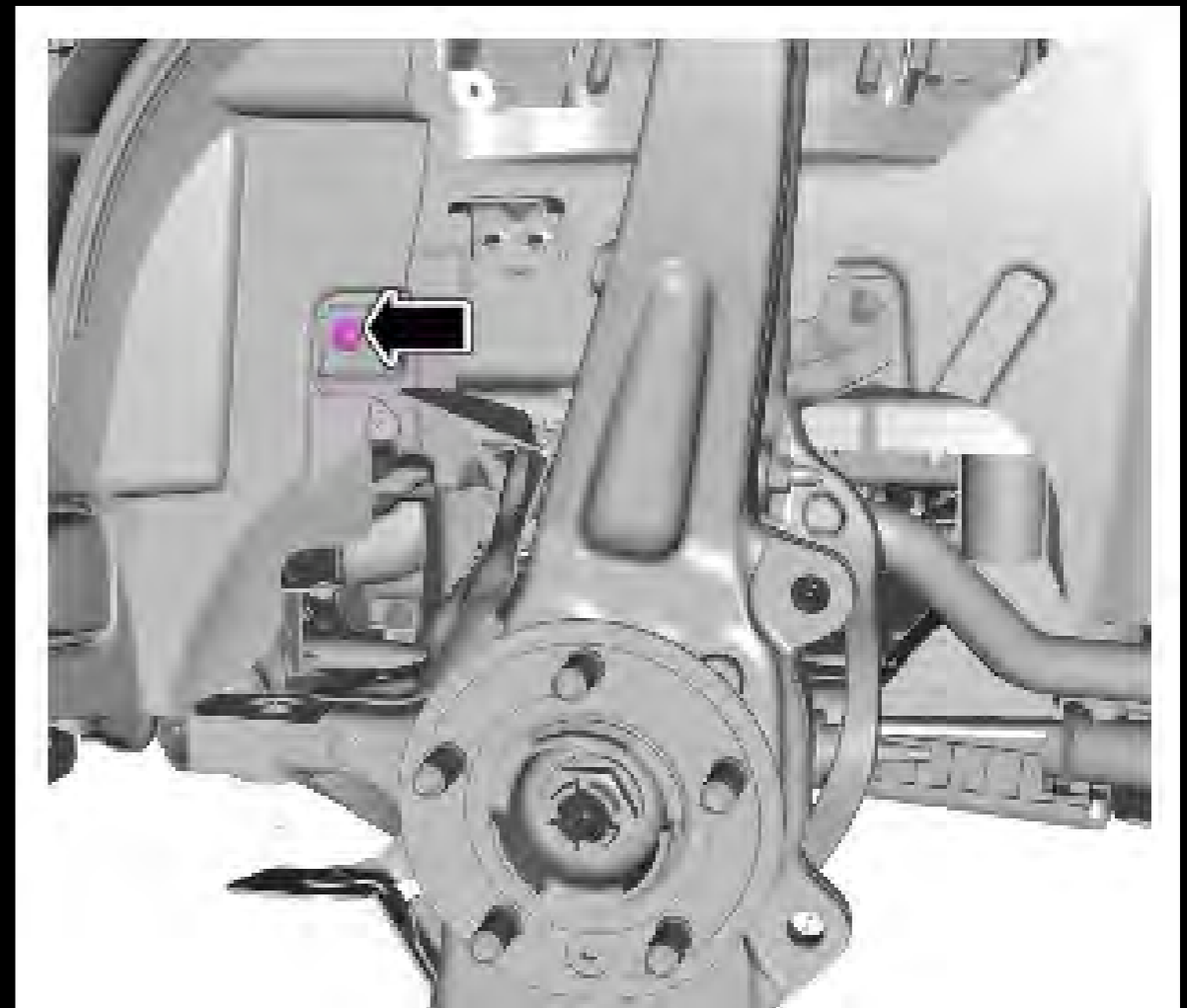
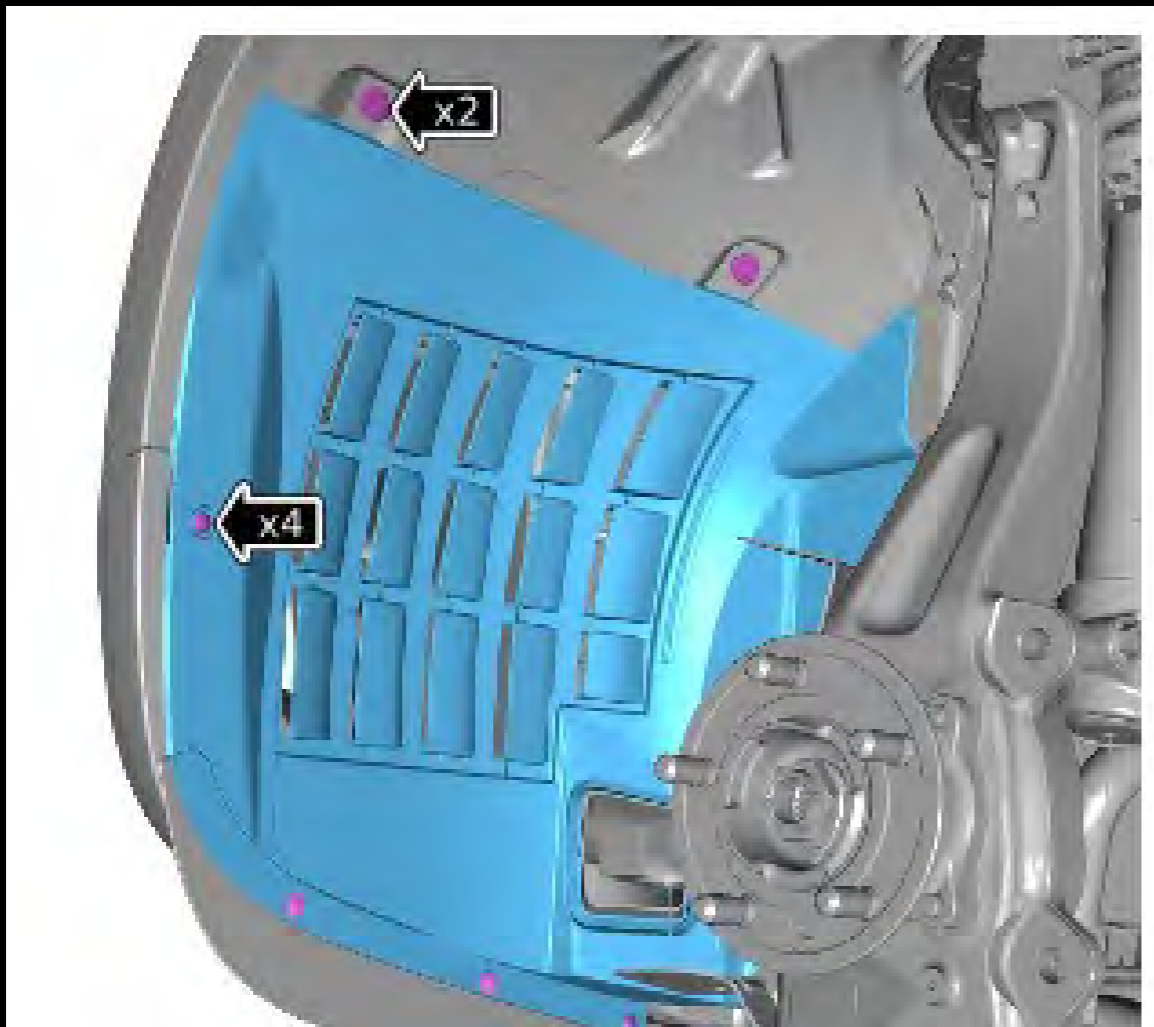




In the wheel wells, remove the fender liner.

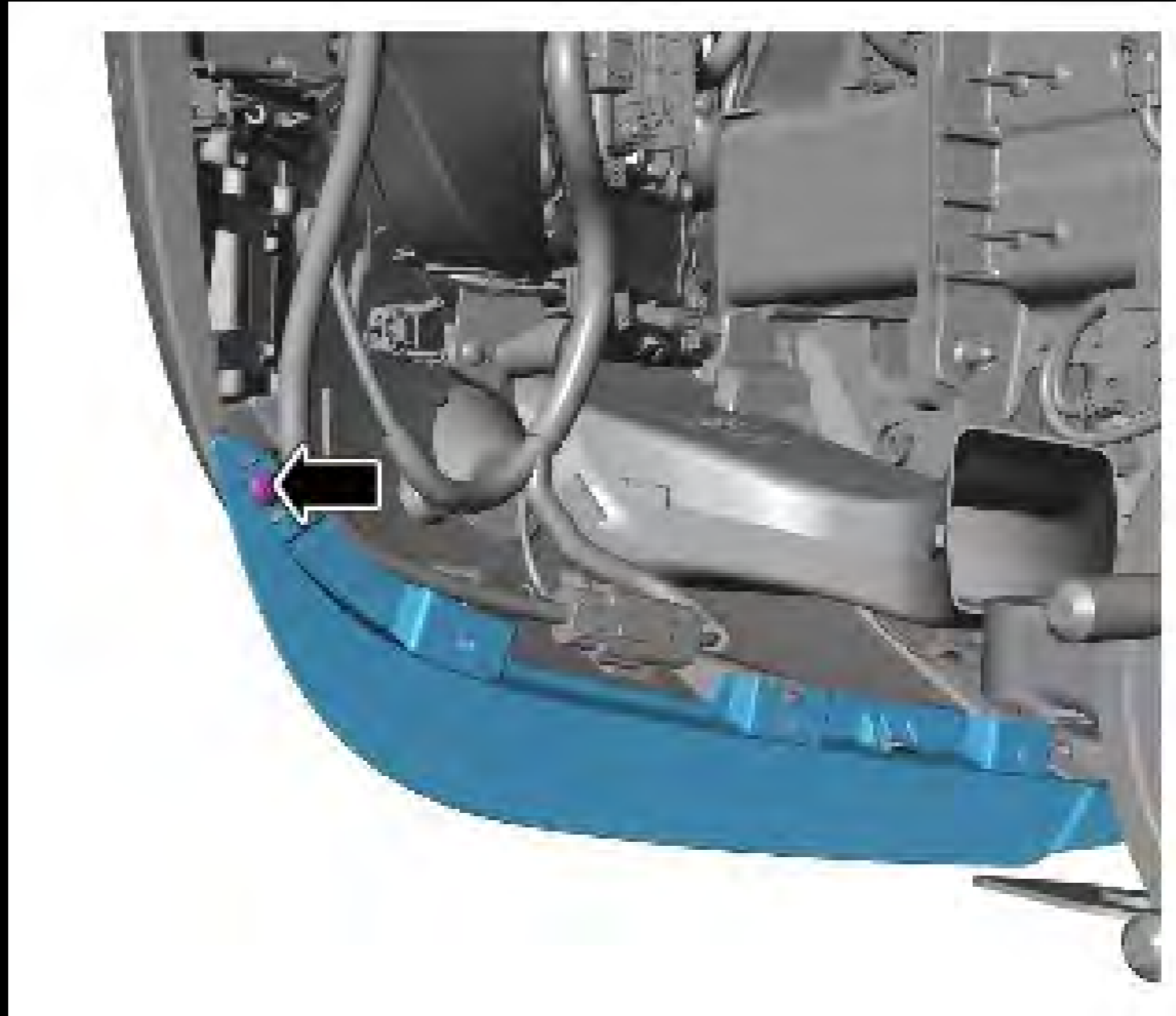


Remove all the pop clips and screws.





Remove the lower splash guards.



Disconnect the two wiring harness in the left wheel well.





Remove the bolts shown below on both sides.





Remove the grill.



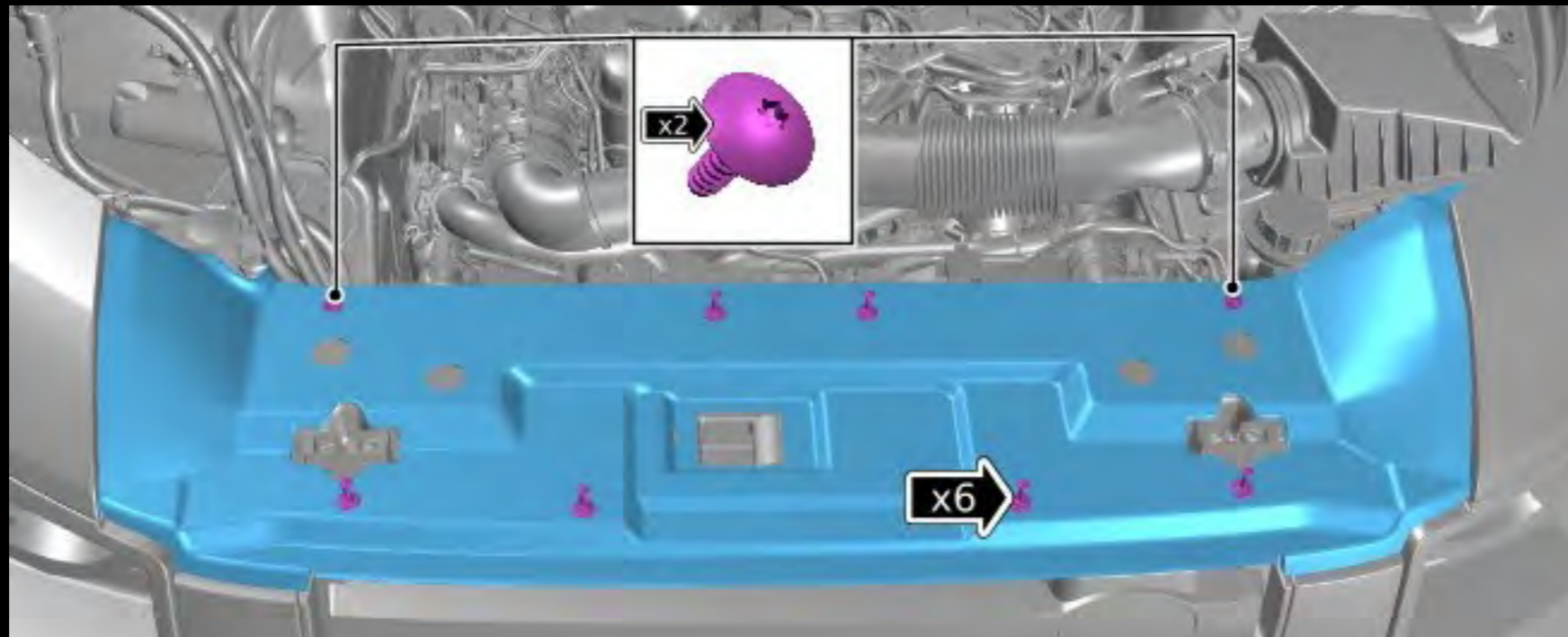


Remove the upper plastic in the engine bay.



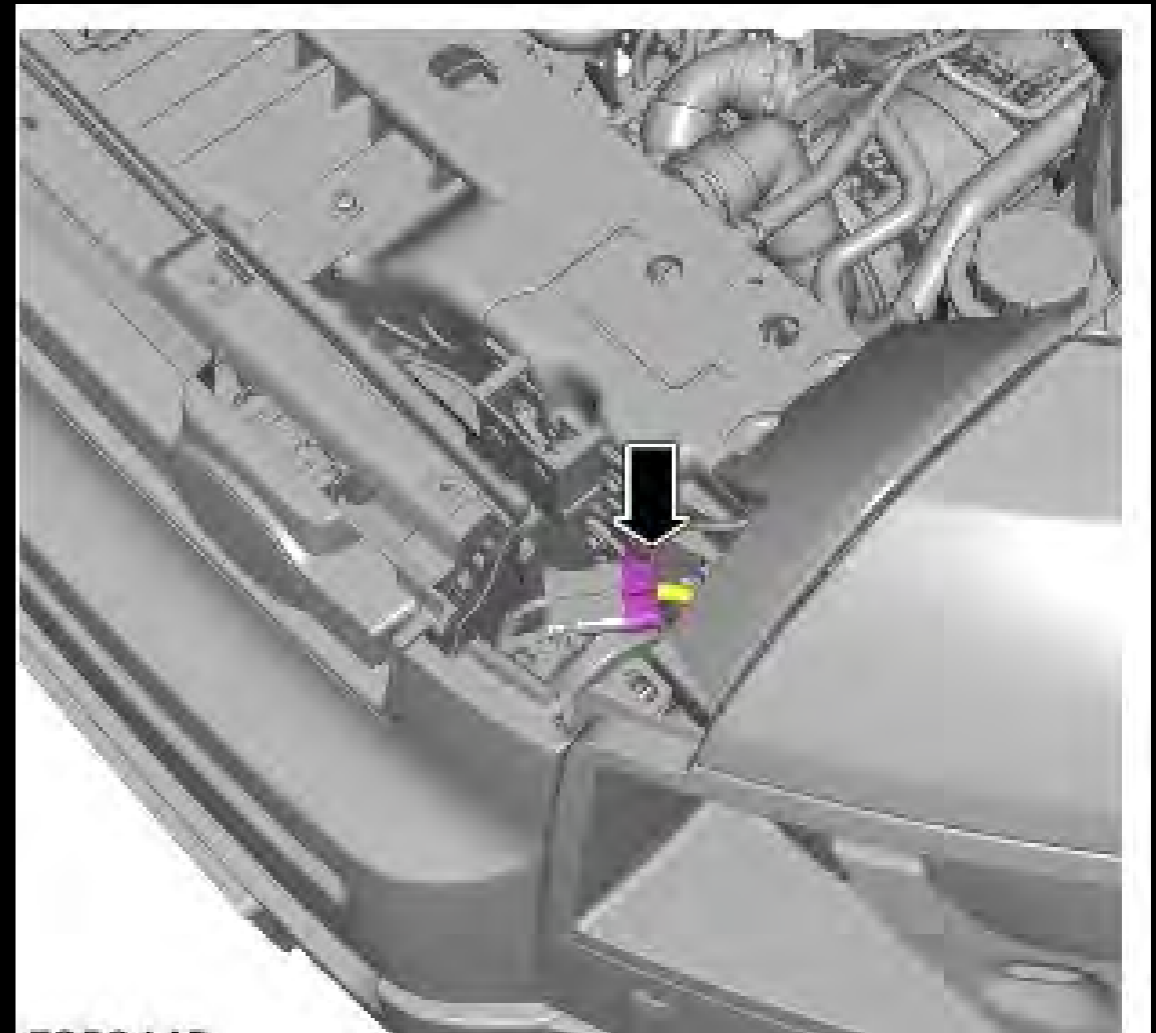


The plastic is held in with pop clips and torque bolts.

