

# Jeep JL RUBICON 392 2.5" Suspension Lift Installation Instructions

### www.skyjacker.com Required Tools List:

- SAE & SAE Hex Key Sockets \ Wrenches (5/32", 7/32" & 5/16" Hex Key Sockets, 7/16", 1/2", 9/16", 3/4", 13/16", & 7/8")
- Metric & Metric Hex Key Sockets \ Wrenches
   (6mm Hex Key Socket, 13mm, 15mm, 18mm, 19mm, 21mm, 22mm & 24mm)
- Measuring Tape
   Ball Peen Hammer
- Safety Glasses
   Wheel Chock
- Jack StandsFloor Jack
- PliersTorque Wrench



Before beginning installation, read these instructions & enclosed driver's WARNING NOTICE thoroughly & completely. Also affix WARNING decal in passenger compartment in clear view of all occupants. Please refer to Parts List to insure that all parts & hardware are received prior to disassembly of vehicle. If any parts are found to be missing, contact SKYJACKER® Customer Service at 318-388-0816 to obtain needed items. If you have any questions or reservations about installing this product, contact SKYJACKER® Technical Assistance at 318-388-0816.

Make sure you park vehicle on a level concrete or asphalt surface. Many times a vehicle is not level (side-to-side) from factory, but is usually not noticed until a lift kit has been installed which makes difference more visible. Using a measuring tape, measure front & rear (both sides) from ground up to center of fender opening above axle. Record this information below for future reference.

Driver Side Front:	/	Passenger Side Front: _	
	BEFORE / AFTER	J	BEFORE / AFTER
Driver Side Rear:	/	Passenger Side Rear:	/
_	BEFORE / AFTER		BEFORE / AFTER

# **Important Notes:**

- The Drag Link Must Be Adjusted to Center the Steering Wheel <u>Before</u> the Vehicle Is Driven. Failure to Do So Will Cause Computer Errors, Odd Handling Characteristics, & Poor Performance.
- If Larger Tires (10% More Than the OEM Diameter) Are Installed, Speedometer Recalibration Will Be Necessary. Contact Your Local JEEP Dealer or an Authorized Skyjacker® Dealer for Details.
- After Installation, a Qualified Alignment Facility Is Required to Align the Vehicle to the OEM Specifications.

# **Component Box Breakdown:**

### Part # JL25R3BPELT

Item #	Description	Qty
JL23HDFS-DR	HD DUAL RATE COIL, FRONT	2
JL12RS-DR-R	DUAL RATE COIL, REAR 18.5	1
JL23RS-DR-R	DUAL RATE COIL, REAR 19.5	1
H-BOX JL25R3E	HDWR BOX: JL25R3BPELT	1

### Hardware Box Breakdown:

### Part # H-BOX JL25R3E

Item #	Description	Qty
JK25RBS-S	REAR BUMP STOP BRACKET	2
SBE4028-L	FRONT SWAY BAR END LINK	2
SBE4068-L	REAR SWAY BAR END LINK	2
JL25SEF-S	SHOCK EXTENSION BRKT, FRT	2
JL25SER-S	SHOCK EXTENSION BRKT, RR	2
HB-JK20	HDWR BAG: BUMP STOPS	1
HB-JL2535SE	HDWR BAG: SHOCK EXT, FRT\RR	1
HB-SBENB03	HDWR BAG: FRONT END LINKS	1
HB-SBENB04	HDWR BAG: REAR END LINKS	1
I-JL25R3E	INST SHEET: JL25R3BPELT	1

# Component Box Breakdown:

#### Part # JL25R3BLT

Item #	Description	Qty
JL23HDFS-DR	HD DUAL RATE COIL, FRONT	2
JL12RS-DR-R	DUAL RATE COIL, REAR 18.5	1
JL23RS-DR-R	DUAL RATE COIL, REAR 19.5	1
H-BOX JL25R3	HDWR BOX: JL25R3BPELT	1

### **Part # JL2025X (ADX 2.0 SHOCKS)**

Item #	Description	Qty
A2386	ADX 2.0 REMOTE RESERVOIR	2
A2388	ADX 2.0 REMOTE RESERVOIR	2

