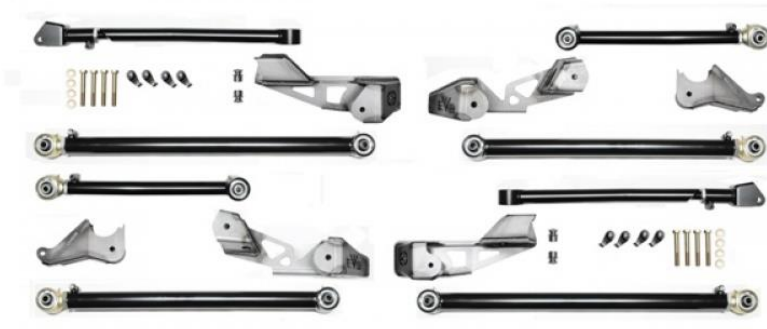




EVO Manufacturing

EVO-3010 JLU High Clearance Long Arm Upgrade Kit



READ BEFORE INSTALLATION: This kit is compatible with 4 Door JL Unlimited Models Only

This kit is recommended to be installed by a trained installer. It requires cutting and grinding of frame mounts and welding of new bracketry. Gas tank removal is required. This is easiest done when tank is low on fluid. Wheel spacers or aftermarket wheels with a smaller backspacing than factory are required for a complete installation. All Vehicles that spend time on salted roads. It is recommended that removal of control arm joint/collar (threaded end) on all 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. This instruction will give procedure of installing the long arm portion of the system first then return to install all other components after the vehicle has been long armed. DISCONNECT ALL BATTERY TERMINALS BEFORE STARTING. REINSTALL AT FINAL END OF INSTALLATION

Starting Length for all Long Arms:

Front Uppers: 26 3/8"

Rear Uppers: 20 1/2"

Front Lower: 34 1/2"

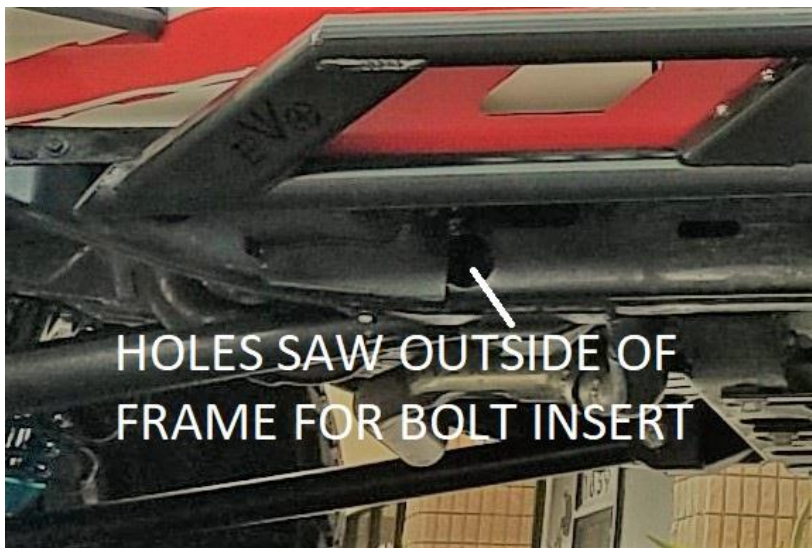
Rear Lower: 30 1/2"

1. Safely and securely park vehicle on level ground with parking brake applied.
2. Safely and securely lift vehicle on lift.
3. Remove Wheels and tires
4. Disconnect all wiring connections and hoses to axle.
5. Support axles and remove shocks
6. Remove bolt from driver and pass side brake line bracket at frame just behind front coils.
7. 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.
8. Unbolt driveshaft from axle. Tie up and out of the way.
9. Lower axle while checking wire and hose lengths until springs can be removed. Adjust wire and hoses connections as needed
10. Remove springs
11. Remove control arms from frame and axle and set aside. Axle will be loose at this time use caution and appropriate support.
12. Carefully Support underside of gas tank. Remove all bolts holding it to chassis. Carefully lower tank (remember there is fuel BE CAREFUL) until you can reach connections on top of tank and disconnect. Set tank aside in a safe well vented space away from any flames/heat. It will be reinstalled later.
13. Remove exhaust crossover bar from chassis (small crossmember bar in front of exhaust crossover), Bar will not be reused. Keep hardware.
14. Using tools at your disposal, grinders, cut off wheels, torch, plasma cutter etc. Clearance all control arm mounts, front upper, lower and rear upper and lower clean to frame rail. All Factory control arm mounts removed.
15. At exhaust collector, remove bolt on frame side of the collector and re-install opposite way from front to back through existing exhaust flange nut, snug. On rear side install supplied M8 nut.





