

2009



POWERED BY SRAM

(english) **technical manual**
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SRAM CORPORATION WARRANTY

EXTENT OF LIMITED WARRANTY

SRAM warrants its products to be free from defects in materials or workmanship for a period of two years after original purchase. This warranty only applies to the original owner and is not transferable. Claims under this warranty must be made through the retailer where the bicycle or the SRAM component was purchased. Original proof of purchase is required.

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This warranty statement gives the customer specific legal rights. The customer may also have other rights which vary from state to state (USA), from province to province (Canada), and from country to country elsewhere in the world.

To the extent that this warranty statement is inconsistent with the local law, this warranty shall be deemed modified to be consistent with such law, under such local law, certain disclaimers and limitations of this warranty statement may apply to the customer. For example, some states in the United States of America, as well as some governments outside of the United States (including provinces in Canada) may:

- a. Preclude the disclaimers and limitations of this warranty statement from limiting the statutory rights of the consumer (e.g. United Kingdom).
- b. Otherwise restrict the ability of a manufacturer to enforce such disclaimers or limitations.

LIMITATIONS OF LIABILITY

To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, In no event shall SRAM or its third-party suppliers be liable for direct, indirect, special, incidental, or consequential damages.

LIMITATIONS OF WARRANTY

- This warranty does not apply to products that have been incorrectly installed and/or adjusted according to the respective SRAM technical installation manual. The SRAM user manuals can be found online at www.sram.com, www.rockshox.com or www.avidbike.com.
- This warranty does not apply when the product has been modified.
- This warranty does not apply when the serial number or production code has been deliberately 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 of usage or any other circumstances in which the product has been subjected to forces or loads beyond its design.
- This warranty does not apply to normal wear and tear. Wear and tear parts are subject to damage as a result of normal use, failure to service according to SRAM recommendations and/or riding or installation in conditions or applications other than recommended.

EXAMPLES OF WEAR AND TEAR:

Dust seals/Bushings/Air sealing o-rings/Glide rings/Rubber moving parts/Foam rings/Rear shock mounting hardware and main seals/Stripped threads and bolts (aluminum, titanium, magnesium or steel)/Upper tubes (stanchions)/Brake sleeves/Brake pads/Chains/Sprockets/Cassettes/Shifter and brake cables (inner and outer)/Handlebar grips/Shifter grips/Jockey wheels/Disc brake rotors/Wheel braking surfaces/Bottomout pads/Bearings/Pawls/Transmission gears/Tools

- This warranty shall not cover damages caused by the use of parts of different manufacturers.
- This warranty shall not cover damages caused by the use of parts that are not compatible, suitable and/or authorized by SRAM for use with SRAM components.
- This warranty shall not cover damages resulting from commercial (rental) use.

ROCKSHOX SUSPENSION SERVICE

We recommend that you have your RockShox suspension serviced by a qualified bicycle mechanic. Servicing RockShox suspension requires knowledge of suspension components as well as the special tools and fluids used for service.

Used suspension fluid should be recycled or disposed of in accordance to local and federal regulations.

NEVER pour suspension fluid down a sewage or drainage system or into the ground or a body of water.

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For exploded diagram and part number information, please refer to the Spare Parts Catalog available on our web site at www.sram.com.
For order information, please contact your local SRAM distributor or dealer.

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SAFETY FIRST!

At SRAM Corporation, we care about YOU. Please, always wear your safety glasses when servicing your RockShox fork. Protect your eyes!

Wear your safety glasses!

FRONT SUSPENSION SERVICE - GETTING STARTED

GETTING STARTED - HELPFUL HINTS

The RockShox Technical Manual separates front suspension into five main service categories:

1. lower leg removal
2. lower leg bushing and seal service
3. damper service
4. spring service
5. lower leg installation

The service of front suspension dampers and springs is further sub-categorized based on the technology of the damper and spring, rather than by the name of the fork. Therefore, it is imperative for you determine the technology used in your front suspension. If you are unsure of the technology used in your front suspension, contact your local RockShox dealer for assistance.

FRONT SUSPENSION TECHNOLOGY AND OIL VOLUMES (ALL FORKS)

The following chart is a complete list of the 2009 RockShox front suspension line-up. It details the front suspension model, corresponding damper and spring technology, along with the oil volume and oil weight required for each fork leg.

		DAMPER TECHNOLOGY (RIGHT LEG)	VOLUME (ML)	OIL WT	VOLUME (ML)	OIL WT	SPRING TECHNOLOGY (LEFT LEG)	VOLUME (ML)	OIL WT	VOLUME (ML)	OIL WT
			UPPER LEG		LOWER LEG			UPPER LEG		LOWER LEG	
ARGYLE	302	REBOUND ONLY					COIL	-	-	30	15
	318	MOTION CONTROL	130	5	10	15	COIL				
	409						SOLO AIR	6	15	15	
BOXXER	RACE, TEAM	MOTION CONTROL	150	5	15	15	COIL	30		-	-
	WORLD CUP (WC)						SOLO AIR	6	15	15	15
DART	1	NONE	-	-	-	-	COIL	-	-	-	-
	2 (W/TURNKEY)	TURNKEY	93		10	15					
	2	REBOUND ONLY	150	5	-	-					
	3, 29R	TURNKEY	93		10	15					
DOMAIN	302	REBOUND ONLY	200	5	10	5	COIL				
	318	MOTION CONTROL					COIL U-TURN	-	-	15	15
LYRIK	DFR	REBOUND ONLY	145	5	15	15	COIL	-	-	15	15
	COIL U-TURN	MOTION CONTROL IS	112				SOLO AIR	6	15		
	SOLO AIR						SOLO AIR	6	15		
	2-STEP	MISSION CONTROL	112				2-STEP	35	2.5	10	
	COIL U-TURN						U-TURN	-	-	15	
	IS SOLO AIR						SOLO AIR	6	15		
	IS 2-STEP						2-STEP	35	2.5	10	
PIKE	327	REBOUND ONLY	120	5	15	15	COIL U-TURN	-	-	15	15
	351	MOTION CONTROL					COIL U-TURN				
	409						AIR U-TURN	6	15		
	426	MOTION CONTROL					DUAL AIR				
							COIL U-TURN	-	-		
	454	MOTION CONTROL					AIR U-TURN	6	15		
							DUAL AIR				
							COIL U-TURN	-	-		
AIR U-TURN			6	15							
REBA	SL, RACE	MOTION CONTROL	123	5	10	15	AIR U-TURN	5	15	10	15
	TEAM	BLACKBOX MOTION CONTROL	133				DUAL AIR				
							AIR U-TURN				
							DUAL AIR				

FRONT SUSPENSION TECHNOLOGY AND OIL VOLUMES (CONT)

		DAMPER TECHNOLOGY (RIGHT LEG)	VOLUME (ML)	OIL WT	VOLUME (ML)	OIL WT	SPRING TECHNOLOGY (LEFT LEG)	VOLUME (ML)	OIL WT	VOLUME (ML)	OIL WT
			UPPER LEG		LOWER LEG			UPPER LEG		LOWER LEG	
RECON	327, XC	REBOUND ONLY					SOLO AIR	6	15	15	15
	335, 335 SL	TURNKEY	120	5	15	15	COIL	-	-	30	
	351, 351 RACE	MOTION CONTROL	118				SOLO AIR	6	15	15	
			COIL				-	-	30		
							COIL U-TURN	-	-	30	
							SOLO AIR	6	15	15	
							AIR U-TURN				15
REVELATION	409, 426 QR	MOTION CONTROL	115	5	15	15	DUAL AIR	6	15	15	
	409, 426 20MM		120				AIR U-TURN				
							DUAL AIR				
							DUAL AIR				
SID	RACE	MOTION CONTROL					DUAL AIR	5	15	5	15
	TEAM WORLD CUP (WC)	BLACKBOX MOTION CONTROL	93	5	5	15					
TOTEM	COIL	MISSION CONTROL	137	5	20	15	COIL	-	-	20	15
	SOLO AIR						6	15			
	2-STEP						135	2.5			
	IS COIL	MOTION CONTROL IS								COIL	
TORA	289	REBOUND ONLY	145	5	15	15	COIL	-	-	20	15
	302	TURNKEY					COIL U-TURN			30	
	318	MOTION CONTROL					COIL			20	
							COIL U-TURN			30	
							COIL			20	
							COIL U-TURN			20	
			130				SOLO AIR	6	15	15	

FRONT SUSPENSION TOOLS NEEDED FOR SERVICE (ALL FORKS)

The following chart is a list of the model year 2009 tools needed for service on your RockShox front suspension. While this chart is intended to be comprehensive, it is still only a guide. The tools required for each step of service are detailed in the text of each service section. Keep in mind your specific fork may not require every tool listed.

TOOLS	LOWER LEG REMOVAL	BUSHING & SEAL SERVICE	DAMPER SERVICE	SPRING SERVICE	LOWER LEG INSTALLATION
SAFETY/STARTING EQUIPMENT					
SAFETY GLASSES	X	X	X	X	X
APRON	X	X	X	X	X
RUBBER GLOVES	X	X	X	X	X
CLEAN RAGS (LINT FREE)	X	X	X	X	X
OIL PAN	X	X	X	X	X
CLEAN WORK AREA	X	X	X	X	X
BICYCLE STAND	X		X	X	X
BENCH VISE		X			
WRENCHES/PLIERS					
1.5 mm HEX			X		
2 mm HEX				X	
2.5 mm HEX			X	X	X
5 mm HEX	X				X
6 mm HEX				X ⁴	
8 mm HEX				X ⁴	
10 mm SOCKET OR OPEN ENDED WRENCH	X				X
14 mm SOCKET				X ⁴	
15 mm SOCKET				X	
24 mm SOCKET			X	X	
SOCKET EXTENSION	X ³			X ⁴	X ³
24 mm THIN WRENCH OR MISSION CONTROL WRENCH			X ²		
TORQUE WRENCH			X	X	
SLIP JOINT PLIERS			X ²		
SNAP RING PLIERS - INTERNAL			X	X	
SNAP RING PLIERS - EXTERNAL			X	X	
MISC TOOLS					
PLASTIC Mallet	X	X	X	X	X
Mallet Drift Tool		X			
LONG DOWEL ROD (PLASTIC OR WOOD)*	X	X	X	X	X
FLATHEAD SCREWDRIVER		X		X	
SHARP PICK			X	X	
SHOCK PUMP				X	X
SCHRADER VALVE CORE TOOL				X ⁵	
MAGNET				X	
RULER					X ¹
BUSHING REMOVAL TOOL/PLATE	X				

* using a non-metallic dowel rod helps to ensure the inside of air tubes or lower legs do not get scratched

¹BoXXer Only

²Mission Control Only

³SID Only

⁴i-Ride Only

⁵2-Step Air Only

FRONT SUSPENSION TOOLS NEEDED FOR SERVICE (CONT)

TOOLS	LOWER LEG REMOVAL	BUSHING & SEAL SERVICE	DAMPER SERVICE	SPRING SERVICE	LOWER LEG INSTALLATION
OIL/LIQUIDS					
2.5, 5, 10 OR 15WT SUSPENSION OIL		X	X	X	X
GREASE		X	X	X	X
i-RIDE GREASE (Maxima SG-920)				X	
CLEAN RAGS (LINT FREE)	X	X	X	X	X
OIL MEASURING DEVICE		X	X	X	X
ISOPROPYL ALCOHOL	X	X	X	X	X
FROSTY COLD BEVERAGE	X	X	X	X	X

¹BoXXer Only

²Mission Control Only

³SID Only

⁴i-Ride Only

⁵2-Step Air Only

FRONT SUSPENSION TORQUE TIGHTENING VALUES (ALL FORKS)

The following chart is a summary of the primary torque tightening values common to all RockShox forks. The torque tightening values for fasteners that require a specific torque are detailed in the text of each service section. Keep in mind your specific fork may not have all of the options listed in the chart below.

FRONT SUSPENSION FASTENER	TORQUE VALUE in-lb (N·m)
TOP CAPS (EXCEPT AIR U-TURN)	65 (7.3)
TOP CAPS (AIR U-TURN ONLY)	130 (14.7)
BOTTOM BOLT (DAMPER SIDE)	60 (6.8)
BOTTOM BOLT (AIR SIDE)	45 (5.1)
POPLOC/PUSHLOC REMOTE HANDLEBAR CLAMP BOLT	20 (2.3)
POPLOC/PUSHLOC REMOTE CABLE FIXING BOLT	8 (0.9)
U-TURN KNOB FIXING BOLT	12 (1.4)
DIRECT MOUNT STEM BOLTS	75 (8.5)

LOWER LEG REMOVAL

LOWER LEG REMOVAL - HELPFUL HINTS

Removing the lower legs of your RockShox front suspension provides service access to the bushings and wiper seals located in the lower legs. It also provides service access to the damper and spring components of your suspension.

LOWER LEG REMOVAL (ALL FORKS)

INTRODUCTION

Removing the lower legs of your front suspension is the first step in servicing your fork. It allows you access to the fork bushings, wiper seals, damper and spring systems. Once you have removed your fork lower legs, you'll be ready to move onto the next section.

LOWER LEG REMOVAL INSTRUCTIONS

NOTE: BOXXER ONLY - LOOSEN UPPER CROWN BOLTS WITH A 4 MM HEX WRENCH AND REMOVE UPPER CROWN. SPRAY ISOPROPYL ALCOHOL ON UPPER TUBES AND UNDER FRAME BUMPERS. TWIST AND PULL UP TO REMOVE BUMPERS. FINALLY, USE A 4 MM HEX WRENCH TO LOOSEN LOWER CROWN BOLTS AND REMOVE UPPERS FROM CROWN BY TWISTING AND SLIDING EACH UPPER DOWN AND OUT OF CROWN.

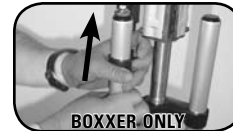
1. Remove the air chamber valve cover cap from the left fork leg top cap. If fork has a negative air chamber, remove the negative air chamber valve cover cap from the bottom of the left fork leg.
2. Depress schrader valve and release all air from the air chamber. If fork has a negative air chamber, start with the negative air chamber first, then proceed to the positive air chamber.
3. Pull external rebound adjuster knob and remove from the right shaft bolt.
4. Use a 5 mm hex wrench to loosen both shaft bolts 3 to 4 turns. For Dual Air equipped forks, use a 10 mm socket (or open end) wrench to loosen and unthread the Dual Air shaft nut just past the threaded shaft end.

NOTE: FOR HOLLOW BOTTOM FORK LEGS YOU WILL NEED TO USE A DEEP 10 MM SOCKET TO LOOSEN AND UNTHREAD THE DUAL AIR SHAFT NUT.

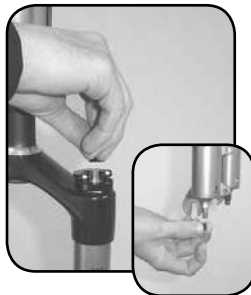
5. Use a plastic mallet to gently tap each shaft bolt free from its press-fit to the lower leg and use your fingers to remove shaft bolts/nut completely.
6. Remove the lower leg assembly from fork by firmly pulling it downward, holding onto both legs or the brake arch.

IMPORTANT: DO NOT HIT THE BRAKE ARCH WITH ANY TOOL WHEN REMOVING THE LOWER LEG ASSEMBLY YOU COULD DAMAGE THE FORK.

7. Use oil pan to drain excess oil from lower leg assembly.
8. Spray isopropyl alcohol on and into the lower leg assembly. Wipe the lower legs clean, then wrap a clean rag around a dowel and clean the inside of each lower leg (not pictured).



1



2



3



4



5



6



7



LOWER LEG BUSHING & SEAL SERVICE

BUSHING & SEAL SERVICE - HELPFUL HINTS

The bushings and seals of your RockShox front suspension contribute to the consistent and plush feel of your fork. Performing routine service on the bushing and seals will help maintain your fork's performance as well as reduce overall maintenance costs.

LOWER LEG BUSHING & SEAL SERVICE (ALL FORKS)

INTRODUCTION

Suspension fork bushings are considered "wear and tear" parts and require regular maintenance, depending on the frequency of riding, riding terrain, rider body weight, and type of fork. The more you ride, the more frequently your bushings need to be replaced. The following chapter covers how to check for bushing wear, wiper and oil seal removal, bushing removal, bushing installation, and wiper and oil seal installation.

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

CHECK FOR BUSHING WEAR

Before you replace your bushings, you should check for bushing wear. Symptoms of worn bushings that need to be replaced include, a "knocking" sound from the fork when riding, and/or the headset may feel loose when it isn't.

Method 1: On-Bike check

1. Compress fork 5 times to circulate lower leg lube (not pictured).
2. Hold the front brake lever tight and rock the bike back and forth. If the fork feels like it's "knocking", or the headset feels loose, proceed to steps 3 and 4.
3. Check the fork: wrap your fingers around the dust seal and upper tube area. Rock the bike back and forth again. Listen and feel if there is any play between the upper tube and the dust seal. If so, the bushings are loose.
4. Check the headset: wrap your fingers around the headset upper cup or lower cup/race areas. Holding the brake, rock the bike back and forth and feel if the headset is loose. If so, tighten the headset and check again.

2



3



4

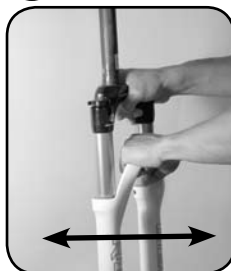


Method 2: Off-Bike check

1. Compress fork 5 times to circulate lower leg lube (not pictured).
2. Hold the fork crown tight in one hand and the brake arch in the other hand. Try and move the brake arch back and forth. If you can feel any play, or if the fork feels like it's "knocking", the bushings are loose.

NOTE: YOU MAY WISH TO BRACE THE FORK ON A TABLE OR ON THE FLOOR TO STEADY IT.

2



WIPER & OIL SEAL REMOVAL (ALL FORKS)

1. Remove the wiper seal using a medium to large flat-head screwdriver to carefully pry it from the lower leg.
2. Remove the oil foam ring with your fingers.
NOTE: NOT ALL FORKS CONTAIN A FOAM RING. IF YOUR FORK DOES NOT HAVE A FOAM RING, PLEASE MOVE ONTO STEP 3.
3. Remove the inner oil seal, located just below the dust seal using a flat head screwdriver. To protect the lower leg paint, place a rag in between the lower leg and the screwdriver.
NOTE: NOT ALL FORKS CONTAIN AN INNER OIL SEAL.

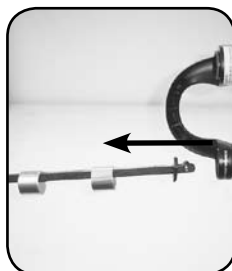
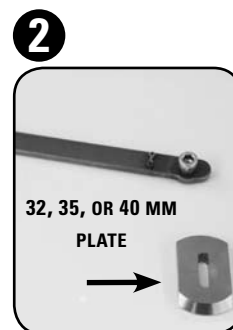


BUSHING REMOVAL

(ALL ARGYLE - BOXXER - DOMAIN - LYRIK - PIKE - REBA - RECON - REVELATION - SID - TOTEM & TORA 318)

IMPORTANT: ALL DART MODELS AS WELL AS TORA 289, 302 HAVE NON-SERVICEABLE BUSHINGS, PLEASE MOVE ON TO DUST & OIL SEAL INSTALLATION.

1. Clamp bushing removal handle/puller tool into bench vise tightly.
2. Install the correct bushing removal plate onto handle end and secure with handle plate screw.
 - 32 mm plate (Argyle, BoXXer, Pike, Reba, Recon, Revelation, SID, Tora)
 - 35 mm plate (Domain, Lyrik)
 - 40 mm plate (Totem)
3. Slide the removal plate into the lower leg past the upper bushing. The removal plate pivots when inserted. Pull lower leg away from puller tool and hook the flat end of the plate secure under the bushing. When the plate is secure under bushing, begin to remove.
4. Use a plastic mallet to firmly and squarely hit the top of the lower leg on the flat dust seal surface area until upper bushing pulls free.
IMPORTANT: DO NOT HIT THE BRAKE ARCH TO REMOVE THE BUSHING. THIS CAN DAMAGE YOUR FORK.
5. To pull the lower bushing free from the lower leg, slide the removal plate past the lower bushing and hook the flat end of the plate secure under the bushing. Again, firmly and squarely hit the top of the lower leg on the flat dust seal surface area until the lower bushing pulls free. Longer lower bushings may require more force.
6. Return to Step 3 and repeat for the other fork leg.
7. Spray isopropyl alcohol inside lower legs. Wrap a clean rag around a dowel and clean the inside of the lower legs (not pictured).



BUSHING INSTALLATION

32 MM UPPER TUBE DIAMETER (ARGYLE - BOXXER - PIKE - REBA - RECON - REVELATION - SID - TORA 318)

LOWER BUSHING INSTALLATION WITH BUSHING SIZE:

32 MM X 25 MM - SLOTTED (SID)

32 MM X 30 MM - SLOTTED (ARGYLE, PIKE, REBA, RECON, REVELATION, TORA 318)

32 MM X 76 MM - NON-SLOTTED (BOXXER)

1. Clamp 32 mm bushing installation tool into bench mounted vise.
2. Slide lower bushing installation spacer onto bushing installation post.

NOTE: RECON, REVELATION, AND TORA 318 USE THE SHORT SPACER IN THIS STEP.

3. Slide the lower bushing sleeve onto bushing installation post.
4. Recon, Revelation, Tora 318 Only: Slide the tall lower bushing spacer onto the bushing installation post.
5. Slide lower bushing onto the top of the lower installation sleeve.

NOTE: BOXXER LOWER BUSHING IS NOT SLOTTED.

