

INSTALLATION GUIDE

ACCUAIR
SUSPENSION



AA-4104

2018-PRESENT

JEEP WRANGLER (JL)

AIR SUSPENSION SYSTEM





CONGRATULATIONS!


Your AccuAir® Jeep JL Air Suspension system reflects a unique solution to balancing enhanced off road terrain and obstacle clearance with everyday drivability and ride quality. The AccuAir® JL system features remote mounted dual ENDO storage tanks, 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® JL 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.




WATCH THIS VIDEO FOR A COMPLETE SYSTEM OVERVIEW

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.



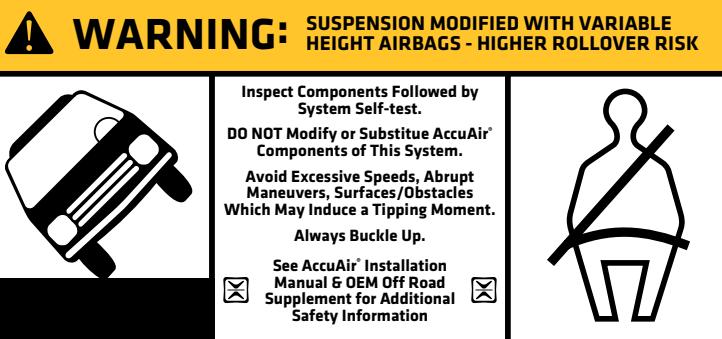
NOTICE:
Careful attention is required to this instruction or operation but does generally not relate to personal injury. Damage to your AccuAir® product or other property may result if you don't follow instructions.

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.




WARNING: SUSPENSION MODIFIED WITH VARIABLE HEIGHT AIRBAGS - HIGHER ROLLOVER RISK

Inspect Components Followed by System Self-test.
DO NOT Modify or Substitute AccuAir® Components of This System.
Avoid Excessive Speeds, Abrupt Maneuvers, Surfaces/Obstacles Which May Induce a Tipping Moment.
Always Buckle Up.
See AccuAir® Installation Manual & OEM Off Road Supplement for Additional Safety Information


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




WARNING:
This advanced AccuAir® JL kit requires professional installation, with access to vehicle lift and experience with Jeep JL 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.

If you have any questions or reservations about installing this product, contact AccuAir Customer Service.

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

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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")

Metric & Metric Hex Key Sockets/Wrenches

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

Measuring Tape

Jack Stands

Ball Peen Hammer

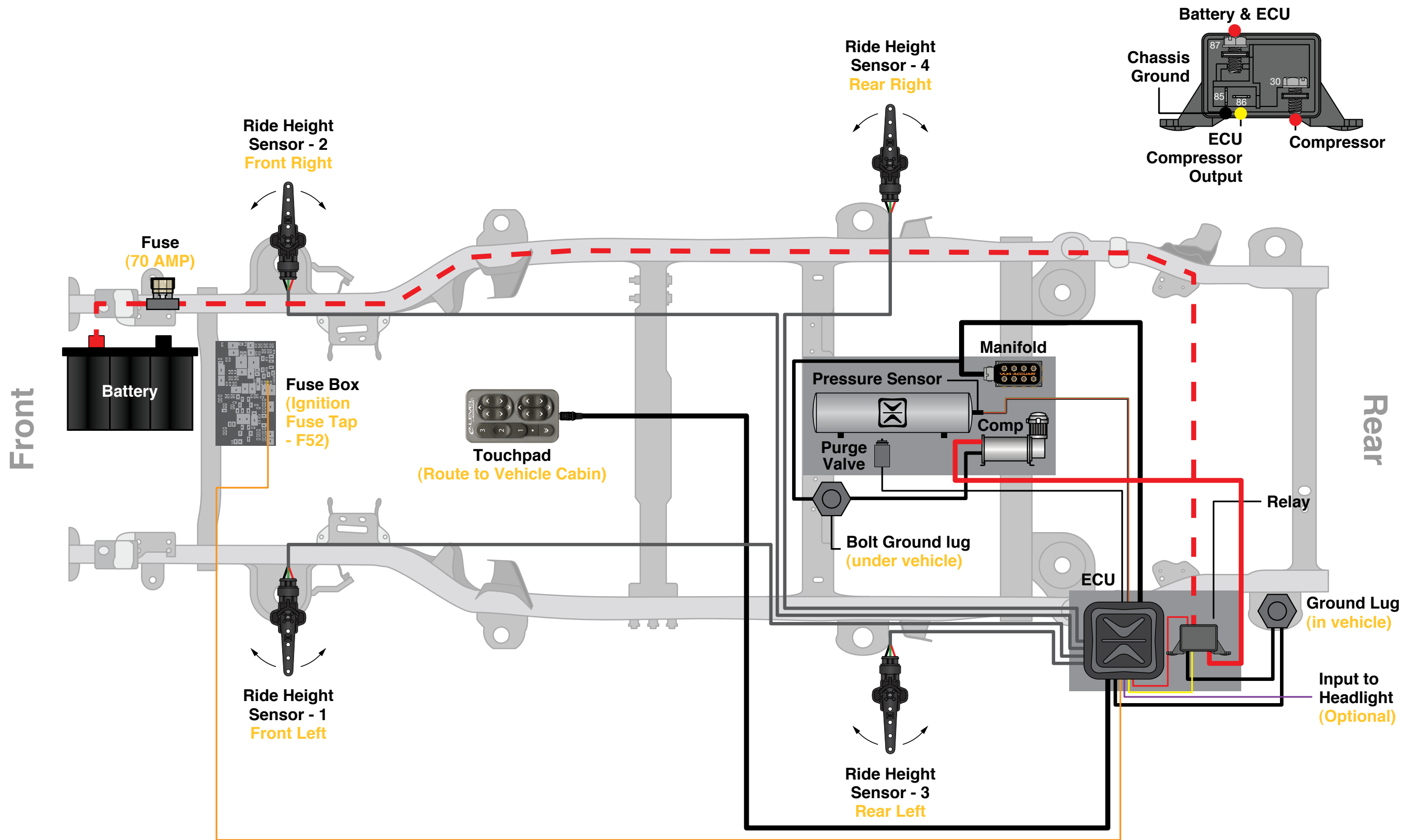
Floor Jack

Safety Glasses

Pliers

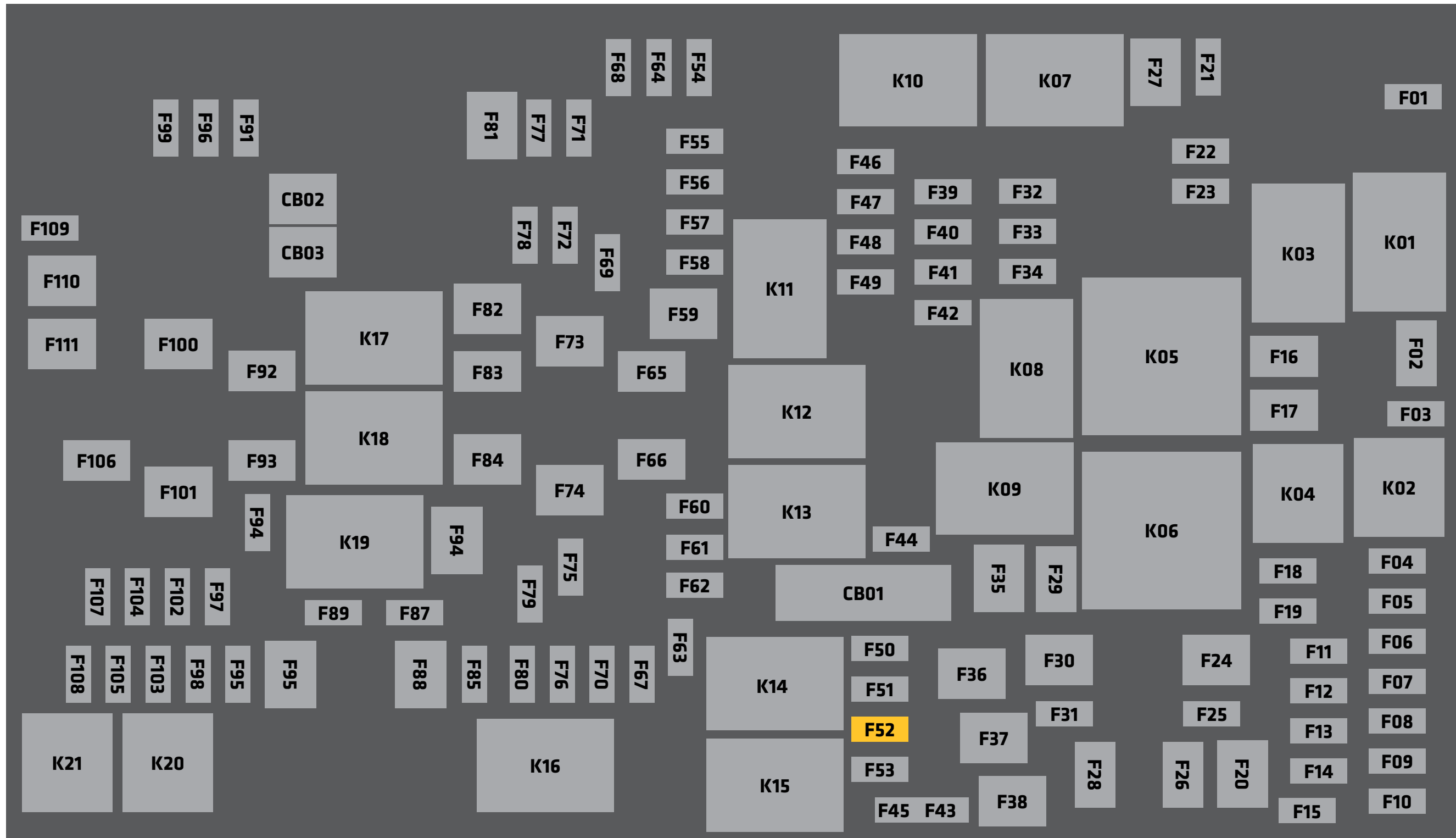
Wheel Chock

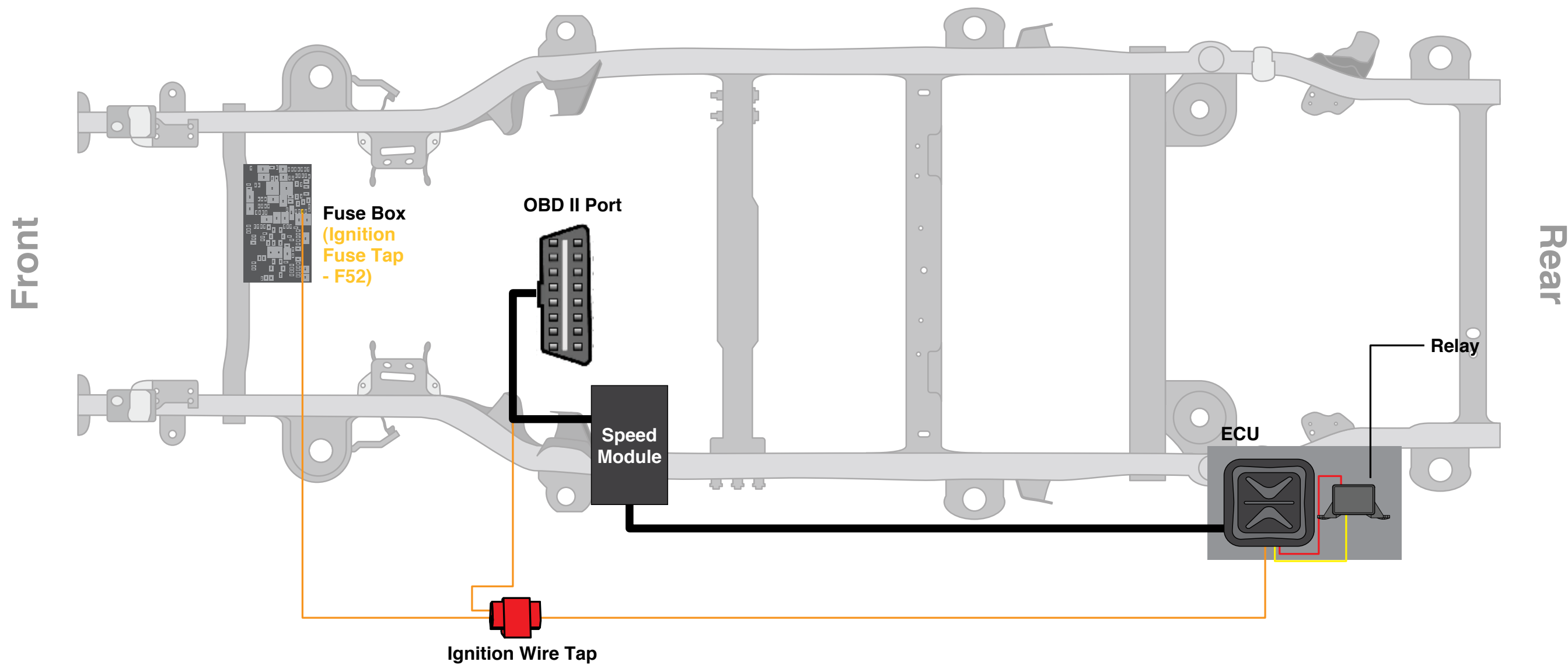
Torque Wrench

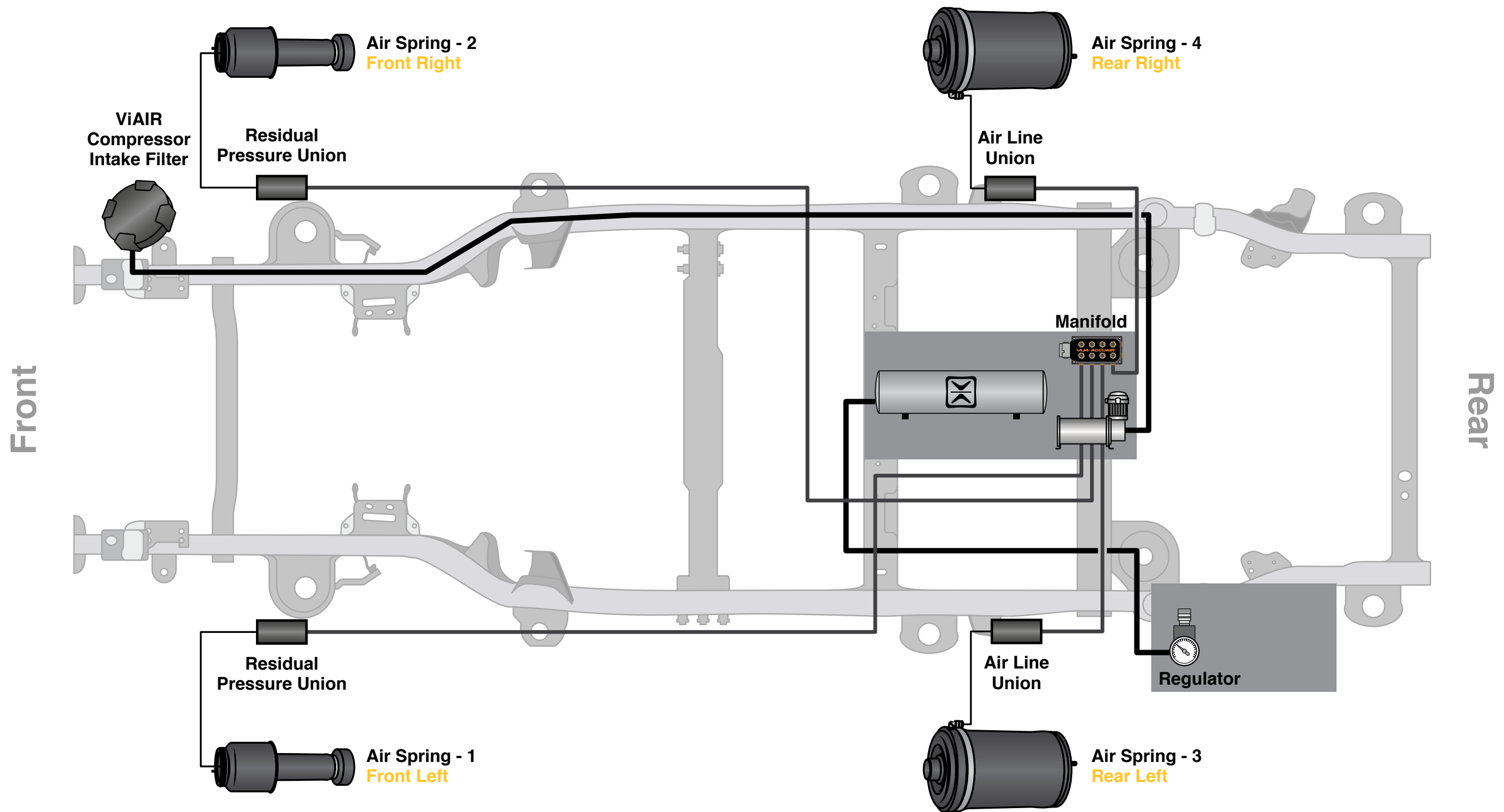




TAP INTO F52









1. Take the 6 gauge power wire with the 70 AMP fuse installed from the box labeled **AA-4102**. (Figure 1)
Lay the fuse on top of the battery and route remaining wire along the passenger side frame rail to the floor drain plug underneath the center 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 center of the vehicle. (Figure 3)



