ROCK SHOX

TORA

2011 Technical Manual

SRAM ROCK SHOX Avid TRUVATIV

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, www.rockshox.com, www.avidbike.com, www. truvativ.com, or www.zipp.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.

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.

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.

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 Tora 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
Snap Ring Pliers (External)
Snap Ring Pliers (Internal)
Long Dowel Rod
Sharp Pick
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. 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 Tora 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) Upper Tube	Oil wt Upper Tube	Volume (ml) Lower Leg	Oil wt Lower Leg
Tora	TK	Turnkey	145	5	5	15
	289	Rebound Only	150	5	15	15
	302	Turnkey				

Spring Technology (Non-Drive Side)	Volume (ml) Upper Tube	Oil wt Upper Tube	Volume (ml) Lower Leg	Oil wt Lower Leg
Solo Air	3	15	10	15
Coil	-	-	20	15
Coil U-Turn			30	
Coil			20	
Coil U-Turn			30	
Solo Air	3	15	15	

TORQUE TIGHTENING VALUES

The following chart is a summary of the primary torque tightening values for Tora 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 (Cantilever/Linear -Pull)	5-7 N·m (43-61 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 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.



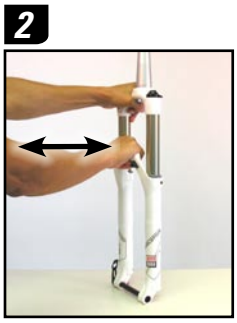


OR

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 correspoding part number for your fork.



LOWER LEG REMOVAL

INTRODUCTION

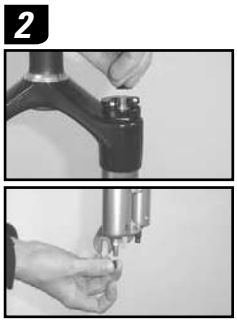
Removing the lower legs is the first step in servicing your fork. Once you have removed your fork lower legs, you'll be ready to move onto the next section.

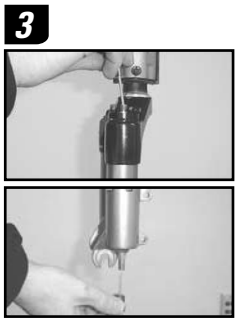
LOWER LEG REMOVAL

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.

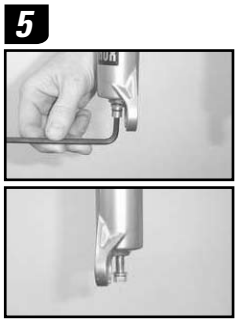
CAUTION
Verify all pressure is removed from the fork before proceeding. Failure to do so can result in injury and/or damage to the fork.

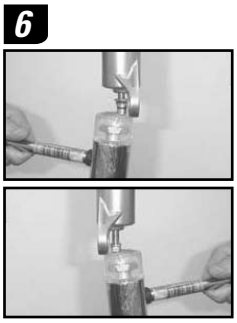
4. Remove the external rebound adjuster knob (if applicable) by pulling it from the shaft bolt at the bottom of the right fork leg.
5. Use a 5 mm hex wrench to loosen both shaft bolts 3 to 4 turns.
   Dual Air, Air U-Turn, 2-Step, and Dual Position Air equipped forks: Use a 10 mm socket (or open end) 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.





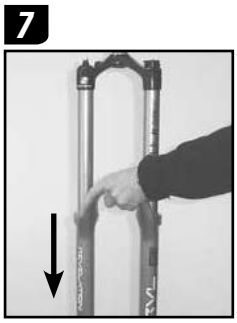






LOWER LEG REMOVAL (CONTINUED)

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.





LOWER LEG SEAL SERVICE

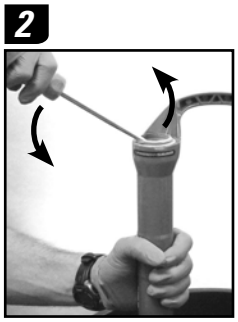
INTRODUCTION

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.







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.





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.

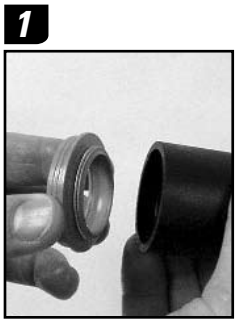






Dust wiper installation

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









COIL SPRING SERVICE

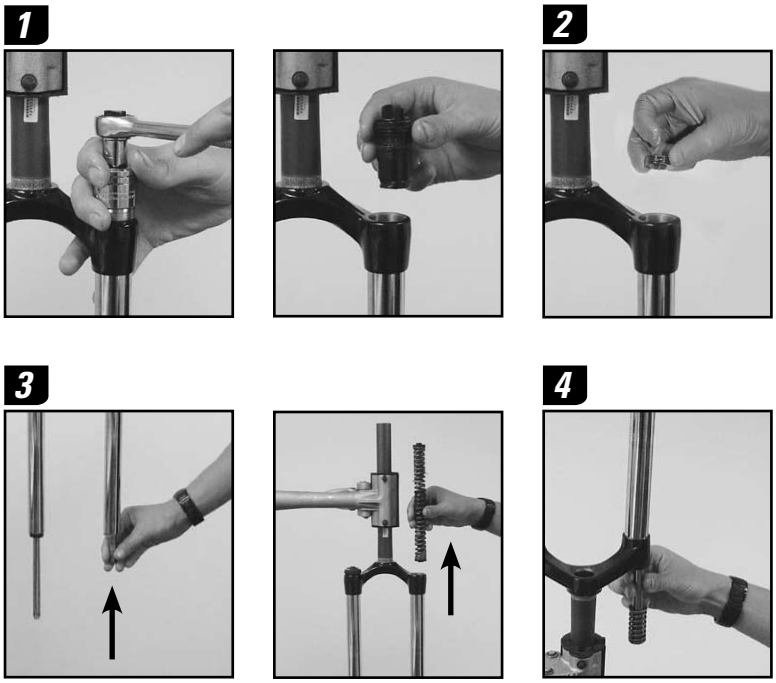
(ARGYLE R, RC - DART 1, 2, 2 (WITH TURNKEY), 3 - DOMAIN R, RC - TORA 289, 302)

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.

