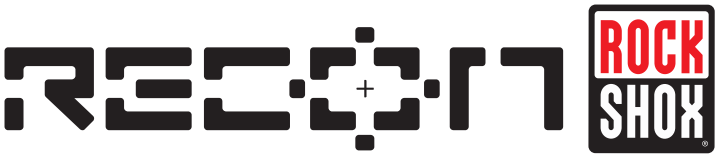
2006 RECON SERVICE GUIDE



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

PN 95.4310.755.000, Rev. A

- Perform service every 100 hours of riding (less depending on riding conditions and riding style).
- Regular maintenance ensures your RockShox suspension fork performs as it should.
- For bushing removal and installation, please reference the Bushing Service Guide.
- **Right side equals rider's right; left side equals rider's left.**

GETTING STARTED

1. Remove fork from bicycle.
2. Spray entire fork with isopropyl alcohol and wipe all dirt and mud from fork. Clean around dust seals and upper tubes.
3. Lay tools out on work bench and create a clean work area for internal's service.
4. Place oil pan under fork on floor.

TOOLS

- Safety Glasses
- Clean Rags
- Oil Pan or Bucket
- Bicycle Stand / Clean Work Table/Area
- 24mm 6-point Socket
- Plastic-Faced Mallet
- Snap Ring Pliers (internal and external)
- Shock Pump
- 2mm, 2.5mm, 5mm Hex Wrench
- Long and Short Plastic or Wood Dowel, 3/4" diameter (non-metallic)
- Torque Wrench
- Sharp Pick/Dental Pick
- Oil Mixing Syringe & Measuring cup
- Isopropyl Alcohol/Spray Bottle
- 5wt and 15wt Suspension Oil

LOWER LEG REMOVAL (AIR AND UTURN)

1. **Recon Air:** Remove air valve cover cap from the left side air top cap. (fig 1a)

   Depress positive schrader valve and remove all air from air spring chamber. (fig 1b)

2. Gently pull external rebound adjuster knob and remove from right shaft bolt. (fig 2)

3. Using a 5mm hex wrench, loosen both shaft bolts 3 to 4 turns (fig. 3a). With hex wrench in shaft bolt, tap each bolt free with plastic mallet. Using your fingers, remove both shaft bolts completely (fig.3b/3c).

4. Firmly pull the lower leg assembly down by holding each leg or the brake arch. Remove lower leg assembly and allow all excess oil to drain into an oil pan (fig. 4a/4b).

Spray isopropyl alcohol onto each leg. Wrap a clean rag around a long dowel and clean inside of lower leg.

IMPORTANT! **DO NOT STRIKE OR TAP THE BRAKE ARCH WITH A MALLET. THIS WILL DAMAGE THE MAGNESIUM.**

5. Spray isopropyl alcohol onto and into each lower leg; wipe clean. Wrap a clean rag around long dowel and clean inside of upper tube.

RECON U-TURN: SKIP TO STEP 19.

RECON SOLO AIR SPRING ASSEMBLY

REMOVAL

6. Verify all air pressure is removed from air chamber before proceeding. Depress schrader air valve to remove any air pressure (fig 6a).

Using a 24mm socket wrench, loosen and remove the air top cap assembly from upper tube/crown (fig 6b).

Remove fork from bicycle stand and pour out any lubrication oil from air chamber into oil pan or bucket.

7. Using external snap ring pliers, remove the air assembly shaft guide retaining ring from the bottom of left upper tube (figs 7a/7b).

Pull air shaft down to remove air spring assembly and shaft guide from upper tube (figs 7c/7d).

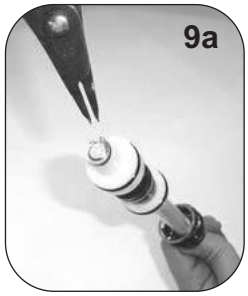
8. Spray isopropyl alcohol into upper tube (fig. 8). Wrap a clean rag around a long dowel. Insert rag into upper tube and clean inside of tube.

