IJKP-14 / Installation Instructions

4-Tire Air System Add-on Kit for Under <u>Hood</u> Mounted ARB Twin Compressor (CKMTA12) Jeep JK Unlimited (2007 - 2018) / Jeep JK (2007 - 2010) Made in USA

Kit Contents:

- 2 Brackets with Quick Connect Bulkheads
- 6 M6x16mm Button Head Bolts / Nuts
- 1 Quick Connect 90⁰ Fitting
- 1 Quick Connect T-Fitting
- 1 1 ft section of Black Nylon Tubing
- 1 4 ft section of Black Nylon Tubing
- 1 7 ft section of Black Nylon Tubing
- 2 Double air lines (10ft) with 2 Y-Connectors and 4 Air Chucks
- 1 Quick Connect Plug
- 2 5/16" Ring Terminals for ARB Harness to Battery (Red)
- 2 22-18 Gauge (Red) Quick Splices (1 Scotchlok / 1 T-Tap Set)

Tools Required:

- Marker
- Drill
- 1/4" Drill Bit
- Ratchet
- 10mm Socket
- 10mm Wrench
- 4mm Allen Wrench
- T-30 Torx
- Crimping Tool

Other items required (not Supplied):

- Mounting location for the supplied ARB Compressor Switch. Options:
 - o Daystar makes a Lower Dash Switch Panel or A-Pillar Mounted Pod
 - o Cut an opening in dash or console for switch
 - o Direct wire to an sPOD Switch Panel (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 – Compressor Preparation

1-A) Follow the instructions provided with the ARB compressor to rotate the outlet as far down towards compressor body as possible while maintaining the ability to tighten the provided 90° fitting. This ensures clearance the hood is closed. Ensure the 90° fitting and bolt for outlet are tightened to prevent leaks.



Figure 1

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

DISCONNECT THE BATTERY BEFORE PROCEEDING

STEP 2 - Quick Connect Brackets and Air Line Installation

2-A) For 2013+ Jeeps, simply use a ¼" drill to drill out the two existing holes on the outer side seat frame rail of passenger seat as shown in Figure 2. Drill out the same two holes on the driver's seat. Skip to Step 2-C.



Figure 2

- 2-B) 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). Using the holes in one of the quick connect brackets; mark the holes on the outer side seat frame rail. Align bottom edge of bracket with bottom edge of seat frame rail. Mark the holes and drill the three ¼" holes in the outer side seat frame rail. Repeat on other seat.
- 2-C) 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 3. Drill a ¼" hole at your mark. Repeat on other seat.



Figure 3

2-D) Bolt the bracket and quick connect bracket to the <u>inside</u> (towards center of vehicle) of the outer side seat frame rail as shown in Figure 4.



Figure 4

2-E) Remove the rocker panel on the driver side. Pulling up on the panel near the push pins (2) will help release the pins 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 driver side. A small flat head screwdriver will help get it started. It can then be pulled off. Run the 7ft section of the black nylon tubing as shown in Figures 5, 6, and 7. Connect tubing to compressor fitting by pushing in firmly. Reinstall plastic trim and black nylon tubing should be run as shown in Figure 8.



Figure 5 Figure 6



Figure 7 Figure 8

2-F) Remove the rear two screws from the center console as shown below. Now fish the 4ft 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. Use the pictures below as a guide as to where the tubing will end up going in and out. Placing something under the rear part of the console will help hold it up while fishing the tubing up and over.



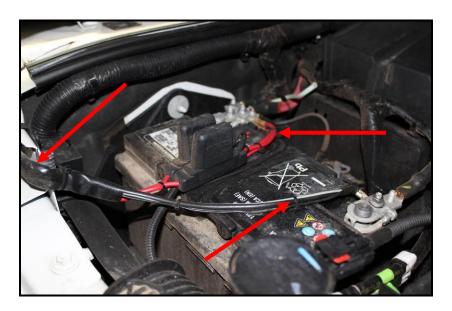
Driver Side

Passenger Side

- 2-G) Reinstall the two rear screws in the console when complete.
- 2-H) Connect the rest of the black nylon tubing as follows (press the tubing in firmly until it bottoms out at each connection):
 - 4ft section from passenger side quick connect bracket fitting to tfitting under driver seat
 - 1ft section from t-fitting (the center connection) under driver seat to driver side quick connect bracket fitting.
 - 7ft section remaining side of t-fitting under driver seat.

STEP 3 – Wiring Harness Installation

3-A) Attach the ARB harness to the battery. Both positive wires (red) should be placed in one of the provided connectors. Crimp and use a heat source to seal. Attach to positive terminal of battery. Use the second 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.



NOTE: If you are running a <u>sPOD proceed directly to Step 4</u>.

- 3-B) Follow the ARB instructions to connect the ARB switch harness (the one with all connectors) to the long ARB harness. ARB provides a 4-pin white connector to join the two sections. The other end of this 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 <u>red wire w/ yellow stripe</u>, and a <u>blue wire w/ white stripe</u>. The other two sets of terminal connectors are for front and rear air locker solenoids which are not applicable to this installation.
- 3-C) Run the end of the harness with all the connections described above to your switch location. Install the provide ARB switch and connect the terminals as indicated in the ARB wiring diagram.
- 3-D) Connect the <u>red wire w/ yellow stripe</u> to the <u>pink wire w/ white stripe</u> using the provided red Scotchlok as shown below. It is located under the steering wheel behind the dash panel. That panel is removed by grapping 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.



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



STEP 4 – for sPOD Connection Only

Note: Two female spade connectors, one terminal spade connector, one ring terminal, 22-18 gauge *red* wire, 22-18 gauge *black* wire are suggested (not provided in kit). Note, the ARB switch harness is not used for this method.

4-A) Install the white connector onto the long ARB harness. The connector is usually attached to the harness in a little plastic bag (refer to the ARB instruction manual). Once complete, use a female spade connector to connect a *red wire* to the male spade connector of the *purple wire* in the ARB white 4-pin connector. Now run the *red wire* to the switch connection of your choice on the sPOD under the hood. You will not need to connect the corresponding ground at the sPOD. However, you will need to use a female spade connector to connect a *black wire* to the male spade connector of the *black wire* in the ARB white 4-pin connector and run the other end to a ground location. There are a number of options under the hood.

STEP 5 – System Check

5-A) Plug each airline set-up into each side of Jeep (if you have the Air Down / Air Up Tool, remove it from the system for now). Turn on compressor. It should run for a few seconds then shut off (when it reaches the pressure safety switch built into the compressor). The system should be able to sit for a few minutes without the compressor cycling. If after a few seconds or even 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 tight. Once everything is ok, TURN OFF the compressor. Then push any one of the air chucks onto a valve stem to relieve pressure in the system, then the airlines can be removed from each side of Jeep or proceed to set-up the Air Down / Air Up Tool (see IJKP-18 instructions).

STEP 6 – System Tips

- 6-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). <u>DO NOT</u> store it in one of the seat connections. It will get broken off! See Quick User Guide for additional details.
- 6-B) 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. 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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