

IJKP-35 / Installation Instructions

4-Tire Air System (Bluetooth) Jeep JK Unlimited (2008 - 2018) / Jeep JK (2008 - 2010)

Made in USA

Kit Contents:

- 1 ARB Pressure Control Kit
- 1 Mounting Bracket for ARB Twin Compressor
- 2 Seat Brackets w/ Bulkheads (for Air Line Connections)
- 10 M6x16mm Button Head Bolts / Nuts
- 1 90° Elbow Fitting
- 1 Male Straight Fitting (Pipe Thread to 3/8" Tube – Pressure Control Input)
- 1 90° Elbow Fitting (Pipe Thread to 3/8" Tube – Pressure Control Output)
- 1 Y-Connector
- 1 16-inch section of Black Air Line Tubing (Compressor to Pressure Control Input)
- 1 19-inch section of Black Air Line Tubing (Pressure Control Output to Y-Connector)
- 1 54-inch section of Black Air Line Tubing (Y-Connector to Driver Side Seat)
- 2 Double Air Lines (10ft each) (with 2 Y-Connectors, 4 Haltec Air Chucks, and Custom Storage Bag)
- 3 5/16" Ring Terminals for Main ARB Harness to Battery
- 2 22-18 Gauge (Red) Quick Splices (1 Scotchlok / 1 T-Tap Set)
- 1 Black Plug (for closing one air line connection)

Tools Required:

- Small Flat Blade Screwdriver or Metal Paper Clip
- Metal Rod and Electrical Tape (to help fish ARB wire harness through firewall)
- Drill / 1/4" Drill Bit
- 12" Extension with 3/4" Step Drill (greatly eases ARB harness installation)
- 1/2" Ratchet / 18mm Socket
- Breaker Bar
- 10mm Socket
- 10mm Wrench
- 4mm / 2.5mm Allen Wrenches
- T-30 Torx
- Crimping Tool

Other items required (not Supplied):

- Mounting location for the supplied ARB Compressor Switch. Options:
 - Daystar makes a Lower Dash Switch Panel or A-Pillar Mounted Pod
 - Cut an opening in dash or console for switch
 - Direct wire to an sPOD or equivalent switch control (instructions included in **Step 5**)
- 22-18 Gauge Wire (Red and Blue) may be required to extend leads on ARB harness for Power and Switch Light.

STEP 1 – Pressure Control Manifold and Compressor Preparation

- 1-A) Open the ARB Pressure Control Kit and remove the valve assembly. Disassemble as shown in **Figure 1**. Loosen the cap on top of each solenoid and take note of the O-ring under each cap. Be careful not to damage them as you slide the solenoids off the posts. Each solenoid can be interchanged between the posts (they are identical), but maintain orientation (i.e., the single blade connection is the cap / O-ring end). Remove the fitting from the input port and the small “muffler” from the exhaust port. The fitting and “muffler” will not be reused.

Note: The “muffler” designed to reduce the noise of the air being released during an air down cycle. However, we have found it does restrict airflow and in turn increases the time to air down. We recommend removing it. The sound difference is minimal.

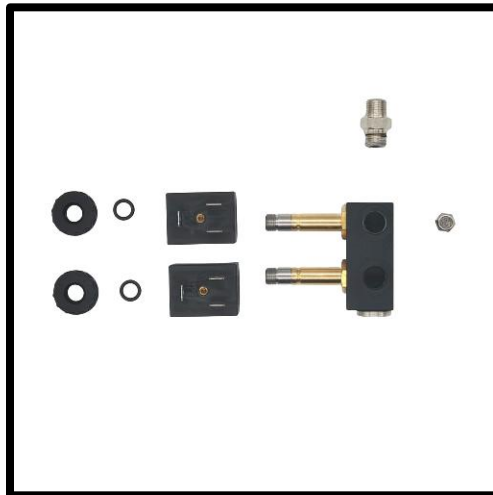


Figure 1

- 1-B) Remove the ARB pressure sensor from the ARB Pressure Control Kit and obtain the two (2) provided fittings with the small pipe threads on one end (a 90° elbow fitting and a male straight fitting). Install all three (3) items as shown in **Figure 2**. Install the elbow first and tighten, then install the male straight and tighten (both fittings have pre-applied Teflon thread sealant), and finally the ARB pressure sensor (note this has an O-ring for a seal so **DO NOT** apply any Teflon or thread sealant and only tighten finger tight). For reference note the arrows on the valve assembly body. These indicate the direction of air flow. Both the ARB pressure sensor and the 90° elbow will be on outputs and the male straight is on an input. The silver caps on the opposite side seal the unused outputs and should come from ARB tightened (note these also use and O-ring to seal).



Figure 2

- 1-C) Remove the small silver bracket from the ARB Pressure Control kit and bolt it to the ARB compressor bracket with two (2) of the provided M6x16mm Button Head Bolts / Nuts using the rear holes as shown in **Figure 3**. Insert the valve assembly through the bracket you just installed. Then slide each solenoid back over the posts (with the single blade to the top) and re-install the O-rings and caps. Caps should be finger tight. The final assembly should look like **Figure 4**.



Figure 3

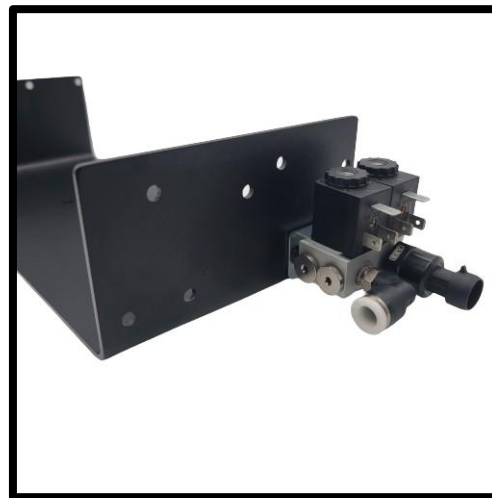


Figure 4

- 1-D) Insert an open end 10mm wrench into the slot on the top of the compressor and loosen the bolt on the end of the manifold (just enough to allow the end cap to rotate). Install the provided 90° elbow fitting into the outlet. Tighten the fitting to ensure a good seal. Rotate the fitting as far over as possible (**Figure 6**), then retighten the bolt on the manifold. **This step is important since seat clearance is very tight. Get the fitting over as far as possible!** Install the ARB provided filters on back of compressor and set assembly aside.

