

# **GEN2 INSTALLATION INSTRUCTIONS**

# Part# 218-1819

# Jeep® JL AIR IT UP® 4 Tire Inflation System (Requires External Air Source)



#### IMPORTANT INFORMATION - PLEASE READ FOR YOUR SAFTEY



PLEASE TAKE A MINUITE 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.

#### **SAFTEY 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.

#### FOR BEST RESULTS ALL 4 TIRES NEED TO BE CONNECTED

#### NEVER DRIVE WITH THE WHIPS CONNECTED TO YOUR JEEP MAJOR DAMAGE CAN OCCUR!

#### **TOOLS NEEDED**

- Cordless Drill
- 5/16" Drill Bit
- Thread Sealer

#### (Loctite 577—or Teflon tape)

- Spray Bottle with Mild Soapy Water
- Phillips Head #2 Screw Driver
- Tube Cuter or Sharp Utility Knife

#### **WRENCHES**

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

#### 3/8" 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. Begin installation step 1



<sup>\*</sup>Special cut 9 /16 socket for 90 degree installation





#### Always:

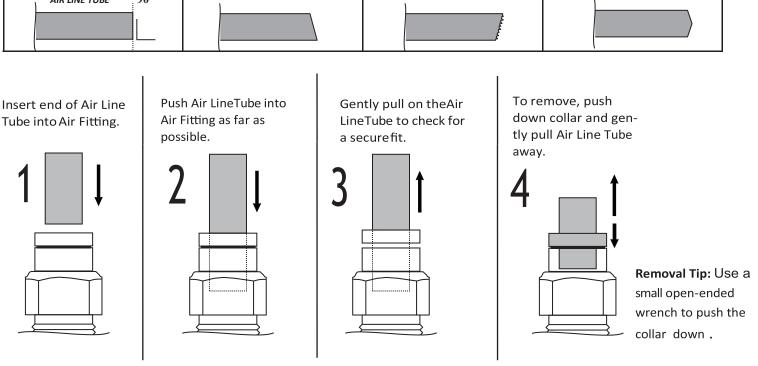
Use a tube cutter or sharp utility knife.

#### 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

# Square Cut AIR LINE TUBE 90° AIR LINE TUBE AIR LINE TUBE AIR LINE TUBE



#### 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.

Air It Up!





|            |     | 218-1819 - Installation BOM   |
|------------|-----|---|
| PART#      | QTY | DESCRIPTION   |
| 01-200     | 8   | Quick Release Chucks with Betty Bar                                       |
| 02-108-122 | 4   | 3/8" Green Air Line 48"- For Tire Whips                                   |
|            |     |   |
| 218-1819   | 1   | Jeep JL ADS Controller - 80 max psi                                       |
|            |     | ·   |
| 01-201     | 4   | Body Mount Schrader Valve - Push to Connect                               |
| 05-133     | 4   | 3/8" Flat Washer  |
| 01-210     | 2   | 3/8" X 3/8" Push to Connect "Y"   |
| 01-105     | 1   | 3/8" Push to Connect "T"  |
| 05-115     | 10  | 8" Cable Tie  |
| 05-117     | 4   | Vinyl Cap   |
|            |     |   |
| 02-208-231 | 2   | 3/8 Black Air Line 91" - 3/8" "Y" to Rear Body Mount Schrader Valve       |
| 02-203-229 | 2   | 3/8 Split Loom 90" - Cover for 02-100-231                                 |
|            |     |   |
| 02-200-41  | 2   | 3/8 Black Air Line 30" - 3/8" "Y" to Front Body Mount Schrader Valve      |
| 02-203-39  | 2   | 3/8 Split Loom 15" - Cover for 02-100-41                                  |
|            |     |   |
| 02-02-73   | 1   | 3/8" Black Air Line 28"- From Crossover "T" to Driver Side "Y"            |
| 02-104-71  | 1   | 3/8" Split Loom 27"- Cover for 02-102-73                                  |
|            | 1   |   |
| 02-102-43  | 1   | 3/8" Black Air Line 17"- From Crossover "T" to ADS Controller "Y"         |
| 02-104-41  | 1   | 3/8" Split Loom 16"- Cover for 02-102-43                                  |
| 02-102-157 | 1   | 3/8" Black Air Line 62"- Firewall Crossover to "T" and Passenger Side "Y" |
| 02-104-155 | 1   | 3/8" Split Loom 61"- Cover for 02-102-157                                 |
| == == ==== |     |   |
| 09-102     | 1   | Whip Bag  |
| P.         | •   |   |



#### Overview

The following illustration (Figure 1) will give you an overview of how the Up Down Air® air delivery system works. The illustration will not only help understand how the system works, but also help you identify the parts for installation. Please note that the illustration is not to scale.

