



## 2011 Technical Manual



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## SRAM LLC 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.

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.

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.

- 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 installation manuals can be found online at [www.sram.com](http://www.sram.com), [www.rockshox.com](http://www.rockshox.com), [www.avidbike.com](http://www.avidbike.com), [www.truvativ.com](http://www.truvativ.com), or [www.zip.com](http://www.zip.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.

### **Wear and tear parts are identified as:**

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/Bottom out pads/Bearings/Bearing Races/Pawls/Transmission gears/Spokes/Free hubs/Aero bar pads/Corrosion/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.

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## 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](http://www.sram.com).

For order information, please contact your local SRAM distributor or dealer.

Information contained in this publication is subject to change at any time without prior notice. For the latest technical information, please visit our website at [www.sram.com](http://www.sram.com).

Your product's appearance may differ from the pictures/diagrams contained in this catalog.

Product names used in this document may be trademarks or registered trademarks of others.

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# **SAFETY FIRST!**

At SRAM, we care about YOU. Please, always wear your safety glasses and protective gloves when servicing your RockShox suspension.  
Protect yourself! Wear your safety gear!

# SERVICE INTERVALS

The following chart is a summary of the maintenance/service intervals for RockShox forks. Following this schedule is important to ensure the consistent performance and longevity of your fork. Some of the information listed may not be applicable to your fork.

Maintenance	Interval (Hours)
Inspect carbon crown-steerer	Every ride
Clean dirt and debris from upper tubes	Every ride
Check air pressure (air forks only)	Every ride
Inspect upper tubes for scratches	Every ride
Lubricate dust seals and upper tubes	Every ride
Change Speed Lube oil bath	25
Check front suspension fasteners for proper torque	25
Clean and lubricate remote lockout cable and housing	25
Remove lowers, clean/inspect bushings and change oil bath (if applicable)	50
Clean and lubricate air spring assembly	50
Change oil in damping system (including hydraulic lockout)	100
Clean and lubricate coil spring assembly (coil forks only)	100

## TOOLS NEEDED FOR SERVICE

The following chart is a list of the model year 2011 tools needed for service on your Lyrik suspension fork. 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 the service section.

Tools
Safety/Starting Equipment
Safety Glasses
Nitrile Gloves
Apron
Clean Rags (Lint Free)
Oil Measuring Device
Oil Pan
Clean Work Area
General Tools
Hex Key Set (Sizes 1.5 mm - 5 mm)
Plastic Mallet
Socket Wrench
24 mm Socket
Torque Wrench
Schrader Valve Tool
Snap Ring Pliers (External)
Snap Ring Pliers (Internal)
Long Dowel Rod
Sharp Pick
Magnet
Oil/Liquids
Suspension Oil (RockShox 5wt)
Grease (Suspension Oil Soluble)
Isopropyl Alcohol

## PARTS NEEDED FOR SERVICE

Prior to servicing your fork, it is important that you have all of the necessary replacement parts. For exploded diagram and part number information, please refer to the Spare Parts Catalog available on our web site at [www.sram.com](http://www.sram.com). For order information, please contact your local SRAM distributor or dealer.

## TECHNOLOGY AND OIL VOLUMES

The following chart is a complete list of the 2011 RockShox Lyrik line-up. It details the model, corresponding damper and spring technology, along with the oil volume and RockShox oil weight required for each upper tube and lower leg.

		Damper Technology (Drive Side)	Volume (ml)	Oil wt	Volume (ml)	Oil wt
			Upper Tube	Lower Leg		
Lyrik	R	Rebound Only	145	5	15	15
	RC	Motion Control IS	187			
	RC2L/RC2DH	Mission Control/ Mission Control DH	193			

Spring Technology (Non-Drive Side)	Volume (ml)	Oil wt	Volume (ml)	Oil wt
	Upper Tube		Lower Leg	
Coil	-	-	15	15
Solo Air	6	15		
U-Turn	-	-		
Solo Air	6	15	10	
2-Step	35	2.5		
U-Turn	-	-	15	
Solo Air	6	15		
2-Step	35	2.5		

## TORQUE TIGHTENING VALUES

The following chart is a summary of the primary torque tightening values for Lyrik forks. The torque tightening values for fasteners that require a specific torque are detailed in the text of each service section.

Fastener	Torque Value
Top Cap	7.3 N·m (65 in-lb)
Bottom Bolt/Shaft Nut	6.8 N·m (60 in-lb)
Brake Caliper Mounting Bolts (Post Mount)	10.2 N·m (90 in-lb)

# LOWER LEG BUSHING INSPECTION

## INTRODUCTION

Suspension fork bushings are considered "wear and tear" parts. The rate and amount of wear will depend on the frequency of fork service, frequency of riding, riding terrain, rider body weight, and type of fork. If your bushings are worn, you will need to replace your lower leg assembly. The following chapter covers how to check for bushing wear.

## CHECK FOR BUSHING WEAR

**Method 1:** Check for bushing wear while the fork is installed on the bike

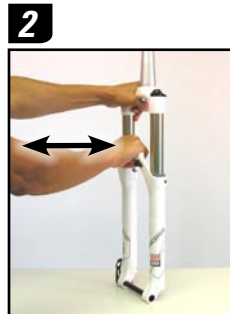
1. Compress the fork 5 times to circulate lower leg lubrication.
2. Wrap your fingers around the lower leg just below the dust seal. Hold the front brake lever tight while rocking the bike back and forth (you may need someone to do this for you while you hold the lower leg). If you hear or feel any "knocking" at the lower leg, the bushings are worn.



OR

**Method 2:** Check for bushing wear while the fork is removed from the bike

1. Compress the fork 5 times to circulate lower leg lubrication.
2. Brace the fork on a table or the floor to hold it steady. Hold the fork crown tight in one hand and the brake arch in the other hand. Try to move the brake arch back and forth. If you hear or feel any "knocking", the bushings are worn.



If you have determined that the bushings are worn, you will need to replace the lower leg assembly. Reference the 2011 RockShox Spare Parts Catalog for information on the correct lower leg and corresponding part number for your fork.



# LOWER LEG REMOVAL

## INTRODUCTION

Removing the lower legs is the first step in servicing your fork. Once you have removed your fork lower legs, you'll be ready to move onto the next section.

