

SKYJACKER

SUSPENSIONS

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2005 > Ford F250 Super Duty 4WD
2005 > Ford F350 Super Duty 4WD
F768FLS 6"- 8.5"

Front Coilover Kit Installation Instructions

Required Tools List:

- SAE Sockets \ Wrenches
(5/16", 1/2", 5/8", 3/4", 1-1/16", & 1-3/16")
- Metric Sockets \ Wrenches
(5.5mm, 10mm, 13mm, 18mm, 21mm, 22mm, 24mm, 27mm, & 30mm)
- Plastic Fastener Removal Tool
- Standard Screwdriver
- T30 Torx Wrench
- Power Drill
- Reciprocating Saw
- Ball Peen Hammer
- Safety Glasses
- Wheel Chock
- Measuring Tape
- Drill Bit (7/16")
- Power Grinder
- Center Punch
- Jack Stands
- Floor Jack
- Torque 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.

Please Record Important Measurement Information Below for Reference.

It Is Very Helpful on Determining an Accurate Achieved Lift Height Measurement.

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.

Driver Side Front: _____ / _____
BEFORE / AFTER

Passenger Side Front: _____ / _____
BEFORE / AFTER

Driver Side Rear: _____ / _____
BEFORE / AFTER

Passenger Side Rear: _____ / _____
BEFORE / AFTER

Important Notes:

- This Suspension Lift is NOT Designed to Fit Following Models:
 - Models Equipped with TREMOR Trim Package Will Achieve Less Lift.
 - Does NOT Fit Models Equipped with On-Board Scales \ Smart Hitch Option.
 - Does NOT Fit Models Equipped with LED Projector Headlights \ Auto Leveling Headlight Function.
 - Does NOT Fit Models with 4-Inch Rear Axle Tube.
 - Does NOT Fit Dually Models.
- After Installation, a Qualified Alignment Facility Is Required to Align Vehicle to OEM Specifications.
- If Larger Tires (10% More Than OEM Diameter) Are Installed, Speedometer Recalibration Will Be Necessary. Contact Your Local FORD Dealer or an Authorized Skyjacker® Dealer for Details.

- Skyjacker Coilover Shocks Are to Be Used in Conjunction with An Existing 6" or 8.5" Suspension Lift. **Do Not** Install Skyjacker Coilover Shocks on a Vehicle that Does Not Have a Complete 6" or 8.5" Suspension Lift.
- Drag Link Must Be Adjusted to Center Steering Wheel Before Vehicle Is Driven. Failure to Do So Will Cause Computer Errors, Odd Handling Characteristics, & Poor Performance.
- **6" Lift: 2017> Models** - If Front Driveshaft Vibration Occurs, Order Extended Length Dual CV Driveshaft. Part # F17685DS.
- **8.5" Lift: 2017-2022 Models** - If Front Driveshaft Vibration Occurs, Order Extended Length Dual CV Driveshaft. Part # F17685DS
- **8.5" Lift: 2023> Models** - Requires an Extended Length / Extreme Angle Dual CV Front Driveshaft. Options available from JE REEL Driveline.

Component Box Breakdown:

Part # F768FLS

Item #	Description	Qty
SKY252408-PR	COILOVER SHOCK, PAIR, DR & PA	1
3X18X450	SPRING, 3 ID\18 H\450 RATE	2
LSCOWRH-S	SPANNER WRENCH, COILOVER	1

Part # F76FLSB (6" Lift)

Item #	Description	Qty
F54LSUB-D	SHOCK BRKT, UPPER, DR	1
F54LSUB-P	SHOCK BRKT, UPPER, PA	1
F54LSLB-S	SHOCK BRKT, LOWER, DR & PA	2
HB-F768LSUB	HDWR BAG: F76FLSB & F78FLSB	1
HB-F768LSLB	HDWR BAG: F76FLSB & F78FLSB	1
HB-F17ABS	HDWR BAG: F17ABS BRACKET	1

Part # F78FLSB (8" Lift)

Item #	Description	Qty
F54LSUB-D	SHOCK BRKT, UPPER, DR	1
F54LSUB-P	SHOCK BRKT, UPPER, PA	1
F58LSLB-S	SHOCK BRKT, LOWER, DR & PA	2
HB-F768LSUB	HDWR BAG: F76FLSB & F78FLSB	1
HB-F768LSLB	HDWR BAG: F76FLSB & F78FLSB	1
HB-F17ABS	HDWR BAG: F17ABS BRACKET	1

Hardware Bag Breakdown:

Part # HB-F768LSUB

Item #	Description	Qty
12X3FTB	1/2 X 3 FINE THREAD BOLT	2
12SAEW	1/2 SAE WASHER	4
12FTN	1/2 FINE THREAD N/I LOCK NUT	2
716X112FTB	7/16 X 1-1/2 FINE THREAD BOLT	6
716SAEW	7/16 SAE WASHER	12
716FTN	7/16 FINE THREAD N/I LOCK NUT	6

