JSPEC™ SUSPENSION BY JKS | SIMPLY SUPERIOR.

2.5" & 3.5" SUSPENSION SYSTEM

2007-2018 JEEP JK WRANGLER

RIGHT HAND DRIVE 2 & 4 DOOR MODELS

JSPEC2359

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

Rv. 062718

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

2.5" Lift
33x12.50 on 16x8 with 4.5" backspacing

3.5" Lift
35x12.50 on 16x8 with 4.5" backspacing

TOOLS REQUIRED

Metric/Standard Socket Wrench Set

Torque Wrench

Rotary cut off tool or punch (cam install)

INSTALLATION TIME

Approximately 5-6 hours

KIT COMPONENTS

BEFORE YOU BEGIN

2012-14 models using the stock front driveshaft will require exhaust extension kit JKS8150.

01. PRE-INSTALLATION

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

	Drv	Pass
Front		
Rear		

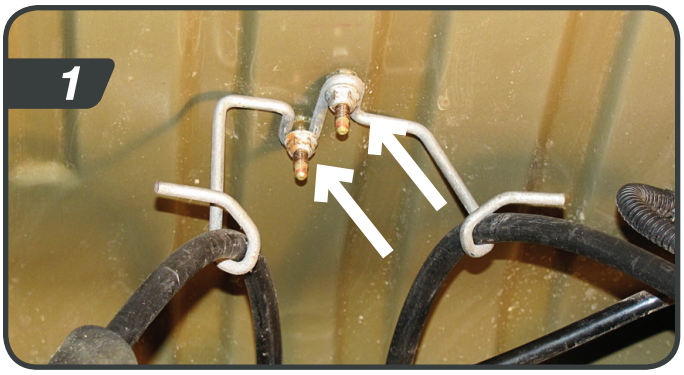
02. REAR DISASSEMBLY

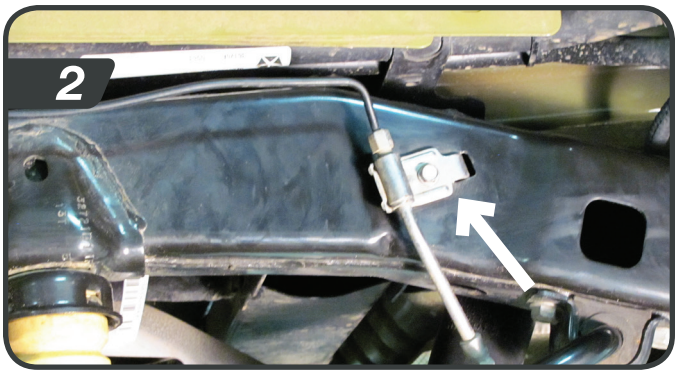
a. Disconnect the track bar at the axle with the vehicle still on the ground using a 21mm socket. Save bolt and nut tab.

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

c. Remove the parking brake cable bracket (10mm) [1]. Save nuts.

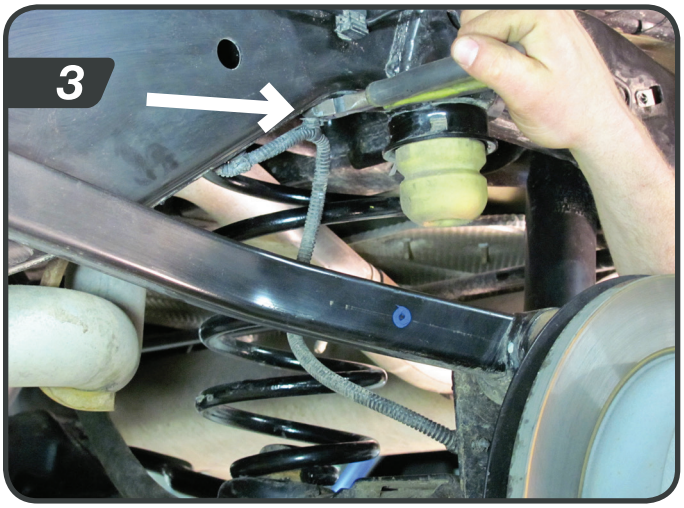
d. Remove the bolts holding the brake lines to the frame (10mm) [2].

