TRX21-OBA

Install Guide

Revision: A



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Phone: (520) 579-1531
Web: www.Kleinn.com

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1. Application Chart

This kit is a direct bolt-on aftermarket product. The vehicles listed in the below table are considered to be compatible with this aftermarket kit. Every effort has been made to verify fitment on these vehicles in their factory condition.

NOTE: Before unpacking your kit, review this manual in full & verify the correct space & mounting locations exist with your trim package.

1.1. List of compatible vehicles

Year	Make	Model	Drivetrain	Engine	Cab	Bed	Trim
2021 - 2024	RAM	TRX	4x4	6.2L Supercharged V8	Crew	5'7"	All

NOTE: Drilling holes may be required for installing ground wires and switches based on installers preference.

1.2. Incompatible Vehicle Features & Trim Packages

This kit may not be compatible with the following vehicle features / trim packages:

- N/A

1.3. Aftermarket Product Compatibility

This kit has been designed to be compatible with the following products from leading manufacturers:

- *Amp Research PowerStep Series*

This kit has not been designed to be compatible with the following products:

- N/A

2. Before You Start

Read this manual in its entirety before starting installation. Verify you have all the parts listed & that you clearly understand the installation procedure. Contact KLEINN Technical Support with any questions you may have.

Installation of this kit requires moderate mechanical aptitude.

Use the proper tools, supplementary lighting, and safety equipment when installing this kit.

3. Installation Overview

3.1. Kit Layout & Location

Item No.	Description	Mounting Location	Approx. Install Time
1	6450RC Air Compressor	Engine Compartment, Passenger Side	1 Hour
2	6355RT Air Tank	Above Skid Plate, Next to Shock Reservoir	2 Hour
3	*1302 Relocation Kit	To be determined by Installer/Customer	N/A

*Item Not Illustrated

Note: Wiring time is not factored into the overall install of this kit.

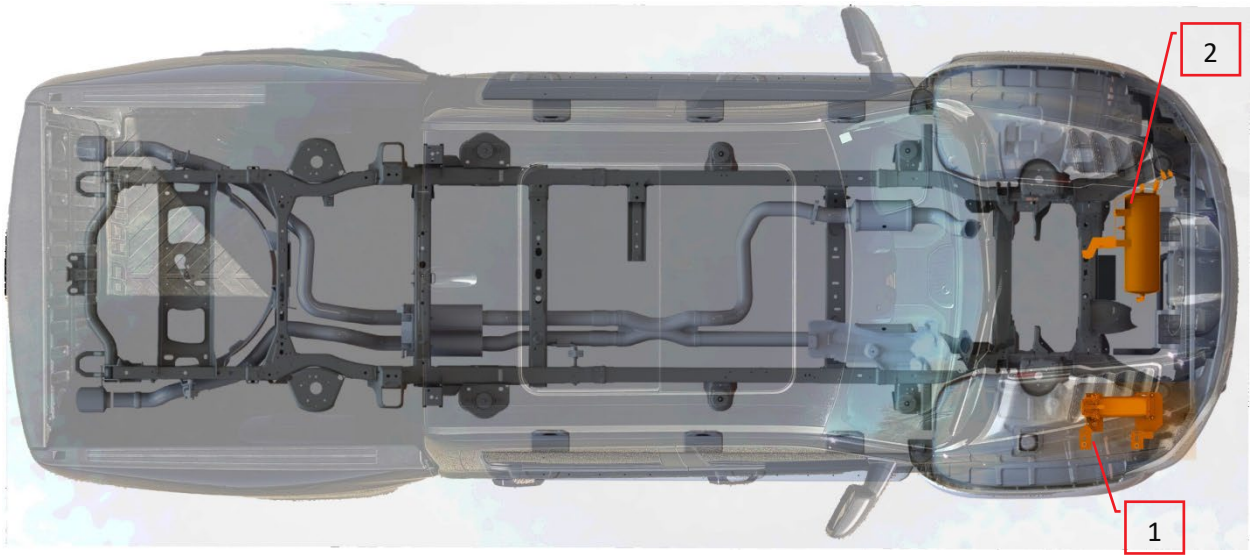


Figure 1- Kit Layout

4. List of Tools & Supplies

4.1. Required Tools

- Mechanic's 1/4" & 3/8" Drive & Socket Set – Imperial & Metric
- Combination wrenches – Imperial & Metric
- Hex wrenches – Imperial & Metric
- Screwdriver Set – #1, #2
- Wire Cutters
- Wire Strippers
- Wire Crimpers
- Utility Knife or Equivalent
- Magnetic Retrieval Tool (Flexible)

4.2. Specialty Tools

- 1/4" & 3/8" Universal Joints
- 1/4" & 3/8" Extensions
- Multimeter, Test Light, or Equivalent
- Heat Gun
- Trim Panel Removal Tools
- Drill Driver & Bits
- Impact Driver & Bits

4.3. Consumables

- Quality Electrical Tape
- Medium Strength Thread Locker
- Sandpaper, Wire Brushes or Equivalent
- Extra Zip Ties
- Touch-up Paint

5. Parts List

Unpackage & organize the kit contents and verify all parts listed below are included. Contact KLEINN Support if any questions arise.

5.1. Primary Kit Components

NOTE: Items in this section may come in their own packages which may include additional items, hardware, or documentation.

Item No.	Qty	Part No.	Description	Picture
1.	1	6450RC	150 PSI Waterproof Air Compressor Kit	
2.	1	6355RT	3.3 Gal. Air Tank, 6-Port	
3.	1	1302	Quick Disconnect Air Relocation Kit NOTE: May be located within INF-1 Bag	
4.	1	INF-1	Tire Inflator Kit	
5.	1	59830	Digital Tire Inflator w/ Pressure Release	

5.2. Fittings & Related Items

Item No.	Qty	Part No.	Description	Picture
F1.	1	51414F	¼” NPT Female to ¼” Compression	
F2.	1	51414L	¼” NPT Male to ¼” Compression, Elbow	
F3.	1	50050	½” NPT Male Plug	
F4.	1	52175	175 PSI Pop-Off Safety Valve	
F5.	1	2151	Pressure Switch, 110 PSI On – 145 PSI Off	

F6.	1	52835	¼" NPT Male Drain Plug	
F7.	2x 12'	25014-1	¼" O.D. Air Tubing	
F8.	2	JUICE	KLEINN Liquid Thread Sealant	

*NOTE if required

5.3. Electrical Components & Related Items

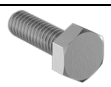
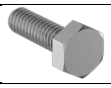
Item No.	Qty	Part No.	Description	Picture
-	1	6858	Wire kit w/ FT4-10 Fuse Tap	
-	10'	SLT14	¼" Loom Pack	
-	10'	SLT38	3/8" Loom Pack	
-	10'	SLT12	½" Loom Pack	

5.4. Mounting Brackets

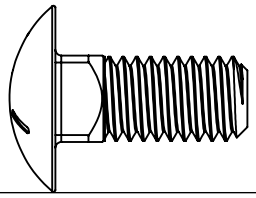
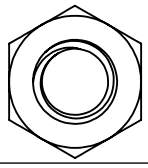
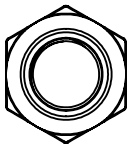
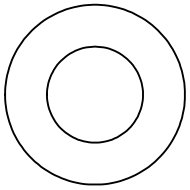
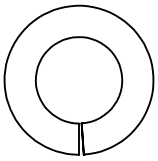
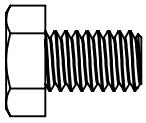
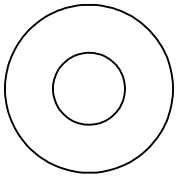
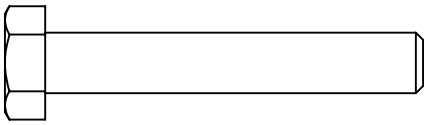
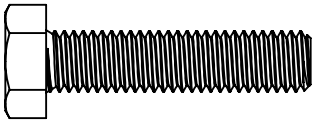
Item No.	Qty	Part No.	Description	Picture
-	1	TRX21-10	Upper Compressor Bracket	
-	1	TRX21-11	Lower Compressor Bracket	
-	1	TRX21-14	Anchor Bracket	
-	1	TRX21-20	Primary Tank Bracket	
-	1	TRX21-21	Tank Support Bracket	
-	1	TRX21-22	Cutaway Washer	

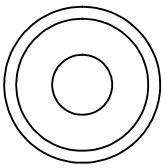
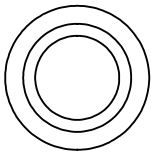
5.5. Hardware & Related Items

Print out the hardware sheets at the end of this section at 100% Scale to facilitate hardware identification.

