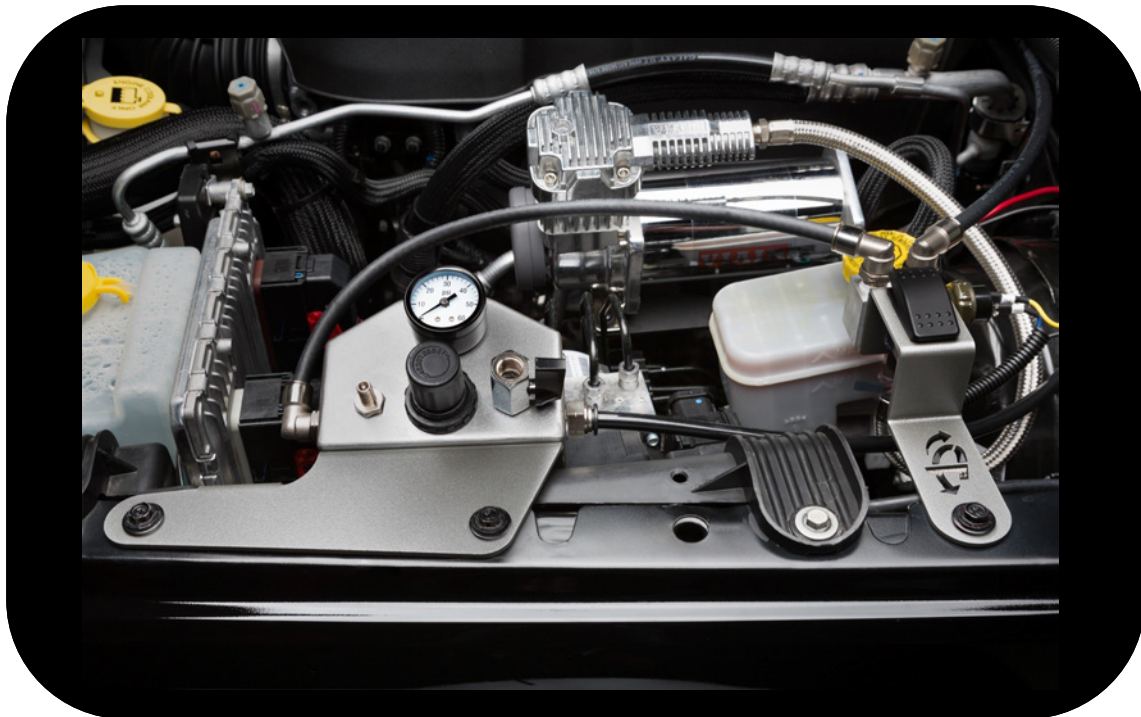




INSTALLATION INSTRUCTIONS

Part# 22-2719

Complete Mounting System for Dual Viair Compressors



Air It Up!



PLEASE TAKE A MINUTE TO READ THIS ENTIRE INSTRUCTION MANUAL BEFORE YOU START.
WE WANT YOU TO HAVE A FUN AND EASY INSTALLATION WITHOUT HURTING YOURSELF OR YOUR JEEP.

SAFETY PRECAUTIONS

If you are working on the ground always use jack stands and chalk any tires touching the ground. Wear safety glasses and gloves as you will be using power tools for this installation. We recommend disconnecting the battery any time you are working on your Jeep.

NEVER DRIVE WITH THE WHIPS CONNECTED TO YOUR JEEP, DAMAGE CAN OCCUR.

TOOLS NEEDED

- Cordless Drill / Impact Driver
- 5/16" Nut Driver / Impact Driver or Drill is Ideal for Self Tapping Hardware
- Thread Sealer (**Loctite 577—We do not recommend using Teflon tape**)
- Spray Bottle with Mild Soapy Water
- Tube Cutter or Sharp Utility Knife
- Wire Stripper and Crimper

WRENCHES

- Crescent
- 22mm, 18mm
- 16mm, 14mm
- 13mm , 10mm
- 8mm , 1/4" Allen

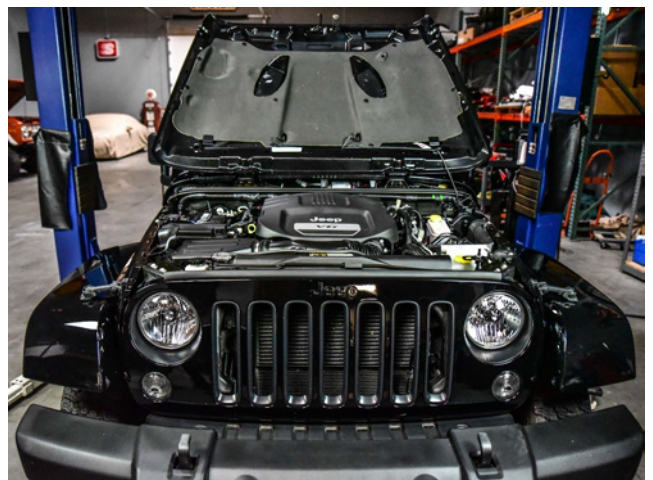
1/4" Drive

- Ratchet
- 13mm Deep Socket
- 10mm Socket
- 8mm Socket
- 1/4" Allen Socket

Secure Jeep and Prep for Installation

This entire install can be done on the ground but jack stands or a lift will make it even easier.