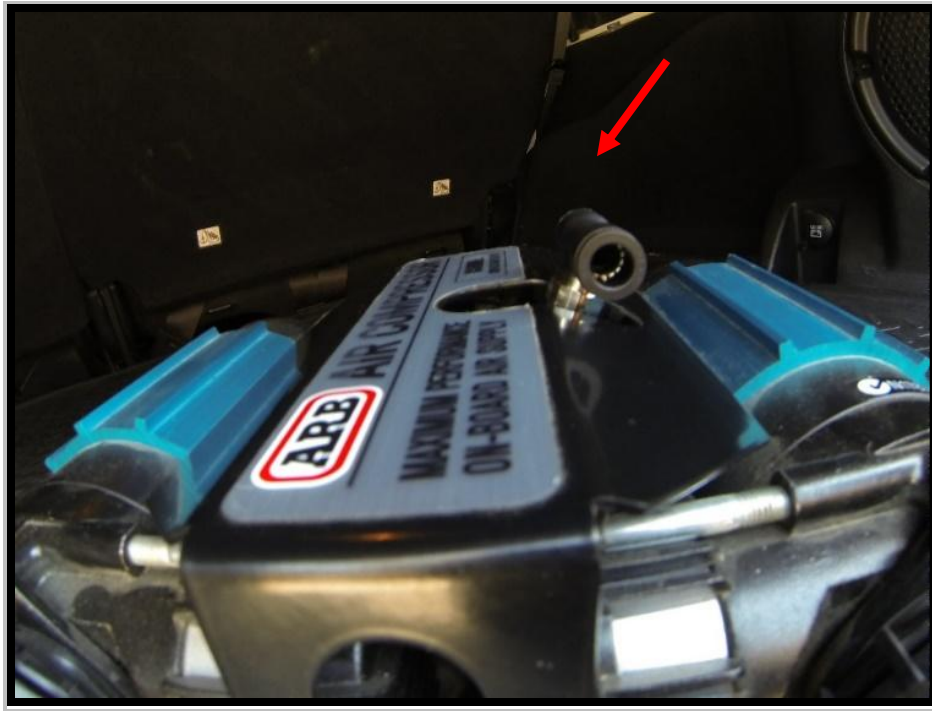


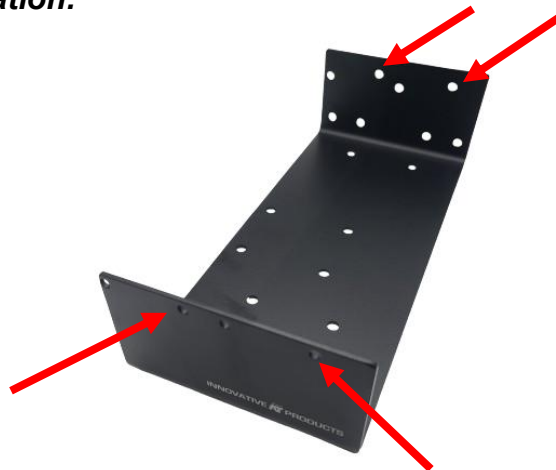
Figure 5

1-E) Install the ARB provided filters on the back of the compressor.

DISCONNECT THE BATTERY BEFORE PROCEEDING

STEP 2 – Passenger Seat Removal, Preparation, and Brackets Installation

NOTE: The **4 Red** arrows indicate the holes you will be using to mount the bracket. **DO NOT** use hole pairs that are off centered, closer to edge (those are for RHD or driver seat installation).



- 2-A) If equipped, disconnect the yellow connector(s) under the passenger seat. There may be one to two on newer model Jeeps and none on older models.
- 2-B) Using an 18mm socket remove the 4 bolts that secure the seat in the Jeep. You may need a breaker bar (or impact) to get these loose.
- 2-C) With the rear seat in the upright position (not folded), lay the front seat back as shown in **Figure 6**. MAKE SURE YOU DO NOT ALLOW EITHER SEAT FRAME RAIL TO MOVE. They can move independently once unbolted from floor and this will mess up the alignment and installation of the bracket later on. Wrap the rear seat belt across the top of the seat to hold it in place.



Figure 6

- 2-D) If equipped, remove the yellow plug(s) from the metal plate and remove the metal plate on the bottom of the seat (this may require rivets to be drilled out or screws to be removed, check first). Remove and discard, the plate is no longer needed.



Figure 7

- 2-E) For 2013+ Jeeps, simply use a ¼” drill to drill out the two existing holes on the outer side seat frame rail as shown in **Figure 8**. Drill out the same two holes on the driver’s seat. Skip to **Step 2-G**.



Figure 8

- 2-F) For 2007 – 2012 Jeeps, you will first need to mark the outer side seat frame rail holes for drilling (Jeep was not kind enough to provide these on older models). Continue to Step **2-G** for details.
- 2-G) The provided bracket will be bolted to the inner side seat frame rail (towards center of vehicle) using the two holes shown in **Figure 9** (the lower, larger holes). Make sure the bracket is oriented as shown in **Figure 10** with the red arrows indicating the mounting holes.

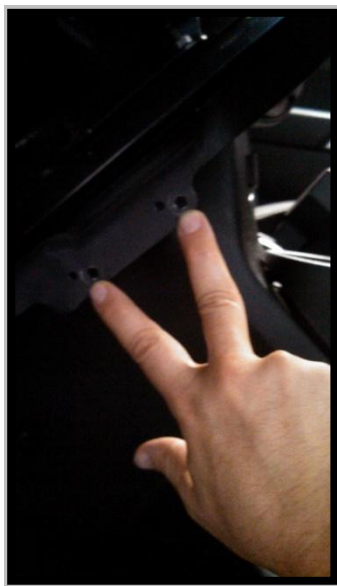


Figure 9

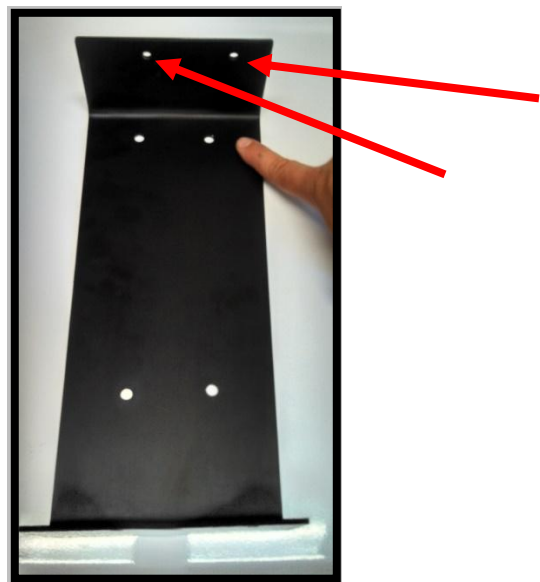


Figure 10

2-H) Bolt the bracket to the **inside** (towards center of vehicle) of the inner side seat frame rail as shown in **Figure 11**. It is important that the bolt and nut face in the direction shown (nut will be towards center of vehicle).

