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2020-2022 Subaru Outback 2015-2019 Subaru Outback 2018-2022 Subaru Crosstrek 2" Suspension Lift Installation Instructions

Required Tools List:

- **Metric Hex Key & Sockets \ Wrenches**
(5mm Hex Key & 10mm, 12mm, 14mm, 15mm, 17mm, & 19mm)
- **Wheel Chock**
- **Floor Jack**
- **Safety Glasses**
- **Torque Wrench**
- **Plastic Fastener Removal Tool**
- **Jack Stands**
- **Measuring Tape**
- **Needle Nose Pliers**
- **Paint Marker**



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 information below for future reference.

Driver Side Front: _____

Passenger Side Front: _____

Driver Side Rear: _____

Passenger Side Rear: _____

Important Notes:

- **Outback:** Suspension lift was developed using 255/55R18 tires with OEM 18" x 7" wheels. If wider tires are used, offset wheels will be required.
- NOT Compatible with OEM Lift Equipped Vehicles including Subaru Outback Wilderness Edition.
- **Crosstrek:** Suspension lift was developed using 225/65R17 tires with OEM 17" x 7" wheels. If wider tires are used, offset wheels will be required.
- If Larger Tires (10% More Than the OEM Diameter) Are Installed, Speedometer Recalibration Will Be Necessary. Contact Your Local Subaru 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 # SC1820MS | SO2020MS

Item #	Description	Qty
S2020FMS-D	FRONT STRUT SPACER, DRIVER	1
S2020FMS-P	FRONT STRUT SPACER, PASS.	1
S2020RMS-S	REAR STRUT SPACER	2

Item #	Description	Qty
HB-SO2020MS	HDWR BAG: SO2020MS	1
I-SO2020MS	INST SHEET: SO2020MS	1

Hardware Bag Breakdown:

Part # HB-SO2020MS

Item #	Description	Qty
6MMX20MMB	6MM X 20MM METRIC BOLT	1
6MMFW	6MM METRIC FLAT WASHER	2
6MMN	6MM NYLON LOCK NUT	1
10MMX1.5NFN	10MM NYLON FLANGE NUT	10
12X30MMB	12MM X 30MM METRIC BOLT	2
12SAEW	1/2 SAE WASHER	4

Item #	Description	Qty
12MMN	12MM NYLON LOCK NUT	2
LT100	THREAD LOCKING COMPOUND	1
SO2020HLB-S	ADAPTIVE HEADLIGHT BRACKET	1
SO2020SBB-S	FRONT SWAY BAR BRACKET	2
SO2020SBW-S	FRONT END LINK SPACER	2

Component Box Breakdown:

Part # SO1520MS

Item #	Description	Qty
S2020FMS-D	FRONT STRUT SPACER, DRIVER	1
S2020FMS-P	FRONT STRUT SPACER, PASS.	1
S2020RMS-S	REAR STRUT SPACER	2

Item #	Description	Qty
HB-SO1520MS	HDWR BAG: SO2020MS	1
I-SO2020MS	INST SHEET: SO2020MS	1

Hardware Bag Breakdown:

Part # HB-SO1520MS

Item #	Description	Qty
8MMX25FSB	8MM X 25MM FLAT SOCKET BOLT	4
10MMX1.5NFN	10MM NYLON FLANGE NUT	10
12X30MMB	12MM X 30MM METRIC BOLT	2
12SAEW	1/2 SAE WASHER	4
12MMN	12MM NYLON LOCK NUT	2

Item #	Description	Qty
LT100	THREAD LOCKING COMPOUND	1
SO1520SBB-S	REAR SWAY BAR BRACKET	2
SO2020SBB-S	FRONT SWAY BAR BRACKET	2
SO2020SBW-S	FRONT END LINK SPACER	2

Front Installation:

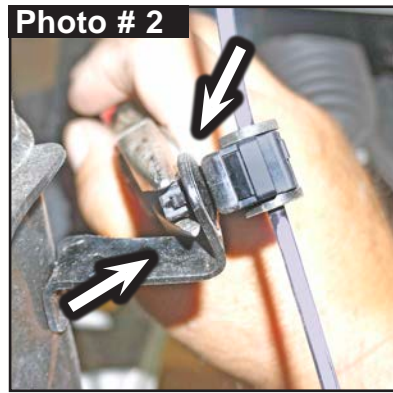
Note: Save all factory components and hardware for reuse, unless noted.

