

A collection of various automotive suspension components, including control arms, springs, shock absorbers, and steering knuckles, arranged in a grid-like pattern. The components are shown in a 3D perspective view, highlighting their metallic surfaces and yellow-painted joints. The items are organized into rows and columns, showcasing different parts of a vehicle's suspension system.

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Recommended starting lengths for track bars and control arms. These lengths can be adjusted as needed for caster angle, drive shaft angles and tire clearance. Please make sure to not exceed the maximum length of the control arms or track bars.

Lift Height >	Stock	2.5" Lift	3.5" Lift
Suspension Component			
Front Lower Control Arms	24.000	24.336	24.500
Front Upper Control Arms	20.185	20.272	20.401
Rear Lower Control Arms	23.740	23.962	24.116
Rear Upper Control Arms	16.378	16.577	16.759
Front Track Bar	33.779	34.090	34.251
Rear Track Bar	33.689	33.869	33.987

Refer to individual product part number instructions.

Step 1: Position front of vehicle on jack stands or complete vehicle on lift.

Step 2: Support front axle.

Step 3: Remove front tires.

Step 4: Loosen front track bar bolts.

Step 5: Remove heat shields and loosen upper and lower control arm bolts.

Step 6: Loosen front upper and lower control arm bolts.

Step 7: Remove front sway bar links.

Step 8: Remove front shocks.

Step 9: Remove two brake line clip bolts on both sides.

Step 10: Unclip and disconnect all wires going to the front axle.

Step 11: Lower front axle.

Step 12: Remove front springs.

Step 13: Remove front upper and lower control arms on one side.

Step 14: Install front lower control arm part number COR-1809100 with curve facing in for tire clearance.

Step 15: Install front upper control arm part number COR-1809101 with curve away from the frame.

Step 16: Repeat steps 13 and 15 on other side.

Step 17: Remove front track bar.

Step 18: Install front track bar part number COR-4509100.

Step 19: Install front bump stops part number COR-1408100.

Step 20: Install front springs part number COR-1509350 2.5" lift or COR-1509450 3.5" lift.

Step 21: Install front shocks.

Step 22: Install front sway bar links part number COR-5109100.

Step 23: Install part number COR-1309501 brake line bracket extensions on both sides.

Step 24: Clip and connect all wires going to the front axle.

Step 25: Install front tires.

Step 26: Position rear of vehicle on jack stands or complete vehicle on lift.

Step 27: Support rear axle.

Step 28: Remove rear tires.

Step 29: Loosen rear track bar bolts.

Step 30: Loosen rear upper and lower control arm bolts.

Step 31: Unclip or unbolt any brake lines or e-brake cables to let axle drop down more.

Step 32: Unclip and disconnect all wires going to the rear axle to let axle drop down more.

Step 33: Remove rear sway bar links.

Step 34: Remove rear shocks.

Step 35: Lower rear axle.

Step 36: Remove rear springs.

Refer to individual product part number instructions.

Step 37: Remove rear upper and lower control arms on one side.

Step 38: Install rear lower control arm part number COR-1810102 .

Step 39: Install rear upper control arm part number COR-1810103.

Step 40: Repeat steps 37 and 39 on other side.

Step 41: Remove rear track bar.

Step 42: Install rear track bar part number COR-4510110.

Step 43: Install rear bump stops part number COR-1410200.

Step 44: Install rear springs part number COR-1510251 2.5" lift or COR-1510351 3.5" lift.

Step 45: Install rear shocks.

Step 46: Install rear sway bar links part number COR-5110110.

Step 47: If removed install brake line clip bolts on both sides and bolt in parking brake cables.

Step 48: If unclipped or disconnected clip and connect all wires going to the rear axle.

Step 49: Install rear tires.

Step 50: Install rear brake lines.

Step 51: With vehicle sitting at ride height center both front and rear axles under the vehicle by adjusting the front and rear track bars.

Step 52: In the next 2 steps it is very important to set the caster and pinion angle with a jack with the bolts at one end removed then adjust the length of the upper control arms so they are loaded up equally when the jack is removed.

Step 53: Adjust length of front upper arms to have a caster angle of 4.8 degrees. This angle should be within plus or minus 1.00 degrees.

Step 54: Adjust rear pinion angle to keep lower spring perches aligned with upper spring perches. On 2 door models it will be necessary to roll the pinion up to avoid the rear drive shaft from binding on full droop.

Step 55: Tighten all track bar and control arm bolts.

Step 56: Tighten all track bar and control arm jam nuts.

Clayton Off Road
COR-1809100
Jeep Wrangler Short Front Lower Control Arms (2018 & Up, JL/JT/JT)



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Refer to pictures below.

Step 1: Remove old control arm on one side.

Step 2: Remove shock bolt.

Step 3: Position axle.

Step 4: Measure length from axle side mount to frame side mount.

Step 5: Adjust control arm to length and run jam nut up to control arm tube insert.

Step 6: Install new control arm with adjustment end on frame.

Step 7: Install control arm bolts and nuts.

Step 8: Torques both bolts to 190 ft-lb.

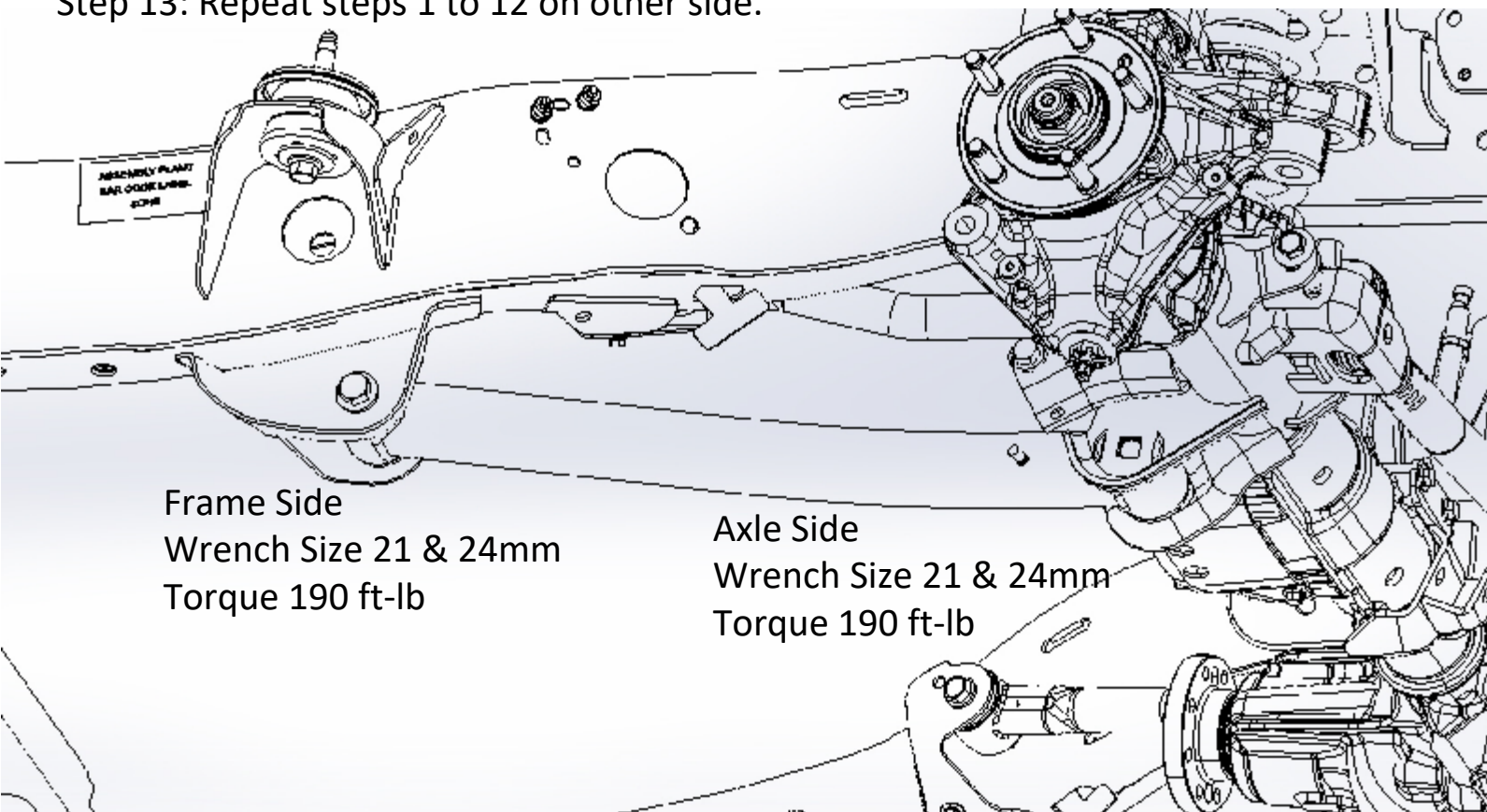
Step 9: Tighten jam nut using a 46mm or 1-13/16" wrench.

Step 10: Make sure Johnny Joint at frame side is centered in bracket.

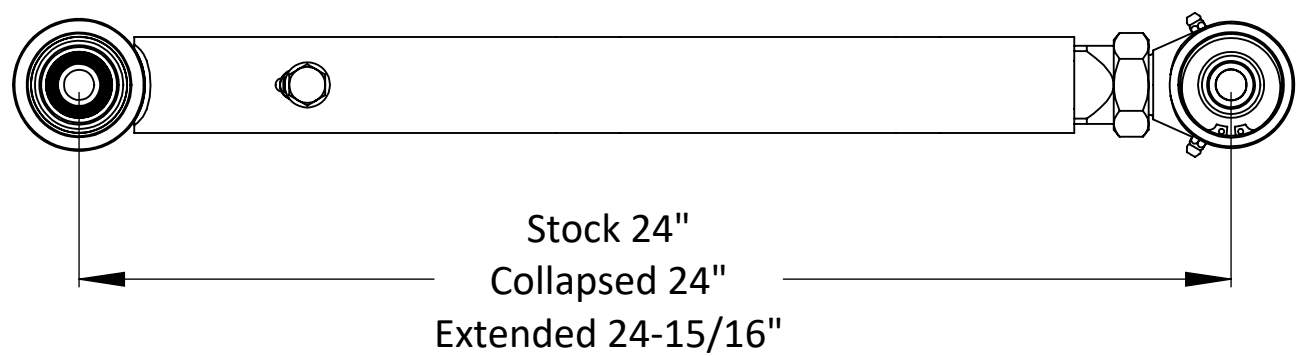
Step 11: Bolt brake line clip to control arm.

