

# Quadratec® 2.5” Coil Suspension Lift Kit

Installation Manual: for 2018 - Current Wrangler (JL)

#16400.0X7X



#### PARTS LIST:

- Front Coil Springs - QTY 2
- Rear Coil Springs - QTY 2
- Shocks - QTY 4 (Kit Dependant)
- Front Swaybar Endlinks - QTY 2
- Rear Swaybar Endlinks - QTY 2
- Front Bump Stops - QTY 2
- Rear Bump Stops - QTY 2
- Full Kit Component & Hardware Listed Inside Booklet
- Cockpit Warning Sticker - QTY 1

#### **⚠ WARNING ⚠**

**TO REDUCE RISK OF SERIOUS INJURY OR PROPERTY DAMAGE: READ ALL SAFETY MESSAGES AND UNDERSTAND ALL INSTRUCTIONS AND PROCEDURE NOTICES BEFORE ATTEMPTING TO INSTALL OR USE THIS PRODUCT. FOLLOW ALL INSTRUCTIONS AND WARNINGS WITH PRODUCT & VEHICLE OWNERS MANUAL.**

#### **⚠ WARNING ⚠**

**THIS KIT INCLUDES A COCKPIT SAFETY WARNING STICKER REGARDING INCREASED ROLLOVER RISK. THIS STICKER MUST BE AFFIXED IN THE COCKPIT, VISIBLE TO ALL VEHICLE OCCUPANTS AT ALL TIMES.**

#### **⚠ CAUTION ⚠**

**RISK OF EYE INJURY! SAFETY GLASSES MUST BE WORN AT ALL TIMES WHILE INSTALLING OR MAINTAINING THIS PRODUCT. TORQUE AND RECHECK FASTENERS AFTER 250 MILES AND FREQUENTLY THEREAFTER. DO NOT USE IF DAMAGED.**

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**A Few Words About Product Safety:**

Your Quadratec Suspension product is intended to enhance the utility and enjoyment of your off road capable vehicle. Before installation, please review the following safety information and installation recommendations.

Throughout these instructions important safety information is generally preceded by one of three signal words indicating the relative risk of injury, property damage or adverse consequence. **The signal words mean:**

<b>⚠ WARNING ⚠</b>	a hazardous situation which, if not avoided, could result in death or serious injury. You <b>CAN</b> be <b>KILLED</b> or <b>SERIOUSLY HURT</b> if you don't follow instructions.
<b>⚠ CAUTION ⚠</b>	a hazardous situation which, if not avoided, could result in minor or moderate injury. You <b>CAN</b> be moderately <b>HURT</b> and also may suffer property damage if you don't follow instructions.
<b>NOTICE</b>	Careful attention is required to this instruction or operation but does generally not relate to personal injury. Damage to your Quadratec® product or other property may result if you don't follow instructions.

**Before You Begin Installation:**

Congratulations on your purchase of the Quadratec 2.5" Coil Spring Lift Kit for 2018-Current JL Wrangler Vehicles. When unpacking, check to make sure all

parts are included and not damaged due to shipping. If any part is missing or broken, please call Customer Service at 800-745-6037 as soon as possible.

**IMPORTANT PRODUCT SAFETY TIPS**

<b>⚠ WARNING ⚠</b>	<b>INSTALLATION OF THIS PRODUCT ON YOUR JEEP® WILL MODIFY AND ENHANCE ITS SUSPENSION AND OFF-ROAD PERFORMANCE. IT MAY HANDLE DIFFERENTLY THAN AS FACTORY-EQUIPPED INCLUDING; INCREASED RIDE-HEIGHT; REDUCED LATERAL STABILITY; AND HIGHER RISK OF ROLL-OVER OR OTHER ACCIDENT. ALSO, OWNER'S CHOICE OF LARGER TIRE/WHEEL COMBINATIONS MAY REQUIRE ADDITIONAL PEDAL PRESSURE OR INCREASED DISTANCE TO STOP; CAUSE SPEEDOMETER TO READ SLOW AND MAY REDUCE VISIBILITY AROUND THE VEHICLE. CHOICE OF TIRE/WHEEL COMBINATIONS OTHER THAN AS TESTED OR RECOMMENDED MAY COMPROMISE FMVSS 126 COMPATIBILITY.</b>
<b>⚠ WARNING ⚠</b>	<b>FAMILIARIZE YOURSELF WITH VEHICLE HANDLING AND REVIEW ALL VEHICLE MANUFACTURERS AND QUADRATEC® WARNINGS, INSTRUCTIONS AND LIMITED WARRANTIES BEFORE DRIVING A MODIFIED SUSPENSION JEEP®. FOLLOW ALL RECOMMENDED MAINTENANCE PROCEDURES AND ROUTINELY INSPECT YOUR VEHICLE COMPONENTS FOR UNUSUAL WEAR OR OFF-ROAD DAMAGE.</b>
<b>⚠ WARNING ⚠</b>	<b>DO NOT DRIVE UNDER ANY SPEED OR MANEUVERING CONDITIONS WHICH MAY CAUSE THE VEHICLE TO TRIP, ROLL, LOSE TRACTION OR COMPROMISE YOUR ABILITY TO SAFELY BRAKE IN AN EMERGENCY. QUADRATEC® DOES NOT RECOMMEND COMBINED USE OF SUSPENSION KITS, BODY LIFTS, OTHER LIFTING DEVICES OR COMPONENTS ALTERING THE INTENDED RIDE-HEIGHT OR FUNCTION OF ITS PRODUCTS. MANY STATES HAVE LAWS RESTRICTING THE EXTENT OF VEHICLE MODIFICATIONS. OWNER/DRIVER IS RESPONSIBLE FOR MODIFICATIONS CONSISTENT WITH STATE LAWS AND GOOD SENSE.</b>