## LOWER LEG REMOVAL

1. **Coil forks:** Proceed to Step 4.
2. **Air forks:** Remove the positive air chamber valve cap from the top cap located on the non-drive side fork leg. If the fork also has a negative air chamber, remove the valve cap located at the bottom of the non-drive side air chamber.  
*The positive air chamber valve cap for 2-Step and Dual Position Air forks is located at the bottom of the non-drive side fork leg.*
3. Depress the Schrader valve and release all of the air pressure from the air chamber.  
*If the fork has a negative air chamber, start with the negative air chamber first, then proceed to the positive air chamber.*

2



3



### CAUTION

**Verify all pressure is removed from the fork before proceeding. Failure to do so can result in injury and/or damage to the fork.**

4. Remove the external rebound adjuster knob (if applicable) by pulling it from the shaft bolt at the bottom of the right fork leg.
5. Use a 5 mm hex wrench to loosen both shaft bolts 3 to 4 turns.  
**Dual Air, Air U-Turn, 2-Step, and Dual Position Air equipped forks:** Use a 10 mm socket (or open end) wrench to loosen and unthread the shaft nut at the bottom of the left fork leg until it is flush with the threaded shaft end.  
*For hollow bottom fork legs you will need to use a deep 10 mm socket to loosen and unthread the air shaft nut.*
6. Place an oil pan beneath the fork to catch any draining oil. Use a plastic mallet to firmly strike each shaft bolt/nut free from its press-fit to the lower leg and use your fingers to remove the shaft bolts/nut completely.  
*For hollow bottom fork legs tap the 5 mm hex wrench and 10 mm deep socket while engaged in the bolts to free them from the press-fit.*

4



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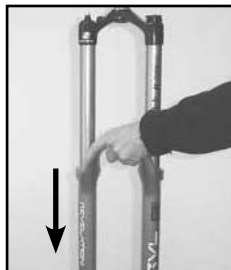
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## LOWER LEG REMOVAL (CONTINUED)

7. Firmly pull the lower leg downward until oil begins to drain.  
**If the upper tubes do not slide out of the lower leg or if oil doesn't drain from either side, the press fit of the shaft(s) to the lower leg may still be engaged. Re-install the shaft bolt(s) 2 to 3 turns (or re-install the shaft nut flush with the threaded shaft end) and repeat Step 6. Do not hit the brake arch with any tool when removing the lower leg as this could damage the fork.**
8. Remove the lower leg from the fork by pulling it downward, holding onto both legs or the brake arch.
9. 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.

7



8



# LOWER LEG SEAL SERVICE

## INTRODUCTION

Suspension fork seals are considered "wear and tear" parts and require regular maintenance, depending on the frequency of riding, riding terrain, and type of fork. The more you ride, the more frequently your seals need to be replaced. The following chapter covers wiper and oil seal removal and installation. At this point you should already have the lower legs 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 lower legs.

## LOWER LEG SEAL REMOVAL

1. Select one side of the lower leg to work on first.

**Oil seal:** If your fork has a black oil seal between the dust wiper and the upper bushing, position the tip of a downhill tire lever or large, flat head screwdriver between the lower lip of the black oil seal and the upper bushing.

**No oil seal:** If your fork does not have a black oil seal between the dust wiper and the upper bushing, place the tip of the tool underneath the lower lip of the wiper seal.

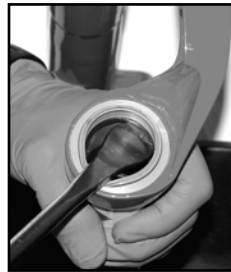
**If you use a flat head screwdriver, make sure it has a round shaft. A screwdriver with a square shaft will damage the fork leg.**

2. Stabilize the lower leg upright on a bench top or on the floor. Hold the lower leg firmly and use downward force on the tool handle to leverage the seal(s) out.

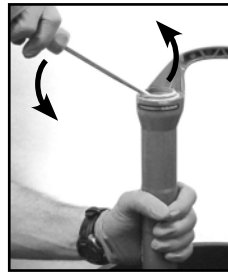
**Keep the lower leg assembly stable. Do not allow the lower legs to twist in opposite directions, compress toward each other or be pulled apart. This will damage the lower leg assembly.**

3. If your fork has an oil foam ring, remove it with your fingers.
4. Repeat steps 1 - 3 for the other side of the lower leg.
5. Spray isopropyl alcohol on and into the lower leg. Wipe the lower legs clean, then wrap a clean, lint free rag around a dowel and clean the inside of each lower leg.

1



2



3



## LOWER LEG SEAL INSTALLATION

### Foam ring installation

1. If your fork has foam rings, soak the new foam rings in 15wt RockShox suspension oil.
2. Insert a new oil-saturated foam ring into each side of the lower leg.

1



2

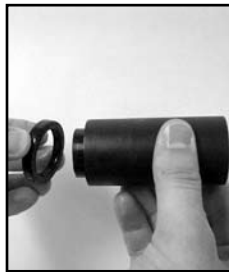


### Oil seal installation

1. Position the oil seal, with the grooved side visible, onto the stepped side of the seal installation tool.
2. Hold one of the lower legs firmly and use the seal installation tool to push the oil seal evenly and completely into that leg. Repeat for the other leg.

**Be sure to stabilize the lower leg in order to prevent it from slipping while installing the seal.**

1



2

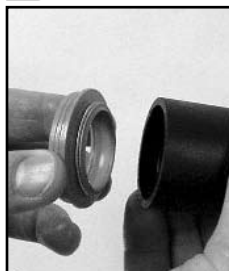


### Dust wiper installation

1. Position the dust wiper into the recessed side of the seal installation tool, so that the grooved side of the seal is visible.
2. Hold one of the lower legs firmly and use the seal installation tool to push the dust wiper evenly and completely into that leg. There should be no visible gap between the dust wiper and the lower leg. Repeat for the other leg.

**Be sure to stabilize the lower leg in order to prevent it from slipping while installing the seal.**

1



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# COIL SPRING SERVICE

(LYRIK - TOTEM)

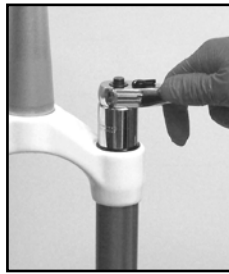
## INTRODUCTION

At this point you should already have the lower legs 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 lower legs.