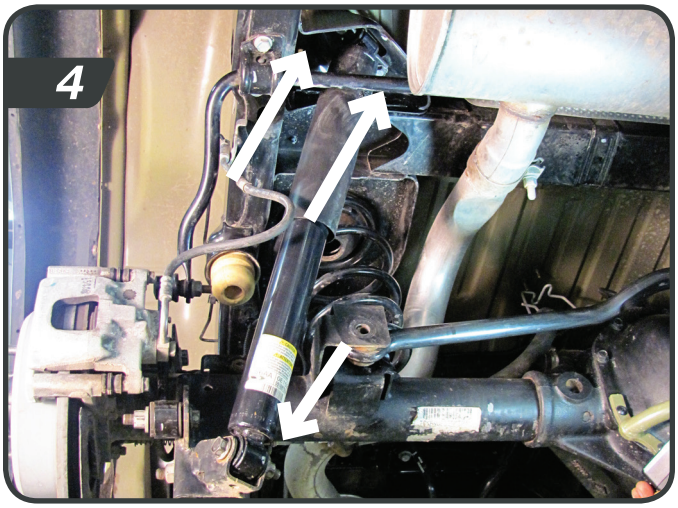




e. Using some side cutters pry the wheel speed sensor wiring from the bottom of the frame to gain additional slack [3].

f. Support the axle with a jack under the center of the differential and remove the shocks from the frame (16mm) and axle (18mm), save hardware [4].

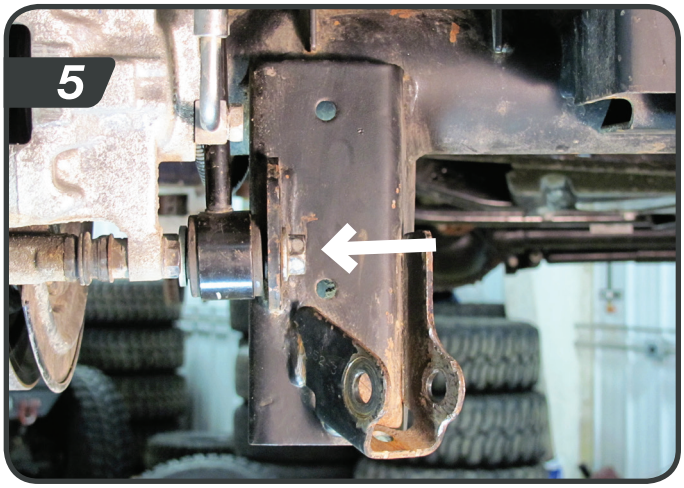




g. Rubicon models: Disconnect the locker wires from the differential.

h. Remove the sway bar links from the axle and save hardware (18mm) [5].

i. Lower the axle enough to remove the factory springs. Make sure there is adequate slack on all wires.



03. REAR INSTALLATION

COIL SPRINGS, SWAY BAR LINKS, BUMP STOPS

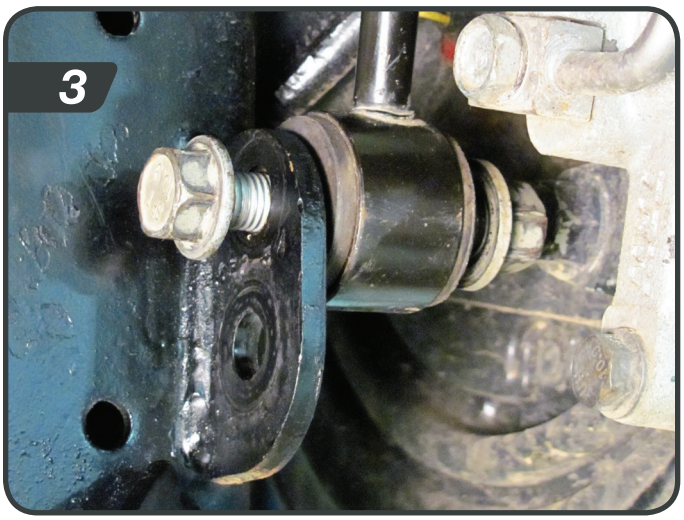
Rear Bump stop spacers 03574, 03575 will require bolt pack J106

