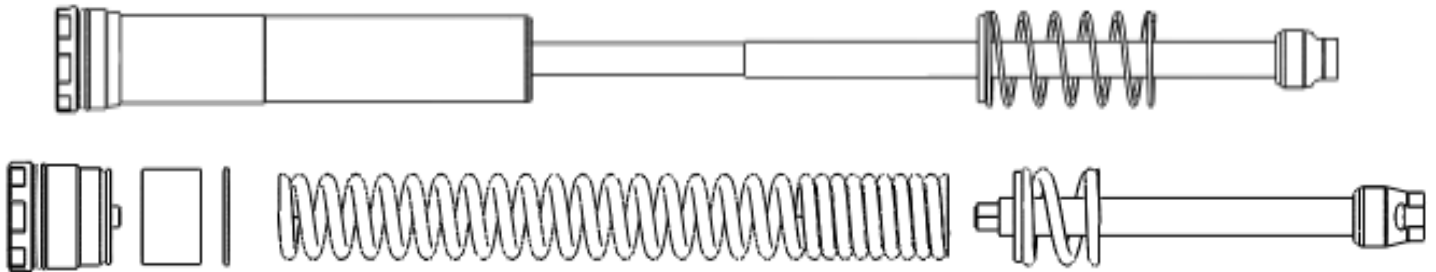




# INSTALLATION INSTRUCTIONS

MONOTUBE KIT W/ADJUSTABLE PRELOAD

FOR 2018 - LATER SOFTAIL MODELS (NON 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.*

## RECOMMENDED TOOLS

FOL-2 PROGRESSIVE SUSPENSION FORK OIL LEVEL ADJUSTER  
HYDRAULIC PRESS

\*HD-41177 FORK TUBE HOLDER or EQUIVALENT  
(\*HD PART NUMBERS SHOWN ARE FOR HARLEY-DAVIDSON FACTORY TOOLS)

## 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 internal components must be performed by a qualified mechanic or according to steps outlined in a factory authorized professional service manual that relates to your particular make, model and year motorcycle. Special tools may be needed. **We recommend a press or other type of fork spring compression tool.** Please read all instructions before beginning this procedure. If you lack any of the tools or resources or are uncertain about any part of the procedure, then have the work done by a qualified mechanic.

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

Progressive Suspension Monotube kits with Preload Adjuster 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 and void the warranty.



TECH: 714.523.8700

13861 ROSECRANS AVE, SANTA FE SPRINGS, CA 90670

FAX: 714.523.3220



## MONOTUBE KIT W/ADJUSTABLE PRELOAD



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.



FOR MAXIMUM PERFORMANCE WE HIGHLY RECOMMEND THAT THE FORKS BE DISASSEMBLED, THOROUGHLY CLEANED, AND INSPECTED. WHEN INSTALLING PROGRESSIVE SUSPENSION MONOTUBE CARTRIDGE FORK KIT, ONLY A SMALL AMOUNT, 300cc OF TYPE "E" OR 10WT. FORK OIL IS REQUIRED IN THE RIGHT FORK FOR LUBRICATING THE INTERNAL MOVING PARTS - THE CARTRIDGE DAMPER IS SEALED. CHANGING THE VOLUME OF THE OIL IN THE RIGHT FORK IS NOT RECOMMENDED AND COULD CAUSE DAMAGE AND/OR LOSS OF CONTROL. SEE PAGE 5 FOR RECOMMENDED FORK OIL LEVEL FOR THE LEFT FORK.

### 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.



THE FORK CAPS ARE UNDER EXTREME SPRING PRESSURE. CARE MUST BE TAKEN AS THEY ARE REMOVED TO AVOID INJURY. KEEP DOWNWARD PRESSURE ON THE CAPS AS YOU UNSCREW THE FINAL THREADS TO MINIMIZE THE SPRING "JUMP" THAT WILL OCCUR AS SOON AS THE CAPS ARE FULLY UN-THREADED. USE A SPRING COMPRESSOR OR HYDRAULIC PRESS AS OUTLINED BELOW FOR THIS PURPOSE. IF YOU ARE UNCERTAIN IN ANY WAY ABOUT THIS PORTION OF THE PROCEDURE - STOP HERE AND TAKE YOUR FORKS TO A COMPETENT MECHANIC TO INSTALL THIS KIT.

