



EVO Manufacturing

2.5"/3.5"/4.5" Jeep Wrangler JL 2018+

Enforcer Kit Instruction Manual

EVO-3011, EVO-3012, EVO-3013, EVO-3014, EVO-3054, EVO-3055 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.**

**Notes: Set Up Before installation**

**FRONT LOWER JL ENFORCER ARM STARTING LEGNTH CENTER TO CENTER 24 1/8"**

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

**REAR LOWER JL ENFORCER ARM STARTING LEGNTH CENTER TO CENTER 19 3/4"**

**REAR UPPER JL ENFORCER ARM STARTING LEGNTH CENTER TO CENTER 17 1/2"**

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

**Front JL EVO MFG trackbar starting length: 34 1/4"**

**Rear JL EVO MFG trackbar starting length: 37 7/16"**

**3.5"/4.5" JL 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. Do not exceed 36" extended length on front trackbar and 39.5" on rear trackbar.**

**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.**

**After alignment is complete and no additional adjustments 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 control arms for proper torque/tightness. Failure to do so may cause premature wear of threads on arms.**

**Loosely install trackbar bolts. Only tighten/torque trackbar bolts after vehicle is at ride height under its own weight. Never tighten when suspension is extended.**

**INSTALLING A FACTORY DRIVER SIDE LOWER COIL SEAT ON PASSENGER SIDE IS SUGGESTED IF PASSENGER COIL ARC IS PRESENT. THEY ARE AVAILABLE FROM MOPAR/JEEP DEALER Mopar Part #: 68342245AC**



Parts included: Table below shows black (painted) JT Rear Shock Extension.

“LEFT” IS USA DRIVER SIDE, “RIGHT” IS USA PASSENGER SIDE, DIESEL AND 392 USE “HD”

Description	#	Part # 2.5" lift	Part # 3.5" lift	Part # 4.5" Lift	Quantity
Front Left Coil	1	GAS 600117 HD 600142 4XE 600114	GAS 600113 HD 600161 4XE 600142	GAS 600142 HD 600164 4XE 600161	1
Front Right Coil	2	GAS 600118 HD 600142 4XE 600114	GAS 600114 HD 600161 4XE 600142	GAS 600143 HD 600164 4XE 600161	1
Rear Left Coil	3	GAS 600119 HD 600116 4XE 600144	GAS 600115 HD 600144 4XE 600145	GAS 600144 HD 600188 4XE 600188	1
Rear Right Coil	4	GAS 600120 HD 600116 4XE 600144	GAS 600116 HD 600144 4XE 600145	GAS 600145 HD 600188 4XE 600188	1
Front Upper Control Arms	5	12313B	12313B	12313B	2
Front Lower CA DRV,PASS	6	12314B,12315B	12314B,12315B	12314B,12315B	1/1
Rear Lower Control Arms	7	12066B	12066B	12066B	2
Rear Upper CA DRV,PASS	8	12068B,12069B	12068B,12069B	12068B,12069B	1/1
FRT Bilstein 5100 FRT King 2.0" Shocks FRT King 2.5" Shocks	9	EVO-600121K EVO-600146 EVO-600190BIL	EVO-600121K EVO-600146 EVO-600190BIL	EVO-600121K EVO-600146 EVO-600190BIL	1 PAIR 2 2
Rear Bilstein 5100 Rear King 2.0" Shocks Rear King 2.5" Shocks	10	EVO-600123K EVO-600147 EVO-600191BIL	EVO-600123K EVO-600147 EVO-600191BIL	EVO-600123K EVO-600147 EVO-600191BIL	1 PAIR 2 2
Sway Bar Links	11	12029B	12029B	12029B	2
Front Bump Stop	12	20045	20045 + 20046	20045 + 20046	2/2
Rear Bump Stop EXT	13	12311B	12312B	12313B	2
EVO Enforcer Hardware Kit	15/	770077	770077	770077	1
Sway Bar Bushings	16	600077	600077	600077	4
Sway Bar Sleeve	17	20032	20032	20032	4
Trackbar Hardware	18	n/a	770078	n/a	1
Rear TrackBar Bkt	19	n/a	12328B	12328B	1
Front Trackbar	20	EVO-3047B	EVO-3047B	EVO-3047B	1
Rear Trackbar	21	EVO-3048B	EVO-3048B	EVO-3048B	1
Overland Brackets	22	EVO-3003B	EVO-3003B	EVO-3003B	2



**READ BEFORE INSTALL:**

- For Overland Kits ONLY, Minor grinding/clearance of oe frame upper link bracket may be needed
- 2.5" JL Enforcer/Enforcer Overland kits with either EVO shock extension kit or shocks 28.5" extended or less. These will work with factory wheels on Rubicon Models.
- Sahara and Sport models will require wheels spacers or aftermarket wheels with 5" or smaller number backspacing.
- 3.5"/4.5" Enforcer/Enforcer Overland equipped JLs will require wheels spacers or aftermarket wheels with 5" or smaller number backspacing. **Also recommend kit Stages 2-4 for proper alignment/install**
- 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.
- ALWAYS wear safety glasses and other approved safety gear when working on a vehicle.
- 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.
- Minor grinding/clearance of oe frame upper link bracket may be needed.





