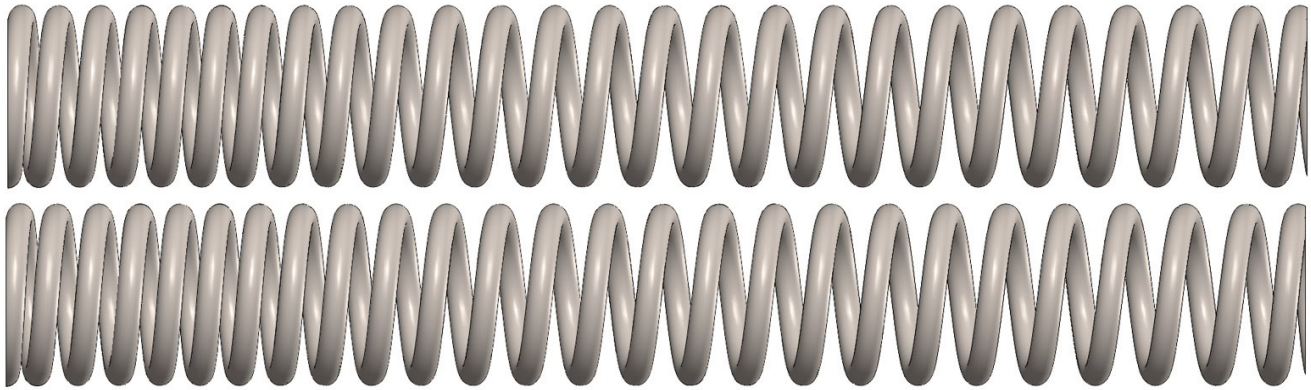




# INSTALLATION INSTRUCTIONS

FORK SPRING KIT FOR 2023 & LATER\* TOURING MODELS W/ 47MM INVERTED FORKS



## ATTENTION!

Statements in these instructions that are preceded by the following symbols 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.

## LIFETIME LIMITED WARRANTY

Progressive Suspension warrants to the original purchaser this part to be free of manufacturing defects in materials and workmanship with a lifetime limited warranty. 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.

## IMPORTANT NOTICE

Removing and replacing fork springs must be performed by a qualified mechanic & according to steps outlined in a professional workshop manual that relates to your particular make, model & year motorcycle.

The vehicle must be securely blocked to prevent it from dropping or tipping when the forks/fork springs are removed. Failure to do so can cause serious damage and/or injury.

Progressive Suspension Fork Springs are designed to work with the OEM (Original Equipment) forks. Use of this product on any forks other than OEM may produce an unsatisfactory ride & void the warranty.

## RECOMMENDED TOOLS

FOL-2 PROGRESSIVE SUSPENSION FORK OIL LEVEL ADJUSTER

\*HD-41177 FORK TUBE HOLDER or EQUIVALENT

\*HD-45966 FORK SPRING COMPRESSOR TOOL or EQUIVALENT

\*HD-50084-A 45MM FORK CAP WRENCH or EQUIVALENT

(\*HD PART NUMBERS SHOWN ARE FOR HARLEY-DAVIDSON FACTORY TOOLS)





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.

1. Support and lift the motorcycle securely so the front wheel is off the ground. The balance point is toward the front of the engine.
2. Remove forks from motorcycle according to your factory authorized service manual.
3. If your fork has external preload, rebound or compression adjustments, record your current settings. Then turn adjusters fully counterclockwise.

### NOTE:

Work on one fork leg at a time. Spring installation is the same on both fork legs.

4. Unscrew fork caps from fork body. (Use tool: FORK TUBE HOLDER)
5. Compress springs to gain access to the fork cap lock nut. (Use tool: FORK SPRING COMPRESSOR TOOL)
6. Loosen fork cap lock nut. Then, remove the fork caps. See FIGURE 1.
7. Remove spring compression.
8. Remove the OEM bumper, stopper (Nonadjustable preload fork), top spacer (External adjustable preload fork), spacer assembly & spring. See FIGURE 3.

