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Jeep Wrangler JL 2.5" Metal Spacer Suspension Lift Installation Instructions

Required Tools List:

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



Before beginning the installation, read these instructions and the enclosed driver's WARNING NOTICE thoroughly and completely. Also affix the WARNING decal in the passenger compartment in clear view of all occupants. Please refer to the Parts List to insure that all parts & hardware are received prior to disassembly of the vehicle. If any parts are found to be missing, contact SKYJACKER® Customer Service at 318-388-0816 to obtain the 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 the vehicle on a level concrete or asphalt surface. Many times a vehicle is not level (side-to-side) from the factory, but is usually not noticed until a lift kit has been installed which makes the difference more visible. Using a measuring tape, measure the front & rear (both sides) from the ground up to the center of the fender opening above the axle. Record this information below for future reference.

Driver Side Front: _____ Passenger Side Front: _____

Driver Side Rear: _____ Passenger Side Rear: _____

Important Notes:

- The Drag Link Must Be Adjusted to Center the Steering Wheel Before 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 #: JL25MSB | JL25R3MSB

Item #	Description	Qty
JL25FMS-S	JL FRONT METAL SPACER	2
JL25RMS-S	JL REAR METAL SPACER	2
JL25SEF-S	JL FRONT SHOCK EXTENSION	2
JL25SER-S	JL REAR SHOCK EXTENSION	2
JK25RBS-S	JL REAR BUMP STOP SPACER	2

Item #	Description	Qty
SBE4058-L	JL REAR SWAY BAR END LINK	2
HB-JK20	HDWR BAG: JL BUMP STOPS	1
HB-JL25MSB	HDWR BAG: JL SPACERS \ EXT	1
HB-SBENB04	HDWR BAG: JL REAR END LINKS	1
I-JL25MSB	INST SHEET: JL25MSB JL25R3MSB	1

Hardware Bag Breakdown:

Part #: HB-JK20

Item #	Description	Qty
38X234BHB	3/8 X 2-3/4 BUTTON HEAD BOLT	2
38SAEW	3/8 SAE WASHER	2
38CTN	3/8 COARSE THREAD LOCK NUT	2
516X1FTB	5/16 X 1 FINE THREAD BOLT	4

Item #	Description	Qty
516SAEW	5/16 SAE WASHER	8
516FTN	5/16 FINE THREAD LOCK NUT	4
BSS3020-S	JL FRONT BUMP STOP SPACER	2

Part # HB-JL25MSB

Item #	Description	Qty
JL25RMS-WASH	JL REAR SPACER WASHER	2
12X312FTB	1/2 X 3-1/2 FINE THREAD BOLT	4
12X212CTB	1/2 X 2-1/2 COARSE THREAD BOLT	2
12X114FTB	1/2 X 1-1/4 FINE THREAD BOLT	2
12SAEW	1/2 SAE WASHER	8
12USSW	1/2 USS WASHER	4
12FTN	1/2 FINE THREAD LOCK NUT	6

Item #	Description	Qty
38X1FTB	3/8 X 1 FINE THREAD BOLT	2
38SAEW	3/8 SAE WASHER	4
38FTN	3/8 FINE THREAD LOCK NUT	2
516X1CTB	5/16 X 1 COARSE THREAD BOLT	2
516LW	5/16 LOCK WASHER	2
516CTSN	5/16 COARSE THREAD STD NUT	2
411481	ES27 / ES28 SLEEVE 1.62 LONG	4

Part # HB-SBENB04

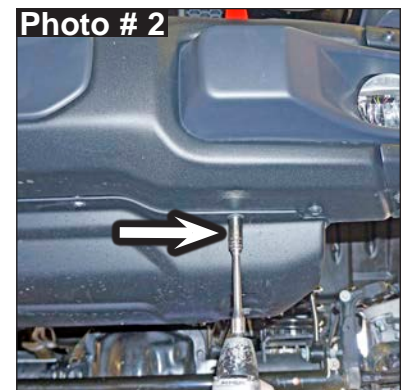
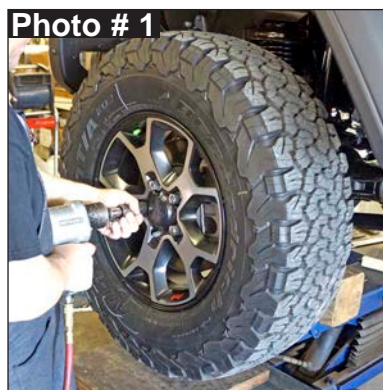
Item #	Description	Qty
141509	ES25 SLEEVE 1.50" LONG	4
12X65BHB	12MM X 65MM BUTTON HEAD BOLT	2