Part # HB-F768LSLB

Item #	Description	Qty
12X3FTB	1/2 X 3 FINE THREAD BOLT	2
12SAEW	1/2 SAE WASHER	4
12FTN	1/2 FINE THREAD N/I LOCK NUT	2
14X30MMB	14MM X 30MM METRIC BOLT	2
516X1FTB	5/16 X 1 FINE THREAD BOLT	2
516SAEW	5/16 SAE WASHER	4
516FTN	5/16 FINE THREAD N/I LOCK NUT	2
916SAEW	9/16 SAE WASHER	2
LT100	NUTS N' BOLTS 427 1 ML TUBE	1

Part # HB-F17ABS

Item #	Description	Qty
F17ABS-B	FORD S/D ABS MODULE BRKT	1
516X1FTB	5/16 X 1 FINE THREAD BOLT	1
516SAEW	5/16 SAE WASHER	2
516FTN	5/16 FINE THREAD N/I LOCK NUT	1

Note: If Installing Front Coilover Kit as an Upgrade from an Lift Kit with Coil Springs, Proceed to Step 1.

If Installing Front Coilover Kit During a Lift Kit Installation, Proceed to Step 16.

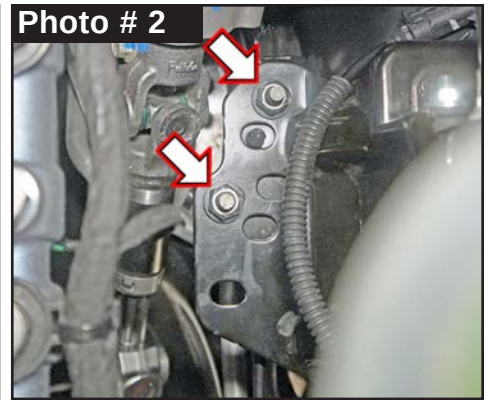
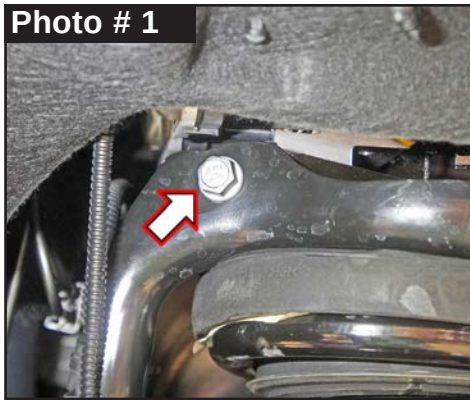
ATTENTION: Parts Shown in Blue are for Picture Clarification Only. Skyjacker Coilover Springs & Metal Brackets Are Powder Coated Black.

Front Installation: **Note:** Save all factory components & hardware for reuse, unless noted.

1. Chock rear tires\wheels. Ensure that vehicle transmission is in PARK & engage emergency brake. **Note:** Be sure steering wheel\wheels are pointing straight forward.

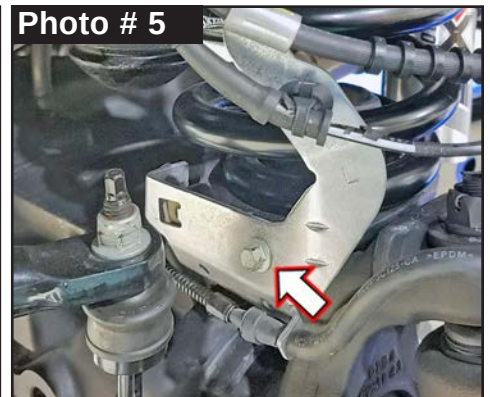
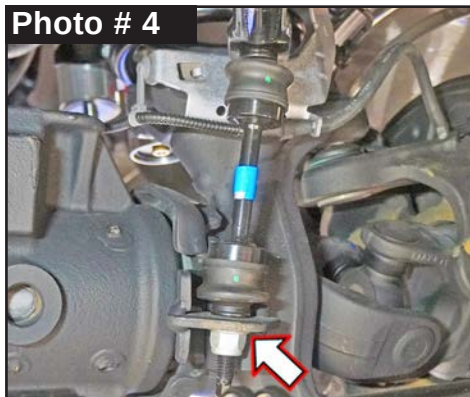
2. **2017> Models** have an OEM ABS Module (Anti-Lock Brake Pump Assembly) attached to driver side coil spring tower & to an inside engine bay mount.

Disconnect OEM ABS module from driver side coil spring tower using a 13mm socket \ wrench. (Photo # 1)

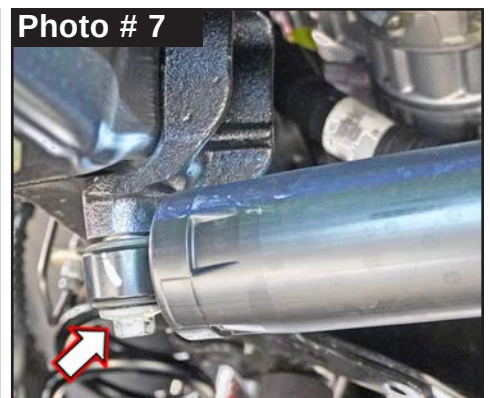
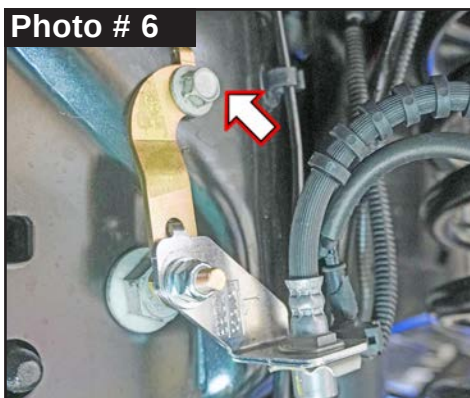


Disconnect OEM ABS module from driver side coil spring tower from inside driver side engine bay. (Photo # 2) (Module is directly above coil spring tower & toward outside of steering shaft). Remove two (2) OEM flange nuts from studs using a 13mm socket \ wrench.