#### **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
- 



#### 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.
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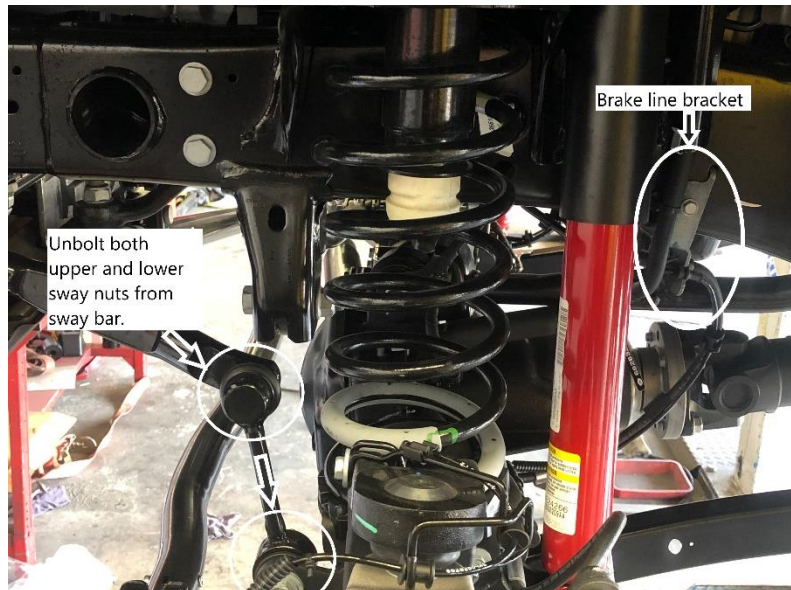
## **FRONT INSTALL**

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.

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

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3. Disconnect push-in clip from front upper control arm mounts at axle holding wire.

**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.**

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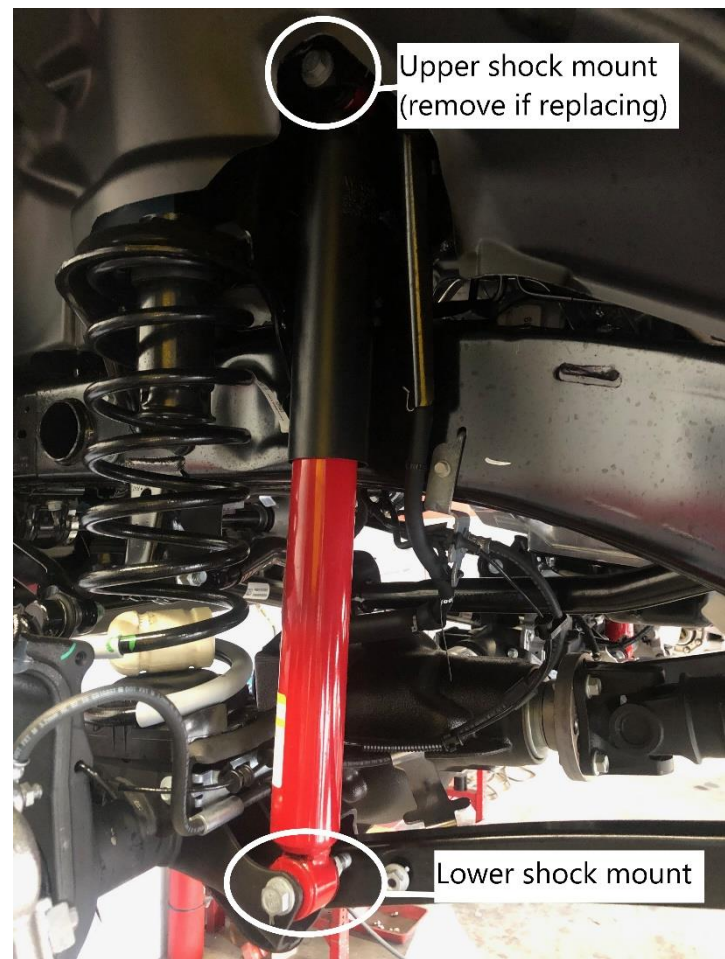


**Support driver side axle with jack stand**

4. **IF** you are **replacing shocks** and not using shock extensions remove upper bolt. Otherwise leave shock mounted at upper.
5. Lightly jack the front driver side axle tube slightly. With axle slightly supported remove front lower shock bolt from axle.
6. 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.**

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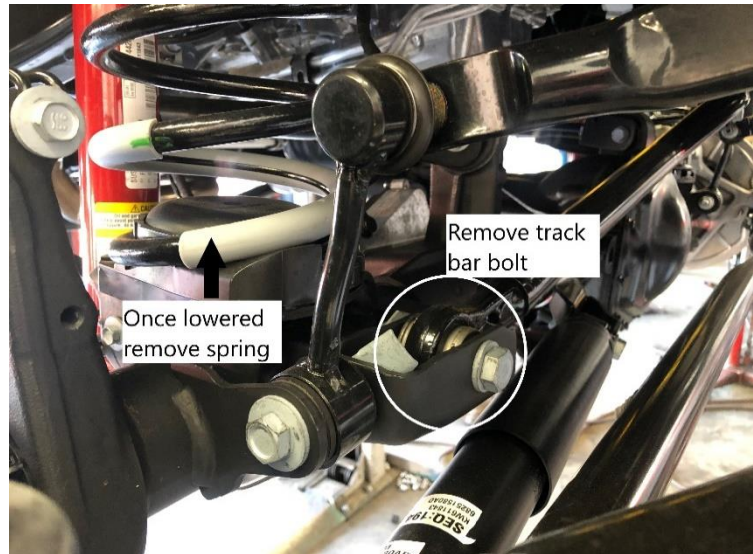




- Remove trackbar bolt at axle.