## IMPORTANT PRODUCT SAFETY TIPS



QUADRATEC® RECOMMENDS PROFESSIONAL INSTALLATION OF THIS PRODUCT.



### 2.5" COIL SPRING KIT PARTS LIST:

Front Coil Spring - QTY 2  
 Rear Driver Side Coil Spring - QTY 1  
 Rear Passenger Side Coil Spring - QTY 1  
 Cockpit Warning Sticker - QTY 1

#### Front Sway Bar Link - QTY 2

M12 - 1.75 x 70 Hex Head Bolt - QTY 2  
 M12 Lock Nut - QTY 2  
 7/16" USS Flat Washer - QTY 4  
 Hourglass Bushing - QTY 4  
 Sleeve - QTY 4

#### Rear Sway Bar Link - QTY 2

M12 - 1.75 x 65 Button Head Bolt - QTY 2  
 M12 Lock Nut - QTY 2  
 7/16" USS Flat Washer - QTY 4  
 Hourglass Bushing - QTY 4  
 Sleeve - QTY 4

#### Front Bump Stop 2" Tall - QTY 2

7/16"-16 x 2 3/4" Button Head Bolt - QTY 2  
 3/8" SAE Flat Washer - QTY 2  
 3/8" Lock Nut - QTY 2

#### Rear Bump Stop 2" Tall - QTY 2

5/16" - 24 x 1 Hex Head Bolt - QTY 4  
 5/16" SAE Flat Washer - QTY 8  
 5/16" Lock Nut - QTY 4  
 Front Shocks - QTY 2  
 Rear Shocks - QTY 2

#### REQUIRED TOOLS:

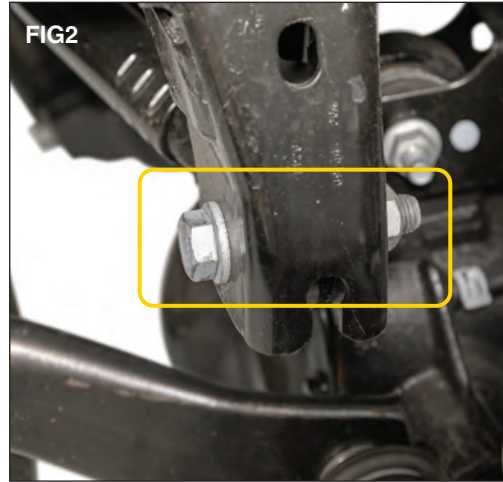
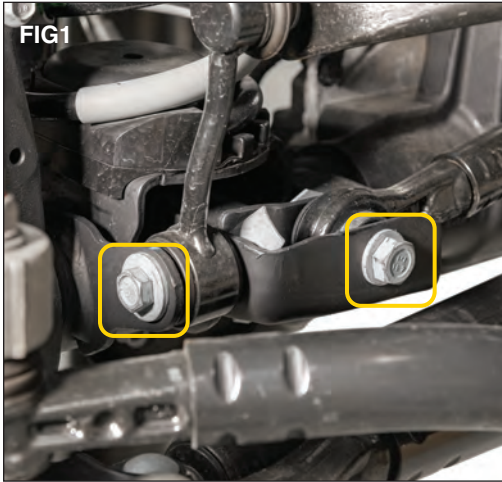
Safety Glasses  
 Ratchet  
 Sockets:  
 10mm, 13mm, 9/16", 15mm,  
 18mm, 19mm, 21mm, 24mm  
 Allen Key Wrenches  
 7/32", 6mm, 8mm  
 Open End Wrenches:  
 1/2", 18mm, 19mm, 21mm, 24mm  
 Forked Clip Trim Removal Tool  
 Side Cutters  
 Pliers  
 Torque Wrench



ALWAYS SUPPORT FRAME RAILS USING JACK STANDS.

