

INSTALLATION INSTRUCTIONS

SIMPLY SUPERIOR.

FRONT COIL-OVER CONVERSION 2018-2019 JEEP JL WRANGLER 4 DOOR MODELS

JKS2511

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

RV. 041323

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.

THANK YOU FOR CHOOSING JKS

TIRE FITMENT

3-3.5" LIFT

3" Lift – 35x12.50 on 17x8 with 3.5" backspacing*

*Sport & Sahara - rubbing under articulation will occur

37 May not rub under articulation depending on aftermarket bumpers, arms, or fenders

SPECIAL TOOLS REQUIRED

Metric/Standard Socket Wrench Set

7/16", 1/2" & 9/16" Drill or Step Bit

3" cut-off wheel

4-1/2" angle grinder

Reciprocating Saw

Plasma Cutter (suggested)

Drill (suggested)

90deg Die Grinder

Rivet Gun (1/8" Head)

INSTALLATION TIME

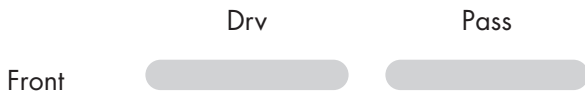
Approximately 7-9 hours

PRE-INSTALLATION NOTES

- a. This kit is designed as an upgrade to a Jspec lift. Additional components are necessary for installation on a stock vehicle. Additional components may be necessary if installed with another lift.
- b. Aftermarket High Angle Front Drive shaft is required.
- c. Install product with JKS's recommended Fox 2.5" coil overs only.
- d. Requires cutting off the factory shock mounts and coil mount. It is not designed to allow the vehicle to go back to a stock configuration.
- e. Requires additional JKS bump stop kit. (JKS2512)
- f. Additional factory plastic liner rivets are available if needed to reinstall fender liner.

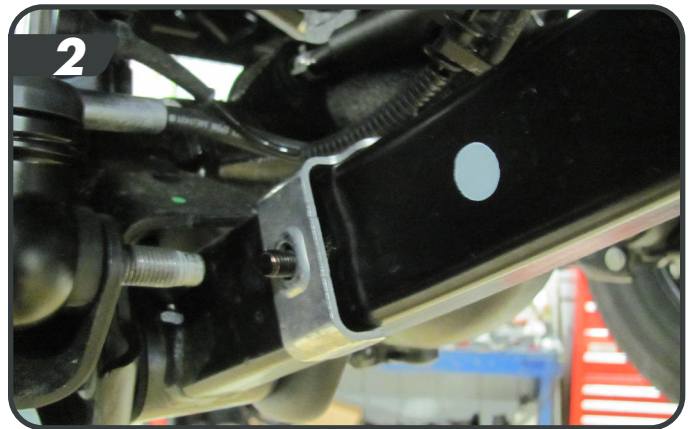
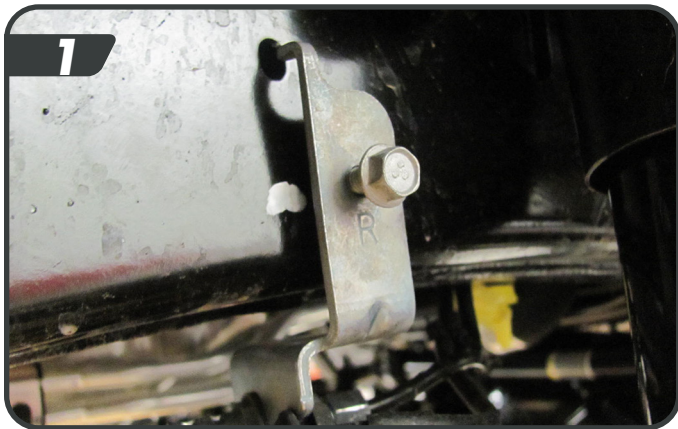
01. PRE-INSTALLATION

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



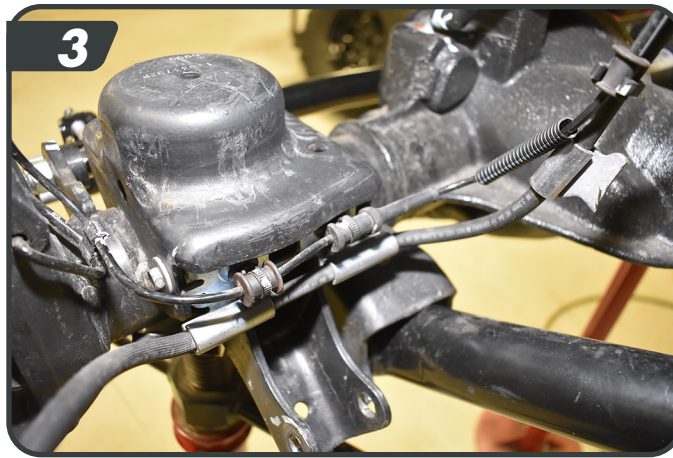
01. FRONT DISASSEMBLY

- 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 and front LCA (10mm) [1,2].

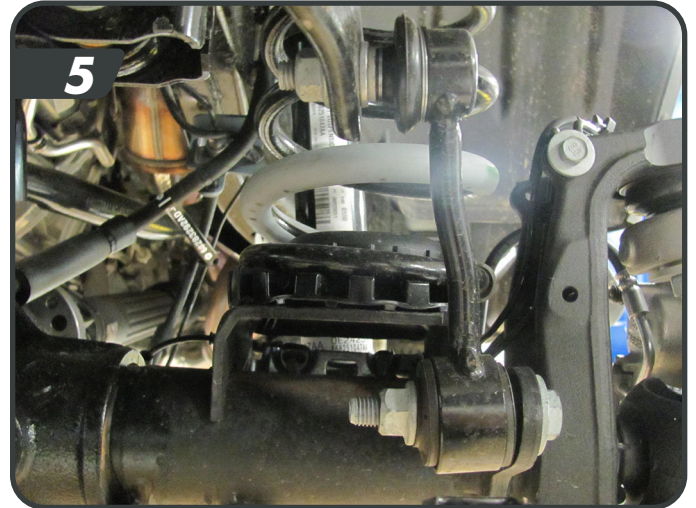
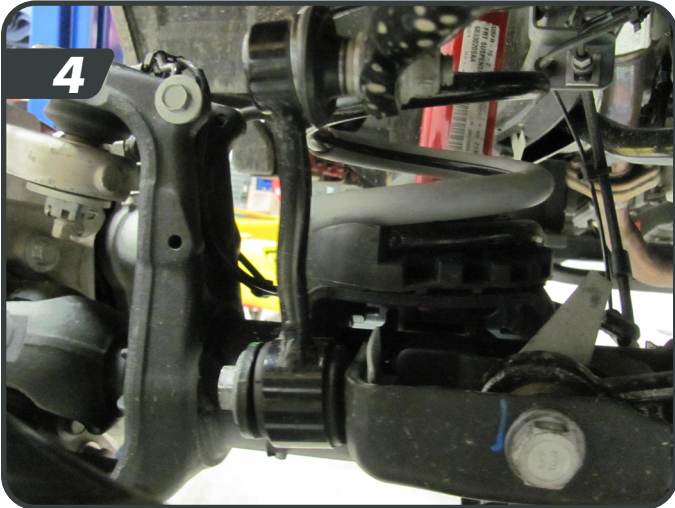