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

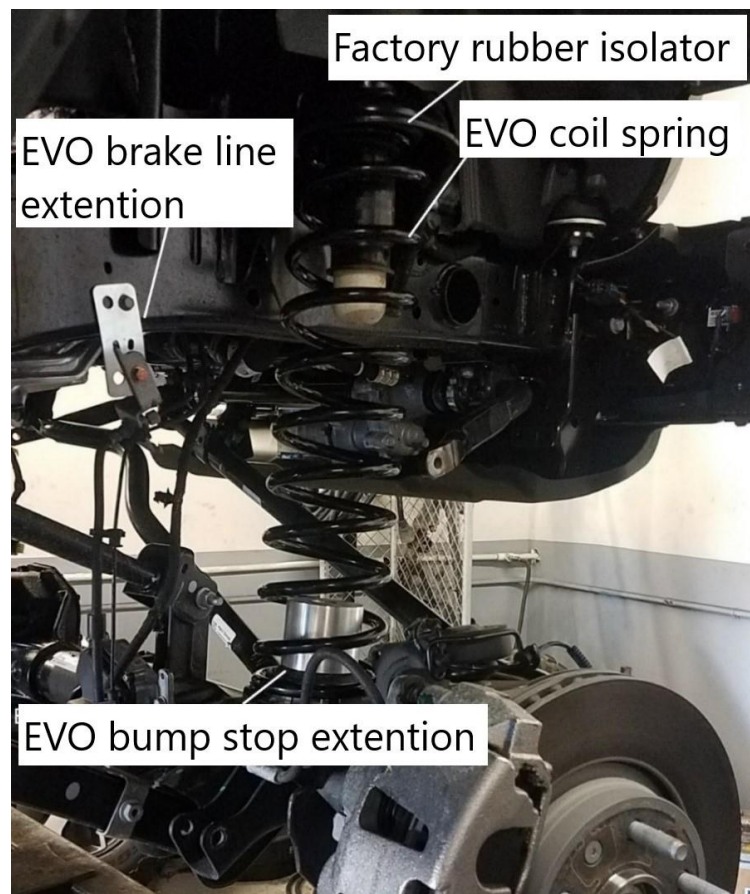
- Lower jack under axle giving room and remove front spring.



- Insert supplied 3/8 x 2" bolt into front bumpstop extension. Place bumpstop with bolt inside (bore side up) EVO 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.**

- 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.

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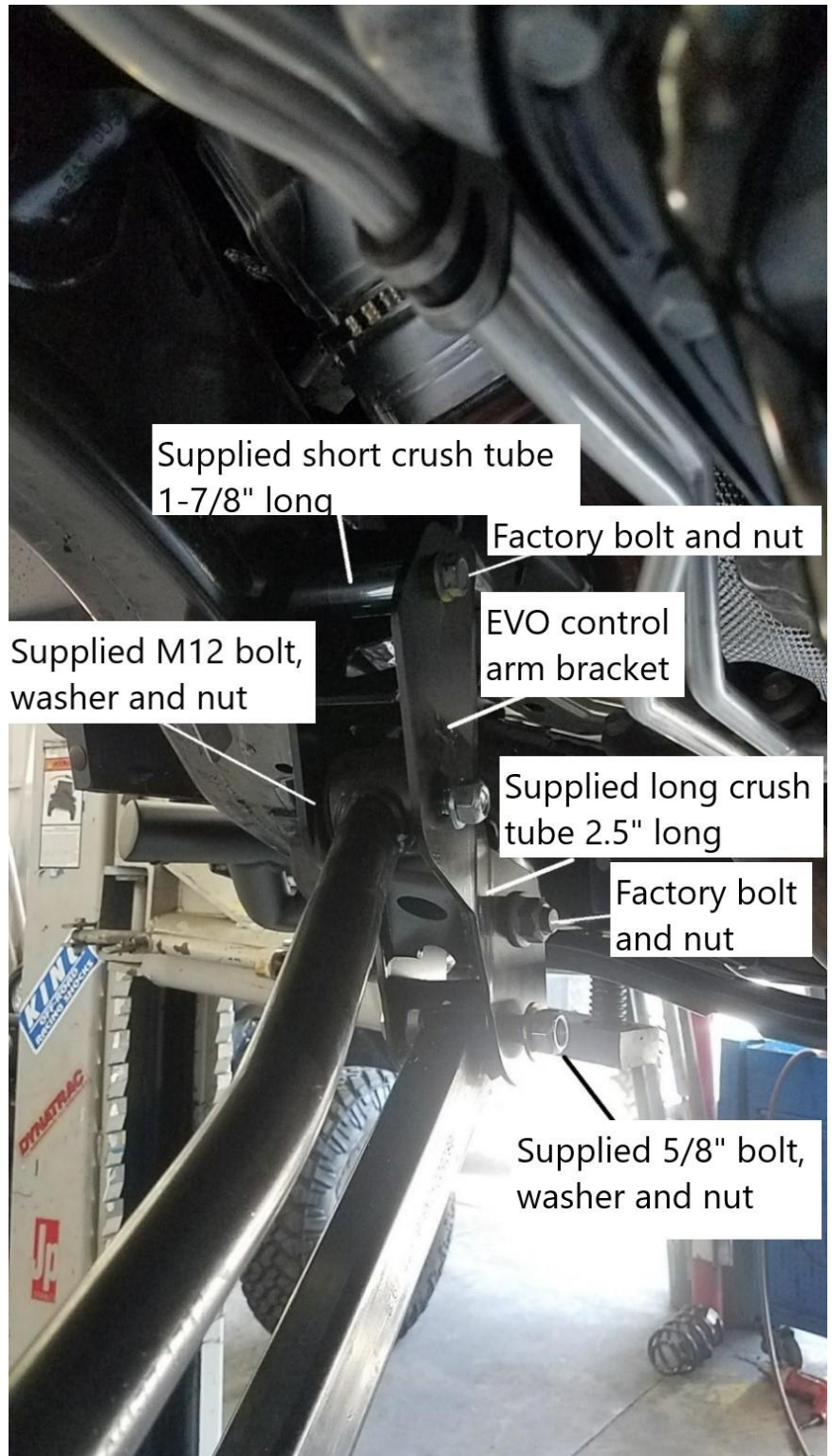




