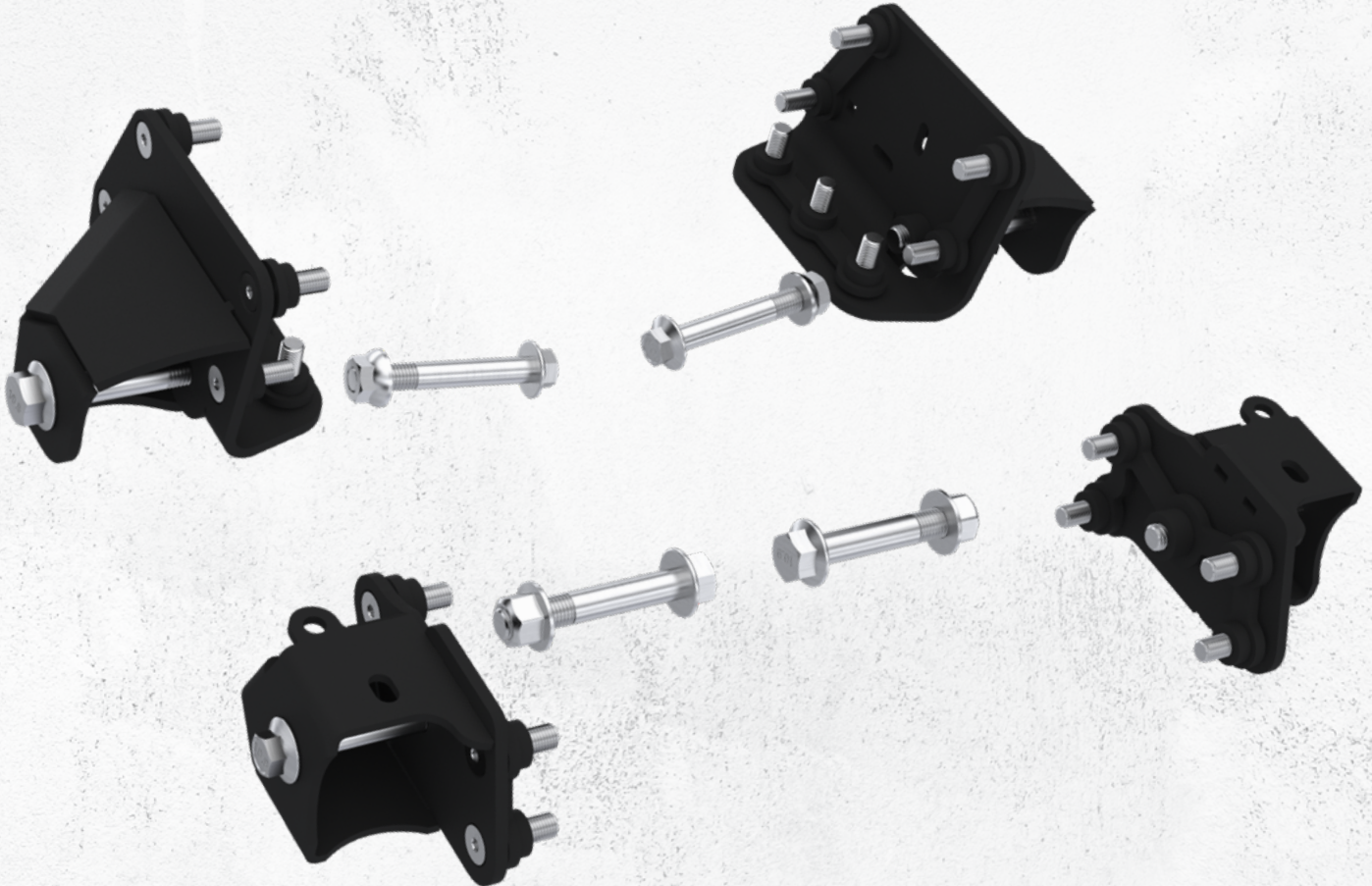


JL4709

JL BOLT-ON REAR PARALLEL LONG ARM BRACKET KIT



ESTIMATED INSTALLATION TIME

6-7 hours

REQUIRED TOOLS & SUPPLIES

- 18mm Socket
- 21mm Socket
- 15mm wrench
- 16mm wrench
- 24mm wrench
- 7/32 hex tool
- angle grinder or other metal cutting equipment
- Drill
- Step bit to 1/2"
- 9/16" drill bit
- Right angle drill (optional but preferred)
- 5 feet of wire or string.
- Angle finder

REQUIRED SKILLS

- General Mechanics Skills

NOTES:

- Component appearance in instructions may vary from those received

WARNING MESSAGES

This product demands a basic understanding of mechanical procedures and should only be installed by individuals proficient with mechanic's tools. Any tasks involving welding or cutting parts should be performed by trained professionals. Artec Industries disclaims responsibility for mishaps arising from improper installation, or any damage or accidents resulting from cutting or welding tasks. Exercise caution and seek professional help as required.

SAFETY

1. We've furnished a written installation guide, along with relevant details, to aid you in making safety-conscious decisions.
2. While these guidelines will highlight potential risks, it's crucial to exercise your personal judgment when performing any required steps.
3. Before initiating any tasks, it's essential to conduct a job safety analysis to identify specific hazards in your situation and take measures to eliminate or protect against them.
4. Before commencing the installation of this product, make sure you familiarize yourself with and fully understand all safety warnings and guidelines.

DISCLAIMERS

All Artec Industries products should be installed by a competent, certified individual following the intended installation instructions for each product. Incorrect installations not only nullify any warranties but could also lead to product damage or even damage to the vehicle it's installed on. Prior to installation, carefully read all provided instructions or manuals, and watch any associated videos. For any doubts or queries, reach out to Artec Industries before beginning the installation process.

Many products necessitate lifting and supporting the vehicle off the ground. It is the installer's responsibility to ensure this can be done safely and that the right equipment is at hand to carry out the installation. Artec Industries installation instructions presume the installer is competent to lift the vehicle safely and correctly.

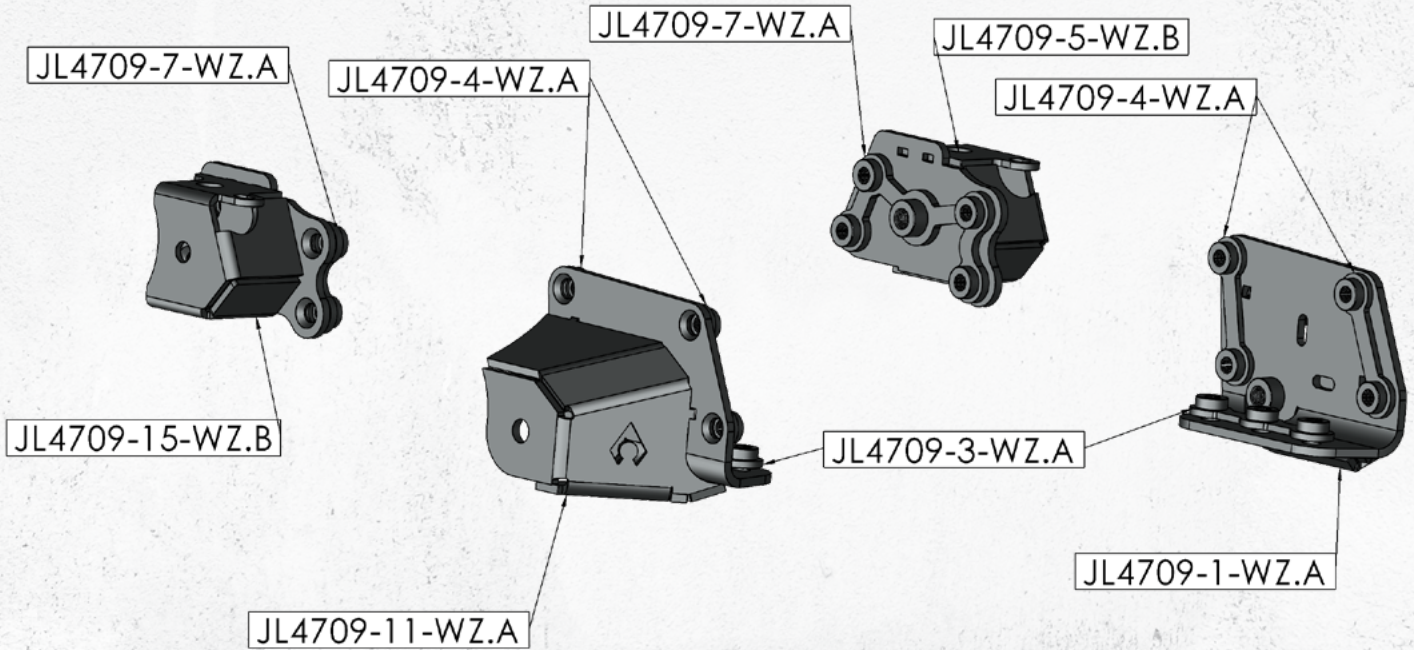
Modified vehicles won't perform identically to their stock counterparts. It's incumbent upon the vehicle owner to understand the alterations such modifications will bring to the vehicle's driving dynamics. These might encompass (but aren't limited to): changes in handling, braking, rollover angle, and potential incompatibilities with the factory-installed anti-lock braking systems, stability control systems, or traction control systems.