1. Park your Jeep and set the parking brake.
2. Place a blanket on the edge of the roof and windshield of your Jeep and open hood the hood all the way.
3. Disconnect the negative (-) battery terminal.
4. Read and refer to your VIAIR instructions for all issues directly related to your VIAIR compressors. UpDownAir warranty does not cover any VIAIR Compressors or parts.





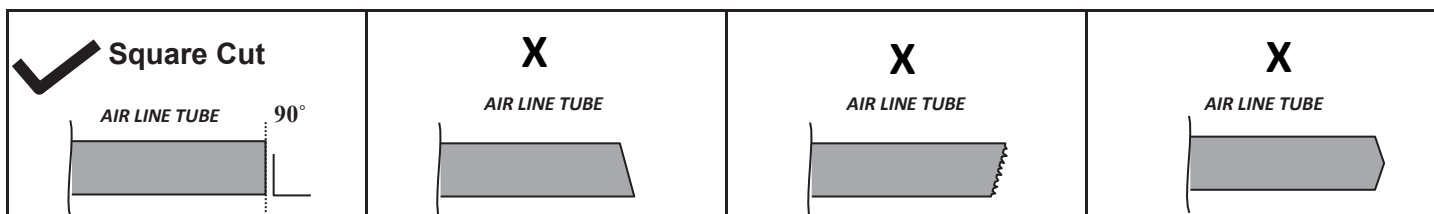
Always:

Use a tube cutter or sharp utility knife.

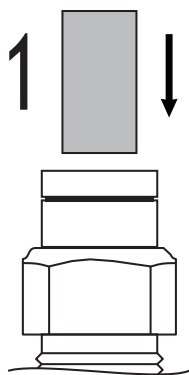
Do Not:

Fold or kink the Air Line Tube. Cut the Air Line Tube at an angle. Do not use pliers, scissors, snips, saws, or side cutters.

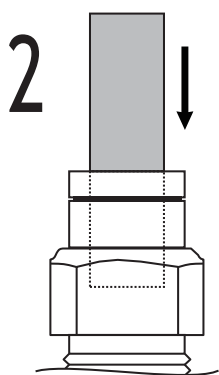
PROPER AND IMPROPER CUTS IN THE AIR LINE TUBE



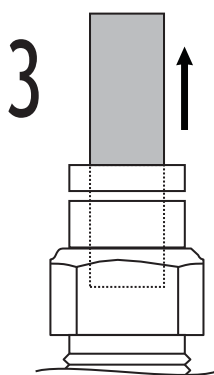
Insert end of Air Line Tube into Air Fitting.



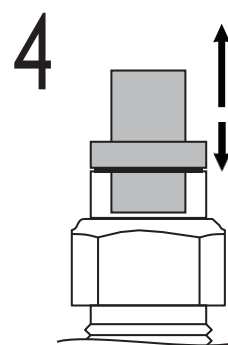
Push Air Line Tube into Air Fitting as far as possible.



Gently pull on the Air Line Tube to check for a secure fit.



To remove, push down collar and gently pull Air Line Tube away.



Removal Tip: Use a small open-ended wrench to push the collar down .

Always:

Select routes protected from heat, debris, and sharp edges. Use Nylon Ties to secure the Air Line Tube.

Do Not:

Bend or sharply curve Air Line Tubes. Leave Air Line Tube exposed to sharp edges. Use unnecessary lengths of Air Line Tube. Route Air Line Tube near moving parts. Let Air Line tube hang unsecured from vehicle. Scar Air Line Tube while routing.



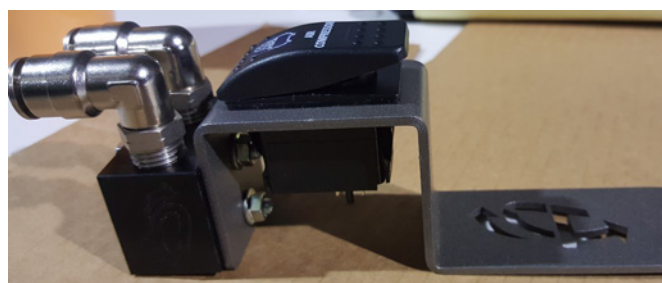
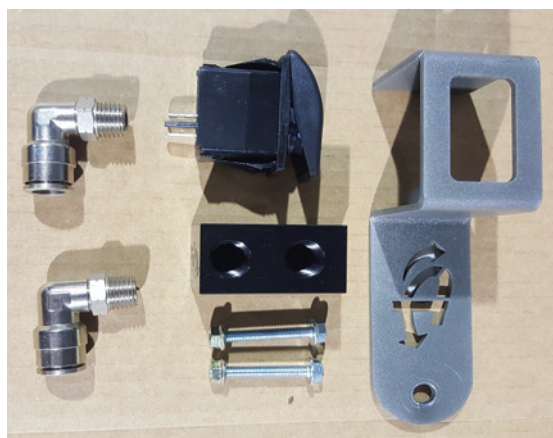
22-2719 - Installation BOM