3. Raise front of vehicle, support frame rails using jack stands at indicated lift points in OEM service manual. **Tech Note:** OEM radius arms will need to move freely during this installation.
4. Remove front tires \ wheels using a 21mm socket.
5. In order to gain access to area above driver side OEM upper coil \ shock mount, remove OEM bolts from inner fender liner using a T30 Torx & 5.5mm socket \ wrench. (Photo # 3)
Note: Some models will have plastic clips. Remove using a plastic fastener removal tool.
6. Disconnect OEM front sway bar end links from OEM sway bar at axle mount using an 18mm socket \ wrench. (Photo # 4)
7. Disconnect OEM brake line bracket at axle mount using a 10mm socket \ wrench. (Photo # 5)



8. Disconnect brake line bracket from upper frame mount using a 13mm socket \ wrench. (Photo # 6)
9. Disconnect OEM steering stabilizer from passenger side OEM frame bracket using an 18mm socket \ wrench. (Photo # 7)



10. Disconnect OEM drag link from pitman arm using a 24mm socket \ wrench. (Photo # 8)

Tech Note: Hang drag link up out of way using wire, a hook or bungee.

11. Disconnect OEM track bar from track bar frame mount bracket using a 1-1/16" \ 27mm & 1-3/16" \ 30mm socket \ wrench. (Photo # 9)

12. Position a hydraulic jack under front differential. Raise jack until suspension begins to compress slightly.

Disconnect OEM front shocks at lower mount using an 18mm socket \ wrench. (Photo # 10)

Disconnect OEM front shocks at upper mount using a 21mm socket \ wrench. (Photo # 11)

13. Disconnect OEM axle vacuum line from driver side radius arm using a plastic fastener removal tool. (Photo # 12)
Disconnect OEM axle vent tube from differential mount. (Photo # 12)
Disconnect OEM axle vacuum line from OEM radius arm connector. (Photo # 13)
Disconnect OEM axle vacuum line from upper OEM frame mount. (Photo # 14)

Photo # 8



Photo # 9

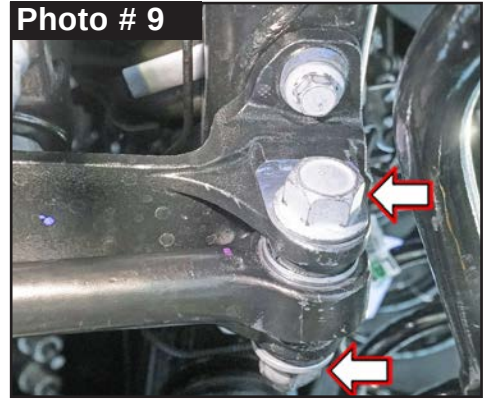


Photo # 10

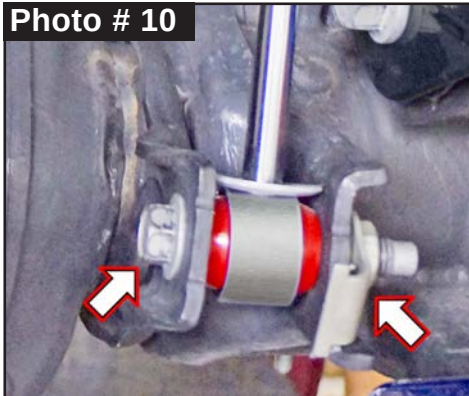


Photo # 11



Photo # 12

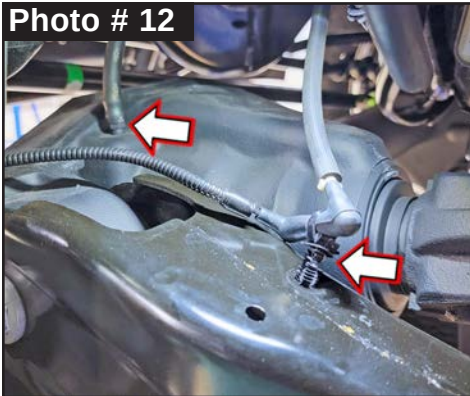


Photo # 13

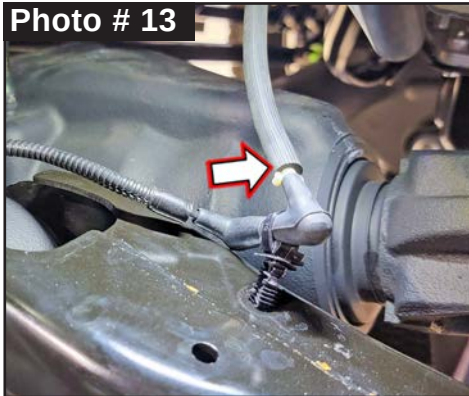
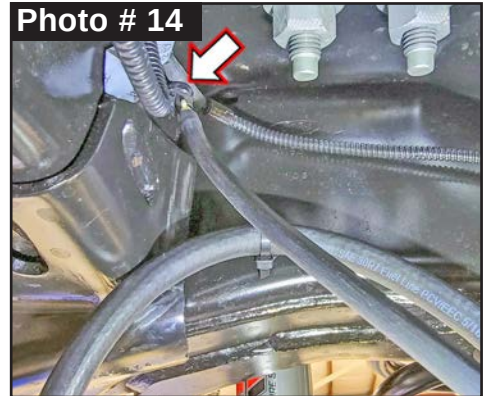


