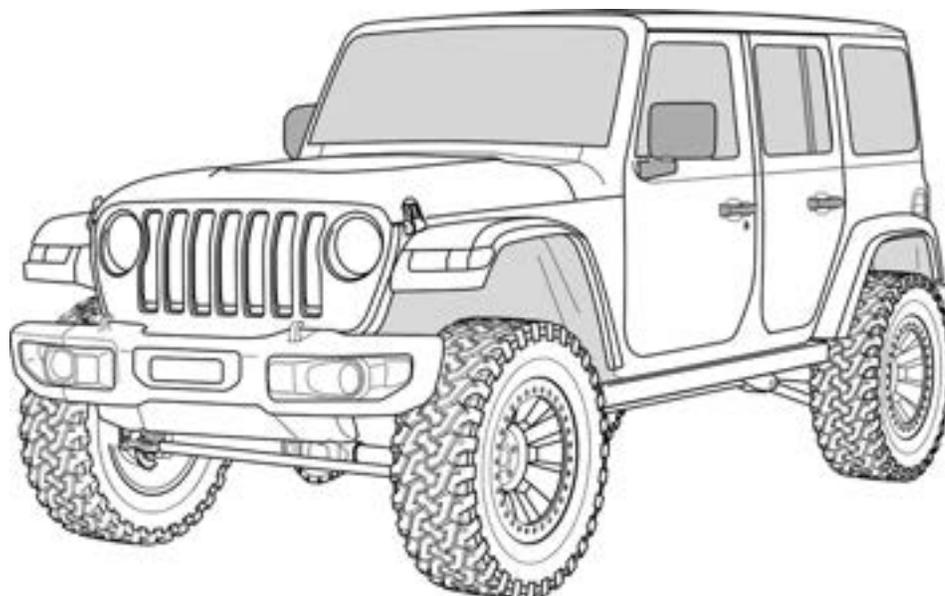




Jeep JL 4.5" Spring Lift

www.TERAFLEX.com



Important Notes:

Prior to beginning this install, or any installation, read the instructions thoroughly to familiarize yourself with the required steps. Evaluate if you are experienced and capable to personally perform these modifications. A factory service manual should be used in conjunction with these installation instructions.

This product will change the highway handling characteristics of your vehicle, exercise caution. After altering the suspension it is always advisable to have an alignment done by a competent 4 wheel drive shop or by an alignment shop that is experienced with lifted 4 wheel drive vehicles.

Refer to the parts list to ensure that all necessary components and hardware has been included. If any parts are missing please contact your local TeraFlex dealer for assistance.

NOTE: Some form of caster correction is required for the base spring lift kit

If a 37" tire is being installed on a Sport or Sahara additional up travel limit may be required using Bumpstop Spacer Kit #1959300.

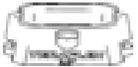
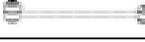
A rear track bar bracket is recommended to prevent contact of the rear drive shaft and gas tank

Tools Needed:

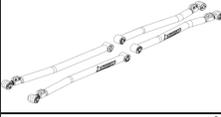
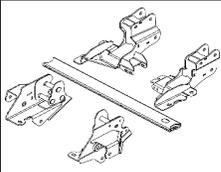
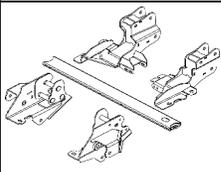
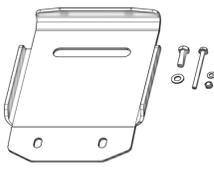
- Metric Sockets and Open End Wrenches
- Torque Wrench
- Factory Service Manual
- General Mechanics Tools

Maintenance Note:

After the first 300 miles and every 3,000 miles after that, re-torque all the suspension components and bolts.

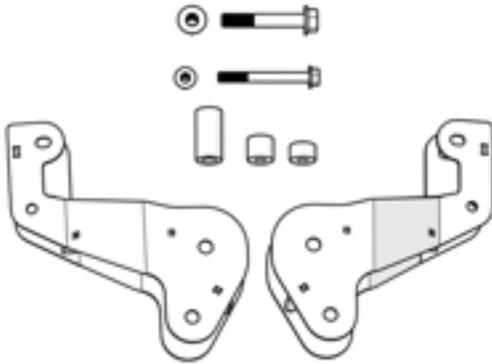
	Description	Item #	Alpine CT4		Sport ST4		RT4		Base Spring Lift	
			4DR	2DR	4DR	2DR	4DR	2DR	4DR	2DR
	1 Front	02-21-401-400-1	2	-	2	-	2	-	2	-
		02-21-201-400-1	-	2	-	2	-	2	-	2
	2 Rear Left	02-22-411-400-1	1	-	1	-	1	-	1	-
		02-22-211-400-1	-	1	-	1	-	1	-	1
	3 Rear Right	02-22-421-400-1	1	-	1	-	1	-	1	-
		02-22-221-400-1	-	1	-	1	-	1	-	1
	4 Front Bumpstops	12-01-109-200	2	2	2	2	-	-	2	2
	5 Rear Bumpstops	12-01-209-200	2	2	2	2	2	2	2	2
	6 Rear Bumpstop Bracket	12-02-209-002	2	2	2	2	2	2	2	2
	7 Rear Bumpstop Mounting Strap	12-02-209-001	2	2	2	2	2	2	2	2
	8 Front Bumpstop Spacers	12-02-109-050	4	4	4	4	-	-	4	4
	9 Rear Bumpstop Spacers	12-02-209-050	4	4	4	4	8	8	4	4
	10 Front Swaybar link 10.75"	744500	2	2	2	2	2	2	2	2
	11 Rear Swaybar Link 11.50	21-01-001-115	2	2	2	2	2	2	2	2
	12 M10 x 1.5 Fuji Nut	23-07-03-001	6	6	6	6	6	6	6	6
	13 M10 x 1.5 x 100mm Flat Socket Cap Screw	45-04-003-001	2	2	2	2	-	-	2	2
	14 M10 x 1.5 x 50mm Socket Cap Screw	45-03-003-001	4	4	4	4	4	4	4	4
	15 M10 x 1.5 x 25mm Button Socket Cap Screw	45-05-003-003	4	4	4	4	4	4	4	4
	16 M10 Lock Washer	45-12-002-001	4	4	4	4	4	4	4	4
	17 Nut Wrench Tool	600271	1	1	1	1	1	1	1	1
	18 Brake Line Anchor Kit	1101255	1	1	1	1	1	1	1	1
	19 Front Track Bar Bracket Kit	1953500	1	1	1	1	1	1	1	1
	20 Rear Track Bar Bracket Kit	1953600	1	1	1	1	1	1	1	1
	21 M12 x 1.75 x 55mm Button Socket Cap Screw	45-05-003-001	2	2	2	2	2	2	2	2
	22 M12 x 1.75mm Black Fuji Nut	23-07-02-002	2	2	2	2	2	2	2	2

Spring Box Components

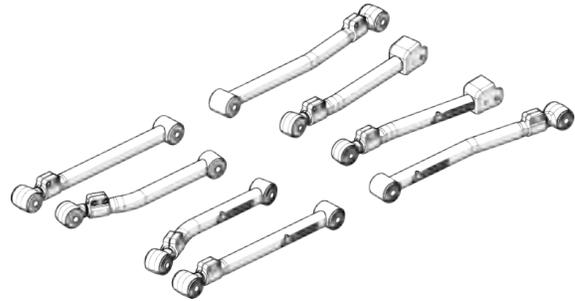
	Description	Item #	Alpine CT4		Sport ST4		RT4		Base Spring Lift	
			4DR	2DR	4DR	2DR	4DR	2DR	4DR	2DR
	Jounce Bumpers Kit	1959200	1	1	1	1	-	-	-	-
	SpeedBump Bump Stop Kit 3" (All 4)	1958350	-	-	-	-	1	1	-	-
	Alpine Control Arm Kit	1310510	1	1	-	-	-	-	-	-
	Alpine IR Lower Long Arm Kit	1317001	-	-	-	-	1	1	-	-
	Alpine IR Upper Long Arm Kit	1317002	-	-	-	-	1	1	-	-
	Front Track Bar Kit	07-02-110-110	1	1	-	-	1	1	-	-
	2 Door Long FlexArm Bracket Kit	1958002	-	-	-	-	-	1	-	-
	4 Door Long FlexArm Bracket Kit	1958000	-	-	-	-	1	-	-	-
	Long Arm Crossmember Reinforce Skid Plate	4609100	-	-	-	-	1	1	-	-
	Front Drop Bracket Kit	1938125	-	-	1	1	-	-	-	-

Other Boxed Kits

Note: If installing Drop Bracket Kit Refer to Instruction #999309 before continuing.



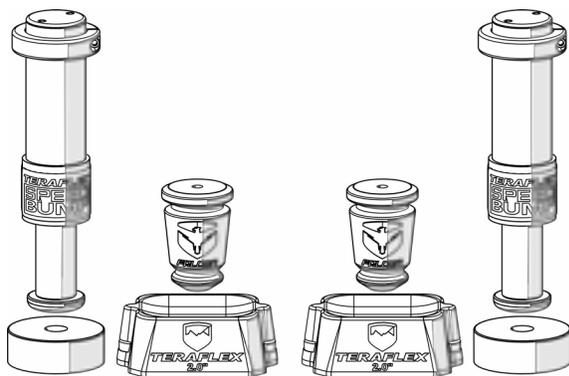
Note: If installing Alpine Control Arm Kit Refer to Instruction #999321 before continuing.



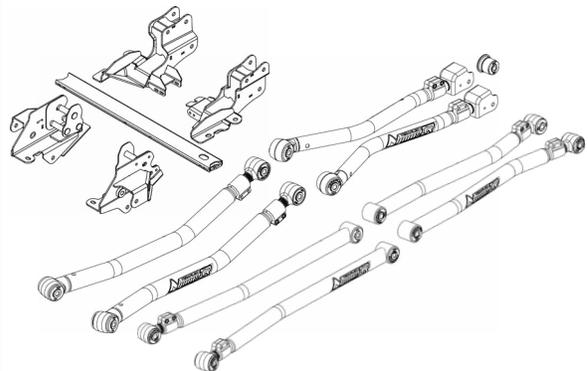
INSTALL CONTROL ARMS OR DROP BRACKETS WITH THE JEEP ON THE GROUND. THE WEIGHT OF THE JEEP WILL MAKE THE INSTALLATION EASIER.