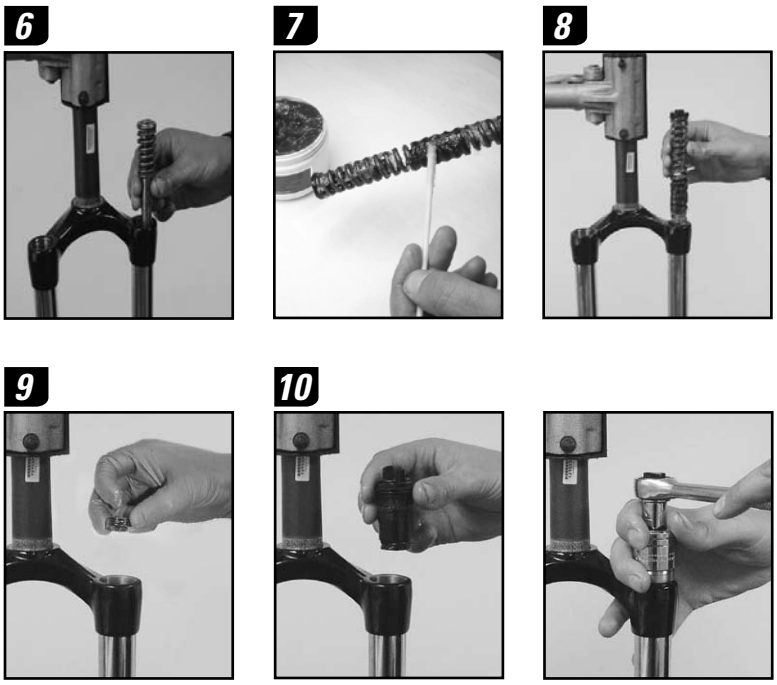
COIL SPRING REMOVAL INSTRUCTIONS

1. Unthread and remove the spring top cap with a 24 mm socket and socket wrench. Once removed, clean the upper tube threads with a rag.
   Press down firmly when loosening the top cap.
2. **Argyle only:** Remove the spring pre-load spacer(s).
3. Push the spring shaft upward, from the bottom of the upper tube, then remove the coil spring and spring spacers from the upper tube.
   Argyle, Dart, and Tora only: If the coil spring isolator is not centered on the coil spring, wind the isolator along the coils to the center of the spring and use a heat gun to shrink/tighten it.
4. Turn the fork upside down and slide the spring shaft assembly out of the upper tube. Remove the spring shaft assembly. Clean the spring shaft assembly and inspect it for damage.
5. Spray isopropyl alcohol on the 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 it into the upper tube to clean inside the upper tube.



COIL SPRING INSTALLATION INSTRUCTIONS

6. Insert the spring shaft assembly into the upper tube from the top. Guide the threaded end through the shaft guide at the bottom of the upper tube and gently pull the shaft through to full extension.
7. Apply fresh grease liberally to the coil spring/spring spacer assembly.
8. Insert the coil spring/spring spacer assembly into the upper tube from the top.
9. **Argyle only:** Install the spring pre-load spacers onto the coil spring.
10. Clean the top cap, then apply a small amount of grease to the top cap threads **(Argyle and Domain only)**. Insert and hand thread the top cap into the upper tube. Use a 24 mm socket and socket wrench to tighten the top cap to 7.3 N·m (65 in-lb).



COIL SPRING SERVICE
(RECON SILVER - RECON GOLD - SEKTOR - TORA TK)

INTRODUCTION

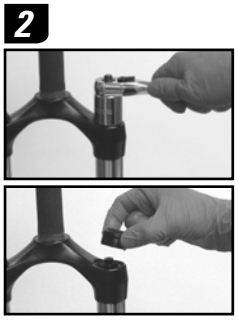
At this point you should already have the lower leg removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lower legs.

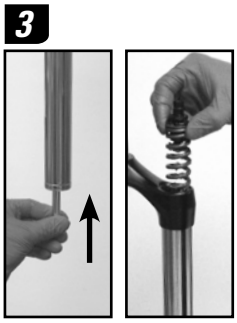
COIL SPRING REMOVAL INSTRUCTIONS

1. Use a 2.5 mm hex wrench to remove the preload adjuster knob screw, then remove the adjuster knob. Use a magnet to remove the detent balls and springs from the top cap **(Recon Silver, Recon Gold only)**.
2. Unthread and remove the spring top cap with a 24 mm socket wrench.
   Press down firmly when loosening the top cap.
3. Push the spring shaft upward, from the bottom of the upper tube, then remove the coil spring and spring shaft from the upper tube. Once removed, clean the upper tube threads with a rag.
4. Spray isopropyl alcohol on the 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 it into the upper tube to clean inside the upper tube.
   If the coil spring isolator is not centered on the coil spring, wind the isolator along the coils to the center of the spring and use a heat gun to shrink/tighten it.
5. Use a pick to remove the o-ring from the preload adjuster on top of the spring. Apply grease to the new o-ring and install it.