6. Slide lower leg over installation post and rest on top of lower bushing.
7. Insert mallet drift tool into the lower leg shaft hole and hold in place. Using a plastic mallet, hit the mallet drift tool to press the bushing into the lower leg.
8. Continue to hit the mallet drift tool, until the lower leg dust seal ridge is level with the top of the installation post spacer. You will feel it stop as the bushing is "set" in the lower leg.
9. Remove lower leg from tool and inspect the fit of the lower bushing by sliding one upper tube into the lower leg. Hold lower leg 90° horizontally and release. Lower leg should swing 45° down and stop (not pictured).

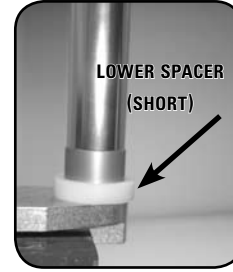
NOTE: IF LOWER LEG SWINGS TOO FREELY, REPEAT STEP 8. IF LOWER LEG FEELS TIGHT OR DOES NOT MOVE AT ALL, SLIDE LOWER LEG BACK ONTO BUSHING INSTALLATION POST AND ROCK SIDE TO SIDE TO LOOSEN FIT.

10. Return to Step 1 and repeat for other leg.

1



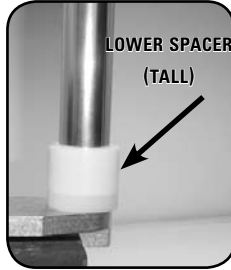
2



3



4



5



6



7



8



BUSHING INSTALLATION (CONT)

32 MM UPPER TUBE DIAMETER (ARGYLE - BOXXER - PIKE - REBA - RECON - REVELATION - SID - TORA 318)

UPPER BUSHING INSTALLATION WITH BUSHING SIZE:

32 MM X 25 MM NON-SLOTTED (SID)

32 MM X 30 MM NON-SLOTTED (ARGYLE, PIKE, REBA, RECON, REVELATION, TORA 318)

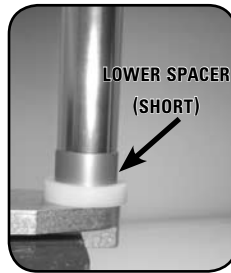
32 MM X 10 MM - NON-SLOTTED (BOXXER)

11. Remove lower bushing sleeve (and tall lower bushing spacer for Recon, Revelation, and Tora 318). Leave only the lower bushing spacer on bushing installation tool.
12. Slide upper bushing onto bushing installation post.
13. Slide lower leg over installation post, and rest on top of the upper bushing.
14. Insert mallet drift tool into the lower leg shaft hole and hold in place. Using a plastic mallet, hit the mallet drift tool to press the upper bushing into lower leg.
15. Continue to hit the mallet drift tool until the lower leg rests flush on top of the install spacer. You will feel it stop as the bushing is "set" in the lower leg. The top of the bushing should be flush/level with oil seal step in the lower leg.
16. Remove lower leg from tool and inspect the fit of the lower bushing by sliding one upper tube into the lower leg. Hold lower leg 90° horizontally and release. Lower leg should swing 45° down and stop (not pictured).

NOTE: IF LOWER LEG SWINGS TOO FREELY, REPEAT STEP 15. IF LOWER LEG FEELS TIGHT OR DOES NOT MOVE AT ALL, SLIDE LOWER LEG BACK ONTO BUSHING INSTALLATION POST AND ROCK SIDE TO SIDE TO LOOSEN FIT.

17. Return to Step 11 and repeat for other leg.

11



12



13



14



15



BUSHING INSTALLATION
35 MM UPPER TUBE DIAMETER (DOMAIN - LYRIK)
40 MM UPPER TUBE DIAMETER (TOTEM)

LOWER BUSHING INSTALLATION WITH BUSHING SIZE:
35 MM X 30 MM - SLOTTED (DOMAIN, LYRIK)
40 MM X 30 MM - SLOTTED (TOTEM)

1. Clamp 32 mm bushing installation tool into bench mounted vise.
2. Slide bushing installation tool adapter over bushing installation post.
3. Slide lower bushing sleeve onto the adapter.
4. Slide lower bushing onto the adapter.
5. Slide lower leg over installation post and rest on top of lower bushing.
6. Insert mallet drift tool into the lower leg shaft hole and hold in place. Using a plastic mallet, hit the mallet drift tool to press the bushing into the lower leg.
7. Continue to hit the mallet drift tool, until the lower leg dust seal ridge is level with the top of the installation post spacer. You will feel the stopping point as the bushing is "set" into the lower leg.
8. Remove lower leg from tool and inspect the fit of the lower bushing by sliding one upper tube into the lower leg. Hold lower leg 90° horizontally and release. Lower leg should swing 45° down and stop (not pictured).

NOTE: IF LOWER LEG SWINGS TOO FREELY, REPEAT STEP 7. IF LOWER LEG FEELS TIGHT OR DOES NOT MOVE AT ALL, SLIDE LOWER LEG BACK ONTO BUSHING INSTALLATION POST AND ROCK SIDE TO SIDE TO LOOSEN FIT.

9. Return to Step 1 and repeat for other leg.

UPPER BUSHING INSTALLATION WITH BUSHING SIZE:
35 MM X 30 MM - NON SLOTTED (DOMAIN, LYRIK)
40 MM X 30 MM - NON SLOTTED (TOTEM)

10. Remove lower bushing sleeve from the adapter and slide upper bushing onto the adapter.
11. Slide lower leg over installation post, and rest on top of the upper bushing.
12. Insert mallet drift tool into the lower leg shaft hole and hold in place. Using a plastic mallet, hit the mallet drift tool to press the upper bushing into lower leg.
13. Continue to hit the mallet drift tool until the lower leg rests flush on top of the install spacer. You will feel it stop as the bushing is "set" in the lower leg. The top of the bushing should be flush/level with oil seal step in the lower leg.

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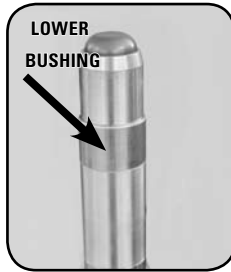
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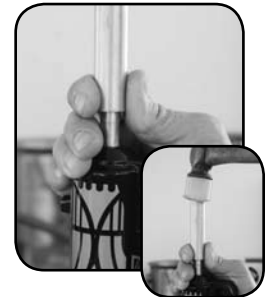
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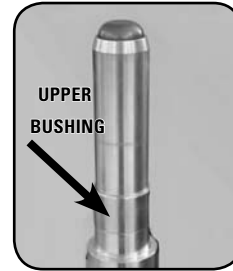
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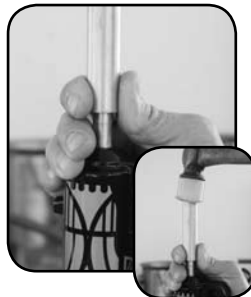
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11



12



13



BUSHING INSTALLATION (CONT)
35 MM UPPER TUBE DIAMETER (DOMAIN - LYRIK)
40 MM UPPER TUBE DIAMETER (TOTEM)

UPPER BUSHING INSTALLATION WITH BUSHING SIZE:

35 MM X 30 MM - NON SLOTTED (DOMAIN, LYRIK)

40 MM X 30 MM - NON SLOTTED (TOTEM)

14. Remove lower leg from tool and inspect the fit of the lower bushing by sliding one upper tube into the lower leg. Hold lower leg 90° horizontally and release. Lower leg should swing 45° down and stop (not pictured).

NOTE: IF LOWER LEG SWINGS TOO FREELY, REPEAT STEP 8. IF LOWER LEG FEELS TIGHT OR DOES NOT MOVE AT ALL, SLIDE LOWER LEG BACK ONTO BUSHING INSTALLATION POST AND ROCK SIDE TO SIDE TO LOOSEN FIT.

15. Return to Step 10 and repeat for other leg.

FOAM RING & WIPER SEAL INSTALLATION (REBA - RECON - REVELATION - TORA 318)

FOAM RING INSTALLATION

1. Soak new foam rings in 15wt suspension oil.
2. Insert new oil-saturated foam ring into lower leg.

DUST SEAL INSTALLATION

3. Insert new wiper seal into the wide end of the dust seal installation tool.
4. Insert wiper seal into lower leg and press straight down and evenly to seat into lower leg.
5. Wiper seal should be press-fit snug and flush into lower leg.

NOTE: CHECK FOAM RING UNDER WIPER SEAL. FOAM RING SHOULD NOT PROTRUDE FROM WIPER SEAL. IF SO, ADJUST FOAM RING INSIDE LOWER LEG, FLUSH ON ALL SIDES.

6. Return to Step 1 and repeat for other leg.

1



2



3



4



5



FOAM RING, WIPER & OIL SEAL INSTALLATION (ARGYLE - BOXXER - DOMAIN - LYRIK - PIKE - REBA - SID - TOTEM)

OIL SEAL INSTALLATION

1. Apply grease or suspension oil to the inside of the lower leg oil seal counter-bore.
2. Insert the new oil seal onto the stepped end of the oil/dust seal installation tool.
3. Using the oil/dust seal installation tool, insert the oil seal down and into the oil step in the lower leg. Apply pressure on all sides of the oil seal to seat it into place.

1



2



3



FOAM RING INSTALLATION

NOTE: FOR DOMAIN, LYRIK, AND TOTEM, PLEASE MOVE ON TO WIPER SEAL INSTALLATION, STEP 6.

4. Soak new foam rings in 15wt suspension oil.
5. Insert new oil-saturated foam ring into lower leg on top of oil seal.

4



5



6



WIPER SEAL INSTALLATION

6. Insert new wiper seal into the pocketed end of the oil/wiper seal installation tool.
7. Using the oil/wiper installation tool, insert wiper seal into lower leg. Apply pressure on all sides of the wiper seal to seat it into place.
8. Wiper seal should be press-fit snug and flush into lower leg.

NOTE: CHECK FOAM RING UNDER WIPER SEAL. FOAM RING SHOULD NOT PROTRUDE FROM WIPER SEAL. IF SO, ADJUST FOAM RING INSIDE LOWER LEG, FLUSH ON ALL SIDES.

9. Return to Step 1 and repeat for other leg.

7



8



COMPLETING BUSHING SERVICE (ALL FORKS)

Complete the bushing service of your fork by detailing the lower legs. Spray isopropyl alcohol on entire lower leg assembly and wipe with a clean rag. Check the decals on your fork and replace if necessary.

THIS CONCLUDES THE LOWER LEG BUSHING & SEAL SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: DAMPER SERVICE. ENJOY!

DAMPER SERVICE

DAMPER SERVICE - HELPFUL HINTS

Servicing the damper of your front suspension helps ensure consistent rebound and compression performance.

REBOUND & TURNKEY DAMPER SERVICE

(ARGYLE 302 - DART 2, 3 - DOMAIN 302 - LYRIK DFR - PIKE 327 - RECON 327, 335, SL, XC - TORA 289, 302, XC, SL)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

DAMPER REMOVAL/SERVICE INSTRUCTIONS

NOTE: FOR DART 2, LYRIK DFR, TORA 289, AND TORA XC PLEASE SKIP STEP 1 AND MOVE TO STEP 2.

1. Remove external snap ring from compression adjuster knob using external snap ring pliers and remove compression adjuster knob and o-ring.

OR

If fork is equipped with a remote compression lockout feature, remove external snap ring from compression adjuster spool using external snap ring pliers and remove compression adjuster spool and white top cap shield.

2. Unthread compression damper top cap with a 24 mm socket wrench.

NOTE: FOR ARGYLE 302, DART 2, DOMAIN 302, AND TORA 289 PLEASE MOVE TO STEP 5.

3. Remove compression damper by pulling up and gently rocking side to side. If fork is equipped with a remote lockout feature, be sure to remove the remote compression damper cable-stop clamp; which is located under the compression damper top cap. Once removed, clean upper tube threads with a rag.

4. Replace compression damper top cap o-ring by gently pinching o-ring to remove. Apply a few drops of suspension oil to new o-ring and re-install in top cap.

5. Remove fork from bicycle stand and pour remaining oil into pan.

NOTE: FOR DART 2, THIS COMPLETES THE REMOVAL PROCEDURES, PLEASE MOVE TO STEP 10.

6. Turn fork upside down and push rebound damper shaft through shaft guide. Use a long dowel rod to help push damper piston past upper tube threads and remove from upper tube.

7. Remove rebound damper o-ring and damper inner seal-head o-ring (located in the bottom of the upper tube). Apply fresh grease to new o-rings and re-install.

IMPORTANT: IF USING A PICK TO REMOVE INNER SEAL HEAD O-RING, DO NOT SCRATCH O-RING GLAND. SCRATCHES MAY CAUSE OIL TO LEAK.

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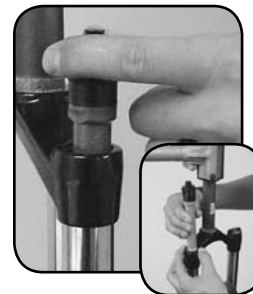
OR



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OPTIONAL - COMPRESSION DAMPER UPGRADE: NON-REMOTE TO REMOTE ADJUST

Upgrading from a non-remote compression adjust fork to a remote compression adjust (from a crown mounted adjuster knob to a remote PopLoc or PushLoc lever adjuster), requires replacing the non-remote compression damper with a remote compression damper and cable-stop clamp. The remote return spring is integrated into the compression damper and is required for use with the PopLoc and PushLoc remote lever assembly.

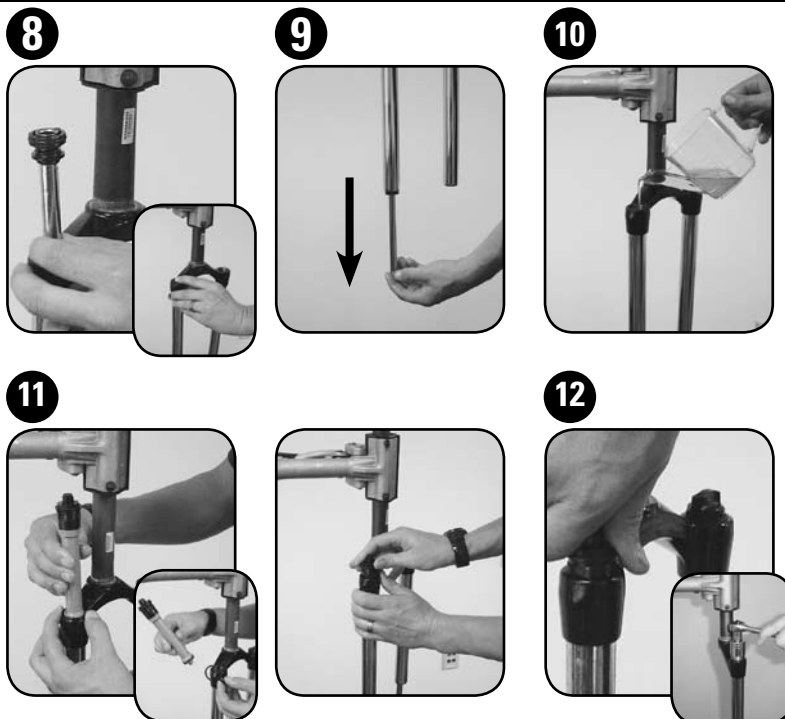
DAMPER INSTALLATION INSTRUCTIONS

8. Clamp fork back into bicycle stand and apply a light film of grease to upper tube threads. Insert rebound damper back into right side of upper tube, shaft first and press piston into upper tube past tube threads.
9. Push rebound damper into upper tube using a long dowel rod. Guide rebound damper shaft through damper seal head at the bottom of the upper tube and pull shaft through by hand into the fully extended position.
10. Measure and pour 5wt suspension oil into the upper tube using the volumes listed in the chart at right.

NOTE: FOR DART 2 AND TORA 289 PLEASE MOVE TO STEP 12. IMPORTANT: OIL VOLUME IS CRITICAL. TOO MUCH OIL REDUCES AVAILABLE TRAVEL, TOO LITTLE OIL DECREASES DAMPING PERFORMANCE.

11. Remote Only: Position cable-stop clamp in the 10 o'clock position around the upper tube hole on the crown prior to inserting compression damper. Grease upper tube threads liberally then insert compression damper into upper tube. Press down and twist to work damper into upper tube. Be careful not to damage o-ring seals on upper tube threads.
12. Press top cap down into upper tube threads and hand tighten. Using a 24 mm socket wrench, tighten to 65 in/lb.

NOTE: FOR DART 2 AND TORA 289, THIS COMPLETES THE INSTALLATION INSTRUCTIONS. YOU ARE READY TO MOVE ON TO THE NEXT SECTION IN THE MANUAL: SPRING SERVICE.



FORK	OIL VOLUME (±3 ML)
ARGYLE 302	130 ML
DART 2	150 ML
DART 2 (WITH TURNKEY), 3	93 ML
DOMAIN 302	200 ML
LYRIK DFR	145 ML
PIKE 327	120 ML
RECON 327,335, XC, SL	120 ML
TORA 289, 302, XC, SL	120 ML

DAMPER INSTALLATION INSTRUCTIONS (CONT)

NOTE: TURN COMPRESSION ADJUSTER HEX COUNTER-CLOCKWISE TO THE OPEN POSITION.

13. Place compression adjuster knob onto compression damper top cap with the knob dial set in the 3 o'clock position. Using external snap ring pliers, secure the compression adjuster knob with a new snap ring.

OR

If fork is equipped with a remote compression lockout feature, place remote spool onto compression damper top cap with the cable set screw in the 3 o'clock position. Using external snap ring pliers, secure the remote spool with a new snap ring.

13



OR



MOTION CONTROL DAMPER SERVICE

(ARGYLE 318, 409- DOMAIN 318 - LYRIK IS - TORA 318 - TOTEM IS)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

DAMPER REMOVAL/SERVICE INSTRUCTIONS

NOTE: FOR ARGYLE 318 AND 409, IT IS NOT NECESSARY TO REMOVE THE MOTION CONTROL KNOB, PLEASE SKIP STEP 1 AND MOVE TO STEP 2.

1. Remove external snap ring from compression adjuster knob using external snap ring pliers and remove compression adjuster knob and o-ring seal.

OR

If fork is equipped with a remote compression lockout feature, remove external snap ring from compression adjuster spool using external snap ring pliers and remove compression adjuster spool and white top cap seal.

OR

If fork is equipped with Motion Control IS, use a 2 mm hex to remove screw from compression the adjuster knob. Remove compression adjuster knob (not pictured).

2. Unthread compression damper top cap with a 24 mm socket wrench.
3. Remove compression damper from upper tube/crown by pulling up and gently twisting side to side. If fork is equipped, be sure to remove the remote compression damper cable-stop clamp; which is located under the compression damper top cap. Once removed, clean upper tube threads with a rag.
4. With a sharp pick, remove the compression damper top cap o-ring (located at the top of the damper) and the compression damper seal (located at the bottom of the damper). Apply a few drops of suspension oil to the new o-ring and seal and install.

IMPORTANT: IF USING A PICK TO REMOVE INNER SEAL HEAD O-RING, DO NOT SCRATCH O-RING GLAND. SCRATCHES MAY CAUSE OIL TO LEAK.

5. Remove fork from bicycle stand and pour remaining oil into pan.
6. Turn fork upside down. Push rebound damper shaft into upper tube/seal head and remove rebound damper from upper tube.
7. Remove rebound damper glide ring and inner seal head o-ring. Apply fresh grease to new o-rings and re-install.

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OR



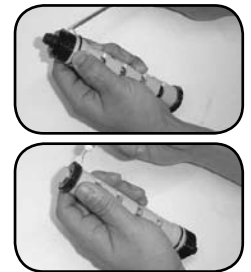
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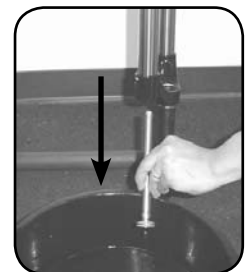
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OPTIONAL - COMPRESSION DAMPER UPGRADE: NON-REMOTE TO REMOTE ADJUST (TORA 318 ONLY)

Upgrading from a non-remote compression adjust fork to a remote compression adjust (from a crown mounted adjuster knob to a remote PopLoc or PushLoc 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 PopLoc and PushLoc remote lever assembly.

DAMPER INSTALLATION INSTRUCTIONS

8. Clamp fork back into bicycle stand. Insert rebound damper back into right side of upper tube, shaft first. Guide rebound damper through damper seal head at bottom of upper tube and pull through.
9. Thread shaft bolt into rebound damper shaft end and pull rebound damper shaft down through seal head into fully extended position.
10. Measure and pour 5wt suspension oil into the upper tube, through the crown using the following volumes:

FORK	OIL VOLUME (±3 ML)
ARGYLE 318, 409	130 ML
DOMAIN 318	200 ML
TORA 318	145 ML

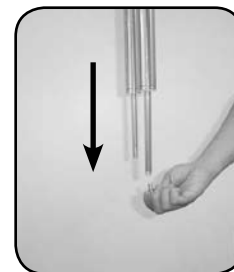
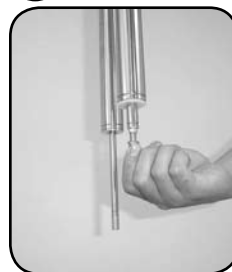
IMPORTANT: OIL VOLUME IS CRITICAL. TOO MUCH OIL REDUCES AVAILABLE TRAVEL, TOO LITTLE OIL DECREASES DAMPING PERFORMANCE.

11. Remote Only: Slide compression damper through cable-stop clamp prior to insertion. Position the cable-stop clamp in the 10 o'clock position on the crown. Grease upper tube threads liberally, then insert compression damper into upper tube. Press down and twist to work damper into upper tube.
12. As soon as the damper seal passes through the upper tube threads, pull the damper up slightly, then push back down. The compression damper should slide up and down easily, indicating the seal in the proper position, and not folded over. Repeat procedure until the compression damper slides up and down easily. Then press the compression damper down until the upper o-ring contacts the upper tube threads.

