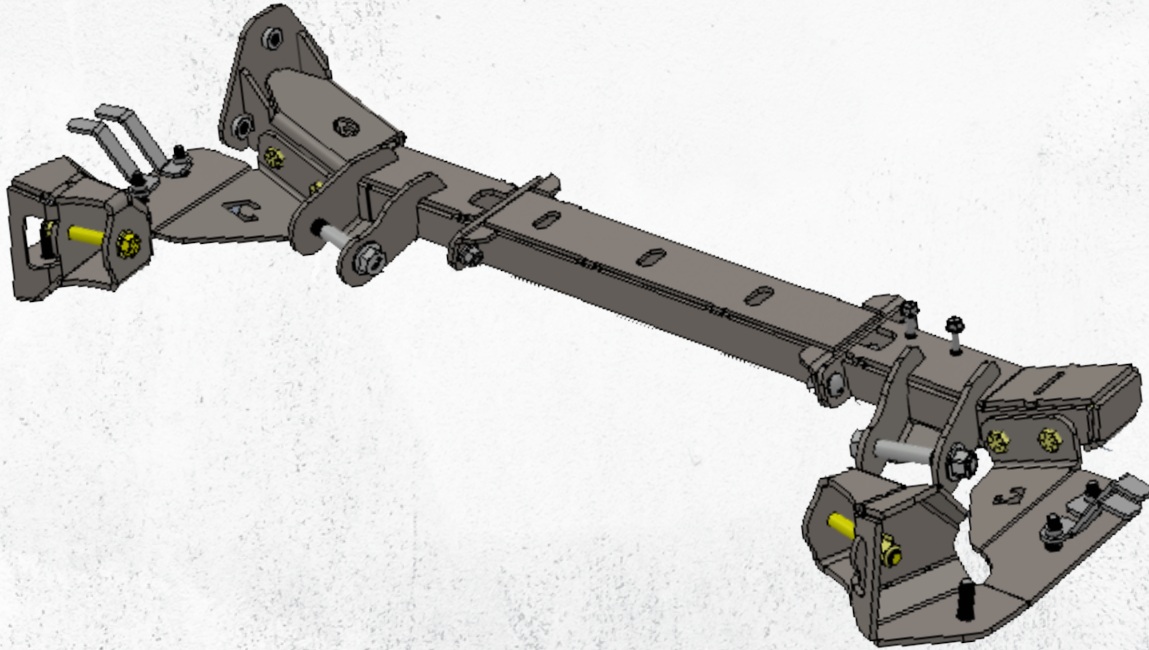


JL4701

JL/JT FRONT LONG ARM BRACKET KIT



ESTIMATED INSTALLATION TIME

7-9 hours

REQUIRED SKILLS

- General Mechanics Skills

REQUIRED TOOLS & SUPPLIES

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

NOTES:

- Component appearance in instructions may vary from those received
- This kit requires welding.

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.

