### STREET PERFORMANCE SERIES SHOCKS FOR HARLEY-DAVIDSON TOURING AND DYNA MODELS **INSTALLATION AND SETUP**

- QS3 WITH COMPRESSION AND REBOUND ADJUST
- QS3 WITH REBOUND ADJUST
- IFP WITH REBOUND ADJUST
- IFP

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# STREET PERFORMANCE SERIES SHOCKS

- QS3 WITH COMPRESSION AND REBOUND ADJUST

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- IFP WITH REBOUND ADJUST

- IFP

Thank you for choosing FOX direct-replacement shocks for your motorcycle. FOX products are designed, tested, and manufactured by the finest professionals in the industry.

Please read the entire manual before attempting to install the shocks on your motorcycle. If you have any questions call the FOX motorcycle shock service center at 831.740.4619

FOX recommends that you become completely familiar with the handling characteristics of your modified motorcycle before operating it under rigorous conditions, helping to avoid potential loss of control events. FOX further recommends that you use appropriate protective equipment at all times when operating your motorcycle.

To achieve the best performance and product longevity, periodic service and maintenance is required. Please refer to the SHOCKS NEED LOVE TOO section for more information.

#### **TOOLS REQUIRED**

- Vehicle manufacturer's workshop manual for torque specifications
- Motorcycle floor jack
- Ratchet and assorted sockets or wrenches sized appropriately to your motorcycle's mounting hardware
- Red Loctite
- Torque wrench
- Tape measure



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#### SAFETY INSTRUCTIONS

#### WARNING

- FOX direct-replacement shocks are designed to fit and allow proper clearance with the stock components. If aftermarket suspension components are installed it is the customer's responsibility to ensure that interference between the FOX shocks and other motorcycle components does not occur at any point in the shock stroke.
- FOX direct-replacement shocks should always be installed as a set for maximum performance.
- Proper installation and service procedures are essential for the safe and reliable operation of the suspension components, requiring the experience and tools specially designed for this purpose. Installation and maintenance procedures for this product must be performed by a qualified service technician, to avoid potentially unsafe motorcycle handling characteristics, which may result in SERIOUS INJURY or DEATH.
- Modifying your suspension will change the handling characteristics of your motorcycle. Under certain conditions, your modified motorcycle may be more susceptible to loss of control, which can result in SERIOUS INJURY or DEATH. Thoroughly familiarize yourself with the modified motorcycle handling characteristics before any rigorous vehicle operation. Wear protective body gear and a helmet when appropriate.
- FOX direct-replacement shocks are gas-charged and are highly pressurized. Placing shock bodies in a vise or clamp, applying heat, or attempting to open or service the shock without the proper tools and training can result in SERIOUS INJURY or DEATH. Do not attempt to modify, puncture or incinerate a FOX direct-replacement shock absorber.
- Any attempt to misuse, misapply, modify, or tamper with any FOX product voids any warranty and may result in SERIOUS INJURY or DEATH.

#### INSTALLATION GUIDELINES

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- Always use a motorcycle floor jack for the installation of shocks, and make certain that the raised motorcycle is securely attached to the lift to prevent the motorcycle from slipping, falling, or moving during the installation process.
- DO NOT install any FOX product without the necessary special tools, expertise and a motorcycle floor jack or you will subject yourself to the risk of SERIOUS INJURY or DEATH. Ensure that the motorcycle is:
  (1) on level ground, (2) that the wheel not in use during installation is supported to prevent unsafe movement of the motorcycle, (3) and that adequately secured stabilizer straps are used to support the motorcycle while it is elevated. NEVER work on the motorcycle until you have checked to ensure that the motorcycle will be stable during installation.
- FOX direct-replacement shocks are designed to fit your motorcycle's shock mounts without modification except the reservoir placement on specific models and applications.
- If a preload adjustment is necessary for your application, use the supplied plastic adjustment tool to avoid damaging your preload ring. If you have difficulty adjusting your preload, you may find it easier to adjust preload with the shock off the motorcycle. Once the shock is removed, mount one of the eyelets in a vice so as not to cause damage to any of the shock components. You can then adjust the preload ring using the provided tool. If you cannot reach your optimal ride height within the shock's available preload adjustment, you will need to go up in spring rate to one that fits the application.