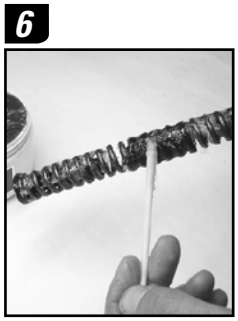


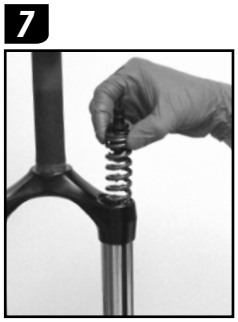




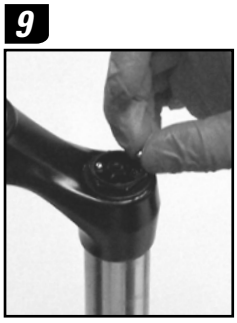
COIL SPRING INSTALLATION INSTRUCTIONS

6. Apply fresh grease liberally to the spring.
7. Insert the spring shaft and spring assembly back into the upper tube.
8. Clean the top cap, then apply a small amount of grease to the top cap threads. Insert and hand thread the top cap into the upper tube. Use a 24 mm socket wrench to tighten it to 7.3 N·m (65 in-lb).
9. Re-install the detent springs and balls into the top cap **(Recon Silver, Recon Gold only)**. Re-install the preload adjuster knob and knob screw. Tighten the preload adjuster knob screw with a 2.5 mm hex wrench to 1.4 N·m (12 in-lb).











COIL U-TURN SPRING SERVICE

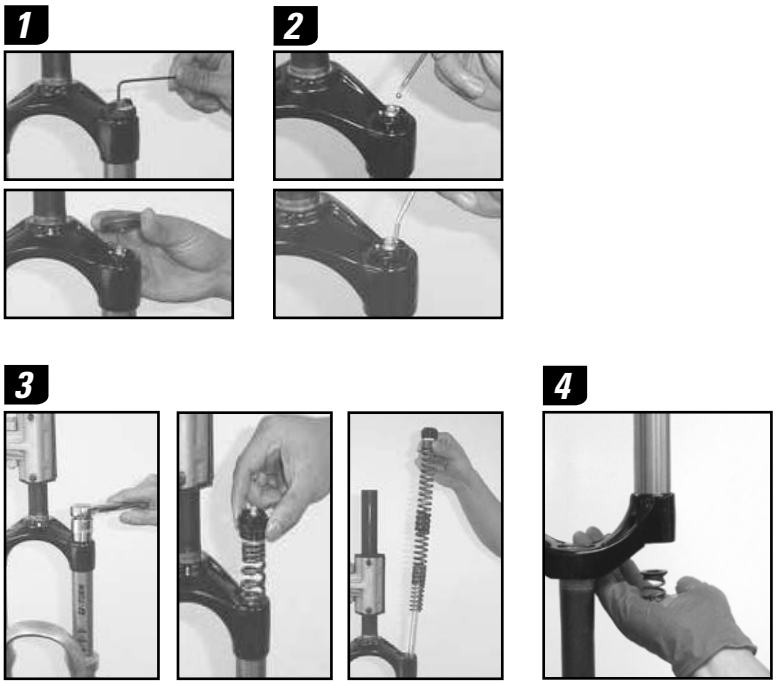
(DOMAIN R, RC - TORA 289, 302)

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.

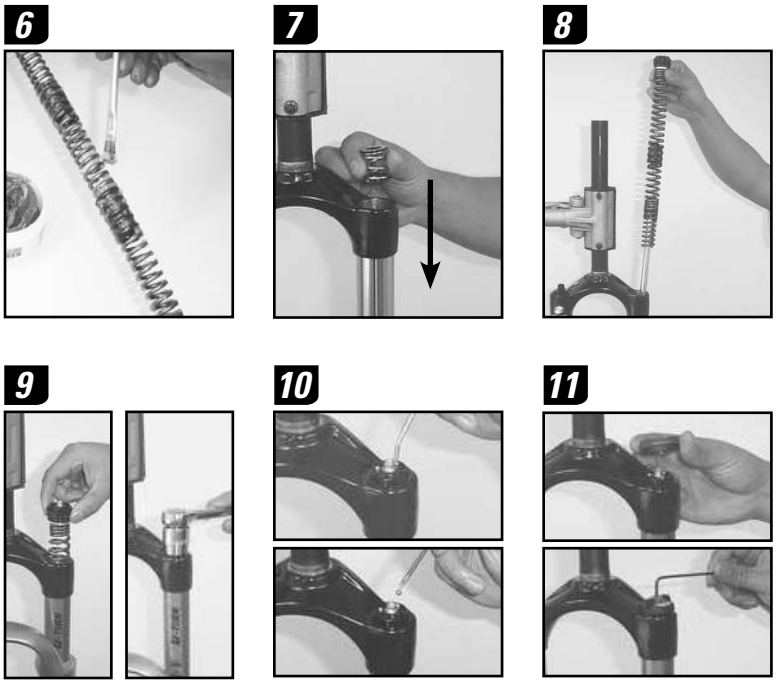
COIL U-TURN SPRING REMOVAL INSTRUCTIONS

1. Remove the U-Turn adjuster knob screw with a 2.5 mm hex wrench and remove the U-Turn adjuster knob.
2. Remove the three detent ball bearings and detent springs from the top cap using a magnet.
3. Unthread and remove the spring top cap with a 24 mm socket wrench. The spring is attached to the top cap and spring shaft. Pull and lift the entire spring assembly from the upper tube. Once removed, clean the upper tube threads with a rag.
   Press down firmly when loosening the top cap.
4. Turn the fork upside-down to remove the U-Turn negative spring assembly from the upper tube.
5. Spray isopropyl alcohol on the 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 it into the upper tube to clean inside the upper tube.



