

INSTALLATION MANUAL:

Jeep Wrangler 3 Link Pro Series Long Arm Upgrade Kits
All Lift Heights, (2007-2018, JK)



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.

FRONT SUSPENSION COMPONENTS

Please review the part numbers you have purchased to familiarize yourself with the product(s)



4808412 - INCLUDED ITEMS

4808412 Jeep Wrangler FRONT 3 Link Pro Series Long Arm Upgrade Kit (2007-2018, JK)

QTY	Part Number	Description	Class/Grade	ID Number
1	2108112	Jeep Wrangler Front 3 Piece Cross Member (2007-2018, JK)	N/A	1
1	1908301	Pro Series Long Front Lower Control Arms (2007-2018, JK)	N/A	2
1	1908007	Pro Series 3 Link Front Upper Control Arm (2007-2018, JK)	N/A	3
1	2208310	Jeep Wrangler 3 Link Frame Mount (2007-2018, JK)	N/A	4
1	1130110	3 Link Axle Mount (2007-2018, JK)	N/A	5
26	15103	3/8"-16x3/4" Yellow Zinc Finish Hex Cap Screw	Grade 8	N/A
4	15224	1/2"-13 x 5-1/2" Yellow Zinc Finish Hex Cap Screw	Grade 8	N/A
2	18950	9/16"-18 x 3-3/4" Yellow Zinc Finish Hex Cap Screw	Grade 8	N/A
26	33893	3/8" High Alloy Lock Washer	N/A	N/A
4	37187	1/2"-13 Yellow Zinc Finish NE Nylon Insert Lock Nut	Grade 8	N/A
2	37310	9/16"-18 Zinc Finish Top Lock Nut	Grade C	N/A
8	94286	3/8"-16 x 1" Hex Drive Zinc Finish Flat Socket Cap Screw	Alloy Steel	N/A
4	33818	9/16" Yellow Zinc Finish SAE Flat Washer	Thru-Hardened	N/A

Product Notes and Features:

- Bolt-in, heavy-duty, 3-piece design cross member made of modular 3/16" steel and e-coated for a perfect, corrosion-resistant finish
- Axle modification required
- Reduced suspension angles for a smoother, more controlled ride
- Longer arms to deliver greater articulation and climbing ability
 - GIIRO Joint bushings on the axle end and Johnny Joints at the adjusters for superior off-road articulation, maximum versatility, and long-lasting reliability
- Hardware included to assemble the 3-piece cross member
- Transmission spacer/shim included for use with certain JK production years



- **Lower arm dimensions: MIN = 36 $\frac{3}{4}$ " , MAX = 38 $\frac{1}{2}$ "**
- **Upper arm dimensions: MIN = 34 $\frac{1}{2}$ " , MAX = 37 $\frac{1}{4}$ "**

2108112 - INCLUDED ITEMS

2108112 Jeep Wrangler Front 3 Piece Cross Member (2007-2018, JK)			
QTY	Part Number	Description	Class/Grade
1	2108112	Jeep Wrangler Front 3 Piece Cross Member (2007-2018, JK)	N/A
26	15103	3/8"-16x3/4" Yellow Zinc Finish Hex Cap Screw	Grade 8
4	15224	1/2"-13 x 5-1/2" Yellow Zinc Finish Hex Cap Screw	Grade 8
2	18950	9/16"-18 x 3-3/4" Yellow Zinc Finish Hex Cap Screw	Grade 8
26	33893	3/8" High Alloy Lock Washer	N/A
4	37187	1/2"-13 Yellow Zinc Finish NE Nylon Insert Lock Nut	Grade 8
2	37310	9/16"-18 Zinc Finish Top Lock Nut	Grade C
8	94286	3/8"-16 x 1" Hex Drive Zinc Finish Flat Socket Cap Screw	Alloy Steel
4	33818	9/16" Yellow Zinc Finish SAE Flat Washer	Thru-Hardened

Product Notes and Features:

The Jeep Wrangler Front 3 Piece Cross Member is engineered for maximum clearance, strength, and serviceability. Designed to bolt into the factory cross member location, this "beefier-than-stock" component serves as the perfect foundation for your JK's long-arm suspension setup, all while providing easy drivetrain access when you need it.

- 3 Piece, modular construction with the center being completely removable for servicing the transmission
- formed using the latest CAD software and manufacturing techniques
- Complete hardware kit included with flat socket cap screws where its needed
- Optional, weld-in gussets to permanently secure the outer components to the frame
- Control arms not included



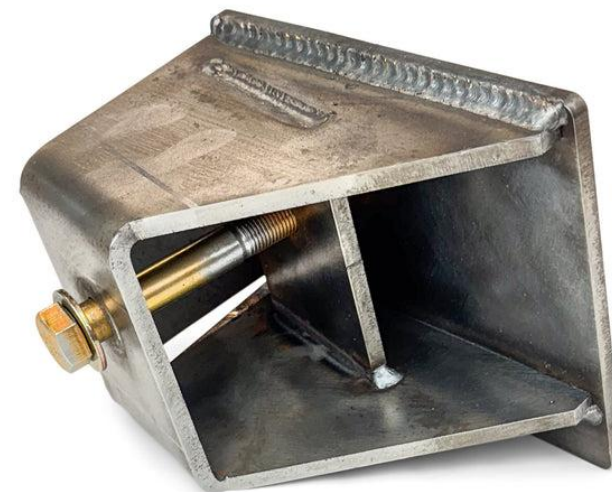
2208310 - INCLUDED ITEMS

2208310 Jeep Wrangler 3 Link Frame Mount (2007-2018, JK)			
QTY	Part Number	Description	Class/Grade
1	2208310	Jeep Wrangler 3 Link Frame Mount (2007-2018, JK)	N/A
1	18951	9/16"-18 x 4" Yellow Zinc Finish Hex Cap Screw	Grade 8
1	37310	9/16"-18 Zinc Finish Top Lock Nut	Grade C
2	33818	9/16" Yellow Zinc Finish SAE Flat Washer	Thru-Hardened

Product Notes and Features:

The Jeep Wrangler Front 3 Link Frame Mount is engineered for maximum clearance and strength. Designed to weld into the driver side frame location, this bracket serves as the perfect foundation for your JK's long-arm suspension setup.

