INSTALLATION GUIDE

ACCUAIR SUSPENSION

AA-4397

2007-2017

JEEP WRANGLER (JK)

AIR SUSPENSION SYSTEM

CONGRATULATIONS!

Your AccuAir® Jeep JK Air Suspension system reflects a unique solution to balancing enhanced off road terrain and obstacle clearance with everyday drivability and ride quality. The AccuAir® JK system features remote mounted seamless air tank, a quality compressor, mounts and all fittings necessary to replace your coil springs with ruggedly designed four corner air bags allowing you to select a ride height tailored to your off road adventures. Back on the road, a unique speed sensing value presets ride height to a maximum of 3.0" of lift (approx.), helping to preserve familiar ride comfort. Enjoy your AccuAir® JK system by Treading Lightly© and following all instructions and product safety messaging below. If you have further questions contact us at: **sales@AccuAir.com**. Our team is here to help.

A FEW WORDS ABOUT PRODUCT SAFETY

Before installation, please take a moment to review the following safety information and installation instructions. Important safety information is generally preceded by one of three signal words indicating the relative risk of injury.

The signal words mean:

WARNING:

A hazardous situation which, if not avoided, could result in death or serious injury. You **CAN** be **killed** or **seriously hurt** if you don't follow instructions.

CAUTION:

A hazardous situation which, if not avoided, could result in minor or moderate injury. You **CAN** be moderately **hurt** and may also suffer property damage if you do not follow instructions.

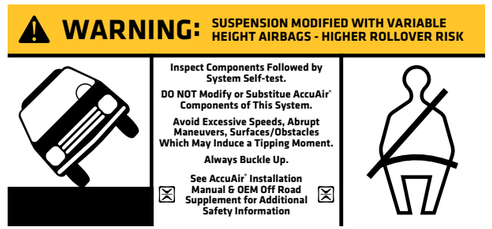
NOTICE:

Careful attention is required to this instruction or operation but does generally not relate to personal injury. Damage to your AccuAir® product or other property may result if you don't follow instructions.

The suspension of this vehicle has been optimized for off road utility through installation of an AccuAir® system allowing control/adjustment of ride height to accommodate challenging terrain & obstacles. The suspension feel and handling maybe different than an unmodified Jeep.

To reduce risk of roll-over other accident & serious injury always:

- Inspect components including bags, lines, valves & compressor before use, followed by system self-test. Maintain & repair as indicated. On road height limited to approx. 3.0" by system speed & ride height sensors. **REPLACE & DO NOT USE ON ROAD IF SPEED SENSOR DAMAGED/INOPERATIVE.**
- **DO NOT** modify or substitute AccuAir® components of this system. Use of oversize tire/wheel combinations may increase stopping distances, ride height and/or compromise performance of vehicle stability control and other systems.
- Avoid excessive speeds, abrupt maneuvers, surfaces/obstacles which may induce a tripping moment. All occupants **BUCKLE UP & USE** supplemental restraints.
- Consult the AccuAir® installation manual (**sales@AccuAir.com**) & OEM off road supplement for additional safety information.



Affix warning decal on driver's side visor in clear view of all occupants.

WARNING:

Wheel setup with a minimum of 4.5" of back spacing is required with a maximum 9" wide wheel.

WARNING:

This advanced AccuAir® JK kit requires professional installation, with access to vehicle lift and experience with Jeep JK suspension, electrical wiring, Jeep maintenance recommendations, safety messaging, torque & other specifications, general repair safety including personal protection, vehicle rack safety, isolation and containment of OEM spring assemblies during removal.

WARNING:

Incorrect shock length will distort air bag placement and lead to burst or reduced service life. USE front and rear shock absorbers included with this kit.

Replacement shocks must be FRONT: 26.125" (allowed variance .125"); REAR: 27.72" (allowed variance .125").

CAUTION:

Risk of Eye Injury. Safety glasses, gloves & other personnel protection should be worn when working with this product.

NOTICE:

Never lower vehicle from rack or following inspection/ repair without air bags being fully inflated.

WARNING

CANCER AND REPRODUCTIVE HARM
WWW.P65WARNING.CA.GOV

- The drag link must be adjusted to center the steering wheel before the vehicle is driven. Failure to do so will cause computer errors, odd handling characteristics, and poor performance.
- If larger tires (10% more than the OEM diameter) are installed, speedometer recalibration will be necessary. Contact your local Jeep dealer.
- After installation, a qualified alignment facility is required to align the vehicle to the OEM specification.

ACCUAIR® SUSPENSION LIMITED WARRANTY

WHAT IS COVERED?:

Subject to the terms, exclusions and limitations herein, Arnott, LLC. ("Warrantor" or "AccuAir") exclusively warrants to the initial retail purchaser of a AccuAir Jeep JK suspension kit that AccuAir will according to terms herein, repair defects in or replace AccuAir supplied components which, upon AccuAir inspection are determined to have defects in materials or workmanship existing as of the date of sale to the initial retail customer (hereafter "Customer"). This Limited Warranty is the sole and exclusive warranty made or authorized by Warrantor. This Limited Warranty is not a warranty or promise of any particular future performance.

The term of this Limited Warranty shall be three years as measured from the date of sale to initial Customer (the warranty "TERM"). Any claim under this limited warranty must be made within six months of the last day of the warranty TERM or will be forever waived. The duration of any implied warranty shall be limited to the three year term of express limited warranty above.

WHAT IS NOT COVERED?:

Your AccuAir **Limited Warranty does not cover**: (1) defect in a AccuAir air suspension kit or component causing or contributing to damage or defect, of any type whatsoever, to the vehicle it is installed upon or any electrical system or other vehicle system or component separately warranted or supplied by a manufacturer other than AccuAir, (2) damage to AccuAir components or your vehicle from altering or disabling any component of your vehicle or AccuAir product; additions, alterations, or other products or components not supplied by AccuAir, (3) installation or use contrary to professional installation recommendations, or other installation/use contrary to instructions and safety messaging included within your AccuAir product, (4) expected wear and tear on airbags and other components considering vehicle use, damage related to failure to adequately, install, inspect, maintain, adjust or service as recommended or required, damage resulting from improper suspension set-up, loading, accident, collision, vandalism, abuse, misuse, neglect, fire, flood, normal wear, defects in or degradation of finishes, reflecting corrosion, UV or other environmental influences (5), AccuAir, components used in competition, other off road use or events which may involve unforeseen vehicle components, suspension set ups, contact between vehicles, rocks or obstacles, other components of your vehicle and your AccuAir components, damage or degradation of performance, *(6) labor, lost time, lost use or opportunities, reasonable delays in remedies hereunder, other consequential, incidental, punitive or other damages or costs, including those incurred in removing, reinstalling or delivering your AccuAir component to AccuAir for inspection, repair or replacement*.

OBTAINING WARRANTY & CUSTOMER SERVICE:

Register your AccuAir Purchase. For questions or claims contact AccuAir Customer Service: **100 Sea Ray Drive, Merritt Island, FL 32953**. You will be asked to advise AccuAir in writing of your understanding of all defects and provide AccuAir an opportunity to repair or replace the affected component(s) subject to the terms of this Limited Warranty. Please have proof of purchase available.

REMEDY LIMITED TO REPAIR/REPLACEMENT BY ACCUAIR. BINDING, SINGLE CLAIM ARBITRATION-VENUE:

Upon Customer's removal and delivery to AccuAir for inspection and AccuAir determination of a covered defect, *the exclusive remedy provided hereunder* shall at AccuAir's option be repair or replacement of the defective AccuAir component(s). Your sole and exclusive remedy for breach of this Limited Warranty or any implied warranty imposed by law, is the reasonable costs for replacement parts necessary to correct the defect(s) upon which the finding of breach is based. *For separate, valuable consideration received; all claims arising from or related to purchase or use of AccuAir components shall exclusively be maintained as a separate action by each Customer applying Florida state law (without reference to treaties or conflict of law provisions) through binding arbitration before a neutral selected by Customer from the JAMS® panel closest to Merritt Island, Florida. To the extent permitted by law, each party shall bear its own costs and fees. Any claim to enforce an arbitration award or for other breach or damages under this Limited Warranty can only be brought in a court of competent jurisdiction closest to Brevard County, Florida.*

OTHER EXCLUSIONS –LIMITATION OF DAMAGES - YOUR RIGHTS UNDER STATE LAW.

No employee, other agent of AccuAir or authorized reseller may, amend or waive this written Limited Warranty or make additional representations or warranties regarding any AccuAir features, performance, workmanship or materials. AccuAir reserves the right to make changes in design and changes or improvements upon its products without imposing any obligation on itself to install or upgrade the same upon products previously manufactured.

By installation and use of your AccuAir product, and/or submitting a claim under this ***Limited Warranty***, you acknowledge that you have received and understand all product instructions, warnings and this ***Limited Warranty*** and agree to be bound by all terms therein, reflecting the exclusive terms and remedies of the parties bargain.

*This **Limited Warranty** gives you specific rights. You may also have other rights that vary from state to state. For example, some states do not allow limitations of how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the limitations and exclusions herein may not apply to you. All other warranties are hereby disclaimed, except to the extent prohibited by applicable law.*

INCLUDED PARTS

- Air Suspension Conversion Kit
- JRi Custom Tuned Shocks
- e+ Connect
- TouchPad+ Upgrade
- Height+
- Height Sensor Brackets
- VU4 4-Corner Manifold
- 3 Gallon Seamless Tank
- VIAIR 485C Compressor
- VIAIR Inflation System
- Front Lower Control Arms
- Rear Upper and Lower Control Arms
- Adjustable Front Track Bar
- Front and Rear Sway Bar End Links
- Front and Rear Brake Line Extension Brackets
- Install Kit for ECU, Air Tank, Compressor
- Air Compressor Bracket

REQUIRED TOOLS

SAE & SAE Hex Key Sockets/Wrenches
(5/32", 7/32" & 5/16" Hex Key Sockets, 7/16", 1/2", 9/16", 3/4", 13/16", 7/8" & 1-1/8")

Drill Bits
(1/8", 3/8", 15/32")

Measuring Tape

Safety Glasses

Jack Stands

Pliers

Metric & Metric Hex Key Sockets/Wrenches
(6mm Hex Key Socket, 8mm, 10mm, 13mm, 15mm, 18mm, 19mm, 21mm, 22mm & 24mm)