Item No.	Qty	Hardware Size	Description	Picture
H1.	1	7/16”-14, 1” Long	Square Neck Carriage Bolt	
H2.	4	7/16”-14	Hex Nut	
H3.	1		Nylon Lock Nut	
H4.	4	7/16”	SAE Washer	
H5.	4		Split-Lock Washer	
H6.	1	5/16”-18, 1/2” Long	Hex Bolt	
H7.	1	5/16”	USS Washer	
H8.	1	M8 x 1.25, 50mm Long	Hex Bolt	
H9.	1	M8 x 1.25, 35mm Long	Hex Bolt	
H10.	2	13/16” OD, 5/16” ID	Rubber Grommet	
H11.	2	3/4" OD, 7/16” ID	Rubber Grommet	

*Not Illustrated on the Scale Sheets

Item #	Qty	Scale Image
H1	1	
H2	4	
H3	1	
H4	4	
H5	4	
H6	1	
H7	1	
H8	1	
H9	1	

Item #	Qty	Scale Image
H10	2	
H11	2	

TRX21-OBA
Sheet Scale 1:1

[mm]
inches

Klemn
AUTOMOTIVE ACCESSORIES

6. Recommended Routing of Air Tubing & Wire

The below figures are a recommendation of the routing paths for both the air tubing & the wiring. Verify routing paths, wire lengths, & fuse/relay component locations before cutting the included wire. Reference Section 9 (On-Vehicle Electrical Installation) for a detailed electrical connection guide.

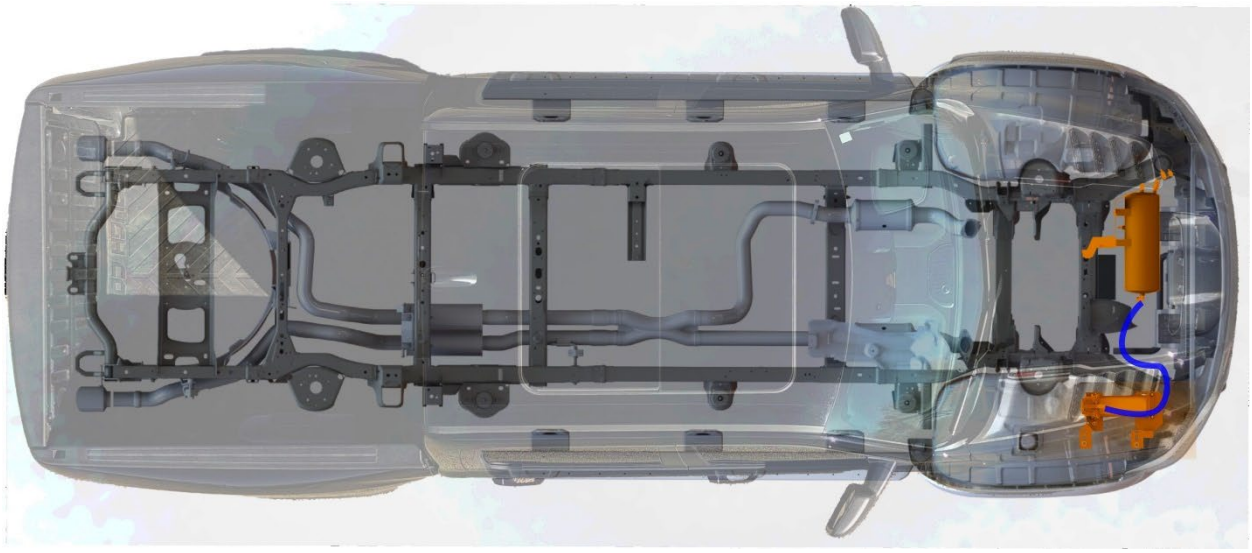


Figure 2- Suggested Air Tubing Routing

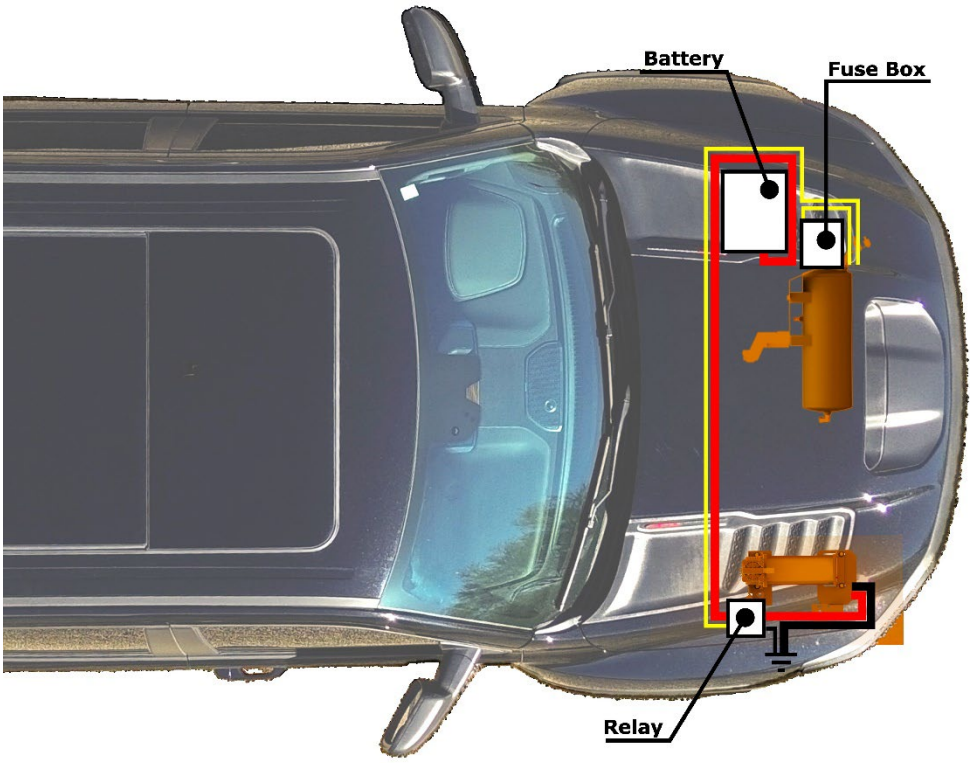


Figure 3- Suggested Electrical Routing

7. Bench Assembly

7.1. Compressor Preparation

1) Install rubber grommets H10 & H11 on the Upper Compressor Bracket & Lower Compressor Bracket. Note the internal hole diameter of the grommets and their placement.

