

Dear Customer,

Congratulations on your purchase of a DD Designs Air Ride Kit. We appreciate your business. Thank you for your confidence in us and our product. Before installing the kit, please read this installation manual carefully.



GENERAL INFORMATION:

This kit is suitable for V-Rod Muscle and Night Rod models from 2009 onwards.

CAUTION:

- Avoid damage to air lines and electrical components.
- Removal and installation are only to be performed by fully qualified personnel.
- Installation of this system can be done many different ways. The mounting locations of the compressor and inflation switch are suggestions. Yet, we recommend installing the kit the way it is described in this manual.
- Avoid the possibility of short circuits while working with electric components by consulting your owner's manual on how to disconnect your battery correctly.
- Refer to the Owner's Manual for the bike and instructions for the motorcycle lift for all correct lifting procedures.
- Cover parts that may get scratched during the process, e.g. by protecting them with tape.

WARNING: DO NOT inflate the air ride system until it is installed. Inflation of the air ride system before both ends are supported by the motorcycle's frame and/or appropriate components may result in serious personal injury and/or damage to the air ride system.

The terms Harley-Davidson®, Harley®, H-D®, and V-Rod® are used for reference only. Our products are in no way authorized by nor associated with the Harley-Davidson Motor Company. All references to Harley-Davidson terms and models are for reference and identification purposes only. The use and installation of any kit may adversely affect or void your Harley-Davidson® factory warranty. It is the responsibility of the motorcycle owner to check federal, state and local laws and ordinances before modifying or customizing his or her motorcycle. It is the exclusive and total responsibility of the motorcycle owner to determine the suitability of this product for his or her use. The user shall assume all legal obligations, personal injury risk and all liability duties and risk associated with the use of this product. Our products are designed and intended for the experienced on-road motorcyclists only.

TOOL LIST

- 1/2" Drill Bit
- 1/4" Drill Bit
- Motorcycle Lift
- 3/32 Allen Wrench
- Loctite
- Teflon-tape
- Spray Bottle with water/soap mixture

INSTALLATION

Before you start, use a solid, level surface to position the bike on a motorcycle lift. Lift the bike so the rear wheel is just slightly off the ground. Caution is advised throughout the whole process.

Step 1: Remove air box cover and air filter cover.

Step 2: Connect green hose fitting into air compressor and hose fitting into dump valve using Teflon tape so lines don't leak.

Step 3: Remove the air filter & plug the air intakes to keep debris from falling in.

Step 4: Place air compressor in the front right side of the air box.



Step 5: Place the compressor so that it does not interfere with the air filter or air box cover when closed. Drill two ¼ inch holes like shown below and in the diagram on the last page. Use zip ties to hold down the compressor.



Step 6: drill two ½ inch holes at the top and bottom of the air box like shown below and in the diagram on the last page.



Step 7: Place the relay, fuse, and remote-control relay, and the compressor into the air box. Use the wire diagram on the last page to connect the electrical wires of these four components.

Step 8: Remove the horn cover and drill a ¼ inch hole and insert the toggle switch.



Step 9: Use the diagram on the last page to connect the switch with its corresponding wires.

Step 10: Place dumb valve underneath the seat tray and connect the respective wires.



Step 11: With a zip tie, place the ON/OFF-switch in this location:



Step 12: Remove the stock shocks. Keep the washer from the bottom of the shock bolt as you will need them to install the new shocks later.



Step 13: Start with the installation of the shocks. These two bolts need to be removed with a 3/32 Allen wrench. After this, slide the covers off the air shock.