- e. Disconnect the brake line from the Axle coil mount location [3] Remove the Axle bracket and LCA bracket from the brake line.

Note - It is easiest to remove the brake line brackets by cutting a groove in them carefully not to hit the brake line and using two pliers to open the mount.



- f. Rubicon models: Disconnect the front locker wires from the differential.
- g. All Models: Disconnect the front axle disconnect wiring harness and pull out the (2) push pins that mount the harness to the axle.
- h. Disconnect the sway bar links from the axle and sway bar (18mm). Discard links and hardware [4, 5].



- 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.
- 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.
- k. Remove the 4 bolts mounting the front driveshaft to the pinion flange (15mm) and support it with a strap or bungee cord. This is done to ensure the driveshaft does not bind when removing the coil springs. [6]

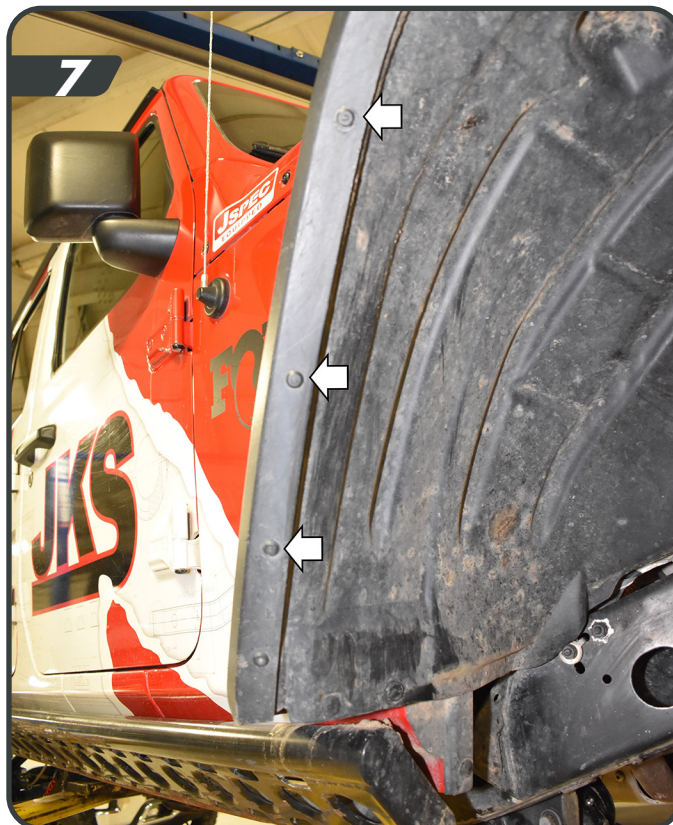


- l. Support the front axle with a hydraulic jack. Remove the front shocks from the vehicle using a 18mm socket for the top and 18mm socket and wrench on the bottom. Save lower hardware.
- m. Lower the front axle and remove the coil springs. As the axle is lowered, verify all brake and electrical wires have enough slack and the driveshaft doesn't bind.

02. SHOCK MOUNT & COIL MOUNT MODIFICATION

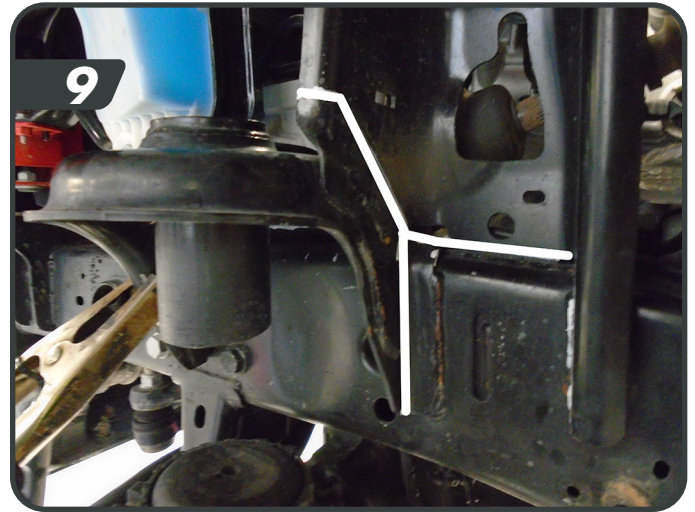
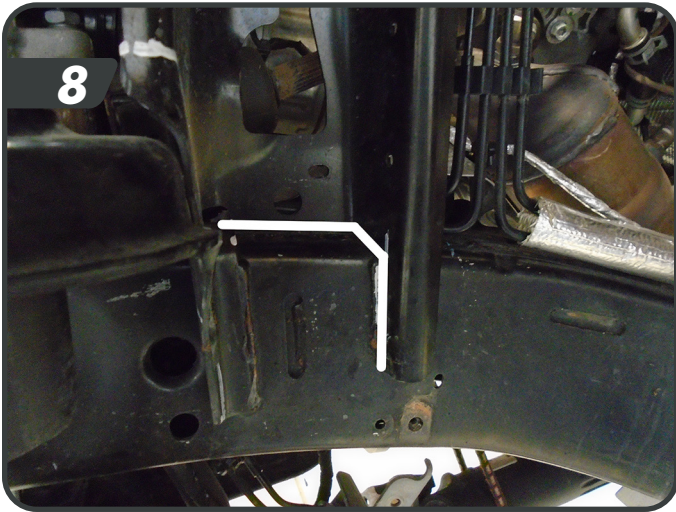
- a. Remove the inner fender liner by removing the screws and clips and remove the three plastic rivets shown in [7]

Note - The easiest way to remove the plastic rivets is to push the mandrel in with a small punch or screwdriver. Than use a body clip tool to pull the body clip out of the fender.



