

INSTALLATION MANUAL:

COR-1709100 / 1809100

Jeep Wrangler OVERLAND+ and PREMIUM
Short Front Lower Control Arms (2018+, JL/JT)



INCLUDED ITEMS

1709100 Jeep Wrangler OVERLAND+ Short Front Lower Control Arms - (2018+, JL/JT)

QTY	Part Number	Description	Class/Grade
2	1709100	Short Front Lower Control Arms	N/A
2	0128792	M12-1.75 x 70mm Yellow Zinc Finish Hex Cap Screw	Class 10.9
2	90683	M12-1.75 DIN 980 Zinc Finish Steel Top Lock Nut	Class 10
4	11103710	M12 x 24mm OD Yellow Zinc Finish Steel Flat Washer	N/A
2	32448	5/16"-18 x 3/4" Hex Washer Head Thread Rolling Screw	N/A

COR-1709100



1809100 Jeep Wrangler PREMIUM Short Front Lower Control Arms - (2018+, JL/JT)

QTY	Part Number	Description	Class/Grade
2	1809100	Short Front Lower Control Arms	N/A
2	0128792	M12-1.75 x 70mm Yellow Zinc Finish Hex Cap Screw	Class 10.9
2	90683	M12-1.75 DIN 980 Zinc Finish Steel Top Lock Nut	Class 10
4	11103710	M12 x 24mm OD Yellow Zinc Finish Steel Flat Washer	N/A
2	32448	5/16"-18 x 3/4" Hex Washer Head Thread Rolling Screw	N/A

Product Notes and Features:

OVERLAND+ Series:

- Maintenance-free, dual-durometer design isolates road noise for a quieter ride.
- Self-centering with 26.6 degrees of total articulation, ensuring smooth suspension movement.
- Teflon-infused inner surface acts as a bearing for long-lasting performance.

PREMIUM Series:

- Reliable, greaseable, and rebuildable design for unmatched comfort and reliability
- 40 degrees of total misalignment, performing best in off-road conditions
- Smooth and quiet performance

COR-1809100



CONTROL ARM OVERVIEW

Please review the following information so you can become familiar with our purchasable options



OVERLAND PLUS

Designed for the daily driver/weekend warrior. Features dual-durometer, maintenance-free bushings for comfort on-road and capability on the trails. One of our two available suspension systems that utilize a unique arm design for perfecting suspension geometry. Fully adjustable, 100% bolt on, and Made-In-The-USA with a Lifetime Warranty.



PREMIUM SERIES

Designed for the off-road enthusiast. Features both maintenance-free bushings and forged Johnny Joint adjusters for maximum versatility and flex. One of our two available suspension systems that utilize a unique arm design for perfecting suspension geometry. Fully adjustable, 100% bolt on, and Made-In-The-USA with a Lifetime Warranty.

DISCLAIMER

WARNING:

Suspension systems and their components are designed to enhance your vehicle's off-road performance. This may cause your vehicle to handle differently, on and off-road. Always wear your seatbelt and take extra care when driving a modified vehicle. Failure to do so can result in loss of control which may result in a rollover causing serious injury, or even death to the driver and/or passengers of the vehicle. Regular maintenance and consistent inspections are required to keep your modified vehicle safe and functioning properly. These suspension systems and any components should be installed by certified technicians only. Attempts to install these products without proper knowledge can lead to poor performance, or possible failure, which may jeopardize the safety of the vehicle and its passengers. The installer is responsible for proper installation ensuring a safe and properly functioning vehicle. Take extra care when operating a modified vehicle and thoroughly inspect your vehicle before and after every off-road use.

Read the instruction set in its entirety before attempting the installation.

NOTE:

This product may require general welding, fabrication, and automotive mechanic skills. Welding should only be done by a competent welder. Clayton Off Road implies no guarantees or warranties and is not liable for improper installation. Some grinding and fitment may be required when installing this product. Every vehicle varies slightly, and some fabrication and/or modification may be required.

ATTENTION:

It is the customer's responsibility to thoroughly inspect all received parts to ensure they are assembled correctly and fully welded. Please carefully examine all weld seams and verify that bolt-through holes are properly aligned. Some Clayton Off Road products are permanent, non-removable, weld-on solutions. **If a defect or issue is found after installation, especially with permanent weld-on components, it may be difficult or impossible to correct.** Inspecting the part(s) received beforehand helps prevent unnecessary and avoidable complications.

ATTENTION: TORQUE SPECIFICATION

When working on any vehicle, it is good practice to torque suspension/weight-bearing components while the vehicle is resting under its load. This instruction set, as well as any other Clayton Off Road instruction set, assumes the installer will tighten any suspension-related components properly, to the recommended torque specification, when the vehicle is resting safely under its own weight.