### NOTE:

If fork has an external preload adjuster, we recommend measuring your fully compressed length at this time (see RIDE SAG & PRELOAD ADJUSTMENT).

For maximum performance we highly recommend that the forks be disassembled and thoroughly cleaned, inspected and new fork oil (Type-D). We recommend HD Type D fork oil. Before installing springs, it is crucial that you make sure you've installed the proper fork oil and the oil level is correct.

9. With spacer(s) and spring removed, cycle the fork body & cartridge damper several times to purge any trapped air and then completely compress the forks & cartridge. Measure from the top of the fork body to the oil. Set oil level to 105mm. (Use tool: FOL-2 PROGRESSIVE SUSPENSION FORK OIL LEVEL ADJUSTER)



NEVER ADD TOO MUCH OIL RESULTING IN A MEASUREMENT LESS THAN 95MM WHEN USING THIS SPRING KIT!





10. Install the Progressive Suspension spring with the tighter wound coils down. Nonadjustable preload forks: Reinstall the OEM spacer assembly, stopper, and bumper (the provided spacer will not be used). External adjustable preload forks: Reinstall the OEM spacer assembly, new Progressive Suspension spacer, and bumper. See F 2.

11. Verify lock nut is fully threaded onto the damping rod. Thread the fork cap onto the damping rod. Torque lock nut to 13-17 ft-lbs. (Use tool: FORK SPRING COMPRESSOR TOOL)

NOTE:

Forks with adjustable rebound or compression will need the needle gap set. Refer to your factory authorized service manual before installing fork cap.

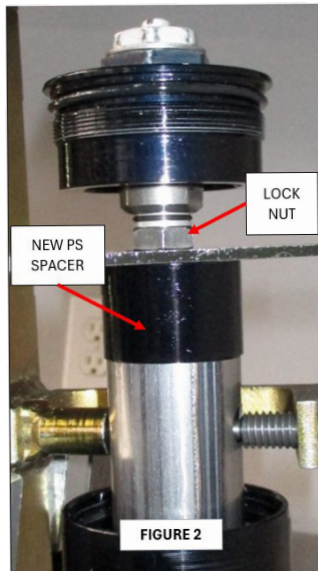
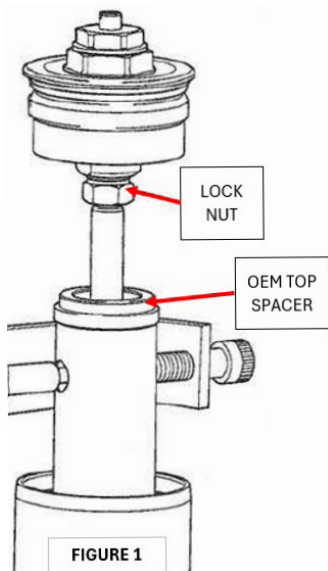
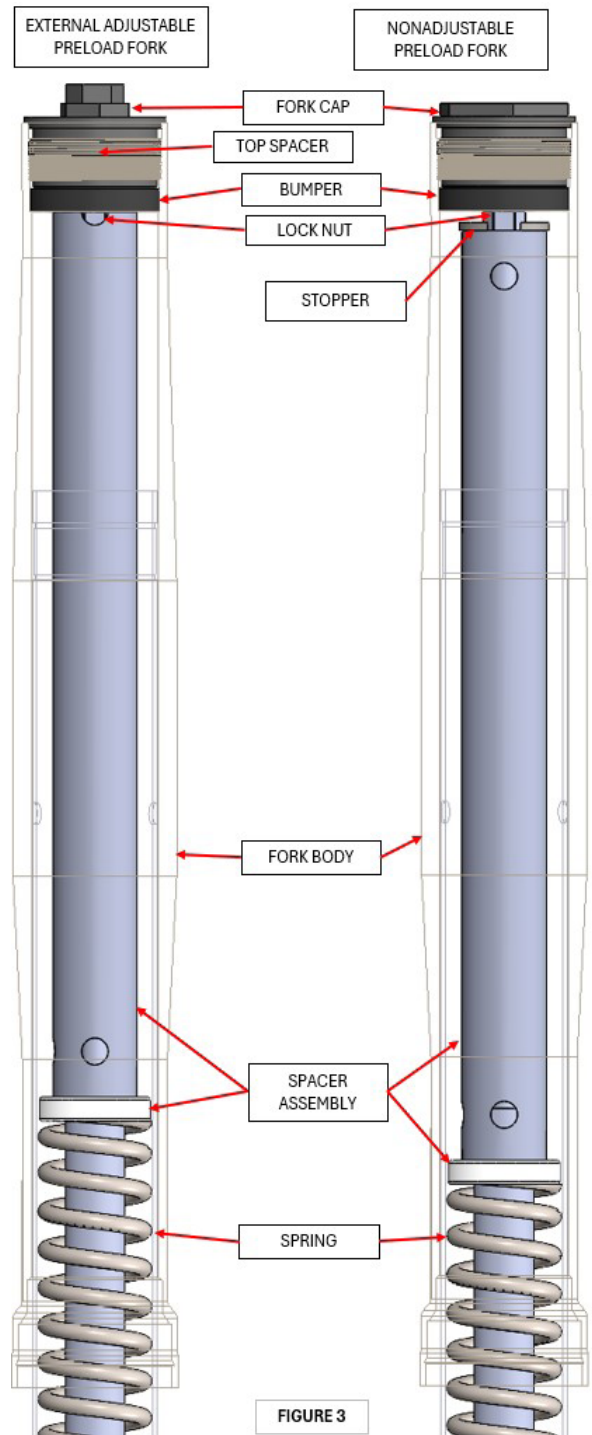
12. Thread fork cap into the fork body. Torque to 22-30 ft-lbs. (Use tool: FORK TUBE HOLDER)

