



# Deluxe

RT3 / RT / RL / R



## Service Manual



**SRAM**

GEN.000000005115 Rev D  
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# SRAM LLC WARRANTY

## EXTENT OF LIMITED WARRANTY

Except as otherwise set forth herein, 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. **Except as described herein, SRAM makes no other warranties, guaranties, or representations of any type (express or implied), and all warranties (including any implied warranties of reasonable care, merchantability, or fitness for a particular purpose) are hereby disclaimed.**

## LOCAL LAW

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.

## For Australian customers:

This SRAM limited warranty is provided in Australia by SRAM LLC, 1000 W. Fulton Market, 4th Floor, Chicago, IL, 60607, USA. To make a warranty claim please contact the retailer from whom you purchased this SRAM product. Alternatively, you may make a claim by contacting SRAM Australia, 6 Marco Court, Rowville 3178, Australia. For valid claims SRAM will, at its option, either repair or replace your SRAM product. Any expenses incurred in making the warranty claim are your responsibility. The benefits given by this warranty are additional to other rights and remedies that you may have under laws relating to our products. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

## LIMITATIONS OF LIABILITY

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

## LIMITATIONS OF WARRANTY

This warranty does not apply to products that have been incorrectly installed and/or adjusted according to the respective SRAM user manual. The SRAM user manuals can be found online at [sram.com](http://sram.com), [rockshox.com](http://rockshox.com), [avidbike.com](http://avidbike.com), [truvativ.com](http://truvativ.com), or [zipp.com](http://zipp.com).

This warranty does not apply to damage to the product caused by a crash, impact, abuse of the product, non-compliance with manufacturers 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 when the product has been modified, including, but not limited to any attempt to open or repair any electronic and electronic related components, including the motor, controller, battery packs, wiring harnesses, switches, and chargers.

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 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                                  | • Stripped threads/bolts (aluminium, titanium, magnesium or steel) | • Handlebar grips        | • Transmission gears |
| • Bushings                                    | • Brake sleeves  | • Shifter grips          | • Spokes             |
| • Air sealing o-rings                         | • Brake pads   | • Jockey wheels          | • Free hubs          |
| • Glide rings                                 | • Chains   | • Disc brake rotors      | • Aero bar pads      |
| • Rubber moving parts                         | • Sprockets  | • Wheel braking surfaces | • Corrosion          |
| • Foam rings                                  | • Cassettes  | • Bottomout pads         | • Tools              |
| • Rear shock mounting hardware and main seals | • Shifter and brake cables (inner and outer)                       | • Bearings               | • Motors             |
| • Upper tubes (stanchions)                    |  | • Bearing races          | • Batteries          |
|   |  | • Pawls                  |                      |

**Notwithstanding anything else set forth herein**, the battery pack and charger warranty does not include damage from power surges, use of improper charger, improper maintenance, or such other misuse.

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 authorised by SRAM for use with SRAM components.

This warranty shall not cover damages resulting from commercial (rental) use.

