2003 PILOT RACE SERVICE GUIDE

For exploded diagram and part number information, refer to the Spare Parts Catalog available on our website at www.rockshox.com.

Contact your local distributor or visit the RockShox website at www.rockshox.com for ordering information.

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PN 95.4308.629.000, Rev. B

Tools Needed

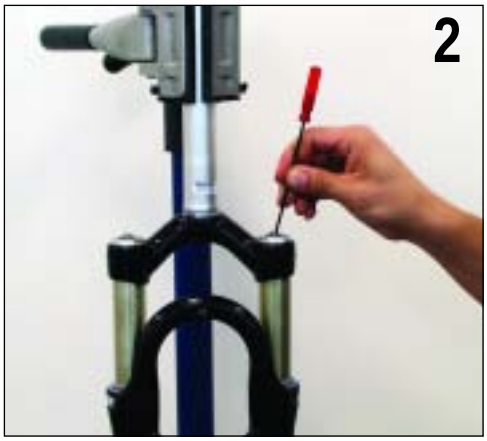
Clean work area
Oil Pan/Bucket
Lint free rag
Bike work stand
Plastic mallet
24mm socket wrench
Dental pick or sharp pick
Torque wrench
Judy butter
Shock pump
Bicycle Work Stand
Safety glasses
Mild degreaser or isopropyl alcohol
5mm Hex Wrench
Valve core remover (11.4308.300.000)
15mm socket wrench
5mm Hex Wrench
15 wt oil
Threadlock

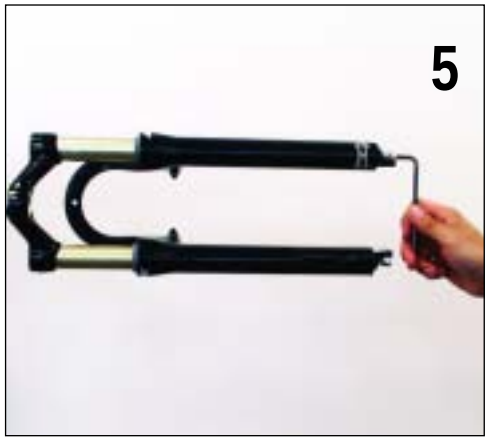
NOTE: SERVICE ON YOUR FORK MAY BE PERFORMED WHILE STILL INSTALLED ON YOUR BICYCLE. THOROUGHLY READ THIS GUIDE BEFORE PERFORMING SERVICE ON YOUR PRODUCT. NOTE WHAT KIND OF KITS/PARTS YOU MAY NEED TO REPLACE. SEE THE SPARE PARTS CATALOG FOR A COMPLETE LIST OF PART #S AND EXPLODED VIEWS. ALWAYS WEAR SAFETY GLASSES WHEN YOU ARE WORKING ON YOUR FORK!

Disassembly

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

1. Remove the air caps from both air top caps.
2. Press the schrader valves to release air pressure from both air chambers. The fork should be completely deflated before disassembly (fig. 2)
3. Remove the rebound adjuster knob. Pull straight down to remove from hollow shaft bolt/rebound internal adjuster rod assembly.
4. Place an oil pan below the fork.
5. Using a 5mm hex wrench, loosen both bottom bolts approximately three turns or halfway. Do not completely remove bolts (fig. 5)





6. Using a plastic-faced mallet, firmly tap bottom bolts until both shafts are free from the lower legs (fig. 6). You will feel the shafts release from the lower leg press-fit.

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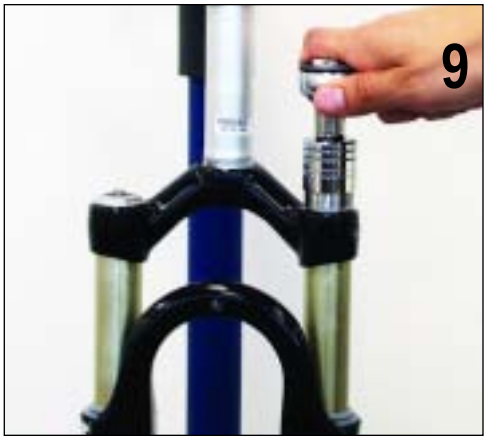
Lower Leg Removal

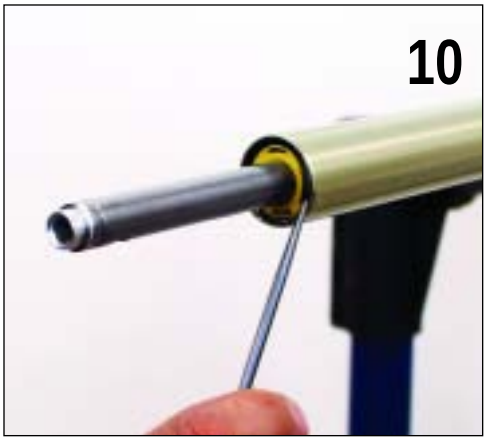
7. Remove the bolts completely by hand, and gently slide the lower legs down about 1 inch. Oil will drain into the oil pan. You may need to tap the top of the brace lightly with a rubber mallet to release the lower leg from the shafts. After oil is completely drained, remove lower legs (fig. 7).
8. Using a lint-free rag and isopropyl alcohol, wipe the upper tubes clean of oil and contamination. Inspect the upper tubes for wear. If anodized upper tube surface finish is worn, the crown/steerer/upper tube assembly should be replaced. Worn upper tubes occur as a result of worn or contaminated bushings Replace bushings if upper tubes are worn!

