



EVO Manufacturing

2.5"/4.5"/6.5" Jeep Wrangler JT Gladiator 2018+

Enforcer Kit Instruction Manual

For all: EVO-3060, EVO-3061, EVO-3062, EVO-3063, EVO-3064, EVO-3065 Kits





Before starting installation procedure please read <http://evomfg.com>Returns-Warranties-Shipping>

CAREFULLY READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND KEEP FOR FUTURE REFERENCE. IF YOU HAVE ANY QUESTIONS ABOUT THE PRODUCT CALL EVO MANUFACTURING. FAILURE TO FOLLOW GUIDELINES COULD RESULT IN MALFUNCTION OF PARTS OR INJURY. PLEASE HAVE A TRAINED PROFESSIONAL ASSIST WITH OR INSTALL ALL PRODUCTS. INSTALLING EVO MFG PRODUCTS OR KITS DEMANDS SPECIFIC KNOWLEDGE, TOOLS AND EXPERIENCE. GENERAL KNOWLEDGE OF HOW TO USE LATER SPECIFIED TOOLS AND/OR LIMITED EXPERIENCE WITH EVO MFG PRODUCTS MAY NOT BE ENOUGH TO PROPERLY COMPLETE THESE TASKS. SOME OF EVO MFG PRODUCTS MAY REQUIRE TWO OR MORE PEOPLE TO INSTALL SAFELY AND CORRECTLY. DO NOT ATTEMPT ALONE, ALWAYS ENLIST THE HELP OF TRAINED PROFESSIONAL WHEN NEEDED.

READ BEFORE INSTALL:

After alignment is complete and no additional adjusts are to be made to control arms. Torque all 1" Jam Nuts to 250 ft/lbs and all 1-1/4" Jam Nuts torque to 300 ft/lbs. Regularly check all jam nuts and punch bolts on all Enforcer control arms for proper torque/tightness. Failure to do so may cause premature wear of threads on arms.

- For Overland Kits ONLY, Minor grinding/clearance of oe frame upper link bracket may be needed.
- 2.5" JT Enforcer/Enforcer Overland kits with either EVO shock extension kit or shocks 28 7/8" extended or less do not require driveshafts.
- All models will require wheels spacers or aftermarket wheels with 5" or smaller number backspacing.
- All factory bolts should be tightened to factory specifications.
- All supplied bolts torqued according to chart at end of instruction.
- It is recommended all installation be performed by a trained professional.
- Some modification may have to be done in order to fit preferred tire or tire brand/size.
- For the JT Gladiator you will have to remove break lines and install supplied stainless braided lines.
- Loosely install all bracket hardware, do not tighten until all hardware is installed.
- Minor grinding/clearance of oe frame upper link bracket may be needed.
- Loosely install. Only tighten/torque trackbar bolts after vehicle is at ride height under it's own weight. Never tighten when suspension is extended.



Notes: Set Up Before installation

4.5"/6.5" Gladiator Lifts: Front Lower and Rear Upper Adjustable Control Arms and Front & Rear Adjustable Trackbars are required for proper alignment/install. These are included with Stage 3 and Stage 4 "PLUS" Kits

FRONT LOWER JT ENFORCER ARM STARTING LEGNTH CENTER TO CENTER

For 2.5" lift set control arm length to 24 1/8"

For 4.5" lift set control arm length to 24 1/2"

For 6.5" lift set control arm length to 24 3/4"

FRONT UPPER JT ENFORCER ARM STARTING LEGNTH CENTER TO CENTER 20 1/4"

REAR LOWER JT ENFORCER ARM STARTING LEGNTH CENTER TO CENTER 23 3/4"

REAR UPPER JT ENFORCER ARM STARTING LEGNTH CENTER TO CENTER

For 2.5" lift, set upper control arm length to 16 1/2"

For 4.5" lift, set upper control arm length to 16 5/8"

For 6.5" lift, set upper control arm length to 17"

DO NOT exceed 17 1/4"

STARTING LENGTH FOR FRONT TRACK BAR CENTER TO CENTER

For 2.5" lift set track bar to 34 1/4"

For 4.5" lift set track bar to 34 9/16"

For 6.5" lift set track bar to 34 3/4"

Do NOT exceed 35"

STARTING LENGTH FOR REAR TRACKBAR CENTER TO CENTER

For 2.5" lift set track bar to 33 9/16"

For 4.5" lift set track bar to 33 9/16"

For 6.5" lift set track bar to 33 5/8"

Do NOT exceed 35"

ALL measurements stated above are starting points only, every vehicle is different. Professional alignment is recommended.

For all Stage 4 lifts add 3/8" to all control arm measurements stated above. The measurements are starting measurements and not exact measurements for every vehicle, A professional alignment is recommended.

Keep all control arm mounting bolts loose (installed but not torqued) we will torque later at the end of installation

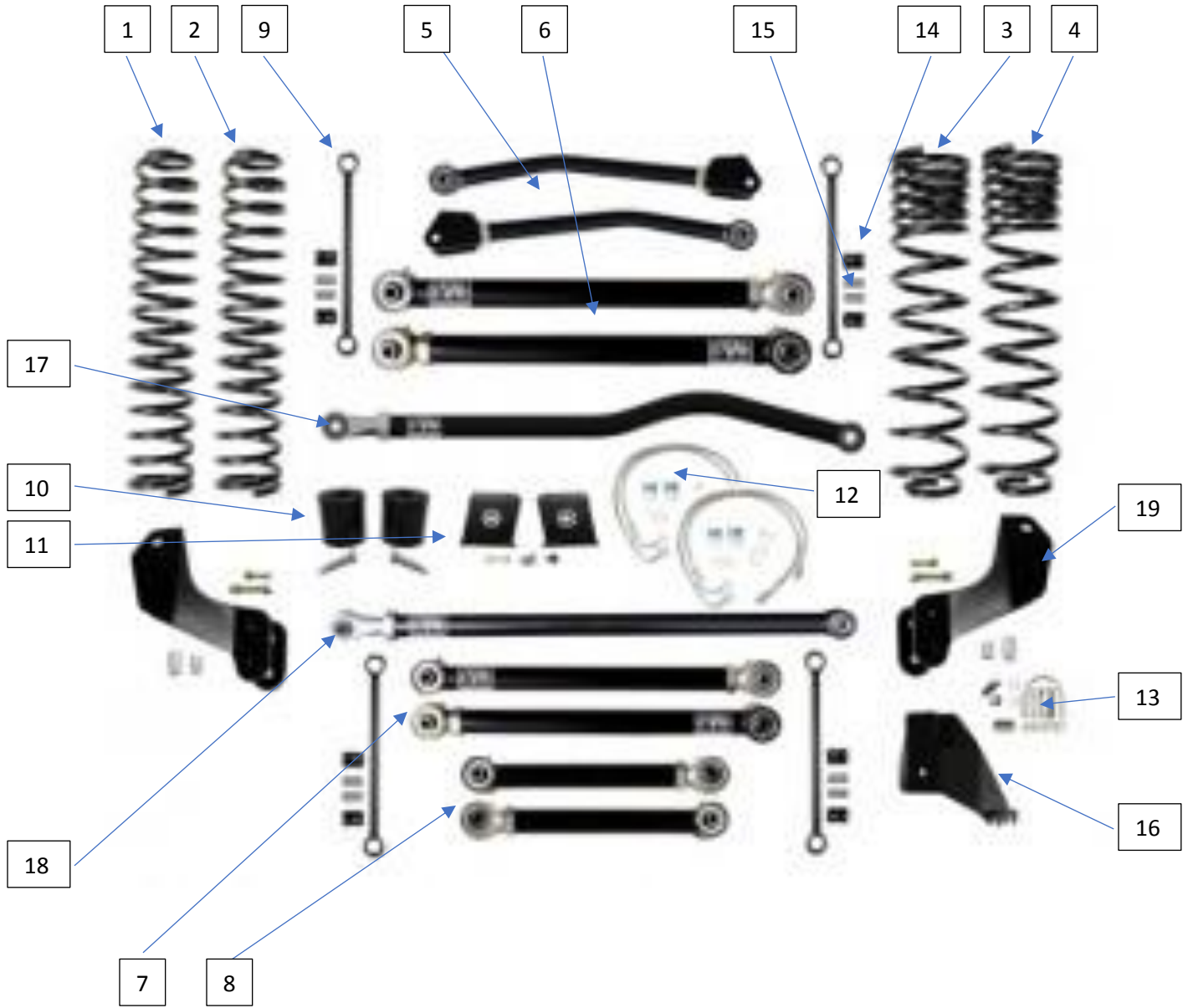
6.5" Gladiator kits may require EVO-3027B Front Shock Relocation kit or similar. It is recommended and not included.

