2021-2023 Ford Bronco Sport Big Bend/Outer Banks/Base/Heritage 2.5 inch lift kit installation guide

Professional installation recommended

IMPORTANT!

Lifting and modifying the suspension on your vehicle may result in drive line vibrations, damaged bushings, erratic handling characteristics, and shortened suspension component life. HRG Offroad recommends the following:
-Checking and/or replacing worn drive axles with new parts, not remanufactured.
-Checking and/or replacing all worn factory rubber bushings with urethane bushings, such as Prothane.
-Checking and/or replacing worn shock absorbers and bump stops.
-Performing a 4 wheel alignment after working on suspension components.
Lift kits may not be legal for use on public highways in your area. Please check local laws before installing!!

WARNING!

Lifted vehicles are more prone to rolling over.
Some HRG Offroad products are designed to improve off-road capabilities. Modifying the suspension of your vehicle may result in handling characteristics that are different from a factory equipped vehicle. Extreme care must be used to prevent a rollover or loss of control. Always operate your modified vehicle at a reduced speed to ensure your ability to maintain control under all driving conditions. Driving your vehicle in an unsafe manner may result in serious injury or death. HRG Offroad lift kits are designed and tested to work together. HRG Offroad does not recommend combining this lift kit with any other type of suspension or body lift. Always wear your seat belt.

Recommended tire/wheel sizes:

245/60/18 18x8 +38 wheels
245/65/17 17x8 +38 wheels
245/70/16 16x7 +20 wheels

Extreme tire sizes: (may require modification or removal of fender lining)

235/70/17
255/65/17
235/75/16
255/70/16

Be sure to check fitment prior to installation! These sizes are only suggestions. HRG is not responsible for improperly fitted wheels/tires.

Included in the kit:

2 2.5" front lift spacers 5070
2 1.5" rear lift spacers 5073
6 M8x16 bolts (spacer mounting bolts)
4 1.25x1.5" M14 spacers (trailing arms)
4 M14x80mm bolts (trailing arms)
4 1.25x1 M14 spacers (transmission)
4 M14x80mm bolts (transmission)
2 0.75x0.5 M6 spacers (front brake line spacers)
2 M6x25 bolts (front brake line spacers)
2 M14 Front Camber adjustment bolts
2 sway bar end links for lifted applications
2 ABS wire relocation brackets
2 Rear brake line relocation brackets
4 1.25x1 M12 spacers (engine mount)
4 M12x80mm bolts (engine mount)
4 1x1 M10 spacers (front subframe brackets)
4 M10x50mm bolts (front subframe brackets)
2 1.25x1 M16 spacers (front subframe)
2 M16x130mm bolts (front subframe)
2 M12x120mm bolts (front subframe)
2 1x1 M10 spacers (front subframe)
2 M10x60 bolts (front subframe)`1
2 1.25x1 M12 spacers (front subframe)
2 "S" intercooler support brackets(L+R)
4 2.75x1 M14 spacers (rear subframe)
4 M14x130mm bolts (rear subframe)
2 0.75x1 M8 spacers (muffler brackets)
2 M8x60mm bolts (muffler brackets)
2 shock extension brackets
4 M12x35mm bolts (shock brackets)
4 M12 nuts (shock brackets)
4 M12x50mm bolts (shock brackets)
4 1.25x1 M12 spacers (shock brackets)

1 wire relocation bracket
1 M6x20mm bolt
1 M6 nut
1 1" foam weather seal (steering shaft)

Tools required:

Floor jack or lift, lug wrench, metric socket set to 21mm, metric wrench set to 21mm, T40 Torx bit, T25 Torx bit, panel removal tool, common pliers, body saw, drill and 1/4" drill bit, 1 inch hole saw, torque wrench and heavy hammer.

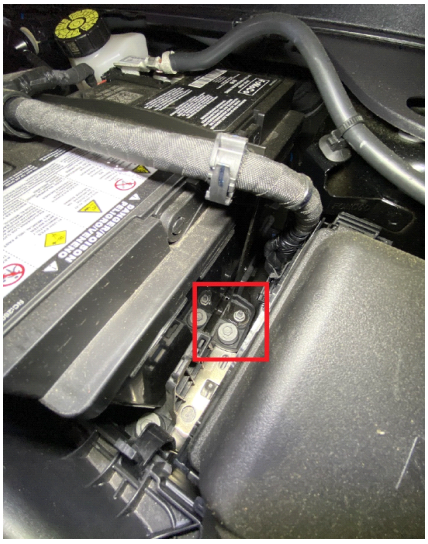
Approximate installation time 7-8 hours

Note to installer: This kit requires trimming metal for clearance on the firewall, as well as drilling holes in the inner fender well and lower bumper bar. None of these modifications are in areas that are visible and do not prevent the vehicle from being returned to stock.

