JSPEC™ SUSPENSION BY JKS | SIMPLY SUPERIOR.

J-KONTROL
3″-3.5″ FRONT 2″-2.5″ REAR SUSPENSION SYSTEM
SUSPENSION SYSTEM

2020-2024 JEEP JT GLADIATOR

JSPEC1305

www.jksmfg.com | tech-jks@ridefox.com | 517-278-1226

RV. 041024

GETTING STARTED

Read all warnings, instructions, notes and cautions before you begin the installation.

WHO SHOULD INSTALL THIS?

We recommend that this system be installed by a professional mechanic. The installer will need professional knowledge of special tools required for installation as well as assembly and disassembly procedures.

STAYING SAFE AND LEGAL

- If you fail to drive your lifted and modified vehicle safely it may result in serious injury or death.
- Exercise caution: A lifted vehicle is at greater risk for rollovers or loss of control, especially during abrupt maneuvers.
- Always wear your seat belt, reduce your speed and avoid sharp turns.
- Never operate your vehicle under the influence of drugs or alcohol.
- Consult local and state laws for the legality of your ride height.

BEFORE YOU BEGIN INSTALLATION

- Needed items: OE service manual for your vehicle, safety glasses, and any special tools as indicated in these instructions as well as the following tools: assorted metric and standard wrenches, hammer, hydraulic floor jack and a set of jack stands.
- Ride Height: Measure the initial ride height of your vehicle prior to installation. Final ride height may vary depending on the factory height of your vehicle.
- Tires and rims: Larger tire and rim combinations can increase leverage and cause additional stress to suspension, steering, and related components. When installing larger than OE tires and rims, the following components should be inspected for wear every 2500-5000 miles: ball joints, tie rod ends, wheel bearings, track bar bushings, pitman arm.
- Drive line vibrations: Some vehicles may experience drive line vibration after installation of this suspension system. Possible remedies for this include: tuning angles, replacement of slider on shaft, lengthening or truing of shaft, and/or replacing u-joints.
- Installation without a hoist: We recommend completing the rear alterations first if no hoist is available.

FMVSS No.126 COMPLIANT

TRACTION CONTROL COMPLIANT

In an effort to reduce the risk of rollover crashes the National Highway Traffic Safety Administration (NHTSA) established the Federal Motor Vehicle Safety Standard (FMVSS) No. 126 requiring all new passenger vehicles under 10,000 lbs GVWR include an electronic stability control (ESC) system as standard equipment. Effective August 2012 this law requires aftermarket products to be compliant with these same standards.

VISIT 560PLUS.COM FOR MORE INFORMATION!

THANK YOU FOR CHOOSING JSPEC SUSPENSION

TIRE FITMENT

SPORT & SAHARA MODELS

3" LIFT - 33x12.50 on 17x8 with 4.5-5" backspacing no rubbing
- 35x12.50 on 17x8 with 4.5-5" may rub under max articulation

RUBICON MODELS

3" LIFT - 37x12.50 on 17x8 with 4.5-5" may rub under max articulation
- 37x12.50 on stock wheels may rub under max articulation

SPECIAL TOOLS REQUIRED

Torque Wrench

INSTALLATION TIME

Approximately 5-7 hours

BEFORE YOU BEGIN

- The kit comes standard with front shocks intended for use with the factory front driveshaft. If an aftermarket dual cardan front shaft is used, front shocks up to 28" (2.5") or 29" (3.5") extended can be used.
- Individual part instruction sheets are not needed for installation.

01. PRE-INSTALLATION

a. Measure from the center of the wheel up to the bottom edge of the wheel opening.

	Drv	Pass
Front		
Rear		

02. REAR DISASSEMBLY

a. Disconnect the track bar at the axle with the vehicle still on the ground using a 21mm socket. Save bolt and nut tab.

b. Raise and support the vehicle with jack stands positioned in front of the lower suspension arm brackets. Remove the tires.

c. Remove the sway bar links from the axle and sway bar (18mm)

d. Disconnect the brake line bracket at the frame to provide additional slack for the brake lines.

e. Support the axle with a jack under the center of the differential and remove the shocks from the frame and axle (18mm), save hardware.

f. Lower the axle enough to remove the factory springs. Note the orientation of the upper spring isolators. Make sure there is adequate slack on all brake lines.

Note: Before installation of the new coil springs, transfer the coil wrap from the factory coils onto the upper windings of the new coils.