### Hardware Box Breakdown:

#### Part # H-BOX JL25R3

Item #	Description	Qty
JK25RBS-S	REAR BUMP STOP BRACKET	2
SBE4028-L	FRONT SWAY BAR END LINK	2
SBE4068-L	REAR SWAY BAR END LINK	2
HB-JK20	HDWR BAG: BUMP STOPS	1
HB-SBENB03	HDWR BAG: FRONT END LINKS	1
HB-SBENB04	HDWR BAG: REAR END LINKS	1
I-JL25R3E	INST SHEET: JL25R3BPELT	1

# **Hardware Bag Breakdown:**

### Part # HB-JK20

Item #	Description	Qty
BSS3020-S	BUMPSTOP SPACER \ 2" TALL	2
38X234BHB	3/8 X 2-3/4 BUTTON HEAD BOLT	2
38CTN	3/8-16 COARSE N/I LOCK NUT	2
38SAEW	3/8 SAE WASHER	2
516X1FTB	5/16 X 1 FINE THREAD BOLT	4
516SAEW	5/16 SAE WASHER	8
516FTN	5/16" FINE THRD N/I LOCKNUT	4

# Part # HB-JL2535SE

Item #	Description	Qty
411481	CRUSH SLEEVE   1.62 LONG	4
12X114FTB	1/2 X 1-1/4 FINE THREAD BOLT	2
12X312FTB	1/2 X 3-1/2 FINE THREAD BOLT	4
12FTN	1/2 FINE THREAD N/I LOCK NUT	6
12SAEW	1/2 SAE WASHER	8
12USSW	1/2 USS WASHER	4
38X1FTB	3/8 X 1 FINE THREAD BOLT	2
38FTN	3/8 FINE THREAD N/I LOCK NUT	2
38SAEW	3/8 SAE WASHER	4

# Hardware Bag Breakdown:

### Part # HB-SBENB03

Item #	Description	Qty
141509	ES25 SLEEVE, 1.50 LONG	4
12X70MMB	12 X 70 METRIC BOLT \ 10.9	2
716USSW	7/16 USS FLAT WASHER	4
12MMN	12MM NYLON INSERT LOCK NUT	2

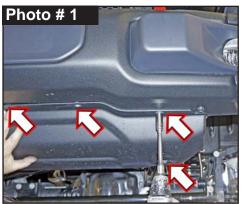
#### Part # HB-SBENB04

Item #	Description	Qty		
141509	ES25 SLEEVE, 1.50 LONG	4		
12X65MMB	12 X 65 METRIC BOLT \ 10.9	2		
716USSW	7/16 USS FLAT WASHER	4		
12MMN	12MM NYLON INSERT LOCK NUT	2		

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### Front Installation: Note: Save all factory components and hardware for reuse, unless noted.

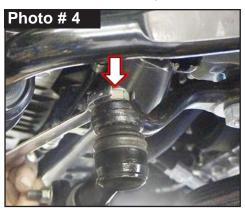
- 1. With vehicle on flat level ground, set emergency brake & chock rear tires\wheels.
- 2. Raise front of vehicle, support frame rails using jack stands at indicated lift points in OEM service manual.
- 3. Remove the front tires\wheels using a 22mm socket.
- 4. Remove OEM front skid plate using a 13mm socket\wrench. (See Photo # 1)
- 5. Remove OEM front sway bar end links using a 6mm hex key socket\wrench & 18mm socket\ wrench. (See Photo # 2)
- 6. Disconnect OEM front track bar from frame using a 21mm socket \ wrench. (See Photo # 3)



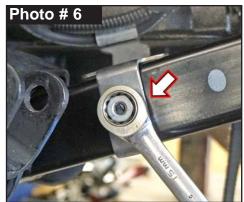




- 7. Disconnect OEM drag link from OEM pitman arm using a 21mm socket\wrench. (See Photo # 4)
- 8. Kit With Shock Extension Brackets: Disconnect OEM front shock from lower axle mount only using a 18mm socket\wrench. (See Photo # 5)
  Kit With ADX 2.0 Remote Reservoir: Disconnect OEM front shock from upper shock tower mount & lower axle mount using a 18mm socket\wrench.
- 9. Disconnect OEM front brake line brackets from OEM front lower control arms using a 15mm socket \ wrench. (See Photo # 6)





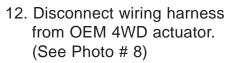


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10. Mark the location of OEM front driveshaft\flange at axle & disconnect using a 15mm socket

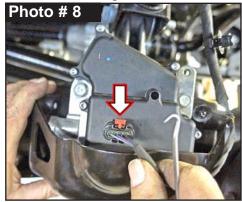
\wrench. (See Photo # 7)

11. Disconnect wiring harness from passenger side OEM front upper control arm using pliers.









14. While checking for appropriate slack in ABS lines, brake lines, differential vent hose & etc. Lower front differential & remove OEM front coil springs.

