

1999-2001 Boxxer Service Guide



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For exploded diagram and part number information, refer to the 2001 Spare Parts Catalog, P/N 950-005604-00.
Contact your local distributor or visit the RockShox website at www.rockshox.com for ordering information.

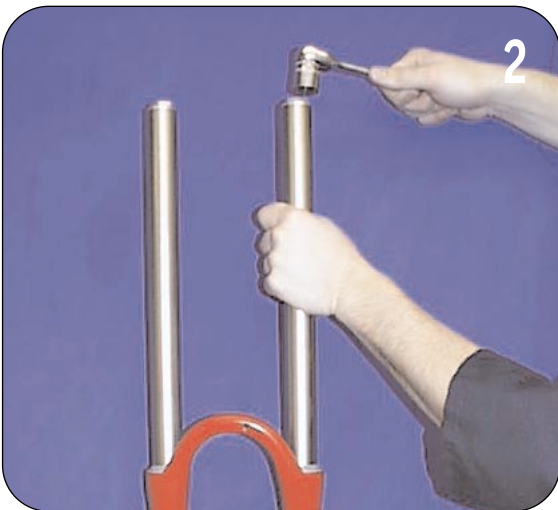
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Tools Needed



- Plastic Faced Mallet
- 3/8 " Ratchet
- Snap Ring Pliers
- Small Flat Blade Screw Driver
- Large Flat Blade Screw Driver
- 4, 6, 22 and 32 mm Socket
- 3 mm Hex Wrench
- Adjustable Wrench
- Dental Pick
- Safety Glasses
- Oil Pan
- Judy Butter
- RockShox 10 and 15 wt. oil
- Boxxer Shaft Installation Tool

REMOVING THE TOP CAPS AND COIL SPRINGS

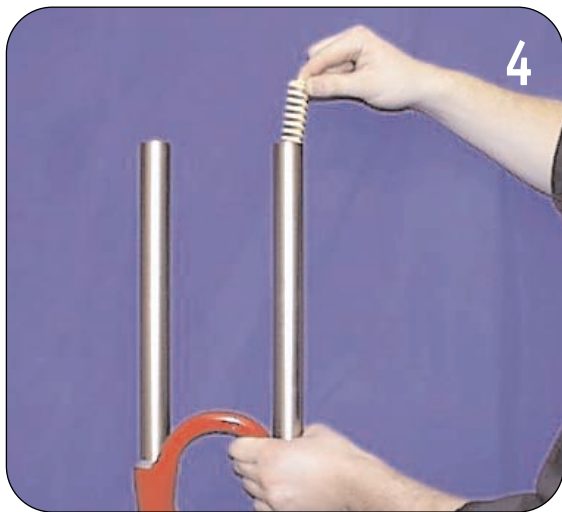


TIP: RIGHT AND LEFT SIDE IS DETERMINED FROM THE RIDER'S PERSPECTIVE.

1. We recommend removing the fork from both the upper and lower crowns. Loosen the crown bolts with a 4 mm hex wrench.
2. Remove the top caps using a 22 mm socket wrench.



3. Compress the fork and remove the volume spacers.



4. Remove springs from both sides of the fork.

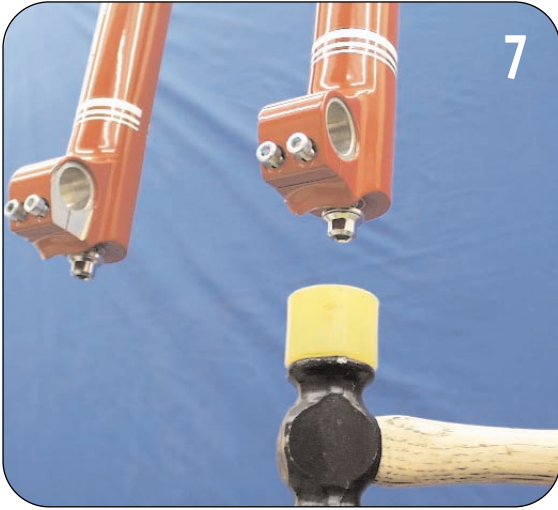
REMOVING THE LOWER LEG



5. Invert the fork into a large oil pan. Cycle each upper tube until the oil is completely drained from the fork.



6. Using a 6 mm socket wrench, unscrew both shaft bolts three turns. Do not remove shaft bolts completely.



7. With a mallet, tap the shaft bolts to release the internal shafts from the lower legs. Then completely remove the shaft bolts using the 6 mm hex wrench.