Align to factory specifications. Recommended caster 5 Degrees +/- .5



Parts included: Table below shows Stage 4 Overland PLUS kit, other Stages might not include same components.

Description	#	Part # 2.5" lift	Part # 4.5" lift	Part # 6.5" Lift	Qty
Front Left Coil (Standard/DIESEL-HD)	1	600160 600197	600164 600195	600150 600199	1
Front Right Coil (Standard/DIESEL-HD)	2	600161 600197	600165 600195	600151 600199	1
Rear Left Coil (Standard/DIESEL-HD)	3	600162 600163	600166 600167	600152 600153	1
Rear Right Coil (Standard/DIESEL-HD)	4	600163 600163	600167 600167	600153 600153	1
Front Upper Control Arms D,P	5	EVO-3007B	EVO-3007B	EVO-3007B	1
Front Lower Control Arms D,P	6	EVO-3006B	EVO-3006B	EVO-3006B	1
Rear Lower Control Arms	7	EVO-3082	EVO-3082	EVO-3082	1
Rear Upper Control Arms D,P	8	EVO-3081	EVO-3081	EVO-3081	1
Sway Bar Link fr,rr	9	12029B,12329B	12029B,12329B	12027B,12027RB	2
Front Bump Stop Spacer	10	20039	20005	20005	2
Rear Bump Stop Bracket	11	12418B	12419B	12420B	2
Front/rear Brake Line	12	600132,600170	600132,600170	600132,600170	2
EVO Enforcer Hardware Kit	13	770077	770077	770077	1
Sway Bar Bushings	14	600077	600077	600077	8
Sway Bar Sleeve	15	20032	20032	20032	8
Rear Track Bar Bracket	16	EVO-12423B	EVO-12423B	EVO-12423B	1
Front Trackbar	17	EVO-3047B	EVO-3047B	EVO-3047B	1
Rear Trackbar	18	EVO-3049B	EVO-3049B	EVO-3049B	1
Overland Brackets	19	EVO-3003B	EVO-3003B	EVO-3003B	2



Note: If installing EVO MFG Enforcer Control Arms: All Vehicles that spend time on salted roads. It is recommended that removal of control arm joint (threaded one) on all EVO control arms before installation of vehicle. Apply a small amount of Anti Seize on threads and reassemble.

Recommended Tools:

- Impact with socket set
- Wrenches (English/metric)
- Screwdriver
- Vehicle jack
- Jack stand
- Drill and ½" bit
- WD40
- Rubber Mallet/Vice
- Dremel/knife/shears
- Thread lock
- Vice grips
- Grinder
- Vehicle approved brake fluid

**Safety Steps for installation**

- For installing EVO MFG products always use wheel chokes to block rear tires from rolling.
- Always make sure you have everything necessary ready before install.
- If you have to, carefully lift front of vehicle by front frame rails extending suspension until tires leave the ground, place frame on approved jack stands for vehicle. Verify all lines/wires are not over extended.
- Remove tires if needed for easier install.
- Make sure to wear safety equipment (eye protection, hand protection, foot protection etc.) at all times during installation.
- Make sure all safety precautions have been taken.
- Always check and replace any part of vehicle that is worn or broken before starting install.
- Do not mix anything EVO with weaker alternatives.
- It is generally a good idea to apply liquid threadlock to all bolts.
- Tighten included hardware to torque specifications in bottom table unless it is otherwise specified, factory bolts should be torqued to factory Jeep specifications.

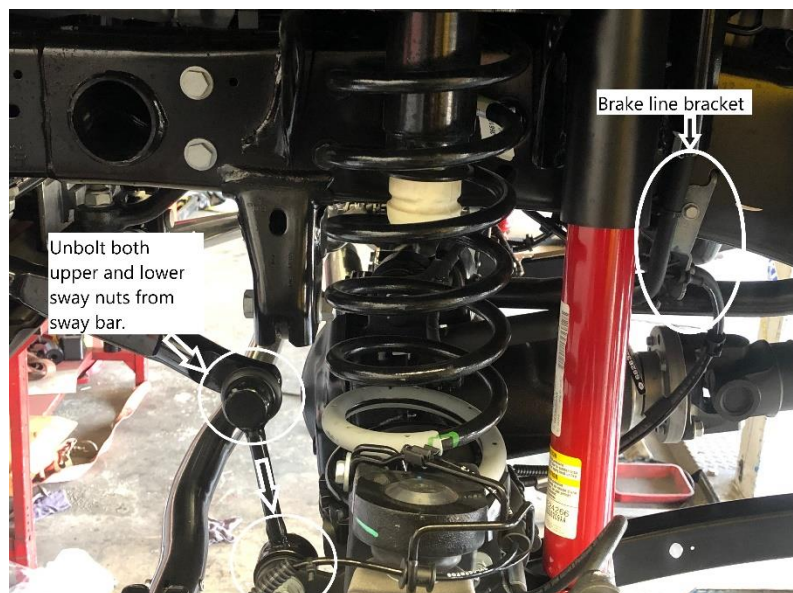




Front Install

1. Remove bolt from driver and passenger side brake line bracket at frame just behind front coils.
2. Remove both driver and passenger side swaybar links bolts at axle and swaybar removing swaybar links and rotate sway up and out of the way. Factory front links will not be reused.

There is a 6mm allen key inside both driver and passenger side upper sway bar studs. Use allen head to allow nut to unscrew.



1. Disconnect push-in clip from front upper control arm mounts at axle holding wire. Un clip all other wires/hoses that are connected to axle.