Step 12: Install new shock bolt, nut and washer.

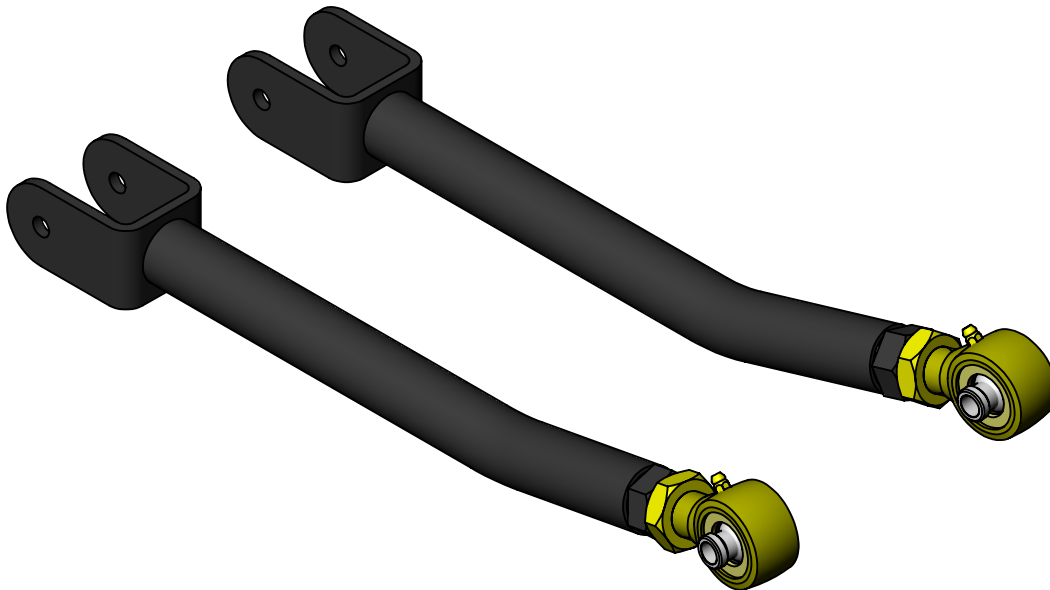
Step 13: Repeat steps 1 to 12 on other side.



Refer to drawing below for minimum and maximum lengths.



**Clayton Off Road
COR-1809101
Jeep Wrangler Short Front Upper Control Arms (2018 & Up, JL/JT/JT)**



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Refer to pictures below.

Step 1: Support axle from rotating, a floor or bottle jack works well.

Step 2: Remove old control arms.

Step 3: Set caster to 4.5 to 5.5 degrees by adjusting the height of the jack.

Step 4: Install arms at frame side, arm should bow away from frame.

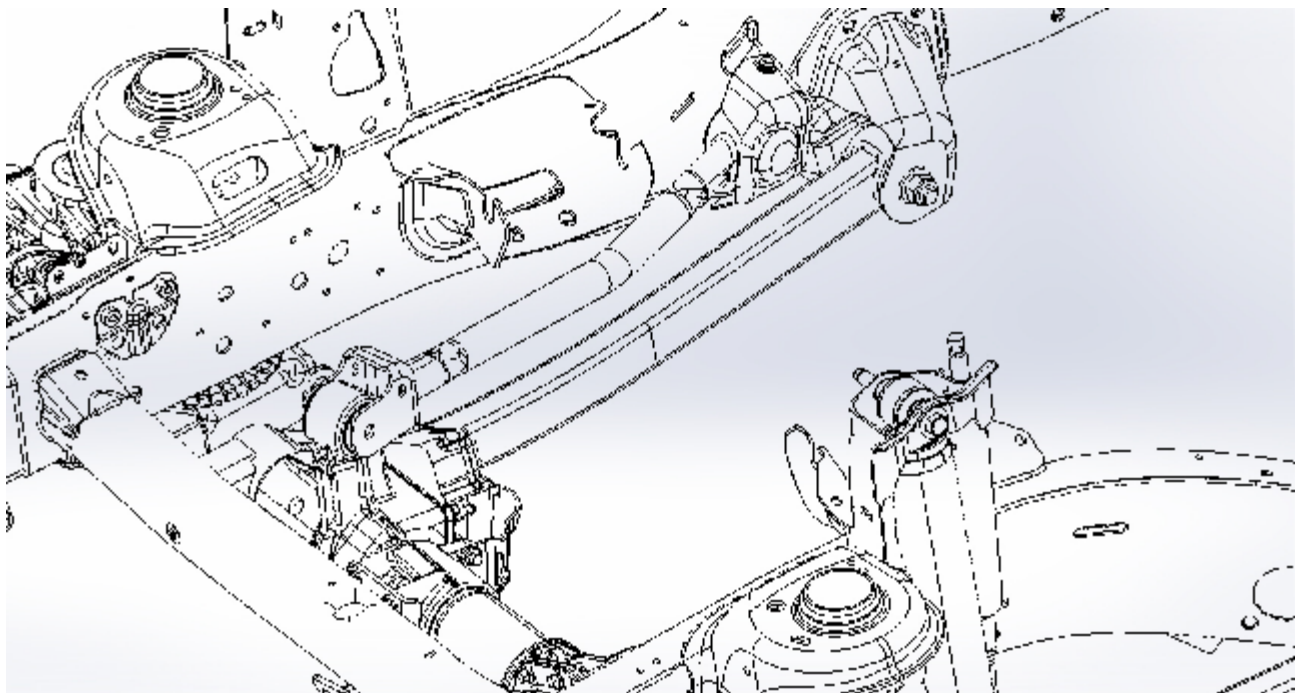
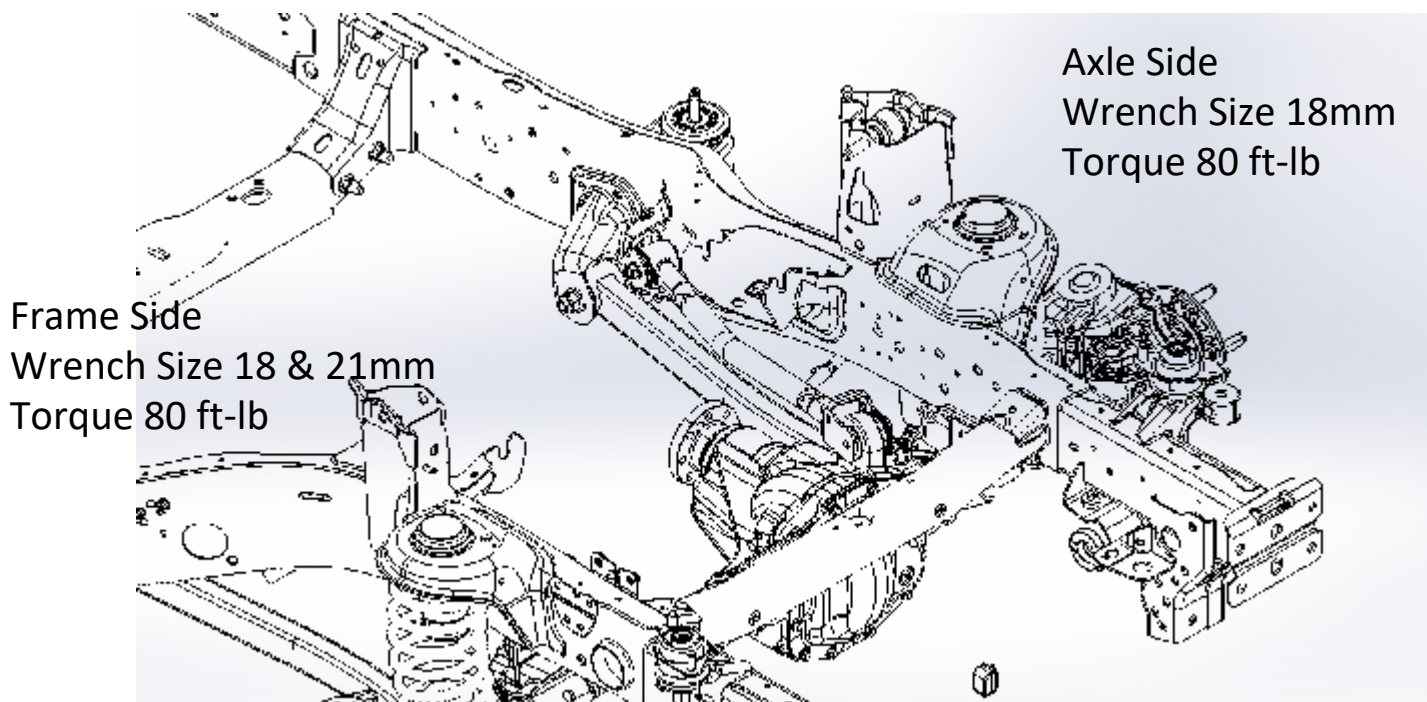
Step 5: Adjust control arm to length so that bolts can easily be installed at axle end.

Step 6: Remove jack, and check caster.