LEAVE CONTROL ARM BOLTS LOOSE UNTIL THE END OF THE LIFT INSTALLATION

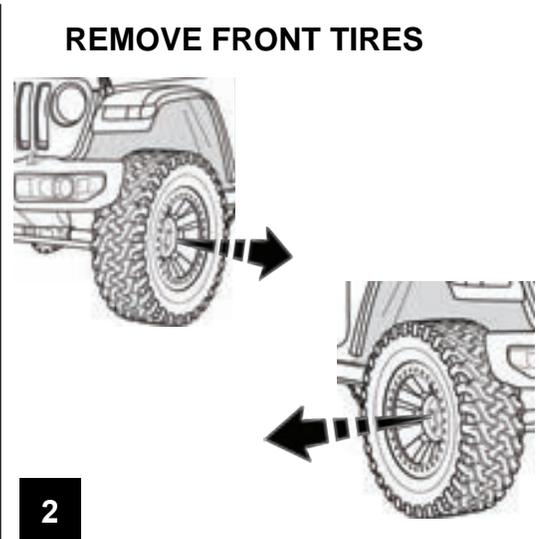
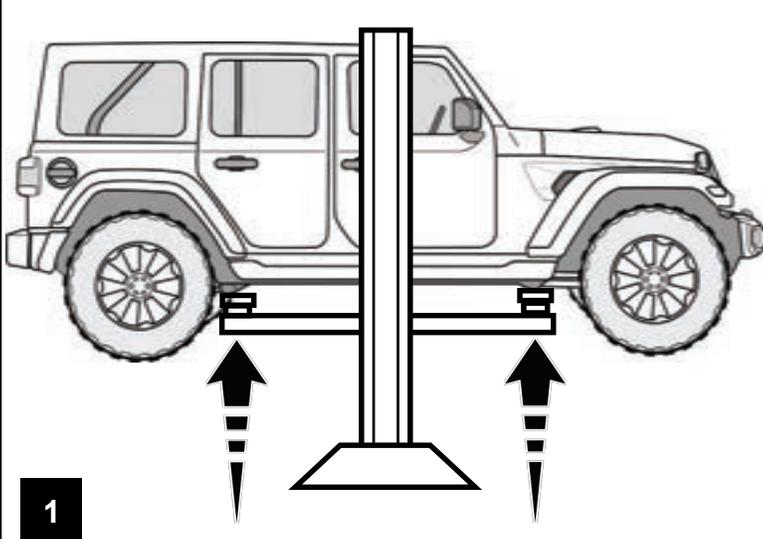
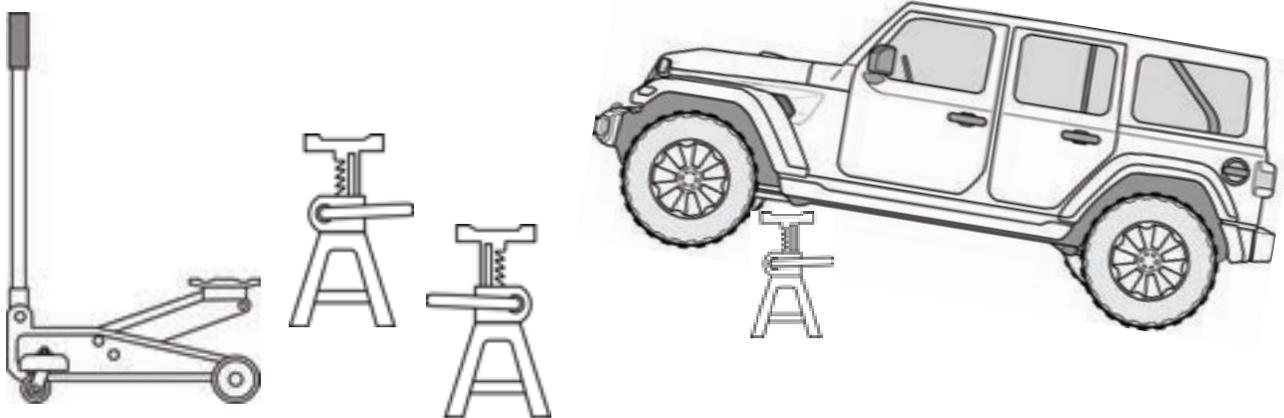
Note: If installing SpeedBump Bump Stop Kit Refer to Instruction #999344 before continuing.



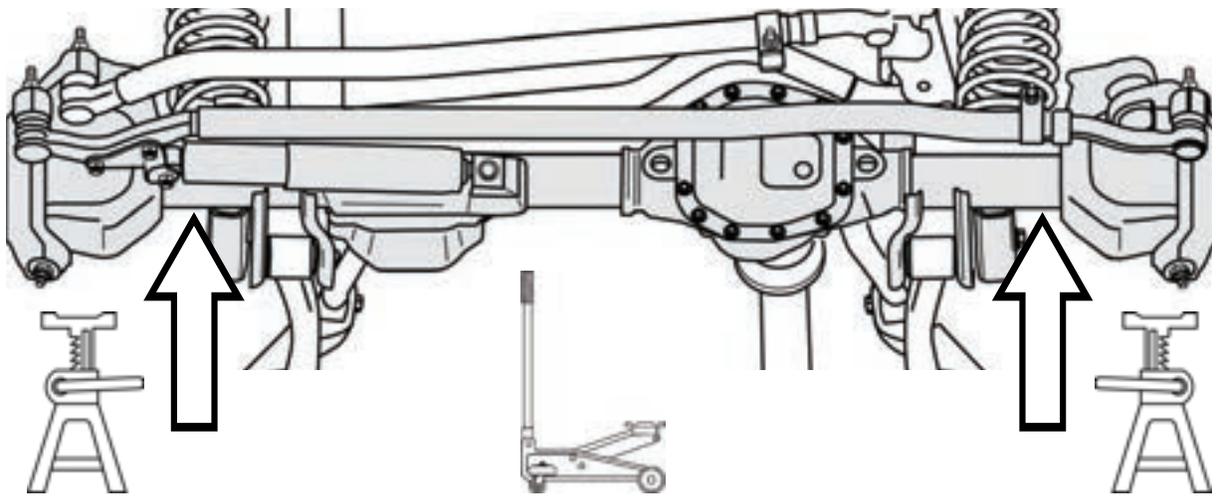
Note: If installing Alpine Long Arms and Brackets Refer to Instruction #999335 before continuing.



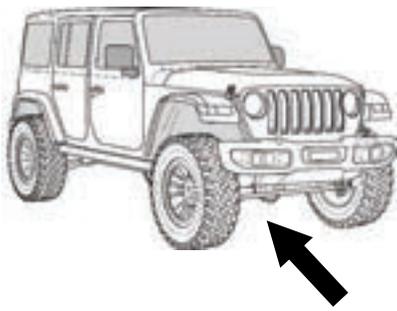
FRONT INSTALLATION LIFT AND SUPPORT AT FRAME



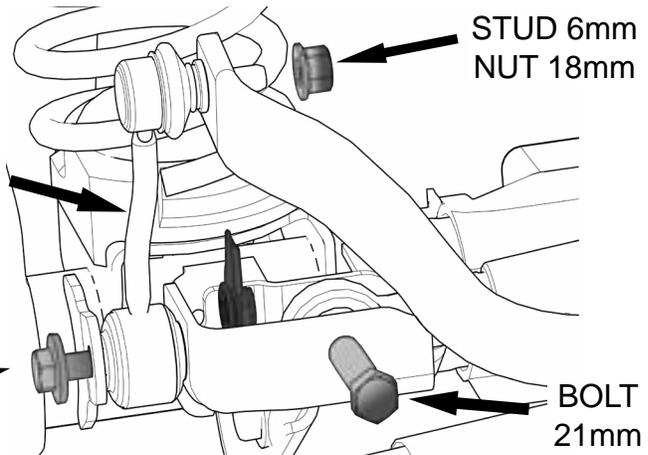
SUPPORT FRONT AXLE



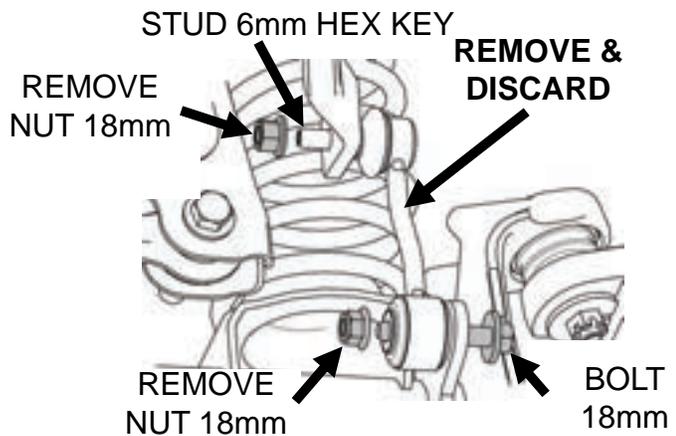
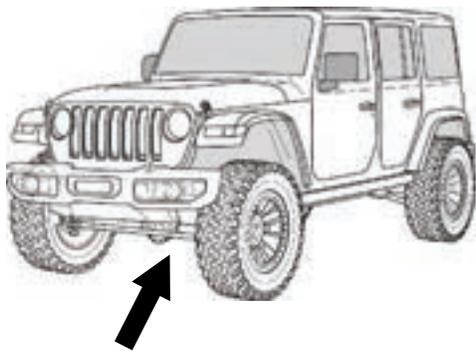
REMOVE SWAY BAR LINKS & REMOVE TRACK BAR BOLT AT AXLE



**REMOVE &
DISCARD**



4

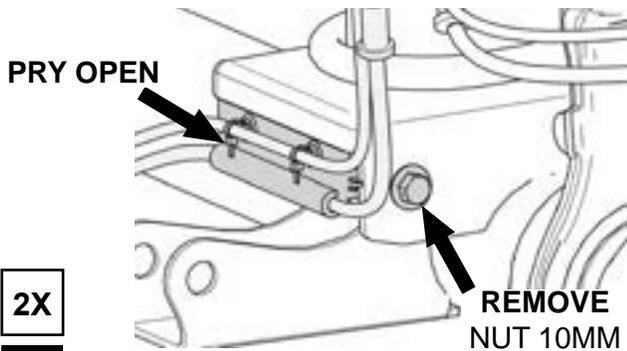


5

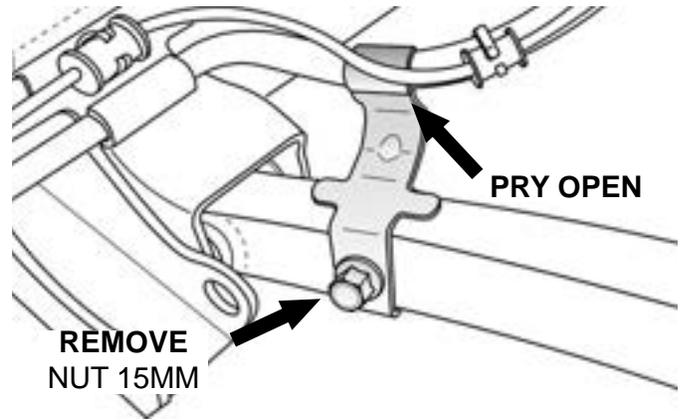
Note: If installing Front Track Bar Kit, you can fully remove the stock front track bar and discard.