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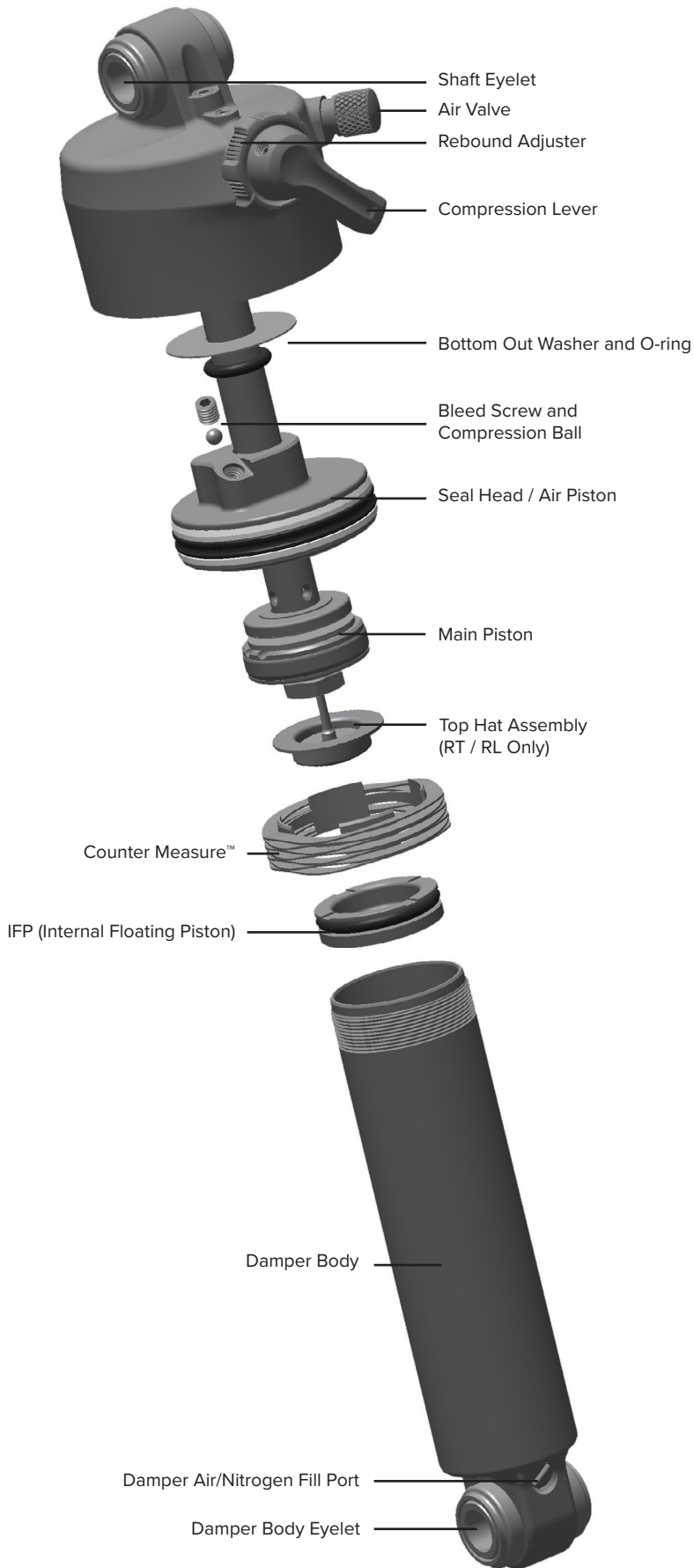


# **SAFETY FIRST!**

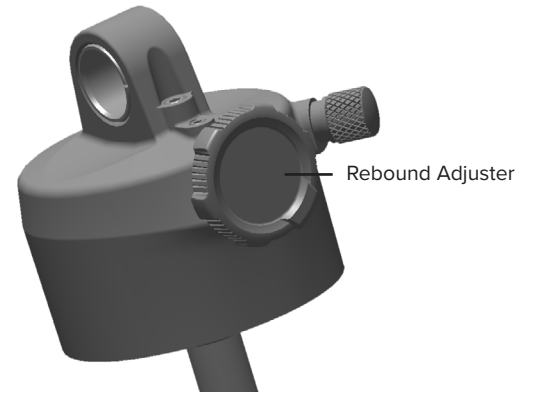
We care about YOU. Please, always wear your safety glasses and protective gloves when servicing RockShox® products.

Protect yourself! Wear your safety gear!

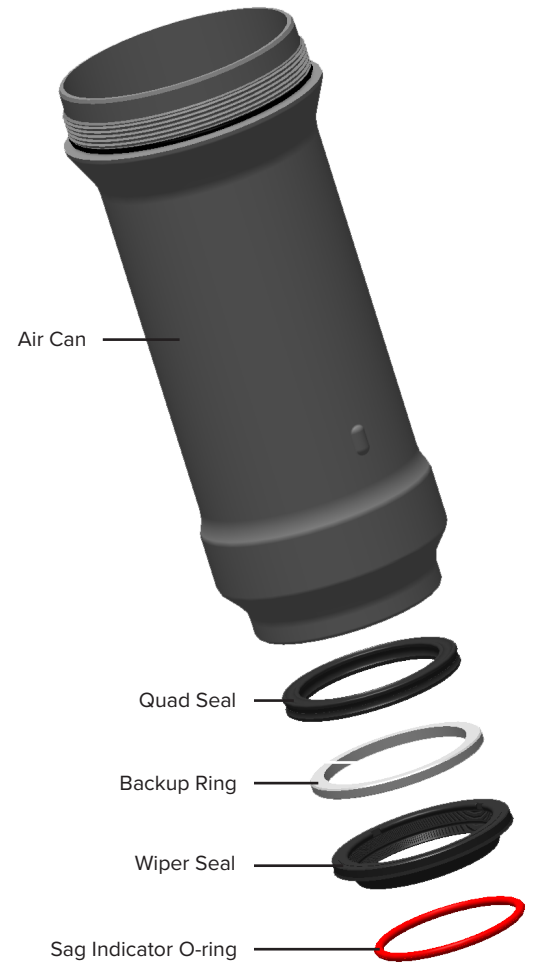
**Deluxe RT3, RT, RL**



**Deluxe R**



**Air Can**



## Getting Started

### Recommended Service Intervals

Regular service is required to keep your RockShox® product working at peak performance. Follow this maintenance schedule and install the service parts included in each service kit that corresponds with the Service Hours Interval recommendation below. For spare part kit contents and details, refer to the RockShox Spare Parts Catalog at [sram.com/service](http://sram.com/service).