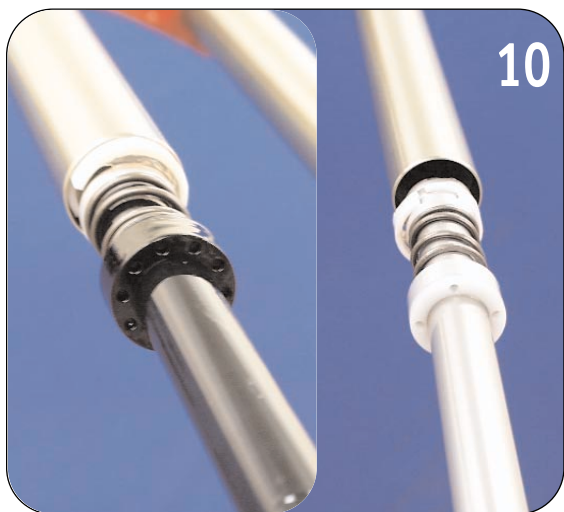
8. Remove each upper tube from the lower legs.

REMOVING THE COMPRESSION AND REBOUND ASSEMBLIES



9. With snap ring pliers, remove both snap rings from the upper tubes.

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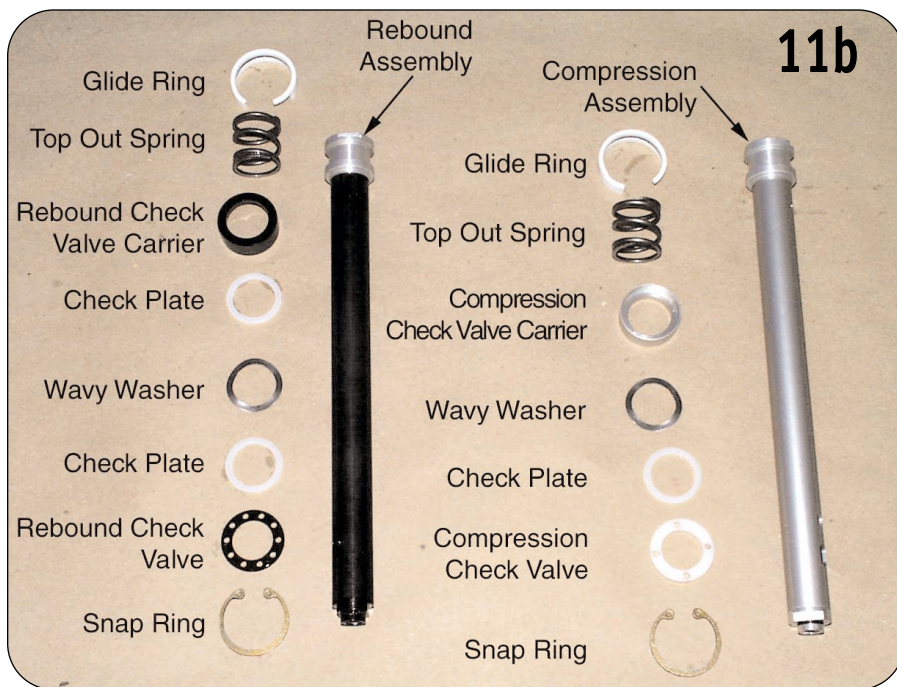


10

10. Remove the compression assembly (silver) from the bottom of the left upper tube. Remove the rebound assembly (black) from the bottom of the right upper tube.
11. Examine the compression assembly and rebound assembly for placement and orientation of parts. It is important that they are assembled correctly for the fork to perform properly. Reference figure 11 “a” and “b” for orientation of parts and for parts identification.



11a



11b

SERVICING THE SEALS



12. Use a large flat blade screwdriver to pop the wiper seals out of the lower legs.



13. Using snap ring pliers, remove the snap rings on both sides of the lower legs.



14. Remove the main seal washer with a dental pick.



15. With a large flat blade screwdriver, remove the main seal from both sides of the lower legs.



16. Lubricate the new main seals inside and out with Judy Butter. Then place a 1-1/4 inch (32 mm) socket on top of the seal. Firmly press on the socket with the palm of your hand to install the seal. Ensure the seal is completely seated in the lower leg.

17. Re-install the main seal washer on both sides (see picture 14).

18. With snap ring pliers, install the snap rings on both sides (see picture 13).



19. Lubricate the inside of the wipers with Judy Butter and press them into the lower legs by hand. Ensure they sit flush on top of the lower legs.

SERVICING THE REBOUND ASSEMBLY



20. Remove the end plug on the rebound assembly using an adjustable wrench.

TIP: PLACING THE FLATS ON THE SILVER END OF THE ROD IN A VISE KEEPS IT STATIONARY WHILE REMOVING THE END PLUG.