**Overland Kits ONLY:**

If you are installing Overland kit with Front Control Arm Relocation brackets. Follow these instruction: **If not continue to step 11.**

1. 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.
2. Remove heat shield from upper control arm at frame and unbolt driver side upper control arm from frame.
3. 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.**
4. 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.
5. 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.
6. Torque all frame bolts at EVO control arm brackets to factory specifications.
7. 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.







11. Install front EVO brake line extension bracket at original brake line mounting location on frame with factory bolt.
12. Install factory brake line to the new lower location on the EVO brake line extension bracket.

**Carefully** move line down. Do not crimp/pinch line. Always check for leaking fluids and that brakes work correctly.

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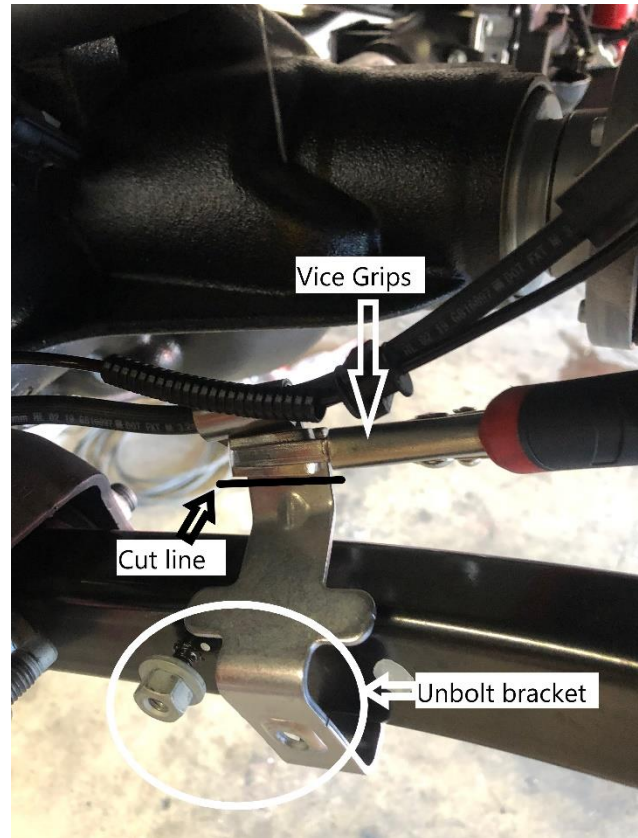
13. Reinstall shock at axle per factory specifications. If you are installing shock extensions. Do so at this time. Follow instructions for that kit. If you are installing new shocks, follow shock manufacturers specifications and install shocks at both upper and lower mounting locations. Torque to factory specifications.
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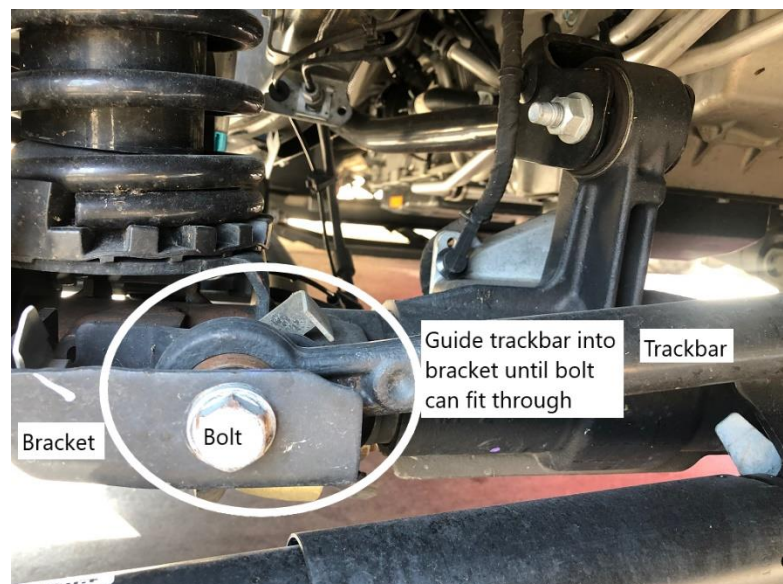
14. If new Front Lower EVO MFG Enforcer Arms have been installed. Use a 15mm wrench to remove the bracket that holds the brake line located on the factory lower control arm. Take the front brake line bracket, hold the top of the bracket right before the brake line with vice grips like the picture to the right. Follow the cut line that is shown (picture to the right) using a grinder/ cutting tool to remove excess brackets.

**Warning: DO NOT pinch/ cut/ tear/ pull/ twist etc the brake line.** After finishing cut, always check for leaking fluids and that brakes work correctly before operating vehicle. Periodically check thereafter.