03. REAR INSTALLATION

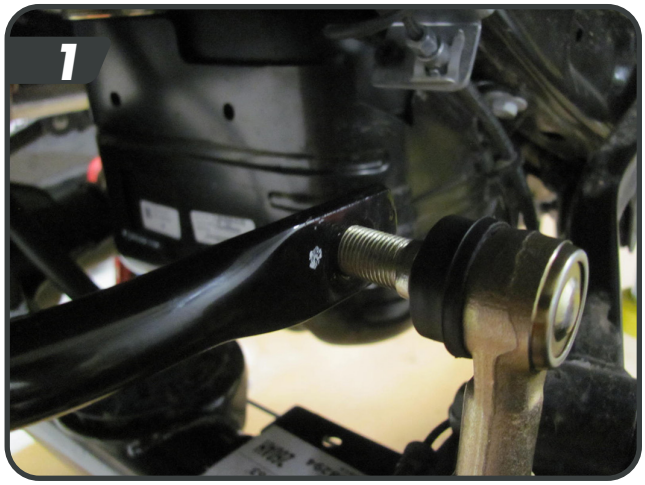
COIL SPRINGS, SWAY BAR LINKS, BUMP STOPS

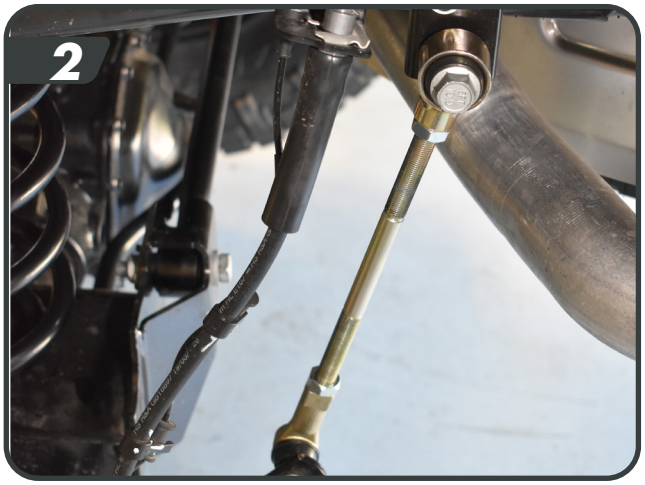
Rear bump stop spacers will require bolt pack J106

a. Install the shorter pair of JSPEC coils springs with the tighter windings on top into the rear of the vehicle with the orientation similar to stock. The upper isolators have a locating pin that fits into a hole in the frame. Raise the axle to compress the springs enough to hold them in place.

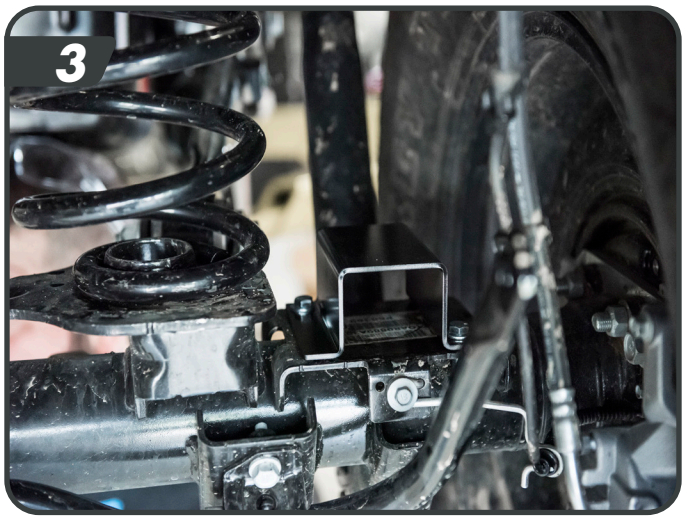
b. Set the length of the provided rear sway bar links with the booted joints to 11-¾" between the ball stud centers and install to the outside of the sway bar and axle mount [1,2]. Torque to 72 ft-lbs.

Note: Sway bar hole willl be tight, it may require enlarging slightly to get the stud to push through. A round file or rotary bit can be used.





c. Install the rear bump stop spacers on the axle. Fasten the bump stop spacer to the axle with the 5/16" x 7/8" bolts,nuts and washers. Torque bolts to 20 ft-lbs. (½") [3] - 3" extension shown]



d. The shocks come with the bushings and upper spacers pre-installed. JSPEC shocks will be installed body down, Fox shocks will be installed body up. Slide the shock up into the mount.

Tip: *The bushings will have to compress slightly to get the shock in the mount, try walking the shock into place by tilting the shock back and forth against the spacers while pushing the shock up into place.*

e. Attach the shock to the frame and axle mount with the original hardware. Torque upper and lower OE mounting bolts to 89 ft-lbs. Re-install rear brake line bracket to the frame and re-install inner fender liners.