INSTALLATION INSTRUCTIONS

Take this product to a licensed professional if you are hesitant about the installation process!

The following instructions apply to the listed components below:

- Short Front Lower Control Arms (OVERLAND+ or PREMIUM)

This guide applies to both OVERLAND+ or PREMIUM Control Arms, unless noted otherwise.

We strongly recommend having basic mechanic's hand tools, sockets, wrenches, vehicle jacks and stands, and other common tools readily available. Installing an aftermarket lift kit is a detailed process, and having the right tools on hand will ensure a smoother installation.

As always, feel free to contact us at any point during your installation - you can count on us to help!

COR-1709100

1709100 Installation Tools Required:

- 15, 19, 21, 24mm socket/wrench
- 3/4" socket/wrench
- Impact drill
- Vehicle jack and stands
- Torque wrench
- Large adjustable wrench (OR 1-7/8")

COR-1809100

1809100 Installation Tools Required:

- 15, 19, 21, 24mm socket/wrench
- 3/4" socket/wrench
- Impact drill
- Vehicle jack and stands
- Torque wrench
- Large adjustable wrench (OR 1-7/8")

Supplied M12 hardware is for replacing the OEM front lower shock bolt

CONTROL ARM LENGTHS

Please refer to Table 1 below for minimum and maximum control arm lengths. These lengths are absolute and should only serve as limits for axle positioning and dialing in pinion/caster angle. **All the following measurements are given as “eye-to-eye” lengths (center-to-center of joints).** Do not exceed the maximum lengths recommended for any suspension component. Should you require custom control arms with unique lengths, please contact us.

Please note that your exact arm length will vary by lift height. Refer to Table 2 for recommended starting points based off your lift height. These are **NOT** intended as final measurements. Due to many variables, final adjustments should be made once all components are installed, then fine-tuned for your specific vehicle.

Table 1: COR-1709100 / 1809100 Minimum and Maximum Arm Lengths

Control Arm Type / Series	Minimum	Maximum
1709100 OVERLAND+ Short Front Lower Arms	$23 - \frac{7}{8}$ ”	$25 - \frac{9}{16}$ ”
1809100 PREMIUM Short Front Lower Arms	24”	$24 - \frac{7}{8}$ ”

Table 2: COR-1709100 / 1809100 Arm Lengths by Lift Height

Vehicle Make/Model/Year	1.5” Lift	2.5” Lift	3.5” Lift	4.5” Lift
4-Door Jeep JL/JT (2018+)	$24 - \frac{3}{16}$ ”	$24 - \frac{5}{16}$ ”	$24 - \frac{1}{2}$ ”	$24 - \frac{3}{4}$ ”
2-Door Jeep JL (2018+)	$24 - \frac{3}{16}$ ”	$24 - \frac{5}{16}$ ”	$24 - \frac{1}{2}$ ”	$24 - \frac{3}{4}$ ”

INSTALLATION INSTRUCTIONS

*****Take this product to a licensed professional if you are hesitant about the installation process!*****

*****Remove the tires and jack the vehicle on stands for easy wheel-well access*****

1. Use a vehicle jack to lift the front axle off the ground. Support the axle on either side with an adjustable, self-locking jack stand.

Using a 15mm socket, remove the OEM brake line bracket from the front lower control arms. Remove the bracket on both sides.



Jeep JL on two-post lift for installation



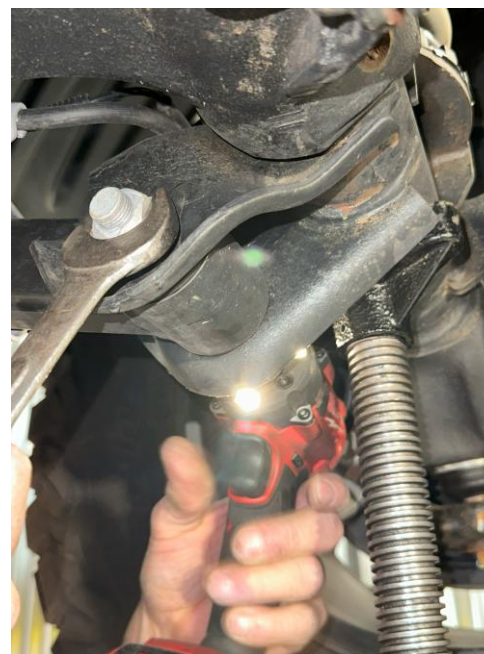
Brake line bracket removed on driver side

INSTALLATION INSTRUCTIONS

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Remove the tires and jack the vehicle on stands for easy wheel-well access

- Using a 21mm and 24mm socket/wrench, remove the lower control arm bolt at the frame-end. Then, move to the axle-side bolt and remove it as well.

