



INSTALLATION INSTRUCTIONS

465 SERIES SHOCKS *

TOOLS NEEDED:

Floor Jack, Torque Wrench, Hex Keys (*5/32" & 1/4"), Torx Bits (*T25 & T50), 3/4" Socket & *Philips Screwdriver. For specifics, please refer to your service manual.
(* Used only on models with factory hydraulic spring pre-load adjusters.)

NOTE:

PLEASE read and refer to our warning, caution, and warranty on the last page before proceeding to install your new shocks on your motorcycle.

INSTALLATION:

1. First, place a quality jack or sufficient blocks under your motorcycle to securely lift the rear wheel slightly off the ground
2. Next, using the correct service manual for your bike, remove the old shock and note the location of any mounting hardware. If additional accessories are installed on your motorcycle, please refer to their mounting instructions for removal to gain access to your shocks.
3. Before installing your new Progressive shock, If the rear fender or tire has been changed to anything other than stock, or if any other parts or accessories have been changed or added that could interfere with rear suspension movement, you need to check for adequate clearance. To check clearance, with no shock installed, lift the rear wheel until you feel resistance to movement or contact between tire/fender, swing arm/battery box, belt guard/frame or any other components. With the rear wheel held in this "Point of Contact" position, measure the distance between the center of the front shock mount and the center of the rear shock mount as indicated by the double-ended arrow shown below. This measurement **MUST** be equal to or less than 10.9"



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4. Install the shock assembly into the motorcycle with the included hardware. Review the photo below regarding which bearing spacers with o-rings are used in each end of the shock. Install the shock with the 5 position rebound damping adjuster toward the rear of the bike with the numbers facing up. Tighten bolts to their proper torque (rear bolt = 70-75 ft/lbs, rear pinch bolt = 12-15 ft/lbs, & front bolt = 80-90 ft/lbs). Reinstall any accessories removed in accord with their mounting instructions. Make sure accessories do not interfere with suspension movement throughout the full range of travel.



Wide Bearing Spacers with O-Rings installed as shown and installed at rear shock mount (swingarm).



Narrow Bearing Spacers with O-Rings installed as shown and installed at front shock mount (frame).

5. Set your ride sag. The proper spring pre-load setting will permit the rear suspension to sag, or compress, approximately 1/3 of the wheel travel from full extension. To check ride sag, take a measurement from the center of the rear axle, straight up to a vertical point on the rear fender with the shock fully extended (rear wheel slightly off the ground). Then, take a second measurement using the same points with the full weight of the rider(s), including gear & any luggage, on the bike. The difference between the two measurements is the ride sag. Use the right most column in the table on the next page to find the target ride sag based on your shock part #. Too much sag? Increase pre-load. Too little sag? Decrease pre-load.

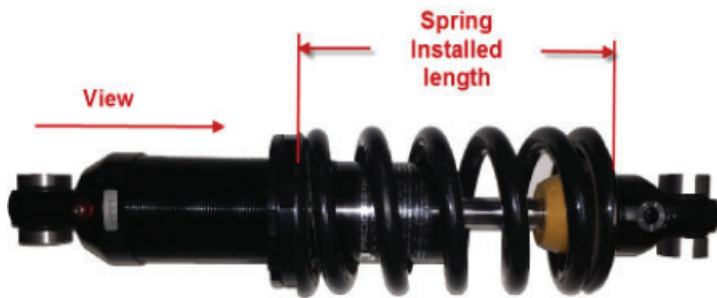




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PRELOAD ADJUSTMENT:

6. Spring pre-load adjustments are made by loosening the jam nut & turning the adjuster nut (using a 3/8" ratchet and supplied spanner wrench). Viewing as shown, turn the adjuster nut clockwise to increase spring preload and counterclockwise to decrease spring preload, using these measurements as your guide. See table and figure below.