SPECIAL NOTES

- Unless otherwise noted, all hardware should be **LOOSELY** tightened by hand until the very end of installation when all components are attached.

JL4709 PARTS BILL OF MATERIALS

Please confirm you have all the listed parts below **BEFORE** beginning your installation. If any parts are damaged or missing, **KEEP ALL ORIGINAL BOXES and PACKAGING** and contact us.



NOTE: The part numbers indicated above end in a “.” and “letter” which indicate the revision number for the part. The etched part number on your physical parts do not need to match the above drawing revision exactly.

HK4709 BILL OF MATERIALS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
A	HW0224	M12-1.5x40mm CUSTOM 10.9 Steel Counter Sink Allen Head Bolt - MAGNI 565 COATING	22
B	HW0281	M14-2.0x100mm Steel Flanged Hex Head 10.9 Bolt - MAGNI 565 COATING	4
C	HW0280	M16-2.0x100mm Steel Flanged Hex Head 10.9 Bolt - MAGNI 565 COATING	4
D	HW0282	M16-2.0 Flange Hex Locknut 10.9 - MAGNI 565 COATING	2
E	HW0283	M14-2.0 Flange Hex Locknut 10.9 - MAGNI 565 COATING	2

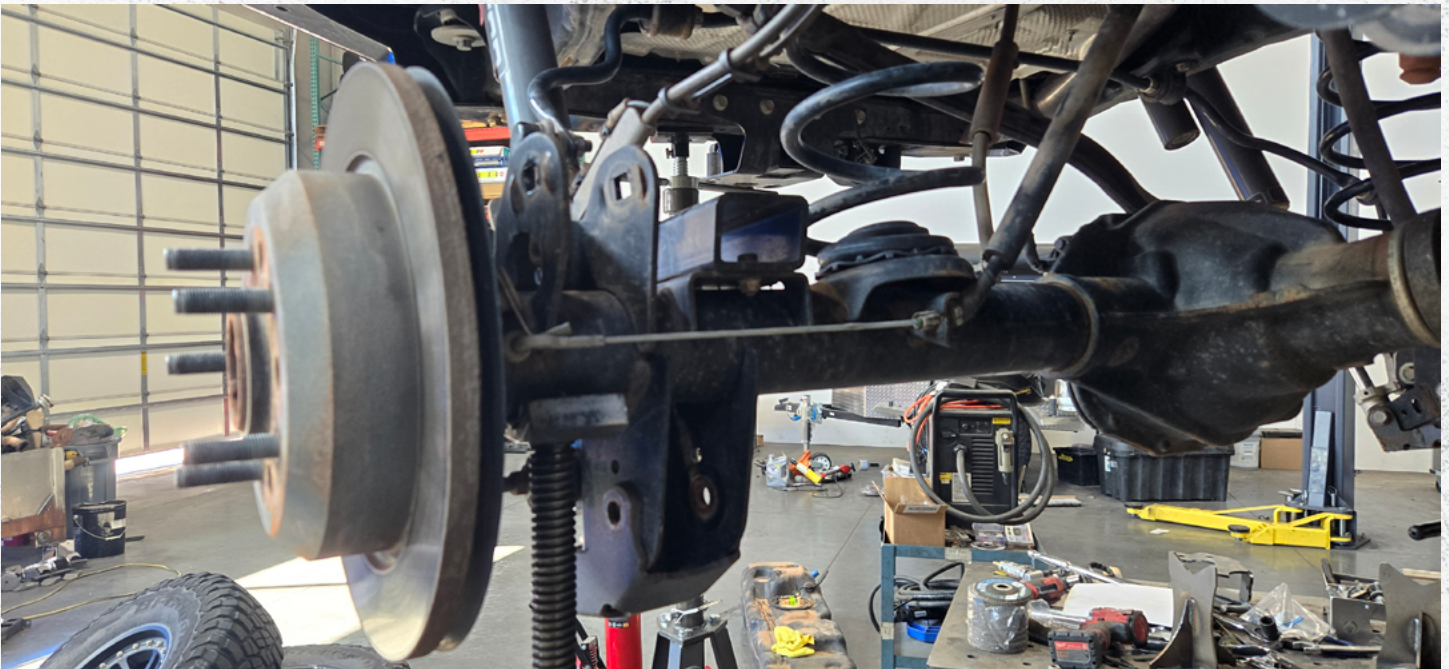
DISASSEMBLY INSTRUCTIONAL GUIDE

Ensure that the axle is supported or remove the axle from the vehicle.



Step 1:

Using a 21mm socket and 24mm wrench, remove the lower and upper control arm bolt on the frame side of the vehicle.



Step 2:

Using a 21mm socket and 24mm wrench, remove the final bolt securing the lower and upper control arm into the vehicle.

DISASSEMBLY INSTRUCTIONAL GUIDE



Step 3:

Cut along the weld of the lower control arm bracket using an angle grinder on both sides of the bracket for each side of the vehicle



Step 3:
Continued

DISASSEMBLY INSTRUCTIONAL GUIDE



Step 4:

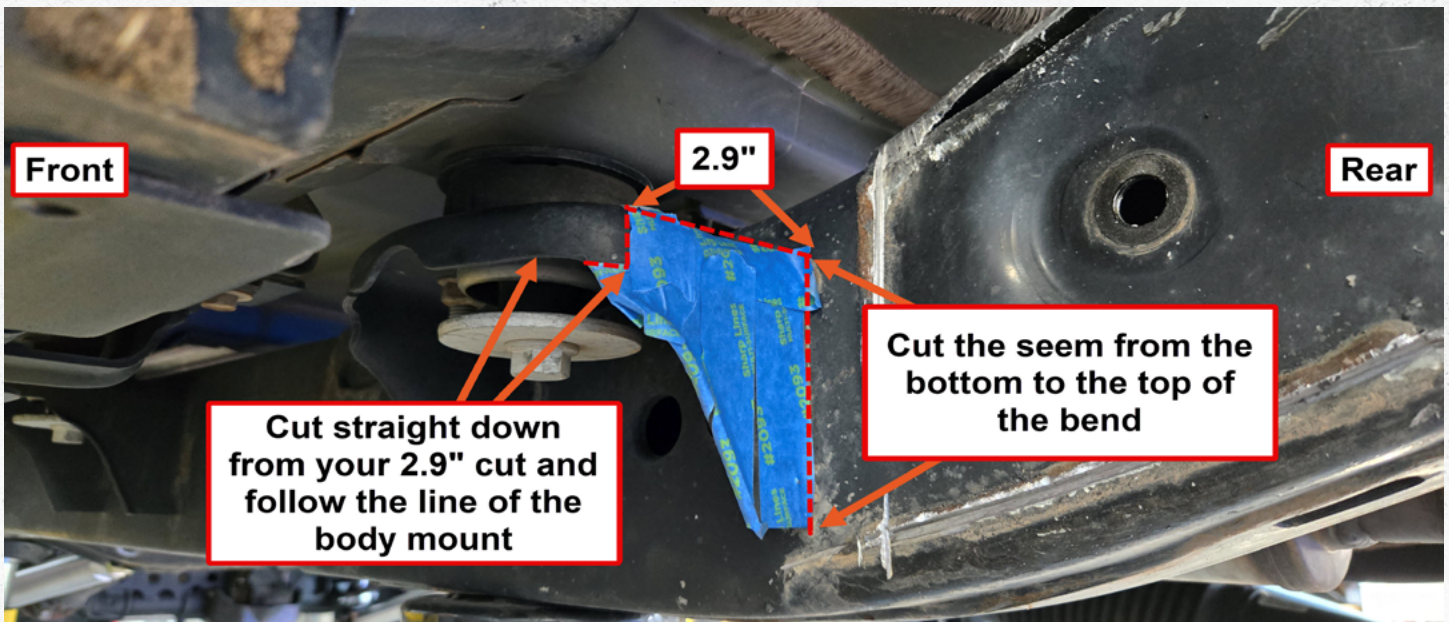
Grind the remaining bracket until the frame is flush.



Step 5:

Cut off the upper control arm bracket and grind it until it is flush to the frame as well.

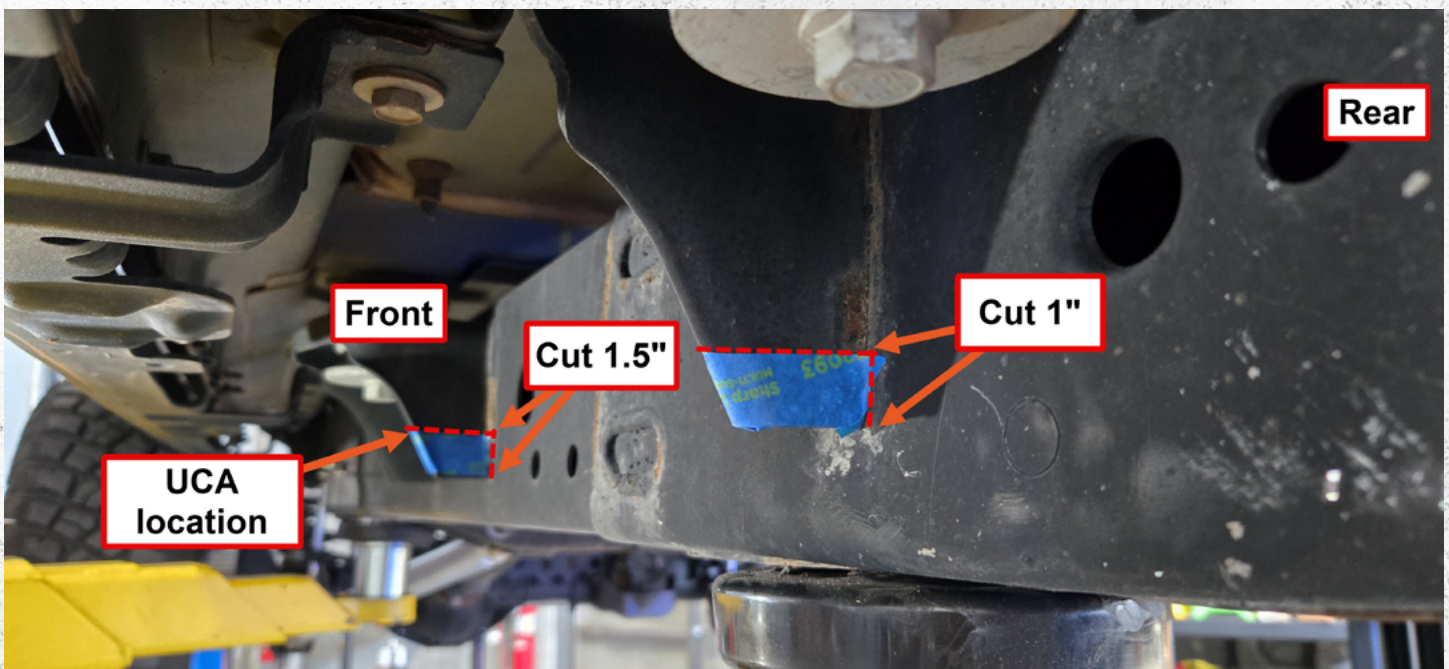
DISASSEMBLY INSTRUCTIONAL GUIDE



Step 6:

Cut off the rear most body bracket on the driver and passenger side. This will be cut for the location of our new upper control arm bracket.

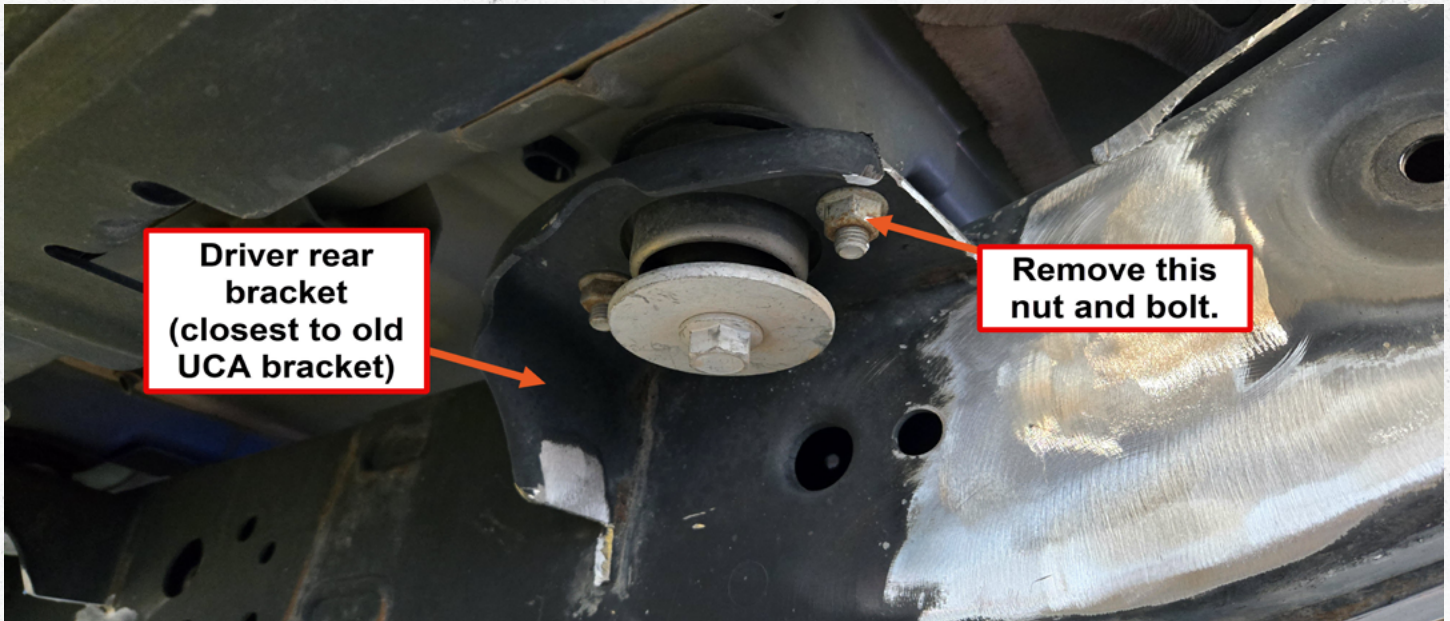
The goal is to remove as little material as possible so that the body bracket sits around the new upper control arm bracket. (see next page).



