On-Board Air Compressor System with Wireless Controller and Smartphone App

Introduction

WirelessAir components include a wireless controller, manifold, wiring harness, compressor, and all accessories needed to connect to vehicle power as well as to the air springs (purchased separately).

It is important to read and understand the entire installation guide before beginning installation or performing any maintenance, service or repair. The information here includes a hardware list, step-by-step installation information and safety information.

USING THE SYSTEM

Refer to the WirelessAir User Guide included with this kit to learn how to operate the system.



NOTATION EXPLANATION

Hazard notations highlight information that must be observed to help minimize risk of personal injury or possible improper installation, which may render the vehicle unsafe.



INDICATES IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.



INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.



INDICATES HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN DAMAGE TO THE MACHINE OR MINOR PERSONAL INJURY.

TOOLS LIST

| DescriptionQty | | |
|---------------------------------------|--|--|
| Power drill1 | | |
| 1/4", 3/8" & 3/16" Drill bits | | |
| 7/16" & 3/8" Socket and ratchet 1 ea. | | |
| Wire stripping/crimping tool1 | | |
| Sharp razor knife1 | | |

HARDWARE LIST

| Item | Part # | DescriptionQty | |
|---------------|--------|--|--|
| Α | 73006 | Wireless controller | |
| В | 72710 | Wireless manifold1 | |
| С | 16192 | Compressor | |
| D | 20946 | Air line (1/4") | |
| Ε | 26897 | Wiring harness | |
| Hardware Pack | | | |
| F | 21838 | Tee 1/4" PTC | |
| G | 24652 | ATC fuse, spade 15A | |
| Н | 24752 | Heat shrink butt splice (10-12GA) | |
| I | 24500 | Fuse holder ATC/ATO | |
| J | 10466 | 8" Zip tie | |
| K | 24748 | 3/8" Ring terminal (10-12GA) | |
| L | 17524 | 1/4"-14 x 1.25" Screw, self-tapping zinc | |
| M | 24661 | Heat shrink butt splice (14-16GA) | |
| N | 24681 | 3/8" Ring terminal (14-16GA) | |

Installing WirelessAir

SUGGESTED COMPONENT LAYOUT

This guide should be used as a general reference. The layout may need modification based on the application.

- Avoid routing air lines and wiring near sharp edges. If passing air lines or wiring through holes in the frame, use rubber grommets (not supplied). Support wiring and air lines every 8-12" (203-305mm) with zip ties or other means.
- Keep wiring and air lines, manifold and compressor at least 6" (152mm) away from heat sources such as the exhaust.
- Manifold and compressor should be no more than 16" (406mm) apart.

CAUTION

PLACE THE COMPONENTS AND ROUTE THE AIR LINES AND WIRING HARNESS TO AVOID HEAT SOURCES SUCH AS THE EXHAUST SYSTEM.

PROTECT AIR LINES AND WIRING ROUTED NEAR SHARP EDGES.

LOCATE COMPRESSOR IN AN AREA OF THE VEHICLE WHERE IT WILL BE SHIELDED FROM DIRECT SPLASH. EXCESSIVE MOISTURE CAN DAMAGE THE COMPRESSOR AND CAUSE SYSTEM FAILURE.

REMOVE ALL FUSES WHEN JUMP-STARTING OR WELDING ON THE VEHICLE. FAILURE TO DO SO COULD DAMAGE THE MANIFOLD.

TO KEEP VOLTAGE DROP WITHIN INDUSTRY STANDARDS, DO NOT EXTEND WIRES. EXTENDING THE WIRES COULD DECREASE COMPRESSOR LIFE.

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MOUNT THE COMPRESSOR

 The compressor can be mounted in any orientation.



BEFORE DRILLING, ENSURE THAT THE BACK SIDE IS CLEAR OF VEHICLE COMPONENTS, INCLUDING BRAKE LINES, FUEL LINES, AND WIRING.

