#### **INSTALLATION MANUAL:**

JEEP WRANGLER LONG ARM LIFT KIT SYSTEM,
OVERLAND+ & PREMIUM SERIES, 2018+ JL





\*\*\*Please review the following item list for your purchased kit so you can become familiar with the included items\*\*\*

| 3409025 Jeep Wrangler Overland+ 2.5" Long Arm Lift Kit (2018+, JL) |  |
|--|--|
| SKU  | Description  |
| 1508250  | Jeep Wrangler 2.5" Front Coil Springs (2018+, JL-V6 GAS, I4 TURBO, I4 4XE) |
| 1509251  | Jeep Wrangler 2.5" Dual Rate Rear Coil Springs (2018+, JL)                 |
| 4509100  | Jeep Wrangler Adjustable Front Track Bar (2018+, JL/JT)                    |
| 4509110  | Jeep Wrangler Adjustable Rear Track Bar (2018+, JL)                        |
| 1709101  | Jeep Wrangler OVERLAND+ Short Front Upper Control Arms (2018+, JL/JT)      |
| 1909010  | Jeep Wrangler OVERLAND+ Long Front Lower Control Arms (2018+, JL/JT)       |
| 1909020  | Jeep Wrangler OVERLAND+ Long Rear Lower Control Arms (2018+, JL)           |
| 1909030  | Jeep Wrangler OVERLAND+ Long Rear Upper Control Arms (2018+, JL)           |
| 2209200  | Jeep Wrangler Rear Long Arm Frame Brackets (2018+, JL)                     |
| 1309100  | Jeep Wrangler HD Front Brake Lines- Dual Piston Caliper (2018+, JL/JT)     |
| 1309102  | Jeep Wrangler Rear Brake Lines (2018+, JL)                                 |
| 1309502  | Jeep Wrangler Parking Brake Cable Relocation Bracket (2018+, JL)           |
| 1408100  | Jeep Wrangler 3 1/4" Tall Front Bump Stops (2007-2018, JK/JL/JT)           |
| 1409200  | Jeep Wrangler 3.0" Rear Bump Stops (2018+, JL)                             |
| 2209100  | Jeep Wrangler Front Long Arm Frame Brackets (2018+, JL/JT)                 |
| 5109100  | Jeep Wrangler Adjustable Front Sway Bar End Links (2018+, JL/JT)           |
| 5109110  | Jeep Wrangler Adjustable Rear Sway Bar End Links (2007+, JK/JL)            |

\*\*\*Please review the following item list for your purchased kit so you can become familiar with the included items\*\*\*

| 34090   | 35 Jeep Wrangler Overland+ 3.5" Long Arm Lift Kit (2018+, JL)              |
|---------|--|
| SKU     | Description  |
| 1508350 | Jeep Wrangler 3.5" Front Coil Springs (2018+, JL-V6 GAS, I4 TURBO, I4 4XE) |
| 1509351 | Jeep Wrangler 3.5" Dual Rate Rear Coil Springs (2018+, JL)                 |
| 4509100 | Jeep Wrangler Adjustable Front Track Bar (2018+, JL/JT)                    |
| 4509110 | Jeep Wrangler Adjustable Rear Track Bar (2018+, JL)                        |
| 1709101 | Jeep Wrangler OVERLAND+ Short Front Upper Control Arms (2018+, JL/JT)      |
| 1909010 | Jeep Wrangler OVERLAND+ Long Front Lower Control Arms (2018+, JL/JT)       |
| 1909020 | Jeep Wrangler OVERLAND+ Long Rear Lower Control Arms (2018+, JL)           |
| 1909030 | Jeep Wrangler OVERLAND+ Long Rear Upper Control Arms (2018+, JL)           |
| 2209200 | Jeep Wrangler Rear Long Arm Frame Brackets (2018+, JL)                     |
| 1309100 | Jeep Wrangler HD Front Brake Lines- Dual Piston Caliper (2018+, JL/JT)     |
| 1309102 | Jeep Wrangler Rear Brake Lines (2018+, JL)                                 |
| 1309502 | Jeep Wrangler Parking Brake Cable Relocation Bracket (2018+, JL)           |
| 1408100 | Jeep Wrangler 3 1/4" Tall Front Bump Stops (2007-2018, JK/JL/JT)           |
| 1409200 | Jeep Wrangler 3.0" Rear Bump Stops (2018+, JL)                             |
| 2209100 | Jeep Wrangler Front Long Arm Frame Brackets (2018+, JL/JT)                 |
| 5109100 | Jeep Wrangler Adjustable Front Sway Bar End Links (2018+, JL/JT)           |
| 5109110 | Jeep Wrangler Adjustable Rear Sway Bar End Links (2007+, JK/JL)            |

\*\*\*Please review the following item list for your purchased kit so you can become familiar with the included items\*\*\*

| 3409325 Jeep Wrangler 392 V8 HEMI Overland+ 2.5" Long Arm Lift Kit (2021-2025, JL) |  |
|--|--|
| SKU  | Description  |
| 1508350  | Jeep Wrangler 3.5" Front Coil Springs                                  |
| 1509251  | Jeep Wrangler 2.5" Dual Rate Rear Coil Springs (2018+, JL)             |
| 4509100  | Jeep Wrangler Adjustable Front Track Bar (2018+, JL/JT)                |
| 4509110  | Jeep Wrangler Adjustable Rear Track Bar (2018+, JL)                    |
| 1709101  | Jeep Wrangler OVERLAND+ Short Front Upper Control Arms (2018+, JL/JT)  |
| 1909010  | Jeep Wrangler OVERLAND+ Long Front Lower Control Arms (2018+, JL/JT)   |
| 1909020  | Jeep Wrangler OVERLAND+ Long Rear Lower Control Arms (2018+, JL)       |
| 1909030  | Jeep Wrangler OVERLAND+ Long Rear Upper Control Arms (2018+, JL)       |
| 2209200  | Jeep Wrangler Rear Long Arm Frame Brackets (2018+, JL)                 |
| 1309100  | Jeep Wrangler HD Front Brake Lines- Dual Piston Caliper (2018+, JL/JT) |
| 1309103  | Jeep Wrangler Rear Brake Lines (2018+, 392, 4xE, XR)                   |
| 1309502  | Jeep Wrangler Parking Brake Cable Relocation Bracket (2018+, JL)       |
| 1409101  | Jeep Wrangler 1.25" Tall Front Bump Stops (2007-2020, JK/JL/JT)        |
| 1409201  | Jeep Wrangler 1-2" Tall Rear Bump Stops (2018+, JL)                    |
| 2209110  | Jeep Wrangler Front 392 V8 HEMI Long Arm Frame Brackets (2021+, JL)    |
| 5109100  | Jeep Wrangler Adjustable Front Sway Bar End Links (2018+, JL/JT)       |
| 5109110  | Jeep Wrangler Adjustable Rear Sway Bar End Links (2007+, JK/JL)        |