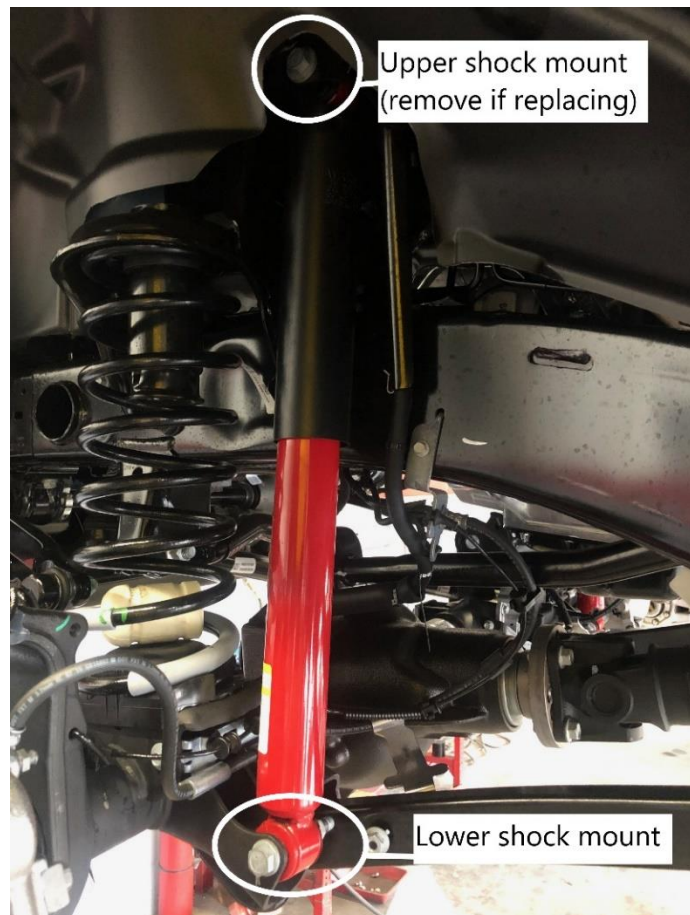
Vehicle wiring and hoses vary, make sure all wires, hoses, lines etc. from frame to axle are freed up giving ample length to move axle downward as needed before proceeding, verify wiring/hoses etc. do not get stretched while lowering axle in next steps.



Support driver side axle with jack stand

2. **IF** you are **replacing shocks** and not using shock extensions remove upper bolt. Otherwise leave shock mounted at upper.
3. Lightly jack the front driver side axle tube slightly. With axle slightly supported remove front lower shock bolt from axle.
4. Repeat on passenger side.

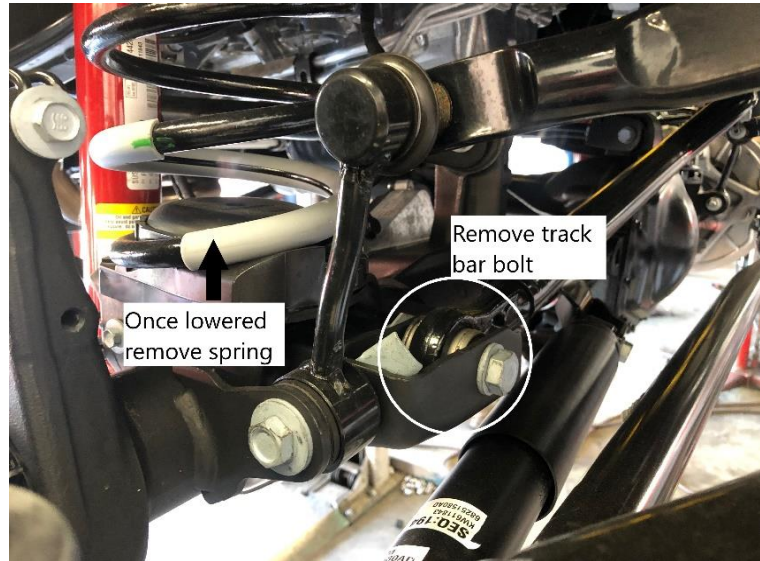
Varying axle jack tension to the right amount will alleviate load on the bolt and allow it to freely slide out.



5. Remove trackbar bolt at axle.

This will allow the axle to move side to side so be cautious about this from here on.

6. Lower jack under axle giving room and remove front spring.



7. After removing all parts specified in the above steps, the lower control arms might bind when lowering the axle. If you remove the axle side control arm bolts, do so **one side at a time**.

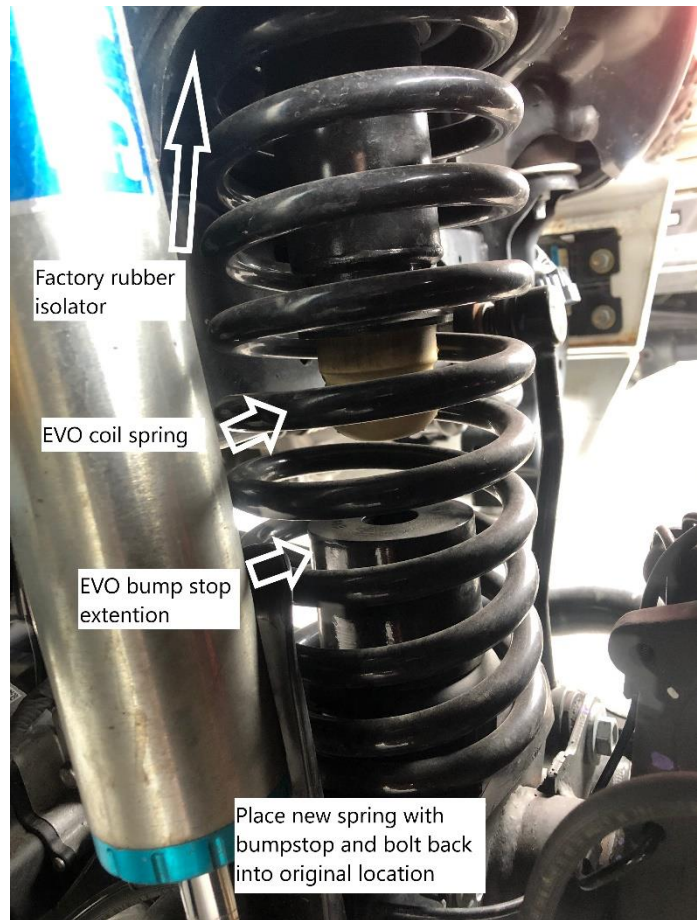
Use extreme caution, only remove one lower control arm bolt, replace the spring and then reinstall control arm bolt before doing so on the other side.



8. Insert supplied 3/8 x 2" bolt into front bumpstop extension. Place bumpstop with bolt inside (bore side up) EVO MFG Front Coil spring. Install coil spring with rubber isolator on top of coil into its original location on both the frame and axle.

Axle may need to be lowered to install. Verify correct part number spring in correct location per table on page 3.

9. With spring in place and bumpstop extension sitting on axle pad and bolt inserted into bumpstop extension. Install supplied 3/8" nut from under spring pad to bolt inserted inside bump stop extension and tighten



Note: Make sure factory coil seats stay in the factory locations, Left coil seat on the left and right on the right, etc. Also make sure that the rubber pins insert into holes on coil brackets.