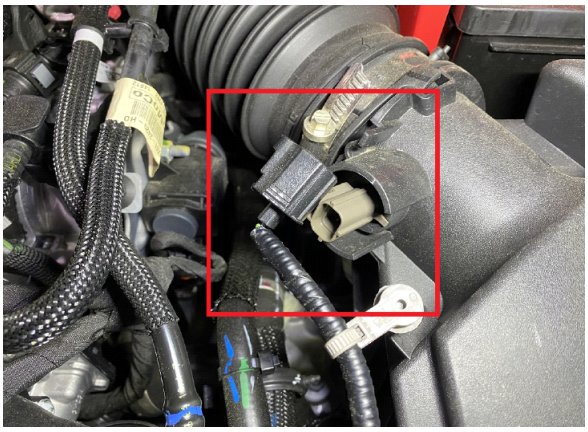
Installation video:

Front installation:

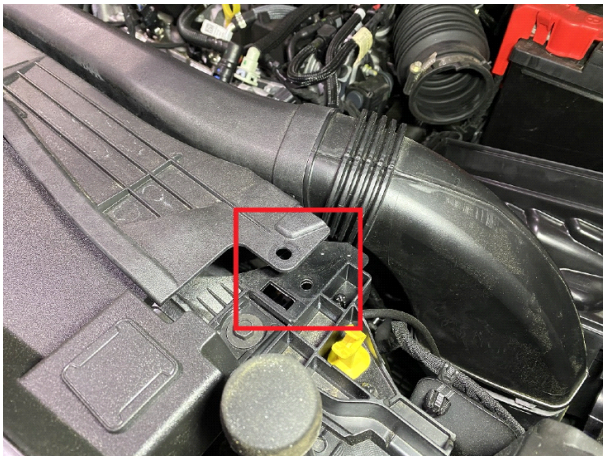
Step 1. Disconnect both positive and negative terminals and remove battery.



Step 2. Disconnect air intake temperature sensor.

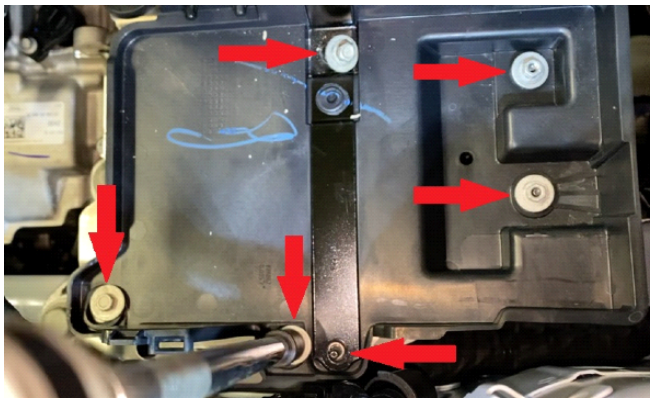


Step 3. Remove 2 clips holding air intake to front support.



Step 4. Remove air box assembly by pulling upward.

Step 5. Unclip positive battery wire from battery tray, and remove battery tray.



Step 6. Remove 3 of the 4 bolts holding transmission bracket to transmission.

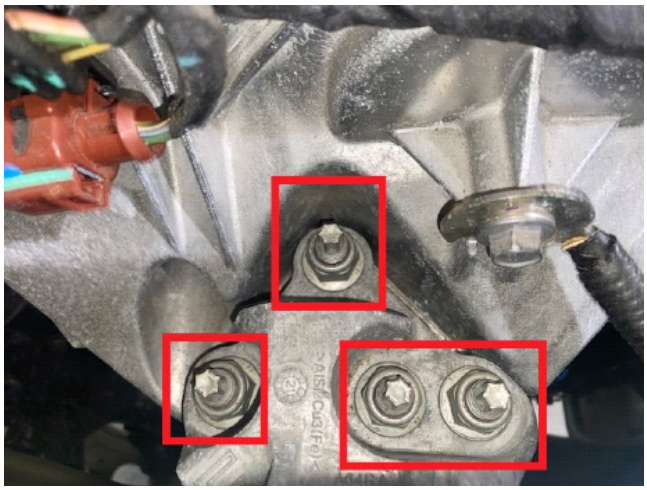
Step 7. Temporarily install 1 of the 4 bolts provided in the kit to keep transmission bracket in alignment.

Step 8. Remove remaining OEM transmission bracket bolt.

Step 9. Support engine/transmission with a floor jack

Step 10. Remove 4 nuts on engine bracket (see photo below)

Step 11. Using a 8mm socket, back out mounting studs from engine bracket, temporarily replacing one of the studs with an M12x80 bolt provided in the kit. This will hold the engine in place when lowering the subframe.