Ball Peen Hammer

Wheel Chock

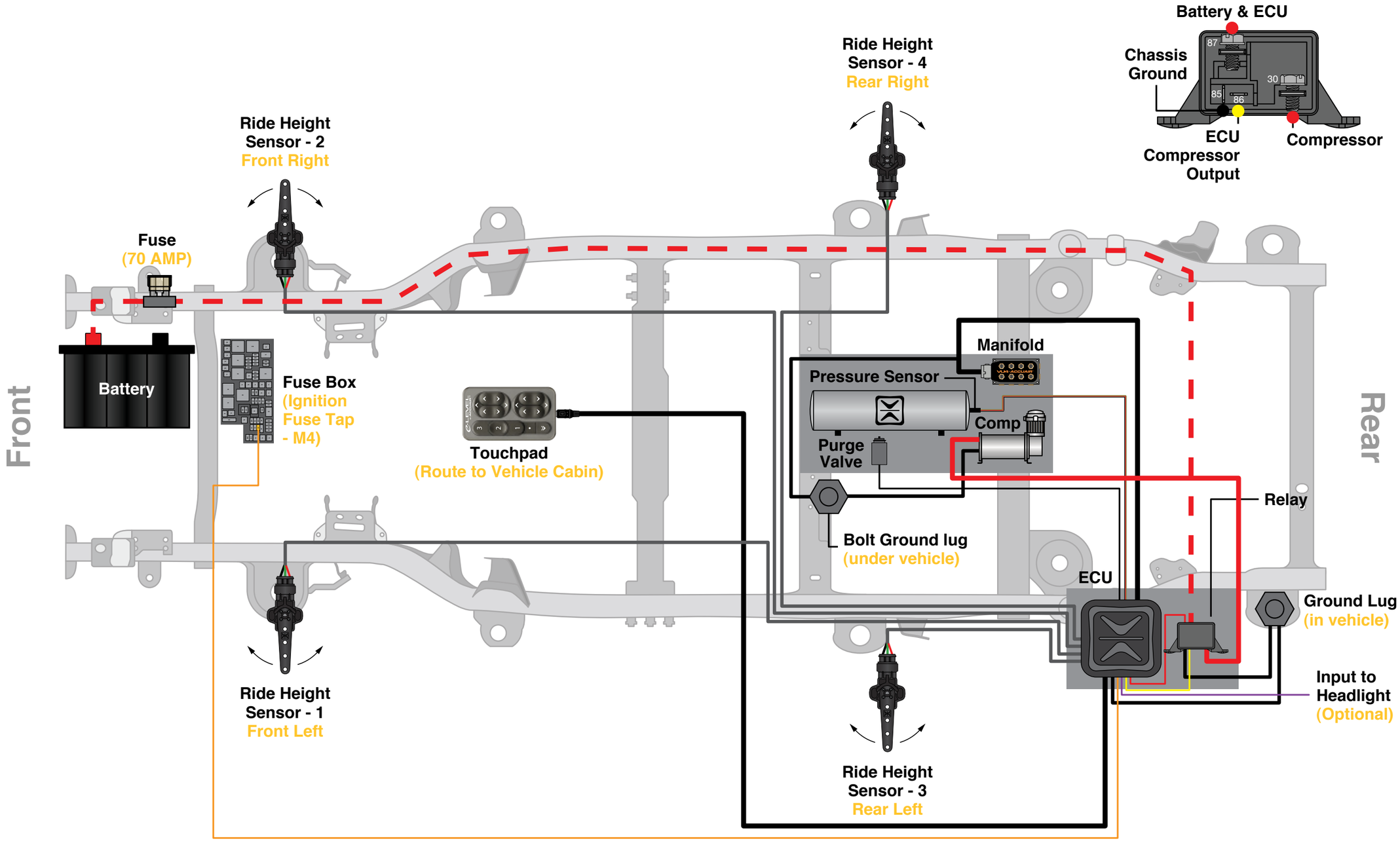
Blue Loctite

Floor Jack

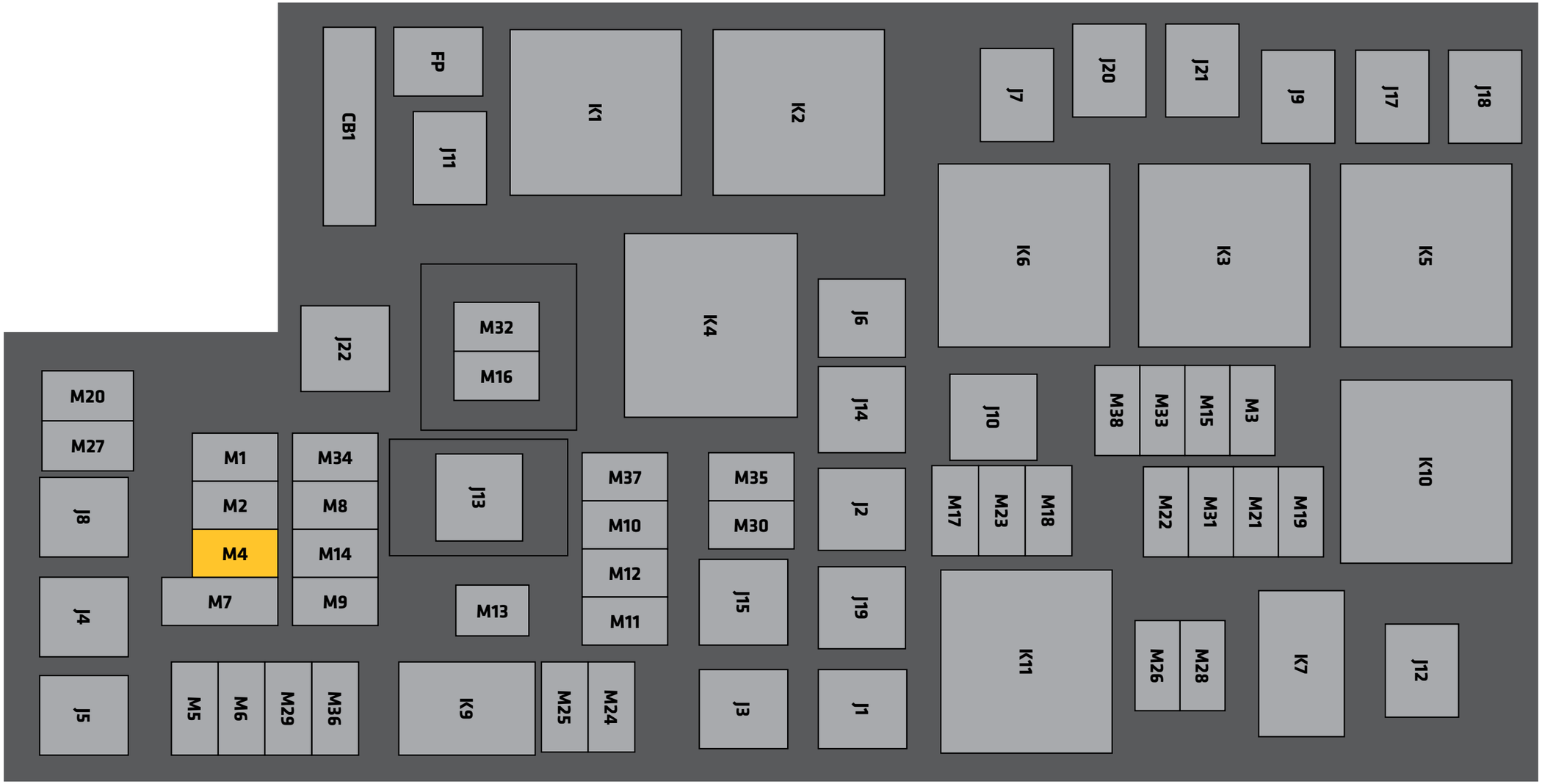
Torque Wrench

Wire Wheel

INDEX


Front
Rear
Battery & ECU
Chassis Ground
87
30
85
86
ECU
Compressor
Compressor Output
Ride Height Sensor - 4 Rear Right
Ride Height Sensor - 2 Front Right
Fuse (70 AMP)
Battery
Fuse Box (Ignition Fuse Tap - M4)
Touchpad (Route to Vehicle Cabin)
Manifold
Pressure Sensor
Comp
Purge Valve
Bolt Ground lug (under vehicle)
Relay
ECU
Ground Lug (in vehicle)
Input to Headlight (Optional)
Ride Height Sensor - 1 Front Left
Ride Height Sensor - 3 Rear Left

TAP INTO M4


CB1
FP
J11
K1
K2
J7
J20
J21
J9
J17
J18
K6
K3
K5
J22
M32
M16
K4
J6
J14
J10
M38
M33
M15
M3
K10
M20
M27
J8
M1
M2
M4
M7
M34
M8
M14
M9
J13
M37
M10
M12
M11
M35
M30
J2
M17
M23
M18
M22
M31
M21
M19
J4
M13
J15
J19
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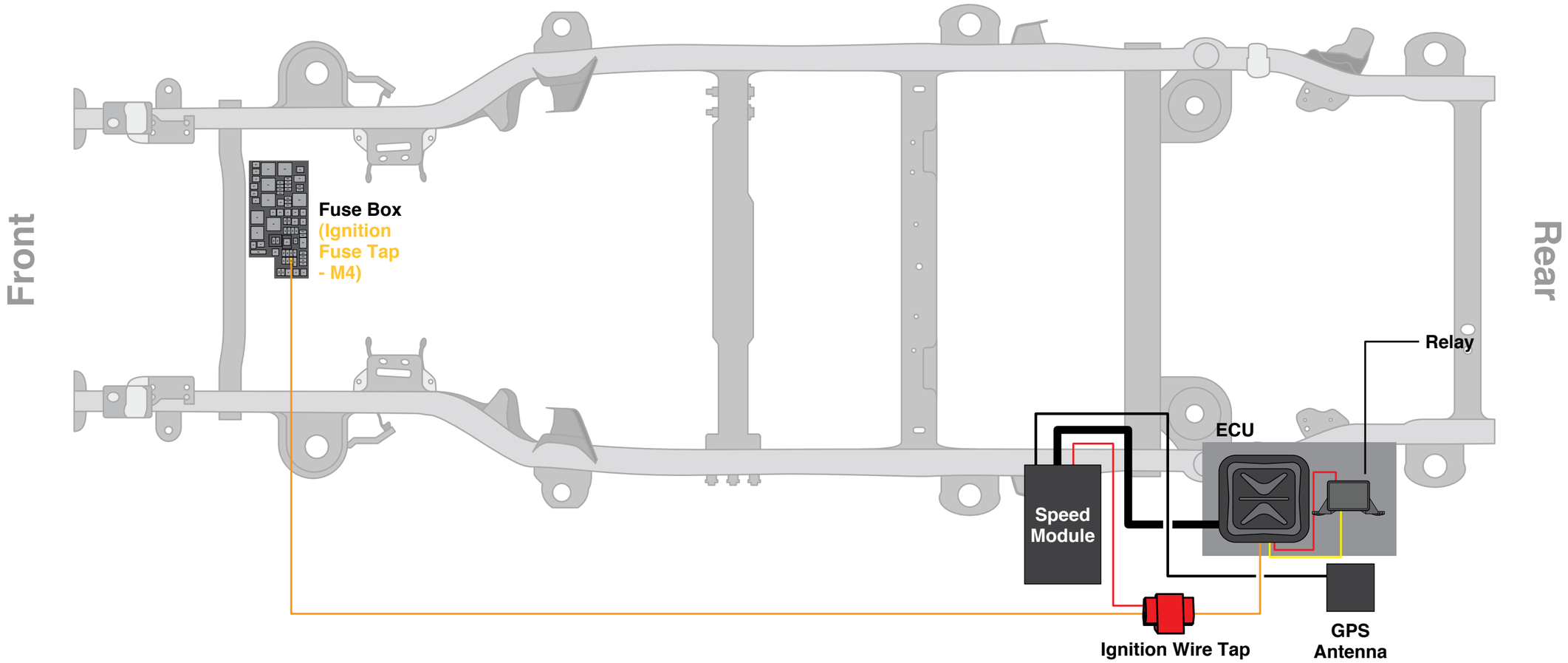
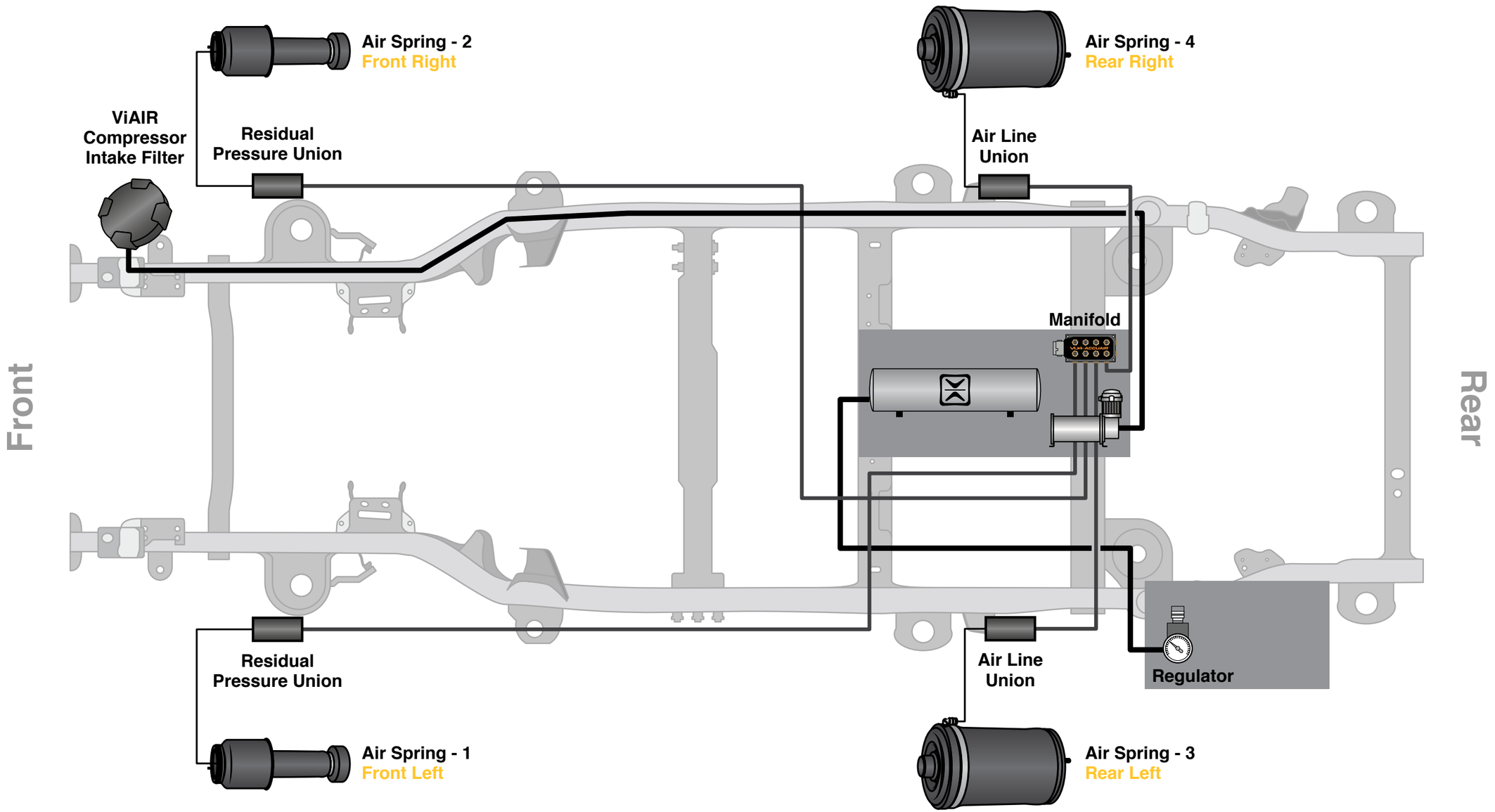
M29
M36
K9
M25
M24
J3
J1


Front
Rear
Fuse Box
(Ignition
Fuse Tap
- M4)
Relay
ECU
Speed
Module
Ignition Wire Tap
GPS
Antenna


Air Spring - 2
Front Right
Air Spring - 4
Rear Right
ViAIR
Compressor
Intake Filter
Residual
Pressure Union
Air Line
Union
Manifold
Front
Rear
Residual
Pressure Union
Air Line
Union
Regulator
Air Spring - 1
Front Left
Air Spring - 3
Rear Left

1. Take the 6 gauge power wire with the 70 AMP fuse installed provided. (Figure 1)
   Lay the fuse beside the battery and route remaining wire along the passenger side frame rail to the floor drain plug underneath the drivers side of the vehicle (Figure 2). **Do not connect to battery at this time.**

FIGURE 1

2. Remove the floor pan drain plug from underneath the rear driver side floor pan of the vehicle. Install supplied grommet. (Figure 2)

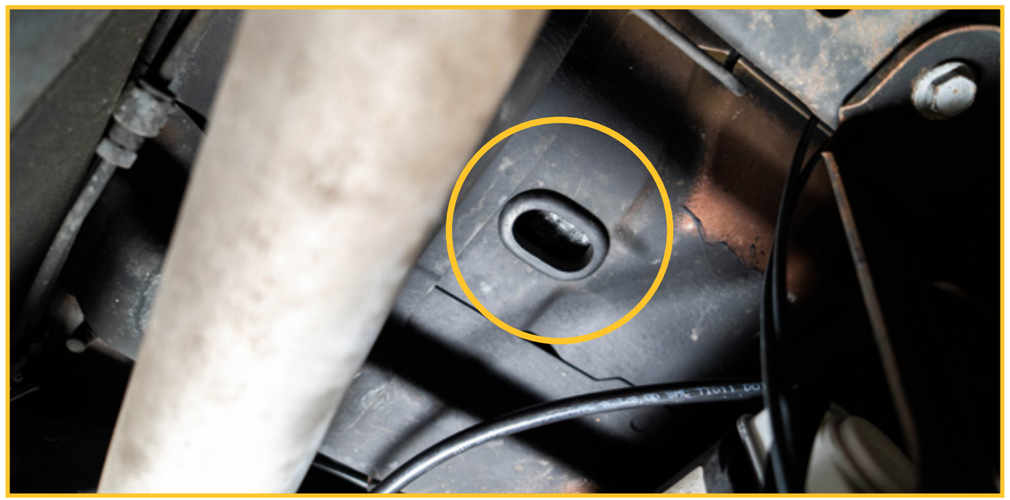


FIGURE 2

into the cab via the grommeted floor pan hole. (Figure 3)

