



6900 Marlin Circle, La Palma CA 90623
714.523.8700 , Fax 714.523.3220

Airtail I.A.S. Suspension System for Harley Davidson

Installation Instructions

Manual Fill System

Note: Please read the following instructions completely before starting!

Caution

Follow instructions in an authorized shop manual or take the motorcycle to a competent dealer.

The motorcycle must be securely blocked to prevent it from tipping over when the shocks are removed. Failure to do so can cause serious damage and/or injury.

The use of lowering kits on Progressive Suspension shocks is not recommended. Use of a lowering kit may void the warranty or damage the shock/motorcycle.

Progressive Suspension shocks are designed to work on the OEM (Original Equipment) frame and swingarm. Use of these shocks on a frame or swingarm other than OEM may produce an unsatisfactory ride and void the warranty.

Make sure that proper bushings/sleeves are installed in the shocks. Improper bushings/sleeves can cause unsatisfactory and/or unsafe operation.

Lowering your motorcycle will decrease initial ground clearance. The motorcycle will be lower to the ground and care should be taken to avoid bottoming, especially over bumps or in turns. Lowering a motorcycle can change the handling characteristics. Always use extreme caution when riding after a change is made and take time to get accustomed to any handling change.

Installation

Progressive Suspension's Airtail I.A.S. suspension system is designed as a direct bolt on replacement for your stock shocks. Along with the ability to conveniently adjust both the bottoming control and the ride height, they have vastly improved damping.

1. Place motorcycle securely on a stand or blocks so the rear wheel is slightly off the ground.
2. Per instructions in an authorized shop manual, remove your old shocks. Note location of the mounting hardware.
3. Install the new AirTail I.A.S. shocks with the airlines at the top and facing the frame. Using the appropriate mounting hardware, tighten the mounting bolts to the proper torque specifications (see shop manual for specs).

4. Replace the stock air valve mounting bracket with the new one provided. You will need to remove and re-use the existing air valve(s) in the new bracket, in addition to the new valve provided. See figure 4 for recommended orientation of air valves. Route the airlines (2) from each shock between the fender and strut, to the area under the seat. Make sure the lines won't be pinched, exposed to excessive heat or contact any moving parts. It may be necessary to trim excess airline to avoid these circumstances, however it is recommended that you wait until the entire system has been connected before trimming any airlines. This insures sufficient airline lengths and clearances.

NOTE: The air fill valve and "T" fittings feature high pressure quick connect fittings. To connect the airlines, simply press them into the fitting until they bottom out. They bottom out about 3/16" past the first resistance you feel. If you need to trim the airline, it is vital that you make a square cut with a sharp razor blade (do not use "dikes" or wire cutters) as failure to do so could result in a leak. If you need to disconnect a line for any reason, you simply push in the outer collar on the fitting and pull the airline out. Also, if you disconnect an airline it's a good idea to trim a small amount (approximately 1/8") off the end you pulled out—as a freshly cut and installed line is less likely to leak.

5. Each shock is equipped with two airlines, a black one for bottoming control and a blue one for ride height.

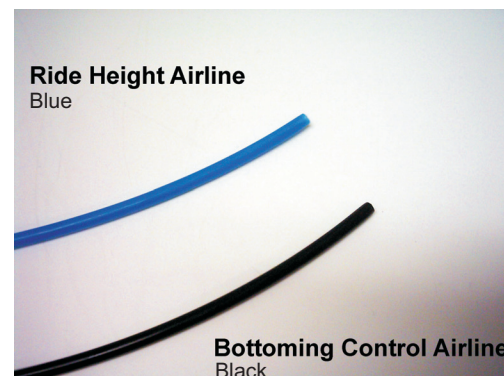


Figure 1

Using a "T" fitting supplied, connect the ride height airline (the blue line) from each shock into the side ports of one of the "T" fittings.



Figure 2

Notice use of Zip-Tie to secure "T" fitting to OEM wire harness.

6. Next, connect the remaining black airline (Bottoming control) from each shock into the second "T" fitting supplied. NOTE: if your bike is equipped with a OEM fill valve with two outlets then connect the black lines into that instead, and do not use the second "T" fitting.