PART#	QTY	SUB ASSY #	DESCRIPTION
03-507	1	12-2717-01	Large Bulk Head Bracket
01-114	1		3/8" X 1/4NPT Female Bulk Head
05-110	4		5mm-.80 X 20mm Hex Head Flange Bolt
05-112	4		5mm-.80 Serrated Flange Nut
05-113	3		#12 X 3/4 Self Tapping Hex Bolt with Washer
01-112	1		3/8" X 1/4NPT Male Swivel 90 Deg
01-119	1	12-2717-02	Delivery System Manifold
01-112	3		3/8" X 1/4NPT Male Swivel 90 Deg
05-111	2		5mm-.80 X 35mm Hex Head Flange Bolt
05-112	2		5mm-.80 Serrated Flange Nut
05-115	10	12-2717-03	8" Cable Tie
03-520	1		Dual Relay Mount Bracket
05-118	2		Plastic Push Rivet
04-102	1		Compressor Rocker Switch
03-509	1		Upper JK Compressor Bracket
03-511	1		JK Switch/Manifold Bracket
03-512	1		JK Lower Compressor Heat Shield
03-510	1		Lower JK Compressor Bracket
04-100	1		Jeep JK Dual Compressor Harness
02-113-40	1		3/8" Black High Temp Air Line - Manifold to Controller
02-113-231	1		3/8" Black High Temp Air Line - Lower Compressor to Manifold

Using the Bill of Materials, identify and lay out all your kit components, confirming that you have all the correct parts and quantity.

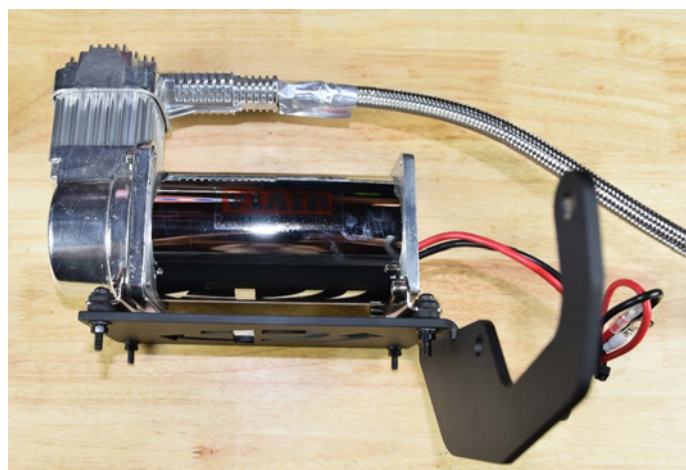
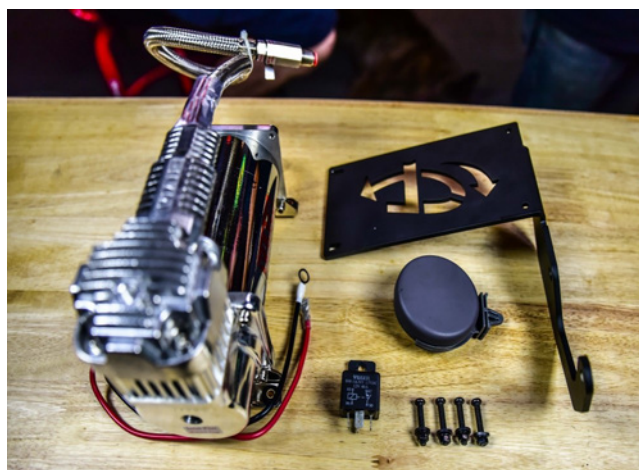
Pre Assembly will Start with the Switch Bracket and Manifold.

1. Apply thread sealer to two of 3/8" X 1/4NPT Male 90 Deg Swivel (01-112), screw them into the top of Delivery Manifold (01-119), and tighten.
2. Install the pressure switch from the VIAIR kit in the 1/8" port on the side of the manifold. Apply thread sealer and tighten.
3. Using the 5mm x 35mm hardware install the manifold to the bracket and tighten.
4. Install the switch in the rectangle hole on top of the bracket.



Pre Assembly Compressor #2 (Upper Compressor)

1. With the inlet filter side of the compressor facing the front of the Jeep fasten the compressor to the bracket. You will use the compressor mounting hardware that comes with your VIAIR Compressor. Be sure to install the inlet filter at this time.