Item #	Description	Qty
716USSW	7/16 USS FLAT WASHER	4
12MMN	12 MM METRIC LOCK NUT	2

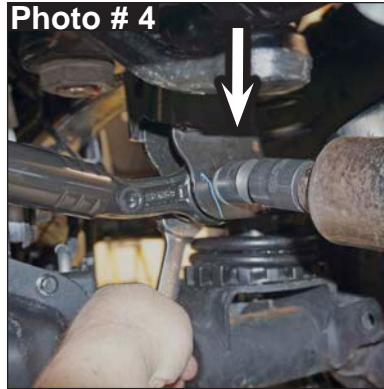
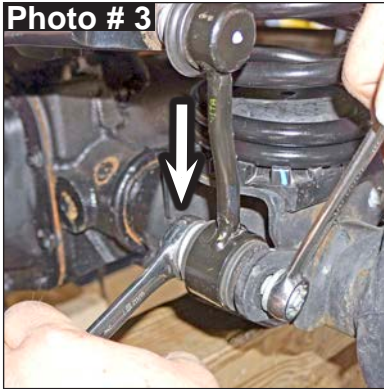
Front Installation:

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

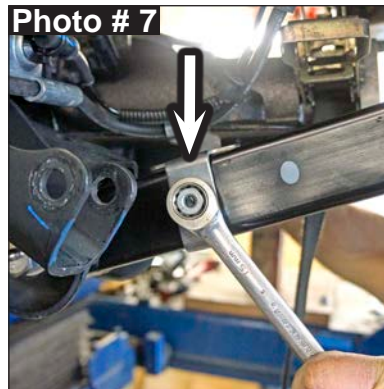
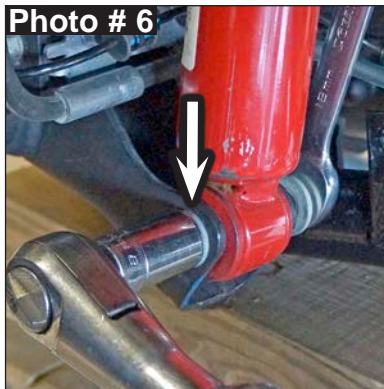
1. With the vehicle on flat level ground, set the emergency brake, & chock the rear tires \ wheels.
2. Raise the front of the vehicle, support the frame rails, & front differential using jack stands.
3. Remove the front tires \ wheels using a 22mm socket. (See Photo # 1)
4. Remove the OEM front skid plate using a 13mm socket \ wrench. (See Photo # 2)



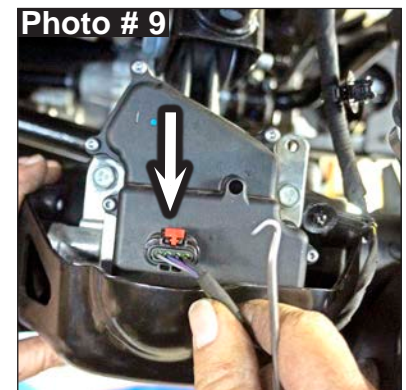
5. Remove the OEM front sway bar end links using a 6mm hex key socket \ wrench & 18mm socket \ wrench. (See Photo # 3) **Note:** Save the OEM hardware. It will be reused later for Step # 4 of the Rear installation.
6. Disconnect the OEM front track bar from the frame using a 21mm socket \ wrench. (See Photo # 4)
7. Disconnect the OEM drag link from the OEM pitman arm using a 21mm socket \ wrench. (See Photo # 5)



