

For exploded diagrams and part number information, refer to the 2003 Spare Parts Catalog, P/N 950-007563-00. Contact your local distributor or visit the RockShox website at www.rockshox.com for ordering information.

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2003 Boxxer Service Guide



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TOOLS NEEDED

- Torque Wrench
- Plastic Faced Mallet
- 3/8" Ratchet
- Snap Ring Pliers
- Small Flat Blade Screwdriver
- Large Flat Blade Screwdriver
- 24mm Socket, 32mm Socket
- 3 and 5mm Hex Wrench
- Adjustable Open End Wrench
- Dental Pick, or Sharp Pick
- Safety Glasses
- Oil Pan
- Judy Butter
- RockShox 5wt oil



NOTE: THOROUGHLY READ THIS GUIDE BEFORE PERFORMING SERVICE ON YOUR PRODUCT. NOTE WHAT KIND OF KITS/PARTS YOU MAY NEED TO REPLACE.

REMOVING TOP CAPS AND COIL SPRINGS

1. Loosen the crown bolts and slide the upper and lower crown up to remove from the upper tubes.
2. Remove top caps using a 24mm socket wrench.



3. Compress the fork upper tubes into the lower legs and remove white spring spacers/All Travel spacers from top of each spring (Boxxer Race 7" travel configuration). See fig 3a.

BOXXER RACE: FOR 6" TRAVEL CONFIGURATION, THE SPRINGS ARE DIRECTLY UNDER THE TOP CAPS (FIG 3B)



4. Remove springs from upper tubes.



REMOVING OIL FROM THE FORK

- Invert the fork into a large oil pan. Cycle (compress) the upper tubes until oil has drained from fork.

NOTE: JUST UNDER THE SPRING IS A WHITE SPRING PERCH SPACER (FOR BOXXER RACE THE SPRING PERCH IS ON BOTH SIDES, FOR BOXXER TEAM/WORLD CUP THE SPRING PERCH IS ON THE REBOUND SIDE ONLY). THIS MAY SLIDE OUT OF THE FORK WHEN THE FORK IS INVERTED.



- Using a 5mm hex wrench, unscrew both shaft bolts three turns. Leave bolts in the shafts.



- With a mallet, tap the shaft bolts to release the internal shafts from the lower legs. After both shafts have been tapped free of the lower legs, completely unthread and remove the shaft bolts.

Inspect the nylon crush washers and crush washer retainers. Replace if necessary.

NOTE: EARLY BOXXER RACE FORKS WERE ASSEMBLED WITH TWO WHITE CRUSH WASHERS ON THE REBOUND DAMPER SHAFT BOLT SIDE. THE 03 BOXXER RACE EXTERNAL HARDWARE KIT INCLUDES CRUSH WASHER, CRUSH WASHER RETAINERS AND SHAFT BOLTS FOR BOTH PRODUCTION VERSIONS OF THE 03 BOXXER RACE.



- Pull apart the lower leg from each upper tube over the oil pan.

NOTE: THERE MAY BE SOME OIL STILL INSIDE THE LOWER LEG.

IMPORTANT: THE INITIAL VERSION OF THE 03 BOXXER RACE FORK INCLUDED BRAKE BOSS HOLES IN THE LOWER LEG ASSEMBLY. IF YOUR FORK HAS BRAKE BOSSES, THE FOLLOWING KITS MUST BE USED TO SERVICE THE INTERNALS (THESE KITS ARE SPECIFIC TO BOSSED LOWER LEGS):

- 110-007311-02 03 Boxxer Race HC2 Rebound Damper Assy (Boss Lower Leg)
- 110-007663-00 03 Boxxer Race Compression Rod Kit (Boss Lower Leg)
- 110-007664-00 03 Boxxer Race Shaft Bolt Kit (Boss Lower Leg)



REMOVING THE COMPRESSION/NEUTRAL SHAFT AND REBOUND ASSEMBLIES

9. With snap ring pliers, remove the rebound damper assembly and the neutral shaft assembly (Race)/compression damper (Team and World Cup).



Boxxer Race Rebound Damper



Boxxer Race Neutral Shaft



Boxxer Team and World Cup Rebound Damper



Boxxer Team and World Cup Compression Damper

10. Inspect the damper piston o-ring or glide ring, and replace if worn, cut or torn.

Part Description and Kit Number:

03 Boxxer Race HC2 Damper O-ring - 110-007610-10 (Qty 10), 110-007610-50 (Qty 50)

03 Boxxer Team/World Cup Glide Ring - 110-007611-10 (Qty 10), 110-007611-50 (Qty 50)



11. Inspect the rebound damper adjuster window for proper function with the rebound adjuster or 3mm hex key. The window should open and close smoothly. If the window does not open and close smoothly, replace HC2 rebound damper assembly.



SERVICING THE SEALS

12. Use a large sharp flat blade screwdriver to gently pry the dust wiper seals from the lower leg.

NOTE: 03 BOXXER FORKS DO NOT USE THE SNAP RING AND FLAT WASHER IN THE SEALING SYSTEM.