DISASSEMBLY & SERVICE

PART KIT REQUIRED: 32MM FORK SERVICE KIT (11.431.0705.000)

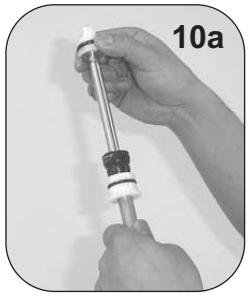
9. Using external snap ring pliers, remove air piston retainer ring (figs 9a/9b).

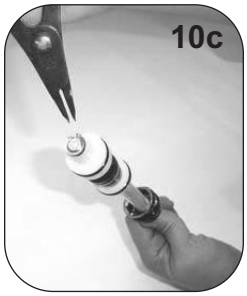
Remove air piston wavy spring washer and piston from air shaft (fig. 9c).



10. Slide air sleeve/seal head assembly from air shaft (figs 10a/10b).

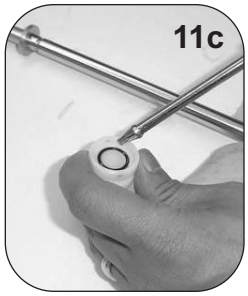
Pinch main air seal o-ring, and remove with a pick (fig 10c).





11. Using a sharp pick, remove inner piston o-ring. Do not scratch piston with pick (figs 11a/11b).

Replace with a new o-ring and coat new o-ring with 15wt suspension oil. (fig 11c).



12. Spray air shaft head with isopropyl alcohol and wipe clean with a rag (fig 12a).

Install new main air piston o-ring onto air piston (fig 12b).

Insert air piston back onto air shaft head. Install spring wavy washer onto air shaft end (fig 12c).

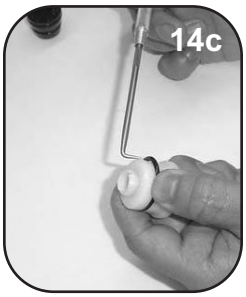
13. Install external retaining ring just above wavy spring washer and secure air piston to air shaft head (fig. 13a & 13b). Check retaining ring fit and make sure it is secure. Piston should compress slightly with spring resistance against wavy spring washer and retaining ring (fig 13c).

Coat main air piston o-ring with 15wt suspension oil (fig 13d).

14. Remove bottom-out bumper and pad from negative air sleeve/seal head (fig 14a).

Using a sharp pick, remove the inner air seal head o-ring. You may need to pierce the o-ring with the pick and pull to remove (fig 14b). Replace with new o-ring.

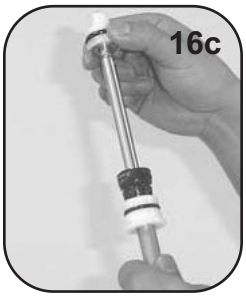
Pinch outer o-ring and remove with a pick (fig 14c). Replace with new outer o-ring.



15. Apply 15wt suspension oil to new inner and outer air seal head o-rings for lubrication (figs 15a/15b).

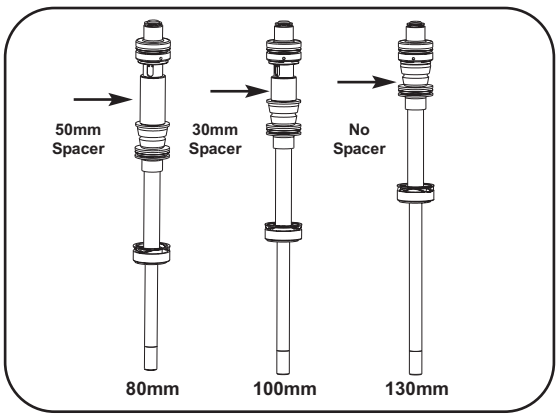
16. Insert bottom-out bumper and pad back onto air seal head. (fig 16a)

Slide air seal head/sleeve assembly back onto air shaft, bumpers first (figs 16b/16c).