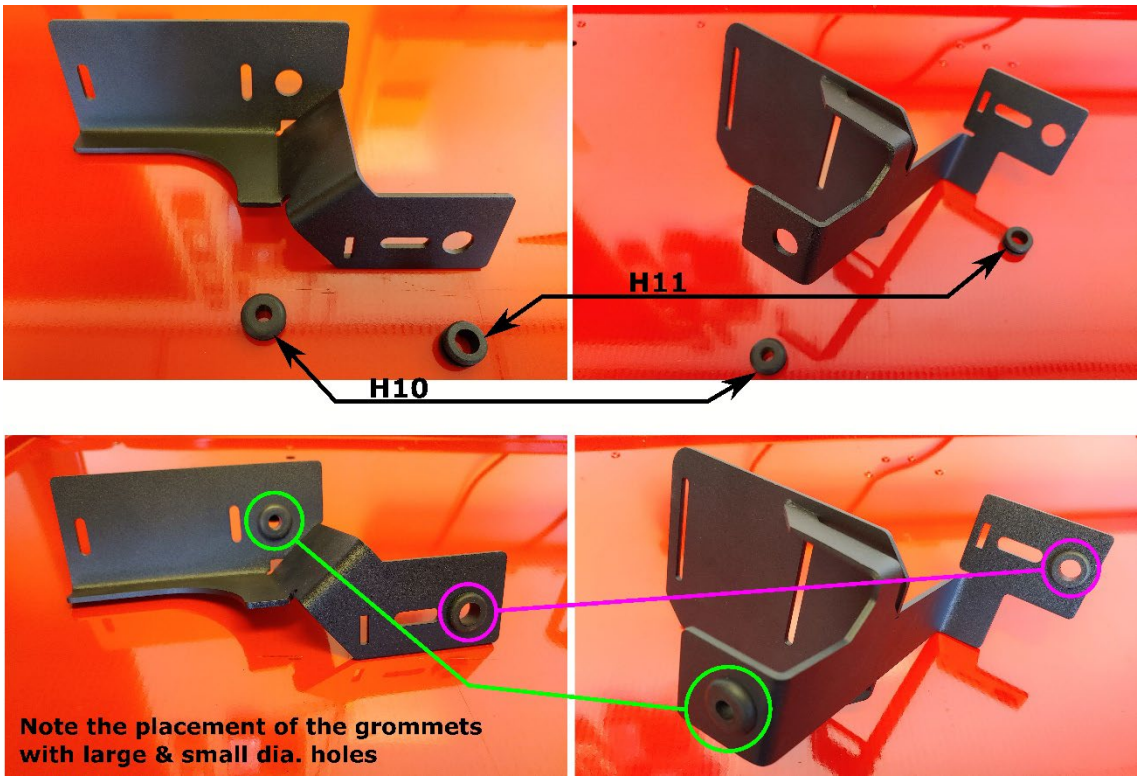


Figure 4- Grommet Installation

2) Install the compressor onto the smaller of the above illustrated brackets.
   a. Use the hardware included in the compressor box & install it in an upside-down configuration as shown in the below figure.
   b. Fully secure the compressor onto the small bracket. Do NOT overtighten the hardware.

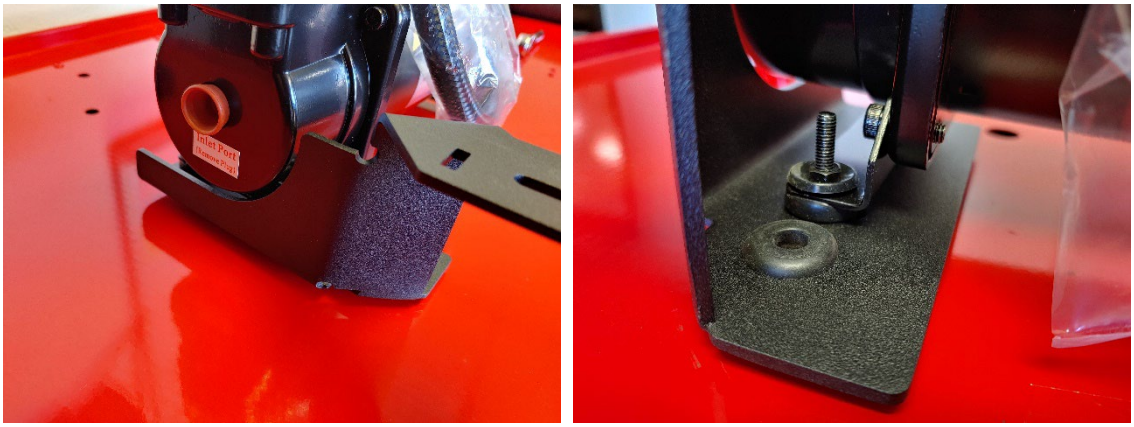


Figure 5- Compressor-To-Bracket Installation 1

3) Loosely install the compressor onto the larger of the two brackets as shown below.
    a. Install the hardware in an upside-down configuration as before.
    b. Keep the hardware loose so the bracket can slide back and forth without difficulty.

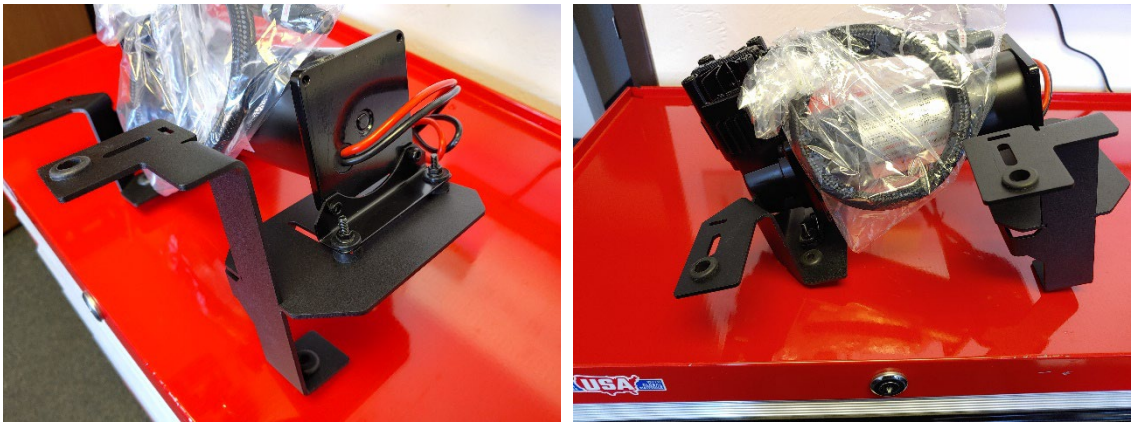


Figure 6- Compressor-To-Bracket Installation 2

4) Install the compressor air filter onto the inlet port or use the fitting pack and instructions (included in the box) to set up the remote air intake (snorkel).
5) Use fitting F1 & 2-3 drops of JUICE liquid thread sealant (F8) and install the fitting onto the compressor leader hose.