FIGURE 3

3. Install the provided rubber grommet in the floor pan hole. (Figure 4)



FIGURE 2



FIGURE 4



4. Pull the ECU main harness plug, valve harness plug, compressor power cable, batter power cable, and height sensor harness plug into the cab via the grommated floor pan hole. Run an end of the 1/4" air line for the pressure regulator into the cab via the grommated floor pan hole. (Figure 5)



FIGURE 5

6. Remove rear driver's side carpet, and move wiring connectors and tube on the rear driver's side body panel. Install ground rings for ECU, relay, and speed module cable ground wires. Secure rings on body grounding stud with standoff (Standoff found in box **AA-4021**). (Figure 7)



FIGURE 7

5. Inside the cab, fold the rear seats forward. Gather and pull the wires, tubing, and ground connections, up from the grommated floor pan hole. (Figure 6)



FIGURE 6



- 7. Install heat shrink onto wire end and crimp copper ring terminal onto battery power cable. (Use the ring terminal with **flat sides**.) (Found in box **AA-4102**.) (Figure 8)

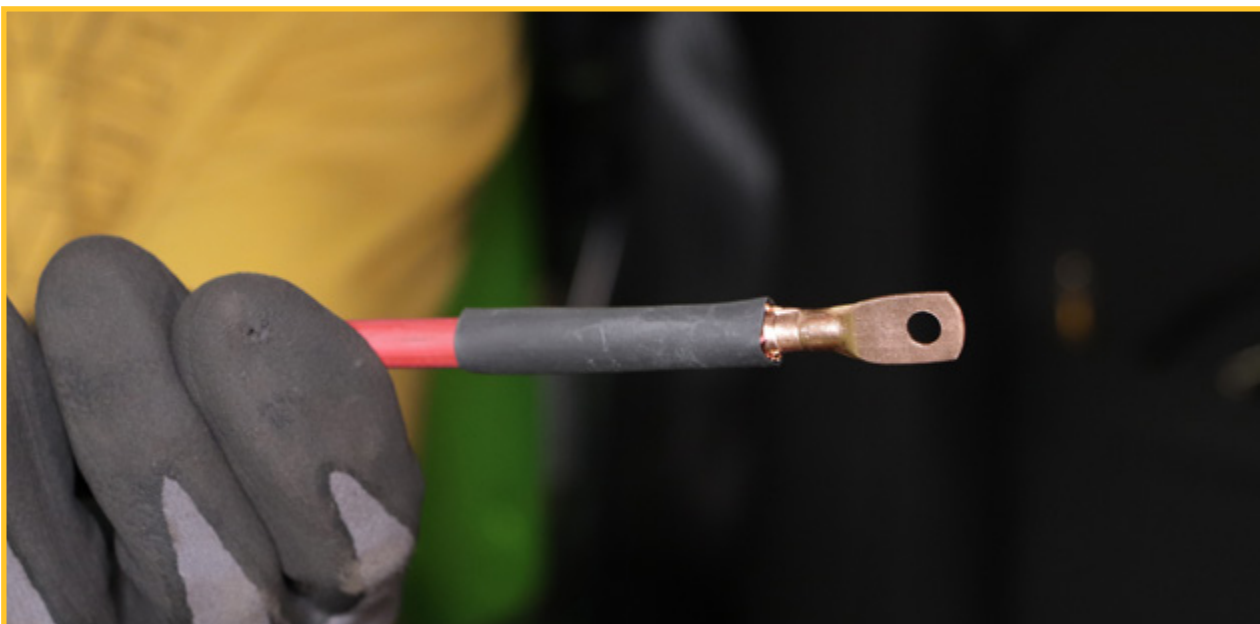


FIGURE 8

- 8. Crimp ring terminal onto ECU power flying lead. (Figure 9)

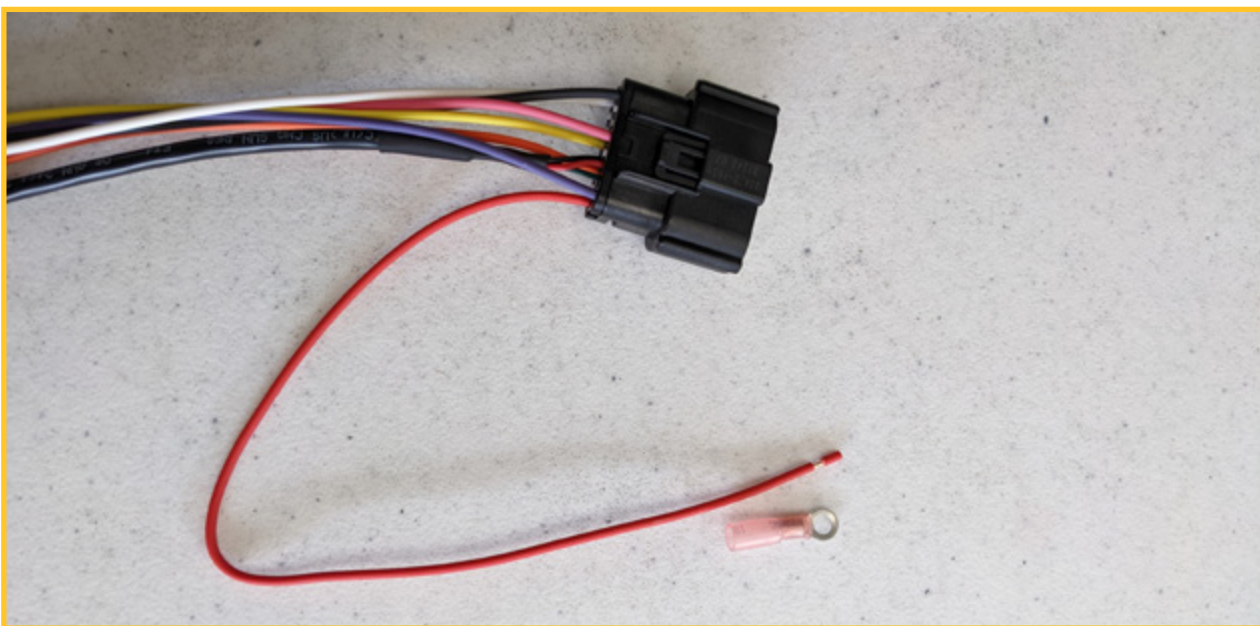


FIGURE 9

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



FIGURE 10

- 10. Grab ECU bracket from box labeled **AA-4021**. Make electrical connections as shown below. Refer to relay diagram to make relay connections. (Figure 11)



FIGURE 11



- 11. Install the large bracket holding the seamless tank, compressor, and VU4 manifold to the frame underneath the vehicle using the provided mounting hardware. The tank will face forward toward the engine bay, while the compressor and VU4 valve block will face the rear of the vehicle. (Figure 12)

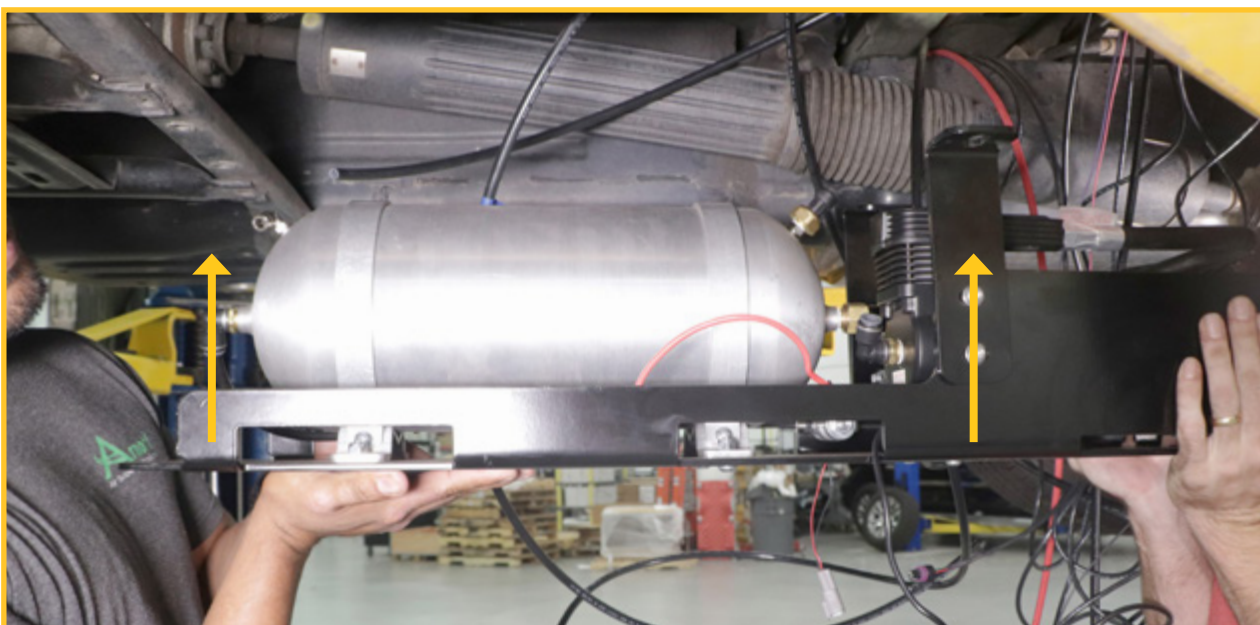


FIGURE 12

- 12. Feed the compressor power cable up through the floor drain hole and connect to red male quick terminal from the relay. (Figure 13)



FIGURE 13

- 13. Run the orange ignition wire from the ECU and the black 2-pin connector under the driver side kick panel toward the driver floorboard. (Figure 14)

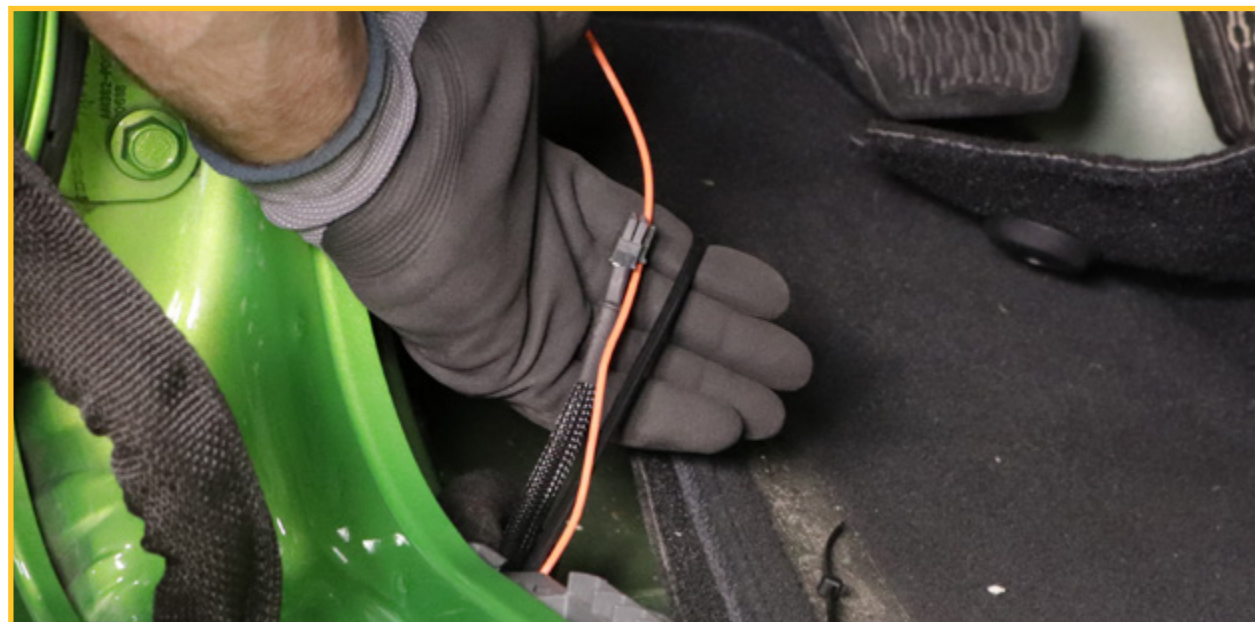


FIGURE 14

- 14. Route the orange ignition wire from the driver side kick panel up to the fuse box under the hood on the passenger side. (Figure 15)



FIGURE 15



- 15. Crimp the orange ignition wire to the fuse tap provided in **AA-4102**. Extract 20 AMP fuse from **F52** and place on bottom position of the fuse tap. Pull the spare **5 (or 10) AMP** fuse and position in top slot of the fuse tap. (Figure 16)