REMOVE FRAME SHOCK MOUNT

- b. Using a small (3") cut off wheel and Reciprocating Saw (Plasma Cutter suggested) remove the shock mount from the vehicle. [8, 9] Be carefull not to cut the frame rail, brakelines or any critical components.

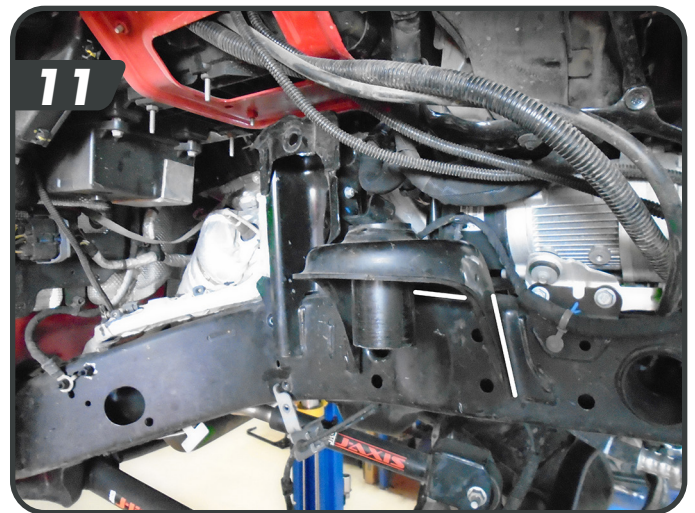
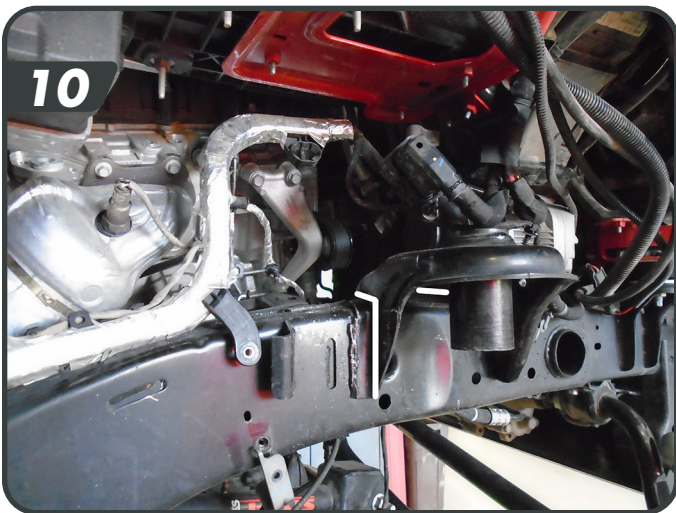


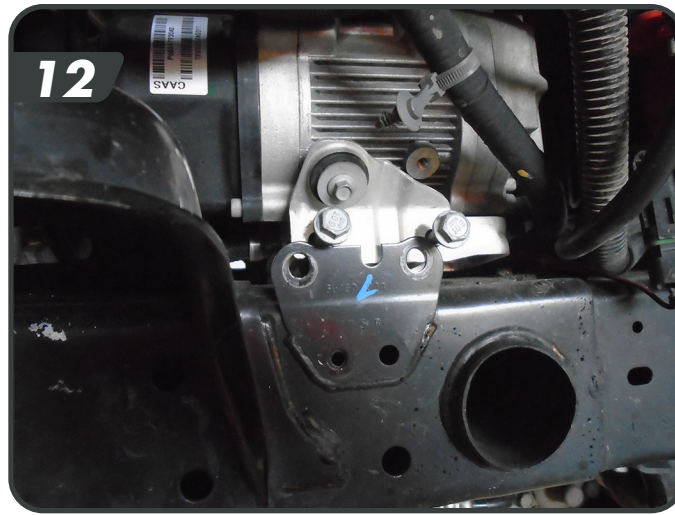
REMOVE FRAME COIL MOUNT

- c. Using a small (3") cut off wheel and Reciprocating Saw (Plasma Cutter suggested) remove the coil mount from the vehicle. [10,11] Be carefull not to cut the frame rail, brakelines or any critical components.

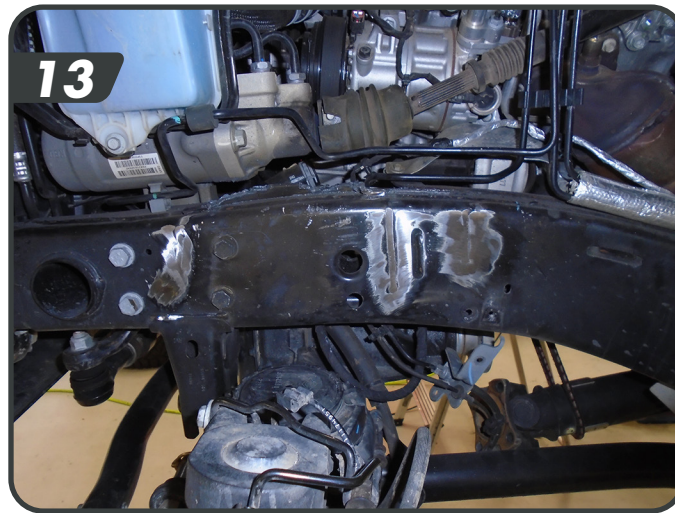
Note - On the Passenger side it might be easier to remove the two bolts (15mm) holding on the power steering pump to gain more access for cutting [11]. Resecure the power steering pump with the bolts (10mm) if removed. 21ft-lbs

Note - On the Passenger side you need to remove the body harness connection from the Coil Mount. It will be remounted to the New frame bracket later.





- d. Grind the outside frame until smooth, Paint any bare metal. [13]



- e. Repeat this procedure on the opposite side.