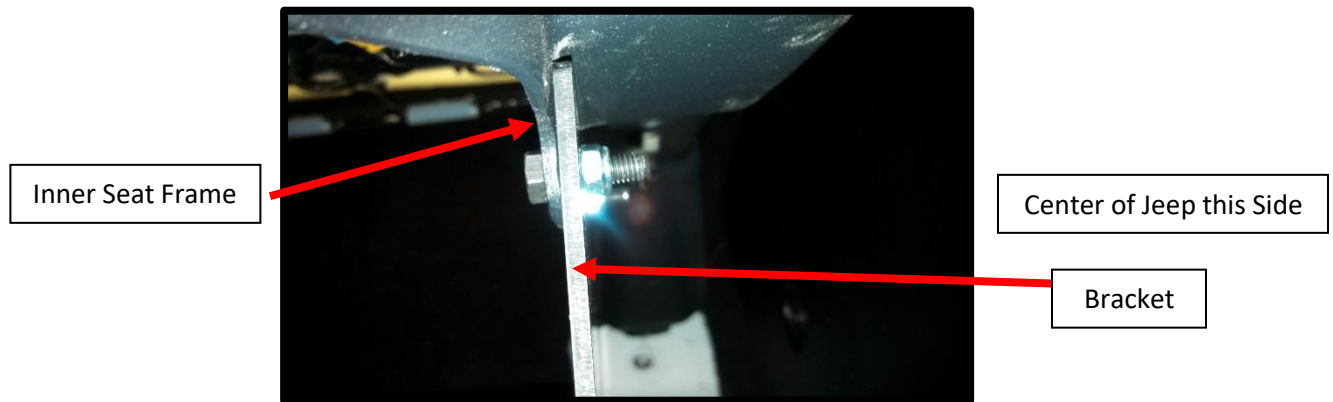


Figure 11

2-I) Skip to **Step 2-J** for 2013+ Jeeps. Using the holes in the bracket, mark the holes on the outer side seat frame rail. Make sure the bracket is pushed up before marking holes. Before drilling, I would HIGHLY RECOMMEND you lay the seat back down onto the floor mounting holes to make sure none of the frame rails have moved as noted in **Step 2-C**. If the rails have moved and you drill the holes everything will be out of alignment! Once you are sure everything is aligned, mark the holes and drill the two 1/4" holes in the outer side seat frame rail.

2-J) Use the two holes you have just drilled as guide and align the quick connect bracket with the two holes and then mark the hole where it will mount to the leg of the seat as shown in **Figure 12**. Drill a 1/4" hole at your mark.

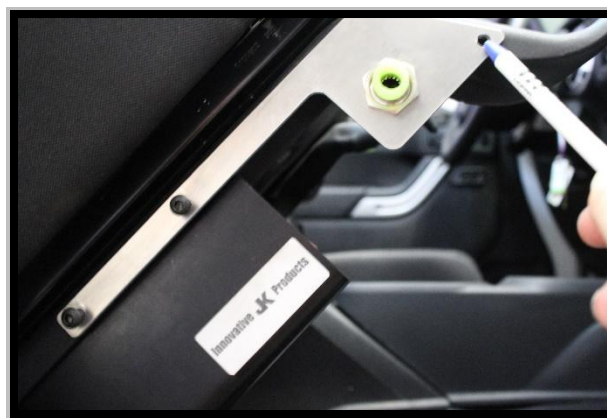


Figure 12

2-K) Bolt the bracket and quick connect bracket to the **inside** (towards center of vehicle) of the outer side seat frame rail as shown in **Figure 13**. The order is (starting from outside of vehicle), seat frame, quick connect bracket, then ARB bracket. The quick connect bracket should be sandwiched between the seat frame and ARB bracket. It is important that the bolt and nut face in the direction shown (nut will be towards center of vehicle).

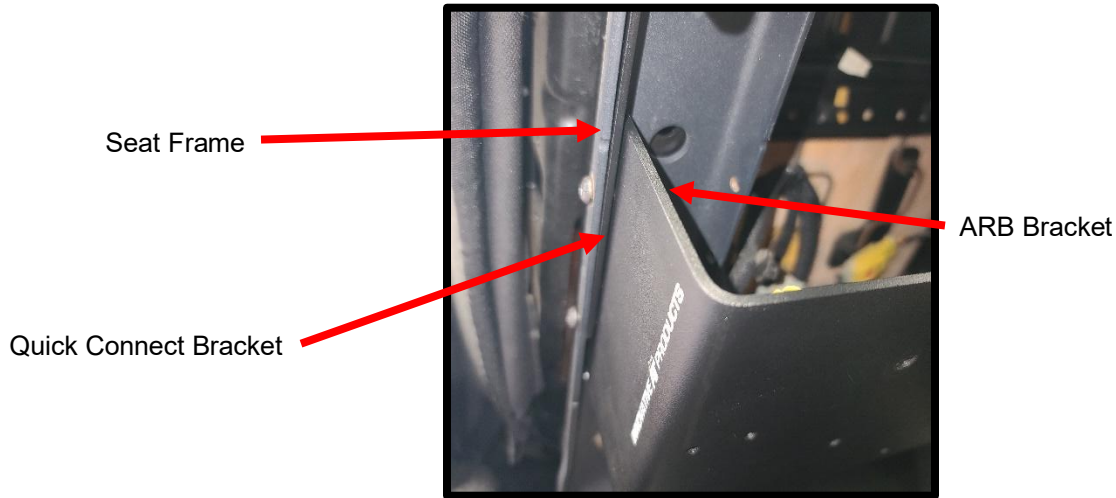


Figure 13

2-L) Once complete, the installation of the brackets should look like **Figure 14**.