Photo # 14



14. Loosen, but do not remove, OEM radius arm bolts at axle mount using a 24mm & 1-1/16" \ 27mm socket \ wrench. (Photo # 15)

Tech Note: Driver side upper bolt has nut welded to OEM radius arm. Loosen, but do not remove, OEM radius arm at OEM frame bracket using a 24mm socket \ wrench. (Photo # 16)

Photo # 15

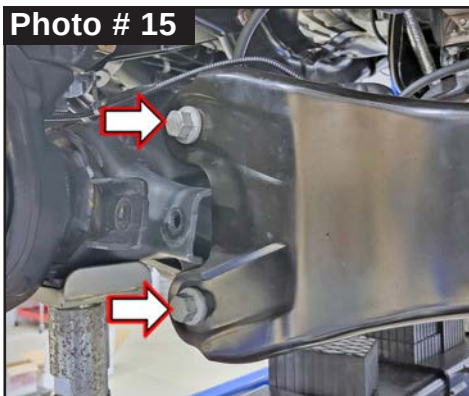
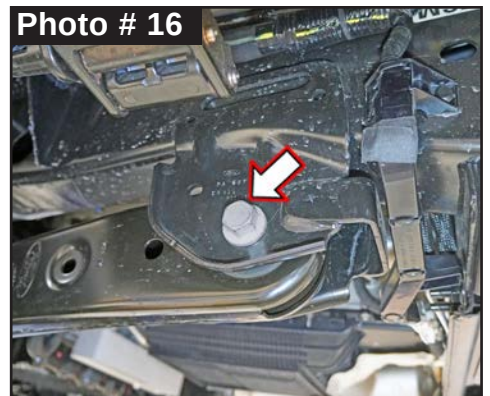


Photo # 16



15. While checking for appropriate slack in axle vacuum lines, ABS lines, brake lines, vent hose, & etc. Lower front differential.

Remove OEM front coil spring & OEM upper rubber isolator pad. (Photo # 17)

Note: Perform Steps 16-26 on One Side at a Time.

16. Locate supplied **Cut Template on Page 11** of this installation instruction booklet. Cut out Upper Coilover Bracket template using 'outside' edge of lines as a guide. Cut out dashed line circle to align with OEM isolator alignment tube.

Tech Note: You are drilling three (3) holes to install Skyjacker Coilover Upper Mounting Bracket to upper coil spring tower.

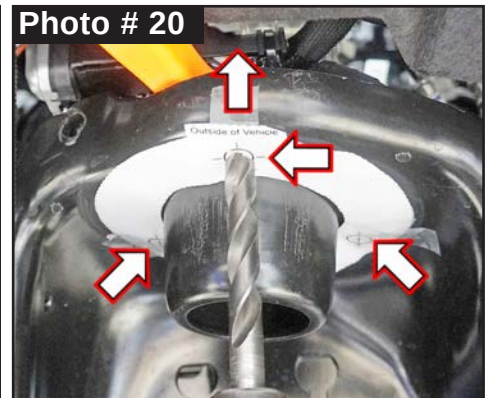
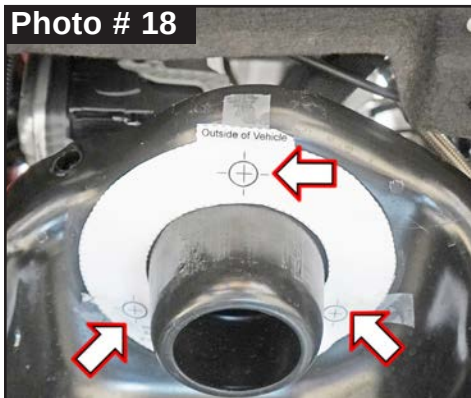
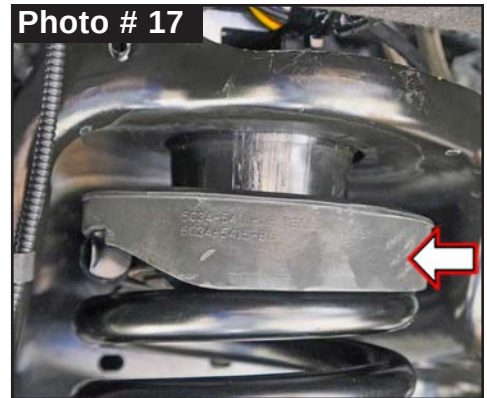
Align template over OEM isolator alignment tube in coil spring tower with flat portion of template to 'Outside of Vehicle'. Use masking tape to hold template into place. (Photo # 18)

Mark three (3) holes to be drilled with a center punch. (Photo # 19)

Using your punched marks as a guide, drill out using a 7/16" drill bit. (Photo # 20)

Tech Note: You may want to first drill out holes with a smaller drill bit to be more precise.