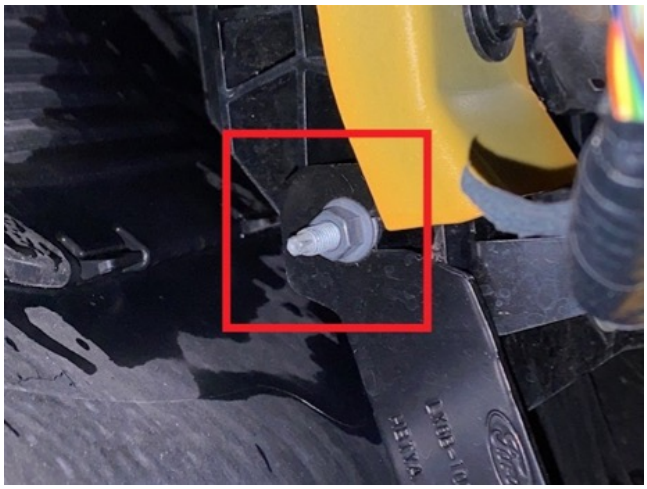


Step 12. Remove plastic push pins and Torx T30 screws holding OEM splash shield under engine, remove splash shield. If desired, replace with HRG Offroad full front skid plate.

Step 13. Remove plastic push pins and screws on driver and passenger side fender liners and splash guards (see photos)

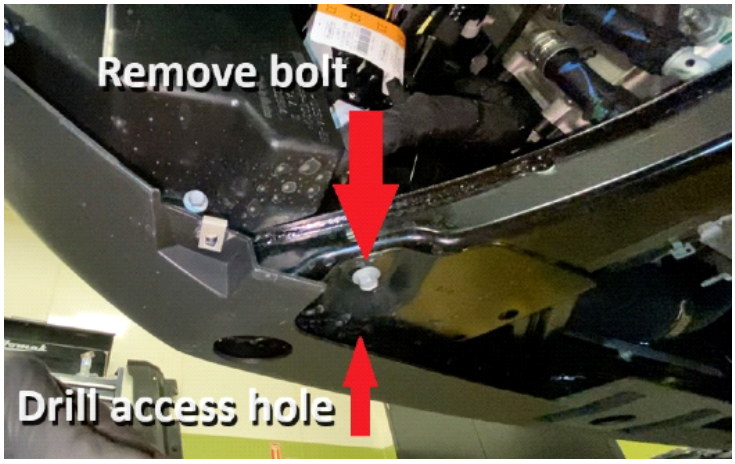
Step 14. Behind driver side fender liner, remove bolts holding BCM to bracket. Remove bolts holding BCM mounting bracket to frame. Push BCM out of the way to allow access to intercooler support bracket.

Step 15. Remove intercooler support brackets on both driver and passenger side. (these will be replaced with longer ones) Save hardware.



Step 16. There is one bolt on the bottom of each side and 2 nuts in the front of each side. (see photos) Remove lower bumper support bar

Step 17. Drill a 1 inch hole in the bumper bar on both left and right sides in order to access the subframe bolt that is covered by the bumper bar. See photo below), .



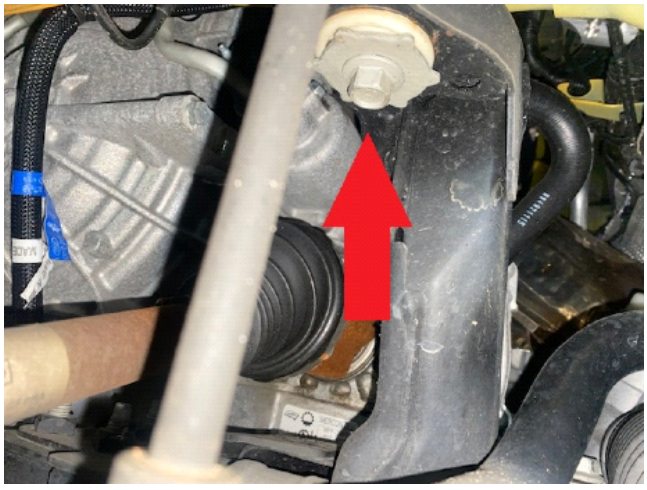
Step 18. Reinstall bumper bar, be sure drilled hole allows access to subframe bolt that was originally

covered up.

NOTE: If desired, remove lower bumper bar altogether. (Badlands bronco sport is not equipped with this bar)

Step 19. Remove clips and bolts holding felt undercarriage liner on both driver and passenger side (see photo)

Step 20. Remove M12 subframe bolt located in wheel wells on both driver and passenger side. Temporarily install M12x140 bolts to keep subframe aligned.