ALL-TRAVEL CONFIGURATIONS

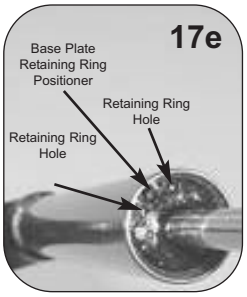
TORA AND RECON ALL-TRAVEL SPACERS ARE LOCATED JUST ABOVE THE AIR SEAL-HEAD. SNAP ONTO SEAL-HEAD TO DECREASE TRAVEL.



INSTALLATION

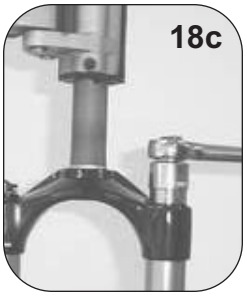
17. Insert lubricated solo air piston into bottom of upper tube (fig 17a). Slide the lower air piston/sleeve assembly into upper tube (fig 17b).

Seat the shaft guide ring and wavy washer into upper tube step (fig 17b). Slide negative air sleeve into upper tube and seat shaft guide base into upper tube step (fig 17c). Using external snap ring pliers secure retaining ring into upper tube retaining ring groove. Position retaining ring holes around retaining ring positioner on base plate (figs 17d/17e). Verify retaining ring is secure in upper tube.



18. Inject or pour 3 to 5 cc/ml of 15wt suspension oil into air chamber (fig 18a). Suspension oil in the air chamber lubricates the air seal o-ring during use and maintains the air seal.

Clean the air top cap threads with a clean rag. Insert air top cap into top of upper tube/crown (fig 18b), hand thread, and tighten to 60 in-lb with a 24mm socket wrench (fig 18c).



RECON U-TURN SPRING ASSEMBLY

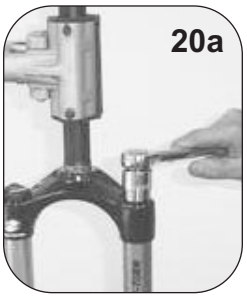
REMOVAL

19. Using a 2.5mm hex wrench, remove U-Turn knob screw (fig 19a). Remove U-Turn adjuster knob (fig 19b).

Using a magnet, remove detent ball bearings (fig 19c)and detent springs from top cap (fig 19d).

20. Using a 24mm socket wrench, loosen and remove U-Turn top cap (fig 20a). The coil spring is attached to the top cap and spring shaft. Pull and lift entire spring assembly from upper tube (fig 20b).

IMPORTANT! **PRESS DOWN SQUARE AND FIRM WHEN LOOSENING TOP CAPS.**



21. Spray entire spring assembly with isopropyl alcohol and wipe all grease and oil from top cap, spring and spring shaft. Apply grease to outside of entire coil spring and spring isolator.

INSTALLATION

22. Insert spring assembly into left upper tube, through crown (fig 22a). Align and seat the spring shaft through shaft guide/base plate. Press down on U-Turn spring top cap and hand-thread into upper tube/crown (fig 22b).

    Using a 24mm socket wrench, tighten to 60 in-lb (fig 22c).

23. Insert each detent spring into top cap detent holes, evenly spaced. Place each detent ball bearing on top of each detent spring. Place U-Turn adjuster knob on top of hex. Secure with knob screw and tighten with 2.5mm hex wrench.

MOTION CONTROL DAMPER SERVICE

REMOVAL

24. **Recon 327:** Using a 24mm socket wrench loosen and remove non-adjust rebound top cap.

25. **Recon 351:** Using external snap ring pliers, remove compression adjuster knob's retaining ring (fig 25a). Remove compression adjust knob (fig. 25b) or remote spool (fig 25c), and top cap o-ring seal (fig 25d) or remote spool seal (fig 25e).

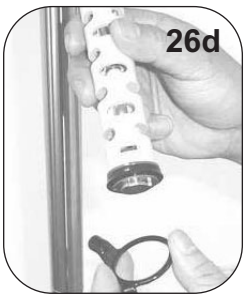
    NOTE: REMOTE COMPRESSION ADJUSTER SPOOL USES A WHITE PLASTIC REMOTE SPOOL SEAL. THE STANDARD COMPRESSION KNOB USES AN O-RING TOP CAP SEAL.