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## 2.5" Coil Spring Lift Kit Installation: Front

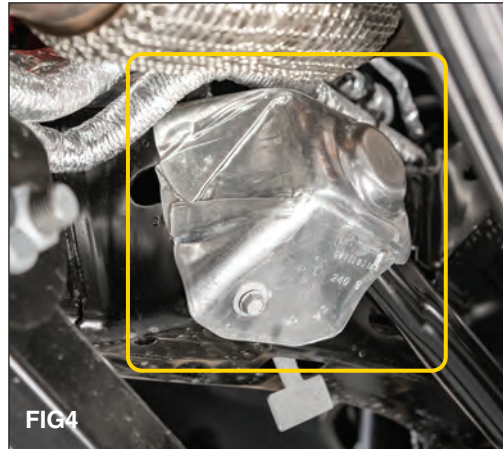


**Caution:** Park the vehicle on flat, level ground and set emergency brake. Put on safety glasses. Raise the front of the vehicle and support frame rails using jack stands. Do not lower the axle at

this time. Remove front wheels/tires. Loosen the front track bar at both the frame and axle using a 21mm socket and wrench. (FIGs 1 & 2) Remove bolt from the axle end and save hardware.

### **CAUTION**

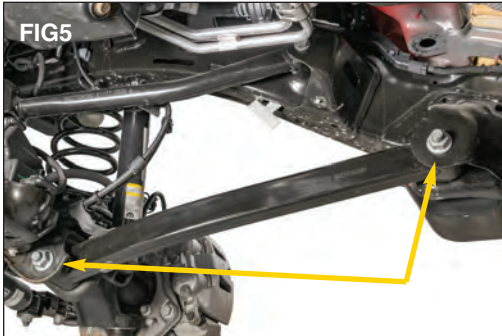
**PARK THE VEHICLE ON FLAT, LEVEL GROUND AND SET EMERGENCY BRAKE. ALWAYS SUPPORT FRAME RAILS USING JACK STANDS.**



Remove the upper control arm bushing heat shields on the frame using a 10mm socket and or wrench. (FIGs 3 & 4)

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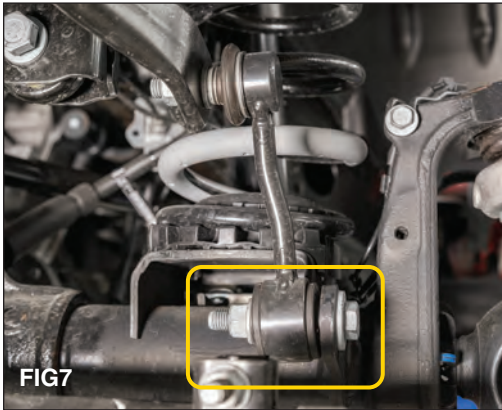
## 2.5" Coil Spring Lift Kit Installation: Front



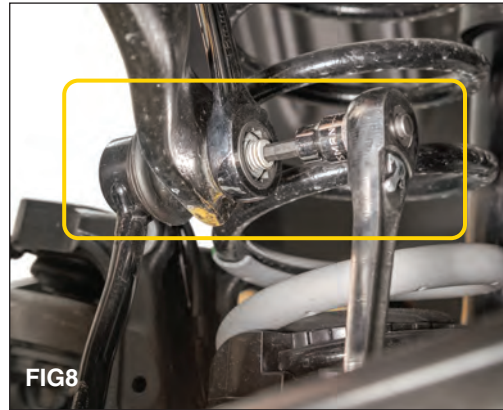
Loosen the lower control arms at both the frame and axle using 21mm & 24mm sockets and wrenches. (FIG 5)



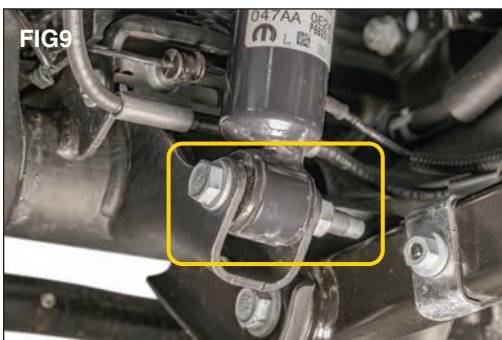
Loosen the upper control arms at both the frame and axle using a 18mm socket and wrench. (FIG 6)



Disconnect the front sway bar end links at the axle using a 18mm socket and open end wrench. Save hardware. (FIG 7)



Remove the sway bar link from the sway bar using a 18mm wrench and 6mm allen wrench. (FIG 8)



Disconnect the shocks from the axle using a 18mm socket and open end wrench. Save hardware. (FIG 9)



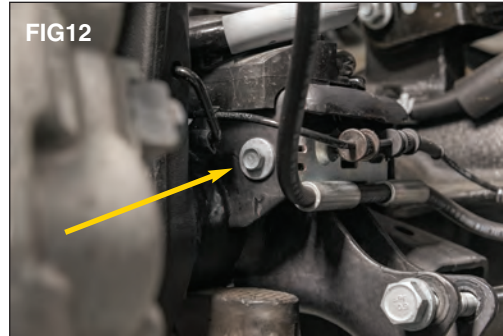
Remove the shocks from the frame using a 18mm socket. (FIG 10) Save hardware.

