



## AiROCK™ Installation Instructions

Thank you for purchasing one of the most unique Jeep accessories currently available. We have designed this system to provide more cargo capacity without loss of suspension travel and to give the operator the ultimate in adjustable suspension for the ultimate in off-road performance.



The AiROCK Suspension System is a spring replacement kit designed to be compatible with any 4" or 6" lift aftermarket suspension kit, when the kit has been installed per the respective manufacturer's requirements. Modifications to those requirements may result in incompatibilities and will void the OffRoadOnly Warranty. OffRoadOnly recommends using ORO's Bilstein shock absorbers with the dampening snubbers installed. Failure to do so may cause bottoming of the air spring and will void air spring warranty. Due to the skill required for some operations, OffRoadOnly recommends installation by professional mechanics. Please read all instructions before beginning.

Modification of your vehicle to enhance performance with the parts sold by OffRoadOnly, LLC may create a dangerous condition which could cause serious bodily injury, and the buyer hereby expressly assumed all risks associated with any such modifications. OffRoadOnly, LLC will not accept responsibility for personal injury or property damage arising from the failure of any parts manufactured or sold by OffRoadOnly, LLC.

# AiROCK™ Quick Install Guide



The Controller is designed to be attached to the top center of the dash bezel with the already attached self-adhesive tape. Please clean dash mount thoroughly and prep surface for installation with an alcohol pad. The control cable should be run through the dash and exit on top under the defroster cover.



The AiROCK Control Unit (ACU) can be mounted anywhere under the hood, limited only by the wire harness which is designed to have the main junction at the center of the firewall. This unit will have all four airspring airlines run to it as well as the pressure supply line. This unit is shown mounted on the ABS tray, but may be placed almost anywhere in any position.



The front Airspring assemblies are designed to bolt into the stock location. They **must** be installed so that the “F” mark on the mount is to the front of the vehicle. The upper bump stop mount must be trimmed down to 2” from the steel spring seat, not the isolator. The lower spring mount will have a 1/2” hole drilled in it to match the new lower mount. Use the supplied hose to start the lower nylock nuts inside the bracket. A 3/4” crowfoot wrench is necessary for tightening the right front lower. Insert the airline. Use the airline to feel for the fitting in the tube and push to insert, pull to lock. Ensure that the proper trim technique and trim tool (supplied) is used to trim the airline.



The rear Airspring assemblies are designed to bolt in the stock location as well, as shown. The upper bump stop hole must be drilled to 3/8”, the lower spring plate must have a 1/2” hole put in the center. Remove the rubber upper and plastic lower OEM spring cushions. Insert the airline, again ensuring the proper trim technique is utilized.

# AiROCK™ Kit Components



## KIT CONTENTS

- |                            |                                |
|----------------------------|--------------------------------|
| A: FRONT AIRSPRINGS        | G: SHOCKS                      |
| B: REAR AIRSPRINGS         | H: WIRING HARNESS (SEE PAGE 4) |
| C: STANDARD IN-CAB CONTROL | I: AIRLINE                     |
| D: AiROCK MANIFOLD         | J: SPEED HARNESS (SEE PAGE 4)  |
| E: REAR SENSOR MOUNTS      | K: TUBE CUTTER                 |
| F: FRONT SENSOR MOUNTS     |                                |

## RECOMMENDED INSTALLATION ORDER

- INSTALL ACU
- INSTALL CONTROLLER
- INSTALL AIRLINE
- INSTALL WIRE HARNESS
- INSTALL FRONT AND REAR AIRSPRINGS
- INSTALL SHOCKS
- PERFORM CALIBRATION PROCEDURE

It is recommended to install the airsprings last, since you will need the In-Cab Control to inflate the airsprings before you remove the jack supports from the vehicle.

## REQUIRED TOOLS

- FLOOR JACK
- JACK STANDS
- 3/4" CROWFOOT WRENCH FOR 3/8" RATCHET DRIVE (SEE BELOW)
- RECIPROCATING SAW OR HACK SAW WITH METAL CUTTING BLADE
- STANDARD ELECTRICAL TOOLS
- STANDARD HAND TOOLS
- 3/8" DRILL BIT
- 1/2" DRILL BIT



Crowfoot wrench can be found at most hardware store or tool outlets like Sears or Home Depot usually for less than \$10.00

NOTE: The 1 year Airspring warranty does not cover the Airspring if damaged due to incorrect installation or interference with other vehicle components. Please ensure that there are no bolts, brackets etc, that could come close to interfering with the operation of the air spring.

# AiROCK™ Reference Data

The AiROCK system refers to the four corners of the vehicle in a Numerical pattern. The ACU is labelled with roman numerals that depict which port is for which airspring. For the purpose of this manual and any and all correspondence with ORO, the left and right sides of the vehicle are determined from the drivers seat. American vehicles obviously are left hand drive, therefore drivers side is the left side.

The respective ACU port is shown in the parenthesis.  
The positions are as follows

1. Left Front (I)
2. Right Front (II)
3. Left Rear (III)
4. Right Rear (IV)

For the purpose of this manual, the height sensors are labeled as H1 thru H4, H1 being Height sensor position 1, and H2 thru H4 respectively. So when the harness is labeled H1 in the photo, that is obviously Height Sensor position 1.