COIL U-TURN SPRING INSTALLATION INSTRUCTIONS

6. Apply fresh grease liberally to the negative spring, the entire spring assembly, and the top cap o-ring.
7. Insert the negative spring into the upper tube from the top.
8. Insert the U-Turn spring assembly into the upper tube from the top, shaft end first. Align and seat the spring shaft through the shaft guide/base plate.
   Rotate the spring assembly to help align the spring shaft with the shaft guide/base plate.
9. 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).
10. 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.
11. Place the U-Turn adjuster knob on top of hex-shaped adjuster. Tighten the U-Turn adjuster knob screw with a 2.5 mm hex wrench to 1.4 N·m (12 in-lb).



SOLO AIR SPRING SERVICE
(RECON SILVER - TORA 302)

INTRODUCTION

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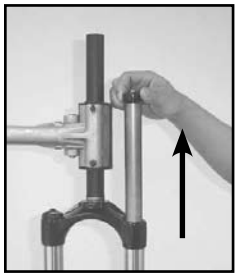
SOLO AIR SPRING REMOVAL/SERVICE INSTRUCTIONS

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.

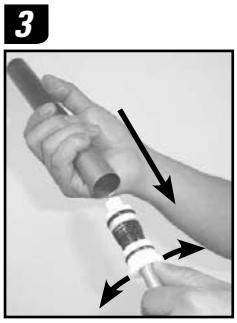
1. Use a 24 mm socket wrench to unthread the air spring top cap. The air spring assembly is attached to the top cap. Pull and lift the entire air spring assembly from the upper tube. Once removed, clean the upper tube threads with a rag.
2. Pull the top cap out of the air tube assembly and pour any oil from the air tube into an oil pan.
3. Remove the air shaft/piston assembly from the bottom of the air tube by pulling the shaft down and rocking it from side to side.
4. Spray isopropyl alcohol on the inside and outside of the upper tube and wipe it 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. Spray isopropyl alcohol on the inside and outside of the air tube and wipe it with a clean rag. Wrap a clean rag around a long dowel and insert it into the air tube to clean inside the air tube.
5. Use small external snap ring pliers to remove the air piston snap ring. Remove the air piston wavy spring washer and piston from the air shaft.
   Expand the snap ring just enough to disengage it from the air shaft.

   Over-extending the snap ring can permanently damage it and cause air spring assembly failure.
6. Use a pick to remove the air piston outer o-ring. Apply grease to the new o-ring and install it.
7. 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, dry o-ring into the groove.
   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.



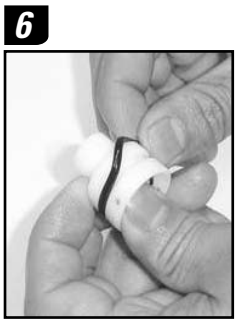


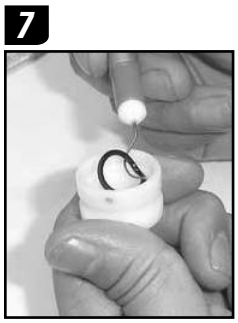












SOLO AIR SPRING REMOVAL/SERVICE INSTRUCTIONS (CONTINUED)

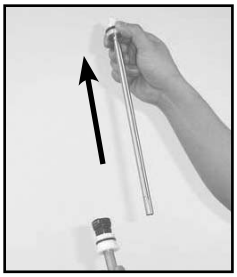
8. Install the air piston and spring wavy washer onto the air shaft and use small external snap ring pliers to secure the air piston snap ring in the snap ring groove. Check the snap ring fit to make sure it secures the air piston and wavy washer to the air shaft head. The air piston should compress upward slightly with spring resistance from wavy spring washer and snap ring.
   Expand the snap ring just enough to re-install it onto the air shaft. Over-extending the snap ring can permanently damage it and cause air spring assembly failure.
9. Slide the air sleeve/negative piston assembly from the air shaft. Spray the air shaft with isopropyl alcohol and wipe it with a clean rag.
10. Remove the top-out bumper and kick plate from the air sleeve/negative piston.
11. Use a pick to remove the inner and outer negative piston o-rings. Apply grease to the new o-rings and install them.
    When using a pick to remove o-rings, do not scratch the negative piston. Scratches may cause air to leak.

8





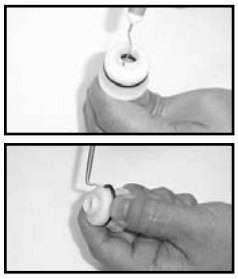
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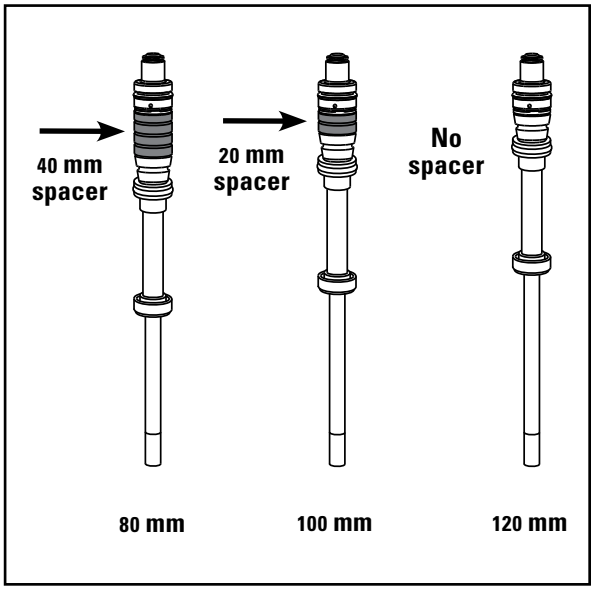


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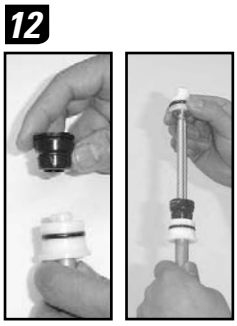


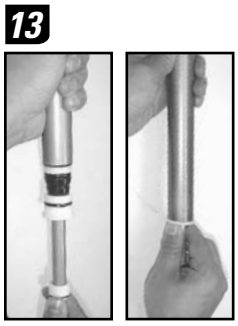
OPTIONAL - ALL TRAVEL CONFIGURATIONS

All Travel spacers are located above the top out bumper. If you want to change the travel of your fork, add a spacer to decrease travel, or remove the spacer to increase travel.