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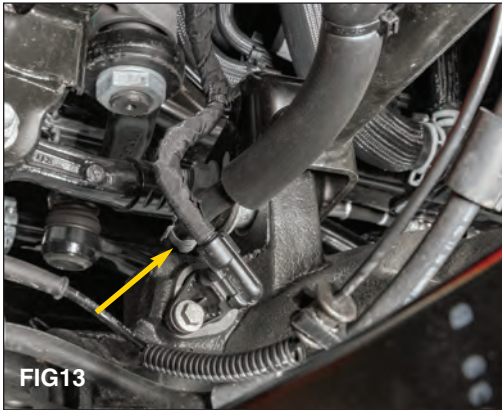
## 2.5" Coil Spring Lift Kit Installation: Front



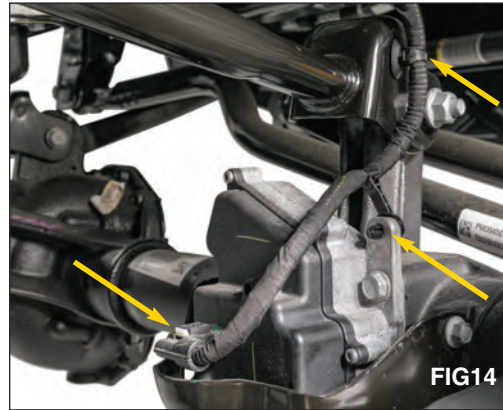
Disconnect the brake line brackets from the lower control arm using a 15mm socket. (FIG 11) Save hardware.



Disconnect the brake line bracket from the coil spring mount using a 10mm wrench. (FIG 12) Save hardware.



Using pliers, squeeze the clamp and remove the axle vent hose. On Rubicon models, slide the gray tab, squeeze and remove the axle locker harness plug. Remove the harness from the upper control arm using a trim removal tool. (FIG 13)



On the passenger side, slide the gray tab, squeeze and remove the axle disconnect harness plug. Remove the harness from the axle housing and upper control arm using a trim removal tool. (FIG 14)



Gently lower the axle housing towards the ground and remove the coil springs. (FIG 15)

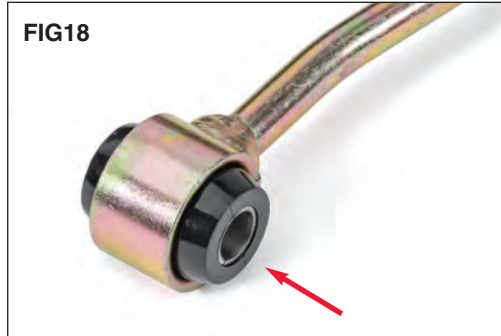


With the axle in drop position, place the bump stop in coil springs, and position the new coil springs. (FIG 16)

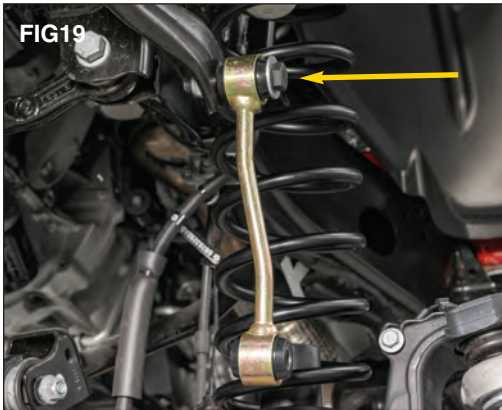
## 2.5" Coil Spring Lift Kit Installation: Front



Attach bump stops to axle with the 3/8 button head bolts, washers and nuts using a 7/32" allen wrench and 9/16" wrench. (FIG 17) Torque to 30ft lbs. Ensure that the coil springs are fully seated properly.



Assemble the new front sway bar links, the shorter ones, using the supplied bushings and sleeves. (FIG 18) Raise the axle enough to keep the springs in place and for the next few steps.



Loosely install the new links to the sway bar with the supplied M12 hex head bolt, 7/16" flat washer and nut as shown using a 19mm socket and wrench. (FIG 19)



Loosely re-attach the sway bar links to the axle using factory hardware. Only the driver's side will get a large 7/16" washer on the nut side. (FIG 20)

See next page for shocks assembly.