Service Hours Interval	Maintenance	Benefit
Every ride	Clean dirt from shock damper body	Extends wiper seal lifespan
		Minimizes damage to shock damper body
		Minimizes air can contamination
Every 50 Hours	Perform air can service	Reduces friction
		Restores small bump sensitivity
Every 200 Hours	Perform damper and spring service	Extends suspension lifespan
		Restores damping performance

### Record Your Settings

Use the charts below to record your shock settings to return your shock to its pre-service settings. Record your service date to track service intervals.

Service Hours Interval	Date of Service	Air Pressure	Rebound setting - count the number of clicks while turning the rebound adjuster fully counter-clockwise.
50			
100			
150			
200			

### Torque Values

Part	Tool	Torque
Air can (shaft eyelet)	13 mm crowfoot	4.5 N•m (40 in-lb)
Piston nut	12 mm (RT3) or 10 mm (R) socket	4.5 N•m (40 in-lb)
Seal head/air piston	17 mm crowfoot	28 N•m (248 in-lb)

## 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.

For exploded diagram and part number information, please refer to the [Spare Parts Catalog](#) available on our web site at [sram.com/service](http://sram.com/service).

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 [sram.com/service](http://sram.com/service).

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

## Mounting Hardware and Bushing Removal

Prior to servicing the rear shock, remove it from the bicycle frame according to the bicycle manufacturer's instructions. Once the shock is removed from the bicycle, remove the mounting hardware before performing any service.

## Parts, Tools, and Supplies for Mounting and Bushing Service

### Parts

- RockShox Deluxe 50 or 200 Hour Service Kit

### Safety and Protection Supplies

- Safety glasses
- Nitrile gloves
- Apron
- Clean, lint-free rags

### RockShox® Tools

- RockShox 1/2" x 1/2" rear shock bushing removal/installation tool

### Lubricants and Fluids

- RockShox Dynamic Seal Grease

### Common Tools

- Bench vise with aluminum soft jaws
- 13 mm open end wrench
- Adjustable wrench

## SAFETY INSTRUCTIONS

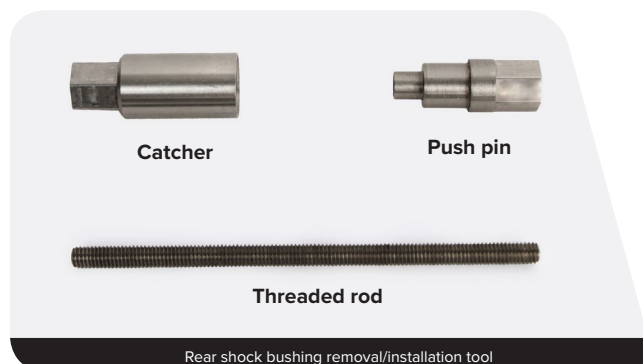
Always wear safety glasses and nitrile gloves when working with suspension fluid.

## NOTICE

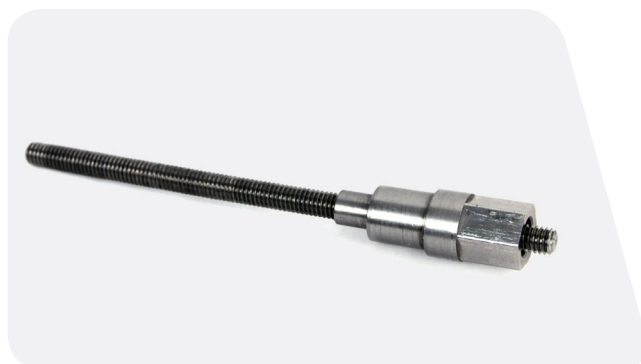
To prevent damage to the shock use aluminum soft jaws and position the eyelet in the vise so that the adjustment knobs are clear of the vise jaws.

Some mounting hardware is easily removed using only your fingers. Try to remove the end spacers with your fingernail or small screwdriver, then push the bushing pin out of the bushing. If this works, continue to the next section.

If you are unable to remove the mounting hardware using your fingers, use the RockShox rear shock bushing removal/installation tool.



- 1 Thread the small end of the push pin onto the threaded rod until the rod is flush or slightly protrudes from the hex-shaped end of the push pin.



- 2 Insert the threaded rod through the shaft eyelet until the push pin rests against the bushing pin. Thread the large, open end of the catcher along the rod until it rests on the end spacer.