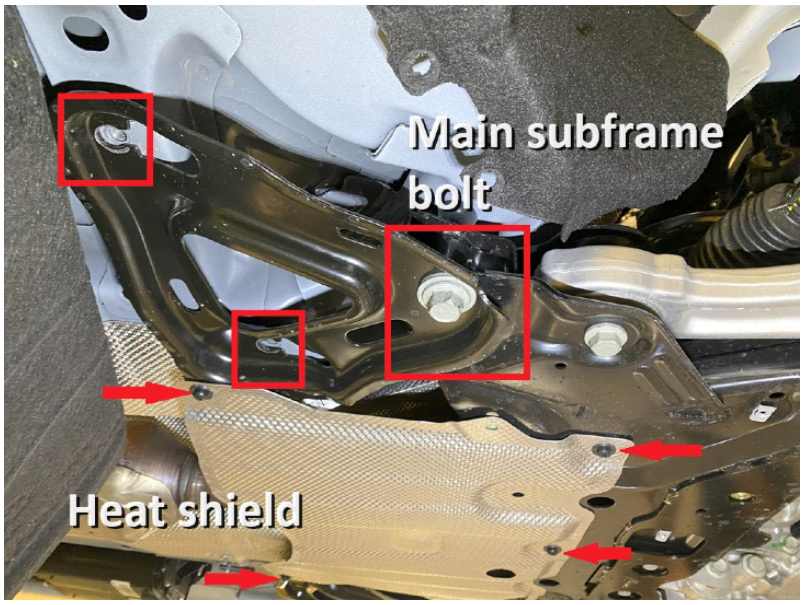


Step 21. Remove 2 M10 bolts located at front of front subframe.

Step 22. Remove Torx screws holding heat shield in place. (see photo below)

Step 23. Remove 2 smaller bolts from bracket at rear of front subframe (see photo below)

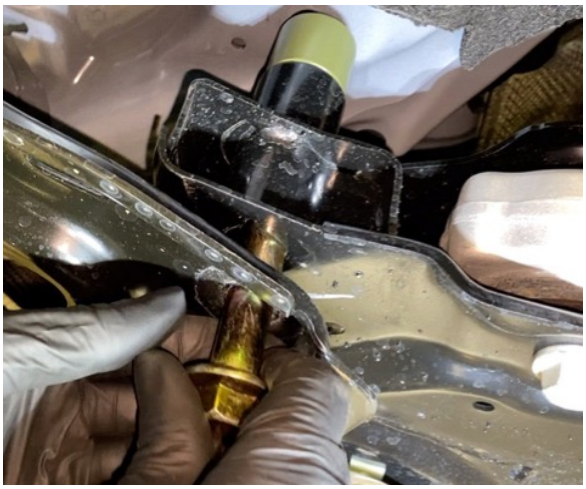
Step 24. Remove main subframe bolt. (see photo)



Step 25. Carefully lower subframe about one inch.

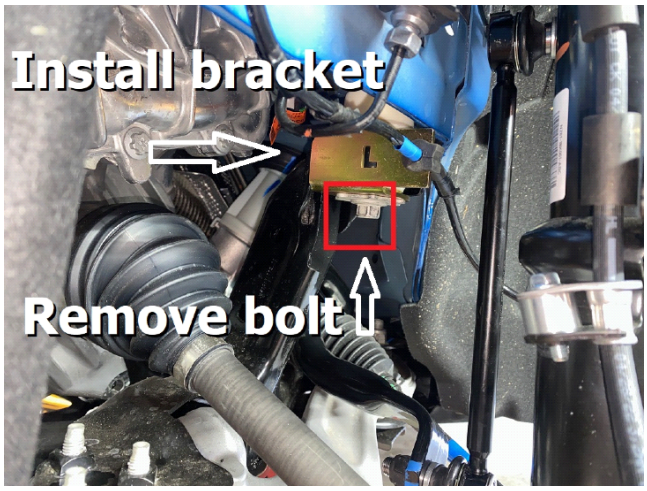
NOTE: Engine/transmission will lower with subframe

Step 26. Place 1.25x1 M16 steel spacers between subframe and body, install M16x130 bolts on both driver and passenger side. Don't forget to pass the bolt through the subframe support brackets.

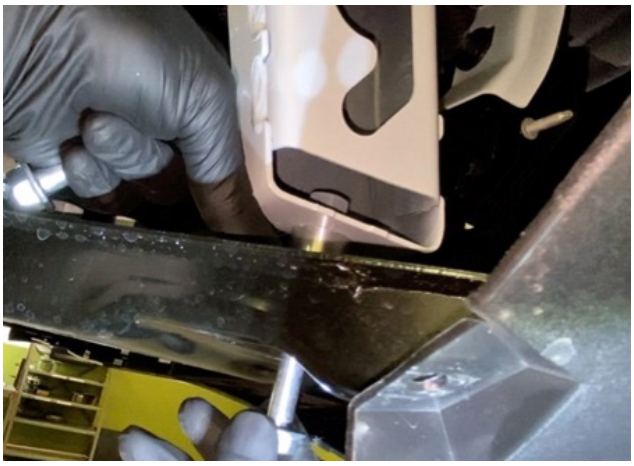


Step 27. Place 4 1x1 M10 spacers between subframe support brackets and body, install 4 M10x50 bolts.