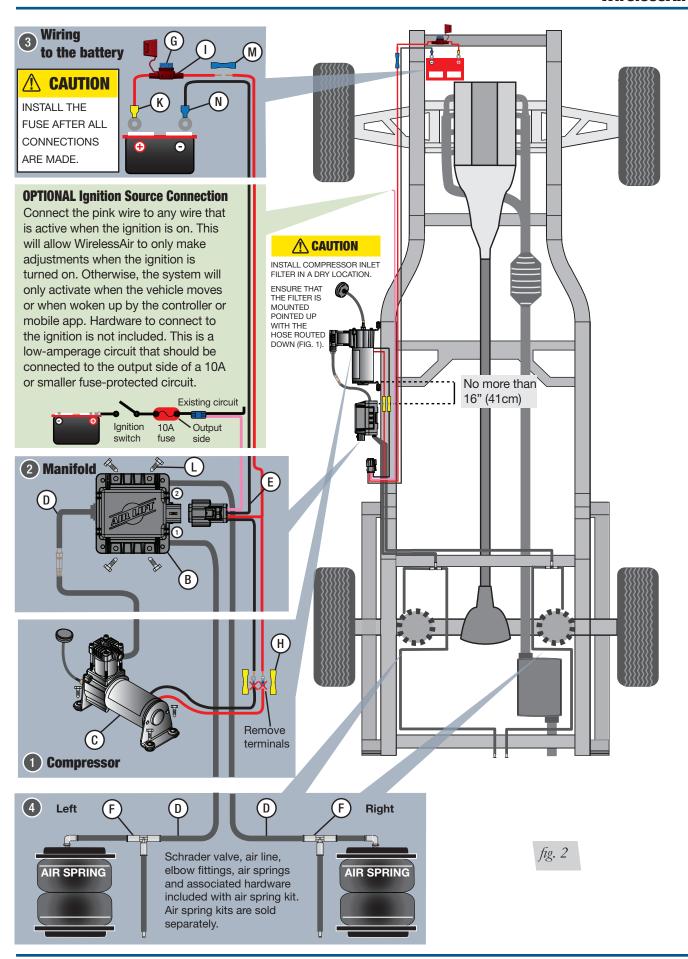
- Use the compressor as a template and mount with the hardware included with the compressor. Use 1/4" drill bit for through bolts or 3/16" pilot for self-tapping screws.
- 3. The compressor ground wire must be connected to the harness (Fig. 2). It cannot be grounded to the chassis.
- 4. Remote mount the compressor inlet filter using the hose and fittings included with the compressor. Install in a dry location shielded from direct splash. Ensure that the filter is mounted pointed up with the hose routed down (Fig. 1).



REMOTE FILTER INSTALLATION

- 1. Screw 1/4" FNPT x 1/4" barbed tube fitting onto inlet air filter, hand tighten. No thread sealant needed.
- 2. Attach 1/4" air line, provided in the filter pack, to barbed tube fitting on remote inlet air filter
- 3. Locate appropriate area where remote inlet filter is to be installed. Keep in mind that location should be dry and away from heat source, and ensure that the air inlet slots on the inlet air filter are free from blockage.
- 4. Secure remote filter appropriately using proper fastening methods or drill a 3/8" mounting hole and push remote filter bracket pin into the mounting hole.
- 5. Route air line to inlet port of the compressor. Measure and cut squarely to appropriate length (Fig. 5). Make sure when routing to keep away from sharp edges and allow for proper bend radius (minimum bend radius for 1/4" air line is 1" [25mm]) to avoid kinking.
- 6. Attach cut end of 1/4" air line to barbed tube fitting of air inlet port on compressor.

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MOUNT THE MANIFOLD

CAUTION

BEFORE DRILLING, ENSURE THAT THE BACK SIDE IS CLEAR OF VEHICLE COMPONENTS, INCLUDING BRAKE LINES, FUEL LINES, AND WIRING.

- 1. The manifold should be located no more than 16" (41cm) from the compressor.
- 2. The manifold can be mounted in any orientation except with the logo facing the ground or with the logo upside down (Fig. 3).
- 3. Using the manifold as a template, drill 3/16" pilot holes. Mount the manifold using the self-tapping screws (L) provided (Fig. 2). Do not over-tighten.

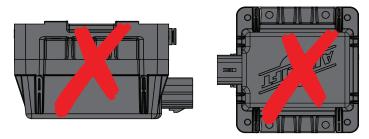
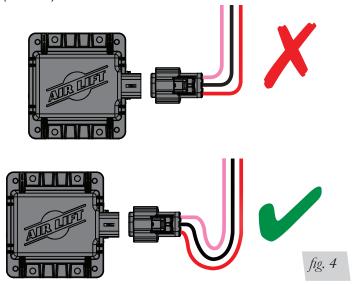


fig. 3

WIRING AND AIR LINE CONNECTIONS

- Route and install an air line (D) from port 1 of the manifold to the driver's (left) side air spring. Route and install an air line (D) from port 2 of the manifold to the passenger's (right) side air spring (Fig. 2). Install tee fittings (F) and schrader valves if manual inflation is desired (Fig. 2). Route and install an air line (D) from port C of the manifold to the compressor (C) PTC fitting. To ensure a proper and clean cut, see Cutting the Air Lines.
- 2. Cut off the terminals on the red and black compressor wires and connect to the short red and black wires on the wiring harness (E) using butt splices (H) (Fig. 2). The ground wire cannot be grounded to the chassis and must be connected to the harness. Route the harness (E) along the frame and make all wiring connections (Fig. 2). Finish by connecting the wiring to the battery. Wait to install the fuse.
- 3. Connect the wiring harness (E) to the manifold (B) (Fig. 2). Press the connector on completely and listen for an audible "click". Ensure a proper drip loop exists to prevent water intrusion (Fig. 4). Install the fuse (G) last. The system will automatically fill to 5 PSI (.34BAR) once the fuse is installed.



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CUTTING THE AIR LINES

Use a sharp knife or a hose cutter and make clean, square cuts (Fig. 5). Do not use scissors or wire cutters because these tools will deform the air line. Do not cut the lines at an angle. The minimum bend radius for 1/4" air line is 1" (25mm). Air lines are to be installed straight into fittings. Inspect the air line for scratches that run lengthwise. Contact Air Lift customer service if the air line is damaged.





To watch a video demonstrating proper air line cutting, go to air-lift.co/cuttingairline.

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