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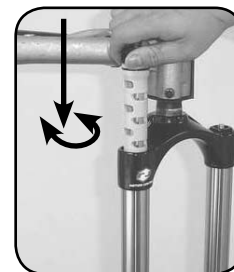
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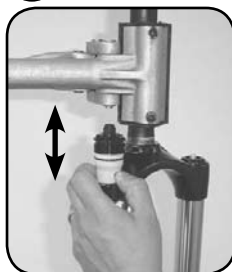
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DAMPER INSTALLATION INSTRUCTIONS (CONT)

13. Turn the damper clockwise and thread into the upper tube. Be careful not to damage the upper damper o-ring. Continue to thread top cap down into upper tube threads and hand tighten. Using a 24 mm socket wrench, tighten to 65 in/lb.

NOTE: FOR ARGYLE 318 AND 409 THIS COMPLETES THE INSTALLATION PROCESS.

NOTE: TURN COMPRESSION ADJUSTER HEX COUNTER-CLOCKWISE TO THE OPEN POSITION.

14. Place compression adjuster knob onto compression damper top cap with the knob dial set in the 3 o'clock position. Using external snap ring pliers, secure the compression adjuster knob with a new snap ring.

OR

If fork is equipped with a remote compression lockout feature, place remote spool onto compression damper top cap with the cable set screw in the 3 o'clock position. Using external snap ring pliers, secure the remote spool with a new snap ring.

THIS CONCLUDES THE DAMPER SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: SPRING SERVICE. ENJOY!

13



14



OR



MOTION CONTROL/BLACKBOX MOTION CONTROL DAMPER SERVICE

(BOXXER RACE, TEAM, WC - PIKE 409, 426, 454 - REBA SL, RACE, TEAM - RECON 351 - REVELATION 409, 426 - SID RACE, TEAM, WC)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

DAMPER REMOVAL/SERVICE INSTRUCTIONS

NOTE: BOXXER ONLY, IT IS NOT NECESSARY TO REMOVE THE MOTION CONTROL ADJUSTER KNOB. PLEASE SKIP STEP 1 AND MOVE TO STEP 2.

1. Crown mounted compression adjusters:

Remove external snap ring from compression adjuster knob using external snap ring pliers and remove compression adjuster knob and o-ring seal.

OR

Remove floodgate knob using a 1.5 mm hex and remove compression adjuster knob and o-ring seal.

Remote mounted compression adjusters:

Remove external snap ring from compression adjuster spool using external snap ring pliers and remove compression adjuster spool and white top cap seal.

OR

Remove floodgate knob using a 1.5 mm hex and remove compression adjuster spool and white top cap seal.

2. Unthread compression damper top cap with a 24 mm socket wrench.

3. Remove compression damper from upper tube/crown by pulling up and twisting side to side. Once removed, clean upper tube threads with a rag.

4. With a sharp pick, remove compression damper o-rings (located at the top and bottom of the damper). Apply a few drops of suspension oil to new o-rings and re-install.

5. Remove fork from bicycle stand and pour remaining oil into pan.

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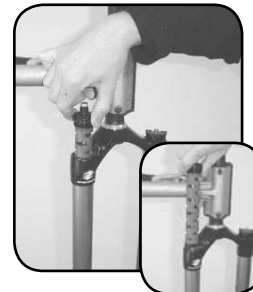
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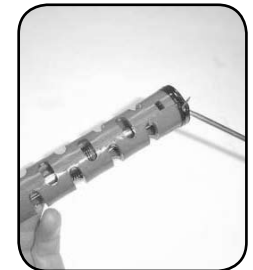
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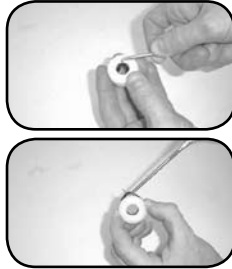
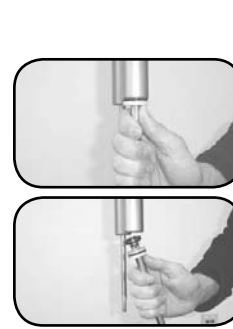


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DAMPER REMOVAL/SERVICE INSTRUCTIONS (CONT)

6. Remove rebound damper seal head retaining ring (located inside the bottom of the right upper tube), using external snap ring pliers. Pull down and remove the rebound damper and seal head assembly from the upper tube.
7. Slide seal head off damper shaft and remove inner and outer seal head o-rings. Apply a few drops of suspension oil to new o-rings and re-install.
8. Spray isopropyl alcohol on rebound damper shaft, and clean with a rag (not pictured).
9. If damaged, replace rebound damper piston glide ring. Position upper tube base ring on top of seal head step and slide rebound seal head assembly onto rebound damper shaft.
10. Spray isopropyl alcohol into the upper tube. Wrap a clean rag around a dowel and clean the inside of the upper tube (not pictured).



OPTIONAL - COMPRESSION DAMPER UPGRADE: NON-REMOTE TO REMOTE ADJUST (EXCLUDES BOXXER)

Upgrading from a non-remote compression adjust fork to a remote compression adjust (from a crown mounted adjuster knob to a remote PopLoc or PushLoc 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 PopLoc and PushLoc remote lever assembly.

DAMPER INSTALLATION INSTRUCTIONS

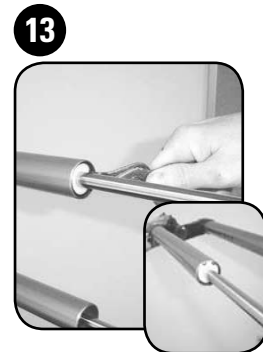
11. Insert rebound damper piston into the bottom of the upper tube at an angle, with the open-ended side of the glide ring face outward. Continue to angle and rotate until glide ring is in the upper tube. Position the upper tube base ring seal and seal head into the upper tube.



12. Position the upper tube base ring seal and seal head into the upper tube and press into the upper tube with your thumb.



13. Use internal snap ring pliers to secure seal head into upper tube with retaining ring.



IMPORTANT: MAKE SURE THE RETAINING RING IS SECURELY FASTENED IN THE UPPER TUBE GROOVE. YOU CAN CHECK THIS BY USING THE SNAP RING PLIERS TO ROTATE THE RETAINING RING IN THE SHAFT ONE COMPLETE REVOLUTION.

14. Pull rebound damper shaft down, into the fully extended position. Measure and pour 5wt suspension oil into the upper tube, through the crown, using the volumes listed in the chart at right.



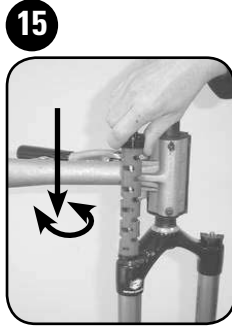
***BOXXER ONLY OPTIONAL PROCEDURE: YOU CAN USE A SUSPENSION OIL HEIGHT TOOL TO MEASURE OIL VOLUME. MEASURE AND SET SYRINGE NEEDLE STOP TO 205 MM. POUR 5WT OIL INTO UPPER TUBE. INSERT SYRINGE NEEDLE INTO THE UPPER TUBE, RESTING THE STOP FLAT ON UPPER TUBE. PULL OUT ANY EXCESS OIL WITH SYRINGE PLUNGER. REMOVE OIL HEIGHT TOOL FROM UPPER TUBE.**

IMPORTANT: OIL VOLUME IS CRITICAL. TOO MUCH OIL REDUCES AVAILABLE TRAVEL, TOO LITTLE OIL DECREASES DAMPING PERFORMANCE.

FORK	OIL VOLUME (±3 ML)
BOXXER RACE, TEAM, WC	150 ML*
PIKE 351, 409, 426, 454	120 ML
REBA SL, RACE, TEAM, WC	110 ML
RECON 351	118 ML
REVELATION 409, 426	114 ML

DAMPER INSTALLATION INSTRUCTIONS (CONT)

15. Insert compression damper into upper tube.
Press down and twist to work damper into upper tube.



16. Turn the damper clockwise to thread into the upper tube. Be careful not to damage the upper damper o-ring. Continue to thread top cap down into upper tube threads and hand tighten. Using a 24 mm socket wrench, tighten to 65 in/lb.



NOTE: FOR BOXXER, THIS COMPLETES THE INSTALLATION PROCEDURES.

NOTE: TURN COMPRESSION ADJUSTER HEX COUNTER-CLOCKWISE TO THE OPEN POSITION.

17. Place compression adjuster knob onto compression damper top cap with the knob dial set in the 3 o'clock position. Using external snap ring pliers, secure the compression adjuster knob with a new snap ring.



OR



OR

If fork is equipped with a remote compression lockout feature, place remote spool onto compression damper top cap with the cable set screw in the 3 o'clock position. Using external snap ring pliers, secure the remote spool with a new snap ring.

THIS CONCLUDES THE DAMPER SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: SPRING SERVICE. ENJOY!

MISSION CONTROL DAMPER SERVICE

(LYRIK - TOTEM)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

DAMPER REMOVAL/SERVICE INSTRUCTIONS

1. Turn blue high speed compression knob clockwise, to set in the maximum compression position. (not pictured)
2. Turn Floodgate to "off" position by pushing low speed compression adjuster down and rotating counter-clockwise 90°.
3. Unthread compression damper top cap with a thin 24 mm wrench. Access to the top cap is under the high speed compression knob.

OR

Insert a 2.5 mm hex wrench into the gold low speed compression knob and turn it counter-clockwise until it stops (not pictured). This allows maximum insertion depth for the 4 mm wrench. Gently grasp the low speed compression knob with the slip joint pliers, using a 4 mm hex wrench to remove low speed compression screw. Lift and remove the low speed compression knob. Then, using a 1.5 mm hex wrench, loosen both retaining bolts on the high speed compression knob. Remove the high speed compression knob. This allows access to the top cap. Unthread compression damper top cap using a 24 mm socket wrench.

4. Remove compression damper from upper tube/crown by pulling up and twisting side to side. Once removed, clean upper tube threads with a rag.
5. Remove glide ring from compression damper piston assembly. Apply a few drops of suspension oil to new glide ring and re-install.
6. Remove fork from bicycle stand and pour remaining oil into pan. Return fork to bicycle stand.
7. Remove rebound damper seal head retaining ring (located inside the bottom of the right upper tube), using internal snap ring pliers. Pull down and remove the rebound damper assembly from the upper tube.
8. Push upward on rebound shaft to separate rebound piston assembly from rebound tube.
9. Spray rebound damper shaft with isopropyl alcohol, and clean with a rag (not pictured).

2



3



OR



4



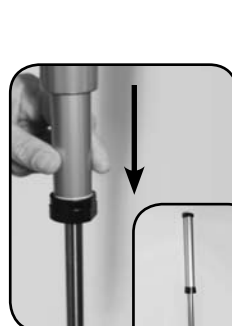
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DAMPER REMOVAL/SERVICE INSTRUCTIONS (CONT)

10. Remove inner and outer o-rings from rebound seal head. Apply a few drops of suspension oil to new o-rings and re-install.

IMPORTANT: IF USING A PICK TO REMOVE INNER SEAL HEAD O-RING, DO NOT SCRATCH O-RING GLAND. SCRATCHES MAY CAUSE OIL TO LEAK.

11. Remove glide ring from rebound shaft assembly. Apply a few drops of suspension oil to new glide ring and re-install.



DAMPER INSTALLATION INSTRUCTIONS

12. Install rebound shaft assembly into rebound tube.

NOTE: BE SURE NOT TO DAMAGE REBOUND TUBE INNER O-RING.

13. Install rebound assembly into upper tube and secure with retaining ring using internal snap ring pliers.

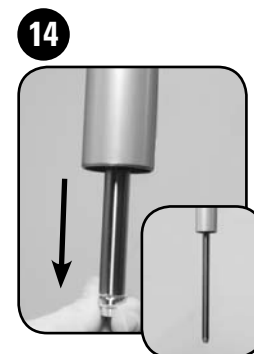
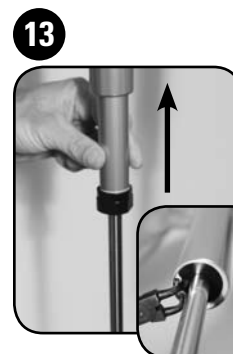
IMPORTANT: MAKE SURE THE RETAINING RING IS SECURELY FASTENED IN THE UPPER TUBE GROOVE. YOU CAN CHECK THIS BY USING THE SNAP RING PLIERS TO ROTATE THE RETAINING RING IN THE SHAFT ONE COMPLETE REVOLUTION.

14. Pull rebound damper shaft down into the fully extended position.

15. Measure and pour 5wt suspension oil into the upper tube, through the crown, using the following volumes:

FORK	OIL VOLUME (± 3 ML)
LYRIK	112 ML
TOTEM	137 ML

IMPORTANT: OIL VOLUME IS CRITICAL. TOO MUCH OIL REDUCES AVAILABLE TRAVEL, TOO LITTLE OIL DECREASES DAMPING PERFORMANCE.



DAMPER INSTALLATION INSTRUCTIONS (CONT)

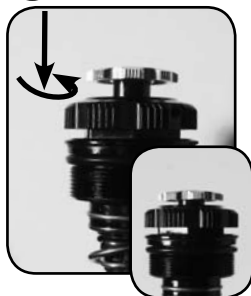
16. Double check the Floodgate to ensure it is in the "off" position. Install Mission Control damper assembly into upper tube through the crown. Hand thread the compression damper top cap into the upper tube. Use a thin 24 mm socket wrench and tighten top cap to 65 in-lb.

OR

Double check the Floodgate to ensure it is in the "off" position. Insert Mission Control damper assembly into upper tube through the crown. Hand thread the compression damper top into the upper tube. Use a 24 mm socket wrench and tighten top cap to 65 in-lb. Install high speed compression knob using a 1.5 mm hex wrench to tighten screws. Install low speed compression knob by gently grasping the knob with slip joint pliers and using a 4 mm hex wrench to tighten screw.

THIS CONCLUDES THE DAMPER SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: SPRING SERVICE. ENJOY!

16



OR



SPRING SERVICE

SPRING SERVICE - HELPFUL HINTS

Servicing your fork spring helps reduce friction and ensure consistent, reliable performance from your front suspension.

COIL SPRING SERVICE

(ARGYLE 302, 318 - DART 1, 2, 2 (WITH TURNKEY), 3 - DOMAIN 302, 318 - TORA 289, 302, 318, XC, SL)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

COIL SPRING REMOVAL/SERVICE INSTRUCTIONS

1. Unthread and remove spring top cap with a 24 mm socket wrench.
IMPORTANT: PRESS DOWN FIRMLY WHEN LOOSENING TOP CAP.
2. Argyle 302, 318 Only: Remove spring pre-load spacer(s).
3. Push spring shaft upward, from the bottom of the upper tube, then remove spring and spring spacers from upper tube.
4. Turn fork upside down and slide the spring shaft assembly out of the upper tube. Remove spring shaft assembly and inspect for damage.
5. Spray isopropyl alcohol on spring, spring shaft assembly and the inside and outside of the upper tube and wipe with a clean rag. Wrap a clean rag around a long dowel and insert into the upper tube to clean inside the upper tube (not pictured).

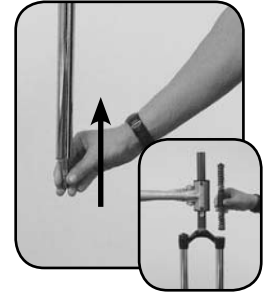
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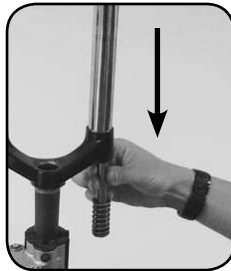
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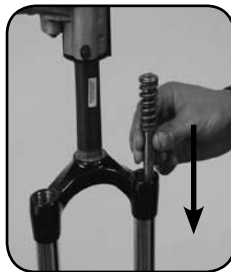
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COIL SPRING INSTALLATION INSTRUCTIONS

5. Insert and drop spring shaft assembly into upper tube through the crown. Guide the threaded end through the shaft guide at the bottom of the upper tube and gently pull shaft through to full extension.
6. Apply fresh grease liberally to spring/spring spacer assembly.
7. Insert and drop spring assembly into upper tube through the crown.
8. Argyle 302, 318 Only: Install spring pre-load spacers.
9. Clean top cap, then apply a small amount of grease to top cap threads. Insert top cap into upper tube/crown and hand thread into upper tube. Using a 24 mm socket wrench, tighten to 65 in-lb.

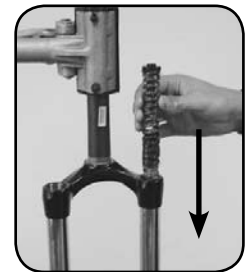
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THIS CONCLUDES THE SPRING SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: LOWER LEG INSTALLATION. ENJOY!

COIL SPRING SERVICE

(BOXXER RACE, TEAM - RECON 335, 351, RACE, SL - TOTEM)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

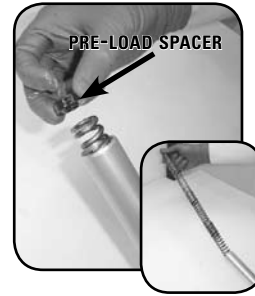
SPRING REMOVAL/SERVICE INSTRUCTIONS

1. Unthread and remove spring top cap with a 24 mm socket wrench.
IMPORTANT: PRESS DOWN FIRMLY WHEN LOOSENING TOP CAP.
2. Remove spring pre-load spacer(s) and pull spring from upper tube.
3. Remove the spring shaft base plate retaining ring using internal snap ring pliers.
4. Pull spring shaft and base plate from upper tube. Inspect assembly for damage and replace entire assembly if necessary.

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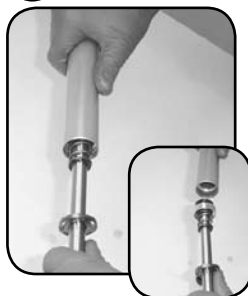


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5. Spray isopropyl alcohol on spring, spring isolators (isolators are BoXXer only), spring shaft and the inside and outside of the upper tube and wipe with a clean rag. Wrap a clean rag around a long dowel and insert into the upper tube to clean inside the upper tube (not pictured).

4

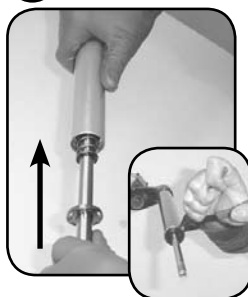


NOTE: YOU CAN SECURE THE SPRING ISOLATORS TO THE SPRING (BOXXER ONLY) BY USING A HEAT GUN OR HAIR DRYER TO SHRINK THEM AROUND THE SPRING. GENTLY HEAT THE ISOLATORS UNTIL THEY EMIT VAPORS. BE CAREFUL NOT TO GET THE HEAT GUN TOO CLOSE OR YOU MAY BURN A HOLE IN THE ISOLATOR.

COIL SPRING INSTALLATION INSTRUCTIONS

6. Insert spring shaft assembly back into bottom of upper tube so the base plate assembly is seated into the upper tube step. Secure spring shaft assembly with retaining ring, using internal snap ring pliers.
7. Apply fresh grease liberally to spring and spring isolators (isolators are BoXXer only).
8. Insert spring back into upper tube and place spring preload spacer(s) on top of spring inside upper tube.
9. Clean top cap, then apply a small amount of grease to top cap threads. Insert top cap into upper tube/crown and hand thread into upper tube. Using a 24 mm socket wrench, tighten to 65 in-lb.

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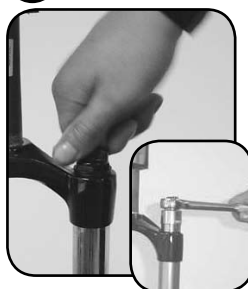
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THIS CONCLUDES THE SPRING SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: LOWER LEG INSTALLATION. ENJOY!

COIL U-TURN SPRING SERVICE

(DOMAIN 302, 318 - TORA 289, 302, 318)

INTRODUCTION

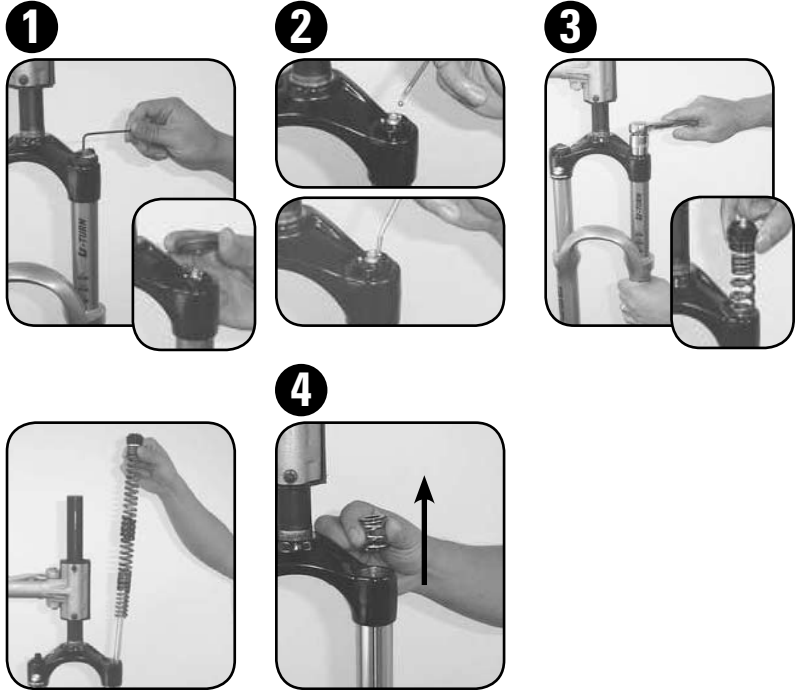
At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

COIL U-TURN SPRING REMOVAL/SERVICE INSTRUCTIONS

1. Remove U-Turn knob screw with a 2.5 mm hex wrench and remove U-Turn adjuster knob.
2. Remove detent ball bearings and detent springs from top cap using a magnet.
3. Unthread and remove spring top cap with a 24 mm socket wrench. The spring is attached to the top cap and spring shaft. Pull and lift entire spring assembly from upper tube.