Figure 14

2-M) If equipped, zip tie the cables for the yellow plug(s) to the bottom of the seat as shown in **Figure 15**. Do not completely tighten the zip tie (leave some slack for cables to move).



Figure 15

2-N) On the driver's side, use the quick connect bracket as guide to mark the three holes (for 2007-2012 Jeeps) or mark one hole where it will mount to the leg of the seat (for 2013+ Jeeps) as shown in **Figure 16**. Drill the three ¼" holes and mount the quick connect bracket to the inside of the seat frame with the supplied hardware.



Figure 16

STEP 3 – Compressor Installation

- 3-A) Place the compressor on the bracket with the fan facing forward. Use the four bolts provided by ARB to mount the compressor to the bracket. Start all four bolts before tightening each one. See **Figure 13**.



Figure 13

TIP: You can leave the seat in this tilted position until you complete the wiring harness installation. It will make running the harness easier. You can bolt the seat in place and connect everything once the wiring harness has been installed.

Also, now is a really good time to vacuum up all those chips from drilling on both sides of the Jeep.

STEP 4 – Wiring Harness Installation

- 4-A) Locate the 5-pin plug on the large ARB wiring harness (NOT the 5-pin plug on the compressor). Remove the plastic retainer from the back of the plug. This will allow the wires to be removed from the plug. Using a small flat blade screwdriver, or a paperclip, insert it into the smaller side (**Figure 14**) of each metal connector and pull out the wire from the back of the plug at the same time (there is a metal tab that locks each connector in place and the screwdriver will temporarily unlock the connector so it can be removed). Make sure you note the order! Removing the wires from the plug allows the wires to be passed through the firewall later.

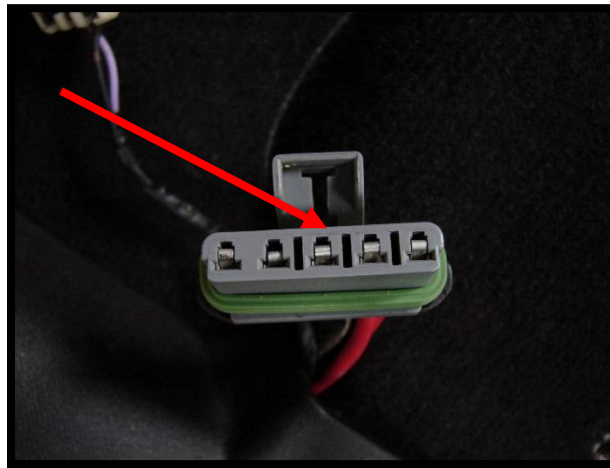
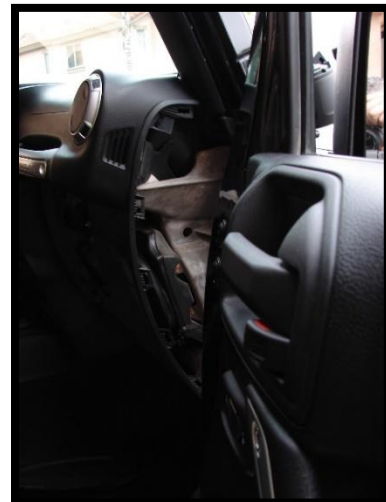


Figure 14

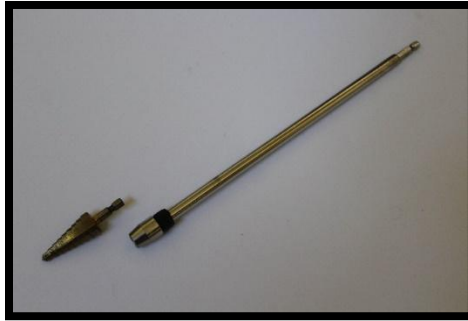
- 4-B) Remove the rocker panel on the passenger side (**Figures 15**). Pulling up on the panel near the push pins (2) will help release the pins (2) and then the panel. Up in the footwell, the panel must be pulled towards center of vehicle to release it. Then remove the side panel from the dash on the passenger side. A small flat head screwdriver will help get it started. It can then be pulled off.



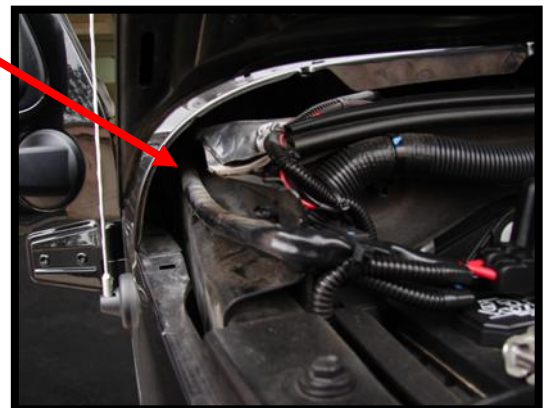
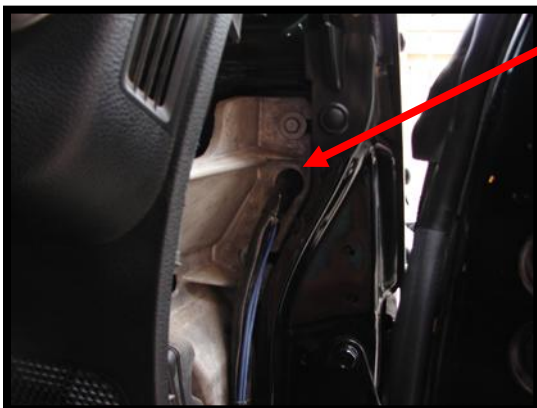
Figures 15

4-C) There are two ways to do this step.

Simplest - Using a 12" extension and $\frac{3}{4}$ " step drill to open the hole in the firewall that runs into the engine compartment that is filled with expanding foam (see **Figures 16**). The $\frac{3}{4}$ " drill will go through the foam quickly and then ease into the firewall portion since the hole is not round. Once the hole is opened up to $\frac{3}{4}$ " you can pass the entire ARB harness through in one shot by attaching a metal rod and pulling through.