## 2.5" Coil Spring Lift Kit Installation: Front



*Assemble the front shocks as shown in FIG 21 A, B, C. Install the shock boots*

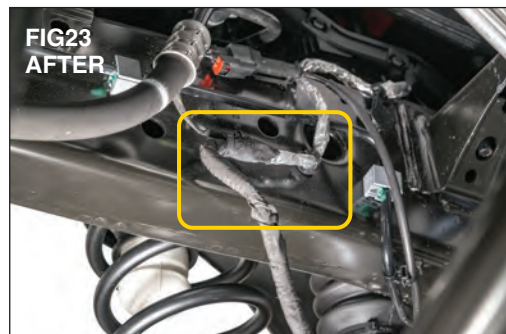
*and secure with cable ties. Trim the excess as needed. (FIG 21D)*



*Loosely install the new shocks to the frame and then to the axle using the original hardware. (FIG 22)*



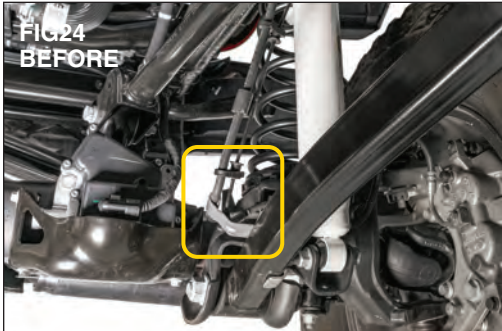
*We recommend to cut the cable tie on the frame rail to allow for extra slack*



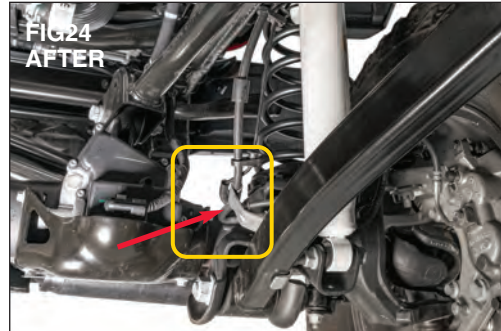
*on the axle disconnect harness. (FIG 23 BEFORE & AFTER)*



## 2.5" Coil Spring Lift Kit Installation: Front



We recommend to slightly bend the lower brake line brackets on the control



arm to allow for extra slack in the lines. (FIG 24 BEFORE & AFTER)

Carefully raise the axle using a floor jack so the full weight of the vehicle is on the new coil springs. Install the wheels/tires and torque to the vehicles owners manual specifications.

Remove the jack stands and lower vehicle onto the tires. Reconnect the locker harness if present, vent line, axle vacuum disconnect, brake lines to coil buckets and to the lower control arms.

This completes the installation work on the front of the vehicle.

**Torque all front end control arm and track bar hardware once the rear installation is complete.**

Only once the vehicle is on the ground with all weight on the tires you may now fully torque all hardware to specifications.

### **Front Torque Specs:**

Upper control arms: 80ft-lbs.

Upper control arm heat shields: 40in-lbs.

Lower control arms: 190ft-lbs.

Brake hose to lower control arms: 15ft-lbs.

Brake hose to coil spring mounts: 40in-lbs.

Track bar: 110ft-lbs.

Sway bar links: 60ft-lbs.

Lower shock mount to axle: 75ft-lbs

Upper shock mount to frame: 80ft-lbs

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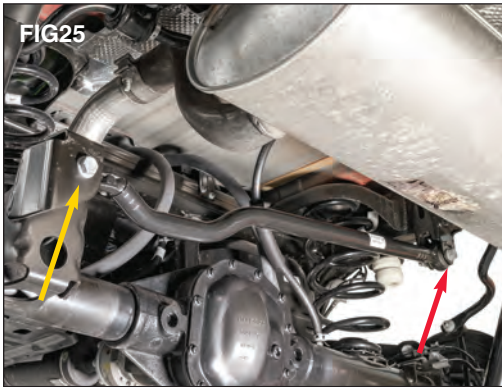
## 2.5" Coil Spring Lift Kit Installation: Rear

Moving to the rear of the vehicle; use a wheel chock on the front tires to prevent the vehicle from rolling forward and release the emergency brake.

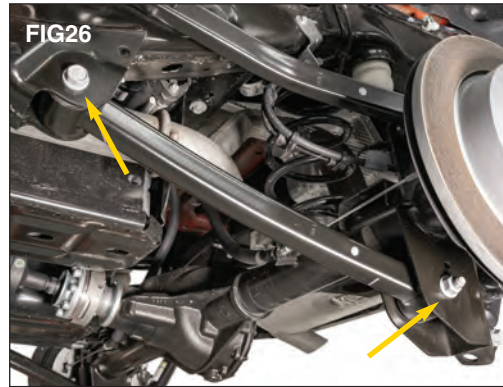
Raise the rear of the vehicle and support frame rails using jack stands. Do not lower the axle at this time. Remove wheels/tires.



**ALWAYS SUPPORT FRAME RAILS USING JACK STANDS.**



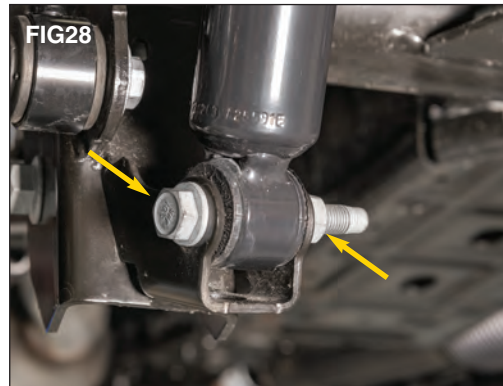
Loosen the rear track bar at both the frame and axle using a 21mm socket and wrench. (FIG 25) Remove bolt from the axle end and save hardware.