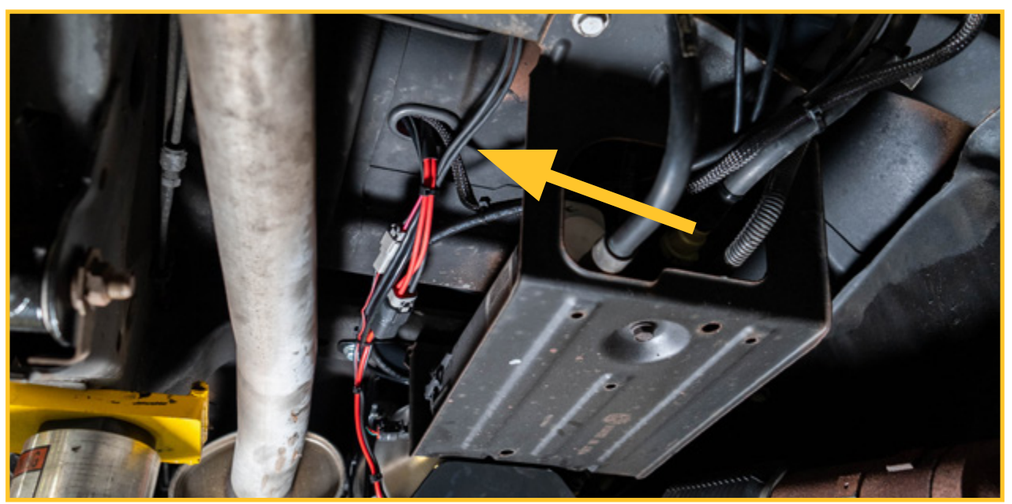


FIGURE 3

4. Inside the cab, fold the rear seats forward. Gather and pull the wires, tubing, and ground connections, up from the grommeted floor pan hole. (Figure 4)

FIGURE 4

5. Locate all three grounds coming from the ECU harness. Depending on model or year, the ground stud location can vary. If wires will not reach available ground stud, follow the steps in the next figure. (Figure 5)

FIGURE 5

6. Cut all three grounds equal length. The excess from the long ground wire will now be used to extend all three grounds. (Figure 6)

FIGURE 6

7. Using the supplied butt connector, connect the three grounds to one side and the length of wire with ring terminal to the other. (Figure 7)

FIGURE 7

8. Along the harness that runs down the drivers side rear wheel well, locate the plastic clip that sits over the stud. Using a wire brush or sandpaper, remove paint from stud, and this will be where the ground will be connected, using the supplied M6 nut. (Figure 8)

FIGURE 8

9. Install heat shrink onto wire end and crimp copper ring terminal onto battery power cable. (Use the ring terminal with **flat sides**.) (Figure 9)

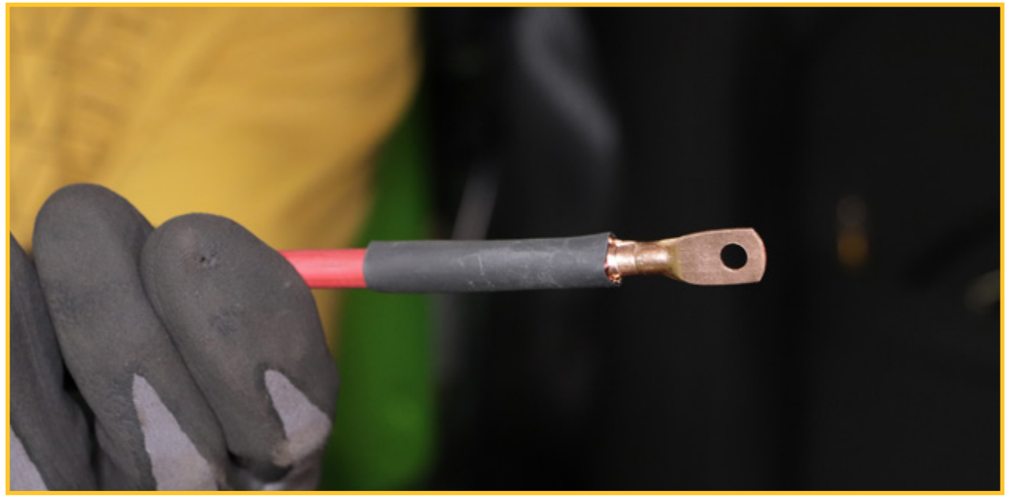


FIGURE 9

10. Gather all wire harnesses and the regulator air tubing and bundle them behind the carpet behind the drivers side rear seat. Also add TouchPad cable (white connector). (Figure 10)

FIGURE 10

11. Grab supplied ECU bracket. Make electrical connections as shown below. Refer to relay diagram to make relay connections. (Figure 11)

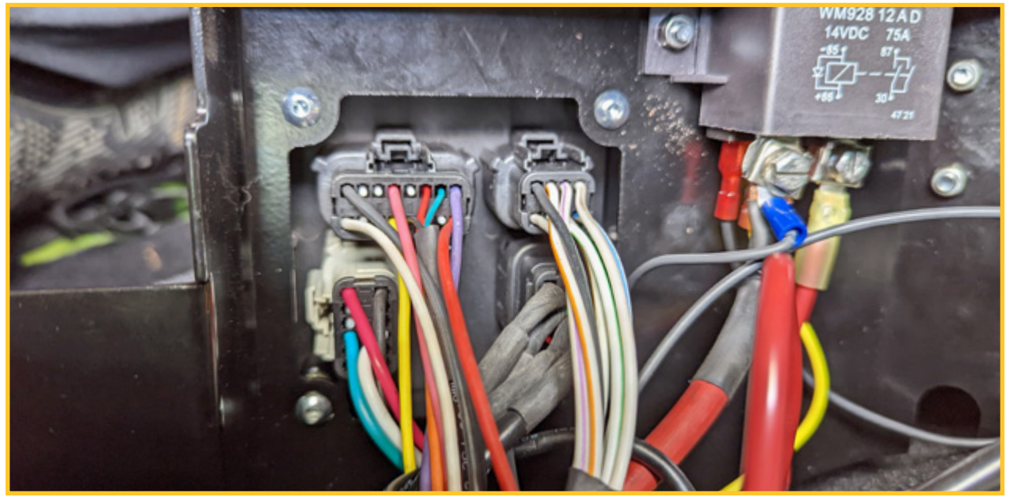
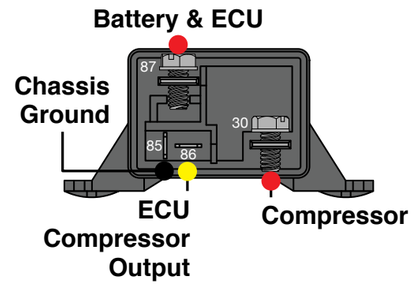


FIGURE 11



12. Separate the upper and lower tank bracket assembly for installation using a 19mm socket/wrench. (Figures 12, 13)

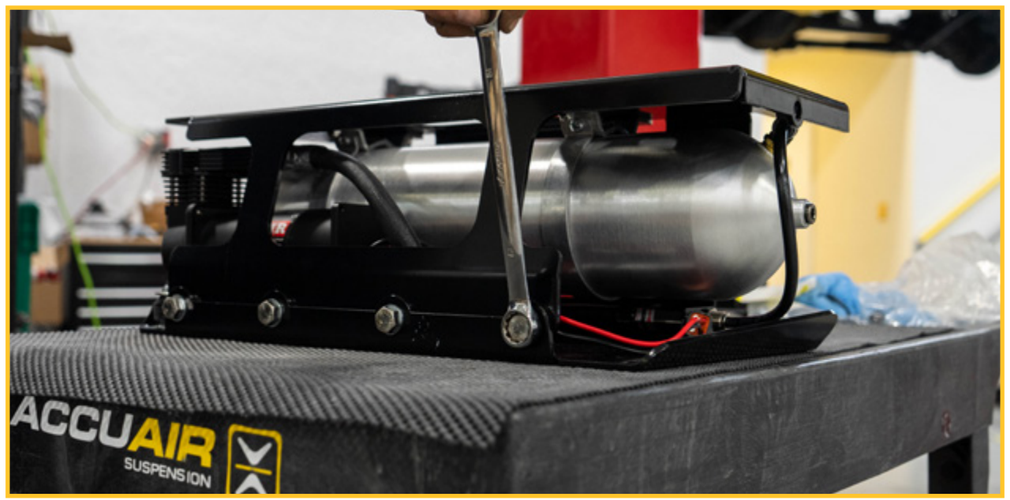


FIGURE 12

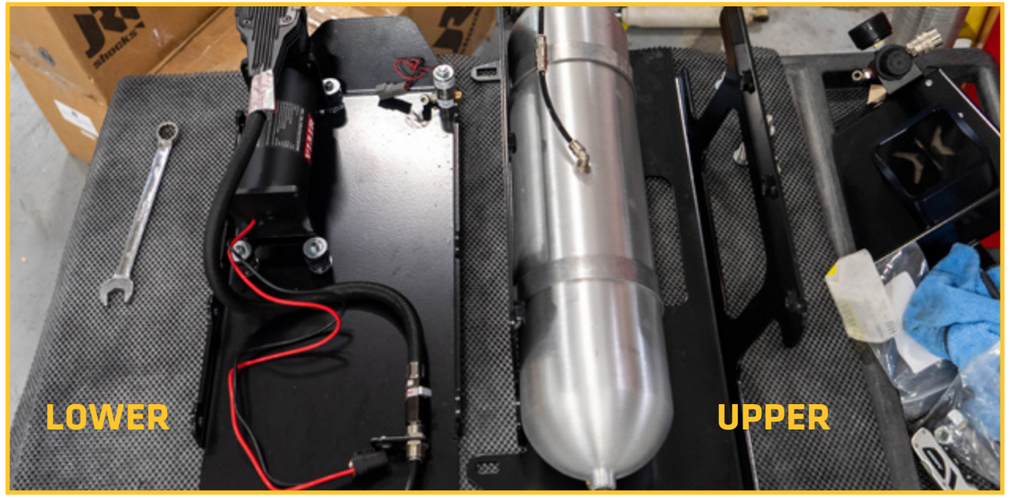


FIGURE 13

13. Using Phillips head screwdriver, loosen but do not remove the bolts on the tank strap to relieve tension on the tank, allowing tank to be repositioned during installation to allow access to mounting hardware. (Figure 14)

FIGURE 14

14. After loosening straps, slide the tank forward to allow access to mounting holes. (Figures 15, 16)

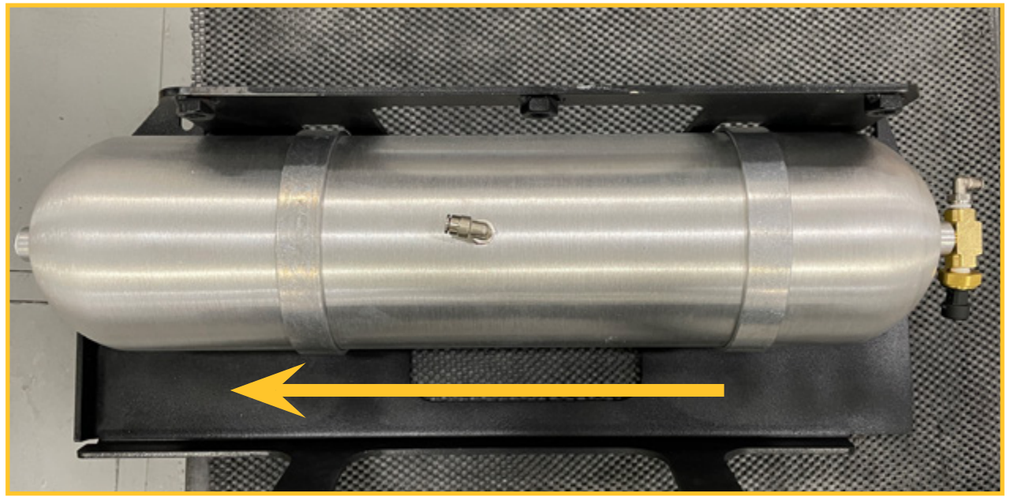


FIGURE 15

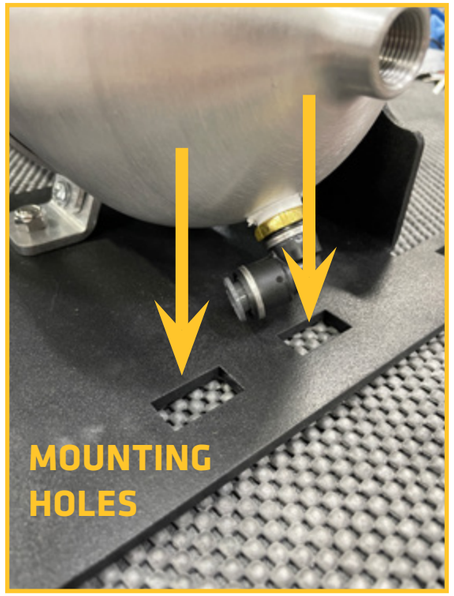


FIGURE 16

15. Remove the two bolts holding the front of the EVAP cannister with 16mm socket/wrench. (Figure 17)

FIGURE 17

16. Install the upper bracket holding the seamless tank to the frame underneath the vehicle. The tank bracket will slide in between the cross member and the EVAP cannister using the hardware removed in Step 15. The tank will face forward toward the engine bay, while the compressor and VU4 valve block will face the rear of the vehicle. (Use Blue Loctite when installing the M8 fasteners to the factory cross member.) (Figure 18)