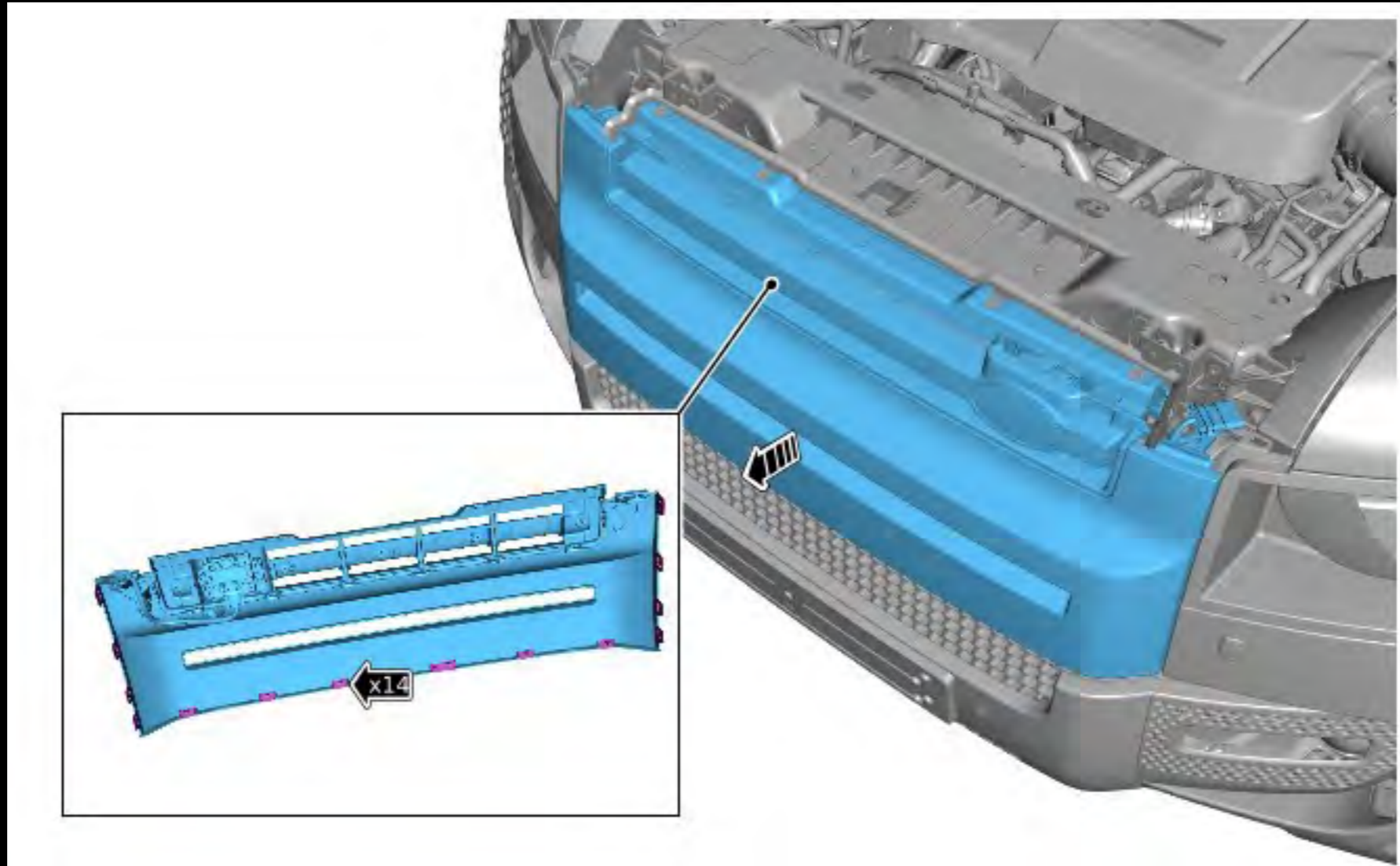




Disconnect this electrical connection.



Release the fourteen (14) clips and remove the grill.





Use a long flat blade screwdriver to release the eight side clips.





Gently release the four clips one side at a time.

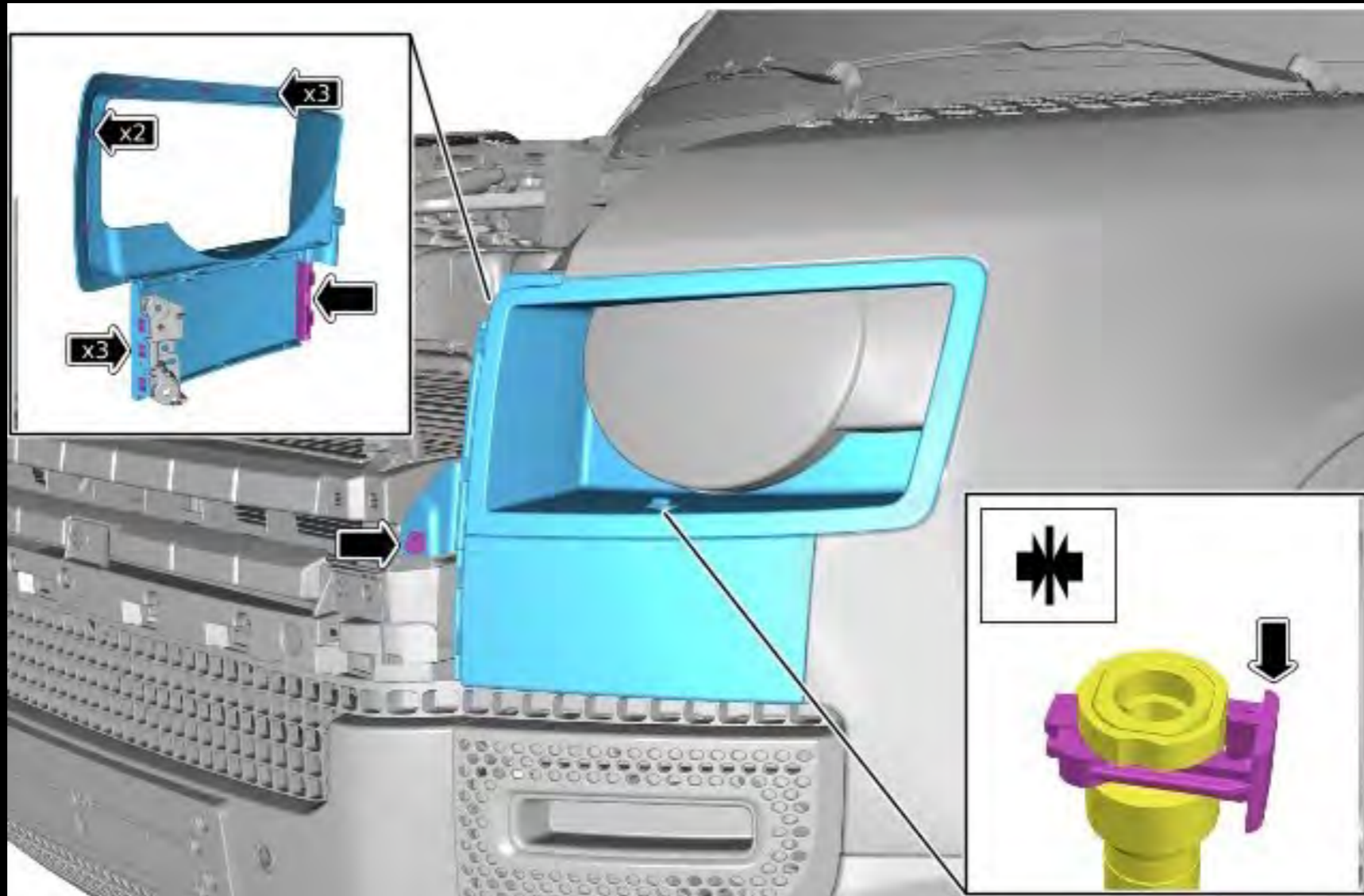




With clips loose gently pull forward.



Remove the headlight buckets.



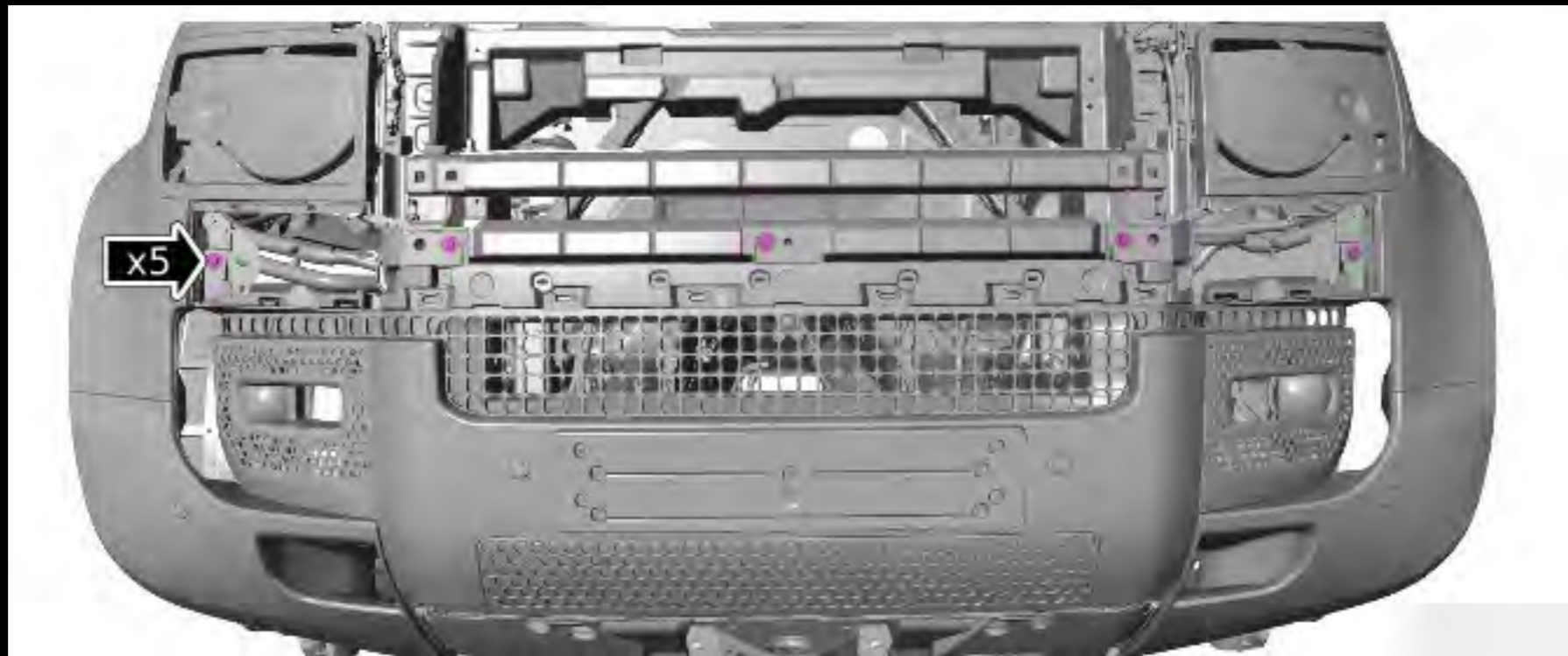


Undo the bolt and gently pull off the buckets.



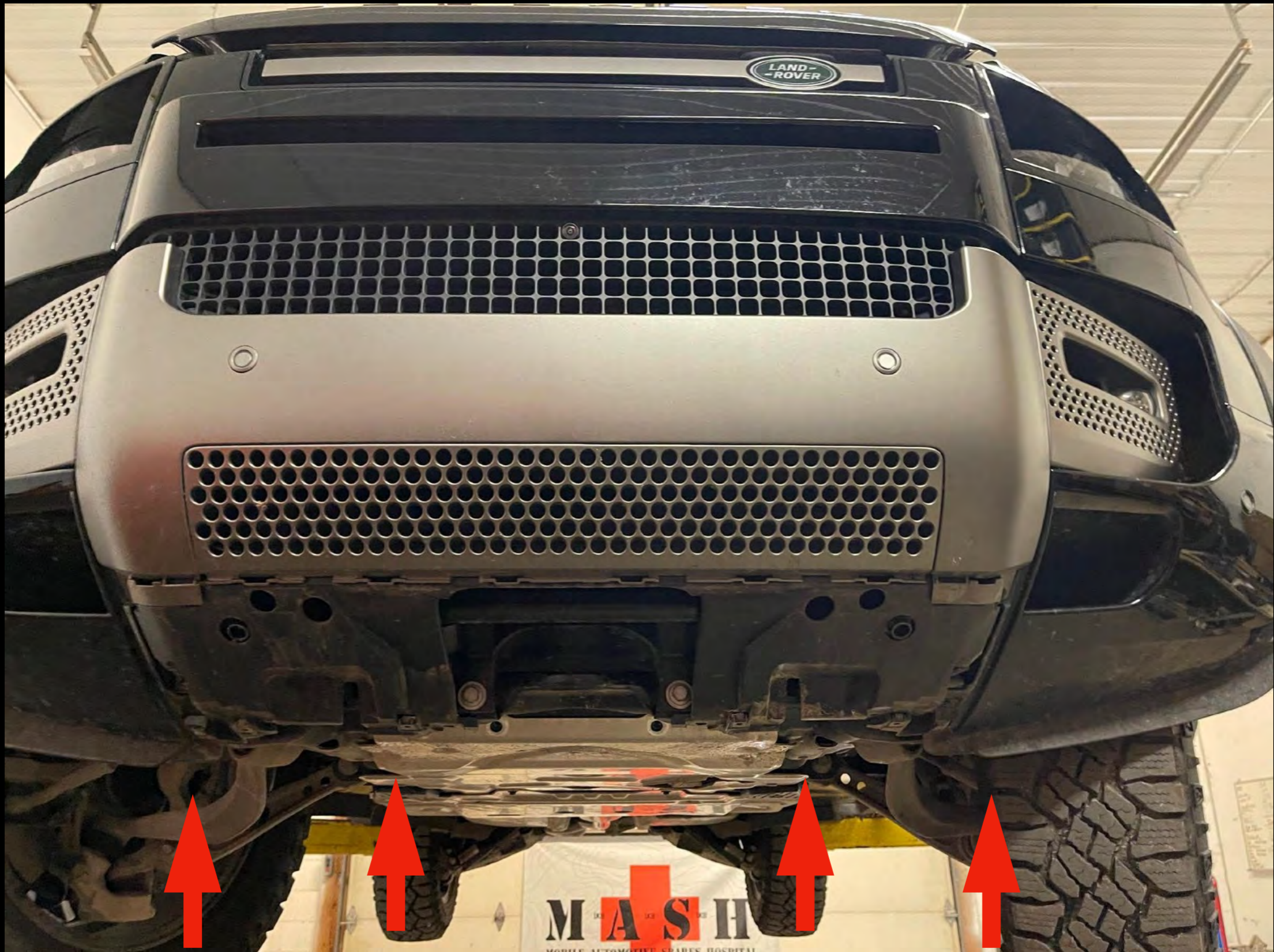


Unbolt the front bumper supports.





Four front bumper supports on the bottom.





Three on the top **but leave the center bolt in but loosened**. This will help hold the cover in place until you are ready to fully remove it.





And one in the corner on each side.



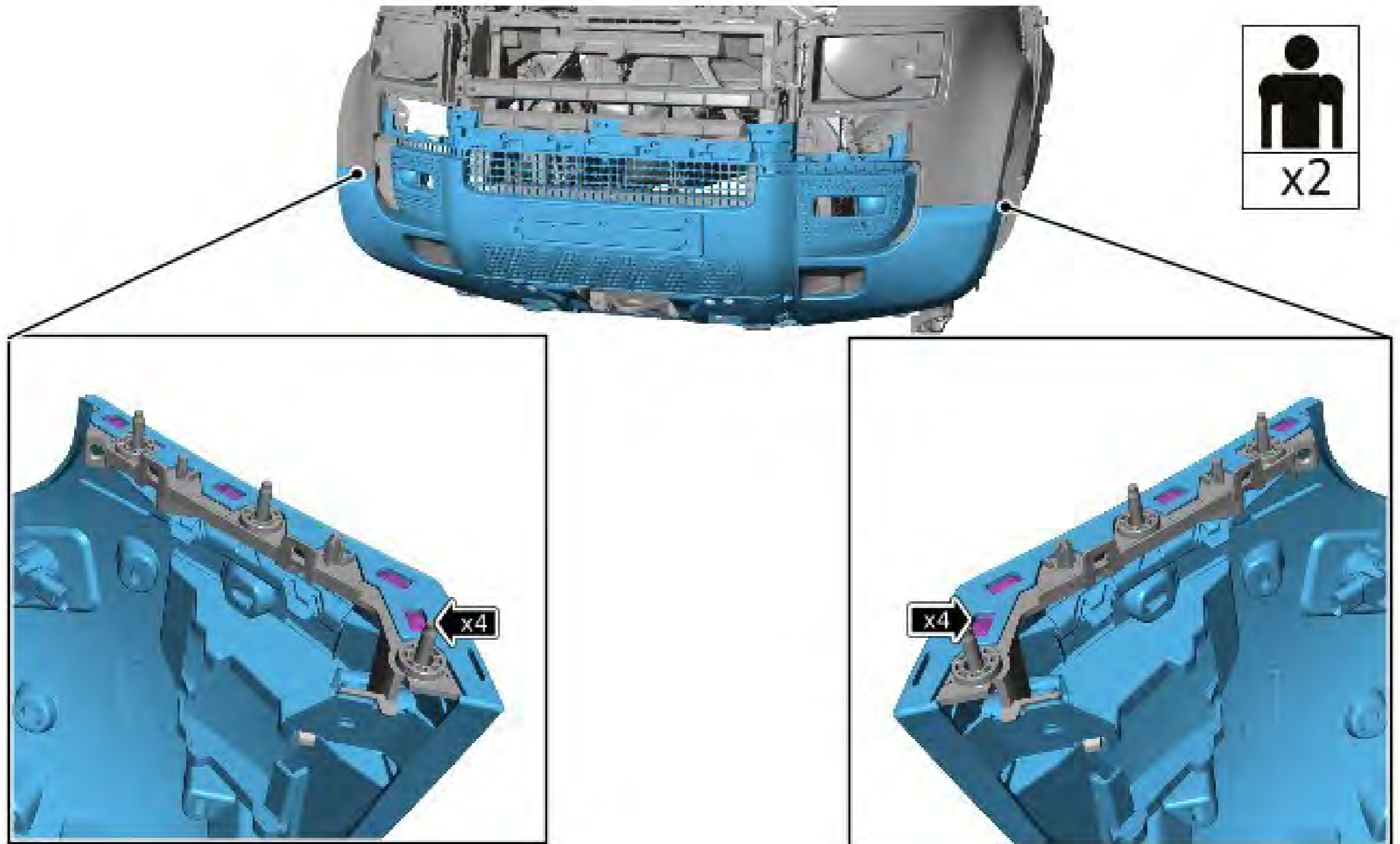


Pull the corners back gently.





With the corners loose and center bolt removed pull the bumper cover off with some help from a friend.



With the front bumper off, remove the air deflector.

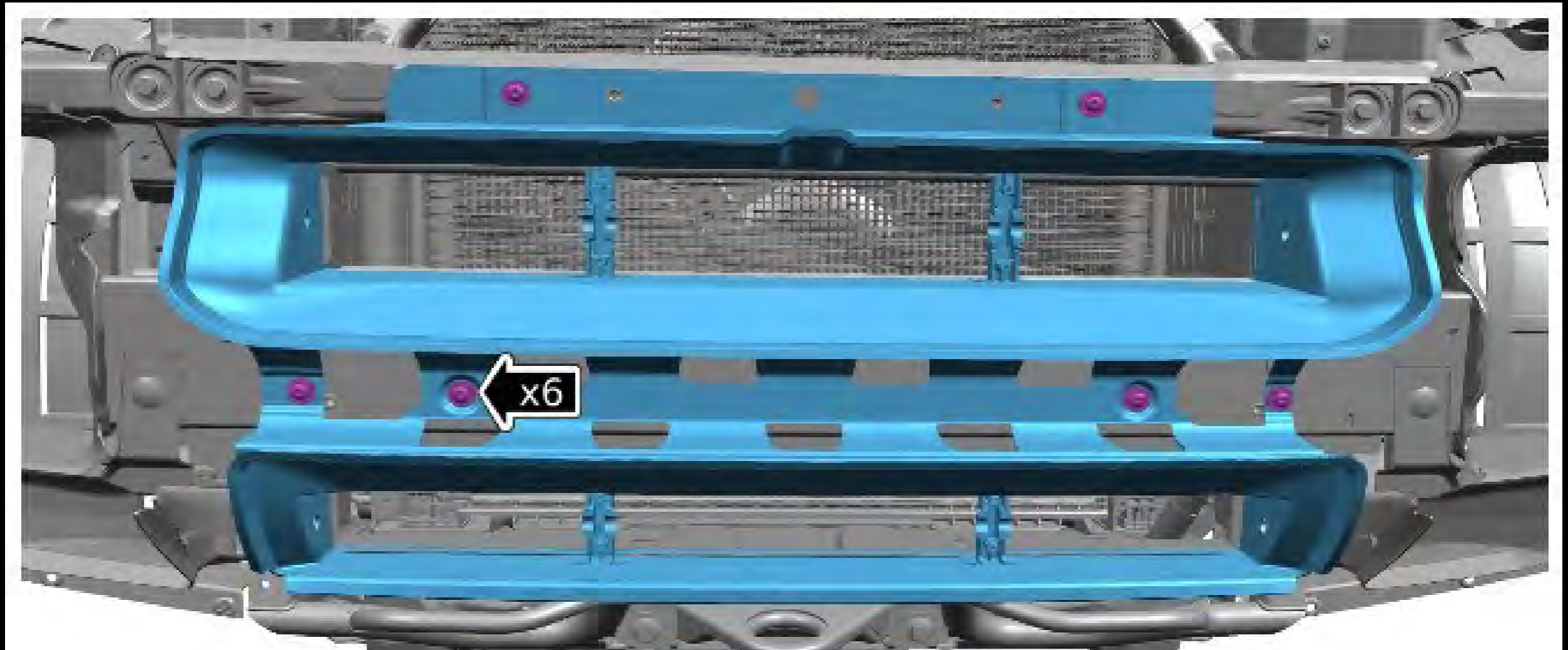




Disconnect the electrical connection from the side of the air deflector.



