



# INSTALLATION INSTRUCTIONS

## QUIK PRELOAD SYSTEM (QPS) FOR 944 AND 444 SERIES SHOCKS



### 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.*

### 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.



TECH: 714.523.8700

WWW.PROGRESSIVESUSPENSION.COM

FAX: 714.523.3220

### IMPORTANT NOTICE

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



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

- This kit is designed to fit Progressive Suspension 944 and 444 Series shocks installed with rod end down. Progressive Suspension 944 and 444 Series shocks are designed to work with the OEM (Original Equipment) chassis. Use of this product on a chassis other than OEM may produce an unsatisfactory ride.



- Do not attempt to disassemble the QPS housing by removing the two low profile socket cap screws. Disassembly will void the warranty.

### RECOMMENDED TOOLS

- MOTORCYCLE JACK
- 8MM T-HANDLE OR 1/4" RACKET WITH EXTENSION
- TAPE MEASURE
- 3MM HEX SOCKET
- TORQUE WRENCH
- SPRING COMPRESSOR LIKE 3055-129
- PICK AND PLIERS
- MODEL SPECIFIC SHOCK MOUNTING BOLT TOOLS

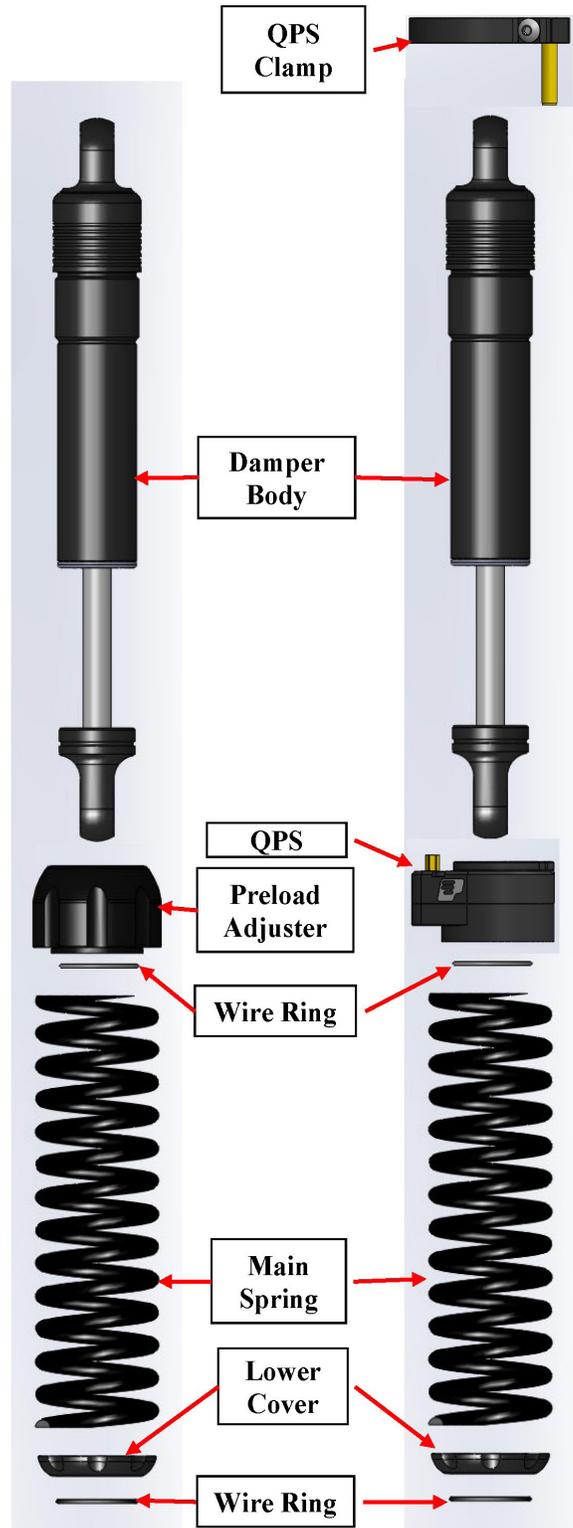
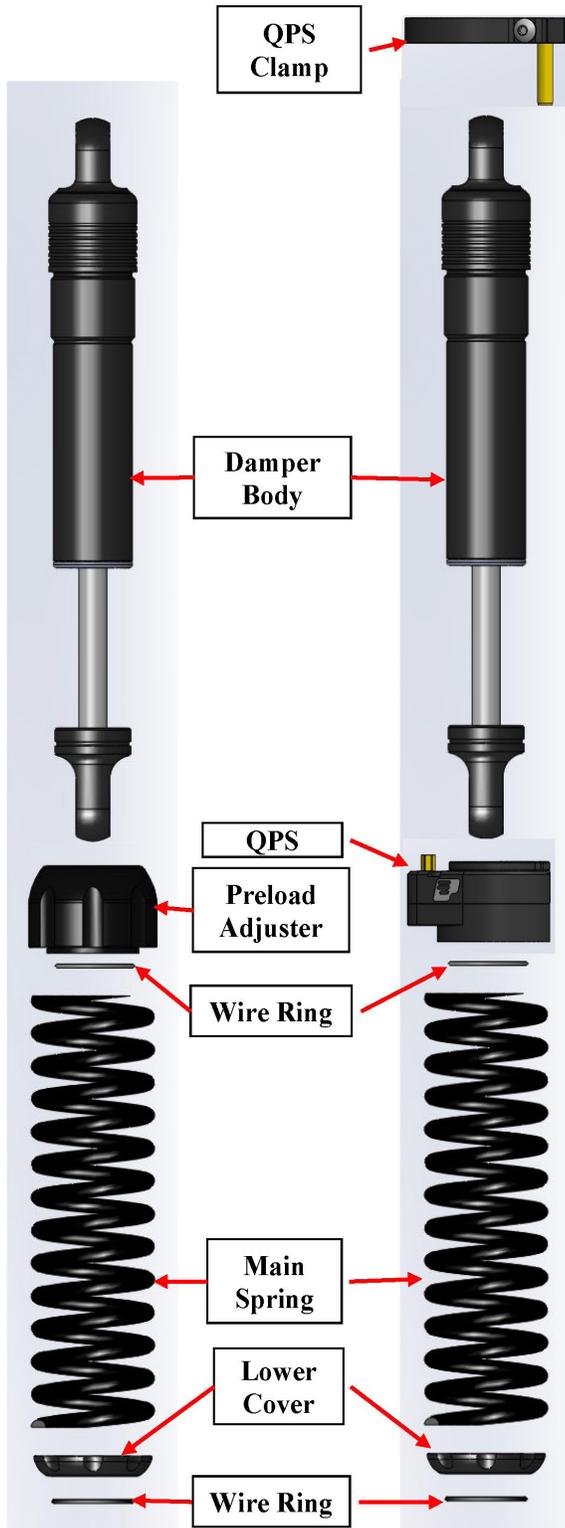


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## Shock Component Exploded View

944 Series

444 Series





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. Refer to page 2 for component exploded view of 944 and 444 Series shock with and without the QPS system.