- Weld-on, 1/4" steel with wrench opening for easy access
- formed using the latest CAD software and manufacturing techniques
- Included 9/16" Grade 8 bolt for the 3-Link arm
- Control arms not included
- Welding required



1130110 - INCLUDED ITEMS

1130110 Jeep Wrangler 3 Link Axle Mount (2007-2018, JK)			
QTY	Part Number	Description	Class/Grade
1	1130110	Jeep Wrangler 3 Link Axle Mount (2007-2018, JK)	N/A
1	18951	9/16"-18 x 4" Yellow Zinc Finish Hex Cap Screw	Grade 8
1	37310	9/16"-18 Zinc Finish Top Lock Nut	Grade C
2	33818	9/16" Yellow Zinc Finish SAE Flat Washer	Thru-Hardened

Product Notes and Features:

The Jeep Wrangler Front 3 Link Axle Mount is engineered for maximum clearance and strength. Designed to weld into the driver side axle location, this bracket serves as the perfect foundation for your JK's long-arm suspension setup.

- Weld-on, ¼" steel bracket with 2-5/8" inside width, standard for forged Johnny Joints
- formed using the latest CAD software and manufacturing techniques
- Included 9/16" Grade 8 bolt for the 3-Link arm
- Control arms not included
- Axle modification required
- Welding required



1908301 - INCLUDED ITEMS

1908301 Jeep Wrangler Pro Series Long Front Lower Control Arms (2007-2018, JK)			
QTY	Part Number	Description	Class/Grade
1	1908301	Pro Series Long Front Lower Control Arms (2007-2018, JK)	N/A
4	18951	9/16"-18 x 4" Yellow Zinc Finish Hex Cap Screw	Grade 8
8	33818	9/16" Yellow Zinc Finish SAE Flat Washer	Thru-Hardened
4	37310	9/16"-18 Zinc Finish Top Lock Nut	Grade C

Product Notes and Features:

Achieve superior performance and durability with the **Ultimate Jeep Control Arms**, engineered for unmatched comfort and reliability. Designed with meticulous attention to detail, these control arms are built to handle the toughest terrains while delivering a smooth and quiet driving experience.

- Smooth and quiet performance that isolates road noise and vibration for a quieter ride
- Reliable, greaseable, and rebuildable joints with 40 degrees of misalignment
- Heavy-duty square tubing for maximum strength and durability
- Dual-adjustable arms for additional fine-tuning
- Forged adjusters for precise alignment and adjustability
- Reduced suspension angles for a smoother, more controlled ride
 - Only tested and confirmed use in conjunction with COR-2108112, 3 Piece Cross Member
- Longer arms to deliver greater articulation and climbing ability
- Axle and cross-member hardware (9/16"-18 x 4" bolts, nuts, and washers) included
- **Arm dimensions: MIN = 36 $\frac{3}{4}$ " , MAX = 38 $\frac{1}{2}$ "**



1908007 - INCLUDED ITEMS

1908007 Jeep Wrangler Pro Series Long Front Upper Control Arm (2007-2018, JK)			
QTY	Part Number	Description	Class/Grade
1	1908301	Pro Series Long Front Lower Control Arms (2007-2018, JK)	N/A
2	18951	9/16"-18 x 4" Yellow Zinc Finish Hex Cap Screw	Grade 8
4	33818	9/16" Yellow Zinc Finish SAE Flat Washer	Thru-Hardened
2	37310	9/16"-18 Zinc Finish Top Lock Nut	Grade C

Product Notes and Features:

Achieve superior performance and durability with the **Ultimate Jeep Control Arms**, engineered for unmatched comfort and reliability. Designed with meticulous attention to detail, these control arms are built to handle the toughest terrains while delivering a smooth and quiet driving experience.

- Smooth and quiet performance that isolates road noise and vibration for a quieter ride
- Reliable, greaseable, and rebuildable joints with 40 degrees of misalignment
- Heavy-duty square tubing for maximum strength and durability
- Dual-adjustable arms for additional fine-tuning
- Forged adjusters for precise alignment and adjustability
- Reduced suspension angles for a smoother, more controlled ride
 - Only tested and confirmed use in conjunction with COR-2208310 and COR-1130110, 3 Link Frame and Axle Mount
- Longer arms to deliver greater articulation and climbing ability
- Axle and frame hardware (9/16"-18 x 4" bolts, nuts, and washers) included
- **Arm dimensions: MIN = 34 $\frac{1}{2}$ " , MAX = 37 $\frac{1}{4}$ "**



REAR SUSPENSION COMPONENTS

Please review the part numbers you have purchased to familiarize yourself with the product(s)