1. Open hood and set prop rod. 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. While supporting OEM front lower control arms, remove front tires \ wheels using a 19mm socket.
4. Disconnect OEM sway bar end link from OEM strut using a 17mm socket. (See Photo # 1) **Tech Note:** For easier installation later, disconnect driver & passenger side sway bar links at this time.

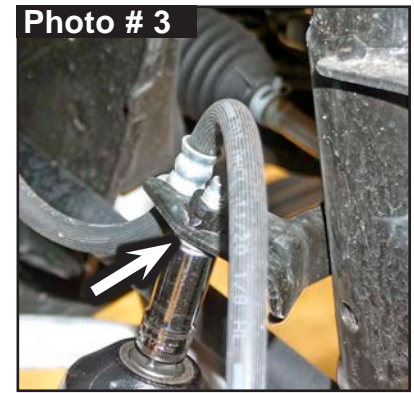


Note: Perform Steps 5-14 on One Side At A Time. Complete Steps on One Side, THEN Go to Opposite Side & Repeat Steps.

5. Disconnect OEM ABS line from OEM strut using needle nose pliers or plastic fastener removal tool. (See Photo # 2)



6. Disconnect OEM brake line from OEM strut using a 12mm socket \ wrench. (See Photo # 3)



Note: Routing position of OEM brake line to bracket.

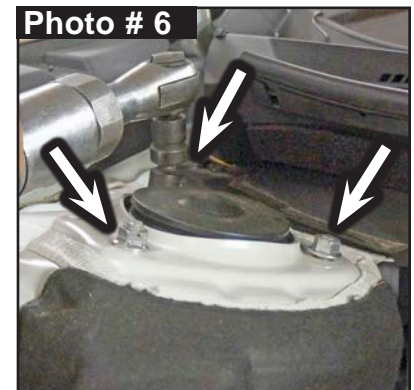
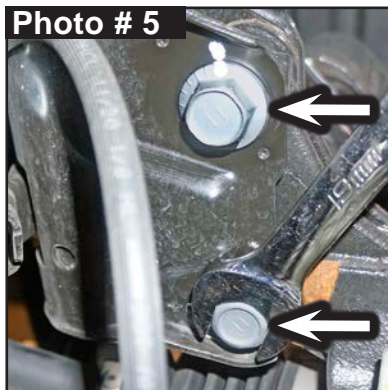
7. Mark location of OEM strut-to-knuckle upper cam bolt. **Note:** Installed direction of OEM upper cam bolt & lower standard bolt at OEM strut body. (See Photo # 4)

8. Support OEM lower control arm with a jack. Remove OEM strut-to-knuckle bolts using a 14mm socket \ wrench & 19mm socket \ wrench. (See Photos # 5)

Ease knuckle outward to rest back away from front strut assembly.

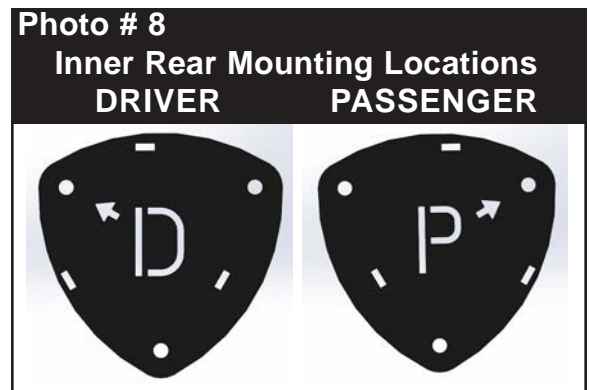
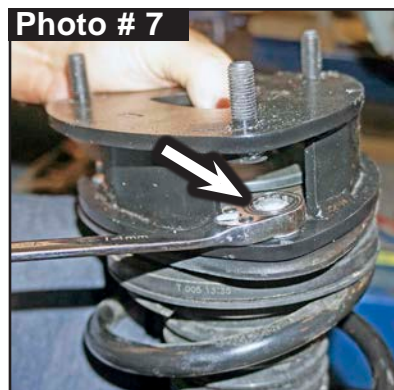
Note: Do Not Overextend CV Axle Shaft, ABS Line, Brake Line, etc.

9. Remove three (3) OEM upper strut mounting nuts using a 14mm socket \ wrench. (See Photo # 6) Remove strut assembly. **Tech Note:** A helping hand is recommended to keep strut assembly from falling and to prevent overextending ABS line, brake line, and CV axle.