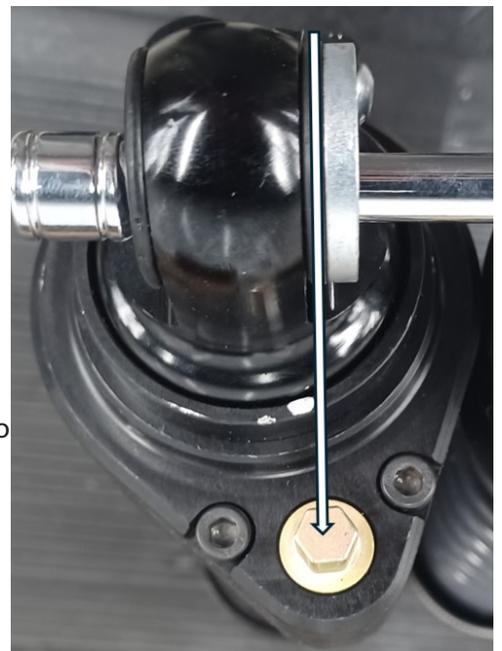
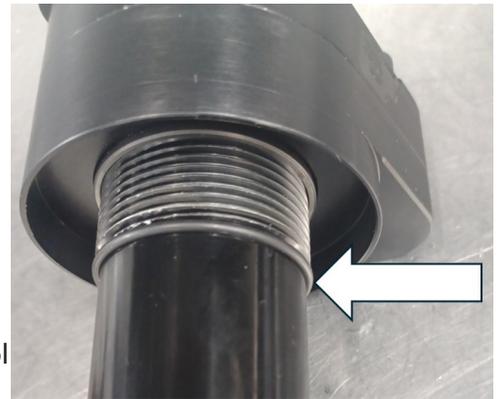
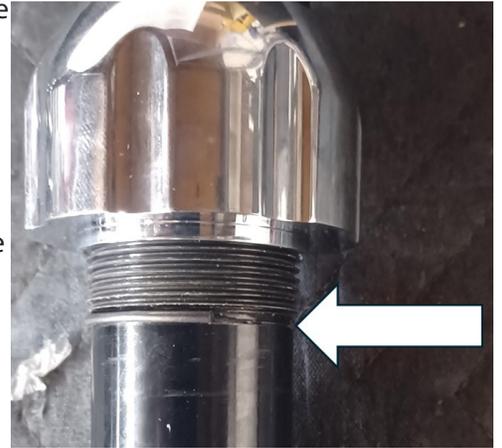
- Support and lift the motorcycle securely so the rear wheel is off the ground.
- Refer to your owners manual to gain access to your shock mounting bolts to prepare for shock removal. If additional accessories are installed on your motorcycle, please refer to the their mounting instructions for removal to gain access to your shocks as needed.
- Measure and record the distance from the top of your current 944 or 444 preload adjuster to the top of the top reference groove on both damper bodies. Take the average of the measurements. This is your "current spring preload setting".
- Turn the preload adjuster counterclockwise to decrease spring preload until no grooves are visible. This is the minimum preload setting.
- Next, remove the Progressive Suspension shocks. Note the side they were removed from and location of any mounting hardware.
- Place your shock assembly in a suitable spring compressor to gain access to the retaining wire ring under the lower spring cover. Use pliers to spread the clip open and pick to prevent clip from going back into the clip groove. Keeping the wire clip edges off the rod end will prevent scratches during removal. Remove the lower wire clip.
- Remove the shock assembly from the suitable spring compressor.
- Starting on riders left side shock, remove the lower cover and main spring. On 944 Series shocks, the helper spring and body protector also need to be removed.





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- Remove the upper wire ring from the damper body, located at the end of the damper body preload threads. Note this wire ring has a wider opening, and can be pushed off the body with the wire ring ends in the groove.
- Remove the preload adjuster from the damper body by turning the preload adjuster past the wire ring groove. The QPS will replace this component. The Progressive Suspension decal on the damper body will likely get damaged from the preload adjuster cap and QPS threads. Decal replacements are included in this kit.
- Clean the damper body with mild soap and warm water and let dry.
- Thread the QPS onto the damper body by turning the assembly counter-clockwise until no preload grooves are visible on the damper body. And the 8mm hex would be positioned to the rear of the motorcycle. For touring models we recommend positioning the hex in-line with the damper body inner mounting eyelet.
- If progressive decal is damaged, replace the damaged decal. Isopropyl alcohol can be used to remove old adhesive residue.
- From the side of the damper, place the open ends of the upper wire clip into the groove. Push the wire ring over the body. Verify ring is installed in the groove.
- The left side clamp is intended to have the M5 screw on the clamp facing the motorcycle. Remove the M5 button head screw. Insert the left clamp assembly over the top damper mounting eyelet and into the pin location hole until the clamp contacts the top of the QPS housing.
- Apply thread lock compound to the M5 button head screw threads. Torque to 50 in-lbs.
- Refer to the exploded view with the QPS for component assembly order for your shock. 944 shocks use the 944 spacers. **444 shocks do not use the spacers.**





## QUIK PRELOAD SYSTEM (QPS) FOR 944 AND 444 SERIES

- Using a suitable spring compressor, install the components removed earlier. 944 component order: 944 spacer, body protector, helper spring, main spring, lower cover, then wire ring. 444 component order: main spring, lower cover then wire ring.