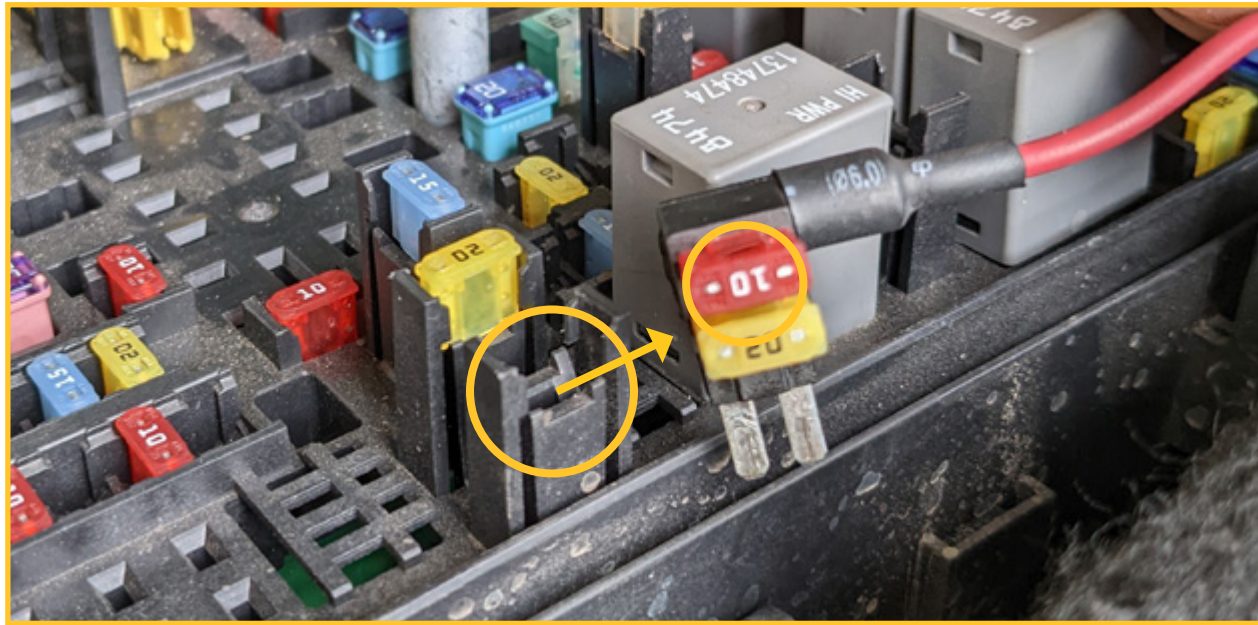


FIGURE 16

- 16. Remove the fuse in position (**F52**) and install the fuse tap. (Figure 17)

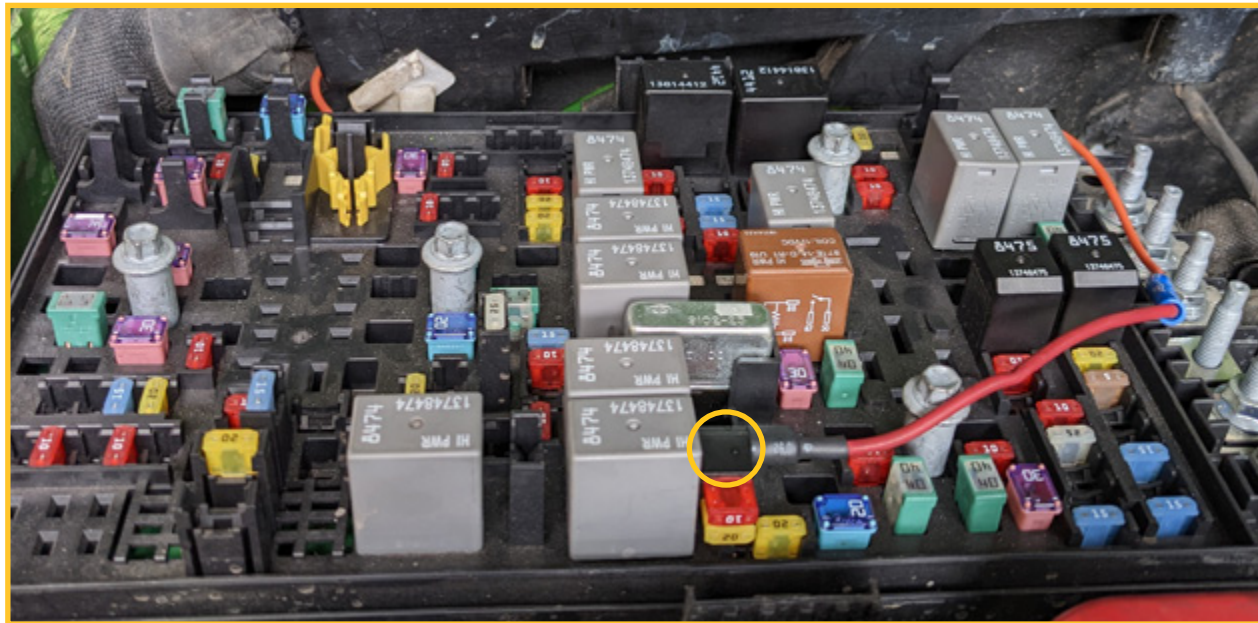


FIGURE 17

- 17. Install the speed module using hardware from the box labeled **AA-4103**. The supplied speed module must be installed to allow full functionality of the system. View video using QR code to the right for installation process.



SPEED MODULE VIDEO

- 18. Underneath the vehicle on the bracket, connect the VU4 harness. (Figure 18)

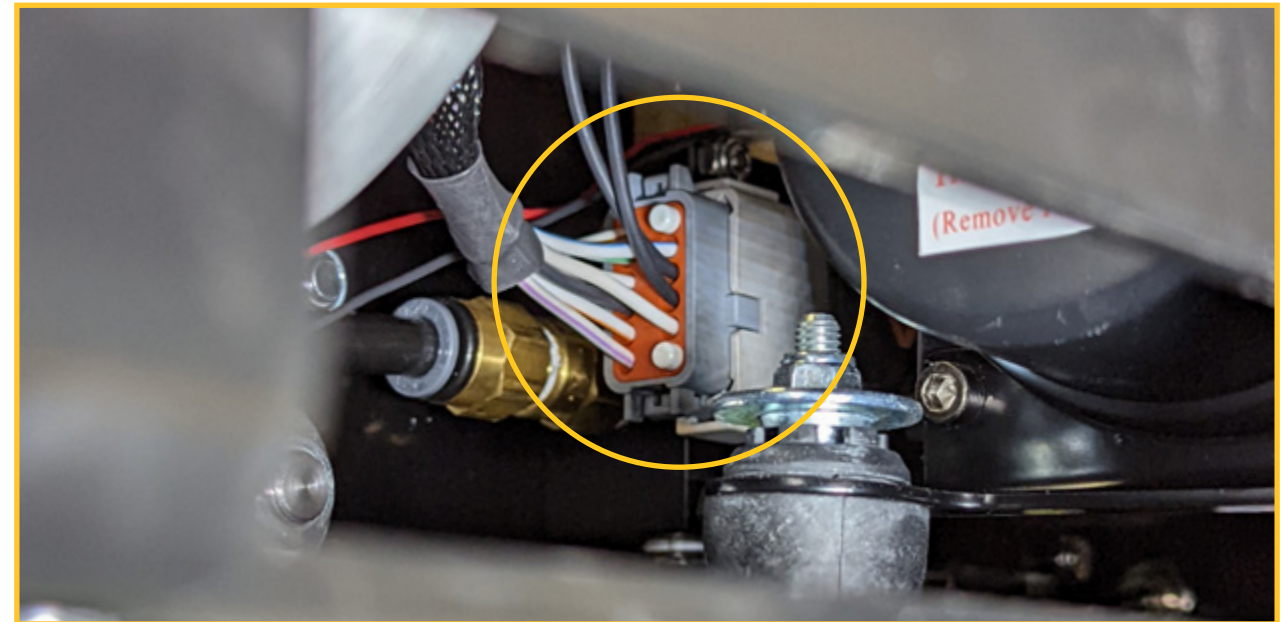


FIGURE 18

19. Connect the purge valve. (Figure 19)

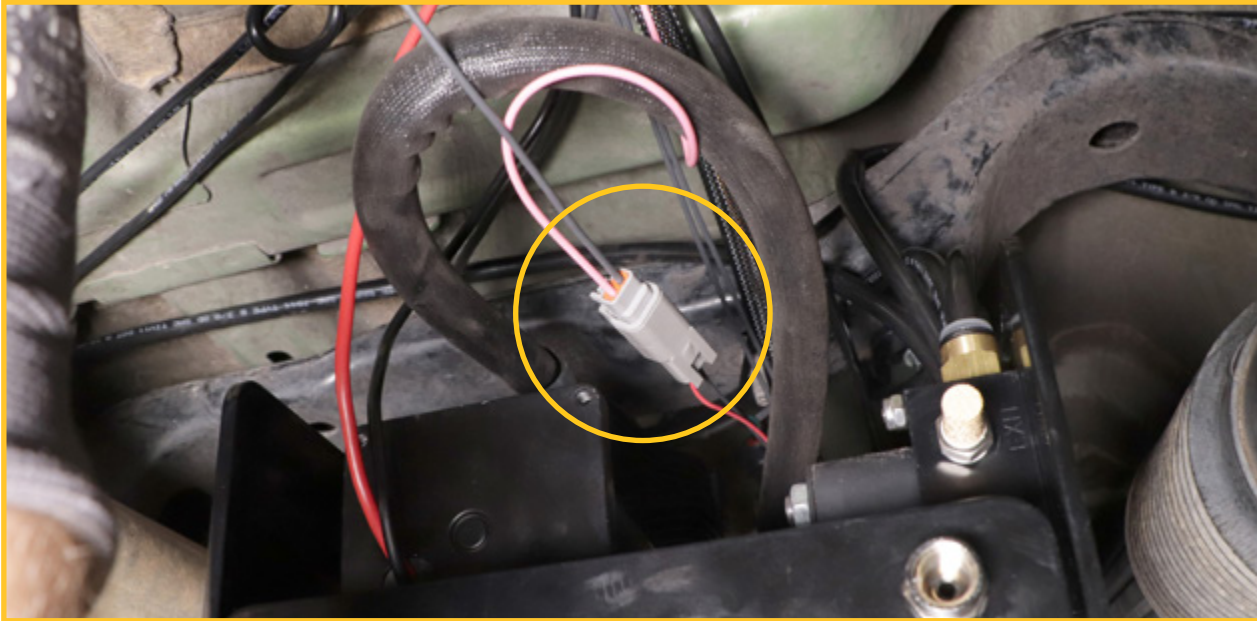


FIGURE 19

21. Connect ground ring terminals for valve harness, compressor, and purge valve to the under-body ground lug. (Figure 21)



FIGURE 21

20. Connect the 3-wire pressure sensor. (Figure 20)

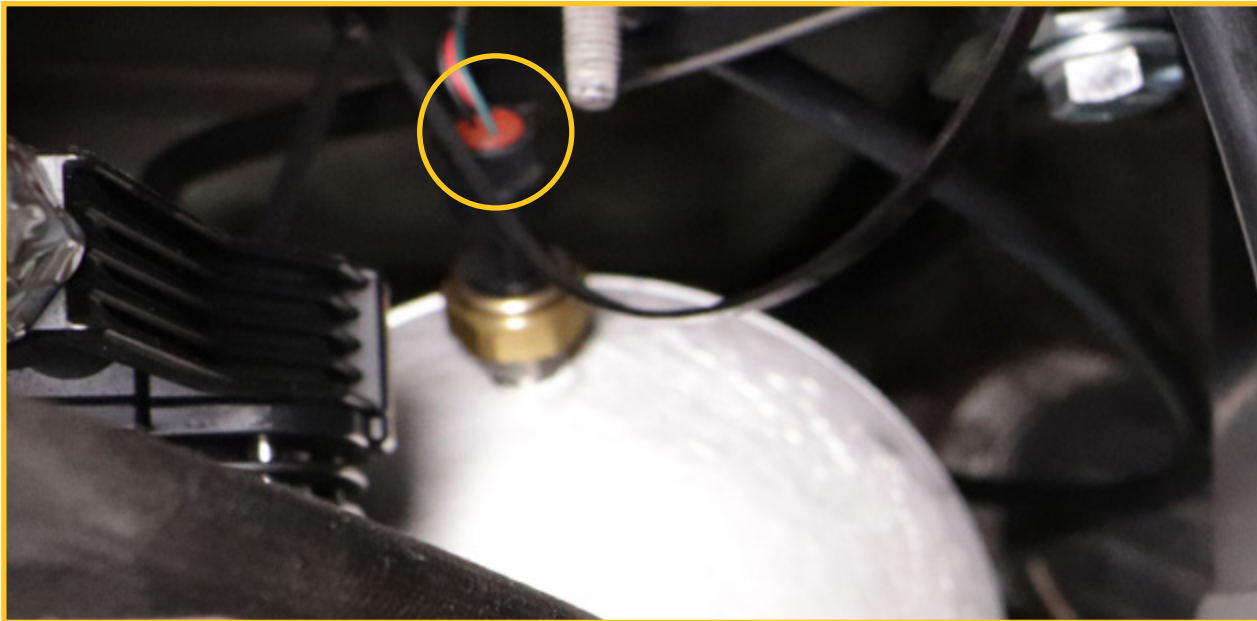
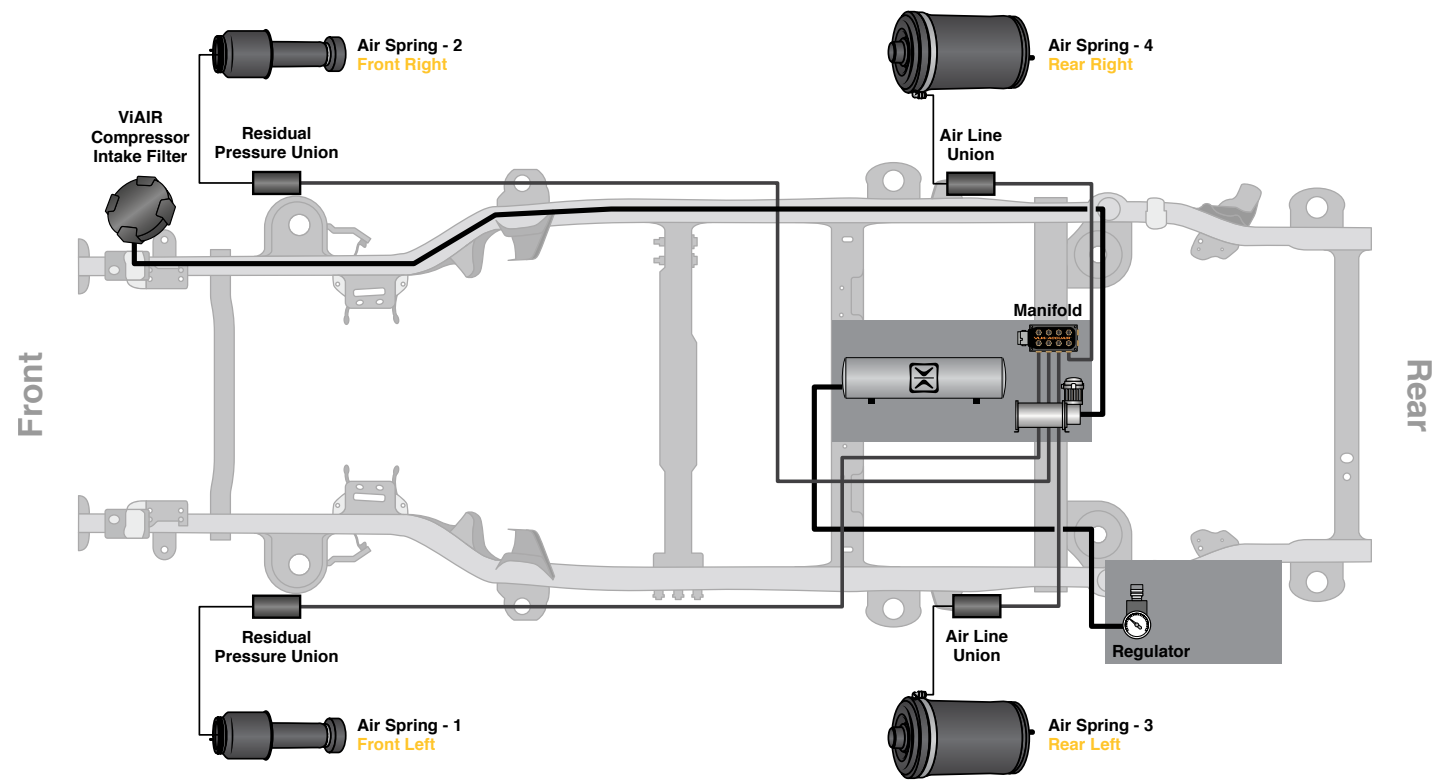