Step 7:

On the same bracket from **Step 6**, remove **1"** of material to allow for the lower control arm links to clear. Next cut **1.5"** for the lower control arm bracket to sit in its place as shown above, this is located on the second body mount in from the rear of the vehicle.

DISASSEMBLY INSTRUCTIONAL GUIDE



Step 8:

Remove the rear most nut, next use a hammer to knock out the stud. Replace the stud with the supplied M10x25mm flange bolt and M10 nut. **Repeat this step on the opposite side.**

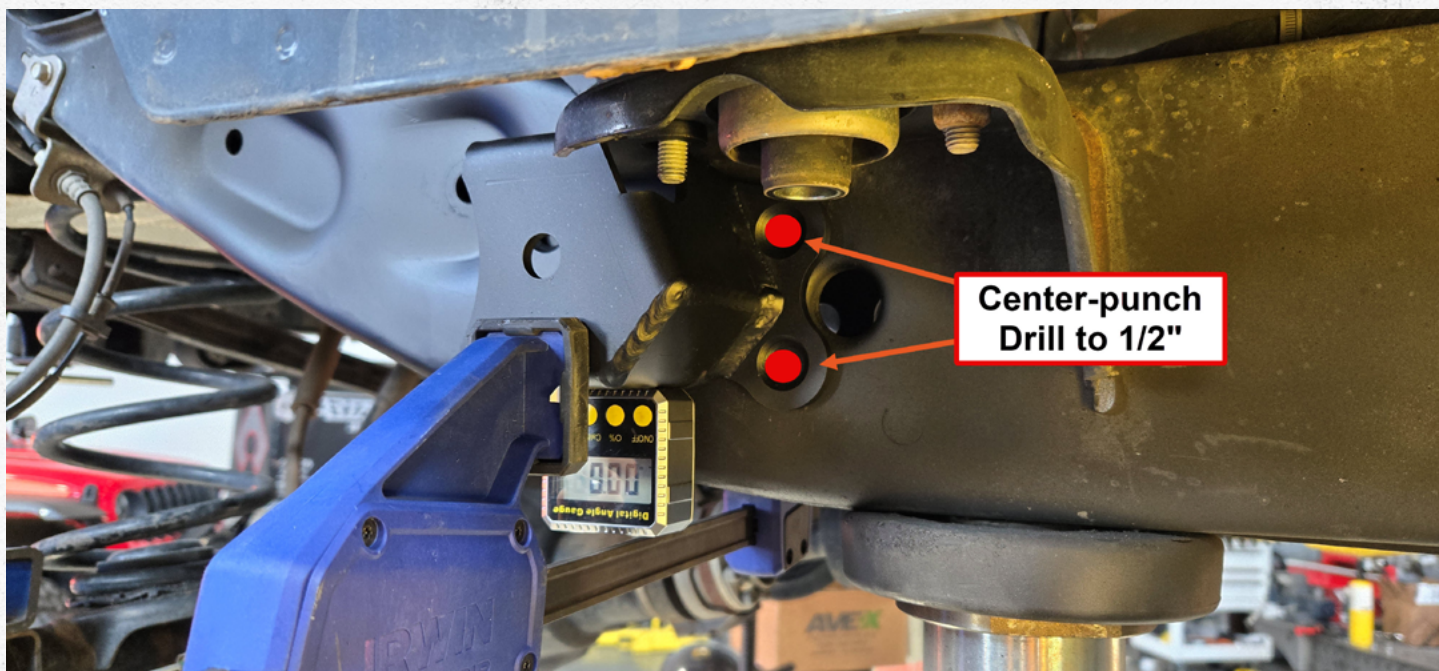


Step 9:

Zero your angle finder on the bottom (flat) part of your frame, the new upper control arm bracket should be parallel with the bottom of the frame as shown above.

Also note that the bracket is located concentrically with the hole indicated by the orange arrow and uses the bolt from step 8.

DISASSEMBLY INSTRUCTIONAL GUIDE



Step 10:

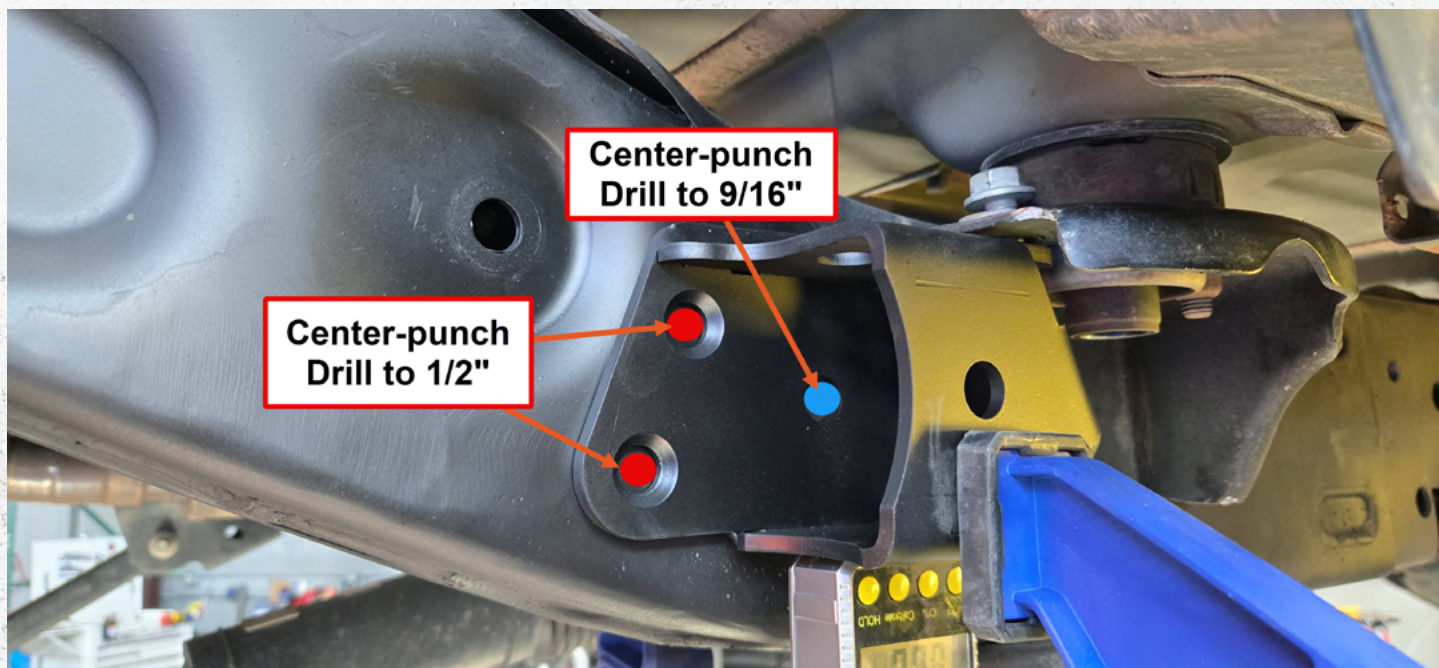
A. Remove the body bolt using an 18mm socket, this allows for easier drilling into the frame.