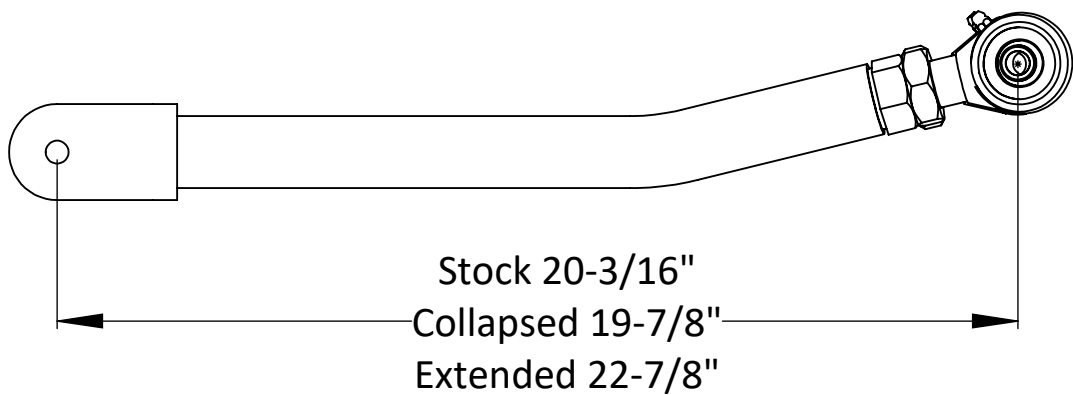
Step 7: Torque all bolts to 80 ft-lb.

Step 8: Tighten jam nut using a 1-7/16" wrench.

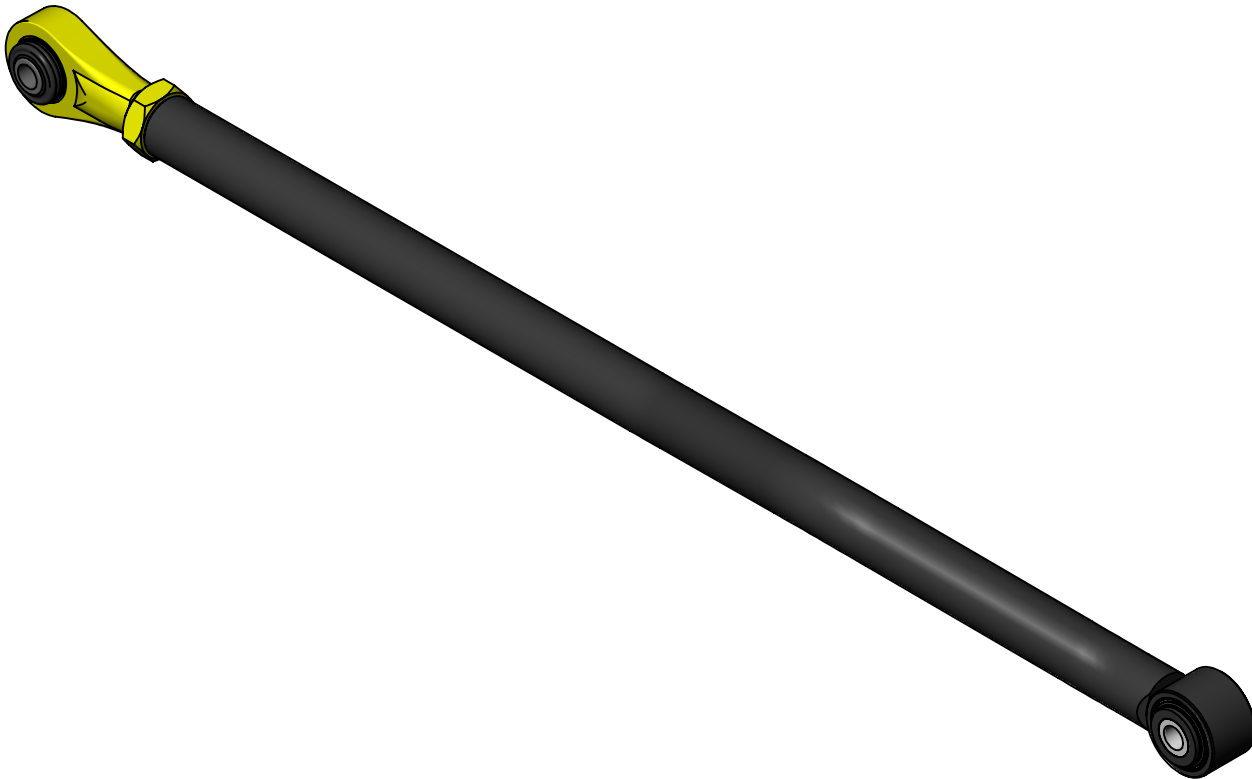
Step 9: Make sure Johnny Joint at frame side is centered in bracket.



Refer to drawing below for minimum and maximum lengths.



**Clayton Off Road
COR-4509100
Jeep Adjustable Front Track Bar (2018 & Up, JL/JT)**



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Refer to pictures below.

Step 1: Remove old track bar.

Step 2: Center frame on axle.

Step 3: Measure length from axle side mount to frame side mount.

Step 4: Adjust track bar to length and run jam nut up to track bar tube.

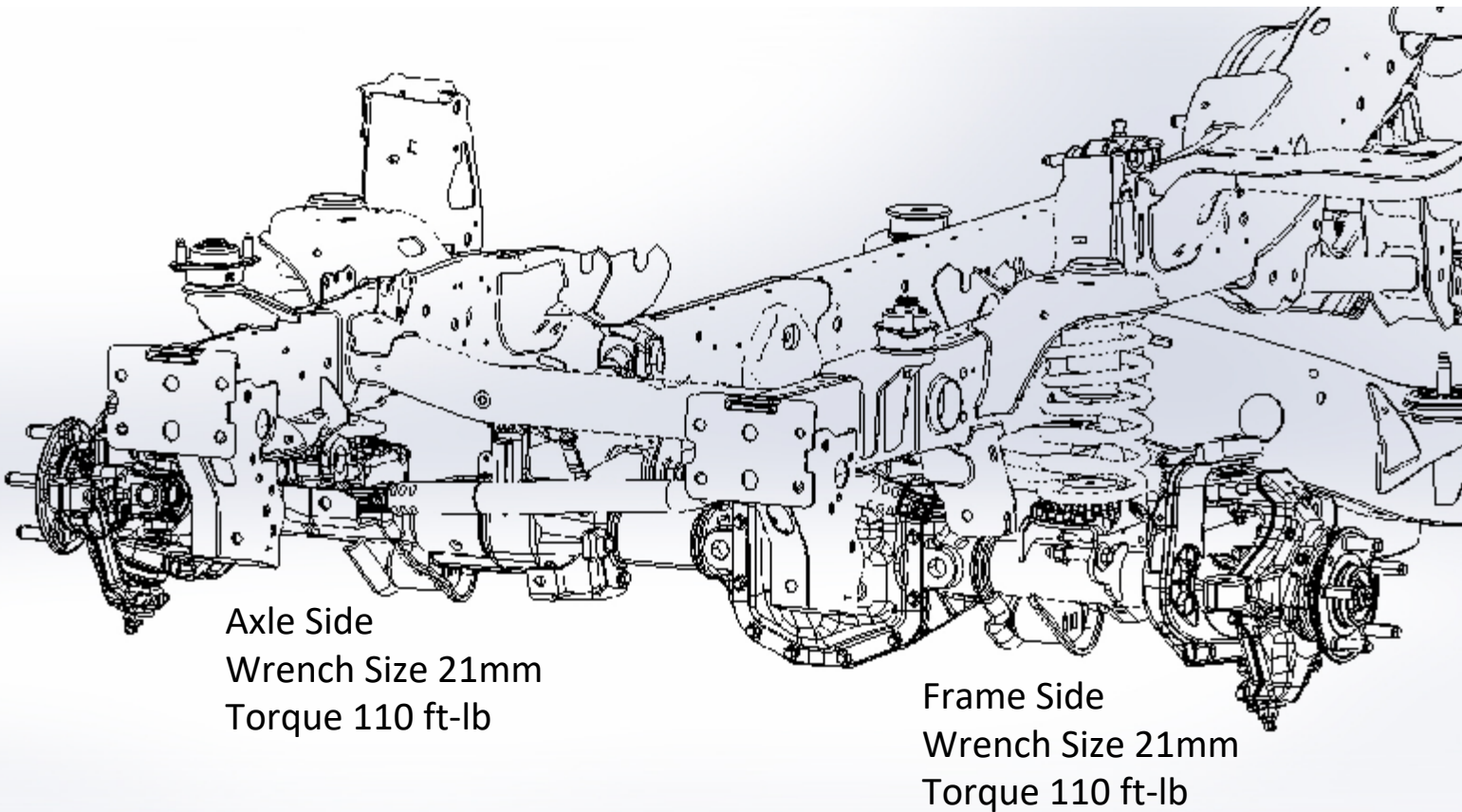
Step 5: Install new track bar with adjustment end on axle.

Step 6: Install track bar bolts and nuts.

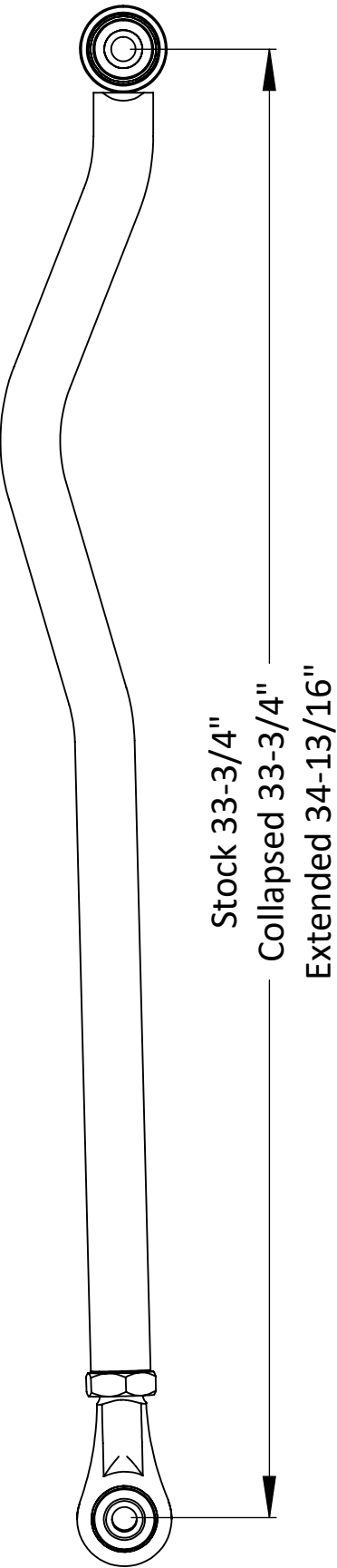
Step 7: Torques both bolts to 110 ft-lb.