Unbolt the six bolts on the deflector.

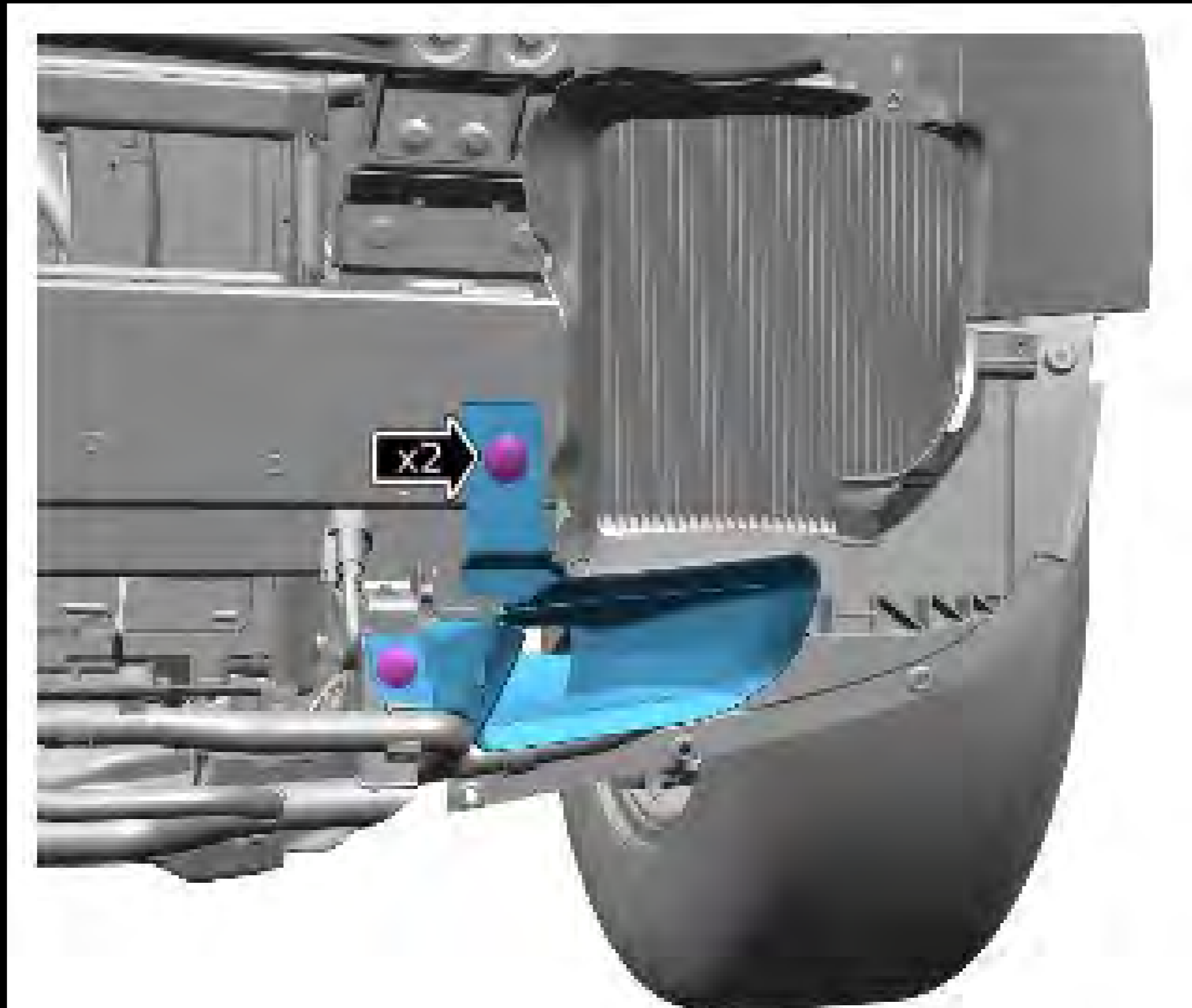




The bumper core support needs to be removed.

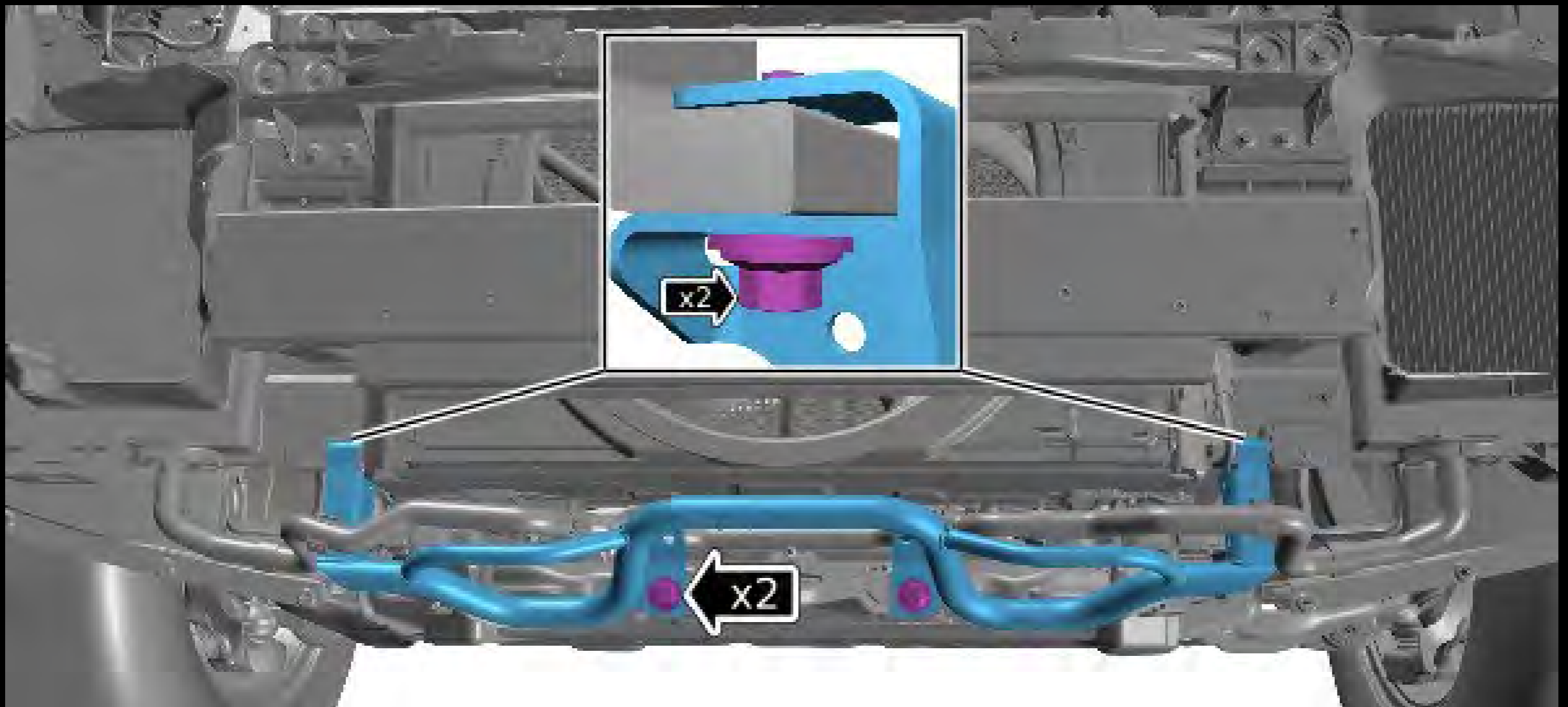


Remove the two clips on each side of the brake cooling duct.

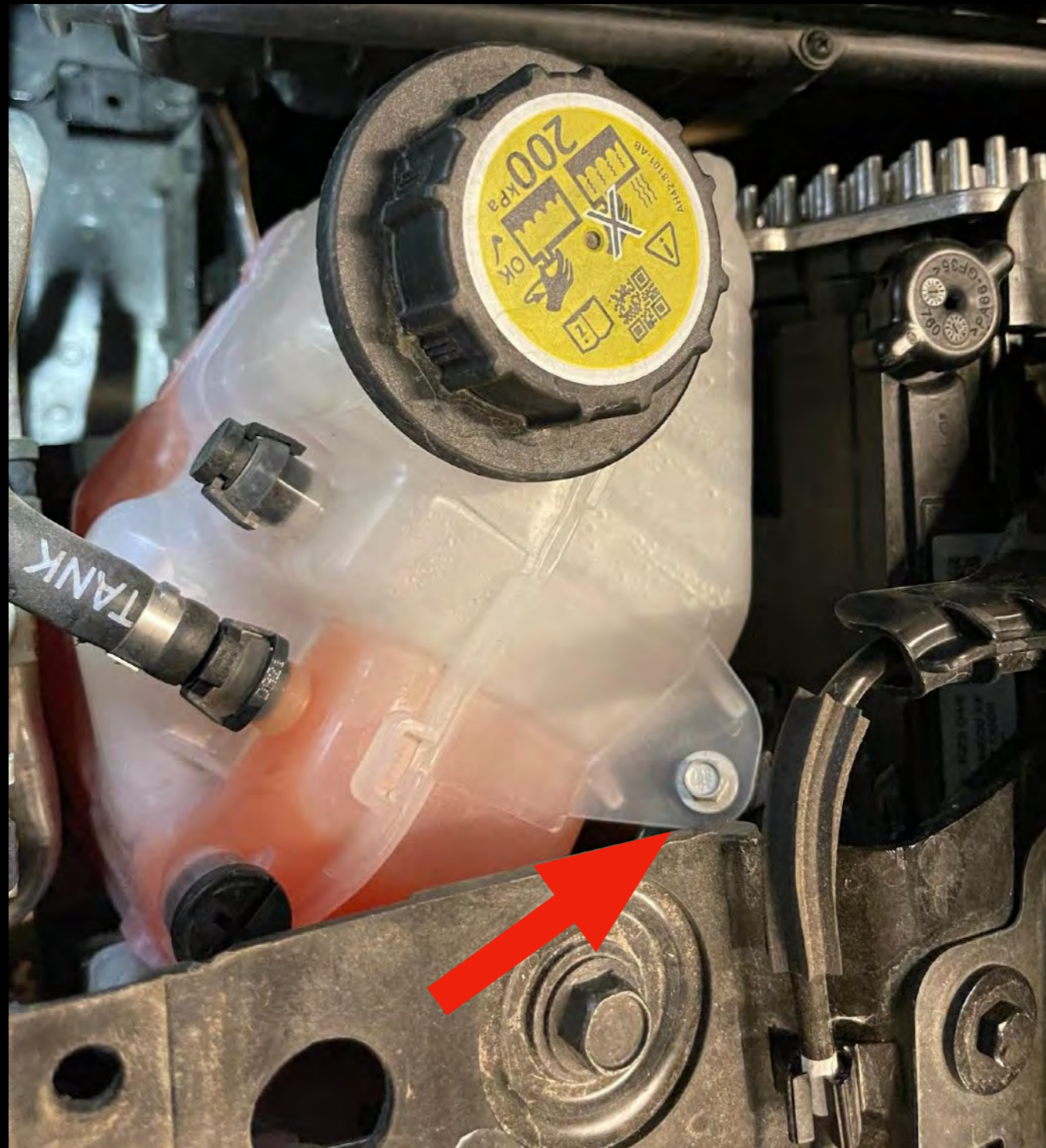




Remove these two bolts and the cooler cross bar.

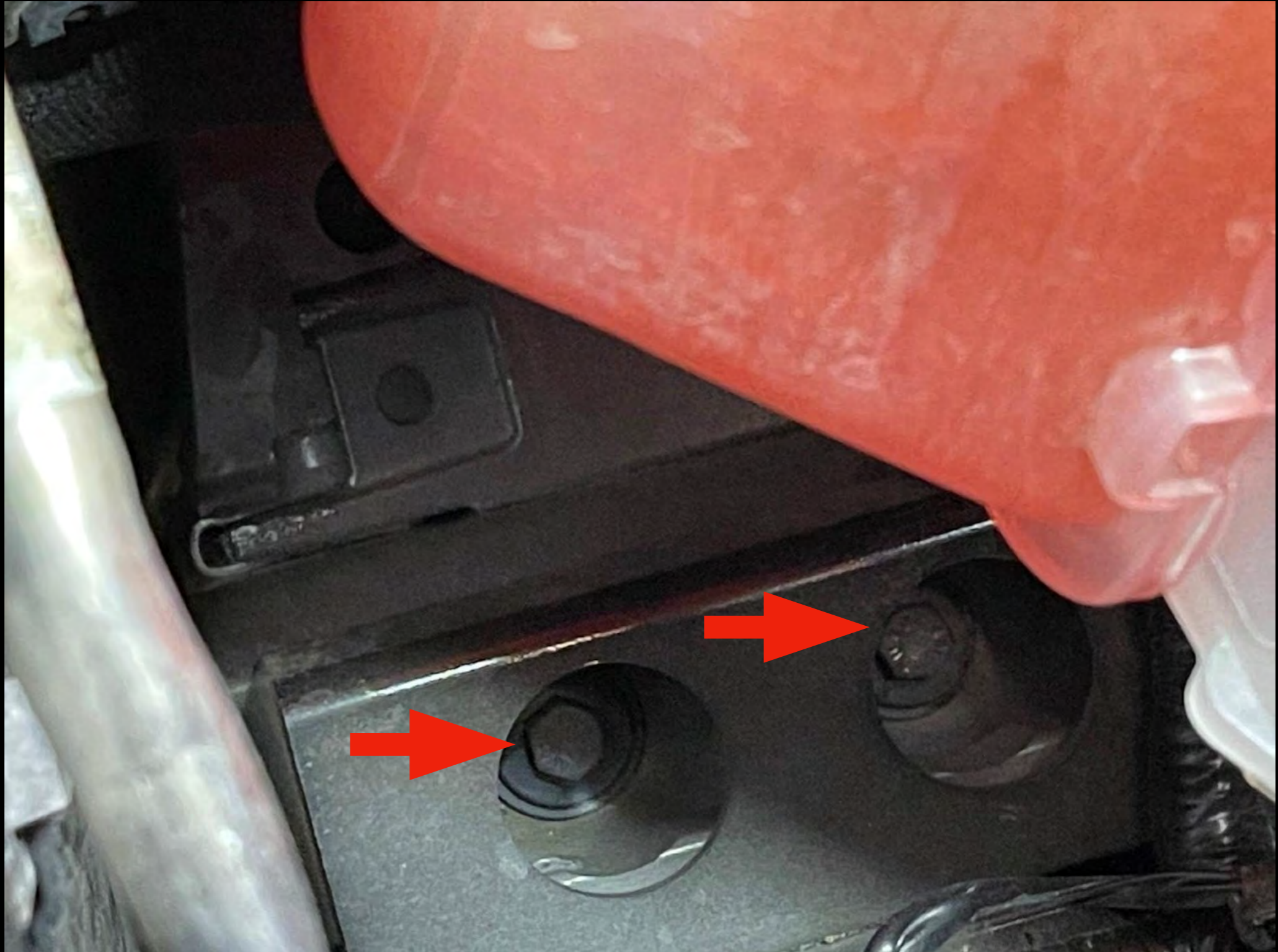


Remove the bolt holding in the overflow tank.