Repeat steps 8-14 on passenger side including Overland kit section if applicable.



15. 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.

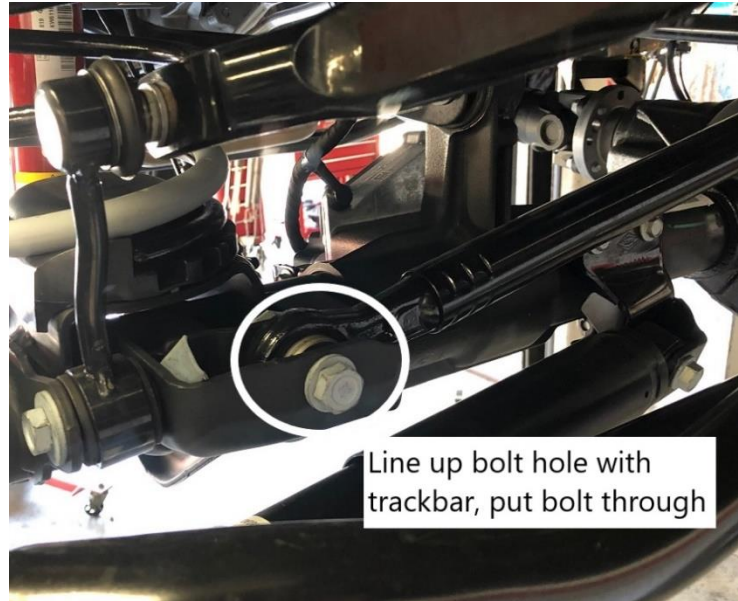






If installing new EVO MFG front trackbar, do so at this time to align/install trackbar bolt.

16. When on the ground carefully turn steering with engine running. Vehicle in park and with parking brake on and wheels chalked. 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.**

**Front swaybar links should be left uninstalled at this time. We will install factory rear swaybar links on the front later in the process.**

## **REAR INSTALL:**

1. While safely parked on ground. Loosen all rear control arm and trackbar bolts at both axle and frame. **DO NOT REMOVE** (unless installing EVO Enforcer Arms). Just loosen a few turns to remove bolt compression on control arm bushings. If installing EVO Enforcer arms. Do so at this time. Remove and replace one arm at a time. Keep bolts loose (installed but un-torqued) as described above.



2. Carefully lift rear of vehicle by frame rails/crossmember extending suspension until the tires leave the ground.
3. 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.**

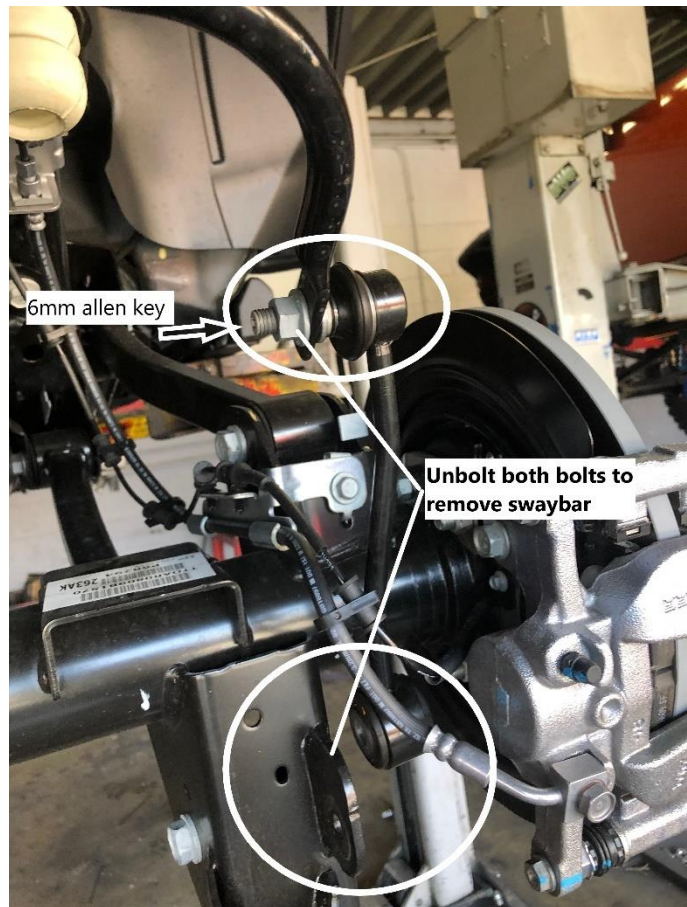
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4. Remove both driver and passenger side swaybar links bolts at axle and swaybar removing swaybar links and rotate sway up and out of the way.

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.

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**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.**

5. Lightly jack front driver side axle tube slightly. Support driver side axle with jack stand
6. With axle slightly supported remove lower shock bolt from axle.
7. 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.**

8. Lower jack under axle giving room and remove rear springs. Keep note of which spring is driver and passenger.
9. 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.
10. 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.
11. Repeat on passenger side