Step 8: Tighten jam nut using a 1-7/16" wrench.

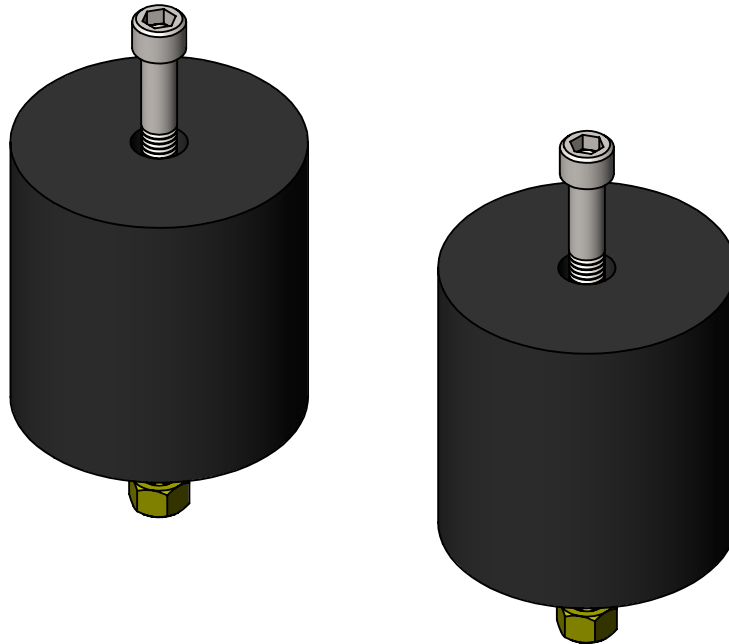
Step 9: Make sure Johnny Joint at frame side is centered in bracket.



Refer to drawing below for minimum and maximum lengths.



**Clayton Off Road
COR-1408100
Jeep Front Bump Stops (2007 & Up, JK/JL/JT)**



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Refer to picture below.

Step 1: Remove spring.

Step 2: Center bump stop on lower coil bucket.

Step 3: Mark hole location on lower coil bucket.

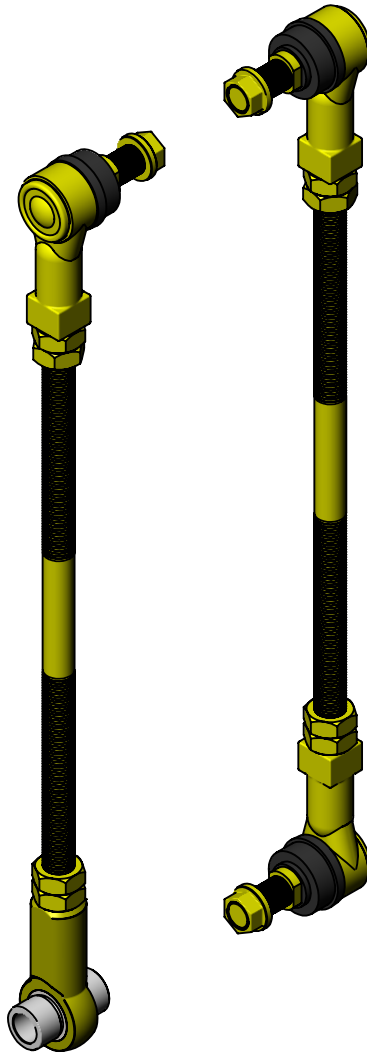
Step 4: Drill 13/32" hole in lower coil bucket or use existing hole.

Step 5: Insert bump stop into spring and install spring.

Step 6: Install nut and tighten bolt.



**Clayton Off Road
COR-5109100
Jeep Adjustable Front Sway Bar End Links (2018 & Up, JL/JT)**



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Refer to pictures below.

Step 1: Remove old sway bar end links.

Step 2: Drill hole in sway bar to 1/2" diameter.

Step 3: Make sure vehicle is at ride height.

Step 4: Set sway bar at a 5 degree upward angle.

Step 5: Measure the distance from the upper and lower mounting holes.

Step 6: Use the formula below to calculate rod length.

Step 7: Cut rod to length.

Step 8: Install two jam nuts on each end of rod.

Step 9: It may be necessary to lock the 2 jam nuts against each other to thread rod end on.

Step 10: The rod end with no stud in it goes on the passenger side axle, Use an aluminum spacer on each side of this rod end.

Step 11: Install sway bar links with the studs facing in.

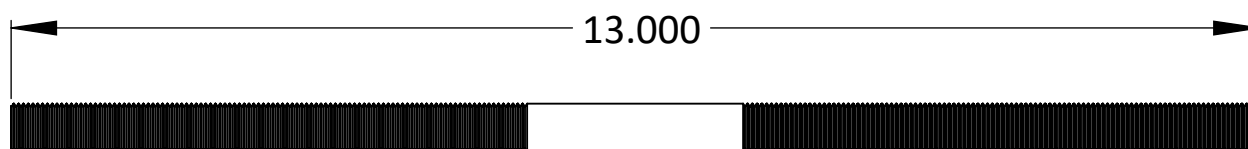
Step 12: Make sure all rod ends are centered.

Step 13: Torque all nuts, bolts and jam nuts to 60 ft-lb.

Step 14: Cycle the suspension through its full travel, check for binding and adjust rod length if needed.

Step 15: Do not exceed maximum length

Step 16: Make sure to keep at least 3/4" of thread engagement with rod end.



Sway bar link rod length calculation

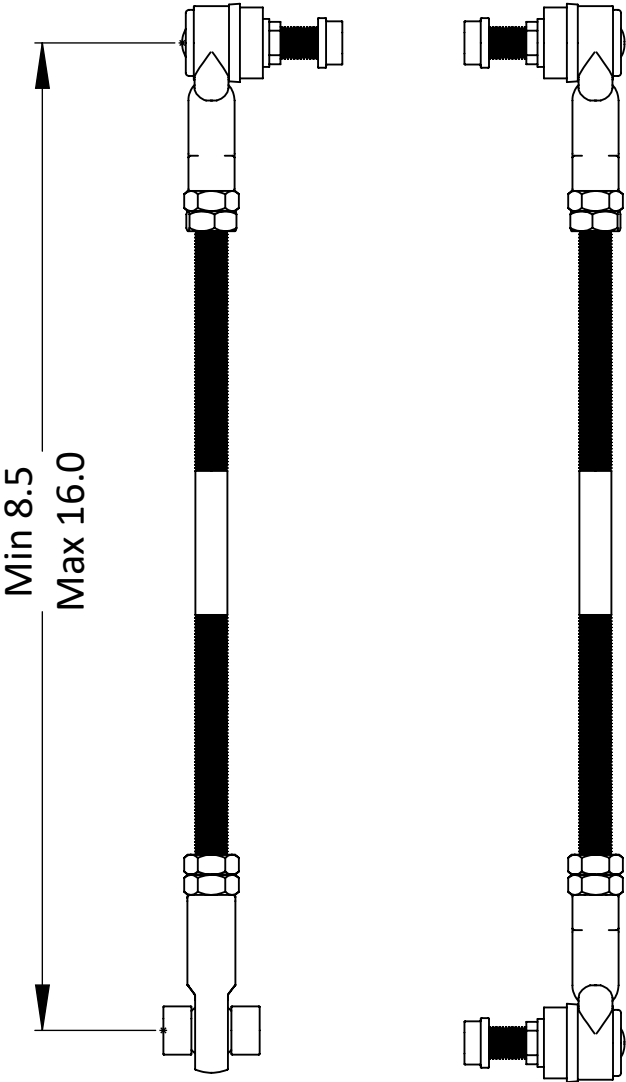
Take the center distance and subtract 2.625" from it, this is the rod length.

Subtract the rod length from 13.000" and divide it by 2.

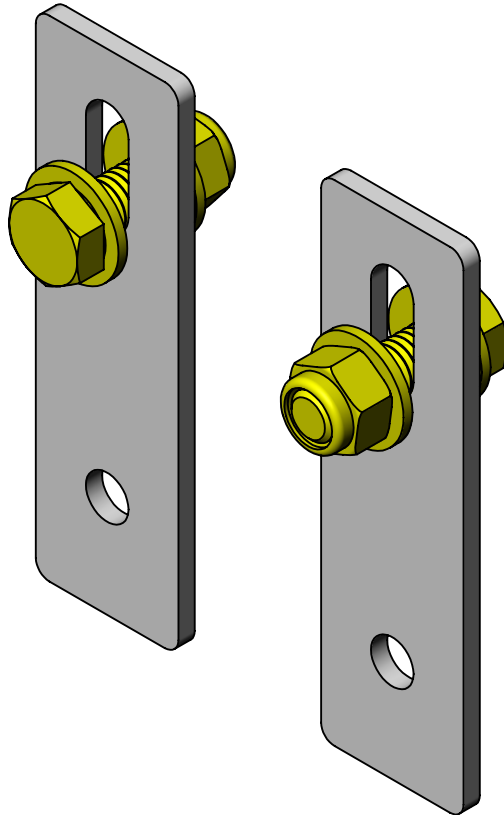
This is the length to cut from each end of the rod.