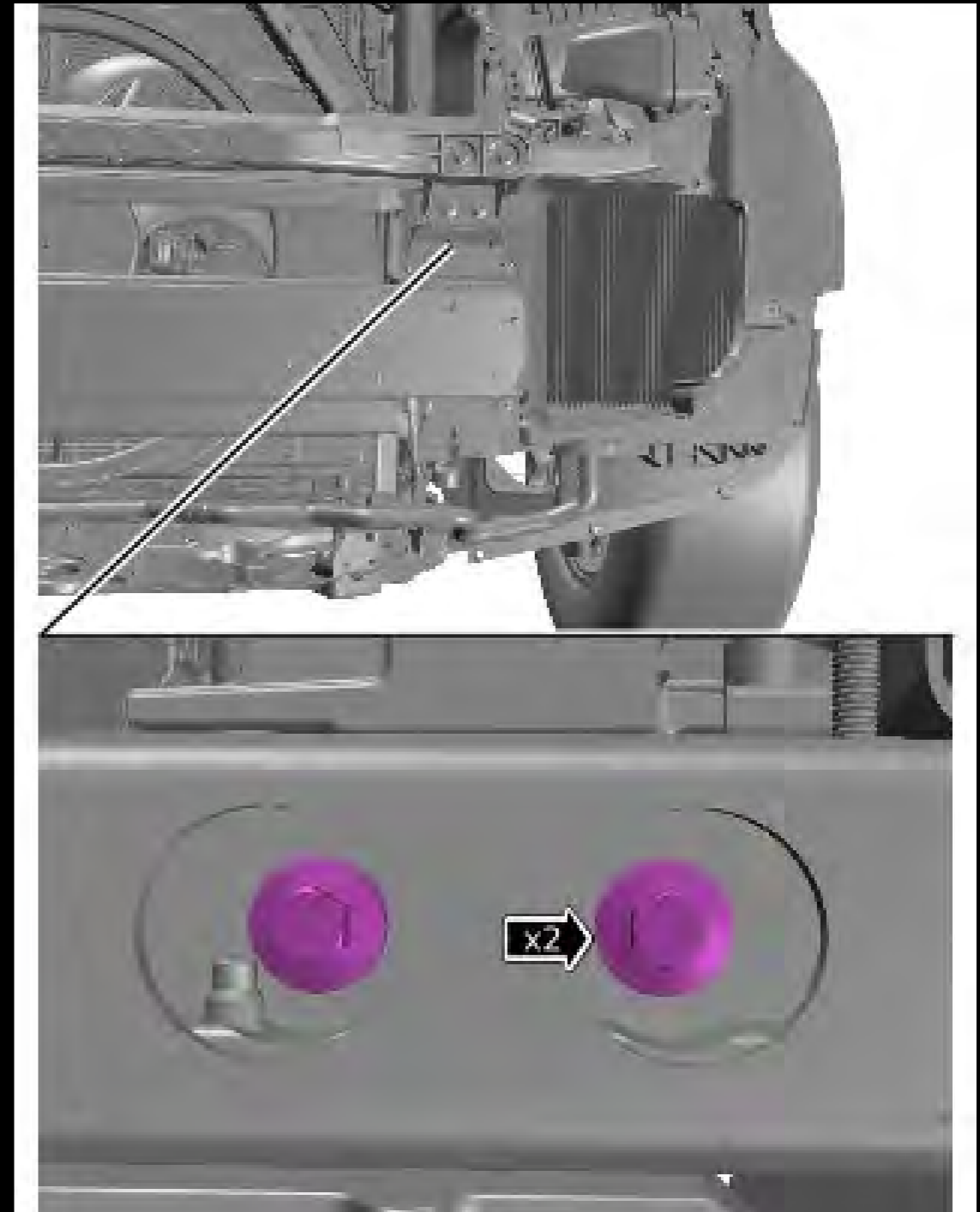
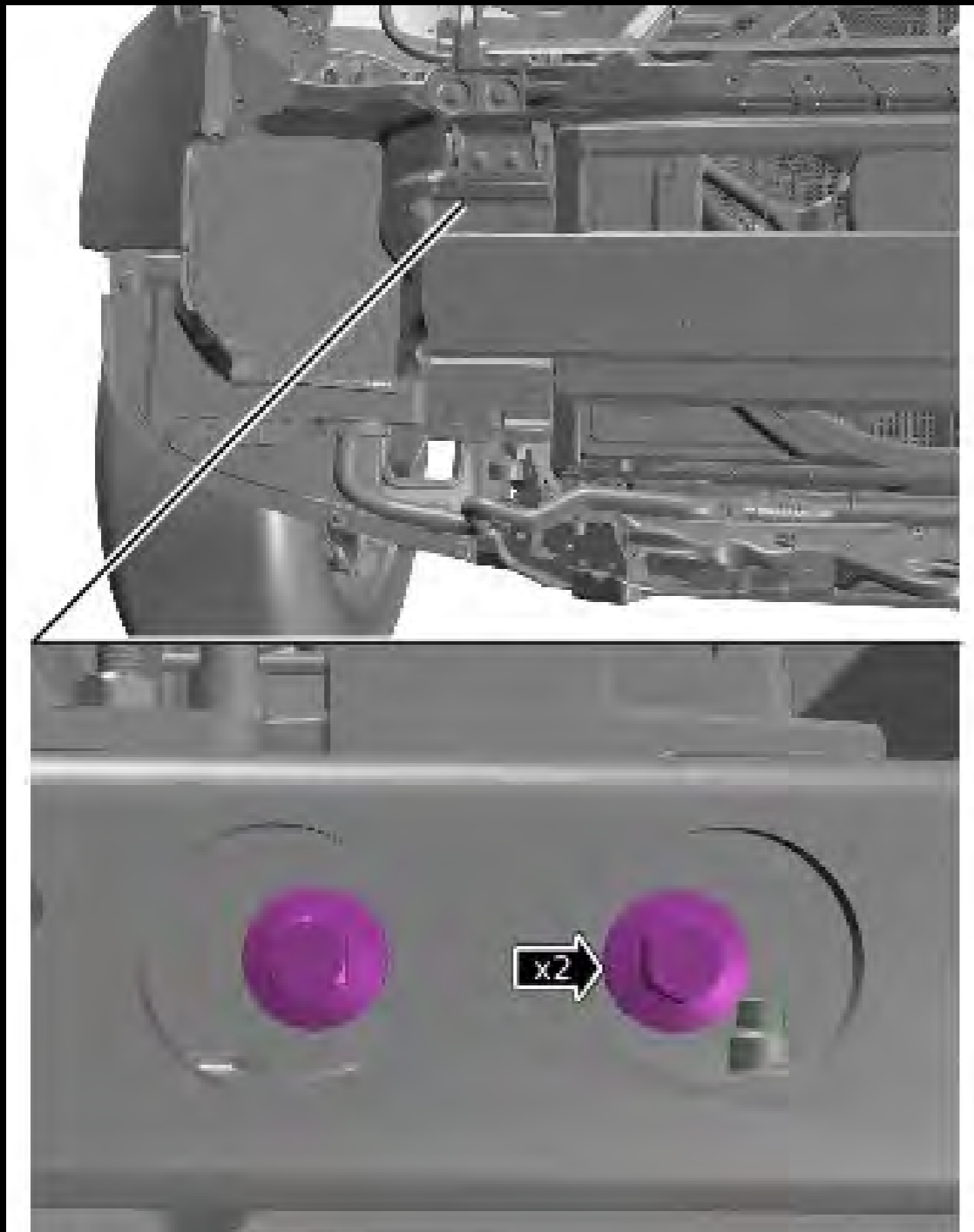




Move the washer bottle off to the side. You will need to access the two bolts on the top of the bumper core support.

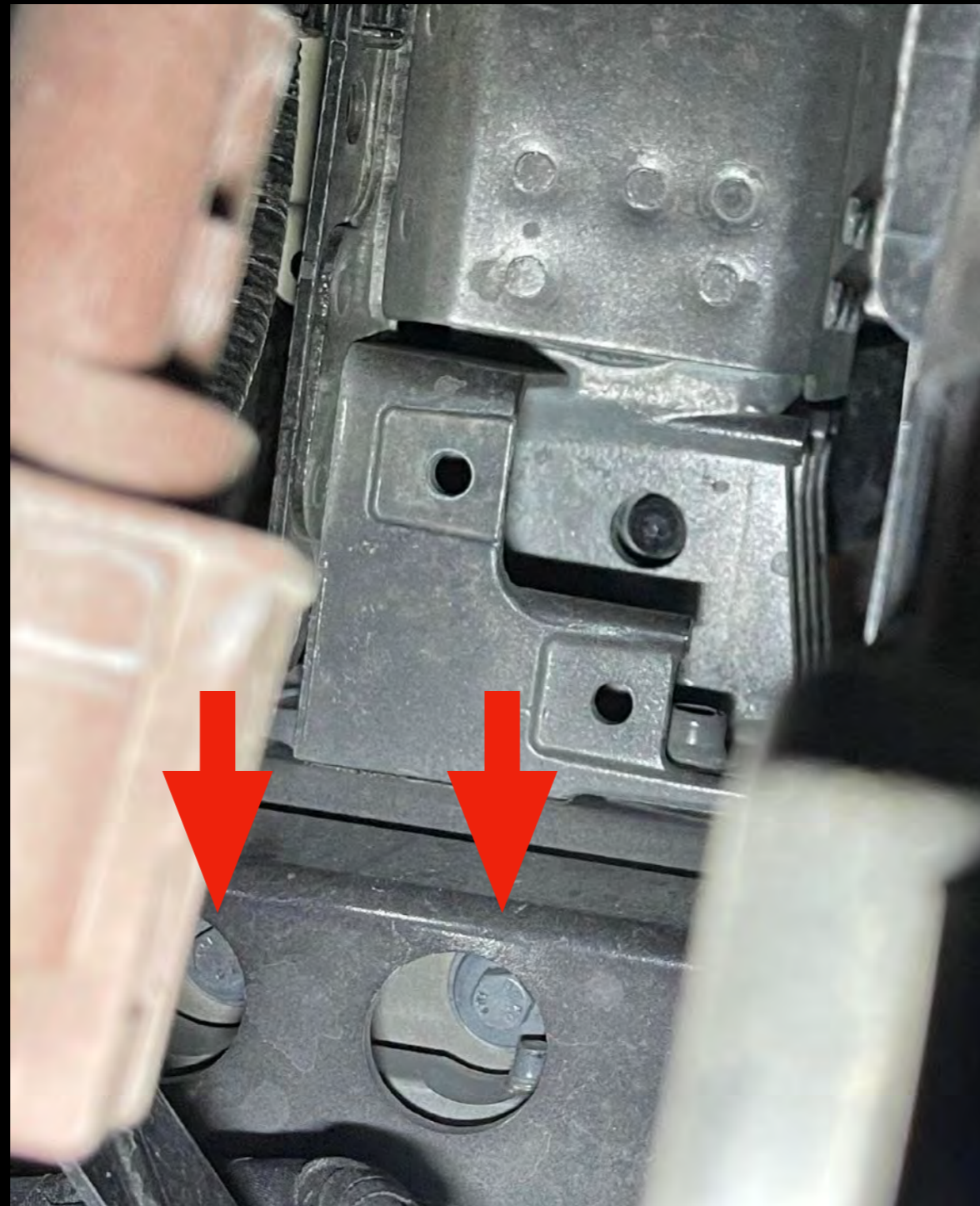


Remove the four upper core support bolts.

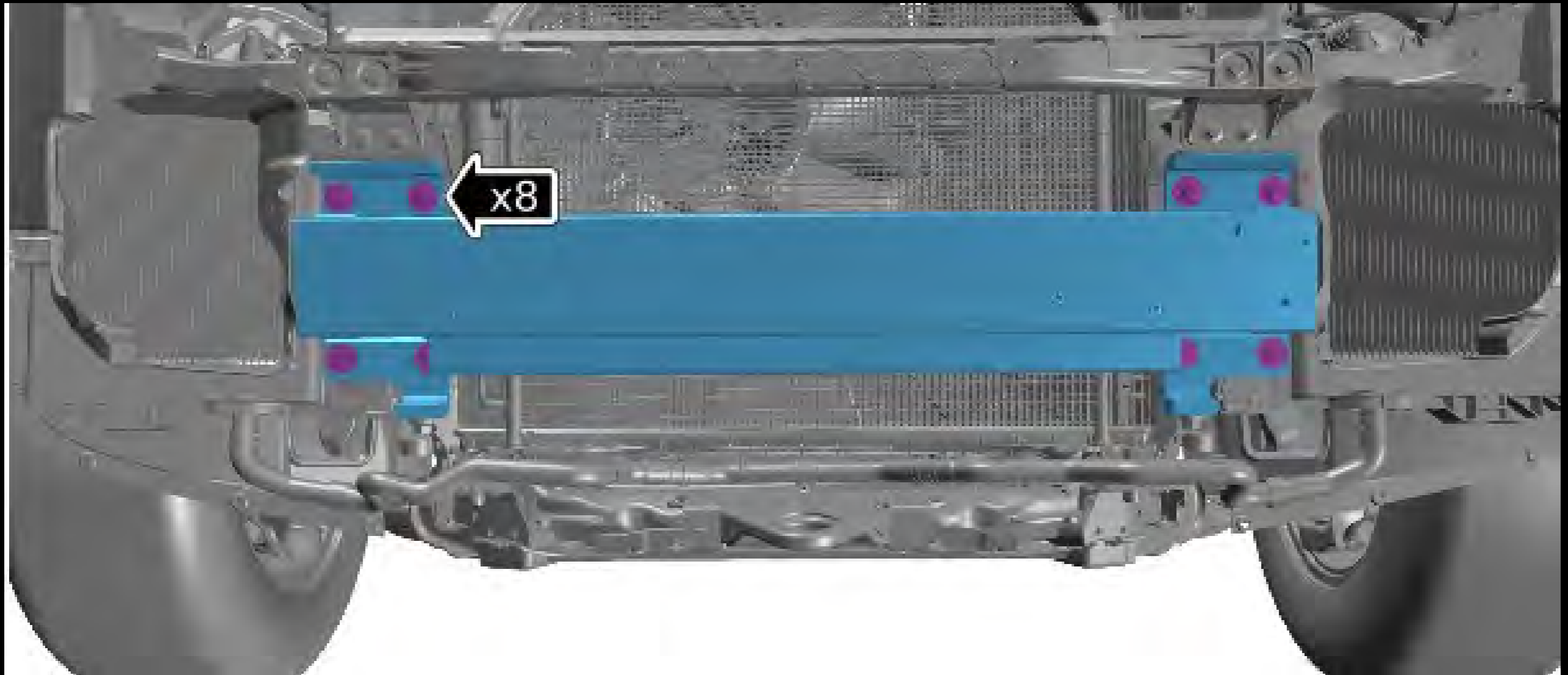




You can access to the four bolts from the engine bay.



Remove the eight bolts holding the core support to the frame.





The front of the Defender should look like this.





Remove the eight C clips from the frame.



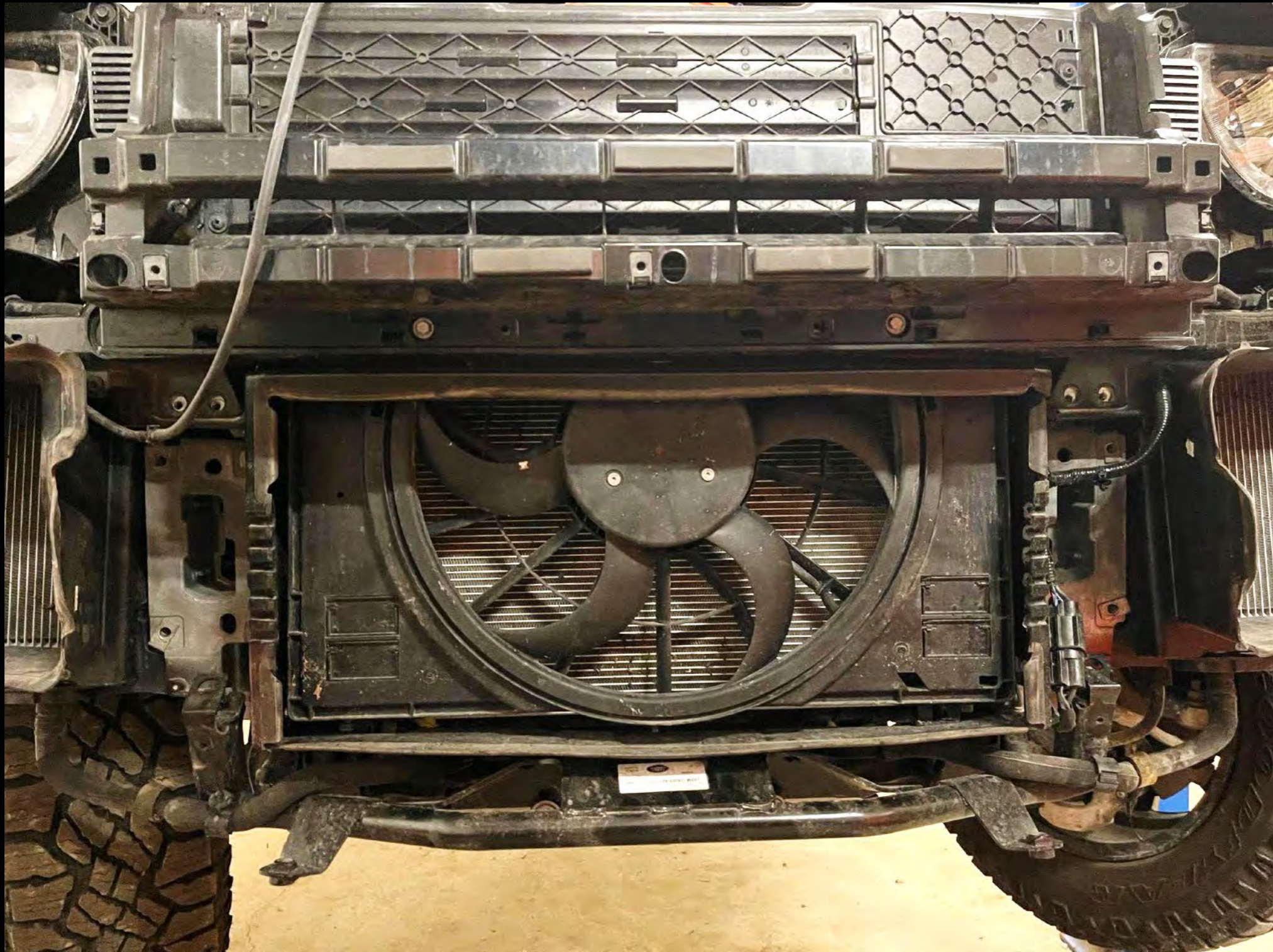


Cut the center section of plastic out as shown.  
Do not damage the fan behind it!



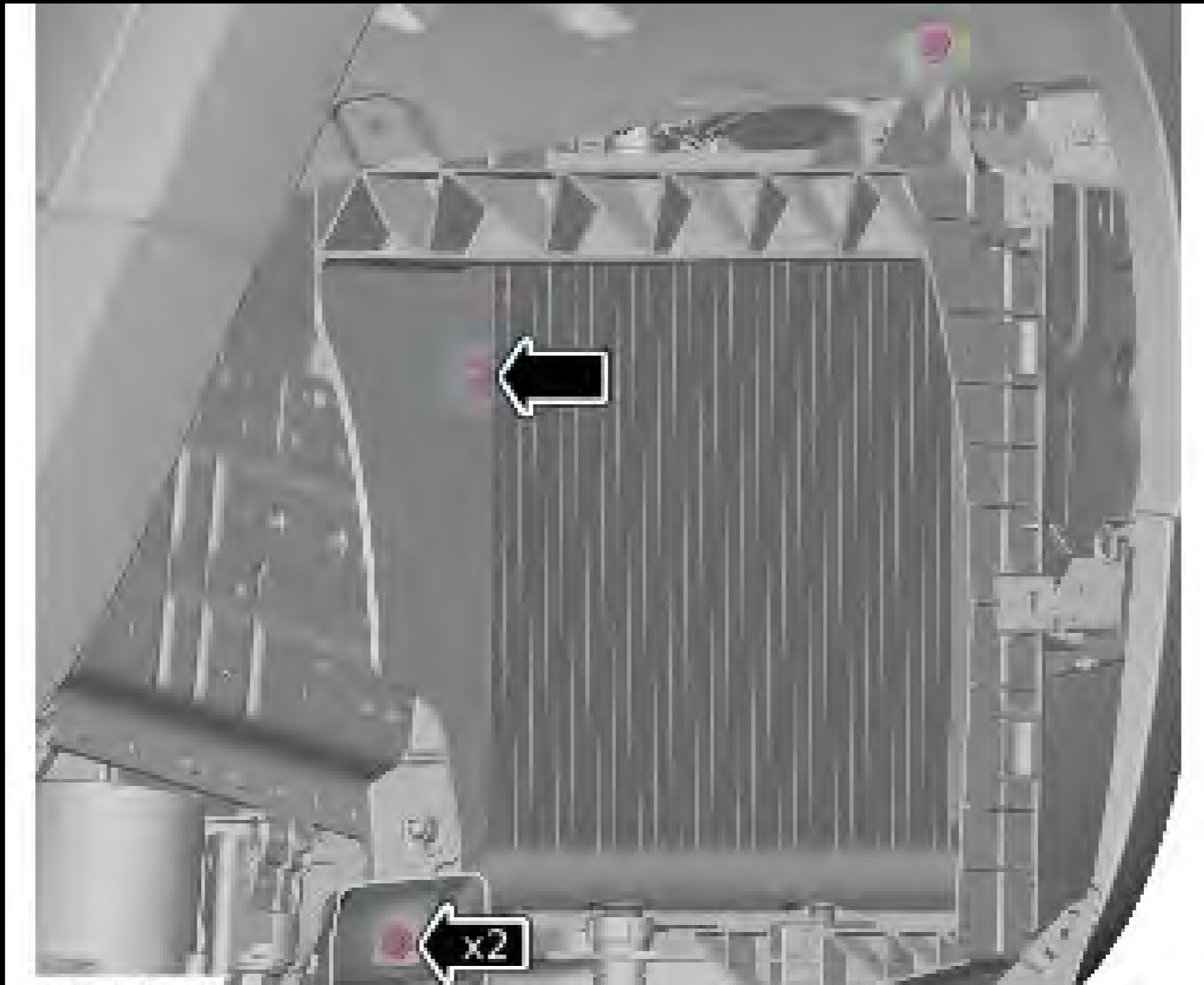


The center should now look like this.