16. Once all control arm mounts are clearance clean to frame. Starting in the front install front driver long arm bracket to frame using the single bolt hole on the underside of the frame where exhaust bar once was bolted using original factory bolt. This will locate this bracket in the proper location. Slight clearance of edge/lip on exhaust collector may be required. Do so as needed.
17. Repeat previous step on passenger side (less exhaust note)

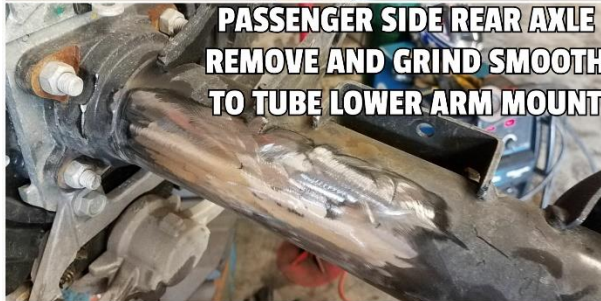


18. On driver side front only, lower arm mounting hole will need to be drilled through frame. Mark center using bracket as template and drill through both sides frame using a drill similar in size to you hole saw centering drill bit (~1/4" drill). Bracket may need to be removed to drill. Be careful to keep drill as square and centered while drilling outside frame.

19. After center pilot hole is drilled on driver side through both sides of frame drill INSIDE HOLE ONLY with 5/8" drill
20. On outside of frame we need to make a relief hole to install nut and washer inside frame to newer lower control arm bolt. Using at 1" or larger hole saw and the previously drilled pilot hole make hole in OUTSIDE of frame ONLY.
21. On rear, we need to trim some of the rear body mount bracket on frame just rearward of the body mount itself on both sides. Use the EVO Long arm as a template and slowly trim and fit body mount bracket until bracket fits nicely against body mount bracket and lower hole on underside of frame line up to install bolt. Roughly the rear side of the body mount will need to be full trimmed and cleaned to frame ~1/2" back of body mount small bolt.



22. Once all brackets are fitted to frame and fitment is acceptable. Clamp brackets to frame where you can and weld all seams, connections and openings between EVO Brackets and Frame.
23. Onto rear axle lower control arm and shock mounts. On rear axle, cleanly cut and grind smooth to axle tube the entire driver and passenger side rear lower control/shock mounts.
24. Using the supplied EVO Rear Lower Control Arm mounts for the axle. Hold radius in bracket to axle tube. Knotted front edge of EVO Bracket should be located flush with outer edge of axle bumpstop pad. Shock tabs should angle toward middle vehicle. See photo.



25. Once positioned, tab in place. Verify correct location of left and right and weld all connections to axle. Both sides.

26. Paint all exposed metal surfaces.



27. After paint has dried. Install all control arms into their new mounting locations. Front upper arms will bend giving clearance around frame. Rear upper arms will bend giving clearance for tire. Install all control arms with adjustable end at axle. All arms zerk fittings and pinch bolts are recommend be on the up side during install. Arms fully threaded in will be just slightly stretched of factory placement. Some stretch can be done by lengthening the arm thread out. Do not exceed 1" total on all arms. Cycle suspension to check for any interferences. ALL CONTROL ARM STARTING LENGTHS ARE LISTED ON PAGE 2.

All hardware is reused at axle connection of control arms. Supplied hardware is used at frame connections. Install supplied 3/8" x 2" bolts on all 8 control arm pinch bolts.

*Front Lower will use 5/8" bolt washers and nut on driver side through drilled/hole sawed holes. 5/8" Bolt washer and large flag nut on Front Lower passenger side.

*Front upper will use supplied 4" x 9/16" bolt, washers and nut on both driver and passenger side frame.

*Rear Lower will use supplied 4" x 9/16" bolt, washers and small flag nut on both driver and passenger side frame.

*Rear Upper will use supplied 3.5" x 9/16" bolt, washer and small flag nut on both driver and passenger side frame.

28. Reinstall new arms at axle locations using factory or upgraded hardware.
29. Reinstall gas tank (Carefully)
30. Verify all wiring and hoses are connected and have enough freedom for suspension motion.
31. Reinstall wheels and tires
32. Carefully lower to floor.
33. Torque all EVO Bolts according to table below. Torque all factory bolts to factory specifications.

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 tighten jam nut 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. Reconnect all battery connections.

Size	Recommended Torque											
	Grade 2		Grade 5		Grade 8		18-8 S/S		Bronze		Brass	
	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
#4*	-	-	-	-	-	-	5.2	-	4.8	-	4.3	-
#6*	-	-	-	-	-	-	9.6	-	8.9	-	7.9	-
#8*	-	-	-	-	-	-	19.8	-	18.4	-	16.2	-
#10*	-	-	-	-	-	-	22.8	31.7	21.2	29.3	18.6	25.9
1/4	4	4.7	6.3	7.3	9	10	6.3	7.8	5.7	7.3	5.1	6.4
5/16	8	9	13	14	18	20	11	11.8	10.3	10.9	8.9	9.7
3/8	15	17	23	26	33	37	20	22	18	20	16	18
7/16	24	27	37	41	52	58	31	33	29	31	26	27
1/2	37	41	57	64	80	90	43	45	40	42	35	37
9/16	53	59	82	91	115	129	57	63	53	58	47	51
5/8	73	83	112	128	159	180	93	104	86	96	76	85
3/4	125	138	200	223	282	315	128	124	104	102	118	115
7/8	129	144	322	355	454	501	194	193	178	178	159	158
1†	188	210	483	541	682	764	287	289	265	240	235	212