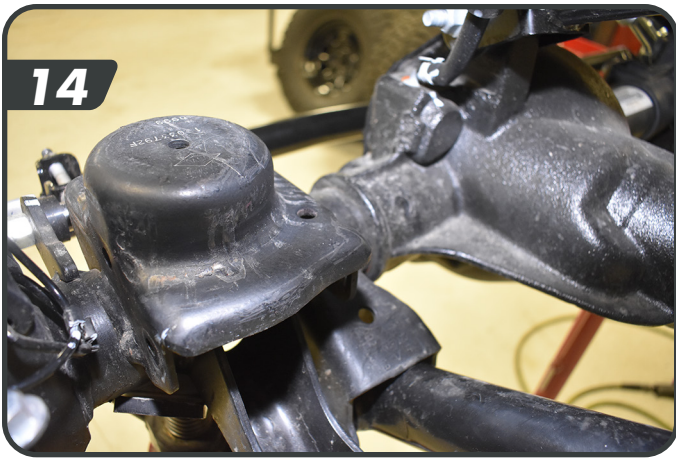
03. AXLE SHOCK MOUNT, COIL MOUNT, & LCA MOUNT MODIFICATION

- Support the axle with some jack stands.
- Remove the Rubber isolator from the coil mount if still on the vehicle.

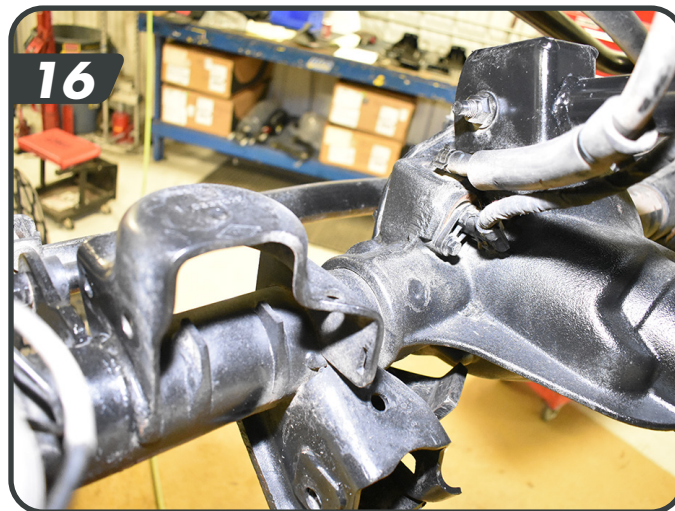
REMOVE FRAME SHOCK MOUNT

- Using a cut off wheel (Plasma Cutter suggested) cut the shock mount as shown. [14, 15] Be carefull not to cut the axle, brakelines, abs wire or any critical components.

Note - It will be nessassary to cut the coil mount up to the bottom of the letters where "DANA" is stamped onto the factory bump stop location it.



- d. Using a small (3") cut off wheel or Recipricating saw cut the shock mount off of the axle as close to the axle as possilbe without hitting the axle. [16]



- e. Using a cut off wheel cut the LCA mount flange of the axle as shown. [17]

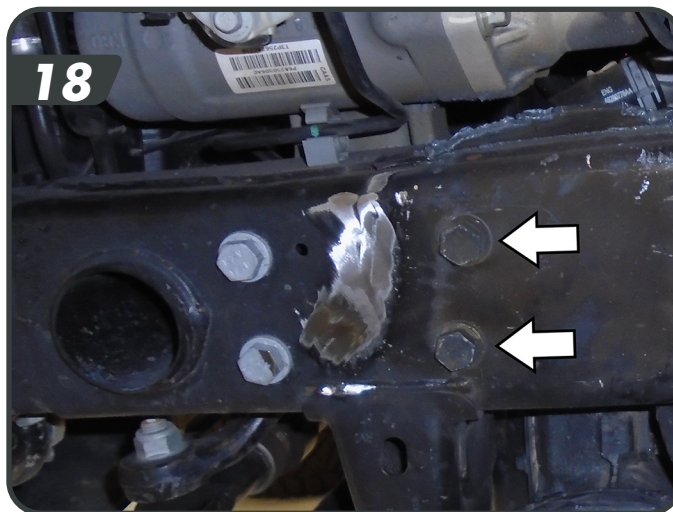


- f. Repeat this procedure on the opposite side.
g. Grind all your cuts smooth to remove any sharp edges and paint any bare metal.

04. FRAME COIL-OVER MOUNT INSTALLATION

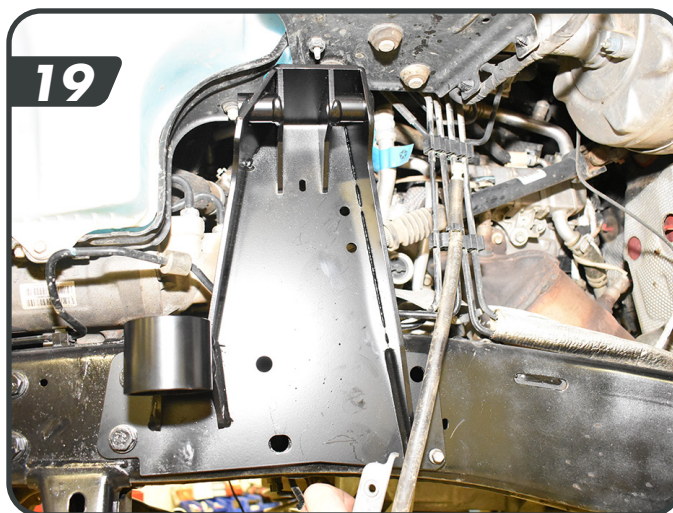
All upper coil-over mount hardware is located in bolt pack J137

- a. On the Driver Side remove the two rear power steering box bolts(18mm).[18]