\*\*\*Please review the following item list for your purchased kit so you can become familiar with the included items\*\*\*

| 3409335 Jeep Wrangler 392 V8 HEMI Overland+ 3.5" Long Arm Lift Kit (2021-2025, JL) |  |
|--|--|
| SKU  | Description  |
| 1508450  | Jeep Wrangler 4.5" Front Coil Springs                                  |
| 1509351  | Jeep Wrangler 3.5" Dual Rate Rear Coil Springs (2018+, JL)             |
| 4509100  | Jeep Wrangler Adjustable Front Track Bar (2018+, JL/JT)                |
| 4509110  | Jeep Wrangler Adjustable Rear Track Bar (2018+, JL)                    |
| 1709101  | Jeep Wrangler OVERLAND+ Short Front Upper Control Arms (2018+, JL/JT)  |
| 1909010  | Jeep Wrangler OVERLAND+ Long Front Lower Control Arms (2018+, JL/JT)   |
| 1909020  | Jeep Wrangler OVERLAND+ Long Rear Lower Control Arms (2018+, JL)       |
| 1909030  | Jeep Wrangler OVERLAND+ Long Rear Upper Control Arms (2018+, JL)       |
| 2209200  | Jeep Wrangler Rear Long Arm Frame Brackets (2018+, JL)                 |
| 1309100  | Jeep Wrangler HD Front Brake Lines- Dual Piston Caliper (2018+, JL/JT) |
| 1309103  | Jeep Wrangler Rear Brake Lines (2018+, 392, 4xE, XR)                   |
| 1309502  | Jeep Wrangler Parking Brake Cable Relocation Bracket (2018+, JL)       |
| 1409101  | Jeep Wrangler 1.25" Tall Front Bump Stops (2007-2020, JK/JL/JT)        |
| 1409201  | Jeep Wrangler 1-2" Tall Rear Bump Stops (2018+, JL)                    |
| 2209110  | Jeep Wrangler Front 392 V8 HEMI Long Arm Frame Brackets (2021+, JL)    |
| 5109100  | Jeep Wrangler Adjustable Front Sway Bar End Links (2018+, JL/JT)       |
| 5109110  | Jeep Wrangler Adjustable Rear Sway Bar End Links (2007+, JK/JL)        |



\*\*\*Please review the following item list for your purchased kit so you can become familiar with the included items\*\*\*

| 3209025 Jeep Wrangler Premium 2.5" Long Arm Lift Kit (2018+, JL) |  |
|--|--|
| SKU  | Description  |
| 1508250  | Jeep Wrangler 2.5" Front Coil Springs (2018+, JL-V6 GAS, I4 TURBO, I4 4XE) |
| 1509251  | Jeep Wrangler 2.5" Dual Rate Rear Coil Springs (2018+, JL)                 |
| 4509100  | Jeep Wrangler Adjustable Front Track Bar (2018+, JL/JT)                    |
| 4509110  | Jeep Wrangler Adjustable Rear Track Bar (2018+, JL)                        |
| 1809101  | Jeep Wrangler Premium Short Front Upper Control Arms (2018+, JL/JT)        |
| 1909210  | Jeep Wrangler Premium Long Front Lower Control Arms (2018-2024+, JL/JT)    |
| 1909220  | Jeep Wrangler Premium Long Rear Lower Control Arms (2018+, JL)             |
| 1909230  | Jeep Wrangler Premium Long Rear Upper Control Arms (2018+, JL)             |
| 2209200  | Jeep Wrangler Rear Long Arm Frame Brackets (2018+, JL)                     |
| 1309100  | Jeep Wrangler HD Front Brake Lines- Dual Piston Caliper (2018+, JL/JT)     |
| 1309102  | Jeep Wrangler Rear Brake Lines (2018+, JL)                                 |
| 1309502  | Jeep Wrangler Parking Brake Cable Relocation Bracket (2018+, JL)           |
| 1408100  | Jeep Wrangler 3 1/4" Tall Front Bump Stops (2007-2018, JK/JL/JT)           |
| 1409200  | Jeep Wrangler Rear Bump Stops (2018+, JL)                                  |
| 2209100  | Jeep Wrangler Front Long Arm Frame Brackets (2018+, JL/JT)                 |
| 5109100  | Jeep Wrangler Adjustable Front Sway Bar End Links (2018+, JL/JT)           |
| 5109110  | Jeep Wrangler Adjustable Rear Sway Bar End Links (2007+, JK/JL)            |

\*\*\*Please review the following item list for your purchased kit so you can become familiar with the included items\*\*\*

| 3209035 Jeep Wrangler Premium 3.5" Long Arm Lift Kit (2018+, JL) |  |
|--|--|
| SKU  | Description  |
| 1508350  | Jeep Wrangler 3.5" Front Coil Springs (2018+, JL-V6 GAS, I4 TURBO, I4 4XE) |
| 1509351  | Jeep Wrangler 3.5" Dual Rate Rear Coil Springs (2018+, JL)                 |
| 4509100  | Jeep Wrangler Adjustable Front Track Bar (2018+, JL/JT)                    |
| 4509110  | Jeep Wrangler Adjustable Rear Track Bar (2018+, JL)                        |
| 1809101  | Jeep Wrangler Premium Short Front Upper Control Arms (2018+, JL/JT)        |
| 1909210  | Jeep Wrangler Premium Long Front Lower Control Arms (2018-2024+, JL/JT)    |
| 1909220  | Jeep Wrangler Premium Long Rear Lower Control Arms (2018+, JL)             |
| 1909230  | Jeep Wrangler Premium Long Rear Upper Control Arms (2018+, JL)             |
| 2209200  | Jeep Wrangler Rear Long Arm Frame Brackets (2018+, JL)                     |
| 1309100  | Jeep Wrangler HD Front Brake Lines- Dual Piston Caliper (2018+, JL/JT)     |
| 1309102  | Jeep Wrangler Rear Brake Lines (2018+, JL)                                 |
| 1309502  | Jeep Wrangler Parking Brake Cable Relocation Bracket (2018+, JL)           |
| 1408100  | Jeep Wrangler 3 1/4" Tall Front Bump Stops (2007-2018, JK/JL/JT)           |
| 1409200  | Jeep Wrangler Rear Bump Stops (2018+, JL)                                  |
| 2209100  | Jeep Wrangler Front Long Arm Frame Brackets (2018+, JL/JT)                 |
| 5109100  | Jeep Wrangler Adjustable Front Sway Bar End Links (2018+, JL/JT)           |
| 5109110  | Jeep Wrangler Adjustable Rear Sway Bar End Links (2007+, JK/JL)            |