FIGURE 20



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 22)

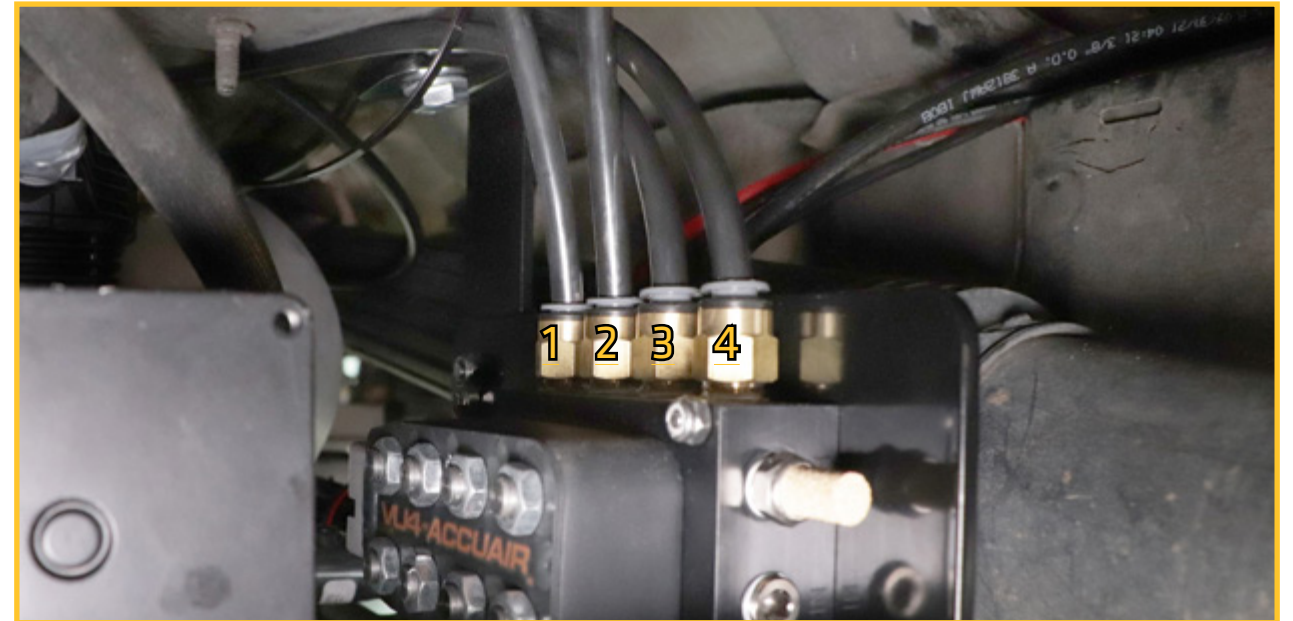


FIGURE 22

3. Connect 1/4" regulator air line to elbow on the front of the tank. (Figure 23)



FIGURE 23



4. Trim and attach 1/4" air line to regulator. (Figure 24)

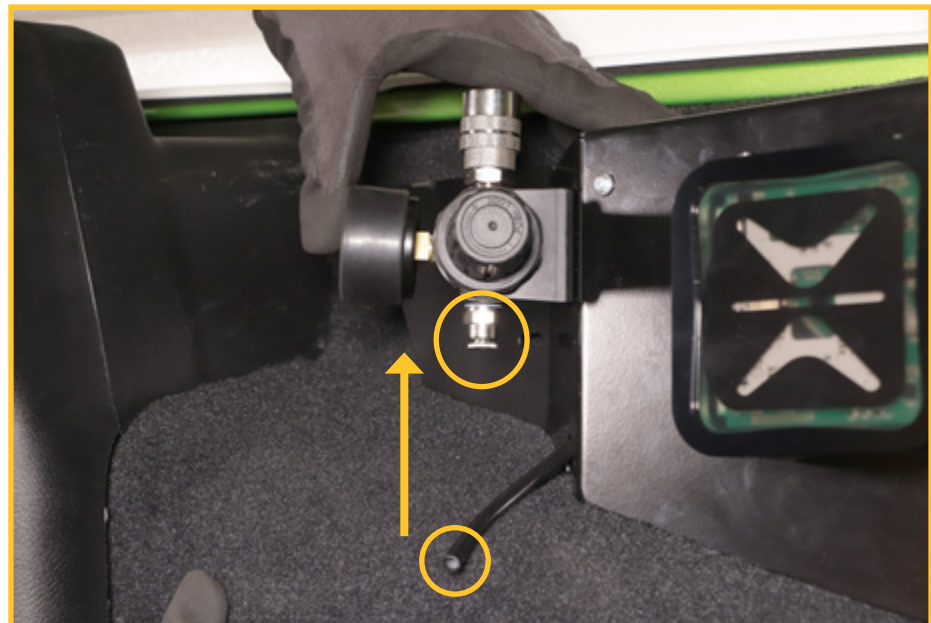


FIGURE 24

5. Install intake filter near engine intake in the front passenger side under the hood. (Figure 25)



FIGURE 25

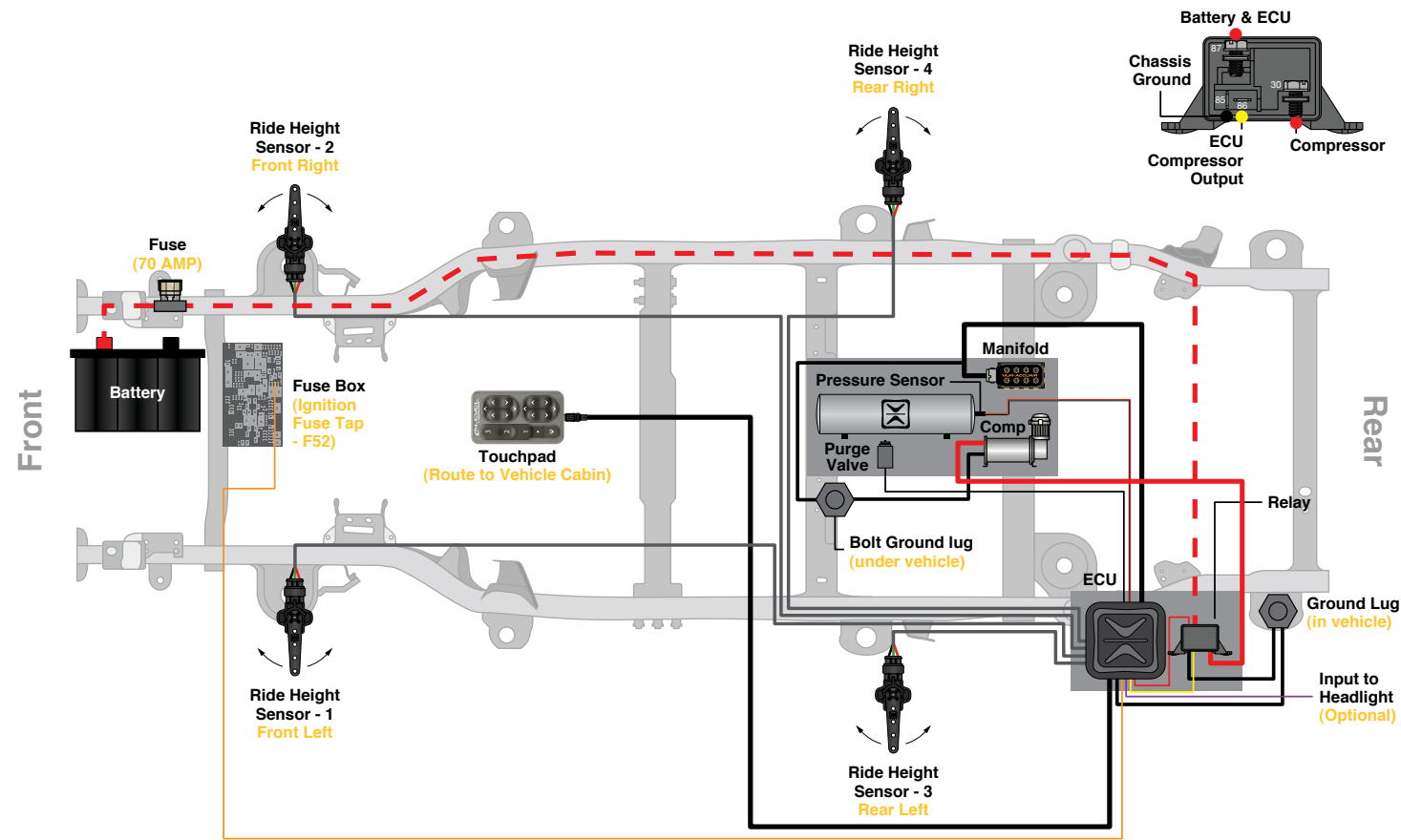
6. Route the intake line back to the compressor. (Figure 26)



FIGURE 26



- 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 27)



FIGURE 27



1. Cut carpet for bracket clearance. (Figure 28)



FIGURE 28

2. Tighten forward hex. (Figure 29)



FIGURE 29

3. Tighten Allen fastener to standoff. (Figure 30)



FIGURE 30

4. When completed, ECU bracket should look as shown. (Figure 31)



FIGURE 31



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 32)



FIGURE 32

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. Remove OEM front skid plate using a 13mm socket/wrench. (Figure 33)