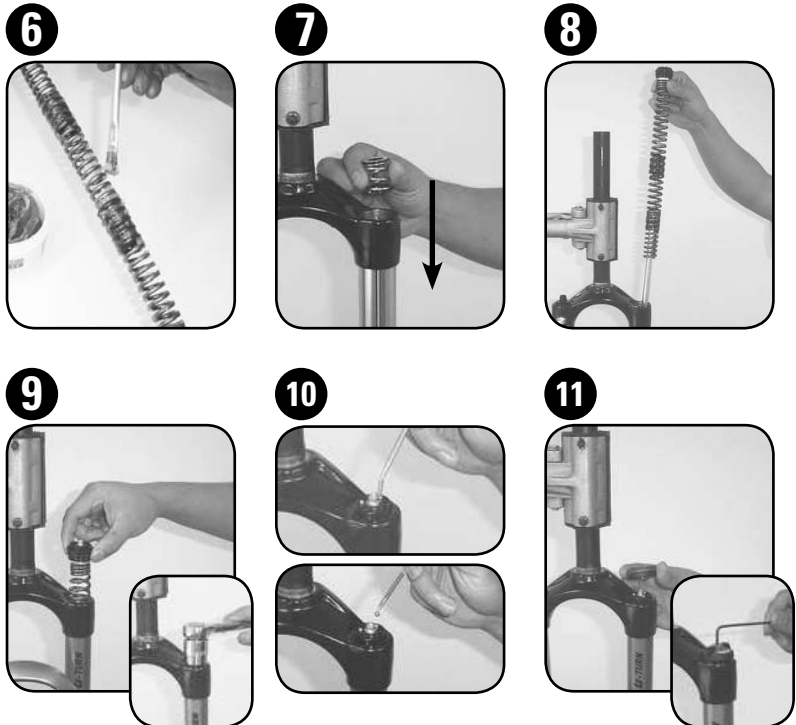
IMPORTANT: PRESS DOWN FIRMLY WHEN LOOSENING TOP CAP.

4. Remove U-Turn negative spring assembly from upper tube, you may need to turn fork upside down to remove.
5. Spray isopropyl alcohol on entire spring assembly, negative spring, and the inside and outside of the upper tube and wipe with a clean rag. Wrap a clean rag around a long dowel and insert into the upper tube to clean inside the upper tube (not pictured).



COIL U-TURN SPRING INSTALLATION INSTRUCTIONS

6. Apply fresh grease liberally to negative spring, the entire spring assembly, and top cap threads.
7. Insert and drop negative spring into upper tube through the crown.
8. Insert U-Turn spring assembly into upper tube through crown, shaft end first. Align and seat the spring shaft through the shaft guide/base plate.
9. Insert top cap into upper tube/crown and hand thread into upper tube. Using a 24 mm socket wrench, tighten to 65 in-lb.
10. Using a magnet, guide each detent spring into top cap detent holes, evenly spaced. Place each detent ball bearing on top of each detent spring.
11. Place U-Turn adjuster knob on top of hex. Tighten U-Turn knob screw with a 2.5 mm hex wrench to 12 in-lb.



THIS CONCLUDES THE SPRING SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: LOWER LEG INSTALLATION. ENJOY!

COIL U-TURN SPRING SERVICE

(LYRIK - PIKE 327, 351, 409, 426, 454 - RECON 351, RACE - REVELATION 426)

INTRODUCTION

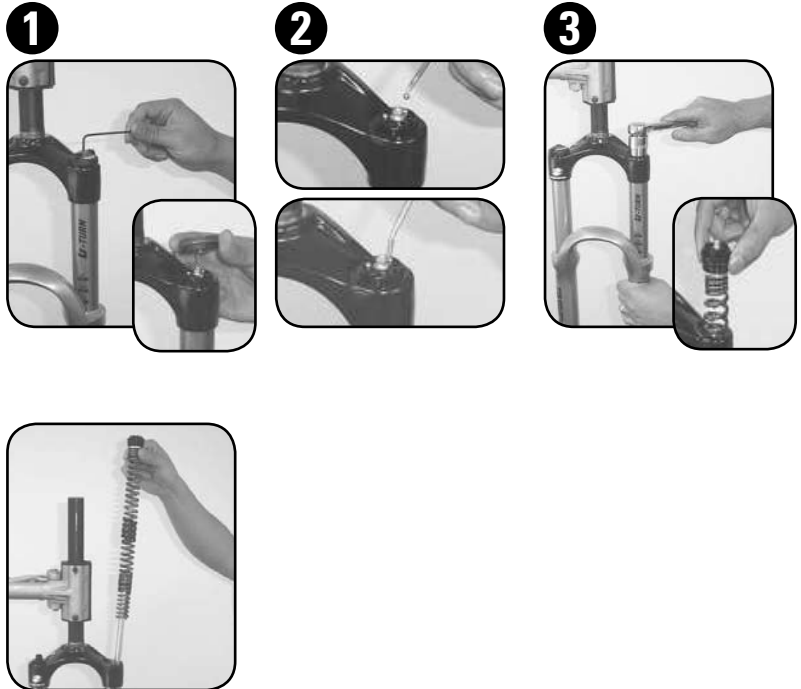
At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

COIL U-TURN SPRING REMOVAL/SERVICE INSTRUCTIONS

1. Remove U-Turn knob screw with a 2.5 mm hex wrench and remove U-Turn adjuster knob.
2. Remove detent ball bearings and detent springs from top cap using a magnet.
3. Unthread and remove spring top cap with a 24 mm socket wrench. The spring is attached to the top cap and spring shaft. Pull and lift entire spring assembly from upper tube.

IMPORTANT: PRESS DOWN FIRMLY WHEN LOOSENING TOP CAP.

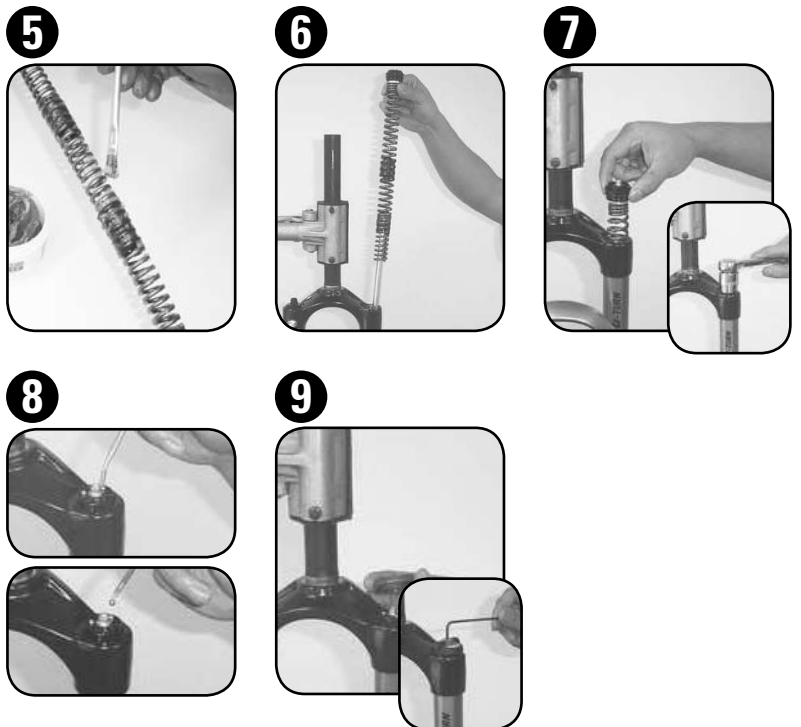
4. Spray isopropyl alcohol on entire spring assembly and the inside and outside of the upper tube and wipe with a clean rag. Wrap a clean rag around a long dowel and insert into the upper tube to clean inside the upper tube (not pictured).



COIL U-TURN SPRING INSTALLATION INSTRUCTIONS

5. Apply fresh grease liberally to the entire spring assembly, and top cap threads.
6. Insert U-Turn spring assembly into upper tube through crown, shaft end first. Align and seat the spring shaft through the shaft guide/base plate.
7. Insert top cap into upper tube/crown and hand thread into upper tube. Using a 24 mm socket wrench, tighten to 65 in-lb.
8. Using a magnet, guide each detent spring into top cap detent holes, evenly spaced. Place each detent ball bearing on top of each detent spring.
IMPORTANT: MAKE SURE YOU USE ALL THREE SPRINGS AND BEARINGS, OTHERWISE THE KNOB CAN TURN AND CHANGE TRAVEL ON ITS OWN.
9. Place U-Turn adjuster knob on top of hex. Tighten U-Turn knob screw with a 2.5 mm hex wrench to 12 in-lb.

THIS CONCLUDES THE SPRING SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: LOWER LEG INSTALLATION. ENJOY!



SOLO AIR SPRING SERVICE

(ARGYLE 409 - TORA 302, 318)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

SOLO AIR SPRING REMOVAL/SERVICE INSTRUCTIONS

IMPORTANT: VERIFY ALL AIR PRESSURE IS REMOVED FROM THE AIR CHAMBER BEFORE PROCEEDING. DEPRESS SCHRADER VALVE AGAIN TO REMOVE ANY REMAINING AIR PRESSURE.

1. Unthread air spring top cap with a 24 mm socket wrench. The air spring assembly is attached to the top cap. Pull and lift entire air spring assembly from upper tube.
2. Pull top cap out of air tube assembly and pour any air seal lubricant into oil pan.
3. Remove air shaft and air seal head from the bottom of the air tube by pulling shaft down and twisting side to side.
4. Spray isopropyl alcohol on the inside and outside of the upper tube and wipe with a clean rag. Wrap a clean rag around a long dowel and insert into the upper tube to clean inside the upper tube (not pictured).
5. Remove air piston retainer ring using external snap ring pliers. Then remove air piston wavy spring washer and piston from air shaft.
6. Slide air sleeve seal head assembly from air shaft.
7. Remove inner and outer seal head o-rings. Apply a few drops of suspension oil to new o-rings and re-install.

IMPORTANT: IF USING A PICK TO REMOVE O-RINGS, DO NOT SCRATCH SEAL HEAD. SCRATCHES MAY CAUSE OIL TO LEAK.

8. Spray air shaft with isopropyl alcohol and wipe clean with a rag (not pictured).
9. Insert air piston back onto air shaft head. Install spring wavy washer onto air shaft end and secure in place with air piston retainer ring, using external snap ring pliers. Check retaining ring fit to make sure it secures the air piston to air shaft head. The piston should compress slightly with spring resistance against wavy spring washer and retaining ring.

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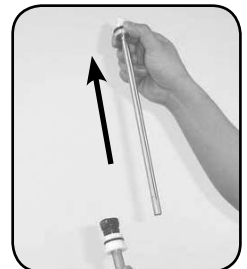
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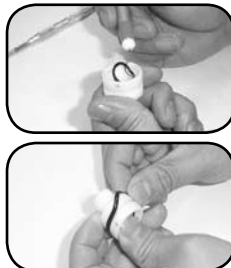
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SOLO AIR SPRING REMOVAL/SERVICE INSTRUCTIONS (CONT)

10. Remove bottom-out bumper and kick plate from negative air sleeve/seal head.

10



11. Remove inner and outer seal head o-rings.

Apply a few drops of suspension oil to new o-rings and re-install.

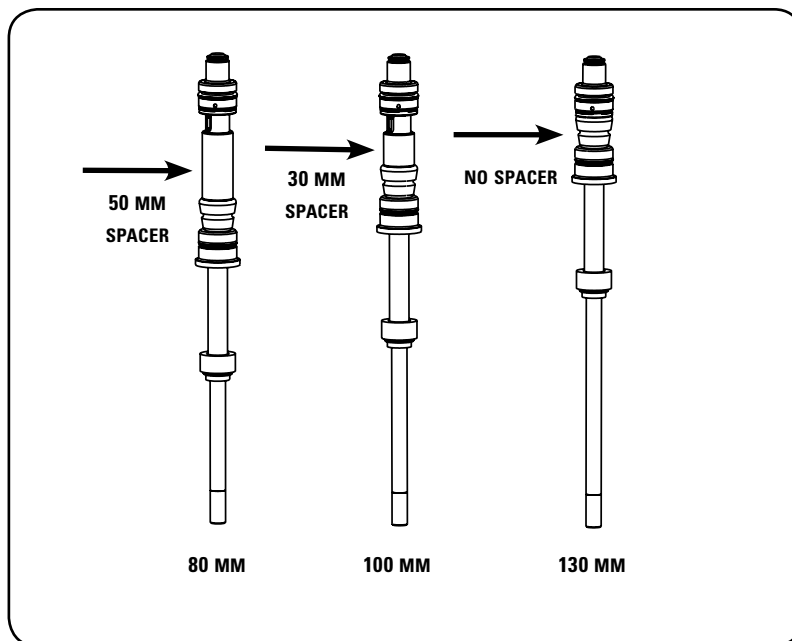
IMPORTANT: IF USING A PICK TO REMOVE O-RINGS, DO NOT SCRATCH SEAL HEAD. SCRATCHES MAY CAUSE OIL TO LEAK.

11



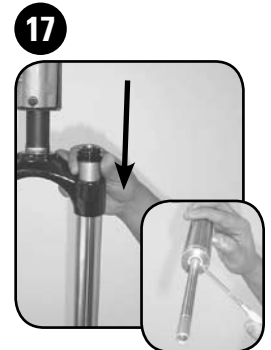
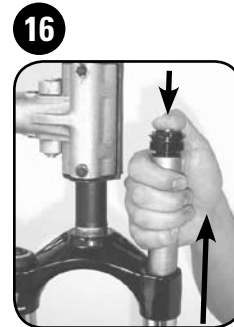
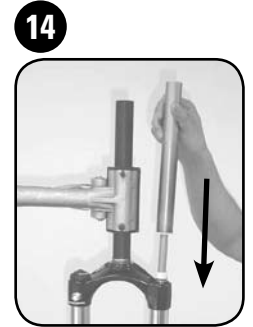
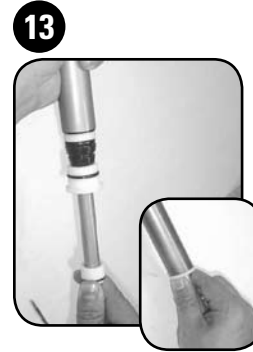
OPTIONAL - ALL TRAVEL CONFIGURATIONS (TORA 318)

All travel spacers are located just above the air seal head. If you want to change the travel of your fork, snap the travel spacer onto seal head to decrease travel, or remove to increase travel.



SOLO AIR SPRING INSTALLATION INSTRUCTIONS

12. Insert bottom-out bumper and kick plate back onto air seal head. Slide air seal head/sleeve assembly back into air shaft, bumpers first.
13. Insert lubricated air assembly, both pistons and air sleeve into one end of air tube. Push air seal head into air tube until firmly seated.
14. Insert air shaft into top of upper tube, through crown. Guide the bottom of the air shaft through the shaft guide in the bottom of the upper tube. Insert air tube assembly into upper tube until it rests inside upper tube.
15. Measure and pour 6 mL of 15wt suspension oil into upper tube through the crown. Suspension oil in the air chamber lubricates the air seal o-ring during use and maintains the air seal.
16. Push air shaft to lift air tube out of upper tube a couple of inches. Insert the air top cap into air tube and press tight into air tube.
17. Drop air tube/top cap assembly into upper tube. Check bottom of upper tube and make sure air shaft guide is seated into upper tube shaft guide.
18. Insert top cap into upper tube/crown and hand thread into upper tube. Using a 24 mm socket wrench, tighten to 65 in-lb.



THIS CONCLUDES THE SPRING SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: LOWER LEG INSTALLATION. ENJOY!

SOLO AIR SPRING SERVICE

(BOXXER WC - LYRIK - RECON - TOTEM)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

SOLO AIR SPRING REMOVAL/SERVICE INSTRUCTIONS

IMPORTANT: VERIFY ALL AIR PRESSURE IS REMOVED FROM THE AIR CHAMBER BEFORE PROCEEDING. DEPRESS SCHRADER VALVE AGAIN TO REMOVE ANY REMAINING AIR PRESSURE.

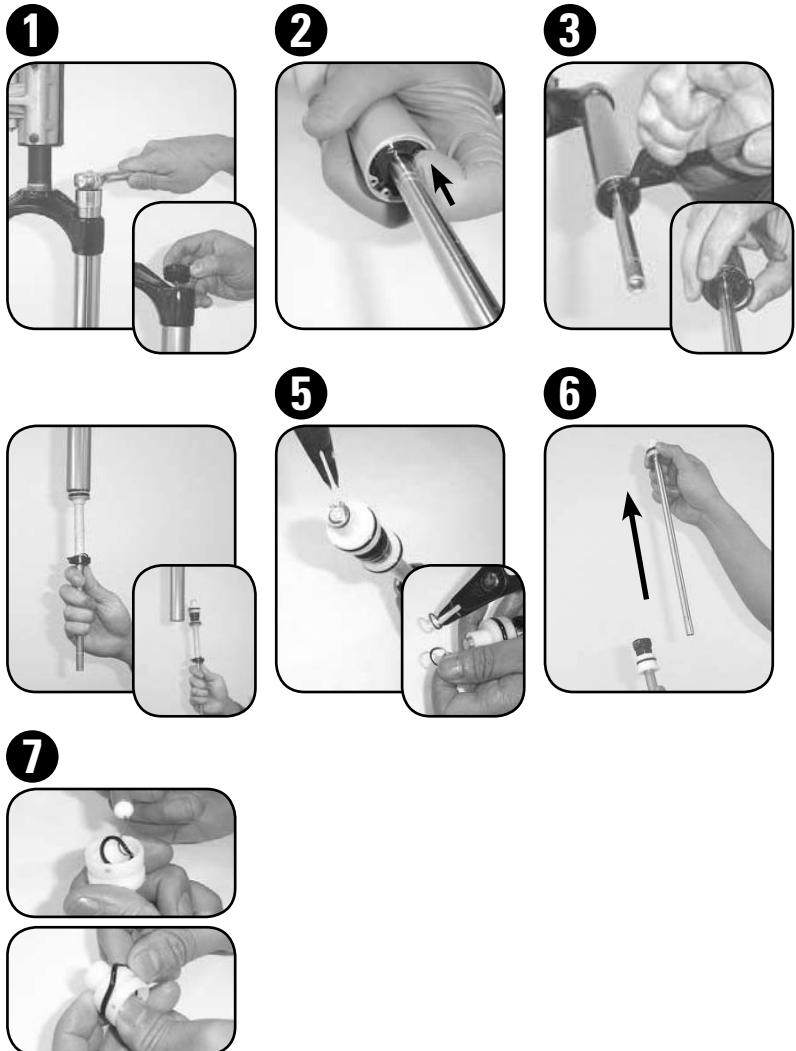
1. Unthread and remove air spring top cap with a 24 mm socket wrench. Remove fork from stand and pour any air seal lubricant into oil pan.
2. Use your finger to press the air seal into the upper tube. You will feel it break free and slide into the tube about 3 mm.
3. Remove the air assembly shaft guide retaining ring from the bottom of the left upper tube, using external snap ring pliers. Pull air shaft down to remove air spring assembly and shaft guide from upper tube.
4. Spray isopropyl alcohol on the inside and outside of the upper tube and wipe with a clean rag. Wrap a clean rag around a long dowel and insert into the upper tube to clean inside the upper tube (not pictured).

NOTE: FOR LYRIK, AND TOTEM IT IS NOT NECESSARY TO PERFORM STEPS 5, 6, 7 OR 9. SIMPLY INSPECT RETAINER RING AND WAVY WASHER (AND CUSHION ON LYRIK AND TOTEM). IF DAMAGED, YOU WILL NEED TO REPLACE THE AIR PISTON HEAD ASSEMBLY. OTHERWISE PLEASE COMPLETE STEP 8, THEN MOVE TO STEP 11.

5. Remove air piston retainer ring using external snap ring pliers. Then remove air piston wavy spring washer and piston from air shaft.
6. Slide air sleeve/seal head assembly from air shaft.
7. Remove inner and outer seal head o-rings. Apply a few drops of suspension oil to new o-rings and re-install.

IMPORTANT: IF USING A PICK TO REMOVE O-RINGS, DO NOT SCRATCH SEAL HEAD. SCRATCHES MAY CAUSE OIL TO LEAK.

8. Spray air shaft with isopropyl alcohol and wipe clean with a rag (not pictured).



SOLO AIR SPRING REMOVAL/SERVICE INSTRUCTIONS (CONT)

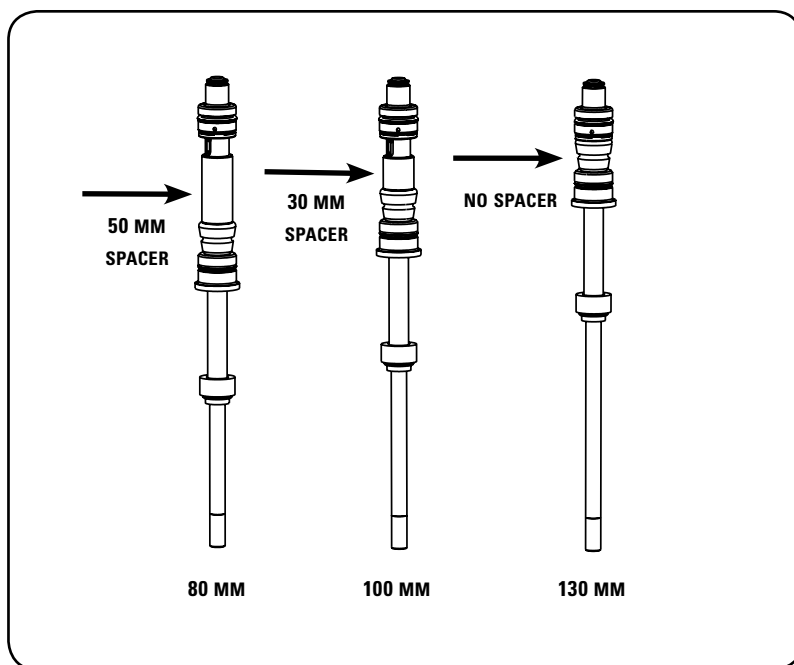
9. Insert air piston back onto air shaft head. Install spring wavy washer on air shaft end and secure in place with air piston retainer ring, using external snap ring pliers. Check retaining ring fit to make sure it secures the air piston to air shaft head. The piston should compress slightly with spring resistance against wavy spring washer and retaining ring.
10. Remove bottom-out bumper and kick plate from negative air sleeve/seal head.
11. Remove inner and outer seal head o-rings. Apply a few drops of suspension oil to new o-rings and re-install.