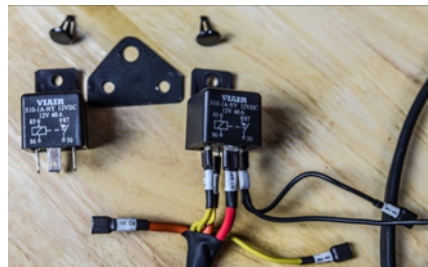
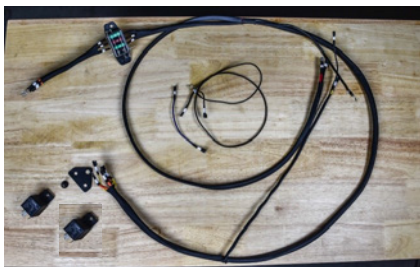
Pre Assembly Compressor #1 (Lower Compressor)

1. Cut the eyelet terminal off the black wire (-) of the lower compressor. Make sure to cut the wire as close as possible to the eyelet. Next strip 1/4" off the wire cover and install the supplied 12 gauge male covered terminal.
2. Install the Bulk Head Fitting to the lower Compressor outlet hose using thread sealer.
3. Install one of the 3/8" X 1/4NPT Male 90 Deg Swivel in the front filter inlet of the compressor.



The next step is to prep the wiring harness by installing the relays.

1. Locate the relays from your VIAIR compressor kit. Noting the terminal numbers on the bottom of the relay.
2. Match the labeled terminals on your wiring harness to the corresponding numbered terminals on the relays.
3. With the Relays connected to the harness we need to attach them to the (03-520) Relay Bracket. Use Push Rivets (05-118) to attach the Relays to the Relay Bracket. Set aside once complete for installation.





Locate your ADS Controller.

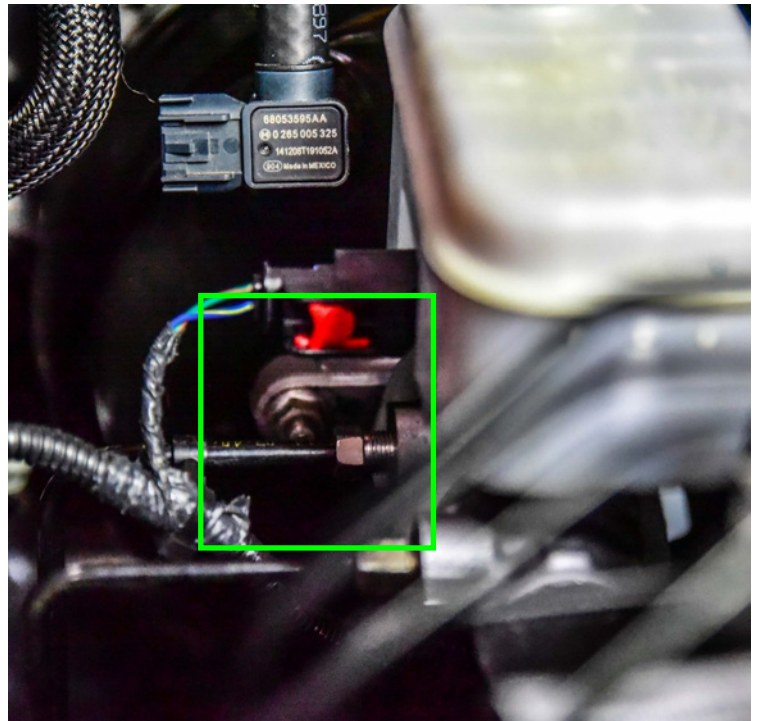
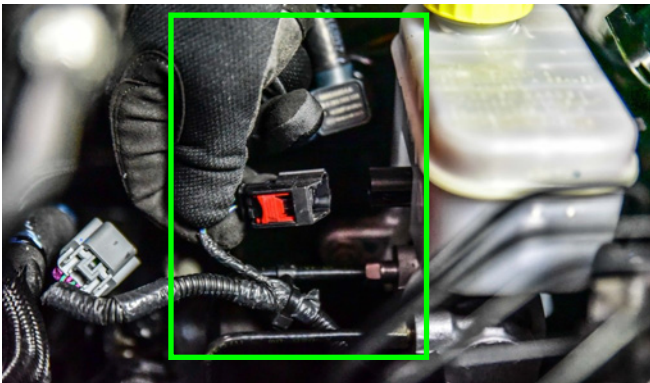
Remove the 1/4" Plug on the left/ Inlet of your ADS Controller. Install one of the 3/8" x 1/4" NPT 90 Degree swivel Fittings. Be sure to use thread sealer on the fitting to prevent leaks. If you are installing a complete kit this can be done on the work bench or in the vehicle if you are working on and existing ADS Kit.



Upper Compressor Installation

Locate the Master Cylinder and Brake Booster Assembly. The Upper Compressor Bracket (03-509) will attach to the studs on the Brake booster.