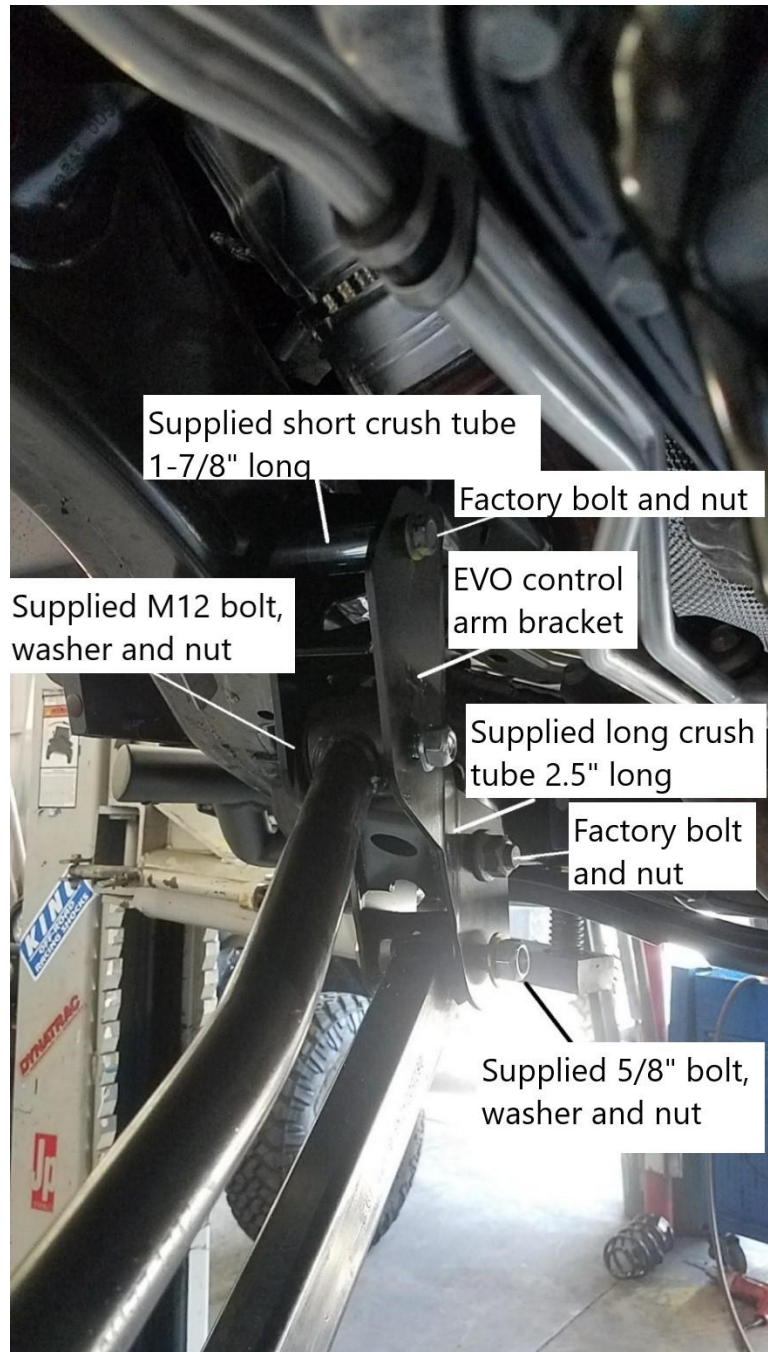


If you are installing Overland kit with Front Control Arm Relocation brackets. Follow the below bullet points: If not installing OVERLAND Kit continue to next numbered step.

- With axle and frame/vehicle safely supported. Loosen but do not remove bolt or nut on both upper and lower control arm bolts at their axle connections.
- Remove heat shield from upper control arm at frame and unbolt driver side upper control arm from frame.
- Unbolt lower control arm at frame

Being very cautious and careful as the axle will no longer be connected to vehicle on the driver side at this time.

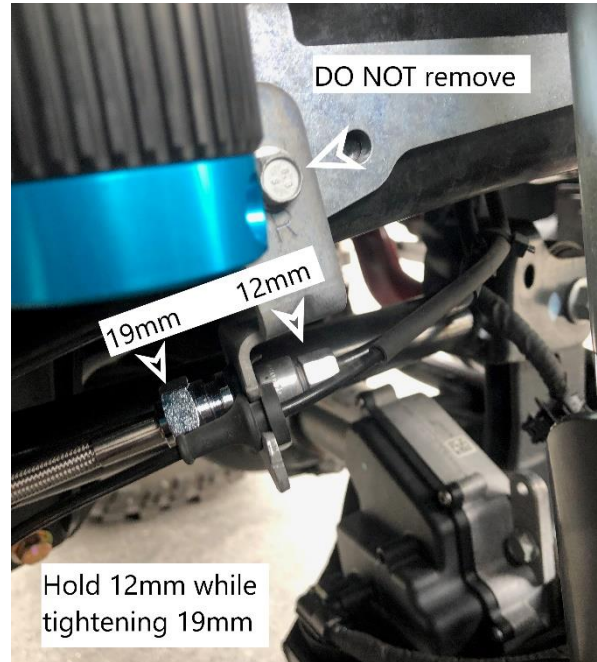
- Rotate control arms out of the way and insert driver side control arm relocation brackets into frame pockets where control arms were once mounted. Factory frame upper link bracket may need to be slightly ground to line upper bolt hole.
- In both upper and lower arm location where bracket connects with frame insert supplied crush tube into gaps (shorter sleeve for upper mount and longer tube for lower mount). Use factory bolts to frame locations through EVO brackets and crush sleeves.
- Torque all frame bolts at EVO control arm brackets to factory specifications.
- Rotate control arms back into their new location on the EVO Control arm relocation brackets. Use Supplied M12 bolt, washers and nut for upper control arm



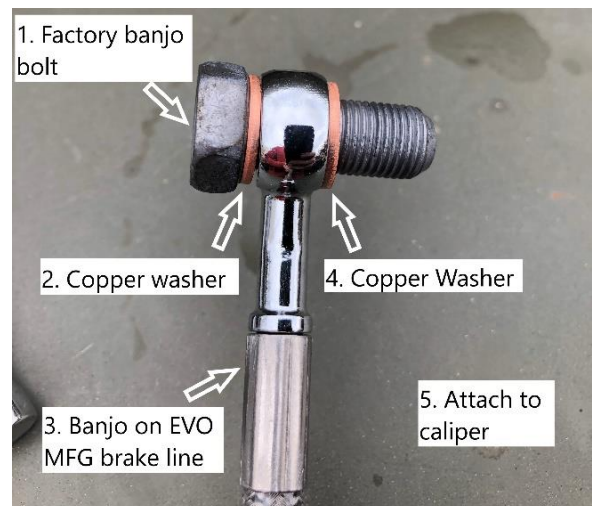


mount and 5/8 bolt, washers, nut
for lower control arm mount.

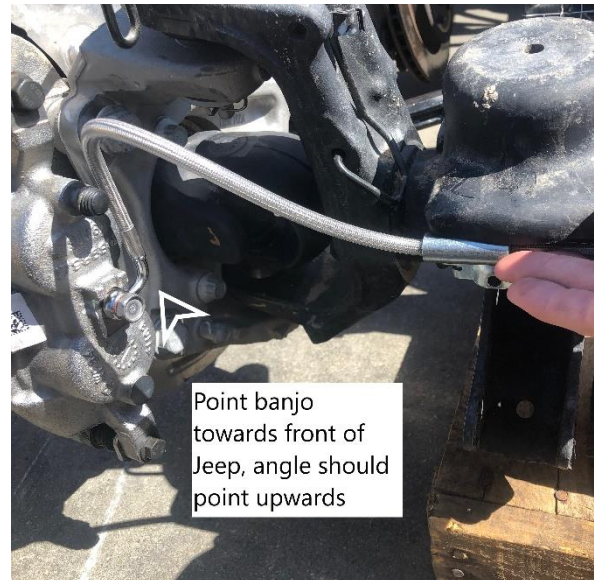
10. Using a 15mm socket remove the banjo bolt from caliper, Remove the banjo bolt from the brake hose, remove the copper washers.
 11. Remove bolt and bracket holding the brake line on the axle tube using a 10mm wrench, located under spring bracket.
 12. Moving swiftly/carefully separate the hard line from the bracket/hose on frame by holding hardline with a 12mm wrench and unscrewing the rubber hose with a 16mm wrench.
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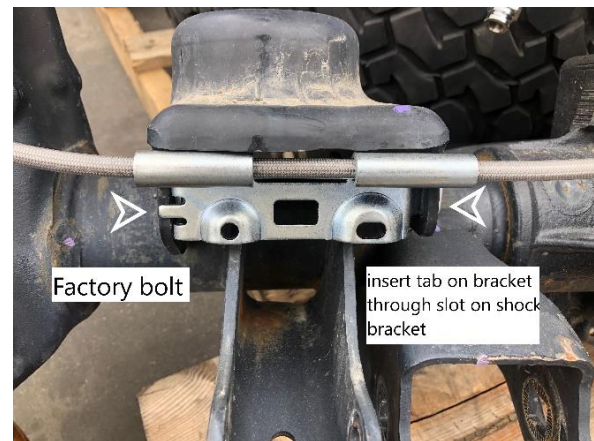
13. Install new copper crush washers on to the factory banjo bolt, Insert the factory banjo bolt with copper crush washer on through the banjo of the new stainless steel brake line, then slip another copper crush washer on.
-