#### STREET PERFORMANCE SERIES TOURING AND DYNA SHOCK INSTALLATION

Use a motorcycle floor jack when installing shock absorbers to remove the load on the mounting hardware.





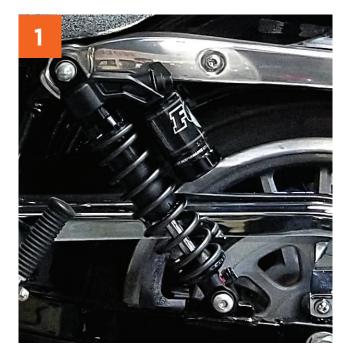
- 1. Loosen the upper and lower mounting hardware that secures your stock shocks.
- 2. Adjust your floor jack so that the hardware and shock come off easily.
- 3. Inspect the mounting hardware and replace any hardware that's been damaged.
- 4. Install your new FOX shocks with the shock eyelet on the swing arm first.
- 5. If the shock is equipped with a rebound feature, position the knob rearward.
- 6. Apply a dab of red Loctite on the lower mounting threads and tighten the hardware to the manufacturer's torque specifications.
- 7. Hold the shock to line up the upper shock mount. You may need to use one or more of the supplied spacers between the frame and shock to keep the shock aligned.
- 8. Adjust your floor jack so the new shock and upper hardware mount easily.
- 9. Apply a dab of red Loctite on the upper mounting threads and tighten the hardware to the manufacturer's specifications.
- 10. Carefully lower your bike to the ground and remove the floor jack.
- 11. Check to make sure shocks have adequate clearance to adjacent components before riding.



#### STREET PERFORMANCE SERIES DYNA PIGGYBACK SHOCK INSTALLATION:

#### SUGGESTED MOUNTING

1. FOX Street Performance piggyback mounted with the reservoir towards the rear (most common).



2. FOX Street Performance piggyback mounted with the reservoir toward the front for bikes equipped with saddle bags.





#### STREET PERFORMANCE SERIES TOURING AND DYNA SHOCK SETUP

#### ADJUSTING SPRING PRELOAD



FOX Street Performance Series shocks are equipped with spring preload adjusters. Use the preload spanner to adjust spring preload. To adjust the spring preload, rotate the preload ring above clockwise to increase spring preload and counter clockwise to decrease spring preload. Keep track of the spring preload by using the numbered preload increments as seen on the shock body above. Both shocks should be adjusted to the same position.

Preload Chart TOURING STANDARD SPRING						
	280	5	Spring Preload Position			
S.)	255	4	5			
D RII (LB:	230	3	4	5		
GHT	205	2	3	4	5	
Combined Rider Weight (LBS.)	180	1	2	3	4	5
		0	25	50	75	100
Luggage Weight (lbs.)						

#### ADJUSTING SPRING PRELOAD

Preload Chart DYNA STANDARD SPRING						
	280	5	5 Spring Preload Position			
S.)	255	4	5			
D RII (LB:	230	3	4	5		
GHT	205	2	3	4	5	
COMBINED RIDER WEIGHT (LBS.)	180	1	2	3	4	5
		0	25	50	75	100
Luggage Weight (Ibs.)						

Preload Chart TOURING HEAVY DUTY SPRING						
	372	5	Spring Preload Position			
S:) DER	339	4	5			
	306	3	4	5		
GHT	273	2	3	4	5	
Combined Rider Weight (LBS.)	240	1	2	3	4	5
		0	33	66	99	132

#### Luggage Weight (lbs.)

Preload Chart SUPER HEAVY DUTY 13" SHOCK						
DER S.)	500	3	Spring	Preload Position		
ED RII	458	2	3			
COMBINED RIDER WEIGHT (LBS.)	416	1	2	3		
K CO		0	42	84		
Luggage Weight (lbs.)						