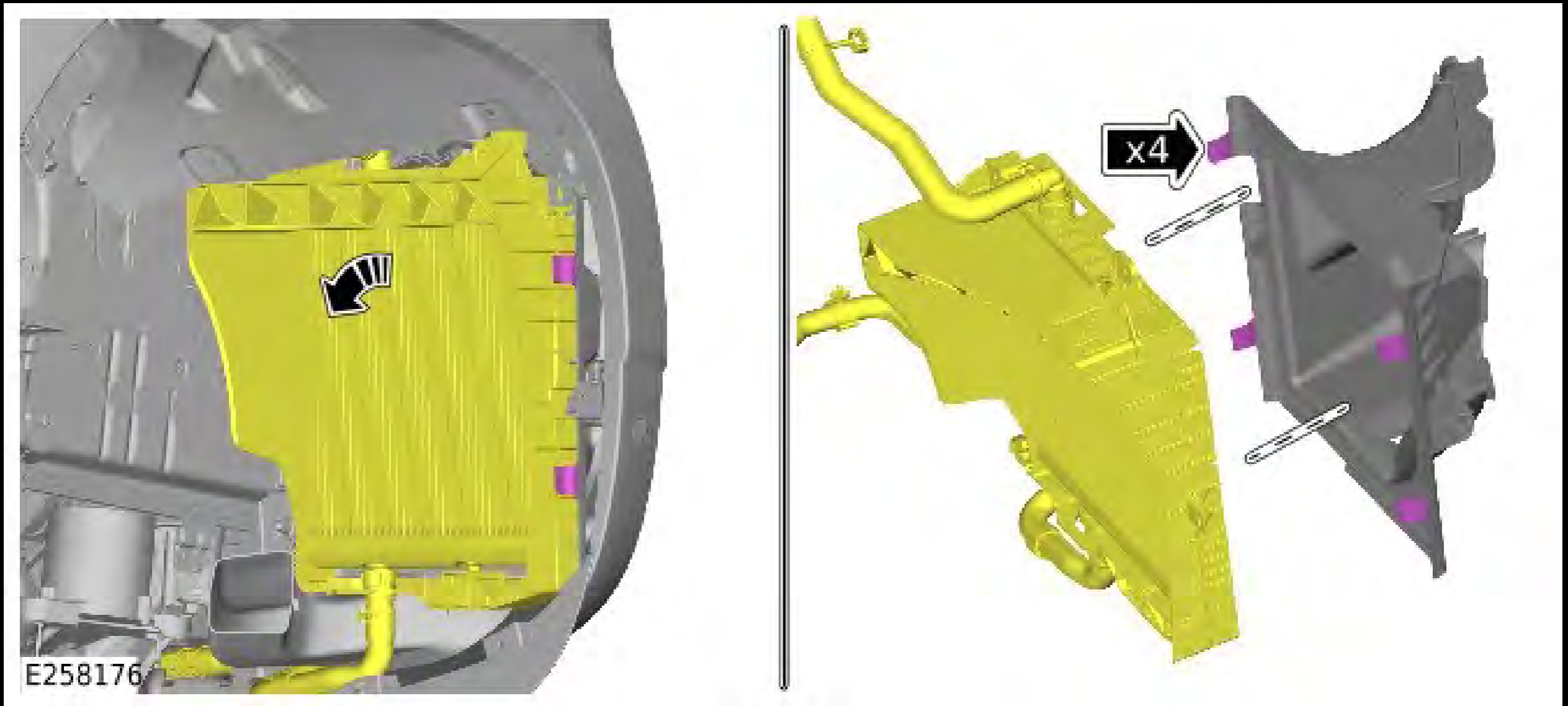




Loosen the auxiliary radiators so you can access the frame.  
They are held in with two bolts and one nut.

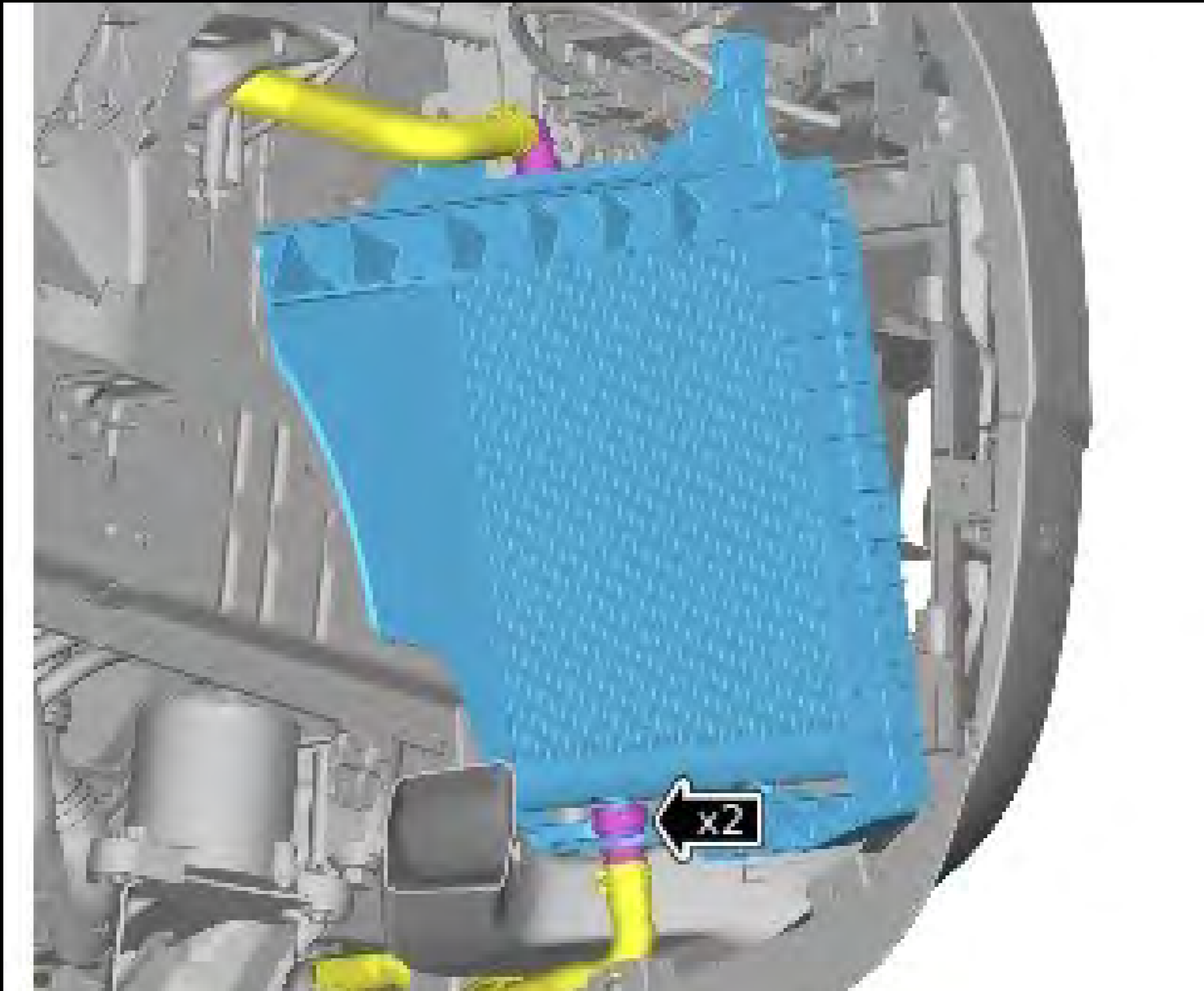


Gently remove the radiator shroud.





Make sure the auxiliary radiators are supported and out the way of damage.



It is now time to mount the winch tray.





Locate the eight 12mm bolts, nuts, large and small washers.





With help, put the tray in place.



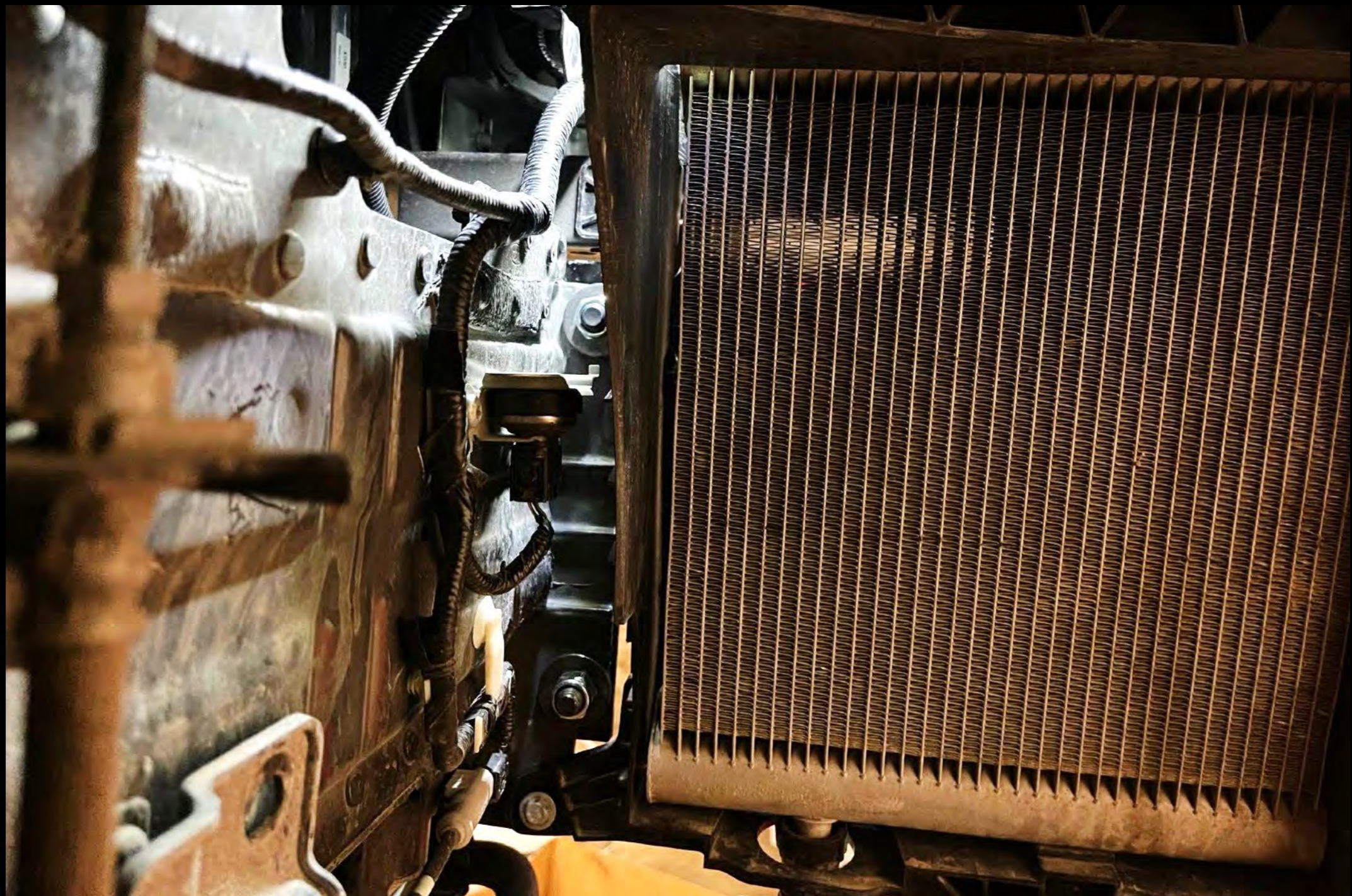


Using the large thick washer on the back side of the frame mount the winch tray.





On the inside of the frame, access the top bolt from the engine bay and the lower from under the Defender. Reinstall the auxiliary radiators. When all eight bolts are in place torque to **100 Nm**





Reinstall the brake cooling ducts. Hold them in place with zip ties until the bumper cover is installed.





Find a good and clean work area for the front bumper.





Locate the camera on the inside of the bumper.





Unplug the wire and unscrew the bracket to remove the camera. Put the camera somewhere safe for reinstall later.





Disconnect the inner two park sensors.



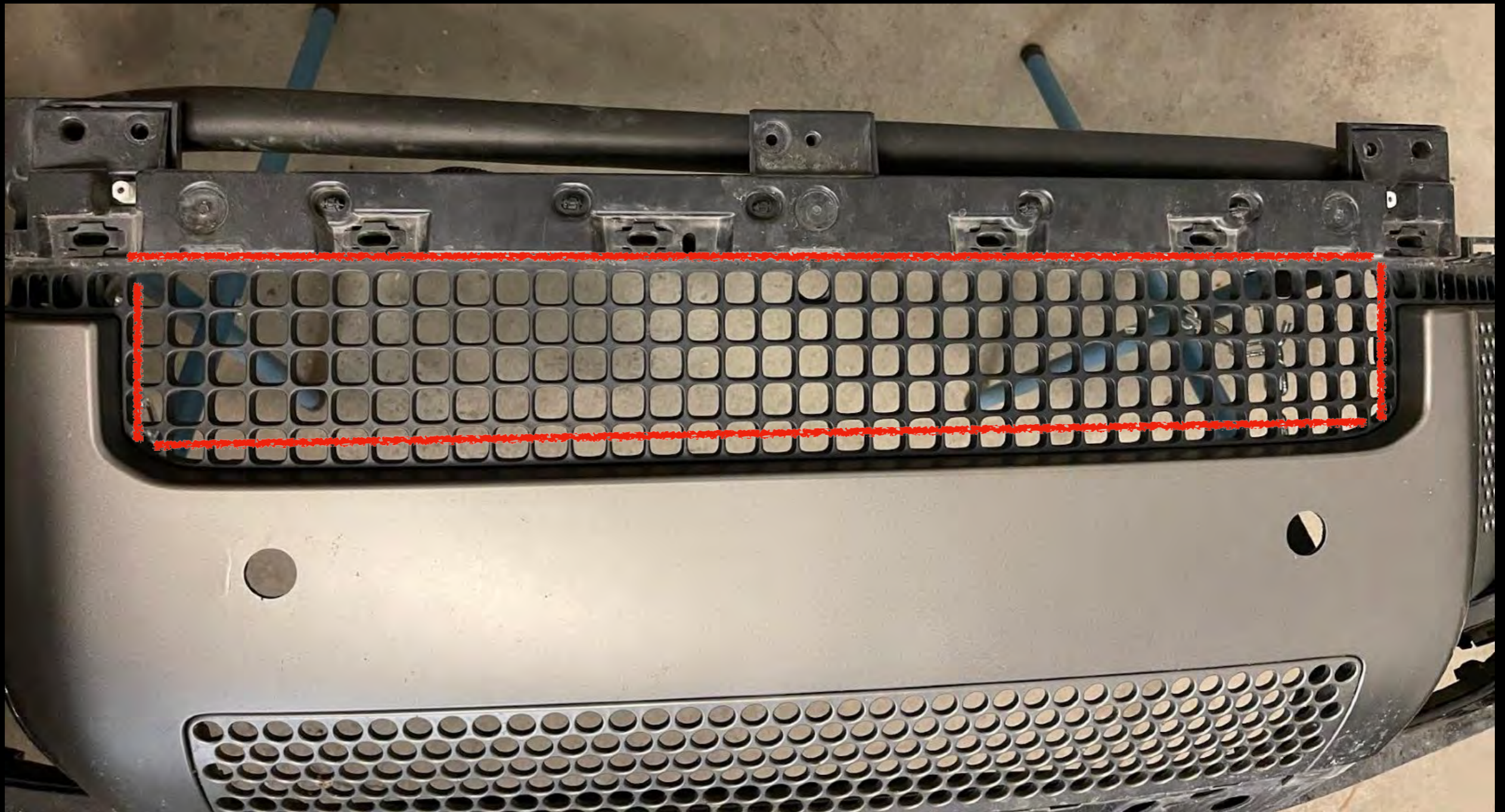


Gently pry up on the park sensor mounting bracket.  
The bracket is glued or taped (2-sided) in place.





This mesh area indicated below needs to be removed.





With the mesh removed it should look like this.



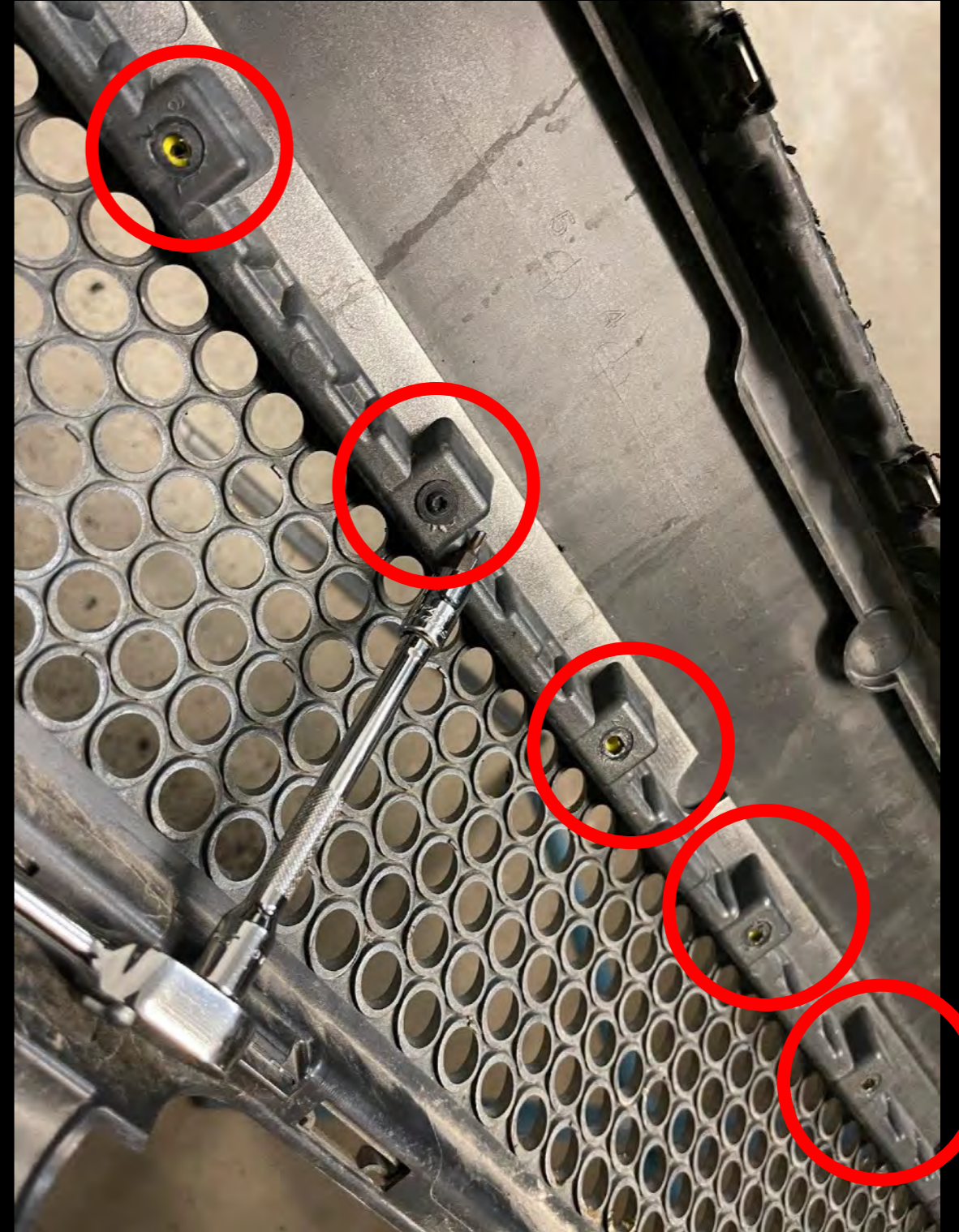
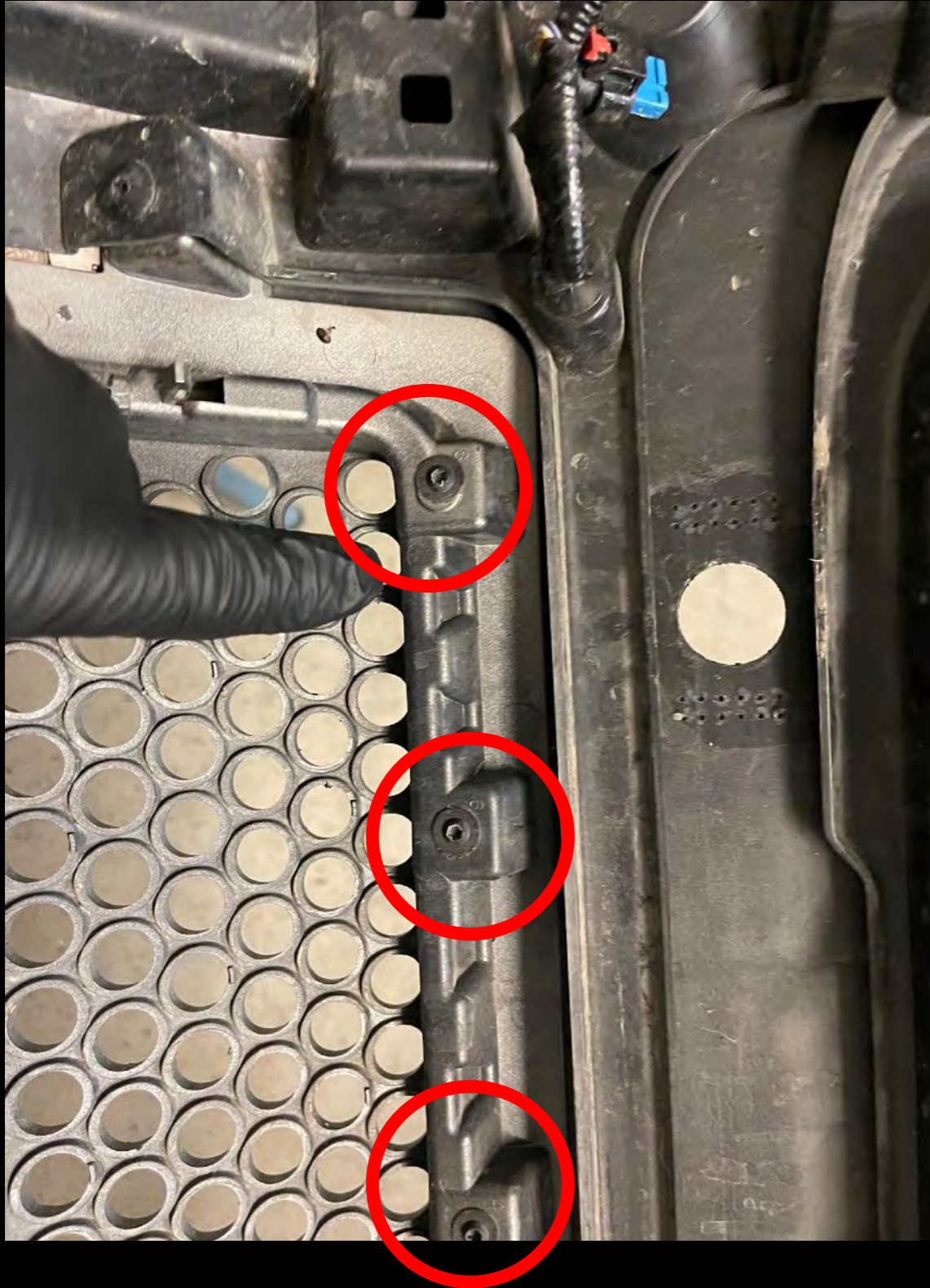