Harder (if tool not available) - This method will take patience. Use a metal rod to punch through the foam and sealing tape on back side of the hole through firewall. Pull the black sheathing back on the ARB wiring harness to expose about 3 feet of the harness near the end with the metal connectors you removed in **Step 4-A**. Starting with the three (3) **black** wires, use tape to attach the ends to the metal rod and pull them through the firewall. Repeat the process for the two (2) **red** wires. DO NOT try and do all five (5) at once. Now pull the sheathing up the harness so you have about 1 foot that is smooth (not bunched up). Secure the sheathing to the wires with tape (electrical tape is preferred) wrapping tightly. Use a set of pliers to squeeze the bundle into a flatter shape (a large round bundle will not fit through the flat shaped hole under the cowl). With a little finesse you can get the wire harness / sheathing through the firewall by working it back and forth. Once through, pull the sheathing up the harness again to cover the wires and then the whole harness should move easily through the firewall to adjust as needed.



Figures 16

4-D) Run the ARB wiring harness down along the dash and along the rocker as shown in **Figures 17**. Run the harness directly behind the door strap hook (i.e. between hook and body). Reinstall the metal connectors into the 5-pin plug in the correct order you noted in **Step 4-A**. If you forgot, you could always match up against the connector on the compressor. **This must be done before attaching harness to the battery in the next step!** Now run the long ARB switch harness (the one with a plug on one end and 4 wires on the other end) in reverse along the large ARB harness. Leave a little extra length of the long ARB switch harness plug end near the main ARB harness plug. You will see 2 white connectors (for air lockers) which are not used. Just tuck these away.

Run the remaining harness up behind the glove box (remove glove box for access) and leave there for now.



Figures 17

- 4-E) Go back to the engine compartment and attach the ARB harness to the battery (**Figure 18**). Crimp and use a heat source to attach and seal one of the provided ring connectors to each positive wire (**red**). Attach both to the positive (+) terminal of battery. Repeat with the remaining ring connector to connect both negative wires (**black**) to the negative (-) terminal of battery. Make sure the wires are secure and run in a fashion not to interfere with anything.

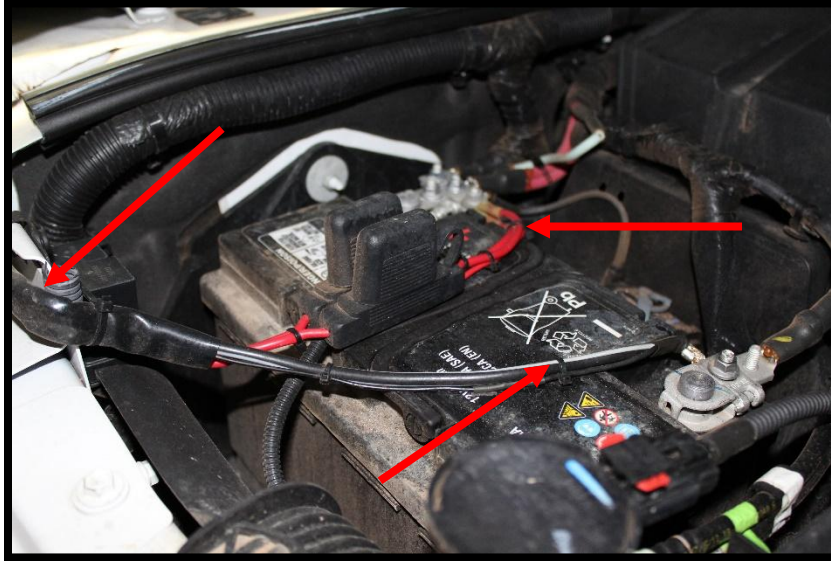


Figure 18

- 4-F) Reinstall the side panel and rocker panel. The two harnesses can be run under the carpet with the plugs positioned as in **Figure 19**.

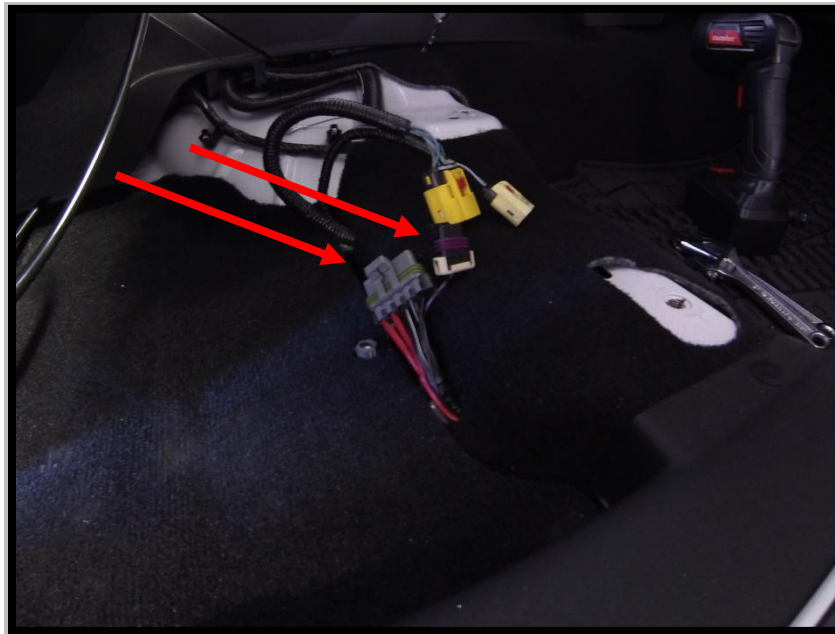


Figure 19

4-G) Obtain the ARB pressure control module / wiring harness, plug the harness into the module, and attach the module with at least one (1) zip tie to the bracket under the glove box as shown in **Figure 20** (glove box is removed) with the harness plug to the left. Run the ground for the module (**black** wire with a brass ring connector) over to the ground stud in the footwell. Attach to the stud circled in **Figure 21**.