26. Using a 24mm socket wrench, loosen compression damper top cap from upper tube (fig 26a).

    By hand, slowly remove compression damper from upper tube (figs 26b/26c/26e).

    Use care when removing compression damper from upper tube. Use a slow twisting motion while pulling up slowly. This will help ease the o-ring seal past the upper tube threads.

    Remote: Remove cable-stop clamp which is positioned just under compression damper top cap (fig 26d).



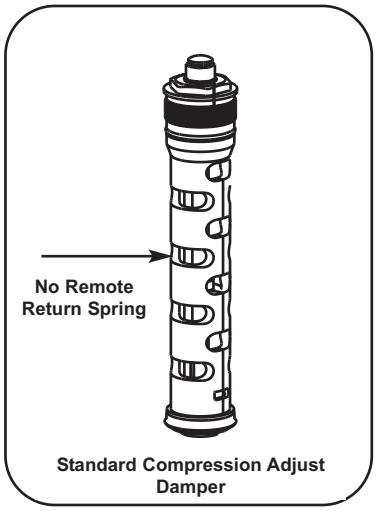
27. Remove and replace compression damper top cap o-ring (located at top of damper) (fig 27a).

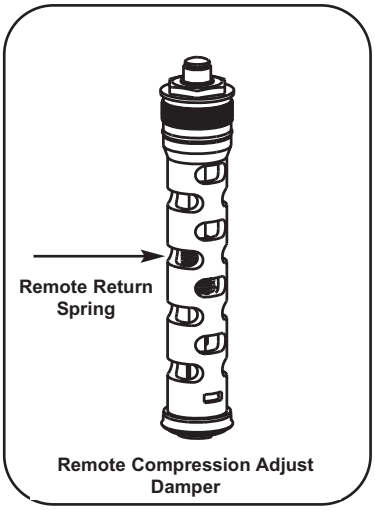
Pinch to remove damper piston o-ring seal (fig 27a) and replace with new o-ring (fig 27c).

Apply a few drops of suspension oil to new lower piston o-ring seal.

UPGRADE: NON-REMOTE TO REMOTE ADJUST

UPGRADING A NON-REMOTE COMPRESSION ADJUST FORK (CROWN-MOUNTED ADJUSTER KNOB) TO REMOTE COMPRESSION ADJUST (REMOTE POPLOC LEVER ADJUSTER), REQUIRES REPLACING THE NON-REMOTE COMPRESSION DAMPER WITH A REMOTE COMPRESSION DAMPER AND CABLE-STOP CLAMP. THE REMOTE RETURN SPRING IS DESIGNED INTO THE COMPRESSION DAMPER, AND IS REQUIRED FOR USE WITH THE POP-LOC REMOTE LEVER ASSEMBLY. *ALSO REQUIRED:* REMOTE COMPRESSION SPOOL. (11.4310.643.000)

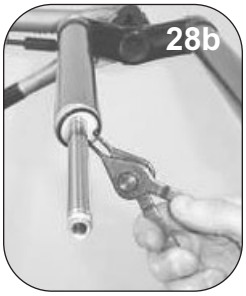




28. Remove fork from bicycle stand and pour damper oil into oil pan (fig 28a).

Using snap ring pliers, remove rebound damper piston seal head retaining ring (fig 28b).

Pull damper out of upper tube and remove seal head and damper (fig 28c).

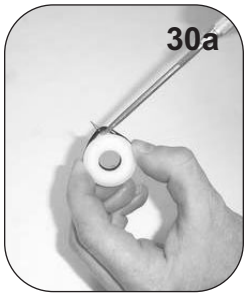


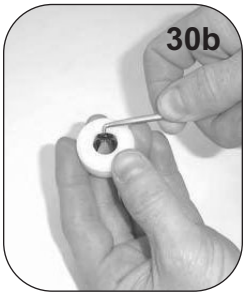
29. Remove rebound damper seal head assembly from shaft (fig 29a).

Remove rebound damper glide ring and replace (fig 29b).