Mark 0.5 inch on each side from the park distance sensor hole.





Remove all of these torque screws.





Cut the bumper at the 0.5 in that you previously marked.  
Cut up to the mesh section.



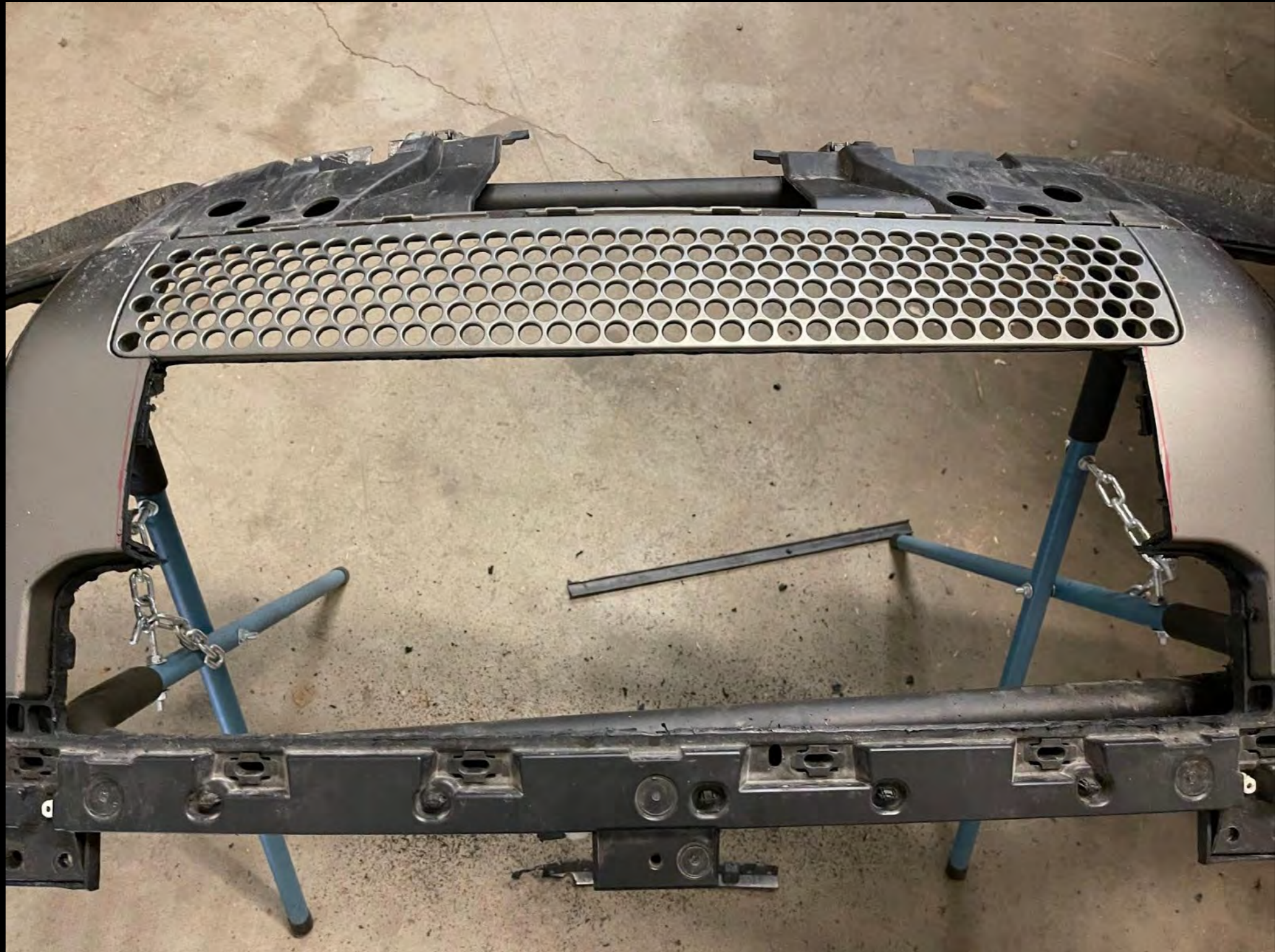


Discard the cut section and cut off the extra plastic under the mesh shown below.





The bumper cover should now look like this.



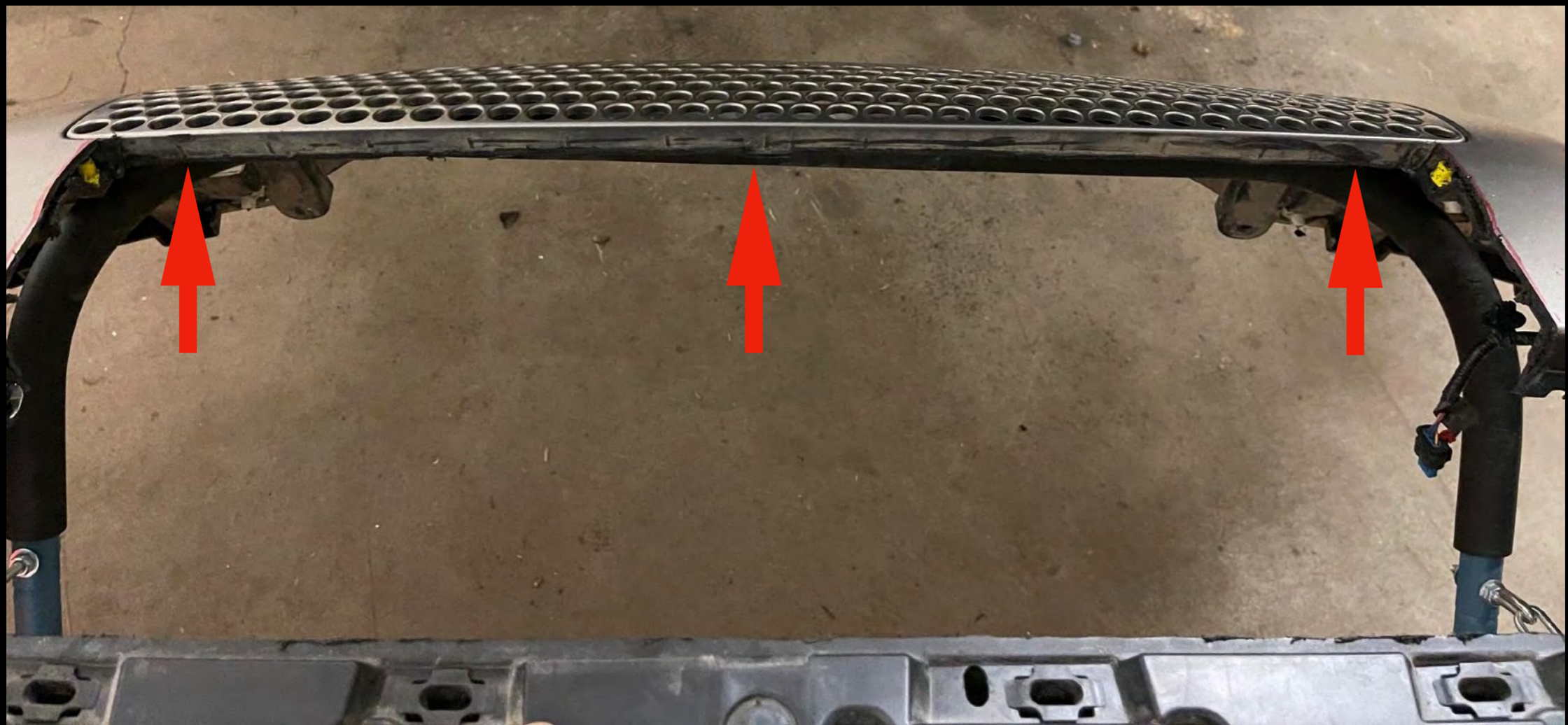


This rough edge must be cleaned so it is smooth.





The lower mesh should now be smooth.





Set the winch in the winch tray.





When using the Warn Zeon, the top of the winch will fit tightly against the plastic molding as shown.



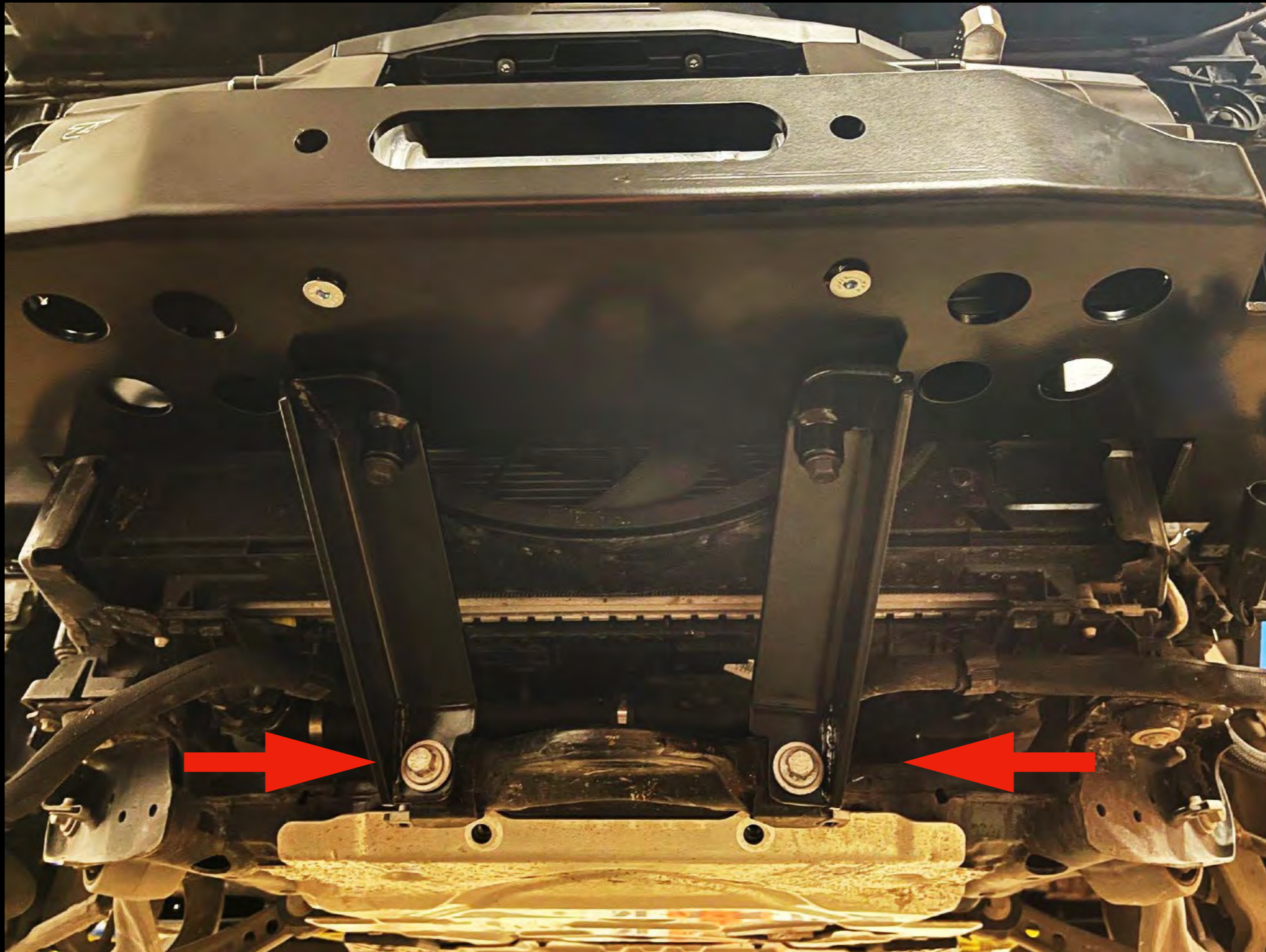


Center the winch so it can be bolted into place.





The lower winch try supports re uses the two factory recovery hook bolts.



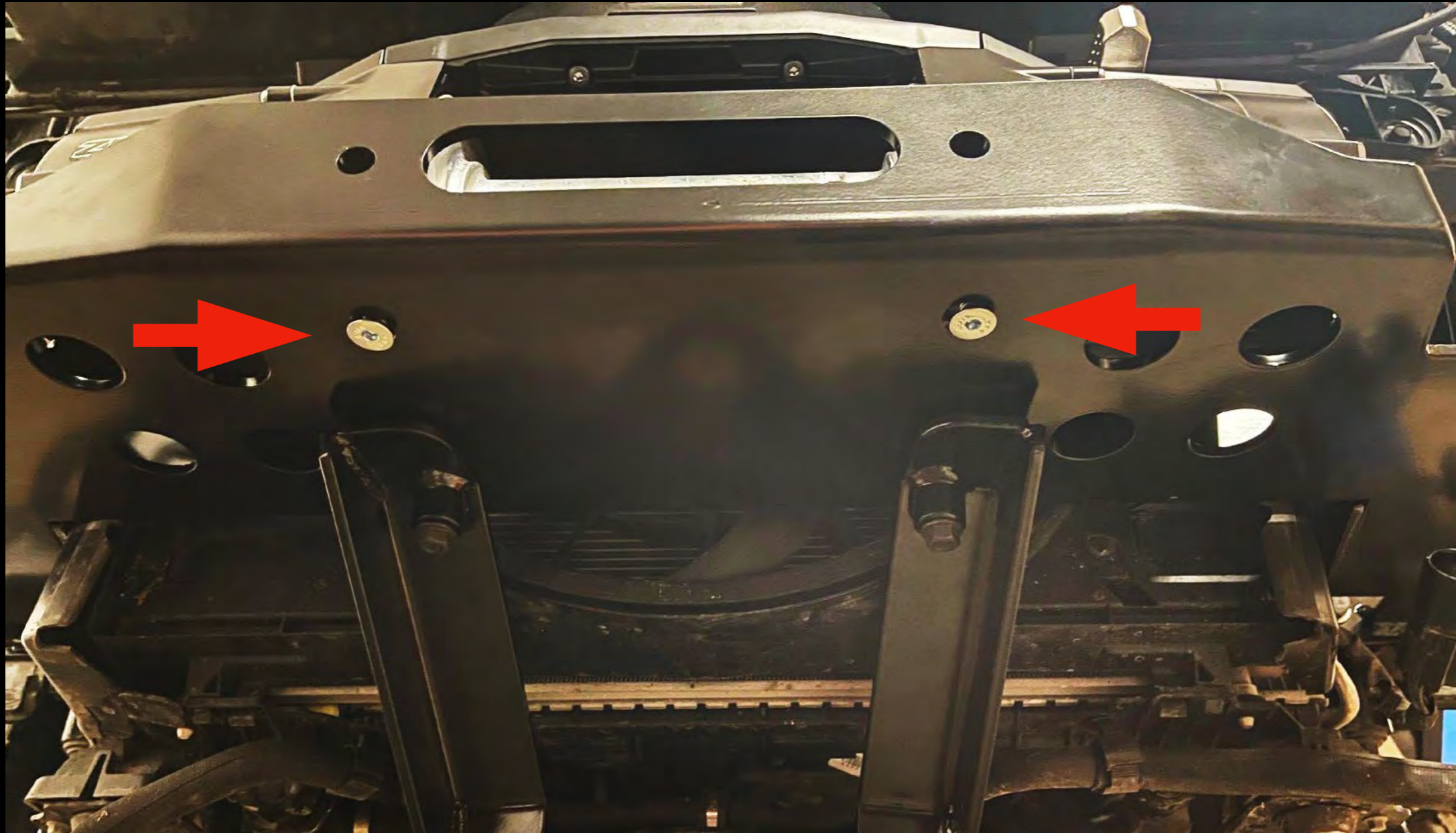


The two M10 x 35 tapped bolts go in the front winch mounting locations. (*Install pic next page*)