FIGURE 33

5. Remove OEM front sway bar end links using a 6mm hex key socket/wrench & 18mm socket/wrench. (Figure 34)



FIGURE 34



6. Disconnect OEM front track bar from frame using a 21mm socket/wrench. (Figure 35)

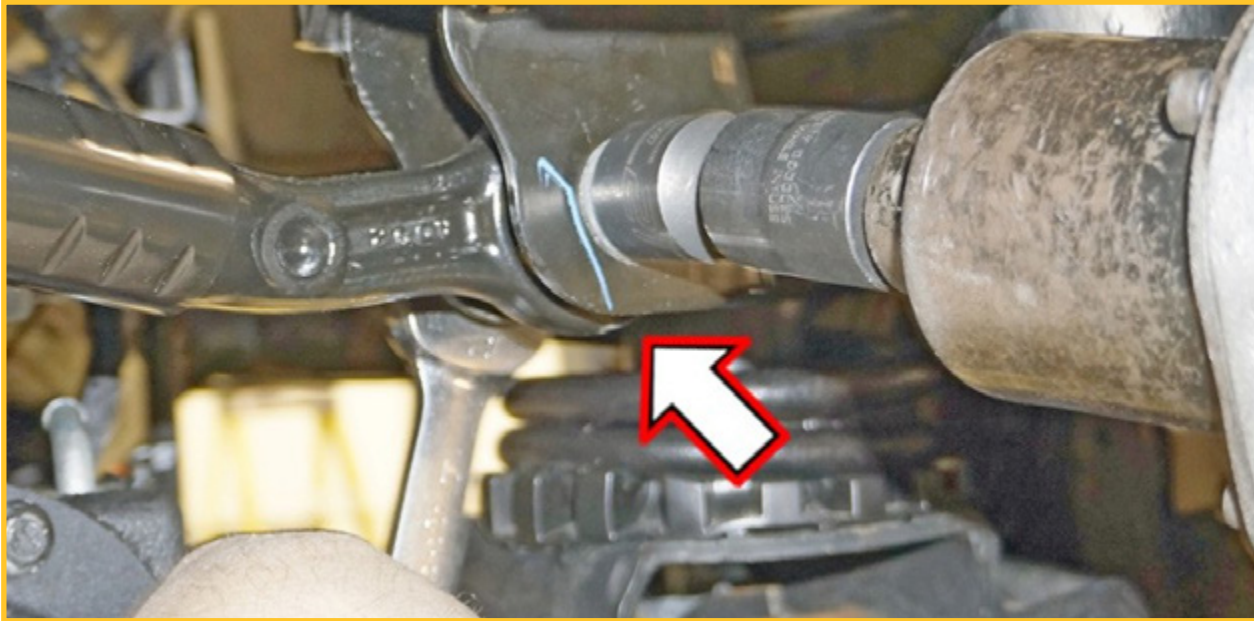


FIGURE 35

7. Disconnect OEM drag link from OEM pitman arm using a 21mm socket/wrench. (Figure 36)

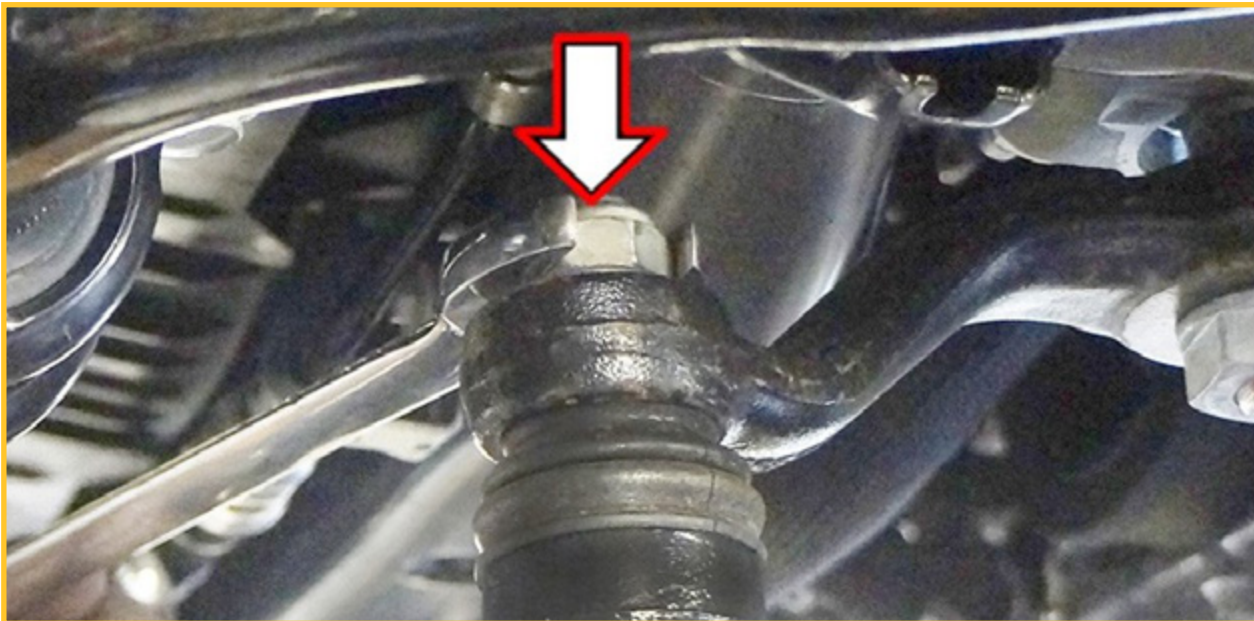


FIGURE 36

8. Disconnect OEM front shock from upper shock tower mount & lower axle mount using a 18mm socket/wrench. (Figure 37)



FIGURE 37

9. Disconnect OEM front brake line brackets from OEM front lower control arms using a 15mm socket/wrench. (Figure 38)



FIGURE 38



10. Mark the location of OEM front driveshaft/flange at axle & disconnect using a 15mm socket/wrench. (Figure 39)

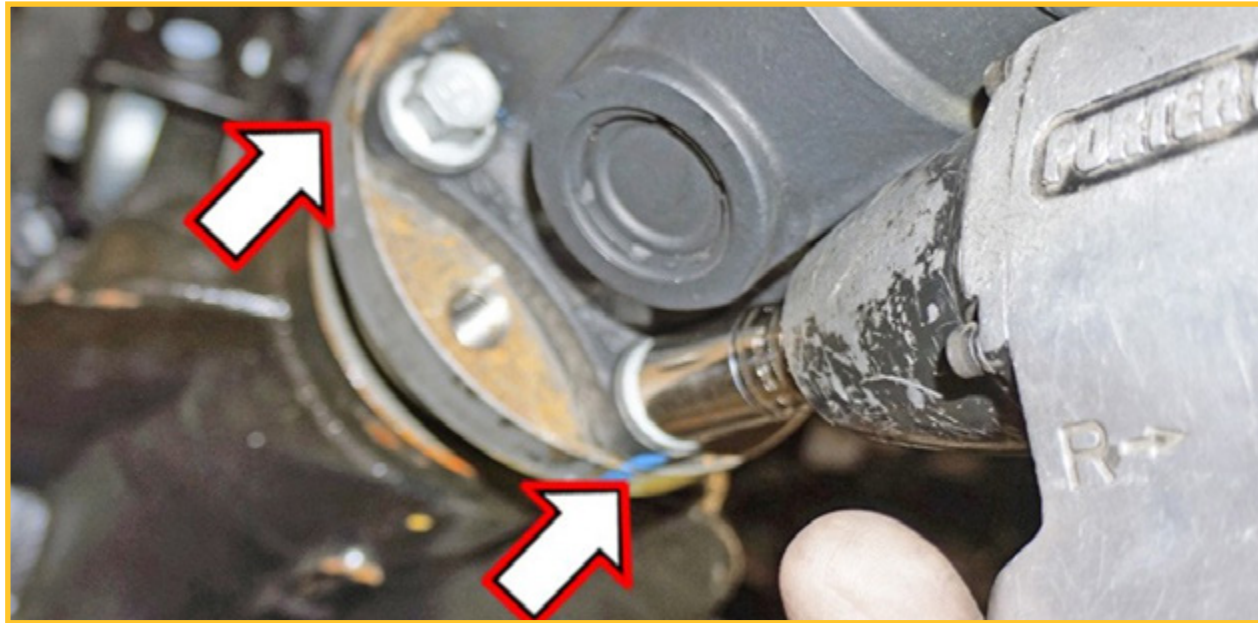


FIGURE 39

11. Disconnect wiring harness from passenger side OEM front upper control arm using pliers.

12. Disconnect wiring harness from OEM 4WD actuator. (Figure 40)

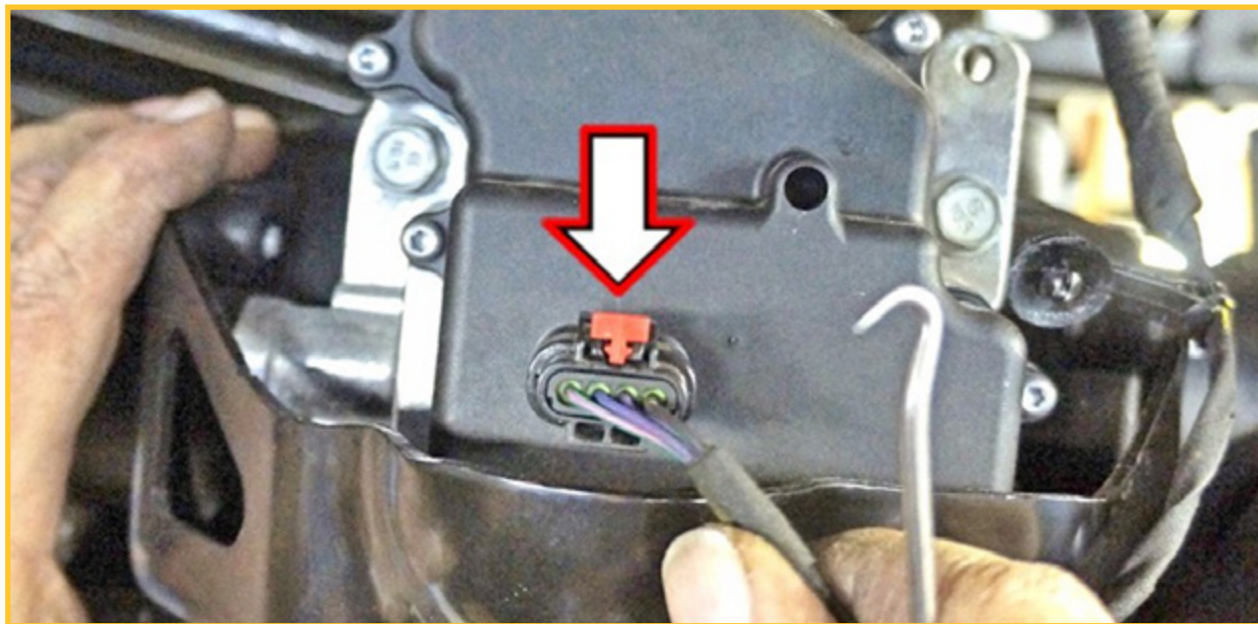


FIGURE 40

13. Disconnect OEM vent hose from front differential using pliers.

14. While checking for appropriate slack in ABS lines, brake lines, differential vent hose, etc, lower front differential & remove OEM front coil springs.

15. Remove the bump stop and upper/lower spring isolators. (Figures 41, 42, 43)

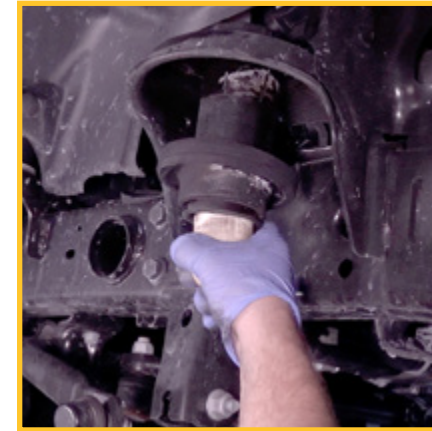


FIGURE 41

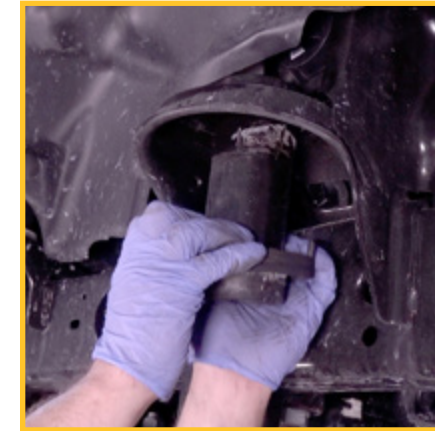


FIGURE 42



FIGURE 43

16. Attach air line from **AA-4102** to inside of air spring top. (Figures 44, 45)



FIGURE 44



FIGURE 45



17. Install the new air springs with the air line going through the top mount hole of the frame. (Figures 46, 47)

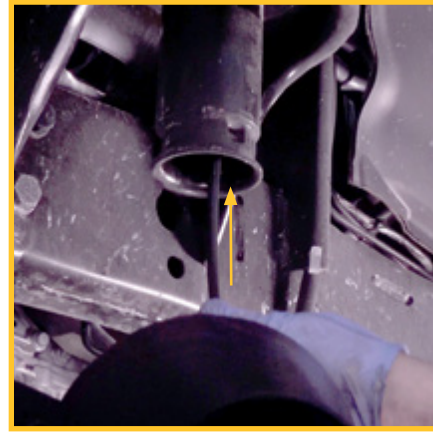


FIGURE 46



FIGURE 47

18. Install and tighten the top and bottom mount nuts on the air spring studs. Tighten to 17 ft-lbs. (Figures 48, 49)



FIGURE 48

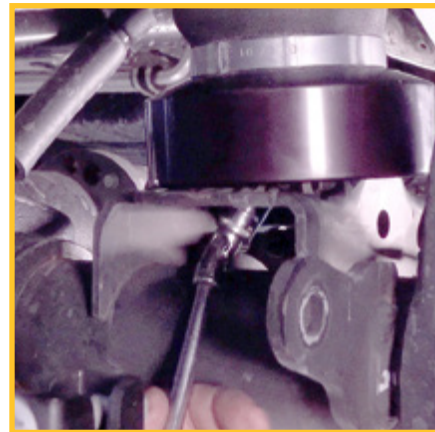


FIGURE 49

19. Install top cap with the air line passing through the center. Seat the cap on the top mount. (Figures 50, 51)



FIGURE 50



FIGURE 51

20. 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

21. Using the residual pressure union, connect the 1/4" air line from the air spring and 3/8" air line from the VU4. (Figure 52)



FIGURE 52



FRONT RIDE HEIGHT SENSOR INSTALLATION

22. Install the front ride height sensor bracket assembly on the vehicle. The bracket will slide under the heat shield and attach to the frame using the same bolt for the heat shield. The provided nut will be installed to the back of this heat shield bolt. Tighten to 65 in-lbs. Interlock the upper tab of the sensor bracket into the cutout on the upper control arm mount. (Figures 53, 54)

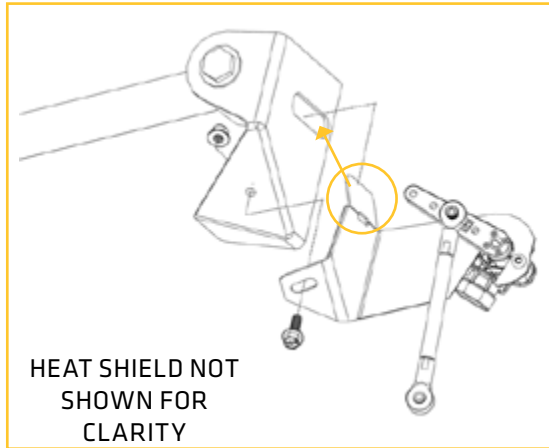


FIGURE 53 - RIGHT FRONT

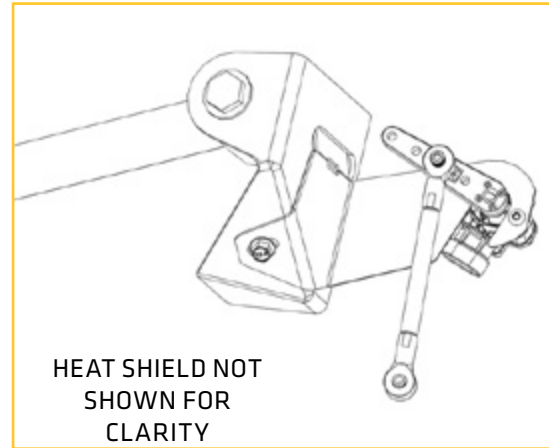


FIGURE 54 - RIGHT FRONT

23. When installed it should look as shown. (Mount link to lower control arm.) (Figure 55)



FIGURE 55



NOTICE:

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

24. Connect OEM drag link to OEM pitman arm with OEM hardware using a 21mm socket/wrench. (Figure 56)
Torque 75 ft-lbs.

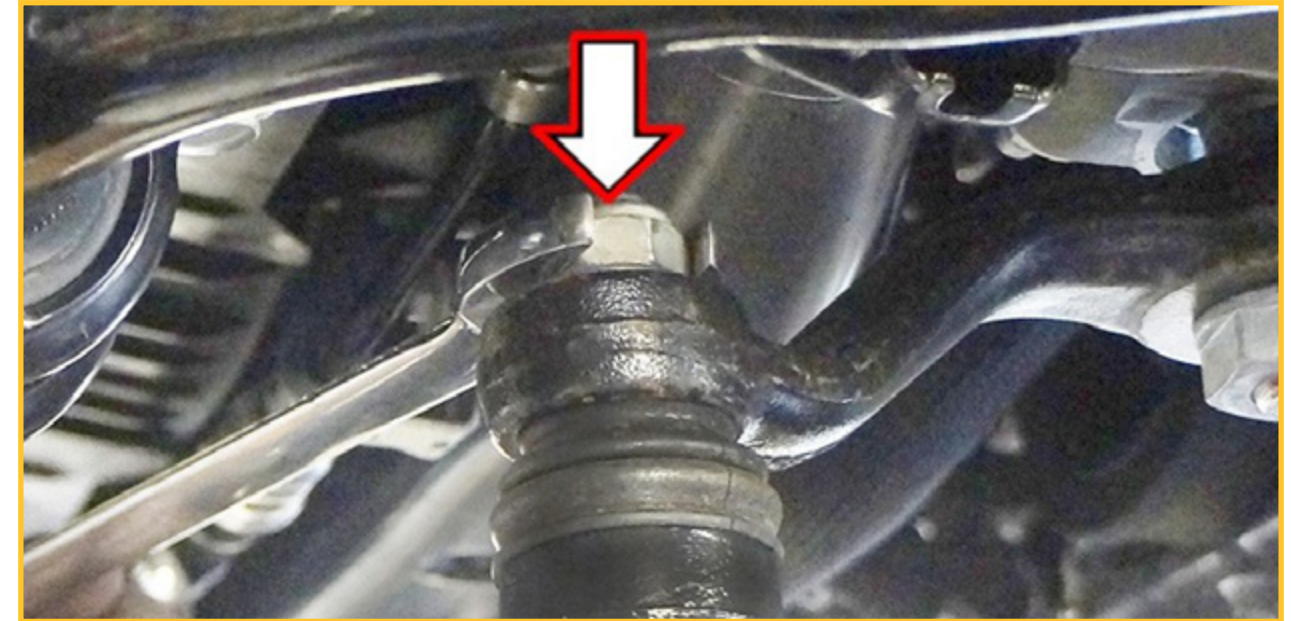


FIGURE 56

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



26. Connect wiring harness to OEM 4WD actuator. (Figure 57)

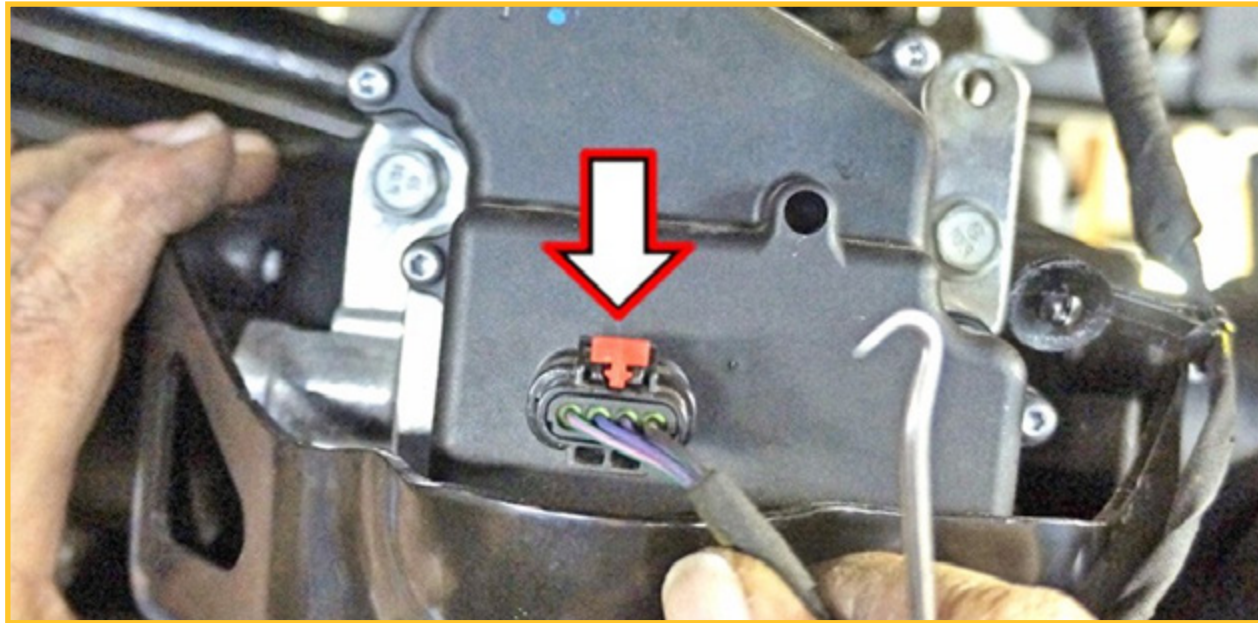


FIGURE 57

27. Connect wiring harness to passenger side OEM front upper control arm.

28. Install Front Brake Line Bracket to front lower control arm with OEM hardware using a 15mm socket/wrench. (Figure 58)
Connect OEM front brake line bracket to bracket using supplied 1/4" x 1" Fine Thread Bolt with 1/4" SAE Washer outside & 1/4" SAE Washer with 1/4" Nylon Insert Lock Nut on inside with a 7/16" socket/wrench.