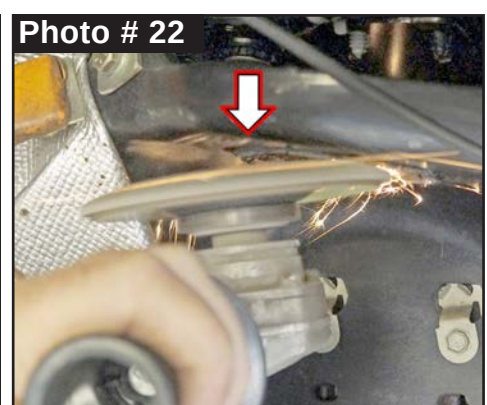
NOTE: Use a screwdriver to separate OEM ABS module & other wiring before you drill. Prior to drilling, make sure of adequate space between OEM coil spring tower, OEM ABS module, any wires, brake lines, fuel lines, hoses, etc that could be damaged.



17. Remove OEM isolator alignment tube using a reciprocating saw or similar cut-off tool. (Photo # 21)

Grind \ file smooth any burrs or sharp edges flush with surface on OEM coil spring tower. (Photo # 22)

Paint or undercoat all exposed metal surface areas.

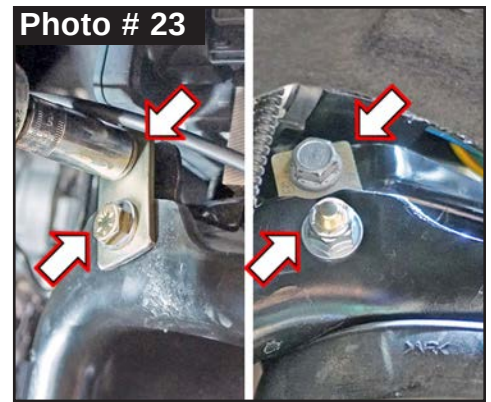


18. Install Skyjacker # F17ABS-B ABS Module Bracket vertically to driver side coil spring tower only with supplied 5/16" x 1" Fine Thread Bolt with 5/16" SAE Washer. (Photo # 23)

Tech Note: Skyjacker Bracket can be mounted inside or outside of coil spring tower.

Attach with & 5/16" SAE Washer with 5/16" Nylon Insert Lock Nut using a 1/2" socket \wrench.

Connect OEM ABS module to Skyjacker ABS bracket with OEM hardware using a 13mm socket \wrench. (Photo # 23)

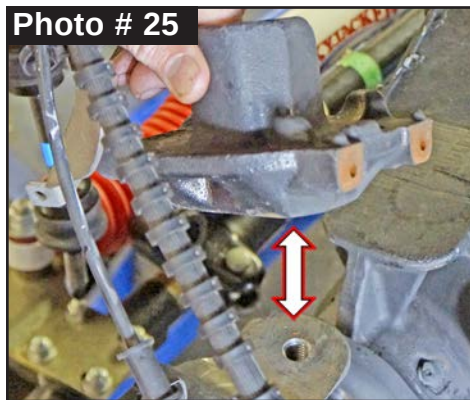
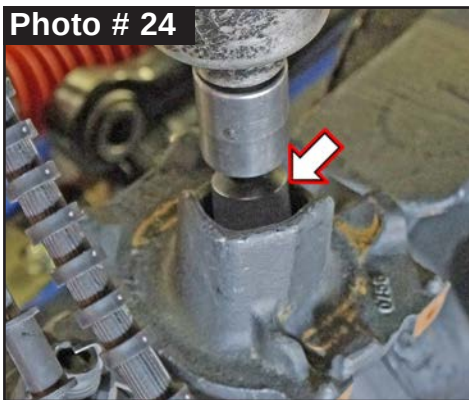


19. **Note:** Skyjacker Lower Coilover Mounting Brackets Are Not Side Specific: **6" Lift:** # F54LSLB-S Driver Side or Passenger Side.
8.5" Lift: # F58LSLB-S Driver Side or Passenger Side.

Remove OEM lower coil spring seat center mounting bolt using an 18mm or 21mm socket. (Photo # 24) Remove OEM lower coil spring seat. (Photo # 25) Clean axle knuckle of all debris.

20. Position Skyjacker Lower Coilover Mounting Bracket (6" # F54LSLB-S or 8.5" # F54LSLB-S) on top of differential knuckle. Be sure Skyjacker bracket aligns with lower contours of differential knuckle.

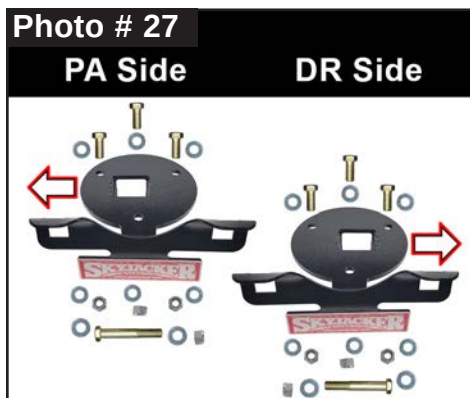
Insert supplied 9/16" SAE Washer over supplied 14mm x 30mm Metric Bolt. (Photo # 26) Apply supplied # LT100 Thread Lock Compound to bolt. Install using a 22mm socket. Torque 85 ft-lbs.



