



# INSTALLATION INSTRUCTIONS

422 SERIES SHOCKS

89-99 Harley-Davidson™ Softail®

## ATTENTION!

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



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



This symbol means there is the possibility of damage to the vehicle.

### NOTE:

Information of particular importance has been placed in italics.

## WARNING

Changing the chassis and/or suspension on any vehicle will change the handling characteristics of that vehicle. Care should be taken when operating the vehicle with such modifications while getting accustomed to the new handling characteristics.

## WARRANTY

Progressive Suspension warrants to the original purchaser of this Part to be free of manufacturing defects in materials and workmanship with a one year limited warranty (lifetime limited warranty for the spring(s) only). 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.



TECH: 714.523.8700

WWW.PROGRESSIVESUSPENSION.COM

## IMPORTANT NOTICE

**Caution:** Please read the following instructions completely before starting installation! Removing and reinstalling the shock absorber, and the spring on said shock absorber, must be performed by a qualified mechanic or according to steps outlined in an authorized shop manual that relates to your particular make, model and year motorcycle. Process may require special tools, fixtures, and/or a press.

The vehicle must be securely blocked to prevent it from dropping or tipping when the shock absorber is removed. Failure to do so can cause serious damage and/or injury!

Progressive Suspension Softail shocks are designed to work with the OEM (Original Equipment) chassis components. Use of this product on any chassis components other than OEM may produce an unsatisfactory ride and void the warranty.

Transmission bolts must be installed in the OEM position to insure proper clearances for the shocks. Consult your factory shop manual for proper installation.

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

Shocks made for early (84-88) and later (89 & later) do not interchange! Damage to your motorcycle and suspension may occur if you install the wrong shock! Double check the Progressive part numbers to insure that the correct shock for the correct year has been purchased.



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CHANGING THE CHASSIS AND/OR SUSPENSION ON ANY VEHICLE WILL CHANGE THE HANDLING CHARACTERISTICS OF THAT VEHICLE. CARE SHOULD BE TAKEN WHEN OPERATING THE VEHICLE WITH SUCH MODIFICATIONS WHILE GETTING ACCUSTOMED TO THE NEW HANDLING CHARACTERISTICS.

### INSTALLATION

Read all the instructions carefully before installing this kit on your motorcycle. Use your factory authorized service manual as a reference while installing this kit. Progressive Suspension shocks for your Softail are designed as a direct bolt on replacement for your stock shocks. Although they are very similar in appearance, they have vastly improved damping and spring rates. Our shocks do not use the remote reservoir system used on earlier model Softail models.

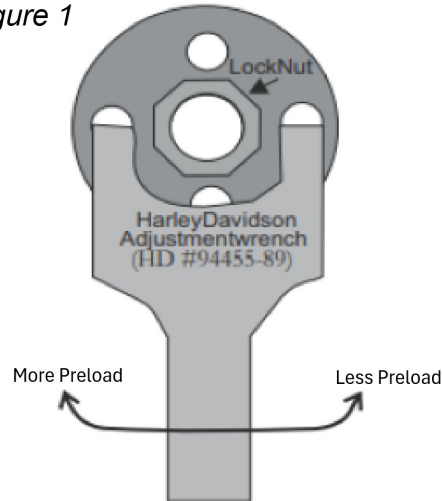
- Place motorcycle securely on stand or blocks so the rear wheel is slightly off the ground.
- Per instructions in a authorized shop manual, remove your old shocks. Note location of the mounting hardware.
- Install the Progressive Suspension shocks using the stock mounting bolts and washers.
- Tighten all shock mounting bolts to the proper torque specifications (see shop manual for specs).
- Progressive Suspension shocks have adjustable pre-load to compensate for varying weights. The included wrench or a Harley-Davidson pre-load adjustment wrench is necessary to adjust the pre-load setting. Replacement Progressive Suspension wrenches are available as Part # SW-784 from most dealers and accessory stores and the Harley-Davidson wrench is available as part #94455-89 from any Harley-Davidson Dealer
- Spring preload is set by us to the lightest setting. To increase preload for heavier riders/loads/passengers, loosen locknut with the inside portion of the supplied wrench or a 1-1/16" wrench and back it off several turns. Use the supplied wrench or a Harley adjustment wrench to turn the adjustment nut counterclockwise to the desired preload setting. Then tighten the 1-1/16" lock nut. Both shocks must be adjusted to the same, equal setting (See Figure 1).





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Figure 1



**NOTE: Maximum preload is reached when the locknut and adjusting nut are turned to the end of the threaded eye (no thread showing). This distance is approximately 1/4". Do not turn the locknut past the last thread!**

- Test ride the bike and make further adjustments if necessary

**NOTE: Adjusting the preload does not change the shock length.**

- For a balanced suspension, we highly recommend installing a pair of Progressive Suspension fork springs
- Ride and enjoy

## TECHNICAL INFO

Our technical staff will assist you if you have any problems or questions. Call (714) 523-8700 from 8am to 4pm PST.





6911 Marlin Circle, La Palma, CA 90623  
(714) 523-8700 Fax (714) 523-3220

## Softail Supplement Applications for Non-OEM Harley Davidson

**Caution!** As stated in the installation instructions, Progressive Suspension shocks are designed to work on the Harley Davidson OEM (Original Equipment Manufacturer) frame and swingarm. Use of these shocks on a frame or swingarm other than a Harley Davidson OEM may produce an unsatisfactory ride, void the warranty and/or result in a catastrophic failure of the shocks, causing loss of vehicle control and possibly **injury or death!**

**Warning!** If you have chosen to use a non-OEM frame and/or swingarm, it is crucial that the shocks not be allowed to overextend. The shocks have a maximum stroke of 1.30" inches. (Stroke is the difference in shock length from fully compressed to fully extended). There must be a hard-stop between the swingarm and the frame to limit the shock stroke to no more than 1.30". A bumper cushion is recommended to aid in stopping the swingarm movement. Be advised that bumper contact at 1.30" of stroke is not sufficient as the bumper will compress and allow the shock to overextend.

**Warning!** If there is no hard-stop and the shocks are allowed to overextend, then a catastrophic failure will occur—resulting in loss of vehicle control and possible **injury or death!**

**Caution!** Use with non-OEM frames/swingarms that allow the shocks to protrude below the frame exposes them to possible damage. This exposure may lead to catastrophic failure of the suspension and/or loss of vehicle control resulting in possible **injury or death!**

If you chose to use this product on applications other than OEM Harley Davidson or other approved applications as specified in the latest Master Applications guide, published by Progressive Suspension, Inc., you do so **at your own risk.**

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