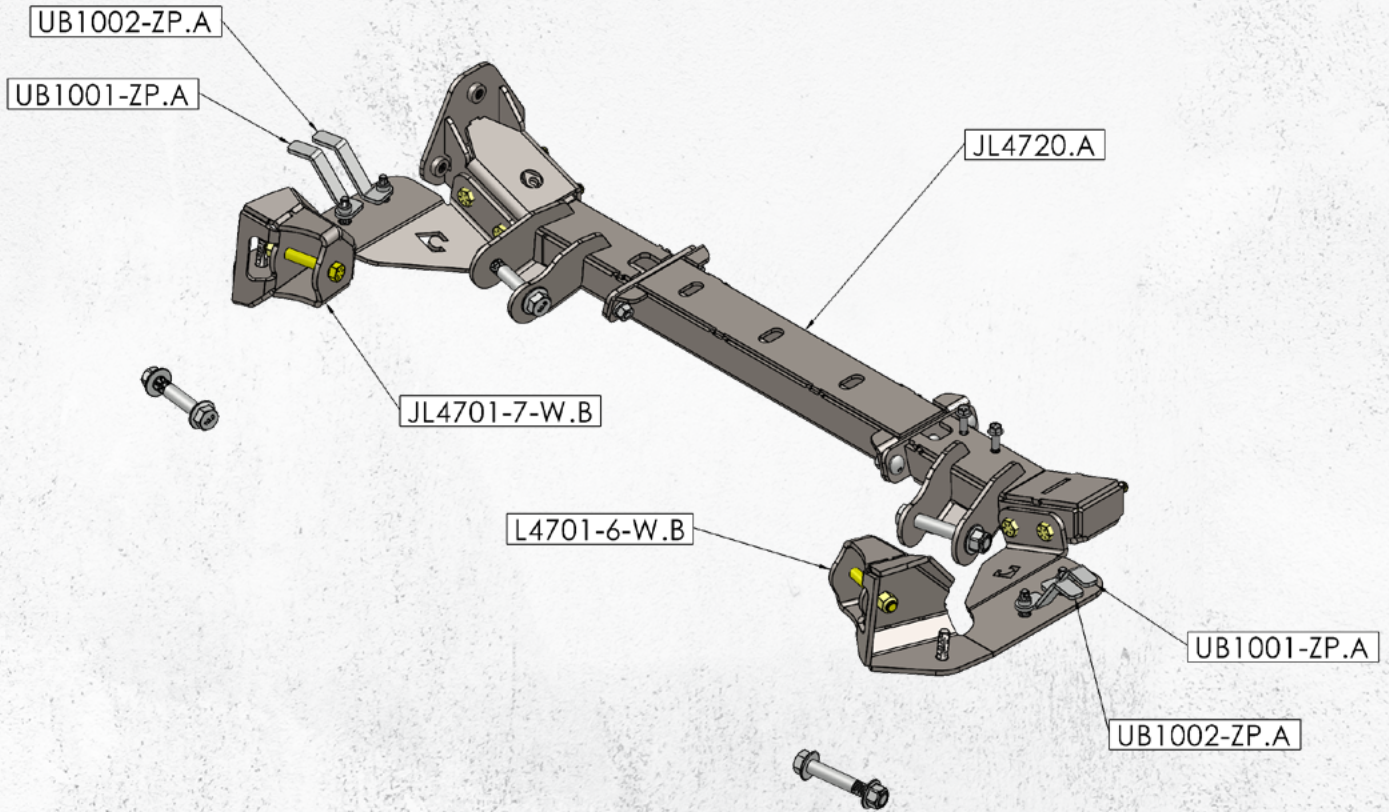
Modified vehicles won't perform identically to their stock counterparts. It's incumbent upon the vehicle owner to understand the alterations such modifications will bring to the vehicle's driving dynamics. These might encompass (but aren't limited to): changes in handling, braking, rollover angle, and 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.

JL4701 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.

HK4701 BILL OF MATERIALS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	HW0203	1/2"-13 x 4.75" Long Hex Head Cap Screw	2
2	HW0185	3/8" x 1.5 Countersink Allen Head Bolt - Zinc	4
3	HW0224	M12-1.5x40mm CUSTOM 10.9 Steel Counter Sink Allen Head Bolt - MAGNI 565 COATING	2
4	HW0204	1/2 - 13 x 1" Grade 8 Hex Head Cap Screw Yellow Zinc	2
5	HW0205	1/2"-20 Nylock Lock Nut	2
6	HW0280	M16-2.0x100mm Steel Flanged Hex Head 10.9 Bolt - MAGNI 565 COATING	4

DISASSEMBLY INSTRUCTIONAL GUIDE



Step 1:

Using a 10mm socket, remove the heat-shield from the factory cross-member on the passenger side.



Step 2:

Support the transmission using a jack, this support should stay in place until the new cross-member is bolted into the vehicle.



Step 3:

Use an 18mm socket and wrench to remove the two bolts from the cross-member on the driver side of the vehicle, and the three bolts on the outside of the passenger side frame rail.



Step 4:

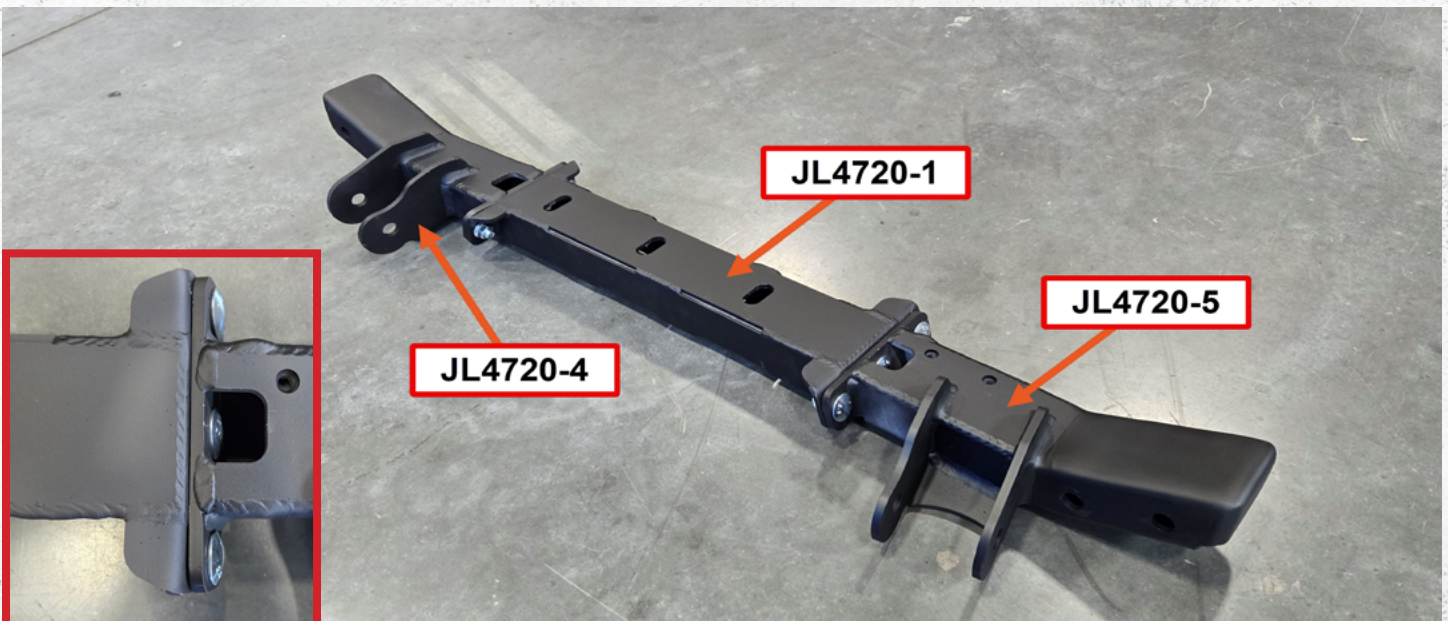
Remove and keep the three transmission support nuts and washer's using a 21mm socket.

ASSEMBLY INSTRUCTIONAL GUIDE



Step 5:

Install bracket **JL4718-2** using three factory bolts that were removed from the factory cross-member.