1. Unplug the electrical plugs on the master cylinder and Brake Booster.
2. With the electrical plugs disconnected, loosen and Remove the 2 nuts holding the master cylinder. ***** Be very Careful not to pull or dislodge the master cylinder from the brake booster. Do not press on the brake pedal as it will push the master cylinder away from the brake booster. It will cause and air leak. *****
3. Slide the Upper compressor and bracket (03-509) into place. Re install OEM hardware and tighten.
4. With the compressor and Bracket secured you can re attach the electrical connections to the master cylinder and brake booster

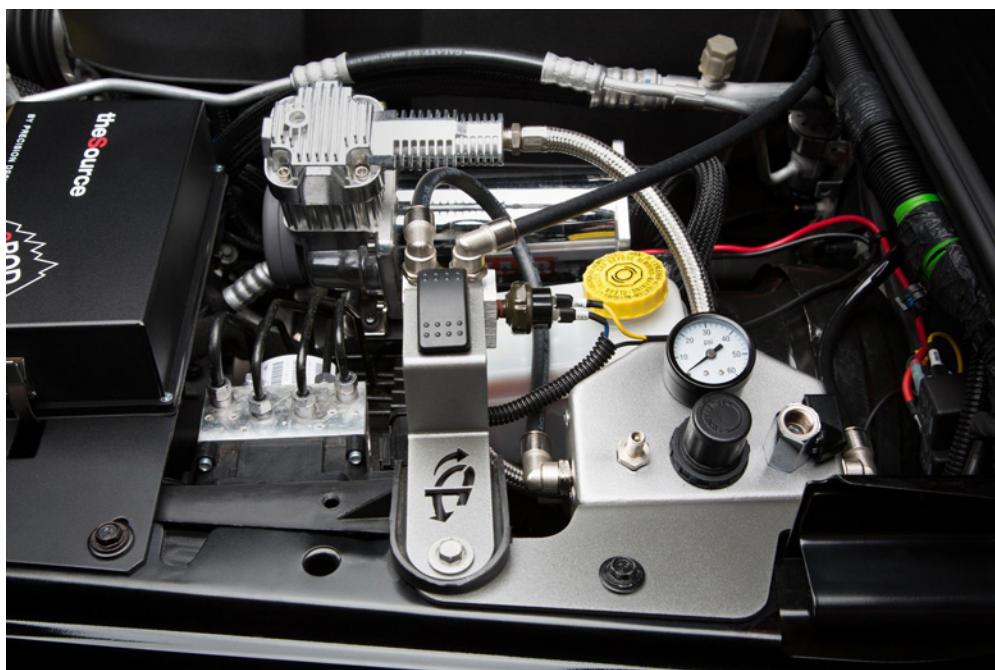


Switch and Manifold installation

1. Locate the Feed Hose from the Upper Compressor. Install the Feed hose to the bottom of the Manifold on the Switch Bracket (03-509) using thread sealer.

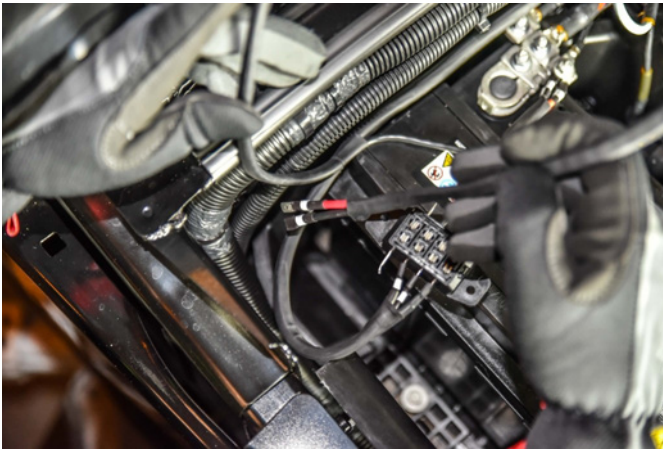


1. 2. Depending on the ADS Mounting Bracket you have (Front/ Rear) will dictate where you can attach the Switch Bracket. We Recommend using the Bolt for the ABS Controller mount. If that bolt is already being used for another accessory you can attach the switch bracket to any other open Fender Bolt. If mounting the Switch Bracket to the Fender bolt near the Horn you will need to Bend the Horn bracket down by hand to allow the switch bracket to sit flat.



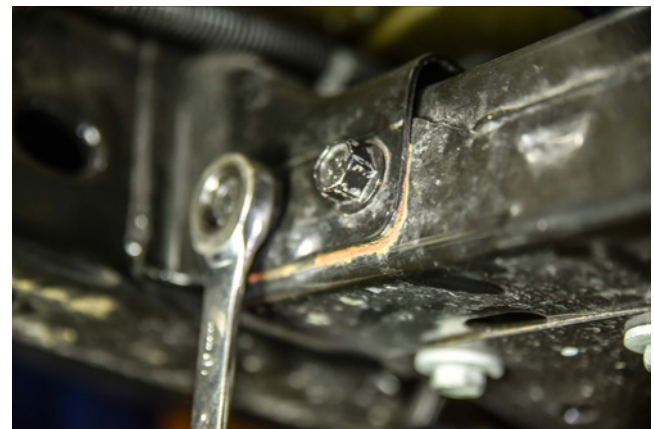
Wiring Harness Installation

1. Locate the Viar Wiring Harness. Drape the Harness along the fire wall with the wires labeled C1 down to the lower compressor behind the stock battery location. The wires should poke out right behind the passenger inner fender, you will run these over the frame to the lower compressor. The Portion of the Harness with the 2 Relays and Relay Bracket will be ran along the fire wall and follow the OEM wiring loom over to the Upper Compressor and Switch Assembly. We recommend leaving the wire loom “loose” until all components are installed to insure proper fit and routing.