2. Remove forks according to instructions contained in your factory authorized shop manual.
3. Loosen the fork cap one full turn
4. Position and secure fork assembly in press so it can be compressed slightly and the inner fork-tube can be freely rotated – also be sure that the press ram can move upward from that position 3.00" to 4.00" inches to allow the spring to extend once the cap is removed.



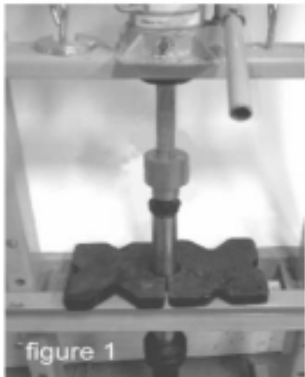
THE FORK ASSEMBLY MUST BE HELD IN ALIGNMENT WITH THE PRESS RAM AT ALL TIMES TO ENSURE SAFE SPRING EXPANSION/COMPRESSION WHEN THE FORK CAP IS UN-THREADED FROM THE FORK TUBE.





## MONOTUBE KIT W/ADJUSTABLE PRELOAD

5. Compress the fork about .50" to 1.00" (Figure 1)
6. Now, with the press holding the spring pressure, you should be able to unscrew the fork tube from the fork cap by hand (Figure 2)
7. Once the fork tube is completely un-threaded from the cap (Figure 3) carefully release the press, allowing the fork spring to safely extend fully (Figure 4) For assembly, simply reverse the preceding steps as needed.



8. This kit replaces your stock fork caps, preload-spacer, fork springs, and damper-rods. Remove these components and drain the oil out of your forks per the procedure outlined in your factory authorized service manual.



WHILE THE INSTALLATION OF THIS MONOTUBE CARTRIDGE FORK KIT WILL NOT CHANGE THE COMPRESSED LENGTH OF THE FRONT FORKS, WE HAVE FOUND THAT SOME BIKES MAY NOT HAVE ADEQUATE CLEARANCE BETWEEN THE FENDER, FAIRING AND / OR ACCESSORIES. SO WE RECOMMEND, WITH THE FORK SPRINGS REMOVED FROM BOTH FORKS, RE-INSTALL THE FORKS, FENDER, WHEEL AND ANYTHING ELSE YOU MAY HAVE REMOVED AND LIFT THE FRONT FORKS, OR LOWER THE BIKE TO COMPLETELY COMPRESS THE FRONT FORKS. WITH THE FORKS FULLY COMPRESSED, CHECK FOR ADEQUATE CLEARANCE BETWEEN THE TIRE, FENDER, FAIRING, CRASH BAR, ACCESSORIES, ETC. WHILE TURNING LEFT TO RIGHT - LOCK TO LOCK. YOU MUST CORRECT ANY CLEARANCE ISSUES PRIOR TO INSTALLING THIS KIT TO AVOID VEHICLE DAMAGE AND / OR VEHICLE CONTROL PROBLEMS.