\*\*\*Please review the following item list for your purchased kit so you can become familiar with the included items\*\*\*

| 3209325 Jeep Wrangler 392 V8 HEMI Premium 2.5" Long Arm Lift Kit (2021-2025, JL) |   |
|--|---|
| SKU  | Description   |
| 1508350  | Jeep Wrangler 3.5" Front Coil Springs                                   |
| 1509251  | Jeep Wrangler 2.5" Dual Rate Rear Coil Springs (2018+, JL)              |
| 4509100  | Jeep Wrangler Adjustable Front Track Bar (2018+, JL/JT)                 |
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| 1809101  | Jeep Wrangler Premium Short Front Upper Control Arms (2018+, JL/JT)     |
| 1909210  | Jeep Wrangler Premium Long Front Lower Control Arms (2018-2024+, JL/JT) |
| 1909220  | Jeep Wrangler Premium Long Rear Lower Control Arms (2018+, JL)          |
| 1909230  | Jeep Wrangler Premium Long Rear Upper Control Arms (2018+, JL)          |
| 2209200  | Jeep Wrangler Rear Long Arm Frame Brackets (2018+, JL)                  |
| 1309100  | Jeep Wrangler HD Front Brake Lines- Dual Piston Caliper (2018+, JL/JT)  |
| 1309103  | Jeep Wrangler Rear Brake Lines (2018+, 392, 4xE, XR)                    |
| 1309502  | Jeep Wrangler Parking Brake Cable Relocation Bracket (2018+, JL)        |
| 1409101  | Jeep Wrangler 1.25" Tall Front Bump Stops (2007-2020, JK/JL/JT)         |
| 1409201  | Jeep Wrangler 1-2" Tall Rear Bump Stops (2018+, JL)                     |
| 2209110  | Jeep Wrangler Front 392 V8 HEMI Long Arm Frame Brackets (2021+, JL)     |
| 5109100  | Jeep Wrangler Adjustable Front Sway Bar End Links (2018+, JL/JT)        |
| 5109110  | Jeep Wrangler Adjustable Rear Sway Bar End Links (2007+, JK/JL)         |



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| 3209335 Jeep Wrangler 392 V8 HEMI Premium 3.5" Long Arm Lift Kit (2021-2025, JL) |   |
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| SKU  | Description   |
| 1508450  | Jeep Wrangler 4.5" Front Coil Springs                                   |
| 1509351  | Jeep Wrangler 3.5" Dual Rate Rear Coil Springs (2018+, JL)              |
| 4509100  | Jeep Wrangler Adjustable Front Track Bar (2018+, JL/JT)                 |
| 4509110  | Jeep Wrangler Adjustable Rear Track Bar (2018+, JL)                     |
| 1809101  | Jeep Wrangler Premium Short Front Upper Control Arms (2018+, JL/JT)     |
| 1909210  | Jeep Wrangler Premium Long Front Lower Control Arms (2018-2024+, JL/JT) |
| 1909220  | Jeep Wrangler Premium Long Rear Lower Control Arms (2018+, JL)          |
| 1909230  | Jeep Wrangler Premium Long Rear Upper Control Arms (2018+, JL)          |
| 2209200  | Jeep Wrangler Rear Long Arm Frame Brackets (2018+, JL)                  |
| 1309100  | Jeep Wrangler HD Front Brake Lines- Dual Piston Caliper (2018+, JL/JT)  |
| 1309103  | Jeep Wrangler Rear Brake Lines (2018+, 392, 4xE, XR)                    |
| 1309502  | Jeep Wrangler Parking Brake Cable Relocation Bracket (2018+, JL)        |
| 1409101  | Jeep Wrangler 1.25" Tall Front Bump Stops (2007-2020, JK/JL/JT)         |
| 1409201  | Jeep Wrangler 1-2" Tall Rear Bump Stops (2018+, JL)                     |
| 2209110  | Jeep Wrangler Front 392 V8 HEMI Long Arm Frame Brackets (2021+, JL)     |
| 5109100  | Jeep Wrangler Adjustable Front Sway Bar End Links (2018+, JL/JT)        |
| 5109110  | Jeep Wrangler Adjustable Rear Sway Bar End Links (2007+, JK/JL)         |



#### **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.

#### **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 long 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 long arm design for perfecting suspension geometry. Fully adjustable, 100% bolt on, and Made-In-The-USA with a Lifetime Warranty.

\*\*\*Arms, frame brackets, and hardware are identical, meaning you can swap to a different series at any point\*\*\*

### FRONT-END INSTALLATION

The following instructions are a generic guide to installing the front-end components. Please navigate to a specific product page for more in-depth instructions if you require a more specific, step-by-step guide



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

#### The following instructions apply to the listed components below:

- Front Coil Springs (2.5" or 3.5")
- Front Adjustable Track Bar
- Front Control Arms (Overland+ or Premium)
- Front Long Arm Frame Brackets
- Front Bump Stops
- Front Sway Bar End Links

#### The following instructions provide a basic guide for installing the front-end components for the long-arm kit!

\*\*\*2.0L I4 JL owners may follow these instructions as a general guide, however additional steps may apply \*\*\*

\*\*\*The following steps apply to both 3.6 V6 and 392 V8 HEMI JL vehicles, unless noted otherwise\*\*\*

If you purchased single-arm sets, individual brackets, or an upgrade kit, your installation process may vary.

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!

#### **TOOLS REQUIRED FOR INSTALLATION**

- Basic hand tools
- Metric wrench/socket set Standard wrench/socket set

- Cut-off wheel or plasma cutter Large box wrenches Jack stands and/or vehicle lift

(10mm - 24mm) (7/16", 1/2", 9/16", 15/16")

(1-7/16", 1-7/8")

Position the vehicle either on the ground or on a lift. For this installation, it is recommended that the vehicle be supported by the frame. Support the front axle with two additional jack stands. Remove the front tires and disconnect the battery before welding. \*\*\*Photos of control arm adjusters in the following photos may not match your selected series, but the installation remains the same!\*\*\*



Figure 1: Vehicle supported by lift and jack stands

2. Remove the factory front sway bar end-links. The socket size may vary depending on which vehicle, year, or aftermarket components you may already have installed. Put the passenger axle hardware aside and tuck the sway bar up and out of the way.







Figure 2: Front passenger and driver-side sway bar end link to be removed, with sway bar tucked up and away

3. Remove the front factory track bar. Start with the frame bracket bolt (21mm) and then the axle bolt (21mm). Remove the differential sensor plastic push-clip out of the upper factory control arm. Put the hardware aside, as it will be reused.







Figure 3: Front factory track bar bolt at frame and axle removed, with differential sensor clip removed

Remove the lower shock bolts using an 18mm socket. Save the hardware and put it aside. Move to the top of the shocks and remove the top shock bolts with an 18mm socket. It may be hard to get to, so push the fender liner out of the way and use a socket extension. You may need to notch or cut the fender liner with a knife/blade to obtain enough clearance.