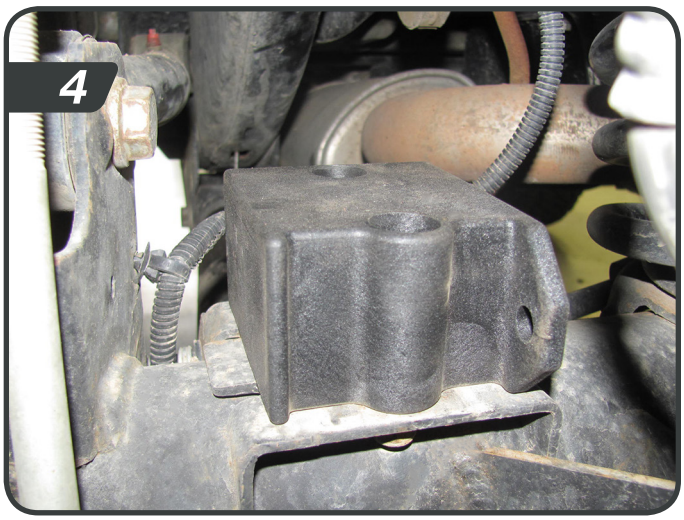
a. Install the shorter pair of JSPEC coils springs into the rear of the vehicle with the orientation as shown. Raise the axle to compress the springs enough to hold it in place [1].

b. The rear sway bar link axle mounts will need to be drilled to accommodate the added lift. Measure up 1-1/4” from the center of the OE mounting hole and drill a 1/2” hole at the mark. Paint bare metal. [2]

c. Re-install sway bar links into the drilled hole. [3]

d. Install the rear bump stop spacers on the axle with the 2” tall orientation for 2.5” lifts and 3” orientation for 3.5” lifts.In both cases the bump should be intalled with the offset in material forward. 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. (1/2”) [4]





e. Install the JSPEC shocks into the vehicle with the factory hardware.

04. REAR INSTALLATION

REAR BRAKE LINES & TRACK BAR BRACKET

Rear track bar bracket 03198 will require riser brace 03218 and bolt pack J103

Brake line brackets 03172 and 03173 will require bolt pack 768

a. Position the rear track bar bracket on the axle above the factory bracket so radius edges rest on the axle tube and the rear track bar mount hole aligns with the hole in the bracket.

b. Install the riser brace into the factory pocket using the factory track bar bolt and nut tab, do not tighten.

c. Install a 3/8” x 1” bolts and washers from the inside of the track bar bracket and through the riser brace. Fasten with provide nuts and washers.

d. Install the u-bolt, washers, and nylock nuts, and fasten the relocation bracket to the axle tube.

e. Tighten the u-bolt hardware to 65 ft-lbs; the original track bar bolt to 125 ft-lbs; and the 3/8” hardware to 40 ft-lbs [1]. The track bar will be re-installed with the vehicle on the ground.

Note: The lower hole towards the center of the track bar bracket will not be used.

f. Attach the brake line drop brackets to the brake line so the brake line tab fits in the drop bracket slot using the provided ¼” hardware.

g. Attach the brackets to the frame using the factory hardware. Re-install only the lower clip for the ABS wire.

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

i. Reattach the parking bracke cable bracket to the floor using the factory nuts.

j. Mount the tires and lower the vehicle to the ground.

k. Install the rear track bar into the relocation bracket with the provide 9/16” x 3” bolt, nut, and washers.

Tip: Use an assistant to push on the body of the vehicle to help align the track bar in the bracket.

l. Torque the track bar bolts to 110 ft-lbs.

05. 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.

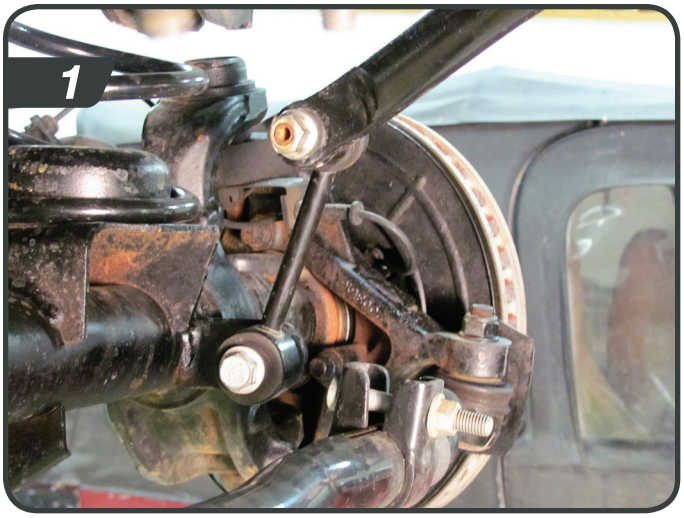
c. Remove the wheels.