- Using a 15mm socket, secure your new stainless steel break line to the break caliper using factory hardware, tighten the banjo bolt to 276 in. lbs. of torque (**at caliper hard line elbow extends towards front of vehicle and angled up as much as possible.**)
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- The mid line retaining bracket on new steel braided brake line needs to be installed using factory 10mm bolt at previous axle mounting location.
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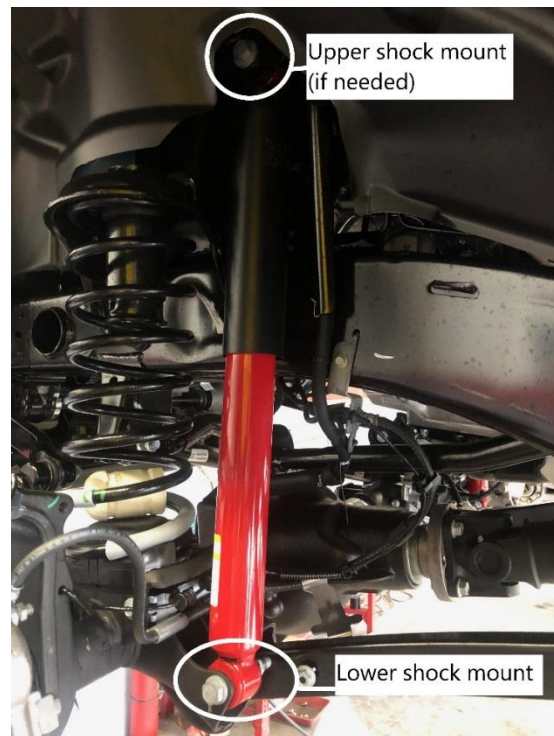
- Use a 12mm wrench to hold hardline and a 19mm wrench to secure your new stainless steel brake line to mounting bracket on the frame.
 - Repeat previous brake line procedures on opposite front brake line.
 - Check the fluid level in your master cylinder. Bleed front brakes following factory procedures.
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Note: Carefully move line. Do not crimp/pinch line. Always check for leaking fluids and that brakes work correctly. Bleeding brakes is extremely important to be done properly. Follow factory specifications in doing so. Consultation/should be performed by a trained professional mechanic.

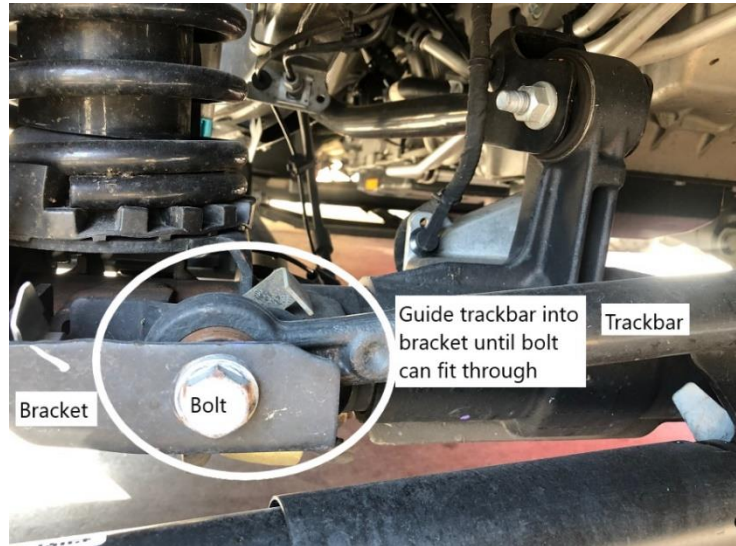
19. Assemble supplied front swaybar links. Using light oil such as WD 40, lubricate inner surface of link loops. Tap or vice in supplied rubber bushings. Lubricate inner surface of rubber bushings. Tap or vice in supplied swaybar tube sleeves. Use longer sway bar link pair in rear, shorter pair in front.



20. If you are installing shock extensions. Do so at this time. Follow instructions for that kit. If you are installing new shocks, follow shock manufacturers specifications and install shocks at both upper and lower mounting locations.

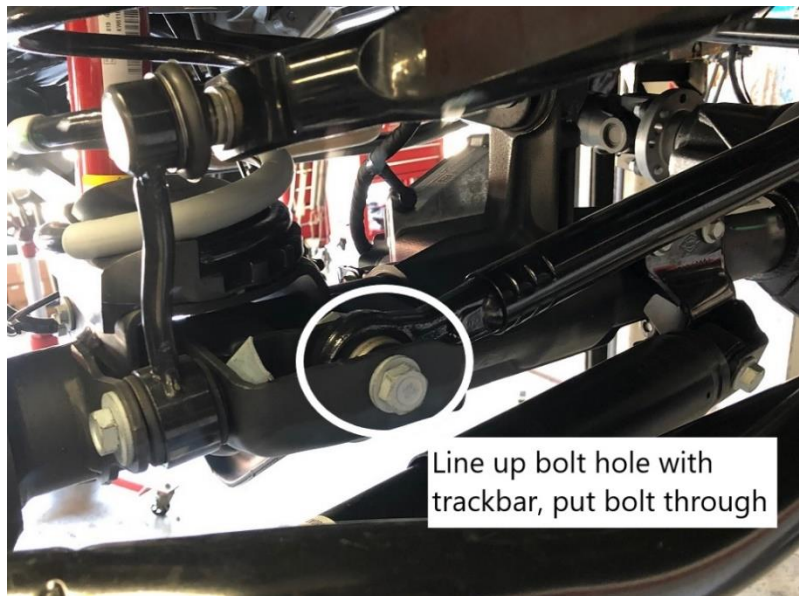


21. Reinstall wheels and torque to factory specifications. Carefully lift vehicle by frame, remove jack stands and lower to ground. **When lowering be mindful of the front trackbar at axle this is not bolted in.** It will need to be guided into the bracket at the axle while lowering the vehicle.



If installing new EVO MFG front trackbar, do so at this time using factory hardware. To align/install trackbar correctly make sure the bend in the trackbar is facing upwards, forward and above the pumpkin/diff.