15. Place Skyjacker # BSS3020-S Front Bumpstop Spacer inside Skyjacker # JL34HDFS-DR

Front Coil Spring. Install front coil spring with bumpstop inside. Insert coil spring into upper tower first. Be sure that the coil is indexed to seat properly, then raise the axle enough to hold the coil springs in place.

Tech Note: If the front axle cannot be lowered enough to allow the coil spring to be installed, carefully rotate the pinion up to provide more clearance for the coil installation.

Insert the supplied 3/8" x 2-3/4" Button Head Bolt into bumpstop. Align bolt into hole of OEM lower coil spring mount pad. Reach under the spring mount pad & above the axle tube to install supplied 3/8" SAE Washer & 3/8" Nylon Insert

socket\wrench. (See Photo # 9) Torque 25 ft.-lbs.

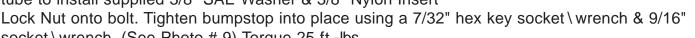


Photo #9

**Tech Note:** On Passenger Side, it may be necessary to remove the ABS bracket to install the bumpstop lock nut. At rear of the axle above the shock mount, remove ABS mounting bracket using a 10mm socket\wrench. Once bumpstop spacer is tight, reinstall ABS line mounting bracket onto axle.

16. Raise front axle in order to load Skyjacker front coil springs. Connect OEM front driveshaft with

OEM hardware using a 15mm socket\wrench. (See Photo # 10)

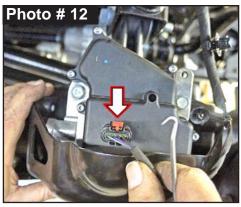
17. Connect OEM drag link to OEM pitman arm with OEM hardware using a 21mm socket\wrench. (See Photo # 11) Torque 75 ft-lbs.

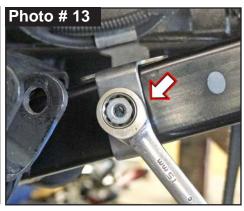




18. Connect OEM vent hose to front differential using pliers.

- Connect wiring harness to OEM 4WD actuator. (See Photo # 12)
- 20. Connect wiring harness to passenger side OEM front upper control arm.
- 21. Connect OEM front brake line bracket to OEM front lower control arm with OEM hardware using a 15mm socket\wrench. (See Photo # 13)





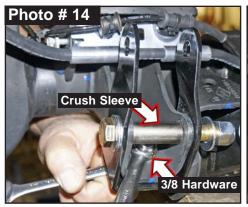
NOTE: Kit With Shock Extension Brackets: Proceed to Step 22. Kit With ADX 2.0 Remote Reservoir: Proceed to Step 24.

22. Connect Skyjacker # JL35SEF-S Front Lower Shock Extension Bracket to OEM front lower shock mount with the upper mounting holes offset towards the front of the vehicle. Install with supplied 3/8" x 1" Fine Thread Bolt with 3/8" SAE Washers bottom & 3/8" SAE Washer with 3/8" Nylon Insert Lock Nut top using a 9/16" socket\wrench. (See Photo # 14)

Install 1/2" x 3-1/2" Fine Thread Bolt with 1/2" SAE Washer outside, 1.62 Long Crush Sleeve

in between with 1/2" SAE Washer with 1/2" Nylon Insert Lock Nut on inside using a 3/4" socket\wrench. (See Photo # 14)

23. Connect OEM front shocks to Skyjacker front lower shock extension brackets with OEM hardware using a 21mm socket\wrench. (See Photo # 15)



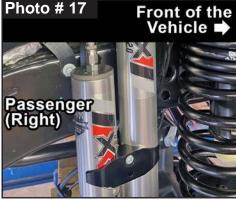


24. **Tech Note:** ADX Front Shock # A2387 Remote Reservoir are to be mounted with cylinder

body up & remote reservoir toward rear for proper clearance (opposite side of coil spring mount). (See Photo # 16 & # 17)

Loosely assemble two (2) supplied reservoir clamps with two (2) supplied hex head bolts using a 5/32" Hex Key socket. Position clamp into place around





shock & reservoir cylinder. Secure, but Do Not Completely Tighten at this time.