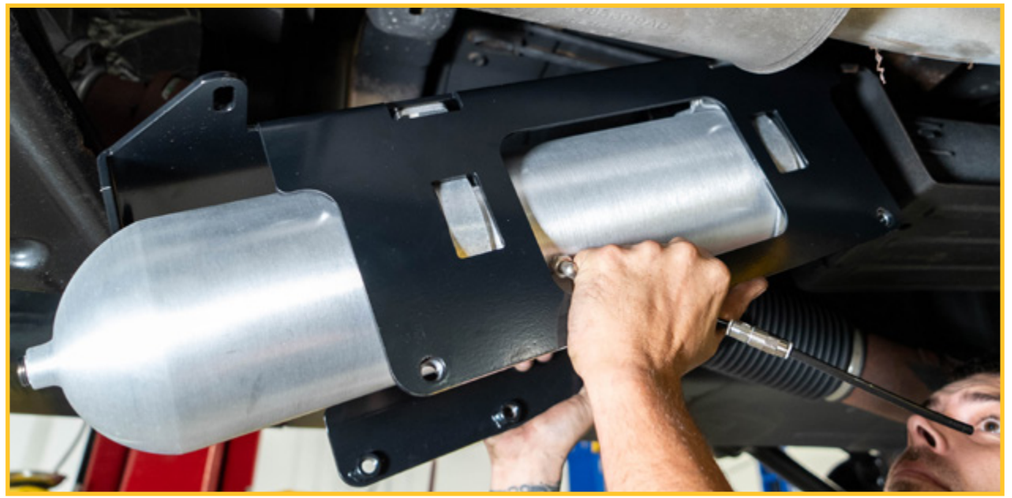


FIGURE 18

With the brackets lined up, reinsert the 16mm bolts and tighten. Ensure clearance of muffler to bracket. (Figure 19)

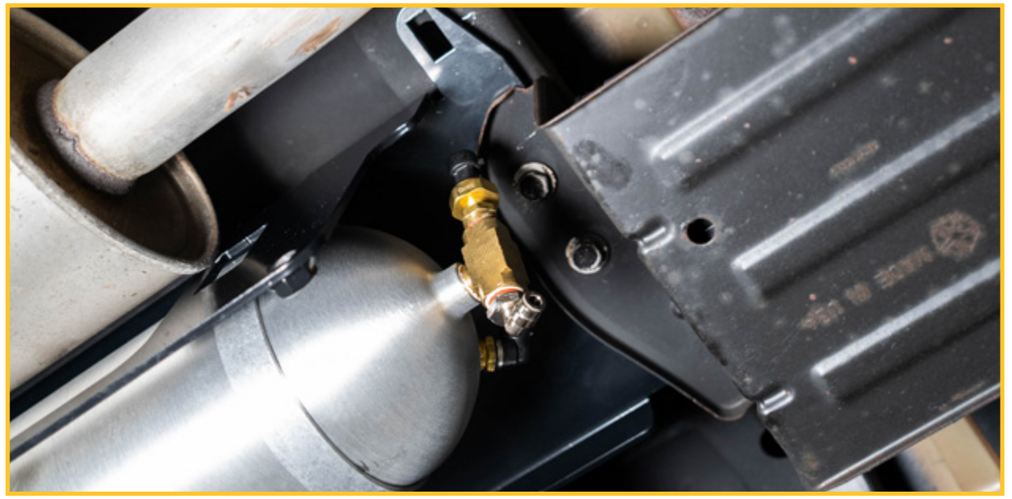


FIGURE 19

17. Slide the seamless tank back into the original location and re-tighten tank straps. (Figures 20, 21)

FIGURE 20

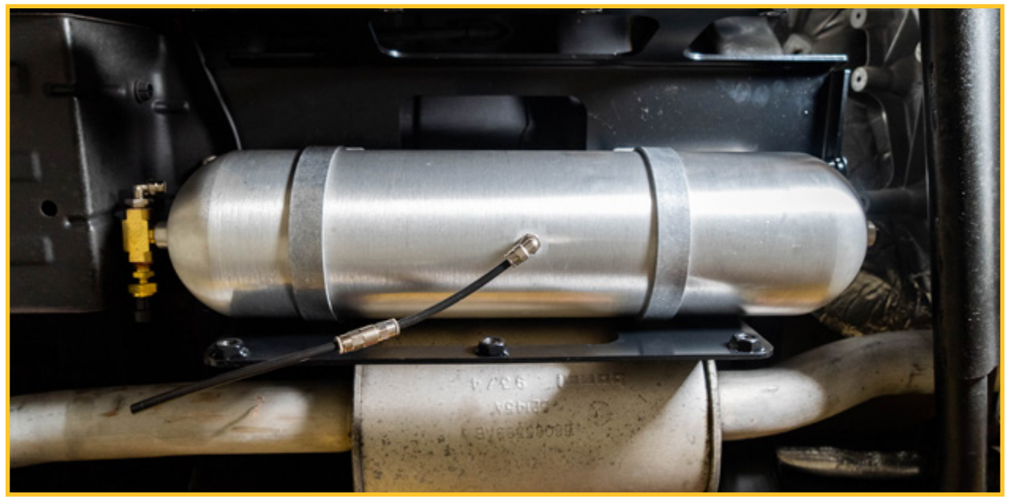


FIGURE 21

18. The bracket shown below will go over top of the cross member at the front of the tank bracket. Using the supplied carriage bolt and flange nut through the top of the bracket, tighten to clamp bracket to the cross member. Then insert the hex bolt and washer into the front. (Figures 22, 23)

FIGURE 22

FIGURE 13

19. Insert the hex head bolts and washers through the tabs located at the front and back of the upper tank bracket through the cross member above. (Figures 24, 25)

FIGURE 24

FIGURE 25

20. Hang the lower tank bracket using the front two bolt hole locations and the 19mm bolts removed earlier. This will allow access to reconnect tubing to its original location. Route the compressor wires and purge solenoid wires to the rear of the bracket. (Figure 26)

FIGURE 26

21. After making tubing connections, finish installing the lower bracket to the upper using the rest of the 19mm hardware removed earlier. (Figure 27)

FIGURE 27

22. Remove this bolt at the rear of the EVAP cannister to allow mounting the VU4. (Figure 28)

FIGURE 28

23. Slide the VU4 mounting bracket between the cross member and EVAP. Reinstall bolt. (Figures 29, 30)

FIGURE 29

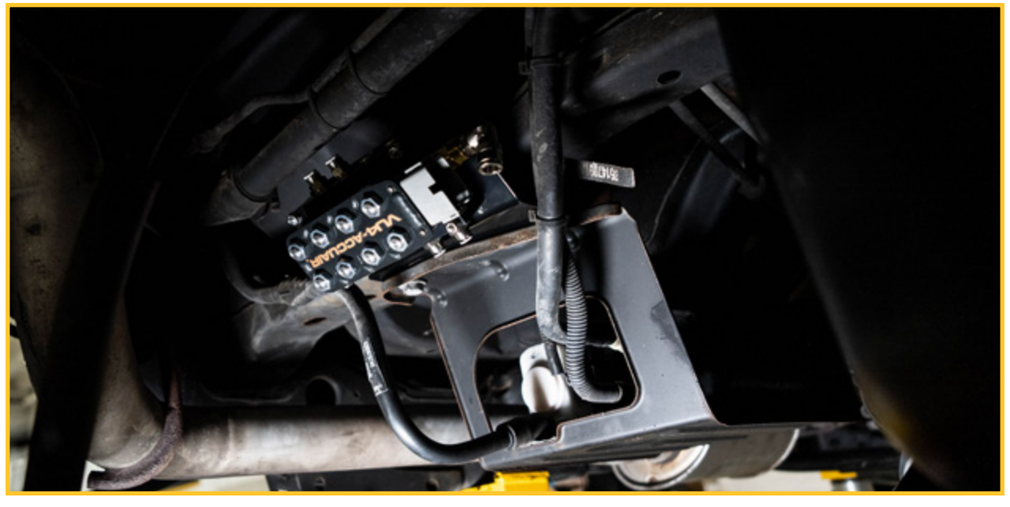


FIGURE 30

24. Above VU4, remove this bracket holding the e-brake cables. Save hardware. (Figure 31)

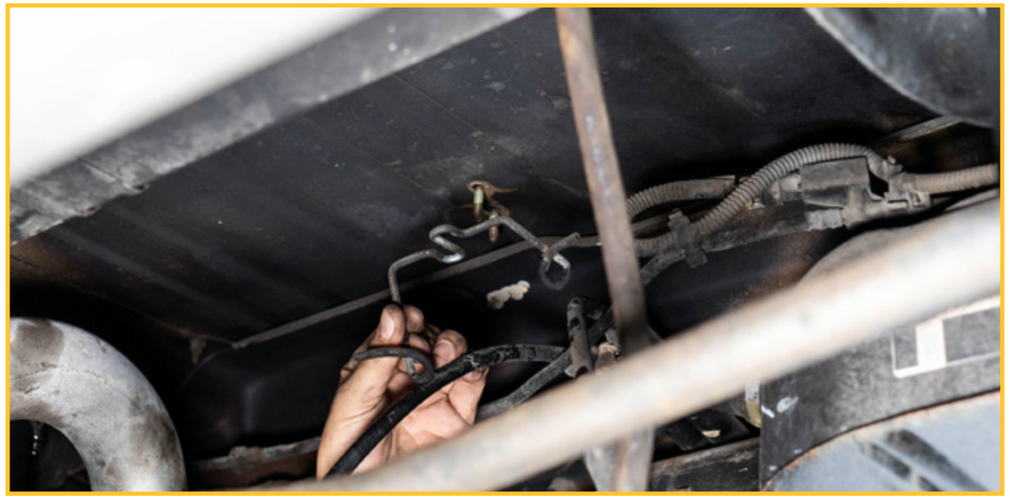


FIGURE 31

25. Route VU4 harness above EVAP cannister and connect to VU4 and route the ground wires to the stud located above VU4 from the e-brake bracket that was removed. Do not tighten at this time. (Figure 32)

FIGURE 32

26. Make connection for compressor harness and route the grounds from the harness to the stud above the VU4. Tighten the ground stud. (Figures 33, 34)

FIGURE 33

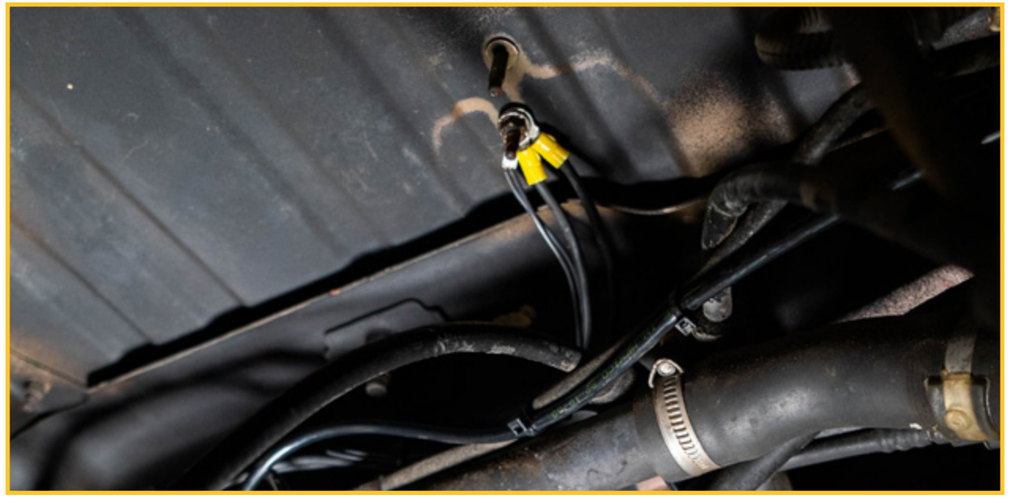


FIGURE 34

27. Connect purge valve to plug from main harness. (Figure 35)

FIGURE 35

28. Run the orange ignition wire up to the fuse box.
29. Crimp the orange ignition wire to the fuse tap provided. Extract 20 AMP fuse from **M6** and place on bottom position of the fuse tap. Install the **5 AMP** fuse supplied and position in top slot of the fuse tap. Reinsert into the fuse box location **M6**. (Figures 36, 37)

FIGURE 36

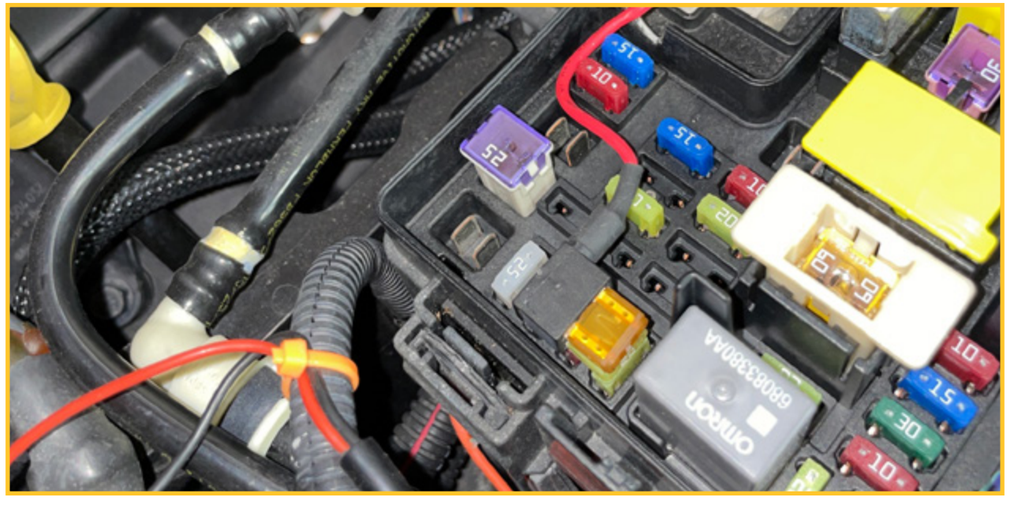


FIGURE 37

30. Attach t-tap to ignition line near passenger side door. (Figure 38)

FIGURE 38

31. Connect GPS speed module spade connector to t-tap. (Figure 39)

FIGURE 39

32. Route the GPS antenna cable through the carpet along the ignition and power cables. Attach GPS antenna to the top of the ECU bracket. (Figure 40)