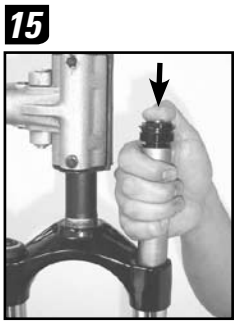


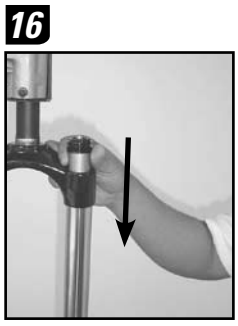
12. Insert the top-out bumper and kick plate back onto the negative piston. Re-install the negative piston/sleeve assembly onto the air shaft, with the kick plate oriented toward the air piston.
13. Apply grease to the air assembly outer o-rings. Insert the air assembly into one end of the air tube. Push the negative piston into the air tube until it is firmly seated.
14. Hold the air tube at a slight angle, then pour 3 mL of 15 wt RockShox oil into the top of the air tube. **Do not pour oil straight down into the center of the tube.**
15. Insert the air top cap into the air tube and press it tight into the air tube.
16. Insert the air assembly, shaft first, into the upper tube from the top. Guide the bottom of the air shaft through the shaft guide in the bottom of the upper tube. Check the bottom of the upper tube and make sure the air shaft guide is seated into the upper tube shaft guide.
17. Apply a small amount of grease to the top cap threads and o-ring. Hand thread the top cap into the upper tube. Be careful not to damage the top cap o-ring upon installation.
18. Use a 24 mm socket wrench to tighten the top cap to 7.3 N·m (65 in-lb).















REBOUND DAMPER SERVICE

(ARGYLE R - DART 2 - DOMAIN R - RECON SILVER R - TORA 289)

INTRODUCTION

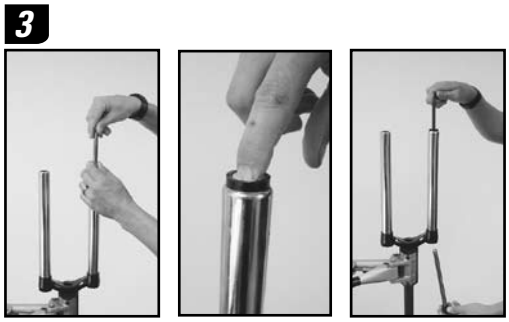
At this point you should already have the lower legs removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lower legs.

DAMPER SERVICE INSTRUCTIONS

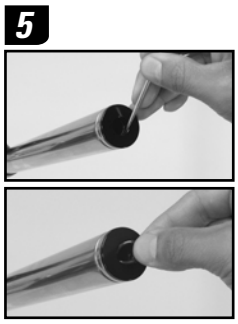
1. Use a 24 mm socket wrench to unthread the top cap. Once removed, clean the upper tube threads with a rag.
2. Remove the fork from the bicycle stand and pour the oil into an oil pan.
3. Turn the fork upside down and push the rebound damper shaft through the shaft guide/ seal head. Use a long dowel rod to push the damper piston past the upper tube threads and remove the damper from the upper tube.
4. Remove the rebound damper piston o-ring/ glide ring. Apply a few drops of RockShox suspension oil to the new o-ring/glide ring and install it.
5. **Argyle R, Domain R, Recon Silver R, and Tora 289 only:** Use a pick to remove the damper inner seal head o-ring, located in the bottom of the upper tube. Apply a few drops of RockShox suspension oil to a new o-ring and install it. **If using a pick to remove o-rings, do not scratch the o-ring glands. Scratches may cause oil to leak.**
6. Clamp the fork back into the bicycle stand. Apply grease to the upper tube threads. Insert the rebound damper back into the drive side upper tube, shaft first, and push the piston into the upper tube.
7. Use a long dowel rod to push the rebound damper into the upper tube. Guide the rebound damper shaft through the damper shaft guide/ seal head at the bottom of the upper tube and pull the shaft through by hand into the fully extended position.

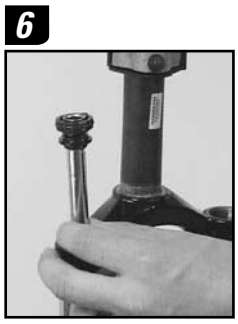




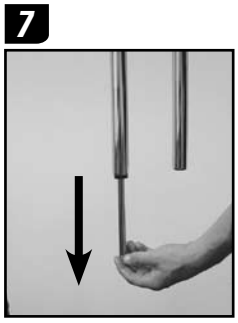












8. Orient the fork upright in the bicycle stand. Measure and slowly pour 5wt RockShox suspension oil into the upper tube using the volumes listed in the chart below.
Oil volume is critical. Too much oil reduces available travel, too little oil decreases damping performance.

Fork	Oil Volume (±3 mL)
Argyle R	130 mL
Dart 2	150 mL
Domain R	200 mL
Tora 289	150 mL
Recon Silver R	147 mL

9. 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).