# MONOTUBE KIT W/ADJUSTABLE PRELOAD

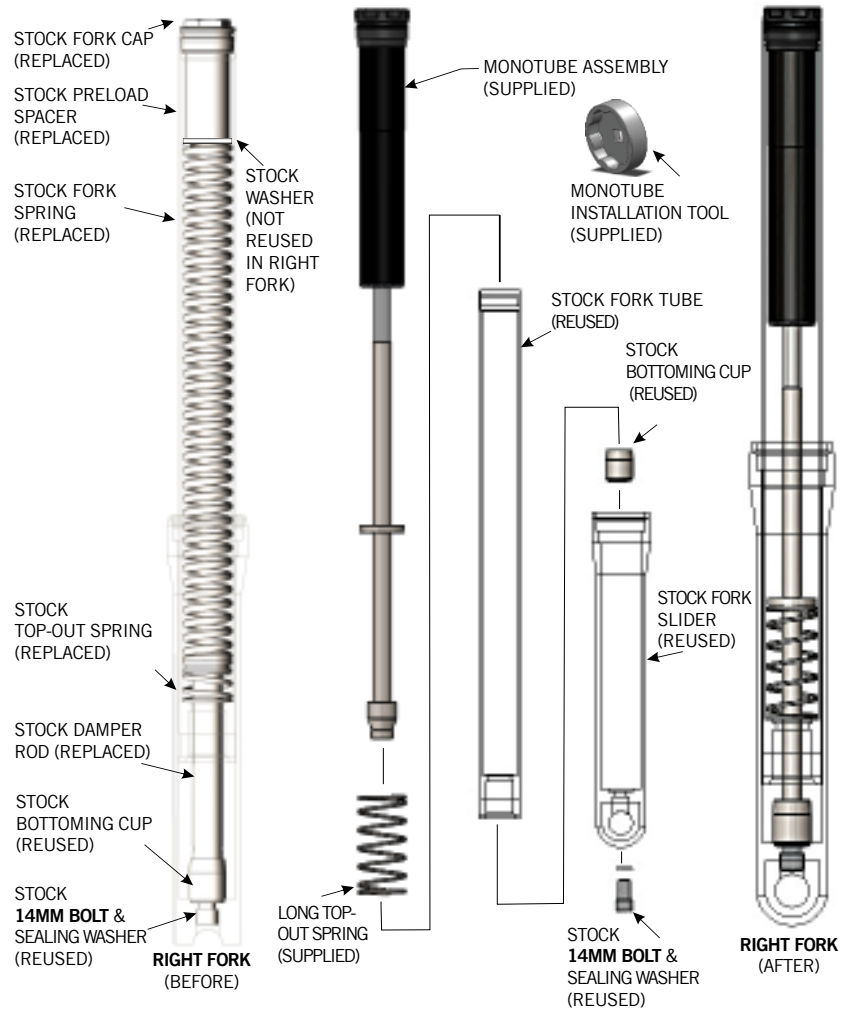
- Starting with the right fork (referencing the illustrations below), drop the supplied **LONG top-out spring** into the fork tube, then insert the Monotube cartridge assembly into the fork. Make certain the **OEM bottoming-cup** is properly seated in the bottom of the fork – in the slider – and the bottom of the Monotube cartridge assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Monotube assembly. **Torque the 14mm bolt to the factory recommended 30 - 37 ft-lbs.** If the Monotube assembly tries to rotate, temporarily thread the Monotube assembly into the fork-tube and try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while torquing the bottom fork bolt.
- No fork spring is installed in this (the right) fork assembly.** Pour a small amount - **300cc** to be specific – of fork oil, we recommend Progressive Suspension Standard 10wt (Type E) fork oil, into the fork for lubricating purposes as seen in figure 5. Then using the supplied Monotube Installation Tool (p/n 5503-200) thread the Monotube assembly into your fork-tube and torque it to the recommended 22-30 ft-lbs. This completes the right fork assembly.



DO NOT USE MORE THAN 300CC OF FORK OIL IN THE RIGHT FORK LEG WITH THE INSTALLATION OF THIS KIT. FILLING THE RIGHT FORK WITH MORE THAN 300CC OF FORK OIL MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.