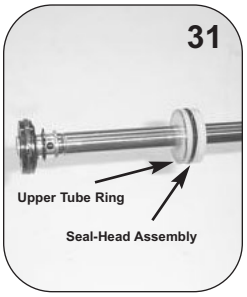
30. Using a sharp pick, remove inner and outer damper seal head o-rings and replace with new o-rings (figs 30a/30b). Do not scratch o-ring gland with pick. Scratches may cause oil to leak.

Apply 15wt suspension oil to new inner and outer seal head o-rings (fig 30c).





31. Position upper tube base ring on top on seal-head step. Slide lubricated rebound seal head assembly back onto rebound damper shaft (fig 31).



INSTALLATION

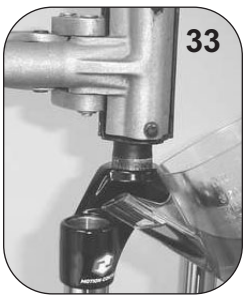
32. Insert rebound damper piston into bottom of upper tube. Insert at an angle, open-ended side of glide ring out. This aids insertion of piston and glide ring. Angle and rotate until glide ring is inside upper tube (fig 32a). Position upper tube base ring and seal-head into the upper tube step.

Slide seal-head up into upper tube step and press into upper tube with your thumb (fig 32b).

Secure seal-head into upper tube with retaining ring (fig 32c). Make sure retaining ring is secure in upper tube groove (fig 32d).

33. With rebound damper shaft in the fully-extended position, measure and pour or inject **118cc/ml (+/- 5cc/ml)** 5wt suspension oil into upper tube, through crown (fig 33).

IMPORTANT! OIL VOLUME IS CRITICAL. TOO LITTLE OIL DECREASES DAMPING PERFORMANCE. TOO MUCH OIL WILL REDUCE AVAILABLE FORK COMPRESSION/TRAVEL, AS WELL AS RISK DAMAGE TO FORK FROM COMPRESSION BOTTOM-OUT.



34. Coat the new compression damper piston o-ring seal with suspension oil. Insert compression damper into upper tube, through crown (fig 32a). Push down slowly on compression damper as it passes the upper tube top cap threads. As soon as the piston o-ring seal passes upper tube threads and is inside upper tube, slowly push compression damper into upper tube, using a slow twisting motion (figs 32b/32c).

REMOTE: SLIDE REMOTE CABLE-STOP CLAMP OVER REMOTE COMPRESSION DAMPER BODY BEFORE INSTALLATION INTO FORK. POSITION CABLE-STOP TO THE 10 O'CLOCK POSITION (FROM RIDER'S PERSPECTIVE).

35. Press firmly down and hand-thread compression damper top cap into upper tube. Using a 24mm socket wrench, tighten compression damper top cap to 60 in-lb (fig 33).

36. Insert compression damper top cap seal (o-ring or plastic) over top cap (figs 25e/25d). Place compression knob or remote spool onto compression damper top cap, with knob or cable set screw at 3 o'clock position (figs 25c/25b).

Using external snap ring pliers, secure compression knob or remote spool with external retaining ring (fig 25a).

37. Motion Control Remote Forks: Cable Installation

1) Thread remote cable through cable-stop clamp on crown.

2) Thread cable around compression spool, under cable set-screw, and tighten with 2mm hex wrench. Knob should be positioned at 3 o'clock, in full-open position.

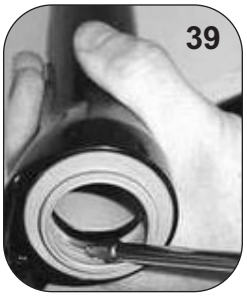
3) Test PopLoc remote lever function for proper lockout/compression adjust.

4) Adjust cable tension as needed.

LOWER LEG INSTALLATION

38. Spray upper tubes with isopropyl alcohol and wipe with a clean rag.

39. Pour or inject 15wt suspension oil onto new or clean foam rings, just under dust seal, inside lower leg; each side (fig. 39).



40. Slide lower leg assembly onto upper tubes until you feel the lower bushings touch the end of the upper tubes (figs 40a/40b). Stop.