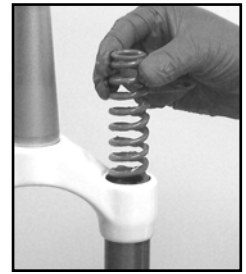
## COIL SPRING REMOVAL INSTRUCTIONS

1. Unthread and remove the spring top cap with a 24 mm socket wrench. Once removed, clean the upper tube threads with a rag.  
**Press down firmly when loosening the top cap.**
2. Remove the spring pre-load spacer(s) and pull the spring from the upper tube.
3. Remove the spring shaft base plate snap ring using internal snap ring pliers.
4. Pull the spring shaft and base plate assembly from the upper tube. Clean and inspect the assembly for damage. Replace the entire assembly if necessary.
5. Spray isopropyl alcohol on the spring, 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 it into the upper tube to clean inside the upper tube.

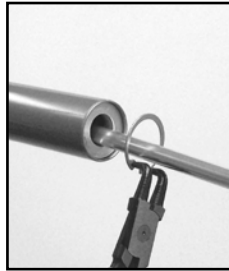
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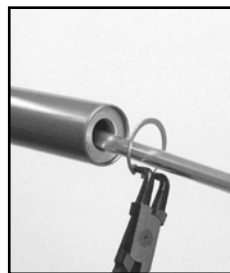
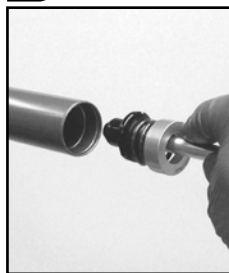
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## COIL SPRING INSTALLATION INSTRUCTIONS

6. Insert the spring shaft/base plate assembly into the bottom of upper tube so the base plate is seated against the upper tube step. Secure the spring shaft/base plate assembly with the snap ring, using large internal snap ring pliers.  
**Make sure the snap ring is securely fastened in the snap ring groove. You can check this by using the snap ring pliers to rotate the snap ring back and forth a couple of times, then firmly pulling down on the spring shaft.**

6



7



**Snap rings have a sharper-edged side and a rounder-edged side. Installing snap rings with the sharper-edged side facing the tool will allow for easier installation and removal.**

7. Apply fresh grease liberally to the spring.
8. Insert the spring back into the upper tube and place the spring preload spacer(s) on top of the spring inside the upper tube.
9. Clean the top cap, then apply a small amount of grease to the top cap o-ring. Insert and hand thread the top cap into the upper tube. Use a 24 mm socket wrench to tighten to 7.3 N·m (65 in-lb).

8



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# COIL U-TURN SPRING SERVICE

(LYRIK)

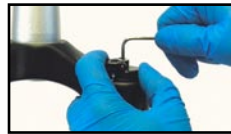
## INTRODUCTION

At this point you should already have the lower legs 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 lower legs.

## COIL U-TURN SPRING REMOVAL INSTRUCTIONS

1. Use a 2.5 mm hex to remove the U-Turn adjuster knob screw. Remove the U-Turn adjuster knob.
2. Use a magnet to remove the three detent ball bearings and detent springs from the top cap.
3. Use a 24 mm socket wrench to unthread and remove the spring top cap. The spring is attached to the top cap and spring shaft. Pull and lift the entire spring assembly from the upper tube.  
**Press down firmly when loosening the top cap.**
4. Use large internal snap ring pliers to remove the snap ring from the bottom of the spring side upper tube.
5. Use your finger to remove the base plate/top out spring assembly from the bottom of the spring side upper tube.
6. Spray isopropyl alcohol on the entire spring assembly, the base plate/top out 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 it into the upper tube to clean inside the upper tube and the upper tube threads.

1



2



3



4



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## COIL U-TURN SPRING INSTALLATION INSTRUCTIONS

7. Apply a liberal amount of grease to the entire spring assembly, top cap o-ring, and base plate/top out spring assembly.
8. Assemble the base plate/top out spring assembly so that the wavy washer rests against the base plate, and the flat washer rests against the wavy washer. Install the assembly into the upper tube.
9. Use large internal snap ring pliers to install the snap ring into the groove located at the bottom of the spring side upper tube.

**Make sure the snap ring is securely fastened in the snap ring groove. You can check this by using the snap ring pliers to rotate the snap ring back and forth a couple of times, then firmly pulling down on the spring shaft.**

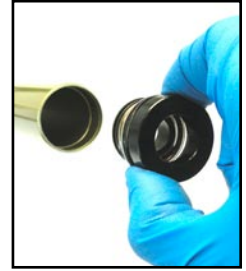
**Snap rings have a sharper-edged side and a rounder-edged side. Installing snap rings with the sharper-edged side facing the tool will allow for easier installation and removal.**

10. Insert the U-Turn spring assembly into the upper tube, shaft end first. Align and seat the spring shaft through the shaft guide/base plate.
11. Use a socket wrench to press down on the top cap and thread it into the upper tube. Tighten the top cap to 7.3 N·m (65 in-lb).
12. Place the adjuster detent springs into the top cap detent holes, evenly spaced. Place a detent ball bearing on top of each detent spring.  
**Make sure you use all three springs and bearings, otherwise the knob can turn and change travel on its own.**
13. Place the U-Turn adjuster knob on top of hex-shaped travel adjuster. Use a 2.5 mm hex to tighten the U-Turn adjuster knob to 1.3 N·m (12 in-lb).

**7**



**8**



**9**



**10**



**11**



**12**



**13**



# SOLO AIR SPRING SERVICE

(LYRIK - TOTEM)

## INTRODUCTION

At this point you should already have the lower legs 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 lower legs.

## SOLO AIR SPRING REMOVAL/SERVICE INSTRUCTIONS



### CAUTION

**Verify all pressure is removed from the fork before proceeding. Depress the Schrader valve again to remove any remaining air pressure. Failure to do so can result in injury and/or damage to the fork.**

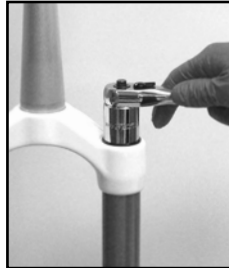
1. Use a 24 mm socket wrench to unthread and remove the air spring top cap. Once removed, clean the upper tube threads with a rag. Remove the fork from the stand and pour any air seal lubricant into an oil pan.
2. Clamp the fork back into the bicycle stand. Place the tips of large internal snap ring pliers in two of the ports in the base plate. Use the snap ring pliers to firmly press the bottom of the base plate into the upper tube and rotate until the base plate tab is behind the snap ring, out of the way of the snap ring eyelets.
3. Use large internal snap ring pliers to remove the snap ring. Guide the snap ring off of the spring shaft by hand.