FIGURE 40

33. Connect 12-pin Molex connector to GPS Speed module. (Figure 41)

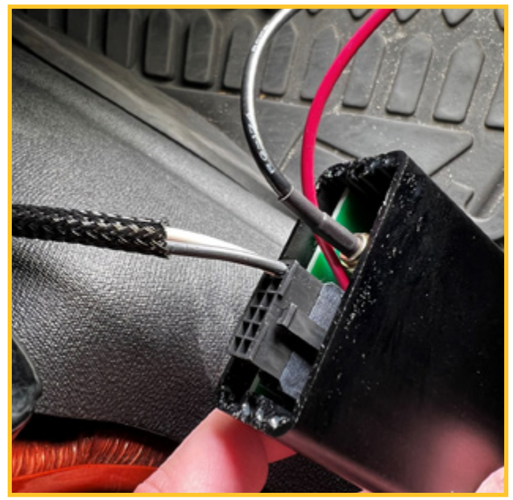


FIGURE 41

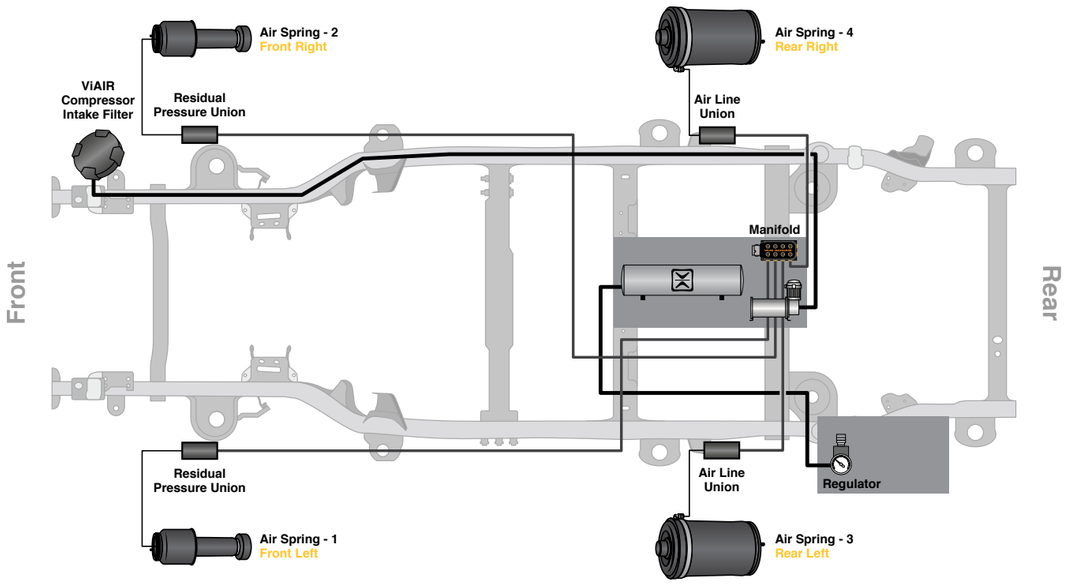
34. Connect the 3-wire pressure sensor. (Figure 42)

FIGURE 42

35. When installed, this is what the assembly will look like. (Figure 43)

FIGURE 43

1. Plumb air lines according to the diagram below.



2. Make VU4 connections as shown. Note the port to corner association with Figure 22 and plumbing diagram. (Figure 44)

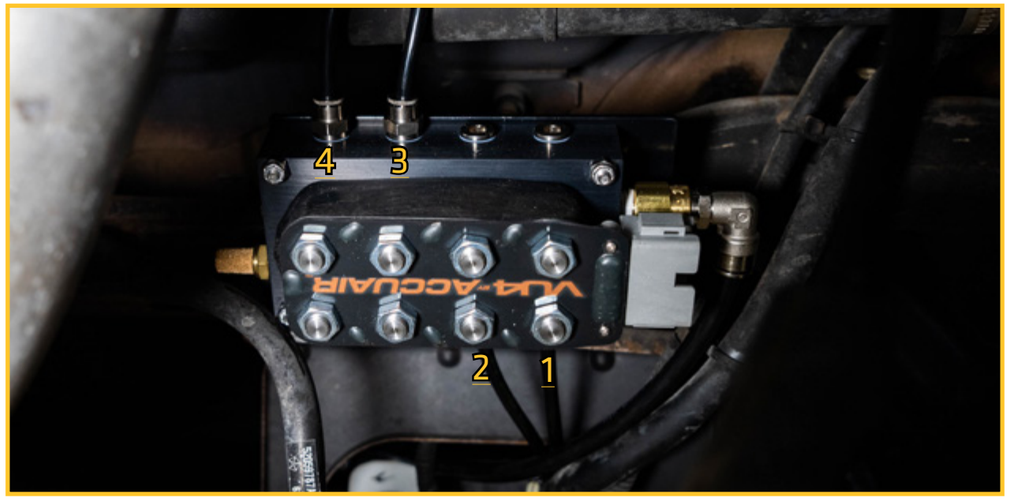


FIGURE 44

3. Connect 1/4" regulator air line to elbow on the brass T opposite of the pressure switch. (Figure 45)

FIGURE 45

4. Trim and attach 1/4" air line to regulator. (Figure 46)

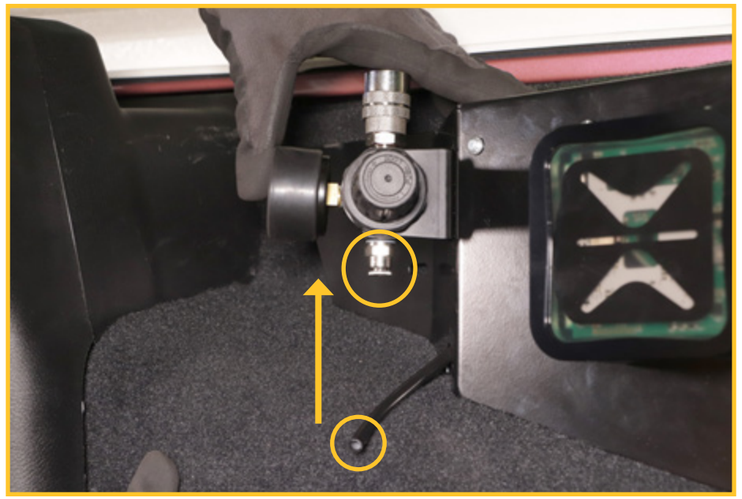


FIGURE 46

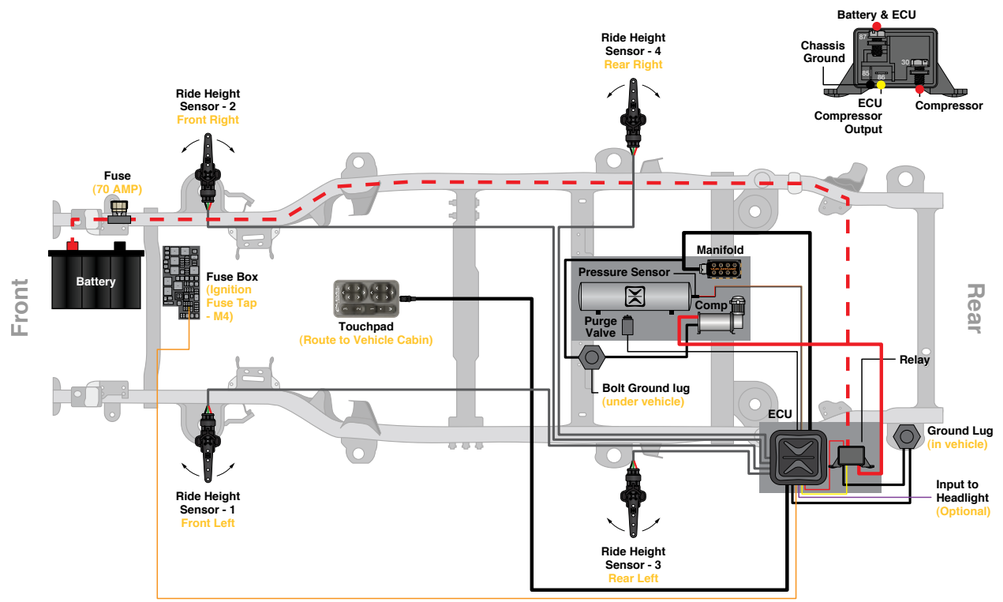
5. Install intake filter near engine intake in the front passenger side under the hood. (Figure 47)

FIGURE 47

6. Route the intake line back to the compressor. (Figure 48)

FIGURE 48

7. Route height sensors to wheel wells according to the diagram below. Ensure harness numbers are going to the correct corners “1, 2, 3, and 4”.



8. Next, locate the TouchPad user interface where you want it to be in the vehicle (typically near center console). Ensure the cable is routed appropriately for your chosen location. (Figure 49)

FIGURE 49

1. Cut carpet for bracket clearance. (Figure 50)

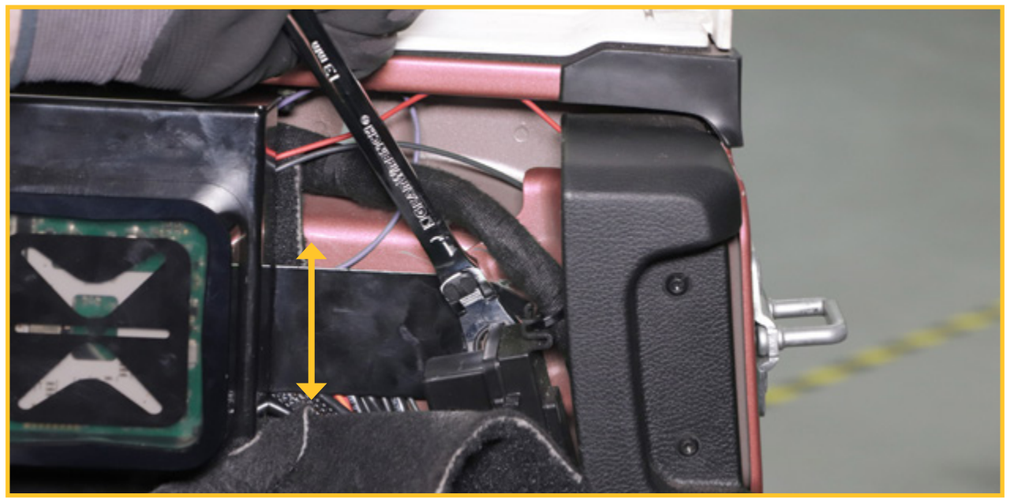


FIGURE 50

2. Tighten forward hex. (Figure 51)

FIGURE 51

3. At the back of the ECU bracket, insert clamp and hardware behind the lip of the Jeep's body and tighten to secure ECU bracket, ensuring the tab is in the slot. (Figure 52)

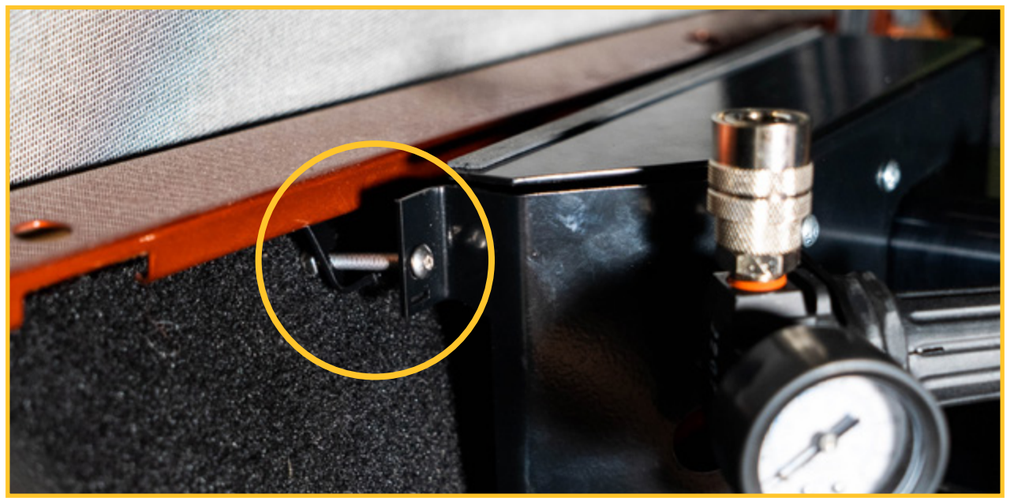


FIGURE 52

4. When completed, ECU bracket should look as shown. (Figure 53)

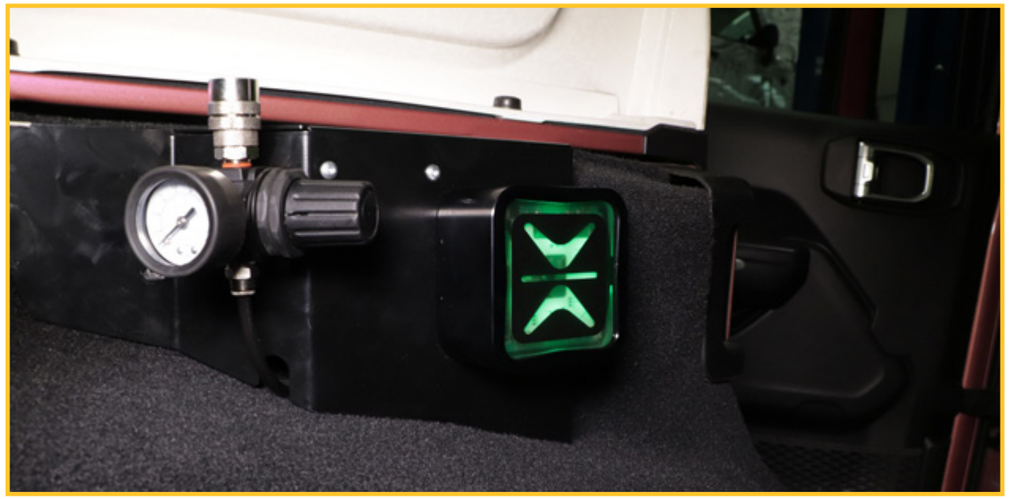


FIGURE 53

5. Terminate the short leg of the power cable. Remove the **70 AMP** fuse from the holder. Connect the cable to the battery. Then, reinstall the **70 AMP** fuse. (Figure 54)

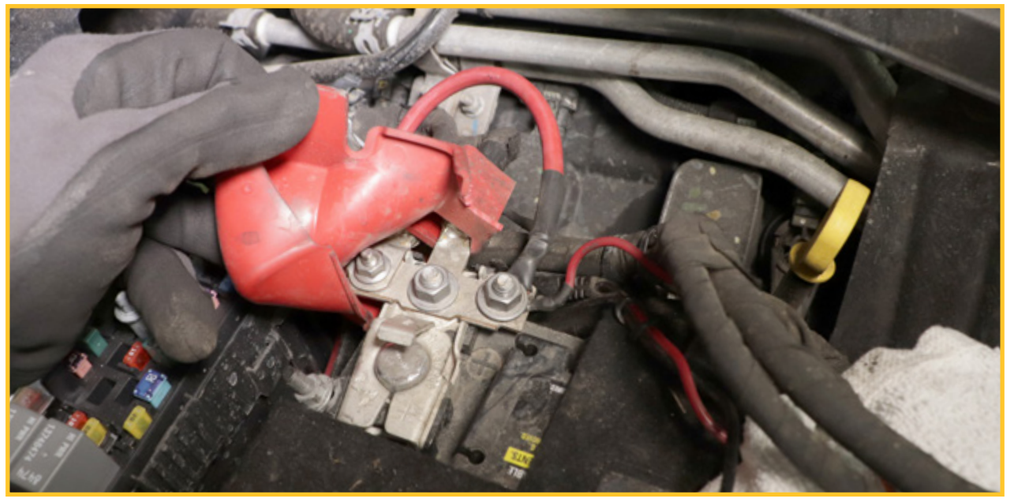


FIGURE 54

1. With vehicle on flat level ground, set emergency brake & chock rear tires/wheels.
2. Raise front of vehicle. Support frame rails using jack stands at indicated lift points in OEM service manual.
3. Remove the front tires/wheels using a 22mm socket.
4. Park the vehicle on a level concrete or asphalt surface, set the emergency brake & block the rear tires/wheels.
5. With the exhaust of the vehicle cool, loosen the OEM exhaust clamp that joins the OEM Y-pipe & OEM mid-pipe using a 13mm socket/wrench. (Figure 55)

FIGURE 55

6. Remove the index stop on the OEM Y-pipe using an air chisel, grinder, or similar tool. (Figure 56)

NOTE: This will allow the OEM Y-pipe to slide further back on the OEM mid-pipe.