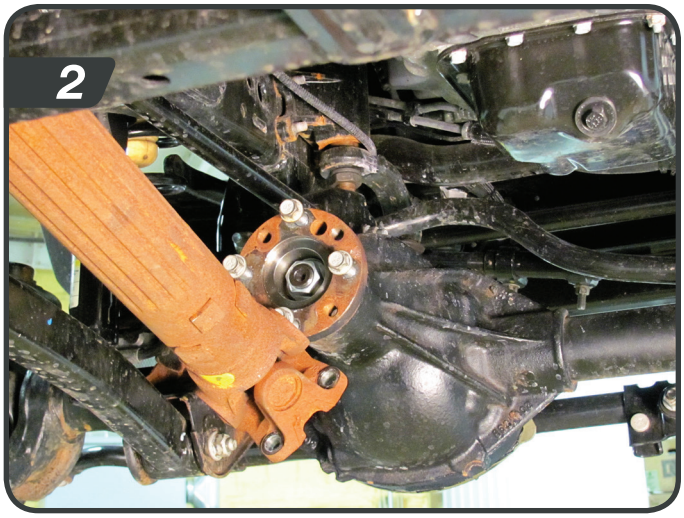
d. Disconnect the front brake line brackets from the frame rails (10mm). 2011-14 models: Disconnect the brake lines from the axle below the coil spring. Save hardware.

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

f. Disconnect the sway bar links from the axle (18mm) and sway bar. Discard links and hardware. [1]

g. Remove the 4 bolts mounting the front driveshaft to the pinion flange (15mm). This is done to ensure the driveshaft does not bind when installing the new springs. [2]





h. Disconnect the steering drag link from the pitman arm to ensure it doesn't bind when installing the new coil springs. Remove the tie rod end nut and dislodge the tie rod end from the pitman arm. Save nut. [3]

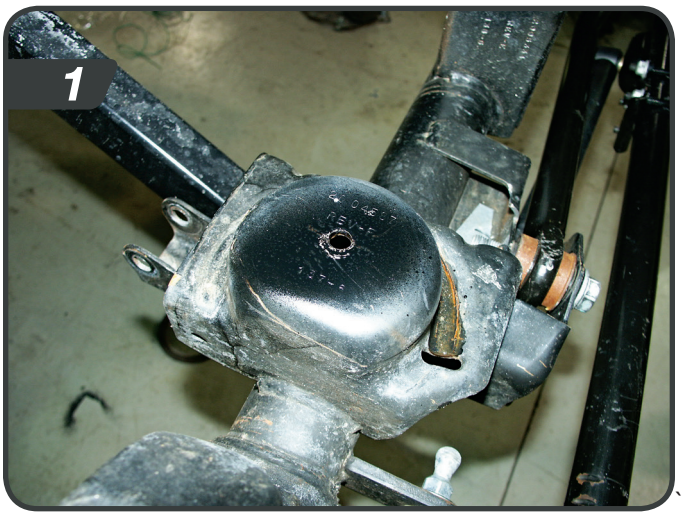
i. Support the front axle with a hydraulic jack. Remove the front shocks from the vehicle using a 16mm wrench for the top and 18mm on the bottom. Save lower hardware.