The sensors are labeled with a colored sticker. The color of the sticker correlates with the color of the signal wire in the wire harness from that position. The colors and corners are as follows:

1. Left Front - Yellow (I)
2. Right Front - Green (II)
3. Left Rear - Red (III)
4. Right Rear -Blue (IV)

The wire that matches this scheme is the B terminal on the 3 plug connectors for the height sensor harness.

NOTE: Some models may have Violet in exchange of Blue.

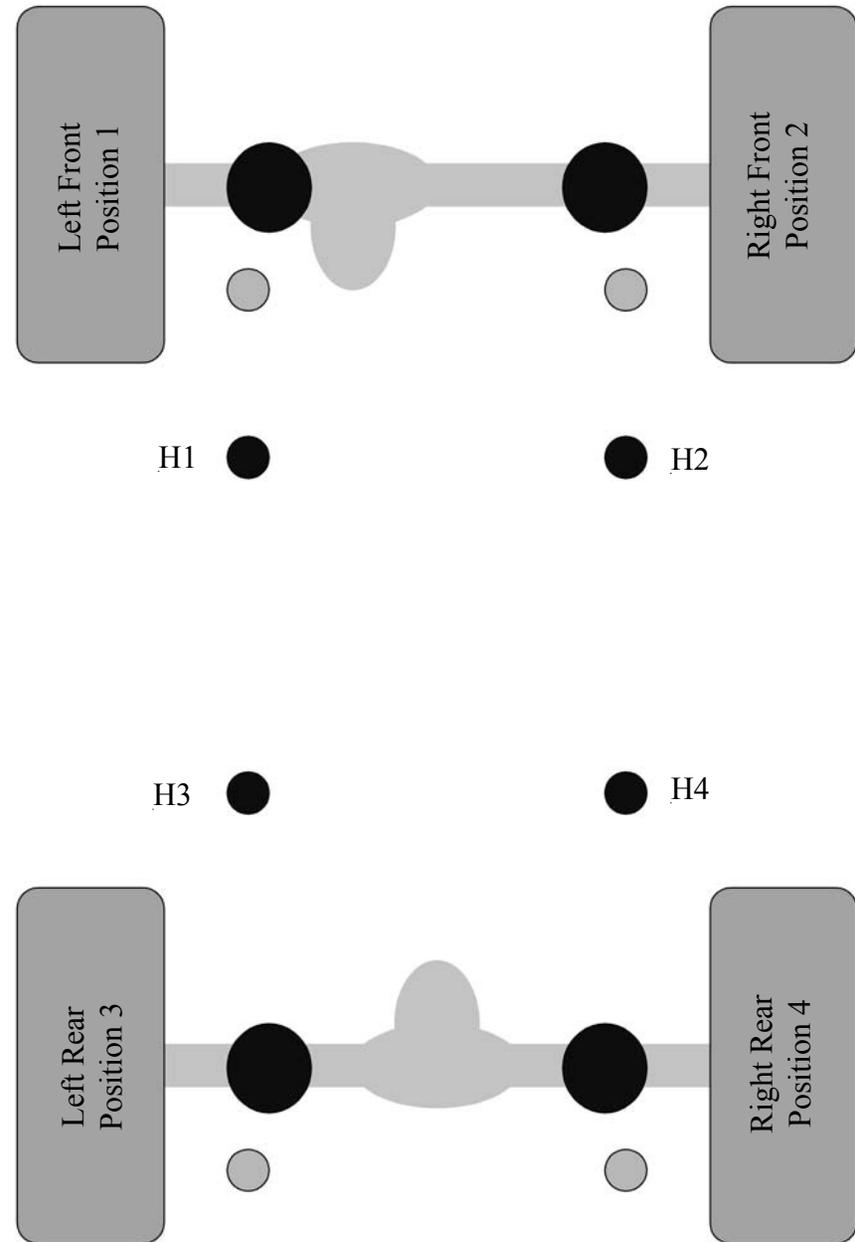


FIGURE 3.1 Simulated Top view of Jeep Chassis to show position relationships

# AiROCK™ Wire Harness

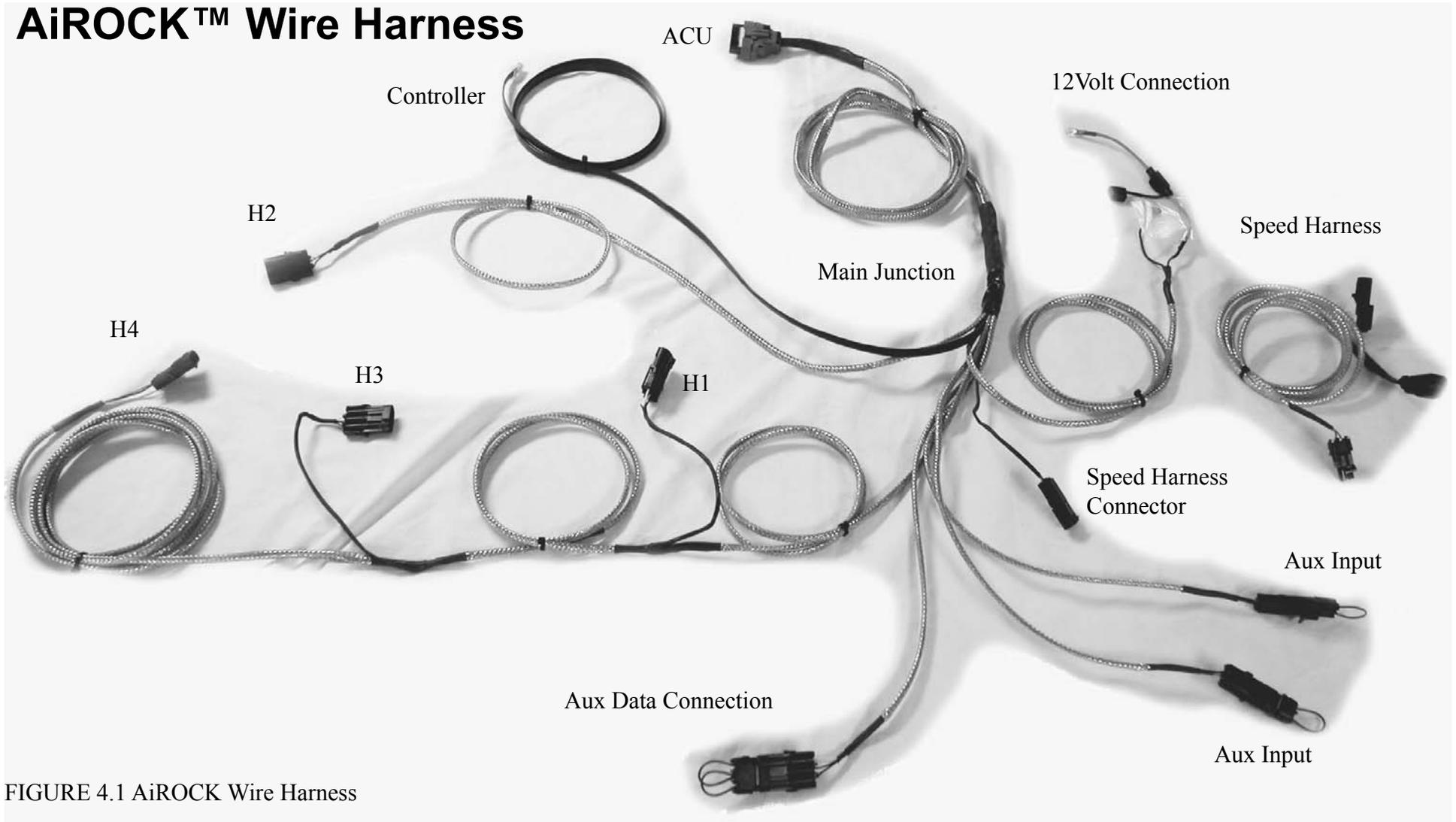


FIGURE 4.1 AiROCK Wire Harness

The harness is designed for a certain layout on the Jeep. The Main Junction point should first be positioned at the top center of the firewall, under the hood (most Jeeps have a mounting tang at this point that the harness may be positioned behind.) The Controller cable will be run through the firewall, find an opening near the accelerator pedal. The H2 harness will run towards the battery and down to the right front sensor. The H1, H3 and H4 harness will run down along the driverside framerail and loop to the passenger side on top of the gas tank crossmember. The 12V connection goes to a 12V continuous power source. The speed harness ties in between the speed sensor and the Jeep harness and plugs into the main harness at the junction. The Aux Input and Aux Data are for future expansion of the AiROCK system.

# AiROCK™ Controller Installation Instructions

The AiROCK Controller is recommended to be placed on top of the center dash bezel. There is only one wire to attach to this unit, the black flat ribbon cable in the wire harness. This cable should be run through the firewall near the accelerator pedal and run up through the dash and may exit under the edge of the defroster cover.