IMPORTANT: IF USING A PICK TO REMOVE O-RINGS, DO NOT SCRATCH SEAL HEAD. SCRATCHES MAY CAUSE OIL TO LEAK.

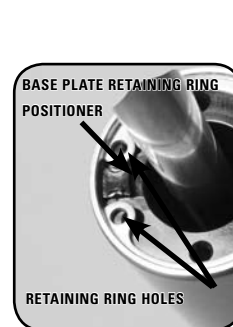
OPTIONAL - ALL TRAVEL CONFIGURATIONS (RECON 327, 335, 351)

All travel spacers are located just above the air seal head. If you want to change the travel of your fork, snap the travel spacer onto seal head to decrease travel, or remove to increase travel.



SOLO AIR SPRING INSTALLATION INSTRUCTIONS

12. Insert bottom-out bumper and kick plate back onto air seal head. Slide air seal head/sleeve assembly back into air shaft, bumpers first.
13. Insert lubricated air piston into bottom of upper tube and slide the lower air piston/sleeve assembly into upper tube.
14. Seat the shaft guide ring and wavy washer into upper tube step, then slide negative air sleeve into upper tube and seat shaft guide base into upper tube step.
15. Secure retaining ring into upper tube retaining ring groove using external snap ring pliers. Position retaining ring holes around retaining ring positioner on base plate. Verify retaining ring is secure in upper tube.
16. Measure and pour 6 mL of 15wt suspension oil into air tube through the crown. Suspension oil in the air chamber lubricates the air seal o-ring during use and maintains the air seal.
17. Insert top cap into upper tube/crown and hand thread into upper tube. Using a 24 mm socket wrench, tighten to 65 in-lb.



THIS CONCLUDES THE SPRING SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: LOWER LEG INSTALLATION. ENJOY!

DUAL AIR SPRING SERVICE

(PIKE 409, 426, 454 - REBA SL, RACE, TEAM - REVELATION 409, 426 - SID RACE, TEAM, WC)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

DUAL AIR SPRING REMOVAL/SERVICE INSTRUCTIONS

IMPORTANT: VERIFY ALL AIR PRESSURE IS REMOVED FROM THE AIR CHAMBER BEFORE PROCEEDING. DEPRESS POSITIVE AND NEGATIVE SCHRADER VALVES AGAIN TO REMOVE ANY REMAINING AIR PRESSURE.

1. Unthread and remove Dual Air top cap with a 24 mm socket wrench.
2. Remove fork from stand and pour any air seal lubricant into oil pan.
3. Clamp fork back into bicycle stand and wipe shaft and base plate with a rag.
4. Push negative air shaft up and into base plate, leaving only the tip of the threaded shaft end protruding from base valve.

NOTE: YOU MAY NEED TO DEPRESS THE SCHRADER VALVE AS YOU PUSH THE SHAFT, TO PREVENT A VACUUM.

5. Slide a 15 mm socket tool (or similar hollow tool) over the air shaft end and press firmly against the base plate. While pressing the air base plate up and into the upper tube, remove the retaining ring using external snap ring pliers.
6. Once retaining ring is removed, gently pull air shaft down to remove air spring assembly and base plate from upper tube.
7. Spray isopropyl alcohol on the inside and outside of the upper tube and wipe with a clean rag. Wrap a clean rag around a long dowel and insert into the upper tube to clean inside the upper tube (not pictured).
8. Remove base plate, base plate o-ring/bumper, and negative air piston from the Dual Air shaft.
Reba only: Remove wavy washer, base plate, base plate bumper, flat washer, and negative air piston from the Dual Air shaft.

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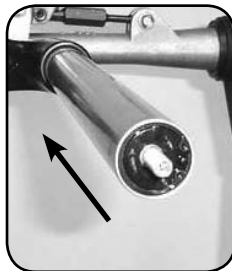
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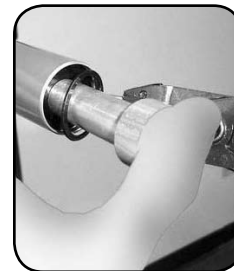
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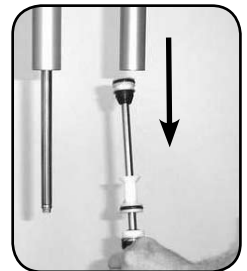
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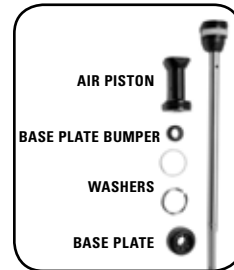
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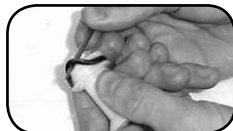
DUAL AIR SPRING REMOVAL/SERVICE INSTRUCTIONS (CONT)

9. Remove outer and inner negative air piston o-rings. Apply a few drops of suspension oil to new o-rings and re-install.

Reba only: Remove outer and inner negative air piston o-rings. Apply a few drops of suspension oil to new o-rings and re-install. Remove inner foam ring. Apply a few drops of suspension oil to new foam rings and re-install.

IMPORTANT: IF USING A PICK TO REMOVE O-RINGS AND FOAM RING, DO NOT SCRATCH SEAL HEAD. SCRATCHES MAY CAUSE OIL TO LEAK.

9



10. Remove outer positive air piston o-ring. Apply a few drops of suspension oil to new o-ring and re-install.

Reba only: Remove outer positive air piston o-ring and foam ring. Apply a few drops of suspension oil to new o-ring and foam ring and re-install.

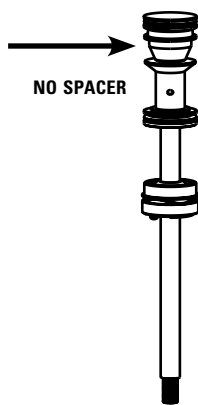
IMPORTANT: IF USING A PICK TO REMOVE O-RING AND FOAM RING, DO NOT SCRATCH SEAL HEAD. SCRATCHES MAY CAUSE OIL TO LEAK.

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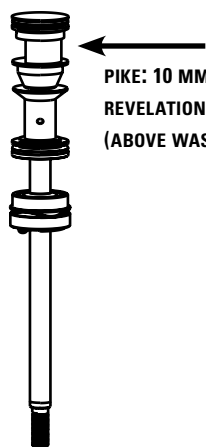
OPTIONAL - ALL TRAVEL CONFIGURATIONS

All travel spacers are located just above the bottom out bumper washer. If you want to change the travel of your fork, snap the travel spacer onto the Dual Air shaft to decrease travel, or remove to increase travel.



NO SPACER

PIKE: 140 MM
REVELATION: 140 MM



PIKE: 10 MM
REVELATION: 20 MM
(ABOVE WASHER)

PIKE: 130 MM
REVELATION: 120 MM



REBA: 20 MM
(ABOVE BASE PLATE BUMPER)

REBA: 100 MM (1 SPACER)
REBA: 80 MM (2 SPACERS)

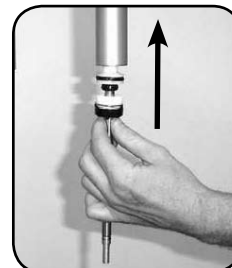
DUAL AIR SPRING INSTALLATION INSTRUCTIONS

11. Re-install the negative air piston, base plate o-ring/bumper and base plate onto the Dual Air shaft and re-apply suspension oil to o-rings.
Reba only: Re-install the negative air piston, flat washer, base plate bumper, base plate, and wavy washer onto the Dual Air shaft and re-apply suspension oil to o-rings and foam rings.
12. Insert Dual Air assembly into upper tube, positive air piston first, followed by the negative air piston. Insert base plate assembly into upper tube step and press in firmly.
13. Using your thumb, press base plate into upper tube. While pressing base plate, install external retaining ring using external snap ring pliers. Verify retaining ring is secure in upper tube groove. Align retaining ring according to the orientation of the base plate retaining ring groove.
14. Measure and pour 6 mL of 15wt suspension oil into air tube through crown. Suspension oil in the air chamber lubricates the air seal o-ring during use and maintains the air seal.
15. Insert top cap into upper tube/crown and hand thread into upper tube. Using a 24 mm socket wrench, tighten to 65 in-lb.

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THIS CONCLUDES THE SPRING SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: LOWER LEG INSTALLATION. ENJOY!

AIR U-TURN SPRING SERVICE

(PIKE 409, 429, 454 - REBA RACE, TEAM - REVELATION 409, 429)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

AIR U-TURN SPRING REMOVAL/SERVICE INSTRUCTIONS

IMPORTANT: VERIFY ALL AIR PRESSURE IS REMOVED FROM THE AIR CHAMBER BEFORE PROCEEDING. DEPRESS POSITIVE AND NEGATIVE SCHRADER VALVES AGAIN TO REMOVE ANY REMAINING AIR PRESSURE.

1. Adjust travel setting to max (full) travel. Push external retaining clip from above U-Turn knob with a pick or screwdriver and remove adjuster knob.
2. Remove detent ball bearings and detent springs from top cap using a magnet.

IMPORTANT: IT IS NOT NECESSARY TO REMOVE THE U-TURN TOP CAP TO SERVICE THE AIR U-TURN SPRING ASSEMBLY. IN THE EVENT THE TOP CAP MUST BE REMOVED, UNTHREAD WITH A 24 MM SOCKET WRENCH. BEFORE RE-INSTALLING TOP CAP, CLEAN OLD THREAD-LOCK OFF TOP CAP. THEN ADD A FEW DROPS OF BLUE THREAD-LOCK TO THE TOP CAP THREADS AND TIGHTEN WITH SOCKET WRENCH TO 130 IN-LB.

3. Turn Air U-Turn travel adjust shaft, which protrudes from both the center of the top cap and the bottom of the air shaft, **CLOCKWISE** to unthread the air spring assembly from the Air U-Turn top cap (top cap should be tight inside crown/upper tube).
4. Pull down on the Air U-Turn shaft and remove the entire spring assembly from the bottom of the upper tube.
5. Remove Teflon washer from inside of top cap. To remove, push down with a pick or flat-head screwdriver. Washer will exit bottom of the upper tube.
6. Remove small external retaining ring located at the bottom of the air chamber using external snap ring pliers, then remove guide plate.
7. Push down on seal head with a flat-head screwdriver (position screwdriver head against step, away from shaft) and free the retaining ring from the seal head. Once seal head slides into air tube, remove seal head retaining ring, using snap ring pliers.

IMPORTANT: DO NOT SCRATCH AIR SHAFT. SCRATCHES WITH CAUSE AIR TO LEAK AND EFFECT THE PERFORMANCE OF YOUR FORK.

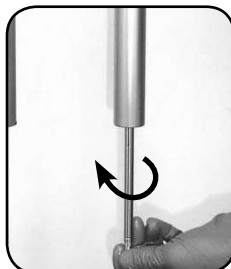
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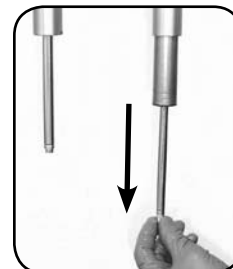
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AIR U-TURN SPRING REMOVAL/SERVICE INSTRUCTIONS (CONT)

8. Pull air shaft, negative air seal head and positive air piston assemblies out of air tube. Slide and remove aluminum seal head from air shaft.

9. Spray isopropyl alcohol on air shaft and wipe with a clean rag (not pictured).

10. Remove seal head from air piston shaft. Remove the inner and outer seal head o-rings as well as the small outer o-ring located on the air piston shaft groove. Apply a few drops of suspension oil to new o-rings and re-install.

IMPORTANT: IF USING A PICK TO REMOVE O-RINGS, DO NOT SCRATCH SEAL HEAD OR O-RINGS. SCRATCHES WILL CAUSE PERMANENT AIR LEAK.

11. Holding the air tube, place upper choke assembly end of flat surface. Firmly press tube down on flat surface to break the seal and push choke assembly through tube.

NOTE: THE CHOKE ASSEMBLY WILL FEEL TIGHT INSIDE TUBE WHILE PUSHING CHOKE OUT OF AIR TUBE. YOU MAY NEED TO TAP THE END OF THE AIR SHAFT ON A FLAT WORKING SURFACE TO FREE THE UPPER AIR SPRING ASSEMBLY FROM THE AIR TUBE.

12. Use a dowel to continue to push the assembly through and out of the air tube. Remove assembly completely from air tube.

13. Spray isopropyl alcohol on the inside and outside of the air tube and wipe with a clean rag. Wrap a clean rag around a long dowel and insert into the upper tube to clean inside the upper tube (not pictured).

14. Remove external choke retaining ring from travel adjustment shaft, using external snap ring pliers. Remove choke piston and choke/shaft washer.

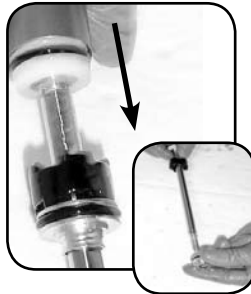
15. Remove external choke o-ring. Apply a few drops of suspension oil to new o-ring and re-install.

IMPORTANT: IF USING A PICK TO REMOVE O-RING, DO NOT SCRATCH CHOKE PISTON. SCRATCHES MAY CAUSE AIR LEAK.

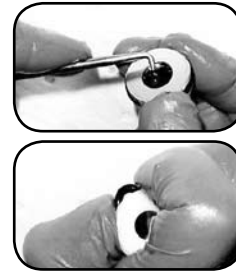
16. Remove upper seal head from adjuster shaft.

17. Use a flat head screwdriver and remove inner o-ring retaining ring. Then remove both the inner and outer seal head o-rings. Apply a few drops of suspension oil to new o-rings and re-install. Use a flat head screwdriver to re-install inner o-ring retaining ring.

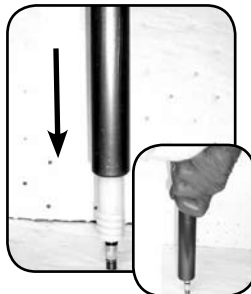
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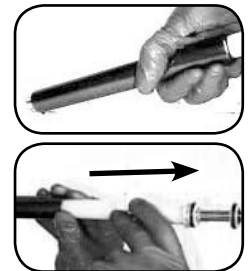
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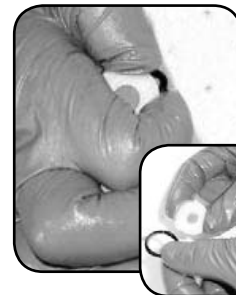
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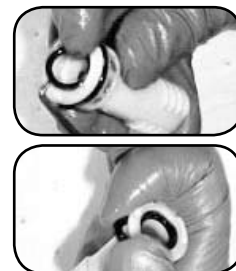
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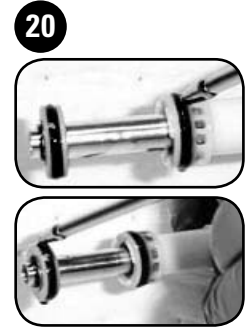


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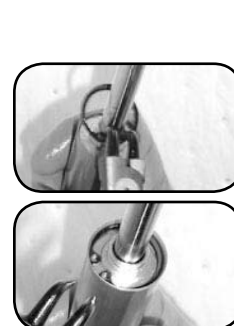
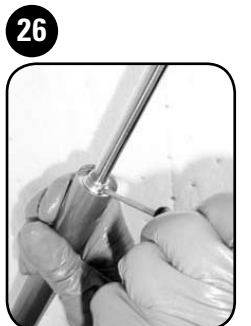
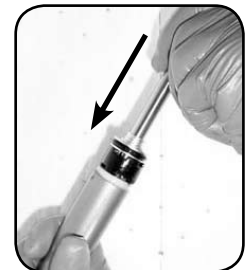
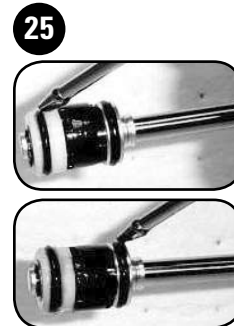
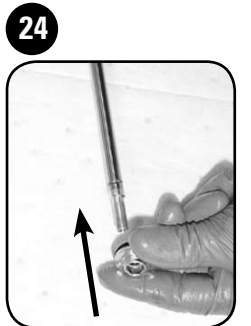
AIR U-TURN SPRING REMOVAL/SERVICE INSTRUCTIONS (CONT)

18. Re-install upper seal head onto travel adjustment shaft and apply suspension oil to adjuster shaft and inner seal head o-ring.
19. Install choke piston and secure with a NEW 10 mm external retaining ring, using external snap ring pliers.
20. Apply suspension oil to both piston o-rings.



AIR U-TURN SPRING INSTALLATION INSTRUCTIONS

21. Apply a thin film of grease to the inside groove of the open end of the air spring tube. Insert the upper choke assembly into open end of air spring tube, schrader valve first, and press completely into air tube.
22. Using a long non-metallic dowel, push assembly up into the air tube until seated flush against the rolled end of the air tube.
23. Hold air tube with open end up. Measure and pour 6 mL of 15wt suspension oil into air tube/ positive air chamber, on top of the upper choke assembly. This will lubricate the choke o-ring and positive air piston o-ring when fork is compressed. Set aside air tube, upright, so oil does not spill.
24. Re-apply suspension oil to inner seal head o-ring and slide negative air seal head onto Dual Air shaft, flat end first. Slide up to bottom out bumper.
25. Re-apply suspension oil to positive and negative air piston o-rings and insert positive air piston into open end of air spring. Push air shaft assembly into air tube.
26. Using a small flathead screwdriver, press down on seal head shaft step to seat into place inside air tube. Secure seal head into air tube with retaining ring, using internal snap ring pliers. **IMPORTANT: RETAINING RING MUST BE FULLY SEATED IN UPPER TUBE GROOVE. CHECK RETAINING RING CLOSELY TO ENSURE SECURE FIT.**
27. Add air to the positive air chamber (40-60psi) to ensure assembly components are seated properly inside air tube.



AIR U-TURN SPRING INSTALLATION INSTRUCTIONS (CONT)

28. Insert air tube guide plate into the end of air tube. Secure around small seal head groove with a new 13 mm external retaining ring, using external snap ring pliers. Verify retaining ring is seated against guide plate so it cannot move freely.

IMPORTANT: EXTERNAL RETAINING RINGS MAY DEFORM WHEN REMOVED AND INSTALLED. PINCH ENDS TIGHT WITH PLIERS, TO ENSURE CORRECT FIT.

NOTE: THE U-TURN AIR ASSEMBLY IS NOW ASSEMBLED AND READY TO BE INSTALLED INTO FORK UPPER TUBE/CROWN.

29. Place Teflon washer over threaded shaft end, flat against travel shaft. Insert Air U-Turn assembly into bottom of left fork upper tube, adjuster end first.
30. Slide into upper tube until upper assembly engages top cap. Thread assembly into top cap by holding the bottom of the air shaft and turning **Counter-clockwise** until it stops.
31. Using a magnet, guide each detent spring into top cap detent holes, evenly spaced. Place each detent ball bearing on top of each detent spring.
32. Place Air U-Turn adjuster knob on hex shaft end. Secure knob on air shaft with external retaining ring, using external snap ring pliers. Make sure retaining ring is inserted into groove, not air shaft threads.

IMPORTANT: MAKE SURE YOU USE ALL FIVE SPRINGS AND BEARINGS, OTHERWISE THE KNOB CAN TURN AND CHANGE TRAVEL ON ITS OWN.

IMPORTANT: AIR U-TURN FORK MUST BE SET TO FULL TRAVEL SETTING BEFORE INSTALLING LOWER LEGS. TURN AIR U-TURN KNOB COUNTER-CLOCKWISE TO SET TO FULL TRAVEL.

THIS CONCLUDES THE SPRING SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO MOVE ON TO THE NEXT SECTION: LOWER LEG INSTALLATION. ENJOY!

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2-STEP AIR SPRING SERVICE

(LYRIK - TOTEM)

INTRODUCTION

At this point you should already have the lowers removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lowers.

2-STEP AIR SPRING REMOVAL/SERVICE INSTRUCTIONS

1. Remove all air pressure from the system by depressing air valve at the bottom of the left leg, and then remove the 2-Step schrader valve using a Schrader valve tool.

WARNING: VERIFY ALL PRESSURE IS REMOVED FROM THE AIR CHAMBER BEFORE PROCEEDING.