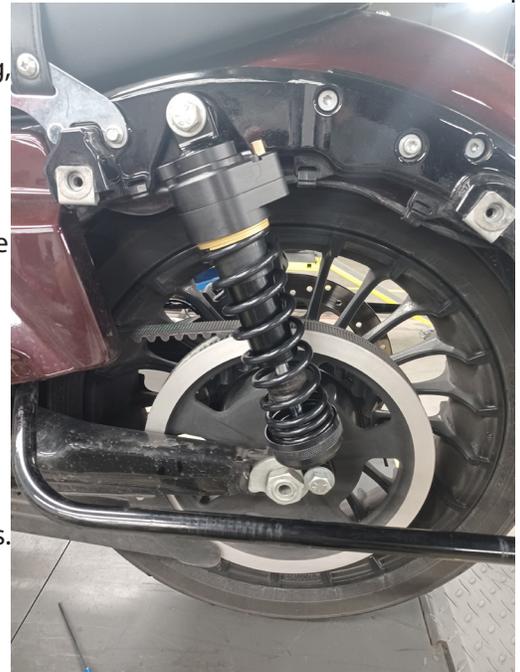


Ensure that the wire ring is properly seated in the groove, before allowing the spring to extend.

- Install your left shock with QPS on the motorcycle using the same hardware you removed earlier.
- Repeat above steps with the right shock.
- Refer to your owners manual for shock mounting bolt torque and procedures. Torque to the OEM torque specification.
- Reinstall bags and accessories removed in accord with their mounting instructions. Verify that the QPS will not interfere with any component or accessory that was removed earlier. Interference must be addressed before proceeding.
- Verify that the QPS can be adjusted with bags and accessories installed.
- Adjust spring preload on both shocks by turning the 8mm hex counter clockwise until the distance from the top of the QPS housing to bottom of clamp = "current spring preload setting" recorded earlier. Or adjust by counting the number of 8mm turns = "current spring preload setting" (in millimeters) x 3.5.

EX: "current spring preload setting" = 5mm.  $5\text{mm} \times 3.5 = 17.5$  turns

- Verify that your sag is correct by checking the target ride length. Instructions to check sag and target ride length, can be found at [www.progressivesuspension.com](http://www.progressivesuspension.com) at the bottom of the shock model web-page. Enter your motorcycle year / model, select the shock model (944 /444), shock length and spring rate. Adjust preload as needed to achieve target ride length.





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- Repeat the sag check with rider + luggage, rider + passenger, and rider + passenger + luggage.
- Record the total number for turns to achieve the target ride length on the supplied preload setting decal.
- Test ride: if excessive bottoming occurs you need to increase your spring preload setting.
- Apply the preload setting decal to a clean surface on your motorcycle for future reference.
- Then ride and enjoy... Carry a 8mm tool for on the road adjustments. Wash with mild soap and warm water.
- *NOTE: DO NOT USE POWERED TOOLS WHEN ADJUSTING THE PRELOAD. The QPS is a threaded device, so if you adjust fully to the minimum or the maximum setting, you will feel a sudden increase in torque when you reach the end of the range of adjustment. This sudden increase in resistance is the adjuster tightening against its stop. When you feel this, we recommend that you turn the QPS 8mm hex 1/2 turn off the stop. This will facilitate easy adjustments in the future. If the adjuster is tightened firmly against its stop, either at minimum preload or maximum, you may have difficulty re-adjusting the preload.*



### TECHNICAL INFO

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



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