- 3** Clamp the catcher in a vise or hold it secure with a 13 mm open end or adjustable wrench.

### NOTICE

Do not scratch the air can as you turn the wrench.

Use a second 13 mm wrench to thread the push pin along the rod until it stops against the end spacer.

Unthread the push pin from the threaded rod to remove the end spacer and the bushing pivot pin.



- 4** If the bushing pin does not remove easily, reinsert the threaded rod and push pin through the eyelet shaft.

Thread the large, open end of the catcher along the rod until it rests against the shaft eyelet.

Use a 13 mm wrench to thread the push pin along the rod until it stops against the end spacer.



- 5** Unthread the catcher from the threaded rod.  
Remove the end spacer and bushing pin from the tool.  
Repeat steps 2-4 for the damper eyelet.

Set the mounting hardware aside until you have finished servicing the shock.



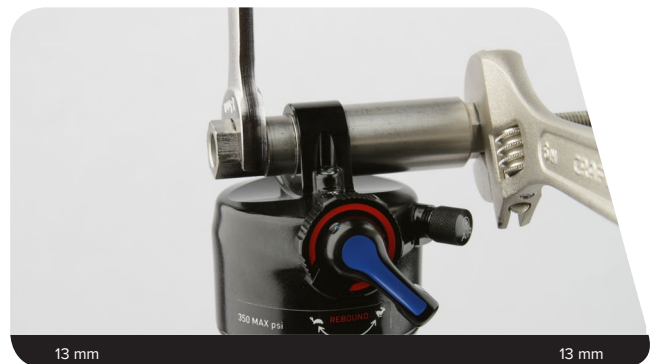
## Eyelet Bushing Replacement

To replace damaged or worn out bushings, use the RockShox rear shock bushing removal/installation tool.

- 1 Insert the threaded rod through the shaft eyelet until the base of the push pin rests against the bushing.  
Thread the large, open end of the catcher onto the rod until it rests on the eyelet.



- 2 Clamp the catcher in a vise or hold it secure with a 13 mm wrench.  
Use a second 13 mm wrench to thread the push pin along the rod until the push pin pushes the eyelet bushing out of the eyelet.



- 3 Unthread the catcher from the threaded rod. Remove the tool from the shaft eyelet and discard the old bushing.  
Repeat steps 1-3 for the other eyelet.  
Set the bushings aside until you have finished servicing your shock.



## Deluxe™ Service

Prior to servicing your rear shock, remove it from the bicycle frame according to the bicycle manufacturer's instructions. Once the shock is removed from the bicycle, remove the mounting hardware before performing any service (see the [Mounting Hardware And Bushing Service](#) section).

### Parts, Tools and Supplies for Service

#### Parts

- RockShox® Deluxe 50 or 200 Hour Service Kit

#### Safety and Protection Supplies

- Safety glasses
- Nitrile gloves
- Apron
- Clean, lint-free rags

#### Lubricants and Fluids

- Isopropyl alcohol
- RockShox Dynamic Seal Grease
- Maxima® Maxum4 Extra 15w50
- RockShox 7wt suspension oil
- Loctite® Threadlocker Blue 242®

#### Bicycle Tools

- Schrader valve core tool
- High Pressure Shock Pump 600 psi

#### RockShox Tools

- RockShox Rear Shock Vise Block
- RockShox Rear Shock Body Vise Block
- RockShox Air Valve Adapter Tool - Rear Shock

#### Common Tools

- Torque wrench
- 10 mm **(RT/RL/R)** and 12 mm **(RT3)** socket wrenches
- Bench vise with aluminum soft jaws
- 13 and 17 mm open end wrenches
- 13 and 17 mm crowfoot sockets
- 1.5 and 2 mm hex wrenches
- Strap wrench
- Pick
- Metric caliper or small metric ruler

### WARNING

Before disassembly or service of any air system remove the air pressure from all air chambers and remove the air valve cores.

If your shock will not return to full extension, do not attempt to service or disassemble your shock. Attempting to service a shock that will not return to full extension can cause severe and/or fatal injuries.

### SAFETY INSTRUCTIONS

Always wear safety glasses and nitrile gloves when working with suspension fluid.

Place an oil pan on the floor underneath the area where you will be working on the shock.

**NOTICE**

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray isopropyl alcohol on each part and clean with a rag. Apply grease to the new seal or o-ring. Only use RockShox Dynamic Seal Grease when servicing RockShox shocks.

To prevent damage to the shock use aluminum soft jaws and position the eyelet in the vise so that the adjustment knobs are clear of the vise jaws.

