

Jeep XJ and MJ Long Arm Kit Installation Instructions

Control Arm Hardware

- (4) 9/16" x 4" bolts
- (8) 9/16" washers
- (4) 9/16" top-lock nuts
- (2) 10mm x 80mm bolts
- (4) 10mm washers
- (2) 10mm top-lock nuts
- (2) 1/2" x 3.5" bolts
- (2) 1/2" washers

Bracket Hardware

- (2) 5/8" x 6" bolts
- (2) 5/8" x 1.5" bolts
- (6) 5/8" washers
- (2) 5/8" top-lock nuts
- (2) 5/8" nut tabs
- (4) 10mm x 35mm
- (8) 10mm washers
- (4) 10mm top-lock nuts
- (4) 9/16" x 2" bolts
- (8) 9/16" washers
- (4) 9/16" top-lock nuts

Torque Specs:

- 5/8": 165 ft-lbs
- 9/16": 125 ft-lbs
- 1/2": 90 ft-lbs
- 12mm: 65 ft-lbs
- 10mm: 55 ft-lbs

Required Tools

- Basic hand tools
- Torque Wrench
- Tools to torque down jam nuts can be an adjustable wrench or appropriate-sized crow foot adapters.
- Sawsall or a grinder with a cut-off wheel
- Safety Glasses
- 5/8" drill bit

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Installation Notes:

- We leave the grease fittings out of our control arm when we assemble them so that they do not break off during shipping. They are tapered fittings and may not sit flush with the sleeve on the control arm. Do not force the grease fitting to be flush as it might break the fitting off in the sleeve resulting in needing to extract the broken part or to send it back in to us to repair the threads.
- The installation of the long arm brackets involves cutting off the factory control arm mounts on the frame rails. If you have any questions or concerns, please reach out to us before starting the installation for questions or assistance.
- The MJ long arm frame brackets have different cut outs from the XJ frame brackets to fit around contours and features of the frame. Other than that, the installation process is the same between the MJ and XJ.
- The bend in the lower control arms can go either up or down. If you install the arm with the bend up, you can increase your ground clearance but you might need to clear the lower control arm mount on the axle to fit if you do a lot of extreme flexing.
- When ordering the kit, you have the option of purchasing axle side upper control arm bushing upgrades. These upgrades include a poly bushing or a Johnny Joint upgrade. Installation help for both of those options will be listed below.
- When installing the new cross member, keep the cross member to frame bracket bolts loose so you can align your transmission mount. Once the mount is bolted to the cross member, tighten down the cross member to frame bracket bolts.
- We do not have length charts for this kit because there is enough deviation on where the frame brackets can be bolted. Please call in if you have any questions on where to start your control arms or how to start finding control arm lengths. A rough starting length for a 4" lift are 31" bolt-to-bolt for the lower control arms and 32.75" bolt-to-bolt for the upper control arms. The upper control arms are measured from the inside of the control arm, or the inside of the bend.
- Ensure that your vehicle set up is stable and secure as you will be doing a lot of work under the vehicle and you want to prevent it from shifting while you are working.
- You will need to support the frame and the front axle separately. Be careful where you put your jack stands or lift points as you don't want to interfere with the frame bracket installation.
- Our kit is designed to work with frame stiffeners. The crossmember bolt holes on the frame brackets are slotted to allow for the brackets to move in or out on the frame to account for the thickness of your frame stiffeners. However, you cannot use the same bolt holes as intended with frame stiffeners, so you might need to weld or attach them a different way. Give us a call or an email if you have any questions on how the brackets will work on your application.



Installation Instructions

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Control Arm Identification

Frame Brackets and Crossmember Installation Guide

- 1) Raise and support the vehicle from the frame away from where you are going to be working. You will be removing the factory crossmember and installing new frame brackets and crossmember.
- 2) Support the front axle and remove the front four control arms.
- 3) With the front control arms removed, you can start with clearing up the frame and prepping the bracket installation.
- 4) With a cutting tool, start cutting the lower control arm brackets off of the frame. We recommend cutting them out in sections instead of trying to get the entire bracket in one piece. When cutting the inside of the drivers side lower control arm bracket, watch out for the fuel lines running along the inside of the frame rail.
- 5) While cutting the lower control arm mount on the passengser side frame rail, you might need to cut down the inside of the frame rail for upper control arm clearance. The passengser side control arm bracket has some side bracing that can interfere with the travel of the new long arm upper control arm.
- 6) Once both lower control arm brackets are cut and trimmed, we recommend using some spray paint or rust sealer to prevent any rust starting from the freshly cut metal.
- 7) Support the transercase on the transmission and remove the factory cross member. If you let the transmission hang after the removal, it can cause damage to the motor mounts and make reassembly harder.
 - a) Some XJ's came from factory with a stud and a nut on the cross member. If that is the case on your Jeep, remove the factory stud as you will be using one of the bolts that we provided in the hardware kit. Do not cut the stud off as that will block a threaded hole and you will need to use an extractor kit to remove the cut stud.
- 8) Test fit the new frame brackets with the control arm mounts facing towards the front of the Jeep and the slotted crossmember bolt holes towards the back of the Jeep.
- 9) The upper control arm mounts are on the top of the bracket and some trimming on the inside of the frame might necessary to allow the bracket to sit flush on the frame and lign up with the factory cross member bolt holes.
- 10) Once the bracket can fit flush with the frame, install the two 10mm x 35mm bolts into the factory cross member holes and mark out the two $\frac{5}{8}$ " holes that need to be drilled into the side of the frame.
 - a) Only the rear hole in the bracket needs to be drilled all the way through the frame while the front hole will use a welded nut tab and only needs to be drilled through the one side of the frame.
 - b) You can use the bracket as a drill guide to ensure your holes are drilled in the right spot and are drilled straight. We don't recommend that as it can damage the powder coating and introduce another point for rust to start.
- 11) Once the two $\frac{5}{8}$ " holes are drilled and deburred, you can install the frame brackets onto the vehicle. The $\frac{5}{8}$ " x 1.5" bolt and nut tab will be installed in the forward most hole and the $\frac{5}{8}$ " by 6" bolt will be installed in the rear hole.