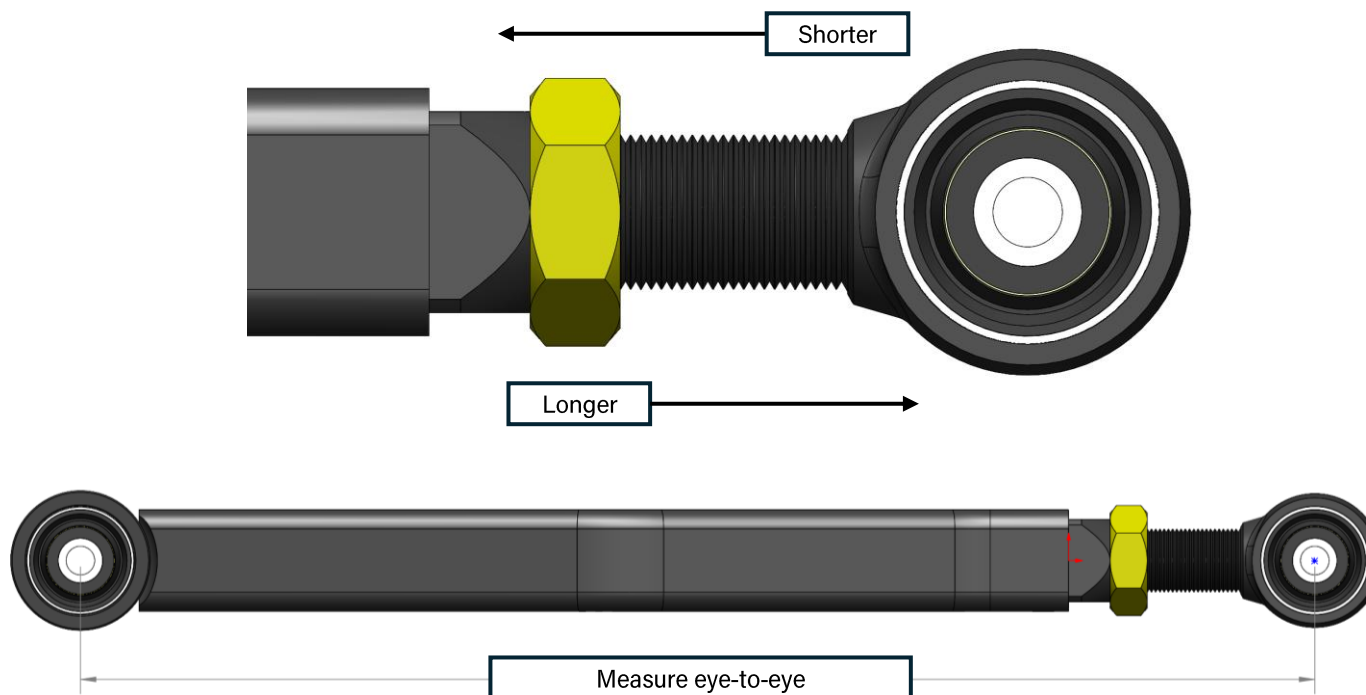


Lower control arm bolts

INSTALLATION INSTRUCTIONS

3. Determine the appropriate length of the new front lower control arms based on your vehicle's ride height and your desired pinion and caster angles. Use the lengths provided at the beginning of these instructions as a starting point.

Adjust the end-forging by screwing it in or out. **Measure the length from eye-to-eye, or center of bushing to center of bushing.** When the desired length is met, spin the jam nut down to the control arm to lock the forging into position.