Inspect each part for scratches. Do not scratch any sealing surfaces when servicing your suspension. Scratches can cause leaks.



- 1 To record your adjustment settings, turn the rebound adjuster knob counter-clockwise until it stops, while counting the number of detent clicks. This will assist you with post-service set up.

**RT3/RT/RL:** Turn the compression lever to the unlocked position.



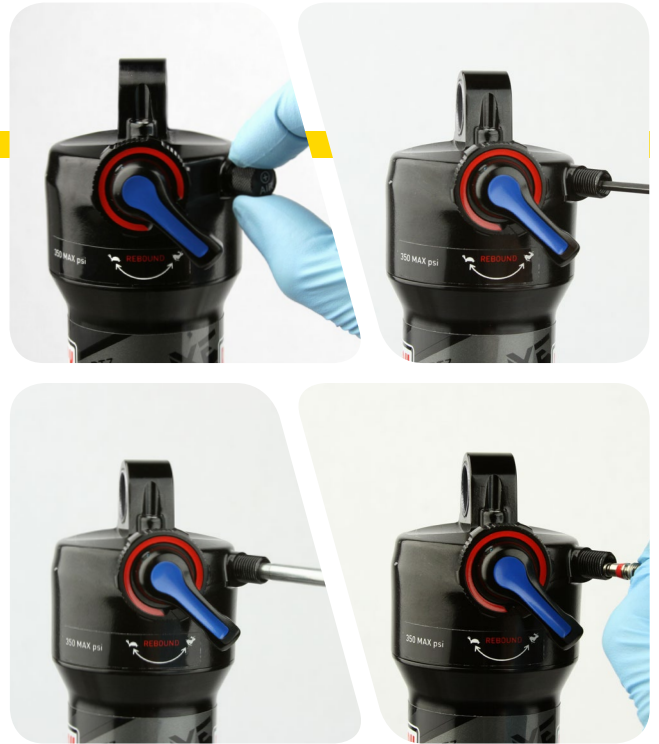
- 2** Record your air pressure setting to assist with post-service set up.  
Remove the air valve cap by hand. Use a small hex wrench to lightly depress the Schrader valve and slowly release all air pressure from the air can.

**⚠ CAUTION**

Do not disassemble a pressurized shock, this can cause suspension fluid or debris to forcefully eject from the shock. Wear safety glasses.

Slowly release the air from the air can to make sure the air is removed from both chambers. Quickly releasing the air can trap air in the negative chamber and cause the air can to forcefully eject from the shock upon disassembly.

Use a Schrader valve tool to remove and reinstall the valve core from the valve body to make sure all air has been removed.



- 3** Clamp the shaft eyelet into a vise, with the shock positioned horizontally.



- 4** Remove the sag indicator.



- 5** Insert a rag through the damper body eyelet to prevent the air can from forcefully ejecting from the shock.

**⚠ CAUTION- EYE HAZARD**

The air can may still have air pressure in the negative chamber, which may cause the air can to forcefully eject from the shock upon disassembly. Wear safety glasses.



- 6** Use a strap wrench to remove the air can. Wrap the strap around the section of the air can furthest from the shaft eyelet. Turn the wrench counter-clockwise to unthread the air can.

Once it is completely unthreaded, slowly pull the air can along the damper body to remove it and the Counter Measure™.

Remove the rag from the damper body eyelet.

*Vacuum pressure will increase as you pull the air can along the damper body, and will suddenly release when the air can is pulled over the air piston.*

**NOTICE**

Do not place the strap wrench on the air can decal.





**NOTICE**

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray isopropyl alcohol on each part and clean with a rag. Apply grease to the new seal or o-ring. Only use RockShox Dynamic Seal Grease when servicing RockShox shocks.

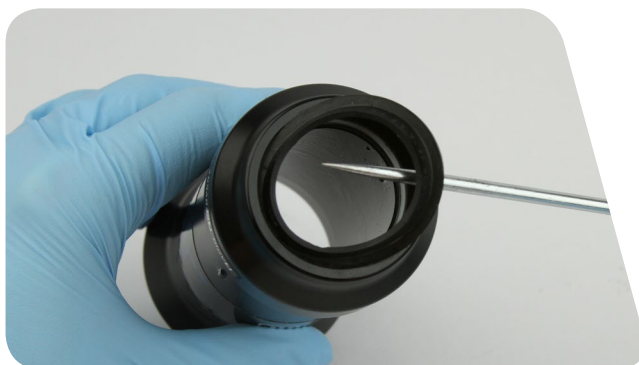
Inspect each part for scratches. Do not scratch any sealing surfaces when servicing your suspension. Scratches can cause leaks.