Lower Compressor Install

1. Loosen the Transmission Hardware on the passenger side. You will need to support the Cross member with a jack before removing the cross member bolts.
2. Once the Bolts are removed you can mount the Lower Compressor Bracket (03-510). Re using the OEM hardware Tighten the Compressor Bracket in place. The bracket will mount to the front of the Cross member.





Lower Compressor Installation Continued

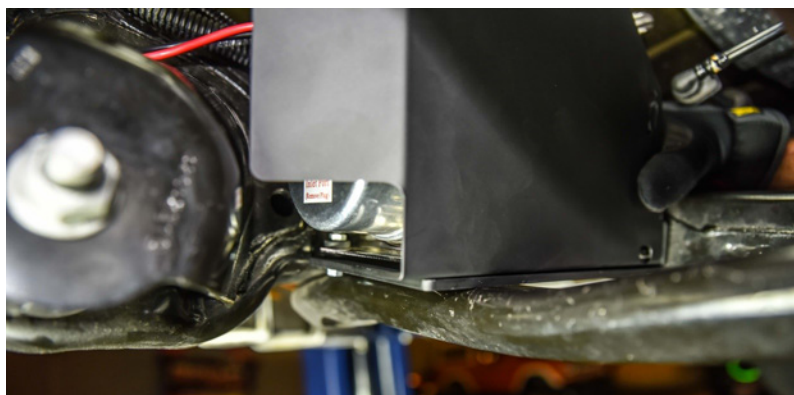
3. Test Fit the lower compressor and run the feed line with the Bulk head fitting along the inside of the frame rail going towards the engine compartment.

4. With the lower compressor "In Place" make a mark or mental note of where the Bulk Head fitting sits on the frame rail. Remove the compressor and locate the Bulk Head Bracket (03-507) and Self Tapper (05-113). Attach the Bracket to the frame with the Self Tapper Screw. Make sure to allow a little wiggle room

5. It may be easier to install the Bulk Head Fitting prior to the compressor depending on the final location of your bracket. We recommend installing the fitting before the compressor.



6. With the Bulk Head Bracket mounted you can install the lower compressor for the final time. Use the Supplied Hardware from Viair. Install the Heat Shield (03-512) Along with the compressor. The Heat Shield is sandwiched between the Viair Compressor and Lower mounting bracket.



7. Locate the C1 Wire Loom that was ran down the passenger side fender well. Connect the Red (+) wire from the compressor in to the male (C1) terminal of the wiring harness. The Black (-) from the compressor will plug into the female (C1) terminal of the wiring harness. Secure the wiring harness up and out of the way. **Be sure the wiring loom is not touching or routed close to any components that generate heat. (Exhaust tubing, Headers, etc...)**

Lower Compressor Installation Continued

8. Locate the Supplied 3/8" High Temp Air Line (02-113-231) for the lower compressor. The 3/8" High Temp Hose will connect to the Bulk head on the Frame installed in step 5.

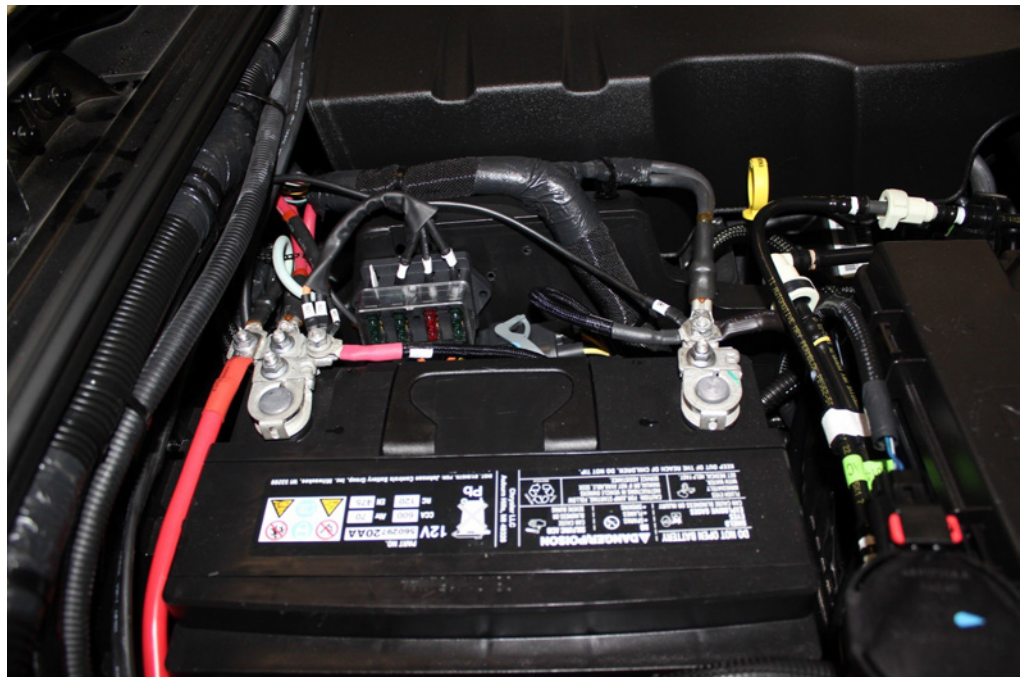
9. Locate and run the Inlet Hose for the lower compressor down the passenger fender well to the 90 degree fitting on the compressor. The Viair Line can be difficult to un coil in colder temperatures. With the inlet line attached to the compressor connect the supplied Viair inlet filter to the hose. Locate a secure and dry area in the engine bay to mount the Inlet filter and hose.