B. Center punch the four holes indicated with a red mark in the top and bottom image. Each hole will be drilled out to 1/2", a step bit or drill bit can be used.

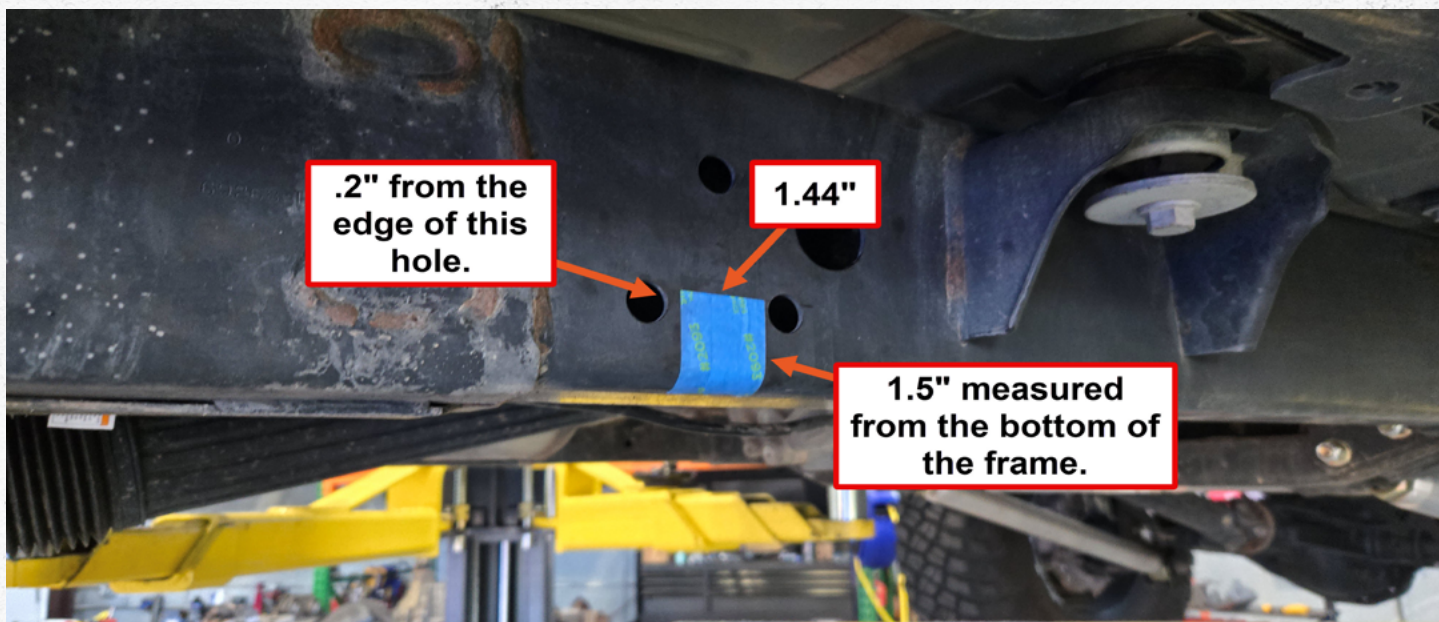
We recommend using four different drill sizes, working up to the final 1/2" size.

Step 10.C:

Center punch the hole marked in blue, this hole will be drilled to 9/16".

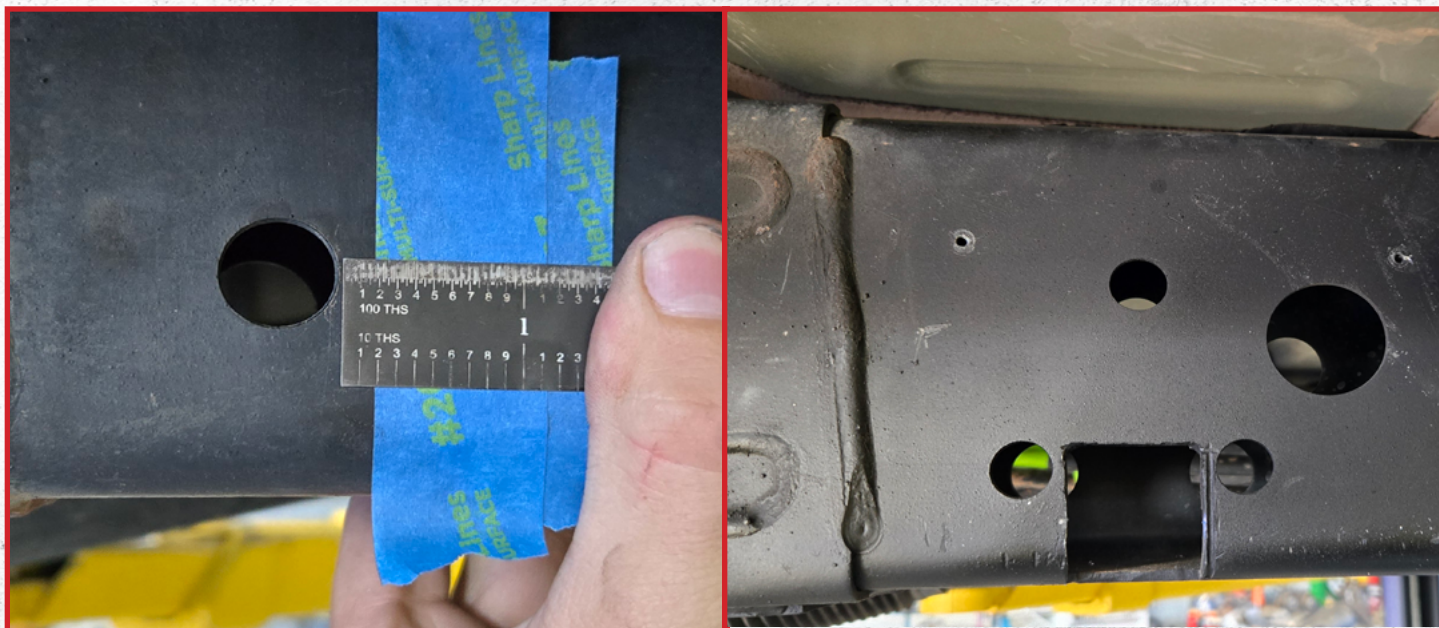


DISASSEMBLY INSTRUCTIONAL GUIDE



Step 11:

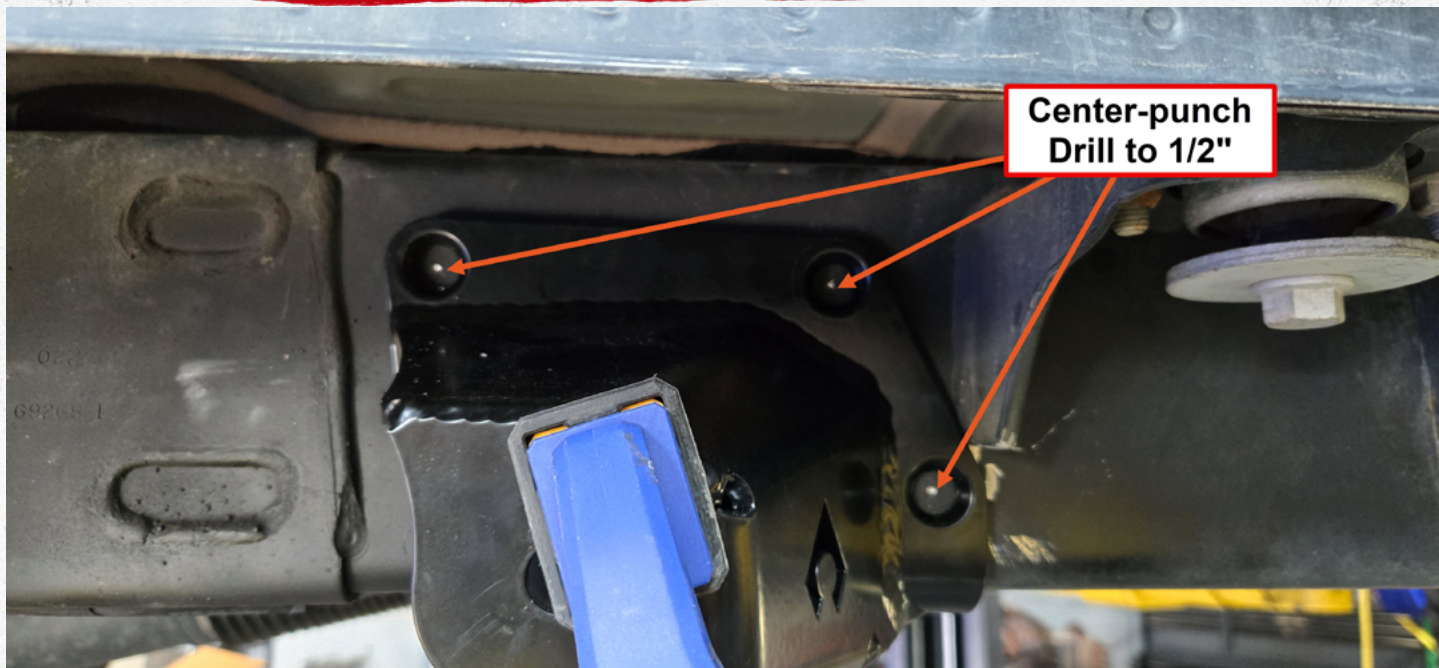
A 1.44" x 1.5" hole is cut into the frame to allow the lower control arm bracket to sit flat against the frame. Cut dimensions are provided in the above image.



Step 11: (continued)

Image is shown with the cut's made.

DISASSEMBLY INSTRUCTIONAL GUIDE

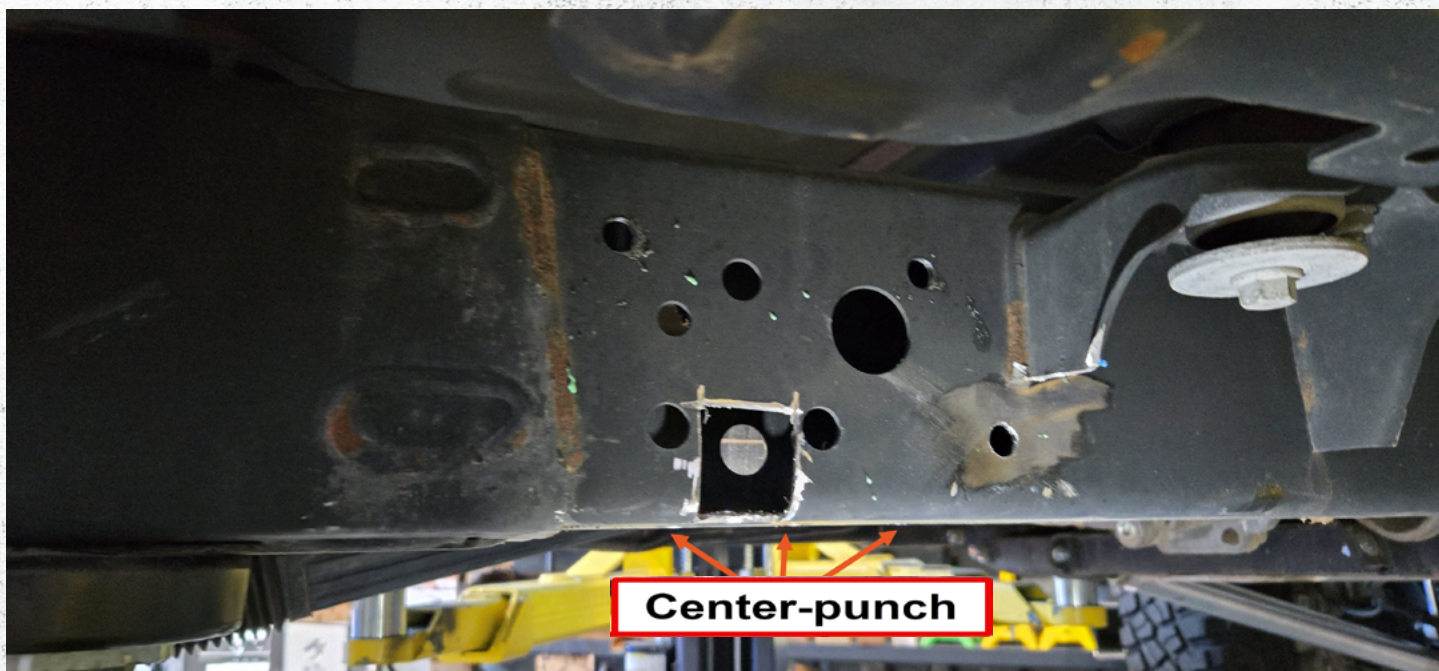


Step 12:

Locate the lower control arm bracket into place using a clamp and a single countersunk M12 bolt inserted into the bottom left hole.

Step 13:

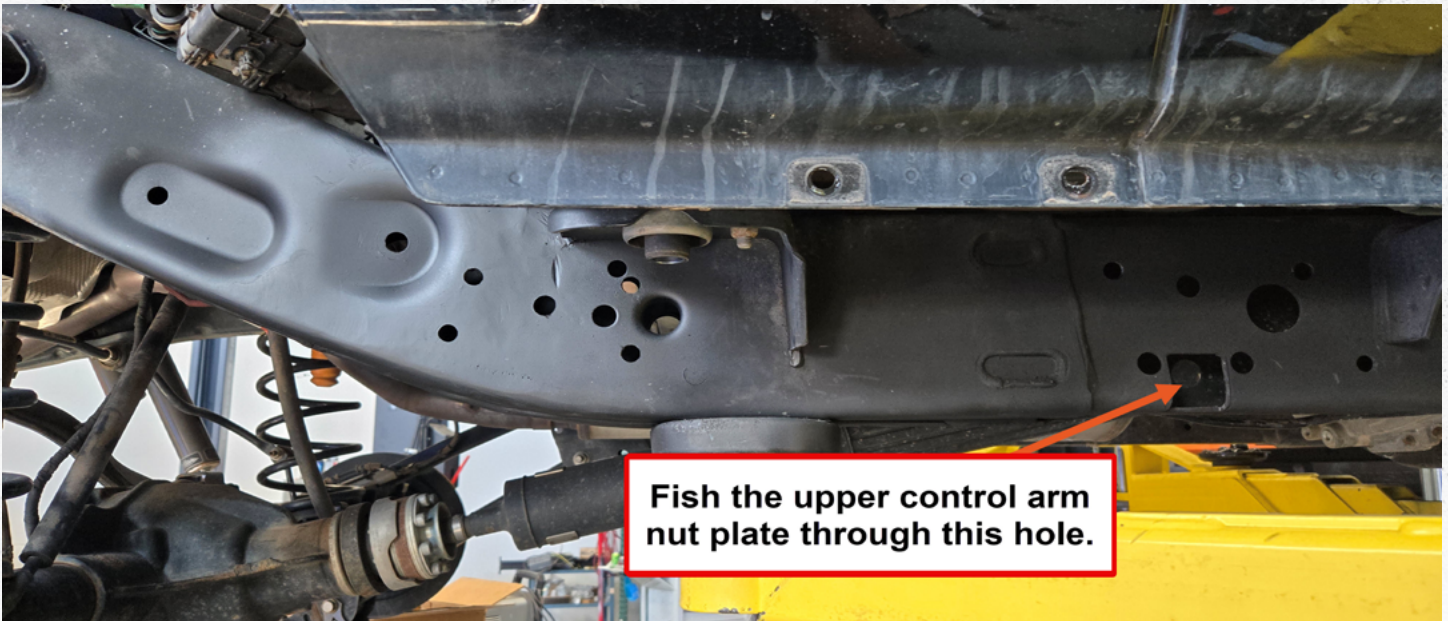
Center-punch all holes.