21. **Note:** Skyjacker Upper Coilover Mounting Brackets Are Side Specific: Upper Coilover Mounting Bracket's center cut-out for coilover is offset to rear. (Photo # 27) # F54LSUB-D Driver Side & # F54LSUB-P Passenger Side.

Install appropriate Skyjacker Upper Coilover Mounting Bracket with supplied 7/16" x 1-1/2" Fine Thread Bolt with 7/16" SAE Washer down through OEM coil spring tower & Skyjacker bracket. (Photo # 28)

Attach Skyjacker bracket with supplied 7/16" SAE Washer with 7/16" Nylon Insert Lock Nut using a 5/8" socket \wrench. Torque 60 ft-lbs.



22. Skyjacker Coilover Shocks Are Side Specific: 45-degree fitting to outside with reservoir hose & remote reservoir of coilover goes toward front of vehicle.

Install Skyjacker Coilover Shock into Skyjacker Coilover Bracket with supplied metal shock spacers \bushings on each side of shock eye mount. (Photo # 29)

Insert supplied 1/2" x 3" Fine Thread Bolt with 1/2" SAE Washer from front-to-rear through bracket. Attach with supplied 1/2" SAE Washer & 1/2" Nylon Insert Lock Nut using a 3/4" socket \wrench.

Secure, but **Do Not Completely Tighten** at this time.

23. Install Skyjacker Coilover Shock into Skyjacker Lower Shock Bracket with supplied metal shock spacers \bushings on each side of shock eye mount. (Photos # 30)

Insert supplied 14mm x 30mm Bolt with 9/16" SAE Washers from rear-to-front through bracket & shock mount. Attach with supplied 9/16" SAE Washer & 14mm Nylon Insert Lock Nut using a 22mm socket \wrench.

Secure, but **Do Not Completely Tighten** at this time.

NOTE: If Installing Front Coilover Kit During a Lift Kit Installation, Refer Back to Separate Instruction For Installation of Brake Line Extension Bracket. Then Proceed to Step 25.

24. Connect OEM brake line bracket to Skyjacker Lower Shock Bracket with supplied 5/16" x 1" Fine Thread Bolt with 5/16" SAE Washer from rear-to-front of vehicle. (Photo # 31)

Attach with supplied 5/16" SAE Washer & 5/16" Nylon Insert Lock Nut using a 1/2" socket / wrench. Torque 240 in-lbs.

25. Install OEM inner fender liner with OEM plastic clips & OEM bolts using a T30 Torx & 5.5mm socket \wrench. (Photo # 3)

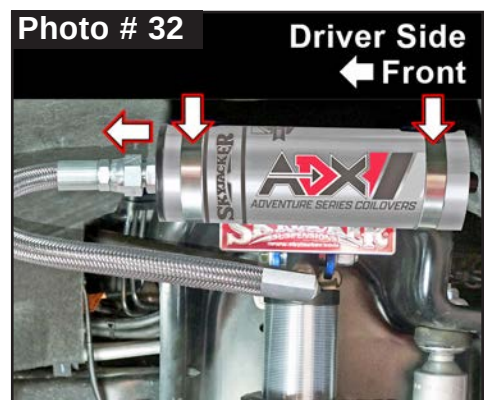
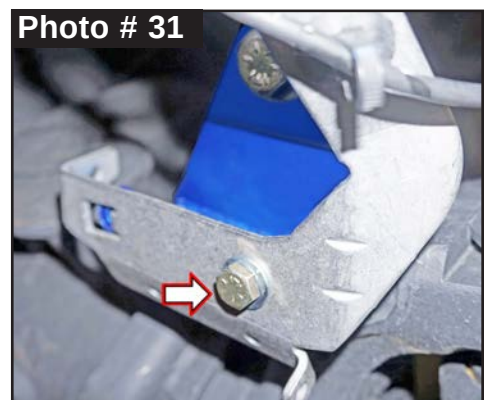
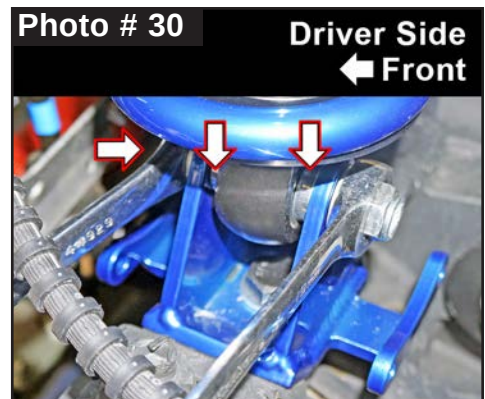
26. Place Skyjacker remote reservoir into cradle of reservoir bracket. To mount properly, make sure reservoir hose makes a smooth loop & is not crimped, nor rubbing or chaffing any surface.

Attach reservoir to bracket with supplied #40 Hose Clamps.