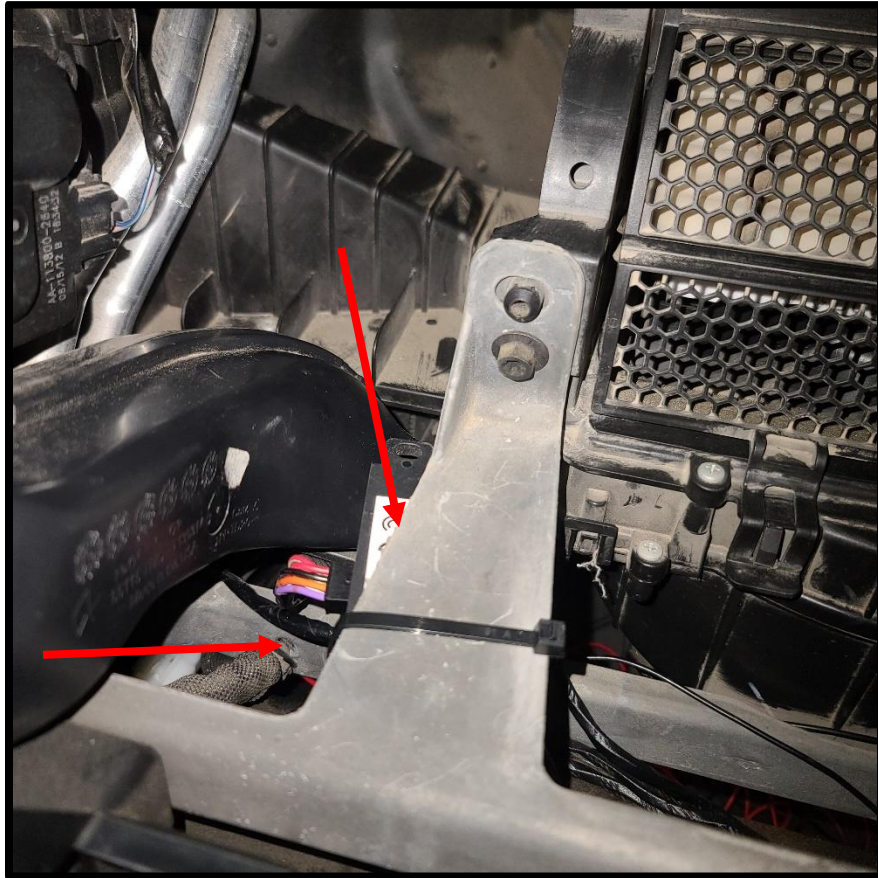


Figure 20



Figure 21

- 4-H) Run the ARB pressure control module / wiring harness (leaving the **red** wire behind) along the top edge of carpet near center console as shown in **Figure 22**. Leave there for now and it will get tucked in later after making connections and bolting the passenger seat back in place.



Figure 22

- 4-I) Attach the three (3) plugs from the ARB pressure control module wiring harness to the valve assembly as shown in **Figure 23**. The plug with the **purple** wire must be attached to the solenoid directly above the exhaust port (this will be the solenoid towards the rear of the vehicle). Use a 2.5mm allen wrench to tighten the two small screws in the center of each solenoid plug.



Figure 23

4-J) Attach the provided 19-inch section of black tubing to the output fitting of the valve assembly and connect the other end to the provided y-connector as shown in **Figure 24**. Now fish the 54-inch section of black tubing up and over the hump in the center of the Jeep underneath the console from the driver side to the passenger side. With a little finesse you can push it up and over while rotating at the same time (using the natural curve of the tubing) to get it to a point where you can reach under the driver's seat and grab the end up under the console. Once you get it, pull some through and connect to the back of the driver's side quick connect bulkhead. Be sure to press all tubing in firmly to each fitting until it bottoms out.

Note: The **blue** tubing shown is for demonstration purposes only.

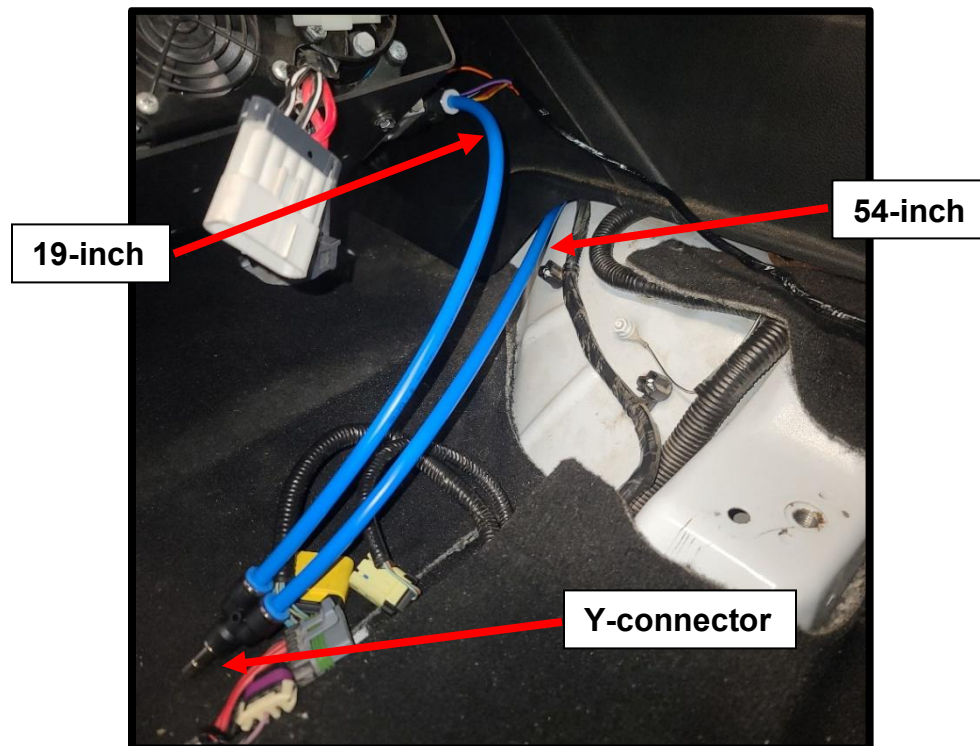


Figure 24

4-K) Carefully tilt the passenger seat back into position while being conscious of all the wiring and plugs. Once the seat is in place plug in the two (2) ARB plugs into the compressor and tuck them in a safe spot. Plug the Y-connector in the passenger seat bulkhead as shown in **Figure 25**. Bolt the seat back in place and torque bolts to manufacturer specifications (45 ft-lbs). Reconnect the yellow plug(s), if applicable. While looking under seat, check for clearance on wires, cables, plugs, and compressor as the seat is moved forward and back. Use wires ties to secure cables from yellow plugs if necessary, leaving slack where necessary to allow the seat to move without getting caught on anything.