Another option is to measure the stock sway bar link and add the amount of lift you are using to this dimension, then use the calculation above.

Refer to drawing below for minimum and maximum lengths.



**CLAYTON OFF ROAD
COR-1309501
JEEP FRONT BRAKE LINE BRACKET EXTENSION (2018 & UP, JL/JT)**



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Step 1: Unbolt bracket from front lower control arm.

Step 2: Move bracket above control arm.

Step 3: Bolt bracket extension to lower control arm with slotted hole at top.

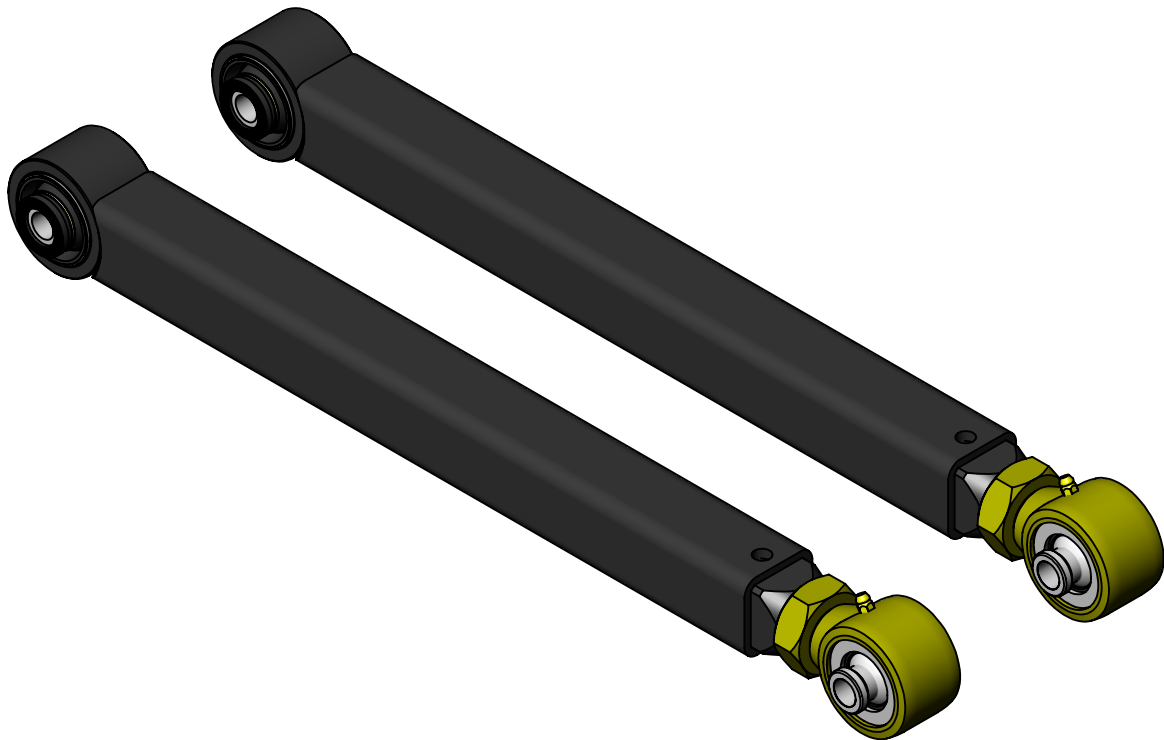
Step 4: Line up the two slots and install 5/16" hardware.

Step 5: Put a washer on each side with the head of the bolt facing out.

Step 6: Tighten 5/16" nylon insert nut enough to prevent bracket from moving.

Step 7: Repeat steps 1 through 6 on other side.

**Clayton Off Road
COR-1810102
Jeep Gladiator Rear Lower Control Arms (2020 & Up, JT)**



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Refer to pictures below.

Step 1: Remove old control arm on one side.

Step 2: Position axle.

Step 3: Measure length from axle side mount to frame side mount.

Step 4: Adjust control arm to length and run jam nut up to control arm tube insert.

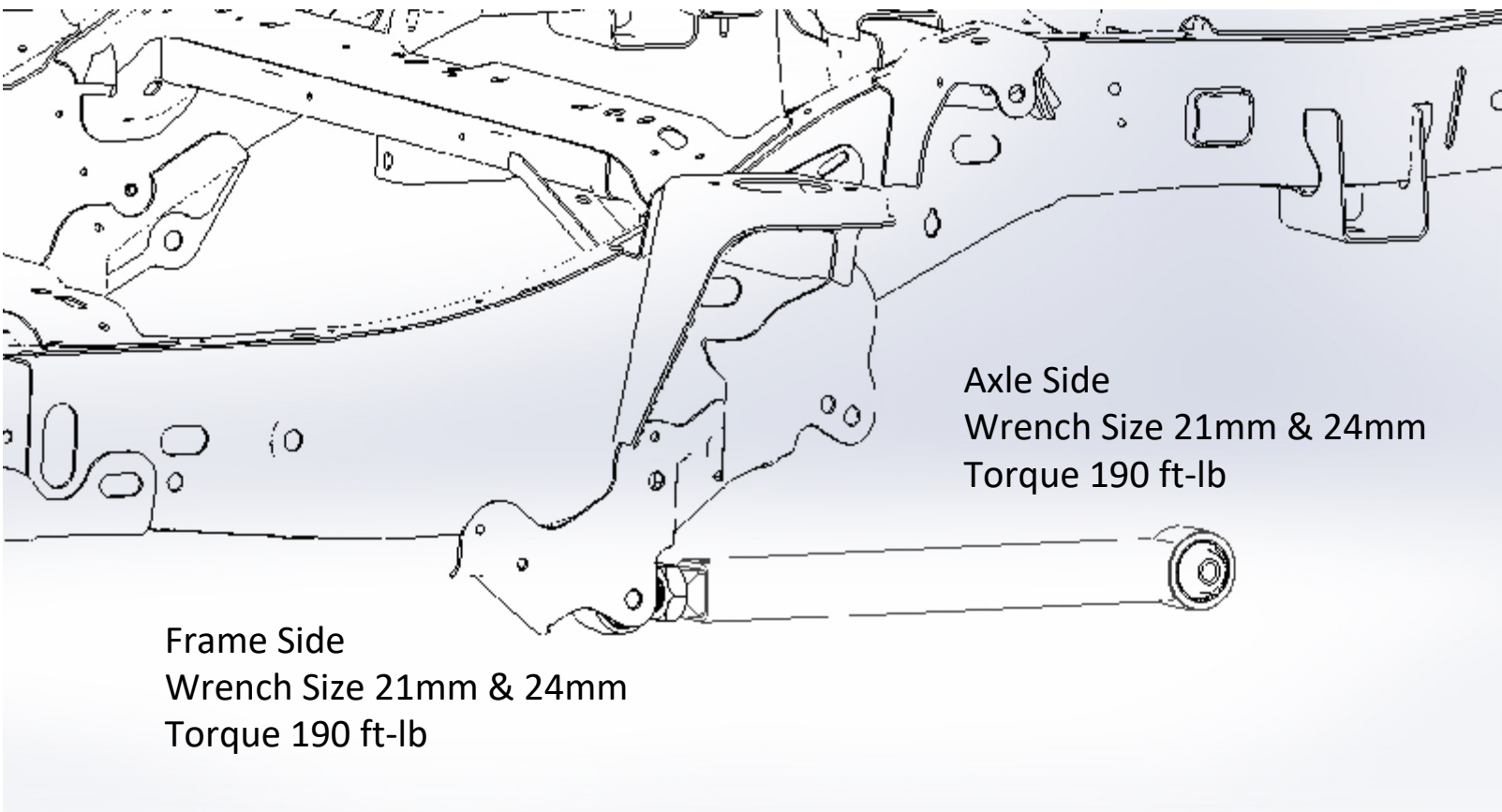
Step 5: Install new control arm with adjustment end on frame.

Step 6: Install control arm bolts and nuts.

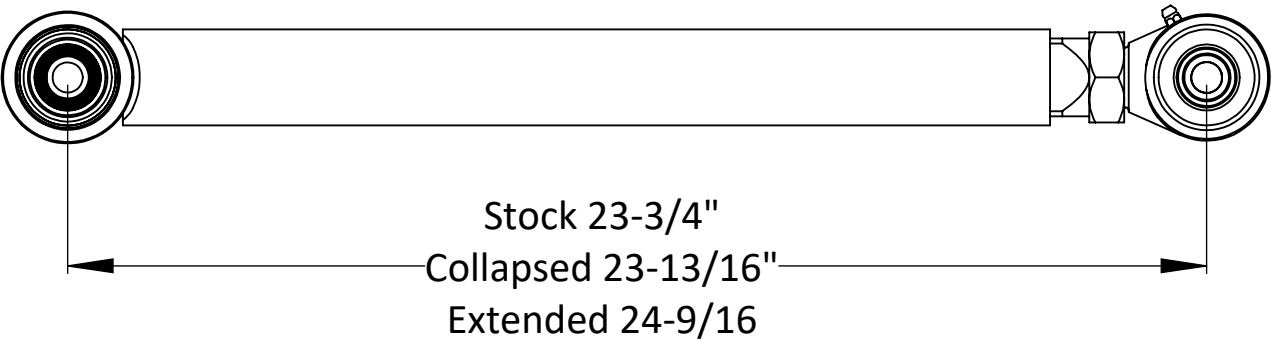
Step 7: Torques both bolts to 190 ft-lb.

Step 8: Tighten jam nut using a 46mm or 1-13/16" wrench.