**Do not scratch the air spring shaft surface while removing the snap ring. Scratches on the air spring shaft will allow air to bypass the seal head into the lower legs, resulting in reduced spring performance.**

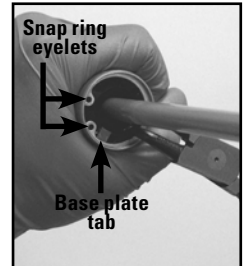
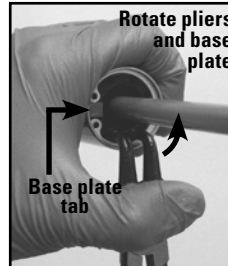
4. Firmly pull on the air shaft to remove the air spring assembly from the upper tube. Clean and inspect the assembly for damage.
5. Spray isopropyl alcohol on the inside and outside of the upper tube. Wipe the outside of the upper tube with a clean rag. Wrap a clean rag around a long dowel and insert it into the upper tube to clean inside the upper tube.
6. Use small external snap ring pliers to remove the air piston snap ring. Remove the air piston wavy spring washer, cushion, and air piston from the air shaft.

**Expand the snap ring just enough to disengage it from the air shaft. Over-expanding the snap ring can permanently damage it and cause air spring assembly failure.**

1



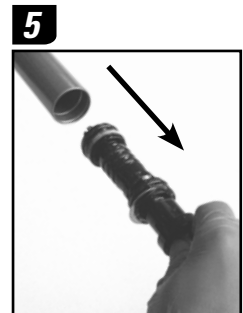
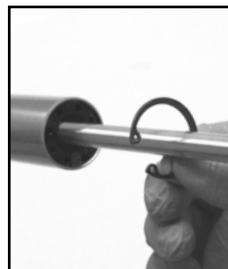
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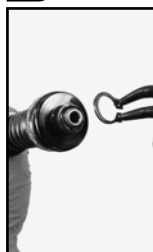
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## SOLO AIR SPRING REMOVAL/SERVICE INSTRUCTIONS (CONTINUED)

7. Use a pick to remove the air piston outer o-ring and foam ring. Install the new o-ring and a new foam ring onto the air piston. Apply grease the new o-ring then saturate the new foam ring with RockShox suspension oil.

**7**



8. Use a pick to remove the face seal o-ring from the underside of the air piston. Use isopropyl alcohol and a clean rag to clean the o-ring groove. Install the new o-ring into the groove then apply grease to the o-ring.

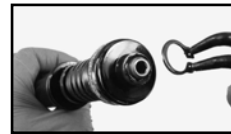
**8**



**Pierce into the face seal o-ring with the pick and pull to remove it. Do not scoop or dig the o-ring out as this may damage the piston sealing surface.**

9. Install the air piston, cushion, and spring wavy washer onto the air shaft and use small external snap ring pliers to secure the air piston snap ring in the snap ring groove. Check the snap ring fit to make sure it secures the air piston and wavy washer to the air shaft head. The air piston should compress upward slightly with spring resistance from wavy spring washer and snap ring.

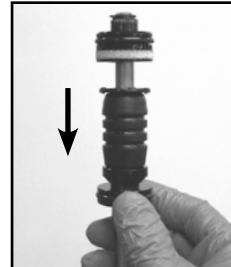
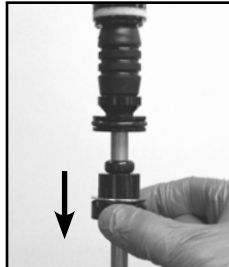
**9**



**Expand the snap ring just enough to re-install it onto the air shaft. Over-expanding the snap ring can permanently damage it and cause air spring assembly failure.**

10. Slide the base plate, wavy washer, aluminum support washer, negative piston top out bumper, negative piston, top out bumper, and kick plate from the air shaft. Spray the air shaft with isopropyl alcohol and wipe clean with a rag.

**10**



11. Remove the top out bumper from the negative piston. Use a pick to remove the inner and outer negative piston o-rings. Apply grease to the new o-rings and install them.

**11**

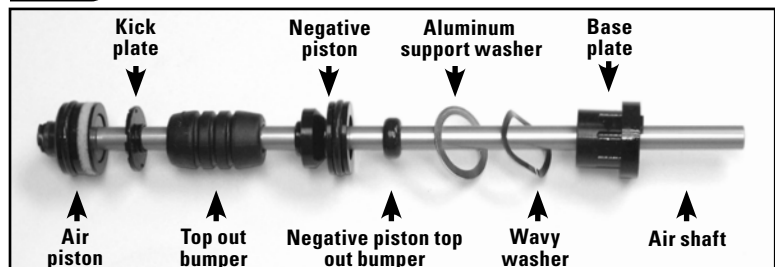


**When using a pick to remove o-rings, do not scratch the negative piston. Scratches may cause air to leak.**

12. Insert the top-out bumper and kick plate back onto the negative piston. Re-install the negative piston/sleeve assembly onto the air shaft, with the kick plate oriented toward the air piston.

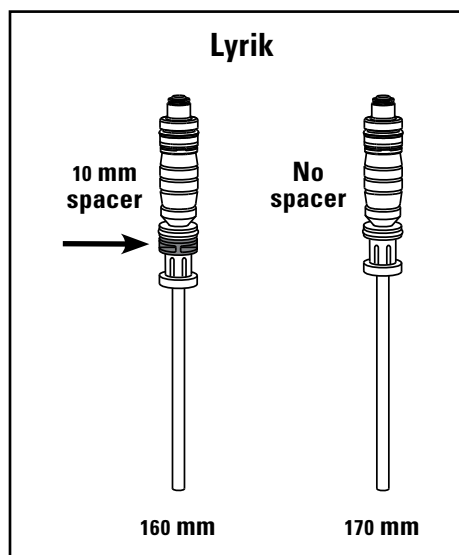
13. Re-install the negative piston top out bumper, aluminum support washer, wavy washer, and base plate onto the air shaft with the small diameter side of the base plate oriented toward the negative piston.