Figure 25

4-L) Go to the back of the passenger seat and connect the 16-inch section of black tubing to the output fitting of the ARB compressor and to the input of the pressure control valve assembly as shown in **Figure 26**. Be sure to press all tubing in firmly to each fitting until it bottoms out.

Note: The **blue** tubing shown is for demonstration purposes only.



Figure 26

4-M) Now is a good time to go back and ensure ARB pressure control module / wiring harness is clear from everything under the seat. Then you can begin to tuck it under along the edge of the center console and under the carpet where it was left from **Step 4-H**.

STEP 5 – Final Wiring (2 Options)

Switch Controller Option (i.e. sPod, SwitchPros, etc.)

Note: The ARB pigtail harness (the one with all the connectors) is not used for this method.

5-A) Back to the long ARB switch harness and the **red** wire from the ARB pressure control module left under the dash. Run both to the location of your switch controller. Due to the number of various switch controllers out there and their various mounting locations you will have to determine the best route to get the wires to the location. Using appropriate connectors, attach the wires to the switch controller as follows:

- ARB switch harness **purple** wire and the ARB pressure control module **red** wire to Switch Controller Positive (+)
- ARB harness **Black** wire to Switch Controller Negative (-)

PROCEED to STEP 6

ARB provided Switch Option

5-B) Back to the long ARB switch harness and the **red** wire from the ARB pressure control module left under the dash. Follow the ARB instructions to connect the ARB pigtail harness (the one with all connectors) to the long ARB switch harness. ARB provides a 4-pin white connector (attached to harness in the plastic bag) to join the two sections.

5-C) Determine where you want to mount the switch. This may require the purchase of a mounting solution for switch or cutting a hole in dash or console.

5-D) Once the switch location has been determined, route the long ARB switch harness to the location of the ARB switch and connect it to the ARB pigtail harness. The ARB pigtail harness will have a lot of terminal connectors (you will only be working with the connectors for the isolation switch (i.e., the on/off switch), a **red** wire w/ yellow stripe, and a **blue** wire w/ white stripe. The other two sets of terminal connectors are for front and rear air locker solenoids which are not applicable to this installation and can be cut off if desired.

5-E) Attach the isolation switch terminal connectors to the ARB switch as per the diagram in the ARB instructions with one exception. Attach the **red** wire with the “piggyback” connector from the ARB pressure control module to the ARB switch where ARB indicates to attach the **red** wire. Then attach the **red** wire

terminal connector to the “piggyback” of the ARB pressure control module **red** wire as shown in **Figures 27** and **28**.

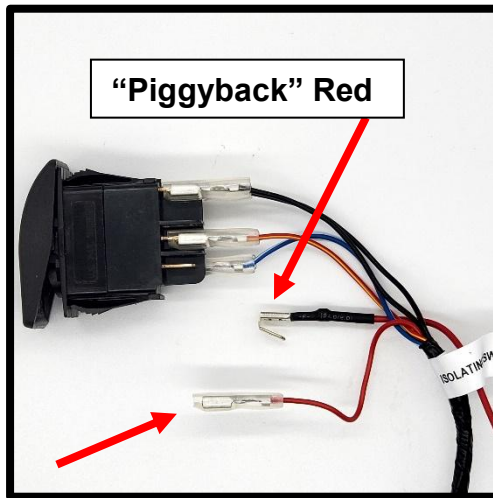


Figure 27

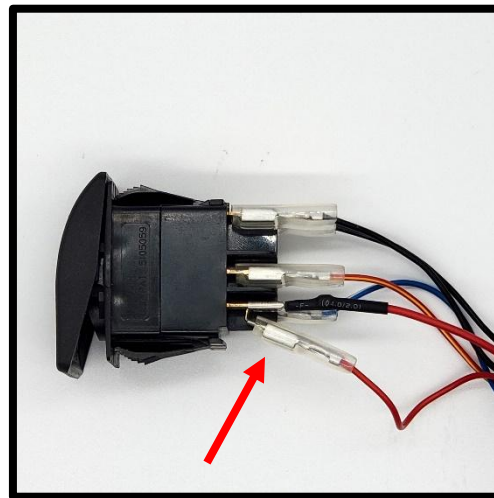


Figure 28

5-F) Connect the **red** wire w/ yellow stripe to the **pink** wire w/ white stripe using the provided red Scotchlok as shown in **Figure 29**. It is located under the steering wheel behind the dash panel. That panel is removed by grabbing the top and pulling away. A metal plate will then need to be removed using a 10mm socket. This is an ignition on power source, so your compressor will only work if the ignition is on or the engine is running.

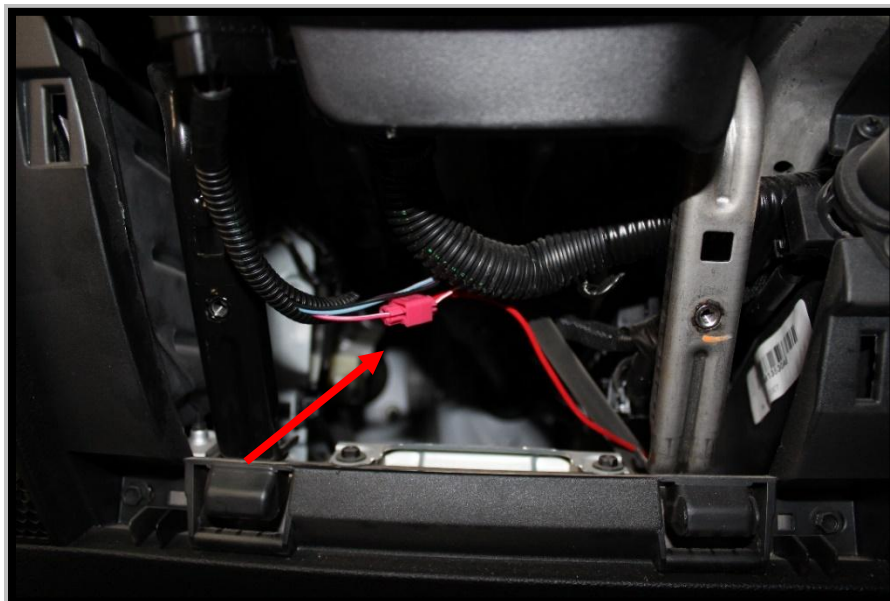


Figure 29

5-G) If you want your ARB switch to light up when your parking/headlights are on for visibility at night, connect the blue wire w/ white stripe to the orange wire w/gray stripe using the provided red T-Tap Set as shown in **Figure 30**. The wire is in the harness that goes to the window control module.