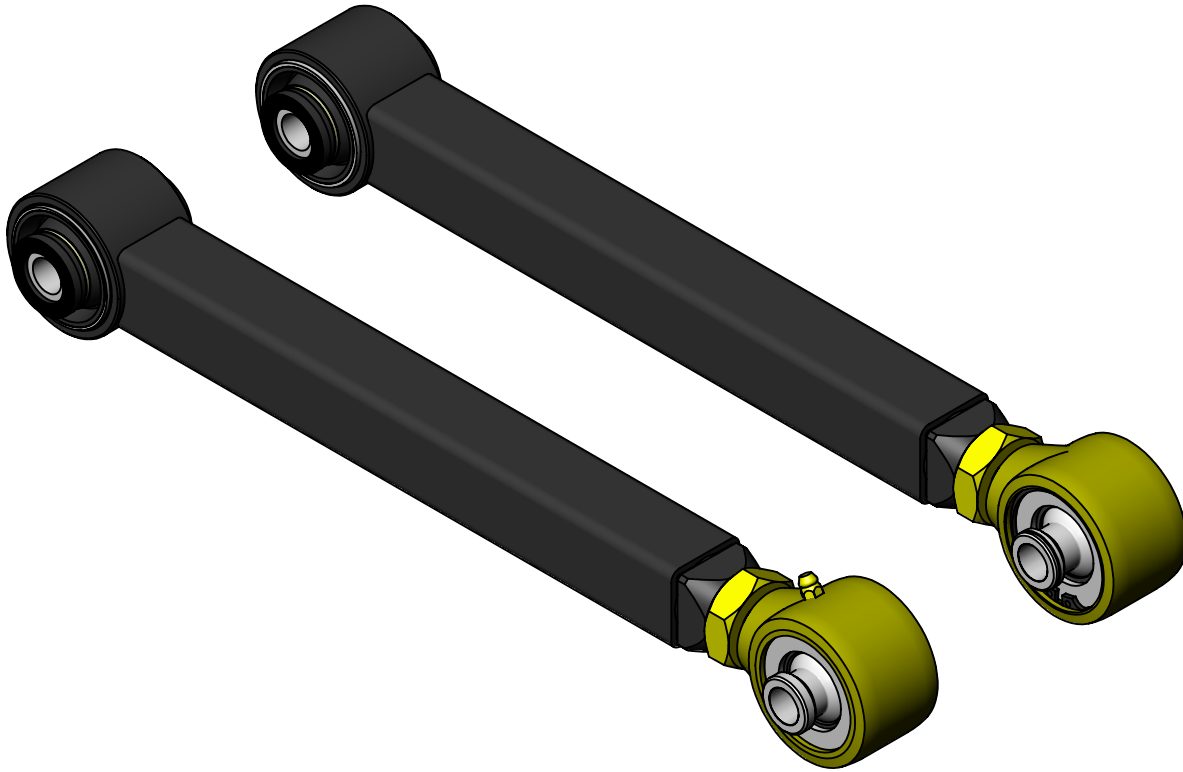
Step 9: Repeat steps 1 to 9 on other side.



Refer to drawing below for minimum and maximum lengths.



**Clayton Off Road
COR-1810103
Jeep Gladiator Short Rear Upper Control Arms (2019 & Up, JT)**



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Refer to pictures below.

Step 1: Support axle from rotating, a floor or bottle jack works well.

Step 2: Remove old control arms.

Step 3: Set pinion angle desired pinion angle by adjusting the height of the jack.

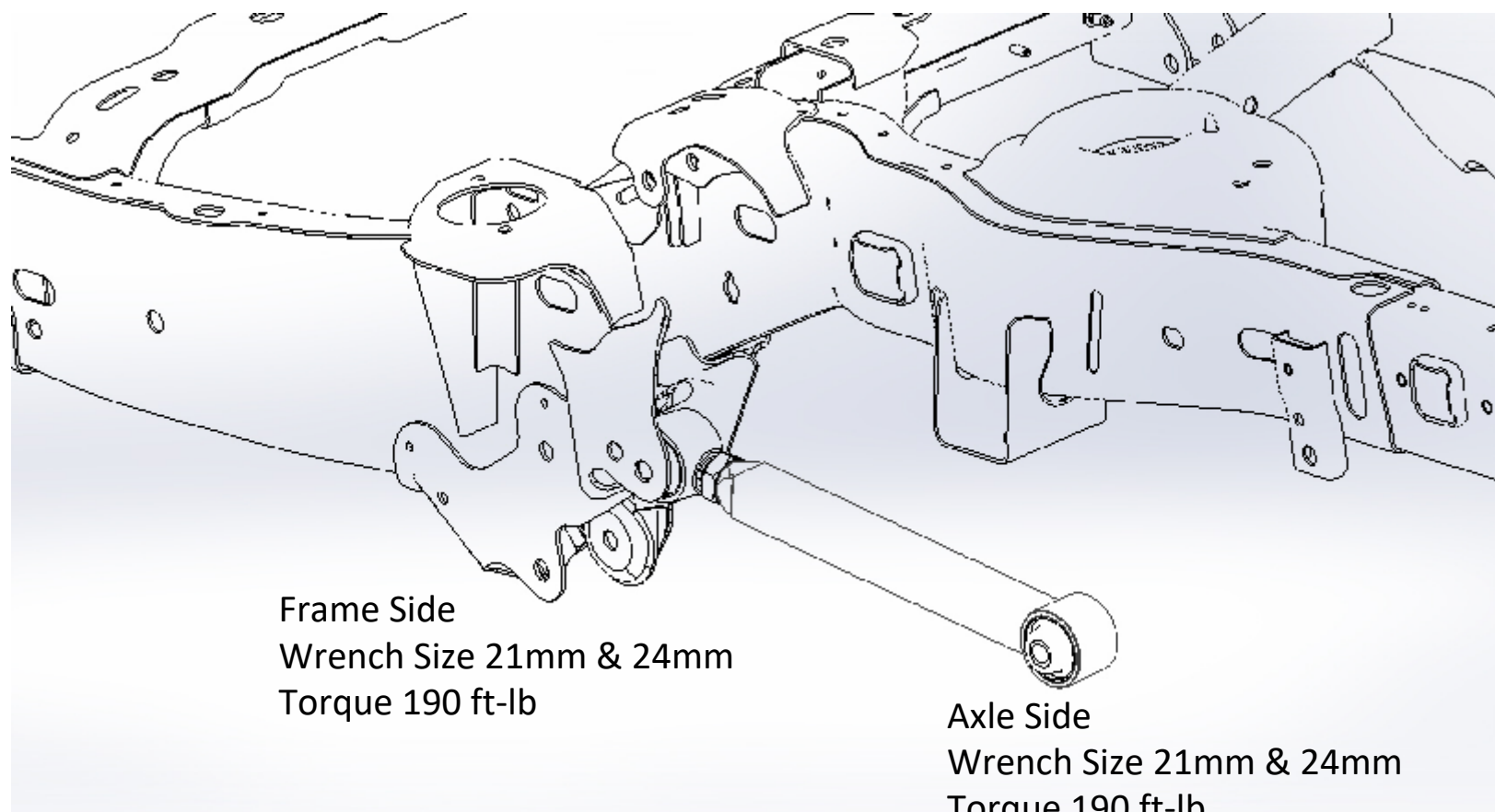
Step 4: Install arms at frame side with adjuster at frame side.

Step 5: Adjust control arm to length so that bolts can easily be installed at axle end.

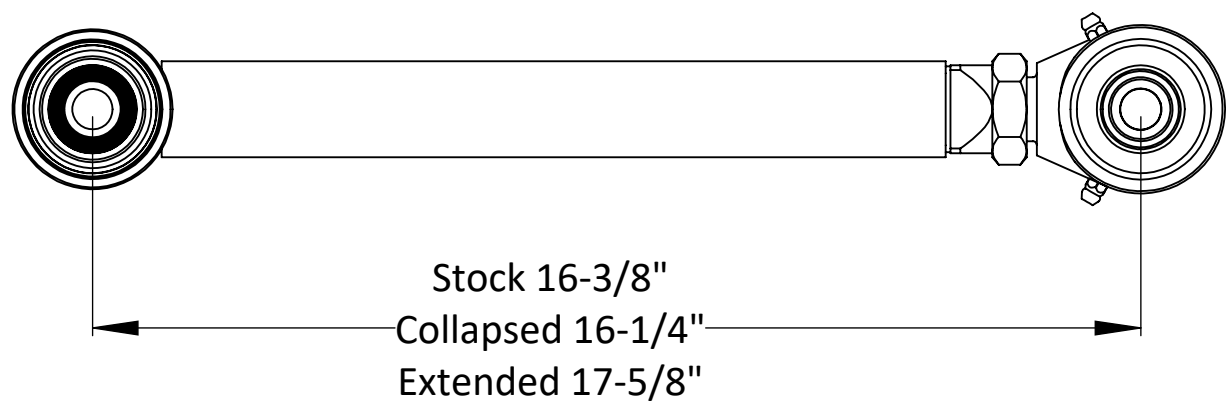
Step 6: Remove jack, and pinion angle.

Step 7: Torque all bolts to 190 ft-lb.