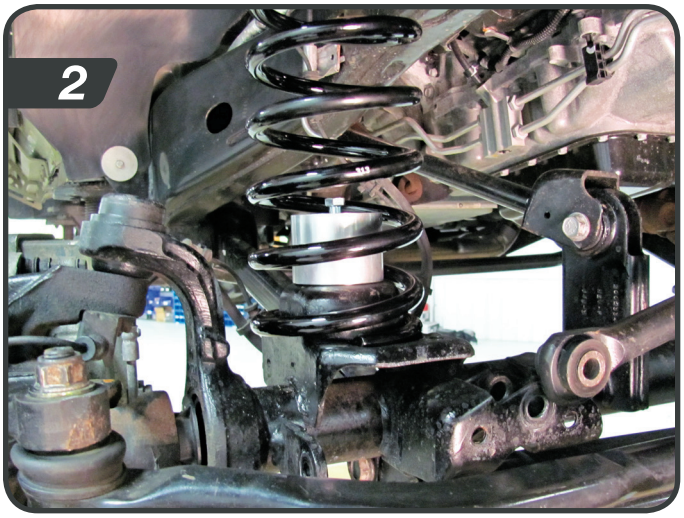
j. Lower the front axle and remove the coil springs. As the axle is lowered, verify all brake and electrical wires have enough slack and the driveshaft clears the pinion flange.

06. FRONT BUMP STOP & COIL SPRING INSTALLATION

Front bump stops 03178 will require bolt pack J107

a. Make a mark in the center of the lower coil spring mound pad. Drill a 5/16” hole at the mark. Using the provided 3/8” x 1” self tapping bolt (9/16”), tap a hole and remove the bolt. This hole will be used to attached the bump stop extension when the coils are installed. [1]





b. Place the provided bump stop extension inside one of the JSPEC front coil springs. Note: Taller springs are for the front. Install the front coil springs with the bump stop extension. Make sure the spring is seated properly in the axle mount.

c. Attach the bump stop extension to the axle through the hole that was made earlier using the provided 3/8” x 2-1/2” bolt and washer. Torque to approximately 25 ft-lbs. [2]

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

a. Install the new shocks with the factory lower hardware and the new upper bushings and hardware. Torque the lower bolt to 60 ft-lbs and the upper nut until the bushings begin to swell.

07. QUICKER DISCONNECT INSTALLATION

NON-RUBICON MODELS

a. Remove the nut and mount the longer tapered mounting posts on the outboard side of the sway bar ensuring the click pin holes are parallel with the ground. Slide the polyurethane spacer on the pin and up against the sway bar. Apply Loctite to the tip of the mounting post and fasten with the 1/2” nylock nut, tighten to 65 ft-lbs. [1]

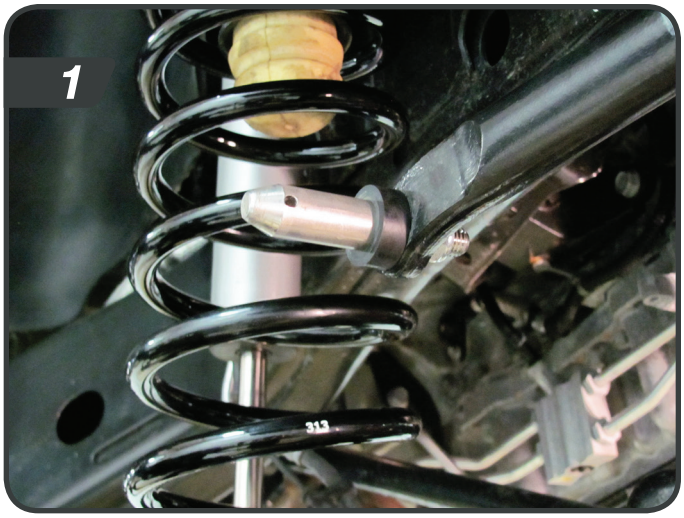
Note: A small screwdriver or punch inserted into the pin hole will keep the post from turning as you tighten it.

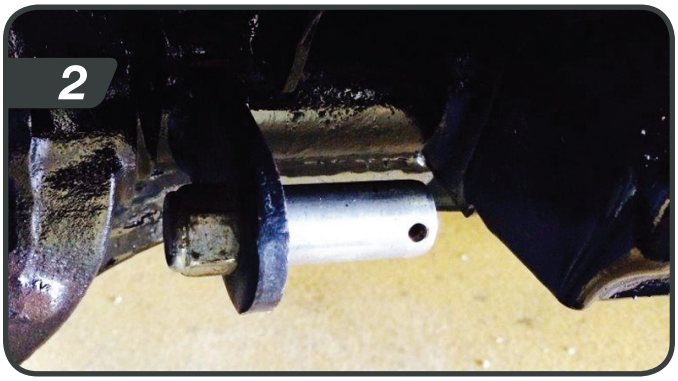
b. Remove the nut and install the lower mounting posts into the factory sway bar link holes so they are pointing inboard and the pin holes are parallel to the ground. The passenger side post is squared off to provide clearance between the post and the OE track bar bracket. [2]

c. Apply Loctite to the tip of the mounting post and fasten with the 1/2” nylock nut and tighten to 65 ft-lbs.