Install Skyjacker ADX # A2387 Front Shock with OEM hardware at upper shock tower mount using a 18mm socket \ wrench. **Note**: Upper shock mount has a OEM fixed nut welded onto

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the frame. Be careful not to dislodge nor over tighten this nut.

Connect Skyjacker shock at lower axle mount with OEM hardware using a 18mm socket\ wrench. Secure, but Do Not Completely Tighten at this time. These will be tightened once vehicle is on ground with full vehicle weight on tires\wheels.

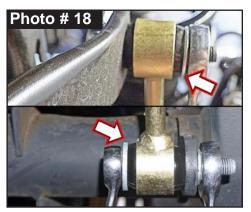
25. Coat with a water resistant grease & press # ES25 1.50 Long Steel Sleeves into upper & lower mounts of Skyjacker # SBE4028-L Front Sway Bar End Link. Install upper end link mount with supplied 12mm x 70mm Bolt with a 7/16" USS Washer through sway bar with a 7/16" USS Washer & 12mm Nylon Insert Lock Nut using a 19mm socket\wrench. (See Photo # 18)

Attach lower end link with OEM hardware using a 18mm socket\wrench.

<u>Note</u>: On Driver Side, install OEM lower bolt with large washer to outer bushing side of sway bar end link. Secure, but Do Not Completely Tighten at this time.

- 26. Install OEM front skid plate with OEM hardware using a 13mm socket\wrench. (See Photo # 1)
- 27. Install front tires\wheels using a 22mm socket Lower vehicle to ground. Torque 130 ft-lbs.
- 28. Connect OEM front track bar to frame mount with OEM hardware using a 21mm socket \ wrench. (See Photo # 19)

  Tech Note: It may be necessary to turn steering wheel to align track rod end with mount.





# **Rear Installation**: Note: Save all factory components and hardware for reuse, unless noted.

- 1. Chock front tires\wheels. Raise rear of vehicle & support frame rails using jack stands at indicated lift points in OEM service manual.
- 2. Remove rear tires\wheels using a 22mm socket.
- 3. Remove OEM rear sway bar end link using a 6mm hex key socket\wrench & 18mm socket\ wrench. (See Photo # 20)
- 4. Disconnect OEM rear brake line brackets from rear axle at upper control arm mount using a 13mm socket\wrench. (See Photo #21)





- 5. Disconnect OEM rear track bar from passenger side upper frame mount using a 21mm socket \wrench. (See Photo # 22)
- 6. **Kit With Shock Extension Brackets:** Disconnect OEM rear shock from lower axle mount only using a 18mm socket\wrench. (See Photo # 23)

**Kit With ADX 2.0 Remote Reservoir:** Disconnect OEM rear shock from upper shock tower mount & lower axle mount using a 18mm socket\wrench. **Note:** OEM upper shock mount has nut attached to shock mount.

<u>Tech Note</u>: In order to gain access to OEM rear upper shock mounting bolts, remove three (3) OEM bolts rear bumper inner fender liner using a 8mm socket \ wrench. (See Photo # 24) Retain hardware.



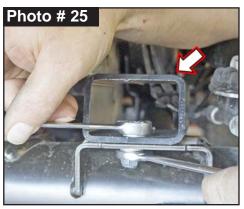




- 7. While checking for appropriate slack in ABS lines, brake lines, differential vent hose & etc, lower rear axle & remove OEM rear coil springs.
- 8. Install Skyjacker # JK25RBS-S Rear Bumpstop Spacer to OEM rear bumpstop pads using supplied 5/16" x 1" Fine Thread Bolt with a 5/16" SAE Washer on top & a 5/16" SAE Washer with 5/16" Nylon Insert Lock Nut on bottom using a 1/2" wrench & a 1/2" socket / wrench. (See Photo # 25)
- Note: Be sure that tab of each OEM rear upper coil spring isolator are aligned with hole of OEM rear upper coil spring mount. (See Photo # 26) Install Skyjacker rear coil springs. (See Photo # 27)

<u>Tech Note</u>: Skyjacker rear coil springs are two different lengths \ heights. The taller rear coil spring is to be installed on OEM fuel tank side of the vehicle. The shorter rear coil spring is to be installed on opposite side of vehicle.

Raise the rear differential in order to load the Skyjacker rear coil springs.