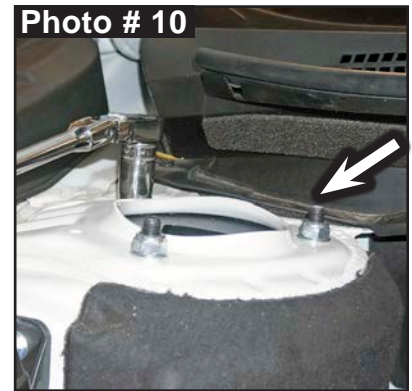


10. Apply supplied thread locking compound to OEM strut mount bolts. Install Skyjacker Strut Spacers on top of OEM strut assembly using OEM nuts & a 14mm wrench. (See Photo # 7)

Note: Skyjacker Upper Strut Spacers are Side Specific: # S2020FMS-D Driver & # S2020FMS-P Passenger. "D" labeled spacer is for Driver side & "P" labeled spacer is for Passenger side of vehicle. Each Strut Spacers is to be installed with arrow pointing to Inner Rear Mounting Location. (See Photos # 8 & # 9)



11. Install Skyjacker \ OEM strut assembly at top mount using supplied 10mm flange nuts & a 15mm socket \ wrench. (See Photos # 10) Secure hardware, but leave loose at this time. **Tech Note:** A helping hand is recommended.



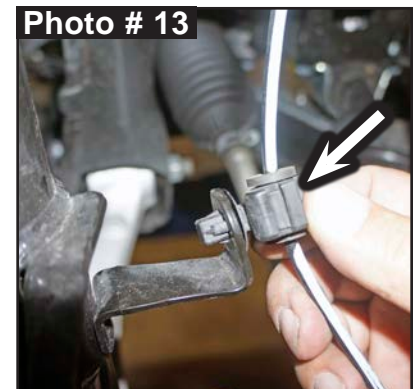
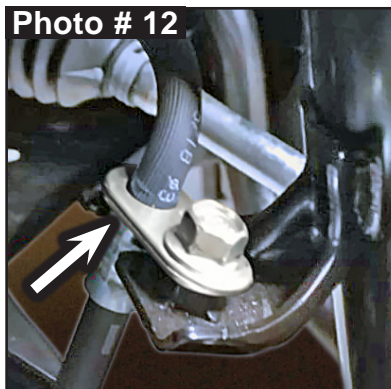
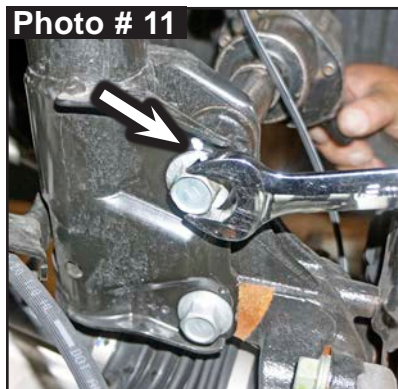
12. Lift OEM knuckle and attach Skyjacker \ OEM strut assembly using OEM lower hardware, a 14mm & 19mm socket \ wrench. (See Photos # 11) Torque both bolts to 95 ft.\ lb.

Note: Install cam bolt in upper location & standard bolt in lower position. Realign marks on cam bolt position in Step # 7. (See Photos # 4) Final adjustment to be set by alignment tech.

13. Rotate OEM brake line & bracket to twist brake line as shown. Attach to Top of OEM strut bracket using OEM hardware & a 12mm socket \ wrench. (See Photo # 12)

Note: Rotate brake line ferrule inward toward back of strut. Torque to 5 ft.\ lb.

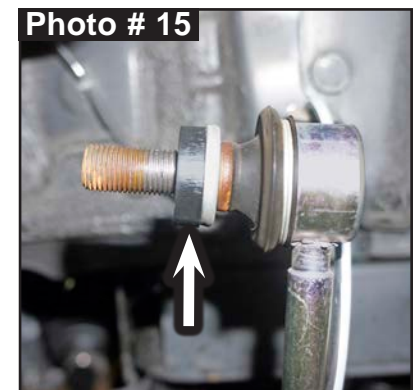
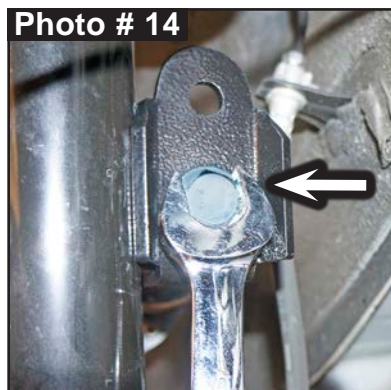
14. Connect OEM ABS lines to OEM strut. (See Photo # 13)



Note: Perform Steps 5-14 on Opposite Side At This Time.