**12-13**



## OPTIONAL - ALL TRAVEL CONFIGURATION (LYRIK)

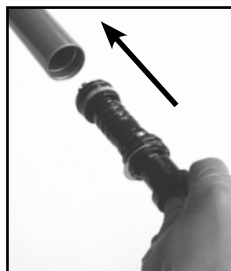
The All Travel spacer is located between the base plate and negative piston. If you want to change the travel of your fork, install the travel spacer to decrease travel, or remove the spacer to increase travel.



## SOLO AIR SPRING INSTALLATION INSTRUCTIONS

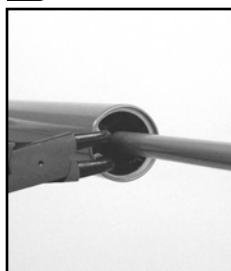
14. Apply grease to the air assembly outer o-rings. Insert the air assembly into the bottom of the upper tube by gently rocking the air shaft side to side while firmly pushing it into the upper tube.

14



15. Install the snap ring onto large internal snap ring pliers. Use the pliers to push the base plate into the upper tube while installing the snap ring into its groove. The base plate tab should be situated between the snap ring eyelets.

15

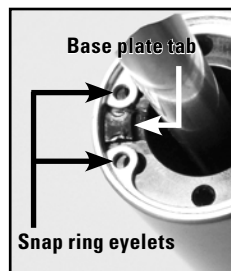
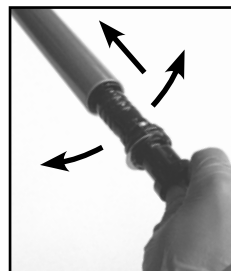
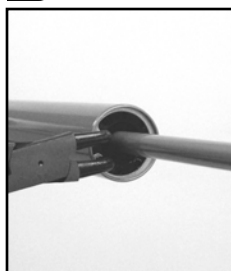


**Make sure the snap ring is securely fastened in the snap ring groove. You can check this by using the snap ring pliers to rotate the snap ring back and forth a couple of times, then firmly pulling down on the air shaft.**

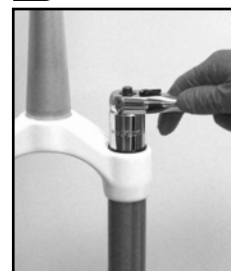
***Snap rings have a sharper-edged side and a rounder-edged side. Installing snap rings with the sharper-edged side facing the tool will allow for easier installation and removal.***

16. Use isopropyl alcohol and a clean rag to clean the top cap, then apply a small amount of grease to the top cap threads and o-ring. Insert the top cap into the upper tube/crown and hand thread it into the upper tube. Be careful not to damage the top cap o-ring upon installation.

16



16



# REBOUND DAMPER SERVICE

(LYRIK R - RECON GOLD R - SEKTOR R)

## INTRODUCTION

At this point you should already have the lower legs 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 lower legs.

## DAMPER SERVICE INSTRUCTIONS

1. Use a 24 mm socket wrench to unthread the top cap. Once removed, clean the upper tube threads with a rag.
2. Remove the fork from the bicycle stand and pour the oil into an oil pan.
3. Push the rebound shaft into the seal head, leaving just enough shaft exposed to hold onto with your fingers. Use large internal snap ring pliers to remove the rebound damper seal head retaining ring (located inside the bottom of the drive side upper tube). Pull down and remove the rebound damper and seal head assembly from the upper tube.
4. Slide the seal head off the damper shaft and use a pick to remove the inner and outer seal head o-rings. Apply a few drops of RockShox suspension oil to new o-rings and install them.  
**If using a pick to remove o-rings, do not scratch the o-ring glands. Scratches may cause oil to leak.**
5. Spray isopropyl alcohol on the rebound damper shaft and wipe it with a clean rag.
6. Replace the rebound damper piston glide ring. Position the upper tube base ring on top of the seal head step (**Lyrik, Recon Gold only**) and slide the rebound seal head assembly onto the rebound damper shaft.
7. Spray isopropyl alcohol into the upper tube. Wrap a clean rag around a dowel and clean the inside of the upper tube.
8. Insert the rebound damper piston into the bottom of the upper tube at an angle, with the side of the glide ring opposite the split entering the upper tube first. Continue to angle and rotate until the glide ring is in the upper tube.
9. Position the upper tube base ring and rebound seal head into the upper tube. Push the seal head firmly into the bottom of the upper tube until the retaining ring groove is visible.

1



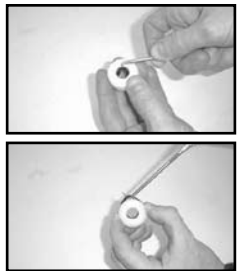
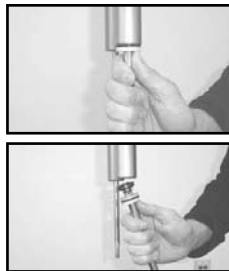
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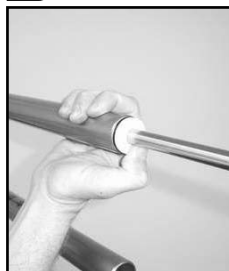
4



6



9



## DAMPER SERVICE INSTRUCTIONS (CONTINUED)

10. Push the rebound damper shaft into the seal head, leaving just enough to grab onto. Use large internal snap ring pliers to secure the snap ring into the snap ring groove.

**Make sure the snap ring is securely fastened in the snap ring groove. You can check this by using the snap ring pliers to rotate the snap ring back and forth a couple of times, then firmly pulling down on the damper shaft.**

**10**



**11**



**Snap rings have a sharper-edged side and a rounder-edged side. Installing snap rings with the sharper-edged side facing towards the tool will allow for easier installation and removal.**

11. Orient the fork upright in the bicycle stand. Pull the rebound damper shaft down to the fully extended position. Measure and slowly pour 5wt RockShox suspension oil into the upper tube using the volumes listed in the chart below.

**Oil volume is critical. Too much oil reduces available travel, too little oil decreases damping performance.**

**12**



Fork	Oil Volume (±3 mL)
Lyrik R	145 mL
Recon Gold R	120 mL
Sektor R	120 mL

12. Press the top cap down into the upper tube threads and hand tighten it. Use a 24 mm socket wrench to tighten the top cap to 7.3 N·m (65 in-lb).

# MOTION CONTROL IS DAMPER SERVICE

## (LYRIK RC - TOTEM RC)

### INTRODUCTION

At this point you should already have the lower legs 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 lower legs.