As shown



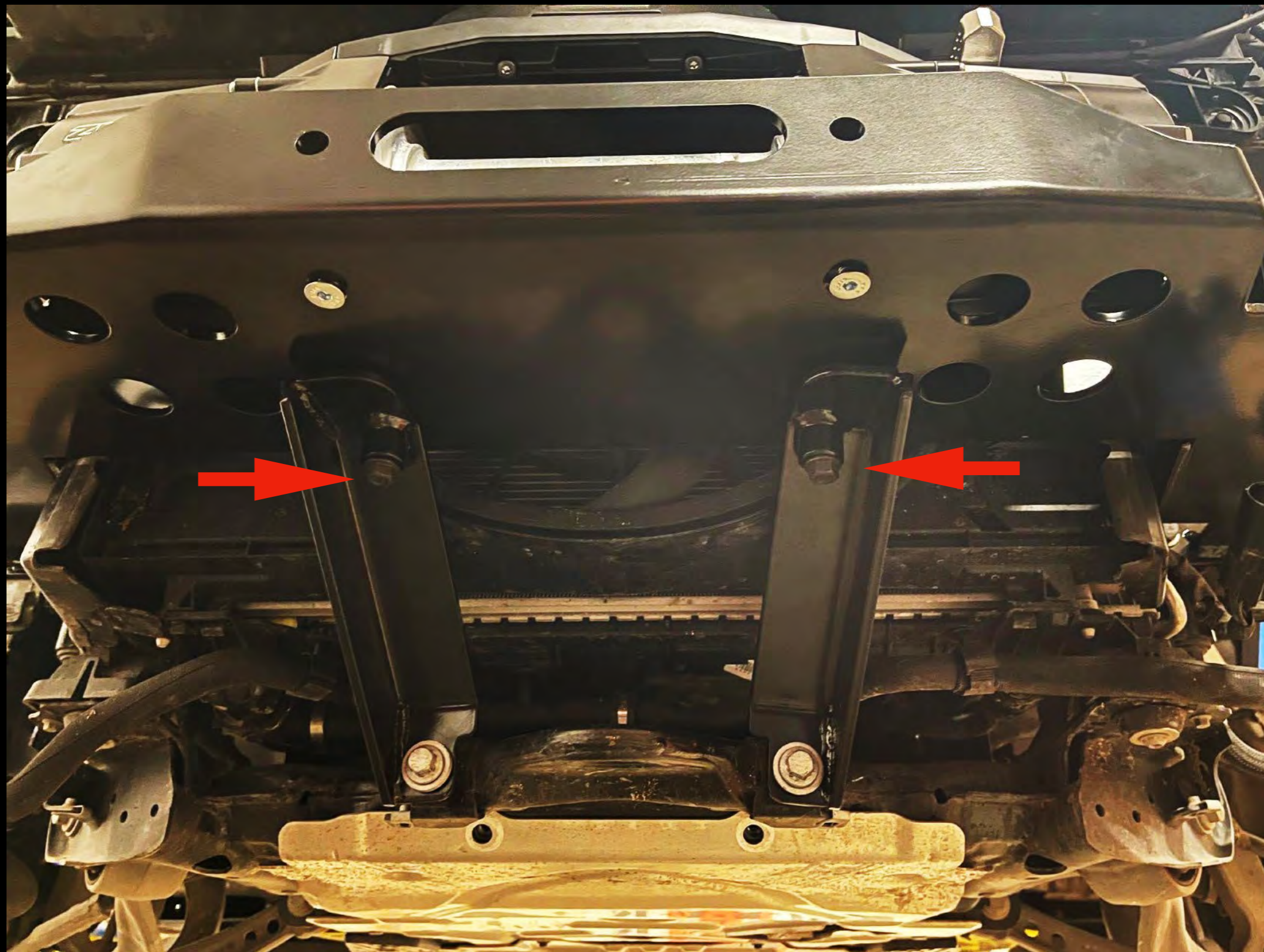


The two M10 x 70 with washers go to the back winch mount points. *(Install pic next page)*



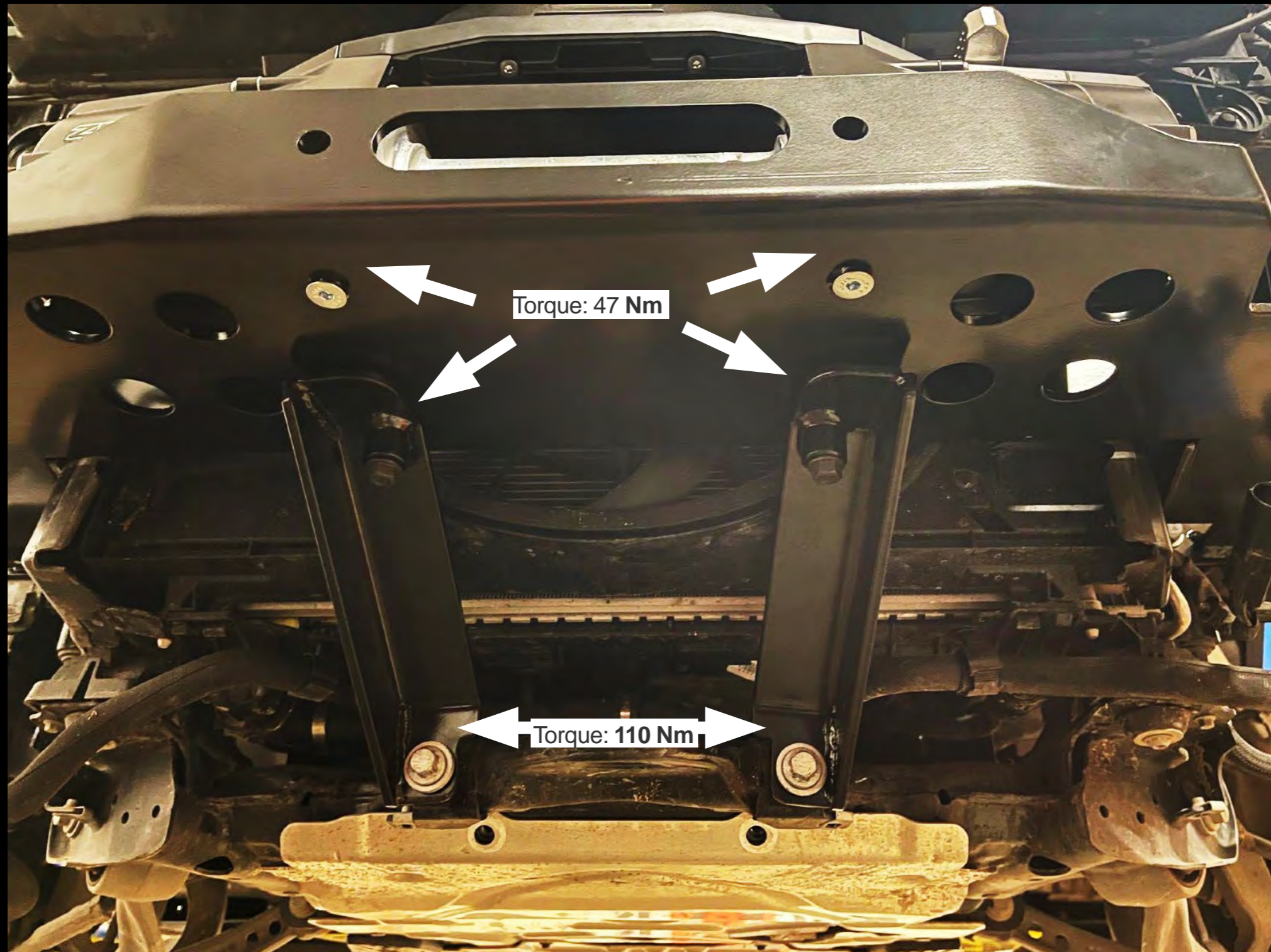


As shown



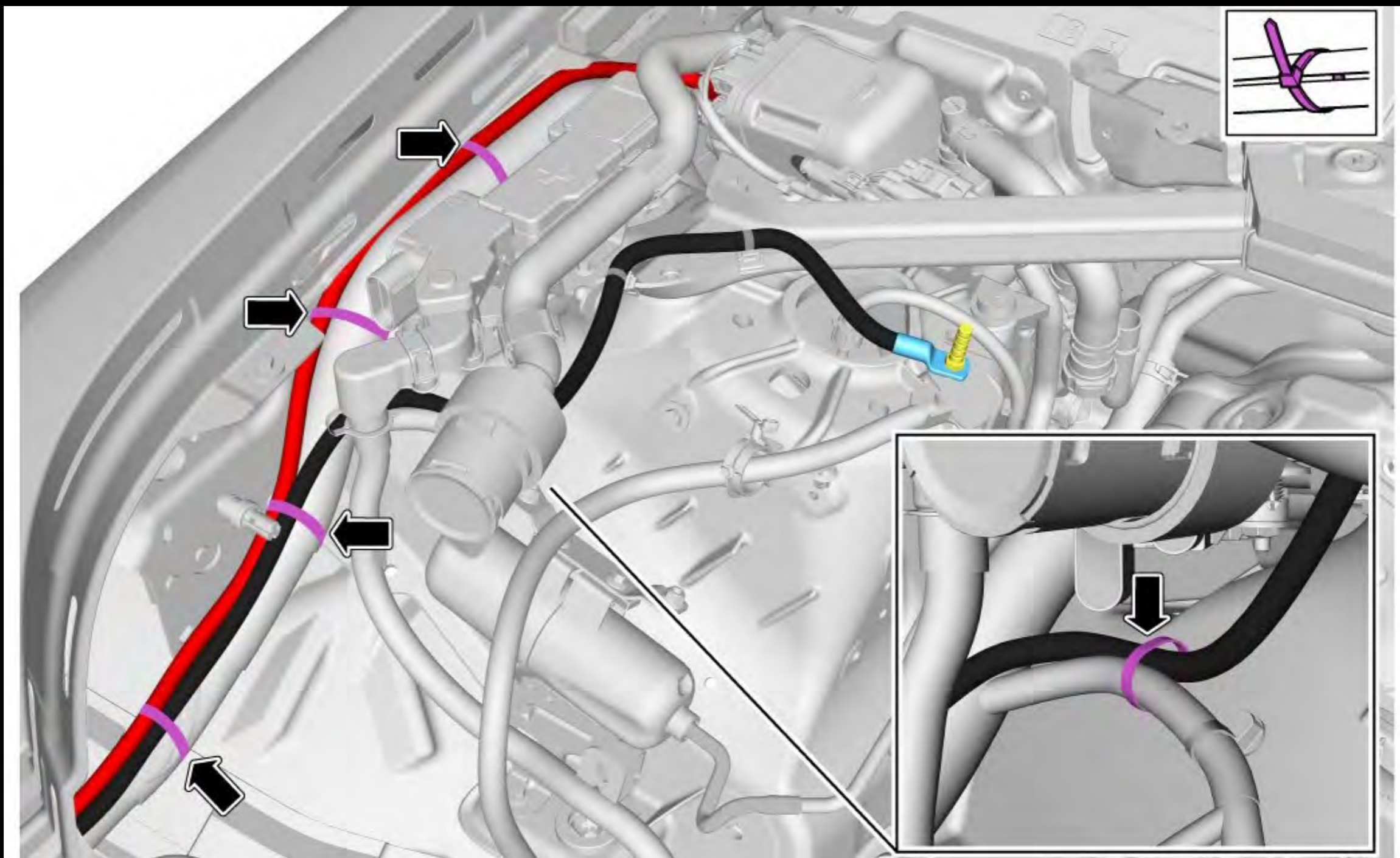


With all the bolts loosely in place tight them down to the proper Torque shown below.



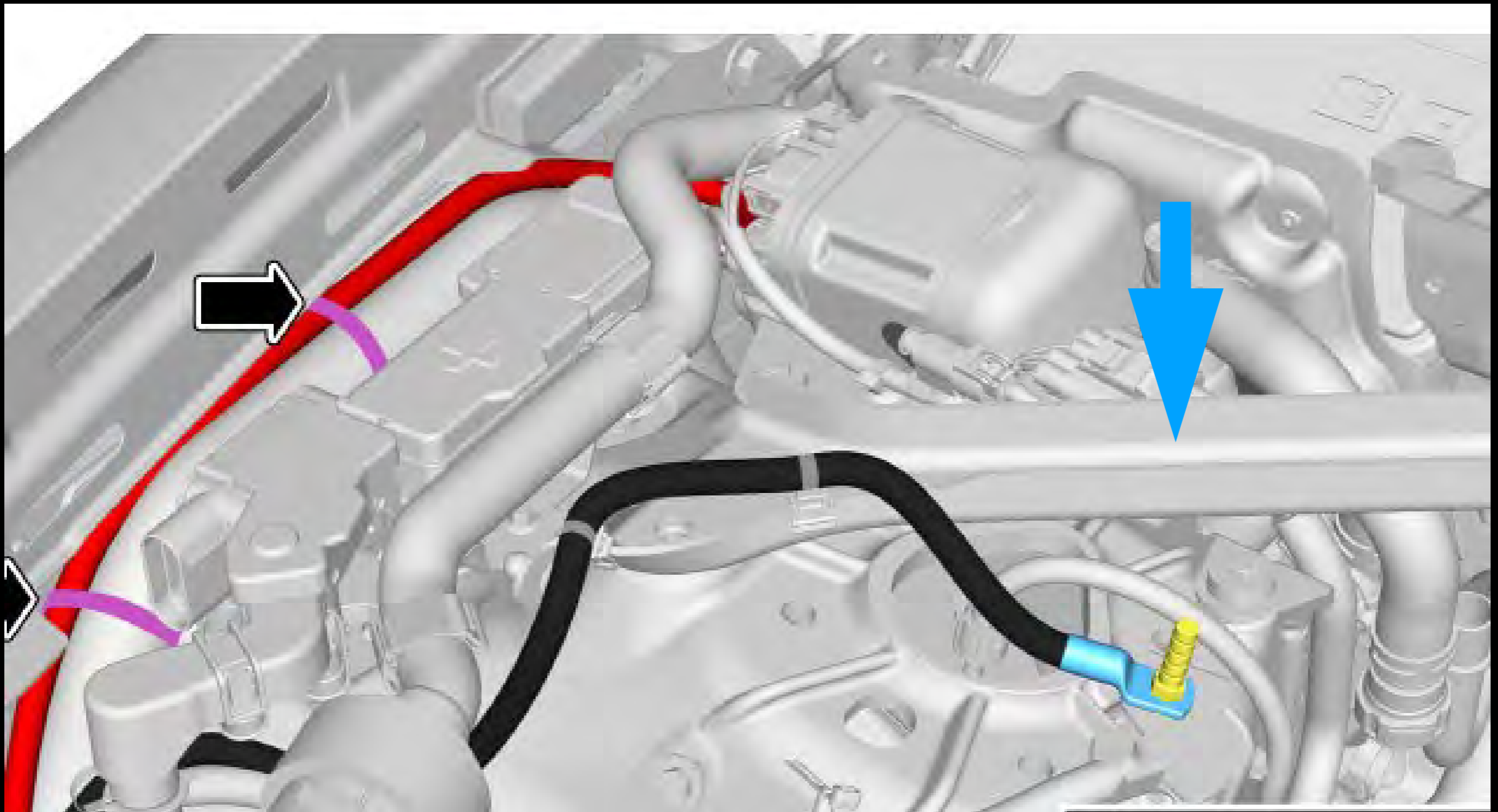


Run the power and ground ground for the winch up to the right hand side power block. Zip tie the wires away from any moving parts or sharp edges.





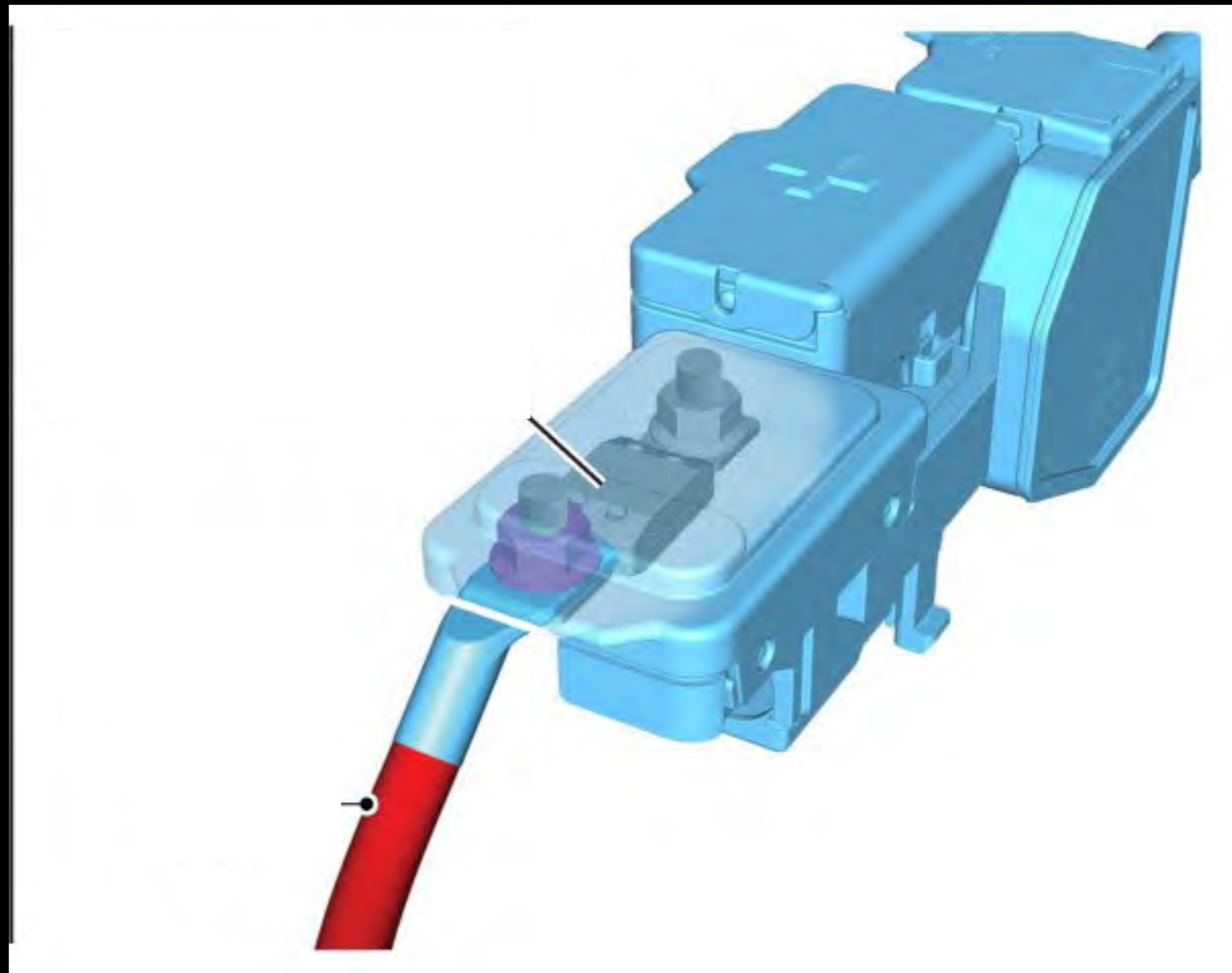
Connect the ground to the terminal on the strut as shown.