d. Adjust the length of the quicker disconnects to 9” center to center. This is a starting point and can be fine tuned once the vehicle is on the ground.

e. Slide the upper and lower ends of the disconnects over the mounting posts. Insert click pins to secure. [3]





RUBICON MODELS

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

Fixed sway bar link mounting will require bolt pack J105

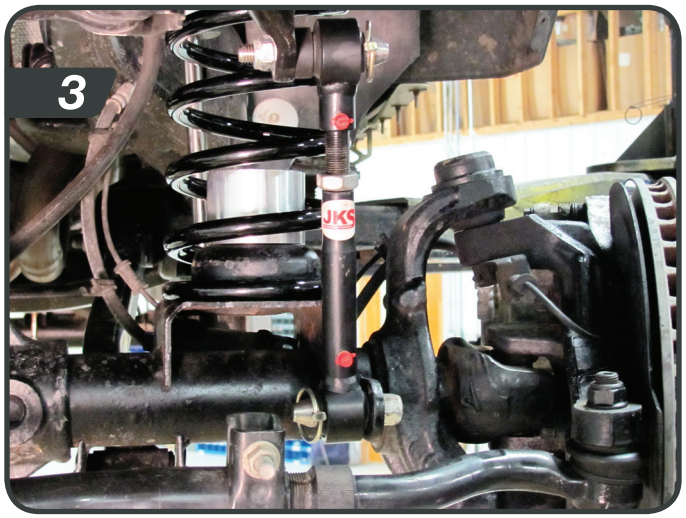
a. Adjust the length of the quicker disconnects to 9” center to center. This is a starting point and can be fine tuned once the vehicle is on the ground.

b. Locate the 3/4” x 1-1/4” sleeve and insert them into the lower bushing of the sway bar link. Insert the longer sleeves into the upper bushing. Slide the polyurethane spacer onto the upper sleeve so it will mount to the swaybar.

c. Using the 1/2” x 2-1/4” bolts, nuts, and washers fasten the links to the axle.

d. Using the 1/2” x 3” hardware, fasten the sway bar links to the sway bar.

e. Torque 1/2” hardware to 65 ft-lbs.



08. FRONT BRAKE LINE BRACKETS

Brake line brackets 03174 and 03175 require bolt pack 768

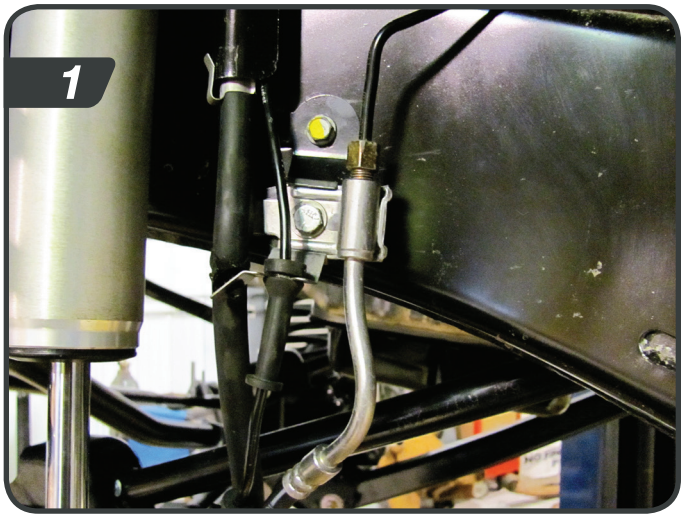
a. The front brake line brackets have a tab that inserts into the OE frame slot with the bracket towards the rear of the slot. Attach the drop brackets to the brake line so the brake line tab fits into the drop bracket slot using the provided ¼" hardware.

b. Attach the brackets to the frame as shown using the factory hardware. You will need to slightly reform the hard lines.

c. Verify the newly formed hard lines are not rubbing on the frame or shock mount.

d. Slightly reform the 90 degree bend in the OE brake line down 10-15 degrees by hand to provide additional slack if necessary.

e. 2011-14 models: Reattach the brakelines below the coil spring mount with the factory bolt.