Invert the fork to about 45 degrees. Measure and pour (or inject...an oil syringe works best) 15cc/ml of 15wt suspension oil into lower legs, through both (left and right) shaft bolt holes (fig 40c).

Wipe all excess oil from lower leg shaft holes.

41. Inspect and clean both damper and air spring shaft bolts, and black nylon crush washers. Replace crush washers and crush washer retainers if damaged. Damaged or dirty crush washers can cause oil to leak.

Insert rebound damper and air spring shaft bolts into threaded shaft ends, through lower leg shaft holes, and tighten with a 5mm hex wrench to 60 in-lb (fig 41a).

Insert external rebound damper knob into rebound damper shaft bolt. Push in to secure (fig 41b). Adjust as desired.

42. Spray a light coating of isopropyl alcohol onto entire fork, and wipe with a clean rag. Replace decals if needed.

43. **Recon Air:** Inflate positive air chamber with shock pump to desired air pressure (fig 43). See air chart, or decal on back of fork lower leg, for reference.

Thread air top cap valve cover cap onto air top cap.

RECON AIR

Rider Weight	Air Pressure 80mm	100-130mm
< 140 (63kg)	90-110 psi	50-70 psi
140 - 160 (63-72 kg)	110-125 psi	70-85 psi
160 - 180 (72-81 kg)	125-140 psi	85-100 psi
180 - 200 (81-90 kg)	140-160 psi	100-120 psi
>200 (99 kg)	160+ psi	120+ psi

RECON U-TURN SPRINGS

Rider Weight and U-Turn travel 80-130mm	Spring Color	Spring Assembly Part#
<140 lbs (63 kg)	Yellow	11.4310.136.000
140-160 lbs (63 to 70 kg)	Red (Standard)	11.4310.137.000
160-180 lbs (70-80 kg)	Blue	11.4310.138.000
>180 lbs (80 kg)	Black	11.4310.139.000

OIL

Recon Air Right Leg			
Top Volume	Oil Weight	Bottom Volume	Oil Weight
118cc/ml	5 wt	15cc/ml	15 wt
Recon Air Left Leg			
Top Volume	Oil Weight	Bottom Volume	Oil Weight
3cc/ml	15 wt	15cc/ml	15 wt

Recon U-Turn Right Leg			
Top Volume	Oil Weight	Bottom Volume	Oil Weight
118cc/ml	5 wt	15cc/ml	15 wt
Recon U-Turn Left Leg			
Top Volume	Oil Weight	Bottom Volume	Oil Weight
x	x	30cc/ml	15 wt

TROUBLE-SHOOTING

AIR LOSS

- Inspect air piston o-rings. Replace if necessary.
- To avoid air loss, remove Dual Air top cap and check oil level inside air chamber, every 25 to 50 riding hours. If there is little or no oil on top of air piston o-ring, pour 3 to 5cc RockShox 15wt suspension oil into air spring chamber. Oil will keep air seal lubricated.
- Inspect schrader valve assembly. Replace if damaged or malfunctioning. Clean if clogged.

LOSS OF, OR VARIANCE IN DAMPING

- Inspect all damper o-rings. Replace and lubricate.
- Inspect damper oil volume. Remove damper top cap/compression damper assembly. Add or remove oil as needed.
- Remote: Inspect remote cable tension. Cable may stretch, or become loose. Loosen cable screw, tension cable and tighten. Test. Adjust as needed.

BUSHING PLAY

- Inspect and replace worn bushings. Bushings are a wear and tear item, and need to be replaced after approximately 100 to 200 riding hours, depending your riding style, condition, riding time and body weight. If you ride a lot, check those bushings!
- See the 'Bushing Installation' guide at www.rockshox.com for procedures.

OIL LOSS

- Inspect the air piston o-ring for air bypass. If there is a repeated loss of air pressure, air may be the cause of oil loss at the left dust seal.
- Inspect your shaft bolt crush washers. Replace if worn or damaged.
- Inspect your top cap o-rings. Replace if torn or knicked.