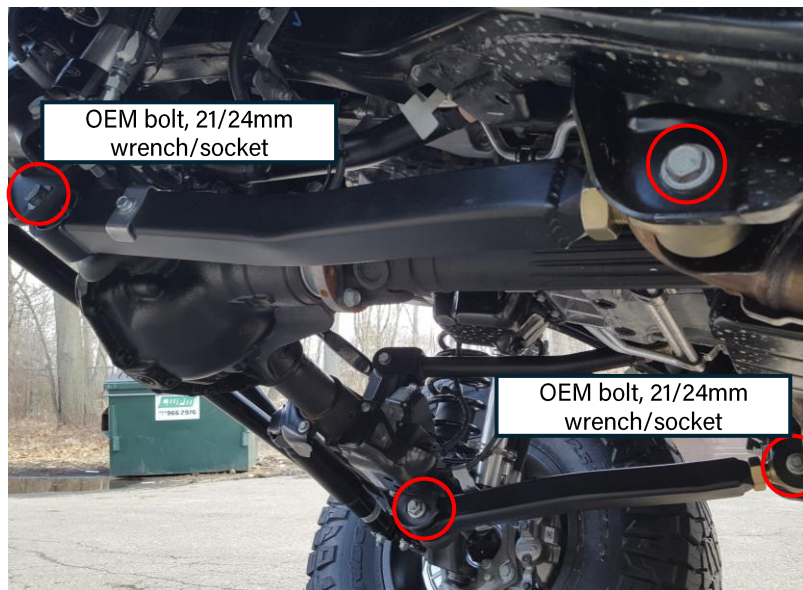


INSTALLATION INSTRUCTIONS

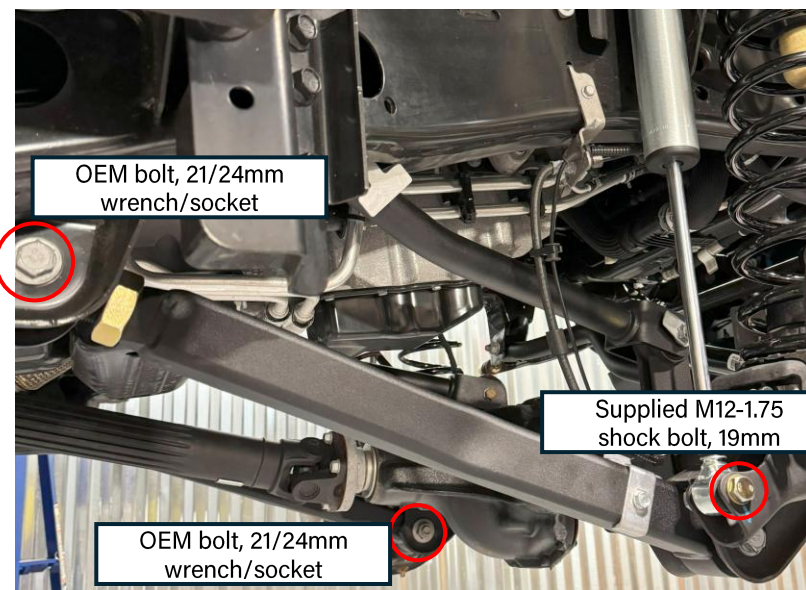
4. Install the lower control arm with the adjuster end at the frame-end. Use factory hardware, unless noted otherwise. **Install the control arm with the bend providing clearance for the tire.** See photos below for proper control arm orientation. Tighten the hardware, but do not torque yet.

HARDWARE NOTE

Some older JL/JT models came with a long lower shock bolt from the factory, which may interfere with the new Clayton Off Road Lower Control Arms. Use the supplied M12 bolt and hardware to replace the OEM shock bolt before continuing. See photo below. Install the shock bolt with the bolt head facing the tire.



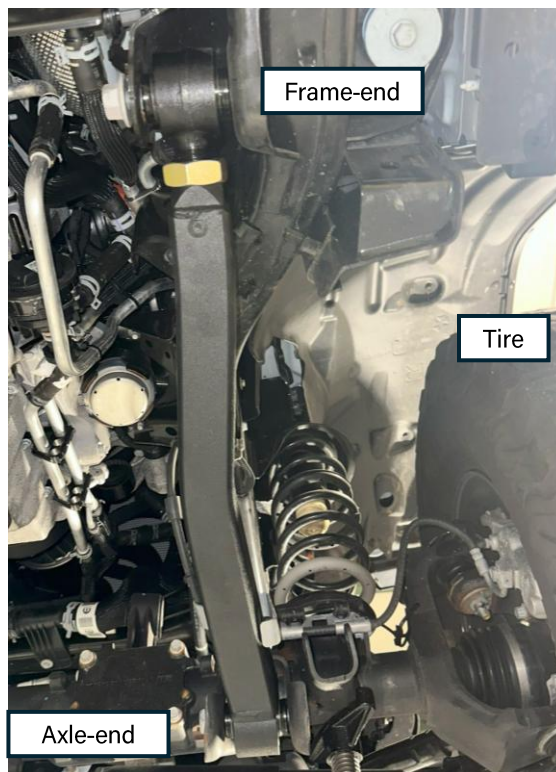
1809100 (PREMIUM Series) Front lower control arm installed



1709100 (OVERLAND+ Series) Front lower control arm installed, and supplied lower shock bolt