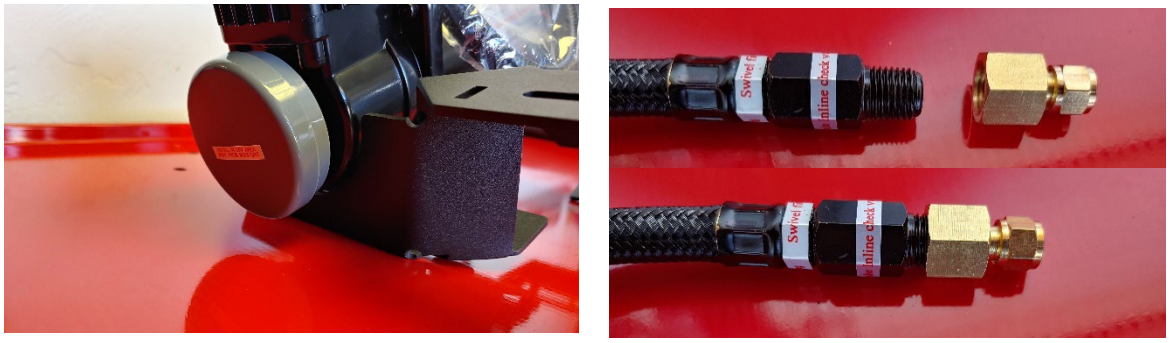


Figure 7- Air Filter & Compressor Fitting Installation

7.2. Tank Preparation

1) Using the JUICE liquid thread sealant (F8), install all fittings onto the air tank, the INF-1 Kit & the tire inflator as shown in the below figures.

NOTE: One fitting used on the tank is from the fitting pack located in the 1302 Quick Disconnect Air Relocation Kit, which may be located in the INF-1 bag.



Figure 8- Tank Fitting Installation

2) After all tank fittings have been installed, use the ¼" air tubing located within the INF-1 bag and install the tubing onto the ¼" elbow fitting from the 1302 kit.

7.3. Accessory Preparation

Use JUICE (F8), and combining all the fittings from the INF-1 Kit & the Digital Tire Inflator, install the fittings onto the hose & the tire inflator so that the INF-1 kit & tire inflator can be used as standard air tools.

See the below figure for reference.



Figure 9- Accessory Fittings Installation

7.4. 1302 Preparation

Using JUICE (F8), assemble the 1302 kit as shown below.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1302-401	1302 RELOCATION BRACKET	1
2	51414BLK	1/4 NPTF BULKHEAD FITTING	1
3	51414	1/4" NPT X 1/4" COMP. TUBE FITTING	1
4	51414L	1/4" NPT X 1/4" COMP. TUBE FITTING, 90° ELBOW	1
5	59813	1/4 NPT QUICK DISCONNECT, M	1
6	DUSTCAP	DUST COVER FOR QUICK DISCONNECT	1

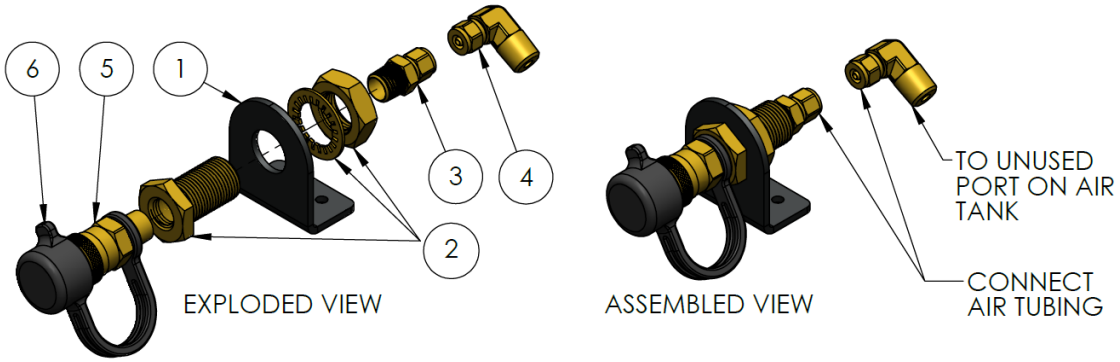


Figure 10- 1302 Kit Assembly

8. On-Vehicle Assembly

8.1. Compressor Installation

The air compressor is installed in the engine compartment, on the passenger side, above the wheel well. There is a plastic platform that has 4 vertical posts protruding from the tray that are used to locate & secure the compressor.

1) Identify the mounting location for the compressor & the four (4) vertical posts that will be used to seat the compressor brackets.

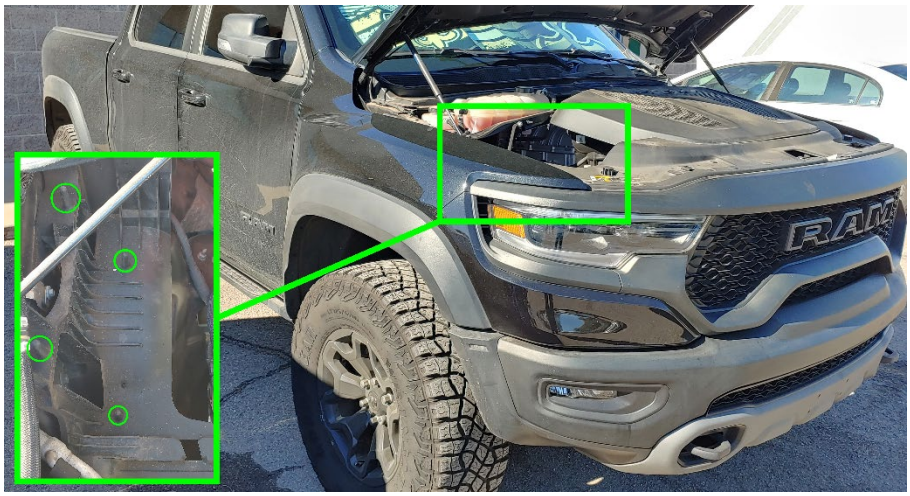


Figure 11- Compressor Mounting Location

2) Align the rubber grommets onto the vertical posts with the compressor head directed towards the cabin.
3) Fully seat the brackets by pushing them down over the posts and forcing the rubber grommets to slide below the retention tabs on the two (2) upper posts.

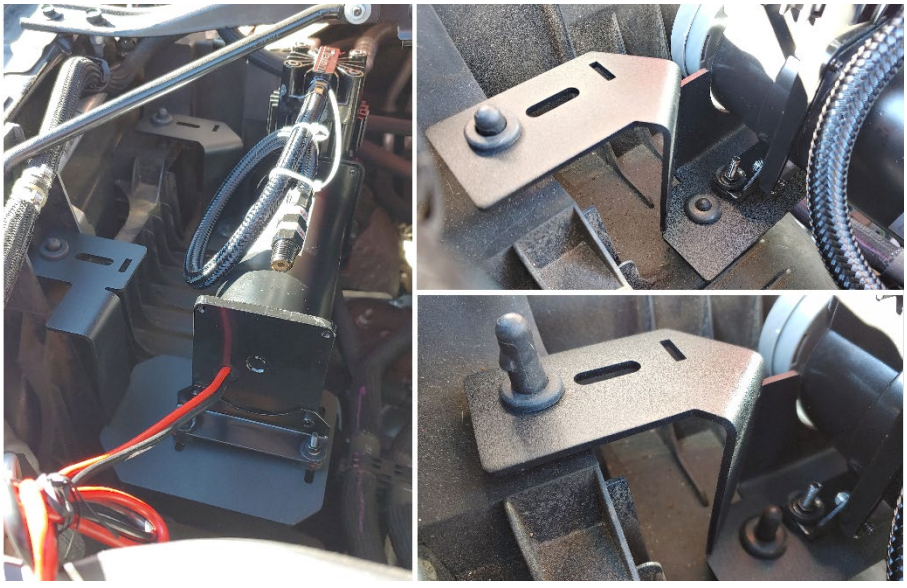


Figure 12- Compressor Bracket, Installed

4) Adjust the position of the below illustrated bracket so that the compressor feet are seated properly with the bracket.
5) Fully tighten the hardware so the compressor is fastened securely to the bracket. Do not overtighten the feet hardware so much that the rubber pads become damaged.