Note: *Mojave models utilizing OE Fox Internal Bypass shocks require JKS9613 - Mojave Shock Extension Brackets. Refer to the shock extension bracket kit instructions at this time for rear shock installation. Once complete, return to the next step in this instruction set.*

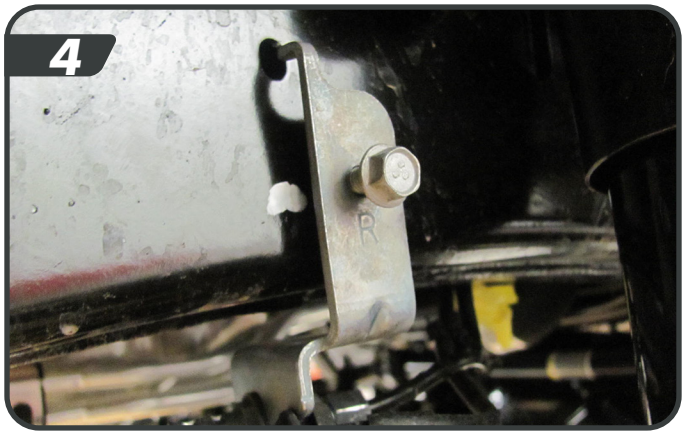
04. FRONT DISASSEMBLY

a. Disconnect the front track bar (21mm) from the axle. Save bolt and nut tab.

b. Raise the vehicle and support the frame with jack stands behind the front lower control arm pockets.

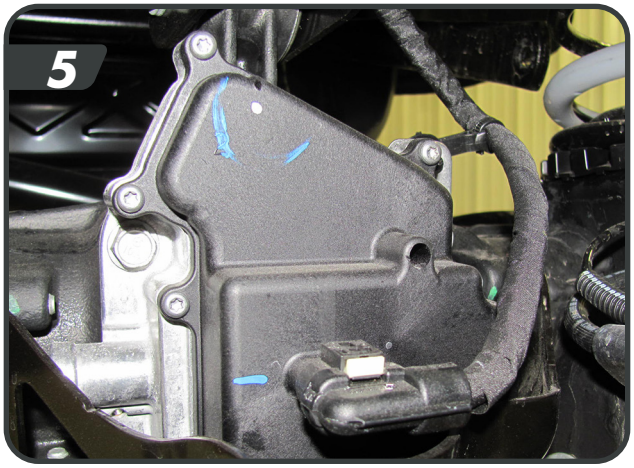
c. Remove the wheels.

d. Disconnect the front brake line brackets from the frame rails (10mm) [4].

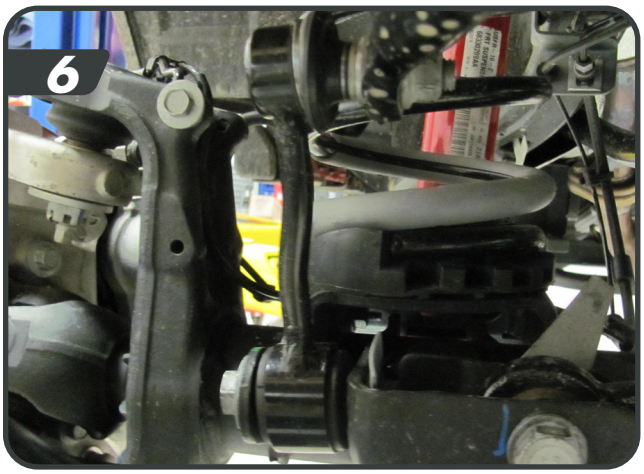


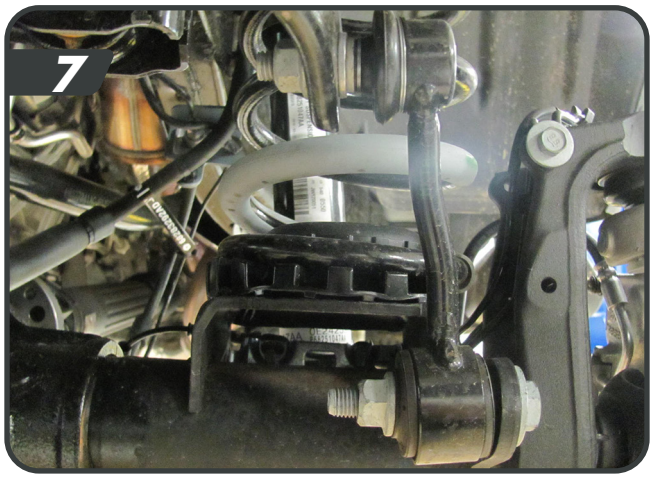
e. Rubicon models: Disconnect the front locker wires from the differential.

f. All models: Disconnect the front axle disconnect wiring harness and pull out the (2) push pins that mount the harness to the axle [5].