Shock Part #	Min. Spring Installed Length* Inches (mm)	Max. Spring Installed Length* Inches (mm)	Target Ride Sag Inches (mm)
465-1184B	5.8 (147)	6.3 (160)	1.7 (44)
465-1185B	5.3 (135)	6.3 (160)	1.5 (38)
465-1186B	4.6 (117)	5.8 (147)	1.2 (30)
465-1187B	4.9 (124)	5.8 (147)	0.9 (22)
465-1188B	6.2 (157)	6.8 (173)	1.7 (44)
465-1189B	6.0 (152)	6.8 (173)	1.5 (38)
465-1190B	5.0 (127)	5.8 (147)	1.2 (30)
465-1191B	5.0 (127)	5.8 (147)	0.9 (22)

NOTE: The adjuster is a threaded device, and if you rotate the adjuster beyond the recommended maximum spring length* setting, you run the risk of the spring losing contact at full extension of the shock. This can lead to excessive noise and/or component failure. Similarly, if the adjuster is rotated to a setting beyond the recommended minimum spring length* setting, you run the risk of the spring coil binding before full compression of the shock. This can lead to a harsh ride and/or component failure. ***Min & Max spring lengths must be measured with the shock fully extended (rear wheel slightly off the ground).**

REBOUND ADJUSTMENT:

Your 465 shock also has an external rebound damping adjustment which can be adjusted using the supplied 1/4" hex key. The rebound adjuster has 5 adjustment positions and is preset from the factory at our recommended setting of 3. Adjustments can be made based on riding style, road conditions & personal preference. Turn the adjuster clockwise to increase rebound damping (higher number) or turn the adjuster counterclockwise to decrease rebound damping (lower number).

NOTE: Due to the cam shape design of the rebound adjuster, any damping change from position 1 must be made in a clockwise direction. Do not turn the adjuster counterclockwise from position 1 to position 5 as this can damage the shock!





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REBOUND ADJUSTMENT (continued):

Increase Rebound: More rebound may be desired if the back of the bike feels like it is lifting up too much or too quickly during braking or after a bump is hit. More rebound may also be desired if the bike feels like it is moving around excessively and not settling down after hitting a bump.

Decrease Rebound: Less rebound may be desired if the back of the bike is too firm and not very compliant with the road. This may be noticeable after a series of bumps very close to each other or after a large bump is encountered. Less rebound may also be desired if the ride feels too harsh or choppy.

We recommend making rebound adjustments 1 position at a time until a desired rebound setting is found.

8. Test ride: If excessive bottoming occurs, you need to increase your spring pre-load setting as previously described.
9. Lastly, ride and enjoy...Safely!



Complete your suspension upgrade with a set of Progressive Suspension Fork Springs or Fork Monotube Kit!

For a visual interpretation of this install, check out our video-guide on our youtube channel at <https://www.youtube.com/user/ProgressiveVideos>





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WARNING

This means there is the possibility of injury to yourself or others. Raising or lowering the rear of your motorcycle will affect the steering and initial ground clearance. If the motorcycle is lower to the ground, care should be taken to avoid bottoming, especially over bumps or in turns. Raising the rear of a motorcycle can change the steering head angle. Always use extreme caution when riding after a change is made and take time to get accustomed to any handling change. The motorcycle must be securely blocked to prevent it from tipping over when the shocks are removed. Failure to do so can cause serious damage and/or injury. The use of a lowering or lift block on Progressive Suspension shocks is not recommended and may void the warranty or damage the shock/motorcycle. Progressive Suspension shocks are designed to work on the OEM (Original Equipment) frame and swingarm. Use of these shocks on a frame or swingarm other than OEM may produce an unsatisfactory ride and void the warranty. Make sure that proper bushings/sleeves are installed in the shocks. Improper bushings/sleeves can cause unsatisfactory and/or unsafe operation. For Progressive Suspension shocks that use spherical bearings in the shock mounting ends. You **MUST** pack each bearing with high quality extreme pressure (EP) grease before installing (if not already present). Periodically service the bearing(s) by cleaning and repacking to ensure optimum operation. Dirty and/or ungreased bearings can cause poor performance, shock noise and may also lead to shock failure and loss of control.

CAUTION

Make sure to adjust your spring preload with both ends of the shock mounted to the motorcycle or otherwise secured as to not allow rotation of the ends while making the pre-load adjustment. Not doing so may cause internal damage to the shock which could result in shock malfunction and injury. Be sure not to remove the travel limiters (if any) or the jounce bumper. If removed, some components could come into contact during the ride (tire/fender, swing arm/frame, etc), resulting in very unstable behavior which could lead to serious damage and/or injury. Do not attempt to disassemble the shock yourself. Our shocks contain highly pressurized gas, attempting to open them could lead to injury. Progressive Suspension's shocks are designed to last the lifetime of the motorcycle. If for any reason you need to disassemble the shock, please call our customer support line at: 1.877.690.7411

WARRANTY

Progressive Suspension warrants to the original purchaser of 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.