### DAMPER REMOVAL/SERVICE INSTRUCTIONS

1. Use a 2 mm hex to remove the screw from the compression adjuster knob. Remove the compression adjuster knob.
2. Use a 24 mm socket wrench to unthread the compression damper top cap.
3. Remove the compression damper from the upper tube/crown by pulling up and rocking it from side to side. Once the damper is removed, clean the upper tube threads with a clean rag.
4. Remove the compression damper top cap o-ring and piston o-ring. Apply grease to the new o-rings and install them.

**If using a pick to remove o-rings, do not scratch the o-ring gland. Scratches may cause oil to leak.**

5. Remove the fork from the bicycle stand and pour any remaining oil into an oil pan.
6. Push the rebound shaft into the seal head, leaving just enough shaft exposed to hold onto with your fingers.
7. Use large internal snap ring pliers to remove the rebound damper seal head retaining ring (located inside the bottom of the drive side upper tube).
8. Pull down and remove the rebound damper and seal head assembly from the upper tube.
9. Slide the seal head off the damper shaft and use a pick to remove the inner and outer seal head o-rings. Apply grease to the new o-rings and install them.
10. Spray isopropyl alcohol on the rebound damper shaft and wipe it with a clean rag.
11. Remove and replace the rebound damper piston glide ring.
12. Slide the rebound seal head assembly onto the rebound damper shaft with the flat side oriented toward the piston.
13. Spray isopropyl alcohol into the upper tube. Wrap a clean, lint free rag around a long dowel and insert into the upper tube to clean inside the upper tube.

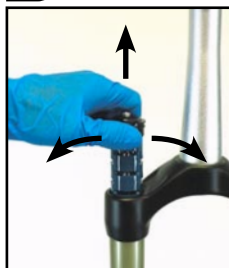
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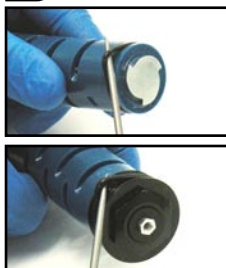
**2**



**3**



**4**



**6**



**7**



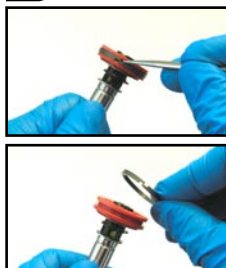
**8**



**9**



**11**



## DAMPER INSTALLATION INSTRUCTIONS

14. Insert the rebound damper piston into the bottom of the upper tube at an angle, with the side of the glide ring opposite the split entering the upper tube first. Continue to angle and rotate until the glide ring is in the upper tube.

14



15. Push the seal head firmly into the bottom of the upper tube until the retaining ring groove is visible.

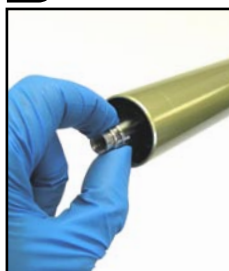
15



16. Push the rebound damper shaft into the seal head, leaving just enough to grab onto. Use large internal snap ring pliers to secure the snap ring into the snap ring groove.

**Make sure the snap ring is securely fastened in the snap ring groove. You can check this by using the snap ring pliers to rotate the snap ring back and forth a couple of times, then firmly pulling down on the damper shaft.**

16



*Snap rings have a sharper-edged side and a rounder-edged side. Installing snap rings with the sharper-edged side facing towards the tool will allow for easier installation and removal.*

17. Orient the fork upright in the bicycle stand. Pull the rebound damper shaft down to the fully extended position. Measure and slowly pour 5wt RockShox suspension oil into the upper tube, using the following volumes:

17

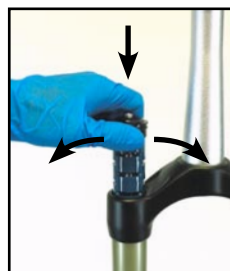


Fork	Oil Volume (±3 mL)
Lyrik RC	187 mL
Totem RC	193 mL

**Oil volume is critical. Too much oil reduces available travel, too little oil decreases damping performance.**

18. Turn the hex-shaped compression adjuster fully counter-clockwise to the open position. Insert the compression damper into the upper tube. Press down and rock the damper from side to side to work it into the upper tube.
19. Use a 24 mm socket wrench to thread the compression damper into the upper tube and tighten it to 7.3 N·m (65 in-lb).
20. Install the compression adjuster knob and retaining bolt. Tighten the retaining bolt to 0.6-1.0 N·m (5-9 in-lb).

18



19



20





# MISSION CONTROL/MISSION CONTROL DH DAMPER SERVICE

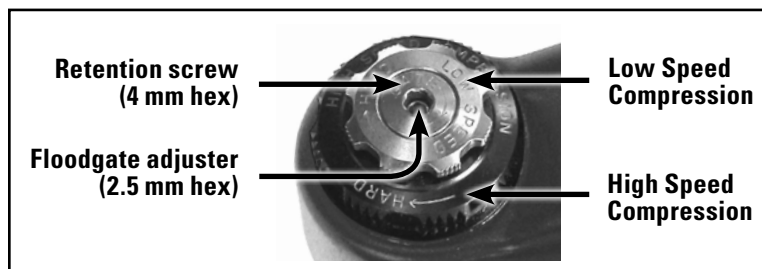
(LYRIK RC2L, RC2DH - TOTEM RC2L, RC2DH)

## INTRODUCTION

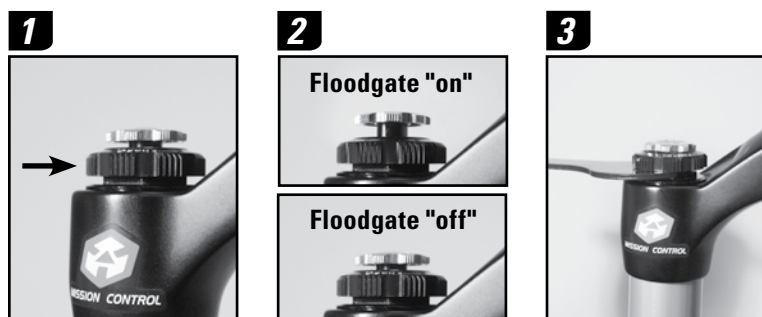
At this point you should already have the lower legs removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lower legs.