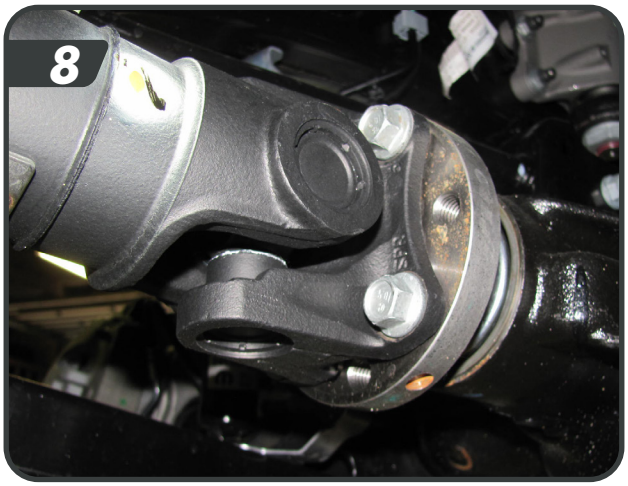


g. Disconnect the sway bar links from the axle and sway bar (18mm). Discard links, save lower hardware [6,7].





h. Remove the 4 bolts mounting the front driveshaft to the pinion flange (15mm). This is done to ensure the driveshaft does not bind when removing the coil springs. [8]



i. Support the front axle with a hydraulic jack. Remove the front shocks from the vehicle using a 18mm socket for the top and 18mm socket and wrench on the bottom. Save lower hardware.

Note: *Mojave models will reuse the OE Fox internal bypass shocks with JKS9613 - Mojave Shock Extension Brackets. Only disconnect the lower shock hardware to lower the axle in the next step.*

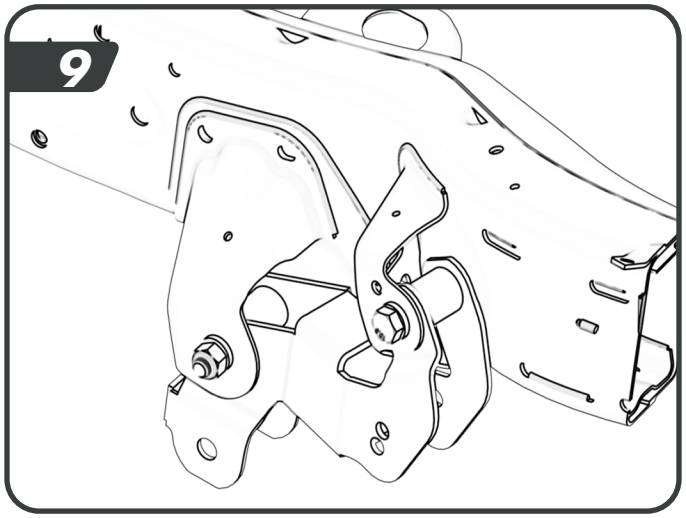
j. Lower the front axle and remove the coil springs. As the axle is lowered, verify all brake and electrical wires have enough slack and the driveshaft doesn't bind.

05. FRONT INSTALLATION

FRONT GEOMETRY CORRECTION BRACKET INSTALLATION

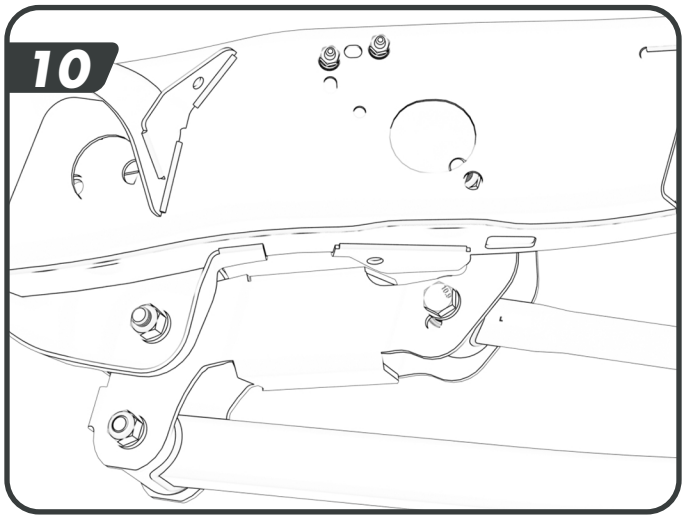
a. Working on one side at a time, remove the upper and lower control arm mounting bolts at the frame. Loosen the bolts at the axle, but do not remove.