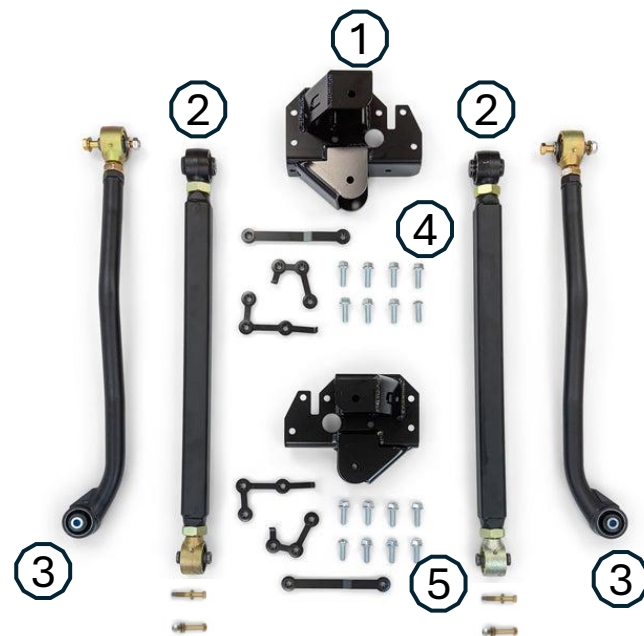


4808420 - INCLUDED ITEMS

4808420 Jeep Wrangler Pro Series Rear Long Arm Upgrade Kit (2007-2018, JK)				
QTY	Part Number	Description	Class/Grade	ID Number
1	2208100	Jeep Wrangler Rear Frame Brackets (2007-2018, JK)	N/A	1
1	1908302	Jeep Wrangler Pro Series Long Rear Lower Control Arms (2007-2018, JK)	N/A	2
1	1908030	Jeep Wrangler Long Rear Upper Control Arms (2007-2018, JK)	N/A	3
14	19959	1/2"-13 x 1-1/2" Zinc Finish Hex Serrated Flange Bolt	Case Hardened	4
2	94111	1/2"-13 x 1-1/2" Hex Drive Button Socket Cap Screw	Alloy Steel	5
4	18951	9/16"-18 x 4" Yellow Zinc Finish Hex Cap Screw	Grade 8	
8	33818	9/16" Yellow Zinc Finish SAE Flat Washer	Thru-Hardened	
4	37310	9/16"-18 Zinc Finish Top Lock Nut	Grade C	
1	2208100I	JK Rear Long Arm Inside Frame Bracket A (Left)	N/A	
1	2208100J	JK Rear Long Arm Inside Frame Bracket B (Left)	N/A	
2	2208100M	JK Rear Long Arm Inside Frame Bracket C	N/A	
1	2208100K	JK Rear Long Arm Inside Frame Bracket A (Right)	N/A	
1	2208100L	JK Rear Long Arm Inside Frame Bracket B (Right)	N/A	

Product Notes and Features:

- Bolt-on, heavy-duty, internal PEM nut design allows for a secure, robust, and strong rear control arm mounting bracket
- Reduced suspension angles for a smoother, more controlled ride
- Longer arms to deliver greater articulation and climbing ability
 - GIIRO Joint bushings on the axle end and Johnny Joints at the adjusters for superior off-road articulation, maximum versatility, and long-lasting reliability
 - Bracket mounting hardware, PEM flag nuts included, and frame-end hardware included



- **Lower arm dimensions: MIN = $32 \frac{3}{8}$ " , MAX = $34 \frac{1}{8}$ "**
- **Upper arm dimensions: MIN = $29 \frac{3}{4}$ " , MAX = 31"**

2208100 - INCLUDED ITEMS

2208100 Jeep Wrangler Rear Frame Brackets (2007-2018, JK)				
QTY	Part Number	Description	Class/Grade	ID Number
1	2208100	Jeep Wrangler Rear Frame Brackets (2007-2018, JK)	N/A	1
14	19959	1/2"-13 x 1-1/2" Zinc Finish Hex Serrated Flange Bolt	Case Hardened	2
2	94111	1/2"-13 x 1-1/2" Hex Drive Button Socket Cap Screw	Alloy Steel	3
1	2208100I	JK Rear Long Arm Inside Frame Bracket A (Left)	N/A	4
1	2208100J	JK Rear Long Arm Inside Frame Bracket B (Left)	N/A	5
2	2208100M	JK Rear Long Arm Inside Frame Bracket C	N/A	6
1	2208100K	JK Rear Long Arm Inside Frame Bracket A (Right)	N/A	7
1	2208100L	JK Rear Long Arm Inside Frame Bracket B (Right)	N/A	8

Product Notes and Features:

- Bolt-on, heavy-duty, internal PEM nut design allows for a secure, robust, and strong rear control arm mounting bracket
- Frame brackets made of 1/4" thick steel construction
- Formed using the latest CAD software and manufacturing techniques
- Utilizes the factory axle mounting points, no axle modification required
- Reduced suspension angles for a smoother, more controlled ride
- Longer arms to deliver greater articulation and climbing ability
- Bracket mounting hardware and PEM flag nuts included
- 1/2"-13 x 1-1/2" Case Hardened Hex = TORQUE SPEC = 110-120 FT/LBS



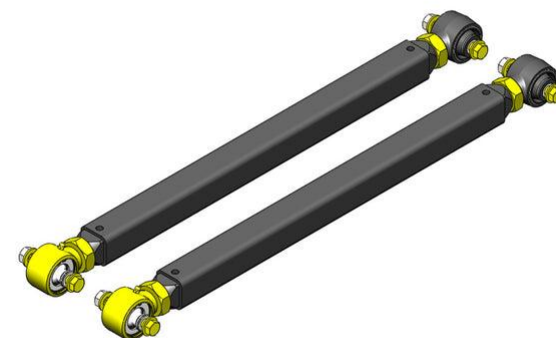
1908302 - INCLUDED ITEMS

1908302 Jeep Wrangler Long Rear Lower Control Arms (2007-2018, JK)			
QTY	Part Number	Description	Class/Grade
1	1908020	JK Long Rear Lower Control Arms (2007-2018, JK)	N/A
4	18951	9/16"-18 x 4" Yellow Zinc Finish Hex Cap Screw	Grade 8
8	33818	9/16" Yellow Zinc Finish SAE Flat Washer	Thru-Hardened
4	37310	9/16"-18 Zinc Finish Top Lock Nut	Grade C

Product Notes and Features:

Achieve superior performance and durability with the **Ultimate Jeep Control Arms**, engineered for unmatched comfort and reliability. Designed with meticulous attention to detail, these control arms are built to handle the toughest terrains while delivering a smooth and quiet driving experience.

- Smooth and quiet performance that isolates road noise and vibration for a quieter ride
- Reliable, greaseable, and rebuildable joints with 40 degrees of misalignment
- Dual-adjustable arms for additional fine-tuning
- Heavy-duty square tubing for maximum strength and durability
- Forged adjusters for precise alignment and adjustability
- Reduced suspension angles for a smoother, more controlled ride
 - Only tested and confirmed use in conjunction with COR-2108100, Long Arm Frame Brackets
- Longer arms to deliver greater articulation and climbing ability
- Lower arm frame bracket and axle hardware (9/16"-18 x 4" bolts, nuts, and washers) included
- **Arm dimensions: MIN = 32 $\frac{3}{8}$ " , MAX = 34 $\frac{1}{8}$ "**



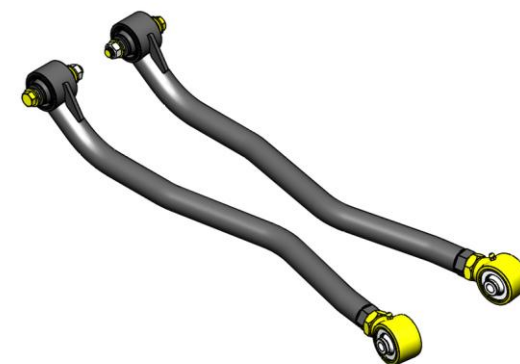
1908030 - INCLUDED ITEMS

1908030 Jeep Wrangler Long Rear Upper Control Arms (2007-2018, JK)			
QTY	Part Number	Description	Class/Grade
1	1908030	Jeep Long Rear Upper Control Arms	N/A
2	18951	9/16"-18 x 4" Yellow Zinc Finish Hex Cap Screw	Grade 8
4	33818	9/16" Yellow Zinc Finish SAE Flat Washer	Thru-Hardened
2	37310	9/16"-18 Zinc Finish Top Lock Nut	Grade C

Product Notes and Features:

Achieve superior performance and durability with the **Ultimate Jeep Control Arms**, engineered for unmatched comfort and reliability. Designed with meticulous attention to detail, these control arms are built to handle the toughest terrains while delivering a smooth and quiet driving experience.