21. Using a dental pick, remove the seal o-ring on the end plug and replace it with a new one.



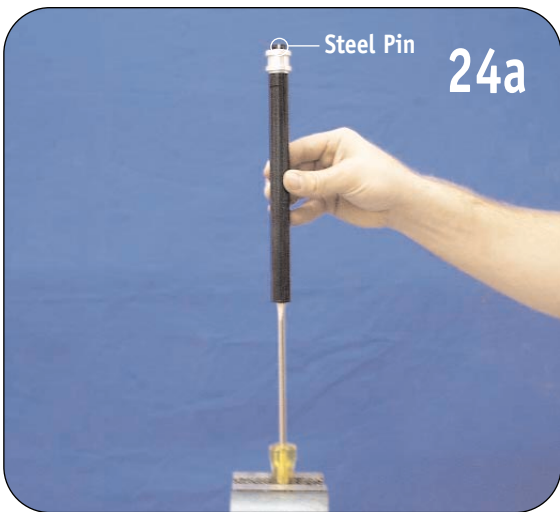
22. Remove the retaining ring from the top of the rebound shaft using the dental pick.



23

23. After removing the retaining ring, remove the wavy washer that sits underneath the retaining ring.

NOTE: KEEP THE SHAFT VERTICAL TO PREVENT THE INTERNALS FROM FALLING OUT.



24a

Steel Pin

24. Install the handle of a flat blade screwdriver in a vice. Then place the rebound assembly on top of the screwdriver and slowly push the internal shaft up until a small steel pin pops up (picture 24a). Once the steel index pin pops up, remove the index plate (picture 24b).

NOTE: BE CAREFUL NOT TO LOOSE THE SMALL STEEL BALL THAT SITS UNDER THE INDEX PLATE.



24b

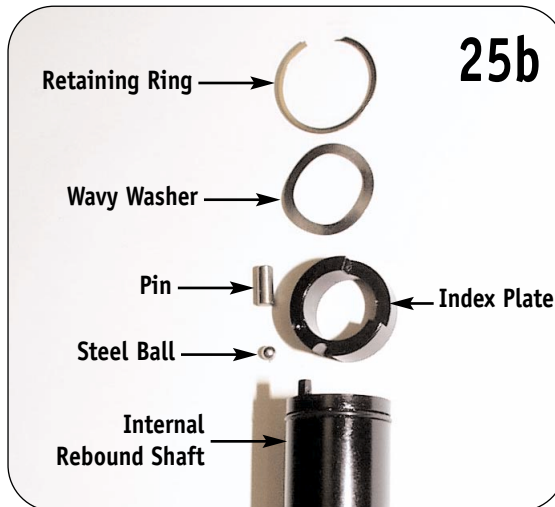
Index Plate

Steel Index Pin

25. Push the internal shaft all the way out. Note the orientation of the internal shaft.



25a



25b

Retaining Ring

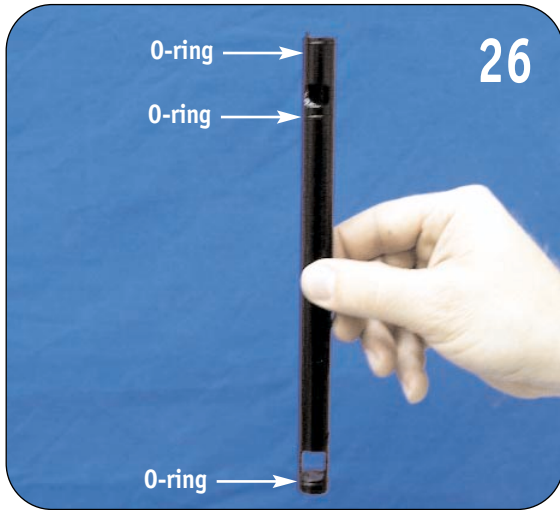
Wavy Washer

Pin

Steel Ball

Internal Rebound Shaft

Index Plate



26. Using a dental pic, remove the three o-rings from the internal shaft. All shaft o-rings are identical in specifications. Lubricate the new o-rings and install them onto the shaft.



27. Lubricate the entire internal shaft with a light coat of Judy Butter and slide it into the rebound shaft. Ensure you do not tear the three o-rings you replaced.

The internal shaft had a nub on the end and should face the top end of the rebound shaft. Also notice a hole near the top of the internal shaft. This hole should match with the slit in the outer shaft when the internal shaft is installed all the way.

NOTE: THE INTERNAL SHAFT IS INSTALLED CORRECTLY WHEN YOU CAN SEE THROUGH THE SLIT AND THE END OF THE INTERNAL SHAFT IS FLUSH WITH THE BOTTOM OF THE REBOUND SHAFT.



28. Install the parts from the internal shaft (see picture 25b) in the same orientation they came out in. If they are assembled incorrectly, the rebound adjustment will not function.

29. Lubricate the bottom side of the index plate and place the small steel ball in the round seat on the bottom of the index plate. The grease keeps the small steel ball from falling off the index plate.