b. Install the control arm drop brackets as shown using the factory hardware. [9] Torque the lower bolt to 103 ft-lbs plus 145 degrees. Torque upper bolt to 37 ft-lbs plus 135 degrees.



c. Mount the lower control arm to the drop bracket using the provided 16mm hardware. Install the bolt from the outside in.

d. Mount the upper control arm with the provided 12mm hardware. Install the bolt from the inside out. Use the upper hole for 2"-3.5" lifts and the lower hole for 4"+ lifts. [10]



Note: *It may be easier to align the control arms to the mount by removing the opposite side upper control arm and adjusting the axle with a hydraulic jack.*

e. Repeat installation on other side of vehicle.

FRONT BUMP STOP & COIL SPRING INSTALLATION

3" front bump stops will require bolt pack J131

f. Place the provided bump stop extension inside one of the JSPEC front coil springs. Install the front springs with the bump stop extension [11]. Make sure the spring is seated properly in the axle mount and the top isolator hasn't moved from the stock position.

g. Attach the bump stop extension to the axle through the hole in the center of the spring perch. Access to the nut can be obtained from the front of the spring perch. Another option is to remove the brake line bracket temoporarily to gain access to attach the nut from the rear of the spring perch Torque to approximately 25 ft-lbs.

h. Repeat the spring and bump stop installation on the other side of the vehicle.

i. Install the new shocks with the factory hardware. The shocks will be installed with the wide spacers up top and the bushing and sleeve in the bottom. JSPEC shocks will be installed body down, Fox shocks will be installed body up. Torque the OE front shock upper mounting bolts to 103 ft-lbs and the OE lower shock mounting bolts to 77 ft-lbs.

Note: *Mojave models utilizing the OE Fox Internal Bypass shocks require JKS9613 - Mojave Shock Extension Brackets. Refer to the shock extension bracket kit instructions at this time for front shock installation. Once complete, return to the next step in this instruction set.*

j. Re-install front driveshaft using OE hardware and thread locker. Torque bolts to 89 ft-lbs

QUICKER DISCONNECT INSTALLATION

Quicker Disconnects will require bolt pack J127

ALL MODELS

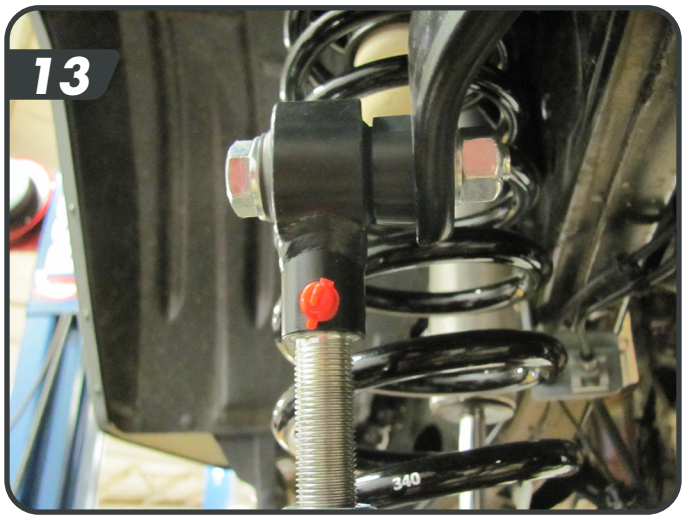
k. Adjust the length of the quicker disconnects to 9" center to center. This is a good starting point and can be fine tuned once the vehicle is on the ground if needed.

l. Insert the longer sleeves into the upper bushing and slide the polyurethane spacer onto the upper sleeve so it will mount towards the swaybar.

m. 2024 Models: Use the larger ID sleeves that will accommodate 14mm hardware

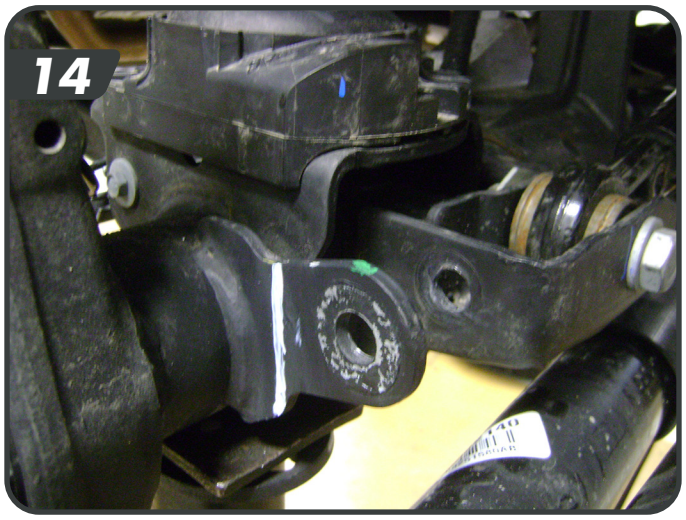
n. Using the provided 12mm x 75mm bolts, washers, and nuts loosely fasten the sway bar links to the sway bar with the bolts going from the outside towards the frame [12].

