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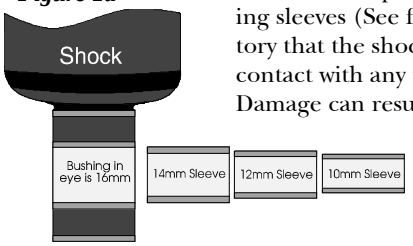
Air Shock Installation Instructions

Thank you for purchasing the Progressive Suspension air shocks .We feel they are the ultimate in street air shock technology.

Caution! In order to function properly, it is extremely important that the installation instructions be thoroughly read *Before* installation starts.

Note: A small amount of oil seepage from the air fitting may occur during shipment. This does ***not*** affect the performance. Under ***no*** circumstances add any additional oil.

Figure 1a



1. With the exception of the shock mounting sleeves (See figure 1a), it is mandatory that the shock absorbers not make contact with any part of the motorcycle. Damage can result if they are not mounted with adequate clearance (See Figure 1b).

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

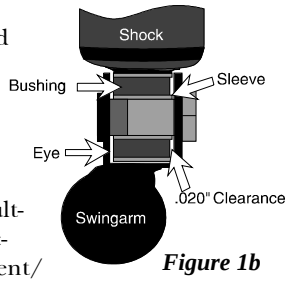


Figure 1b

3. ***Warning!*** The use of lowering blocks is not recommended and will void warranty. Also, using a shorter length shock absorber is not recommended because of decreased tire-to-fender clearance, decreased ground clearance and the alteration of the motorcycle's geometry.

Mounting Instructions:

A. Note: The air chamber may be rotated (See Figure 2). For clearance and easier air line installation.

B. Progressive shock absorbers are mounted in the same location as the stock shocks.

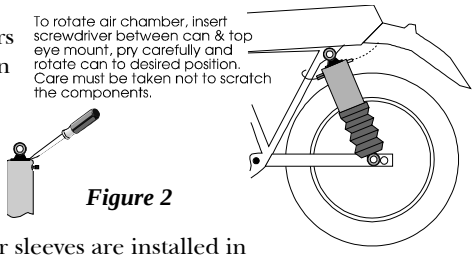


Figure 2

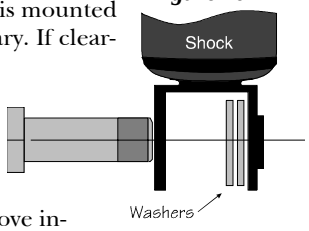
C. *Caution*: Make sure that the proper sleeves are installed in the shock (See Figure 1a). Improper sleeves can cause unsatisfactory or unsafe operation.

D. Raise the motorcycle on the center stand or block securely so the rear wheel is slightly off the ground.

E. Remove the old shocks and note location of mounting hardware. If additional accessories are installed, please refer to the appropriate accessory instructions for removal to gain access to the shocks. When replacing stock OEM air shocks, existing air lines must be removed.

F. Eye To Eye Mounts: *Caution*! A minimum clearance of .020" must be maintained between the shock bushing and the mounting brackets (See Figure 1b). Supplied washers may be used to adjust to this clearance. If the minimum clearance is not maintained, the shocks could bind causing damage and/or handling problems.

Figure 1c



Eye To Clevis Mounts: On clevis mounted shocks, no clearance is necessary. If clearance exists, install washers (supplied) to remove clearance (See Figure 1c).

G. Install the Progressive air shocks using the existing hardware, keeping in mind above instructions.

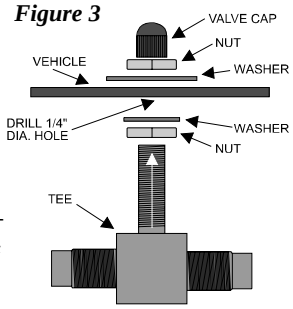
H. Check or clearance around the chain, chain guard, fender, frame, disc brake, drum brake, shaft drive unit, swingarm, accessories or any other possible obstruction that could cause interference with the shocks. Remember that the shock pivots slightly during compression and this must be taken into consideration.

I. Tighten bolts/nuts according to the torque specifications in the repair manual for your motorcycle.

Air Line Fitting Installation

1. Air Hose Installation.

Figure 3



Choose the most convenient location on your motorcycle for the air fill valve. Drill a 5/16" hole and install the air fill valve as shown in Figure 3 or secure air fill valve to frame tube.

2. Keep hose ends clean during installation because dirt can cause air leaks.

3. Install hose connector, tube clamp and two O-rings onto one end of the air hose (See Figures 4 & 5) Apply rubber lubricant (soap solution, not oil) to the O-rings to ease installation on the air hose & into the shock absorber inlet. Plastic connector should just bottom on fitting. *Do not overtighten!* The function of the

nut is to hold everything together in place, the O-rings do the sealing. Finger tighten only (10 in/lb maximum).