09. FRONT CAM LOCK INSTALLATION

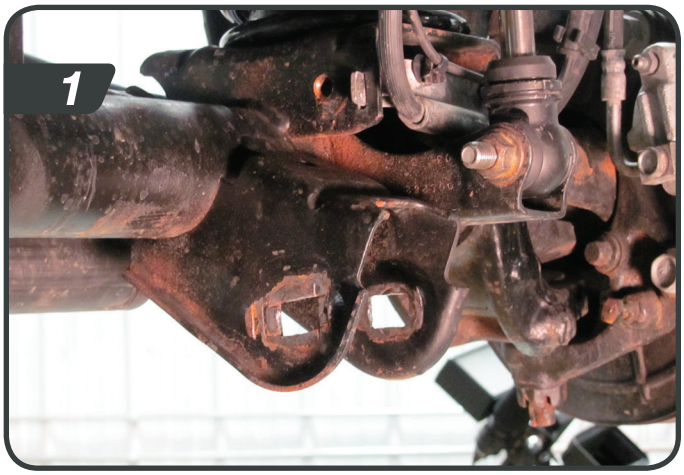
If not installing optional JKS control arms, use the following steps to install the provided alignment cams 01394.

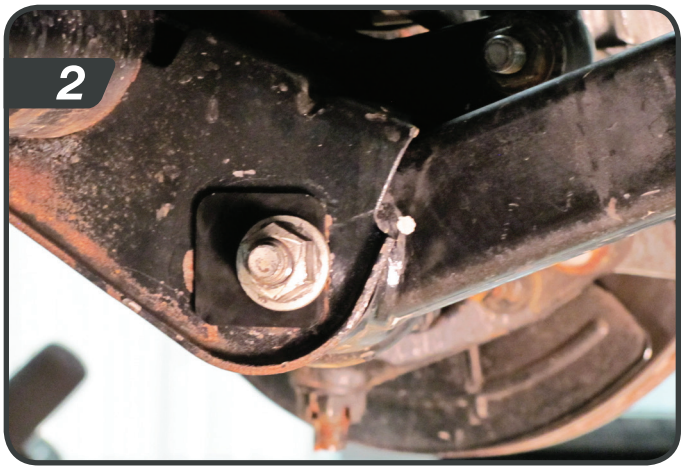
a. With the front axle still supported with a jack, remove the passenger's side lower control arm bolt at the axle. The lower control arm mounts are perforated from the factory so that they can be changed to slots for alignment cams. The perforated sections must be removed to accepted the new cam washers supplied in this kit. Special tools are made to perform this operation but are not necessary. The perforated sections can be removed with a rotary cut off tool, chisel or a combination of both, only the rear section needs to be removed. [1]

b. When the perforated sections are removed from the lower control arm mount, reinstall the control arm to the axle with the factory bolt with cam lock washers. Rotate the cam lock so that the bolt will be as far back in the slot as possible (most rearward setting = max caster). Snug the cam hardware so that the cams are retained within the stops. Final torque will be completed with the weight of the vehicle on the suspension. [2]

Note: Use of a jack on the axle may help to align the cams

c. Repeat cam bolt installation on the driver's side.





10. FRONT ADJUSTABLE TRACK BAR

a. Adjust the length of the track bar to 31-3/4”. This is a starting point, final adjustment can be made once the vehicle is on the ground.

b. Insert the non adjustable end of the track bar into the frame mount with the clearance bend forward. Use factory hardware.

11. FINAL FRONT INSTALLATION STEPS

a. 2012-14 models, install the exhaust extensions using the instructions provided in the JKS8150 kit, sold separately.