o. 2024 Models: Use the larger 14mm hardware found in bolt pack J172

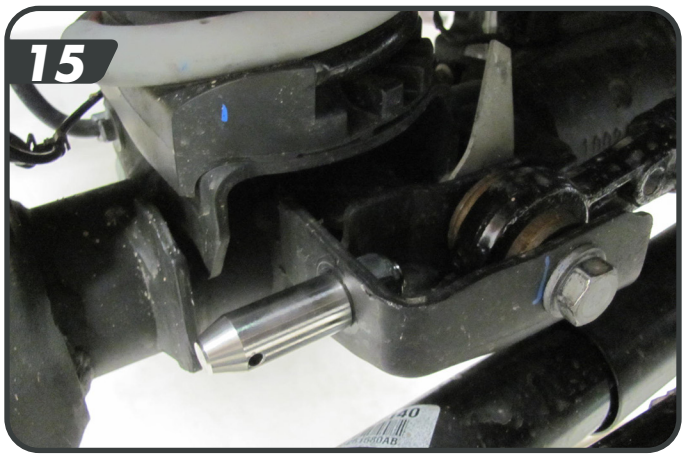


NON-RUBICON MODELS

p. The passenger side mount will need to be cut to provide access for the disconnect post. Cut the mount off vertically just past the weld on the bracket [14]. This should be about 1-¼" from the center of the hole.

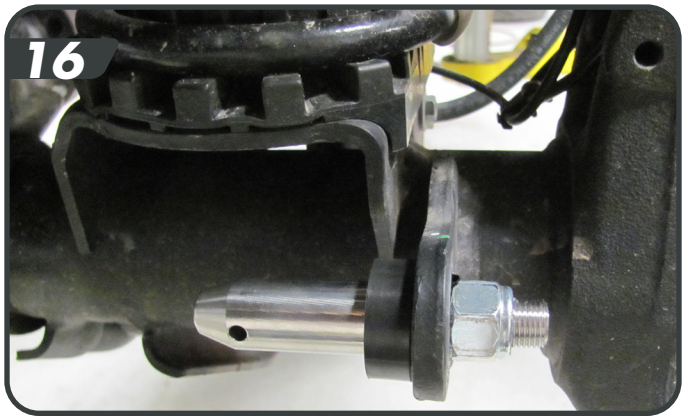


q. Install the shorter passenger side post on the side of the track bar mount at the sway bar link mount location with it pointing outboard [15]. Fasten with the ½" nylock nut and tighten to 64 ft-lbs.

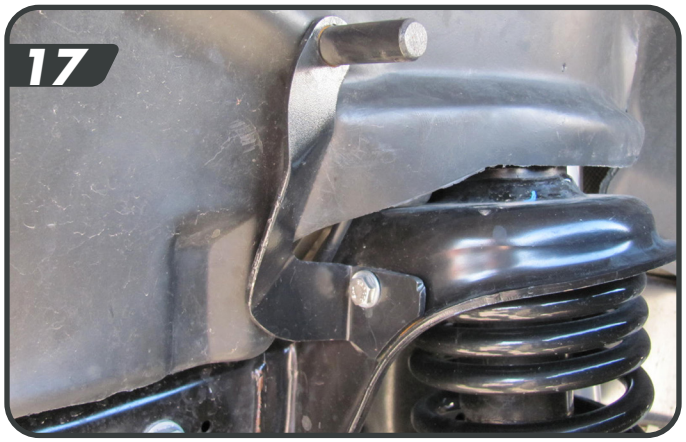


r. Install the longer disconnect post on the driver side axle sway bar link mount with it pointing inboard [16]. Fasten with the ½" nylock nut and tighten to 65 ft-lbs. Tighten the post with the pin hole parallel to the ground. Slide the polyurethane spacer on the pin up against the axle tab.