Figure 4: Front driver/passenger lower shock bolts removed

Figure 5: Front upper passenger shock bolt removed

Remove the brake line bracket off the front lower control arms using a 15mm socket and let the bracket hang. Then, remove the front upper control arm heat shields from both sides. Two, 10mm bolts retain each heat shield. One bolt is located on the side, the other on the top (hidden). The top bolt is hard to get to, so use a small ratchet or ratcheting socket.



Figure 6: Front driver/passenger lower brake line mount removed



Figure 7: Front upper control arm heat shields to be removed

**NOTE:** You can cut off the control arm heat shields if you cannot reach the top 10mm bolt, as the shield will not be reused.

Remove the front control arms. You will need 18mm, 21mm, and 24mm sockets. Put the axle hardware aside, as you will be reusing it. Make sure that the axle remains supported. Try to minimize any axle shift that may occur during this process.



Figure 8: Lower/upper frame-side control arm bolts, and lower/upper axle-side control arm bolts

7. Before installing the control arm brackets, please make sure the following pre-installation checklist is completed.

#### PRE-INSTALLATION CHECKLIST

- ☐ Remove the plastic fuel-line shield on the passenger side (Figure 9)
- ☐ Cut off the stud on the frame for the gas tank shield (Figure 9)
- ☐ Remove the cross-member bolts and swap them around \*3.6 V6 ONLY\* (Figure 10)
- ☐ Remove the exhaust section at the flange near the front, and the coupling before the resonator in the rear \*3.6 V6 ONLY\* (Figure 11)
- ☐ Remove the transmission guard



Figure 9: Fuel-line shield bolts (passenger side)



Figure 11: Exhaust section flanges and clamps



Figure 10: Cross-member bolts flipped around

392 V8 HEMI NOTE: Removing the cross-member entirely will greatly assist in the removal of the exhaust. This requires the use of an additional jack stand to support the transmission. Please follow the steps below to remove the cross member before attempting to remove the exhaust.

#### CROSS-MEMBER REMOVAL CHECKLIST - V8 HEMI ONLY

- ☐ Unbolt the x3 nuts holding the transmission to the cross member (Figure 11a)
- ☐ Support the transmission with an adjustable locking jack stand
- ☐ Unbolt the x3 thru-bolts at the frame rail (Figure 11b)
- ☐ Unbolt the x2 exhaust hanger bolts that are mounted to the cross member (Figure 11c)
- ☐ Unbolt the x2 thru-bolts on the other side of the cross member (Figure 11d)

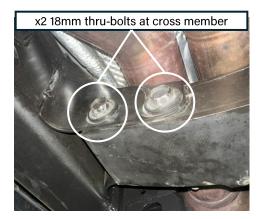


Figure 11d: Cross-member bolts



Figure 11c: Cross-member exhaust hanger



Figure 11a: Transmission nuts



Figure 11b: Frame rail thrubolts

7c. 392 V8 HEMI NOTE: With the cross-member removed and the transmission supported, remove the exhaust.

Removing the exhaust is crucial for this installation, but modification is **not** required! This will open-up the work area and allow for smoother removal factory control arm brackets, as well as make room for the new, weld-on brackets. The exhaust must be removed all the way from the front pipes to the muffler. Please follow the checklist below to remove the exhaust.

#### **EXHAUST REMOVAL CHECKLIST - 392 V8 HEMI ONLY**

- ☐ Unbolt the passenger and driver front pipe/converter (Figure 11e)
- ☐ Unbolt the passenger-side cross-over pipe at the flange (Figure 11f)
- ☐ Unbolt the rear section pipe clamp bolts at the resonator (Figure 4g)
- ☐ Remove the rear section muffler clamps (Figure 4h)
- □ <u>Disconnect the O<sub>2</sub> sensors before removal!</u>

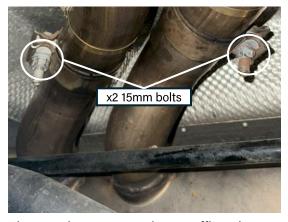


Figure 11h: Rear section muffler clamps

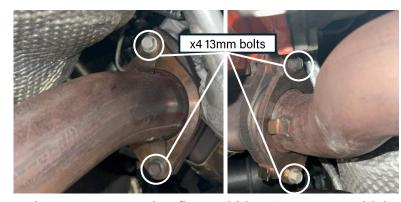


Figure 11e: Front pipe flange (driver/passenger side)

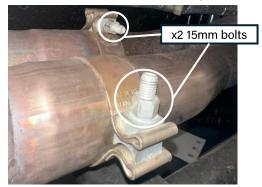


Figure 11g: Rear section resonator clamps

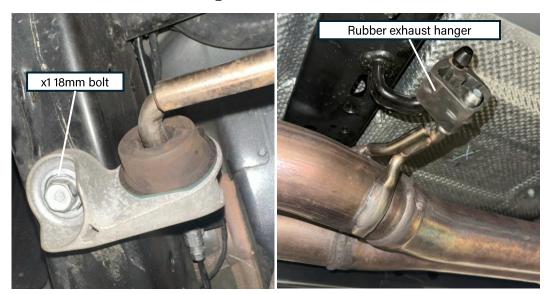


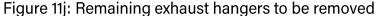
Figure 11f: Spring bolts at cross-over pipe (passenger side)

7d. 392 V8 HEMI NOTE: With hangers and the exhaust clamps loosened and/or removed, you may now remove the exhaust sections piece by piece. Remove the two rear exhaust section hangers and then remove the front pipe sections (passenger and driver) followed by the cross-over pipe section.

Move to the rear and remove the resonator section. Slowly wiggle the section back and forth in circular motions until the angled pipes back out of the muffler. See the figures below for the hangers (Figure 11j) and the entire exhaust system out of the vehicle (Figure 11k).

#### Be sure not to damage the O<sub>2</sub> sensors while removing exhaust sections!





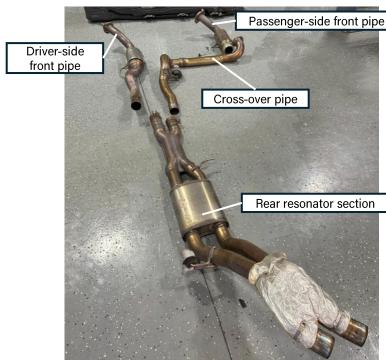


Figure 11k: Full exhaust system removed

With the factory control arms removed, install the front long arm frame brackets. For a more detailed, step-by-step guide, please visit our website and navigate to the COR-5009200/4809200/5009300/4809300 (Long Arm Upgrade Kit) instructions. Follow the Long Arm Upgrade Kit instructions from Steps 3-8.

You may also find starting lengths for the control arms at the end of these instructions.