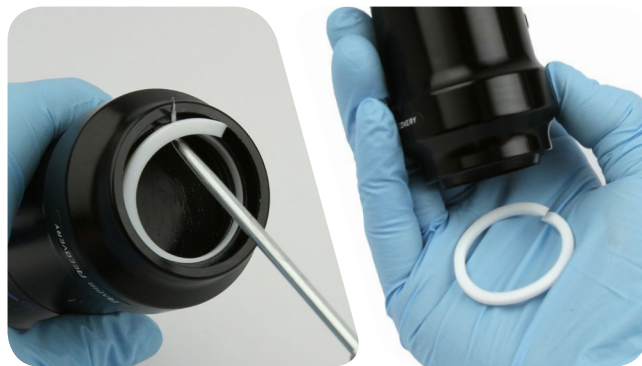
- 1 Use your fingers to remove the o-ring on the outside of the air can.  
Spray isopropyl alcohol on the air can threads and eyelet body threads and clean them with a rag.  
Install a new o-ring.



- 2 Use a pick to remove the air can wiper seal located in the top groove.



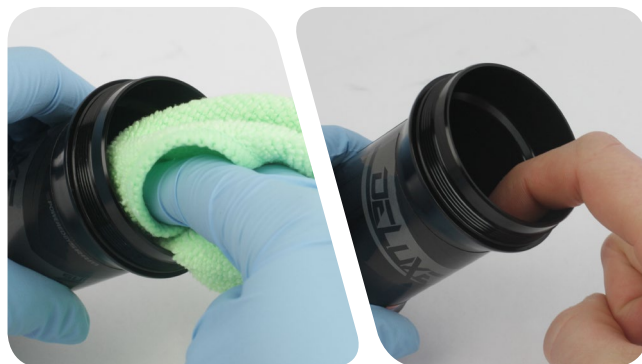
- 3** Use a pick to remove the backup ring from the second groove inside the air can.



- 4** Use a pick to pierce and remove the quad seal from the bottom of the second groove in the air can.



- 5** Spray isopropyl alcohol inside the air can and clean it with a rag. Remove a glove and use your finger to inspect the inside and outside of the air can for scratches, dents, or other surface deformations. Replace the air can if it is scratched or damaged.



- 6** Install the quad seal by inserting one end into the deepest groove in the air can, then push the remainder of the ring into the groove.

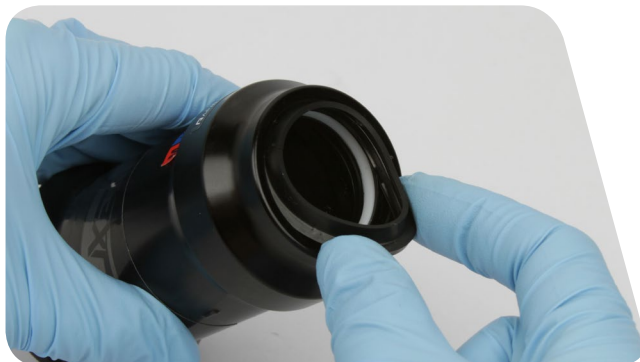




- 7** Install the backup ring by inserting one end into the air can, then push the remainder of the ring into the can, so that it rests on top of the quad seal.



- 8** Orient the new wiper seal step side up. Install it into the wiper seal groove at the top of the air can.



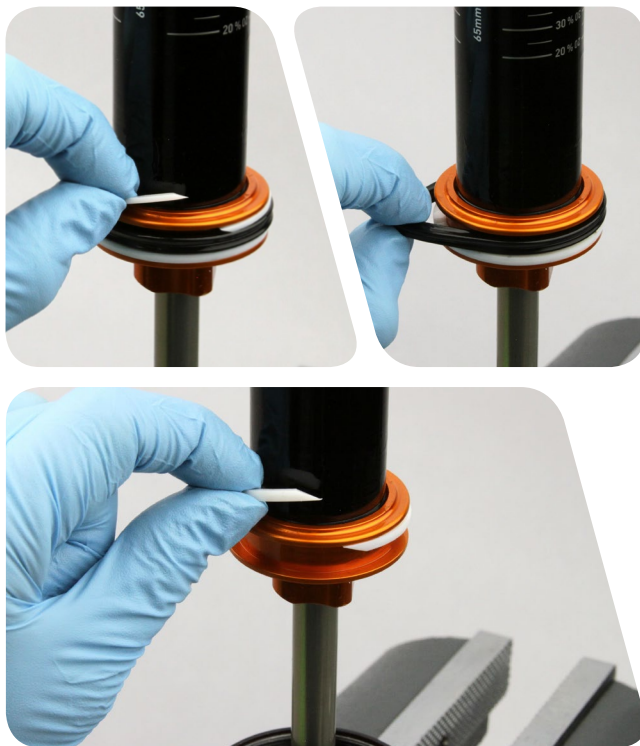
- 9** Spray isopropyl alcohol on the air can threads and eyelet body threads and clean them with a rag.