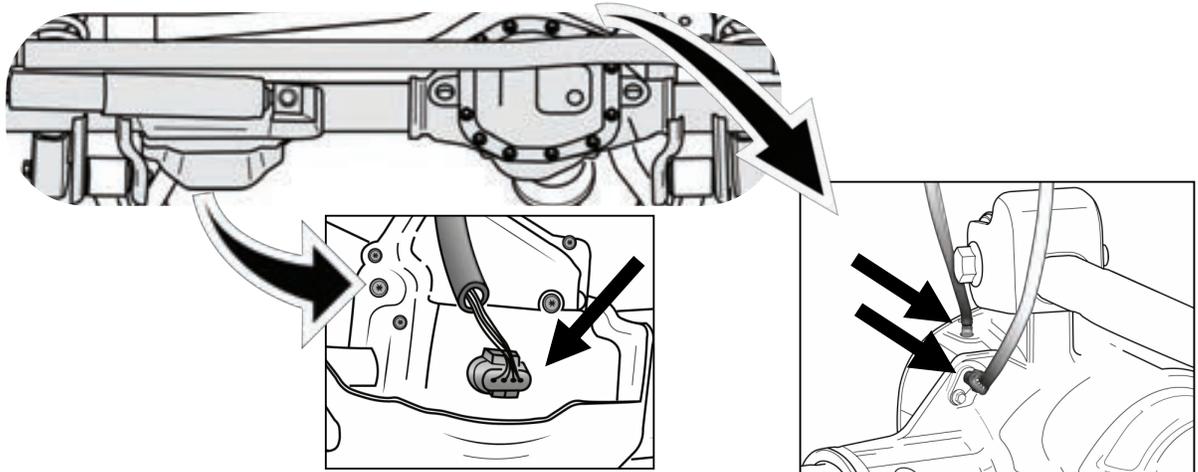
REMOVE AND DISCARD BRAKE LINE BRACKETS FROM LOWER CONTROL ARMS AND SPRING MOUNTS



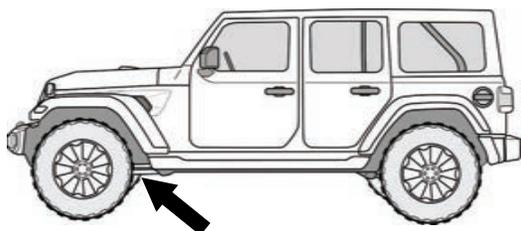
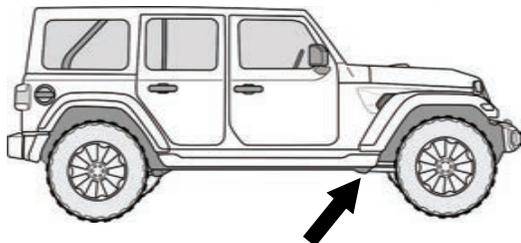
2X
6



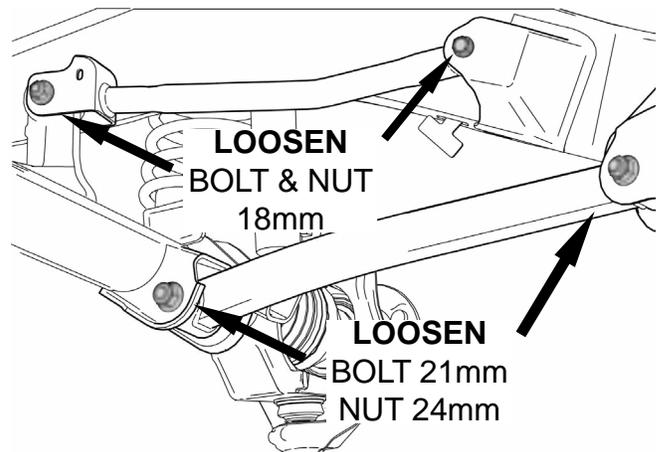
DISCONNECT ACTUATORS AND VENT HOSE AT THE FRONT AXLE



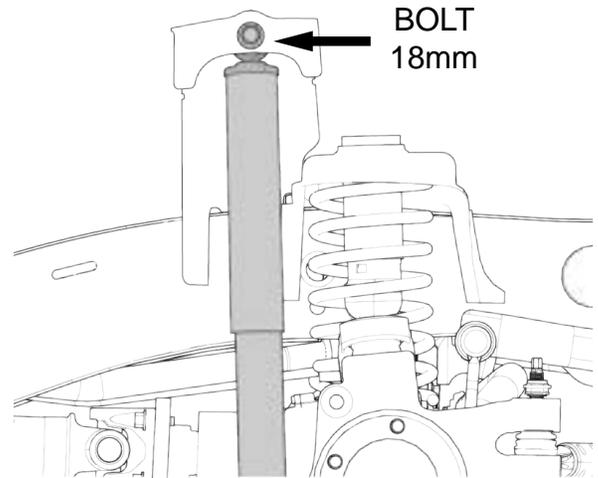
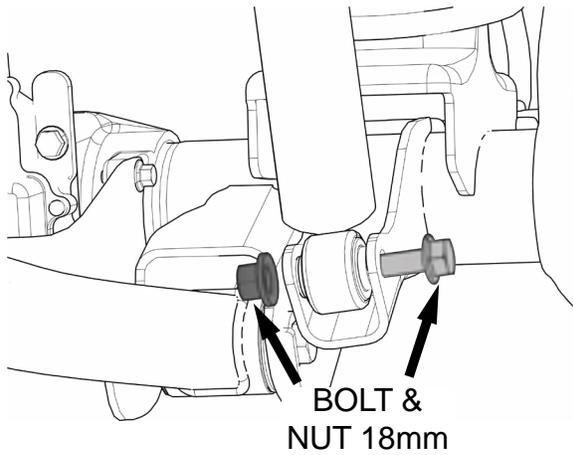
**LOOSEN FRONT CONTROL ARM BOLTS
DO NOT REMOVE THE CONTROL ARM BOLTS**



2X
8



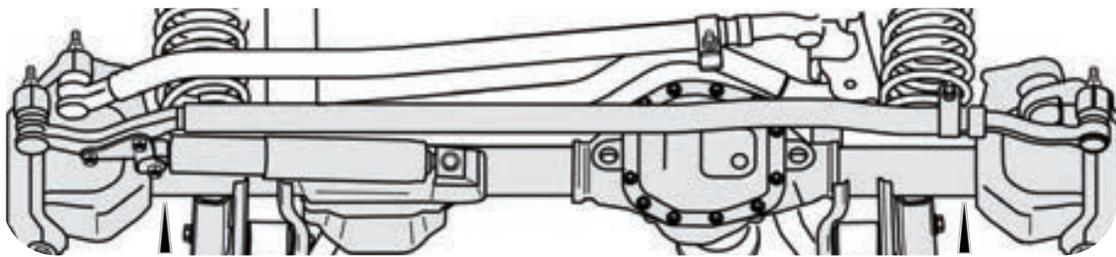
REMOVE FRONT SHOCKS



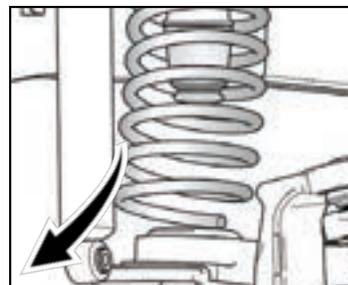
2X

9

LOWER AXLE AND REMOVE FRONT SPRINGS



NOTE: REMOVE ANY PLASTIC RETAINERS FROM WIRING OR HOSES AS NEEDED.



2X

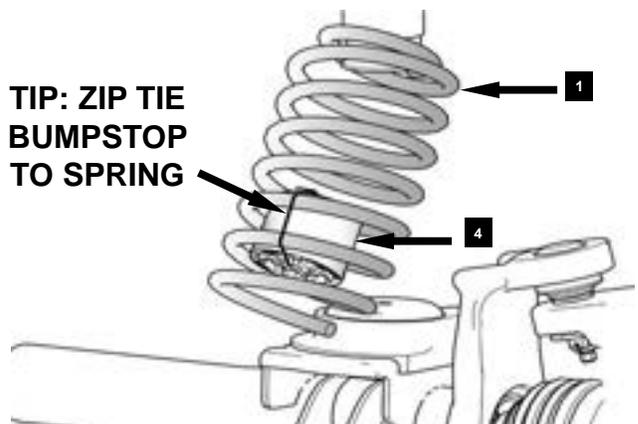
10

INSTALL BUMPSTOP INTO NEW FRONT SPRING

Note: If installing Falcon Jounce Bumpers refer to instruction #999308 before installing springs.



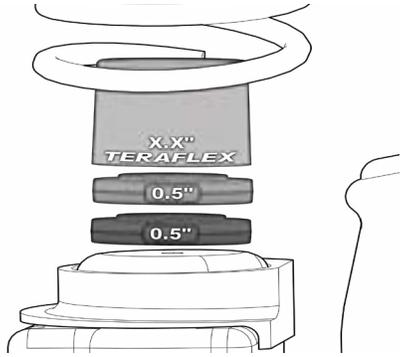
TIP: ZIP TIE BUMPSTOP TO SPRING



2X

11

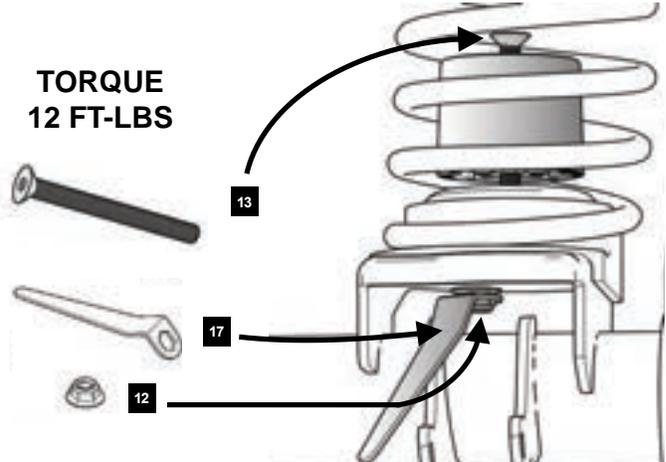
NOTE: REFER TO PAGE 19 FOR BUMPSTOP SPACER GUIDE



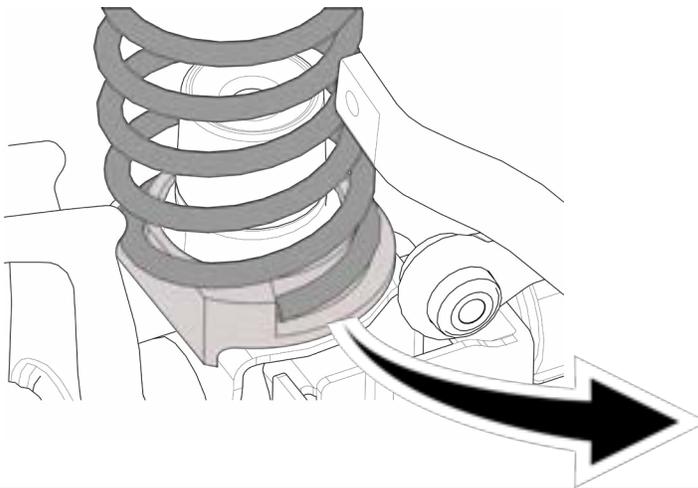
2X

12

**TORQUE
12 FT-LBS**



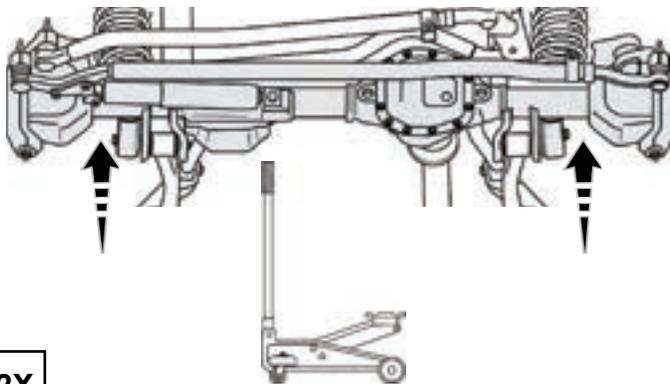
FULLY SEAT THE SPRINGS INTO THE LOWER SPRING ISOLATOR