Figure 12: Front frame brackets and long arms installed

9. With the long arm brackets and new control arms installed, droop the axle by lowering the supporting jack stands and remove the springs to install the new bump stops. Use the included hardware and use a  $\frac{5}{16}$ " hex key and  $\frac{9}{16}$ " wrench. Complete both sides at this time. You may tighten the bump-stop hardware at this time.



Figure 13: Axle drooped with old springs removed, and bump stops installed

**TIP:** Tape the nut to the wrench to get the threads started, as the nut may be hard to hold at the spring perch hole.

\*\*\*Photos above were taken during a short-arm kit installation, but the step remains the same!\*\*\*

Install the new front springs. The front springs will have "1508xxx" etched in white on the coil. The front coils for this kit are **NOT** side-specific. Install the new springs while the axle is still dropped. Make sure that the springs are set properly on the coil perch and are retained in the upper spring mount.

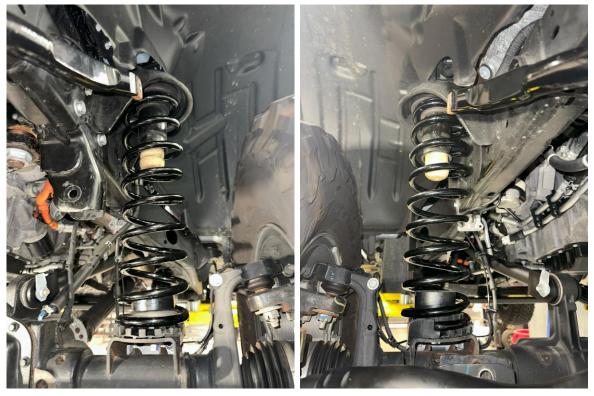


Figure 14: New springs installed and seated properly

\*\*\*Photos above were taken during a short-arm kit installation, but the step remains the same!\*\*\*

Install the new front track bar. Follow the JL Suspension Quick Guide for more information like starting lengths based on coil 11. height. You can find this guick guide on our website under any JL lift kit listing, or at the end of these instructions.

Do not torque yet. Install the axle bolt first, then the frame bolt using the original hardware.

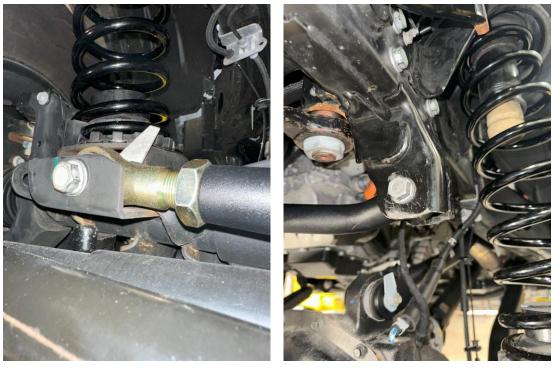


Figure 15: New front track bar installed

12. Re-install the front shocks or install new shocks. Install the upper bolt first, then the lower axle bolt. Use original hardware, unless your new shocks came with new hardware. If the aftermarket shocks came with a piggyback reservoir, install them at this time.

#### Do not torque yet.



Figure 16: Front shock top and bottom bolt installed loosely

Cut the new sway bar rods to the recommended length at each end following the Sway Bar Quick Guide. You can find this 13. quick guide on our website, or at the end of these instructions. Assemble the sway bar end-links and use a 6mm hex key and an 18mm wrench to install. Reuse the factory bolt for the passenger axle-side connection with the Heim joint.

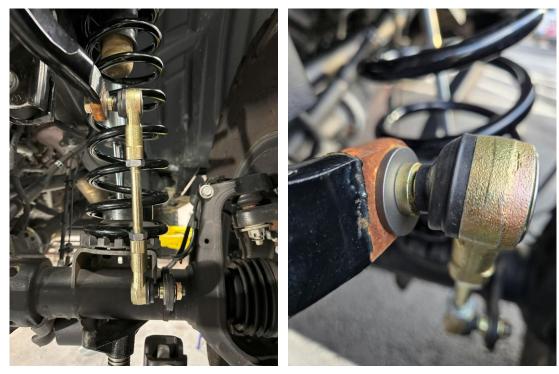


Figure 17: Front sway bar end-links installed (driver side)

\*\*\*Conical washers installed with the concave side facing towards the sway bar, NOT the link!\*\*\*

At this point in the installation, you have completed the front-end section of the lift kit. To make your installation quicker, installing the new brake lines should be completed after the rear-end section of the lift kit has been installed.

At this point, you may tighten hardware while the vehicle is on the lift- but do not torque. Complete the torquing procedure at the end of this installation once all suspension components have been installed, with the vehicle resting on its own weight.



Figure 18: Front long arm kit installed

#### **REAR-END INSTALLATION**

The following instructions are a generic guide to installing rear-end components. Please navigate to a specific product page for more in-depth instructions if you require a more specific, step-by-step guide



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

#### The following instructions apply to the listed components below:

- Rear Coil Springs (2.5" or 3.5")
- Rear Adjustable Track Bar
- Rear Control Arms (Overland+ or Premium)
- Rear Long Arm Frame Brackets
- Rear Bump Stops
- Rear Parking Brake Cable Relocation Bracket
- Rear Sway Bar End Links

#### The following instructions provide a basic guide for installing the rear-end components for the long-arm kit!

\*\*\*2.0L 14 JL owners may follow these instructions as a general guide, however additional steps may apply \*\*\*

\*\*\*The following steps apply to both 3.6 V6 and 392 V8 HEMI JL vehicles, unless noted otherwise\*\*\*

If you purchased single-arm sets, individual brackets, or an upgrade kit, your installation process may vary.

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!

#### **TOOLS REQUIRED FOR INSTALLATION**

- Basic hand tools Metric wrench/socket set Standard wrench/socket set
- Cut-off wheel or plasma cutter Large box wrenches Jack stands and/or vehicle lift

(10mm - 24mm) (7/16", 1/2", 9/16", 15/16")

(1-7/16", 1-7/8")

15. Position the vehicle either on the ground or on a lift. For this installation, it is recommended that the vehicle be supported by the frame. Support the rear axle with two additional jack stands. Remove the rear tires.

\*\*\*Photos of control arm adjusters in the following photos may not match your selected series, but the installation remains the same!\*\*\*





Figure 19: Vehicle supported by lift and jack stands

Remove the rear bumper/wheel-well fender liners using an 8mm socket. There are 3 small screws per side. Save the liners 16. and hardware. You will need to remove them to access the rear upper shock bolts.



Figure 20: Rear bumper fender before and after removal

17. Remove the rear shocks. Remove the lower shock bolts using an 18mm socket. Save the hardware and put it off to the side. Move to the top of the shocks and remove the top shock bolts using an 18mm socket. It may be hard to get to, so push the fender liner out of the way and use a socket extension.