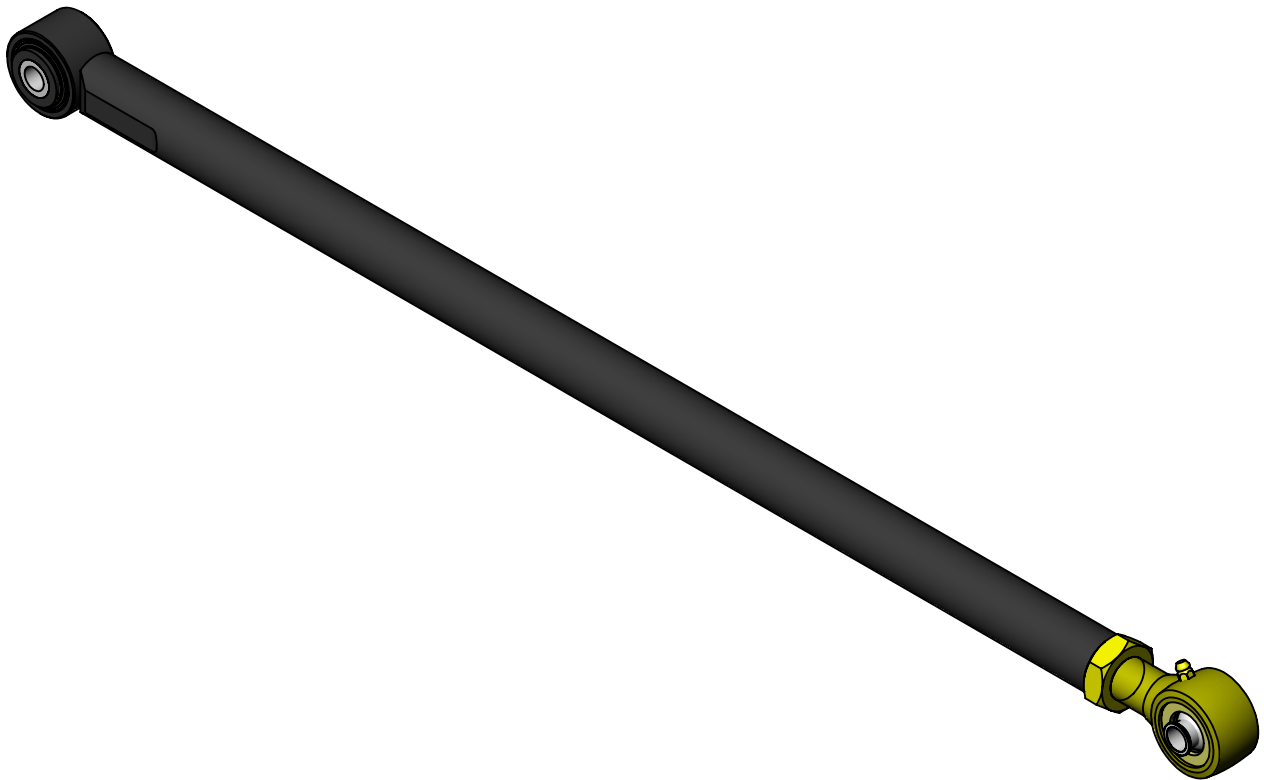
Step 8: Tighten jam nut using a 1-7/16" wrench.



Refer to drawing below for minimum and maximum lengths.



**Clayton Off Road
COR-4510110
Jeep Gladiator Adjustable Rear Track Bar (2020 & Up, JT)**



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Refer to pictures below.

Step 1: Remove old track bar.

Step 2: Center frame on axle.

Step 3: Measure length from axle side mount to frame side mount.

Step 4: Adjust track bar to length and run jam nut up to track bar tube.

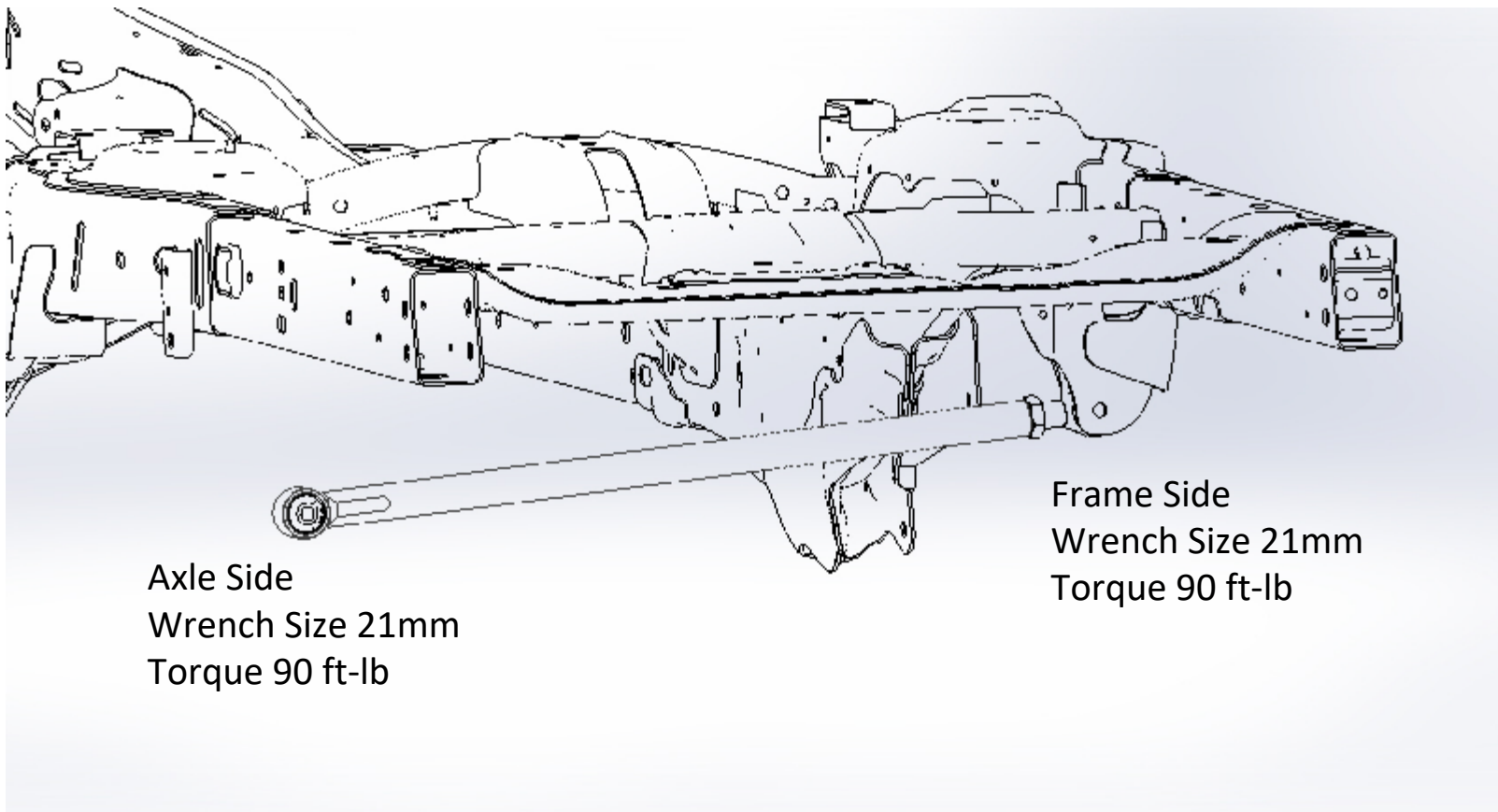
Step 5: Install new track bar with adjustment end on axle.

Step 6: Install track bar bolts and nuts.

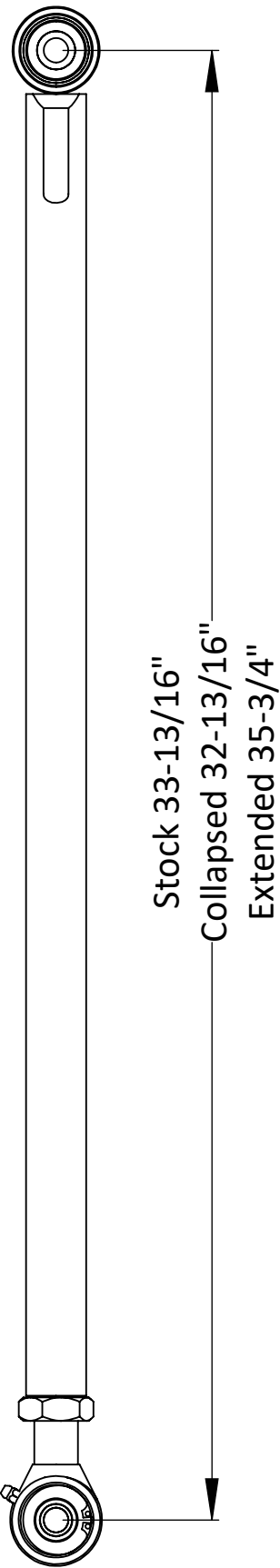
Step 7: Torques both bolts to 90 ft-lb.

Step 8: Tighten jam nut using a 1-7/16" wrench.

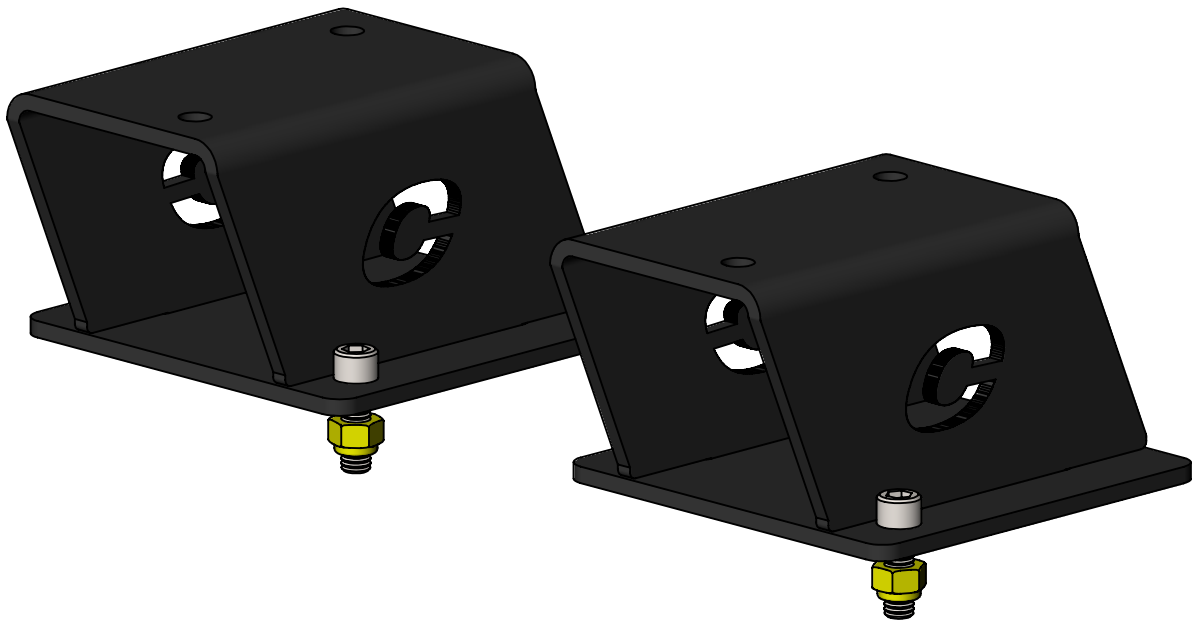
Step 9: Make sure Johnny Joint at frame side is centered in bracket.