2X

13

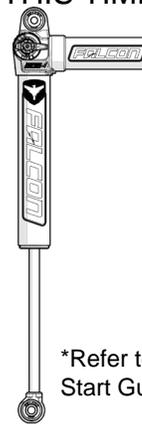
RAISE AXLE & INSTALL SHOCKS



2X

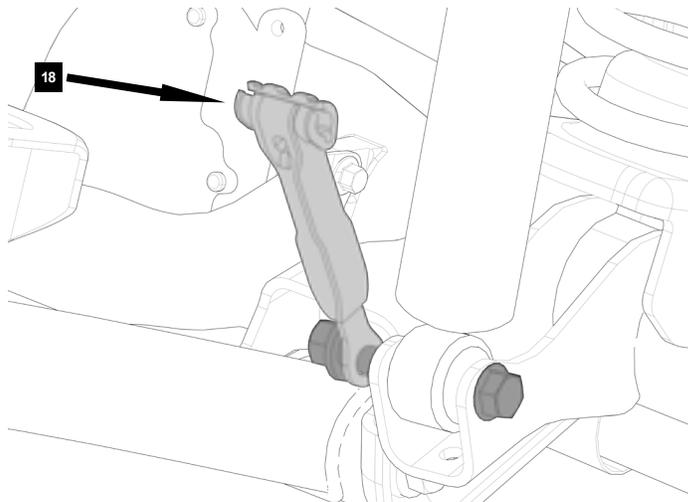
14

INSTALL FRONT FALCON SHOCKS AT THIS TIME



**Refer to the Quick Start Guide.*

INSTALL BRAKE LINE ANCHORS

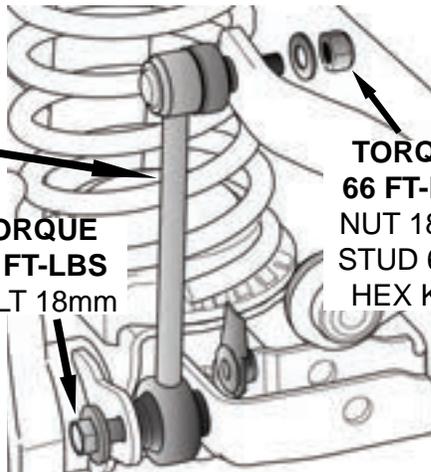


REFER TO THE INSTRUCTIONS ON THE BACK OF THE BRAKE LINE ANCHOR KIT BOX FOR PROPER INSTALLATION.

2X

15

INSTALL NEW SWAY BAR LINKS



10

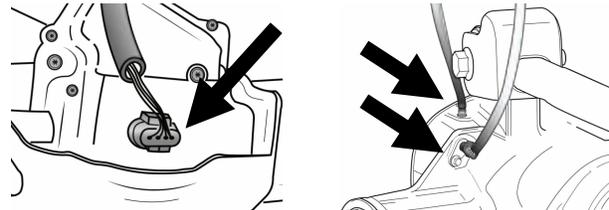
TORQUE
59 FT-LBS
BOLT 18mm

TORQUE
66 FT-LBS
NUT 18mm
STUD 6mm
HEX KEY

2X

16

RECONNECT CONNECTIONS TO FRONT AXLE

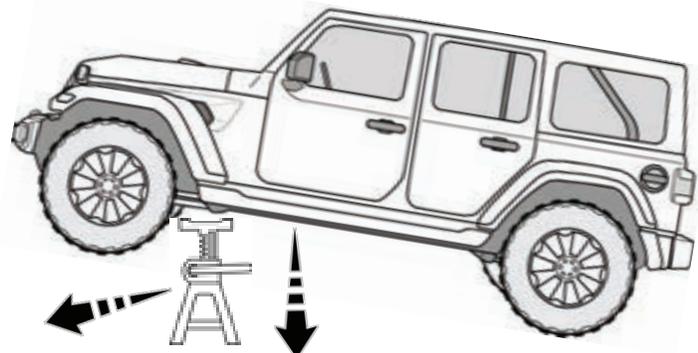
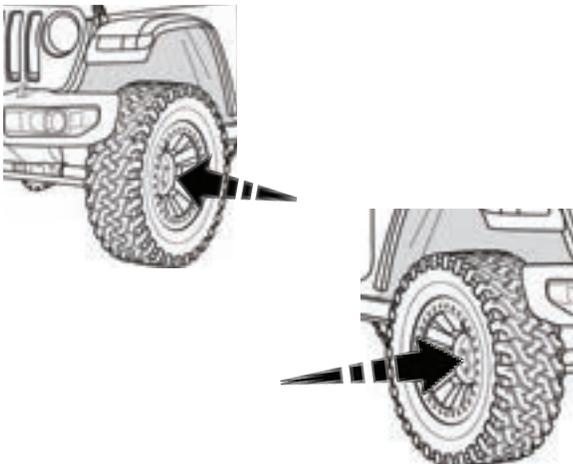


RECONNECT PLASTIC RETAINERS FROM WIRING OR HOSES AS NEEDED.

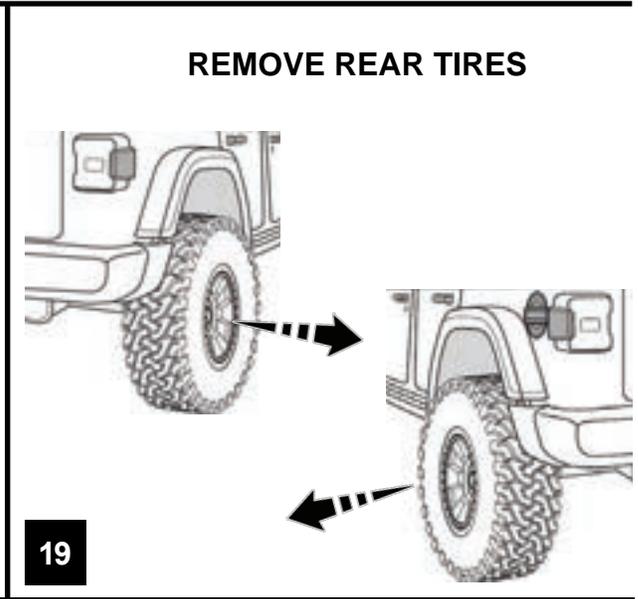
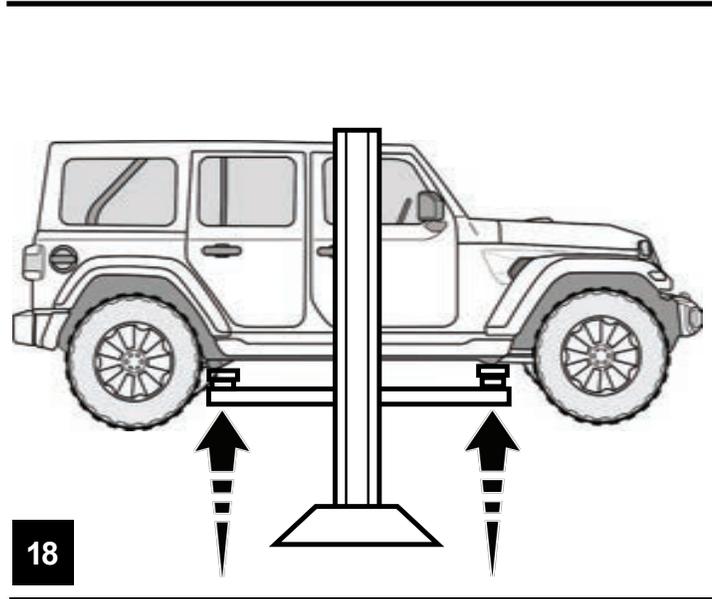
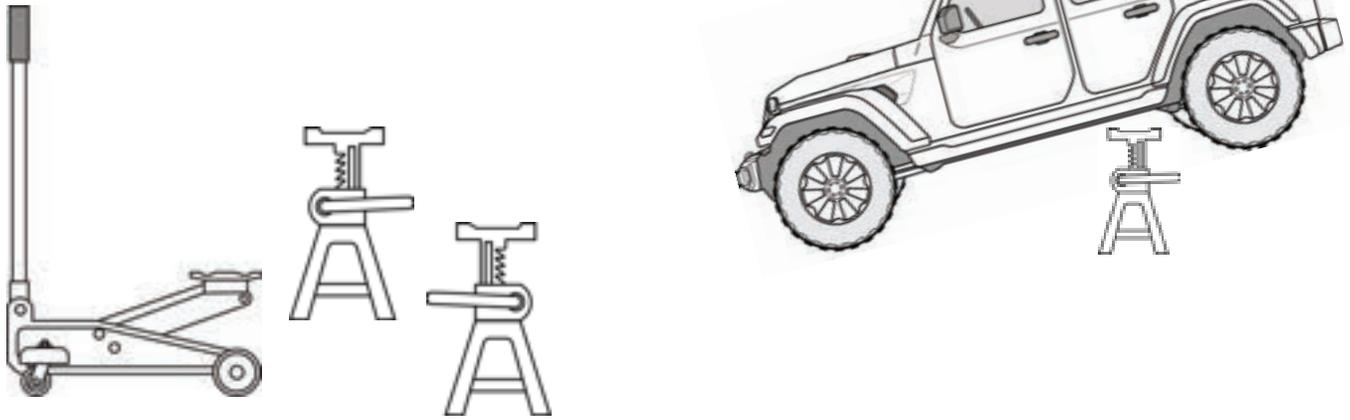
NOTE: DO NOT TIGHTEN THE CONTROL ARM BOLTS UNTIL THE JEEP IS ON THE GROUND
WAIT TO INSTALL TRACK BAR UNTIL THE END OF THE LIFT KIT INSTALL.