Step 14:

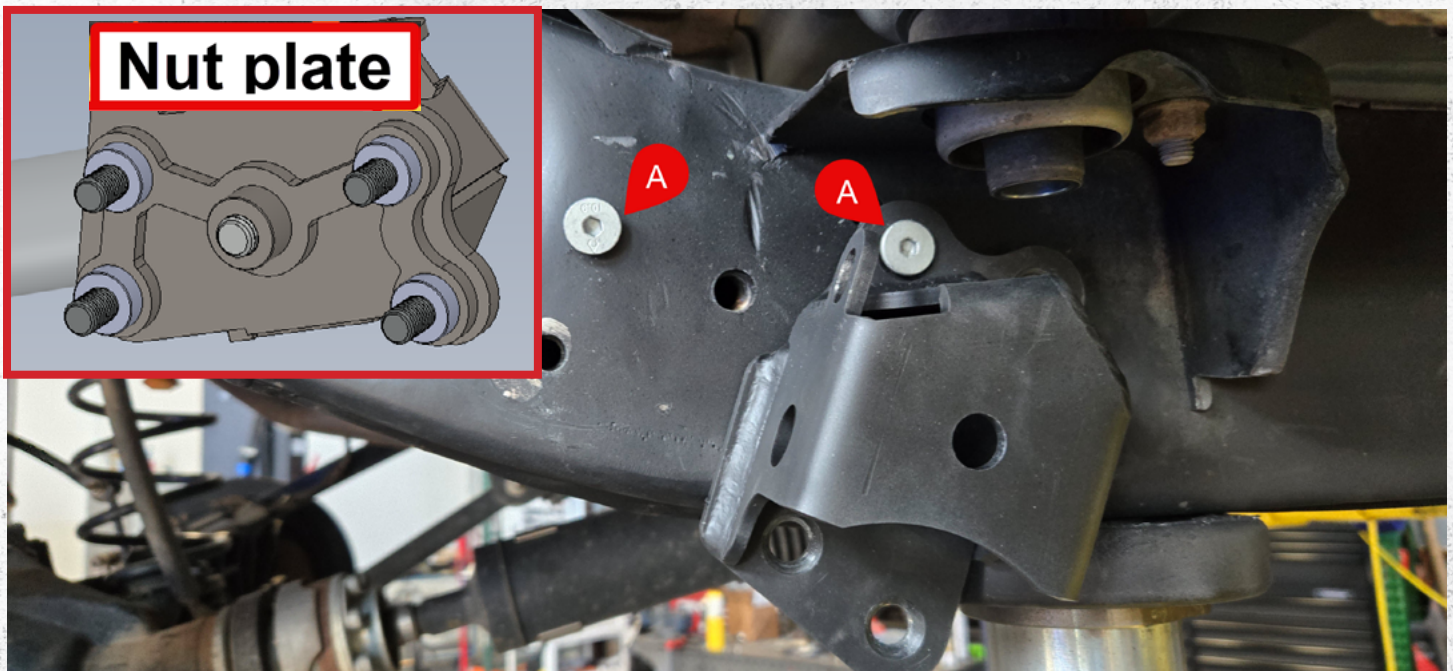
Drill the six holes that were center-punched, **we recommend using four different drill sizes, working up to the final 1/2" size.**

ASSEMBLY INSTRUCTIONAL GUIDE



Step 15:

Install bracket JL4709-7 (looks like an M) with the crescent cut facing the front of the vehicle. This bracket is fished through the hole you cut for the lower control arm bracket (**Step 11**) using a screw driver and a long wire or string.

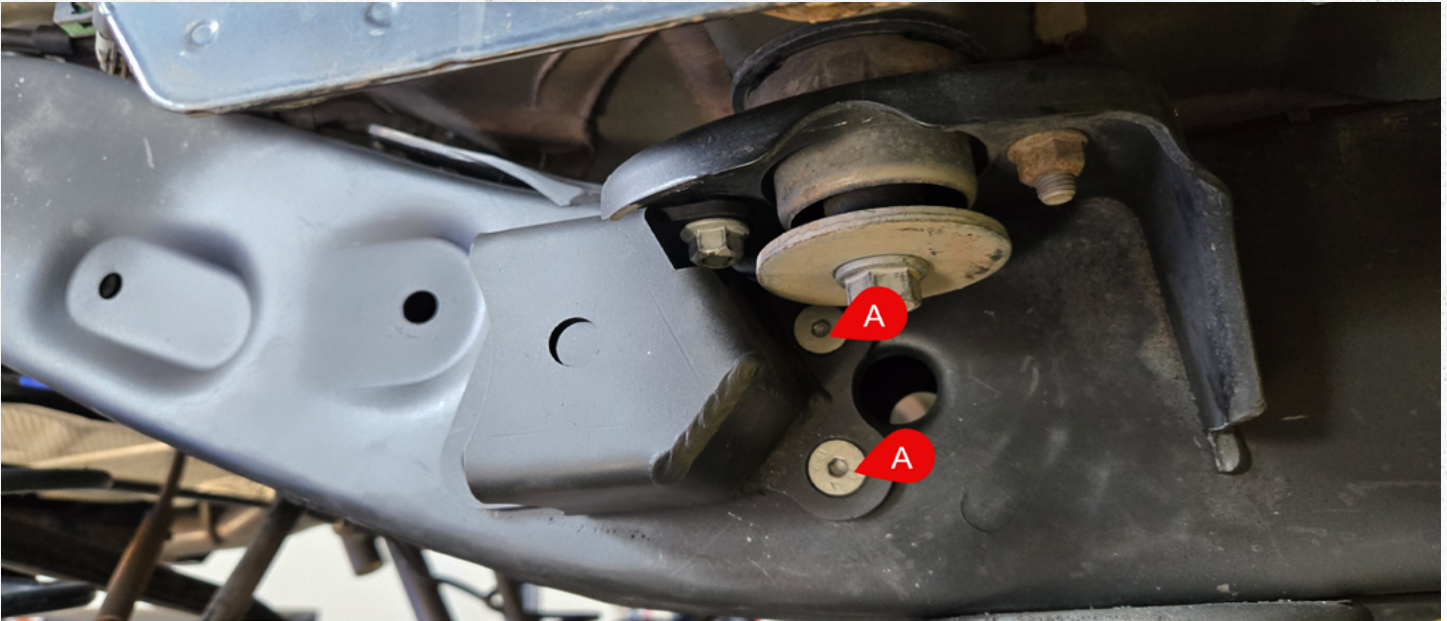


Step 16:

Using a screw driver to help align the bracket with the drilled holes. Hold the bracket from the back of the frame and install the upper control arm bracket using a M12 countersunk bolt to prevent the bracket from falling back into the frame.

The upper left countersunk bolt is being used to hold the bracket for capturing instruction images, this bolt will be removed and installed through the UCA bracket.

ASSEMBLY INSTRUCTIONAL GUIDE



Step 17:

Install the upper control arm bracket using another three countersunk M12 bolts, one M10 x 25mm with M10 nut.