13. With the large sharp flat blade screwdriver, remove the main oil seals from the lower leg. Clean the area of the lower leg with a rag.



14. Lubricate the new main oil seals with a light coating of Judy Butter. Then place a 1 ¼" (32mm) socket tool on top of the seal. Firmly press on the socket with the palm of your hand to install the oil seal. Ensure the seal is completely seated inside the lower leg.



15. Lubricate the inside of the new dust wiper seals and press them firmly into the lower leg by hand. Ensure they fit flush with the top of the lower leg.



TEAM AND WORLD CUP FORKS ONLY: SERVICING THE COMPRESSION DAMPER

16. Clamp the compression damper rod into a soft-jaw alum vice clamp. Remove the compression damper end plug from the compression rod assembly using a flat adjustable wrench.



17. Remove the compression valve assembly from the compression damper rod. Using a small flat-blade screwdriver, remove the large o-ring from the end plug and replace it with a new o-ring (110-004700-00). Re-install the compression valve assembly into the compression damper rod.



REBOUND AND COMPRESSION DAMPER/NEUTRAL SHAFT INSTALLATION

18. Add a light coating of 5wt oil to the rebound damper piston o-ring or glide ring. Insert the HC2 rebound damper assembly into the bottom of the right (rider's right) upper tube.

BOXXER RACE: BEFORE INSTALLING THE REBOUND DAMPER ASSEMBLY, SEE PAGES 1 AND 8 FOR ALL TRAVEL CONFIGURATIONS.

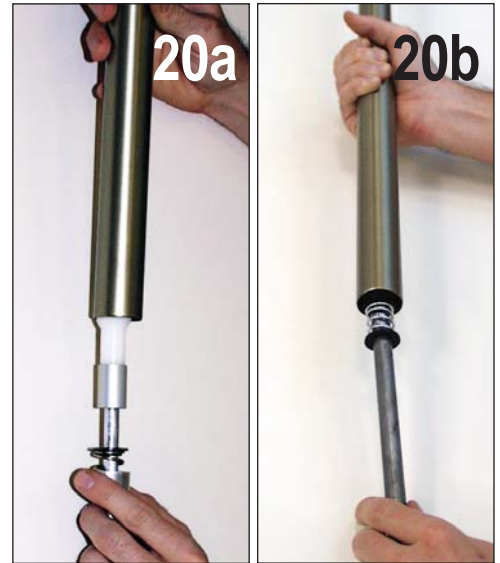


19. Slide the rebound base valve assembly over the rebound damper shaft and into upper tube. Secure with a snap ring.



20 **Race:** Insert neutral shaft, upper tube adapter sleeve, and base plate assembly into left upper tube and fix with snap ring (fig 20a, 6-inch shown). For Boxxer race All Travel configuration, see figs. 43a and 43b.

Team/World Cup: Insert compression damper and base plate assembly into left upper tube and fix with snap ring (fig. 20b).



INSTALLING THE LOWER LEGS

21. Using Judy Butter, lubricate the inside of the dust wiper seals and main oil seals.
22. Slide the lower leg assembly over the damper shafts, and onto the upper tubes. Make sure the dust wiper seals do not roll over when engaging the upper tubes.
23. Install new crush washers if damaged into the crush washer retainers (Boxxer Race may use two crush washers on the rebound damper shaft bolt! Be sure to note the number of crush washers before disassembling and make sure you install it with the same number that they came off with.).
24. Slide crush washer retainer (with crush washers) onto the shaft bolts. Install the shaft bolts into the bottom of the lower legs using a 5mm hex wrench. Torque shaft bolts to 60 in-lbs.

BOXXER RACE INSTALLING THE SPRINGS AND OIL

25. Clamp the right upper tube into a fork stand.
26. Pour 180cc/ml of 5wt oil into the top of the right (rebound damper) upper tube. Pour 170cc/ml of 5wt oil into the top of the left (neutral shaft) upper tube. Cycle the upper tubes slowly five or six times to circulate the oil through the damper circuits.
27. Pull lower leg assembly down to full-extended position.
28. Insert the spring perch spacers into each upper tube so they rest into the neutral shaft and rebound damper assemblies. To insert, drop each spring perch, narrow end down, into the top of the upper tube (figure 30a and b).
29. Insert each coil spring, adding preload spacers as needed.
30. **7-inch Travel Only:** Insert the All-Travel/spring spacer (white) on the top of the coil spring, one on each side. In the 6 inch travel setting, the All Travel spacer will be located on the rebound and neutral shaft assemblies. See fig. 30b for correct spacer orientation.
31. Install each top cap with a 24mm socket wrench and torque to 60 in-lbs.
32. Install the lower crown/steerer tube assembly, and upper crown. Torque crown bolts to 65 in-lbs.
33. Wipe the fork clean.