Loosen the lower control arms at both the frame and axle using a 21mm socket and wrench. (FIG 26)



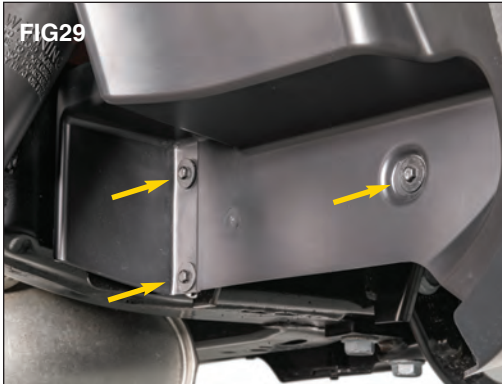
Loosen the upper control arms at both the frame and axle using a 21mm socket and wrench. (FIG 27)



Disconnect the shocks from the axle using a 18mm socket and open end wrench. Save hardware. (FIG 28)

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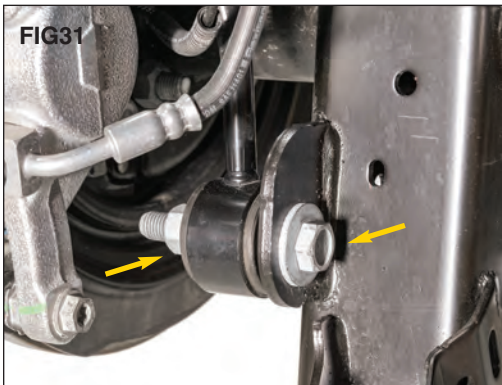
## 2.5" Coil Spring Lift Kit Installation: Rear



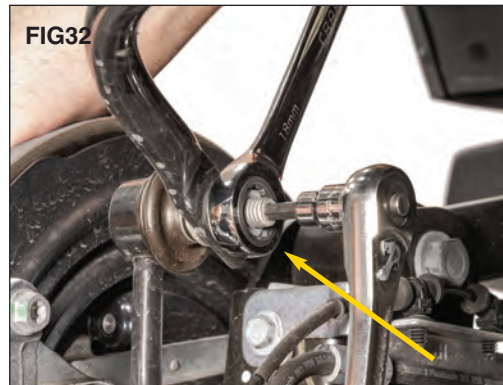
Remove the rear bumpers splash guards using a 8mm socket. (FIG 29)



Remove the shocks from the frame using a 18mm socket. (FIG 30) Save hardware.



Disconnect the rear sway bar end links at the axle using a 18mm socket and wrench. (FIG 31) Save hardware.



Remove the sway bar link from the sway bar using a 18mm socket and 6mm allen wrench. (FIG 32)



Disconnect the brake line brackets from the upper control arm mount using a 13mm socket. (FIG 33) Save hardware.



On Rubicon models, slide the gray tab, squeeze and remove the axle locker harness plug. (FIG 34)

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## 2.5" Coil Spring Lift Kit Installation: Rear



Disconnect the e-brake cables from the axle housing. Using vice grips hold the



plunger outward so you can twist and remove the cable. (FIGs 35A & B)



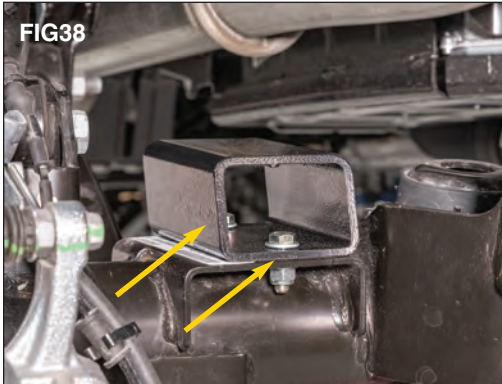
Squeeze the 3 tabs inward and slide out the cable housing from the axle mounting bracket. (FIG 36) Next, gently lower the axle housing towards the ground and



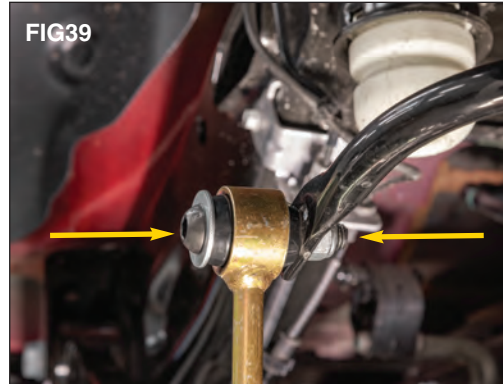
remove the coil springs. (FIG 37)

Save the upper rubber isolators and take note of their orientation.