FIGURE 58

29. Install JRi front shock with OEM hardware at upper shock tower mount using a 18mm socket/wrench. Connect JRi shock at lower axle mount with OEM hardware using a 18mm socket/wrench. Secure, but **do not completely tighten** at this time. To set bushings properly for ride height, these will be tightened once vehicle is on ground with full vehicle weight on tires/wheels.

NOTE: JRi shocks are monotubes and designed to be mounted with cylinder body up for proper installation of pre-installed upper mount bushings.



FRONT INSTALLATION

30. Coat with a water-resistant grease & press 1.50 Long Steel Sleeves into upper & lower mounts of Front Sway Bar End Link. Install upper end link mount with supplied 12mm x 70mm Bolt with a 7/16" USS Washer through sway bar with a 7/16" USS Washer & 12mm Nylon Insert Lock Nut using a 19mm socket/wrench. (Figure 59)
Attach lower end link with OEM hardware using a 18mm socket/wrench.

NOTE:

On Driver Side, install OEM lower bolt with large washer to outer bushing side of sway bar end link. Secure, but do not completely tighten at this time.

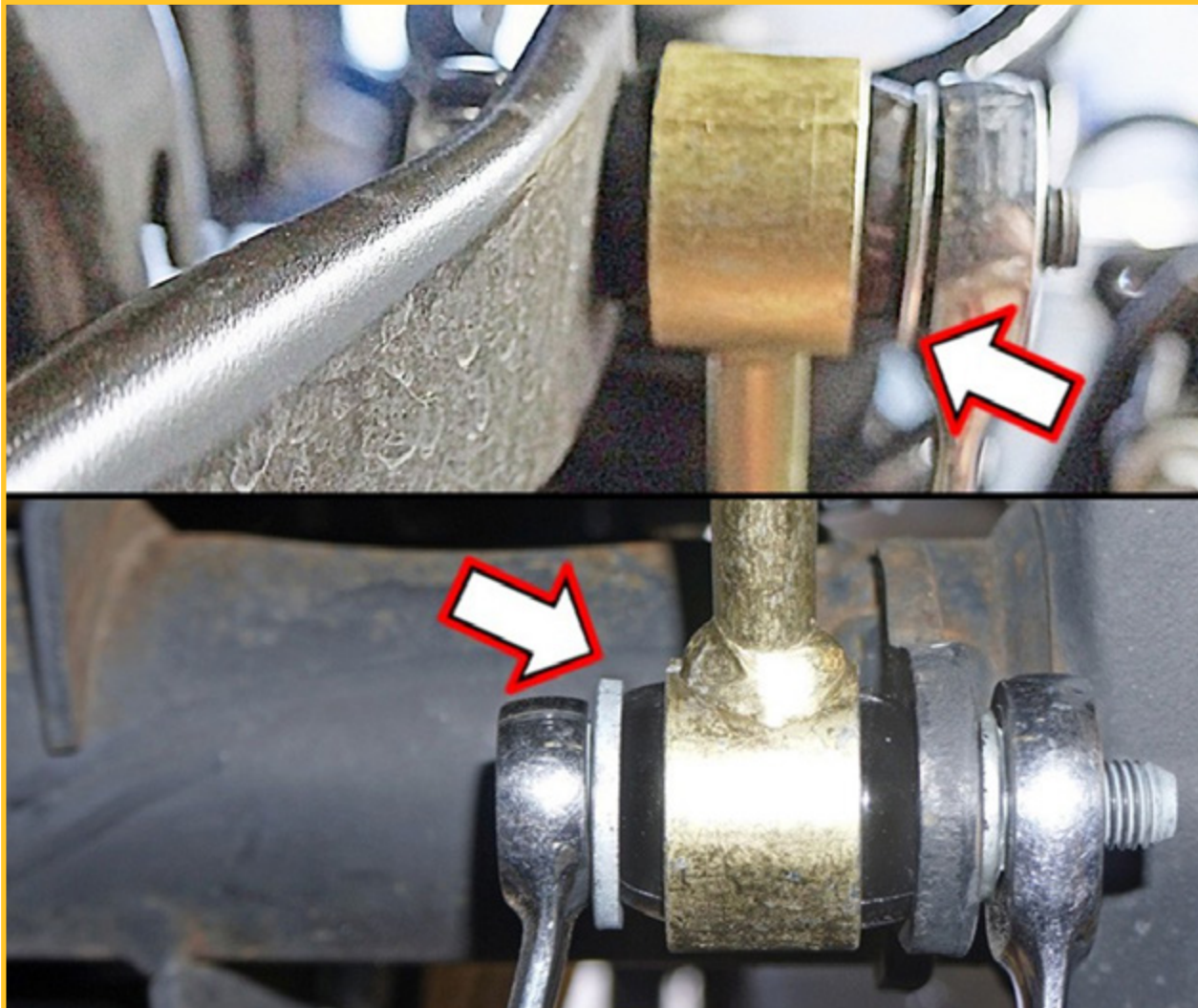


FIGURE 59

31. Install OEM front skid plate with OEM hardware using a 13mm socket/wrench. (Figure 60)



FIGURE 60

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



33. 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. (Figure 61)

NOTE: Do not tighten at this time.

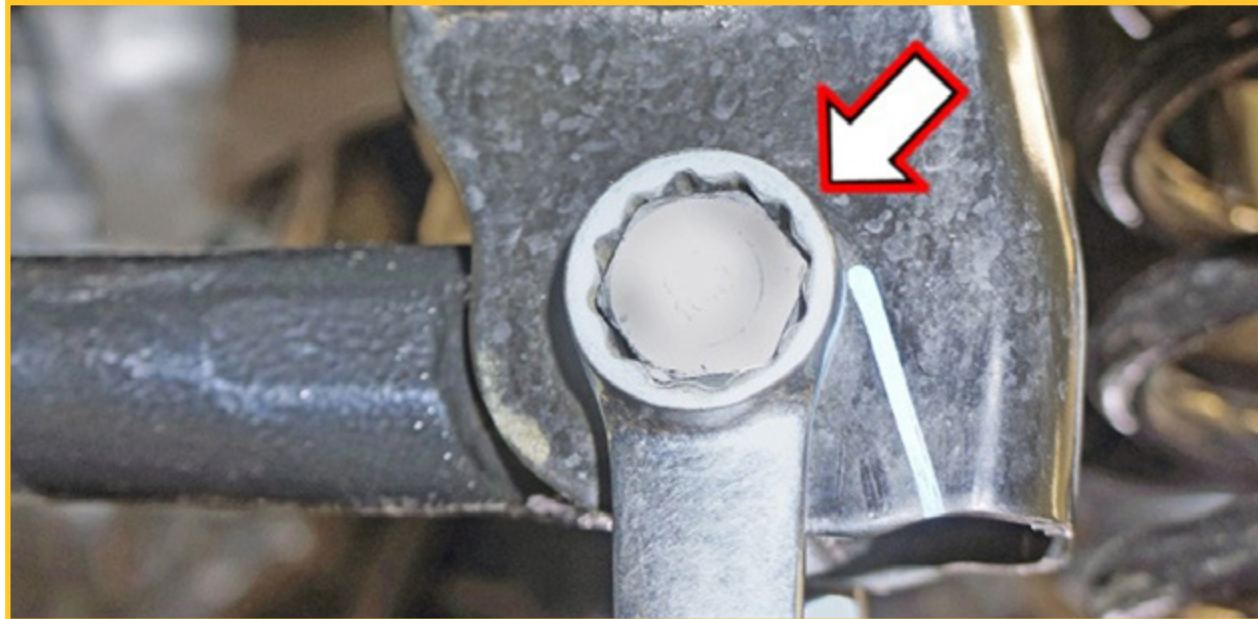


FIGURE 61

34. Install supplied Rod End Bushings onto rod end of track bar. Install rod end assembly into front axle mount with OEM hardware using a 21mm socket/wrench. (Figure 62)

NOTE: Do not tighten at this time.

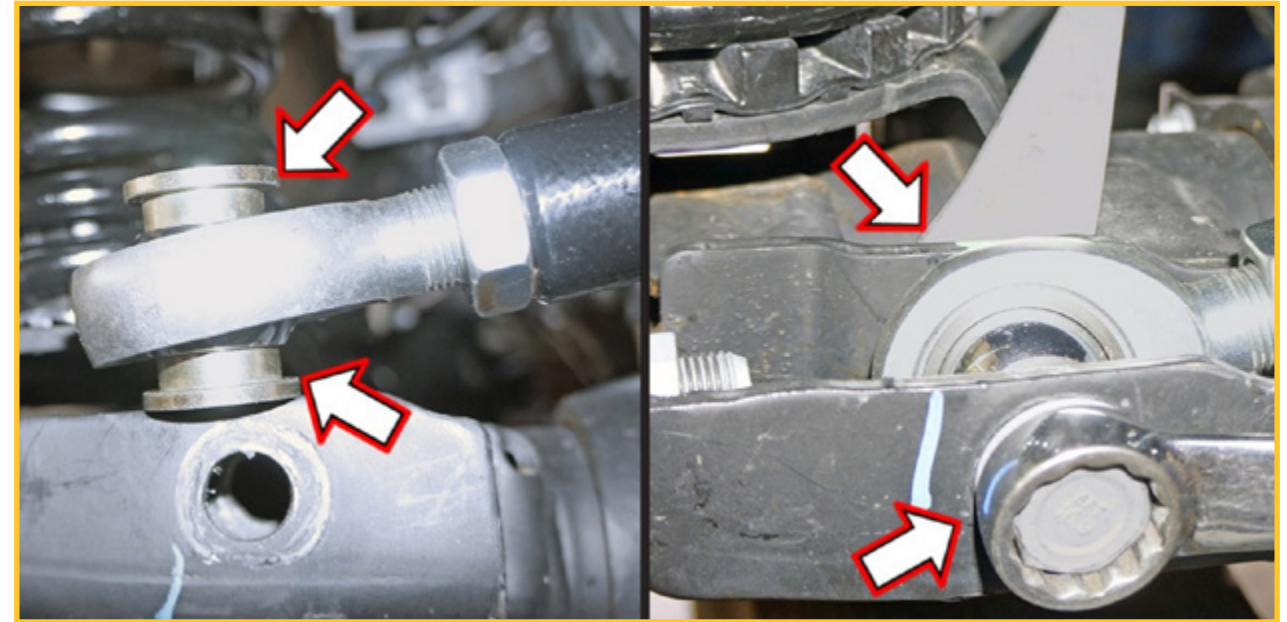


FIGURE 62

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 63)

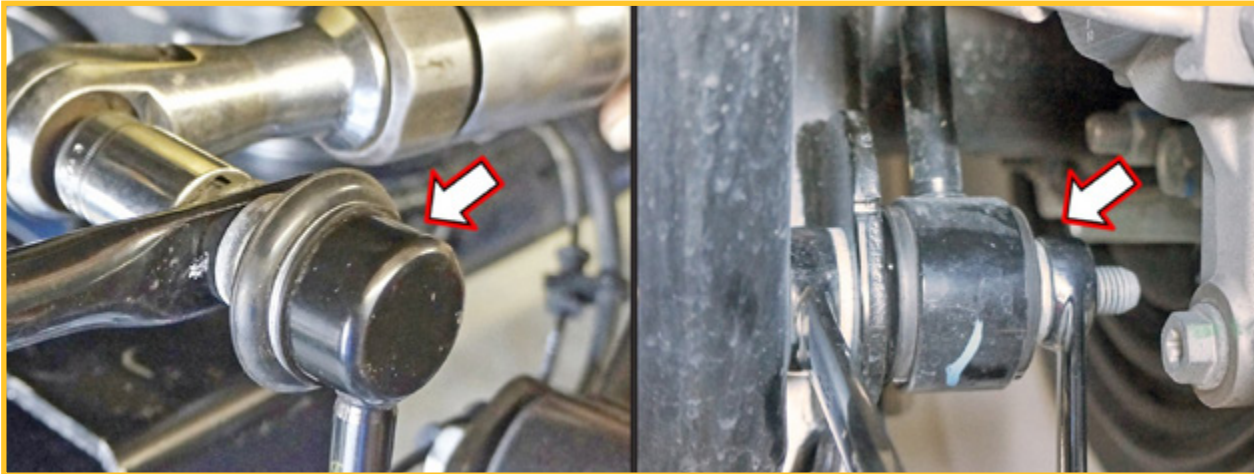


FIGURE 63

4. Disconnect OEM rear brake line brackets from frame using a 10mm socket/wrench. (Figure 64)

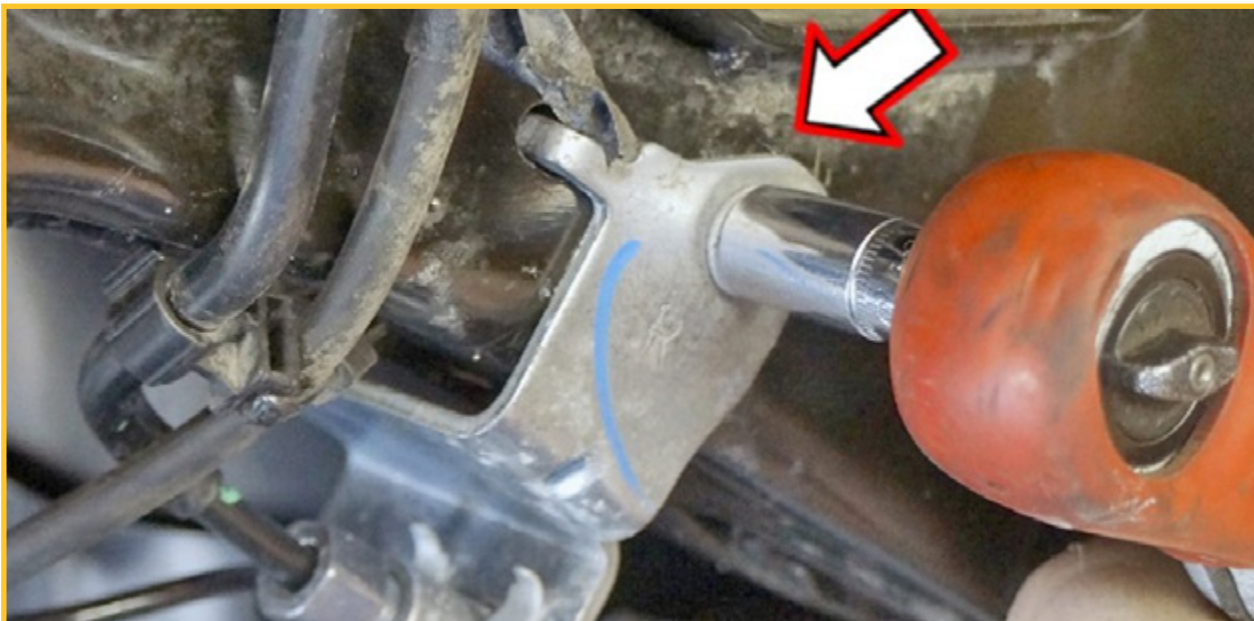


FIGURE 64

5. Disconnect OEM rear brake line brackets from rear axle at upper control arm mount using a 13mm socket/wrench. (Figure 65)