Apply a small amount of RockShox Dynamic Seal Grease to the quad seal, backup ring, and wiper seal.

Set the air can aside.



- 10** Use your fingers to remove the seal head/air piston seal and glide rings.
- Spray isopropyl alcohol on the seal head/air piston and clean it with a rag.
- Install the thicker glide ring below the seal head/air piston seal, and the thinner glide ring above.



-  To continue with the **50 Hour Service** go to [Air Can Installation](#).
- To continue with the **200 Hour Service** go to [Damper Body Service](#).

**NOTICE**

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray isopropyl alcohol on each part and clean with a rag. Apply grease to the new seal or o-ring. Only use RockShox Dynamic Seal Grease when servicing RockShox shocks.

To prevent damage to the shock use aluminum soft jaws and position the eyelet in the vise so that the adjustment knobs are clear of the vise jaws.

Inspect each part for scratches. Do not scratch any sealing surfaces when servicing your suspension. Scratches can cause leaks.



- 1 Use a Schrader valve tool to remove the damper air/nitrogen fill port cap. Use a small hex wrench or pick to depress the Schrader valve and release all air pressure from the damper.

Once the pressure has been released, depress the Schrader valve a second time. If the Schrader valve is able to move, the shock has been completely depressurized.

**If the Schrader valve does not move at all, the shock is still pressurized and will need to be sent to an authorized RockShox® dealer for further service.**

**⚠ CAUTION - EYE HAZARD**

Verify all pressure is removed from the shock before proceeding. Failure to do so can cause the damper body to separate from the shaft eyelet at a high velocity. Wear safety glasses.



- 2 Use a Schrader valve tool to remove and reinstall the Schrader valve core from the damper air/nitrogen fill port to make sure all air has been removed.



- 3 Remove the shock from the vise. Turn the shock over and clamp the damper eyelet into the vise.



- 4 Use a 2 mm hex wrench to remove the bleed screw, located in the seal head/air piston.



- 5 Wrap a rag around the damper body. Use a 17 mm open end wrench to loosen the seal head/air piston assembly from the damper body. Use your hand to remove the assembly.

**⚠ CAUTION - EYE HAZARD**

If fluid is foaming from the damper body when the seal head/air piston is loosened, the IFP seal has failed and the fluid inside the damper is pressurized. This can cause the seal head/air piston assembly and damper fluid to forcefully eject from the damper body. Cover the seal head/air piston assembly with a rag and slowly loosen the assembly to allow the pressurized fluid to leak out between the damper body and seal head/air piston assembly.

*Fluid will spill from the damper body.*



- 6 Remove the damper body from the vise and pour the fluid into an oil pan.



**NOTICE**

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray isopropyl alcohol on each part and clean with a rag. Apply grease to the new seal or o-ring. Only use RockShox Dynamic Seal Grease when servicing RockShox shocks.

To prevent damage to the shock use aluminum soft jaws and position the eyelet in the vise so that the adjustment knobs are clear of the vise jaws.

Inspect each part for scratches. Do not scratch any sealing surfaces when servicing your suspension. Scratches can cause leaks.



- 1** Spray isopropyl alcohol on the shaft assembly and vise blocks and clean them with a rag.

- 2** Use a vise block with the 10 mm shaft clamp to clamp the shaft into a vise.

**Do not remove the shaft from the eyelet.**

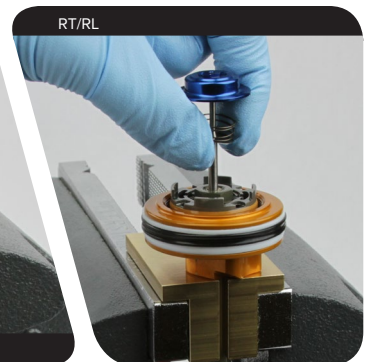
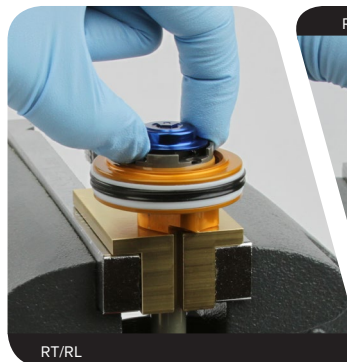
**NOTICE**

To prevent damage to the seal head/air piston, position the shaft in the vise so that the piston is clear of the vise jaws.