## 2.5" Coil Spring Lift Kit Installation: Rear



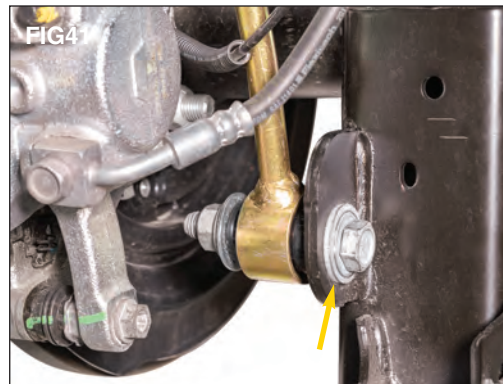
Install the new bump stops with the provided 5/16" hardware using a 1/2" wrenches and tighten. (FIG 38) They will be angled forward once installed.



Loosely install the new links to the sway bar with the supplied M12 button head bolt, flat washer and nut as shown using an 8mm allen wrench and 19mm wrench. (FIG 39)



Position the new rear coil springs onto the axle and slowly raise the axle to help keep them in place. (FIG 40) Note: The springs are side specific. Left (driver side) and right (passenger side) and they are marked as such. Be sure to check the upper spring isolators are properly indexed in the frame alignment holes.



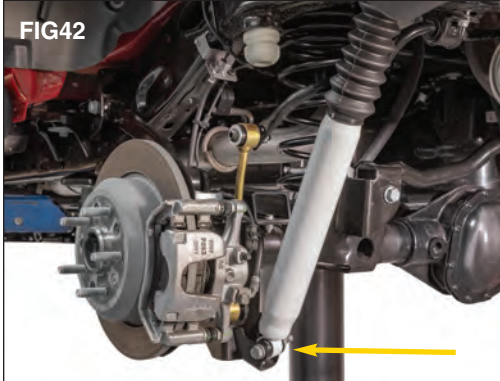
Raise the axle enough to allow you to loosely re-attach the sway bar links to the axle using factory hardware. Large 7/16" washers will be used on the nut side. (FIG 41)

## 2.5" Coil Spring Lift Kit Installation: Rear



*Assemble the Rear shocks as shown in FIG 21 A, B, C. Install the shock boots*

*and secure with cable ties. Trim the excess as needed. (FIG 21D)*



*Loosely install the new shocks to the frame and then to the axle using the original hardware. (FIG 42)*

*Carefully raise the axle using a floor jack so the full weight of the vehicle is on the new coil springs. Re-attach the brake lines to the upper control arm mounts, torque the sway bar link to sway bar hardware. Install the wheels/tires and torque to the vehicles owners manual specifications.*

*Remove the jack stands and lower vehicle onto the tires. Reconnect the locker harness if present, e-brake cables and track bar.*

***This completes the installation work on the rear of the vehicle.***

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## 2.5" Coil Spring Lift Kit Installation: FINAL STEPS

Only once the vehicle is on the ground with all weight on both axles and all four

### Front:

Upper control arms: 80ft-lbs.  
 Upper control arm heat shields: 40in-lbs.  
 Lower control arms: 190ft-lbs.  
 Brake hose to lower control arms: 15ft-lbs.  
 Brake hose to coil spring mounts: 40in-lbs.  
 Track bar: 110ft-lbs.  
 Sway bar links: 60ft-lbs.  
 Lower shock mount to axle: 75ft-lbs  
 Upper shock mount to frame: 80ft-lbs

A professional alignment is recommended after lift kit installation but you will need to get the steering wheel close to center to prevent ESP warnings until you do so.

the tires may you now fully torque all front and rear hardware to specifications.

### Rear:

Upper control arm to axle: 95ft-lbs.  
 Upper control arm to frame: 120ft-lbs.  
 Lower control arms: 90ft-lbs.  
 Brake hose to axle: 15ft-lbs.  
 Track bar: 90ft-lbs.  
 Sway bar links to axle: 60ft-lbs.  
 Lower shock mount to axle: 75ft-lbs  
 Upper shock mount to frame: 80ft-lbs.

Slowly Drive the vehicle a few feet in a straight line so you know the tires are straight. The steering wheel should be off-center.



Loosen the drag links turnbuckle bolt using a 15mm socket. Adjust the turnbuckle until the steering wheel is back on center best as possible. Tighten the 15mm nut to 50ft-lbs. (FIG 43)

**Installation is now complete.**

### **WARNING**

**COMPLETE INSTALLATION BY CAREFULLY INSPECTING AND CONFIRMING CLEARANCE OF CHOSEN TIRE/WHEELS THROUGH FULL STEERING SWEEP AND SUSPENSION TRAVEL. ASSURE BRAKE LINES CLEAR AND NOT RUBBING AGAINST ANY SURFACE, ABS FITTING AND OTHER FASTENERS SECURED. CHECK SPEEDOMETER READINGS AND IF NECESSARY RECALIBRATE. HAVE ALIGNMENT SETTINGS CHECKED AND IF INDICATED, RE-ALIGN AT SHOP WITH EQUIPMENT SUITED FOR MODIFIED SUSPENSION JEEP VEHICLES.**