17

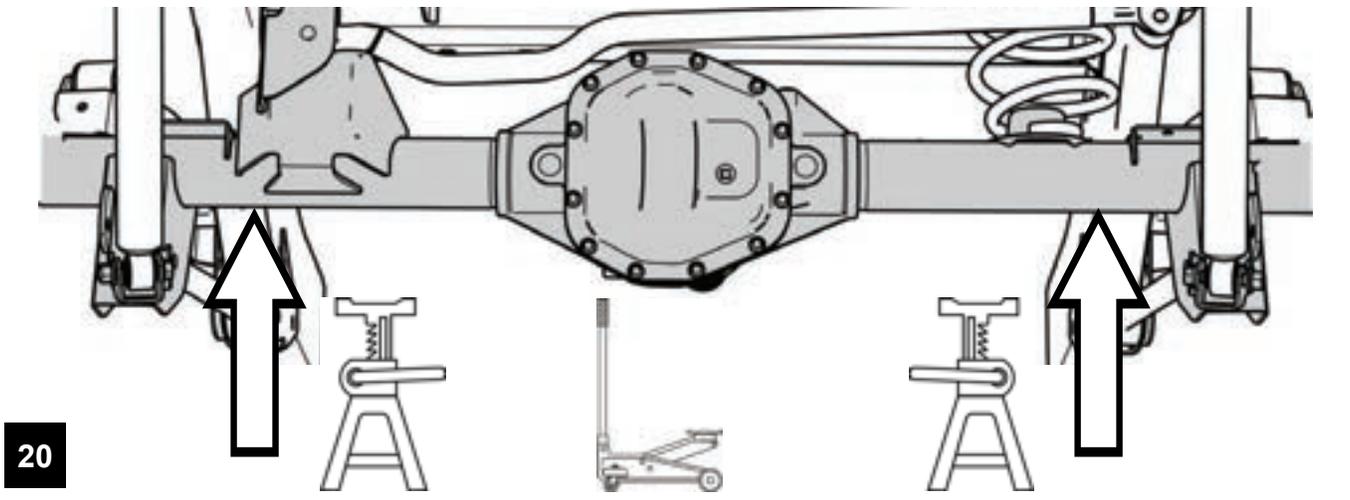
NOTE: IF ONLY FRONT OF JEEP WAS LIFTED, REINSTALL TIRES AND LOWER JEEP BACK TO THE GROUND BEFORE LIFTING THE REAR



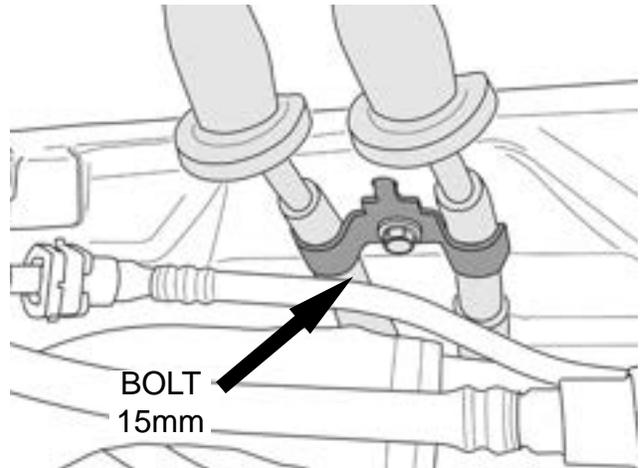
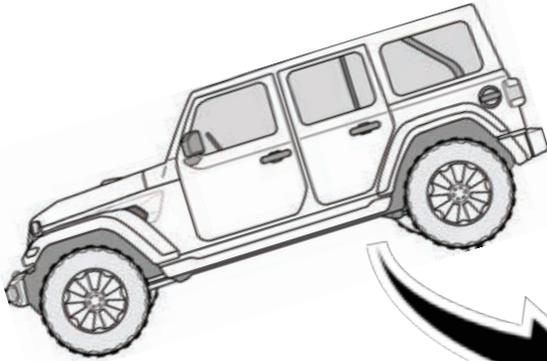
REAR INSTALL LIFT AND SUPPORT AT FRAME



SUPPORT REAR AXLE

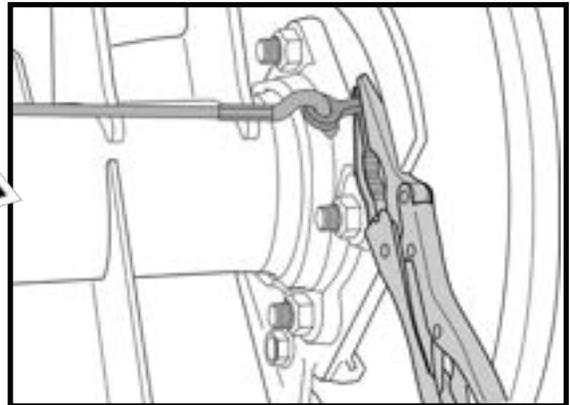
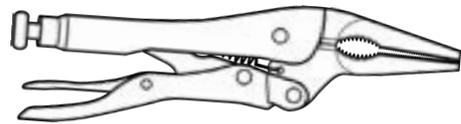
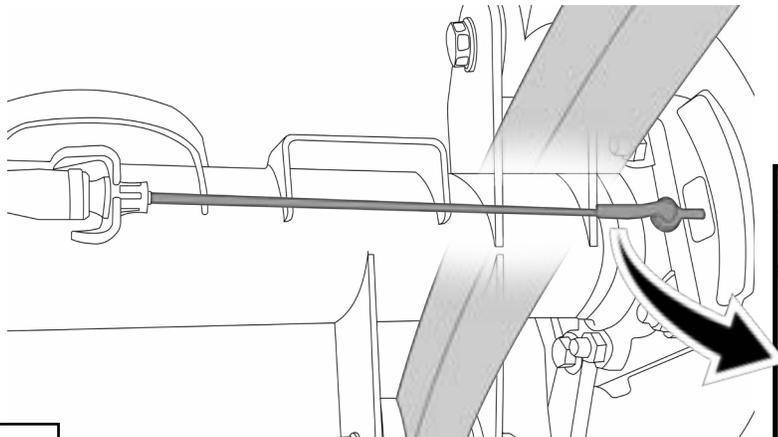


REMOVE E-BRAKE CABLE BRACKET AND DISCARD



21

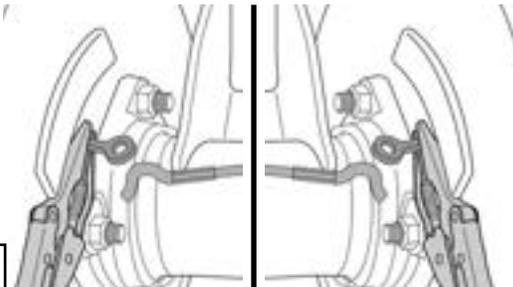
SET THE E-BRAKE AND CLAMP BOTH E-BRAKE EYELETS AGAINST BACKING PLATES WITH LOCKING PLIERS



2X

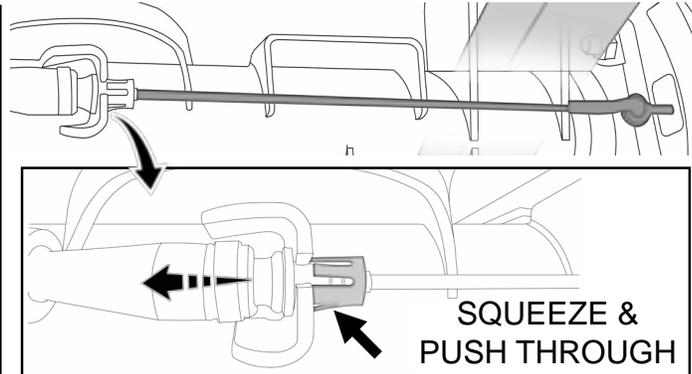
22

RELEASE E-BRAKE AND DISCONNECT CABLES FROM BOTH EYELETS AND AXLE BRACKETS



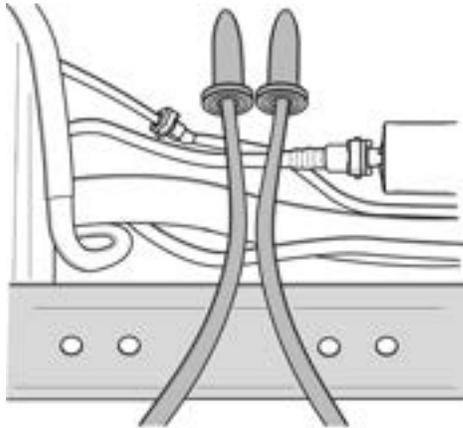
2X

NOTE: DO NOT REMOVE LOCKING PLIERS FROM E-BRAKE EYELETS



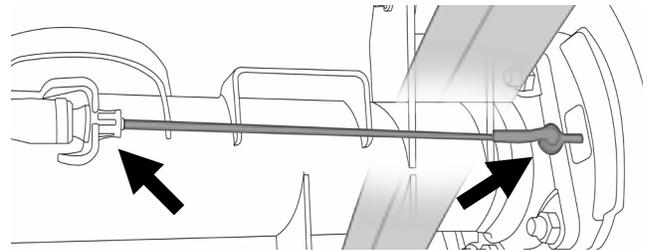
23

ROUTE E-BRAKE CABLES UNDER CROSS MEMBER AND FUEL LINES.



24

RECONNECT E-BRAKE CABLES TO THE AXLE BRACKETS AND THEN THE E-BRAKE EYLETTS.