The Controller comes prepared with double back adhesive tape already installed. This tape will adhere to almost anything and if the surface is prepped right, will not come off easily.

To prepare the dash bezel, first clean the area where the controller will be mounted with a good general purpose cleaner. Final prep for the area is a swipe with an alcohol wipe, DO NOT wipe anymore of the dash than necessary as the alcohol may discolor the area that it is wiped upon. Once the area is wiped, peel the adhesive cover off the tape and gently stick the Controller to the dash. The 3M tape used will stick excellently the first time, but if you are able to remove it, it may not stick the second. Make sure it is in the right place the first time.

The wire harness connection to the Controller is as simple as one connection. The flat black ribbon cable gets plugged into socket on the back of the Controller labeled ACU. Simply insert this connector in the proper orientation and push until it clicks and is retained. To release, press the small latching tang and the connector will disconnect from the socket. Do not connect or disconnect this connector while the ACU is powered up. If the connector is removed, the ACU will need to be powered down to replace the connection.

NOTE: If the Display on the Controller shows “AiROCK, OffRoad-Only” and does not change after a few moments, the ACU needs to be power cycled, please remove the fuse and reinstalled to reset the unit.



FIGURE 5.1 CONTROLLER MOUNTED IN RECOMMENDED POSITION ON CENTER OF DASH BEZEL



FIGURE 5.2 CONTROLLER BACKSIDE WITH CONNECTORS. PLUG THE FLAT BLACK RIBBON WIRE INTO THE PORT LABELED ACU. IN THE EVENT THAT THIS CABLE GETS UNPLUGGED, THE ACU NEEDS TO BE RESET BY REMOVING AND REPLACING THE INLINE FUSE. THIS WILL TURN THE CONTROLLER BACK ON.