Step 28. Moving to the M12x140 bolts that were temporarily installed earlier, remove bolts and place 1.25x1 M12 spacer between subframe and body. Pass bolts through ABS brackets as shown in photo below. L is for DRIVER SIDE, R is for PASSENGER SIDE. L and R should read face up. Be extra careful not to install these brackets backwards or upside down, as they will come in contact with the axle shaft! ABS wiring will be re-routed and attached as shown in a future step.



Step 29. Place 1x1 M10 spacers on both driver and passenger side all the way at the front of the subframe, between the subframe and the body, install M10x60 bolts.



Step 30. Install "S" brackets in place of OEM intercooler support brackets, secure with factory hardware.

Step 31. Reinstall BCM bracket and BCM using factory hardware.

Step 32. Remove plastic clip holding fender liner to inner fender (see photo). Position the liner to attach to subframe and bumper.

Step 33. Drill 1/4" hole for plastic clip about 1 inch lower than the original hole. Secure fender liner with factory clip.

Step 34. If desired, trim away bottom of plastic bumper to allow clearance for lower bumper bar. (we did not cut ours)

Step 35. Re-attach plastic bumper cover to lower bumper bar with OEM hardware. (drilling new holes may be required)

Step 36. Reinstall felt undercarriage liners with factory hardware. If desired, remove driver side felt liner and replace with HRG Offroad Evap canister armor, aka Mid-Skid.

Step 37. Place 4 1.25x1 M12 spacers between transmission bracket and transmission. Install M14x80 bolts. (see photo)

Step 38. Place 4 1.25x1 M12 spacers between engine bracket and engine. Install 4 M12x80 bolts.

Step 39. Reinstall air box.

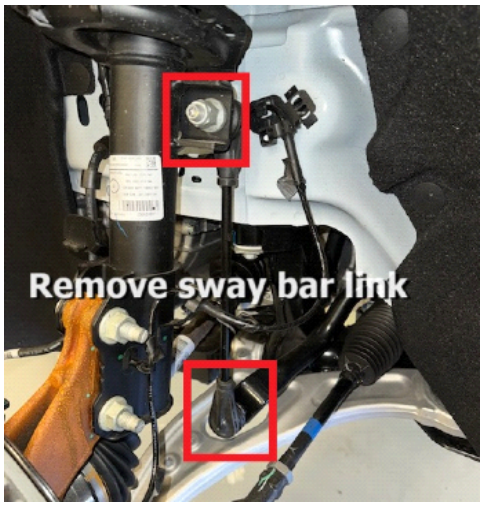
Step 40. Reinstall battery tray and battery.

Step 41. Reconnect sensors and wiring.

Step 42. Remove wheels.

Step 43. Remove brake line and ABS wiring from driver side strut.

Step 44. Using 18mm wrench and Torx T40 bit, remove sway bar link. (keep stock nuts)



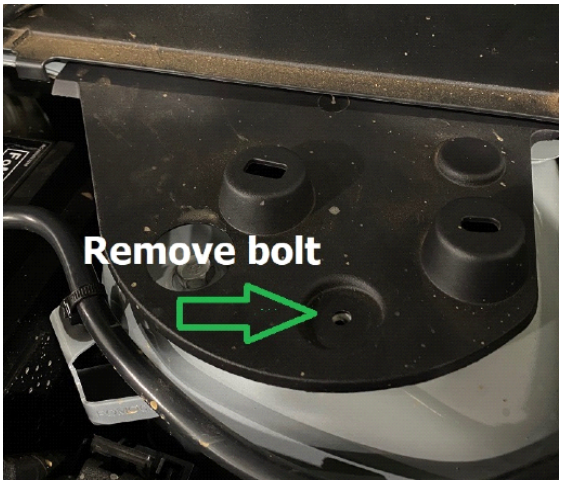
Step 45. Remove nuts connecting strut to knuckle. Strike bolts carefully with hammer to slide bolts out. **Do not use an impact to back bolts out of knuckle.**

NOTE: Do not allow the hub to fall loose, as the axle may come out of the inner CV joint.

Step 46. Support knuckle with floor jack or screw jack.

Step 47. Using a panel removal tool, remove metal clips and pry up plastic cowl cover.

Step 48. Using a 10mm socket, remove plastic panel covering strut bolts.