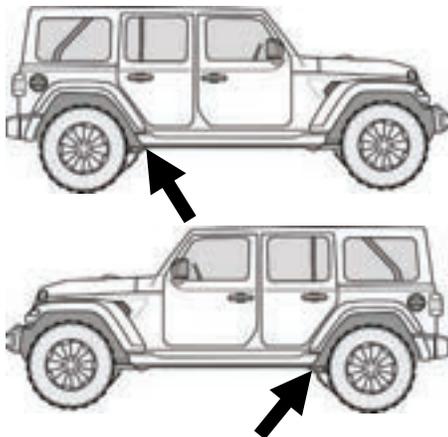
2X

25

REMOVE PLIERS FROM E-BRAKE EYLETTS

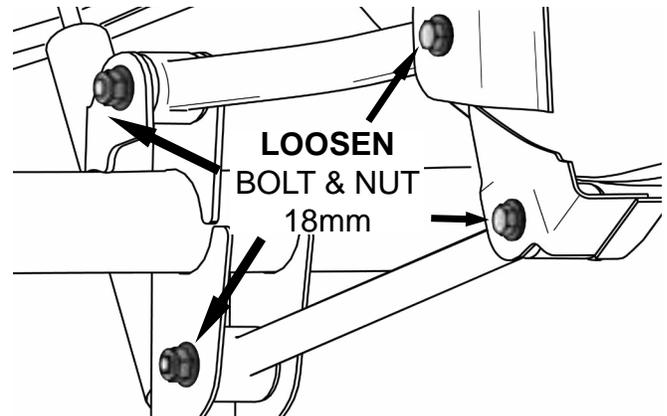
LOOSEN REAR CONTROL ARM BOLTS

DO NOT REMOVE THE CONTROL ARM BOLTS

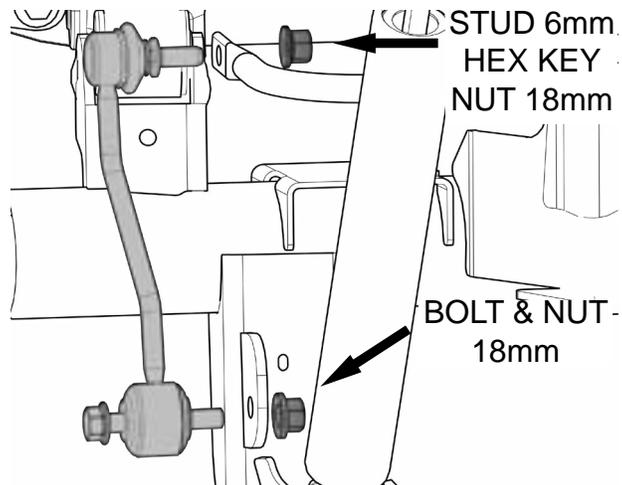


2X

26



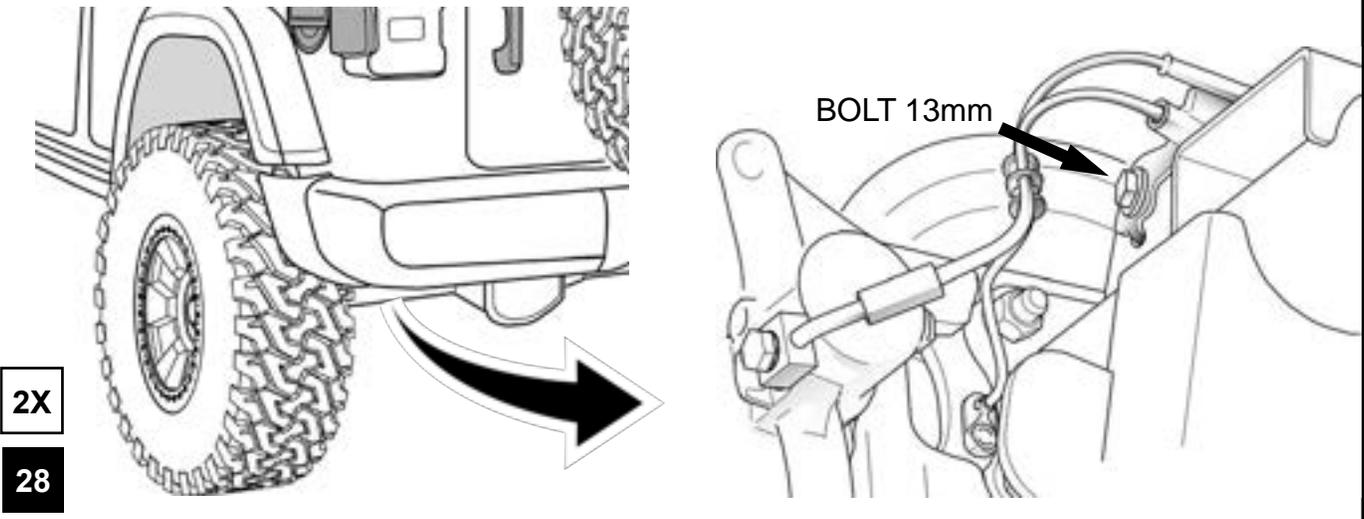
REMOVE AND DISCARD SWAY BAR LINKS



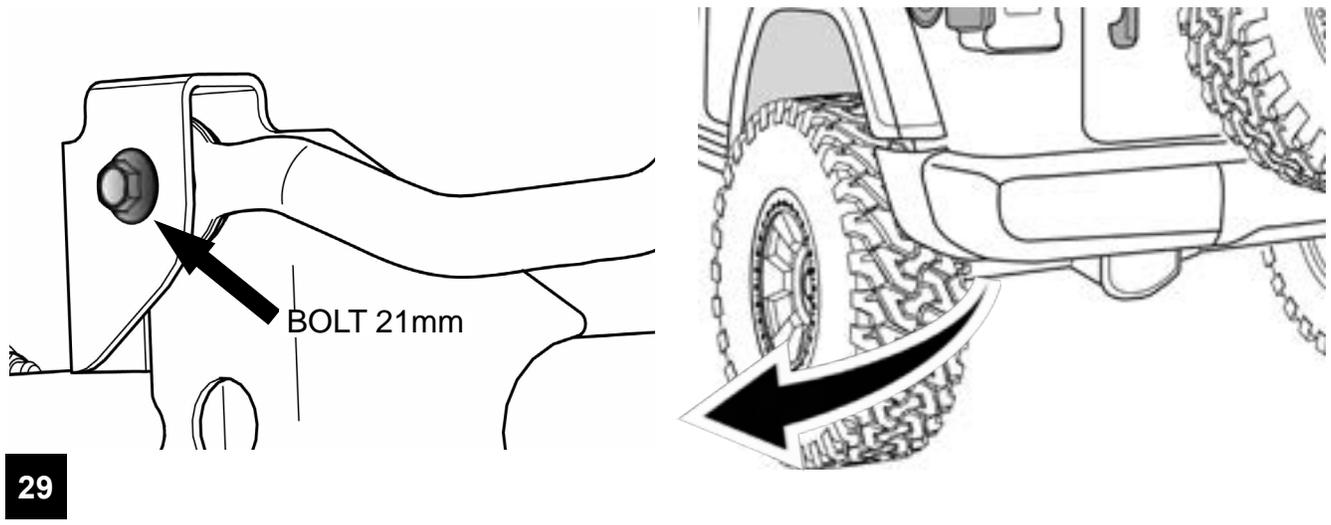
2X

27

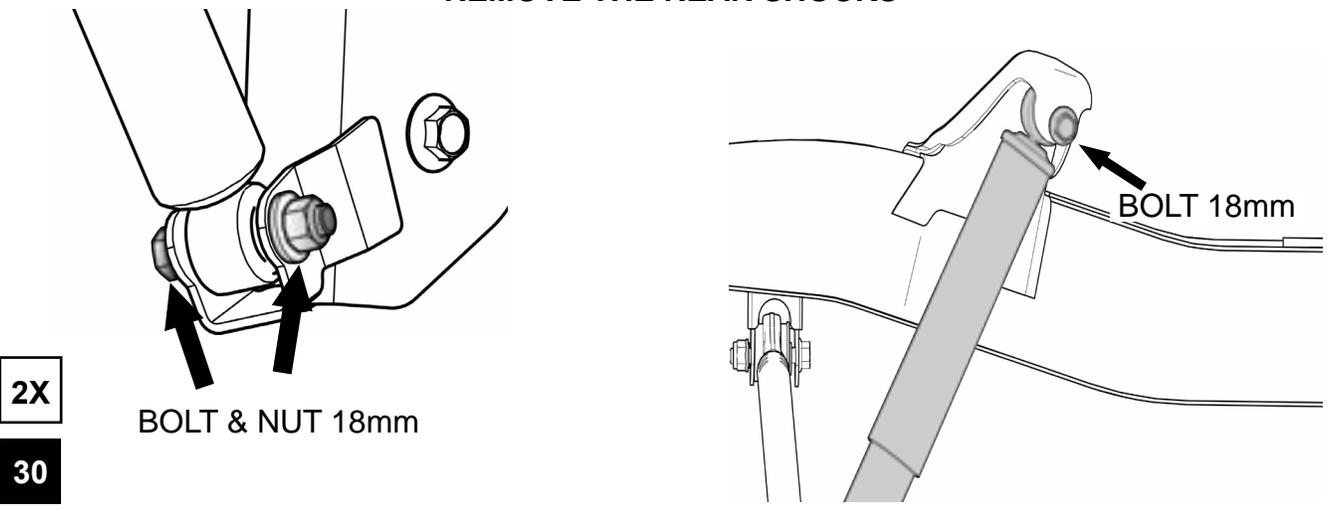
REMOVE BRAKE LINE BRACKETS FROM BOTH SIDES OF THE AXLE



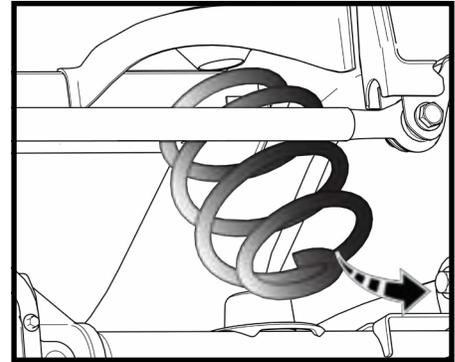
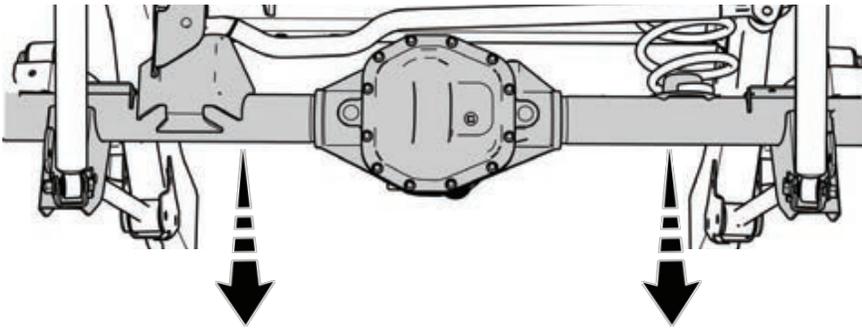
REMOVE THE TRACK BAR FROM THE AXLE



REMOVE THE REAR SHOCKS



LOWER AXLE TO REMOVE & DISCARD REAR SPRINGS



2X

NOTE: REMOVE ANY PLASTIC RETAINERS FROM WIRING OR HOSES AS NEEDED.