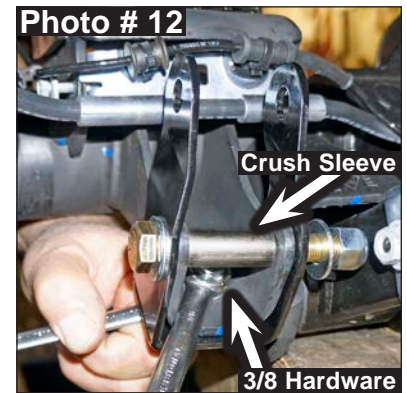
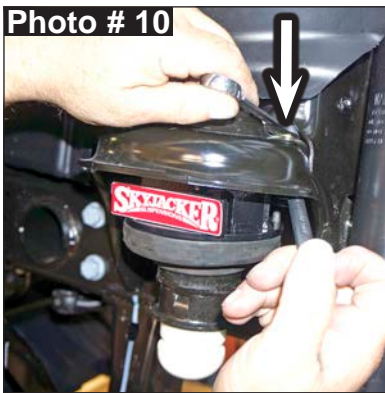
8. Disconnect the OEM front shocks from the front differential using a 18mm socket \ wrench. (See Photo # 6)
9. Disconnect the OEM front brake line brackets from the OEM front lower control arms using a 15mm socket \ wrench. (See Photo # 7)
10. Mark the location of the OEM front driveshaft \ flange at the front differential & disconnect using a 15mm socket \ wrench. (See Photo # 8)



11. Disconnect the wiring harness from the passenger side OEM front upper control arm using pliers.
12. Disconnect the wiring harness from the OEM 4WD actuator. (See Photo # 9)
13. Disconnect the OEM vent hose from the front differential using pliers.
14. While checking for appropriate slack in ABS lines, brake lines, differential vent hose, & etc. Lower the front differential & remove the OEM front coil springs & OEM front coil spring isolators.



15. Install the Skyjacker # JL25FMS-S Front Coil Spring Spacers with the OEM front coil spring isolators under the new front coil spring spacers using the supplied 5/16" x 1" coarse thread bolts, 5/16" lock washers, 5/16" coarse thread nuts, & a 1/2" socket \ wrench. (See Photo # 10)
Note: Be sure when installing the OEM front coil spring isolators that the tabs of each OEM front upper coil spring isolator aligns with the holes of each new front coil spring spacer.
16. Install the OEM front coil springs & Skyjacker # BSS3020-S Front Bump Stop Spacers to the OEM front bump stop pads using the supplied 3/8" x 2-3/4" button head coarse thread bolts, 3/8" SAE washers, 3/8" coarse thread nuts, a 7/32" hex key socket \ wrench, & 9/16" socket \ wrench. (See Photo # 11)
17. Install the Skyjacker # JL25SEF-S Front Lower Shock Extension Brackets to the OEM front lower shock mounts with the upper mounting holes offset towards the front of the vehicle using the supplied 3/8" x 1" fine thread bolts, 3/8" SAE washers, 3/8" fine thread nuts, crush sleeves, 1/2" x 3-1/2" fine thread bolts, 1/2" SAE washers, 1/2" fine thread nuts, a 9/16" socket \ wrench, & 3/4" socket \ wrench. (See Photo # 12)



18. Raise the front differential in order to load the OEM front coil springs & connect the OEM front shocks to the Skyjacker front lower shock extension brackets using the OEM hardware & a 18mm socket \ wrench. (See Photo # 13)
19. Connect the OEM front driveshaft using the OEM hardware & a 15mm socket \ wrench. (See Photo # 8)
20. Connect the OEM drag link to the OEM pitman arm using the OEM hardware & a 21mm socket \ wrench. (See Photo # 5)
21. Connect the OEM vent hose to the front differential using pliers.



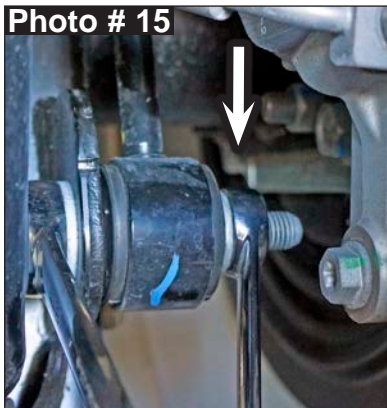
22. Connect the wiring harness to the OEM 4WD actuator. (See Photo # 9)
23. Connect the wiring harness to the passenger side OEM front upper control arm.
24. Connect the OEM front brake line brackets to the OEM front lower control arms using the OEM hardware & a 15mm socket \ wrench. (See Photo # 7)
25. Install the OEM front skid plate using the OEM hardware & a 13mm socket \ wrench. (See Photo # 2)
26. Install the front tires \ wheels using a 22mm socket & lower the front of the vehicle to the ground. (See Photo # 1)

27. Connect the OEM front track bar to the frame using the OEM hardware & a 21mm socket \ wrench. (See Photo # 4) **Tech Note:** Slightly turning the steering wheel will help align the OEM front track bar with the frame mount.