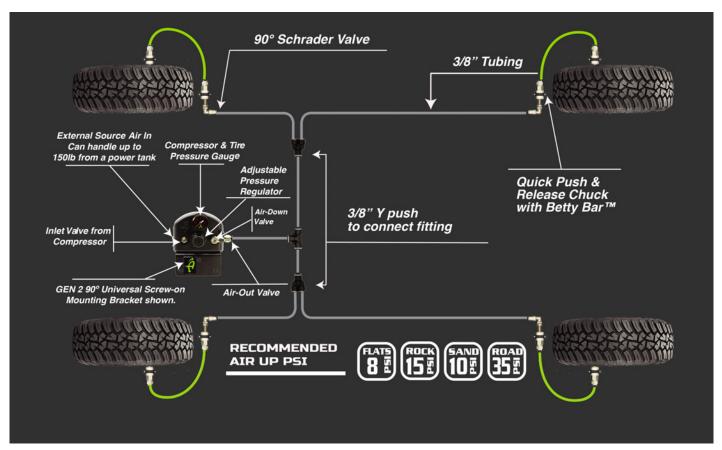


Figure 1



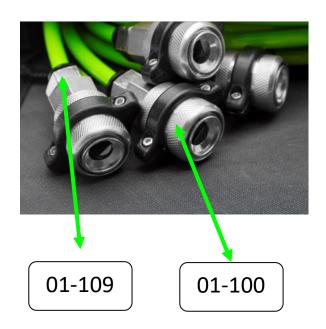
# Lip Up!

# **IF QUICK CONNECT CHUCKS COME PRE-ASSEMBLED SKIP TO NEXT PAGE**

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

For our first step we will assemble the Quick Disconnect Chucks for the tire whips. You will need 14mm wrench, 16mm wrench and thread sealer.

- 1. Apply thread sealer to the 01-109 and screw into 01-100 and stop when hand tight.
- 2. Once the hand tight continue to tighten for 2-3 full rotations using the wrenches. Repeat for all.
- 3. Insert the green air line into the each end of Quick Disconnect Chuck . Repeat for all.





<sup>\*</sup> if chucks begin to leak upon connection, remove and switch ends to allow the internal plunger to reset itself.

Air It Up!

Our next step is to assemble all the air lines that install in your Jeep. We will start with the 3/8" air line assemblies. Gather all the 3/8" black air line, split loom, Body Mount Schrader Valves and "Y" connectors.

- 1. Put one 01-201 (Body Mount Schrader Valve) on one end of each air line.
- 2. Next pull each air line through each split loom.
- 3. Next insert one long and one short air line assembly into the "Y" connector and repeat. You should now have two "Y" assemblies.



Gather all the 3/8" black air line, split loom, and the "T" connector.

- 1. Pull each air line through each split loom.
- 2. Install the 62" and 28" air line into the "T" connector making one long piece
- 3. Install the 17" air line in the perpendicular port of the "T" connector.



Air It Up!



This is where we will be drilling the holes to place the Body Mount Schrader valves on the body of your Jeep. The places we have selected are recommended but are not the only place to mount the Body Mount Schrader valves. \*We have included a little extra length of air line to allow for alternate mounting spots.

Starting on the passenger's side **REAR** wheel well, locate the black push rivet and remove it. Place the Schrader in the hole where the push rivet was located. You may need to drill for more clearance.









<u>Front Schrader location</u>— For the Front Schrader you will need to look for a safe location in the wheel well, away from contact with the tire. Drill a 5/16 hole and place the Schrader valve in that spot.





#### Air line assembly

The air lines that you pre-assembled are in four sections:

- (2) 3/8" Front to Rear "Y" sections with Schrader valves attached (144")
- (1) 3/8" Firewall Cross-over with 3/8" "Tee" attached (85" + 28")
- (1) Cross-over "T" to ADS Control Unit (18")

**First**, lay in the **3/8" firewall cross-over section**. You will run the tubing under the factory clips along the firewall of the jeep, also use supplied cable clips. Place the "T" connector on the passenger side behind the fuse box. Continue to run your other 3/8" tubing from the other open port behind the fuse box to the inside of the fender where it will be connected to the "Y" connector for the 3/8" tube. You can run the driver side 3/8 tube to the driver side inner fender as well.





Air It Up!



First select one of the **3/8"** Front to Rear "Y" sections with Schrader valves and go to the front passenger side and lay the "Y" fitting towards the front of your Jeep. Pull the 3/8" firewall cross-over tube down from the inner fender until it is visible and accessible to the "Y" and connect.







You can repeat this process on the driver side. Once all fittings connected you can now pull up the slack and secure with cable ties. We will now run the 3/8 line down the passenger and driver side of the jeep.





We suggest running tubing through the body on the underside of the jeep like seen in pictures, but as long as they are placed in a safe route away from damage, installer may choose any location. Now attach the 3/8 line into the Schrader's placed in the wheel well.





Air It Up!



Once all air lines are ran though the jeep you can go back and secure any loose lines with zip ties, be sure to keep the air lines away from exhaust or any moving parts of the vehicle.



You will now go back to your engine compartment and connect your final piece of 3/8" tubing into the remaining port on the "T" connector and then let sit until we mount the ADS controller.