*****Be careful when routing these lines to ensure they are not in contact or near any exhaust components. *****



10. With the wiring and Hose's secure at the lower compressor, The rest of the wiring loom can be fitted into the engine bay. We recommend running the 3/8" feed line and wiring harness along the OEM wiring loom on the fire wall over to the driver side/ upper compressor and switch assembly.

11. With the main loom in place the fuse block can be mounted. We recommend attaching the fuse Block to the Plastic tray next to the battery with the supplied Self Tapping screws (05-113). Layout the Power wires to the battery and choose the best fit next to the battery for the fuse block.





COMPRESSOR INSTALLATION

2

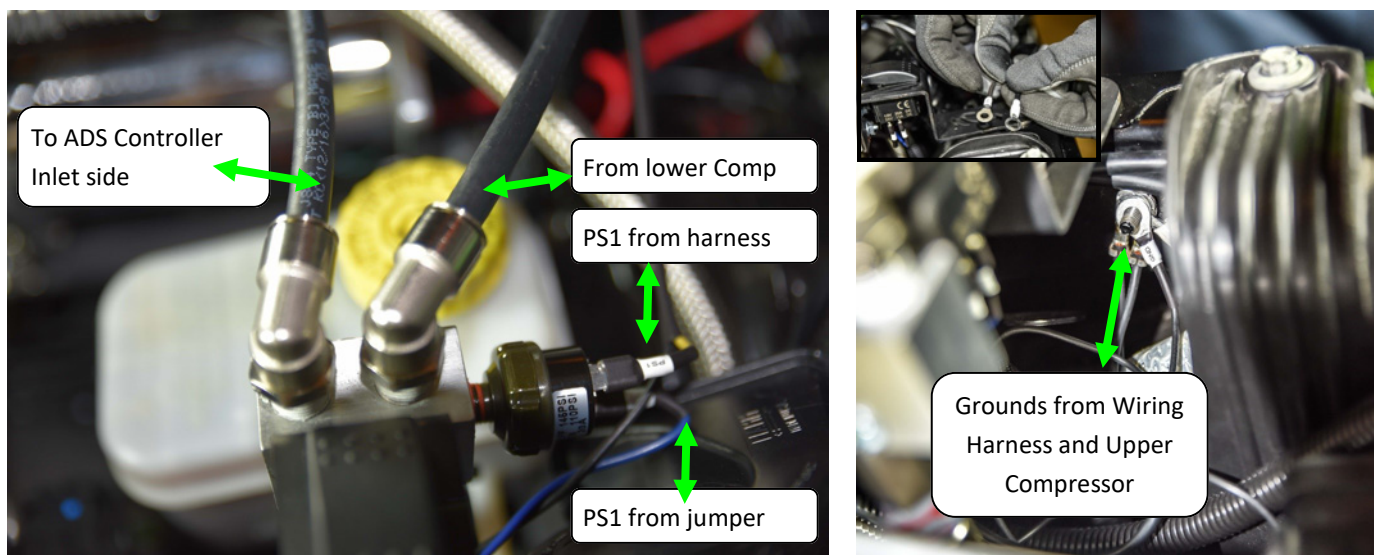
12. Locate the Relays and Bracket on the wiring Loom. The Relays will mount to a OEM stud on the Firewall just above the Brake booster. There is a Push on plastic nut which holds the OEM Loom. Remove the Push on Nut and mount the Relay bracket to the stud. Re install the Push on Nut.

13. Locate the pressure switch and corresponding wires. Connect the PS1 wire to the Pressure switch. (PS1 can go on either post) Connect the Blue Jumper wire to the Toggle Switch.

14. Connect the Remaining power wire to the Toggle Switch.

15. Connect the Upper Compressor to the Designated power wire on the Loom.

16. With all Power wires connected you will need to collect the Ground wires from the compressor and the Ground wire from the Loom and attach them to the OEM grounding stud on the inner fender toward the rear of the engine compartment



17. Connect the long 3/8" high temp air line to the 90 deg fitting closest to the fire wall and the short one will go from the ADS Controller the forward 90 deg fitting.

18. Next attached the GRD wire from the harness and attached to the negative (-) side of the battery. Connect the three wires labeled 12V to the positive side of the battery (+).



Congratulations you have now completed the install of your new VIAIR Compressor Kit for your ADS System.