15. Install Skyjacker # SO2020SBB-S Sway Bar End Link Brackets to OEM struts using supplied 12mm x 30mm Bolt with 1/2" SAE Washer on outside and a 1/2" SAE Washer and a 12mm Nylon Insert Nut on inside using a 19mm socket \ wrench. (See Photo # 14) Torque to 48 ft.\ lb.

16. Connect OEM sway bar end link to Skyjacker Sway Bar End Link Bracket using supplied # SO2020SBW-S End Link Spacers, OEM hardware & a 17mm socket \ wrench. (See Photo # 15) Secure hardware, but leave loose at this time.



17. Install front tires \ wheels using a 19mm socket & lower front of vehicle to ground. Torque to wheel manufacturer's specifications.

18. Jounce vehicle a couple of times. This will help suspension settle to new ride height. Torque Skyjacker \ OEM strut upper mount using a 15mm socket \ wrench to 30 ft.\ lb. Torque both OEM sway bar end links to Skyjacker Sway Bar End Link Bracket to 45 ft.\ lb.

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. Lift and remove OEM spare tire cover and both side panels covering rear upper OEM strut hardware. (See Photo # 16) **Tech Note:** On some models, it may be necessary to remove foam tool holders with a plastic fastener removal tool. Remove rear strut tower covers by pulling up at trunk area, then pushing down at cover.
3. While supporting OEM rear lower control arms, remove rear tires \ wheels using a 19mm socket.



4. Remove two (2) OEM upper strut mounting nuts using a 14mm socket \ wrench. (See Photo # 17)

Tech Note: For easier installation later, disconnect driver & passenger side at this time.

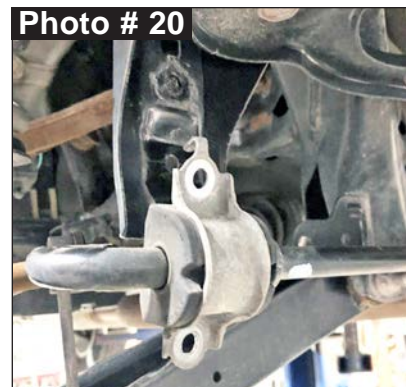
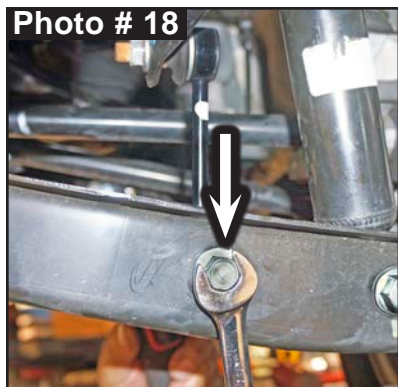
5. If equipped with auto aiming headlight feature (Subaru Eyesight Monitors), disconnect OEM adaptive headlight end link & bracket from OEM rear lower control arm. **Note:** Bracket & link are on driver side inward of sway bar end link mount.
6. Support OEM lower control arm with a jack. Disconnect OEM sway bar end link from OEM rear lower control arm using a 14mm socket \ wrench. (See Photo # 18) Remove OEM hardware.



Outback 2020-22 Models & Crosstrek 2018-2022 Models Proceed to Step 8:

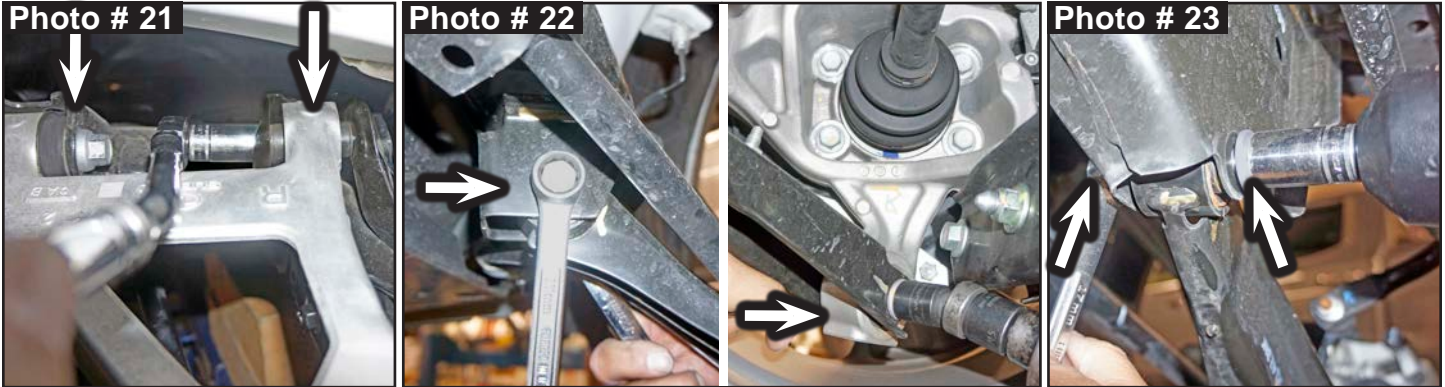
7. **Outback 2015-19 Models:** Disconnect both OEM sway bar mounting brackets from sub-frame using a 12mm socket \ wrench. (See Photo # 19 & # 20)

Tech Note: Let sway bar hang from end links rearward out of way.

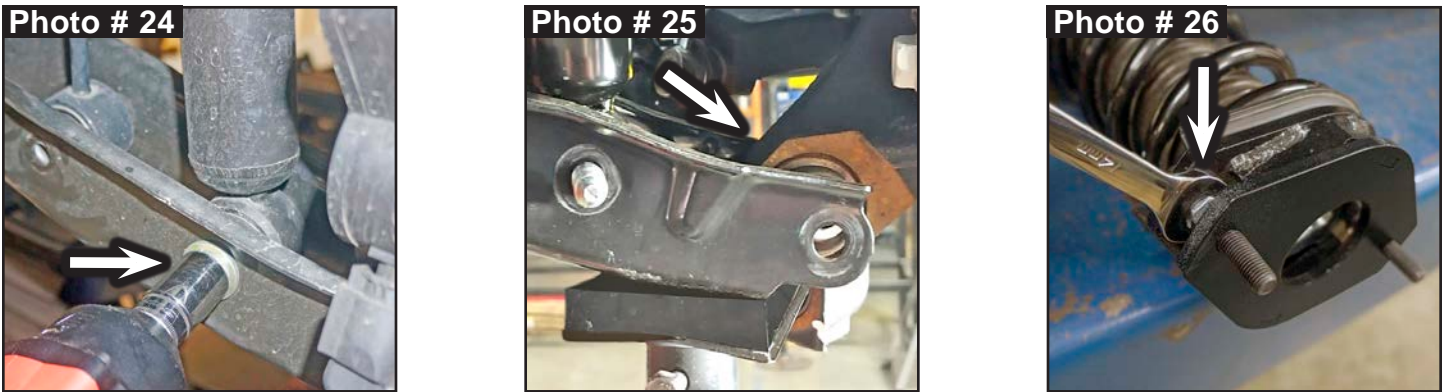


Note: Perform Steps 8-17 on One Side At A Time. Complete Steps on One Side, THEN Go to Opposite Side & Repeat Steps.

- Loosen, but do not remove OEM upper control arm bolts using a 17mm socket \ wrench. (See Photo # 21)
- Loosen, but do not remove OEM rear lower control arm in forward position using a 17mm socket \ wrench. (See Photo # 22) Loosen both frame and knuckle mounting points.
- Loosen, but do not remove OEM rear lower control arm in rearward position at sub-frame using a 17mm socket \ wrench. (See Photo # 23)



- Loosen, but do not remove OEM lower strut to rear lower control arm using a 17mm socket \ wrench. (See Photos # 24)
- Support strut and lower control arm with a jack. Remove rear lower control arm knuckle bolt using a 17mm socket \ wrench. Lower control arm down, while securing strut. Remove OEM strut hardware then complete assembly. (See Photos # 25)
Tech Note: A helping hand is recommended.
- Install Skyjacker # S2020RMS-S Upper Strut Spacers on top of OEM strut assemblies using OEM hardware, supplied thread locking compound & a 14mm wrench. (See Photo # 26)