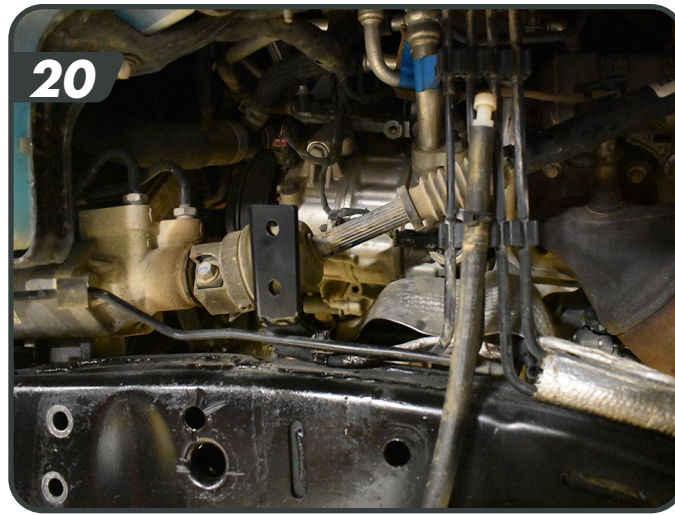


- b. Adjust the hard brake lines out of the way. Place the Frame Mount Bracket onto the frame lining up the two front holes and the brake line bracket hole. Mark the center of the remainder of the holes. Remove the bracket from the frame and drill all the holes to 9/16". [19] Paint all raw metal.

Note - You can use the OE brake line bracket bolt and power steering box bolts to hold the bracket in place while marking the holes.



- c. (3.6L ONLY) Remove the forward factory fastener holding the heat shield to the motor mount bracket. Mount the frame to coilover back support bracket to the factory motor mount bracket with the provided 3/8" bolt, nut and washer in bolt pack J137. Leave hardware loose[20]

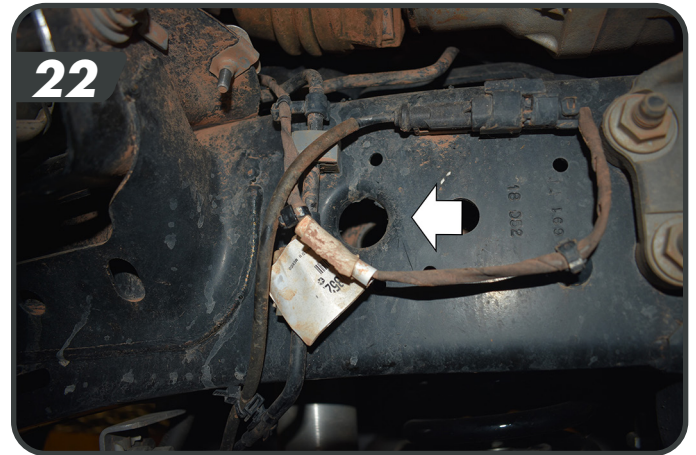
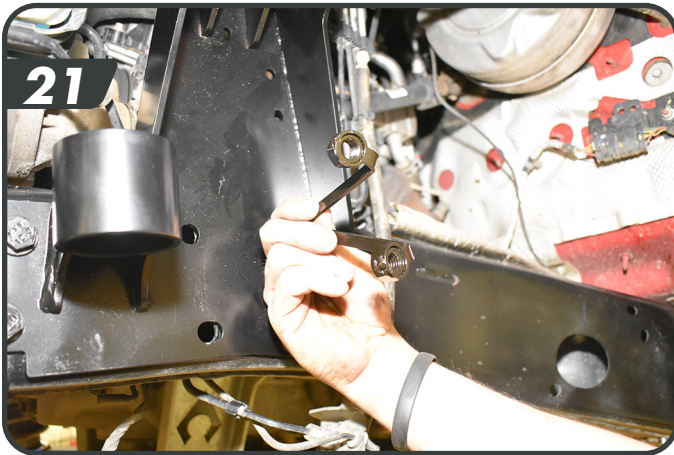


- d. Mount the Frame Mount Bracket to the frame using the original steering box bolt (18mm) and brake line bolt (10mm).
- e. Ensure that all the provided nut tabs are easily threaded onto the provided ½" bolts.

Note - Prethreading them knocks off the protected e-coating on the threads to ensure the loc-tite works.

- f. Insert one of each type of short single nut tab through the formed hole on the inside of the frame at a time using the provided ½" hardware to hold them in place. [21, 22]

Note - Opening up the hole with a die grinder can make it easier but is not required.

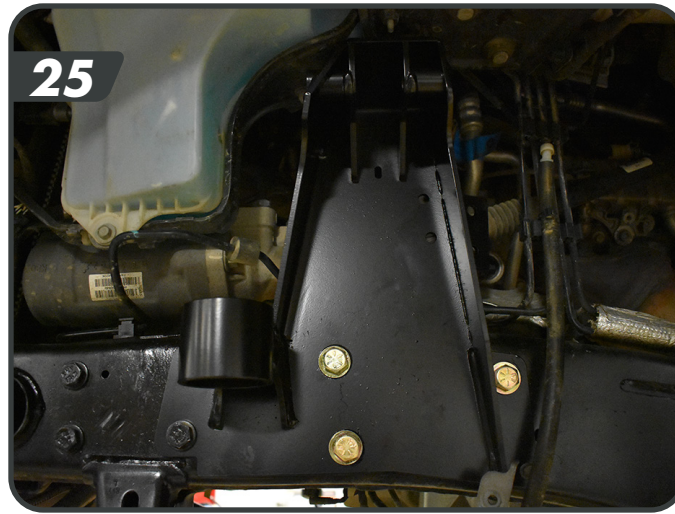


- g. Insert the Long single nut tab [23, 24] into the frame from the outside large frame hole. Use the provided ½" hardware hold it in place. Leave loose.



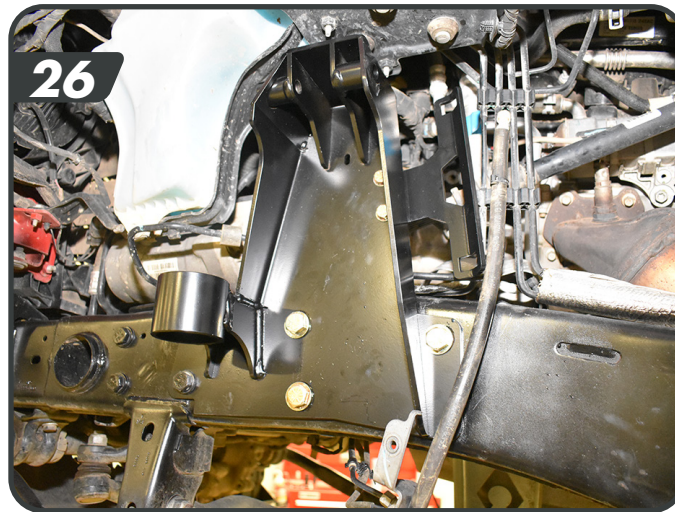
- h. One at a time remove each $\frac{1}{2}$ " bolt and use the provided loctite. Torque the steering box bolts (18mm) to 99 ft-lbs and the $\frac{1}{2}$ " hardware ($\frac{3}{4}$ " to 90 ft-lbs. Leave the brake line bracket bolt loose.