Figure 30

PROCEED to STEP 6

STEP 6 – System Check

- 6-A) Turn on the system. The compressor should run for a few seconds then shut off when it reaches the pressure safety switch built into the compressor, 150 psi. The system should be able to sit for a few minutes without the compressor cycling. If after a few seconds to a minute the compressor cycles, you will need to check for leaks. The first thing to check is the fitting in the compressor to ensure it is not leaking, then check the fitting on the input side of the valve assembly, and finally the tubing connection between each. Make sure they are tight and not leaking and tubing is pressed in firmly. Once everything is ok, TURN OFF the system.

STEP 7 – System Set-up and Use

- 7-A) Download the “**ARB Compressor Connect**” App available for iOS or Android. Sample screen shots shown below in **Figures 33 and 34**. The settings shown are just examples and not recommendations. If you select the gear icon, bottom right, it will bring you to the settings screen. From here if you select the “i”, upper right, it will bring to an information screen that provides all the details of the app.

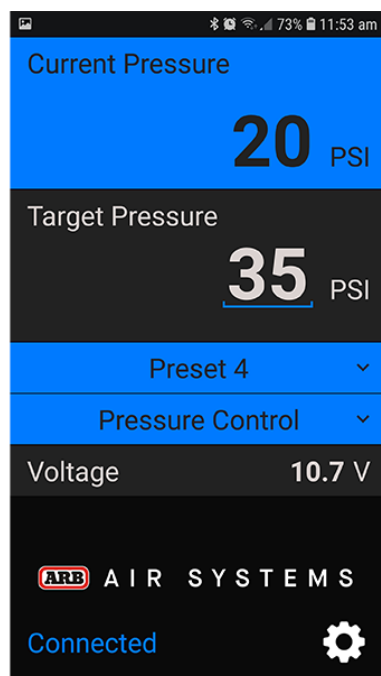


Figure 33

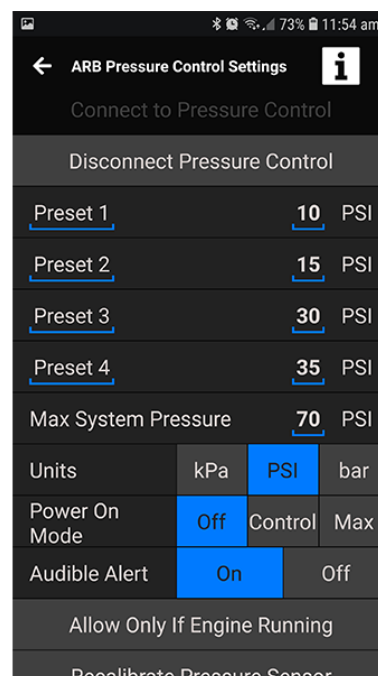


Figure 34

7-B) The following are some recommendations for the initial set-up. Bear in mind the recommended settings may need to be adjusted based on your vehicle weight, wheel / tire combination and conditions of the terrain. And the names for each preset can be adjusted to your preference.

- **DO NOT** use the “Recalibrate Pressure Sensor” function after installing the system. The pressure sensor is set properly from ARB.
 - This is only required in rare cases and if not done properly it will cause an incorrect pressure reading on the app resulting in the system not functioning correctly.
- **Read** the Quick Start Guide provided by ARB with the Pressure Control. It does have some helpful info and tips.
- Set the “Max System Pressure” to 90 psi.
 - There is no need to continually run the system at full pressure (150 psi). It can be adjusted later if needed.
- Change “Preset 1” to “Off Road” and set to your desired off road tire pressure.
 - This will be your air down to pressure for off-road conditions.
- Change “Preset 2” to “Road” and set to your desired on road tire pressure.
 - This will be your normal daily use tire pressure.

7-C) **System Use** – Airing down and up all 4-tires is simple with your new 4-Tire Air System.

Airing Down: Connect your two (2) airline sets to the passenger and driver side seat connections. Then hook the air chucks to each tire. The order does not matter. The Haltec air chucks clip on by pressing on the valve stem and then sliding the silver sleeve towards the wheel to lock it (note: the Haltec air chucks are shipped with the sleeve in the locked position, so you will have to slide the sleeve back for the first use). Once all tires are connected, turn **on** your system switch, open the app, select the “Air Down” preset or enter your desired pressure. Then select “Pressure Control” and the system will start airing down. Once complete, select “Pressure Off”. Turn **off** your system switch. Disconnect air chucks first then remove airlines from seat connections.

Airing Up: Repeat what was done above to connect everything and turn **on** the system. Select the “Road” preset or enter your desired pressure. Then select “Pressure Control” and the system will start airing up. Once complete, select “Pressure Off”. Turn **off** your system switch. Disconnect air chucks first then remove airlines from seat connections.

STEP 8 – System Tips

- 8-A) The last part in your parts bag should be a black plastic plug. Keep this somewhere safe in your Jeep. It is used to close off one seat connection if you happen to only be using one side (i.e., to fix a flat or air up another vehicle). **DO NOT store it in one of the seat connections.** It will get broken off!
- 8-B) If you have dual valves on your wheels, use the valve without the TPMS sensor. Deflation / inflation will be quicker.
- 8-C) The system is designed to be flexible in that you can air 1, 2, 3, or 4 tires at once since all the air chucks are self-sealing. Also, any of the four (4) airlines can also be used on their own. The same way you connect / disconnect the airlines from the seat connections, each airline can be removed from the splitter and plugged directly into either seat connection. This way you can use a single airline to fix a flat, air up a mattress, fill a bike tire, etc. (Check out [IJKP-32: Air Inflation Accessory Kit](#)). No need to carry a fifth single line since you have four to choose from.

Please contact info@innovativeATproducts.com if you have any questions or feedback.

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The Fine Print

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