Note: Route clamps around over top of bracket & back through bracket cut-out then around reservoir.

Attach using a standard screwdriver or 5/16" socket \wrench. (Photo # 32) **Tech Note:** You can position or roll hose clamp rearward to hide bolts from view. Torque 180 in-lbs.

Note: Perform Steps 16-26 on Opposite Side Now. Then Proceed to Next Steps.



Note: If Installing Front Coilover Kit as an Upgrade from an Lift Kit with Coil Springs, Proceed to Step 27.

If Installing Front Coilover Kit During a Lift Kit Installation, Proceed to Back to Lift Kit Installation.

27. Connect front shock at upper shock tower mount using an 18mm socket \ wrench. (Photo # 33)

Connect shock at lower axle mount with OEM hardware using a 21mm socket \ wrench. (Photo # 34) Secure, but **Do Not Completely Tighten**.

Photo # 33

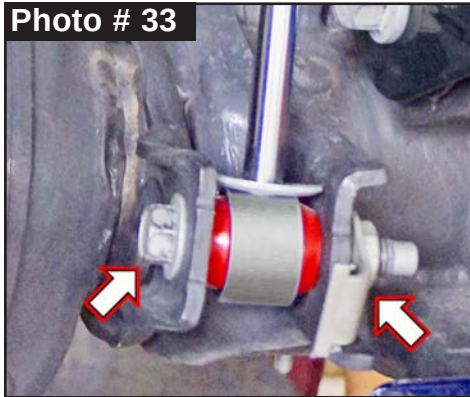


Photo # 34



28. Connect OEM axle vacuum line to upper OEM frame mount. (Photo # 14)
Connect OEM axle vacuum line to OEM radius arm connector. (Photo # 13)
Connect OEM axle vent tube to differential mount. (Photo # 12)
Connect OEM axle vacuum line to driver side radius arm. (Photo # 12)
29. Connect brake line bracket from upper frame mount using a 13mm socket \ wrench. (Photo # 6)
30. Connect OEM steering stabilizer to passenger side OEM frame bracket using an 18mm socket \ wrench. (Photo # 7)
31. Connect OEM front sway bar end links to OEM sway bar at axle mount using an 18mm socket \ wrench. (Photo # 4) Secure, but **Do Not Completely Tighten** at this time.
32. Connect OEM drag link to pitman arm using a 24mm socket \ wrench. (Photo # 8)
33. Install front tires \ wheels using a 21mm socket & lower front of vehicle to ground.
34. Connect OEM track bar from track bar frame mount bracket using a 1-1/16" \ 27mm & 1-3/16" \ 30mm socket \ wrench. (Photo # 9)
35. Connect OEM ABS module mount inside driver side engine bay to OEM studs with two (2) OEM flange nuts using a 13mm socket \ wrench. (Photo # 2)

Adjusting Coilover Lift Height:

Notes: Reference your before & after measurements noted on Page 1 of these instructions.

Raise lift height by compressing Skyjacker Coilover upper coil spring. To raise vehicle height, turn coilover collars down shock body.

1. With vehicle on flat level ground, set emergency brake & chock front tires \ wheels. Raise front of vehicle, support frame rails using jack stands at indicated lift points in OEM service manual.
2. Remove front tires \ wheels using a 21mm socket. Make sure Skyjacker Coilover Shocks are fully extended with as much weight off coil springs as possible.

3. To adjust coilover, first unlock Upper Collar A by turning it left \ clock-wise using # LSCOWRH-S Spanner Wrench. (Photo # 35 & # 36)

Tech Note: Amount of preload \ adjustment does not directly equal amount of lift you will achieve due to weight variances side-to-side (battery, gas tank, or aftermarket modifications, etc.). 1" of preload does not equal 1" of lift height.

Use Spanner Wrench to turn Lower Collar B right \ counter clock-wise to compress upper coil spring down. It does require a physical effort to rotate \ compress coil spring.

4. Once satisfied with your adjustments, spin Upper Collar A down against Lower Collar B. To lock, turn collar B counter-clockwise and collar A clockwise.

5. Install rear tires \ wheels using a 21mm socket. Lower vehicle to ground. Torque lugs to OEM service manual specifications.
6. Jounce vehicle a couple of times and \ or test drive. This will help suspension settle to new ride height. Check height measurements again. Fine tune side-to-side as needed.

Final Notes:

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, coilover shocks, hub vacuum lines, brake hoses, ABS wiring, all electrical plugs, etc.

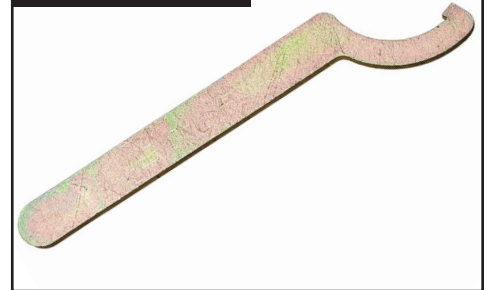
Photo # 35



Photo # 36



LSCOWRH-S



3. Front Tighten & Torque Sequence.

Skyjacker Coilover Shock at Skyjacker Coilover Bracket using a 3/4" socket \ wrench.

Torque 90 ft-lbs.