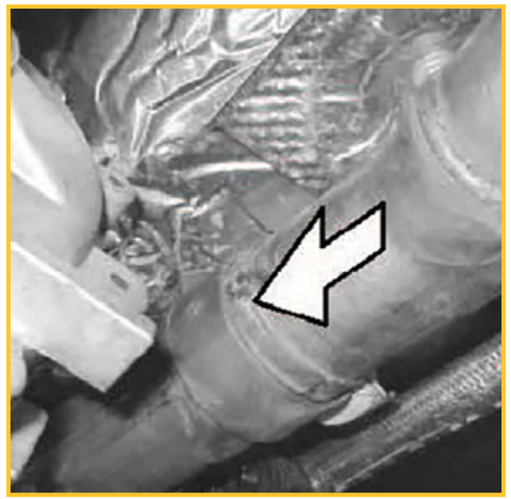


FIGURE 56

7. Remove the four OEM exhaust flange bolts at the driver & passenger side OEM Y-pipe collectors using a 13mm socket/wrench. (Figure 53)

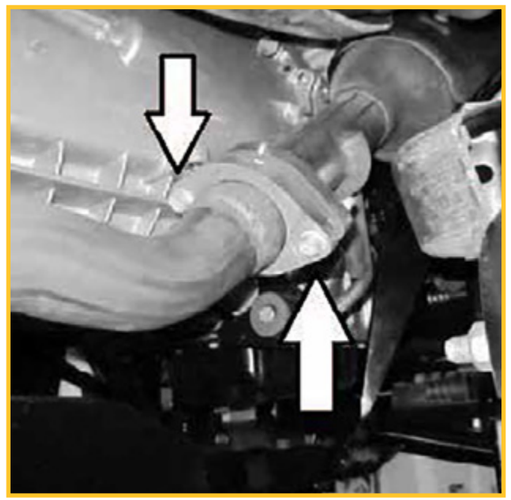


FIGURE 57

8. Place a pry bar between the OEM front skid bar & the driver side rear exhaust flange. Separate the OEM exhaust flanges & install the new exhaust spacers between the OEM exhaust flanges. (Figure 58)

NOTE: The new shorter exhaust spacer is to be installed on the driver side & the new longer exhaust spacer is to be installed on the passenger side.

FIGURE 58

9. Install the supplied 8mm x 80mm bolts (Driver Side) & 8mm x 90mm bolts (Passenger Side) into the OEM exhaust flanges & tighten evenly using a 13mm socket/wrench. (Figure 59)

NOTE: Make sure the OEM exhaust pipes & new exhaust spacers are properly aligned before tightening.

FIGURE 59

10. Re-tighten the OEM exhaust clamp that joins the OEM Y-pipe & OEM mid-pipe using a 13mm socket/wrench.

NOTE:

- After the installation is complete, double check that all nuts & bolts are tight. Refer to the following chart for the proper torque specifications.
- Check the entire exhaust system for proper clearances.
- After the first 100 miles, check all of the hardware for the proper torque & periodically thereafter.

TORQUE SPECIFICATIONS					
INCH SYSTEM			METRIC SYSTEM		
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	Class 10.9
5/16	15 ft-lbs	20 ft-lbs	6MM	5 ft-lbs	9 ft-lbs
3/8	30 ft-lbs	35 ft-lbs	8MM	18 ft-lbs	23 ft-lbs
7/16	45 ft-lbs	60 ft-lbs	10MM	32 ft-lbs	45 ft-lbs
1/2	65 ft-lbs	90 ft-lbs	12MM	55 ft-lbs	75 ft-lbs
9/16	95 ft-lbs	130 ft-lbs	14MM	85 ft-lbs	120 ft-lbs
5/8	135 ft-lbs	175 ft-lbs	16MM	130 ft-lbs	165 ft-lbs
3/4	185 ft-lbs	280 ft-lbs	18MM	170 ft-lbs	240 ft-lbs
THE ABOVE SPECIFICATIONS ARE NOT TO BE USED WHEN THE BOLT IS BEING INSTALLED WITH A BUSHING.					

11. Remove OEM front sway bar end links using a 6mm hex key socket/wrench & 18mm socket/wrench. (Figure 60)

FIGURE 60

12. Disconnect OEM front track bar from frame using a 21mm socket/wrench. (Figure 61)

FIGURE 61

13. Disconnect OEM front shock from upper shock tower mount & lower axle mount using a 18mm socket/wrench. (Figure 62)

FIGURE 62

14. Disconnect OEM vent hose from front differential using pliers.
15. Disconnect OEM front brake line brackets from OEM front lower control arms using a 15mm socket/wrench.*
16. While checking for appropriate slack in ABS lines, brake lines, differential vent hose, etc, lower front differential & remove OEM front coil springs.*
17. With the shocks and sway bar disconnected, the front axle will droop enough to remove the coil springs. (Figure 63)

FIGURE 63

18. Remove the bump stop and upper/lower spring isolators. (Figures 64, 65, 66)

FIGURE 64

FIGURE 65

FIGURE 66

19. Install new monotube shocks. (Figure 67)

FIGURE 67

20. Using a 21mm socket and wrench, remove the OEM lower control arm. (Figures 68, 69)

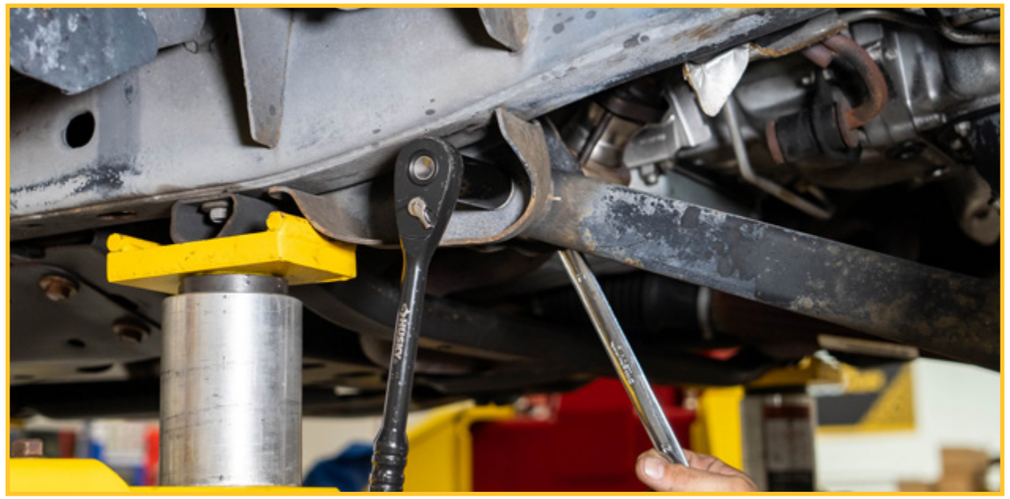


FIGURE 68

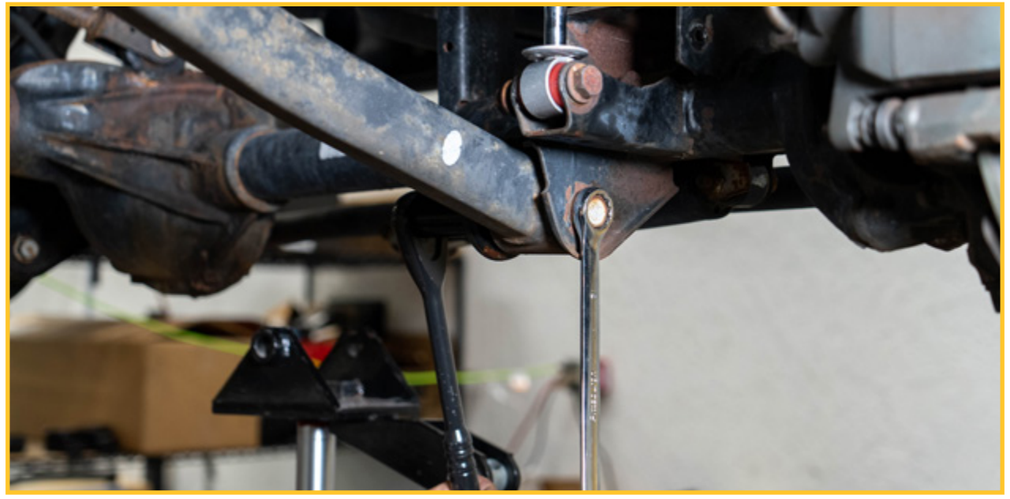


FIGURE 69

21. On the frame side, insert the new control arm and OE bolts. Install the corresponding height sensor bracket. (Figure 70)

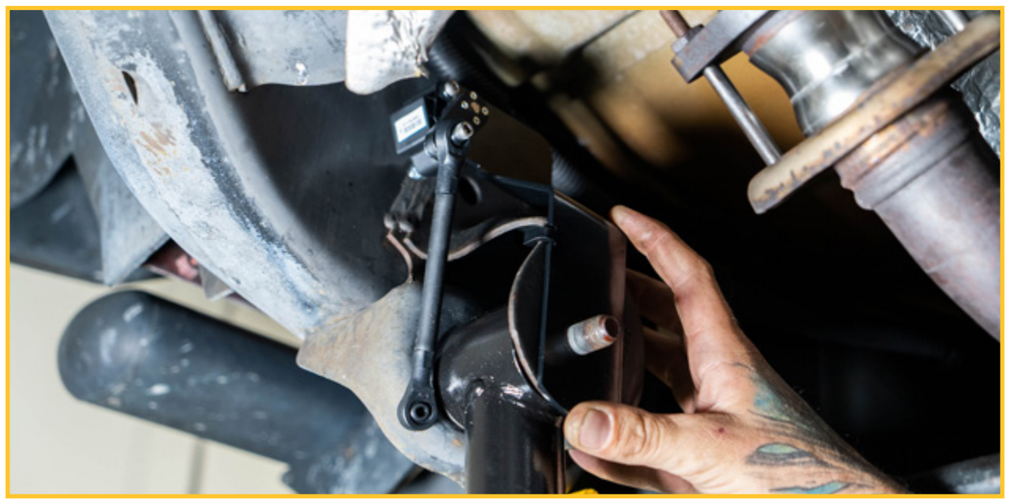


FIGURE 70

22. Ensure that the locating tab is contacting the bracket during and after tightening. (Figure 71)

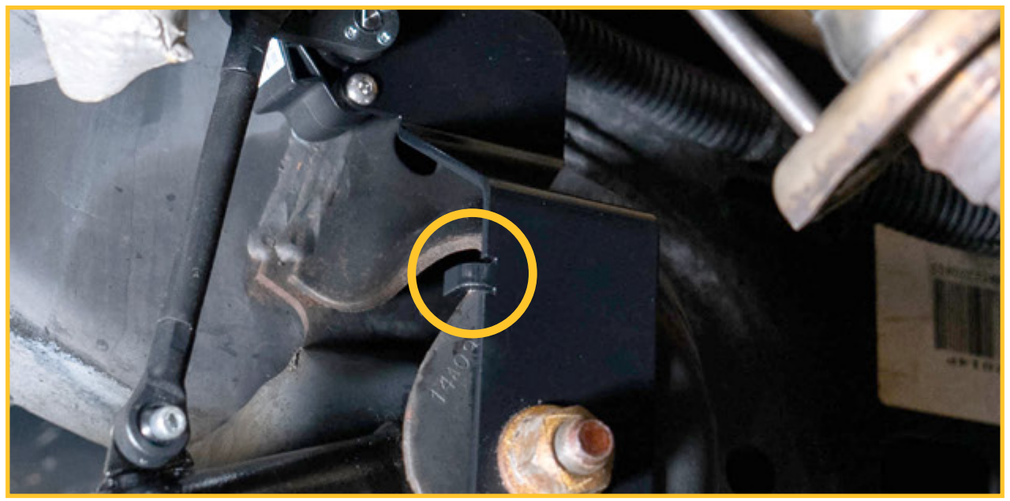


FIGURE 71

23. When installed it should look as shown. (Mount link to lower control arm.) (Figures 72, 73)

FIGURE 72

FIGURE 73

24. Using the supplied drill guide templates, line up the holes in the bracket and reuse the hardware from the OE brake line bracket and supplied nut to secure drill guide template. Shift the bracket to center on spring perch. (Figure 74)

FIGURE 74

25. Using a 1/8" drill bit, drill through the spring perch. (Figure 75)

FIGURE 75

26. Using a step bit or 3/8" drill bit, drill hole to 3/8" diameter. (Figures 76, 77)

FIGURE 76

FIGURE 77

27. Cut 48” of the 1/4” air line that is supplied and insert into the top of both front air springs. (Figures 78, 79)

FIGURE 78

FIGURE 79

28. Install the new air springs with the air line going through the top mount hole of the frame. (Figures 80, 81)

FIGURE 80

FIGURE 81

29. Install and tighten the top and bottom mount nuts on the air spring studs. Tighten to 17 ft-lbs. (Figures 82, 83)

FIGURE 82

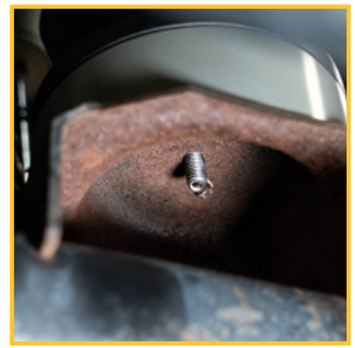


FIGURE 83

30. Install top cap with the air line passing through the center. Seat the cap on the top mount. (Figures 84, 85)

FIGURE 84

FIGURE 85

31. One at a time, remove the OEM front lower control arms & install the new front lower control arms using the OEM hardware, a 21mm socket/wrench, & 24mm socket/wrench.