# AiROCK™ Control Unit (ACU) Installation

## AiROCK CONTROL UNIT

The AiROCK Control Unit (ACU) may be mounted anywhere in any position. The only controlling factor on positioning is that the wire harness is able to reach it. See FIGURE 6.1 to determine the wire harness and air supply positioning. That harness reaches approximately 5 feet from the junction that should be placed at the center top of the firewall under the hood. The ACU should be mounted in areas that allow the airlines and harness to be routed easily to the unit and avoid heat sources that may damage the airline and harness. There are four holes in the black area that are designated to mount the ACU.

Four #6 self tapping screws are included to install this, but should only be used when mounting in a position as shown in FIGURE 6.2. When mounting the ACU on the side or by hanging the unit upside down, please drill through holes in the mounting surface and use nuts and bolts if at all possible.



FIGURE 6.1 ACU SHOWING THE WIRE HARNESS CONNECTION, SINGLE AIR SUPPLY PORT, 4 AIRSPRING PORTS AND THE EX-HASUT MUFFLER

## POWER UP AND RESTTING THE ACU

The harness comes with the fuse installed in a plastic bag, stapled to the harness next to the fuse holder. The fuse should be installed last, after all the other connections to the harness have been made. In the event that you need to restart the ACU, simply pull the fuse, wait 3 seconds, and replace. This will restart the ACU. The most common need for this is when the Controller cable gets disconnected, once reconnected it will display “AiROCK Off.Road.Only”, at that point, pulling the fuse and resetting the ACU will return the Controller to the proper display.



FIGURE 6.2 FIREWALL GROMITT, AVAILABLE ON MOST MODELS

# AiROCK™ Manifold Installation Instructions

## **IMPORTANT! AIR SUPPLY**

The AiROCK™ system requires an air supply that is filtered and regulated to 100PSI max. Failure to comply with this requirement will void any warranty of the AiROCK™ Suspension System. Filter/Regulator units are available from OffRoadOnly SEE FIGURE 7.1. The filter needs to be mounted in a vertical position and is recommended to be mounted as far from any high temp heat source as possible. They may be mounted under the hood. There is a small triangle on the face of the filter, the direction of flow is the direction the arrow points.

## **AIRLINE TRIMMING TECHNIQUE**

The airline and fittings selected for this kit are of the highest quality. These fittings are designed to allow the airline to be pushed into the opening and then give the line a slight tug to seat the internal o-ring. Although these fittings are high quality, it is possible to have a problem if the airline is not trimmed properly before it is inserted into the fitting. Most problems will be an O-ring that is not sealing due to damage by the airline. It is of the utmost importance to utilize the tubing cutter to insure a clean straight cut. Also, make sure there is no burrs or edges on the airline that may damage the o-ring upon installation. SEE FIGURE 7.2

Using the provided tube cutter, trim the airline so that the cut is square to the line itself, to great of an angle will cause a leak. Insert the line into the opening of the fitting. Once a slight resistance is met, a gentle but firm push will result in the line inserting a slight bit further. Give the line a tug, if it is seated properly, the line will not come out. To remove the line, simply push the outer ring of the push fitting towards the fitting while providing a slight pull on the line, once released it will allow the line to be removed. Pulling to hard on the line will not allow it to release. The upper front airspring fitting is down inside the mounting tube. This is difficult to access, but it is possible to install the line and also remove the line without removing the airspring from the bracket. A screwdriver or other tool may be used to reach down in the tube to depress the ring and remove the line.



FIGURE 7.1 EXAMPLE OF FILTER/REGULATOR FROM OFFROADONLY



FIGURE 7.2 AIRLINE BEING TRIMMED WITH SUPPLIED TUBING CUTTER

# AiROCK™ Height Sensor Installation

## HEIGHT SENSORS

The height sensors have been designed to mount to the Jeep chassis without drilling in most cases. The sensors are all preassembled and labeled for their corresponding positions. The label is a colored sticker. See the position guide earlier in this manual for description. See FIGURE 8.1 for the height sensors. The Front Sensor is on the foreground, with the Rear Sensor in the background.

## FRONT SENSOR MOUNTING

The Front Sensor mounts over the top edge of the upper front control arm mount on the chassis. The bracket will have a small lip under the leading edge that is designed to catch the front edge of the mount. There are two holes on the face of the bracket, one of these holes will line up with a hole already in the TJ control arm mount. Place the 1/4" washer over the 1/4-20 Flat head phillips screw as shown in FIGURE 8.2.

Place the sensor brackets on top of the upper front control arm mount and attached with screws provided. Be sure to align the sensor bracket with the edge of the control arm mount. Fine tuning can be done once the linkage is installed. Adjust the bracket side to side to reduce bind in the linkage joints.

## ROUND CONTROL ARM BRACKET AND LINKAGE POSITIONING

For round upper control arms, use the supplied bracket and hose clamp assembly. Position the bracket over the control arm as shown in FIGURE 8.3 The linkage should be placed 4 1/2" from the pivot of the control arm for a starting point. Some systems may need this adjusted to allow the sensor proper movement. The round bracket may be installed on either side, whichever allows for a better alignment of the sensor linkage.