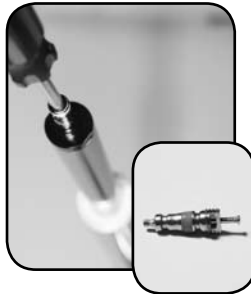
2. Using a 2 mm hex wrench remove 2-Step adjuster fixing screw and control knob.
3. Using a 24 mm socket wrench, unthread and remove the 2-Step top cap. Inspect 2-Step top cap o-ring for damage. Replace if necessary.
4. Remove fork from bicycle stand and pour any remaining oil into oil pan. Return fork to bicycle stand.
5. Using external snap ring pliers, remove retaining ring from the bottom of the left upper tube.
6. Gently pull down on the air shaft to remove the entire 2-Step assembly.
7. Remove lower seal head from shaft assembly and set aside.
8. Separate the 2-Step assembly into 3 parts: shaft assembly, air tube, and piston housing (in order in picture).

IMPORTANT: AVOID PULLING THE SHAFT PAST THE BLEED HOLES ON THE AIR TUBE AS THIS MAY DAMAGE THE O-RINGS. REMOVE SHAFT OUT OF THE TOP OF AIR TUBE OPPOSITE THE BLEED HOLES.

9. Remove piston from the IFP piston housing. Inspect IFP piston housing for damage or scratches, paying close attention the inside surface of the IFP piston housing. If damaged or scratched, replace the IFP piston housing.
10. Remove piston o-ring. Clean piston with isopropyl alcohol. Apply a few drops of suspension oil to new o-ring and re-install.

IMPORTANT: IF USING A PICK TO REMOVE O-RINGS, DO NOT SCRATCH LOWER SEAL HEAD. SCRATCHES WILL CAUSE PERMANENT AIR LEAK.

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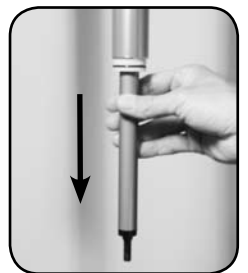
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2-STEP AIR SPRING REMOVAL/SERVICE INSTRUCTIONS (CONT)

11. Inspect IFP piston housing o-ring for damage. Replace if necessary. Re-assemble IFP and IFP piston housing. The IFP should be inserted into the housing with the o-ring side down. Press the IFP into the IFP piston housing until it bottoms out completely.

NOTE: IMPROPER INSTALLATION OF THE IFP WILL CHANGE 2-STEP AIR SPRING PERFORMANCE AND/OR AFFECT THE SYSTEM'S ABILITY TO ACHIEVE FULL TRAVEL ADJUSTMENT RANGE.

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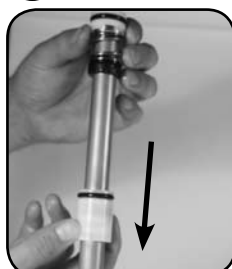


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12. Spray isopropyl alcohol on the inside and outside of the air tube and wipe with a clean rag. Wrap a clean rag around a long dowel and insert into the upper tube to clean inside the upper tube. Inspect the air tube for damage and scratches. Replace if damaged or scratched (not pictured).

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13. Return to lower seal head. Remove inner and outer lower seal head o-rings. Apply a few drops of suspension oil to new o-rings and re-install.

IMPORTANT: IF USING A PICK TO REMOVE O-RINGS, DO NOT SCRATCH LOWER SEAL HEAD OR O-RINGS. SCRATCHES WILL CAUSE PERMANENT AIR LEAK.

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14. Remove lower floating piston from the air shaft assembly. Remove lower floating piston inner and outer o-rings. Spray lower floating piston with isopropyl alcohol and wipe with a clean rag. Apply a few drops of suspension oil to new o-rings and re-install.

15. Remove rubber cushion and using a flat head screw driver, carefully remove top out spring assembly from the air shaft. Spray with isopropyl alcohol and wipe with a clean rag.

16. Using external snap ring pliers, remove the retaining ring and wavy spring washer located on top of the main piston.

17. Remove the inner and outer piston o-rings. Spray the main piston with isopropyl alcohol and wipe with a clean rag. Apply a few drops of suspension oil to new o-rings and re-install.

2-STEP AIR SPRING INSTALLATION INSTRUCTIONS

18. Inspect the face seal o-ring, making sure it is seated properly. A properly seated o-ring will not have any distortion in its shape (not pictured).
19. Spray air shaft with isopropyl alcohol and wipe with a clean rag. Inspect air shaft for damage or scratches. Replace if damaged or scratched (not pictured).

2-STEP AIR SPRING INSTALLATION INSTRUCTIONS (CONT)

20. Reassemble main piston and kick plate and install onto air shaft. Slide wavy washer on top of main piston and secure into place with snap ring.



21. Install top out spring assembly, rubber cushion, and lower floating piston onto air shaft. Do not install lower seal head at this time.



22. Install shaft assembly into air tube, air valve first, in the side opposite the two holes on the air tube. Install lower seal head on shaft assembly.



23. Measure and pour 5 mL of 15wt suspension oil into the top of the air tube assembly.



24. Insert the IFP piston housing into the air tube assembly, being careful not to spill the oil already in air tube.

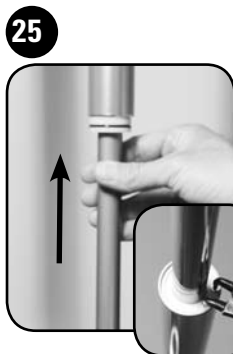


25. Insert the 2-Step assembly into the bottom of the upper tube. Secure with retaining ring.

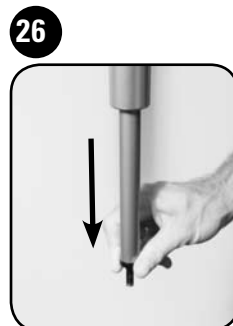


IMPORTANT: RETAINING RING MUST BE FULLY SEATED IN UPPER TUBE GROOVE. CHECK RETAINING RING CLOSELY TO ENSURE SECURE FIT.

26. Gently pull down on air shaft to extend to maximum length.



27. Lyrik Only: Measure and pour 35 mL of 2.5wt suspension oil into the top of the upper tube. Totem Only: Measure and pour 135 mL of 2.5wt suspension oil into the top of the upper tube.



TIP: TAP THE SIDE OF THE UPPER TUBE WITH YOUR HAND, THEN GENTLY WIGGLE THE SHAFT SIDE TO SIDE TO BRING ANY TRAPPED AIR BUBBLES TO THE TOP. GENTLY PULL DOWN ON AIR SHAFT AGAIN TO MAKE SURE IT IS AT FULL EXTENSION. NOTE: THE OIL WILL JUST REACH THE BOTTOM OF THE UPPER TUBE THREADS, REMOVE ANY EXCESS OIL.

IMPORTANT: AS LITTLE AS 2 ML CAN MAKE A DIFFERENCE IN THE TRAVEL ADJUSTMENT PERFORMANCE. TOO LITTLE OIL WILL RESULT IN LIMITED TRAVEL ADJUSTMENT RANGE. TOO MUCH OIL WILL CHANGE FORK HEIGHT.

28. Insert top cap into upper tube/crown and hand thread into upper tube. Using the 2-Step adjuster knob, turn the adjuster to the minimum travel setting. Remove the adjuster knob and using a 24 mm socket wrench, tighten top cap to 65 in-lb.



29. Install 2-Step adjuster knob and secure fixing screw with a 2 mm hex wrench.



30. Install schrader valve into bottom of air shaft, using schrader valve tool.



31. Add 100psi to the 2-Step system. Rotate adjuster knob to minimum travel position and compress air shaft to ensure proper function. Rotate adjuster knob to full travel position and verify return to full extension.



THIS CONCLUDES THE SPRING SERVICE FOR YOUR FORK.

LOWER LEG INSTALLATION

LOWER LEG INSTALLATION - HELPFUL HINTS

Lower leg installation is the final step in completing the service of your RockShox front suspension. Be sure to look around and make sure you don't have any extra parts lying around that should be in your fork!

LOWER LEG INSTALLATION (ALL FORKS)

INTRODUCTION

At this point you should already have already serviced your fork bushings, damper system, and spring system. Once you have re-installed your fork lowers, you will have successfully serviced your fork and you will be ready to ride!

LOWER LEG INSTALLATION INSTRUCTIONS

1. Spray upper tubes with isopropyl alcohol and wipe with a clean rag (not pictured).
2. Pour or inject 15wt suspension oil onto new or clean foam rings, just under wiper seals inside each lower leg.
3. Slide lower leg assembly on the upper tubes until you feel the lower bushing touch the end of the upper tubes.

IMPORTANT: MAKE SURE BOTH DUST SEALS SLIDE ONTO THE TUBES CORRECTLY AND DO NOT FOLD UNDER.

4. Invert fork to about 45°, fork legs pointing upward. Measure and inject suspension oil into lower legs through each shaft bolt hole, according the bottom volume values found in the Oil Volume chart located in the Getting Started Information section of this manual. Wipe all excess oil from lower legs.

NOTE: FOR HOLLOW BOTTOM FORK LEGS YOU WILL NEED TO USE A LONG TUBE ON THE SYRINGE IN ORDER TO REACH THE SHAFT BOLT HOLES. YOU MAY ALSO FIND IT EASIER TO KEEP THE FORK LEGS PARALLEL TO THE GROUND WHEN INJECTING SUSPENSION OIL.

5. Inspect and clean air spring shaft bolts, black nylon crush washers and crush wash retainers. Replace crush washers and crush washer retainers if damaged (not pictured).

NOTE: DAMAGED OR DIRTY CRUSH WASHERS CAN CAUSE OIL TO LEAK.

6. Insert rebound damper and air spring shaft bolts into threaded shaft ends, through lower leg shaft holes and tighten with a 5 mm hex or 10 mm socket wrench to 65in-lb.

NOTE: FOR HOLLOW BOTTOM FORK LEGS YOU WILL NEED TO USE A DEEP 10 MM SOCKET TO THREAD THE DUAL AIR SHAFT NUT.

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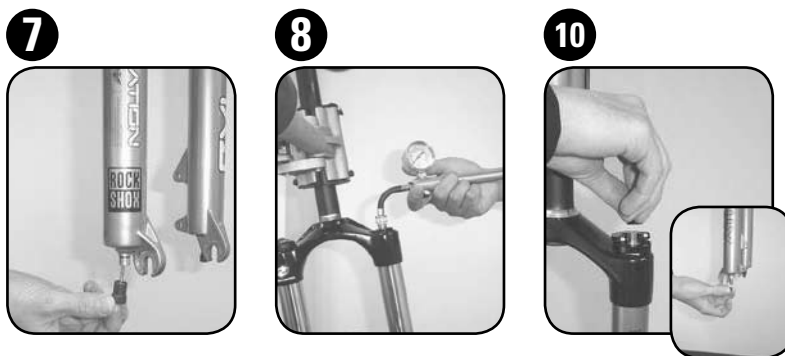
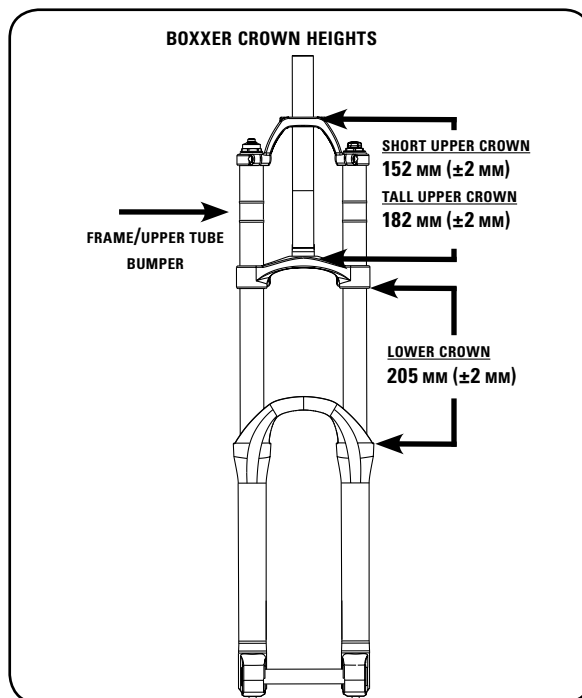
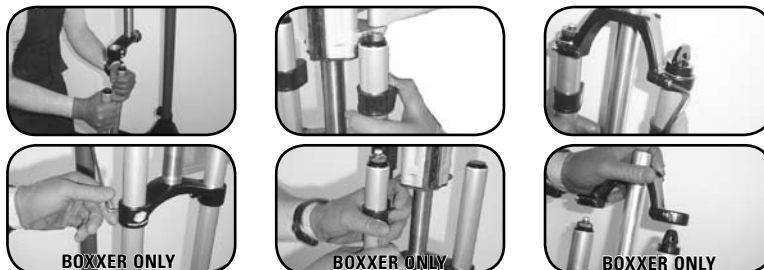


LOWER LEG INSTALLATION INSTRUCTIONS (CONT)

NOTE: BOXXER ONLY - INSERT EACH UPPER TUBE EVENLY INTO THE LOWER CROWN. PULL UPPER TUBES UP AND INTO THE CROWN, TWISTING GENTLY AS THE UPPER TUBES EASE INTO THE HOLES. PULL LEFT (DAMPER SIDE) UPPER TUBE UP TO THE FULLY EXTENDED POSITION (DO NOT OVER EXTEND!). MEASURE 205 MM FROM THE DUST/LOWER LEG TO THE BOTTOM OF THE LOWER CROWN HOLE AND TIGHTEN THE CROWN BOLT WITH A 4 MM HEX TO 65 IN/LB. PULL THE RIGHT (SPRING SIDE) UPPER TUBE EVEN WITH THE LEFT AND TIGHTEN THE CROWN BOLT TO 65 IN/LB. MAKE SURE THE UPPER TUBES ARE POSITIONED AT AN EVEN HEIGHT! REFER TO THE DIAGRAM FOR CROWN MEASUREMENTS. SLIDE EACH UPPER TUBE/ FRAME BUMPER ONTO EACH UPPER TUBE. INSTALL UPPER CROWN ON UPPER TUBES AND STEERER TUBE. REFER TO THE DIAGRAM FOR APPROPRIATE MEASUREMENTS. TIGHTEN UPPER CROWN WITH A 4 MM HEX WRENCH TO 65 IN-LB.

7. Insert external rebound damper knob into rebound damper shaft bolt. Push in until secure. Adjust as desired.
8. For air spring forks, refer to the air chart on your fork and inflate positive and negative air chambers to appropriate psi. For coil forks, move to Step 9.
9. Spray isopropyl alcohol on entire fork and wipe with a clean rag (not pictured).
10. Thread positive and negative air valve cap covers onto air top cap.

THIS CONCLUDES THE SERVICE FOR YOUR FORK. YOU DID A GREAT JOB! YOU ARE NOW READY TO INSTALL YOUR FORK ON YOUR BIKE AND GO FOR A RIDE!



i-RIDE SPRING SERVICE

i-RIDE SERVICE - HELPFUL HINTS

Performing routine service on your i-Ride suspension fork will help keep it working smoothly as well as reduce overall maintenance costs.

i-RIDE SPRING SERVICE

INTRODUCTION

To maintain the high performance, safety, and long life of your i-Ride fork, periodic maintenance is required. If you ride in extreme conditions, maintenance should be performed more frequently.

SERVICE INSTRUCTIONS

REMOVE i-RIDE FORK FROM THE BIKE (NOT PICTURED)

1. Remove the front wheel.
2. Remove the front brake.
3. **i-Ride:** Using a 5 mm hex, remove the headset bolt, then remove the headset cap.
i-Ride with M10 star nut: Using an 8 mm hex, remove the headset bolt, then remove the headset cap.
4. Loosen the stem bolt(s) and remove the stem with the handlebar intact.
5. Carefully pull the fork down out of the headtube. Retain spacers and headset parts as you go.

DISASSEMBLE STEERER ASSEMBLY

6. With the front side of the i-Ride fork facing you, locate the top of the steerer tube and write the word 'front' on the steerer tube in permanent marker.
7. Using either a 14 mm socket on the end of a socket extension or a long 6 mm hex, loosen and remove the retaining nut. Invert the fork and let the lock washer fall into your hand.

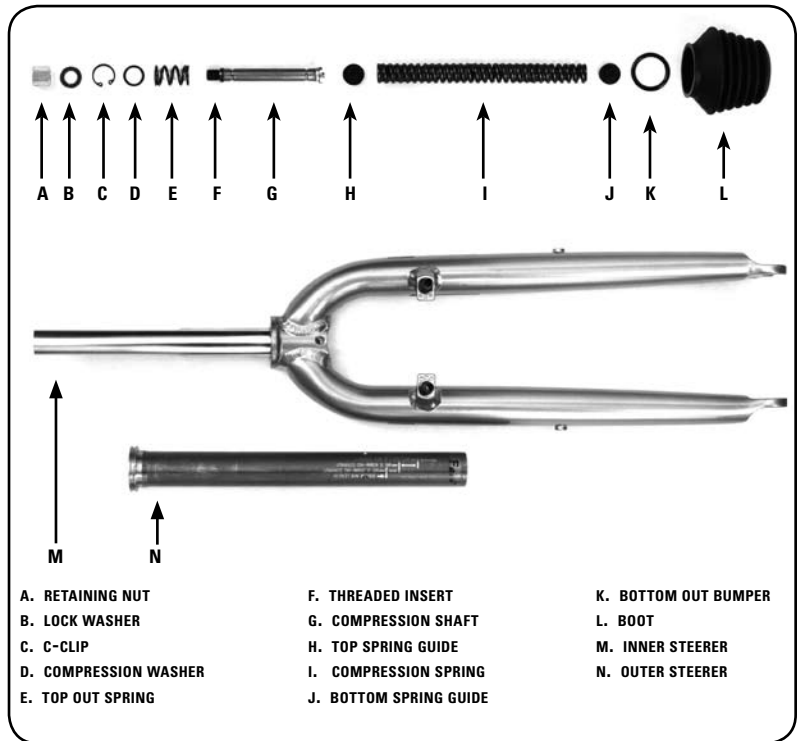
NOTE: IF THE LOCK WASHER DOESN'T FALL OUT, USE A PICK TO PULL THE LOCK WASHER OFF OF THE THREADED INSERT AND OUT OF THE STEERER.

i-Ride with M10 star nut: Using a long 6 mm hex through the center of the star nut, loosen the retaining nut. Using a pick, pull the lock washer off of the threaded insert.

NOTE: THE NUT AND THE WASHER WILL REMAIN IN THE STEERER TUBE BETWEEN THE STAR NUT AND THE BASEPLATE, LOCATED INSIDE THE OUTER STEERER.

TIP: LEAVE THE LONG 6 MM HEX WRENCH IN THE RETAINING NUT AND LOCK WASHER TO KEEP THEM ALIGNED WITHIN THE STEERER TUBE. THIS WILL EASE RE-ASSEMBLY LATER.

8. **i-Ride:** Clean the retaining nut with isopropyl alcohol and wipe with a clean rag. Apply blue threadlock (Loctite 2440) to the threads per manufacturer's instructions (not pictured). This will allow time for the threadlock to dry.
9. Carefully cut the zip tie securing the boot to the outer steerer, and pull the bottom of the boot over the lower leg crown flange.



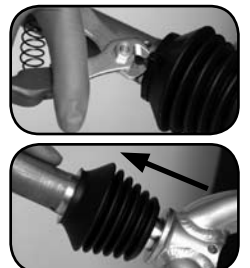
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SERVICE INSTRUCTIONS (CONT)

10. Pull the outer steerer upwards until it clears the inner steerer and remove.

NOTE: IF THE OUTER STEERER DOES NOT EASILY SEPARATE FROM THE INNER STEERER, PLACE A DOWEL ROD ON TOP OF THE THREADED INSERT AND FIRMLY STRIKE THE ROD WITH A MALLET TO LOOSEN THE OUTER STEERER.

11. Remove the boot and the bottom out bumper.

REMOVE COIL SPRING, CLEAN AND LUBRICATE

12. Using a cloth to protect the palm of your hand, compress the coil spring by pressing down on the threaded insert. It is not necessary to fully compress the spring, just press enough to relieve pressure on the retaining c-clip.

NOTE: YOU MAY WANT TO PLACE THE FORK BETWEEN YOUR FEET TO STABILIZE THE FORK DURING THIS PROCESS.

13. Using snap ring pliers while the spring is compressed, remove the retaining c-clip from within the inner steerer. The spring assembly will decompress and rise out of the inner steerer.

IMPORTANT: MAINTAIN CONTROL OF THE SPRING ASSEMBLY AS IT RISES OUT OF THE INNER STEERER SO IT DOES NOT RAPIDLY EJECT AND HARM YOU OR YOUR SURROUNDINGS.

14. Separate the compression washer, top out spring, compression shaft, top spring guide, and compression spring.

15. Locate the underside of the fork crown. Using a long, 7 mm (1/4") diameter dowel push the bottom spring guide out of the inner steerer.

16. Spray all parts with isopropyl alcohol and wipe with a clean rag. Inspect all parts for wear (not pictured).

17. Generously apply grease to compression and top out springs.

18. Insert the spring guides into the compression spring. Slide the compression spring assembly into the inner steerer.

19. Slide the top-out spring, washer, and c-clip over the compression shaft assembly. Slide the compression shaft assembly into inner steerer.

20. Using a cloth to protect the palm of your hand, compress the compression spring by pressing down on the threaded insert. Using snap ring pliers, re-install the c-clip.

IMPORTANT: VERIFY THE C-CLIP IS FULLY SEATED BEFORE DECOMPRESSING THE SPRING.

NOTE: THE C-CLIP PROFILE HAS A ROUNDED EDGE AND A SHARP EDGE. MAKE SURE THE SHARP EDGE OF THE C-CLIP IS FACING UP, AWAY FROM THE FORK.

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SERVICE INSTRUCTIONS (CONT)

INSPECT, CLEAN, AND GREASE STEERER ASSEMBLY

OUTER STEERER

21. Spray isopropyl alcohol inside the outer steerer. Wrap a clean rag around a dowel and clean the inside of the outer steerer.
22. Inspect the bushings and inside steerer surface for excessive wear. (not pictured)
23. Using a grease brush, apply a medium coat of grease (Maxima SG-920) to the bushings and D-slot flats.