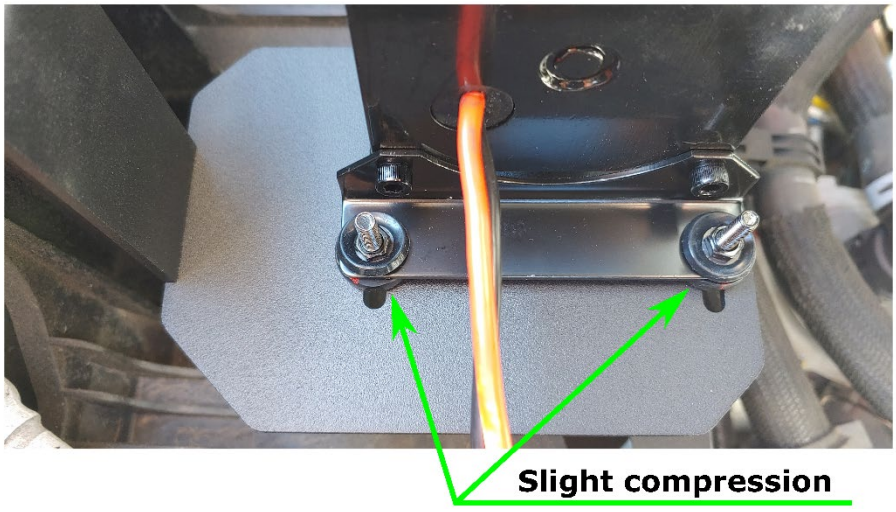


Figure 13- Compressor Rubber Feet

6) Loosen (do not remove) the nut securing the crossmember support tube as shown below.

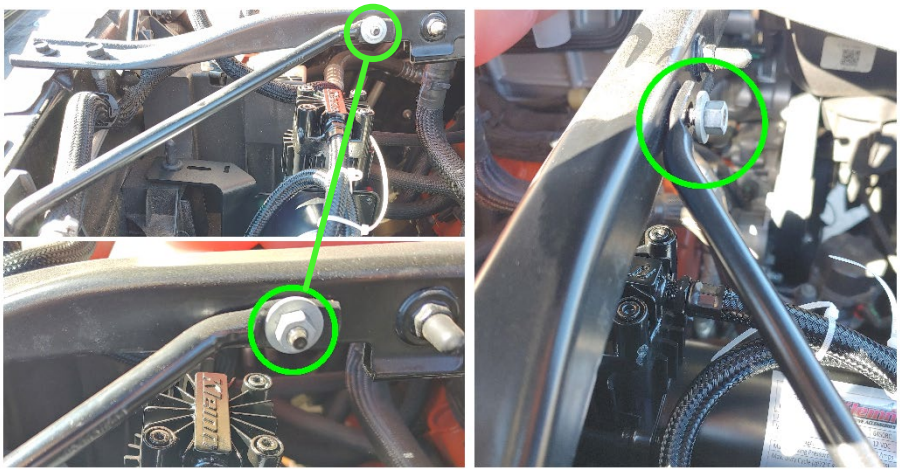


Figure 14- Crossmember Support Tube Location

7) Place the Anchor Bracket into the gap between the compressor head & the leader hose.

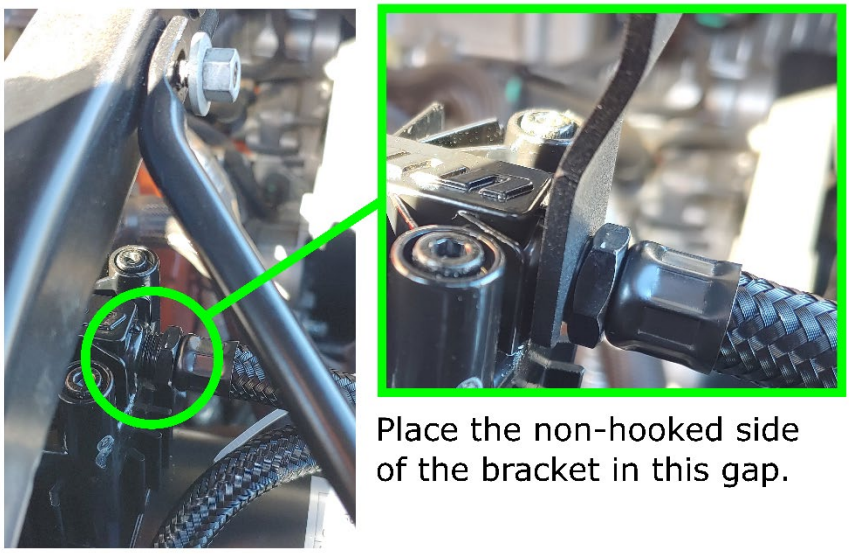


Figure 15- Anchor Bracket Placement

8) Pivot the bracket so it hooks behind the loosened nut on the crossmember support tube.
9) Fully tighten the nut back to OEM torque specifications.



Figure 16- Anchor Bracket, Installed

8.2. Tank Installation

The air tank is located above the skid plate, where it mounts onto the same crossmember used to secure the shock reservoirs. The tank mounting system consists of 2 brackets and a custom washer which bolts onto structural members and positions the tank beside the shock reservoirs.

1) Remove the OEM skid plate from the underside of the vehicle to get access to the mounting locations for the tank brackets.
2) Using hardware H1, place the Tank Support Bracket on top & in front of the primary crossmember shown in the below figures.
    a. Insert the carriage bolt (H1) from behind the hard plumbing lines on top of the crossmember.
    b. The bracket should be placed over the highlighted hole (Ref. Figure 22 Right) on top of the crossmember and sit next to the mounted shock reservoirs (Ref. Figure 23).

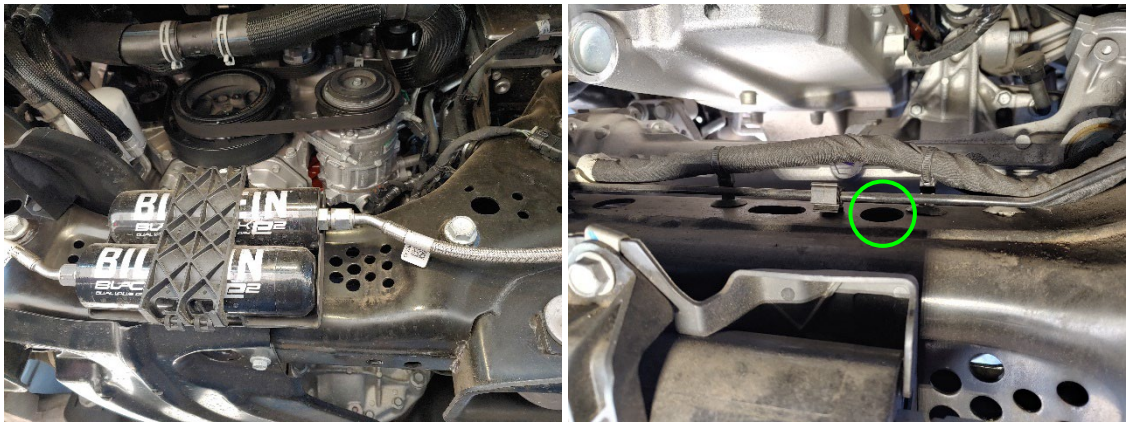


Figure 17- Primary Crossmember (Left) & Top View of Crossmember (Right)