NOTE: Install the new front lower control arms with the offset bend toward the inside of the vehicle.

AIR SPRING PLUMBING

32. Using the residual pressure union, connect the 1/4" air line from the air spring and 1/4" air line from the VU4. (Figure 86)

NOTE: Connect Air Spring to Port #2 (Long Sleeve).

FIGURE 86

NOTICE:

If lowering vehicle before moving onto rear installation, front air springs MUST be inflated. Failure to inflate will cause air spring damage.

33. Connect OEM vent hose to front differential using pliers.

34. Install front tires/wheels using a 22mm socket Lower vehicle to ground. Torque 130 ft-lbs.

35. Make sure that tires/wheels are pointed straight ahead. Install fixed end of Front Adjustable Track Bar to frame with OEM hardware using a 21mm socket/wrench. (Figures 87, 88)

NOTE: Do not tighten at this time.

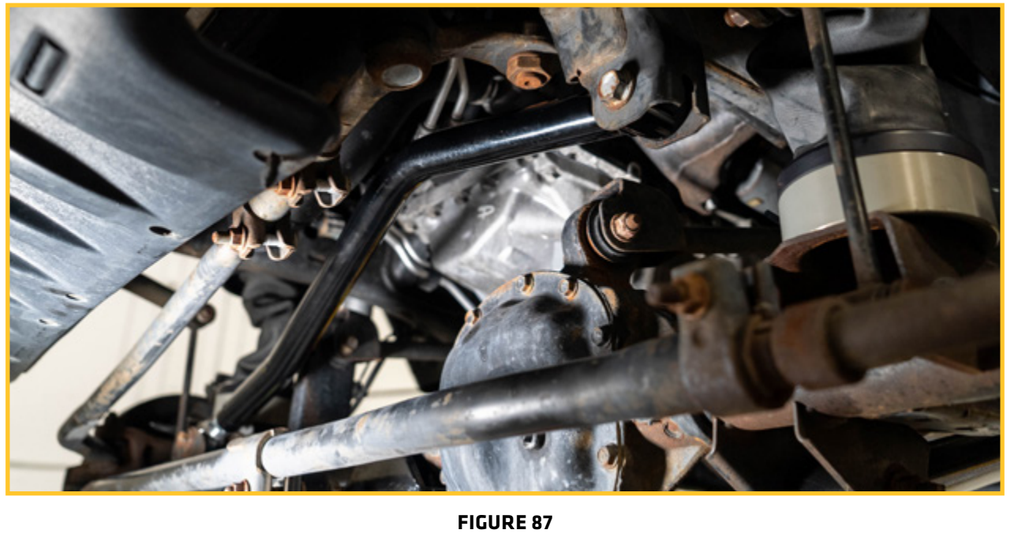


FIGURE 87

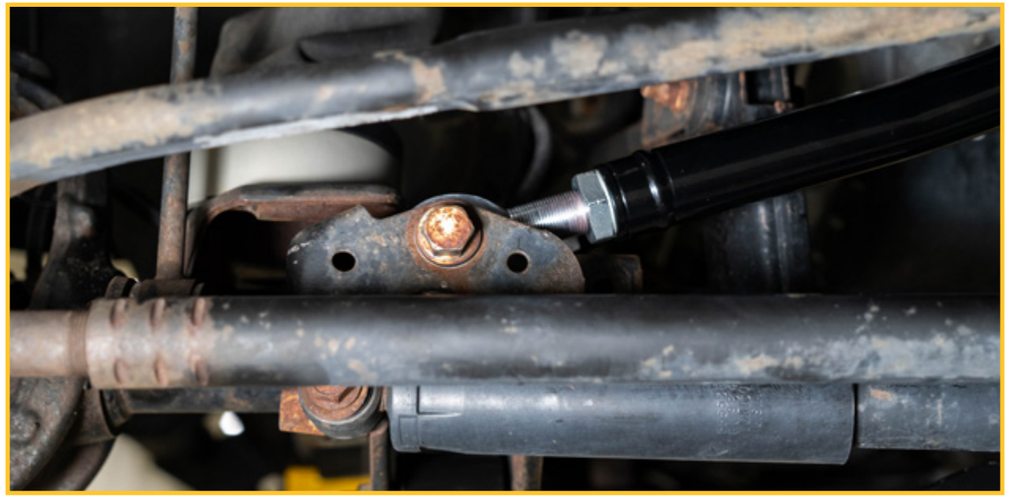


FIGURE 88

NOTE: It may be necessary to turn steering wheel to align track rod end with mount.

Check front of vehicle to make sure body is centered over front tires/wheels. Using a measuring tape, measure from inside of tire to frame on driver side. Then measure passenger side.
Compare two measurements; the aim is to make both sides equal.

NOTE: If driver side measurement is greater than passenger side, track bar needs to be lengthened. If passenger side measurement is greater than driver side, track bar needs to be shortened.

Remove adjustable rod end of track bar, loosen jam nut using a 1-1/8" wrench & turn rod end to adjust in or out. Once body is properly aligned over front tires/wheels, tighten OEM hardware using a 21mm socket/wrench. Fully tighten all OEM hardware at upper frame mount & axle mount. Fully tighten jam nut of adjustable front track bar using a 1-1/8" wrench.

NOTE: Save all factory components and hardware for reuse, unless noted.

1. Chock front tires/wheels. Raise rear of vehicle & support frame rails using jack stands at indicated lift points in OEM service manual.
2. Remove rear tires/wheels using a 22mm socket.
3. Remove OEM rear sway bar end link using a 6mm hex key socket/wrench & 18mm socket/wrench. (Figure 89)
   Install rear OEM sway bar end links on front.

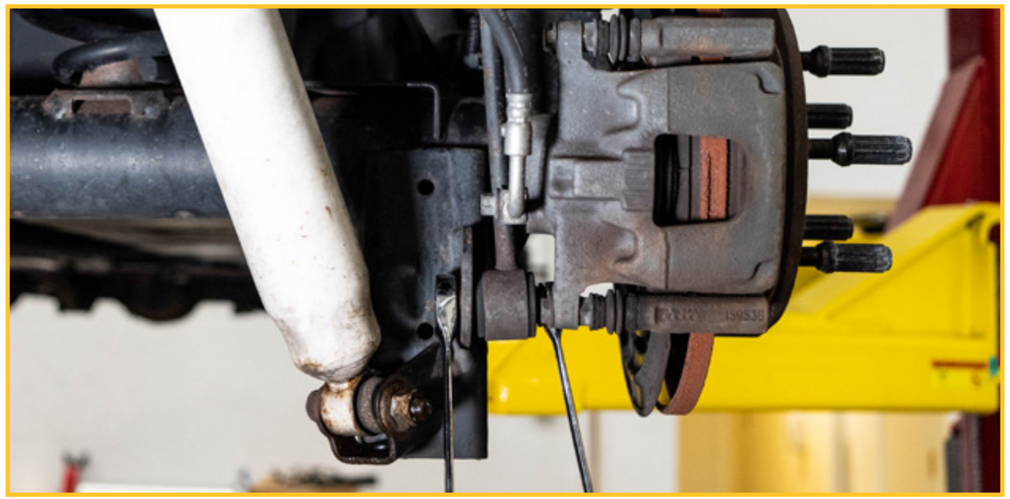


FIGURE 89

4. Disconnect OEM rear track bar from the axle using a 21mm socket/wrench. (Figure 90)

FIGURE 90

5. Install supplied brake line relocation bracket with supplied hardware. (Figure 91)

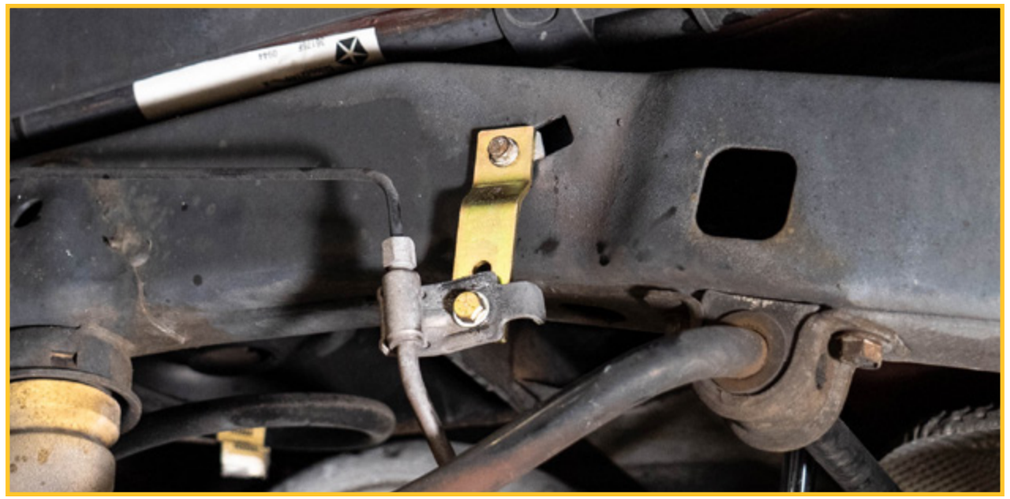


FIGURE 91

NOTE: Be very careful not to damage OEM rear hard brake lines.

6. Retain hardware. Remove OEM rear shocks using a 18mm socket/wrench. (Figure 92)

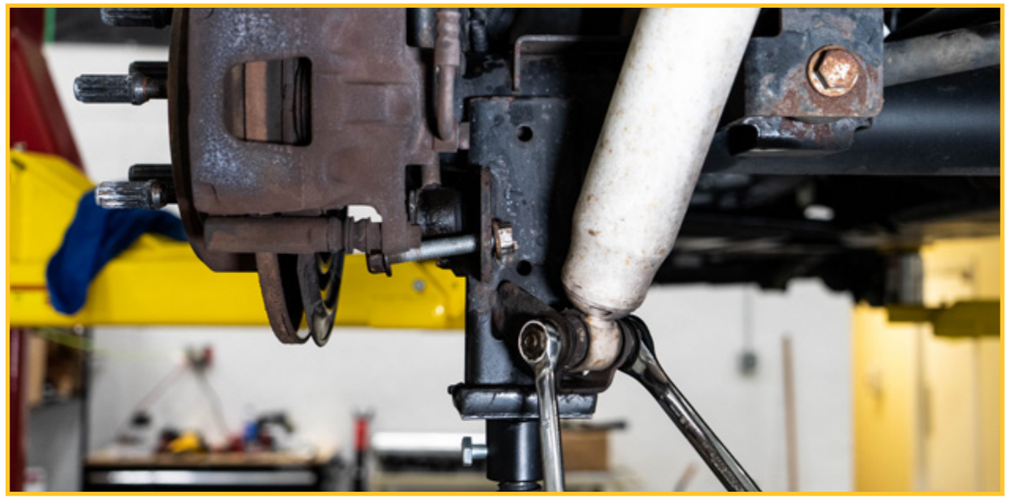


FIGURE 92

7. While checking for appropriate slack in ABS lines, brake lines, differential vent hose & etc, lower rear axle & remove OEM rear coil springs and isolator bushings. (Figure 93)

FIGURE 93

8. Install the rear bumpstop extensions. (Figures 94, 95)

FIGURE 94 - LEFT SIDE

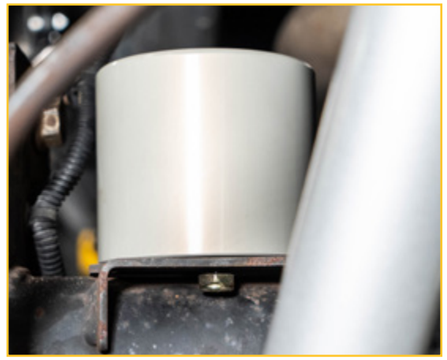


FIGURE 95 - LEFT SIDE

9. Install the rear track bar brace to the differential. This will allow you to position the track bar relocation brackets for drilling. (Figure 96)

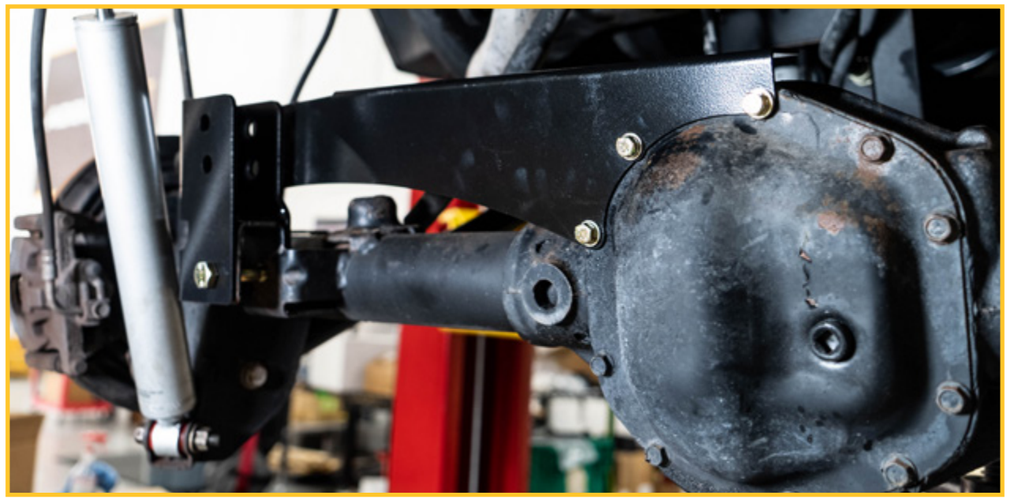


FIGURE 96

10. Install and snug supplied bolt and spacer where the OEM track bar location, checking to ensure the holes on the upper part of the bracket are in line with the differential brace. (Figure 97)