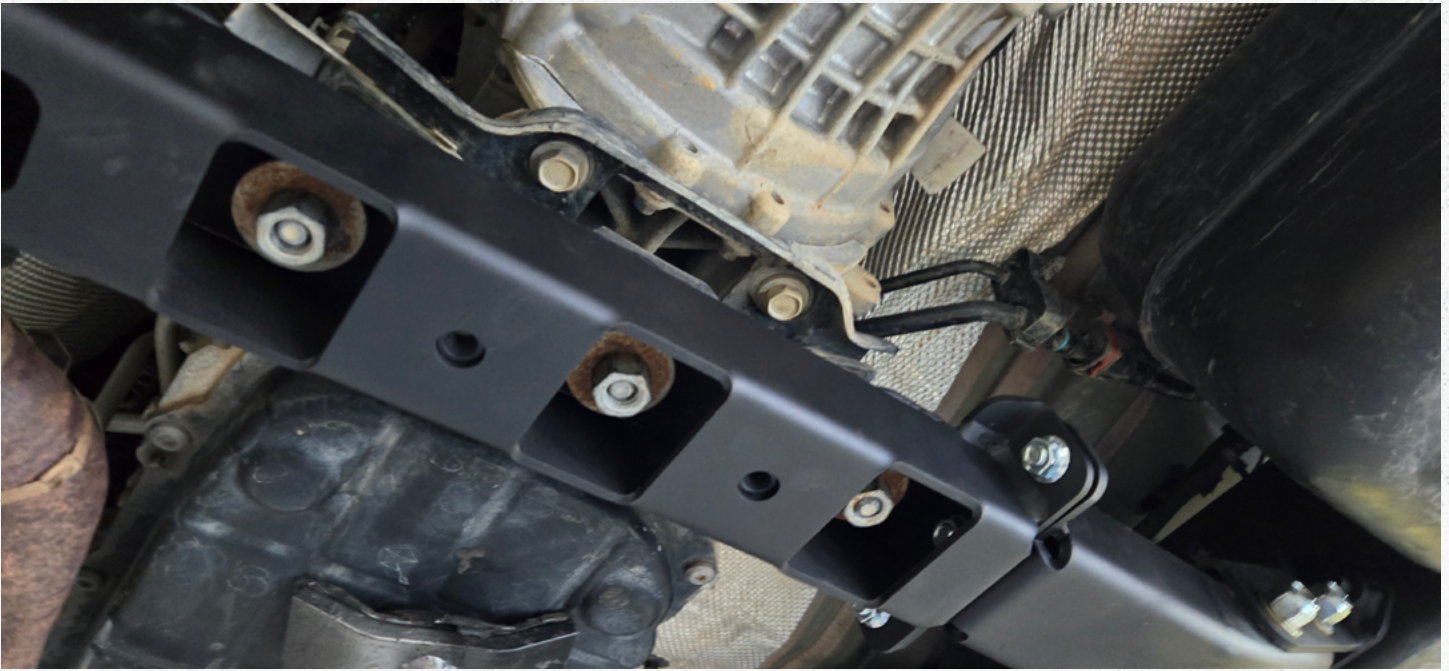


Step 6:

Assemble the new cross-member using six 3/8" carriage bolts with flange nuts to secure parts **JL4720-4**, **JL4720-1** and **JL4720-5**. These bolts should be tightened fully on a flat surface.

The bottom left image shows the access hole for one of the 3/8" carriage bolts.

ASSEMBLY INSTRUCTIONAL GUIDE



Step 7:

Install the assembled cross-member using the three transmission support nuts that were removed in step 4. These bolts should be finger tight, so the cross-member is held in place but still able to move.

DISASSEMBLY INSTRUCTIONAL GUIDE



Step 8:
Remove the lower control arm bracket on both sides of the front of the vehicle.



Step 9:
Remove the upper control arm brackets on both sides on the front of the vehicle.

DISASSEMBLY INSTRUCTIONAL GUIDE



Step 10:

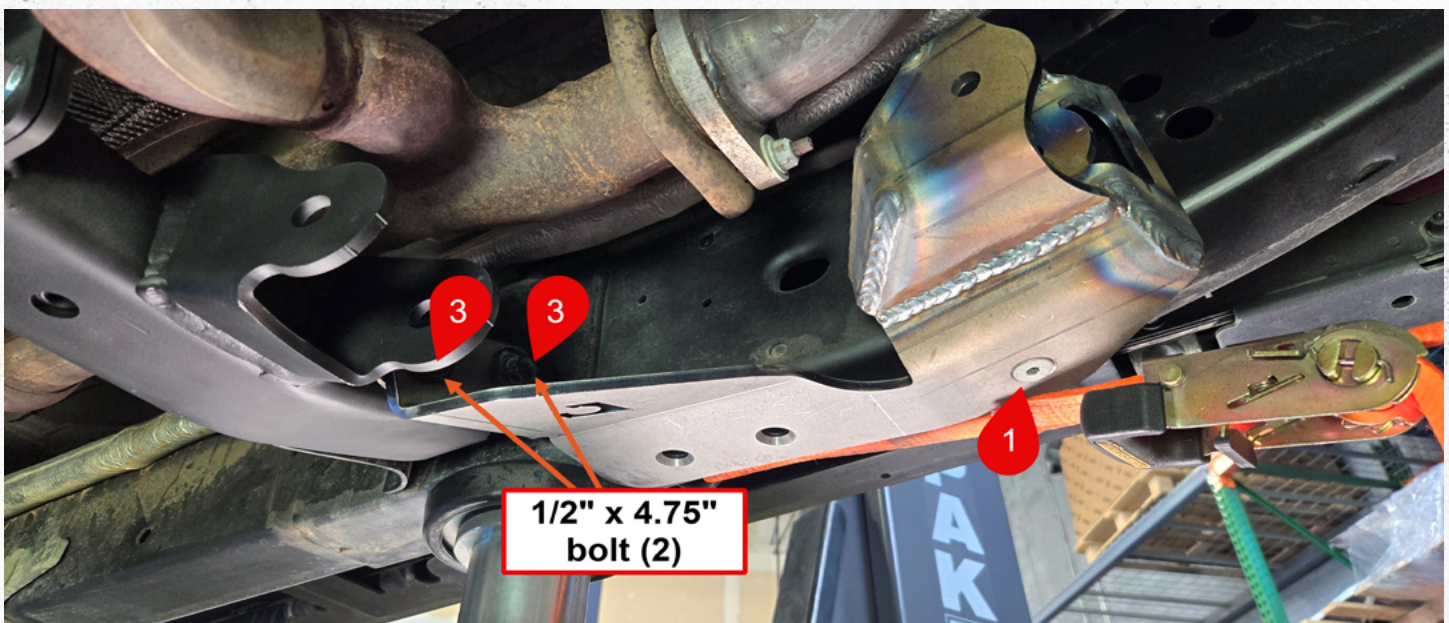
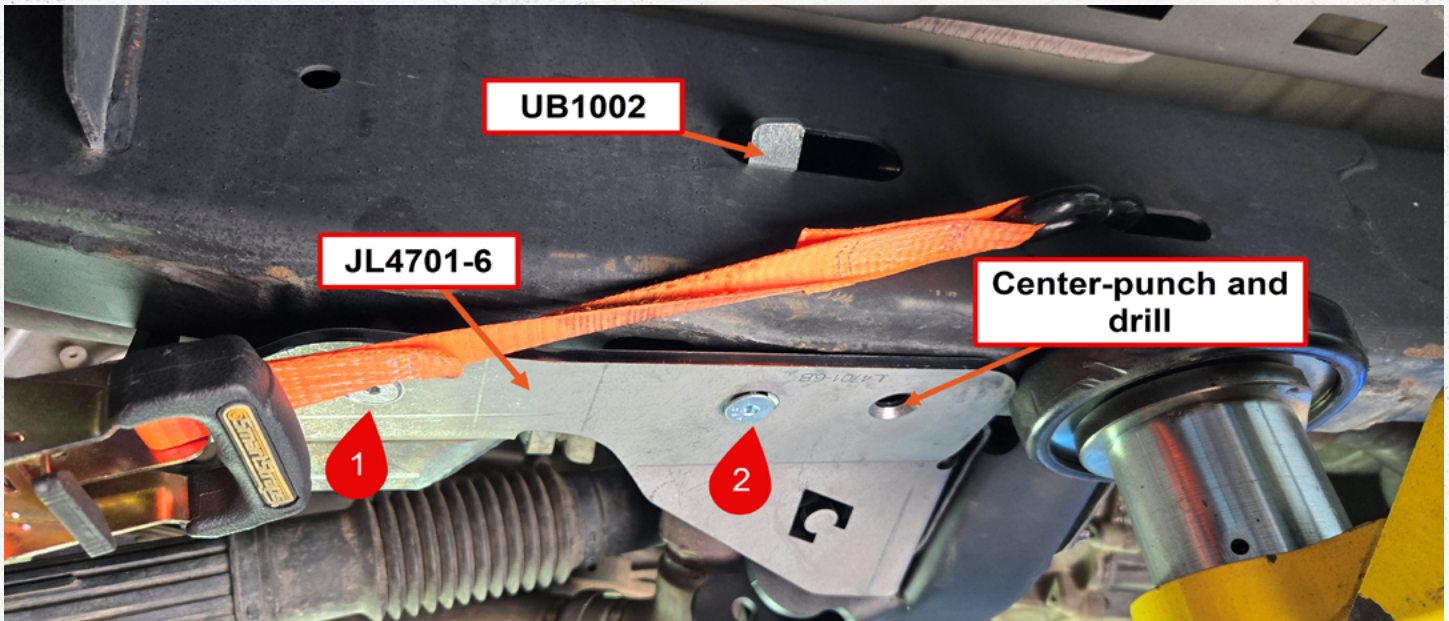
After the brackets are removed, remove the remaining material using a grinder. Failing to do so may result in components being damaged.



Step 11:

Paint the bare metal to prevent corrosion, if the bracket is welded on with no paint it will leave a bare metal surface behind the bracket that cannot be reached.