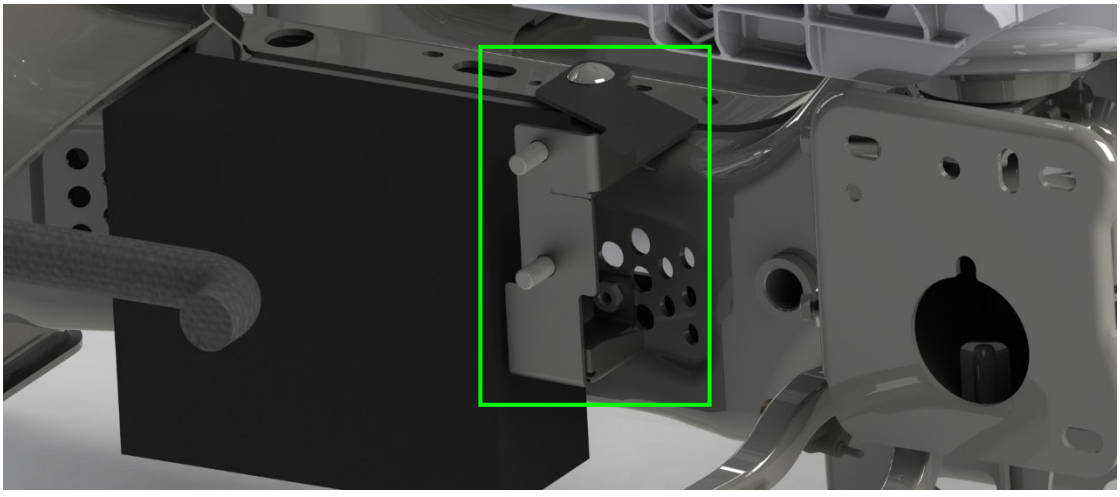


Figure 18- Tank Support Bracket Installed with Carriage Bolt

3) From behind & inside the crossmember, use a magnetic pickup tool to place the Cutaway Washer over the carriage bolt and hold it in place.

NOTE: Ensure the notched portion of the washer is oriented properly to clear the wire bundle retaining clip. See the below figure.

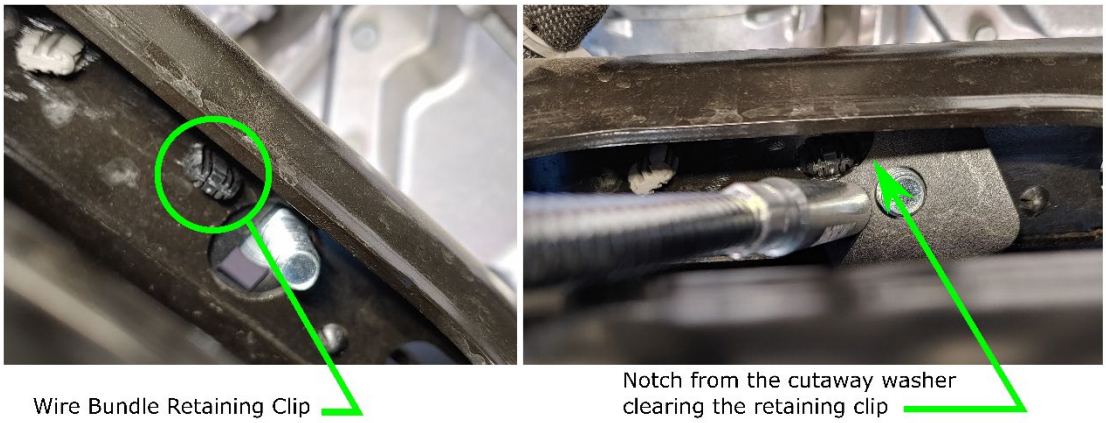


Figure 19- Cutaway Washer Placement & Orientation

4) Loosely thread the Nylon Lock Nut (H3) onto the carriage bolt as shown below.



Figure 20- Cutaway Washer Secured via Nylon Lock Nut

5) Using hardware H6 & one (1) H7 washer, Align the welded nut (lower part of bracket) with the crossmember hole circled in the below figure & loosely thread the bolt from the inside of the crossmember.

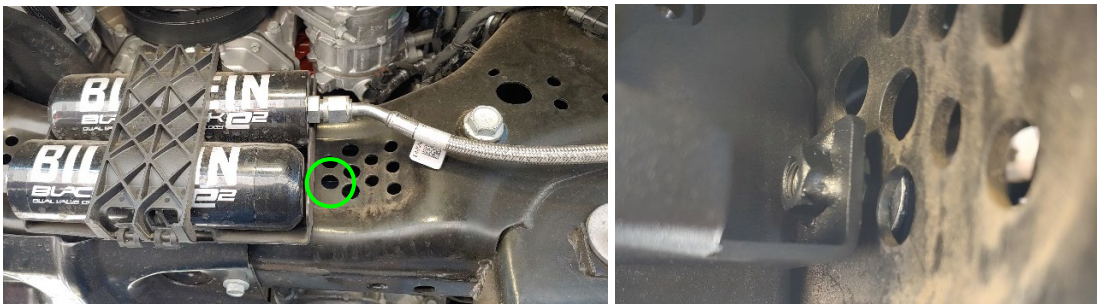


Figure 21- Hardware Installation of Lower Tank Support Bracket

6) This bracket will mate up with the following bracket before being fully secured in place.

Follow the next steps to finish installation of the tank mounting brackets.

7) Identify the OEM bolts that secure the driver side skid plate mounting bracket as shown in the below figure. It is located behind & above the driver side tow hook.
8) Remove the two bolts. They will not be re-used.