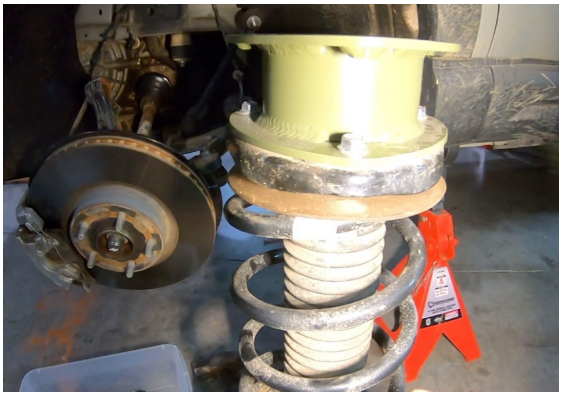


Step 49. Remove M8 bolts at the top of the strut connecting strut to strut tower. Remove strut. Save hardware for reinstallation.

Step 50. Disconnect ABS wire from wheel sensor.

Step 51.Remove ABS wiring from inner fender. ABS wire will be rerouted and plastic clips will not be reused.

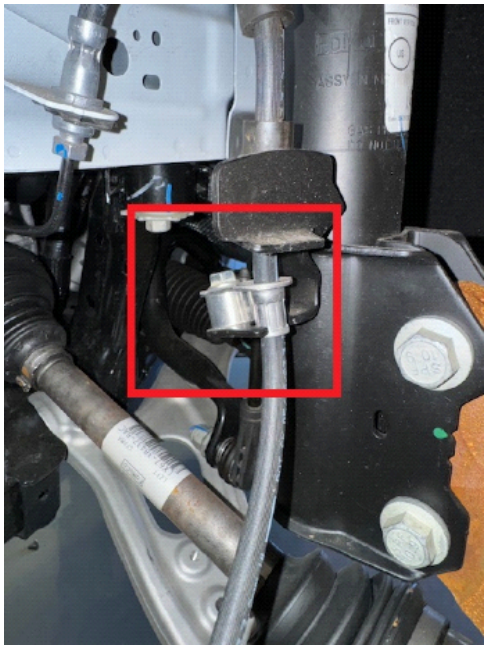
Step 52. Install lift spacers onto strut using supplied M8x16 bolts as shown.



Step 53. Reinstall strut with spacer attached, using original hardware through the shock tower and into the spacer.

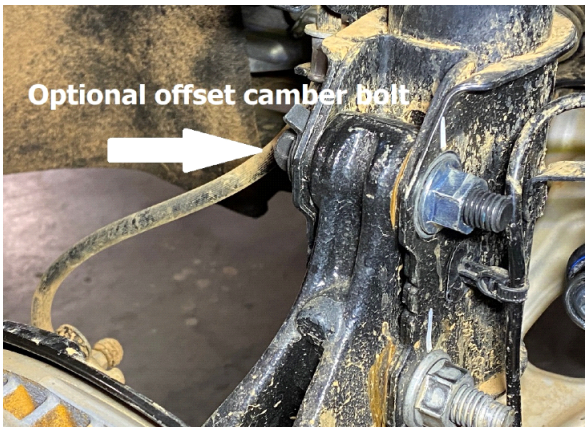
Step 54. Reinstall plastic shock tower cover.

Step 55. Place 0.5x0.75 M6 spacer between brake line and brake line mounting bracket on the strut. Secure with supplied M6x25 bolt.



Step 56. Install lower bolt connecting strut to knuckle.

Step 57. Install offset camber adjustment bolt in place of upper strut bolt.



Step 58. Install supplied shorter sway bar end link.

Step 59. Repeat steps 42-58 for passenger side.

Step 60. Tighten and double check all bolts in subframe and front suspension.

Step 61. Reinstall front wheels.

Step 62. Locate steering coupler where it passes through the firewall under the dash.

Step 63. Using a body saw, trim away metal surrounding the opening to allow steering coupler to turn without contacting the metal. ***ALTERNATIVE METHOD: bend metal out of the way using a screwdriver or similar tool.***

Step 64. Install 1 inch foam seal between firewall and factory steering shaft weather seal. This is easiest if pushed into place through the hole where the steering shaft passes through. This seal can also be installed from under the vehicle but it is more difficult. Position foam seal so that there are no gaps.

Rear installation:

Step 1. Lift vehicle and support with jack stands.

Step 2. Remove wheels.

Step 3. Loosen all 4 bolts holding rear subframe to body, allowing subframe to drop approximately one inch.

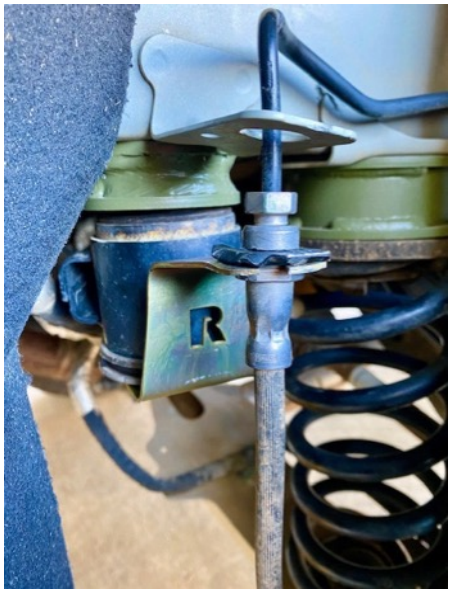
Step 4. Remove front 2 bolts, place 2.75x1 M14 spacers between subframe and body.