ASSEMBLY INSTRUCTIONAL GUIDE



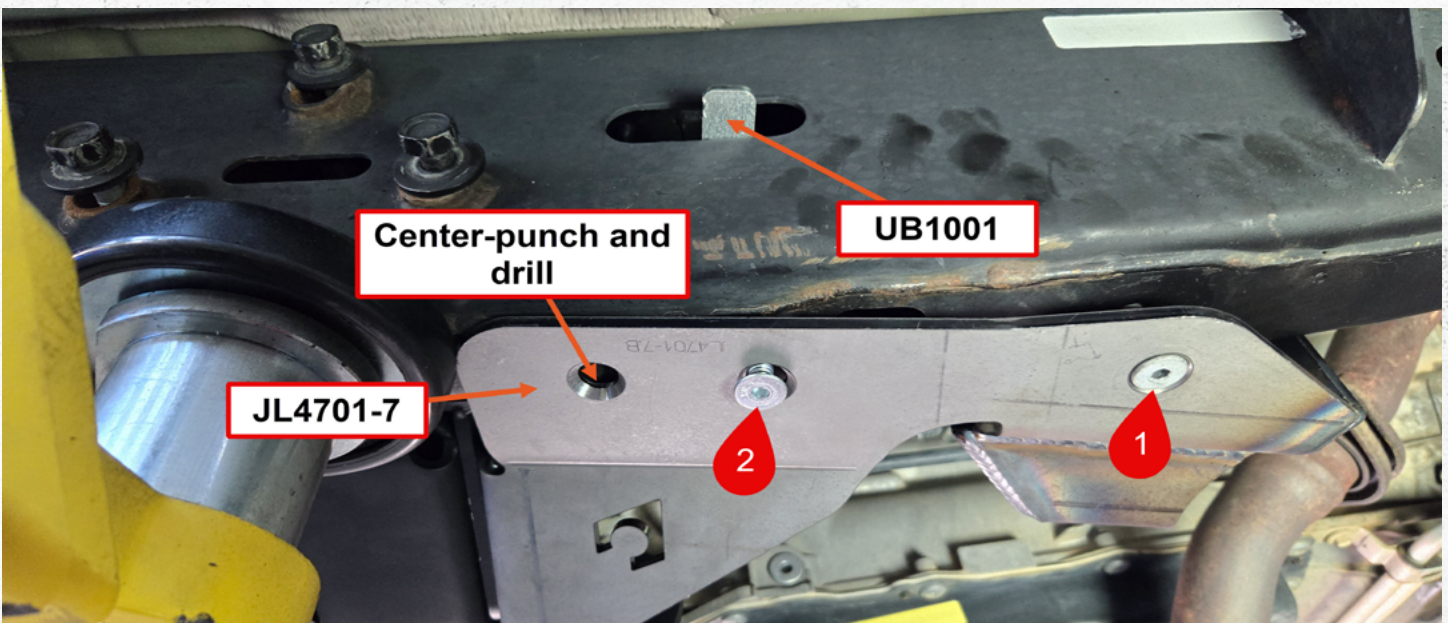
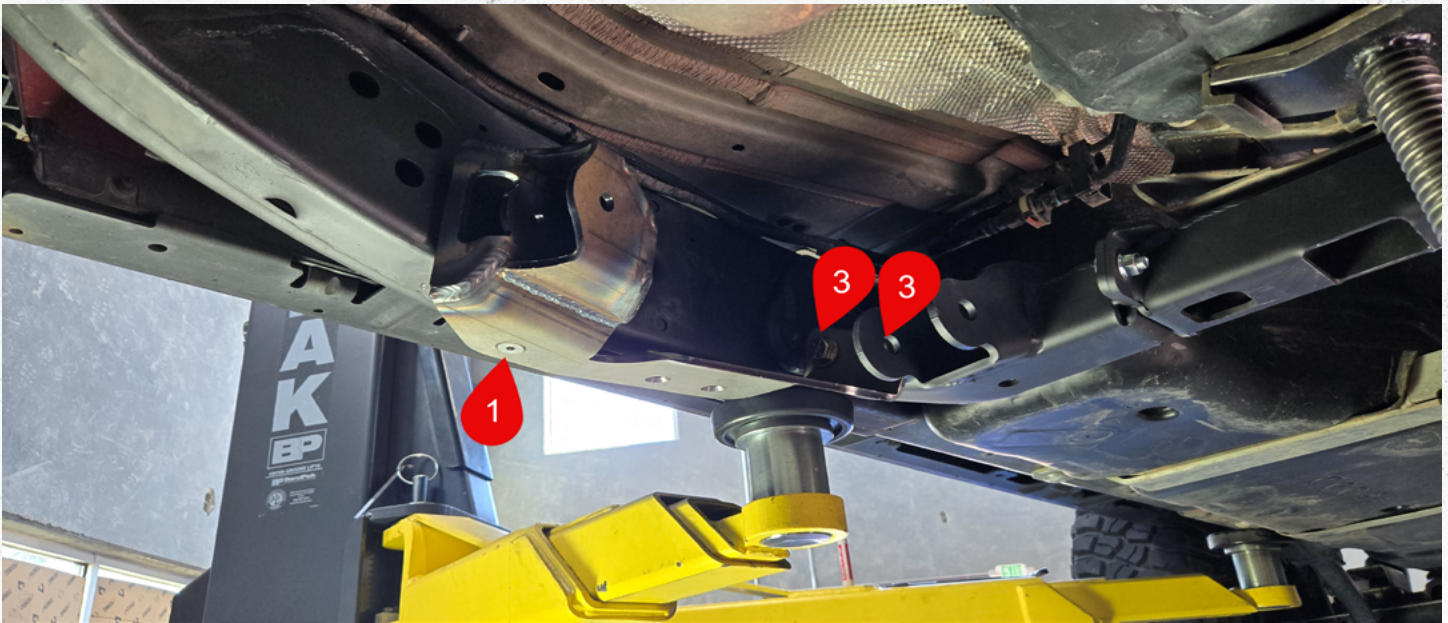
Step 12:

Install **JL4701-6** using one M12 countersunk bolt RED 1, one 3/8" countersunk bolt with UB1002 flag nut RED 2, and two grade 8 1/2" x 4.75" bolt's with four washers and two 1/2" nylon lock nut's shown by the RED 3.