- Smooth and quiet performance that isolates road noise and vibration for a quieter ride
- Reliable, greaseable, and rebuildable joints with 40 degrees of misalignment
- Heavy-duty DOM tubing and housings for maximum strength and durability
- Forged adjusters for precise alignment and adjustability
- Reduced suspension angles for a smoother, more controlled ride
 - Only tested and confirmed use in conjunction with COR-2108100, Long Arm Frame Brackets
- Longer arms to deliver greater articulation and climbing ability
- Lower arm frame bracket hardware (9/16"-18 x 4" bolts, nuts, and washers) included
- **Arm dimensions: MIN = 29 $\frac{3}{4}$ " , MAX = 31 "**



INSTALLATION INSTRUCTIONS

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

The following instructions are applicable to the listed components below:

- 4808412
- 2108112
- 2208310
- 1130110
- 1908301
- 1908007

The following instructions provide a complete guide for installing a full front upgrade kit, compatible with 2007-2018 Jeep JK

*****The following steps apply to both 3.8L and 3.6L JK vehicles, unless noted otherwise*****

If you purchased single-arm sets, individual brackets, or an incomplete 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!

INSTALLATION INSTRUCTIONS

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

Please read the following important notes regarding the installation:

- An optional adjustable rear trackbar (4508110) can be used with the rear trackbar bracket (4508200). This trackbar is necessary for 2-door models using a CV rear driveshaft or for fine-tuning a 4-door model.
- The newer 2007+ Jeep Wrangler JKs are equipped with an Electronic Stability Program (ESP). The Electronic Stability Program aids the driver in maintaining vehicle directional stability, providing oversteer and understeer control to maintain vehicle behavior on various road surfaces. This function is affected when lifting this vehicle and may not function properly. It is highly important to center the steering wheel. Please drive cautiously until you know how your vehicle will react.
- It may be necessary that a front CV shaft with this lift on either 2 or 4-door models. 2-door models may also require a CV rear driveshaft.
- The 3.5-inch lift kit is intended to fit 35x12.5 tires. Stock rim backspacing will NOT work. We recommend a backspacing of 4.5" or a 1.5" wheel spacer.
- The 3-link kit (all lift heights) requires custom exhaust work. In our experience, removing the exhaust, installing the kit, and replacing sections entirely is the most efficient. In most cases, exhaust and pipe welding will be required to re-route the exhaust around the suspension linkage.

INSTALLATION INSTRUCTIONS

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

STOP! READ BEFORE CONTINUING:

- The Jeep Wrangler Pro Series 3 Link Upgrade Kit installation requires attention to detail. While the installation may not be difficult for some, it remains more complicated and extensive compared to that of a bolt-on lift kit. Clayton Off Road suggests that the installer be familiar with welding, fabrication, and have previous knowledge of installing similar suspension linkages before proceeding with this installation.
- While the Pro Series 3 Link Long Arm Upgrade Kit is compatible with a Dana 30/44 axle (with the purchase of our truss COR-1108102), our Pro Series Lift Kits and/or Upgrade Kits may not be compatible with your aftermarket axle. **Before permanent work is done to your vehicle, please research and verify that our 3 Link suspension components will be compatible with your aftermarket axle.**

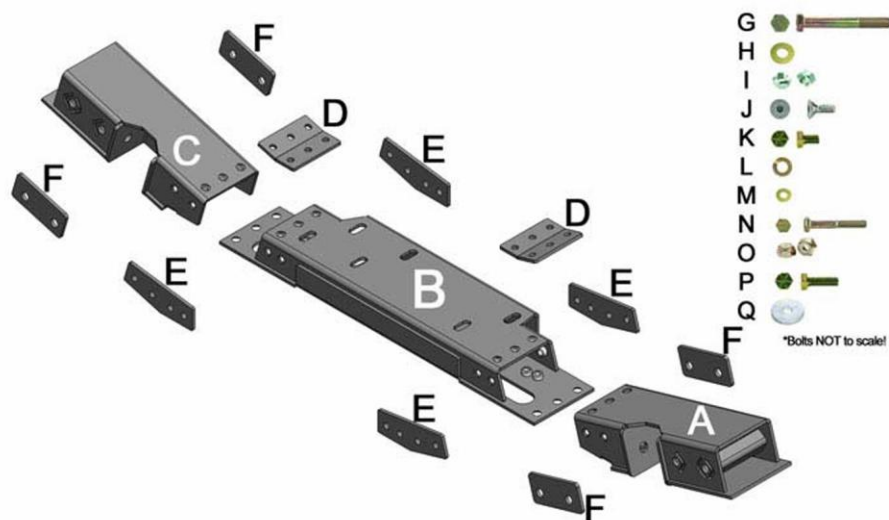
INSTALLATION INSTRUCTIONS

TOOLS REQUIRED FOR INSTALLATION

- Basic hand tools
- Metric wrench/socket set
- Standard wrench/socket set
- Electric drill and drill bits and 3/8"-16 tap
- 1-1/2" hole saw
- Cut-off wheel and welder
- Large box wrenches, (1-7/16", 1-7/8")
- Four large jack stands, ramps, or a 4-post drive-on lift

1. Support drivetrain and remove OEM cross member and the OEM skid plates if equipped. Retain all OEM hardware as some may be reused.

2. Assemble your new 3-piece cross member. Below is a parts list and an exploded view of the cross member and where each part goes. Make sure the center section (B) is facing the correct way. Double check by making sure you can install the 9/16s bolts (G) into their mounting location.