FIGURE 5





## MONOTUBE KIT W/ADJUSTABLE PRELOAD

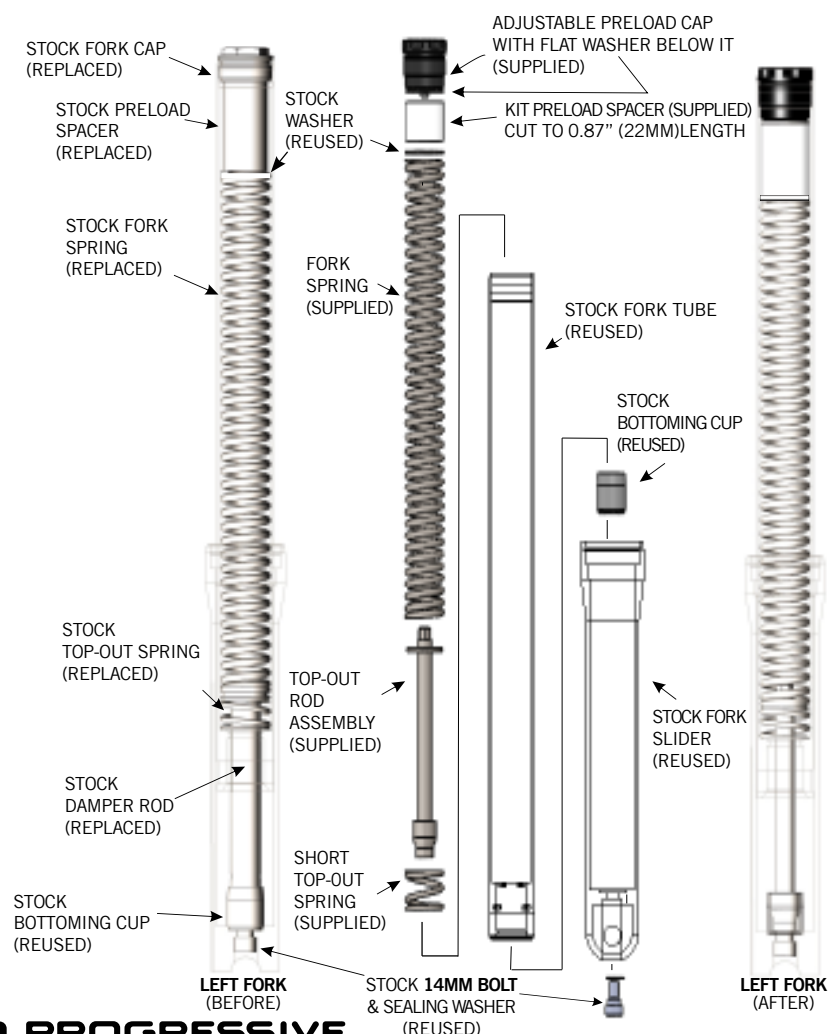
11. For the left fork (referencing the illustrations below), drop the supplied **SHORT top-out spring** into the fork tube, then insert the supplied Top out Rod assembly into the fork. Make certain the **OEM bottoming-cup** is properly seated in the bottom of the fork – in the slider – and the bottom of the Top-out Rod assembly is seated within said bottoming-cup. Put a drop of thread locking agent on the bottom fork bolt and thread it (along with the copper sealing washer) into the bottom of the Top-out Rod assembly. **Torque the 14mm bolt to the factory recommended 30 - 37 ft-lbs.** If the Top-out Rod assembly tries to rotate, try applying pressure to the assembly to keep it from rotating by “pulling” on the fork-tube while applying torque to the bottom fork bolt (same as you might on while installing a stock damper-rod) or by using a long extension and 12mm socket on the hex atop the Top-out Rod assembly.
12. Next fill and set the fork oil level in the Left Fork. We recommend Progressive Suspension Standard 10wt (Type E) fork oil. To check the oil level properly you must have the spring and spacer removed, cycle the fork several times as you add the oil to purge any trapped air and then completely compress the fork. You then measure from the top of the fork tube to the oil level - the recommended measurement is 175mm in the left fork. Add or remove fork oil to achieve this measurement. Then drop the supplied Progressive Suspension fork spring (tighter coils down) into the fork and then the stock washer.



NEVER ADD TOO MUCH FORK OIL RESULTING IN A MEASUREMENT LESS THAN 175MM IN THE LEFT FORK WITH THE INSTALLATION OF THIS KIT. DOING SO MAY CAUSE THE FORKS TO HYDRAULIC LOCK, WHICH MAY CAUSE SEAL FAILURE, POOR PERFORMANCE AND/OR LOSS OF CONTROL.

13. **Cut the supplied preload spacer to 0.87” (22mm)** and install it into the left fork assembly.

14. Finally, install the supplied flat washer and, making sure the Progressive Suspension preload cap is adjusted to its minimum (shortest) position and referring backward through steps 7 - 4, install the cap and torque to 22-30 ft-lbs using the supplied Monotube Installation Tool (p/n 5503-200). Store this tool in a safe place for future fork maintenance. This completes the left fork assembly.