#### **Example: Standard Spring**

230 lb. rider(s) + 50 lbs. of luggage = Spring preload required (5).

Example: Heavy Duty Spring

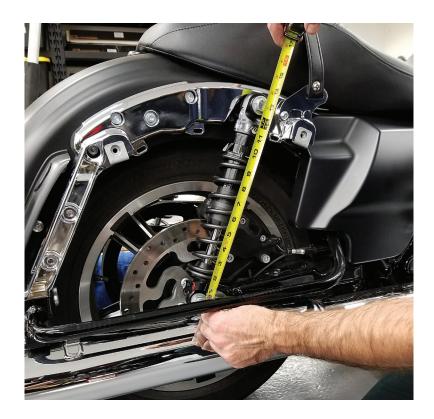
306 lb. rider(s) + 33 lbs. of luggage = Spring preload required (4).



#### STREET PERFORMANCE SERIES TOURING AND DYNA SHOCK SETUP

#### **SETTING RIDE HEIGHT**

All motorcycles and loading conditions can vary. It is best to confirm that the spring preload is set correctly after using the spring preload charts on page 5.



To set the ride height, the rider (passenger and luggage) should be seated on the bike in riding position, while an assistant or wheel chock holds the front end upright. With the rider (passenger and luggage) seated, have an assistant measure the eye to eye length of the shock and adjust the spring preload to obtain the target shock lengths listed below (rider not shown).

#### TOURING

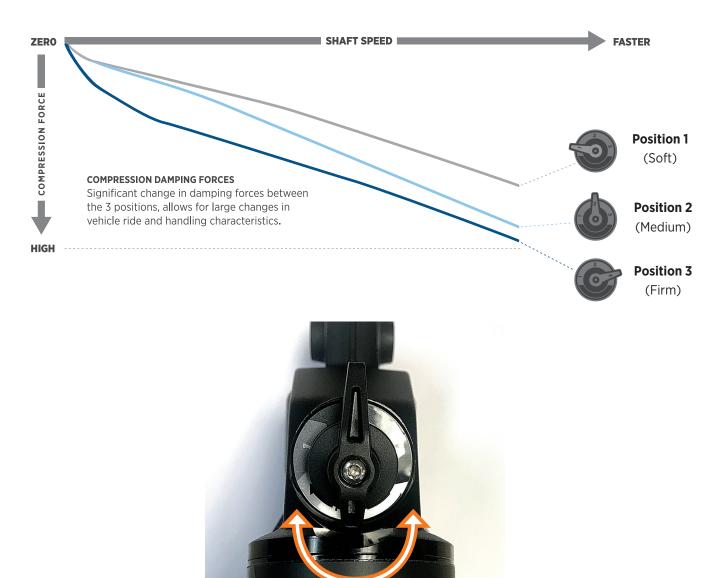
- 12 inch shocks should measure from 11 3/4 to 11 7/8 inches between eyelets with rider and passenger on bike.
- 13 inch shocks should measure from 11 7/8 to 12 1/8 inches between eyelets with rider and passenger on bike.

#### DYNA

- 11.5 inch shocks should measure from 10 7/8 to 11 inches between eyelets with rider on bike.
- 12.5 inch shocks should measure from 11 1/2 to 11 3/4 inches between eyelets with rider on bike.
- 13.5 inch shocks should measure from 12 1/4 to 12 1/2 inches between eyelets with rider on bike.
- \* Reference pages 7-9 for setting compression and rebound.



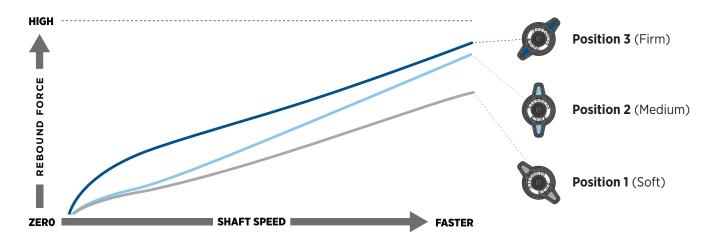
#### **QS3 COMPRESSION ADJUST DAMPING CHART**



Our QS3 tool-free adjuster allows for simple repeatable suspension setting changes on the fly. Its wide range of compression adjustment provides noticeable changes of ride quality and handling without the complications of counting clicks. Choose a QS3 setting that gives you the most confidence, comfort, or handling characteristics with just a "flip of a switch."