Skyjacker Coilover Shock at Skyjacker Lower Shock Bracket using a 22mm socket \ wrench.

Torque 120 ft-lbs.

Front shock absorber upper mount using an 18mm socket \ wrench. Torque 32 ft-lbs.

Front shock absorber lower mount using a 21mm socket \ wrench. Torque 65 ft-lbs.

Track bar to Skyjacker bracket using a 1-1/16" \ 27mm & 1-3/16" \ 30mm socket \ wrench.

Torque 250 ft-lbs.

Sway bar end link to sway bar using an 18mm socket \ wrench. Torque 35 ft-lbs.

OEM radius arm to OEM axle mount using a 24mm & 1-1/16" \ 27mm socket \ wrench.

Torque 222 ft-lbs.

OEM radius arm to Skyjacker Radius Arm Bracket using a 24mm socket \ wrench.

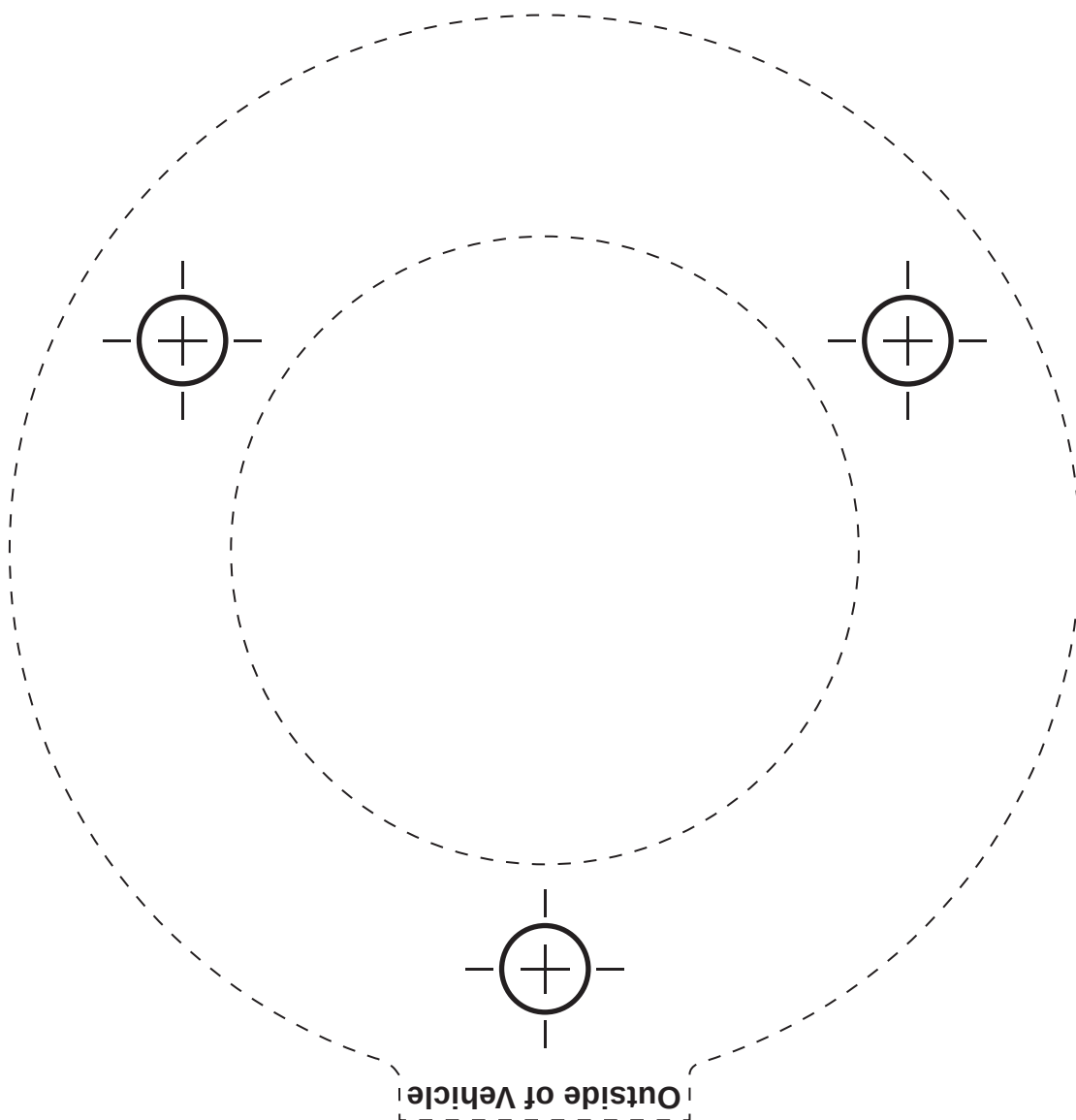
Torque 222 ft-lbs.

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					
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
Above Specifications Are Not to Be Used When Bolt Is Being Installed With a Bushing.					

Seat Belts Save Lives, Please Wear Your Seat Belt.



Cut out Upper Coilover Bracket template using 'outside' edge of lines as a guide.

Cut out dashed line circle to align with OEM isolator alignment tube.

Center Punch Three (3) Alignment Holes.

Drill Out Center Punched Holes Using a 7/16" Drill Bit.