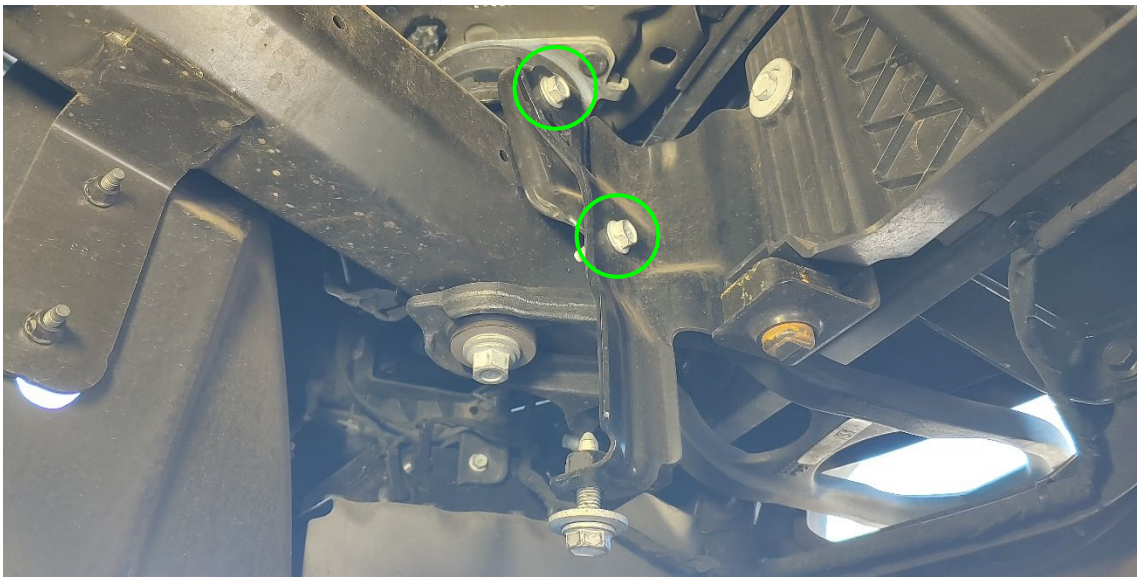


Figure 22- OEM Bolt Removal, Location

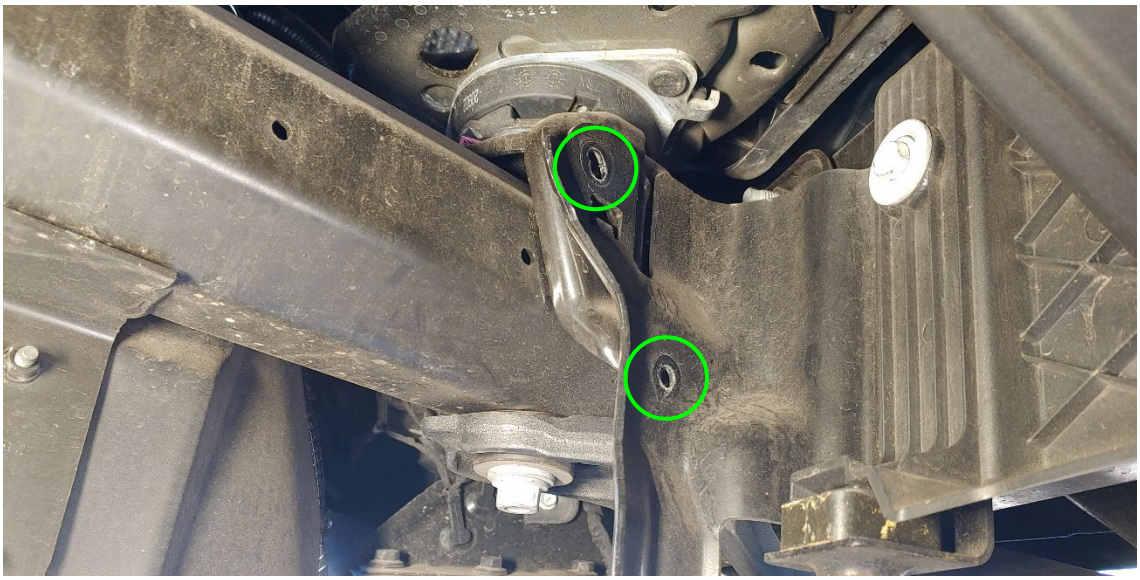


Figure 23- OEM Bolts, Removed

9) Place the clearance holes of the Primary Tank Bracket over the threaded studs of the Tank Support Bracket
10) Temporarily secure the brackets together by using one of the H2 nuts onto the stud.
11) Using hardware H8 & H9, align the other side of the primary bracket with the holes from the removed bolts and fully secure the primary bracket onto the vehicle frame.

NOTE: H8 (longer bolt) will be used in the upper bracket hole & H9 (shorter bolt) will be used in the lower hole position (REF. the below figures).

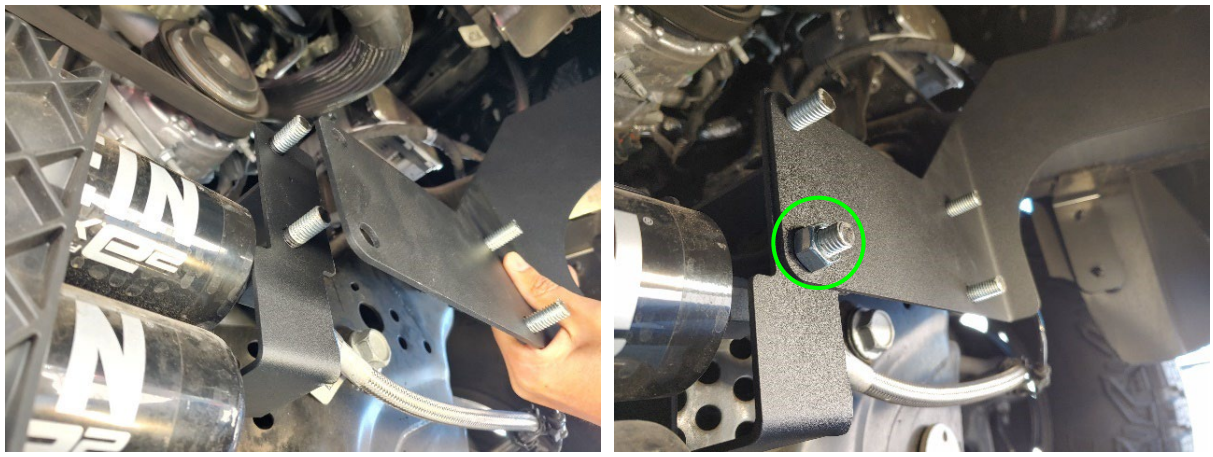


Figure 24- Primary Tank Bracket Installation 1, Steps 9 & 10

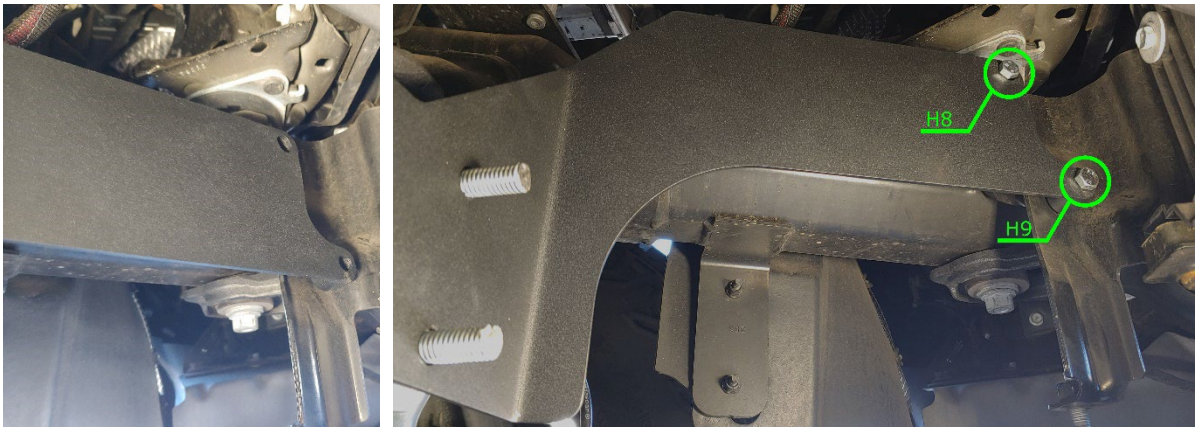


Figure 25- Primary Tank Bracket Installation 2, Step 11

12) Fully tighten the bolts on the Tank Support Bracket at this time.

NOTE: Tighten the nylon lock nut last when performing the above step.

The tank can now be installed onto the brackets by following the below steps.

13) Remove the nut securing both tank brackets together.
14) Place the tank onto the 4 studs and fasten using QTY: 4 of each hardware H4, H5 & H2 in that stacking order. See the below figure.
15) Fully tighten all hardware.

NOTE: The air tank has feet that are offset from the center. The longer protrusion of the tank should be directed towards the passenger side, which allows the drain to be pointed towards the ground.



Figure 26- Tank, InstalledSystem Plumbing

Using all the included air tubing, route and plumb the tubing between the following:

1) The compressor to the air tank.
2) The air tank to the 1302 Relocation Kit.