Item #	PN	Description
A	JKCML	JK cross member left (Driver)
B	JKCMC12	2012+ JK cross member center (Auto&Man)
C	JKCMR	JK cross member right (Passenger)
D	JKCM06	Top mounting plate
E	JKCM0512	2012 JK side mounting plate
F	JKCM11	Outside mounting plate
G	18950	9/16"-18 x 3-3/4" Yellow Zinc Hex Cap Screw
H	514071	9/16" SAE Hard Washer
I	368168	9/16"-18 IFI GR C ZNCWX All MTL Lock Nut
J	94286	3/8"-16x1" Flat Head Socket Cap Screw
K	15103	3/8"-16 x 3/4" Yellow Zinc Cap Screw
L	33893	3/8" High Alloy Lock Washer
M	33815	3/8" SAE Flat Washer Yellow Zinc
N	15224	1/2"-13 x 5-1/2" Yellow Zinc Hex Cap Screw
O	37187	1/2"-13 Yellow Zinc Nylon Insert Lock Nut
P	15107	3/8"-16 x 1-1/4" Yellow Zinc Grade 8 Hex Cap Screw
Q	11103739	3/8" x 1.250" x 0.125" Thick Fender Washer

INSTALLATION INSTRUCTIONS

- All the brackets will be used to assemble the cross member except for the outside mounting plates (F). These are used as reinforcement spacers to properly clamp the cross member back into the OEM location.
- Once you have assembled the cross member, it should look as pictured below. Do NOT install the front (J) Allen head bolts yet. They will be in the way of installing the (G) 9/16" Johnny Joint bolts. Install these once all arms are installed. See image below.



- Install the cross member into your JK. You may find it is easier to install the Johnny Joints with the cross member out of the vehicle, as seen in the photos below. The joints will come with anti-seize on the threads; however, adding more can't hurt if you have it.



INSTALLATION INSTRUCTIONS

6. This pocket design allows for maximum clearance; however, lining up the washers and bolts may be tricky at first. Installing just the Johnny Joint makes it easier to hold everything in place while you line up the washer, bolt, and nut on the other side.

Once everything is installed, an open-ended wrench will fit on the outside to hold the nut. On the inside, a 13/16" socket with 3/8" drive socket with an extension will fit (**A 1/2" drive and socket will NOT fit**). In the previous picture, we used a 3/8" socket, with a 3/8" to 1/2" adapter to tighten the 9/16" Grade 8 bolts down.

7. This cross member has been designed as a bolt-in and can be used without welding. For our customers who are more abusive with their driving style, we recommend welding in this cross member for maximum strength. The outside flanges will almost touch the bottom of the frame. If you choose to weld in the cross member, this is the time to prep the frame and the cross member. Because this is a 3-piece cross member, if you need to service the transmission in the future, the center section can still be removed.

8. Install the cross member into your Jeep JK and make sure it is centered left to right. Reinstall the OEM transmission bolts. Use the new (N) 1/2"-13 bolts with the outside spacer plates (F) on each side to clamp the cross member into the factory bracket.

NOTE: Do NOT weld anything into the vehicle until you are sure that everything fits and is installed correctly.



INSTALLATION INSTRUCTIONS

9. If you purchased our skid plates, you may skip to Step 10. If you are reusing the stock skid plates, you will need to trim the stock gas tank skid to allow clearance for the new passenger side control arm mount. use hardware (K) 3/8" bolt, and washer (M) to reattach the OE skid plate to the new cross member.

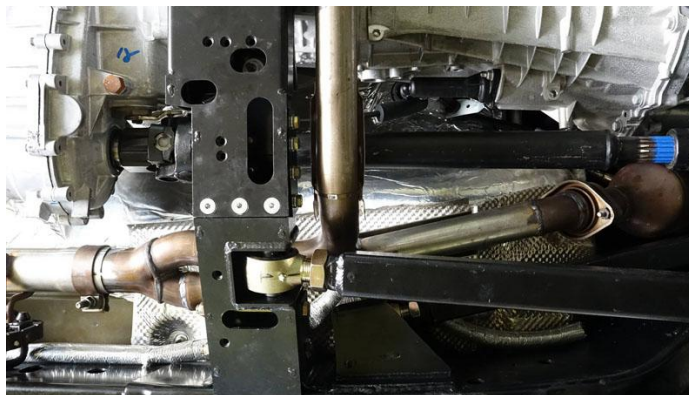
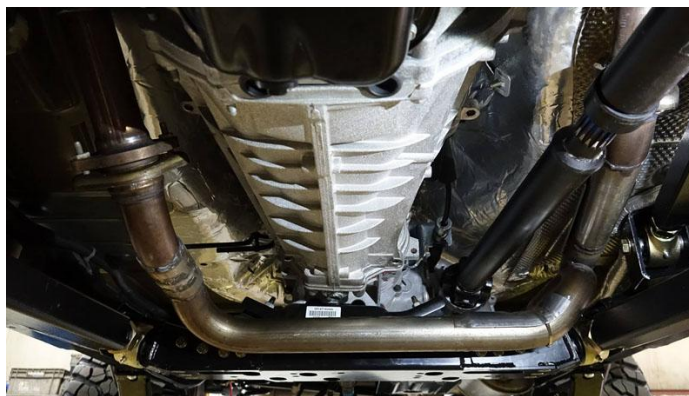


10. When using our main skid plate, you will need to trim the OEM gas tank skid to clear the cross member, and drill new holes and bolt it together using the hardware sent with the skid plate.