INSTALLATION INSTRUCTIONS

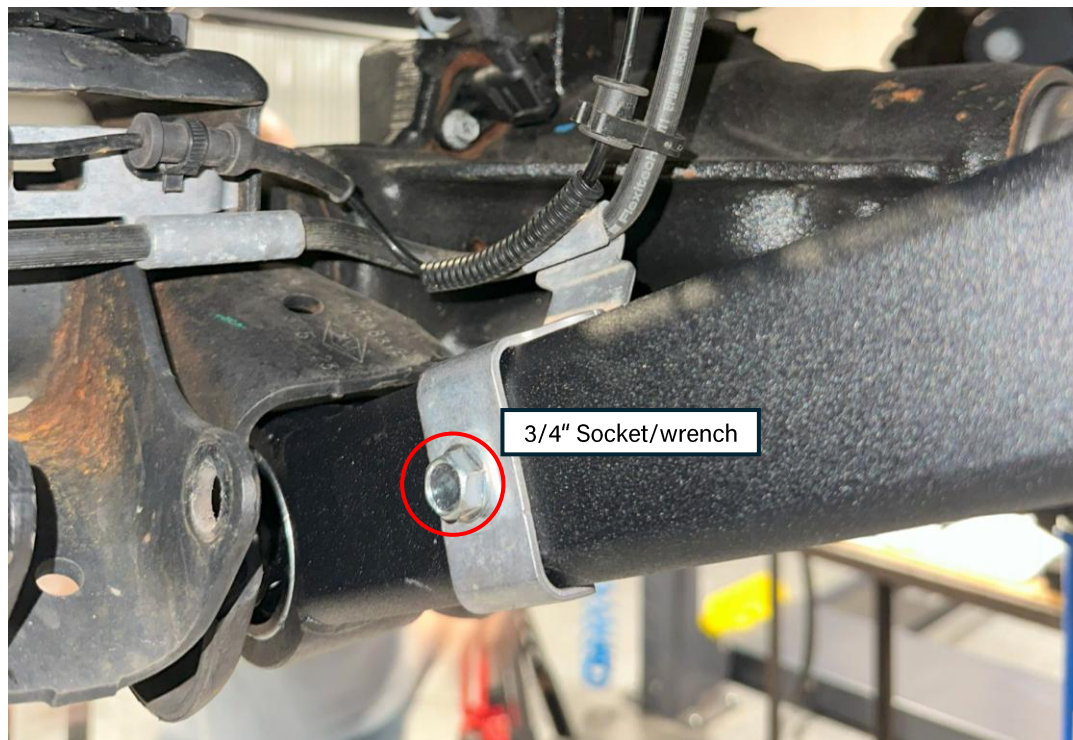
5. Repeat Steps 1-4 for the other arm. Make sure that the lower arms are the same length. Also, verify that the bend in the arm is providing clearance for the tire, as seen below. Finally, confirm that the adjuster is at the frame-end, not the axle-end.



1709100 (OVERLAND+ Series) Front lower control arm installed, passenger-side

INSTALLATION INSTRUCTIONS

6. Reinstall the brake line brackets on the new Clayton Off Road Control Arms. Use the supplied self-tapping 5/16" hardware to tighten the brackets into place on the arm with a 3/4" socket/wrench. See the photo below.



1709100 (OVERLAND+ Series) Front lower control arm installed, driver side, with brake line bracket

INSTALLATION INSTRUCTIONS

7. Return the vehicle to the ground. Torque both lower control arm bolts to **190 ft-lbs using a torque wrench.**



1708100 (OVERLAND+ Series) Front lower control arm installed on Jeep JT

INSTALLATION INSTRUCTIONS

8. Tighten down the jam nuts on the upper and lower control arms. Use a 1-7/8" wrench for the lower control arm jam nuts, and a 1-1/2" wrench for the upper control arm jam nuts. Use a breaker bar to gain additional leverage. Tighten all jam nuts down as tight as humanly possible.

Please note that not all wrenches are created with the same tolerances. If your wrenches are too loose around the jam nut, Clayton Off Road offers tight, wrap-around wrenches for purchase. Please search for the wrenches using the SKU's below.



COR Wrench-ends for control arm jam nuts (COR-2500125, COR-2500100)

INSTALLATION INSTRUCTIONS

9. The installation is now complete. Please follow the post-installation checklist below before driving your vehicle.



POST-INSTALLATION CHECKLIST:

- Front lower control arm bolts (axle and frame) are torqued to 190ft-lbs
- Lug nuts are torqued to the manufacturer's specification (if removed)
- Jam nuts are jammed down as tight as possible
- The vehicle is properly aligned by a professional for adjusting your caster and aligning the suspension