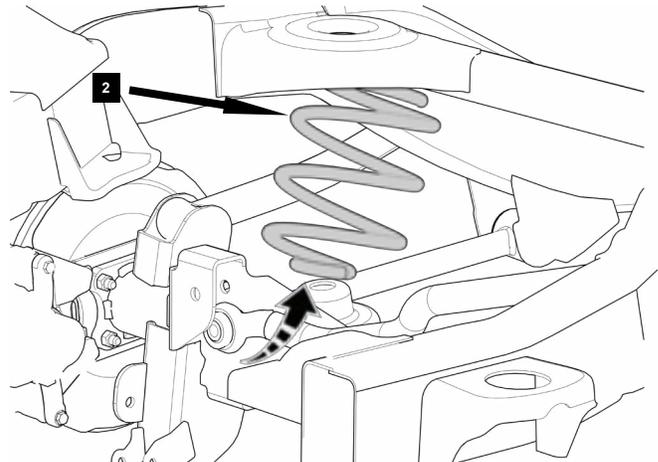
31

INSTALL NEW REAR SPRINGS

INSTALL THE DRIVERS SIDE SPRING FIRST

LEFT REAR SPRINGS
4 DOOR: 02-22-411-400-1
2 DOOR: 02-22-211-400-1

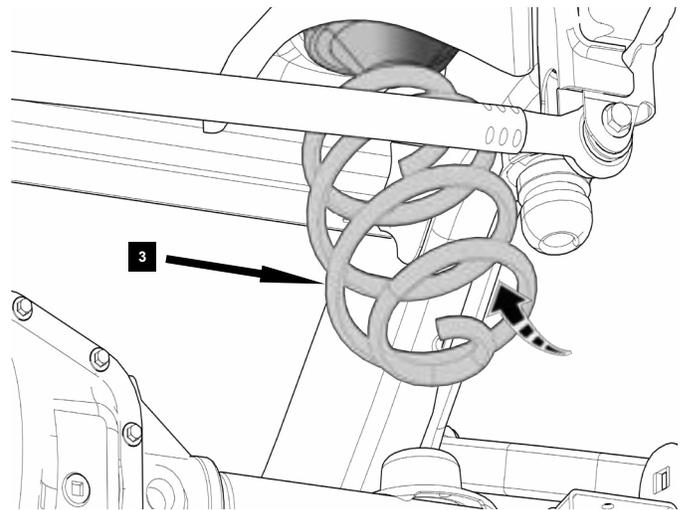
NOTE: PAY SPECIAL ATTENTION TO INSTALL THE CORRECT SPRING ON THE CORRECT SIDE OF THE JEEP. THE REAR SPRINGS ARE SIDE SPECIFIC.



32

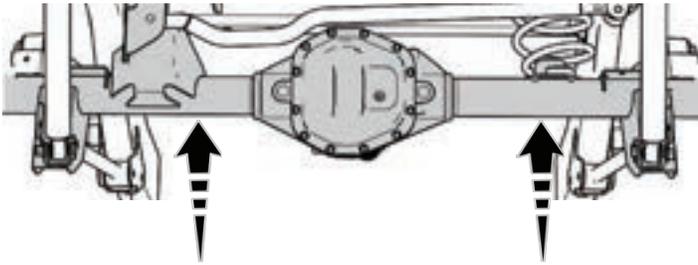
INSTALL THE PASSENGERS SIDE SPRING

RIGHT REAR SPRINGS
4 DOOR: 02-22-421-400-1
2 DOOR: 02-22-221-400-1



33

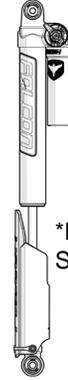
RAISE THE REAR AXLE AND INSTALL SHOCKS



MAKE SURE TO FULLY SEAT THE SPRINGS INTO THE UPPER SPRING ISOLATOR

34

INSTALL REAR FALCON SHOCKS AT THIS TIME

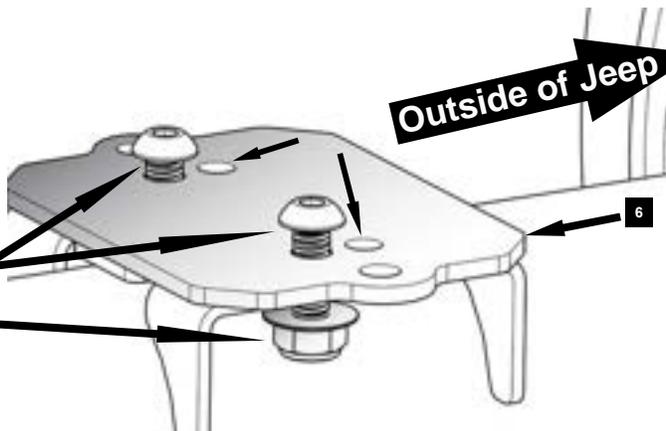


*Refer to the Quick Start Guide.

Outside of Jeep

TORQUE 25 FT-LBS
BOLT 6mm HEX
NUT 14mm

15
12



5

9

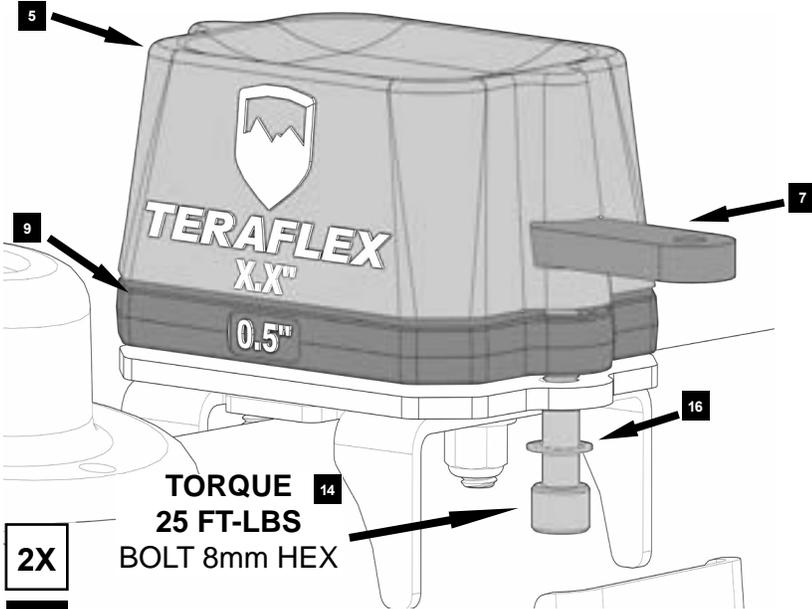
TERAFLEX X.X"

0.5"

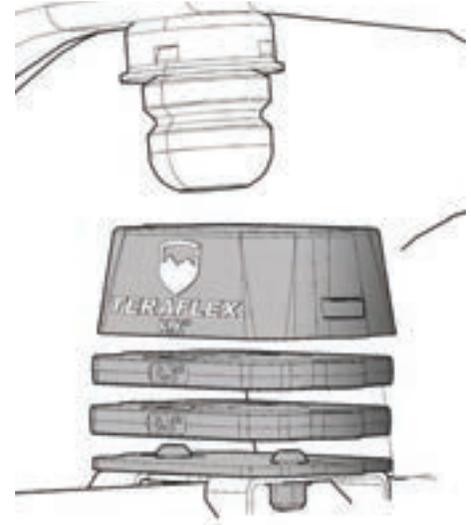
TORQUE 25 FT-LBS
BOLT 8mm HEX

2X

35



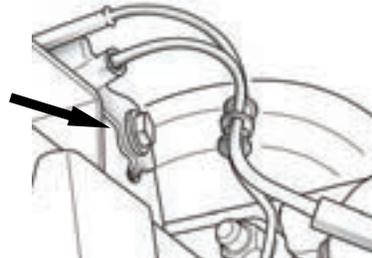
NOTE: REFER TO PAGE 19 FOR BUMPSTOP SPACER GUIDE



REINSTALL AXLE BRAKE LINE BRACKETS

RECONNECT PLASTIC RETAINERS FROM WIRING OR HOSES AS NEEDED

REINSTALL BOLT 13mm



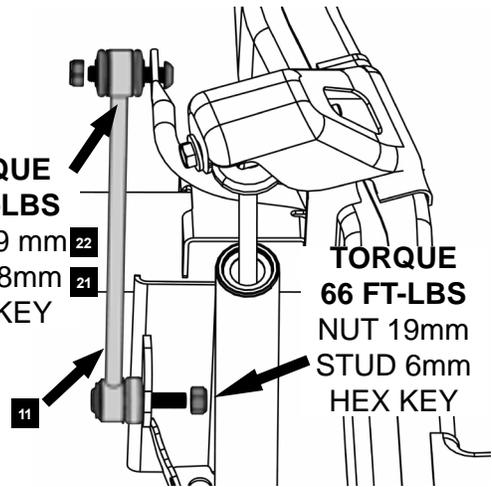
NOTE: DO NOT TIGHTEN THE CONTROL ARM BOLTS UNTIL THE JEEP IS ON THE GROUND

36

INSTALL NEW SWAY BAR LINKS

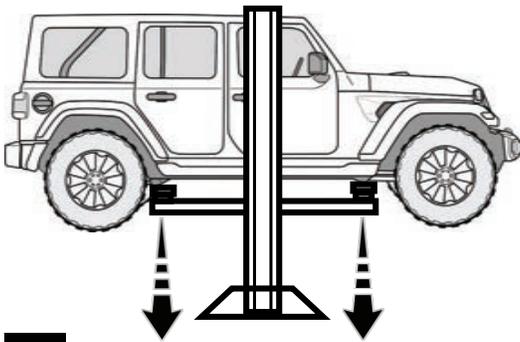
TORQUE 45 FT-LBS
NUT 19 mm
BOLT 8mm
HEX KEY

TORQUE 66 FT-LBS
NUT 19mm
STUD 6mm
HEX KEY



37

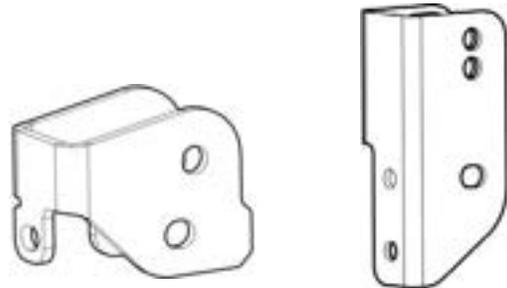
REINSTALL TIRES AND LOWER TO THE GROUND



38

TORQUE TO 130 FT-LBS

REFER TO INSTRUCTIONS #999311 AND #999312 FOR PROPER INSTALLATION OF TRACK BAR BRACKETS



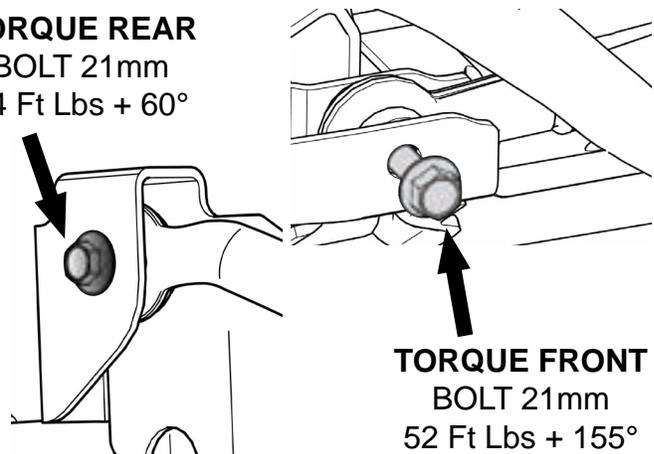
NOTE: IF INSTALLING TRACK BAR, REFER TO INSTRUCTIONS #999322



39

REINSTALL TRACK BARS AND TORQUE TO THE FOLLOWING SPECS

TORQUE REAR
BOLT 21mm
74 Ft Lbs + 60°



TORQUE FRONT
BOLT 21mm
52 Ft Lbs + 155°

TORQUE CONTROL ARMS

REAR

TORQUE 21mm
74Ft Lbs + 65°
(REF: 123 Ft Lbs)

TORQUE 21mm
74Ft Lbs + 80°
(REF: 169 Ft Lbs)

TORQUE 21mm
74Ft Lbs + 50°
(REF: 121 Ft Lbs)

TORQUE 21mm
74Ft Lbs + 50°
(REF: 150 Ft Lbs)

40

FRONT

TORQUE 18mm
41 Ft Lbs + 185°
(REF: 140-160 Ft Lbs)

TORQUE 18mm
37 Ft Lbs + 135°
(REF: 100-120 Ft Lbs)

TORQUE
103 Ft Lbs +145°
(REF: 230-250 Ft Lbs)
BOLT 21mm
NUT 24mm

JL TIRE CLEARANCE GUIDE for vehicles with FACTORY FENDER FLARES

TeraFlex Bump Stop Strike Pad Extensions allow the use of larger tires and factory fender flares by limiting suspension up travel.