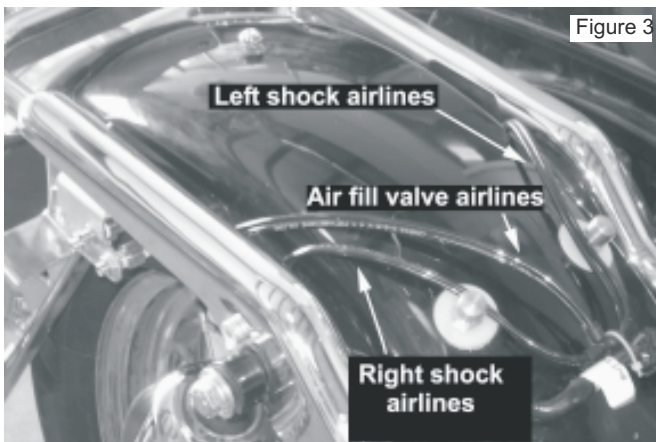


Figure 3

We recommend that you attach both the "T" fittings to something secure, like the wire harness as shown in figure 2, using a zip tie. You should have additional black & Blue airline left, use this to connect between each "T" fitting and the air fill valves you installed earlier. Be sure to match colors, black to black and blue to blue. This ensures proper system function. Route these lines making sure they won't be pinched, exposed to excessive heat, or contact any moving part (see figure 3).

7. We recommend that the bottoming control airline be connected to the top valve on the bracket and the ride height airline to the bottom valve.

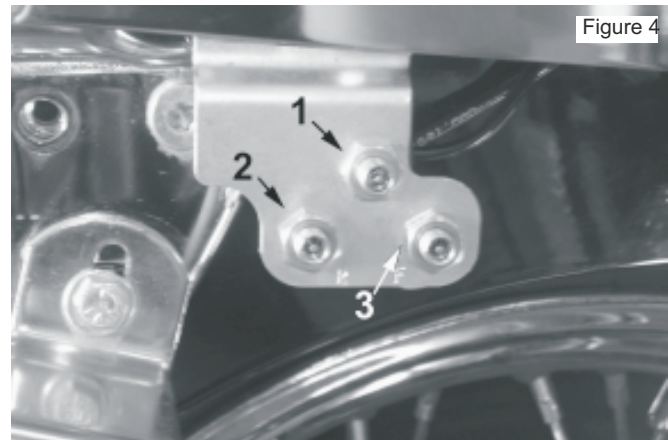


Figure 4

- 1. = Bottoming Control
- 2. = Ride Height
- 3. = Front air fork (if applicable)

Once you have the system connected, and have insured sufficient lengths and clearances for all airlines, you may now disconnect lines from "T" fittings and trim airlines to desired fitment.

Below is the proper I.A.S. airline connection

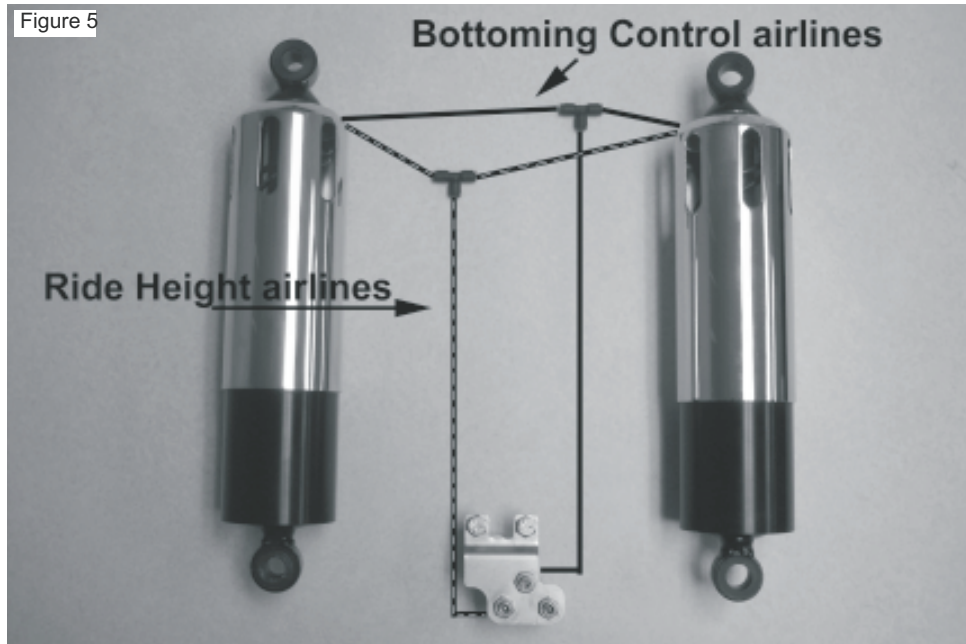


Figure 5

Hose lengths not to scale, for diagram purposes only.