INSTALLATION INSTRUCTIONS

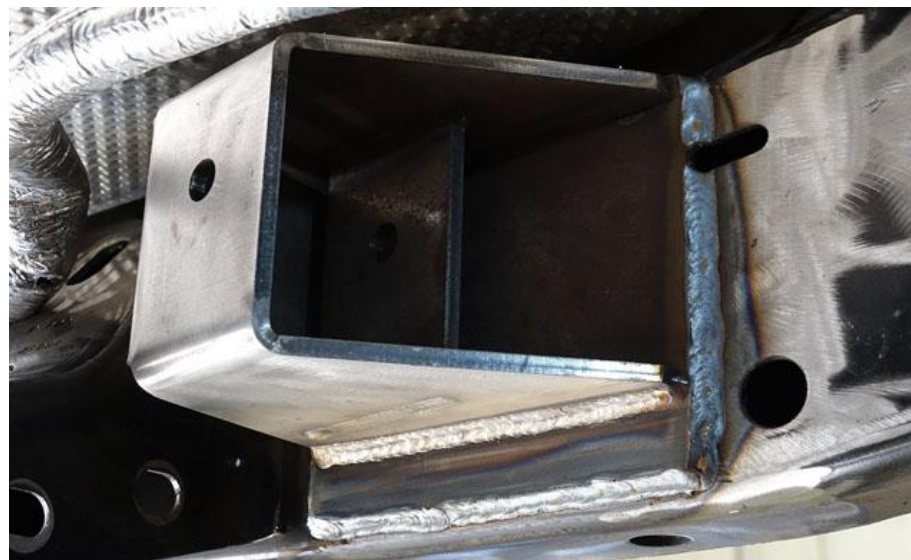
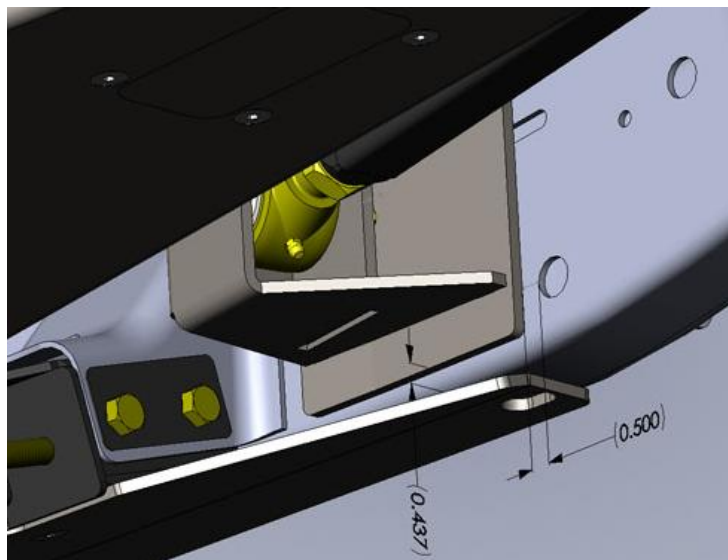
11. Now is the time to modify your exhaust. We recommend removing the exhaust section completely and leaving it out until you install the 3-link bracket and control arms. The photos below show that the exhaust has been re-piped and welded alongside the 3-link arm, all the way to the flange before the header. If you require an exhaust spacer to push the exhaust away from the cross member, any bolt-on spacer should work.



INSTALLATION INSTRUCTIONS

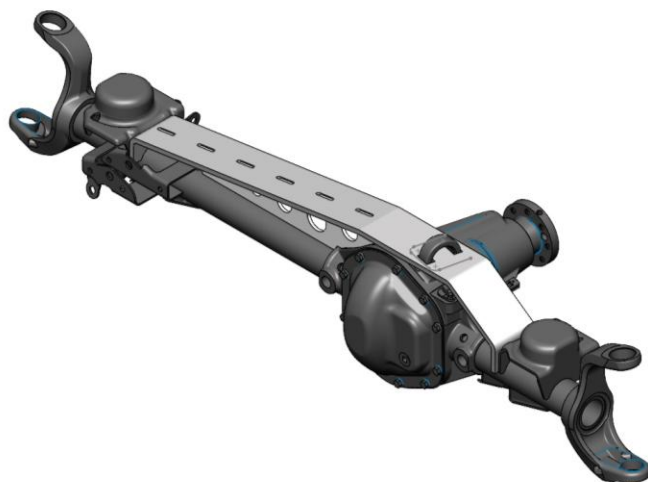
12. Install the 3-link bracket. The bracket should **ONLY** be installed on the driver-side of the vehicle. Refer to the photo below for measurements on order to locate the bracket onto the frame rail. The bracket will sit just above the bottom of the frame rail.

- Measure 0.500" (or 1/2") from the lower hole in the frame.
- Measure 0.437" (or 7/16") up from the bottom of the frame rail.
- Ensure that the bracket is straight and not crooked before tacking the bracket into place
- **STOP: If you have an aftermarket axle, skip the step below. If you are installing our truss, proceed to the step.**
- Double-check the measurements above and weld the 3-link bracket as seen below.



INSTALLATION INSTRUCTIONS

13. Install your Dana 30/44 truss, or make sure that your aftermarket axle can accommodate the 3-Link arm. **Please visit our website and view the COR-1108102 product page to find more information on how to install our Dana 44 Truss.**



INSTALLATION INSTRUCTIONS

14. After your truss is installed, you will need to weld on the 3 Link Axle Mount. The axle may need to be removed, depending on clearance.

Clean the differential housing to weld the mount directly to the housing or the truss. Trim the mount to match the housing, and locate the mount in position. Tack-weld the mount into place first.

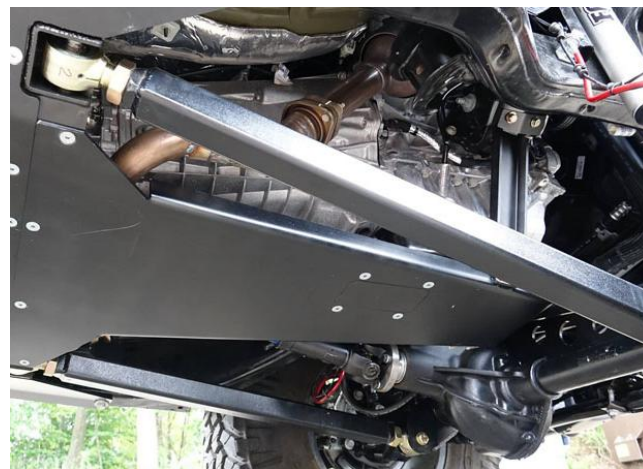
Preheat the housing and bracket to around 400-500 degrees. If using a cast housing, **Weld completely around the inside and outside of the mount.** If you do not want to weld to the differential housing, you need to create a surface strong enough to take the torque created by your drive train using either a bridge or, in most cases, a truss. (**COR-1108102**).

With the mount welded in, paint and reinstall the axle if it was removed.