## **\*Warning\***

**After this step the winch will be powered.**  
Connect the power lead to the power block  
as shown with 450 amp fuse.



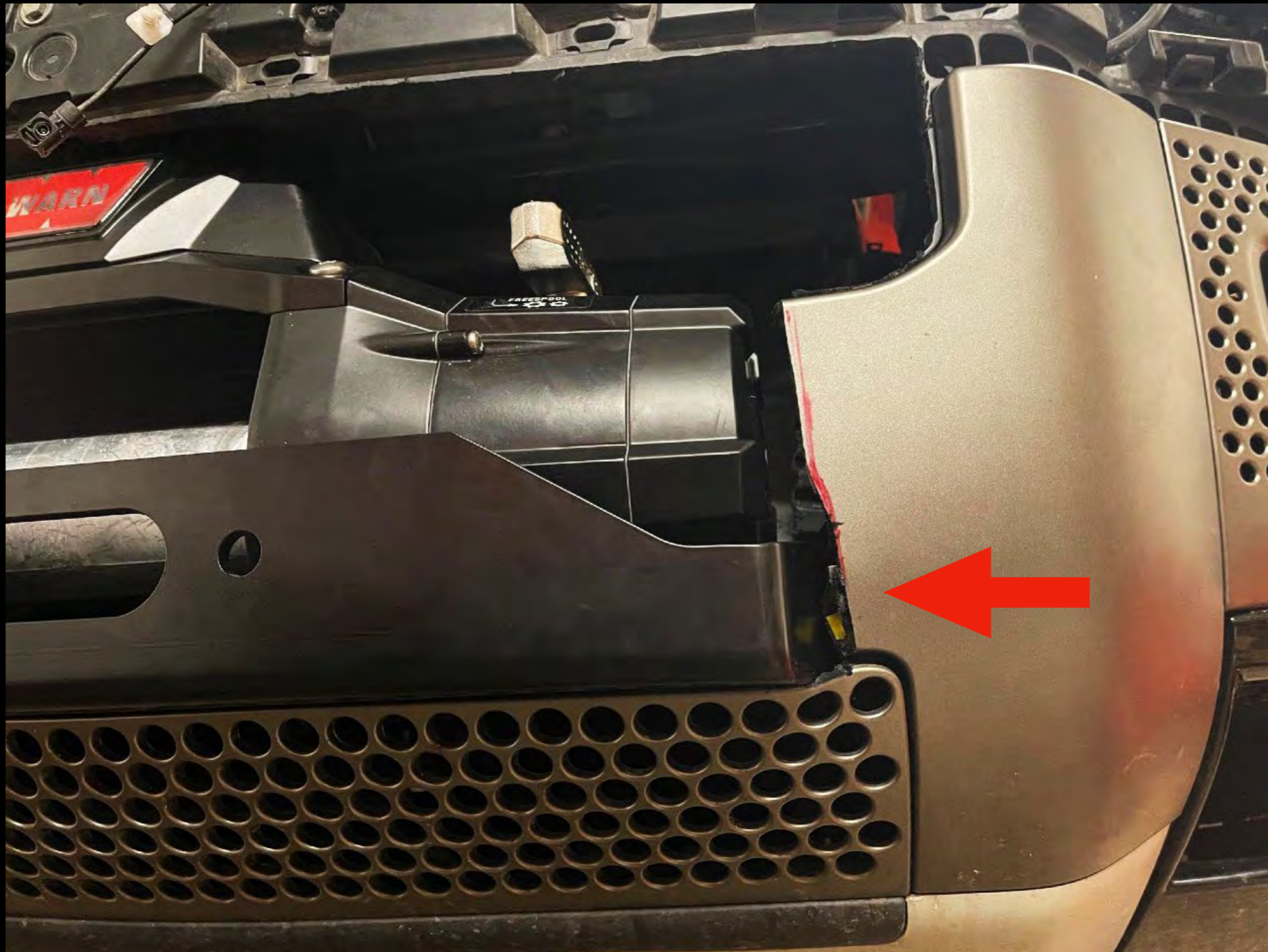


Test fit the bumper cover.





You may need to trim the bumper cover in this area so it does not hit the winch tray. Only remove what is needed. *(See the next page before trimming.)*





**\*\* WARNING \*\***

**Don't remove too much of the bumper or the vanity plate will not cover the cut.**





The lower mesh will sit tight against the bottom of the winch tray. You can trim if you like, but we find it better to leave the mesh intact





With everything trimmed, properly reinstall the two electrical connections on the left side of the bumper cover, the axillary radiators, bumper cover, wheel well liners, splash guards, and overflow bottle.





Reinstall the headlight buckets.





A hole needs to be drilled in the grill for the front camera you set aside earlier.



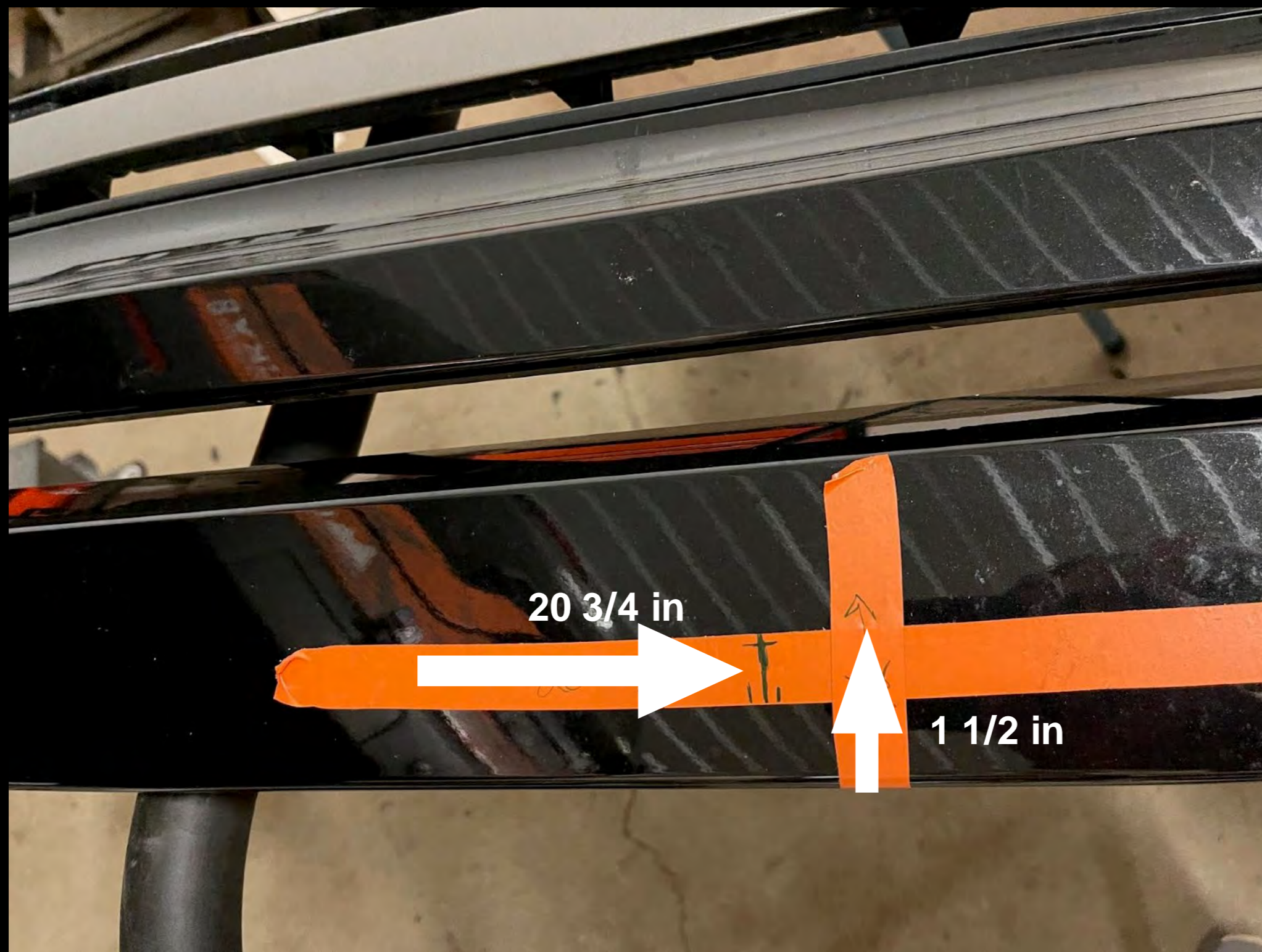


You will need to gently drill a single  $11/16$  in hole.





The camera will be in the center of the grill.  
20 3/4 inches from the end and 1 1/2 inch from the bottom.



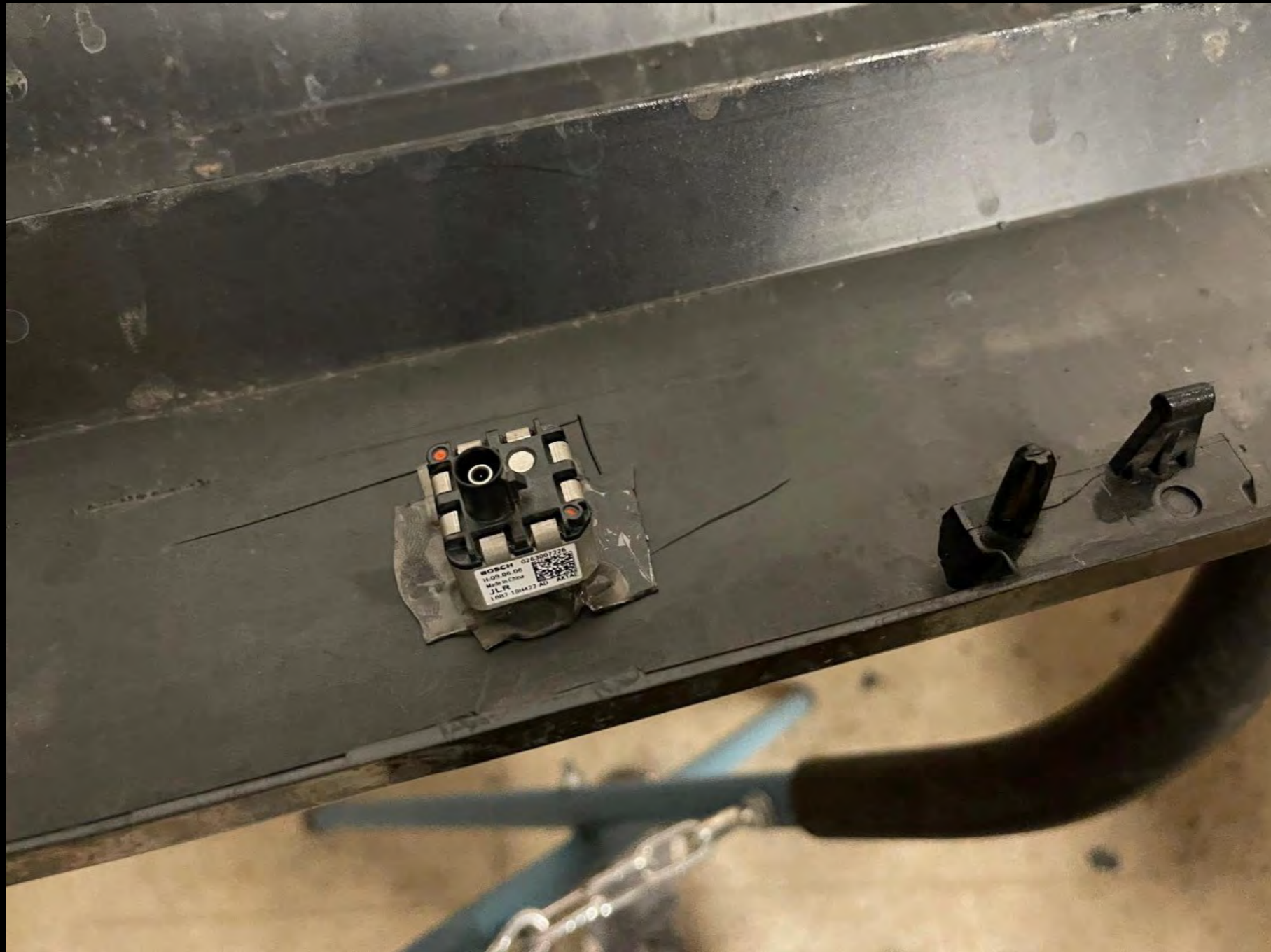


We measured from the end of the outside of the grill as shown.





Drill the hole and test fit the camera. After you confirm it fits surround the hole with 2 sided tape (not supplied with the kit) and install the camera.





This is the top of the camera for reference.





This area needs to be cut out.  
(see next page before cutting)





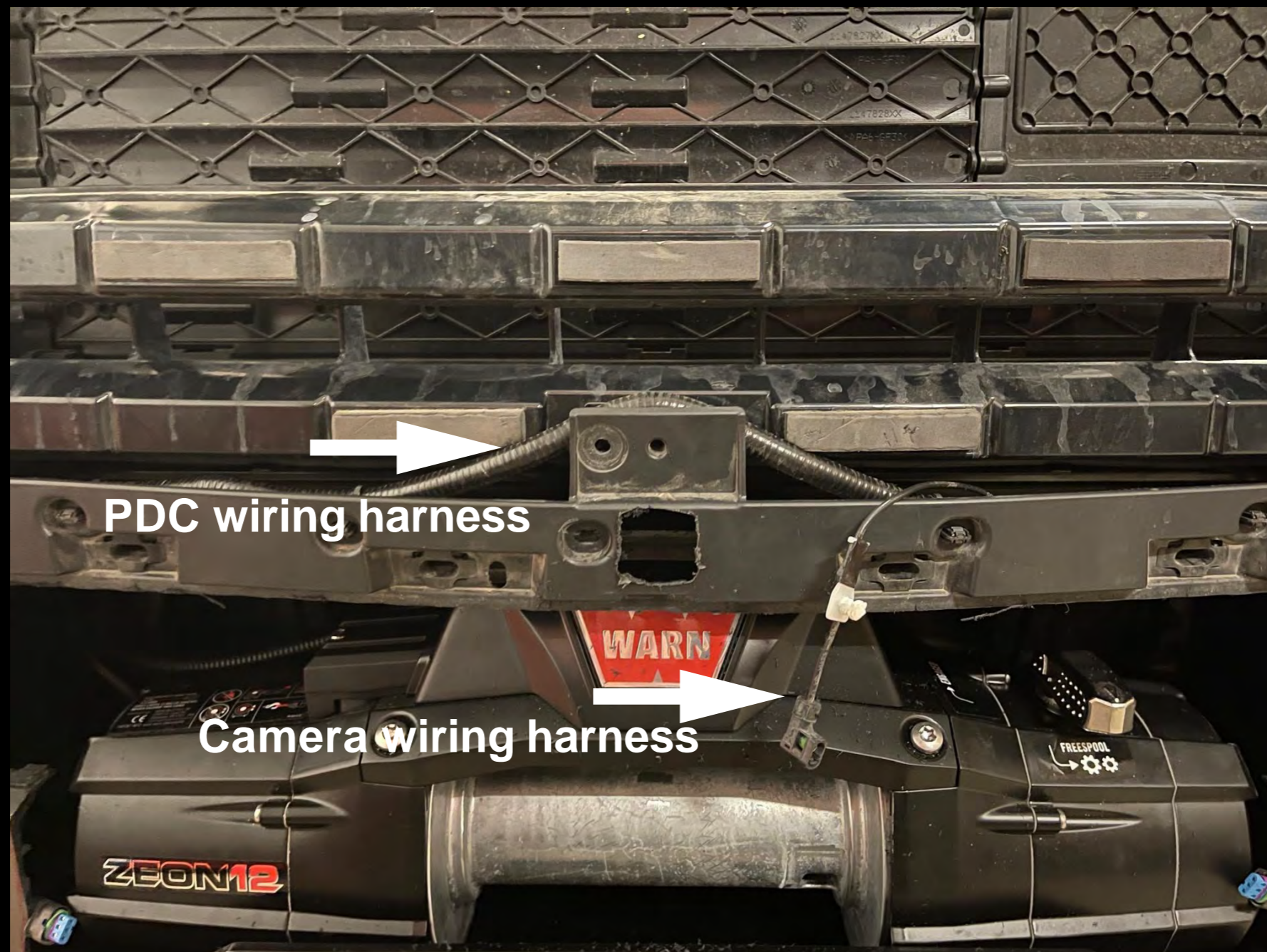
## **\*Warning\***

Remove the center mounting bolt and temporarily move the wiring harness up and out of the way.





Cut a 1 1/4 in square out to make room for the camera and camera wiring harness. Make sure not to damage any wires.





Put the PDC wiring harness back in place, run the camera wiring hares through the new hole, bolt the bumper cover center bolt back down, connect the camera to the wiring harness and install the grill.





It is now time to install the PDC into the vanity plate.





Using two sided tape mount the PDC to the vanity plate.





The PDC electrical connection must be pointing down at an angle as shown.





Find the PDC wiring on each side of the bumper and free up as much slack as available and set to each side of the winch tray.





Install the winch rope but do not put on the hook.





Using the hardware in your winch kit mount the fairlead and vanity plate to the winch tray. Take special care to connect the PDC sensors.

\*optional stealth grill shown\*





Note: The vanity plate rests on the top part of the bumper cover as shown.





Connect the recovery hook to the winch rope and spool into position.





# Optional Stealth mesh Install



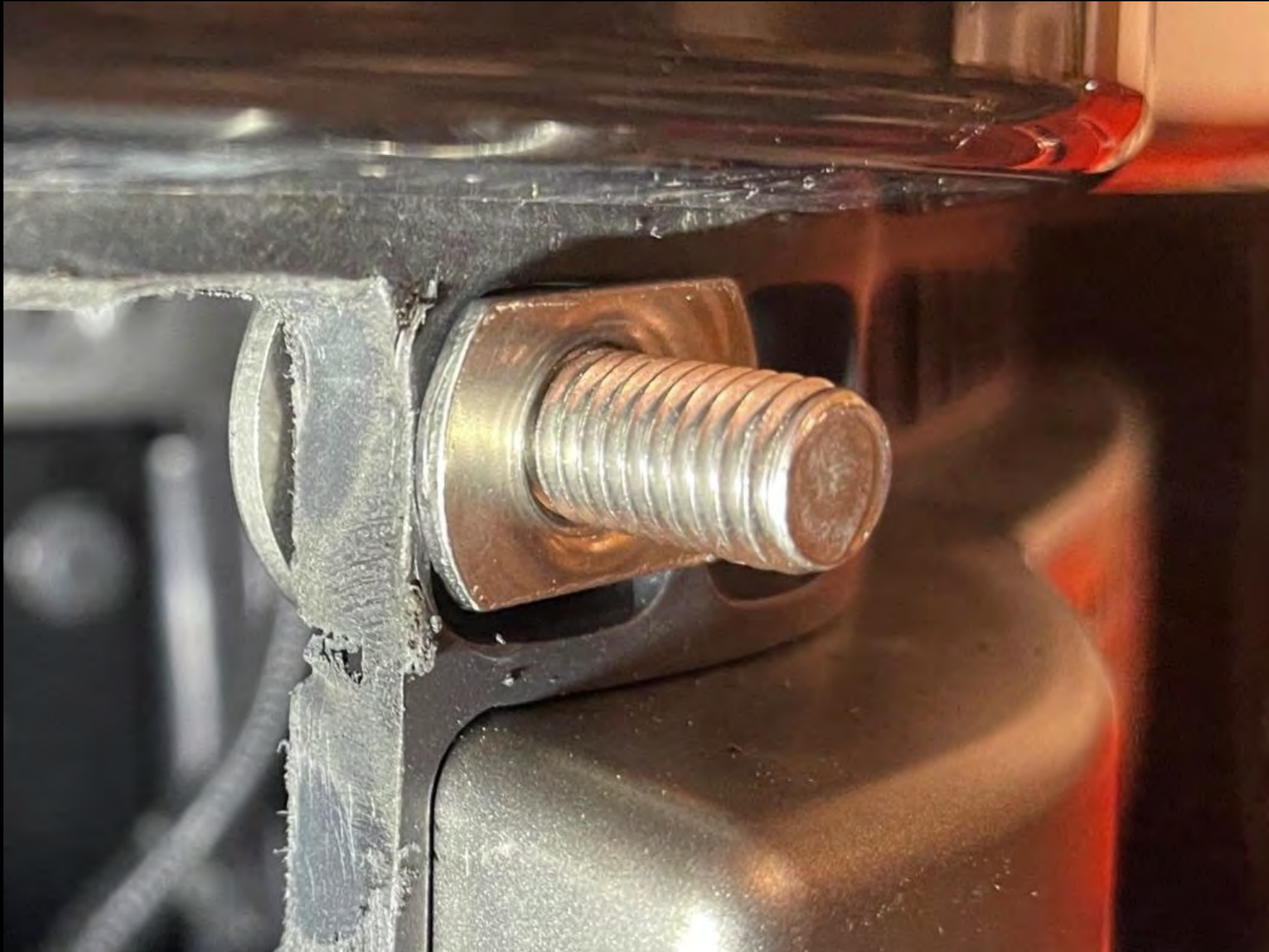


Clear the plastic out of the way behind the first square on each side so the bolt and washer will sit flush.





Install the grill stud hardware as shown.





Set the mesh in place over the two studs.





Install the two plastic nuts by hand, and you are done.





**Congratulations!**