TUNING COMPRESSION DAMPING				
<b>SYMPTOM</b>	REMEDY			
Rigid, harsh ride	Turn counter clockwise			
Excessive weight transfer	Turn clockwise			
Bottoms out often	Turn clockwise			
Suspension not using full travel	Turn counter clockwise			

#### **QS3 REBOUND ADJUST DAMPING CHART**



#### QUICK SWITCH WITH REBOUND EXPLAINED

The Quick Switch 3 with rebound adjust feature gives you the ability to easily adjust the shock's rebound damping with three easy clicks. The factory setting is in the second, middle click. The performance of the shock at this setting is close to the performance of the non-adjustable shock and is a good all-around setting. For slower rebound, turn the knob clockwise. For faster rebound turn the knob counter-clockwise.

Rebound damping affects how quickly the shock extends (rebounds). Adjusting the rebound affects how quickly the wheel rebounds when traveling through a series of bumps and also determines how quickly the rear end responds in corners.



Rebound Knob

The optimum rebound setting usually requires the least amount of damping possible without the motorcycle feeling like it is bouncing off of every bump. Excessive rebound damping will typically be felt as harsh "suspension packing". This can often be seen or felt as the vehicle travels through a series of similar-sized, successive bumps. It works well for the first two or three bumps and then bottoms hard on the third or fourth. This is because the shock has not rebounded quickly enough and continues to "pack" further into the compression stroke before it can fully extend.

I UNING REBOUND DAMPING				
SYMPTOM	REMEDY			
Harsh over bumps	Turn counter clockwise			
Bottoms out often	Turn clockwise			
Wallows in corners	Turn clockwise			
Excessive weight transfer	Turn clockwise			
Suspension not using full travel	Turn counter clockwise			

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#### 24 CLICK REBOUND ADJUST



#### **ADJUSTING REBOUND**

The rebound adjust feature on your FOX Street Performance IFP WITH REBOUND ADJUST shocks gives you the ability to externally adjust the shocks rebound damping.

Adjustments are made by turning the black rebound knob on the eyelet, located on the end of the shock absorber. The rebound damping affects how quickly the rear shock extends (rebounds) after the motorcycle travels over bumps and depressions on the road.

The rebound adjuster has about 24 clicks of adjustment. Start counting clicks from the adjuster's most clockwise limit. The factory setting is 12 clicks out from bottom. Both rear shocks should be adjusted to the same position.

For slower rebound, turn the black rebound knob clockwise.

TUNING REBOUND DAMPING				
SYMPTOM	REMEDY			
Harsh over bumps	Turn counter clockwise			
Bottoms out often	Turn clockwise			
Wallows in corners	Turn clockwise			
Excessive weight transfer	Turn clockwise			
Suspension not using full travel	Turn counter clockwise			



#### MAINTENANCE

PROPER INSPECTION AND MAINTENANCE IS ESSENTIAL TO MAINTAIN THE PERFORMANCE AND RELIABILITY OF YOUR SHOCK ABSORBERS.

To avoid corrosion, you should keep the shocks and springs clean, free of dirt and moisture. The wiper seal will clean deposits from the shaft, but the shock won't necessarily fully compress every time. This means you could accumulate dirt at the bottom of the shaft and underneath the jounce bumper. Make sure you clean these areas completely to prevent shaft corrosion. Avoid using a high-pressure washer near the shaft seals or adjusters, as this could drive dirt inside the shock.

Make sure the ends of the spring and shock threads are clean and free of dirt before adjusting the preload ring. This will make the adjustment easier and reduce wear.