6-inch Boxxer Race



7-inch Boxxer Race

BOXXER TEAM AND WORLD CUP INSTALLING THE SPRINGS AND OIL

34. Clamp the right upper tube into a fork stand.
35. Pour 180cc/ml of 5wt oil into the top of the right (rebound damper) upper tube. Pour 160cc/ml of 10wt oil into the top of the left upper tube (Compression Damper). Cycle the upper tubes slowly five or six times to circulate the oil through the damper circuits.
36. Pull lower leg assembly down to fully extended position.

37. Insert the spring perch spacer into the right upper tube so it rests onto the rebound damper assembly. To insert, just drop perch into top of upper tube, narrow end down.
38. Insert each coil spring. Insert the small white spring spacer on top of the right side spring. Insert the longer spring spacer on top of the left side spring. See fig. 38 for correct parts orientation.
38. Install each top cap with a 24mm socket tool, and torque to 60 in-lbs.
39. Torque crown bolts to 65 in-lbs.
40. Wipe the fork clean.

Boxxer Race All Travel Configuration (7 inch)

41. An All Travel spring spacer should be located on top of each spring, and just under each top cap (fig. 30b). See fig. 43a for damper base plate assembly parts configuration.

Boxxer Race: Six Inch Travel Configuration

42. The spring is located just under each top cap (fig. 30a).
43. **Rebound Damper (Right) Side (fig 43a):**
 - a. Remove base valve assembly from rebound damper shaft.
 - b. Remove the small black spring cap from the bottom of the top out spring. Pull/un-snap to remove the spring cap.
 - c. Snap the white All Travel/spring spacer onto the bottom of the top out spring.
 - d. Slide the base valve assembly onto the rebound damper shaft, and rest just under the All Travel spacer.
 - e. Install damper and base valve assembly into upper tube.

Neutral Shaft (Left) Side (43b):

- a. Remove the neutral base plate assembly from the neutral shaft.
- b. Remove the small black spring cap from the top of the top out spring. Set this aside in your tool box. It is not used in the fork in 6 inch travel setting.
- c. Snap the white spring spacer onto the gold top out spring on the neutral base plate assembly.
- d. Slide the neutral base plate assembly, white all-travel spacer first, onto neutral shaft. White all-travel spacer should be just under the neutral shaft head.
- e. Install neutral shaft and base plate assembly into bottom of upper tube and secure with snap ring.



WARRANTY

RockShox, Inc. warrants its products for a period of two years from original date of purchase to be free from defects in materials or workmanship. RockShox USA, or an authorized RockShox Agent must inspect all RockShox products. If a product is found by RockShox or its authorized agent to be defective in materials or workmanship, replacement or repair is at the option of RockShox. This warranty is the sole and exclusive remedy. RockShox shall not be held liable for any indirect, special, or consequential damages.

Exclusions of Warranty

This warranty does not apply to products which have not been properly installed and adjusted according to RockShox installation instructions. The warranty does not cover any product that has been subject to misuse or whose serial number has been altered, defaced or removed. This warranty does not apply to damage to the product caused by a crash, impact, abuse of the product, non-compliance with manufacturer's specifications, or any other circumstances in which the product has been subjected to forces or loads beyond its design. This warranty does not cover paint damage or modifications to the product.

Original proof of purchase is required. Warranty repair/replacement is only valid upon presentation of proof of purchase, directly submitted to RockShox at the time of warranty evaluation. Warranty repair or replacement is at the discretion of RockShox or its authorized agent, upon physical product evaluation and proof of purchase.

This warranty does not include or cover common 'wear and tear' parts which are subject to damage as a result of normal use, failure to service product according to RockShox recommendations, wet conditions, racing, use of disc brakes, rider weight, riding or installation in conditions or applications other than recommended.

'Wear and Tear' parts are identified as: External dust seals, bushings, foam rings, rubber moving parts (such as air sealing o-rings and glide rings), stripped threaded shafts or bolts, upper tubes (stanchions), rear shock mounting hardware and springs, and fork drop outs.

Pioneer Support Program

In the event parts are unavailable at the time of your repair, at the option of RockShox or its authorized agent, a replacement fork may be provided at a determined discount price.

Warranty Expenses Incurred

The RockShox warranty policy excludes expenses incurred as a result of transportation of product from a RockShox dealer to RockShox USA, or its authorized distributor, labor performed by a RockShox dealer for removal of RockShox product, or warranty repair work performed by a RockShox dealer. Warranty work performed by a RockShox dealer is voluntary.

Warranty Repair

If for any reason it should be necessary to have warranty work done, return the product to a RockShox dealer. In the USA, dealers are required to call for a Return Authorization number (RA#) prior to returning product. Outside the USA, dealers are required to call an authorized RockShox Distributor.

For more technical information, visit our website at www.rockshox.com. For toll-free technical support in the USA, call 1.800.677.7177. Dealers outside the USA must contact their local dealer or distributor. For a complete list of Authorized Distributors outside the USA, visit www.rockshox.com.