8



9



TURNKEY DAMPER SERVICE
(DART 2, 3 - RECON SILVER TK - TORA 302, TK)

INTRODUCTION

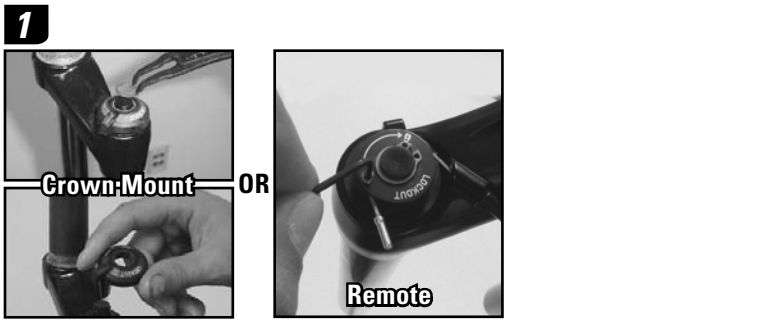
At this point you should already have the lower legs removed from your fork. If not, you will need to return to the Lower Leg Removal section of this manual and follow the instructions for removing your fork lower legs.

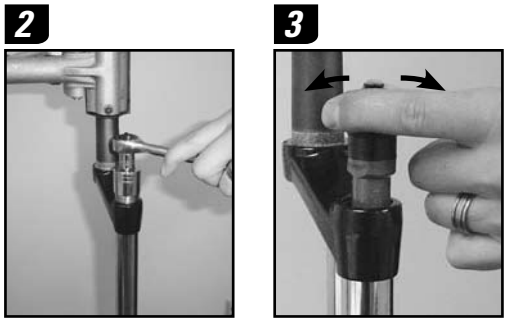
DAMPER SERVICE INSTRUCTIONS

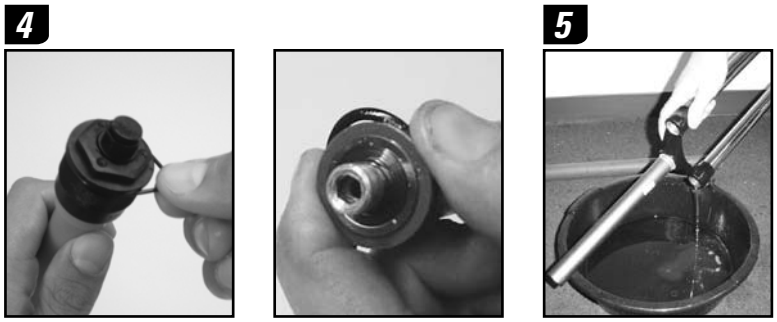
1. **Crown Mount (non-remote) only:** Use external snap ring pliers to remove the external snap ring from the compression adjuster knob. Remove the adjuster knob and o-ring.

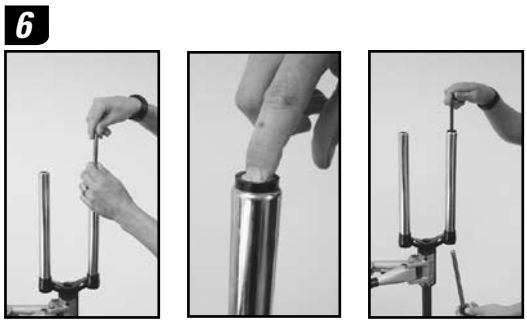
   OR

   Remote only: Use a 2 mm hex wrench to loosen the cable pinch bolt and remove the cable. **You do not need to remove the remote cable spool.**
2. Unthread the compression damper top cap with a 24 mm socket and socket wrench.
3. Remove the compression damper by pulling up and gently rocking it from side to side. If the 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 the upper tube threads with a rag.
4. Remove the compression damper top cap o-ring and piston o-ring. Apply a few drops of RockShox suspension oil to the new o-rings and install them.
5. Remove the fork from the bicycle stand and pour the oil into an oil pan.
6. Turn the fork upside down and push the rebound damper shaft through the shaft guide/seal head. Use a long dowel rod to help push the damper piston past the upper tube threads and remove the damper from the upper tube.









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 SERVICE INSTRUCTIONS (CONTINUED)

7. Remove the rebound damper piston o-ring/glide ring. Apply a few drops of RockShox suspension oil to the new o-ring/glide ring and install it.
8. Use a pick to remove the damper inner seal head o-ring (located in the bottom of the upper tube). Apply a few drops of RockShox suspension oil to a new o-ring and install it.
   If using a pick to remove o-rings, do not scratch the o-ring glands. Scratches may cause oil to leak.
9. Clamp the fork back into the bicycle stand. Apply grease to the upper tube threads. Insert the rebound damper back into the drive side upper tube, shaft first, and push the piston into the upper tube.
10. Push the rebound damper into the upper tube using a long dowel rod. Guide the rebound damper shaft through the damper shaft guide/seal head at the bottom of the upper tube and pull the shaft through by hand into the fully extended position.
11. Orient the fork upright in the bicycle stand. 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.

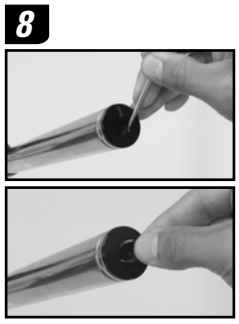
Fork	Oil Volume (±3 mL)
Dart 2 (with Turnkey), 3:	
80-100 mm	93 mL
120mm	109 mL
Recon Silver TK	147 mL
Tora 302	150 mL
Tora TK	145 mL

12. **Crown Mount (non-remote) only:** Turn the hex-shaped compression adjuster fully counter-clockwise.

    OR

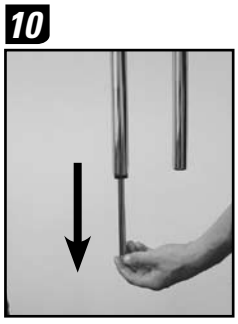
    Remote only: Position the cable-stop clamp in the 10 o'clock position around the upper tube hole on the crown prior to inserting the compression damper.