## DAMPER REMOVAL/SERVICE INSTRUCTIONS

### COMPRESSION ADJUSTER ANATOMY

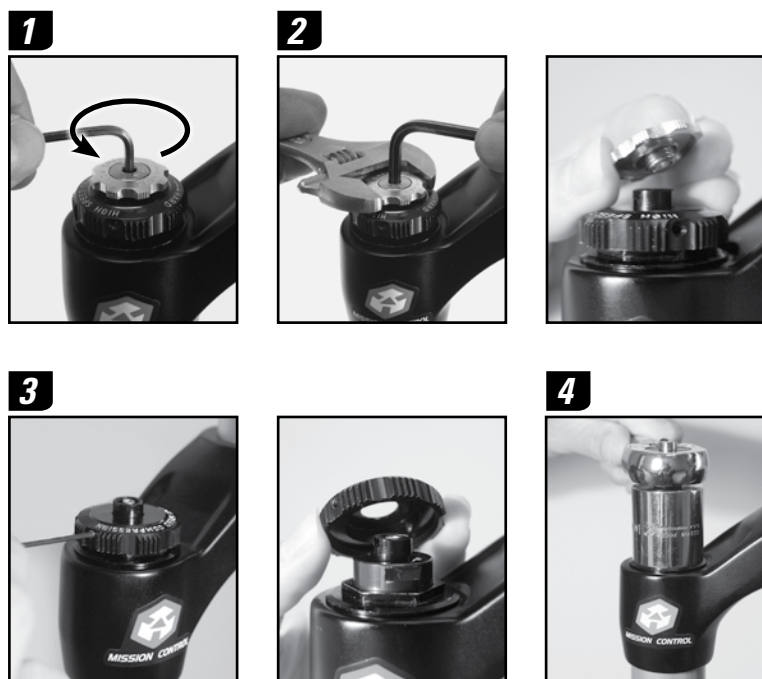


1. Turn the blue High Speed Compression knob clockwise, to set it in the maximum compression position.
2. **Mission Control only:** Turn the Floodgate to the "off" position by pushing the Low Speed Compression adjuster down and rotating it counter-clockwise 90°.
3. Use a 24 mm flat wrench to unthread the compression damper top cap. Access to the top cap is under the High Speed Compression knob. Skip to Step 5.



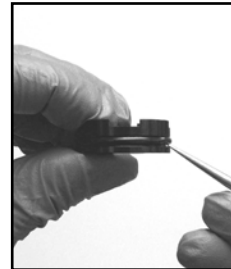
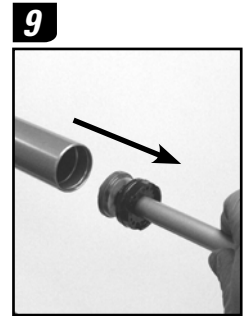
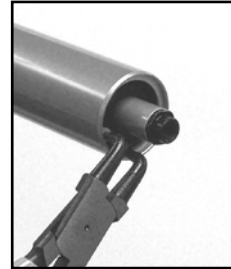
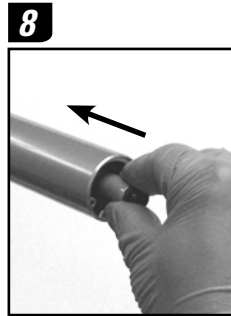
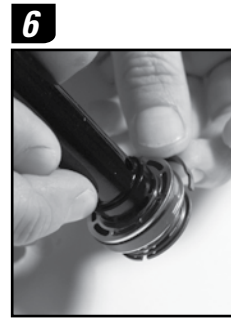
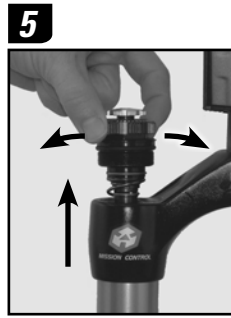
OR

- OR**
1. Use a 2.5 mm hex wrench to turn the internal Floodgate adjuster screw counter-clockwise until it stops; this will maximize the depth of insertion of a 4 mm hex wrench into the low compression knob (**Mission Control only**).
  2. Use a crescent wrench to prevent the Low Speed Compression knob from rotating while using a 4 mm hex wrench to remove the Low Speed Compression knob retention screw. Lift and remove the Low Speed Compression knob.
  3. Use a 1.5 mm hex wrench to loosen both retaining bolts on the High Speed Compression knob. Remove the High Speed Compression knob. This allows access to the top cap.
  4. Use a 24 mm socket wrench to unthread the compression damper top cap.



## DAMPER REMOVAL/SERVICE INSTRUCTIONS (CONTINUED)

5. Remove the compression damper from the upper tube/crown by pulling up and rocking it from side to side.
6. Remove the glide ring from the compression damper piston assembly. Apply a few drops of RockShox suspension oil to the new glide ring and install it.
7. Remove the fork from the bicycle stand and pour any remaining oil into an oil pan. Return the fork to the bicycle stand.
8. Push the rebound shaft into the seal head, leaving just enough shaft exposed to hold onto with your fingers. Use large internal snap ring pliers to remove the rebound damper seal head snap ring.
9. Firmly pull on the rebound shaft and remove the rebound damper and seal head from the upper tube.
10. Spray the rebound damper shaft with isopropyl alcohol, and wipe it with a clean rag.
11. Remove the inner and outer o-rings from the rebound seal head. Apply a few drops of RockShox suspension oil to the new o-rings and install them.  
**If using a pick to remove the inner seal head o-ring, do not scratch the o-ring gland. Scratches may cause oil to leak.**
12. Remove the glide ring from rebound shaft assembly. Apply a few drops of RockShox suspension oil to the new glide ring and install it.

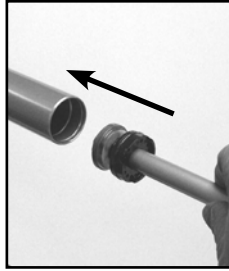




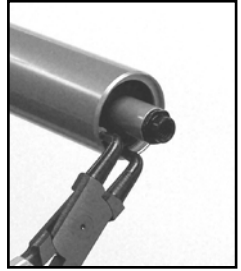
## DAMPER INSTALLATION INSTRUCTIONS

13. Install the rebound assembly into the upper tube. Push the seal head firmly into the bottom of the upper tube until the retaining ring groove is visible. Push the rebound shaft into the seal head, leaving just enough shaft exposed to hold onto with your fingers.