   NOTE: REFER TO THE BUSHING INSTALLATION GUIDE FOR PROPER BUSHING REMOVAL AND REPLACEMENT PROCEDURES.
9. Using a 24mm socket, loosen and remove both air top caps (fig. 9). Inspect the top cap o-rings for wear. Replace if worn or damaged. Inspect schrader air valves.

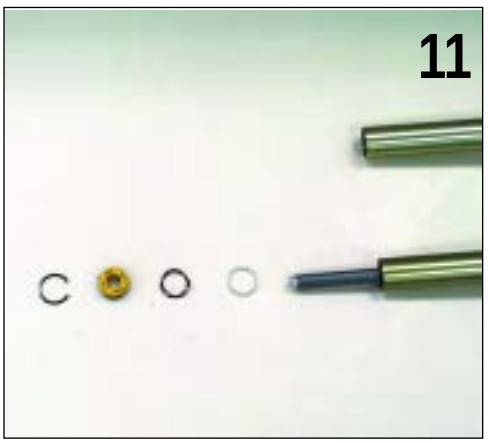
   NOTE: CUTS, KNICKS OR WORN TOP CAP O-RINGS MAY RESULT IN AIR-LOSS.



10. Slide a 15mm socket over and through the air shaft and firmly push (both) base valves into the upper tubes. This compresses the internal wave spring, and allow the release of the retaining ring. Simultaneously, pry the retaining ring from the grooves in upper tubes starting from the notched end, using a dental pick (fig. 10).

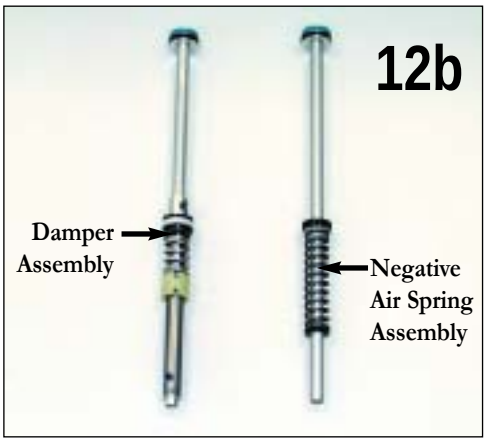


11. Remove base valves, steel wave springs, and aluminum flat washers from both upper tubes. Note the orientation of these parts to assist with reassembly (fig. 11).
12. Carefully pull damper assembly and neutral shaft assembly from the bottom of the upper tubes. Clean both assemblies with isopropyl alcohol. Inspect air piston o-rings, blue air piston glide rings, and white damper glide ring for wear or damage. Replace if necessary. (11.4304.909.000). See figure 12a and 12b.



Reassembly

13. Lubricate the air piston o-rings liberally with oil soluble grease or Judy Butter. Install damper and neutral shaft assemblies through the bottom of the upper tubes. The damper goes on the right side and negative spring assembly on the left side (disc tab side). Use care not to damage o-rings on the retaining ring grooves.
14. Install base valve flat washers, steel wave springs, and base valve assemblies into the bottom of the upper tubes. (Install in correct order, see fig. 12)
15. Using the 15mm socket tool (see step 9). Firmly depress the base valves and re-install retaining rings by firmly pressing them into the grooves. Ensure both retaining rings are fully seated. You will hear a distinctive 'click' sound when they are correctly seated into upper tube retaining ring groove.



16. Add 3cc/ml of 15wt oil or RockShox RedRum into the positive air chamber through the top of the crown/upper tube holes (fig. 16). This lubricates the positive air seal o-rings and protects from heat friction.

    Tip: Periodically remove the air top caps and add 2-3 cc/ml of RockShox fork oil or redrum to keep the air piston o-rings lubricated. This also prolongs the life of the main air seals and will decreases frequency of service intervals.
17. Apply grease to top cap o-rings and install top caps. Torque to 50 in-lb.
18. Carefully slide the lower legs onto upper tubes (fig. 7). Be sure the dust seals do not fold over onto the upper tubes! Push the lower legs up the upper tubes until the top bushings are engaged. Stop when you feel the lower bushing engage the bottom of each upper tube. Ensure both air and rebound damper shaft ends do not obstruct the lower leg shaft bolt holes.
19. Invert fork in the bicycle stand to about 45 to 90-degrees to fill lower legs with bushing lubrication oil. Using an oil-beaker (or oil-mixing syringe), pour/inject 100cc of 15wt oil into right leg (from rider's perspective) through the shaft bolt hole (fig. 19). You may need to allow time for oil to fill the damper as to prevent overflow.
20. Using an oil-beaker (or oil-mixing syringe), pour/inject 10cc of 15wt oil into left leg (air spring side), through shaft bolt.
21. Slowly push lower legs down until both shafts engage into the bottom of lower leg shaft bolt holes.

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22. Inspect the shaft bolt and black nylon crush washers for damage. Clean or replace as needed. Reinstall both shaft bolts. Hollow bolt on damper side, solid bolt on negative spring assembly side. Torque bolts to 60in-lb.
23. Reinstall damper adjuster knob by firmly pressing it into the damper shaft hole/bolt
24. Inflate to desired air pressures (fig. 24). For best performance results, inflate left and right air chambers equally.

AIR PRESSURE GUIDELINES

Rider Weight	Air Pressure
>120lb (55 kg)	30-40 psi
120-140lb (55-65 kg)	40-50 psi
140-160lb (65-73 kg)	50-60 psi
160-180lb (73-82 kg)	55-65 psi
>180lb (82 kg)	65-75 psi

25. Reinstall air valve caps.
26. To finish, spray isopropyl alcohol onto entire fork, and wipe with a clean rag.