PROGRESSIVE suspension

Installation Instructions

Air Dragger™ Rear Shocks

For Harley Davidson FLH/FLT Models '80-'08.

NOTE:'80-'96 Models require connection kit # 30-5087

ATTENTION

Statements in these instructions that are preceded by the following words are of special significance:

Warning

This means there is the possibility of injury to yourself or others.

Caution

This means there is the possibility of damage to the motorcycle.

Note

Information of particular importance has been placed in italics.

Warranty

Progressive Suspension Inc. warrants to the original purchaser this Part to be free of manufacturing defects in materials and workmanship for a period of one (1) year from the date of purchase. In the event warranty service is required, you must call Progressive Suspension immediately with a description of the problem.

If it is deemed necessary for Progressive Suspension to make an evaluation to determine whether the part is defective, a return authorization number will be given by Progressive Suspension. The parts must be packaged properly so as to not cause further damage and returned prepaid to Progressive Suspension with a copy of the original invoice of purchase and a detailed letter outlining the nature of the problem. If after the evaluation by Progressive Suspension the part was found to be defective it will be repaired or replaced at no cost to you. If we replace it, we may replace it with a reconditioned one of the same design.

Progressive Suspension shall not be held liable for any consequential or incidental damages resulting from the failure of a Progressive Suspension part. Progressive Suspension shall have no obligation if a part becomes defective as a result of improper installation or abuse.

Warning

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.

Important Notice

Note: Please read the following instructions completely before starting installation!

These shocks are designed to operate with the air fitting at the top. Mounting the shocks with the air fitting at the bottom will cause the shock to perform poorly and to potentially fail.

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 blocks 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.

Tire to fender clearance may be affected when tires other than original equipment are installed. If the tire diameter and/or width is larger then stock, the tire may touch the underside of the fender resulting in unexpected braking which could lead to an accident and or injury.

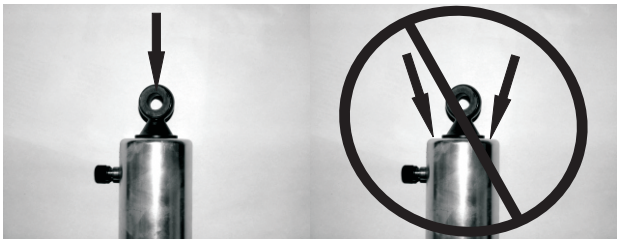
Be sure to refer to instruction supplements provided in any included mounting hardware.

Note

A small amount of oil seepage from the air fittings may occur during shipment. This does NOT affect the performance. Under no circumstances should you add additional oil.

Note

The Air Dragger™ Shocks are designed to be compressed using only the mounting eyes - do NOT attempt to compress the shocks using the body or air can as this will damage the shock resulting in a pressure leak.



CORRECT WRONG

6900 Marlin Circle, La Palma, CA 90623 Tech line: 714-523-8700 Fax: 714-523-3220 info@progresssivesuspension.com

Installation

1. Place a quality jack or sufficient blocks under the motorcycle to securely lift the rear wheel slightly off the ground.

2. Referring to the correct Harley Davidson shop manual, disconnect the air lines from the shocks by pushing in on the outer collar and pulling the lines out. Remove the stock shocks and note the location of the mounting hardware. If any additional accessories are installed on your motorcycle, please refer to their mounting instructions for removal to gain access to your shocks.

3. Install the proper mounting sleeves into each shock eye according to the instructions included with the mounting hardware kit. **(Photo 1)**

4. With the Air Fitting at the top, mount your new Air Dragger shocks in the same location as your stock shocks. We recommend that you mount your new shocks with the air connection fittings toward the rear of your bike. **(Photo 2)** Note that you can rotate the Air Cylinder to position the fitting where it works best for you.

5. Before tightening the shock mounting bolts completely, check for adequate clearance around the shocks. Check for clearance to the fender, fender rails, belt, belt guard, saddle bags, frame, swingarm, etc. **(Photo 3)** Also check for clearance to any additional accessories that you may have, or will be mounting to your bike.

6. Completely tighten the shock mounting bolts according to the factory torque specifications.

7. Remove the Air Connection Plugs from your new Air Dragger shock by first pushing in on the outer collar of the fitting, this releases the locking fingers inside the fitting. **(Photo 4)** While pushing in on the collar, pull the plug out of the fitting. Use this same method to remove air line from the fittings if necessary.

Note

If you are installing these shocks onto a 1996 or earlier model Harley FLH / FLT, refer to the instructions supplied with the 30-5087 Connection Kit.