**13**



**14**



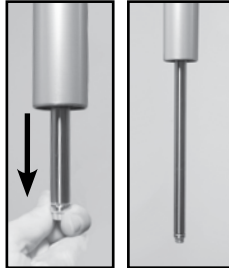
14. Use large internal snap ring pliers to install the snap ring.

**Make sure the snap ring is securely fastened in the snap ring groove. You can check this by using the snap ring pliers to rotate the snap ring back and forth a couple of times, then firmly pulling down on the damper shaft.**

*Snap rings have a sharper-edged side and a rounder-edged side. Installing snap rings with the sharper-edged side facing the tool will allow for easier installation and removal.*

15. Orient the fork upright in the bicycle stand. Pull the rebound damper shaft down into the fully extended position.
16. Measure and pour 5wt RockShox suspension oil into the upper tube using the following volumes:

**15**



**16**



Fork	Oil Volume (±3 mL)
Lyrik	193 mL
Totem	203 mL

**Oil volume is critical. Too much oil reduces available travel, too little oil decreases damping performance.**

## DAMPER INSTALLATION INSTRUCTIONS (CONTINUED)

17. Double check the Floodgate to ensure it is in the "off" position (**Mission Control only**). Install the compression damper assembly into the upper tube. Hand thread the compression damper top cap into the upper tube.
18. Use a 24 mm flat wrench to tighten the top cap to 7.3 N·m (65 in-lb).

**17**

Floodgate "on"

**17**

Floodgate "off"

**18**



**OR**

17. Insert the compression damper assembly into the upper tube. Hand thread the compression damper top cap into the upper tube.
18. Use a 24 mm socket wrench to tighten the top cap to 7.3 N·m (65 in-lb).
19. Install the High Speed Compression knob onto the top cap. Use a 1.5 mm hex wrench to tighten the retaining bolts.
20. Install the Low Speed Compression knob onto the top cap, then use a crescent wrench to prevent the Low Speed Compression knob from rotating while using a 4 mm hex wrench to tighten the Low Speed Compression knob retention screw.

**OR**

**17**



**18**



**19**



**20**



# LOWER LEG INSTALLATION

## INTRODUCTION

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

## LOWER LEG INSTALLATION INSTRUCTIONS

1. Spray the upper tubes with isopropyl alcohol and wipe them with a clean rag.
2. Apply a small amount of grease to the inner surfaces of the dust wipers, oil seals, and foam rings (if applicable).

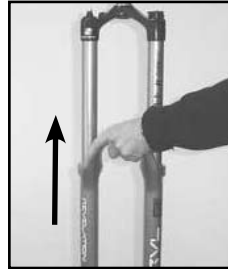
**For hollow bottom fork legs, skip to step 6.**

3. **Non-hollow bottom fork legs:** Slide the lower leg assembly onto the upper tube assembly just enough to engage the upper bushing with the upper tubes.  
**Make sure both dust seals slide onto the tubes without folding the outer lip of either seal.**
4. Reference the oil chart at the beginning of this manual for proper oil weight and volumes for lower leg lubrication. Invert the fork so that the bottom of the fork is angled upward at about 45°. Measure and inject/pour suspension oil into each lower leg through the shaft bolt hole.
5. Slide the lower leg assembly along the upper tubes until it stops and the spring and damper shafts are visible through the shaft bolt holes (**Dual Air, Air U-Turn, and Dual Position Air** spring shafts should extend through the shaft bolt hole). Wipe all excess oil from the outer surface of the lower legs. Skip to step 8.

**2**



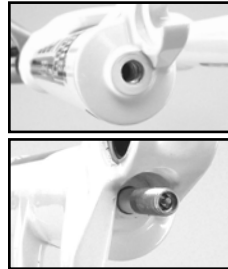
**3**



**4**



**5**



## LOWER LEG INSTALLATION INSTRUCTIONS (CONTINUED)

### Hollow bottom fork legs:

6. Reference the oil chart at the beginning of this manual for proper oil weight and volumes for lower leg lubrication. Hold the lower leg assembly horizontally and inject/pour suspension oil into each leg from the dust seal side.
7. Position the upper tube assembly horizontally then slide the lower leg assembly onto the upper tube assembly until it stops and the spring and damper shafts are visible through the shaft bolt holes (**Dual Air, Air U-Turn, and Dual Position Air** spring shafts should extend through the shaft bolt hole). Wipe all excess oil from the outer surface of the lower legs.  
**Be careful not to spill any oil from the lower leg as you install it onto the upper tubes.**

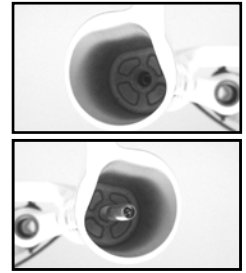
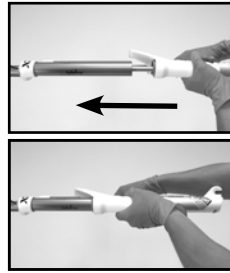
**Make sure both dust seals slide onto the upper tubes without folding the outer lip of either seal.**

8. Inspect and clean the damper and air spring shaft bolts/nut, nylon crush washers and crush wash retainers. Replace crush washers and crush washer retainers if damaged.  
**You must clean dirty crush washers and replace flattened or deformed crush washers and/or crush washer retainers. Dirty or damaged crush washers can cause oil to leak from the fork.**
9. Insert the shaft bolts into the threaded shaft ends through the lower leg shaft holes (or air shaft nut onto the threaded shaft end), and tighten with a 5 mm hex (bolt) or 10 mm socket wrench (nut) to 7.3 N·m (65 in-lb).  
**For hollow bottom fork legs you will need to use a socket extension for the 5 mm bolt and a deep 10 mm socket to thread the Dual Air shaft nut.**
10. **For forks with an external rebound adjuster,** insert the external rebound damper knob into the rebound damper shaft bolt. Push it in until secure. Adjust as desired.
11. **For air sprung forks,** refer to the air chart on your fork and inflate the positive and negative (if applicable) air chamber(s) to the appropriate pressure.
12. Spray isopropyl alcohol on entire fork and wipe it with a clean rag.
13. **For air sprung forks,** thread the positive and negative (if applicable) air valve cap(s) onto the air valve(s).

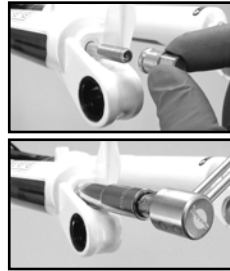
**6**



**7**



**9**



**10**



**11**



**13**



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