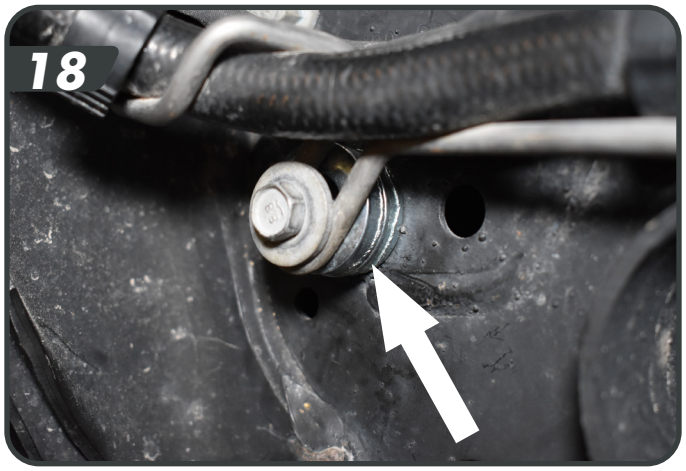
Note: A small screwdriver or punch inserted into the pin hole will keep the post from turning as you tighten it.



s. The kit comes with disconnect retention brackets to hold the links when the links are disconnected. Install the retention brackets using the provided 5/16" bolts into the factory hole in the front of the coil bucket [17]. These are designed to slightly interfere with the edge of the coil bucket to hold them in place.



t. JT Mojave models with JKS9613: Install two provided ¼" donut spacers (01499) between the reservoir hose retaining wire and frame using the OE bolt [18] and tighten to 6 ft-lbs (first mount forwards of the coil spring). Verify reservoir hose clearance to the disconnect retention bracket once installed.



u. Slide the ends of the disconnects over the retention bracket posts. Insert click pins to secure. These quicker disconnects can be more easily attached with the vehicle at ride height.

v. Torque the quicker disconnect to sway bar mounting bolts to 79 ft-lbs.

RUBICON MODELS

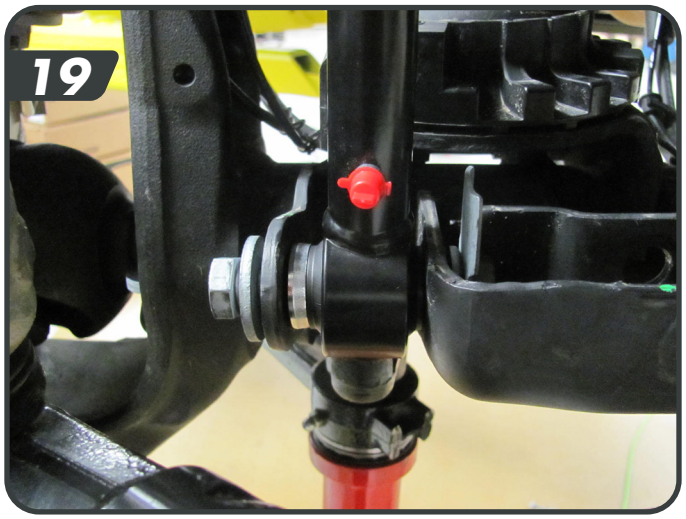
Rubicon models have a factory electronic disconnect system. Follow these steps to solid mount your sway bar links.

w. Set the sway bar into disconnect mode for ease of installation of the links to the axle.

x. Locate the 1-¼" sleeve and insert it into the passenger side disconnect bushing.

y. Insert the ¼" thick spacer and disconnect into the original sway bar link location. It may be necessary to slightly open up the link opening for ease of assembly.

z. Fasten the link to the axle with the original hardware. [19] Adjust the length as necessary to ensure the links do not bind at full droop, depending on the shocks being installed.



aa. Install the remaning longer sleeve on the driver side and slide the polyurethane spacer onto the sleeve so it will mount towards the axle mount tab. Install the quicker disconnect to the inboard side of the axle tab with the original sway bar link hardware.

Note: If the link length was adjusted for the passenger side, match the length on the driver side link.

ab. Torque the upper and lower hardware to 65 ft-lbs

FRONT ADJUSTABLE TRACK BAR

ac. Adjust the length of the track bar to 34". This is a starting point, final adjustment can be made once the vehicle is on the ground.

ad. Disconnect the factory track bar from the frame side mount and remove. Save hardware.

ae. Insert the non adjustable end of the new track bar into the frame mount with the clearance bend forward. Use factory hardware. Do not tighten at this time.