5/16 x 3/4 bolts, washers and nuts



EVO rear bump extension

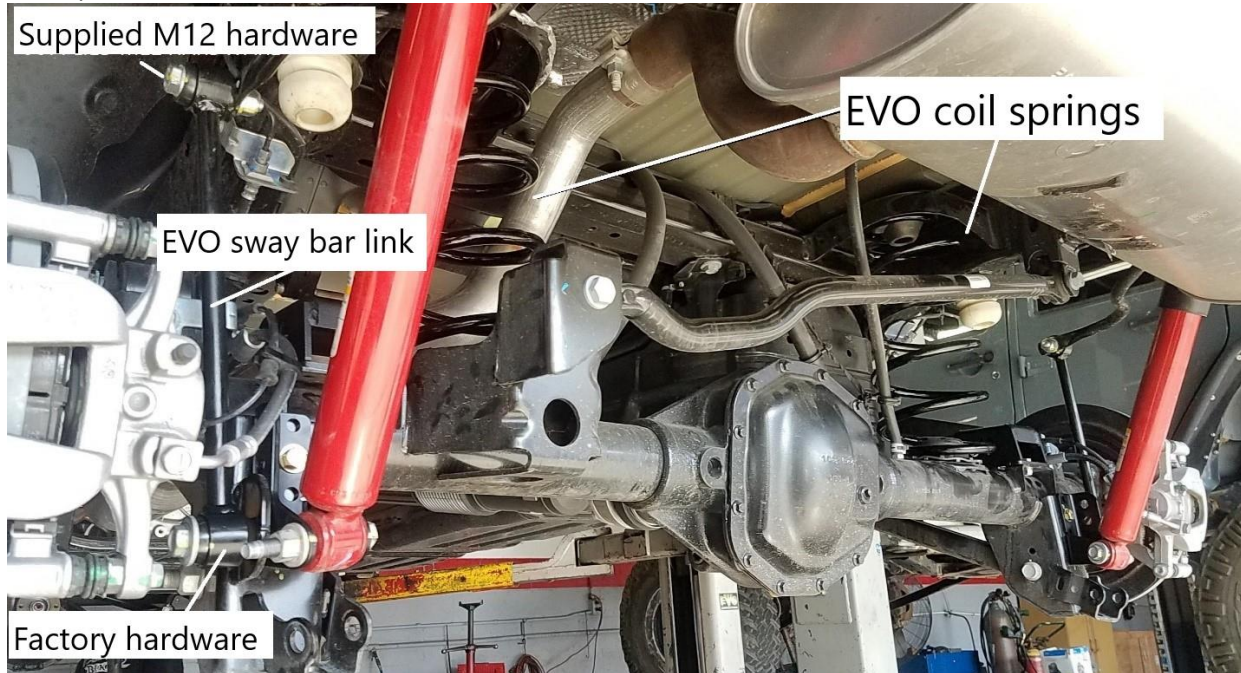


12. Assemble supplied rear swaybar links. Using light oil such as WD 40, lubricate inner surface of link loops. Tap or vice in supplied rubber bushings. Lubricate inner surface of rubber bushings. Tap or vice in supplied swaybar tube sleeves.

13. With rear spring installed. Jack axle up until shock bolts line up with axle mounting holes.

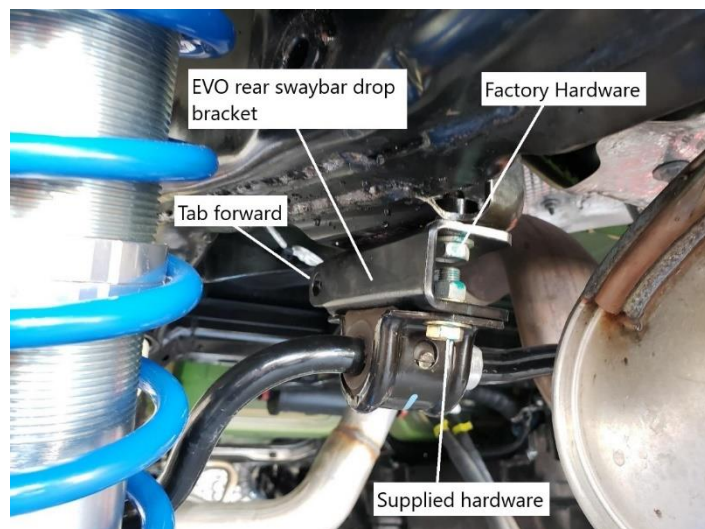
**Be very aware that vehicle does not lift off chassis/frame jack stands.**

14. If you are installing new shocks or shock extensions, do so at this time. Follow factory torque specs for shock bolts.



1. Lower swaybar and insert supplied EVO Swaybar drop brackets (1/2" hole tab should point toward the front of vehicle) between frame and swaybar dropping swaybar down. Use factory hardware to hold bracket to frame and supplied 3/8" hardware to mount swaybar to EVO bracket. Do so on both driver and passenger sides.

**OMIT Sway bar Drops on 392 Models**







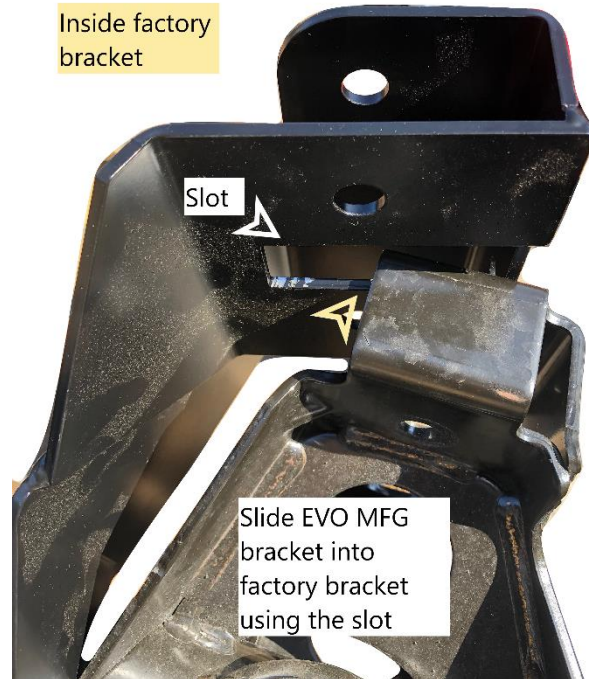
Depending on shock length you may need to disconnect parking brake cable from axle and route them below the frame crossmember. If the cables are limiting your down travel or are tight at full droop, route below crossmember and reconnect at axle. **Do NOT clip, pinch, tear, bend, or pull brake lines.** Always check for leaks, brake pressure and that brakes are working properly after manipulating brake lines.