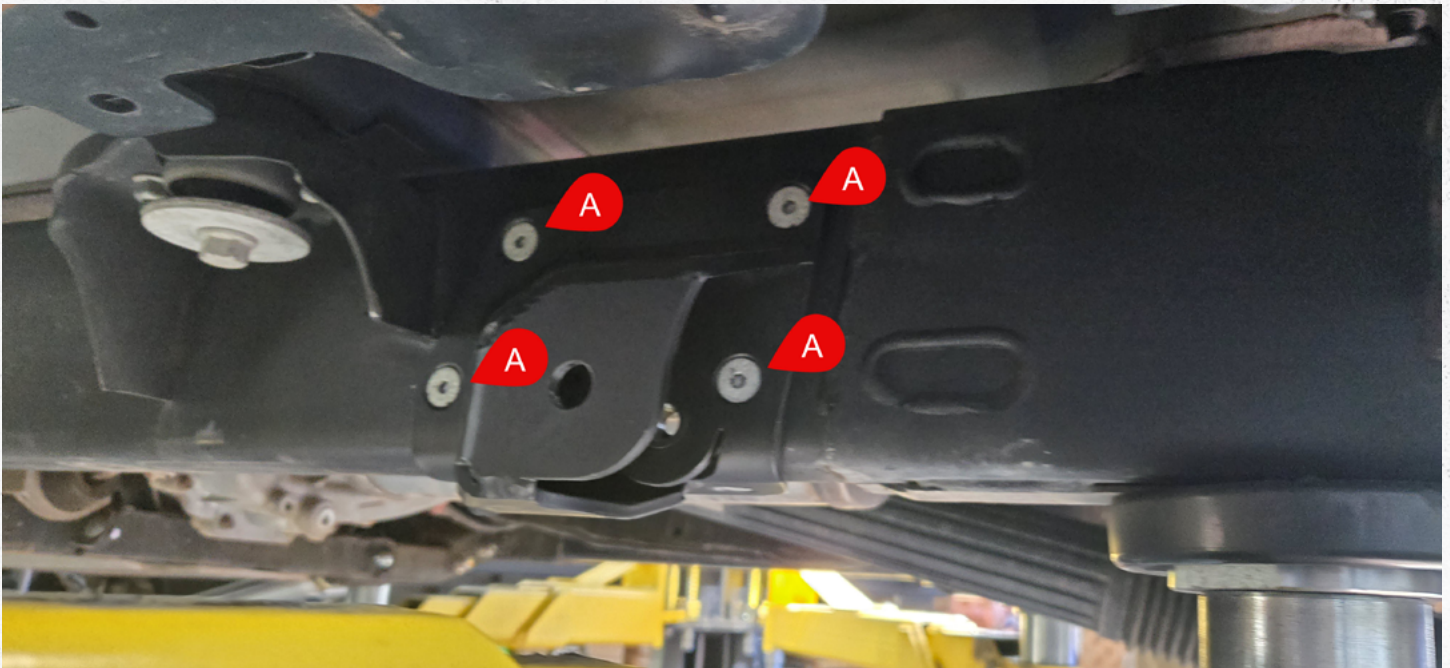


Step 18:

To install the lower control arm bracket, insert one JL4709-3 (3 hole nut strip) into each side of the frame using the hole cut in **Step 11**. Insert two JL4709-4 (2 hole nut strip) into each side of the frame using the hole cut in **Step 11**. **Repeat on the other side of the vehicle.**

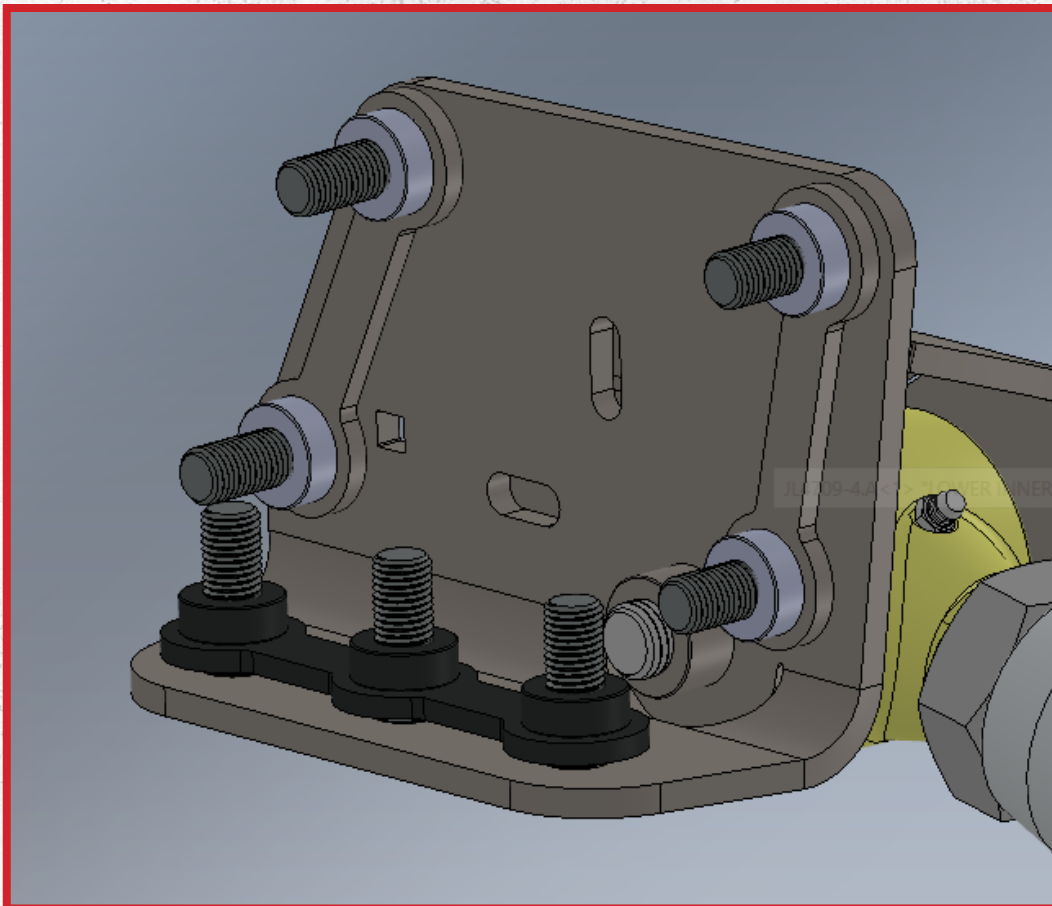
Step continues on next page.

ASSEMBLY INSTRUCTIONAL GUIDE



Step 18: (continued)

Align the brackets and insert a total of seven M12 countersunk bolts. The image below can be used as a reference of how the brackets look inside the frame.



ASSEMBLY INSTRUCTIONAL GUIDE

Step 19:

Install the Upper and lower control arms using a M14 flanged head bolt for the upper control arms and using the M16 flanged head bolt for the lower control arms.

Vehicle will need an alignment after the installation is complete.

Rear control arm lengths:

THIS SHOULD BE USED AS A STARTING POINT, NOT A FINAL ADJUSTMENT

LOWERS: 40"

UPPERS: 21"

Verify ALL previously installed hardware is tight / torqued to specifications.



CONCLUSION

Congratulations on finishing the installation for your Artec Industries JL BOLT-ON REAR PARALLEL LONG ARM BRACKET KIT. Before driving your vehicle, inspect all bolts to ensure they are properly tightened.

If you used a vehicle lift, take proper care to ensure you lower your vehicle safely.

MAINTENANCE / CARE

- After 500 miles, inspect all components and hardware to ensure they are properly fastened.
- If driving during the winter where salt is used on the roads, thoroughly and frequently wash underside of vehicle to prevent salt based corrosion.
- If removal of skid panels is required for vehicle maintenance, and bolts will not loosen, tap the bolt heads with a small sledge hammer using moderate force. This will allow the threads to loosen.
- Spray wax or similar products can be used to create a protective barrier on raw metals to protect against long term corrosion.