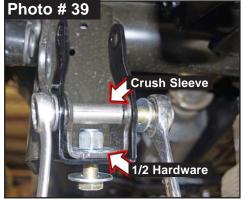
NOTE: Kit With Shock Extension Brackets: Proceed to Step 10. Kit With ADX 2.0 Remote Reservoir: Proceed to Step 12.

10. Connect Skyjacker # JL25SER-S Rear Lower Shock Extension Brackets to OEM rear lower shock mount with upper mounting holes offset towards front of vehicle.

Install with supplied 1/2" x 1-1/4" Fine Thread Bolt with 1/2" USS Washers bottom & 1/2" USS Washer with 1/2" Nylon Insert Lock Nut top using a 3/4" socket\wrench.

(See Photo #39)

Install 1/2" x 3-1/2" Fine
Thread Bolt with 1/2" SAE
Washer outside, 1.62 Long
Crush Sleeve in between
with 1/2" SAE Washer &
1/2" Nylon Insert Lock Nut
on inside using 3/4" socket\
wrench. (See Photo # 39)





- 11. Connect OEM rear shocks to Skyjacker rear lower shock extension brackets with OEM hardware using a 18mm socket\wrench. (See Photo # 40)
- 12. <u>Tech Note</u>: ADX # A2389 Rear Shock with Remote Reservoir are to be mounted with cylinder body up & remote reservoir toward rear for proper clearance. (See Photo # 15 & # 16)

Loosely assemble two (2) supplied reservoir clamps with two (2) supplied hex head bolts using a 5/32" Hex Key socket. Position clamp into place around shock & reservoir cylinder. Secure, but Do Not Completely Tighten at this time.

Install Skyjacker ADX # A2389 Rear Shock with OEM hardware using a 18mm socket\wrench. Secure, but Do Not Completely Tighten at this time.

- 13. Attach OEM rear bumper inner fender liner with OEM bolts using a 8mm socket \ wrench. (See Photo # 41)
- 14. Connect OEM rear brake line brackets to rear differential with OEM hardware using a 13mm socket / wrench.
  (See Photo # 42)

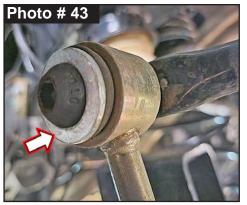


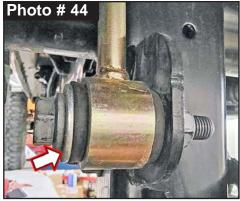


16. Coat with a water resistant grease & press # ES25 1.50 Long Steel Sleeves into upper & lower mounts of Skyjacker # SBE4068-L Rear Sway Bar End Links.

Install upper end link mount with supplied 12mm x 65mm Button Head Bolt with a 7/16" USS

Washer from outside of vehicle inward through sway bar with a 7/16" USS Washer & 12mm Nylon Insert Lock Nut on inside using a 5/16" hex key socket & a 18mm socket \ wrench. (See Photo # 43) Attach lower end link with OEM hardware with large washer to bushing side of





end link using a 18mm socket\wrench. (See Photo # 44) Secure, but Do Not Completely at this time.

17. Install rear tires\wheels using a 22mm socket. Lower vehicle to ground. Torque 130 ft-lbs.

# **Final Clearance Check & Torque Steps:**

- 1. Start vehicle. Make sure there are no dash lights pertaining to suspension.
- 2. Jounce vehicle a couple of times. This will help suspension settle to new ride height. Cycle steering lock-to-lock & check all components for proper operation & clearances. Pay special attention to clearance between tires\wheels and ADX Shocks & Reservoirs, control arms, brake hoses, ABS wiring, etc.
- 3. Front Tighten & Torque Sequence.

Track bar at frame using a 21mm wrench. Torque 52 ft-lbs. + 115°

Front shock extension bracket at lower bolt mount using a 9/16" socket\wrench. Torque 35 ft-lbs. Front shock extension bracket at crush sleeve using a 3/4" socket\wrench. Torque 65 ft-lbs.

Front shock extension bracket at lower shock mount using a 18mm wrench. Torque 74 ft-lbs.

Front shock absorber upper mount using a 18mm wrench. Torque 81 ft-lbs.

Front shock absorber lower mount using a 18mm wrench. Torque 74 ft-lbs.

ADX Reservoir clamp. Double check position & clearance. Tighten with 5/32" Hex Key socket.

Skyjacker sway bar end link upper bolt using a 19mm socket\wrench. Torque 59 ft-lbs.