8. Using the supplied 5/32" air line supplied with your Air Dragger shocks, replace the original equipment air line that ran from the stock shocks to the "T" or "Y" fitting. Using a razor blade, cut sufficient lengths of new air line to run from the "T" or "Y" fitting to your new shocks. It is very important to make clean straight cuts on the ends of the airline, DO NOT use Dykes or scissors, as these will distort the ends of the line and cause leaks. Also be sure to allow enough air line to route the line where it cannot be cut, pinched, melted or snagged while the bike is being ridden.

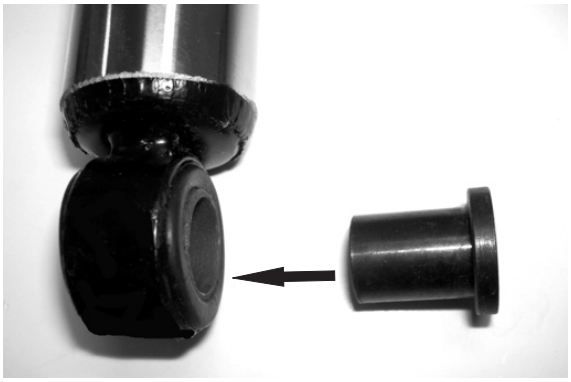


Photo 1 **Install mounting sleeves into shock eye's**

Photo 2 **Install shocks so air fittings points rearward.**

Photo 3 **Make sure the shock had sufficient clearances.**

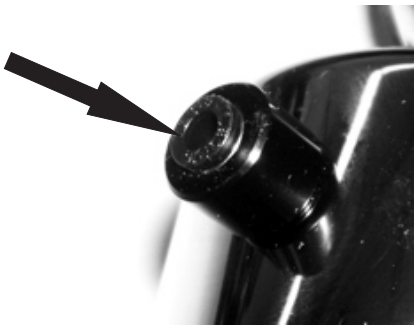


Photo 4 **Push in the collar to remove the plug or air lines.**

Installation (cont.)

9. Connect one end of each new air line into the original "T" or "Y" fittings first. Make sure the ends are clean and have been cut straight, then simply push the air line straight into the fittings. Both the original "T" or "Y" fittings and the fittings on the Air Dragger shocks work this way. As you push the air line in, you will feel resistence when the line makes contact with the seal. Keep pushing the line in approximately 3/16" more until you feel a solid stop. Make sure the line is pushed in completely to the stop.

10. Carefully route the lines where they cannot be cut, pinched, melted or snagged while the bike is being ridden and push the other end of each new line into each of the two shocks. If you need to trim the line to achieve proper routing, be sure to make a straight cut with a razor blade.

11. Pressurize the shocks to 50 psi. Apply a soap and water solution to all connection fittings and check for bubbles that would indicate a leak. If a leak is found at a fitting, it is likely due to the line not being inserted fully, cut crooked or perhaps the line or seal in the fitting has some debris. Disconnect the line by

following the method outlined in step 7. Remove any debris from inside the fitting and cut approximately 1/4" off the end of the line. Cutting the 1/4" off the line is important because once the line has been installed into the fitting, there are locking fingers that grab the line to hold it in place. These fingers may scrape the line as it is pulled out and create a new leak path if re-installed. If you are unable to correct a leak, contact our Customer Service department for assistance.

Warning

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Air Pressure Recommendations and Set Up

1. Minimum air pressure is 0 PSI. Maximum air pressure is 150 PSI All pressure readings should be taken statically with the motorcycle on the side or center stand with the rear suspension completely extended or with the rear wheel off the ground. We recommend using the same air pressure gauge consistently as readings may vary from gauge to gauge.

2. Maximum ride comfort is achieved with your new Air Dragger shocks when the pressure is set to allow approximately 1.0"-1.2" of Ride Sag.

3. To check your Ride Sag, place the bike on a jack or center stand to fully extend the rear suspension. Take a measurement from the center of the rear axle to a vertical point on the fender or fender rail. Record that measurement. Now take the bike off the jack or center stand and load the bike with rider(s) and any luggage and re-measure between the same points. This second measurement should be approximately 1.0"- 1.2" shorter than the first measurement when the air pressure is set correctly. Add or subtract air pressure accordingly to achieve 1.0" -1.2" sag. **(Photo 5)**

4. Lowering your bike with the Air Dragger shocks is a simple as letting the air pressure out. The lower the pressure, the lower your ride height. While ride comfort will suffer with the lowered ride height, these shocks feature a unique internal bumper to maintain a cushioned bottoming action.

Photo 5 The difference in measurements between the axle and the fender rail with the suspension fully extended and then with rider(s) on the bike is your Ride Sag. This difference should be 1.0" - 1.2" for maximum ride comfort.

More Important Information

These Air Dragger shocks are rebuildable. Contact your local dealer or Progressive Suspension for parts and information if rebuilding becomes necessary.

Fork Springs: For total suspension balance, we highly recommend installing a pair of Progressive Suspension Fork Springs. Also available at your local dealer.