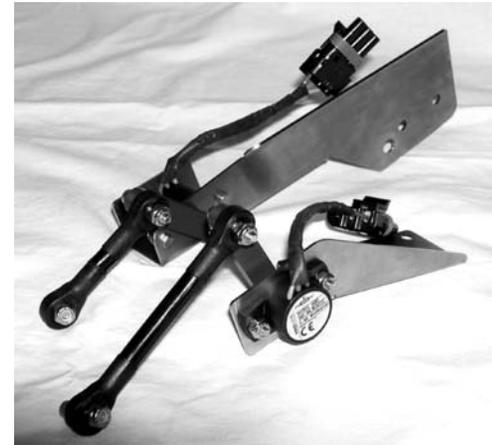


FIGURE 8.1 AiROCK™ HEIGHT SENSORS, FOR STANDARD LENGTH UPPER ARMS MOUNTED TO THE CHASSIS IN THE STOCK LOCATION.



FIGURE 8.2 FRONT SENSOR MOUNTING BRACKET AND MOUNTING SCREW

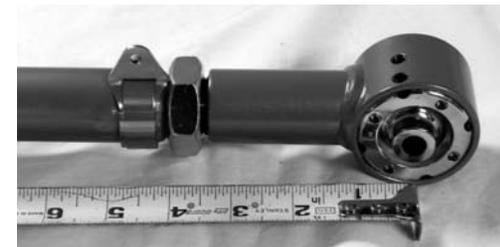


FIGURE 8.3 ROUND CONTROL ARM SHOWN WITH SENSOR LINKAGE MOUNT INSTALLED. NOTE 4 1/2" REFERENCE FROM CENTER OF PIVOT POINT

# AiROCK™ Height Sensor Installation

## REAR HEIGHT SENSOR INSTALLATION

The rear height sensors are designed to be mounted to the inside edge of the rear upper control arm. Using the holes provided in the frame, they attach with self tapping screws, 3 of which are included in the kit, the fourth screw you will reuse the rear brakeline attachment screw on the driverside. The rear brackets have a little sensor protector/heat deflector on them. These brackets should be mounted so that the shield is towards the rear driveshaft of the vehicle.

## SENSOR LINKAGE INSTALLATION

The height sensors will come with linkage attached to the purple anodized aluminum arm. The other end will need to be attached to the upper control arms. If you have replaced the upper control arms with adjustable units, use the supplied stainless brackets that will encompass the control arm and will be held in place with a hose clamp. Simply attach the sensor link to the bracket and then adjust the clamp so that the center of the bolt hole on the clamp is approximately 4 1/2" from the center of the control arm pivot bolt.

With the stock control arms, a small angle bracket must be used to attach to the control arm. From the bottom, drill a 3/16" hole in the top of the upper control arm approximately 4 1/2" from the pivot bolt. Bolt the angle bracket to the control arm as shown in FIGURES 9.1 and 9.2. Attach the sensor linkage to the angle bracket. Ensure that at full compression and full extension the sensor linkages do not bind, they should not pivot over center either in up or down mode. Some adjustment of the mounting point on the upper control arm may be necessary. Moving the linkage away from the pivot point will help if the linkage is going over center on compression. Moving the linkage closer to the pivot point will help if the linkage is going over center on extension. See FIGURES 9.1 and 9.2 for approximate up and down positions of the linkage arm.



FIGURE 9.1 REAR RIGHT SENSOR SHOWN IN EXTENDED POSITION WITH ANGLE BRACKETS



FIGURE 9.2 REAR RIGHT SENSOR SHOWN IN COMPRESSED POSITION WITH ANGLE BRACKET.

# AiROCK™ Front Airspring Installation Instructions

**CAUTION!** PLACE VEHICLE ON LEVEL SURFACE BEFORE BEGINING, SET PARKING BRAKE AND TAKE ALL PRECAUTIONS NECESSARY FOR SUPPORTING VEHICLE. BEFORE INSTALLING AIRSPRINGS, IT IS RECOMMENDED TO HAVE ACU INSTALLED AND REAT TO OPERATE, AS IT WILL BE NECESSARY TO INFLATE AIRSPRINGS BEFORE REMOVING JACK STANDS SUPPORTING VEHICLE

**NOTE:** LEFT side is DRIVER side and RIGHT side is PASSENGER SIDE when discussed in this manual and the Operations Manual

## FRONT AIROCK AIRSPRING PREPARATION

1. REMOVE LOWER TRACK BAR BOLT. THIS WILL BE NECESSARY TO GAIN CLEARANCE TO INSTALL THE LOWER AIRSPRING NUT. DEPENDING ON WHICH TRACKBAR IS USED, IT MAY BE NECESSARY TO DETACH THE UPPER MOUNT AS WELL TO ALLOW FOR COIL SPRING REMOVAL.
2. DISCONNECT FRONT SWAY BAR FROM AXLE.

**WARNING:** OffRoadOnly DOES NOT RECOMMEND THE USE OF THE AiROCK™ SUSPENSION SYSTEM ON PUBLIC ROADS WITHOUT A SWAY BAR IN PLACE AND OPERATING PROPERLY.