Air It Up!



Now we will install the ADS Controller into the engine bay. This is a simple bolt in operation. You will need a 10mm wrench or socket.

Remove the rear most fender bolts on the passenger side near the battery using a 10mm





You can now place the ADS controller in that spot and fasten using the factory fender bolts. attach the remaining 3/8 tubing into the push connect on the right hand side of the controller.

90 swivel for direct air source is either pre installed or requires a 9/16 wrench for installation







Congratulations you have now completed the install of your new Air It Up® 4 Tire on Board ADS System.

# Please perform the following pressure tests.

- 1. Pressurize your system with no whips connected to ensure all Schrader's are sealed and everything is working properly (release pressure on each valve to make sure all flowing equal)
- 2. Connect all your tire whips to the Body Mounted Schrader valves and the tires. Note the tire pressure on the ADS Controller gauge.
- 3. Listen and Inspect all connections for leaks.
- 4. If you think you have a leak spray mild soapy water at the fitting and look for bubbles.
- 5. If you find a leak. Please refer to our trouble shooting section.

(Take a few minutes to try different settings and get familiar with the system)

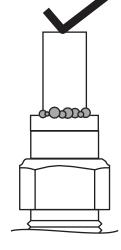
Air It Up!



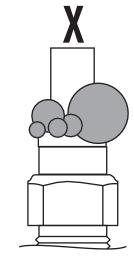
### **LEAK INSPECTION**

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.



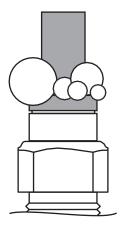
SMALL SOAP BUBBLES THAT DO NOT EXPAND



SOAP BUBBLES THAT EXPAND

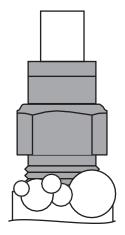
#### **LEAK CORRECTION**

LEAK AT AIR LINE
TUBE AND AIR FITTING



Release Air Line Tube. Review proper cuts and procedures.

LEAK AT BASE OF AIR FIT-TING ON AIR SPRING



Tighten Air Fitting one turn or until leak stops.

Air It Up!

LEAK OUT OF THE VALVE CORE
ON INFLATION VALVE



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



# Congratulations!

You have now completed the install of your new ARB Compressor and or ADS System.

WARNING: YOUR REGULATOR HAS NOT BEEN PRESET FROM THE FACORY, AND MUST BE SET AFTER INSTALLATION.

# How To Use Your **UP Down Air®** Air Delivery System.

#### Airing down your tire pressure.

While the vehicle is parked and in a safe place, connect all 4 quick connect hoses to your tire valve stems and to the installed 90° Schrader valves.

In the engine bay, go to the controller box. On the right-side controller box is the release valve lever. Open the release valve and now you're airing down all 4 your tires at the same time. Close the valve and it will now read your current tire's air pressure. *It's That Simple!* 

\*The first time you air down your tires, keep track how long it takes so you are able to set a timer next time you air down your tires.

## Checking and Setting your Tire & regulator pressures or airing up your tires.

This is how the system works for airing up:

Our ADS System uses a simple dial type pressure regulator that can be adjusted to allow more or less air in the system by turning the black regulator knob *clockwise* to release the air or *counter-clockwise* to reduce the air pressure.

With your green Quick Connect hoses completely removed, turn the compressor on, and within 10 seconds the compressor should come to a stop or turn on & off. The pressure gauge needle will show the pressure from the compressor. This is how you dial the regulator in to set your desired Tire Pressure. You should now push the knob down to set it.

In order to fill all 4 of your tires you will need to tightly connect all 4 quick connect hoses to your tires valve stems and to our special 90 °Schrader valves stems. To insure there are no leaks, please rotate the chucks a quarter turn clockwise to create a tight seal to the valve stems.



Now after connecting all 4 of the quick connect hoses to the valve stems and the Schrader valves, the gauge dial needle will now reading the pressure from all 4 of the tires. At this time, you may start your engine and turn the compressor on.

While your compressor is connected and turned on, along with your vehicle being started, start turning the dial *clockwise* to allow *higher* PSI. Turn the dial *counter clockwise* to *lower the* PSI.

When the compressor pulsates or turns on and off, and you are not at your set tire pressure, then immediately turn black knob clock-wise to allow air to escape into the regulator lower chamber. This will re-activate the ARB compressor, and as you turn the dial, you will notice the compressor speeding up.

If your tires are at the desired pressure, you may now turn your compressor off and safely store your hoses with the convenient storage bag provided.

Do Not your let the compressor cycle on and off, as this means your ARB compressor is not supplying any more airflow, so the compressor is not producing any further air at this time and should be turned off immediately to avoid blowing fuses. If you're ARB compressor blows a fuse or suggestion is go to an auto parts store and buy name-brand 50 AMP fuse as the ARB seems to be equipped with a lesser quality fuse.

We sure hope you enjoy your system our goal is to offer a trouble-free easy to use products.



Air It Up!