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

c. Reattach the drag link to the pitman arm with the factory tie rod end nut. Torque nut to 65 ft-lbs.

d. Reattach the front driveshaft to the axle flange. Use Loctite on the bolts. Torque to 81 ft-lbs.

a. Install the wheels and torque to the lug nuts to 125 ft-lbs.

b. Lower the vehicle to the ground and bounce the vehicle to settle the suspension. Torque the front lower control arm bolts at the axle to 110 ft-lbs. Make sure the cam locks are set so the control arm mounting bolt is in the rear of the slot.

c. Attach the front track bar to the axle with the OE hardware. Have an assistance 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 and axle track bar bolts to 125 ft-lbs.

12. STICKER INSTALLATION

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

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

JSPEC2251 Coil Springs - 2.5” 2 Door

Part No.	Qty	Description
034213R	2	Front coil springs - 2 Door
034217R	2	Front coil springs - 2 Door

JSPEC2250 Coil Springs - 2.5” 4 Door

034210R	2	Front coil springs - 4 Door
034218R	2	Rear coil springs - 4 Door

JSPEC2351 Coil Springs - 3.5” 2 Door

034313R	2	Front coil springs - 2 Door
034317R	2	Front coil springs - 2 Door

JSPEC2350 Coil Springs - 3.5” 4 Door

034310R	2	Front coil springs - 4 Door
034318R	2	Rear coil springs - 4 Door

JSPEC2359 Main Box Kit

Rear Track Bar Bracket

03198	1	Rear track bar bracket
03218	1	Riser Brace Tab
123250500R	1	1/2” x 3-1/4” x 5” U-bolt
J103	1	Bolt pack - Rear track bar bracket
	2	*1/2” nylock nut*
	2	*1/2” SAE washer*
	2	*3/8” x 1” bolt*
	4	*3/8” SAE washer*
	2	*3/8” prevailing torque nut*
	1	*9/16” x 3” bolt*
	1	*9/16”-12 lock nut*
	2	*9/16” SAE washer*

Brake Line Brackets

03174	1	Front brake line bracket - Drv
03175	1	Front brake line bracket - Pass
03172	1	Rear brake line bracket - Drv
03173	1	Rear brakel ine bracket - Pass
768	2	Bolt Pack - Front brake line brackets
	2	*1/4”-20 x 3/4” bolt*
	2	*1/4”-20 nylock nut*
	4	*1/4” USS washer*

Front Alignment Cams

01394	4	Front alignment cam locks

JSPEC2359 Main Box Kit (Cont.)

Front Adjustable Track Bar

Part No.	Qty	Description
03044	1	Trackbar
03209	1	Adjusting Shaft Assembly
36274	1	1-1/4” Jam Nut
MB01B701740	2	Bushing

Quicker Sway Bar Disconnects

03005	2	Quick Pin
M03212-BK-01	2	Offset Polyurethane Spacer
A1046	2	Stainless Steel Post w/ Nut - Upper
A1044 Lower	1	Stainless Steel Post w/ Nut - Pass
A1045 Lower	1	Stainless Steel Post w/ Nut - Drv
03010	2	Sway Bar Link - Female
03011	2	Sway Bar Link - Male
M00475-BK-01	4	Spherical Bushing
7050R	4	Grease Zerk Cap
7607	4	Grease Zerk
37130	4	1/2” Nylock Nut
36264	2	5/8” Jam Nut

Rubicon Fixed Mount Hardware

66	2	3/4” X 1.65” Sleeve
144	2	3/4” x 1.25” Sleeve
J105	1	Bolt Pack - Fixed Links
	2	*1/2”-13 x 3” Bolt*
	2	*1/2”-13 x 2-1/4” Bolt*
	4	*1/2” Washer*
	4	*12mm Flat Washer*
	2	*1/2” Lock Nut*

Bump Stop Extensions

03178	2	2” Front bump stop spacer
J107	1	Bolt Pack - Front bump stops
	2	*3/8”-16 x 2-1/2” bolt*
	2	*3/8” USS washer*
	1	*3/8” x 1” self-tapping bolt*
03574	1	Drv Rear bump stop spacer
03575	1	Pass Rear bump stop spacer
J106	1	Bolt Pack - Rear bump stops
	4	*5/16” x 3/4” bolt*
	4	*5/16” prevailing torque nut*
	8	*5/16” SAE washer*