Ideally, the shocks should be clean around the adjusters. Use a small amount of contact cleaner or brake cleaner before making adjustments will keep these parts clean and operating smoothly for years

#### SALES AND TECHNICAL INQUIRIES

Please view the full warranty terms and conditions at www.ridefox.com/ps-warranty. All FOX products have a one-year warranty on defects in materials or workmanship. For more information or to file a warranty claim, contact a FOX Warranty representative at 1.800.FOX.SHOX (1.800.369.7469). ext. 4



#### FOX LIMITED WARRANTY

FOX Factory, Inc., a Georgia corporation having an office at 6634 Highway 53 Braselton, GA 30517 ("FOX"), makes the following LIMITED WARRANTY with respect to its suspension products:

LIMITED ONE (1) YEAR WARRANTY ON SUSPENSION PRODUCTS

Subject to the limitations, terms and conditions hereof, FOX warrants, to the original retail owner of each new FOX suspension product, that the FOX suspension product, when new, is free from defects in materials and workmanship. Unless otherwise required by law, this warranty expires one (1) year from the date of the original FOX suspension product retail purchase from an authorized FOX dealer or from a FOX authorized Original Equipment Manufacturer where FOX suspension is included as original equipment on a purchased vehicle. If law requires a warranty duration of greater than one (1) year, then, subject to the other provisions hereof, this warranty will expire at the end of the minimum warranty period required by such law.

#### **TERMS OF WARRANTY**

This warranty is conditioned on the FOX suspension product being operated under normal conditions and properly maintained as specified by FOX. This warranty is only applicable to FOX suspensions purchased new from an authorized FOX source and is made only to the original retail owner of the new FOX suspension product and is not transferable to subsequent owners. This warranty is void if the FOX suspension product is subjected to abuse, neglect, improper or unauthorized repair, improper or unauthorized service or maintenance, alteration, modification, accident or other abnormal, excessive, or improper use.

Should it be determined by FOX in its sole and final discretion, that a FOX suspension product is covered by this warranty, it will be repaired or replaced, by a comparable model, at FOX's sole option, which will be conclusive and binding. THIS IS THE EXCLUSIVE REMEDY UNDER THIS WARRANTY. ANY AND ALL OTHER REMEDIES AND DAMAGES THAT MAY OTHERWISE BE APPLICABLE ARE EXCLUDED, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR PUNITIVE DAMAGES.

This limited warranty does not apply to normal wear and tear, malfunctions or failures that result from abuse, improper assembly, neglect, alteration, improper maintenance, crash, misuse or collision. This limited warranty gives the consumer specific legal rights. The consumer may also have other legal rights which vary from state to state or country to country. Some states and countries do not allow the exclusion or limitation of incidental or consequential damages or warranties, and if dictated by law the above limitations or exclusions may not apply to you. If it is determined by a court of competent jurisdiction that a certain provision of this limited warranty and all other provisions shall remain in full effect

THIS IS THE ONLY WARRANTY MADE BY FOX ON ITS SUSPENSION PRODUCTS AND COMPONENTS, AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION HEREIN. ANY WARRANTIES THAT MAY OTHERWISE BE IMPLIED BY LAW INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED

# FOX

# SHOCKS NEED LOVE TOO

# FOX SHOCKS SERVICE & UPGRADES

HAVE YOUR FOX SHOCKS SERVICED BY FOX TECHNICIANS. CALL OUR MOTORCYCLE SERVICE CENTER AT 831.740.4619 TO GO OVER THE SERVICE OPTIONS AVAILABLE FOR YOUR SHOCKS. ONCE YOU'VE SETUP YOUR SERVICE YOU WILL RECEIVE A RETURN AUTHORIZATION NUMBER AND SHIPPING INSTRUCTIONS.

## COMPLETE SERVICE INTERVALS

- NORMAL USE:
  EVERY 50,000 MILES
- EXTREME USE:
  - MAY REQUIRE MORE FREQUENT SERVICE.

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