Note - Using a smaller vice grip on the end of each nut tab to help hold it can make it easier to insert the $\frac{1}{2}$ " bolt and hold it still while torquing the bolts.



- i. Mount the Frame to Coilover bracket support bracket to the Frame Mount Bracket with the Remote Resi Bracket using the provided $\frac{5}{16}$ " ($\frac{1}{2}$ " socket and wrench) bolts, nuts, and Washers. [26] Torque hardware to 178 in-lbs

Note - Going from outside to center of vehicle the bracket order will be Frame Mount, (19-20 3.6L only) Support Bracket, then Remote Resi Mount

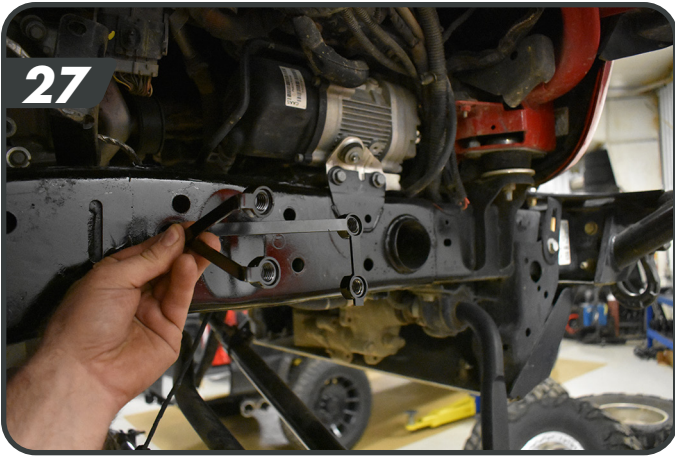


- j. Tighten the $\frac{3}{8}$ " ($\frac{9}{16}$ " socket and wrench) hardware attaching the Reinforcement Bracket to the Frame. Torque to 26 ft-lbs
- k. Repeat this procedure for the passenger side. Instead of using the two power steering box bolts there are two extra $\frac{1}{2}$ " bolts and washers provided along with a short double nut tab. [27, 28]

Note - Temporary removing the brake line and wires from their locations on the inside of the frame is required and they can be put back after installation is complete..

Note - It may be necessary to open up the hole on the backside of the frame with a die grinder to fit all the nut tabs in.

Note- It is easiest to insert the short double nut tab through the hole first than the two short single nut tabs.



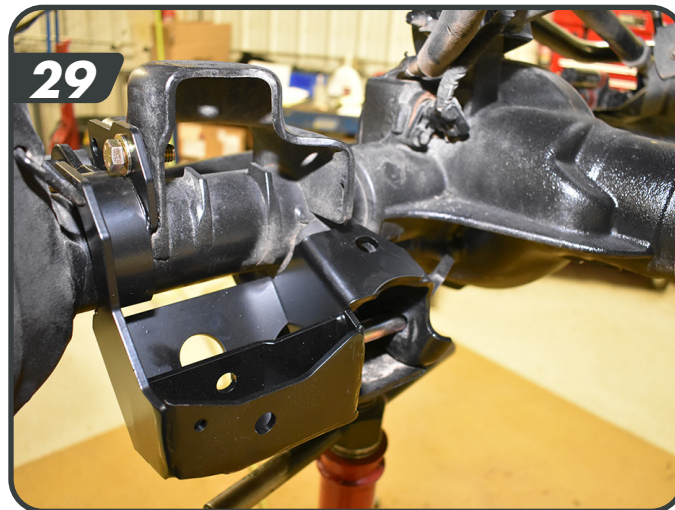
- l. Ensure no brake lines or wires rub any of the new brackets or nut tabs and manipulate them out of the way as nessossary.

05. AXLE COIL-OVER MOUNT INSTALLATION

All lower coil-over mount hardware is located in bolt pack J136

- m. With the axle still well supported, Remove the four bolts holding on the factory skid (10mm).
- n. Remove the driver side LCA axle side bolt. Remove the LCA from the axle mount.
- o. Place the axle mount onto the axle. Place the Cam Washer inbetween the Bracket and LCA mount to ensure proper placement. [29]

Note - You can use the provided 5/8" Bolt and 3/8" bolt to help hold it into place and ensure proper placement. [29]



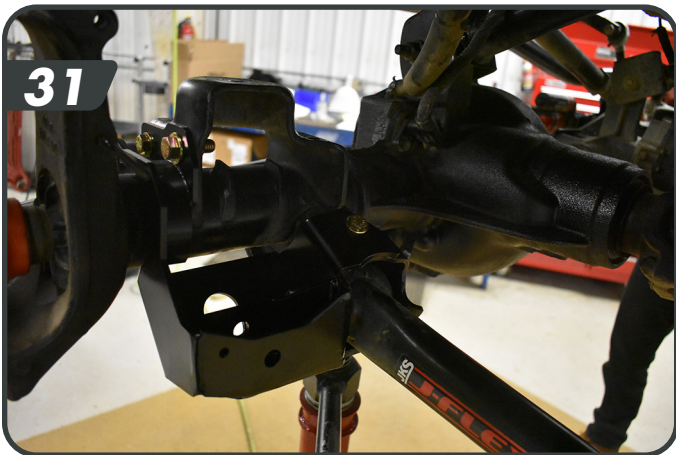
- p. Mark the location of the most forward holes location on the coil mount. Remove the bracket and drill with a 7/16" Bit. Paint any raw metal.

Note - It easiest to drill the hole if the steering turned all the way towards the side your working on. You can also leave the bracket on to use as a guide.