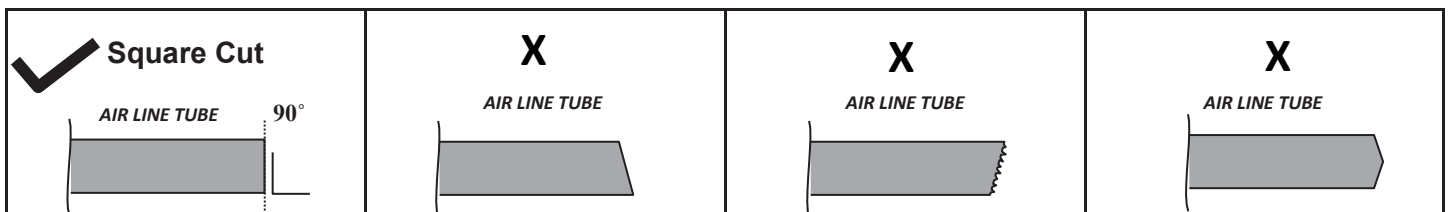
Please preform the following tests.

1. Turn compressor on to pressurize the ADS unit and set your pressure regulator to your factory recommended tire setting.
2. The compressor should stop when the ADS is fully pressurized. When the compressor stops listen and inspect all connections for leaks.
3. If you think you have a leak spray mild soapy water at the fitting and look for bubbles.

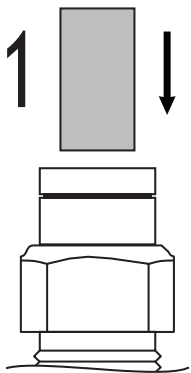
Let your system sit for two minutes and note the tire pressure and compare it to your starting pressure.

If you have had no pressure drop you are good to go.

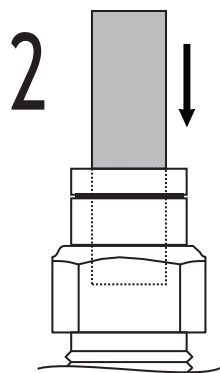
PROPER AND IMPROPER CUTS IN THE AIR LINE TUBE



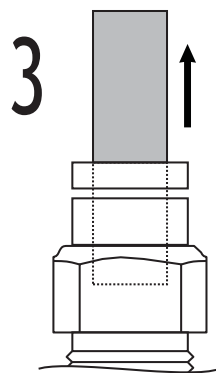
Insert end of Air Line Tube into Air Fitting.



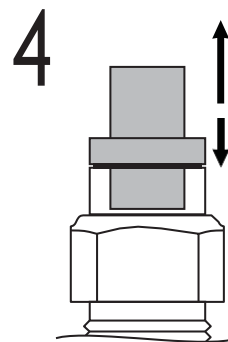
Push Air Line Tube into Air Fitting as far as possible.



Gently pull on the Air Line Tube to check for a secure fit.



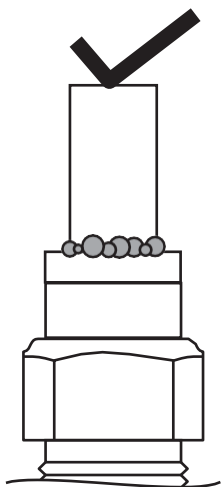
To remove, push down collar and gently pull Air Line Tube away.



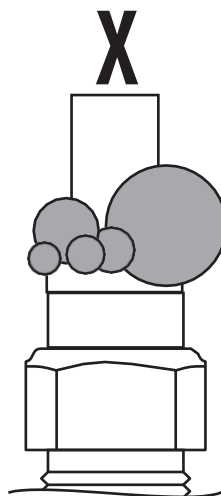
Removal Tip: Use a small open-ended wrench to push the collar down .

LEAK INSPECTION

To inspect for leaks pressurize your system, take a spray bottle with a solution of mild soap and water and spray suspected area. If you are not sure where the leak is coming from take a systematic approach spraying one area at a time.



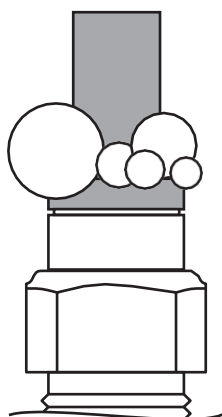
SMALL SOAP BUBBLES THAT DO NOT EXPAND



SOAP BUBBLES THAT EXPAND

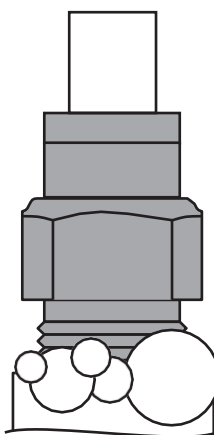
LEAK CORRECTION

LEAK AT AIR LINE TUBE AND AIR FITTING



Release Air Line Tube.
Review proper cuts and procedures.

LEAK AT BASE OF AIR FITTING ON AIR SPRING



Tighten Air Fitting one turn or until leak stops.

LEAK OUT OF THE VALVE CORE ON INFLATION VALVE



Tighten valve core with valve core wrench on Inflation Valve Cap.