- a) The $\frac{5}{8}$ " welded nut tab will be slid into a slot on the frame that is in front of the frame bracket. The nut tab has a 90 degree bend on the tang to grab inside the slot for easier installation and torquing.
 - b) There is a large spacer with a $\frac{5}{8}$ " through hole included in the hardware kit. That spacer is used on the $\frac{5}{8}$ " x 6" bolt on the inside of the frame rail to help with dispersing the load of the torqued bolt and to help prevent the frame from buckling in that area.
- 12) Torque all the bolts down to the proper torque specs listed above.
- 13) Align and bolt your new crossmember up to the transmission mount. The new crossmember can be installed in either direction so you don't need to worry about finding the "front" of the crossmember.
- 14) Ensure that your transmission is still in the correct spot and that it didn't shift to one side while the old crossmember was out. Once the transmission is in the correct spot, install the four 9/16"x2" bolts that hold the crossmember to the frame brackets.
- 15) Torque down all crossmember bolts down to the factory specs and to the specs listed above.
- 16) Once all bolts are torqued down to spec, the bracket installation is completed and you can move onto the control arm installation.

Control arm Installation

1. Install the upper control arm into the frame bracket and then onto the axle bushing. To do this, you might need to thread the control arm over the front axle and then into the control arm mount.
2. The frame side of the upper control arm needs to have the Johnny Joint installed with the grease fitting pointed upwards to prevent it from hitting and breaking on the frame bracket. Use the provided $\frac{1}{2}$ " x 3.5" bolt and washer to bolt in the control arm.
3. Use the provided 10mm x 80mm bolt, washers, and nut to bolt the control arm onto the axle side upper bushings.
 - a. If you are using the axle side upper bushing poly upgrade or the Johnny Joint Tombstone upgrade, refer to page 7 for further details.
4. Depending on your application, you can bolt the lower control arms with the bend down or up. If you are going for more clearance while off-roading, we recommend having the bend installed upwards.
 - a. Note: when installing the control arm with the bend upwards, you might need to trim the axle side lower control arm mount if you are lifted over 5". At full droop there is a chance that the control arm can hit the axle side control arm bracket and interfere with the articulation of the Jeep.
5. Install the lower control arm with the adjustable Johnny Joint at the frame and the fixed end at the axle using the supplied 9/16" x 4" bolts, washers, and nuts.
6. Torque down all bolts to the provided torque specs listed above.
7. Torque down all jam nuts to the provided torque specs listed above.
 - a. Ensure that the threads underneath the jam nuts are clean from any oils or anti-seize. Any oils or anti-corrosive materials can prevent the jam nut from staying tight and can introduce damage the adjustable ends of the control arm once the jam nut comes loose. You can use loc-tite if desired, but it is not necessary to keep the jam nuts from moving after they are torqued to the correct spec. Damage caused by loose jam nuts are not directly covered under our warranty as that damage is preventable during the regular maintenance of the control arms.
8. Grease all the pivoting ends with the correct grease. Drive the Jeep for 50-100 miles and recheck the torque on all the bolts for the control arms and brackets.
 - a. The road vibrations, drivetrain vibrations, and bumps from off-roading (NVH) can cause hardware to come loose over time or come loose if they were not tightened to the correct spec. Ensuring that everything stays tight is part of the regular maintenance of the Jeep.
 - b. You can use something like a paint pen to mark the bolts to quickly check if anything has moved during the regular maintenance on your Jeep.

Upper Control Arm Axle Bushing Mount Upgrades

- If you purchased the poly bushing upgrade for the axle upper control arm mount, the replacement poly bushing only replaced the rubber insert and not the entire rubber bushing. The factory rubber bushing comes with a outer metal sleeve that the new poly bushing will be installed into. There are many ways to remove the old rubber insert from pressing it out, cutting it out, drilling it out, or melting/burning it out.
- When installing the new poly bushing into the old rubber bushing metal housing, you will need to grease the outside and inside of the poly bushing so it does not get installed dry, causing the bushing to prematurely fail.
- If you purchased the Johnny Joint Tombstone upgrade, cutting and welding will be required to get them installed. Rock Jock instructions can be found on our website or on rockjock4x4.com under the part number on the Johnny Joint Tombstone box.
- The Johnny Joint upgrade can come with either a 10mm bolt or a 12mm bolt size. When you select which one you want, we will match the u-bracket bolt hole to that kit so you don't have to drill out the u-bracket and it will bolt right up.