Note - With some LCA it may be nessessary to grind out some material on the upper part of the LCA mount to prevent binding between the LCA and LCA Mount at droop. You can use the Axle mount as a guide. [30]



- q. Place the LCA into the LCA mount again. Place the cam washer between the Axle mount and LCA Mount in the factory slots. Run the 5/8" supplied bolt, washers, and nut from the inside outward. Leave all hardware loose until the end of the step. Use one of the provided 3/8" bolt, washers and nut and bolt the axle mount to the top of the LCA pocket. Next use the 7/16" bolt, washers, and nut and bolt the axle mount through the factory side coil mount hole. Using the other 3/8" bolt, washers, and nut bolt the axle mount to the coil mount through the hole you drilled in the previous step. Torque all hardware to the following. 3/8" Hardware (9/16" socket and wrench) 26 ft-lbs, 7/16" bolt (5/8" socket, 11/16" wrench) 42 ft-lbs. Snug up 5/8" Hardware but don't torque it down (15/16" socket and wrench). [31, 32]



- r. Repeat the procedure on the opposite side.

06. COIL-OVER INSTALLATION

All lower coil-over mount hardware is located in bolt pack J138

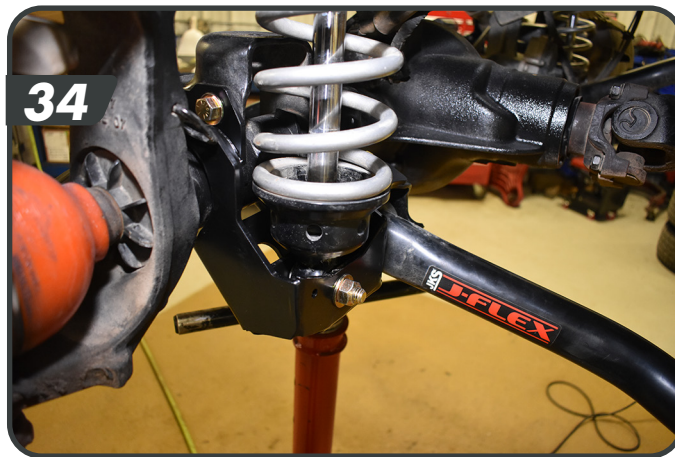
- a. Lower the axle with the hydraulic jack to provide enough room to mount the coilovers
- a. With the upper and lower brackets installed on both sides, install the coilovers to the upper mount using the 1/2" x 5-1/2" bolt, washers, and nut from the rear to front.

Note: The coilover misalignment spacers may need to be compressed with a pair of channel lock pliers to fit into the bracket.

- b. Mount the reservoir to the coilover mount using the provided clamps. They are designed to slide over the mount seat in the slot cut in the bracket (not through the slot). [33]



- c. Raise the axle to mount the coilover into the lower mount. Fasten with the ½" x 2-¾" bolt washer and nut. [34]



- d. Repeat this procedure for the opposite side.
- e. Install the provided bump stop by following the instructions provided in that box kit.
- f. Reattach the axle disconnect wire to the axle.
- g. Rubicon models: Reattach the locker wire harness to the differential.
- h. Install your aftermarket drive shaft per manufacturers recommendations. Ensure drive shaft clears and doesn't bind at droop.

07. INNER FENDER TRIMMING

- a. Trim inner fenders to clear the reservoir and coilover mount on both sides.[35]

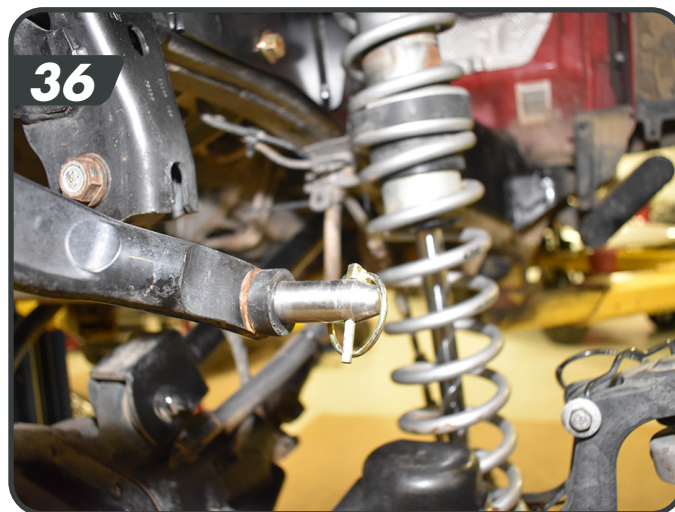


- b. Fasten the inner fenders to the body with the original hardware. Use the provided Plastic rivets and a standard Rivet gun mount the inner fender to the fender.

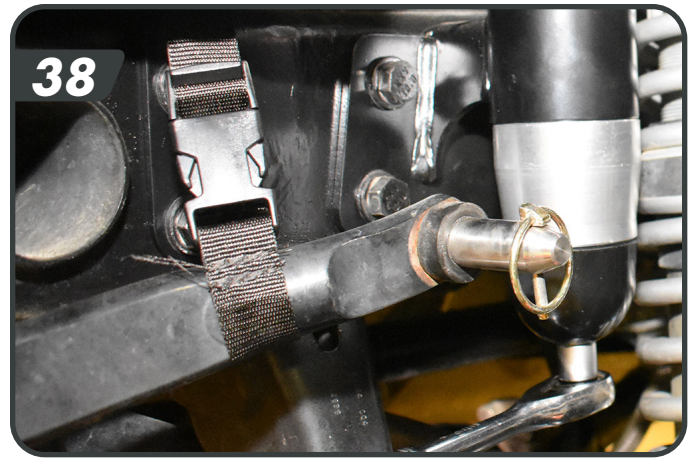
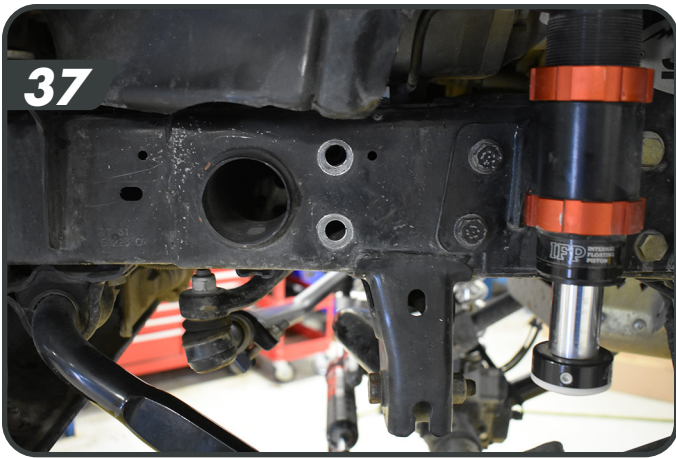
07. SWAY BAR DISCONNECTS AND BRAKE LINES