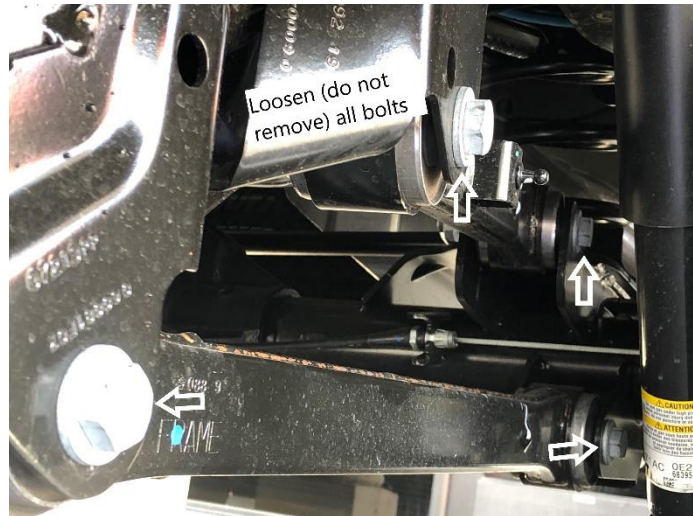
22. When on the ground carefully turn steering with engine running. Vehicle in park and with parking brake on and wheels chalked. This will slowly move vehicle left and right to align trackbar bolt. Once trackbar lines up with hole in trackbar bracket, insert factory bolt and loosely tighten bolt.



While on ground under Jeeps own weight at ride height, torque all control arm bolts, uppers, lowers at frame and axle. Torque all shock bolts at frame and axle. Torque front trackbar bolt. Check and torque all other bolts. Use chart below for supplied hardware. Use factory specifications for factory hardware.

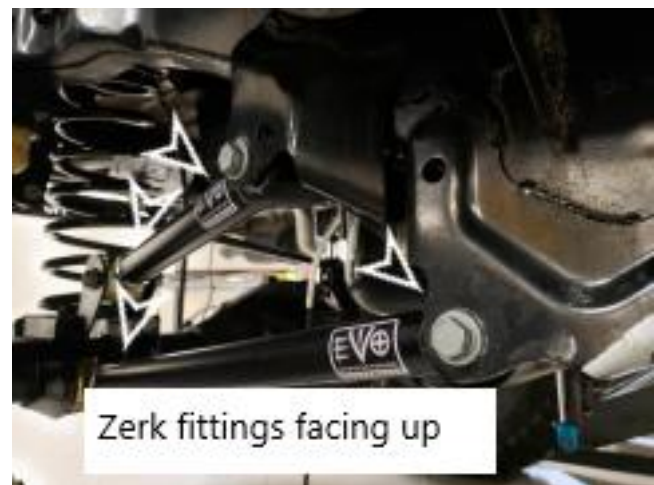
Rear Install

23. While safely parked on ground. Loosen all rear control arm and trackbar bolts at both axle and frame. DO NOT REMOVE. Just loosen a few turns to remove bolt compression on control arm bushings.
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If installing EVO MFG Enforcer arms. Do so at this time. Remove and replace one arm at a time. Keep bolts loose (installed but untorqued) as described above. We will torque later in the installation process.

Make sure zerk fittings are facing up and adjustable end at axle.



24. Carefully lift rear of vehicle by frame rails/crossmember extending suspension until the tires leave the ground.

25. Securely place weight approved jack stands for vehicle under frame

With vehicle rear tires now suspended and frame securely supported on stands, remove rear tires from vehicle.



26. While vehicle is on jacks, remove the carrier bearing bolts and retain them for a 2.5" lifts. The 4.5" and 6.5" lifts supply longer bolts. Add the supplied carrier bearing spacers in between carrier bearing bracket and mounting holes on crossmember.

For 2.5" lift install two 12440 carrier bearing spacers reusing two factory bolts

For 4.5" lift install three 12440 spacers with the two supplied 900443 bolts.

For 6.5" lift install four 12440 spacers with the two supplied 900443 bolts.

Apply Loctite to all bolts



27. Remove both driver and passenger side swaybar links bolts at axle and swaybar removing swaybar links and rotate sway down and out of the way.

There is a 6mm allen key inside both driver and passenger side rear upper sway bar bolts. Tighten the allen head to allow nut to unscrew.



Vehicle wiring and hoses vary, make sure all wires, hoses, lines etc from chassis to axle are freed up giving ample length to move axle downward as needed before proceeding, verify wiring/hoses etc do not get stretched while lowering axle in next steps.

28. Lightly jack front driver side axle tube slightly. Support driver side axle with jack stand
29. With axle slightly supported remove lower shock bolt from axle.
30. Repeat this step on passenger side.

Varying axle jack tension to the right amount will alleviate load on the bolt and allow it to freely slide out.

If you are replacing shocks and not using shock extensions remove upper bolt and remove shock. Otherwise leave shock mounted at upper.

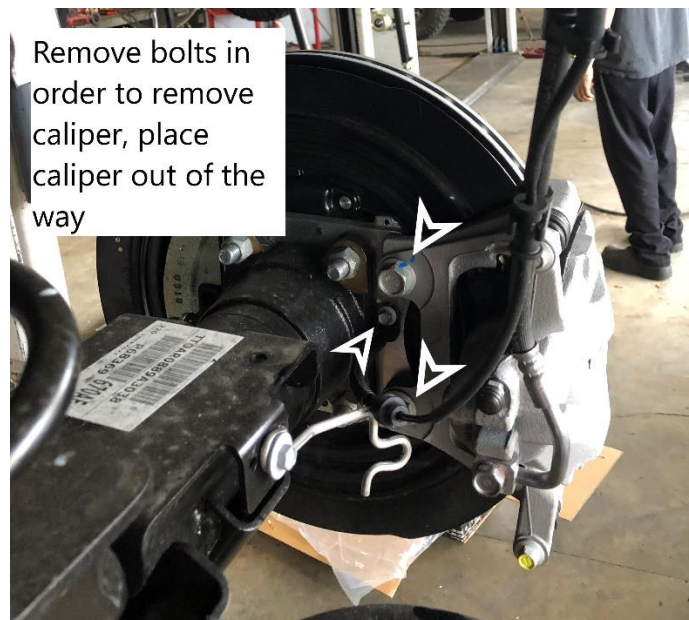
Repeat on passenger side



31. Remove the two bolts holding caliper to axle, then remove the smaller speed sensor bolt and pull the sensor out of brake assembly.

32. Pull off calipers and sensor and support caliper assembly by frame. **Do not hang calipers by brake line.**

Do not remove brake line at this time.



33. Lower jack under axle giving room and remove rear springs.
34. Install rear bump stop extensions to axle pads on both passenger and driver side axle pads using supplied 5/16" x .75 bolts, washers and nuts.
35. Install EVO Rear Coil spring and with factory rubber isolator on top of coil into the factory coil springs locations. Axle may need to be lowered to install. Verify correct part number spring in correct location per table page 2.

Repeat on passenger side



36. Reinstall the caliper and speed sensor on both sides of axle. Tighten bolts to Jeep specifications.

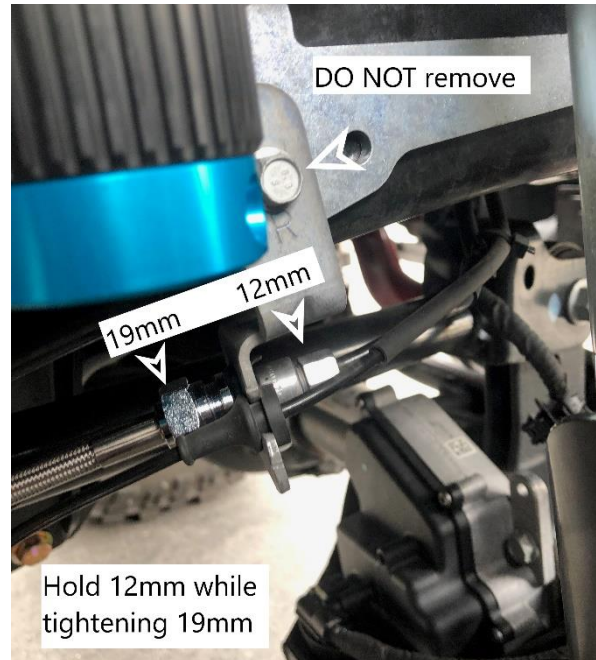
Note: Carefully move brake line. Do not crimp/pinch line. Always check for leaking fluids and that brakes work correctly.