FIGURE 65

6. Disconnect OEM rear track bar from passenger side upper frame mount using a 21mm socket/wrench. (Figure 66)



FIGURE 66



7. In order to gain access to OEM rear upper shock mounting bolts, remove three (3) OEM bolts rear bumper inner fender liner using a 8mm socket/wrench. (Figure 67)

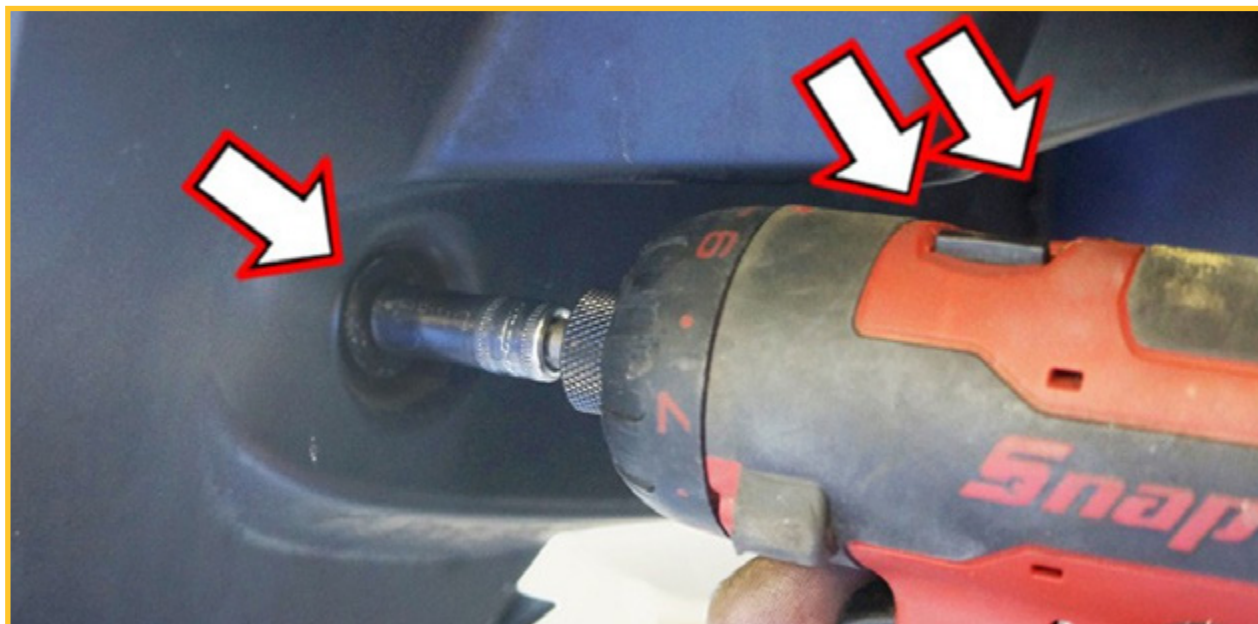


FIGURE 67

Retain hardware. Remove OEM rear shocks using a 18mm socket/wrench. (Figure 68)

NOTE: OEM upper shock mount has nut attached to shock mount.



FIGURE 68

8. While checking for appropriate slack in ABS lines, brake lines, differential vent hose & etc, lower rear axle & remove OEM rear coil springs.



REAR INSTALLATION

9. Install the lower bump stops on to the mounting bracket using the provided countersunk screws. The circular pad of the bump stop will face the front of the vehicle. The bump stops will connect to each tip of the bracket's countersunk holes. Tighten to 14 ft-lbs. (Figures 69, 70, 71, 72, 73, 74)

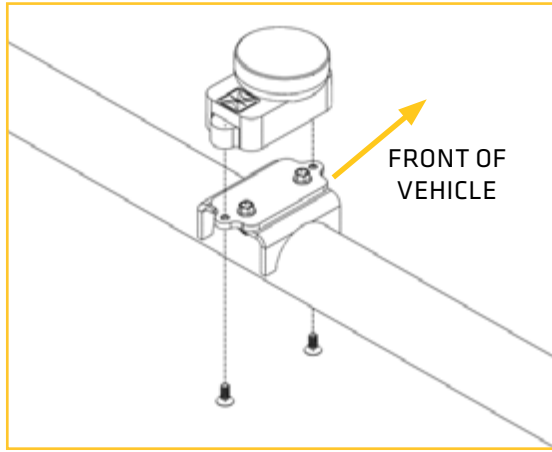


FIGURE 69 - LEFT SIDE

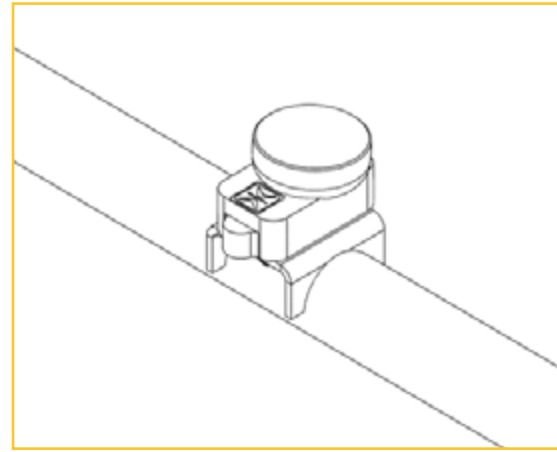


FIGURE 70 - LEFT SIDE

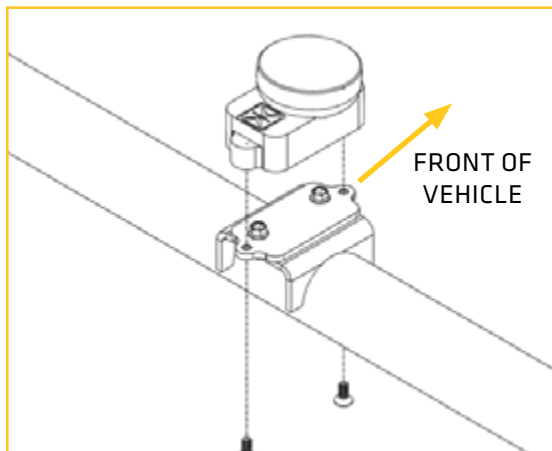


FIGURE 71 - RIGHT SIDE

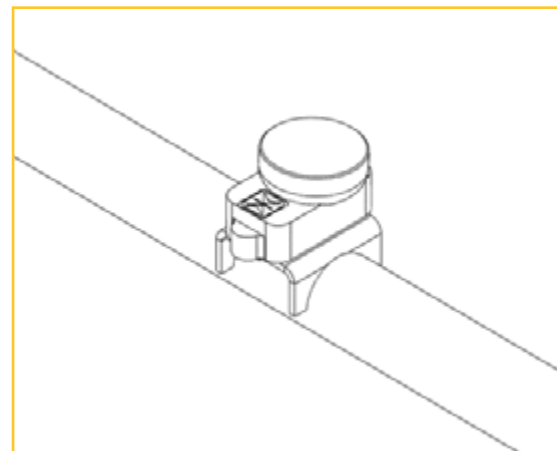


FIGURE 72 - RIGHT SIDE



FIGURE 73

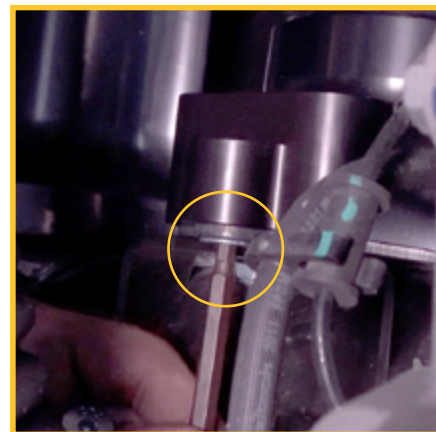


FIGURE 74

10. Check fit Rear Track Bar Upper Bracket over OEM rear upper track bar mount on frame. The double hole side of track bar bracket towards outside of vehicle. (Figure 75)

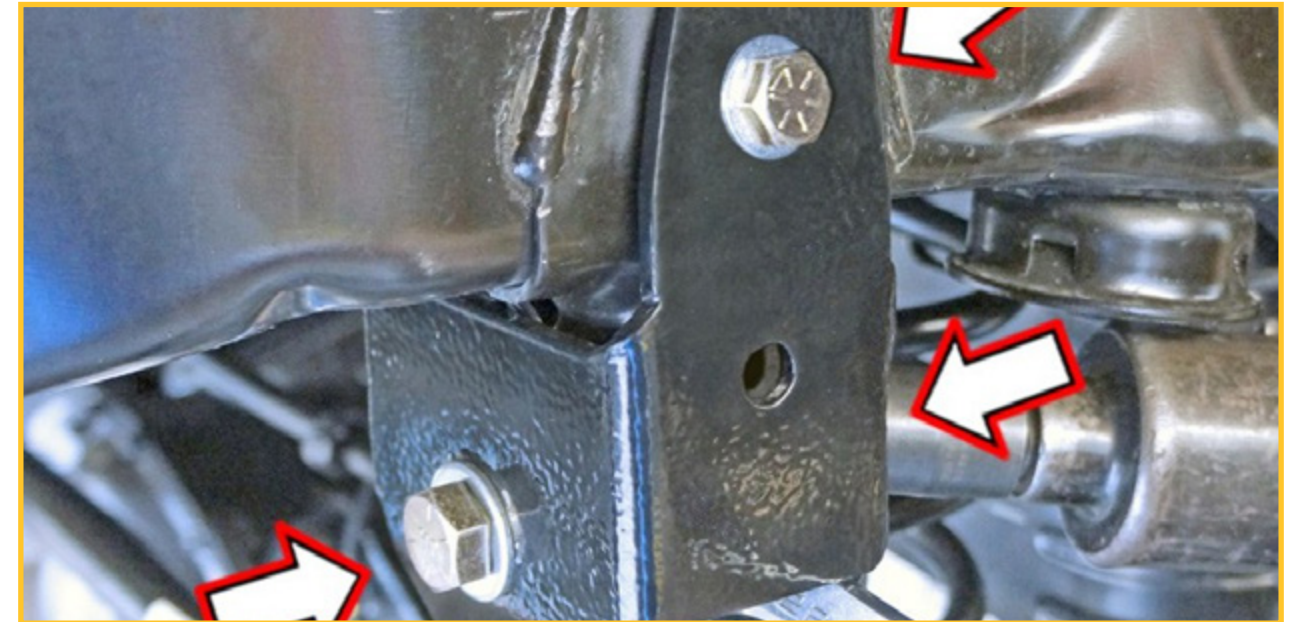


FIGURE 75

NOTE: It may be necessary to slightly grind the welds of OEM frame mount for new track bar bracket to be installed easily.



File smooth any burrs or sharp edges on OEM mount then paint or undercoat all exposed metal. (Figure 76)

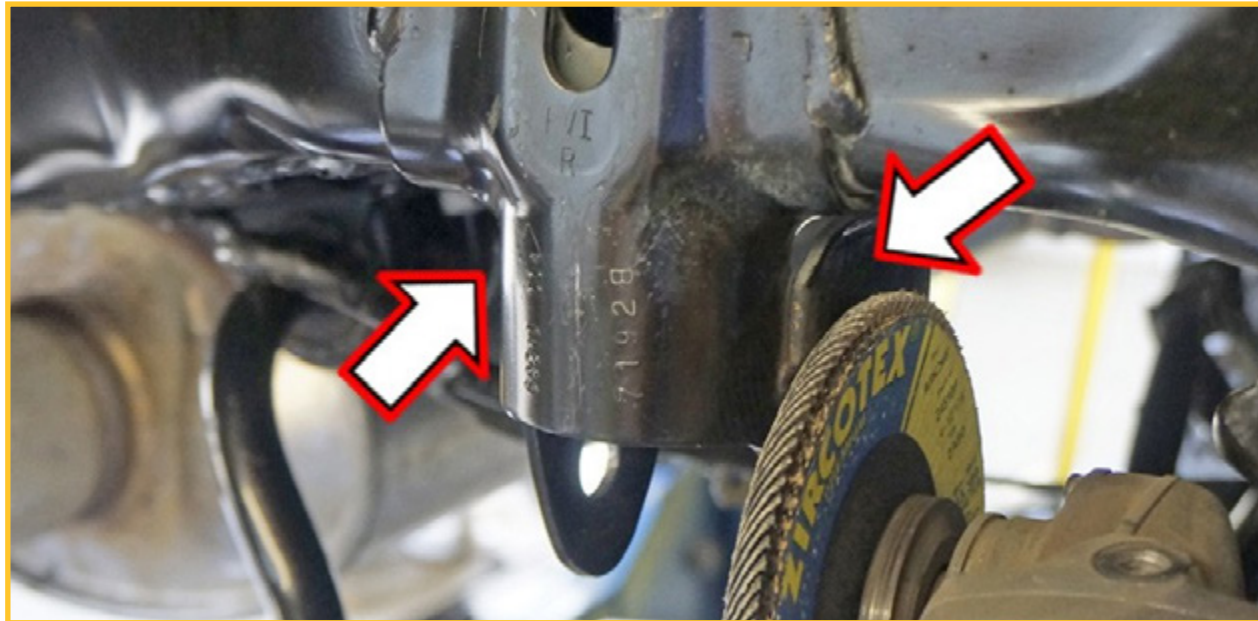


FIGURE 76

Install Rear Track Bar Upper Bracket over OEM rear upper track bar bracket on frame.

First, insert a supplied 1/2" x 5" Fine Thread Bolt with 1/2" SAE Washer through the bracket's upper outside frame mounting hole. Attach with 1/2" SAE Washer & 1/2" Nylon Insert Lock Nut on inside using a 3/4" socket/wrench. (Figure 75) Torque 90 ft-lbs.

Next, insert a supplied 9/16" x 1-1/4" Fine Thread Bolt with 9/16" SAE Washer through bracket/OEM track bar mounting holes. Attach with 9/16" SAE Washer & 9/16" Nylon Insert Lock Nut on inside using a 13/16" & 7/8" socket/wrench. (Figure 75) Torque 130 ft-lbs.

- 11. 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: Install the new rear lower control arms with the offset bend toward the inside of the vehicle.