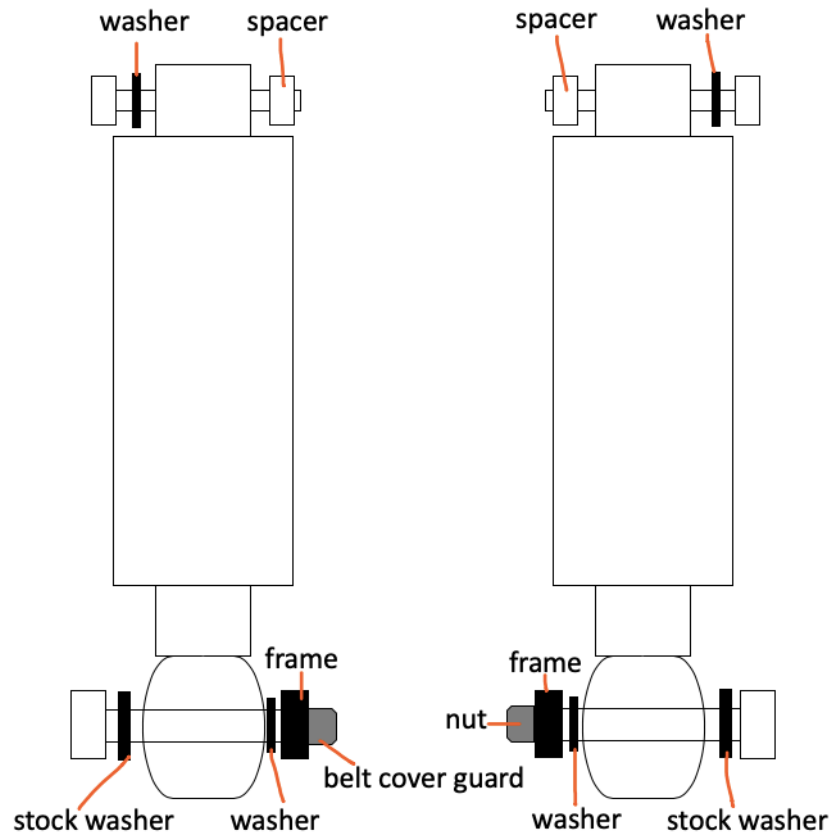
Step 14: Unscrew the cap where the airline goes to the shock.



Step 15: Remove the small O-ring inside as you will use this later on when installing the air line.



Step 16: Follow the diagram below to correctly install the bolts, washers, and spacers. Use blue Loctite on all screws. Mount the top screws first. Put them through the upper eye of the shock, slide on the provided spacer, put Loctite on the screw, and then thread it into the frame. Repeat these steps for the lower shock eye but make sure to slide in the bottom air shock cover before screwing in the bottom bolts with the washers. Tighten both screws to the factory recommend torque: 30-50 ft-lb.



Step 17: Place the top cover of the air shock back on and screw in the screws that you took out in step 13.

Step 18: Plumb the air lines from the air compressor and run them through the air box all the way down to the dump valve. Use the diagram on the last page to see how to plumb the air lines into the shocks.

Step 19: Make sure to slide the cap into the air line and put the O-ring onto the air line and tighten the cap. Put the air line into the shock, making sure the O-ring seals. Tighten the cap (see pictures on next page).



Step 20: Disconnect the positive from the battery and then disconnect the negative. Connect the battery back up again with the air ride kit. Refer to the diagram on the last page to see which cables go where. Make sure to connect the negatives first, and then the positives.

Step 21: Use the ON/OFF switch to turn on your new air ride. Open up the remote-control relay box. The green light should be on.



Step 22: Program your remote control to the system, following these steps:

1. Program: Hold programming button for 5 seconds until red light turns on and off. (Clears Code)
2. Operating mode: Hold down button until red and green lights flash 3 times.
3. Pairing remotes: Press Button until red light turns on. Press A & B on remote key. And then it is programmed. Do the same for the second remote.

Step 23: Lower the lift until both tires are on the ground so that the bike is fully grounded. Test the kit: air up the suspension. Now use a spray bottle with water and soap to spray the air hose fittings for any leaks. It will start bubbling if air is leaking. If this is the case, you need to air out the system, turn the air ride off, and re-seal the fitting that was leaking air with Teflon-tape. Repeat this step if needed until there are no leaks in the system.