 **PROGRESSIVE**  
S U S P E N S I O N



### ATTENTION!

During the reinstallation of your forks, the right fork, assembled with the supplied LONG top out spring, may appear slightly shorter due to having no main spring preload force. This is normal and can easily be moved up and down by hand during front wheel installation to align for axle insertion.

15. Reinstall your left and right fork assemblies and all other components you may have removed per the procedure outlined in your authorized factory service manual.

16. Proceed to RIDE SAG & PRELOAD ADJUSTMENT section.

### RIDE SAG & PRELOAD ADJUSTMENT

Optimum ride sag is approximately one-third or 33% of your total suspension travel. For Softail models the target ride sag is 1.5" (38mm).

**1.5" (38mm) TARGET RIDE SAG**

Measuring your forks ride sag involves two steps, and will require a helper. First with the front wheel lifted slightly off the ground with the forks fully extended, measure from the axle to a fixed point on the sprung part of the chassis – the lower triple-clamp, or the bottom edge of the fork leg cover for example. Then while sitting on the bike with all of your weight ready to ride, have your helper take the same measurement. Subtract the second measurement from the first – that is your current front ride sag.

Compare the target ride sag, 1.5" (38mm) to your current ride sag. If the current ride sag is less than the target, reduce the pre-load until you hit the target ride sag. Conversely if the current ride sag is more than the target, increase the pre-load until the target ride sag is achieved.

To adjust your pre-load, simply rotate the center of your left fork cap – your adjustable pre-load cap – with the supplied ½" Allen-wrench. Rotating it clockwise will increase your pre-load, counterclockwise will reduce it. NOTE: the adjusting portion of the cap does not extend or recede as an indication of how much pre-load is applied, it simply stops rotating at either end of the adjustment range – when the end of the range is felt STOP ROTATING THE ADJUSTER. The adjuster provides for a total range of 0.78" of pre-load over its 11 full turns of adjustment, or 0.07" per full turn of the adjuster.

The length of the preload spacer itself may also be changed if you have a need to make a bigger adjustment to preload, upto a maximum spacer length of 3.0" (76mm)

### TECHNICAL INFO

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

The operator must use extreme caution when operating a modified motorcycle, particularly while getting familiar with its altered handling characteristics and ground clearance.

Compliment your Progressive Suspension Fork Monotube kit with Pre-load Adjuster with a set of Progressive Suspension high performance shocks.



## Monotube Fork Kit

# WARNING

THIS KIT REQUIRES FORK OIL VOLUMES THAT ARE DIFFERENT THAN FACTORY SPECIFICATIONS.

CAREFULLY FOLLOW INSTALLATION INSTRUCTIONS USING THE FORK OIL VOLUMES AS SPECIFIED IN THE INCLUDED INSTRUCTIONS.

**DO NOT USE MORE FORK OIL THAN SPECIFIED  
IN THE INCLUDED INSTRUCTIONS!**

LOSS OF VEHICLE CONTROL AND / OR DAMAGE TO YOUR FORKS OR THE CONTENTS OF THIS KIT MAY RESULT

714.523.8700 | 877.690.7411  
WWW.PROGRESSIVE SUSPENSION.COM



Instr# 3081-031 Rev B

## Monotube Fork Kit

# WARNING

THIS KIT REQUIRES FORK OIL VOLUMES THAT ARE DIFFERENT THAN FACTORY SPECIFICATIONS.

CAREFULLY FOLLOW INSTALLATION INSTRUCTIONS USING THE FORK OIL VOLUMES AS SPECIFIED IN THE INCLUDED INSTRUCTIONS.

**DO NOT USE MORE FORK OIL THAN SPECIFIED  
IN THE INCLUDED INSTRUCTIONS!**

LOSS OF VEHICLE CONTROL AND / OR DAMAGE TO YOUR FORKS OR THE CONTENTS OF THIS KIT MAY RESULT

714.523.8700 | 877.690.7411  
WWW.PROGRESSIVE SUSPENSION.COM



Instr# 3081-031 Rev B