Refer to drawing below for minimum and maximum lengths.



**Clayton Off Road
COR-1410200
Jeep Gladiator Rear Bump Stops (2020 & Up, JT)**



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Refer to picture below.

Step 1: Locate bump stop on axle mount with holes lined up.

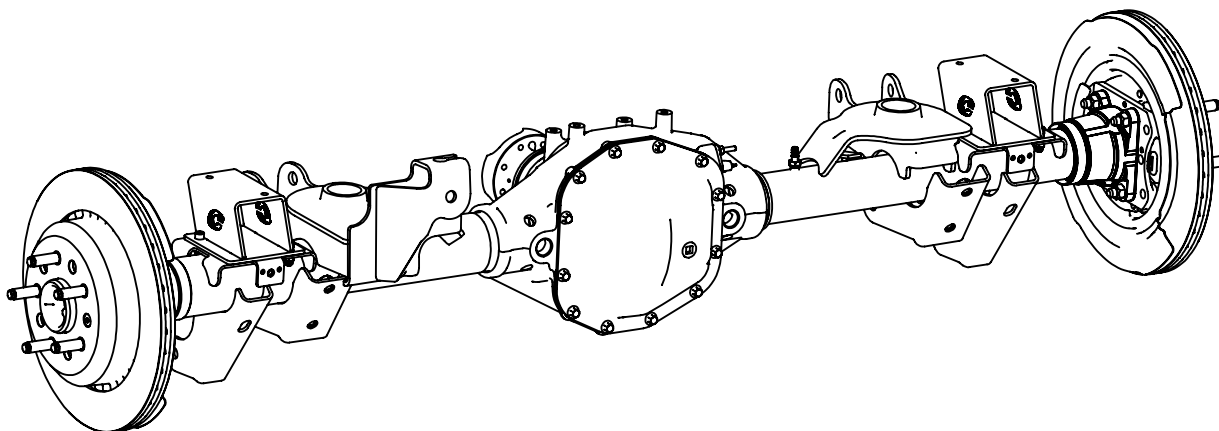
Step 2: Insert bolts from the top, thread nuts on.

Step 3: Torque bolts to 30 ft-lb.

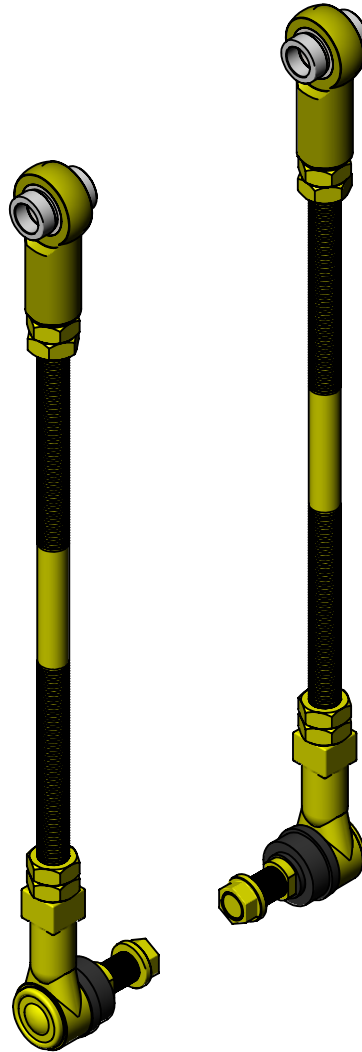
Step 4: Repeat steps 1 to 3 on other side.

Optional bump stop extensions are available.

Part number COR-1410201



**Clayton Off Road
COR-5110110
Jeep Gladiator Adjustable Rear Sway Bar End Links (2020 & Up, JT)**



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Refer to pictures below.

Step 1: Remove old sway bar end links.

Step 2: Make sure vehicle is at ride height.

Step 3: Set rear sway bar at about 9 degree upward angle.

Step 4: Measure the distance from the upper and lower mounting holes.

Step 5: Use the formula below to calculation rod length.

Step 6: Cut rod to length.

Step 7 Install two jam nuts on each end of rod.

Step 8: It maybe necessary to lock the 2 jam nuts against each other to thread rod end on.

Step 9: The rod ends without studs go on the top, use a aluminum spacer on each side of this rod end.

Step 10: Install sway bar links with the studs facing out.

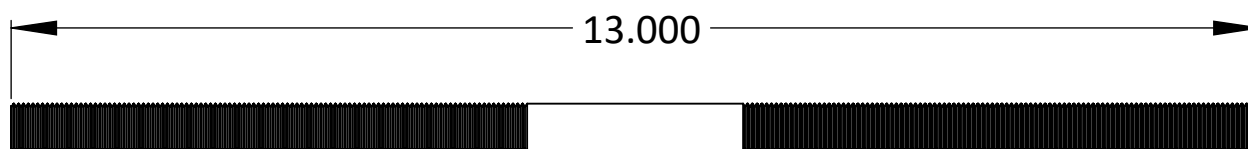
Step 11: Make sure all rod ends are centered.

Step 12: Torque all nuts, bolts and jam nuts to 60 ft-lb.

Step 13: Cycle the suspension through its full travel, check for binding and adjust rod length if needed.

Step 14: Do not exceed maximum length

Step 15: Make sure to keep at least 3/4" of thread engagement with rod end.



Sway bar link rod length calculation

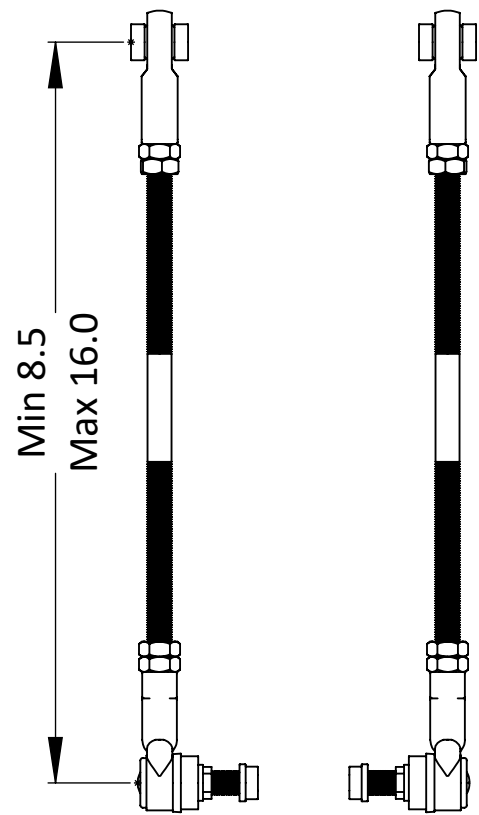
Take the center distance and subtract 2.625" from it, this is the rod length.

Subtract the rod length from 13.000" and divide it by 2.

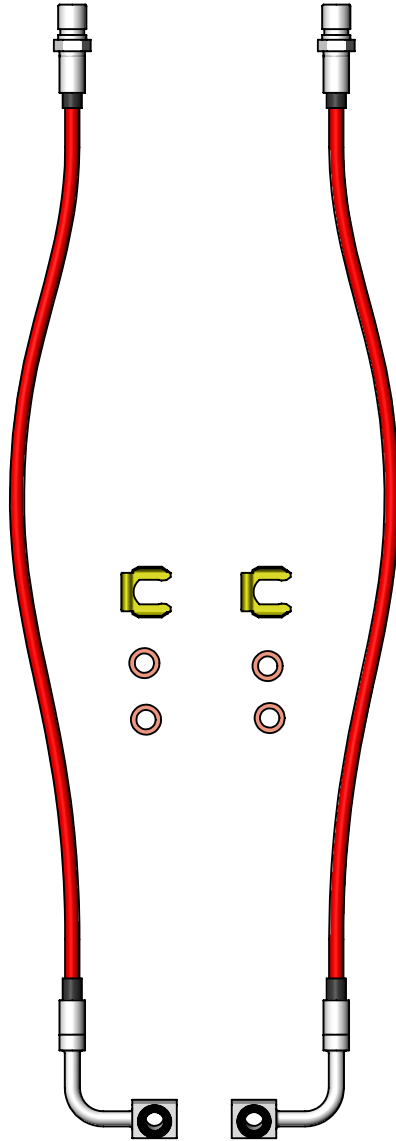
This is the length to cut from each end of the rod.

Another option is to measure the stock sway bar link and add the amount of lift you are using to this dimension, then use the calculation above.

Refer to drawing below for minimum and maximum lengths.



**CLAYTON OFF ROAD
COR-1310102
JEEP GLADIATOR REAR BRAKE LINES (2020 & UP, JT)**



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- Step 1: Remove banjo bolt on caliper.
- Step 2: Remove hard line from brake line at frame.
- Step 3: Remove brake line retaining clip.
- Step 4: Remove old brake line.
- Step 5: Install new extended brake line at frame with new retaining clip.
- Step 6: Connect hard line to new extended brake line and tighten nut.
- Step 7: Connect extended brake line at caliper using banjo bolt and new washers.
- Step 8: Tighten banjo bolt.
- Step 9: Repeat steps 1 through 8 on other side.
- Step 10: Bleed brake lines using bleeder valve on the calipers.
- Step 11: Top off brake fluid.
- Step 12: Start vehicle and apply brakes.
- Step 13: Check for leaks.