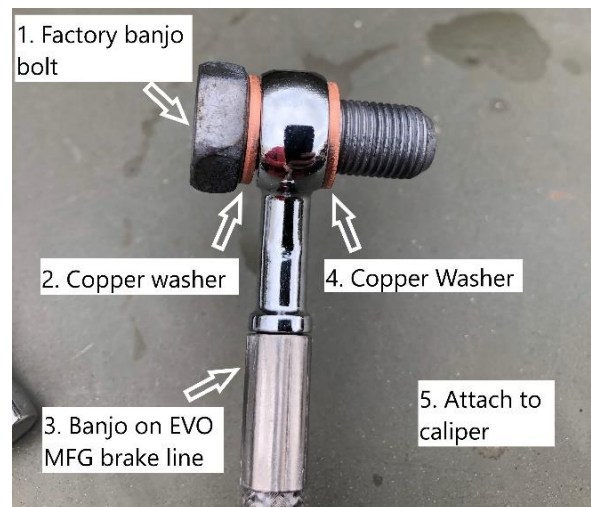
37. Assemble supplied rear swaybar links. Using light oil such as WD 40, lubricate inner surface of link loops. Tap or vice in supplied rubber bushings. Lubricate inner surface of rubber bushings. Tap or vice in supplied swaybar tube sleeves. Use longer sway bar link pair in rear, shorter pair in front.
38. With rear spring installed. Jack axle up until shock bolts line up with axle mounting holes. **Be very aware that vehicle does not lift off chassis/frame jack stands while jacking.** If you are installing new shocks or shock extensions, do so at this time. Follow factory torque specs for shock bolts.
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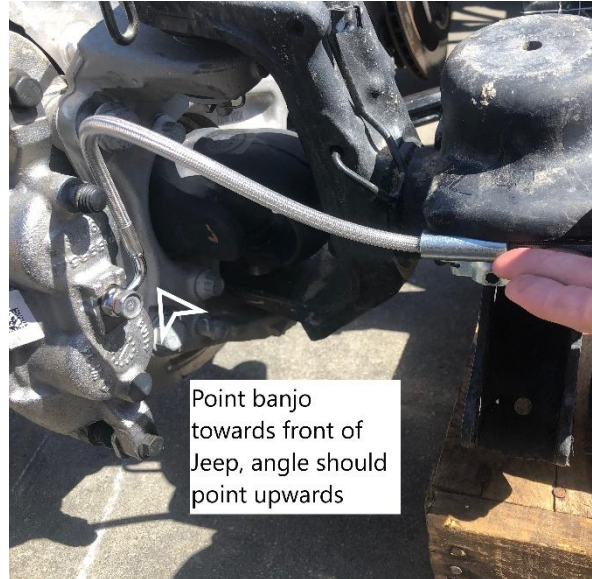
39. Using a 15mm socket remove the banjo bolt from caliper, Remove the banjo bolt from the brake hose, remove the copper washers.
 40. Remove bolt and bracket holding the brake line on the axle tube using a 10mm wrench, located under spring bracket.
 41. Moving swiftly/carefully separate the hard line from the bracket/hose on frame by holding hardline with a 12mm wrench and unscrewing the rubber hose with a 16mm wrench.
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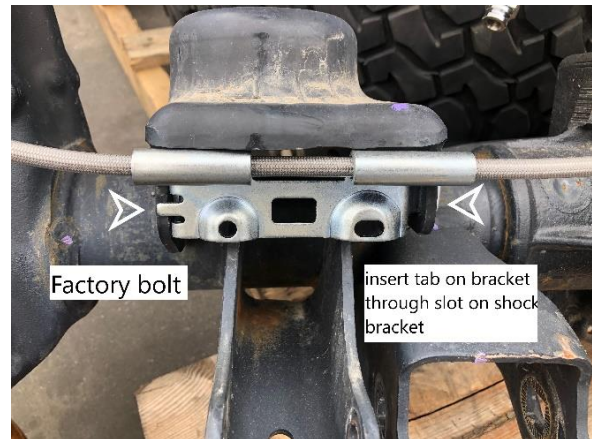
42. Install new copper crush washers on to the factory banjo bolt, Insert the factory banjo bolt with copper crush washer on through the banjo of the new stainless steel brake line, then slip another copper crush washer on.
-



43. Using a 15mm socket, secure your new stainless steel break line to the break caliper using factory hardware, tighten the banjo bolt to 276 in. lbs. of torque **(at caliper hard line elbow extends towards front of vehicle and angled up as much as possible.)**
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44. The mid line retaining bracket on new steel braided brake line needs to be installed using factory 10mm bolt at previous axle mounting location.
-



45. Use a 12mm wrench to hold hardline and a 19mm wrench to secure your new stainless steel brake line to mounting bracket on the frame.
46. Repeat previous brake line procedures on opposite front brake line.
47. Check the fluid level in your master cylinder. Bleed front brakes following factory procedures.
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Note: Carefully move line. Do not crimp/pinch line. Always check for leaking fluids and that brakes work correctly. Bleeding brakes is extremely important to be done properly. Follow factory specifications in doing so. Consultation/should be performed by a trained professional mechanic.



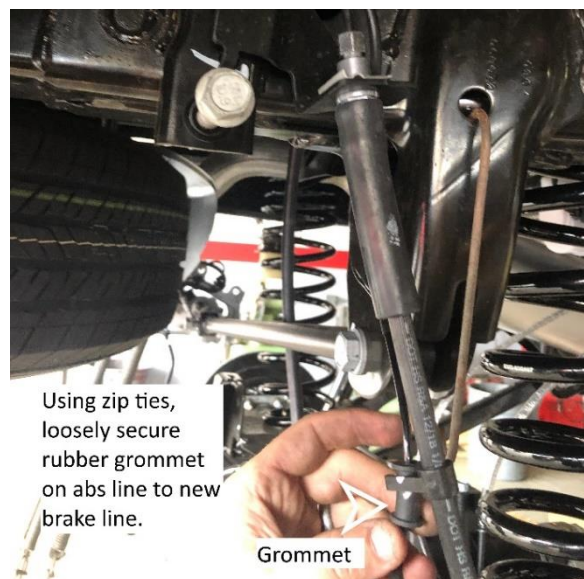
**FOR ENFORCER/ENFORCER OVERLAND
4.5"/6.5" KIT ONLY.**

- Remove rear trackbar bolt at axle. Move trackbar down under/out of factory bracket. Swing trackbar above axle bracket.
- Take EVO bracket with U bolt side on the right, place it on the axle tube, slide the EVO bracket onto factory bracket from right to left. **EVO bracket slides into factory trackbar bracket not over the top.**
- At lower original bolt mounting location, insert supplied crush sleeve into bracket and loosely install supplied bolt at this location. Loosely install supplied U Bolt at axle tube.
- On driver side of bracket with bracket loosely installed, drill 3/8" hole through factory bracket. Install supplied hardware.
- Torque all bracket bolts.
- Insert trackbar into new higher trackbar location from the top down. Loosely install factory trackbar bolt. Do not torque trackbar bolt at this time. This should be done on the ground at ride height later in this installation.