**FOR ENFORCER 3.5"/4.5" KITS ONLY.**

**\*\*\* 392/HIGHTIDE MODELS Come Factory with Raise Trackbar Bracket. Therefore OMIT install of EVO Rear Bracket on these models**

1. Remove rear trackbar bolt at axle. Move trackbar down under/out of factory bracket. Swing trackbar above axle bracket.
2. Slide square tab with single hole of EVO MFG Bracket INTO factory location of axle trackbar bracket while at same time inserting trackbar into the new higher location/pocket on the EVO Bracket.

Inside factory bracket



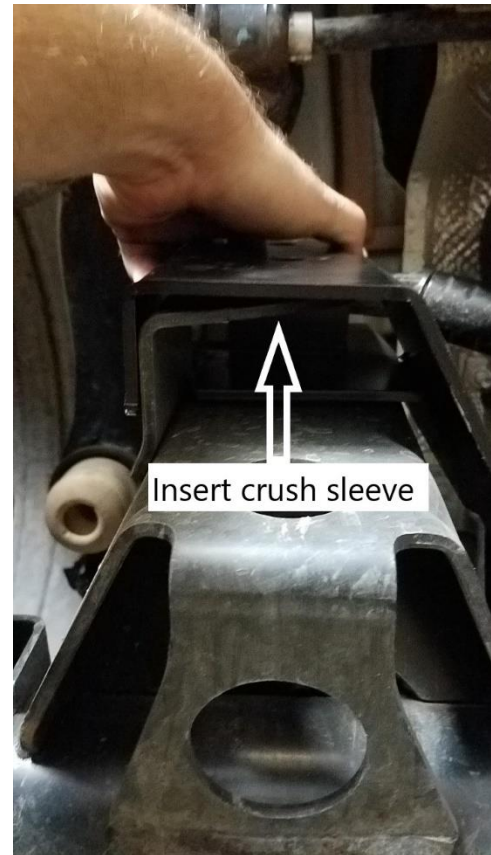
3. Place the supplied 5/8" washers as pictured prior to installing the trackbar bolts.
4. One washer goes on the inside of the top forward most hole in between the trackbar and bracket.
5. Second washer should go on the inside of the bottom rearmost hole between the factory bracket and EVO MFG bracket.

There is a third washer in hardware bag if needed.