3. REMOVE THE FRONT SHOCK ABSORBERS.
4. RAISE FRONT OF VEHICLE AND SUPPORT FRAME ON JACK STANDS
5. SUPPORT FRONT AXLE WITH FLOOR JACK
6. REMOVE FRONT WHEELS, COIL SPRINGS AND ANYTHING ELSE NECESSARY TO GET TO POINT SHOWN IN FIGURE 10.1

## BUMPSTOP STUB TRIMMING

1. THE FRONT UPPER BUMPSTOP STUB MUST BE TRIMMED AS SHOWN IN FIGURE 10.2
2. MEASURE 3/4" BELOW THE STOCK UPPER SPRING ISOLATOR AND MARK FOR CUTTING AS SHOWN IN FIGURE 10.2 NOTE: PLEASE ENSURE THAT THIS MARK LEAVES 2" FROM THE MARK TO THE UPPER SPRING SEAT.
3. CUT BUMP STOP TOWER TO LEAVE 2" LENGTH REMAINING
4. REMOVE UPPER COIL SPRING ISOLATOR

## LOWER MOUNT

1. REMOVE FRONT LOWER MOUNT FROM THE FRONT AIRSPRING ASSEMBLIES
2. PLACE AiROCK LOWER MOUNT ON LOWER SPRING PAD AS SHOWN IN FIGURE 10.3. USE MOUNT AS TEMPLATE FOR MARKING CENTER OF PAD. DRILL TO 1/2" HOLE. ENSURE THAT HOLE LINES UP WITH HOLE IN LOWER FRONT MOUNT WHEN PLACED OVER THE SPRING PAD.



FIGURE 10.1 FRONT LEFT SUSPENSION WITH TRACKBAR AND COIL SPRING REMOVED, SWAYBAR DISCONNECTED



FIGURE 10.2 FRONT BUMPSTOP STUB MUST BE TRIMMED AS SHOWN



FIGURE 10.3 PLACE AiROCK LOWER FRONT MOUNT OVER SPRING PAD AND MARK FOR DRILLING 1/2" HOLE

# AiROCK™ Front Airspring Installation Instructions<sub>cont</sub>

## FRONT AIROCK AIRSPRING INSTALLATION

1. REMOVE UPPER FRONT MOUNT NUT AND WASHER, INSERT FRONT UPPER MOUNT OF AIRSPRING ASSEMBLY ONTO TRIMMED BUMSTOP STUB, ENSURE THAT THE “F” STAMPED INTO THE BRACKET IS TO THE FRONT OF VEHICLE FIGURE 11.5
2. REPLACE WASHER AND RETAINING NUT AND TIGHTEN. IF 1 7/8” WRENCH IS NOT AVAILABLE, A PIPE WRENCH OR LARGE CRESCENT WRENCH WILL WORK.
3. ROUTE AIRLINE TO PROPER LOCATION, TRIM AS SPECIFIED IN TRIM TECHNIQUE AND INSERT INTO FITTING THRU UPPER MOUNT. ONCE AIRLINE IS INSERTED INTO FITTING, TUG ON AIRLINE TO SEAT SEAL, IF AIRLINE IS HELD CAPTIVE, YOUR CONNECTION IS COMPLETE. YOU MAY NEED TO “FEEL” FOR THE FITTING WITH THE AIRLINE TO DETERMINE THE CORRECT POSITION TO INSERT THE AIRLINE INTO THE FITTING. SEE FIGURE 11.2
4. PLACE FRONT LOWER MOUNT ON SPRING PAD SEE FIGURE 11.3
5. MANUEVER AXLE WITH FLOOR JACK TO POSITION LOWER AIRSPRING STUD THRU LOWER MOUNTS, INSTALL 1/2” NYLOCK NUT UNTIL SEATED ON NYLOCK. DO NOT TIGHTEN YET. SEE FIGURE 11.4 FOR LEFT MOUNT, SEE FIGURE 11.1 FOR RIGHT MOUNT
6. LOWER RIGHT AIRSPRING RETAINING NUT IS ACCESSED THRU SLOT FOR LOWER TRACK BAR MOUNTING BOLT. PROVIDED IN KIT IS A 6” PIECE OF 7/16” CLEAR HOSE. THIS HOSE MAY BE INSERTED THRU NYLOCK NUT AS SHOWN IN FIGURE 11.2. UTILIZE THE HOSE TO START THE NYLOCK NUT ON THE LOWER RIGHT MOUNT.
7. WHEN BOTH AIRSPRINGS ARE INSTALLED, INSTALL ORO BILSTEIN SHOCKS, REPLACE TIRES ONTO AXLE AND LOWER FRONT TIRES TO THE GROUND.
8. USING IN-CAB CONTROL, INFLATE BOTH FRONT AIRSPRINGS TO APPX 45 PSI, OR UNTIL THE WEIGHT OF VEHICLE IS PARTIALLY SUPPORTED BY AIRSPRINGS.
9. TIGHTEN LOWER MOUNTING NUTS AT THIS TIME, IF YOU TIGHTENED THEM BEFORE NOW, LOOSEN AND RETIGHTEN THEM TO ALLOW THE AIRSPRING TO SEAT ITSELF PROPERLY. CAUTION: DO NOT REMOVE THESE NUTS WITH PRESSURE IN THE AIR SPRINGS
10. REASSEMBLE TRACKBAR, SWAY BAR AND ALL OTHER ITEMS NECESSARY FOR OPERATION



