

# EVO Manufacturing

2.5"/3.5" Jeep Wrangler JL 2018+

Enforcer Kit Instruction Manual

for all: EVO-3011, EVO-3012, EVO-3013, EVO-3014 Kits



#### **READ BEFORE INSTALL:**

- 2.5" JL Enforcer/Enforcer Overland kits with either EVO shock extension kit or rear 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" Enforcer/Enforcer Overland equipped JLs will require wheels spacers or aftermarket wheels with 4.5" or smaller number backspacing.

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. Its is recommended all installation be performed by a trained professional. Safely and securely park vehicle on level ground with parking brake applied.

- 1. Use wheel chokes to block rear tires from rolling
- 2. Loosen all front and 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. We will torque later at end of complete 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"

|                  | 2.5" Lift Coils | 3.5" Lift Coils |
|------------------|-----------------|-----------------|
| Front Left Coil  | 600117          | 600113          |
| Front Right Coil | 600118          | 600114          |
| Rear Left Coil   | 600119          | 600115          |
| Rear Right Coil  | 600120          | 600116          |

### FRONT INSTALL

- 3. Carefully lift front of vehicle by front frame rails extending suspension until tires leave the ground.
- 4. Securely place weight approved jack stands for vehicle under frame.
- 5. With vehicle front tires now suspended and frame securely supported on stands, remove front tires from vehicle.

- 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. 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.
- 10. Lightly jack front driver side axle tube slightly. With axle slightly supported remove front lower shock bolt from axle. 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. Support driver side axle with jack stand and repeat this step on passenger side.
- 11. Remove trackbar bolt at axle. This will allow the axle to move side to side so be cautious about this from here on.
- 12. Lower jack under axle giving room and remove front spring.
- 13. Insert supplied 3/8 x 2" bolt into front bumpstop extension. Place bumpstop with bolt inside (bore side up) EVO Front Coil spring and 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 previous page.



14. 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 bumpstop extension and tighten.

#### **OVERLAND KITS:**



If you are installing Overland kit with Front Control Arm Relocation brackets. Follow these instruction: If not 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 bolts at their axle connections. Remove heat shield from upper control arm at frame and unbolt upper 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. 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.

15. Install front EVO brake line extension bracket at original brake line mounting location on frame with factory bolt.



16. Install factory brake line to the new lower location on the EVO brake line extension bracket. Be very careful moving line into new location. The factory hardline will need to be slightly manipulated to be relocated. Do not use tools or pinch/crack the line.



17. 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, install shocks at both upper and lower mounting locations. Torque to factory specifications.

If new Front Lower EVO MFG Enforcer Arms have been installed. Carefully enlarge/drill brake line bracket mounting hole that once attached to factory lower arm to ½" and install on shock bolt after shock bolts have been torqued. Use M12 nut supplied with EVO Enforcer Control Arms. Series: Shock nut, brake line bracket, Flange Nut.

- 18. Repeat steps 10-19 on passenger side including Overland kit section is applicable.
- 19. Reinstall wheel and torque to factory specifications.
- 20. 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 it bracket at the axle while lowering the vehicle. When on the ground carefully turn steering

without ending running and in park with parking brake on and wheels chalked until trackbar lines up with hole in trackbar bracket. Insert factory bolt and loosely tighten bolt.

- 21. 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.
- 22. 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**

- 23. Safely and securely park vehicle on level ground with parking brake applied.
- 24. Use wheel chokes to block front tires from rolling
- 25. 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.
- 26. Carefully lift rear of vehicle by frame rails/crossmember extending suspension until tires leave the ground.
- 27. Securely place weight approved jack stands for vehicle under frame
- 28. With vehicle rear tires now suspended and frame securely supported on stands, remove rear tires from vehicle.
- 29. 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.
- 30. 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.

- 31. Lightly jack front driver side axle tube slightly. With axle slightly supported remove lower shock bolt from axle. 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. Support driver side axle with jack stand and repeat this step on passenger side.
- 32. Lower jack under axle giving room and remove rear springs. Keep note of which spring is driver and passenger.
- 33. 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.
- 34. 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.
- 35. Repeat on passenger side



- 36. 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.
- 37. 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**. If you are installing new shocks or shock extensions, do so at this time. Follow factory torque specs for shock bolts.
- 38. Using 2 factory swaybar bolts and 2 supplied M12 x 60 bolts washers and nuts install assembled EVO swaybar links to axle on outside of swaybar tab and outside of swaybar itself (outside outside). Factory bolt at axle, supplied bolt at swaybar. Upper swaybar link bolt must be installed with bolt head at tire side and thread side at frame.
- 39. 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 you down travel or a tight at full droop, route below crossmember and reconnect at axle.

FOR ENFORCER/ENFORCER OVERLAND 3.5" KIT ONLY. If installing 2.5" continue to next # step.

Remove rear trackbar bolt at axle. Move trackbar down under/out of factory bracket. Swing trackbar above axle bracket. Slide EVO MFG Bracket over top of factory trackbar bracket while at same time inserting trackbar into the new higher location/pocket on the EVO Bracket. At lower original mounting location 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. On driver side of bracket with bracket loosely installed, drill 15/32" hole through factory bracket. Install supplied 7/16" hardware. Torque all bracket bolts. Do not torque trackbar bolt at this time. This should be done one ground at ride height later.

40. Reconnect all disconnected hoses, wires etc.

- 41. Reinstall rear wheels
- 42. Carefully jack vehicle by frame and remove jack stands.
- 43. Lower vehicle to ground.
- 44. Install FACTORY REAR swaybar link onto the front axle and front sway. 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.
- 45. With vehicle park securely on level ground at ride height. Torque all control arm bolts, uppers, lowers 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 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.

|            | Recommended Torque |      |         |      |         |      |          |      |        |      |        |      |
|------------|--------------------|------|---------|------|---------|------|----------|------|--------|------|--------|------|
| Size       | 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  |
| <b>1</b> † | 188                | 210  | 483     | 541  | 682     | 764  | 287      | 289  | 265    | 240  | 235    | 212  |