Step 13:

Tighten the hardware from step 12 and center punch the hole indicated above. This hole will be drilled with a 1/8" drill bit, stepping up to the final size of a 3/8" drill bit.

ASSEMBLY INSTRUCTIONAL GUIDE



Step 14:

Install **JL4701-7** using one M12 countersunk bolt RED 1, one 3/8" countersunk bolt with UB1001 flag nut RED 2, and two grade 8 1/2" x 4.75" bolt's with four washers and two 1/2" nylon lock nuts RED 3.

Step 15:

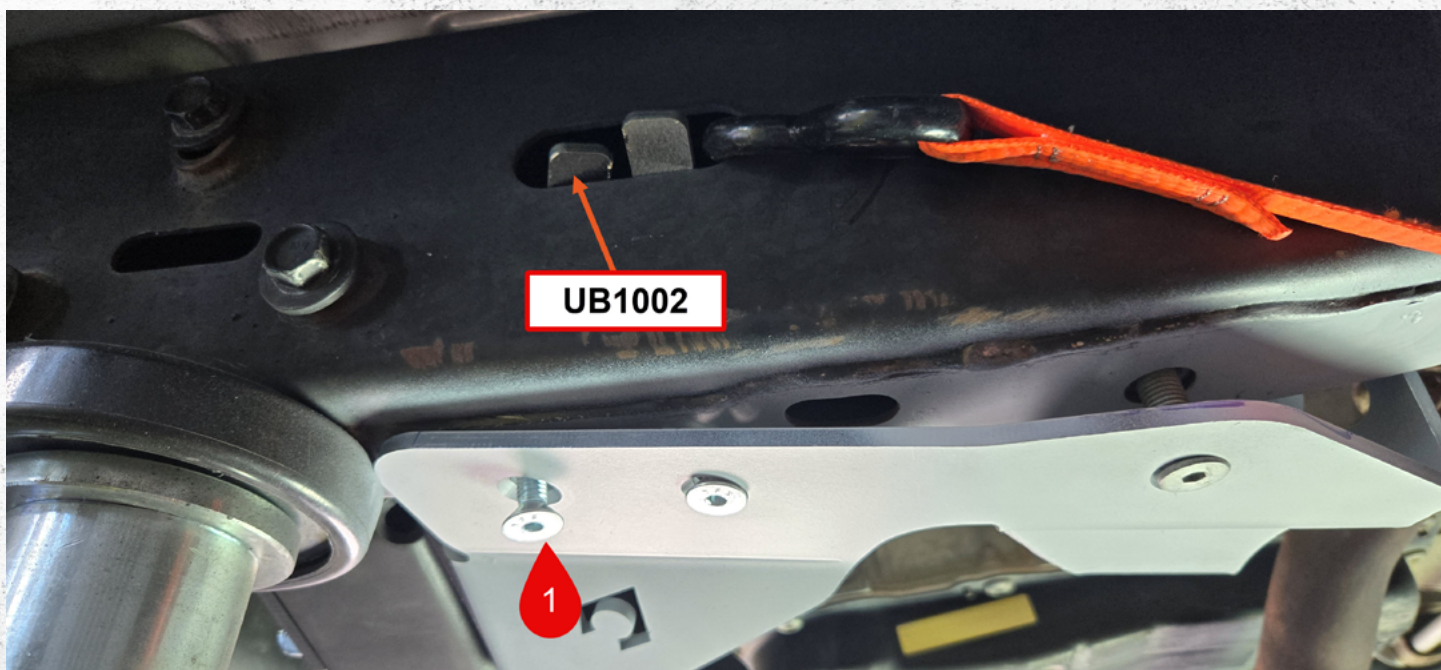
Tighten the hardware from step 12 and center punch the hole indicated above. This hole will be drilled with a 1/8" drill bit, stepping up to the final size of a 3/8" drill bit.