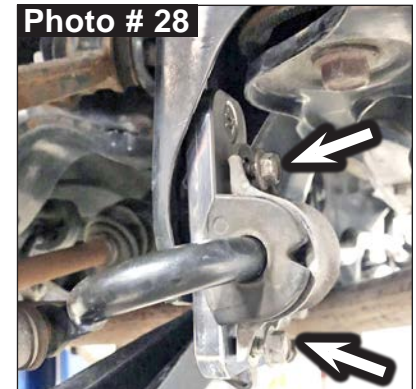
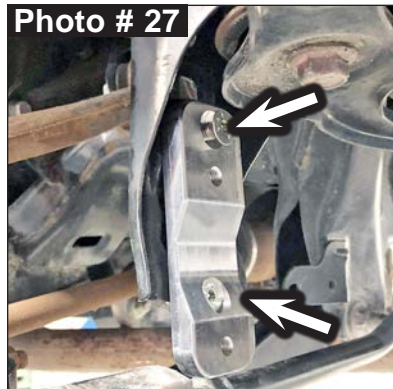
- Install Skyjacker \ OEM strut assembly at upper mount using supplied 10mm flange nuts & a 15mm socket \ wrench. Attach lower mount using OEM hardware & 17mm socket \ wrench. (See Photos # 17 & # 24)
- Connect OEM rear lower control arm to knuckle using OEM hardware & a 17mm socket \ wrench. (See Photos # 25)
- Tighten both frame and knuckle mounting points on OEM rear lower control arm in forward position using OEM hardware & a 17mm socket \ wrench. (See Photo # 22)

17. Tighten OEM upper control arm using a 17mm socket \ wrench. (See Photo # 21)

Note: Perform Steps 8-17 on Opposite Side At This Time.

Outback 2020-22 Models & Crosstrek 2018-2022 Models Proceed to Step 19:

18. **Outback 2015-19 Models:** Install Skyjacker # SO1520SBB-S Rear Sway Bar Bracket into OEM position on sub-frame. Align two (2) taper holes of Skyjacker bracket with OEM mounting holes. Install using supplied 8mm X 25mm Flat Socket Bolts & a 5mm Hex Key. (See Photos # 27) Torque to 25 ft.\ lb.



Connect OEM sway bar mounting bracket to Skyjacker bracket using OEM bolts & a 12mm socket \ wrench. (See Photos # 28) Torque to 25 ft.\ lb.

19. Connect OEM sway bar end links to OEM rear lower control arms using OEM hardware & a 14mm socket \ wrench. (See Photo # 18)
20. If equipped, install Skyjacker # SO2020HLB-S Adaptive Headlight Bracket to OEM rear lower control arm supplied 6mm x 20mm Bolt with 6mm Flat Washer on outside and a 6mm Flat Washer and a 6mm Nylon Insert Nut on inside using a 10mm socket \ wrench.
Connect OEM adaptive headlight end link to Skyjacker # SO2020HLB-S Adaptive Headlight Bracket using OEM hardware.
21. Install rear tires \ wheels using a 19mm socket & lower rear of vehicle to ground. Torque to wheel manufacturer's specifications.
22. Start vehicle. Make sure there are no dash lights pertaining to suspension.
23. Jounce vehicle a couple of times and/or roll vehicle forward and backward while tapping brakes to help suspension settle to new ride height.
24. Torque Skyjacker \ OEM strut assembly at upper mount using a 15mm socket to 30 ft.\ lb. (See Photo # 17) Install OEM strut interior panels and foam tool holders using OEM plastic push clips. (See Photo # 16)
25. Torque Skyjacker \ OEM strut assembly at lower mount using a 17mm socket to 95 ft.\ lb. (See Photo # 24)
26. Torque OEM upper control arm using a 17mm socket to 95 ft.\ lb. (See Photo # 21)
27. Torque both OEM rear lower control arm frame and knuckle mounting points using a 17mm socket to 95 ft.\ lb. (See Photo # 22)
28. Torque OEM rear lower control arm in rearward position at sub-frame using a 17mm socket to 95 ft.\ lb. (See Photo # 23)
29. Torque OEM sway bar end link rear lower control arm using a 14mm socket to 45 ft.\ lb. (See Photo # 18)

Final Notes:

- After installation is complete, double check that all nuts & bolts are tight. Refer to following chart for proper torque specifications. (**Note:** 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					
<u>INCH SYSTEM</u>			<u>METRIC SYSTEM</u>		
Bolt Size	Grade 5	Grade 8	Bolt Size	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 bolt is being installed with a bushing.

Seat Belts Save Lives, Please Wear Your Seat Belt.