Step 5. Install M14x130 bolts provided in the kit in place of front 2 bolts.

Step 6. Remove rear 2 bolts, place 2.75x1 M14 spacers between subframe and body.

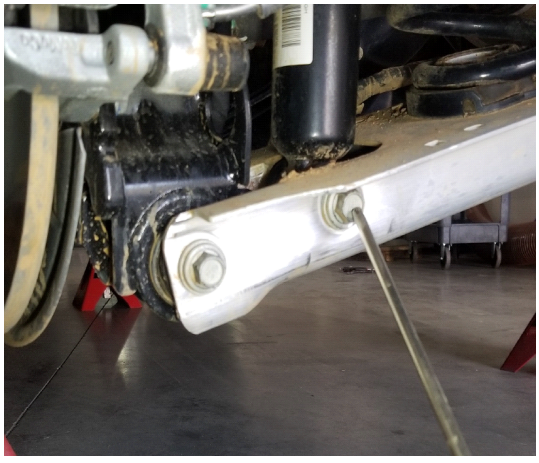
Step 7. Remove spring clip holding rear brake line. Save clip.

Step 8. Install M14x130 bolts, passing bolts through rear brake line brackets provided in the kit (L is for driver side, R is for passenger side) (see photo)



Step 9. Position brake line relocation bracket and brake line so brake line passes cleanly through OEM mounting hole. Alternatively, completely remove OEM mount with cutoff wheel.

Step 10. Using 15mm socket, remove shock mounting bolt from driver side lower control arm.



Step 11. Support lower control arm with jack or screw jack.

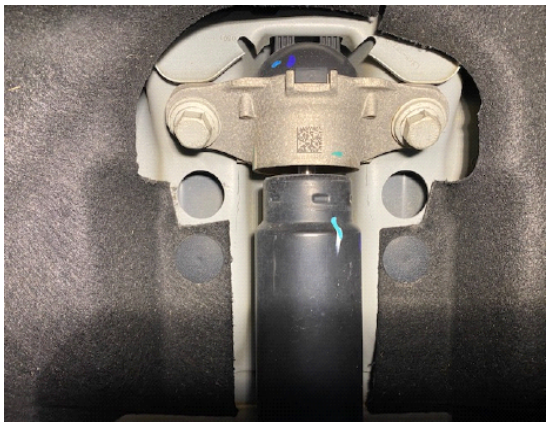
Step 12. Remove bolt holding lower control arm to wheel hub.

Step 13. Carefully release spring tension by lowering floor jack or screw jack. (We prefer a floor jack)

Step 14. Remove spring and upper rubber isolator.

Step 15. Place rubber isolator over rear spring spacer.

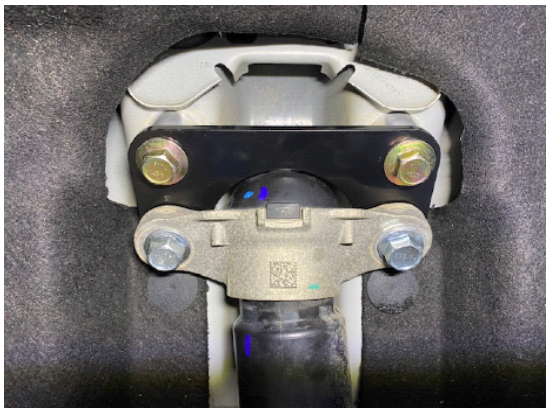
Step 16. Trim felt fender liner as shown in photo.



Step 17. Remove 2 bolts holding rear shock to inner fender, remove shock.

Step 18. Attach shock extension plate to shock using hardware provided in the kit.

Step 19. Place 2 1.25x1 M12 spacers between shock extension and body, bolt to body using hardware provided in the kit. (see photo)



Step 20. Fold back felt liner to access trailing arm mounting bolts.

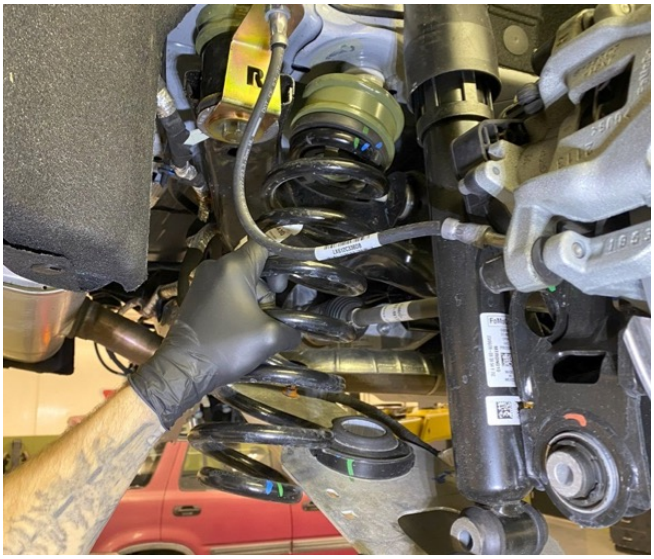
Step 21. Remove 2 bolts holding trailing arm to body.