13. Reinstall the forks and other components previously removed according to your factory authorized service manual.

14. Recheck all fasteners are properly torqued, then remove from lift.

15. Set fork sag if your fork has external preload adjustment.

16. Test ride. Fine tune.





## RIDE SAG

For optimum ride comfort, we recommend setting sag to 33% of your total suspension travel. To accurately know total travel, you need two measurements – “Free Length” and “Fully Compressed”. We recommend measuring the length of fork stantion (top of fork lower / yoke to fork seal lip). Three measurements are needed to calculate your ride sag.

1. “Fully Compressed” measurement can be taken after spring and spacers have been removed. Reassemble fork without the spring, spacers, and fork cap o-ring seal. Compress fork all the way to bottom. Record measurement.
2. “Free Length” measurement must be taken with front wheel lifted slightly off the ground. Record measurement.

### NOTE:

Free length and fork travel will increase approxitly 3mm from MIN to MAX preload setting.

3. Total Travel = Free Length – Fully Compressed
4. “Ride Length” measurement must be taken with rider (and all gear) in the riding position. Record measurement.
5. Ride Sag = Total Travel – Ride Length
6. Ride Sag % = Ride Sag / Fork Travel
7. Compare current ride sag to our recommeded sag. If the ride sag is more than the target, increase the preload until you hit the target ride sag. If the current ride sag is less than the target, reduce the preload until the target ride sag is achieved.

## FINE TUNING & PRELOAD ADJUSTMENT

### DAMPING ADJUSTEMENTS

If your fork has rebound or compression damping adjustments. Start with the settings before the spring install. Increase compression for a firmer feel, less break dive, and bigger bump absorbtion. Decrease compression damping for a softer feel. Increase rebound to slow the front end after braking and during acceleration. Or if the bike feels unstable or not settling. Decrease rebound damping if front end feels too firm or harsh, and not compliant with the road. Don't forget to fine tune your shocks after.

### FORK OIL

As stated previously, when using this spring kit, NEVER adjust the fork oil level to produce a measurement of less than 95mm or ride quality may be impacted and damage may occur. Reduce oil level to increase bottoming resistance. Increase oil level to reduce bottoming resistance.

### PRELOAD ADJUSTEMENT

If your fork has external preload adjustments. Increase preload for a firmer feel and more bottoming resistance. Reduce preload for softer feel.

## TECHNICAL INFO

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