Skyjacker sway bar end link lower bolt using a 18mm socket\wrench. Torque 59 ft-lbs.

4. Rear Tighten & Torque Sequence.

Track bar at upper frame mount. Torque 130 ft-lbs.

Rear shock extension bracket at lower bolt mount using a 3/4" socket \ wrench. Torque 65 ft-lbs.

Rear shock extension bracket at crush sleeve using a 3/4" socket \ wrench. Torque 65 ft-lbs.

Rear shock extension bracket at lower shock mount using a 18mm wrench. Torque 74 ft-lbs.

Rear shock absorber upper mount using a 18mm socket\wrench. Torque 81 ft-lbs.

Rear shock absorber lower mount using a 18mm socket\wrench. Torque 74 ft-lbs.

ADX Reservoir clamp. Double check position & clearance. Tighten with 5/32" Hex Key socket.

Skyjacker sway bar end link mount using a 5/16" hex key socket & a 18mm socket\wrench. Torque 59 ft-lbs.

Skyjacker sway bar end link mount using a 18mm socket\wrench. Torque 59 ft-lbs.

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#### **Final Notes:**

- After installation is complete, double check that all nuts & bolts are tight. Refer to the following chart for proper torque specifications. (<u>Note</u>: Do not re-tighten nuts & bolts where thread lock compound was used.)
- With vehicle placed on ground, cycle steering lock to lock & inspect steering, suspension, brake lines, front & rear drivelines, fuel lines & wiring harnesses for proper operation, tightness & adequate clearance.
- Have headlights readjusted to proper settings.
- Have a qualified alignment center align vehicle to OEM specifications.
- After first 100 miles, check all hardware for proper torque & periodically thereafter.

TORQUE SPECIFICATIONS						
ll ll	INCH SYSTEM			METRIC SYSTEM		
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	Class 10.9	
5/16	180 in-lbs	240 in-lbs	6MM	60 in-lbs	108 in-lbs	
3/8	30 ft-lbs	35 ft-lbs	8MM	216 in-lbs	23 ft-lbs	
7/16	45 ft-lbs	60 ft-lbs	10MM	32 ft-lbs	45 ft-lbs	
1/2	65 ft-lbs	90 ft-lbs	12MM	55 ft-lbs	75 ft-lbs	
9/16	95 ft-lbs	130 ft-lbs	14MM	85 ft-lbs	120 ft-lbs	
5/8	135 ft-lbs	175 ft-lbs	16MM	130 ft-lbs	165 ft-lbs	
3/4	185 ft-lbs	280 ft-lbs	18MM	170 ft-lbs	240 ft-lbs	
The Above Specifications Are Not to Be Used						

# Seat Belts Save Lives, Please Wear Your Seat Belt.

When the Bolt Is Being Installed With a Bushing.

#### **Optional Front Adjustable Track Bar Available:**

JLFTBA18 Front Adjustable Track Bar | 2"- 6" Lift JLRTBA18 Rear Adjustable Track Bar | 2"- 6" Lift

#### **Optional Front Track Bar Brace Available:**

JLFBRC18 Front Track Bar Brace

#### **Optional HD OEM Replacement Steering Stabilizers Available:**

7008 HD OEM Replacement Steering Stabilizer | White Steering Damper
 8008 HD OEM Replacement Steering Stabilizer | Black Steering Damper
 9008 HD OEM Replacement Steering Stabilizer | Silver Steering Damper

#### **Optional Dual Steering Stabilizer Kits Available:**

7208 Dual Steering Stabilizer Kit | White Steering Dampers
 8208 Dual Steering Stabilizer Kit | Black Steering Dampers
 9208 Dual Steering Stabilizer Kit | Silver Steering Dampers

#### Optional HD Front / Rear Upper & Lower Control Arms Available:

JL24LL HD Front & Rear Lower Control Arms Set | 1"- 4" Lift
JL24LLX Single Flex Front & Rear Lower Control Arms Set | 1"- 6" Lift
JLL24F-SX Single Flex Front Lower Control Arms Pair | 1"- 6" Lift
JLL24R-SX Single Flex Rear Lower Control Arms Pair | 1"- 6" Lift
JLULF26-SX Single Flex Front Upper Control Arms Pair | 1"- 6" Lift
JLULR26-SX Single Flex Rear Upper Control Arms Pair | 1"- 6" Lift