Figure 21: Rear passenger and driver-side shocks removed

18. Remove the rear control arms. You will need a 21mm socket and wrench. Put the axle hardware aside, as you will be reusing it. Make sure that the axle remains supported. Try to minimize any axle shift that may occur during this process. Note that the upper arms at the frame side have a nut-tab to receive the bolt inside the frame. You will **NOT** be reusing frame-side hardware for this long arm kit installation.









Figure 22: Rear control arm bolt locations (2 arms each side, 4 bolts per side, or 8 bolts total)

19. Remove the factory rear sway bar end links. The socket size may vary depending on which vehicle, year, or aftermarket components you may already have installed. Remove the upper and lower bolts on both sides. You will **NOT** be re-using the hardware. Remove the differential harness. Be gentle with the clip, pull the lock-tab out first then slowly wiggle it off the sensor.

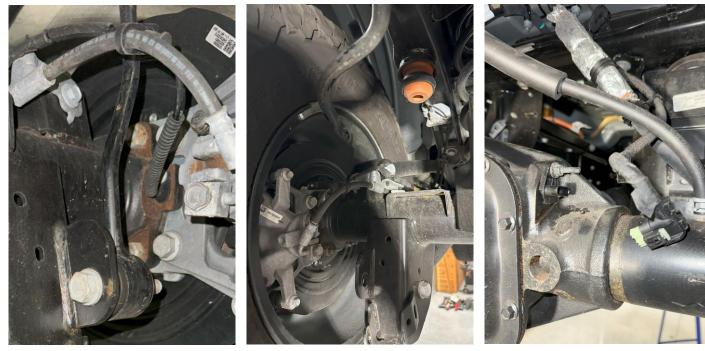


Figure 23: Rear sway bar end link before and after removal, and differential wiring harness removed

20. Remove the factory rear track bar. Start with the frame bracket bolt (21mm) and then the axle bolt (21mm). Save all factory hardware, as it will be reused.









Figure 24: Rear track bar bolt locations before and after removal

Follow the pre-installation checklist below to ensure a smooth installation process. These steps are designed to simplify the 21. later stages of the installation and create proper clearance for welding the frame brackets during the long-arm upgrade.

#### PRE-INSTALLATION CHECKLIST

- ☐ Remove the plastic fuel-line shield on the passenger side (Figure 25). If you have already installed the Front Long Arm Upgrade Kit, this shield will not be present. It will not be reused once the kit is installed. Also, cut/grind off the mount stud on the frame.
- ☐ Remove the rear exhaust section at the clamps near the muffler and the cross member (Figure 26) and fully remove the section

\*3.6 V6 JL ONLY\*. If installing the rear upgrade kit on a 392 V8 HEMI JL, the entire exhaust section must be removed

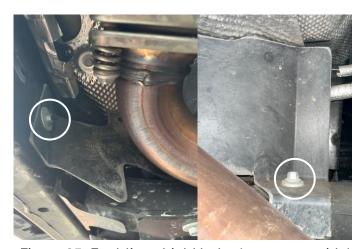


Figure 25: Fuel-line shield bolts (passenger side)



Figure 26: Rear exhaust section clamps to be removed (3.6 V6 JL)

22. With the factory control arms removed, drop the fuel tank. This is a very detailed and specific process that must be completed before continuing. please visit our website and navigate to the COR-5009200/4809200/5009300/4809300 (Long Arm Upgrade Kit) instructions. Follow the Long Arm Upgrade Kit instructions from Steps 14-18.



Figure 27: Gas tank dropped (follow instructions from COR-5009200/4809200/5009300/4809300

With the factory control arms removed and the gas tank dropped, install the rear long-arm frame brackets. For a more 23. detailed, step-by-step guide, please visit our website and navigate to the COR-5009200/4809200/5009300/4809300 (Long Arm Upgrade Kit) instructions. Follow the Long Arm Upgrade Kit instructions from Steps 19-27.

You may also find starting lengths for the control arms at the end of these instructions.



Figure 28: Rear frame brackets and long arms installed

24. With the long arm brackets and new control arms installed, droop the axle by lowering the supporting jack stands, remove the springs, and install the new rear bump stops. Use the included hardware and a  $\frac{9}{16}$ " socket and wrench. Complete both sides at this time. You may also tighten the bump-stop hardware at this time.



Figure 29: Bump-stops (3" tall and 1-2" tall stackable bump-stop options)

**TIP:** Tape the nut to the wrench to get the threads started.

25. Install the new rear springs. The rear springs will have "1509xxx" etched in white on the coil. The rear coils in this kit ARE side-specific. Install the new springs while the axle is still dropped. Make sure that the springs are set properly on the coil perch and are retained in the upper spring mount. The taller spring will have an "R" on it and must be used on the gas tank side.



**NOTE:** Our HD coils are **NOT** sidespecific. If you are installing HD coils on your heavier, fully loaded vehicle, you do not need to worry about left or rightside coil installation.



Figure 30: New rear springs installed and seated properly

\*\*\*Photos above were taken during a short-arm kit installation, but the step remains the same!\*\*\*

26. Install the new rear track bar. Follow the JL Suspension Quick Guide for more information like starting lengths based on coil height. You can find this guick guide on our website under any JL lift kit listing, or at the end of these instructions.

Do not torque yet. Install the axle bolt first, then the frame bolt using the original hardware.



Figure 31: New rear track bar installed loosely

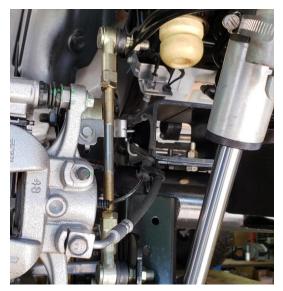
27. Re-install the rear shocks or install new shocks. Install the upper bolt first, then the lower axle bolt. Use original hardware, unless your new shocks came with new hardware. If the aftermarket shocks came with a piggyback reservoir, install them at this time.

#### Do not torque yet.



Figure 32: Rear shock top and bottom bolt installed loosely

28. Cut the new sway bar rods to the recommended length at each end following the Sway Bar Quick Guide. You can find this quick guide on our website, or at the end of these instructions. Assemble the sway bar end-links and use a 6mm hex key and an 18mm wrench to install.



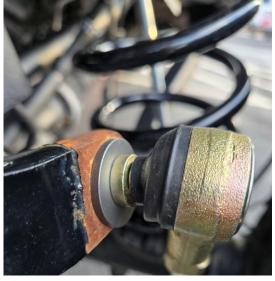




Figure 33: Rear sway bar end-links installed

\*\*\*Conical washers installed with the concave side facing towards the sway bar, NOT the link!\*\*\*

29. At this point in the installation, you have completed the rear-end section of the lift kit. To make your installation quicker, installing the new brake lines should be completed once all suspension components in the kit have been installed.

At this point, you may tighten hardware while the vehicle is on the lift- but do not torque. Complete the torquing procedure at the end of this installation once all components have been installed, with the vehicle resting on its own weight.