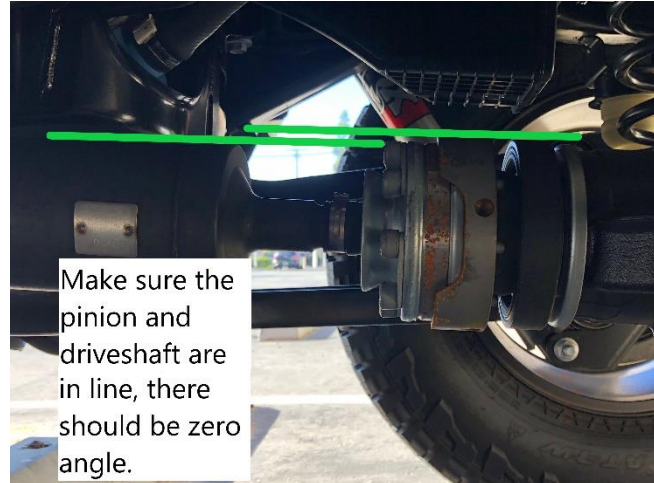


48. Using zip tie loosely secure rubber grommet on abs line to new brake line once installed.

Do NOT tighten more than a few clicks after being loosely secured.



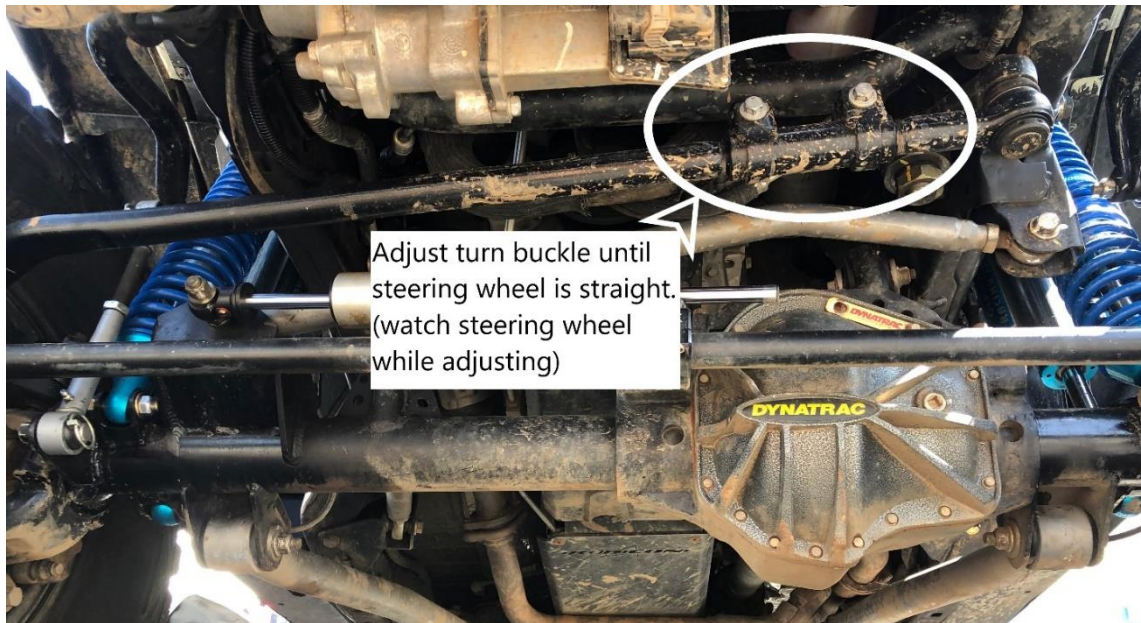
49. Once vehicle is on the ground, if you have the EVO MFG upper control arms then adjust them out until pinion is facing the transfer case. The angle of your driveshaft and angle of your pinion should have zero degrees difference between the two. **The driveshaft face and pinion face should be parallel with each other.**



Finishing up:

- Reconnect all disconnected hoses, wires etc.
- Align to factory specifications. Recommended caster 5 Degrees +/- .5
- Depending on shock length the parking brake cables may need to be unhooked from the hook on the sub frame above driveshaft.
- Reinstall (all) rear wheels
- Carefully jack vehicle by frame and remove jack stands.
- Lower vehicle to ground.
- **With vehicle parked securely on level ground at ride height with parking brake engaged and wheels chalked. Torque all control arm bolts, uppers, lowers front and rear at frame and axle. Torque all shock bolts at frame and axle. Torque front and rear trackbar bolts. Torque wheels. Check and torque all other bolts. Use chart below for supplied hardware. Use factory specifications for factory hardware. Double check everything is tight at this time.**

RECENTER STEERING WHEEL by Adjusting Turn buckle on Draglink. Make sure to turn the correct way to center (do not do a full rotation of steering wheel, closest direction to straight, watch wheel while turning) and pinch nuts once straight. You may need to do this more than once after a drive to get it straight to your liking. Test brakes and verify no leakage in lines before driving. Recheck often. Removal or trimming of factory plastic inner fender liner may be required to clear combinations of larger tire sizes and wheel back spacings. Check for acceptable clearance. Retorque all bolts after 500 miles. **After alignment is complete and no additional adjusts are to be made to control arms. Torque all 1" Jam Nuts to 250 ft/lbs and all 1-1/4" Jam Nuts torque to 300 ft/lbs. Regularly check all jam nuts and punch bolts on all Enforcer control arms for proper torque/tightness. Failure to do so may cause premature wear of threads on arms.**



After Install:

- Double check all brake lines for leaks and or loose bolts. Make sure brakes are bled and bled properly. It is recommended to take to a professional to bleed brakes properly.
- Tighten all bolts securing urethane or rubber bushings once vehicle is under its own weight and at ride height. Track bars, control arms, etc.
- After completing installation using provided instructions, go through all steps again to make sure nothing was missed, not tightened or improperly assembled.
- Some components may need to be purchased separately.
- Check turn signals, headlights, fog lights (if applicable), taillights, blinkers and windshield wipers.
- Adjust mirrors, speedometer and headlights if needed.
- Make sure all gauges are fully operational.
- Drive the vehicle slowly for a couple minutes, looking and listening for abnormal noises while driving. After modification of a vehicle there will be differences in driving experiences and capabilities, be mindful of that.
- Inspect and Retorque all Bolts after 500 miles of completed installation and regularly thereafter.
- For 4.5" or taller you will need a front track bar (included in plus "P" kit) or order EVO-3047B separately.
- Some modification may be required to fit preferred size/brand tire.
- Loosely install. Only tighten/torque trackbar bolts after vehicle is at ride height under it's own weight. Never tighten when suspension is extended.
- **Regularly check all jam nuts and punch bolts on all Enforcer control arms for proper torque/tightness. Failure to do so may cause premature wear of threads on arms.**



Recommended Torque:

Size	Grade 2		Grade 5		Grade 8		18-8 S/S	
	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
#4*	-	-	-	-	-	-	5.2	-
#6*	-	-	-	-	-	-	9.6	-
#8*	-	-	-	-	-	-	19.8	-
#10*	-	-	-	-	-	-	22.8	31.7
1/4	4	4.7	6.3	7.3	9	10	6.3	7.8
5/16	8	9	13	14	18	20	11	11.8
3/8	15	17	23	26	33	37	20	22
7/16	24	27	37	41	52	58	31	33
1/2	37	41	57	64	80	90	43	45
9/16	53	59	82	91	115	129	57	63
5/8	73	83	112	128	159	180	93	104
3/4	125	138	200	223	282	315	128	124
7/8	129	144	322	355	454	501	194	193
1†	188	210	483	541	682	764	287	289