### **WARNING**

**INSTALL COCKPIT WARNING STICKER ON VISOR OR OTHER LOCATION VISIBLE TO ALL DRIVERS.**

### **WARNING**

FAILURE TO DRIVE THIS VEHICLE SAFELY MAY RESULT IN SERIOUS INJURY OR DAMAGE. This Jeep® has been modified to enhance its suspension and off-road performance. It may handle differently than its factory-equipped including: increased ride height; reduced lateral stability; and higher risk of rollover or other accident. Also, owner's choice of larger tire/wheel combinations may require additional pedal pressure or increased distance to stop; cause speedometer to read slow and may reduce visibility around the vehicle. Choice of tire/wheel combinations other than as tested or recommended may compromise FMVSS 128 compatibility.

Do not drive under any speed or maneuvering conditions which may cause the vehicle to tip, roll, lose traction or compromise your ability to safely brake in an emergency. Quadratec® does not recommend combined use of suspension lifts, body lifts, wheel lifting services or components altering the intended ride-height or function of its products. Many states have laws restricting the extent of vehicle modifications. Owner/Driver is responsible for modifications consistent with state laws and good sense.

Familiarize yourself with vehicle handling and review all vehicle manufacturers and Quadratec® warnings, instructions and limited warranties before driving this modified suspension Jeep®. Follow recommended maintenance procedures and routinely inspect your vehicle components for unusual wear or off-road damage.

**PLEASE DRIVE SAFELY AND ALWAYS FASTEN SEAT BELTS.**

Install cockpit warning sticker on visor or other location visible to all drivers and occupants.



# Quadratec® Exclusive Limited Lifetime Warranty

Your Quadratec® branded accessories are covered by the following **Limited Warranty** provided exclusively by Quadratec, Inc., 1028 Saunders Lane, West Chester PA 19380.

This Limited Warranty is the only warranty made in connection with your purchase. Quadratec neither assumes nor authorizes any vendor, retailer or other person or entity to assume for it any other obligation or liability in connection with this product or Limited Warranty. This Limited Warranty does not apply and is not cumulative to any accessory or part distributed by Quadratec for which the Manufacturer provides a separate written warranty.

**What is Covered:** Subject to the terms, exclusions and limitations herein and with respect only to Quadratec branded accessories first sold in the United States, Quadratec warrants to the initial retail purchaser only that your Quadratec accessory shall be free of defects in material and workmanship: **for as long as the original purchaser owns the vehicle. The Warranty on bushings and other serviceable wear items (including shock absorbers) is limited to 1 year from date of retail purchase.** This Limited Warranty is not assignable and shall terminate upon sale of the vehicle upon which the Quadratec accessory is installed or other transfer third persons.

All other warranties are hereby disclaimed, except to the extent prohibited by applicable law in which case any implied warranty of merchantability or fitness for a particular purpose on this limited to **for as long as the original purchaser owns the vehicle.** Quadratec reserves the rights to: (a.) require invoice or other proof your accessory is within the terms of this Limited Warranty as a condition of warranty service and, (b.) make future revisions to this product and Limited Warranty without prior notice or obligation to upgrade your product.

**What is Not Covered:**

Your Quadratec Limited Warranty does not cover products or parts Quadratec determines to have been damaged by or subjected to: (a.) installation damage, alteration, modification, combination with other parts, failure to maintain or improper repair or service, (b.) defects or use which pre-dates installation of Quadratec® accessory

or suspension kit by authorized dealer or shop, (c.) normal wear & tear or gradual reduction in expected performance of vehicle or components, (d.) emissions control or electronic stability systems or components, (e.) cosmetic damage or damage from moisture or water immersion, (f.) fleet, rental or commercial use, (g.) Acts of God, accidents, misuse, negligence, inadequate mounting or impact with vehicle(s), obstacles or other aspects of the environment, (h.) theft, vandalism or other intentional damage. (i.) use in competition or racing.

**Other Exclusions:** Surface finish of exposed suspension components is not covered under this Limited Warranty.

**Remedy Limited to Repair/Replacement:**

The exclusive remedy provided hereunder shall, upon Quadratec inspection and at Quadratec's option, be either repair or replacement of product or parts (new or refurbished) covered under this Limited Warranty. Customers requesting warranty consideration should first contact Quadratec to obtain a RGA number (610-701-3336). All labor, removal, shipping and installation costs are customer's responsibility.

**Other Limitations - Exclusion of Damages - Your Rights Under State Law:**

In consideration of the purchase price paid, neither Quadratec nor any independent Quadratec distributor/licensee are responsible for any time loss, rental costs, or for any incidental, consequential, punitive or other damages you may have or incur in connection with any part or product purchased. Your exclusive remedy hereunder for covered parts is repair/replacement as described above.

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