INSTALLATION INSTRUCTIONS

15. At this time, the front long arms can be installed. **Chock the wheels and remove only the driver-side arms at this time.** Cut off the lower OEM frame mounts on **this side only, for now.** This is best accomplished with a cutoff wheel or a plasma cutter. Always wear eye protection when using a grinder. **Use caution when cutting off the brackets, and move any cables, wires, or lines out of the way.**



16. Measure and make sure both lower arms are the same length. We recommend 36-1/2", 36-3/4", and 37.00" for our 2.5", 3.5" and 4.5" lift height options, respectively. **These are simply recommendations, and additional fine-tuning will be required, just like any properly designed lift kit.**

17. If you are upgrading from our short arm kit, you will not need the short uppers from your previous lift kit. Your upper arms will be replaced with a single, 3-link arm to set and maintain axle caster angle. The included single front long upper is designed to work in conjunction with the axle truss and axle truss bracket you have previously welded into place.

INSTALLATION INSTRUCTIONS

18. The driver side upper arm will simply hold the pinion, so you can proceed to the passenger side. Final adjustments will be made once all arms are installed and the vehicle is at ride height. Remove the passenger side arms and install the passenger side lower long arm. Remove the OEM brackets.

19. Set the vehicle at ride height and set your caster angle to about 4.5 degrees. On our 4.5" lifted JK, our upper arms are approximately 18.75 inches long. Upper arms do NOT have to be the same length. Install the other upper arm and adjust the end as necessary.

NOTE: The OEM front skid plate will not work with the long arms or a lifted JK due to clearance issues with the driveshaft and arms. Remove the OEM skid plate at this time.

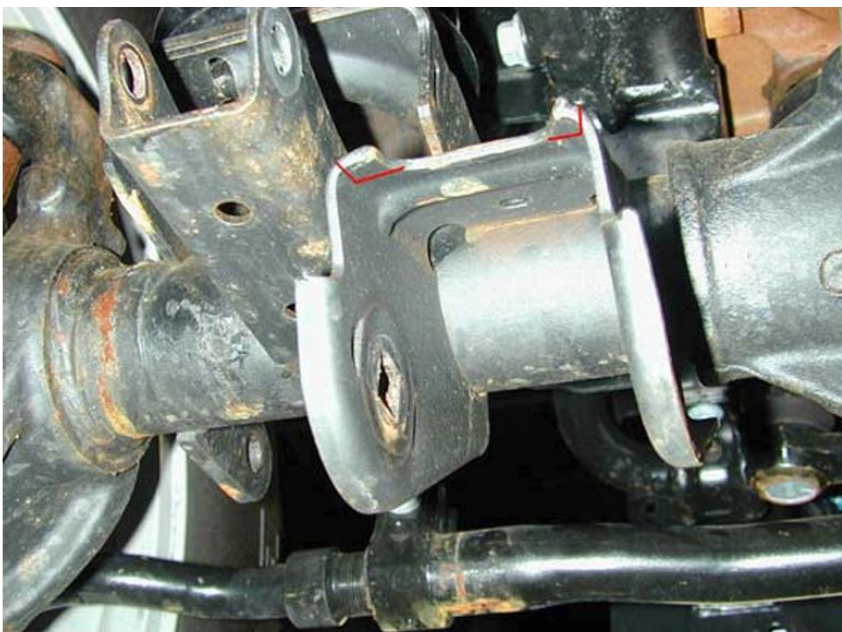
20. Return the vehicle to ride height and tighten all suspension bolts and any other bolts you may have removed during the installation.

21. OE-style transmission skid plate can NOT be reused. The transfer case and engine skid plates can be reinstalled with some minor trimming and aftermarket hardware. Use the large (Q) fender washer with (P) 3/8"-16 x 1-1/4 cap head screw to reinstall the transfer case skid. See pictures below.



INSTALLATION INSTRUCTIONS

22. To allow clearance for the new long arms, you might need to grind away the corners of the lower OEM frame brackets. We simply took a grinding disk and ground down the corner. See the photos below for where to grind to provide clearance.



*****Always wear eye and ear protection when using a cut-off wheel*****

INSTALLATION INSTRUCTIONS

23. Torque all hardware. Refer to the table below for helpful torque specifications. It is recommended to retorque all bolts after the first 500 miles of driving.

Table 1: COR FRONT Long Arm Torque Specifications

Bolt Location	Wrench Size	Torque (ft-lbs)
Upper Control Arm 3-Link Axle Mount (9/16"-18 x 4")	13/16"	130
Upper Control Arm 3-Link Frame Mount (9/16"-18 x 4")	13/16"	130
Lower Control Arm Cross Member Bolt (9/16"-18 x 4")	13/16"	130
Lower Control Arm Axle Bolt (9/16"-18 x 4")	13/16"	130

INSTALLATION INSTRUCTIONS

24. 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 SKUs below.



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

INSTALLATION INSTRUCTIONS

25. The front-end components are now installed. Please follow the post-installation checklist to complete the installation. As always, feel free to contact us with any questions you may have about the installation.



POST-INSTALLATION CHECKLIST:

- The cross member is properly installed into the frame
- The exhaust is re-routed and out of the way
- All suspension hardware is torqued to specification (see Step 23)
- 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



INSTALLATION INSTRUCTIONS

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

The following instructions are applicable to the listed components below:

- 4808200
- 2108100
- 1908302
- 1908030

The following instructions provide a complete guide for installing a full rear upgrade kit, compatible with 2007-2018 Jeep JK

*****The following steps apply to both 3.8L and 3.6L JK vehicles, unless noted otherwise*****

If you purchased single-arm sets, individual brackets, or an incomplete 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!

INSTALLATION INSTRUCTIONS

TOOLS REQUIRED FOR INSTALLATION

- *Basic hand tools*
- *Metric wrench/socket set*
- *Standard wrench/socket set*
- *Electric drill and drill bits and 3/8"-16 tap*
- *1-1/2" hole saw*
- *Cut-off wheel and welder*
- *Large box wrenches, (1-7/16", 1-7/8")*
- *Four large jack stands, ramps, or a 4-post drive-on lift*

26. 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 an additional jack stand. Remove the rear tires for more clearance.



INSTALLATION INSTRUCTIONS

27. You will now begin the rear long arm installation. The JK rear long arm brackets are designed with the ability to be installed without removing the gas tank. However, you will need to cut and grind brackets very close to the gas tank. Therefore, we highly recommend that you remove the gas tank for safety reasons.
28. The JK Rubicon rocker panels, and most likely any other rocker panels, will need to be removed to properly install the rear brackets. Some rocker panels may need to be modified to be reinstalled.
29. Start by removing the passenger side gas tank nut-insert. Unscrew the bolt about halfway down, then hit it with a 5 lb. sledgehammer until the bolt forces the nut insert out. It is slightly welded on the inside of the frame and needs to be removed to properly install our rear frame brackets. See the picture on the left.
30. You will also need to trim the OEM tab, which is a part of the gas tank skid plate. See the photo to the right.