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

- 12. Install the new rear air springs. The threaded stud on the bottom of the spring will face the front of the vehicle and aligns with a hole in the axle mounted spring seat. The slot on the rear of the air spring will face the rear of the vehicle. (Figures 77, 78)

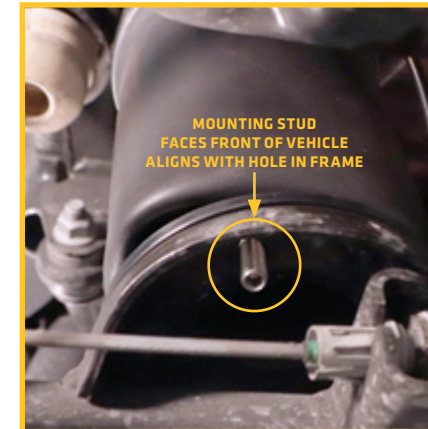


FIGURE 77

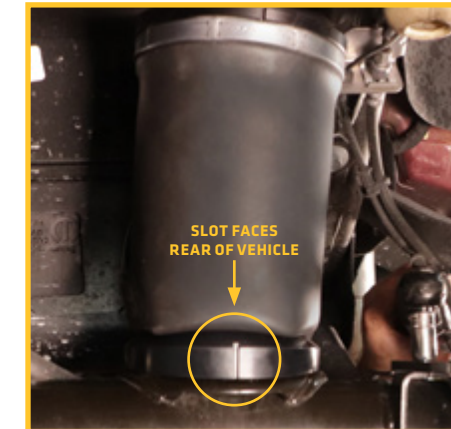


FIGURE 78

- 13. Install the provided nut on to the bottom stud of the air spring. Tighten to 17 ft-lbs.
- 14. Slowly pull the air springs up and route the air lines through the holes in the frame's top mounts. (Figures 79, 80)

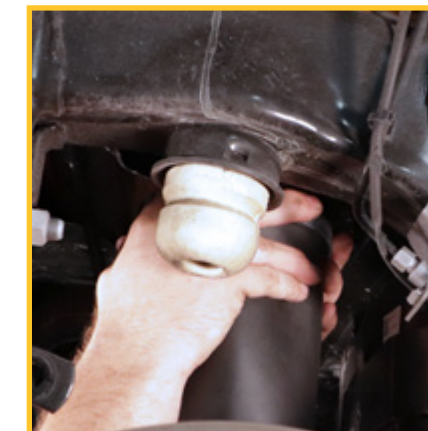


FIGURE 79



FIGURE 80



REAR INSTALLATION

15. 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 81, 82)



FIGURE 81



FIGURE 82

16. Install JRI rear shock with OEM hardware using a 18mm socket/wrench. Secure, but **do not completely tighten** at this time.
Attach OEM rear bumper inner fender liner with OEM bolts using a 8mm socket/wrench. (Figure 83)



FIGURE 83

17. Connect OEM rear track bar to the Rear Upper Track Bar Bracket using OEM hardware & a 21mm socket/wrench. (Figure 84)

NOTE: Install OEM bolt from front-to-rear of vehicle.

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

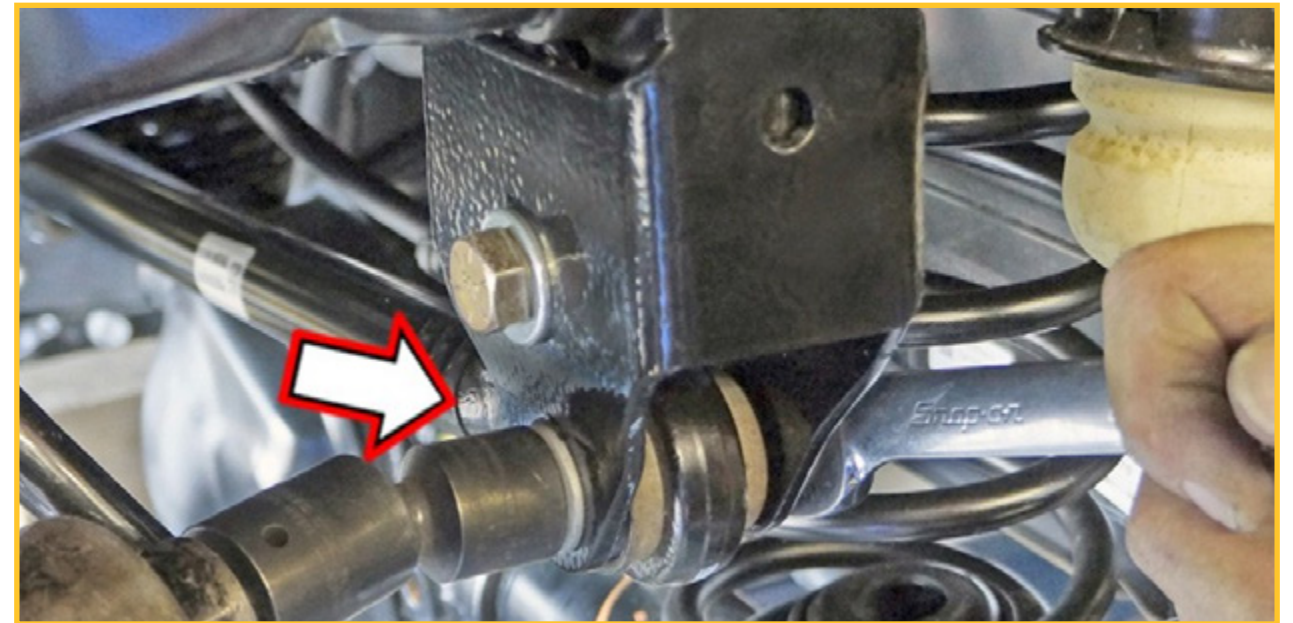


FIGURE 84



REAR INSTALLATION

18. Install the Rear Brake Line Brackets to frame with OEM hardware using a 10mm socket/wrench. (Figure 85)

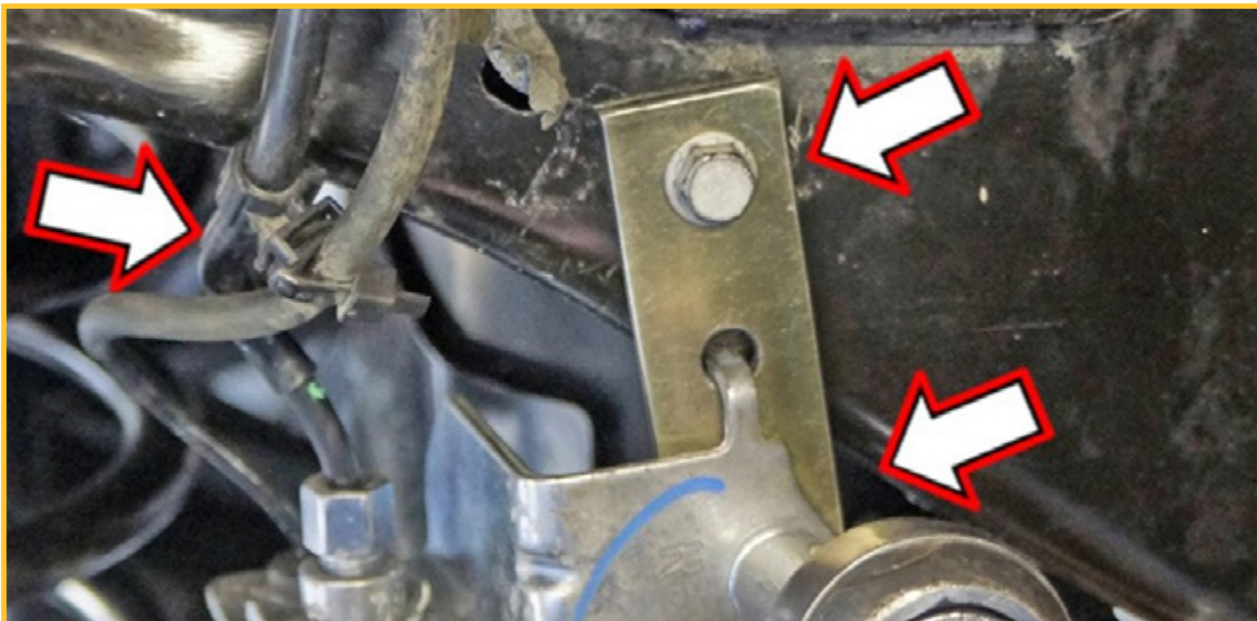


FIGURE 85

Rotate & connect OEM rear brake line bracket to bracket using supplied 1/4" x 1" Fine Thread Bolt with 1/4" SAE Washer outside & 1/4" SAE Washer with 1/4" Nylon Insert Lock Nut on inside with a 7/16" socket/wrench. Slightly bend/straighten OEM rear hard brake line.

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

19. Connect OEM rear brake line brackets to rear differential with OEM hardware using a 13mm socket/wrench. (Figure 86)



FIGURE 86



REAR INSTALLATION

20. Coat with a water-resistant grease & press 1.50 Long Steel Sleeves into upper & lower mounts of the Rear Sway Bar End Links.

Install upper 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 87)



FIGURE 87

Attach lower end link with OEM hardware with large washer to bushing side of end link using a 18mm socket/wrench. (Figure 88) Secure, but do not tighten completely at this time.

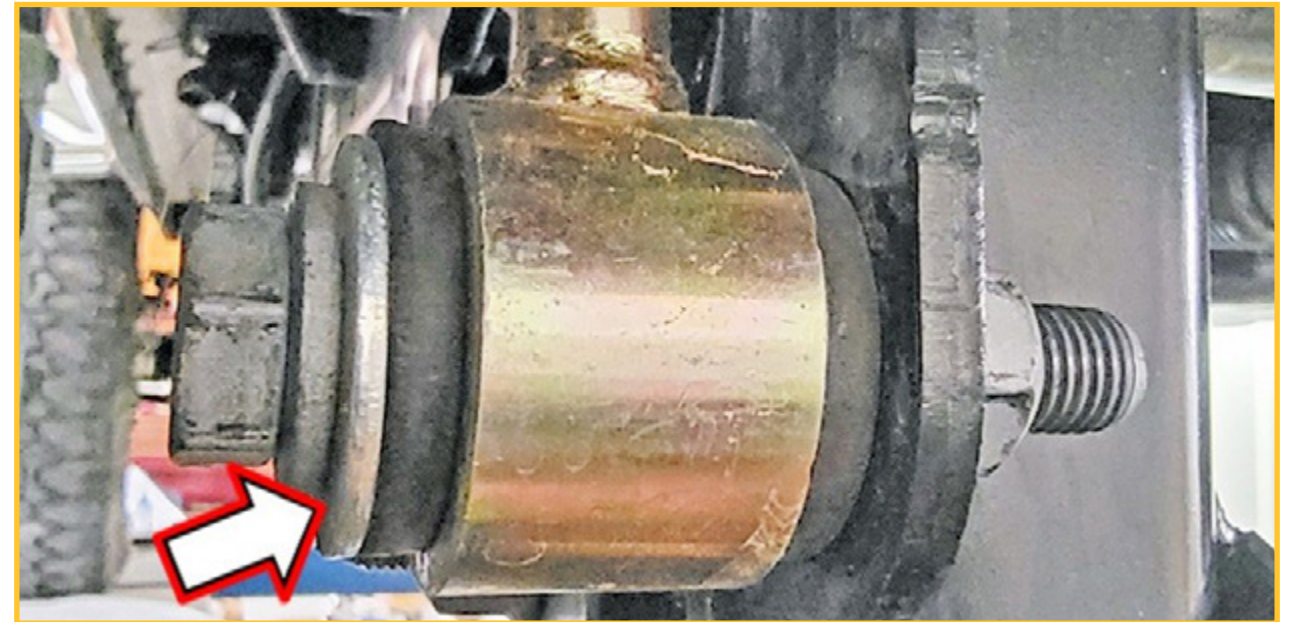


FIGURE 88

21. Using union, connect 1/4" air line from air spring to 3/8" air line from VU4 manifold. (Figure 89)

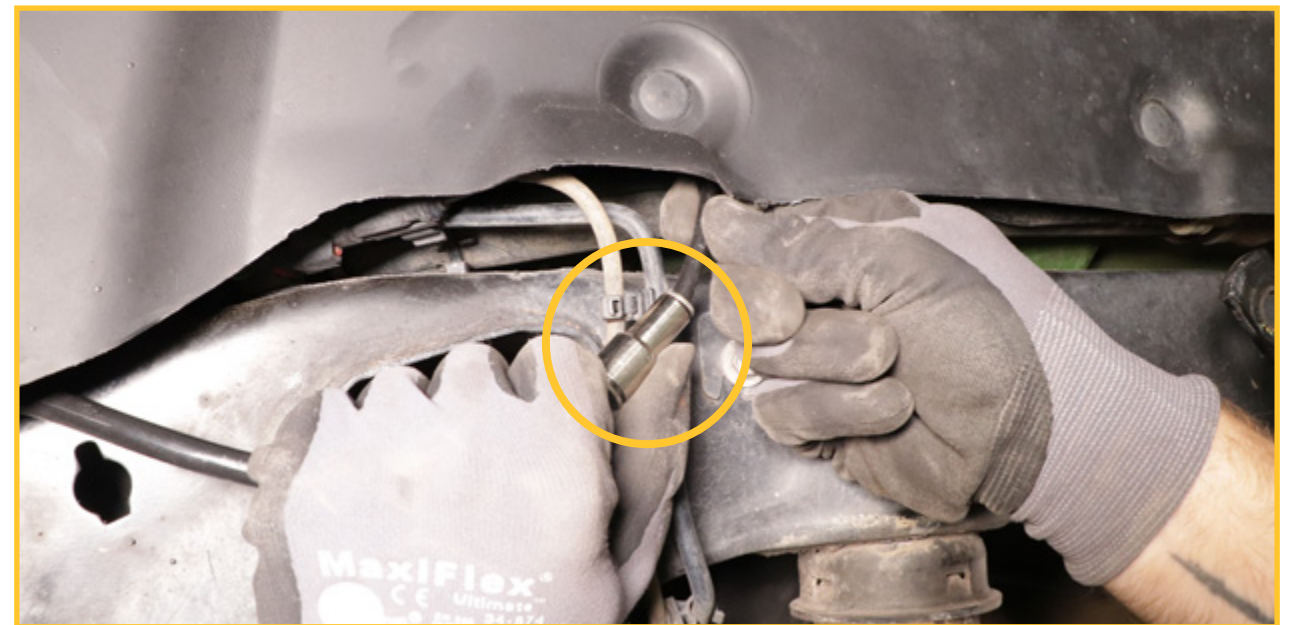


FIGURE 89



- 22. Install rear ride height sensor bracket assembly to the frame using the existing hole and tighten to 17 ft-lbs. (Figures 90, 91)

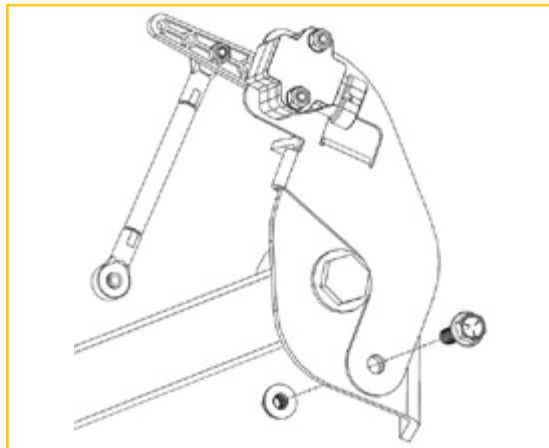


FIGURE 90 - RIGHT REAR

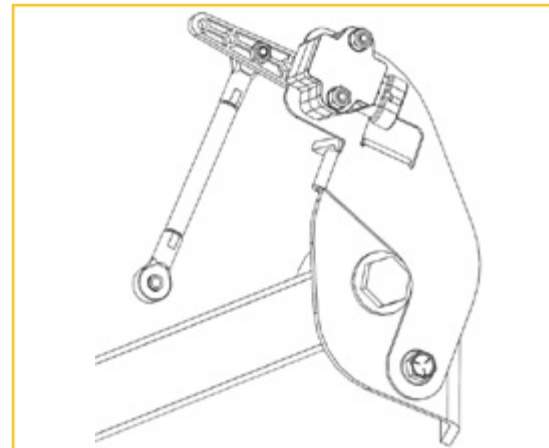


FIGURE 91 - RIGHT REAR

- 23. Installation should look as shown when completed. (Figure 92)



FIGURE 92

- 24. Install rear tires/wheels using a 22mm socket.
- 25. Inflate rear air springs.
- 26. 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.

TROUBLESHOOTING & TECHNICAL SUPPORT

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