- a. We have provided two more Disconnect studs to be used with your JKS links. This way the links can be fully removed while the sway bar can be held up by the provided lanyard.
- b. Unbolt Your JKS links from the Sway Bar (19mm socket and wrench)
- c. Install the side post on the sway bar with it pointing outboard [36]. Fasten with the ½" nylock nut and tighten to 64 ft-lbs. (¾") Repeat this procedure on both sides.

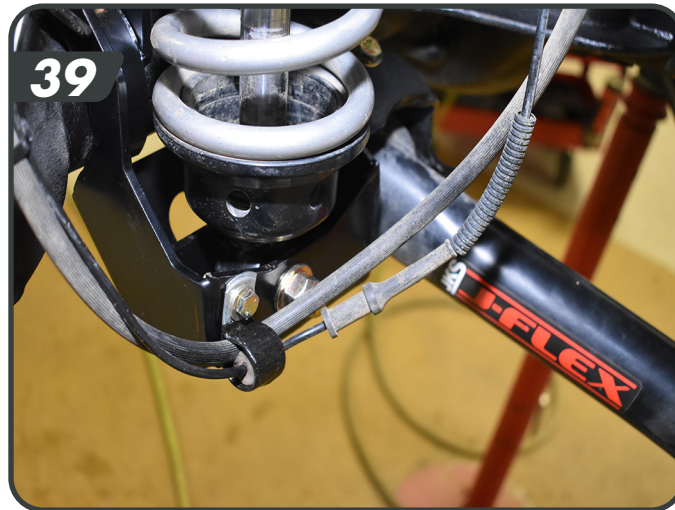
Note - A small screwdriver or punch inserted into the pin hole will keep the post from turning as you tighten it.



- d. Install the offset SwayBar Link Spacers onto the studs and reinstall your links using the provided quick pins to hold the links on.
- e. Mount the lanyard to the lanyard bracket using the provided ¼" hardware in bolt pack J138. Torque to 86 in-lbs (7/16" wrench and socket).
- f. Remove the two forward most bolts (18mm) on the Power steering box. Install the lanyard bracket going upward [37, 38]. Torque hardware to 99 ft-lbs.



- g. Using the provided ¼" Hardware (7/16") in bolt pack J136 and the Hose Clip. Fasten the brake line and ABS line to the axle mount to prevent it from rubbing. Torque to 86 in-lbs (7/16" wrench and socket). Cable ties are also provided to attach the brake line to the abs line. [39]



- h. Reattache the factory brake line to the frame through the frame mount with OE hardware (10mm). Torque Bolt to 115 in-lbs.

08. FINAL INSTALLATION STEPS

- a. Install the wheels and torque 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 128 ft-lbs.
- 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. Torque the frame and axle track bar bolts to 74 ft-lbs Plus 60deg.
- d. Re-connect the sway bar links.
- e. Adjust the steering wheel to center with the adjustment collar on the drag link. Once centered torque the bolts to 34 ft-lbs.
- f. Verify tire clearance, trim the front bumper side trim pieces as shown if necessary on your model. [40] On non-rubicon models there may be rubbing while flexing and turning. The steering stops can be adjusted on the knuckle by removing them (15mm) and placing one or two 3/8" washers from bolt pack J136. Retighten steering stop with loctite, torque to 190 in-lbs



- g. Check all hardware torque after 500 miles.

JKS2511 KIT COMPONENTS

JKS2511 JEEP JL WRANGLER FRONT COILOVER CONVERSION

Part No.	Qty	Description	J136		
				1	Bolt Pack Frame Mount Hardware
03346	1	Frame Mount - Drv		2	7/16"-14 x 1-1/4" Bolt
03347	1	Frame Mount - Pass		4	7/16" Washer
03348	1	Axle Mount - Drv		2	7/16"-14 Lock Nut
03349	1	Axle Mount - Pass		4	3/8"-16 x 1-1/4" Bolt
03350	2	Remote Reservoir Bracket		12	3/8" Washer
03368	1	Reinforcement Bracket - Drv		4	3/8"-16 Lock Nut
03369	1	Reinforcement Bracket - Pass		2	5/8"-11 x 4-1/2" Bolt
03352	2	Short Single Nut Tab - Drv		4	5/8" Washer
03353	2	Short Single Nut Tab - Pass		2	5/8"-11 Lock Nut
03354	1	Short Double Nut Tab		2	1/4"-20 x 1" Bolt
03355	2	Long Single Nut Tab		4	1/4" Washer
03378	1	Sway Bar Retaining Bracket		2	1/4"-20 Lock Nut
01399	1	Lanyard	J137	2	3/4" Hose Clips
A1046	2	Sway Bar Stud		1	Bolt Pack Axle Mount Hardware
M03212-BK-01	2	Offset Swaybar Link Spacer		8	1/2"-13 x 1-1/2" Bolt
03005	2	Quick Pin		8	1/2" Washer
03326	2	Alignment Cam		2	3/8"-16 x 1-1/2" Bolt
342701	1	Loctite		4	3/8"- Washer
				2	3/8"-16" Lock Nut

J138	4	5/16"-18 x 1-1/4" Bolt
	8	5/16" Washer
	4	5/16"-18 Lock Nut
	1	Bolt Pack Coilover Mounting Hardware
J154	2	1/2"-13 x 5-1/2" Bolt
	2	1/2"-13 x 2 3/4" Bolt
	8	1/2" Washer
	4	1/2"-13 Lock Nut
	1	1/4"-20 x 1" Bolt
	2	1/4" Washer
	1	1/4"-20 Lock Nut
	1	Bolt Pack JL Fender rivets
	6	1/4" Plastic Rivet