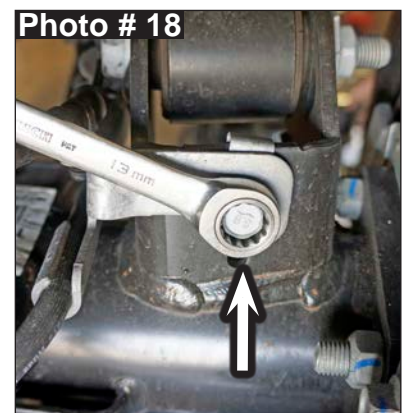
Rear Installation:

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

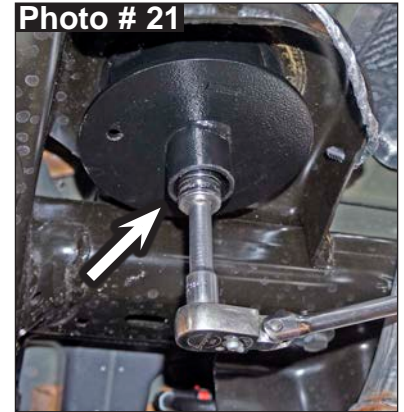
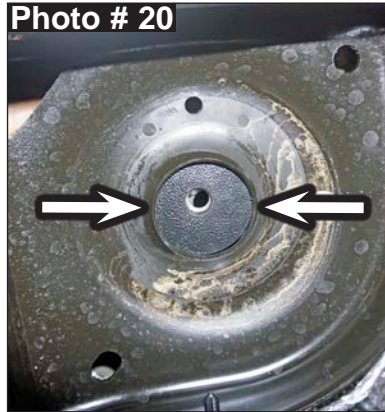
1. Block the front tires \ wheels, raise the rear of the vehicle, support the frame rails, & rear differential using jack stands.
2. Remove the rear tires \ wheels using a 22mm socket. (See Photo # 14)
3. Remove the OEM rear sway bar end links using a 6mm hex key socket / wrench & 18mm socket \ wrench. (See Photo # 15)
4. Install the OEM rear sway bar end links to the front of the vehicle using the OEM hardware saved from Front Step # 5. Use a 6mm hex key socket / wrench & a 18mm socket \ wrench. (See Photo # 3)
5. Disconnect the OEM rear track bar from the frame using a 21mm socket \ wrench. (See Photo # 16)
6. Disconnect the OEM rear shocks from the rear differential using a 18mm socket \ wrench. (See Photo # 17)



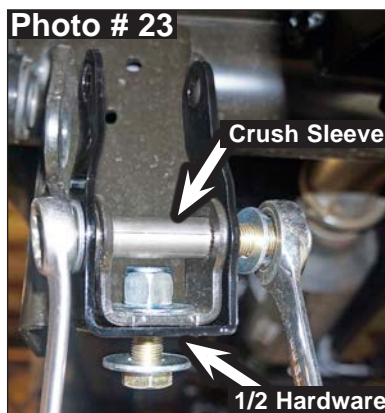
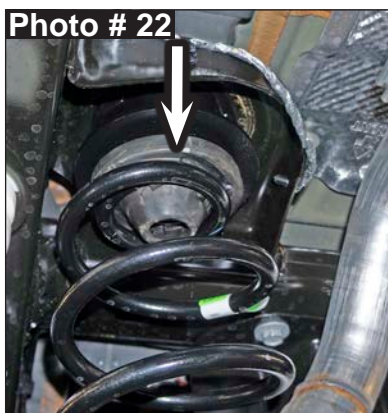
7. Disconnect the OEM rear brake line brackets from the rear differential using a 13mm socket \ wrench. (See Photo # 18)
8. While checking for appropriate slack in ABS lines, brake lines, differential vent hose, & etc. Lower the rear differential & remove the OEM rear coil springs & OEM rear coil spring isolators.