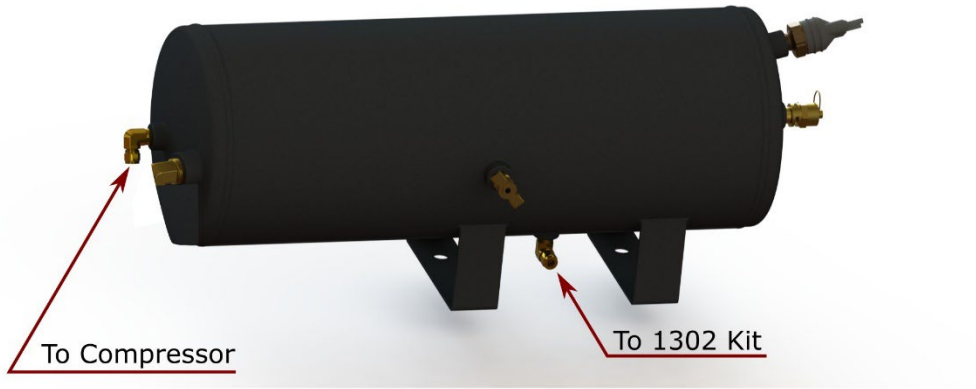


Figure 27- Final Plumbing of Air System

9. On-Vehicle Electrical Installation

It is recommended to disconnect the vehicle battery prior to performing any electrical work.

NOTE: Review this section in its entirety before performing the following steps.

9.1. Attach Relay & Fuse to Vehicle

Locate a suitable location under the hood and install the fuse housing & relay.

- For the Fuse: Select an area close to the POS (+) battery terminal
- The fuse housing can be attached to the vehicle body panel using the supplied screws
- The relay can be attached to the vehicle body using the supplied self-tapping screws

9.2. Install Horn Button

Locate a desirable & accessible location to install the horn button. There should be a minimum of 1" clearance behind pushbutton to allow for the switch to be mounted and wired easily.

Factory upfitter switches may be used at the installers/customers discretion. Consult the owners manual or OEM documentation if using this option.

9.3. Route Wiring & Make Connections

Route wiring as desired and make the appropriate connections per the below figure. Use the included wiring loom and crimp connectors as desired.

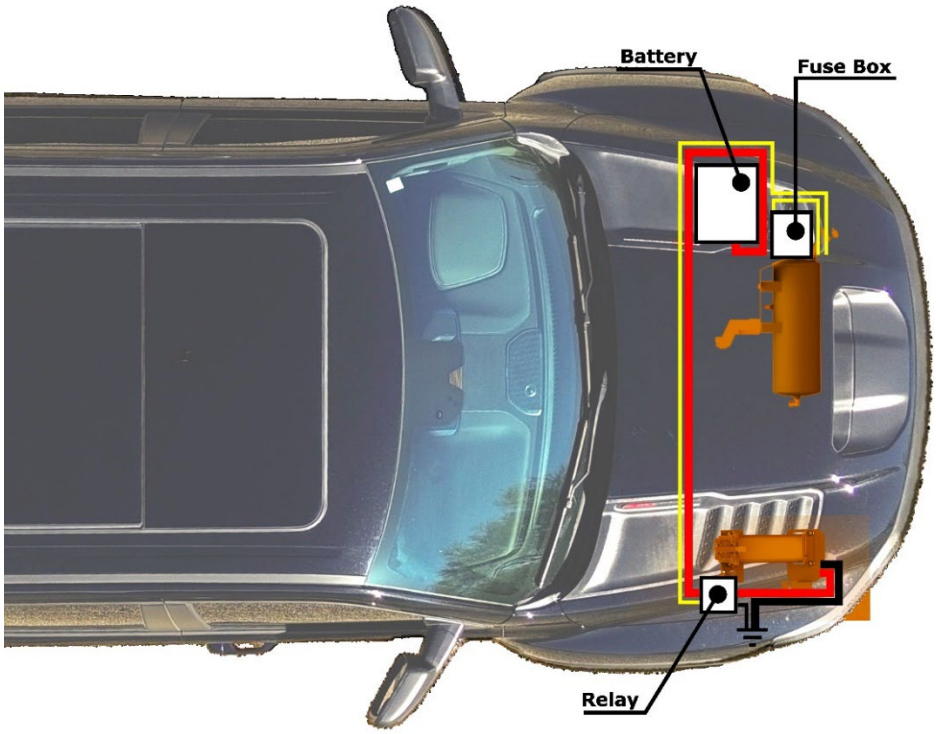


Figure 28- Suggested Wiring

10. Testing the Air System

It is recommended to check your wiring for shorts & continuity & double checking your connections prior to reconnecting the battery.

It is recommended to check the drain valve on the tank and ensure it is fully closed.

10.1. Air Compressor Test

1. Start the vehicle & allow the air compressor to run and fill up the tank.

NOTE: The compressor should turn off after tank reaches ≈ 150 PSI. This should take between 2-5 minutes. If the compressor runs excessively, a leak may be present in the system.

2. Allow the tank to drain via, the horns (if installed), the Inflator kit, or the tanks drain valve.
3. Wait for the compressor to start up again to replenish the air supply.
4. Wait for the compressor to turn off when tank is fully pressurized.

10.2. Air Horn Test

Ensure all persons nearby have adequate hearing protection & provide courtesy warning to neighbors before testing the horn system.

!!WARNING!! NEVER operate the air horns with ears in close proximity to the trumpets or in an enclosed space without SUBSTANTIAL HEARING PROTECTION for all persons closer than 50 feet from the vehicle.!!

1. Activate the air horns by pressing the horn button briefly. Horns should sound as expected and be loud.

The horn sound & loudness will diminish as the air tank loses pressure. Repeat, if desired, until the compressor turns on and begins refilling the air tank.

10.3. Quick Connect Coupler Test

The quick connect coupler can be used to run the included INF-1 tire inflator kit or certain air tools.

1. If needed, allow the air compressor to refill the air tank.
2. Attach the INF-1 inflator kit and inflate tires
3. Optionally, an air blow gun/nozzle or an air nailer can be used to test the quick connect coupling.

11. Maintenance

!!WARNING!! Operating the air compressor above it maximum pressure rating may damage the internal components and/or cause unsafe system conditions. It is recommended not to exceed 150 PSI pressure in the system.!!

This air compressor is equipped with automatic thermal overload protection. If thermal overload is triggered, the safety circuit will reset after 30 minutes.

This air compressor is oil-less, never lubricate or add liquids to this compressor.

Monthly or every 10 Hours of Compressor Use:

- Drain the moisture from the air tank via the tanks drain valve.

Yearly or 12,000 Miles

- Replace the compressors air filter element. – Replacement frequency depends on operating & environmental conditions.
- Remove road grime or mud from components & brackets.
- Inspect all mounting fasteners to ensure they remain secure. Tighten as needed.
- Inspect electrical connections & loom for damage. Repair/Replace as needed.

12. Warranty Information

Thank you for purchasing this Air System. If you experience any unexpected problems during installation, or part failure at any time, please contact KLEINN Support.

KLEINN MANUFACTURER LIMITED DEFECT WARRANTY:

Kleinn Automotive Accessories warrants this product to the end-user, when properly installed and under normal conditions of use, to be free from defects in workmanship and materials for a period of one year from the provided date of purchase to the original purchaser of the product. This warranty does not cover abuse, operation in a manner inconsistent with the product's design, or damage resulting from exposure to the elements. If the defect is considered "under warranty", Kleinn will, at its option, repair or replace the product free of charge to the original purchaser. Kleinn is not liable for any installation charges, loss or damage of any kind incurred in the replacement or repair of any warranted product.

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Phone: (520) 579-1531
Web: www.Kleinn.com

Record of Revisions

Revision	Description	Date	Approval
A	Initial Revision	5/22/2024	AG