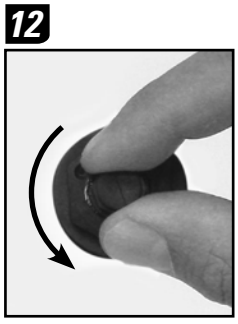






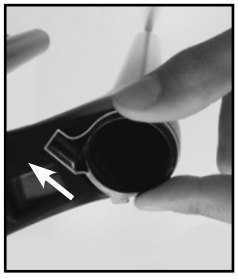






OR

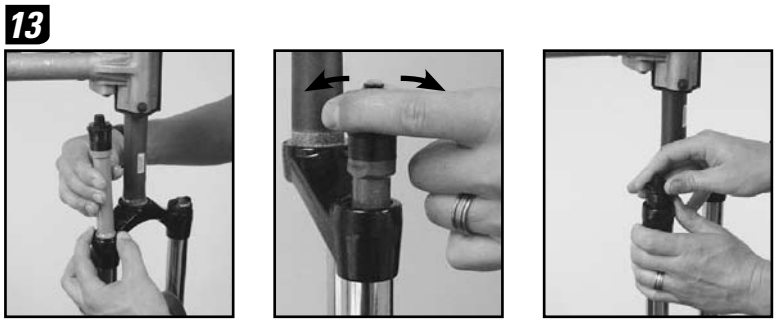




13. Insert the compression damper into the upper tube through the crown. Press down on and rock the damper from side to side to work it into the upper tube, being careful not to damage the o-ring on the upper tube threads. Hand tighten the damper into the upper tube.
14. Use a 24 mm socket wrench to tighten the compression damper to 7.3 N·m (65 in-lb).
15. **Crown Mount (non-remote) only:** Place the compression adjuster knob onto the compression damper top cap with the knob dial set in the 2 o'clock position. Using external snap ring pliers, secure the compression adjuster knob with a new snap ring.

    OR

    Remote only: Move on to the *Remote Service* section for instructions on how to install the remote lever and cable assembly.







LOWER LEG INSTALLATION

INTRODUCTION

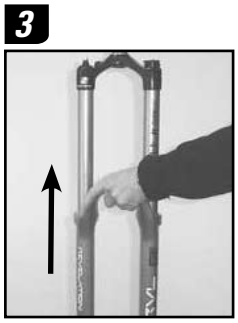
At this point you should already have already serviced your fork seals, damper system, and spring system. Once you have re-installed your fork lower legs, you will have successfully serviced your fork and you will be ready to ride!

LOWER LEG INSTALLATION INSTRUCTIONS

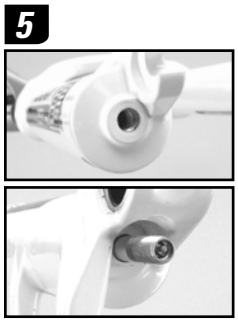
1. Spray the upper tubes with isopropyl alcohol and wipe them with a clean rag.
2. Apply a small amount of grease to the inner surfaces of the dust wipers, oil seals, and foam rings (if applicable).

   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.





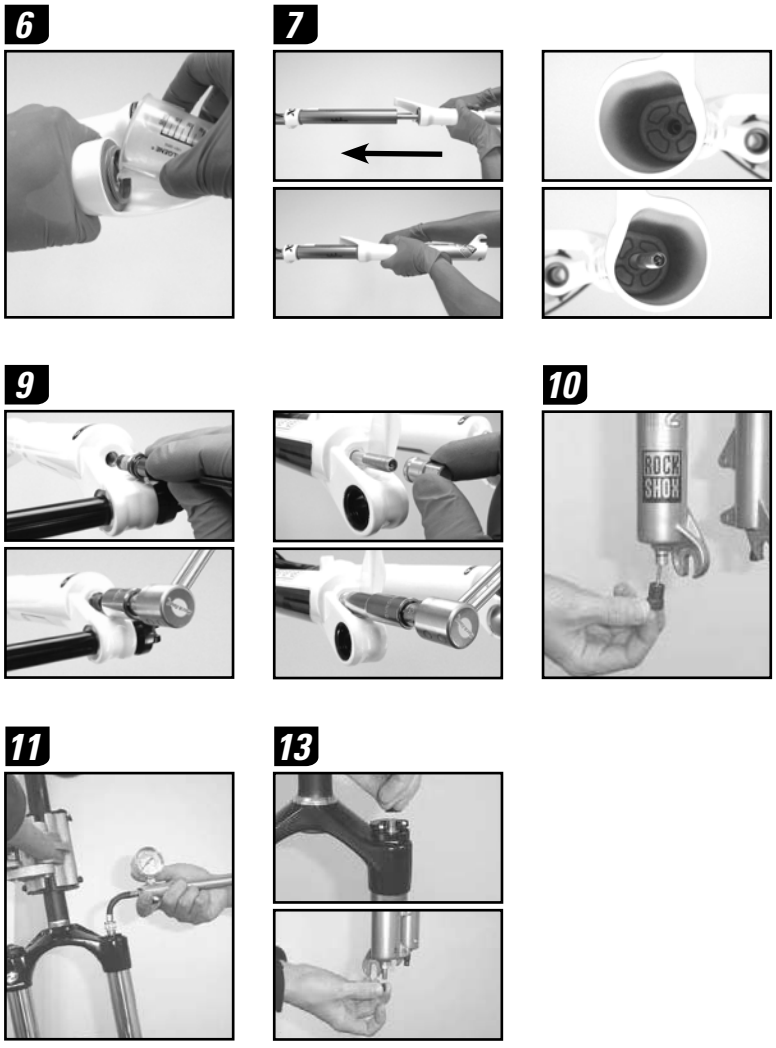




Hollow bottom fork legs:

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).