DISASSEMBLY INSTRUCTIONAL GUIDE



Step 16:

In this install we used a weld through primer to prevent corrosion after the bracket is welded into place. A non weld through paint can be used, however it should be cleaned on the areas that are welded.



Step 17:

Install the 3/8" countersunk bolt through the hole drilled in the frame. A UB1002 flag nut will be used on the passenger side, UB1001 will be used on the driver side.

ASSEMBLY INSTRUCTIONAL GUIDE



Step 18:

Tighten all the hardware (including the cross-member) working from the passenger side of the vehicle to the driver.

Step 19:

After the hardware is tight, weld the JL4701-7 and JL4701-6 brackets to the frame.

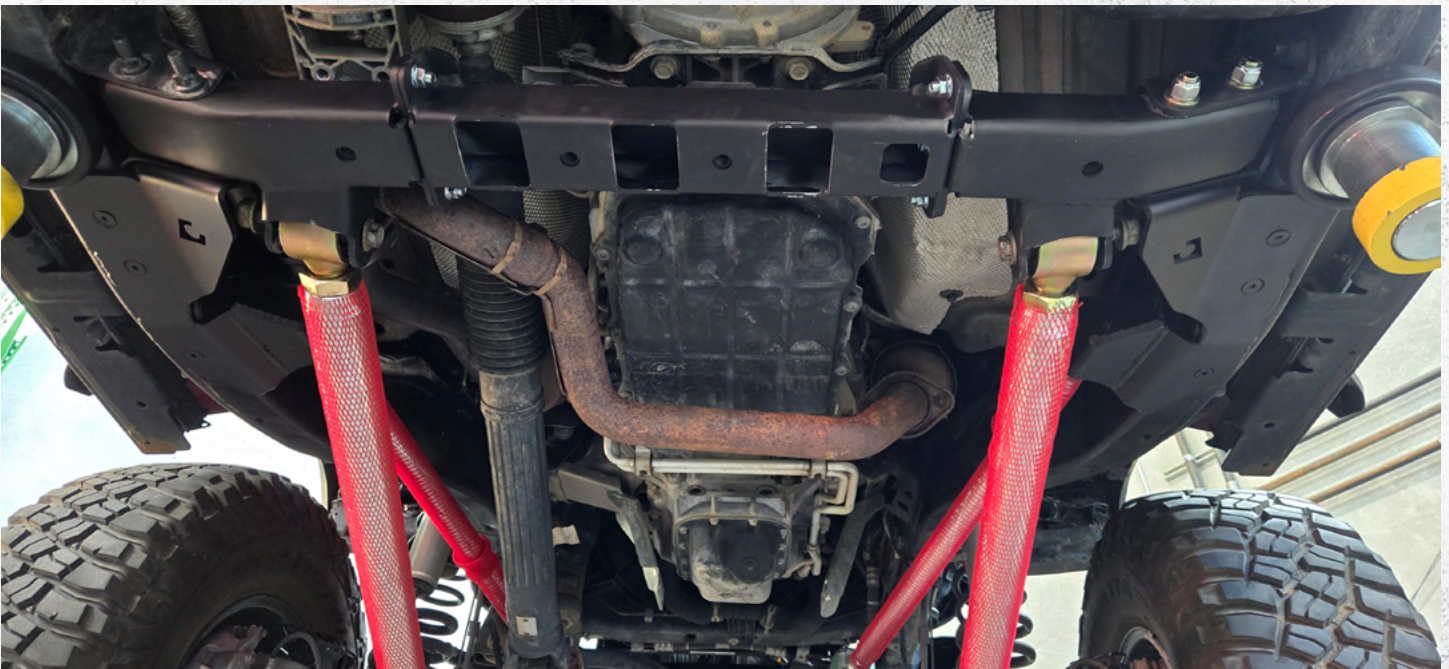
Avoid putting too much heat into the frame by utilizing a stitch welding method.

ASSEMBLY INSTRUCTIONAL GUIDE



Step 20:

After the welds have cooled, paint the brackets as well as any other exposed metal.



Step 21:

Install your upper and lower control arms, the upper control arms will use two grade 8 1/2" x 3.5" with four washers and two grade 8 1/2" nylon lock nuts, the lowers will use two flanged M16 bolts with M16 nuts.

ASSEMBLY INSTRUCTIONAL GUIDE

Vehicle will need an alignment after the installation is complete.

Front control arm lengths:

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

LOWERS: 40"

UPPERS: 33.8"

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



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

CONCLUSION

Congratulations on finishing the installation for your Artec Industries JL/JT FRONT 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.

Now take your vehicle out and enjoy the outdoors in confidence.

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.