Figure 34: Long arm kit installed

Once the front and rear suspension components have been installed, put in the new brake lines. This is a very specific and 30. attentive process and can be difficult if it is your first time installing brake lines. For a more detailed, step-by-step guide, please visit our website and navigate to the COR-1309100 and COR-1309102 (Jeep HD Front/Rear Brake Lines) instructions.

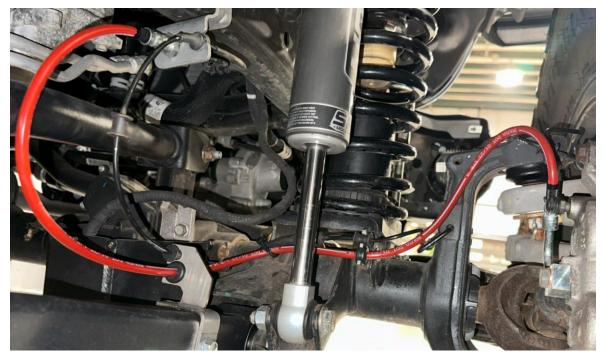


Figure 35: New front brake line (passenger side) installed

\*\*\*Bring these brake line products to a certified vehicle shop if you are unsure about the installation process!\*\*\*

31. Once the brake lines have been replaced, you may now install the parking brake relocation bracket. For a more detailed, step-by-step guide, please visit our website and navigate to the COR-1309502 (Jeep Parking Brake Cable Relocation Bracket) instructions.



Figure 36: Parking brake relocation bracket installed

Please refer to the table below for minimum, maximum, and recommended control arm lengths. These lengths are 32. recommendations and should only serve as a starting point for axle positioning and dialing in pinion/caster angle. The following measurements are given as "eye-to-eye" lengths.

Table 1: COR Long Arm Control Arm Length Specifications

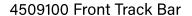
| Control Arm Type / Series                        | Minimum                           | Maximum                            | Install                          |
|--|-----------------------------------|------------------------------------|----------------------------------|
| 1909010<br>Jeep Overland+ Long Front Lower Arms  | 37 <sup>1</sup> / <sub>16</sub> " | 38 <sup>13</sup> / <sub>16</sub> " | 37 <sup>1</sup> / <sub>2</sub> " |
| 1709101<br>Jeep Overland+ Short Front Upper Arms | $19\frac{3}{4}$ "                 | 21 <sup>1</sup> / <sub>8</sub> "   | 20"                              |
| 1909020<br>Jeep Overland+ Long Rear Lower Arms   | $35\frac{1}{4}$ "                 | 37 "                               | $35\frac{1}{2}$ "                |
| 1909030<br>Jeep Overland+ Long Rear Upper Arms   | $31\frac{7}{8}$ "                 | 33 <sup>1</sup> / <sub>4</sub> "   | 32 <del>7</del> "                |
| 1909210<br>Jeep Premium Long Front Lower Arms    | 37 <sup>1</sup> / <sub>4</sub> "  | $38\frac{3}{16}$ "                 | 37 <sup>1</sup> / <sub>2</sub> " |
| 1809101<br>Jeep Premium Short Front Upper Arms   | $19\frac{7}{8}$ "                 | 22 <sup>7</sup> / <sub>8</sub> "   | 20"                              |
| 1909220<br>Jeep Premium Long Rear Lower Arms     | $35\frac{3}{16}$ "                | 36 <sup>1</sup> / <sub>16</sub> "  | 35 ½ "                           |
| 1909230<br>Jeep Premium Long Rear Upper Arms     | $32\frac{1}{8}$ "                 | $33\frac{3}{8}$ "                  | $32\frac{7}{16}$ "               |

Refer to the table below for recommended front and rear track bar starting lengths applicable to this long-arm lift kit. The 33. following lengths are recommendations and should only serve as a starting point for axle positioning. The following measurements are given as "eye-to-eye" lengths.

Table 2: COR Track Bar Length Specifications

| Track Bar ID / Location    | 2.5" Lift                        | 3.5" Lift                        |
|----------------------------|----------------------------------|----------------------------------|
| 4509100<br>Front Track Bar | 34 <sup>1</sup> / <sub>8</sub> " | 34 <sup>1</sup> / <sub>4</sub> " |
| 4509110<br>Rear Track Bar  | 37 <del>7</del> "                | 38"                              |







4509110 Rear Track Bar

34. Once all the components have been installed, you may now rest the vehicle on flat, level ground and begin torquing hardware. Follow Tables 3-5 and tighten each bolt to the recommended torque specification.

Table 3: COR Long Arm Torque Specifications (1 of 3)

| Suspension Bolt Location                                       | Wrench Size     | Torque (ft-lbs) |
|--|-----------------|-----------------|
| Front Upper Control Arm, Radius Link Bolt<br>(M12-1.75 x 80mm) | 19mm            | 100             |
| Front Upper Control Arm, Axle Bolt<br>(Factory Size)           | 18mm            | 80              |
| Front Lower Control Arm, Frame Bolt<br>(5/8"-18 x 4")          | 15/16"          | 180             |
| Front Lower Control Arm, Axle Bolt<br>(Factory Size)           | 21 and 24mm     | 180             |
| Rear Upper Control Arm, Frame Bolt<br>(9/16"-18 x 4")          | 13/16" and 7/8" | 170             |
| Rear Upper Control Arm, Axle Bolt<br>(Factory Size)            | 21mm            | 125             |
| Rear Lower Control Arm, Frame Bolt<br>(9/16"-18 x 4")          | 13/16" and 7/8" | 170             |
| Rear Lower Control Arm, Axle Bolt<br>(Factory Size)            | 21mm            | 125             |

35. Once all the components have been installed, you may now rest the vehicle on flat, level ground and begin torquing hardware. Follow Tables 3-5 and tighten each bolt to the recommended torque specification.

Table 4: COR Long Arm Torque Specifications (2 of 3)

| Suspension Bolt Location           | Wrench Size | Torque (ft-lbs) |
|------------------------------------|-------------|-----------------|
| Front Upper Shock Bolt, Frame Bolt | 17mm        | 17              |
| Front Lower Shock Bolt, Axle Bolt  | 13mm        | 21              |
| Rear Upper Shock Bolt, Frame Bolt  | 13mm        | 23              |
| Rear Lower Shock Bolt, Axle Bolt   | 18mm        | 75              |
| Front Track Bar Bolt, Frame Bolt   | 21mm        | 130             |
| Front Track Bar Bolt, Axle Bolt    | 21mm        | 130             |
| Rear Track Bar Bolt, Frame Bolt    | 21mm        | 90              |
| Rear Track Bar Bolt, Axle Bolt     | 21mm        | 90              |

36. Once all the components have been installed, you may now rest the vehicle on flat, level ground and begin torquing hardware. Follow Tables 3-5 and tighten each bolt to the recommended torque specification.