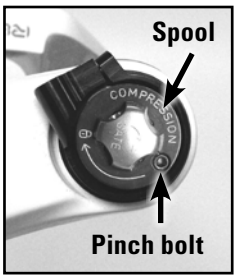
REMOTE SERVICE
(PUSHLOC - POPLOC ADJUST - POPLOC)

INTRODUCTION

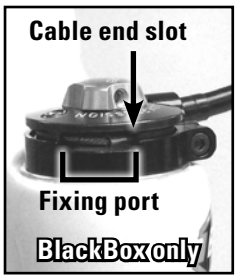
Damper service for forks equipped with remote lockouts will require cable and housing removal and installation. Also, periodic replacement of the cable and housing is recommended for optimal remote performance.

CABLE REMOVAL INSTRUCTIONS

FORK LOCKOUT ANATOMY







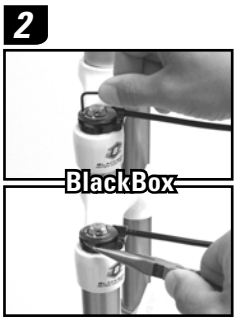
1. **PushLoc only:** Push the remote lever until it returns toward you.
   PopLoc and PopLoc Adjust only: Press the button next to the remote lever to set the lever to the fully released, or "Unlocked" position.
2. **BlackBox Motion Control, Lyrik RLR, and Lyrik RLR+ only:** Use a 2 mm hex wrench to loosen the cable pinch bolt on the spool and pull the cable out of the cable end slot. Use pliers to remove the cable end.

   OR

   Motion Control only: Use a 2 mm hex wrench to loosen the cable pinch bolt on the spool. Use pliers to remove the cable end.
3. **PushLoc only:** Push the remote lever to the "Locked Out" position. Use your finger to open the cable hatch cover (labeled *CC*, for *Cable Change*). Push the cable through the spool on the fork until the cable head is far enough out of the lever to access.
   PopLoc and PopLoc Adjust only: Push the cable through the spool until the cable head is far enough out of the lever to grab onto.
4. Pull the cable head to remove the cable completely from the remote system.
5. If replacing the cable housing, detach the cable housing and end caps from the lever and the cable housing stop on the fork.















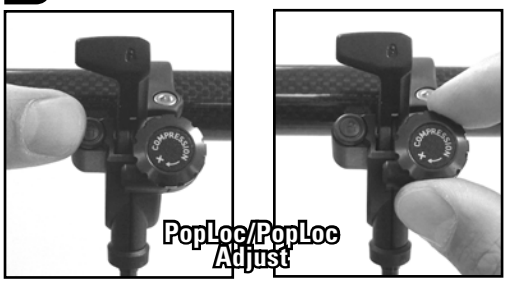
CABLE INSTALLATION INSTRUCTIONS

6. If replacing the cable housing, attach the new housing and end caps to the remote lever and the cable housing stop on the fork. Be sure to use compressionless (shift) housing cut to an adequate length to accomodate for travel change and suspension movement.
7. **PopLoc and PopLoc Adjust only**: Push the release button to verify the remote is in the "Unlocked" position.
   PopLoc Adjust only: Turn the blue compression adjustment dial counter-clockwise until it stops.
8. Insert the tip of a new shifter cable into the port on the lever and feed the cable through the housing and the cable housing stop on the fork.
9. Pull the cable until the cable head is seated completely in the remote lever.
   PushLoc only: Once the cable head is seated in the remote lever body, close the cable hatch cover and push the lever to return it to the "Unlocked" position.
10. **BlackBox Motion Control, Lyrik RLR, and Lyrik RLR+ only:** Wrap the cable around the spool and insert it through the cable fixing port. While pulling the cable firmly, use a 2 mm hex wrench to tighten the cable pinch bolt to 0.9 N·m (8 in-lb). Cut the excess cable, leaving 30 mm protruding from the cable fixing port. Cap the end of the cable with a non-flanged, or "road style" cable end. Tuck the cable end into the cable end slot in the spool.

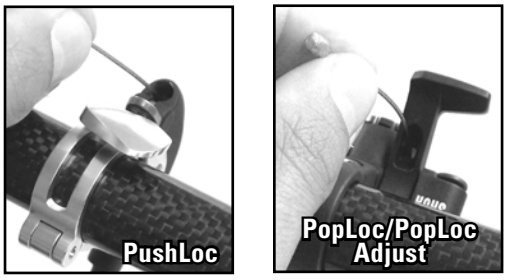
    OR

    Motion Control only: Wrap the cable around the spool. While pulling the cable firmly, use a 2 mm hex wrench to tighten the cable pinch bolt to 0.9 N·m (8 in-lb). Cut the excess cable and cap it with a cable end.

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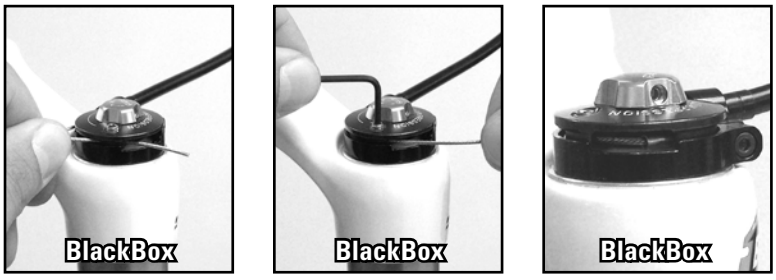
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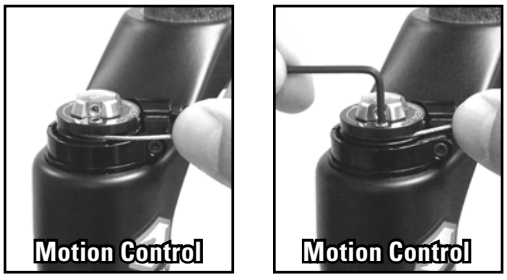


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