INSTALLATION INSTRUCTIONS

31. Next, you will need to trim the rear OEM body mounts. Measure 2" from the bottom up and notch the mounts (both sides of the mount). Do this for the driver and passenger side.



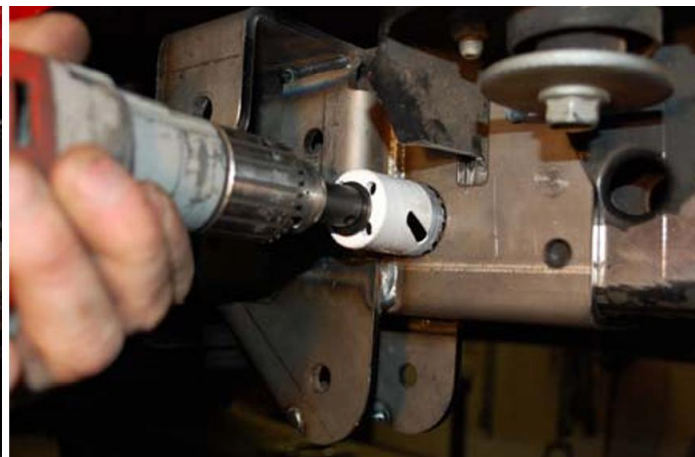
32. Once you have trimmed the rear body mounts, remove the lower control arm mount and the rear upper mount **on the driver side only, for now**. Take a grinder to the bottom and front of the frame and make sure the frame is clean where the new bracket will be clamped. Make sure to smooth down the section of the frame where they are welded together. This will be the alignment point for the front of the new frame bracket.



INSTALLATION INSTRUCTIONS

33. The rear frame bracket should be aligned with the front of the double edge of the frame. Use a few C-clamps and make sure the bracket is properly positioned before you start drilling holes. We used a bottle jack and a block to press the bracket tight against the bottom of the frame rail, and 2 C-clamps to hold the bracket against the frame.

34. On the passenger side, the frame has a square access hole which will allow you to install the PEM fasteners that clamp the bracket to the frame. On the driver side, you will need to drill a 1-½" hole using a hole saw. Make sure your bracket is properly positioned and c-clamped while you drill this access hole.



35. Next, you will need to drill eight, ½" holes in the frame and then insert the PEM fasteners through the access holes and start each bolt. Line up the driver side and passenger side brackets and the appropriate PEM fastener brackets. We recommend starting with the lower 2 holes, drilling them, and bolting the bracket in. With the bracket bolted and c-clamped to the frame, drill the next set of 3 holes. Bolt in those 3, then move on to the last set. This will make it less likely that something moves and should make it easier to align all the bolts with the PEM fastener brackets.

INSTALLATION INSTRUCTIONS

36. Feed the lower straight bracket in through a hole in the bottom of the frame with the longer side feeding first. There is a step in the frame, and this is to allow for a proper fit. Do not force the bolts into the PEM fastener brackets as they may bend, and you may not be able to line up the bolt and PEM. If this does happen, remove the PEM bracket, straighten it, and try again.



37. Use the 7 hex-head bolts in the frame bracket and the 1 Allen head in the front. This is strictly for clearance against rocks. Once all bolts are started, **torque each to 80-110 lb-ft.**

38. Reinstall the gas tank and skid plate (if removed).

Complete the bracket installation on both sides of the vehicle.

NOTE: When reinstalling the gas tank and skid, you may need to bend-in, or roll the gas tank skid in order to allow for the 9/16" bolt and nut to fit.

INSTALLATION INSTRUCTIONS

39. Now you are ready to install the rear long arms. The lower arms have a certain angle to properly line up with the OEM axle brackets. Make sure to keep both lower arms the same length. **On a 4-door model, set the lower arm length to 32-1/4", 32-1/2", and 32-3/4" for our 2.5", 3.5", and 4.5" lift height options, respectively.** Final adjustments may need to be made depending on actual tire size, vehicle weight, and bumpers used.
40. When installing the **long rear uppers on a 2-door model, we recommend 31-3/4", and 30-1/2" on a 4-door.** These are only starting measurements, and final measurements should be made depending on your driveshaft type and angles.
41. **The rear upper arms also have a driver and passenger side to allow for a tire clearance bend** Set your desired pinion angle and then adjust the adjuster so the bolt slides in easily. The rear uppers do NOT have to be the same length. Make sure when you tighten the jam nuts that the Johnny Joints are centered in the bracket to allow for even articulation. A completed install should look like the pictures below.



INSTALLATION INSTRUCTIONS

42. Torque all hardware. Refer to the table below for helpful torque specifications. It is recommended to retorque all bolts after the first 500 miles of driving.

Table 2: COR REAR Long Arm Torque Specifications

Bolt Location	Wrench Size	Torque (ft-lbs)
Upper Control Arm Frame Bracket (9/16"-18 x 4")	13/16" and 7/8"	170
Upper Control Arm Axle Bolt (Factory Size)	21mm	125
Lower Control Arm Frame Bracket (9/16"-18 x 4")	13/16" and 7/8"	170
Lower Control Arm Axle bolt (9/16"-18 x 4")	13/16" and 7/8"	170

INSTALLATION INSTRUCTIONS

43. 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 SKUs below.



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

INSTALLATION INSTRUCTIONS

44. The rear-end long arm lift kit installation is now complete. Please see the post-installation checklist and confirm you have completed all of the steps before driving your vehicle.



POST-INSTALLATION CHECKLIST:

- Tighten all suspension nuts (See Table 2 from Step 42)
- Hex-head frame bracket bolts torqued to 80-100 lb-ft
- Check tire clearance on the rear body panel. Trimming may be required depending on tire size and lift height
- Control arm jam nuts are as tight as possible
- Lug nuts are torqued to the manufacturer's specification
- Retorque all hardware after 500 miles of driving
- Test drive with the ESP manually disengaged. We highly recommend that this system be updated to properly function with your new lift height and larger tires. A proper alignment is a critical part of having the ESP function properly.