06. FINAL FRONT INSTALLATION STEPS

a. Rubicon models: Reattach the locker wire harness to the differential.

b. All models: reattach front brake line brackets to the frame and reattach front axle disconnect harness clips.

c. Install the wheels and torque to the lug nuts to 130 ft-lbs.

d. Lower the vehicle to the ground and bounce the vehicle to settle the suspension.

e. Torque the front lower control arm bolts at the axle to 103 ft-lbs plus 145 degrees and at the frame bracket to 195 ft-lbs. Torque the upper control arm bolts at the axle to 41 ft-lbs plus 185 degrees and at the frame bracket to 79 ft-lbs.

f. Attach the front track bar to the axle with the OE hardware. Have an assistant turn the steering wheel to aid in aligning the track bar bolt. Take measurements to check if the axle is centered. Make an adjustment to the track bar equal to half of the distance the axle is shifted to one side. Torque the frame side track bar bolt to 52 ft-lbs plus 115 degrees and the axle side track bar bolts to 52 ft-lbs plus 155 degrees.

g. Verify tire clearance, trim the front bumper side trim pieces as shown if necessary on your model. [20]

h. Double check all hardware for proper torque.

i. Lubricate all grease zerk fittings using common wheel bearing grease or equivalent.

Caution: *Rubber bushings must never be lubricated as doing so will impair performance and longevity.*

j. Have a front end alignment performed to center steering wheel.

k. Check all fasteners after 500 miles and at regularly scheduled maintenance intervals.

07. STICKER INSTALLATION

Sticker installation should be performed when the temperature is above 60° F. [21]

a. Clean the areas thoroughly with rubbing alcohol to remove any buildup.
b. Carefully place the sticker in the desired location.
c. Rub gently to secure, then press firmly for 30 seconds.

KIT CONTENTS

JSPEC COIL SPRINGS - 3″

Part No.	Qty	Description
034332R	2	Front Coil Springs
032159R	2	Rear Coil Springs

JSPEC1305 MAIN BOX KIT

Front Adjustable Track Bar

Part No.	Qty	Description
03300	1	Track Bar
03309	1	Track Bar End
36274	1	1-¼″ Jam Nut
MB01B701740	2	Bushing

Sway Bar Quicker Disconnects

Part No.	Qty	Description
03315	1	Disconnect Retention Bracket - Drv
03316	1	Disconnect Retention Bracket - Pass
03010	1	Female
03011	1	Male
M00475-BK-01	2	Spherical Bushing
7050R	2	Grease Zerk Cap
7607	2	Grease Zerk
36264	1	5/8 Jam nut
J127	1	Bolt Pack - Quicker Disconnects
	2	12mm-1.75 x 75mm bolt
	2	12mm-1.75 x 75mm prevailing torque nut
	4	12mm flat washer
	2	5/16″-18 x ¾″ bolt
	2	5/16″-18 prevailing torque nut
	4	5/16″ SAE flat washer
03005	2	Quick Pin (2001CP)
M03212-BK-01	3	Offset Polyurethane Spacer
A1046	1	03013 Stud w/ nut
A1045	1	03017 Stud w/ nut
65	2	¾″ X 1.65″ Sleeve
J172	1	Bolt Pack - 2024 JL 14mm Sway Bar Link
	2	14mm-2.00 x 80mm Bolt - Class 8.8
	2	14mm-2.00 Prevailing Torque Nut
	4	14mm Flat Washer - Clear Zinc
149	2	.750 x 0.095 x 1.680 DOM Sleeve

Rubicon Fixed Mount Hardware

Part No.	Qty	Description
65	1	¾″ X 1.65″ Sleeve
162	1	¾″ x 1.25″ Sleeve
01499	1	¼″ Spacer

Bump Stops

Part No.	Qty	Description
03374	2	2″ Rear Bump Stop Block
J106	1	Bolt Pack - Rear Bump Stop
	4	5/16″-18 x ¾″ bolt
	4	5/16″-18 prevailing toruqe nut
	8	5/16″ SAE washer
03199	2	3″ Front Bump Stop
J131	1	Bolt Pack - Front Bump Ext.
	2	3/8″-16 x 3-¾″ bolt
	2	3/8″-16 flange lock nut
	2	3/8″ SAE washer

Rear Sway Bar Links

Part No.	Qty	Description
TRE502	2	Rod End with nut
03064	2	Shock Eyelet
03065	2	Connecting Rod
SB58BK	2	Hourglass Bushing
51792	2	.625″ x 1.375 Sleeve
N12FJ	4	½″ Jam Nut

JKS6201 BOX KIT - CONTROL ARM CORRECTION BRACKETS

Part No.	Qty	Description
03332	1	Control Arm Bracket - Driver side
03333	1	Control Arm Bracket - Passenger side
J135	1	Bolt Pack
	2	16mm-2.00 x 100mm bolt
	4	16mm flat washer
	2	16mm-2.00 prevailing torque nut
	2	12mm-1.75 x 80mm bolt
	4	12mm flat washer - clear zinc
	2	12mm-1.75 prevailing torque nut