FIGURE 11.2 FITTING LOOK-  
ING DOWN FRONT MOUNT STUD



FIGURE 11.3 LOWER FRONT  
MOUNT IN POSITION



FIGURE 11.4 NUT ON LOWER LEFT  
MOUNT VIEWED FROM UNDER SPRING  
PAD

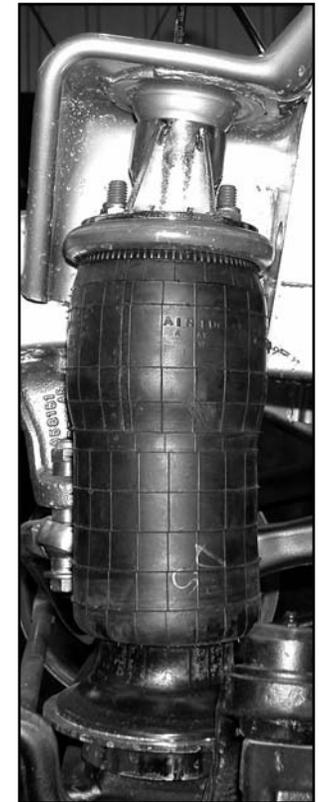


FIGURE 11.1  
FRONT AIRSPRING INSTALLED



FIGURE 11.5 FRONT UPPER MOUNT  
MARKED WITH “F” POSITION THIS  
TOWARDS THE FRONT OF VEHICLE

# AiROCK™ Front Airspring Installation Instructions<sub>cont</sub>

## LOWER RIGHT FRONT MOUNT INSTALLATION

NOTE: DUE TO THE TRACK BAR MOUNT, THE LOWER RIGHT MOUNT IS DIFFICULT TO GAIN ACCESS. THE PHOTO'S ON THIS PAGE SHOW THE NUT BEING INSERTED AND STARTED WITH A SECTION OF HOSE THAT IS PROVIDED WITH THE KIT. THERE ARE A COUPLE WAYS TO GET THIS NUT STARTED. ANOTHER EXAMPLE SHOWN IS TO USE A SMALL SWIVEL SOCKET AND SOME TAPE. SEE FIGURE 12.5 ONCE THE NUT IS STARTED A 3/4" CROWFOOT WRENCH WILL BE NEEDED TO TIGHTEN THE NUT.

1. POSITION LOWER MOUNT ON SPRING PAD AS DESCRIBED ABOVE.
2. INSTALL LOWER SPRING SO THAT 1/2" STUD PROTRUDES THROUGH MOUNT AND SPRING PAD.
3. POSITION NUT AND HOSE TOOL OR SIMILAR DEVICE AS SHOWN IN FIGURE 12.4
4. STUD WILL BE OFFSET FROM THE OPENING IN TRACK BAR MOUNT. USING HOSE, POSITION NUT ONTO STUD AND FLEX HOSE AS NEEDED TO START NUT
5. UTILIZE 3/4" CROWFOOT WRENCH, INSERT INTO OPENING AND ATTACH TO EXTENSION TO TIGHTEN NUT TO POINT OF NYLOCK ENGAGEMENT
6. INFLATE AIRSPRING TO APPX 45PSI AND THEN TIGHTEN NUT COMPLETELY
7. REASSEMBLE TRACK BAR, SWAY BAR AND ALL OTHER COMPONENTS AS NECESSARY

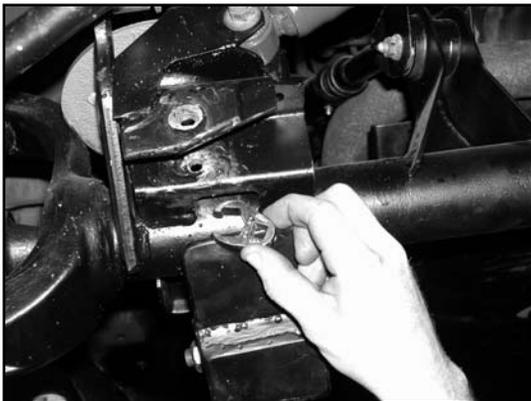


FIGURE 12.3 INSERT CROWFOOT WRENCH INTO OPENING TO TIGHTEN NUT



FIGURE 12.4 UTILIZE NUT INSERTION TOOL TO START NUT ON STUD



FIGURE 12.1 TRACK BAR BRACKET BOTTOM VIEW, NUT MUST BE INSERTED THRU THE SLOT



FIGURE 12.2 PLACE HOSE INTO NON-NYLOCK END OF NUT, PUSH THRU UNTILL ENOUGH THREADS ARE EXPOSED TO START THE NUT



FIGURE 12.5 ADDITIONAL METHOD OF STARTING NUT ON FRONT LOWER RIGHT MOUNT

# AiROCK™ Rear Airspring Installation Instructions

**CAUTION!** PLACE VEHICLE ON LEVEL SURFACE BEFORE BEGINING, SET PARKING BRAKE AND TAKE ALL PRECAUTIONS NECESSARY FOR SUPPORTING VEHICLE. BEFORE INSTALLING AIRSPRINGS, IT IS RECOMMENDED TO HAVE ACU INSTALLED AND READY TO OPERATE, AS IT WILL BE NECESSARY TO INFLATE AIRSPRINGS BEFORE REMOVING JACK STANDS SUPPORTING VEHICLE

**NOTE:** Check the bolt for the rear track at the frame mounting point. Ensure that the bolt does not protrude more than 1/4" thru the nut, if it does, please cut the bolt flush with the nut before installing the right rear spring.