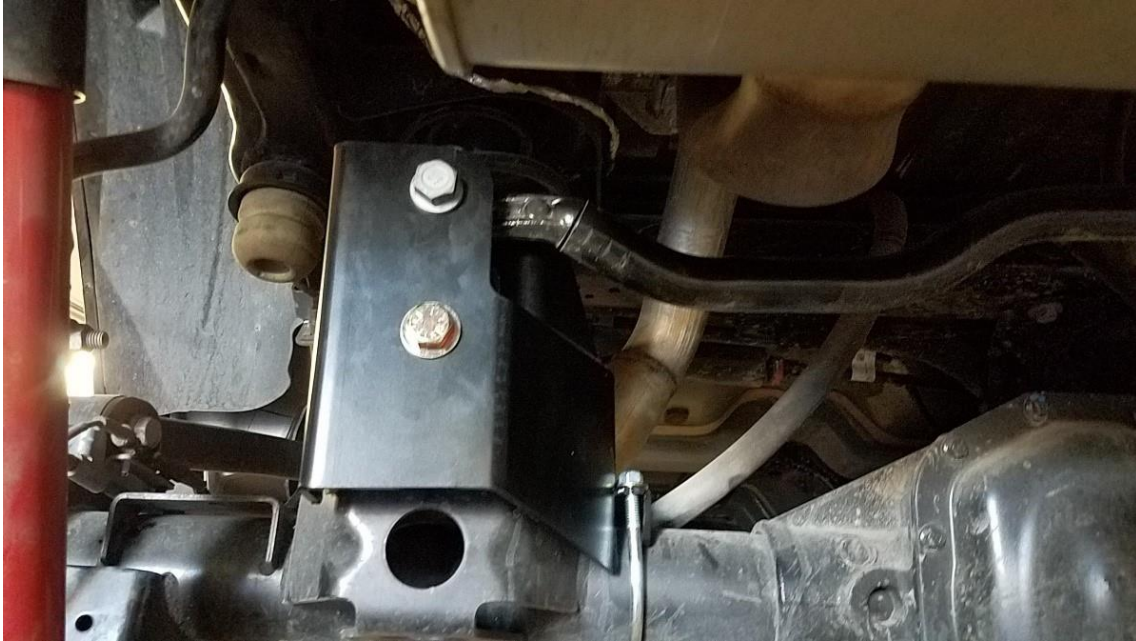


6. At lower original bolt mounting location, insert 5/8" spacer supplied crush sleeve into bracket and loosely install factory bolt at this location. Loosely install supplied bolt at new trackbar location. Loosely install supplied U Bolt at axle tube.
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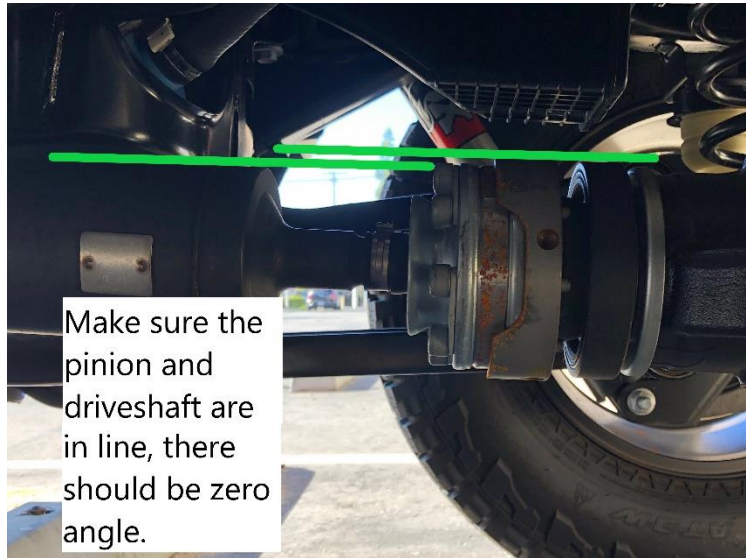


7. On driver side of bracket with bracket loosely installed, drill 15/32" hole through factory bracket. Install supplied 7/16" hardware.
  8. Torque all bracket bolts. Do not torque trackbar bolt at this time. This should be done on the ground at ride height later.
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After install, set pinion angle on vehicle so that the driveshaft and the pinion are inline with the axle at an approximate right height and centered to vehicle.

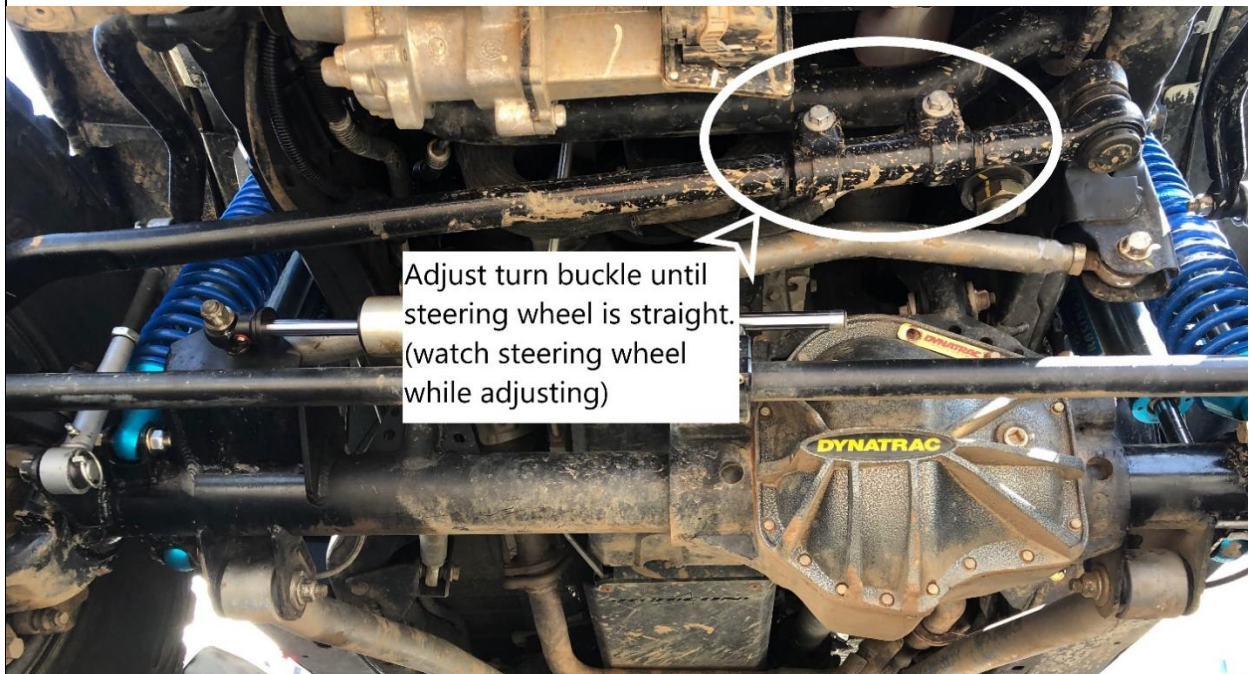


Make sure the pinion and driveshaft are in line, there should be zero angle.

### **Finishing up:**

1. Reconnect all disconnected hoses, wires etc.
2. Reinstall (all) rear wheels
3. Carefully jack vehicle by frame and remove jack stands.
4. Lower vehicle to ground.
5. Install FACTORY REAR swaybar link onto the front axle and front sway bar. Rubber bushing side on factory link goes inside the two tabs on the front passenger side axle and stud mount to outside of swaybar. Bend in link should jog upwards moving studded end toward tire.
6. **With vehicle parked securely on level ground at ride height. 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:

- Tighten all bolts securing purchased parts to specified locations.
- 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.
- For 3.5" or taller you will need a front track bar (included in plus "P" kit) or order EVO13047B separately.
- Inspect and Retorque all Bolts after 500 miles of completed installation and regularly thereafter.
- Some modification may be required.
- **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