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INNER STEERER

24. Spray isopropyl alcohol on the inside and outside of the inner steerer tube. Wrap a clean rag around a dowel and clean the inside of the inner steerer. Clean the outside of the inner steerer tube with a rag.
25. Spray isopropyl alcohol on the bottom-out bumper and clean with a rag. Inspect the bottom-out bumper for damage and replace if necessary (not pictured).
26. Inspect the steerer surface for excessive wear (not pictured).
27. Re-install the bottom out bumper by sliding it to the base of the steerer.
28. Using a grease brush, apply a liberal coating of grease (Maxima SG-920) to the inner steerer.

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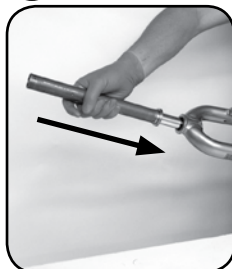
BOOT

29. Clean the boot with soapy water. Inspect for cuts or damage, and replace if necessary.
NOTE: THE FLAT NOTCH ON THE BOOT FLANGE IS A DESIGN FEATURE AND IS NOT A SIGN OF DAMAGE.

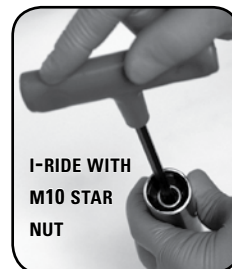
ASSEMBLE THE STEERER ASSEMBLY

30. Align the steerer so the word 'front' is facing you. Slide the outer steerer over the inner steerer, watching through the top for the threaded insert to align and pass through the baseplate. Wipe off any excess grease.
TIP: USE THE PICK TO GUIDE THE THREADED INSERT THROUGH THE BASEPLATE IF NECESSARY.
31. Wet a small patch of a clean cloth with isopropyl alcohol. Using a dowel rod to work the cloth into the steerer to clean any grease from the threaded insert (not pictured).
32. Using a 6 mm hex, position the lock washer and retaining nut onto the threaded insert.
i-Ride with M10 star nut: Using a pick or 6 mm hex wrench, align the lock washer over the threaded insert as you bring the steerers into position and position the retaining nut on top of the threaded insert. Pass a long 6 mm hex through the center of the star nut and tighten the retaining nut. Do not over tighten.

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I-RIDE WITH
M10 STAR
NUT

SERVICE INSTRUCTIONS (CONT)

33. Using a torque wrench with a 14 mm socket extension tighten the retaining nut to 120in-lb (13.6 Nm).
34. Place the top of the boot over the flange on the outer steerer so that the flat notch on the boot is on the back side of the fork.
NOTE: THE TOP OF THE BOOT FLANGE HAS A FLAT AREA ON THE CIRCUMFERENCE. THIS IS THE 'BACK' OF THE BOOT.
35. Pull the bottom of the boot over the lower leg crown flange, then align a zip tie in the groove at the top of the boot so that the fastener is in the middle of the flat notch on the top boot flange. Tighten the zip tie on the back of the boot and cut off the excess.
36. Check the function of the fork. Re-install fork and brake caliper according to manufacturer's instructions (not pictured).

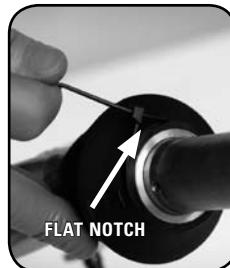
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REAR SHOCK SERVICE - GETTING STARTED

GETTING STARTED - HELPFUL HINTS

RockShox rear suspension service is separated by the name of the rear shock. Performing routine service on your rear shock will help maintain its consistent and plush performance, as well as reduce overall maintenance costs.

TOOLS NEEDED FOR SERVICE (ALL REAR SHOCKS)

The following chart is a list of the model year 2008 tools needed for service on your RockShox rear shock. While this chart is intended to be comprehensive, it is still only a guide. The tools required for each step of service are detailed in the text of each service section. Keep in mind your specific shock may not require every tool listed.

TOOLS	ARIO - BAR	Monarch	Vivid
SAFETY/STARTING EQUIPMENT			
SAFETY GLASSES	X	X	X
APRON	X	X	X
RUBBER GLOVES	X	X	X
CLEAN RAGS (LINT FREE)	X	X	X
OIL PAN	X	X	X
CLEAN WORK AREA	X	X	X
BENCH VICE	X	X	X
SOFT JAWS	X	X	X
SHAFT CLAMP			X
WRENCHES/PLIERS			
1.5 mm HEX		X	
2 mm HEX		X	X
2.5 mm HEX		X	X
13 mm WRENCH			X
30 mm THIN WRENCH			X
ADJUSTABLE WRENCH		X	X
CROW'S FOOT WRENCH		X	
TORQUE WRENCH		X	X
T-10 TORX® WRENCH			X
24 mm PIN SPANNER			X
SLIP JOINT PLIERS	X		
MISC TOOLS			
AIR COMPRESSOR WITH BLOW GUN CHUCK		X	
GAUGED AIR PUMP	X	X	X
MONARCH AIR PUMP ADAPTER		X	
SHARP PICK	X	X	X
SHOCK PUMP	X	X	X
SCHRADER VALVE CORE REMOVAL TOOL		X	
STRAP WRENCH		X	
OIL/LIQUIDS			
2.5 , 3, OR 5WT SUSPENSION OIL	X	X	X
GREASE		X	X
OIL MEASURING DEVICE	X	X	X
ISOPROPYL ALCOHOL	X	X	X
BLUE THREADLOCK	X		
RED THREADLOCK			X
FROSTY COLD BEVERAGE	X	X	X

REAR SHOCK SERVICE (ARIO - BAR)

INTRODUCTION

Prior to servicing your rear shock, you will first need to remove it from your bicycle frame according to your bicycle manufacture's instructions. Once your shock is off your bicycle, you will need to remove the mounting hardware before performing any service.

AIR CAN REMOVAL/SERVICE INSTRUCTIONS

GETTING STARTED

Using either your fingers or a pair of pliers, be sure to remove shock mounting hardware.

Spray isopropyl alcohol on entire shock and wipe with a clean rag (not pictured).

AIR CAN REMOVAL

1. Remove air valve cover cap. Using a small hex wrench or pick, depress schrader valve and release all air from shock. Use a Schrader valve tool to remove the valve core.

IMPORTANT: TO AVOID INJURY, ALL AIR PRESSURE MUST BE RELEASED FROM SHOCK PRIOR TO REMOVING THE AIR CAN.

2. Gently secure air can shock eyelet into bench vise.

NOTE: USE ALUMINUM VISE "SOFT-JAWS" TO PROTECT THE SHOCK EYELET WHEN CLAMPED.

3. Grip the air can by hand and turn firmly counter-clockwise. Pull the air can up shock damper slowly to remove.

NOTE: AIR PRESSURE MAY RELEASE, SO HOLD AIR CAN TIGHTLY WHILE PULLING UP.

4. Remove negative spring spacer and negative spring bumper. Spray both with isopropyl alcohol and wipe with a clean rag.

IMPORTANT: DO NOT ATTEMPT TO DISASSEMBLE SHOCK DAMPER AND/OR SHOCK EYELET ASSEMBLY. THEY ARE NOT SERVICEABLE.

5. Using a sharp pick, remove the black rubber dust seal from the air can.

6. Hold air can, narrow end down and remove blue air can glide ring with a sharp pick.

IMPORTANT: DO NOT SCRATCH THE INSIDE OF THE AIR CAN WITH PICK. SCRATCHES CAN CAUSE PERMANENT AIR BYPASS.

7. Spray isopropyl alcohol inside air can and wipe with a clean rag. Inspect the inside of the air can for any rough surfaces or scratches. Run your finger along the inside surface of the air can to feel for rough surfaces or scratches as well. Replace air can if scratched or damaged (not pictured).



AIR CAN REMOVAL/SERVICE INSTRUCTIONS

8. Remove large fixed air piston o-ring. Apply a few drops of suspension oil to new o-ring and re-install.

IMPORTANT: THE FIXED AIR PISTON O-RING IS THE MAIN AIR SEAL. BE SURE TO REPLACE THIS O-RING.

9. Install new air can glide ring and new air can dust seal.
10. Spray isopropyl alcohol on air can threads and eyelet body threads and wipe with a clean rag (not pictured).
11. Apply 2-3 drops of blue threadlock to eyelet body threads, evenly spaced. Spread evenly onto threads and wipe away excess threadlock with a clean rag.
12. Apply a small amount of 5wt suspension oil to the inside of the air can. Using your finger, spread and coat the entire inner air can surface with the oil. Re-apply a few drops of suspension oil to the glide ring and rubber dust seal.
- IMPORTANT: COATING THE INSIDE THE AIR CAN WITH SUSPENSION OIL ENSURES LUBRICATION OF THE FIXED AIR PISTON O-RING, WHICH REDUCES FRICTION AND O-RING WEAR.**
13. Install negative spring bumper and negative spring spacer.
14. Position air can over shock eyelet and slide down on shock body. Press air can down firmly and thread clockwise to tighten into eyelet body as tightly as possible by hand.
- NOTE: ENSURE THE OUTSIDE OF THE AIR CAN IS FREE FROM OIL. THIS ALLOWS MORE LEVERAGE WHEN TIGHTENING AIR CAN ONTO SHOCK EYELET BODY.**
15. Use a Schrader valve tool to re-install the valve core. (not pictured)
16. Using a shock pump, inflate shock to desired air pressure and install valve cover cap (not pictured).
17. Spray isopropyl alcohol on entire shock and wipe with a clean rag (not pictured).
18. Insert mounting hardware into both eyelets (not pictured).

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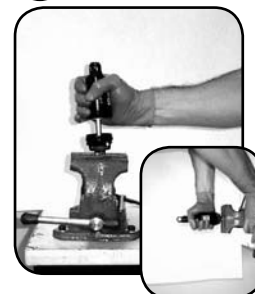
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THIS CONCLUDES THE SPRING SERVICE FOR YOUR SHOCK. YOU DID A GREAT JOB! YOU ARE NOW READY TO RE-INSTALL YOUR SHOCK ONTO YOUR BIKE AND GO FOR A RIDE!

MOUNTING HARDWARE REMOVAL & BUSHING SERVICE (MONARCH - VIVID)

Prior to servicing your rear shock, you will first need to remove it from your bicycle frame according to your bicycle manufacturer's instructions. Once your shock is off your bicycle, you will need to remove the mounting hardware before performing any service.

MOUNTING HARDWARE REMOVAL & BUSHING SERVICE

MOUNTING HARDWARE - REMOVAL

Some mounting hardware is easily removed using only your fingers. Try to remove the end spacers with your fingernail, then push the bushing pin out of the bushing. If this works, move onto the next section titled "Bushing Service".

If you are unable to remove your mounting hardware using your fingers, use the RockShox rear shock bushing installation and removal tool. Insert the threaded rod through the shock eyelet such that the push pin rests against the bushing pin. Thread the catcher down the rod until it rests on the opposite side of the bushing pin. Secure the catcher in a vise or hold it secure with an adjustable wrench. Using a 13 mm wrench thread the push pin down the rod until the bushing pin is pushed into the catcher and the end spacers fall off. Remove the tool from the shock eyelet and set the mounting hardware aside until you have finished servicing your shock. Repeat for other eyelet.



BUSHING SERVICE - REMOVAL

To replace damaged or worn out bushings, use the RockShox rear shock bushing installation and removal tool. Insert the threaded rod through the shock eyelet such that the base of the push pin rests against the bushing. Thread the catcher down the rod until it rests on the opposite side of the bushing. Secure the catcher in a vise or hold it secure with an adjustable wrench. Using a 13 mm wrench thread the push pin down the rod until the bushing is pushed into the catcher. Remove the tool from the shock eyelet and discard the old bushing. Repeat for other eyelet.



BUSHING SERVICE - INSTALLATION

To install a new bushing, use the RockShox rear shock bushing and installation tool. Apply a small amount of grease on the outside of the new bushing and slide it over the threaded rod such that it rests on the base of the push pin. Insert the threaded rod through the shock eyelet until the bushing makes contact with the eyelet. Thread the catcher down the rod until it rests on the opposite side of the eyelet. Secure the catcher in a vise or hold it secure with an adjustable wrench. Using a 13 mm wrench thread the push pin down the rod, being careful to keep the bushing straight, until the bushing is seated and flush in the eyelet. Repeat for other eyelet.



REAR SHOCK SERVICE (MONARCH)

INTRODUCTION

Prior to servicing your rear shock, you will first need to remove it from your bicycle frame according to your bicycle manufacture's instructions. Once your shock is off your bicycle, be sure to remove the shock mount hardware.

SERVICE INSTRUCTIONS

GETTING STARTED

Using either your fingers or a pair of pliers, be sure to remove shock mounting hardware (not pictured).

Place an oil pan on the floor underneath the area of the shock. Place a large oil absorbing rag directly underneath the vise where the shock will be clamped to catch all oil that will spill from the shock during service (not pictured).

Turn Rebound Adjuster fully counter-clockwise, toward the rabbit. Switch Gate (if applicable) to the full open, unlocked, position.

AIR CAN REMOVAL

1. Remove swivel air valve cap. Using a pick, depressurize air can by depressing valve.
2. Using a Schrader valve tool, remove nitrogen port cap. Using a pick, depressurize nitrogen by depressing valve. Using Schrader valve tool, remove the Schrader valve core.

IMPORTANT: TO AVOID INJURY, ALL AIR AND NITROGEN PRESSURE MUST BE RELEASED FROM SHOCK PRIOR TO SERVICING.

3. Secure shock sideways, by air can shaft eyelet, into bench vise.

NOTE: USE ALUMINUM VISE "SOFT-JAWS" TO PROTECT THE SHAFT EYELET WHEN CLAMPED.

4. Grip air can and turn counter-clockwise to unthread. Remove air can.

TIP: SPRAY ISOPROPYL ALCOHOL ON AIR CAN AND WIPE WITH A CLEAN RAG. THIS WILL HELP WITH GRIP.

NOTE: YOU MAY NEED TO USE A STRAP WRENCH TO HELP UNTHREAD THE AIR CAN. IF POSSIBLE, AVOID PLACING STRAP WRENCH ON LOGO STICKER.

5. Remove the negative spring bumper from inside the air can.

SHAFT ASSEMBLY SERVICE

6. Secure body eyelet into vise.

NOTE: USE ALUMINUM VISE "SOFT-JAWS" TO PROTECT THE BODY EYELET WHEN CLAMPED.



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SERVICE INSTRUCTIONS

7. Using a 2 mm hex, unthread and remove bleed screw.

NOTE: THE WHITE COMPRESSION BALL MAY FLOAT UP THROUGH BLEED HOLE, THIS IS OK. SIMPLY REMOVE BALL FROM BLEED HOLE. YOU WILL BE ABLE TO SKIP STEP 10.

8. Using an adjustable wrench, loosen and remove shaft assembly from shock body.

NOTE: OIL WILL SPILL FROM THE SHOCK BODY AND/OR SHAFT ASSEMBLY.

9. Hold the shaft eyelet with one hand, and push seal head toward air can cap with your other hand to expose bleed hole on underside of seal head.

NOTE: BE CAREFUL NOT TO PINCH YOUR FINGERS AS YOU SLIDE THE SEAL HEAD.

10. Using a pick, push and remove the white compression ball out of the backside of seal head through bleed hole.

NOTE: DO NOT REPLACE THE WHITE COMPRESSION BALL AT THIS TIME, YOU WILL DO THAT LATER.

11. Spray entire shaft assembly with isopropyl alcohol and wipe with a clean rag (not pictured).

12. Using a pick, remove seal head outer glide ring and outer seal. Using a pick remove piston glide ring. Apply a small amount of grease to new seal head outer glide ring and outer seal and piston glide ring and re-install.

IFP AND SHOCK BODY SERVICE

13. Remove shock body from vise, and pour remaining oil into oil pan.

14. Wrap a rag around end of shock body, insert air compressor chuck into nitrogen fill hole, and force air into body to remove IFP.

IMPORTANT: USE THE RAG TO CATCH THE IFP AS IT LEAVES THE SHOCK BODY. DO NOT HOLD YOUR HAND OVER OPENING WRAPPED WITH RAG; IT WILL HURT.

NOTE: IF YOU DO NOT HAVE AN AIR COMPRESSOR, YOU CAN USE A SHOCK PUMP TO FORCE AIR INTO THE BODY TO REMOVE THE IFP.

15. Spray isopropyl alcohol on the inside and outside of shock body and wipe with a clean rag. Inspect the inside of the shock body for scratches. (not pictured)

16. Spray IFP with isopropyl alcohol and wipe with a clean rag. Using a pick, carefully remove IFP o-ring. Apply a small amount of grease to new o-ring and re-install.

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SERVICE INSTRUCTIONS

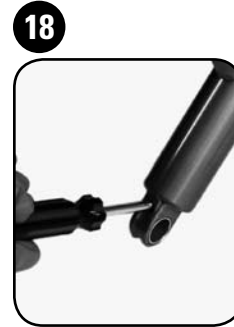
17. Using a gauge tool, insert IFP into shock body with the stepped side visible. Set IFP height to value indicated in the table below.

IMPORTANT: MEASURE IFP HEIGHT FROM THE BOTTOM OF THE STEP ON THE IFP.

SHOCK BODY DIMENSIONS	IFP INSERTION DEPTH
152X31	51 MM
165X38	56 MM
190X51	61 MM
200X51	61 MM
200X57	67 MM
216X63	73 MM
222X66	76 MM

SHOCK REASSEMBLY

18. Using a Schrader valve core tool, install Schrader valve in nitrogen port.
19. Clamp shock by shaft eyelet back into vise.
20. Pour new oil until it is level with the top of the shock body.
21. Slide seal head down against piston.
- NOTE: BE SURE GATE IS IN FULL OPEN (UNLOCKED) POSITION.**
22. Using a 1.5 mm hex wrench, depress the poppet valve at the bottom of shaft assembly. This will ensure oil entry to the shaft.
- NOTE: THE POPPET SHOULD NOT REMAIN OPEN.**
23. Holding onto the seal head, place it onto the shock body. Thread shaft assembly onto shock body.
- IMPORTANT: DO NOT HOLD ON TO THE SHAFT EYELET OR AIR CAN CAP WHILE INSERTING. IT WILL MOVE AND DISPLACE TOO MUCH OIL.**
- NOTE: OIL WILL DISPLACE OUT OF THE BLEED HOLE.**
24. Using a torque wrench with crow's foot, torque shaft assembly to 250 in/lb.
- IMPORTANT: INSTALL CROW'S FOOT AT 90° TO TORQUE WRENCH.**
25. Insert new white compression ball into bleed hole.
26. Using a 2.5 mm hex, gently thread bleed screw into bleed hole until you feel it touch the white compression ball. Tighten an additional ½ turn.
27. Spray assembly with isopropyl alcohol and wipe with a clean rag (not pictured).
28. Remove shock from vise. Using a gauged pump with Monarch adapter, pressurize shock body with either air or nitrogen to 250-300psi. Using a Schrader valve tool re-install nitrogen port cap.



SERVICE INSTRUCTIONS

29. Using a pick, remove internal glide ring on air can. Apply a small amount of grease to new glide ring and re-install.
30. Grease the seal head outer glide ring, outer seal, and negative spring bumper (not pictured).
31. Slide negative spring bumper, chamfered side first, onto shock body.
32. Re-clamp shock by shaft eyelet and install air can, twist clockwise while pushing.
33. Install red travel indicator o-ring (not pictured).
34. Install swivel air valve cap (not pictured).
35. Spray the entire shock with alcohol and wipe clean with a lint free rag (not pictured).
36. Re-install shock mounting hardware.

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THIS CONCLUDES THE SERVICE FOR YOUR SHOCK. YOU DID A GREAT JOB! YOU ARE NOW READY TO RE-INSTALL YOUR SHOCK ONTO YOUR BIKE AND GO FOR A RIDE!

REAR SHOCK SERVICE (VIVID)

INTRODUCTION

Prior to servicing your rear shock, you will first need to remove it from your bicycle frame according to your bicycle manufacture's instructions. Once your shock is off your bicycle, be sure to remove the shock mount hardware.

Vivid rear shock service includes instructions for completing both regular and full service procedures. Regular service procedures are maintenance items that should be completed routinely in order to keep your shock performing optimally. Full service procedures are long-term maintenance items that are performed in addition to the regular service items. For regular service intervals, you only have to perform the sections called out as 'Regular Service'. For full service intervals, you will complete all instructions, in order, including the regular service procedures.

SERVICE INSTRUCTIONS

GETTING STARTED (NOT PICTURED)

Using either your fingers or a pair of pliers, be sure to remove shock mounting hardware.

Place an oil pan on the floor underneath the area of the shock. Place a large oil absorbing rag directly underneath the vise where the shock will be clamped to catch all oil that will spill from the shock during service.

Record the adjustment settings for post-service set-up.

Turn the Beginning Stroke Rebound and Ending Stroke Rebound adjustments to the full open position, toward the rabbit. Turn the Low Speed Compression adjustment to the full closed position, toward the turtle.

SPRING REMOVAL (REGULAR SERVICE)

1. Turn pre-load collar counter-clockwise until it stops.
2. Remove spring retainer, spring and drop stop. Set aside parts until Shock Bleed & Reassembly section.

NOTE: THE DROP STOP HOUSES A BUMPER WHICH WILL NOT BE REMOVED FROM THE SHOCK.