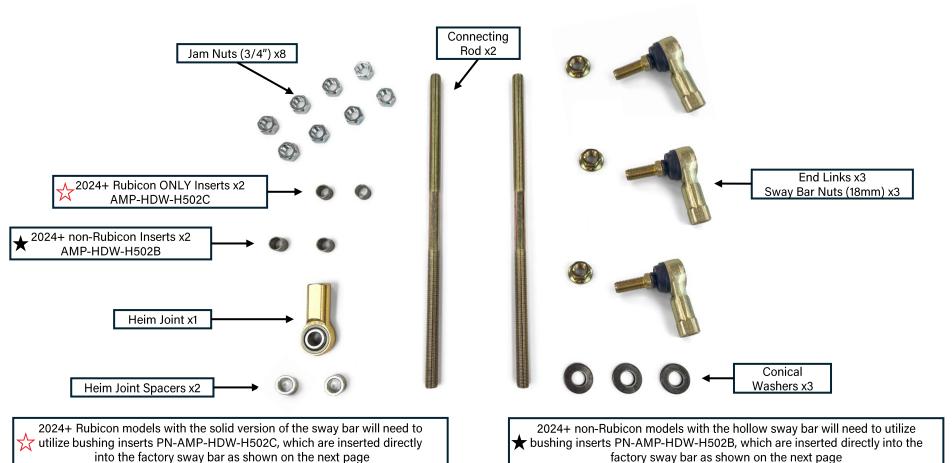
Table 5: COR Long Arm Torque Specifications (3 of 3)

| Suspension Bolt Location            | Wrench Size | Torque (ft-lbs) |
|-------------------------------------|-------------|-----------------|
| Sway Bar End-Link Nuts              | 18mm        | 100             |
| Sway Bar Jam Nuts                   | 3/4"        | 64              |
| Lower Control Arm Adjuster Jam Nuts | 1–7/8"      | Very Tight      |
| Upper Control Arm Adjuster Jam Nuts | 1-7/16"     | Very Tight      |
| Track Bar Jam Nuts                  | 1-7/16"     | Very Tight      |

# **SWAY BAR QUICK GUIDE**

\*\*\*Please review the following information so you can become familiar with our sway bar products\*\*\*

\*\*\*Continue to the next page for important installation notes\*\*\*



\*\*\*Bushing inserts are NOT necessary on 2018-2023 models\*\*\*

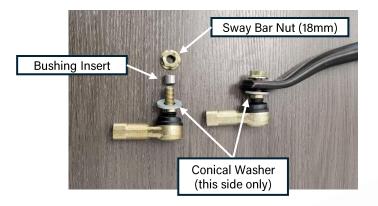
# **SWAY BAR QUICK GUIDE**

**NOTE:** Jeep Gladiator (JT) and Jeep Wrangler (JL) Front Sway Bar End Links are intended to come with **three** studded rod ends and **one** single Heim Joint (as pictured on the previous page).

• The single Heim Joint is to be used on the passenger side at the axle (bottom) for proper clearance with the factory double-shear bracket, meaning no additional modifications are necessary.

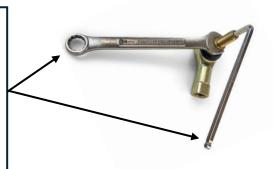
**NOTE:** Conical washers provide an even greater surface area through beveled sides, distributing the force of the tightening nut while reducing vibrations and preventing the nut from coming loose.

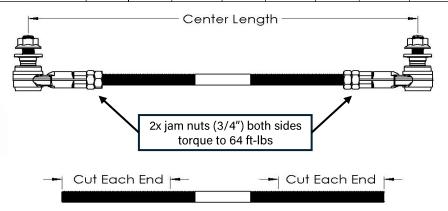
• Conical washers should be used on all models and years, with the concave side curving inward towards the sway bar.



| Lift Height            | Stock  | 1.5     | " Lift 2.5" Lift |         | " Lift 2.5" Lift 3.5" Lift |         | " Lift   | 4.5" Lift |          |
|------------------------|--------|---------|------------------|---------|----------------------------|---------|----------|-----------|----------|
|                        |        | Center  | Cut Each         | Center  | Cut Each                   | Center  | Cut Each | Center    | Cut Each |
| Component              |        | Length  | End              | Length  | End                        | Length  | End      | Length    | End      |
| JK Front Sway Bar Link | 5.250  | 8-1/4"  | 3-7/16"          | 9-1/4"  | 2-15/16"                   | 10-1/4" | 2-7/16"  | 11-1/4"   | 1-15/16" |
| JK Rear Sway Bar Link  | 8.750  | 10-3/4" | 2-3/16"          | 11-3/4" | 1-5/8"                     | 12-3/4" | 1-3/16"  | 13-3/4"   | 5/8"     |
|                        |        |         |                  |         |                            |         |          |           |          |
| JL Front Sway Bar Link | 5.0625 | 8-1/4"  | 3-7/16"          | 9-1/4"  | 2-15/16"                   | 10-1/4" | 2-7/16"  |           |          |
| JL Rear Sway Bar Link  | 8.75   | 10-3/4" | 2-3/16"          | 11-3/4" | 1-5/8"                     | 12-3/4" | 1-3/16"  |           |          |
|                        |        |         |                  |         |                            |         |          |           |          |
| JT Front Sway Bar Link | 5.063  | 8-1/4"  | 3-7/16"          | 9-1/4"  | 2-15/16"                   | 10-1/4" | 2-7/16"  |           |          |
| JT Rear Sway Bar Link  | 10.625 | 12-5/8" | 1-1/4"           | 13-5/8" | 3/4"                       | 14-5/8" | 1/4"     |           |          |

Our newly improved end link design allows the installer to hold the stud with either a 6mm hex key or a 14mm wrench to tighten the nut. Either option works, as long as the sway bar end link nut is torqued to 90-100 ft-lbs





37. 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 1–7/16" 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.



Figure 37: COR Wrench-ends for control arm jam nuts (COR-2500125, COR-2500100)

Congratulations, you've completed our Long Arm Lift Kit Installation. Please see the post-installation checklist and confirm 38. you have completed all of the steps before driving your vehicle.



#### **POST-INSTALLATION CHECKLIST:**

- ☐ Frame brackets are properly welded entirely to the frame
- ☐ The work area is fully painted
- ☐ Exhaust is reinstalled at the front and rear
- ☐ Differential sensors are plugged back in
- □ O₂ sensors are plugged back in
- ☐ Coolant/brake lines are put back into place and are not damaged
- ☐ All hardware is torqued to specification (see Step 34)
- ☐ Control arm jam nuts are as tight as possible
- ☐ Lug nuts are torqued to the manufacturer's specification
- ☐ A licensed shop has professionally aligned the vehicle
- ☐ Retorque all hardware after 500 miles of driving