30. Place the index plate inside the rebound shaft.

NOTE: THE INDEX PLATE WILL HAVE A HALF CIRCLE ON ONE SIDE. ENSURE THIS HALF CIRCLE MATCHES A HALF CIRCLE ON THE REBOUND SHAFT.

31. Install the pin, way washer and retaining ring (see pictures 22 to 24).



32

32. Check the accuracy of the rebuild by inserting a 3 mm hex wrench through the bottom of the rebound shaft assembly. You should be able to make up to a 90-degree adjustment. You should also feel the adjustment clicks when turning the hex wrench.
33. Using Judy Butter, lubricate the o-ring on the end plug. Then screw the end plug into the rebound shaft. Torque to 30 in-lb.

SERVICING THE COMPRESSION ASSEMBLY



34

34. Remove the end plug from the compression rod assembly using an adjustable wrench.



35a

35. Remove the large o-ring from the end plug and replace it with a new one (picture 35a). Then remove the small o-ring from the top of the end plug and replace it with a new one (picture 35b).

IMPORTANT: Do NOT TAKE THE COMPRESSION VALVE ASSEMBLY APART. THIS ASSEMBLY IS PRESET TO ROCKSHOX SPECIFICATIONS.

36. Lubricate the large o-ring and reinstall the compression end plug using an adjustable wrench.



35b

GLIDE RING ASSEMBLY



37. If the new steel glide ring energizer is not installed on the new glide ring, install it now.



38. Install the new glide ring on the compression shaft and shape it on the shaft with your fingers. Repeat this step on the rebound shaft.

COMPRESSION AND REBOUND ASSEMBLY INSTALLATION



39. Install the negative spring on the rebound shaft. Then slide the rebound shaft assembly through the shaft installation tool. The thin walled side of the tool will face towards the white glide ring. The glide ring will have to be form fitted with your fingers into the tool.

NOTE: THE SHAFT INSTALLATION TOOL CAN BE MADE FROM A ROCKSHOX JUDY SL, XC OR C UPPER TUBE. CUT TWO INCHES FROM THE BOTTOM PORTION OF THE UPPER TUBE. YOU MAY ALSO MAKE THE TOOL USING 28 MM TUBING THAT HAS A 26MM MINIMUM INSIDE DIAMETER.



40. Insert the rebound shaft assembly (with shaft installation tool) into the bottom of the right upper tube until it stops in the upper tube.



41. With the rebound assembly in the upper tube, push the bottom of the shaft up into the upper tube. When the shaft is an inch from the bottom of the upper tube, remove the shaft installation tool. This must be performed to get the glide ring into the upper tube.
42. Repeat steps 39 to 41 to install the compression shaft into the **left upper tube**.



43. Reinstall the rebound and compression base valve assemblies into the bottom of the right and left upper tubes. Refer to picture 11b for the proper orientation of the base valve assembly pieces.
44. Once all the base valve assemblies are installed, proceed to install the snap ring on each upper tube with snap ring pliers.



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INSTALLING THE LOWER LEGS

45. Using Judy Butter, lubricate the inside of the resi-wipers and seals. Then install the lower legs onto the upper tubes making sure not to roll over the resi-wiper lip edge.
NOTE: ADDING A THIN FILM OF OIL ON THE OUTSIDE OF THE UPPER TUBES BEFORE INSTALLATION OF THE LOWER LEGS HELPS THE FORK FEEL SMOOTH IN ITS TRAVEL.
46. Install new crush washers into the crush washer retainers. Slide the crush washer retainer (with crush washer) onto the shaft bolts. Install the shaft bolts into the bottom of the lower legs using a 5 mm hex socket. Torque the shaft bolts to 60 in-lb.

INSTALLING THE SPRINGS AND OIL

IMPORTANT: READ THIS ENTIRE SECTION BEFORE PERFORMING THE FOLLOWING STEPS!

TIP: RIGHT AND LEFT SIDE IS DETERMINED FROM THE RIDER'S PERSPECTIVE.

47. Compress the fork all the way until it bottoms out and ensure there are no springs inside.
48. Install 10 wt. oil into the left upper tube and 15 wt. oil into the right upper tube. There should be 120 mm between the top of the upper tube and where the oil sits.
49. Cycle the upper tubes five or six times. This allows the oil to fill the valve cavities.
50. Compress the upper tubes all the way until they bottom out and measure the oil height again. If the oil has decreased, install the appropriate oil into each upper tube to achieve 120 mm of space between the top of the upper tube and where the oil sits.
51. Install the springs and spring spacers into each upper tube.
52. Using a 22 mm socket, install the top caps and torque to 60 in-lb.
53. Install the upper fork crown and bolts. Torque the fork crown to 65 in-lb.
54. Wipe the fork clean



For further information visit our website at www.rockshox.com or call 1.800.677.7177. If you live outside of the United States, contact the RockShox distributor in your country.





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