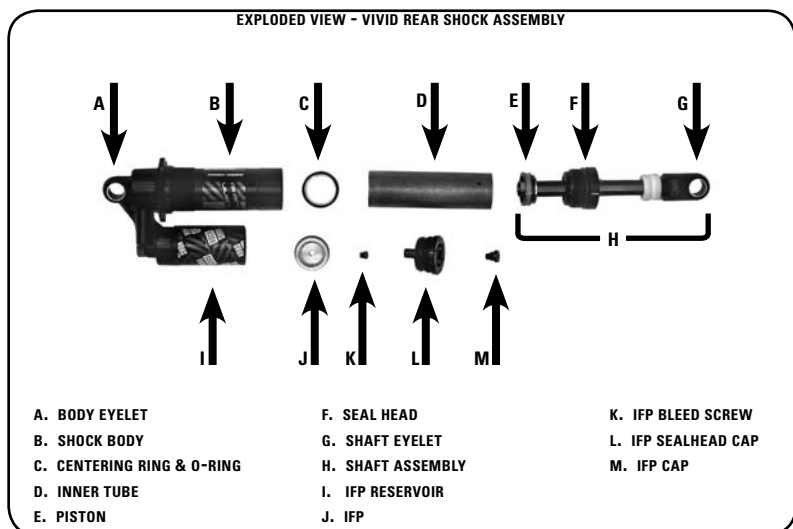
SHOCK BODY DISASSEMBLY (REGULAR SERVICE)

3. Clamp shock by body eyelet into vise.

NOTE: USE ALUMINUM VISE "SOFT JAWS" TO PROTECT THE SHAFT EYELET WHEN CLAMPED.
4. Using a T-10 Torx, remove the IFP cap from the IFP reservoir and discharge air by depressing the valve. Using a Schrader valve tool, remove the Schrader valve core.

IMPORTANT: BE SURE TO COMPLETELY DISCHARGE THE IFP RESERVOIR TO AVOID PERSONAL INJURY DURING DISASSEMBLY.

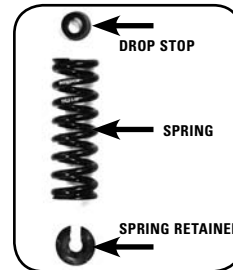
EXPLODED VIEW - VIVID REAR SHOCK ASSEMBLY



1



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SERVICE INSTRUCTIONS (CONT)

5. Using the RockShox 24 mm pin spanner, unthread the seal head.

IMPORTANT: HOLD THE PIN SPANNER HEAD IN PLACE WITH YOUR OPPOSITE HAND DURING USE TO AVOID DAMAGING THE SEAL HEAD PIN HOLES.

6. Pull up on seal head and remove entire shaft assembly.

NOTE: THE SHOCK BODY INNER TUBE MAY BECOME DISLODGED WITH THE SHAFT ASSEMBLY; THIS IS OK. IF THIS OCCURS, SIMPLY SEPARATE THE SHAFT ASSEMBLY FROM THE INNER TUBE AND REMOVE THE INNER TUBE FROM THE SHOCK BODY.

7. Using your fingers, remove inner tube from shock body.

8. Remove shock from vise and pour all oil from shock into oil pan (not pictured).

9. Confirm that the centering ring, located in the bottom of the shock body, is still in place (not pictured).

NOTE: THE CENTERING RING MAY BECOME DISLODGED WHEN REMOVING THE INNER TUBE, THIS IS OK. IF THIS OCCURS, SIMPLY SEPARATE CENTERING RING FROM THE INNER TUBE AND REMOVE FROM THE SHOCK BODY.

10. Clamp pick into vise. Slide the shock body over pick. Using the pick as a hook, gently catch the bottom of the centering ring and pull back on the shock body to dislodge the centering ring. You may have to hook the pick around the centering ring in several places in order to dislodge.

IMPORTANT: DO NOT TO SCRATCH THE BOTTOM OF THE SHOCK BODY WITH THE PICK; THIS IS THE SEALING SURFACE. DAMAGE TO THIS SURFACE WILL INTERFERE WITH THE PERFORMANCE OF THE SHOCK.

SHOCK BODY SHAFT ASSEMBLY SERVICE (REGULAR SERVICE)

11. Spray shaft assembly with isopropyl alcohol and wipe with a clean lint-free rag (not pictured).

12. Using the RockShox shaft clamp tool, clamp the shaft assembly into the vise.

NOTE: SPRAY ISOPROPYL ALCOHOL ON SHAFT CLAMP AND WIPE WITH A CLEAN RAG PRIOR TO USE.

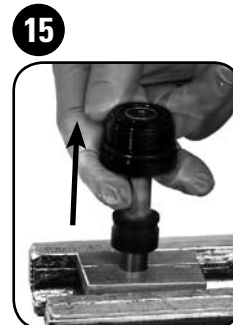
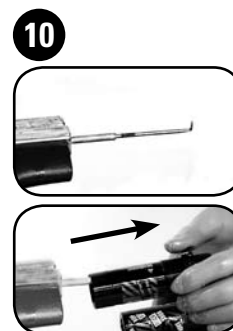
13. Using a pick, remove glide ring on the main piston. Apply a small amount of grease to new glide ring and re-install.

14. Using a 13 mm wrench, unthread piston bolt. Carefully remove main piston assembly (piston bolt, main piston, and shim stack washers), keeping all parts together and set aside.

15. Firmly pull up on seal head and remove.

16. Using a pick, remove the shaft wiper seal and main shaft o-ring located in the interior of the seal head. Remove the quad ring top out pad located on the backside of the side head. Apply a small amount of grease to new shaft wiper seal, main shaft o-ring and quad ring top out pad and re-install.

17. Inspect the body seal o-ring located on the underside lip of the seal head for wear or damage. Replace if necessary.



SERVICE INSTRUCTIONS (CONT)

18. Set aside seal head and main piston assembly (not pictured).

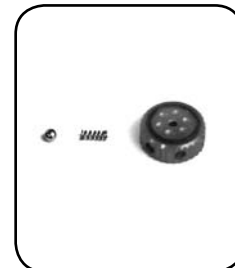
EYELET SERVICE

19. Flip shaft assembly in shaft clamp so shaft eyelet is accessible. Using 13 mm wrench, unthread the eyelet and remove.
20. Clean Loctite from threads of shaft eyelet (not pictured).
21. Using a pick, carefully push the red Beginning Stroke Rebound Adjuster knob out of the shaft eyelet.

19



21



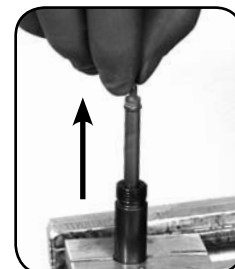
NOTE: THE BEGINNING STROKE REBOUND ADJUSTER KNOB HOUSES THE DETENT BALL AND SPRING. BE CAREFUL NOT TO LOSE THESE PARTS.

22. Using a pick, remove the Beginning Stroke Rebound Adjuster knob o-ring. Apply a small amount of grease to new o-ring and re-install.
23. Using a crescent wrench, unthread the rebound needle and remove.

22



23



IMPORTANT: BE VERY CAREFUL NOT TO DAMAGE THE HEX ON THE REBOUND NEEDLE WITH THE CRESCENT WRENCH.

24. Using a pick, remove the rebound needle o-ring. Apply a small amount of grease to new o-ring and re-install. Set aside rebound needle.
25. Carefully insert detent spring followed by detent ball into the offset hole in the shaft eyelet. Slide rebound knob, with detent features interfacing with the detent ball, back into shaft eyelet. Set aside shaft eyelet.

24



25



SHOCK BODY SHAFT ASSEMBLY SERVICE (REGULAR SERVICE)

26. Clamp shaft assembly so rebound bleed port is accessible. Grease interior of seal head and install on shaft assembly with seal head threads oriented up toward you.

26



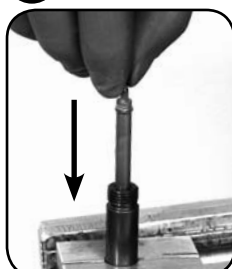
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IMPORTANT: MAKE SURE THE SHAFT WIPER SEAL DOES NOT FOLD OVER WHEN INSTALLING SEAL HEAD.

27. Using a 13 mm wrench, thread piston assembly back onto shaft assembly and torque to 70 in-lb.
28. Flip shaft assembly in shaft clamp so shaft eyelet threads are exposed. While pushing down, thread rebound needle into shaft by hand until it stops.

28



29



29. Clean shaft assembly threads with alcohol. Place a couple of drops of red Loctite on threads.
- IMPORTANT: BE SURE LOCTITE DOES NOT GET BETWEEN REBOUND NEEDLE AND SHAFT. IT WILL PREVENT THE NEEDLE FROM MOVING.**
30. Clean shaft eyelet threads with alcohol (not pictured).

SERVICE INSTRUCTIONS (CONT)

31. Holding the shaft eyelet assembly by the eyelet, thread shaft eyelet assembly onto shaft.

IMPORTANT: DO NOT HOLD THE BEGINNING STROKE REBOUND KNOB WHILE THREADING THE SHAFT EYELET ASSEMBLY.

After approximately 4 full turns, you will hear an audible clicking sound, indicating the rebound needle has engaged the adjuster knob. Continue to thread shaft eyelet assembly by hand until tight. Using a 13 mm wrench to 130 in-lb.

32. Remove shaft assembly from vise and set aside until Shock Bleed & Reassembly section (not pictured).

31



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IFP RESERVOIR & LOW SPEED COMPRESSION VALVE SERVICE

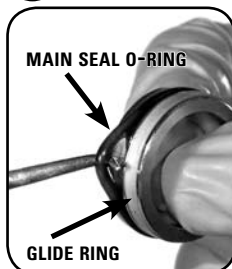
IFP RESERVOIR SERVICE (REGULAR SERVICE)

33. Clamp shock body by the body eyelet into vise. Using a 30 mm flat wrench at the base of IFP reservoir (to keep the reservoir from spinning) and a 24 mm pin spanner wrench on the top of the reservoir, unthread the IFP seal head cap and remove.

IMPORTANT: HOLD THE PIN SPANNER HEAD FLAT AGAINST THE SEAL HEAD CAP DURING USE TO AVOID DAMAGING THE PIN HOLES.

34. Inspect IFP seal head o-ring for damage. Replace if necessary.
35. Using a 30 mm flat wrench at the base of the IFP reservoir, unthread and remove the IFP reservoir.
- NOTE: THE IFP MAY BECOME DISLODGED FROM THE IFP RESERVOIR; THIS IS OK. IF THIS OCCURS, SIMPLY REMOVE THE IFP FROM THE IFP RESERVOIR.**
36. Using your finger, push the IFP out of the IFP reservoir from the backside.
37. Using a pick, remove blue glide ring and main seal o-ring from the IFP. Apply a small amount of grease to new glide ring and o-ring and re-install.
38. Using a T-10 Torx, remove IFP bleed screw. Using a pick, remove IFP bleed screw o-ring. Apply a small amount of grease to new o-ring and re-install.
39. Set aside IFP reservoir, IFP, and IFP bleed screw until Shock Bleed & Reassembly section (not pictured).

37



38



SERVICE INSTRUCTIONS (CONT)

LOW SPEED COMPRESSION VALVE SERVICE

40. Using a 2 mm hex, remove the low speed compression knob.
TIP: YOU DO NOT NEED TO COMPLETELY REMOVE THE RETAINING SCREW TO REMOVE THE KNOB.
41. Squeeze the Low Speed Compression valve assembly between your fingers, and carefully push it up and out of the body side IFP reservoir.
NOTE: CONTINUE TO SQUEEZE THE COMPRESSION VALVE ASSEMBLY TOGETHER AS YOU REMOVE; IT HOUSES THE DETENT BALL AND SPRING. BE CAREFUL NOT TO LOSE THESE PARTS.
42. Inspect body side IFP reservoir o-ring for damage. Apply grease to new o-ring and replace if necessary.
43. Separate inner knob and detent ball and spring, from Low Speed Compression valve assembly. Slide shim check spring off valve assembly.
44. Using your fingers, unthread compression needle from the back of the Low Speed Compression valve assembly.
45. Inspect check shim for damage and replace if necessary.
IMPORTANT: IF THE CHECK SHIM NEEDS TO BE REPLACED, DO NOT USE A PICK TO REMOVE. INSTEAD, USE YOUR FINGERNAIL TO REMOVE TO AVOID DAMAGING THE VALVE SEALING SURFACE.
46. Remove the Low Speed Compression valve main o-ring, compression piston o-ring, and compression needle o-ring. Apply grease to new main, compression, and needle o-rings and re-install.
47. Remove shock from vise and pour out any remaining oil. Clamp shock by body eyelet back into vise (not pictured).
48. Using your fingers, thread compression needle back into Low Speed Compression valve assembly.
49. Slide shim check spring onto assembly. Using a dab of grease to hold parts together, insert detent spring followed by detent ball into inner knob.
50. Install inner knob onto compression needle and hold entire assembly together by squeezing it between your fingers.
51. Carefully insert low speed compression valve assembly into shock body, inner knob first.
TIP: USE YOUR LITTLE FINGER TO HELP GUIDE THE LOW SPEED COMPRESSION VALVE ASSEMBLY INTO PLACE.
IMPORTANT: MAKE SURE THE LOW SPEED COMPRESSION VALVE ASSEMBLY IS FULLY SEATED. BE CAREFUL NOT TO DAMAGE THE MAIN O-RING.

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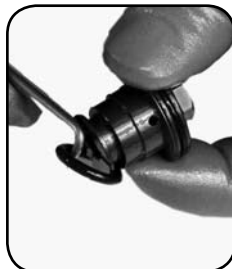
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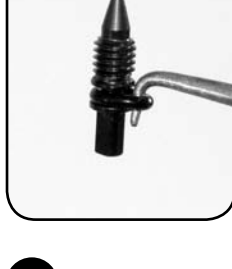
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SERVICE INSTRUCTIONS (CONT)

52. Hand thread IFP reservoir onto shock body until it is tight.

IMPORTANT: MAKE SURE THERE IS NO GAP BETWEEN THE IFP RESERVOIR AND SHOCK BODY.

53. Using a 2 mm hex, re-install low speed compression knob.

ENDING STROKE REBOUND SERVICE

54. Clamp shock into vise sideways by body eyelet so the Ending Stroke Rebound adjuster is easily accessible. Using a 2.5 mm hex, turn the Ending Stroke Rebound adjuster 5 clicks from fully open.

55. Using a pick, remove Ending Stroke Rebound retaining ring.

56. Using a 2.5 mm hex unthread the Ending Stroke Rebound adjuster screw and remove.

IMPORTANT: THE ENDING STROKE REBOUND ADJUSTER HOUSES TWO DETENT BALLS, THE DETENT SPRING, HIGH SPEED REBOUND COIL SPRING AND PLUG, AND TWO SHIMS. BE CAREFUL NOT TO LOOSE THESE PARTS.

57. Remove Ending Stroke Rebound adjuster screw o-ring. Apply grease to new o-ring and re-install.

58. Replace rebound shims.

59. Using a dab of grease to hold parts together, stack the 6 mm shim (narrow shim) onto rebound plug, followed by 7 mm shim (wider shim). Carefully drop rebound plug, shims first, into rebound hole. Insert High Speed Rebound coil spring on top of rebound plug.

TIP: GENTLY SEAT THE REBOUND PLUG INTO PLACE WITH A PICK.

60. Grease Ending Stroke Rebound adjuster screw. Insert detent spring into hole, followed by detent balls into holes on either side. Use a dab of grease to keep the detent balls in place.

61. Carefully insert Ending Stroke Rebound adjuster screw into Ending Stroke Rebound housing. Using a 2.5 mm hex, thread until it stops. All parts are properly seated when you hear 'clicking' sounds.

IMPORTANT: YOU DON'T WANT TO FEEL THE PARTS BINDING AS YOU THREAD ADJUSTER SCREW INTO PLACE. IT SHOULD REMAIN SMOOTH UNTIL IT STARTS TO CLICK. IF THE PARTS BIND, IT MEANS ONE OF THE DETENT BALLS CAME UNSEATED AND YOU WILL NEED TO RE-DO THIS STEP.

62. Using your fingers, re-install Ending Stroke Rebound retaining ring.

63. Using a 2.5 mm hex, turn the Ending Stroke Rebound adjuster fully counter-clockwise, toward the rabbit to ensure the retaining ring is fully seated.

52



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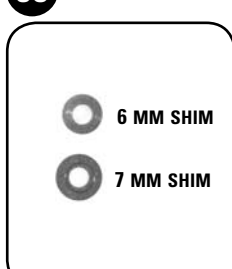
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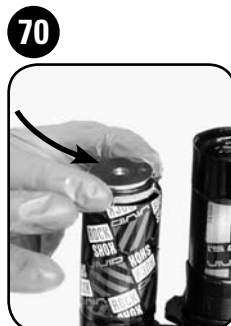
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SERVICE INSTRUCTIONS (CONT)

SHOCK BLEED & RE-ASSEMBLY PROCEDURES (REGULAR SERVICE)

64. Clamp shock by body eyelet so the shock body and IFP reservoir are accessible.
65. Grease the o-ring groove of the Centering Ring and re-install the face seal o-ring, smoothing grease over the o-ring to keep it in place. Using the inner tube as a push rod, press the Centering Ring, o-ring side down, into the bottom of the shock body.
66. Using a 2.5 mm hex, ensure the Ending Stroke Rebound Adjuster is turned fully counter-clockwise, toward the rabbit (not pictured).
67. 5.1 ONLY: Turn the Low Speed Compression Knob fully counter-clockwise, away from "+" sign (not pictured).
68. Using 3wt oil (or high grade 2.5wt), fill the IFP reservoir to the top. Oil will gradually flow from the IFP reservoir into the shock body through the small port located at the bottom of the IFP reservoir. Continue to fill IFP reservoir until the oil level in the shock body reaches approximately 25 mm in depth.
69. Begin the reverse process of pouring oil into the shock body. Continue until oil starts to overflow out of the IFP reservoir. This procedure effectively dislodges air bubbles from the system. Top off the oil in the shock body in order to continue oil flow from the shock body to the IFP reservoir.
70. Gently slide the IFP, step side down, on top of the IFP reservoir. Let the IFP 'float' on top of the oil in IFP reservoir.
71. Cover the bleed hole on the IFP with your thumb to create a seal and firmly push the IFP down into the IFP reservoir approximately 12 mm.
NOTE: YOU WILL FEEL THE IFP O-RING 'ENGAGE' THE WALL OF THE IFP RESERVOIR ONCE IT IS PAST THE THREADS.
72. Top off the oil in the shock body again in order to continue oil flow from the shock body to the IFP reservoir.
IMPORTANT: WAIT FOR THE OIL TO OVERFLOW FROM THE IFP RESERVOIR BEFORE CONTINUING.
73. Using the T-10 Torx, install the IFP bleed screw. Tighten until the IFP spins.
74. Using the T-10 Torx as a push rod, firmly push the IFP down into IFP reservoir until it stops, approximately 45.5 mm from top of IFP reservoir.
75. Insert the shock body inner tube into the shock body with the cross holes up toward the opening.
IMPORTANT: IT IS CRITICAL THAT THE CROSS HOLES ARE FACING UP TOWARD THE SHOCK BODY OPENING.
76. Gently wiggle the inner tube side to side against the shock body with your finger to dislodge any air bubbles between the two walls.



SERVICE INSTRUCTIONS (CONT)

77. Top off oil in the shock body one last time.
 78. Seat the seal head fully against the piston of the shaft assembly. Place the piston in oil on top of the shock body at a 45 degree angle. Rotate the shaft assembly 2-3 times to cover the piston assembly in oil. Continue to rotate the shaft assembly as you align it vertically, and gently insert the assembly into the shock body. This process minimizes trapped air during the assembly process.



79. Hold the shaft assembly by the seal head and **slowly** thread the seal head onto the shock with your fingers. Trapped air and oil should escape thru the notch in the seal head threads.

IMPORTANT: DO NOT THREAD OR PUSH ON THE SHAFT ASSEMBLY FROM THE SHAFT EYELET. THIS COULD DISPLACE MORE OIL THAN IS NECESSARY AT THIS TIME.

IMPORTANT: BE SURE TO PERFORM THIS STEP SLOWLY, ALLOWING OIL AND AIR TO ESCAPE THRU THE NOTCH.



80. Continue to thread the seal head down until the seal head o-ring is engaged. Using the 24 mm pin spanner tool, torque the seal head to 250 in-lb.

NOTE: FIRMLY HOLD THE 24 MM PIN SPANNER IN PLACE WITH ONE HAND WHILE TORQUING WITH THE OTHER.

IMPORTANT: THE TORQUE WRENCH SHOULD BE ATTACHED AT A 90 DEGREE ANGLE TO THE 24 MM PIN SPANNER TOOL IN ORDER TO OBTAIN AN ACCURATE TORQUE MEASUREMENT.

81. Remove the shock from the vise and pour out any excess oil that is remaining above the IFP.

IMPORTANT: FAILURE TO REMOVE THIS EXCESS OIL WILL REDUCE THE IFP VOLUME AND LIMIT SHOCK TRAVEL.



82. Clamp the shock back into the vise at the Body Eyelet and install the IFP reservoir seal head. Using the 24 mm pin spanner tool, torque to 100 in-lb.

IMPORTANT: THE TORQUE WRENCH SHOULD BE ATTACHED AT A 90 DEGREE ANGLE TO THE 24 MM PIN SPANNER TOOL IN ORDER TO OBTAIN AN ACCURATE TORQUE MEASUREMENT.

83. Install the Vivid air adapter onto a gauged pump, and charge the IFP chamber to:

Shock Model	Pressure
Vivid 5.1	200psi (13.8 bar)
Vivid 4.1	230psi (15.9 bar)



84. Using a T-10 Torx®, install the IFP end cap onto the reservoir.
 85. Spray the entire shock with alcohol and wipe clean with a lint free rag (not pictured).
 86. Re-install shock mounting hardware.

THIS CONCLUDES THE SERVICE FOR YOUR SHOCK. YOU DID A GREAT JOB! YOU ARE NOW READY TO RE-INSTALL YOUR SHOCK ONTO YOUR BIKE AND GO FOR A RIDE!

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