9. Install the Skyjacker # JK20RBS-S Rear Bump Stop Spacers to the OEM rear bump stop pads using the supplied 5/16" x 1" bolts, 5/16" washers, 5/16" nuts & 1/2" wrenches. (See Photo # 19)
10. Install the Skyjacker # JL25RMS-WASH Rear Coil Spring Spacer Washers on top of the OEM upper coil spring mounts. (See Photo # 20)
11. Install the Skyjacker # JL25RMS-S Rear Coil Spring Spacers using the supplied 1/2" x 2-1/2" coarse thread bolts & a 3/4" socket \ wrench. (See Photo # 21)



12. Install the OEM rear coil spring isolators & OEM rear coil springs. (See Photo # 22)
Note: Be sure when installing the OEM rear coil spring isolators that the tab of each OEM rear upper coil spring isolator aligns with the hole of each new rear coil spring spacer.
13. Install the Skyjacker # JL25SER-S Rear Lower Shock Extension Brackets to the OEM rear lower shock mounts with the upper mounting holes offset towards the front of the vehicle using the supplied 1/2" x 1-1/4" fine thread bolts, 1/2" USS washers, crush sleeves, 1/2" x 3-1/2" fine thread bolts, 1/2" SAE washers, 1/2" fine thread nuts & a 3/4" socket \ wrench. (See Photo # 23)
14. Raise the rear differential in order to load the OEM rear coil springs & connect the OEM rear shocks to the Skyjacker rear lower shock extension brackets using the OEM hardware & a 18mm socket \ wrench. (See Photo # 24)



15. Connect the OEM rear brake line brackets to the rear differential using the OEM hardware & a 13mm socket \ wrench. (See Photo # 18)

16. Coat with a water resistant grease and press the # 141509 steel sleeves into the upper and lower mounts of the Skyjacker # SBE4058-L Rear Sway Bar End Links.

Install the Skyjacker # SBE4058-L Rear Sway Bar End Links using the supplied steel sleeves, 12mm x 65mm button head bolts, 7/16" USS washers, 12mm nuts, OEM hardware, a 5/16" hex key socket \wrench, & 18mm socket \wrench. (See Photo # 25)

Note: Install the new upper end link button head bolts from the outside of the vehicle inward & the OEM lower bolts with the large washer to the bushing side of the new rear sway bar end links.



17. Install the rear tires \wheels using a 22mm socket & lower the rear of the vehicle to the ground. (See Photo # 14)

18. Connect the OEM rear track bar to the frame using the OEM hardware & a 21mm socket \wrench. (See Photo # 16)

Final Notes:

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

TORQUE SPECIFICATIONS					
Bolt Size	INCH SYSTEM		Bolt Size	METRIC SYSTEM	
	Grade 5	Grade 8		Class 8.8	Class 10.9
5/16	15 FT LB	20 FT LB	6MM	5 FT LB	9 FT LB
3/8	30 FT LB	35 FT LB	8MM	18 FT LB	23 FT LB
7/16	45 FT LB	60 FT LB	10MM	32 FT LB	45 FT LB
1/2	65 FT LB	90 FT LB	12MM	55 FT LB	75 FT LB
9/16	95 FT LB	130 FT LB	14MM	85 FT LB	120 FT LB
5/8	135 FT LB	175 FT LB	16MM	130 FT LB	165 FT LB
3/4	185 FT LB	280 FT LB	18MM	170 FT LB	240 FT LB

The above specifications are not to be used when the bolt is being installed with a bushing.

Seat Belts Save Lives, Please Wear Your Seat Belt.

As of February 21, 2018 Skyjacker is proud to have passed the rigorous FMVSS No.126 testing requirements on all Jeep Wrangler JL lift systems.

FMVSS No.126 is the National Highway Traffic Safety Administration (NHTSA) that is established for the Federal Motor Vehicle Safety Standard (FMVSS) No.126 requiring all new passenger vehicles under 10,000 lbs. Gross Vehicle Weight Rating (GVWR) that include an Electronic Stability Control (ESC) system through a series of evasive lane-change maneuvers at highway speeds to ensure the driver can maintain control in critical driving situations.

The main objective behind this mandate is to reduce the risk of rollovers among passenger vehicles. Skyjacker has a number of our lift systems tested to prove compliance with the FMVSS No.126 mandate. These Skyjacker systems are proven to work in harmony with the Electronic Stability Control (ESC) system.

Through SEMA & the Advanced Testing Technology by Link Engineering that involves robotic steering & outrigger equipment Skyjacker has demonstrated compliance with these safety standards.



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