Step 22. Place provided 1.25x1.5 M14 spacers between trailing arm and body.

Step 23. Install provided M14x80 bolts to secure trailing arm.

Step 24. Reinstall felt liner.

Step 25. Install spring and spacer.



Step 26. Using a floor jack, lift lower control arm into position to line up bolt hole on shock.

Step 27. Reinstall lower shock bolt.

Step 28. Using a jack, lift or lower control arm until wheel hub holes line up.

Step 29. Install bolt holding wheel hub to lower control arm.

Step 30. Repeat steps 10-29 for passenger side.

Step 31. With the lower control arm lifted up (simulating the position it will be in with the car on the ground) tighten all bolts.

Note: Tightening the bolts with the arms in the air may cause premature bushing failure.

Step 32. Remove bolt holding driver side muffler mounting bracket.

Step 33. Install 0.75x1 M8 spacer between driver side muffler mounting bracket and body, install M8x60 bolt.

Step 34. Remove nut and bolt holding wiring harness and muffler mounting bracket on passenger side.

Step 35. Install 0.75x1 M8 spacer between passenger side muffler mounting bracket and body, install wiring harness relocation bracket, M8x60 bolt. Reattach wiring harness using M6 bolt and nut included in the kit. (see photo)

Step 36. Reinstall wheels and lower vehicle.

Step 37. Get a professional 4 wheel alignment.

Step 38. Find some trails!

Note: Installing a lift kit will change the suspension geometry and will require a 4 wheel alignment.

Warning: Failure to follow the procedures in these installation instructions may result in unsafe handling characteristics, damage to vehicle, or loss of control.

For tech support, please call 1-844- HRG LIFT (474-5438) from 8-4:30

PM EST Mon-Thu 8-3:30 PM Fri or email us 24/7 at support@hrgoffroad.com.

This product is intended for off-road use only!!

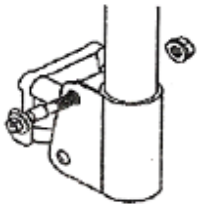
CAMBER BOLT INSTRUCTIONS

WARNING: THE NUTS ON THESE BOLTS HAVE A SELF-LOCKING FEATURE. THE NUT WILL STOP TURNING ONCE YOU REACH THIS POINT AND YOU CAN NO LONGER TURN IT BY HAND. YOU MUST USE A TORQUE WRENCH TO TIGHTEN THEM TO THE SPECIFICATIONS LISTED BELOW. ONCE TORQUED, THE NUT WILL LOCK ONTO THE BOLT.

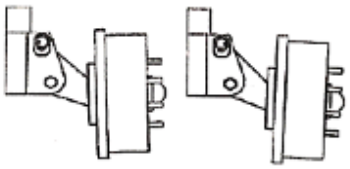
For camber changes greater than 1 degree, it will be necessary to install camber bolts in upper and lower bolt locations in the strut flange.

1. Check and document initial alignment readings
2. Raise vehicle and remove tire/wheel assembly
3. Remove upper strut bolt (do not loosen lower strut bolt)
4. Install slotted washer on bolt.
5. Insert camber bolt with washer through the strut/spindle assembly in the same direction the OEM bolt came out. Snug lock nut but do not tighten
6. Loosen lower strut bolt. On models with splined spindle bolt, drive bolt out until splines are free from flange.
7. Reinstall tire/wheel assembly and alignment equipment or simply use Camber Kwik gauge. Rotate camber bolt until desired camber is acheived.
8. Tighten all bolts and torque but DO NOT EXCEED TORQUE SPECIFICATIONS.
9. Proceed with rest of alignment and road test vehicle.

Insert Mega Cam, with the washer already on bolt into the strut housing in the same direction the OE bolt came out.



Point the marking located on the head of the Mega Cam towards the inside of the vehicle for full negative camber.



Point the marking located on the head of the Mega Cam towards the outside of the vehicle for full positive camber.

Part #	Max. Torque Specifications	
1001	60 ft. lbs.	12mm Ultra Cam
1002	100 ft. lbs.	14mm Ultra Cam
1003	100 ft. lbs.	15mm Ultra Cam
1004	150 ft. lbs.	16mm Ultra Cam
1005	150 ft. lbs.	17mm Ultra Cam