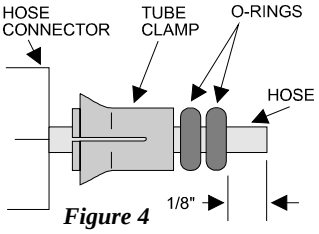


Figure 4

4. After routing the air hose, trim the length to fit air fill valve. Install hose connector, tube clamp, and two O-rings onto end of hose (See figures 4 & 5). Lubricate as above and assemble to air fill valve. Use the same procedure for mating hose. *Important*—leave a small amount of slack in hose near shock absorber to allow for the slight movement of the shock. ***Caution! Do not install hose near exhaust system, battery or any other sharp edges or seat movement. Keep hoses clear of moving parts such as wheels or suspension components.***

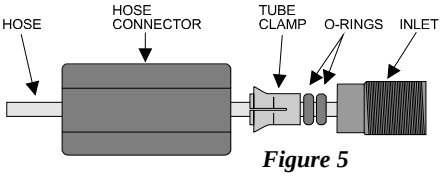


Figure 5

Do not allow hoses to have excess slack and sag below the motorcycle. The hoses could catch on road surfaces or debris and could be damaged while the motorcycle is in motion.

5. If necessary the air hose can be secured along the motorcycle's wiring harness with tie-wraps.
6. Testing: Inflate system to 50 psi. Apply soapy water solution to all connections and check for air leaks. If there are any leaks, disconnect the suspected fitting and check for dirt or damage to the air line or the O-rings. Remove any dirt or foreign matter, re-lubricate the O-rings and reinstall. If unable to locate the leak, remove rubber boot from shocks and submerge pressurized components under water (including T-Valve) and check for leaks. If you cannot solve the air leak problem, please contact our technical staff for assistance.

Air Pressure Recommendations

1. Minimum air pressure: 0 psi, recommended maximum: 70 psi. All air pressure readings should be taken statically (motorcycle on the center stand, rear wheel off the ground). We recommend using the same air pressure gauge consistently as readings may vary from gauge to gauge.
2. Ride height. With the motorcycle on the center stand (rear wheel off the ground). Measure the distance from the center of the rear axle to point vertical on the frame (see figure 6). Now take the bike off the centerstand and load the motorcycle with the rider, passenger, luggage, accessories and trailer (if any) and re-measure the same points. With the motorcycle loaded, this measurement should decrease by approximately (1.0"-1.50"). Add or subtract air pressure to reach this recommended ride height (see step 4).

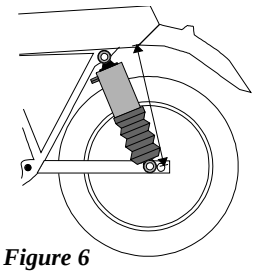


Figure 6

3. Now put the motorcycle back on the center stand (unload rear wheel) and take a new pressure reading with the same gauge. You now have a "ballpark" figure to refer to while on the road.
4. If you add or subtract weight from step 3, a "ballpark" air pressure recommendation is to increase/decrease air pressure 10 psi for each 50 lbs (Harley Davidson: 5 psi for each 50 lbs because of suspension geometry) of weight variation.
5. Trailer tongue weight or accessories mounted behind the rear axle may require slightly more than the 10 psi per 50 lbs recommended ratio due to the weight being behind the axle.

Note: Achieving proper ride height is important for two main reasons:

1. Proper geometry and maximum stability.
2. To allow maximum suspension travel so the motorcycle will respond comfortably and safely to all road conditions.

Caution: Air pressure requirements above 70 psi will decrease shock life and indicates loads may be in excess of motorcycles recommended GVW (gross vehicle weight).

Caution: Under no conditions should more oil be added to the air chamber. The maximum recommended volume of oil with Progressive Suspension air shock or replacement damper cartridge is 2 oz. Use only Dextron ATF fluid or Progressive suspension shock oil. Order no. 5081

Miscellaneous

1. Adaptor for Honda GL1100/1200 Aspencade.

   Adapter Part #30-5082 Is required to adapt above stock onboard air compressor systems to the Progressive Suspension air line. This adaptor must be used to retain the stock fill valve on Honda GL1100/1200 Standard and Interstate models. If the above part is unavailable from your local dealer, please contact Customer Service at Progressive Suspension.

   Adapter Part # 30-5086 is required for Suzuki Cavalcade or Kawasaki 1300 Voyager.
2. Low pressure warning light on 1980-82 Honda GL1100 may be disconnected by removing the right hand plastic cover, locating the switch at the air fill location, disconnect the electrical wire leading into the switch on manifold and then ground the wire lead to a secure ground on the bike.
3. Seal Replacement: If it becomes necessary to replace the seal on a Progressive Suspension air shock, it can be done according to Progressive Suspension's Instructions #3065 or according to instructions in the Honda shop manual for GL1100/1200 air shocks. Use only 2 oz of Dextron ATF or #5081 Progressive Suspension shock oil.

   Use Progressive Suspension Seals (Part #30-5041). If unavailable, Honda seals (Honda code 1062975 or 1534627) may be substituted.
4. Progressive air shock's are totally rebuildable for parts and instructions, contact your local dealer or Progressive Suspension if rebuilding becomes necessary.
5. Fork Springs: For total suspension balance, we highly recommend installing a pair of Progressive Suspension Fork Springs, also available at your local dealer.
6. Thank you and good riding...

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