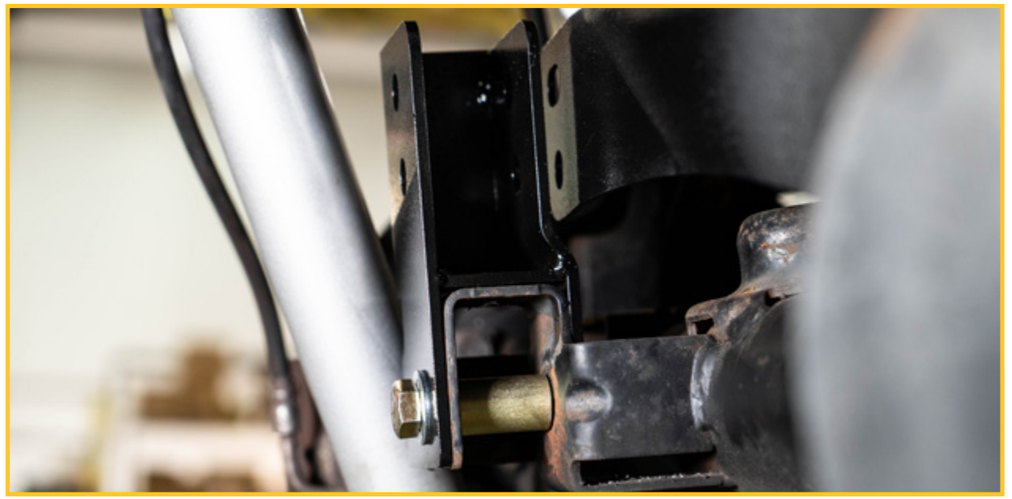


FIGURE 97

11. Using a centering punch, mark this location to drill for hardware. (Figure 98)

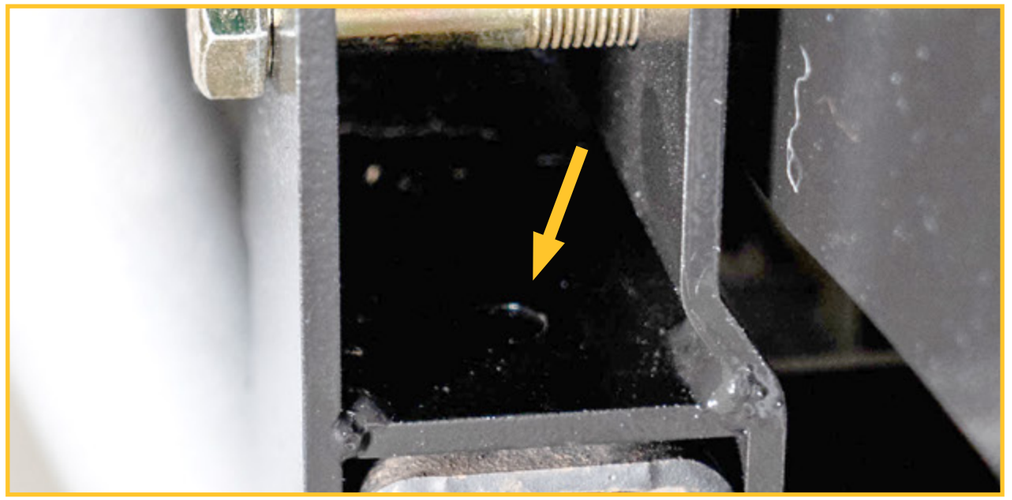


FIGURE 98

12. Remove track bar bracket and drill centering mounting hole using a 15/32" drill bit and reassemble the bracket and track bar. (Figure 99)

FIGURE 99

NOTE: It may be necessary to raise/lower axle to take pressure off track bar bolt.

13. One at a time, remove the OEM rear lower control arms & install the new rear lower control arms using the OEM hardware, & a 21mm socket/wrench. Note the location of the height sensor mounting tab on the upper control arms should be facing up and towards the chassis side. (Figure 100)

FIGURE 100

14. Install rear ride height sensor bracket assembly to the frame using the existing hole and tighten to 17 ft-lbs. (Figures 101, 102)

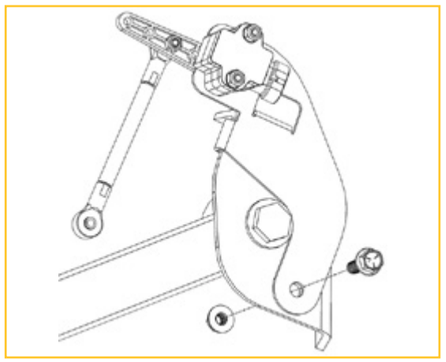


FIGURE 101 - RIGHT REAR

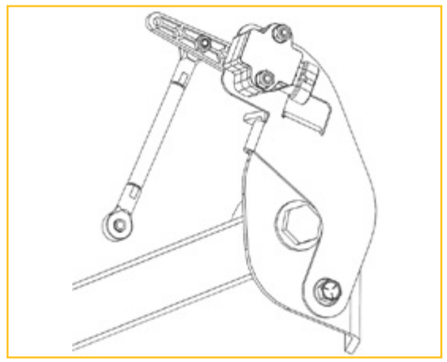


FIGURE 102 - RIGHT REAR

15. Will need to trim inner fender liner for clearance of the height sensor arm and rod. Ensure clearance through full range of motion. (Figure 103)

FIGURE 103

16. Install air spring on OE spring perch with retaining clips facing the front of the vehicle and tighten. (Figure 104)

FIGURE 104

17. Slowly pull the air springs up and install the air spring retaining clips through the top mount once the slot in the top mount has cleared the top of the frame. (Figures 105)

FIGURE 105

18. Install monotube rear shocks with OEM hardware using a 18mm socket/wrench.

19. Coat with a water-resistant grease & press 1.50 Long Steel Sleeves into upper & lower mounts of the Rear Sway Bar End Links.
    Install lower end link mount with supplied 12mm x 65mm Button Head Bolt with a 7/16" USS Washer from outside of vehicle inward through sway bar with a 7/16" USS Washer & 12mm Nylon Insert Lock Nut on inside using a 5/16" hex key socket & a 18mm socket/wrench. (Figure 106)

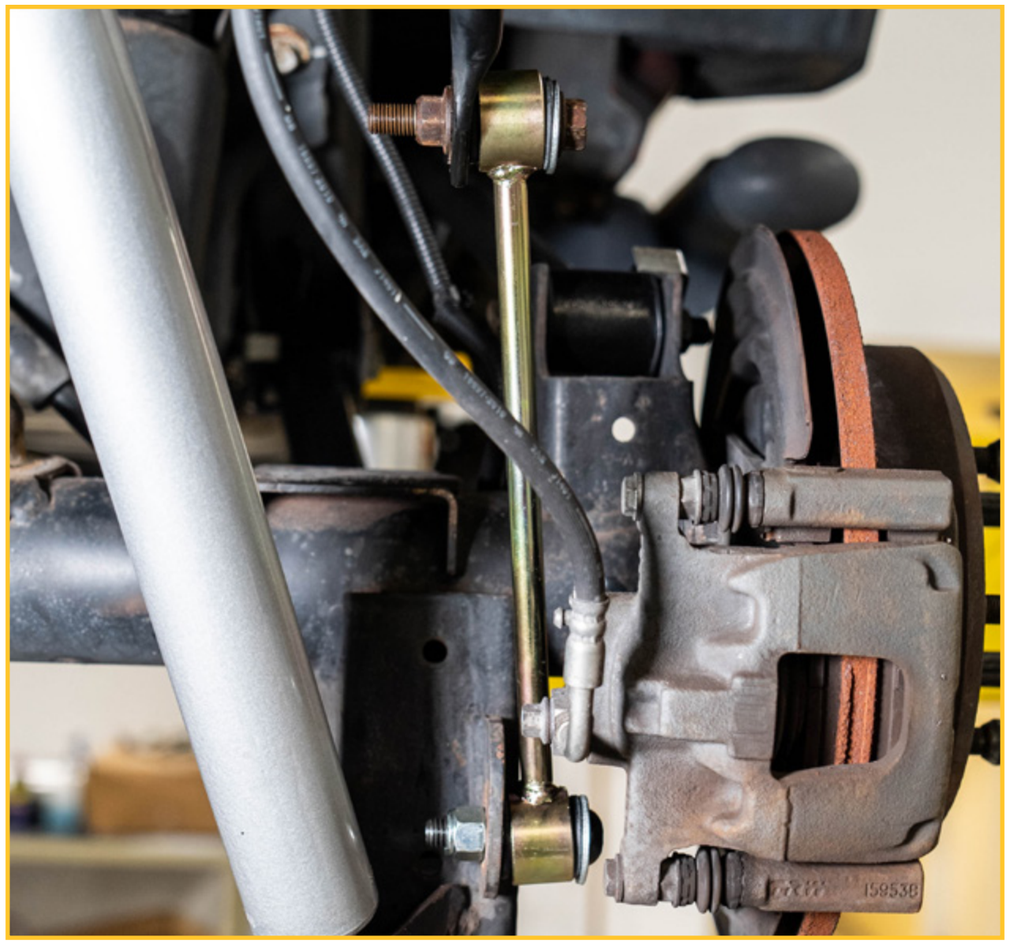


FIGURE 106

Attach upper end link with OEM hardware with large washer to bushing side of end link using a 18mm socket/wrench. Secure, but do not tighten completely at this time.

20. Install rear tires/wheels using a 22mm socket.
21. Inflate rear air springs.
22. Lower vehicle to ground. Torque 130 ft-lbs.

1. Start vehicle. Make sure there are no dash lights pertaining to suspension.
2. Bounce the vehicle a couple of times. This will help suspension settle to new ride height. Cycle steering lock-to-lock & check all components for proper operation & clearances. Pay special attention to clearance between tires/wheels, Shocks, control arms, brake hoses, ABS wiring, etc.
3. Front Tighten & Torque Sequence.
   Track bar at frame using a 21mm wrench. Torque 52 ft-lbs.
   Track bar at axle using a 21mm wrench. Torque 52 ft-lbs.
   Front shock absorber upper mount using a 18mm wrench. Torque 81 ft-lbs. Front shock absorber lower mount using a 18mm wrench. Torque 74 ft-lbs.
   Sway bar end link upper bolt using a 19mm socket/wrench. Torque 59 ft-lbs.
   Sway bar end link lower bolt using a 18mm socket/wrench. Torque 59 ft-lbs.
4. Rear Tighten & Torque Sequence.
   Track bar bracket bolts. 1/2" Bolts Torque 90 ft-lbs. 9/16" Bolt Torque 130 ft-lbs.
   Track bar at the bracket. Torque 130 ft-lbs.
   Rear shock absorber upper mount using a 18mm socket/wrench. Torque 81 ft-lbs. Rear shock absorber lower mount using a 18mm socket/wrench. Torque 74 ft-lbs.
   ADX Reservoir clamp. Double check position & clearance. Tighten with 5/32" Hex Key socket.
   Sway bar end link mount using a 18mm socket/wrench. Torque 59 ft-lbs.

CHECK FOR SYSTEM LEAKS

Place all 4 wheels on the ground and inflate air springs with the TouchPad. Check for system leaks using soapy water on all pneumatic connections to the air springs and the regulator.

CALIBRATION VIDEO

CALIBRATION

Once system installation is complete, the system will need to be calibrated. Calibration is a process that will learn the vehicle range of travel and automatically set ride heights.

The vehicle needs to be on level ground with the wheels pointed straight ahead. Leave the vehicle running to power the compressor(s) during this procedure.

Before starting calibration, turn on the vehicle and let the compressors run to fill the tank. Once the compressor stops running (green "C" on TouchPad stops blinking) you may simultaneously hold the "dot" and "1" button for 5 seconds. You may let go when the vehicle starts to move up.

The vehicle will now open the valves to the air springs and run the compressor to fill all air springs. The system will continue doing this until the set pressure is achieved at which point the maximum suspension travel will be defined.

Next, the vehicle will exhaust all air from the air springs to define the minimum travel.

Calibration is complete when the system prompts a position 2 two adjustment ("2" will be flashing on the TouchPad). This may take some time as the system has to fill the tank and air springs from near empty.

WARNING:

The system will automatically **raise/lower** the vehicle in the next procedure. Remove all obstructions and keep clear of vehicle before proceeding.

FINAL NOTES

After installation is complete, double check that all nuts & bolts are tight. Refer to the following chart for proper torque specifications.

NOTE: Do not re-tighten nuts & bolts where thread lock compound was used.

With vehicle placed on ground, cycle steering lock to lock & inspect steering, suspension, brake lines, front & rear drive lines, fuel lines & wiring harnesses for proper operation, tightness & adequate clearance.

Have headlights readjusted to proper settings.

Have a qualified alignment center align vehicle to OEM specifications.

After first 100 miles, check all hardware for proper torque & periodically thereafter.

TORQUE SPECIFICATIONS

INCH SYSTEM			METRIC SYSTEM		
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 8.8	Class 10.9
5/16	180 in-lbs	240 in-lbs	6MM	60 in-lbs	108 in-lbs
3/8	30 ft-lbs	35 ft-lbs	8MM	216 in-lbs	23 ft-lbs
7/16	45 ft-lbs	60 ft-lbs	10MM	32 ft-lbs	45 ft-lbs
1/2	65 ft-lbs	90 ft-lbs	12MM	55 ft-lbs	75 ft-lbs
9/16	95 ft-lbs	130 ft-lbs	14MM	85 ft-lbs	120 ft-lbs
5/8	135 ft-lbs	175 ft-lbs	16MM	130 ft-lbs	165 ft-lbs
3/4	185 ft-lbs	280 ft-lbs	18MM	170 ft-lbs	240 ft-lbs

THE ABOVE SPECIFICATIONS ARE NOT TO BE USED WHEN THE BOLT IS BEING INSTALLED WITH A BUSHING.

COLDER CLIMATE TIPS

In the winter months, to keep your air system from freezing, we recommend adding CRC air brake antifreeze. This can be purchased at most automotive parts houses. We recommend that you add two caps (about 1 ounce) to the system through the compressor intake. To do this, you should adjust the suspension to deplete the air in the tank so the compressor will be running while you do this process. You want to slowly add the antifreeze to the system so it has time to vaporize and coat everything. You will need to do this periodically depending on how much use the vehicle has. Generally, once every two weeks will but can vary.

TROUBLESHOOTING & TECHNICAL SUPPORT

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