## REAR AiROCK™ AIRSPRING PREPARATION

1. RAISE REAR OF VEHICLE AND SUPPORT FRAME WITH JACK STANDS
2. SUPPORT REAR AXLE WITH FLOOR JACK
3. REMOVE REAR SHOCK ABSORBERS
4. REMOVE REAR WHEELS
5. REMOVE REAR SPRINGS, IT MAY BE NECESSARY TO DETACH TRACKBAR AND SWAY BAR LINKS FOR SPRING REMOVAL
6. REMOVE UPPER MOUNT HARDWARE AND LOWER MOUNT PLASTIC INSERT FIGURE 13.2 AND 13.3
7. DRILL UPPER BUMPSSTOP THREADS TO 3/8" FIGURE 13.4
8. MARK CENTER OF LOWER SPRING PAD, DRILL TO 1/2" FIGURE 14.1 AND 14.2
9. INSTALL REAR AIRSPRING AS SHOWN, PLACE 3/8" LOCKNUT AND WASHER ON TOP OF UPPER STOCK SPRING MOUNT FIGURE 13.1
10. MANUEVER REAR AXLE UP WITH FLOOR JACK TO INSERT LOWER AIRSPRING MOUNTING STUDS THRU 1/2" HOLE IN LOWER MOUNT



Figure 13.1 Rear airspring installed



Figure 13.2 Removal of upper hardware



Figure 13.3: Removal of Lower Mount Insert



Figure 13.4 Drill upper bumpstop mount threads to 3/8"

# AiROCK™ Rear Airspring Installation Instructions<sub>cont</sub>

## REAR AIRSPRING INSTALLATION

1. INSTALL NUT ONTO LOWER MOUNT STUD UNDER SPRING SEAT, TIGHTEN UPPER NUT, TIGHTEN LOWER NUT ONLY TO THE NYLOCK POINT **FIGURE 14.4**
2. INSERT AIRLINE INTO FITTING, ONCE AIRLINE IS INSERTED INTO FITTING, PULL ON AIRLINE TO SEAT SEAL, IF AIRLINE IS HELD CAPTIVE, YOUR CONNECTION IS COMPLETE
3. INSTALL THE REAR **ORO BILSTEIN SHOCKS**, TIRES, AND SWAY BAR LINKS AND ENSURE THAT ANY OTHER COMPONENTS THAT WERE LOOSENEED DURING THE PROCESS ARE TIGHTENED, SET TIRES ON THE GROUND
4. USING IN-CAB CONTROL INFLATE BOTH REAR AIRSPRINGS TO **45PSI**, OR UNTIL THE WEIGHT OF THE VEHICLE IS SUPPORTED BY THE AIR SPRINGS.
5. TIGHTEN THE LOWER REAR MOUNTING NUTS AT THIS TIME, IF YOU TIGHTENED THEM BEFORE, LOOSEN AND RETIGHTEN THEM TO ALLOW THE AIRSPRING TO SEAT ITSELF.  
**CAUTION: Do NOT REMOVE THESE NUTS WITH PRESSURE IN THE AIR SPRINGS**

PLEASE SEE OPERATIONS MANUAL TO DETERMINE “RIDE HEIGHT” AND SET FRONT END ALIGNMENT PROPERLY.



Figure 14.1 Marking Center of Lower Pad, need not be perfect, just as close to center as possible



Figure 14.2 Drilling 1/2” Hole in Center of Spring Pad



Figure 14.3 Install washer and nut on top mount



Figure 14.4 Install nut on lower stud

# AiROCK™ Startup Instructions



## FINALIZING THE INSTALLATION

Once the AiROCK airsprings are installed, along with the shocks, wire harness, ACU, Controller and height sensors, the next step is to inflate the airsprings to 25psi and tighten the lower airspring nylock nuts. You will need to have the air supply working and charged up for this procedure.

## POWER UP THE ACU

With everything hooked up, and the Jeep running if necessary for the compressor to work, plug the ACU fuse into the fuseholder. The Controller display should light up with the “AiROCK” message, and then shift to the menu by displaying “U/D to scroll”

At this point the ACU is working. Pressing the down button will wscroll you thru the menu options. Please see the operation manual for more details on the rest of the menu functions.

## CALIBRATION STEPS

With the system hooked up, powered up and air supply charged, there are a few steps that must be performed before the system is usable. Please refer to the operations manual and perform the following steps in this order.

1. Install AiROCK Airsprings to 25psi. This will inflate the springs and should allow the lower nylock nuts to be tightened properly. Do this before moving to the next step.
2. Calibrate. This will setup the computer to work with the height sensors. Follow the operation smanual procedure and upon completion of this, the system should be ready for use.