JL Rubicon models feature high-clearance fenders that allow for more up travel, while the lower-clearance fenders on JL Sport and Sahara restricts tire size due to fender rubbing.

In order to address these fender differences, TeraFlex designed a proprietary modular bump stop system, which can be adapted to fit several different tire size configurations.

JL RUBICON

with Factory Fender Flares:

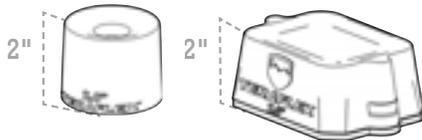
33" TIRES

- No Front or Rear Bump Stops

Compatible Lift Kit Heights: 1.5"

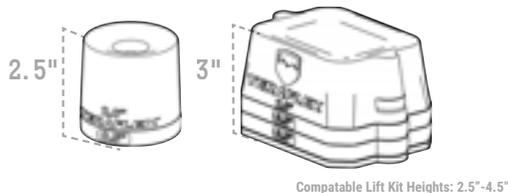
35" TIRES

- 2" Front & 2" Rear Bump Stops



37" TIRES

- 2.5" Front & 3" Rear Bumps



Notes:

- If installing on an Eco-Diesel or 392 Wrangler, the factory jounce tubes are longer. Subtract the following amount from the front bumpstop stack as stated above:

- **Eco-Diesel - Subtract 1.375" from the front bump stop stack.**
- **392 Wrangler - Subtract 1.875" from the front bump stop stack.**

- If a 1.5" Performance Spacer lift kit is installed and a little bit of bump stop is needed, Front and Rear Bump Stop Strike Pads are available for individual purchase.

- If installing 39"+ tires, it is recommended that you replace the factory fender flares.

- If 3.5"-4.5" Lift Falcon Shocks are installed, then a minimum of 2" bump stop is needed.



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Rev C 999320

Additional 0.5" shims can be added to fine tune bump stop height and further limit suspension up travel.

IMPORTANT: Recommended Bump Stop configuration is based on tested tires. Not all tires measure the same. Before driving, cycle the suspension to check for rubbing or contact of the shocks, springs, or suspension componets.

JL SPORT/SAHARA

with Factory Fender Flares:

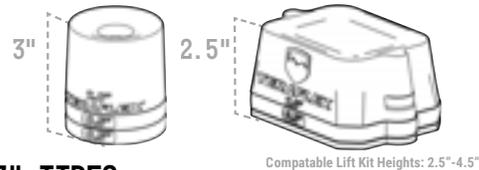
33" TIRES

- No Front or Rear Bump Stops

Compatible Lift Kit Heights: 1.5"

35" TIRES

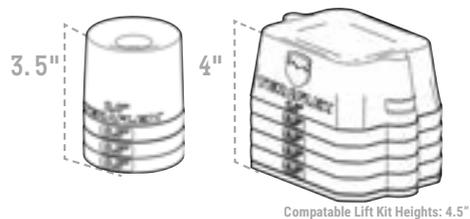
- 3" Front & 2.5" Rear Bump Stops



37" TIRES

- 3.5" Front & 4" Rear Bump Stops

**Additional Bump Stops Required

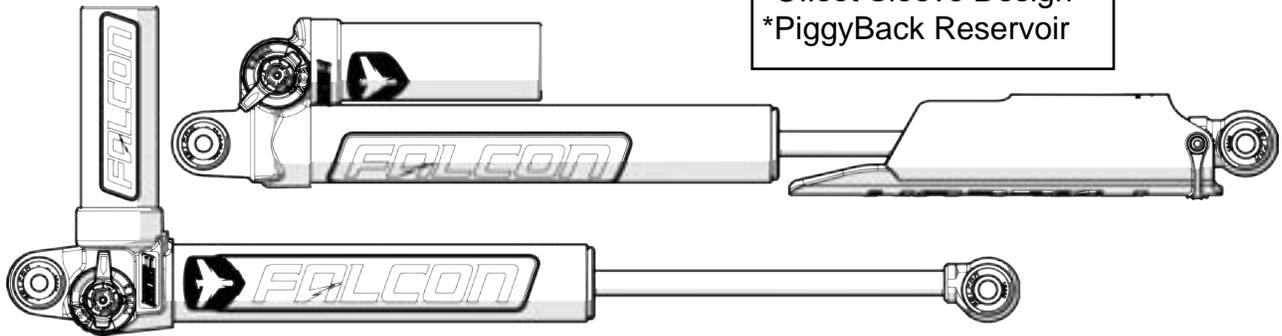


2.5-4.5 Inch Shock Options

JL Falcon Adjustable PiggyBack Shocks

- 4 Door Series 3.3, 11-01-33-400-200-3
- 2 Door Series 3.3, 10-01-33-400-200-3

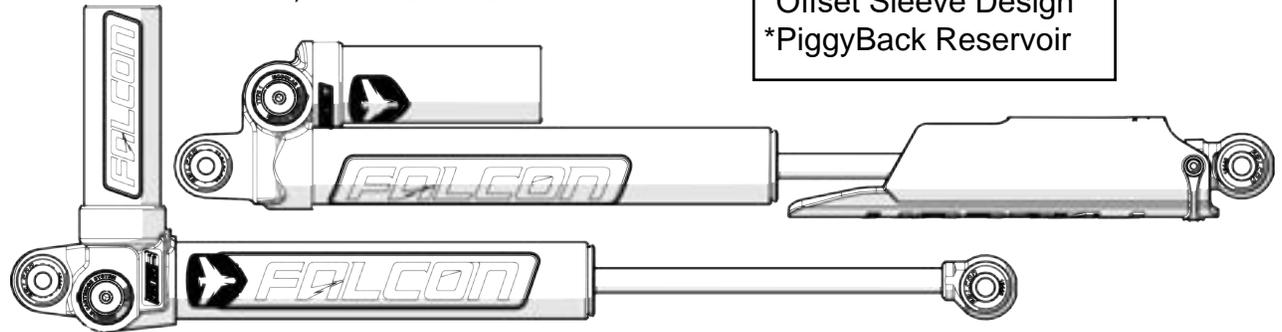
- *Fast Adjust Knob
- *High Flow Oil Channel
- *Offset Sleeve Design
- *PiggyBack Reservoir



JL Falcon PiggyBack Shocks

- 4 Door Series 3.1, 11-01-31-400-200-3
- 2 Door Series 3.1, 10-01-31-400-200-3

- *Series 3.3 Upgradable
- *High Flow Oil Channel
- *Offset Sleeve Design
- *PiggyBack Reservoir



TERAFLEX

PRODUCT INFORMATION

MAINTENANCE INFORMATION:

It is the buyer's responsibility to have all suspension, drivetrain, steering, and other components checked for proper tightness and torque after the first 100 miles and every 3000 miles after that.

NOTICE TO INSTALLER:

The enclosed "Warning to Driver" sticker must be installed in the vehicle in driver's view. This sticker is to act as a constant safety reminder when operating the vehicle. It is your responsibility as the equipment installer to install the provided sticker and to forward the product instructions to the vehicle's owner for review. If a "Warning to Driver" sticker or product installation guide were not included in the kit, FREE replacement stickers and instructions are available by request. It is the installer's duty to ensure a safe and controllable vehicle after the modifications have been performed.

WARNING:

Neither the seller nor the manufacturer will be liable for any loss, damage, or injury directly or indirectly arising from the use of or inability to determine the use of these products. Before using, the user shall determine the suitability of the products for its intended use, and the user shall assume all responsibility and risk in connection therewith.

WARNING TO DRIVER:

This vehicle has been modified to enhance off road performance and has unique handling characteristics. Use in harsh environments can cause extreme stress on the components. Vehicle should be inspected after being off road to make sure that all the components are in working order and safe to travel on the highway. All fasteners should be checked so that they are at the correct torque specifications as the vibration and stresses from off roading may cause critical fasteners to work loose. Extra care should be taken to inspect the critical components, steering, and brake systems. During each oil change components such as arms, tie rod ends, etc should be greased and checked for excessive wear. Any worn components should be replaced. When returning to the pavement always set or restore tire air pressure to the factory recommendation and connect or engage any disabled sway bar mechanisms. Because of the higher center of gravity and larger tires, this vehicle handles and reacts differently than many passenger cars, both on and off road. You must drive it safely! Extreme care should be taken to prevent vehicle rollover or loss of control, which can result in serious injury or death. Avoid sudden sharp turns or abrupt maneuvers. Generally, braking performance and capabilities are decreased when significantly larger/heavier tires are used, especially when used in combination with transfer case low-range reduction kits. Take this into consideration while driving. Do not add, alter or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the TeraFlex product purchased. Mixing component brand is not recommended. TeraFlex Inc. will not be responsible for any altered product or any improper installation or use of our products. We will be happy to answer any questions concerning the design, function, and correct use of our products. It is ultimately the buyer's responsibility to have all bolts/nuts checked for tightness after the first 100 miles and then every 3000 miles. Wheel alignment, steering system, suspension and drive line systems must be inspected by a qualified professional mechanic at least every 3000 miles.

TERAFLEX PRODUCT WARRANTY:

TeraFlex Inc. warrants TeraFlex Suspension products to the original retail purchaser to be free of defects in material and workmanship for as long as the original purchaser owns the vehicle on which products were originally installed.

Failure to complete regular maintenance (grease every 3000 miles) on TeraFlex FlexArms will void this warranty. All other conditions of the standard TeraFlex product warranty apply.

All TeraLow products are covered by the TeraFlex two (2) year warranty to be free of defects in material and workmanship for two years from date purchased.

TeraFlex axles are covered by a 12-month warranty to be free of defects in materials and workmanship.

This warranty does not cover or include product finish, improperly installed or applied products, improperly maintained products, products or components used for racing or competition or damage due to abuse or neglect, products that fail due to the use of larger tire and wheel combinations.

All returns must be accompanied by an original invoice. It is the customer's responsibility to remove the product from the vehicle. Shipping charges are the responsibility of the customer. TeraFlex Inc. will pay the return freight if the product meets the terms of warranty.

This warranty is for the replacement or repair of defective TeraFlex products only and does not include freight charges, labor charges for removal of or installation of TeraFlex or related products or components, costs incurred due to down time of the vehicle, or lost profits due to vehicle down time.

A returned goods authorization number (RGA#) must accompany any returned products. For more information please contact a TeraFlex customer service representative.

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