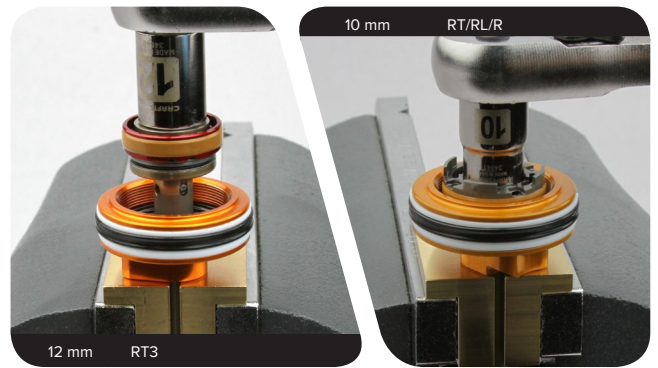


- 3** **RT/RL:** Use your fingers to remove the compression rod and top cap assembly.

**Keep all the parts together and set them aside.**



- 4** **RT3:** Use a 12 mm socket wrench to remove the piston nut.  
**RT/RL/R:** Use a 10 mm socket wrench to remove the piston nut.



- 5** Use a small wrench or pick to slide the main piston assembly off the shaft and onto the tool.

#### **NOTICE**

Keep all the parts together and set them aside. If the main piston assembly is disassembled, it will need to be replaced.



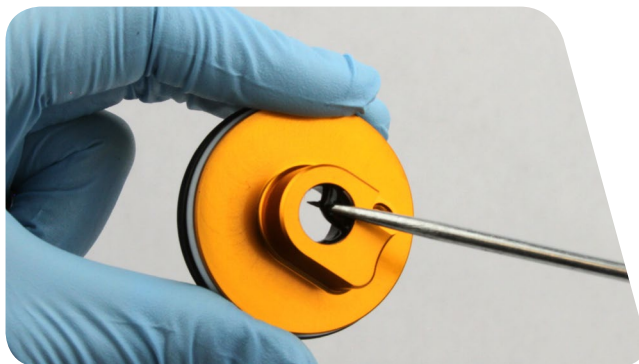
- 6** Remove the seal head/air piston from the damper shaft.





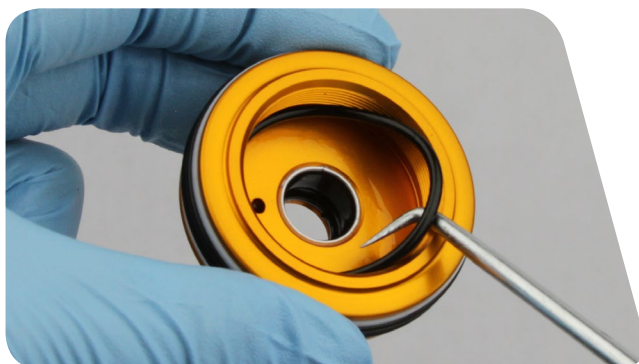
- 7** Use a pick to pierce and remove the internal seal o-ring located in the internal seal gland.

Install a new internal seal o-ring into the seal gland.



- 8** Use a pick to remove the inner o-ring, located at the base of the threads in the seal head/air piston.

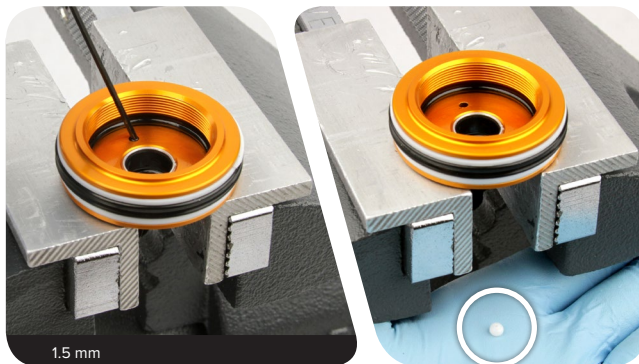
Install a new inner o-ring into the seal head/air piston.



- 9** Use a 1.5 mm hex wrench to push the compression ball out of the backside of the seal head through the bleed port.

*Do not replace the compression ball at this time; you will replace it later.*

**Do not reuse the compression ball.**



- 10** Use your fingers to remove the o-ring located inside the shaft eyelet threads.

Install a new o-ring inside the shaft eyelet threads.



- 11** Install the seal head/air piston onto the damper shaft.



- 12** Use a vise block with the 10 mm shaft clamp to clamp the shaft into a vise.

#### NOTICE

To prevent damage to the seal head/air piston, position the shaft in the vise so that the piston is clear of the vise jaws.



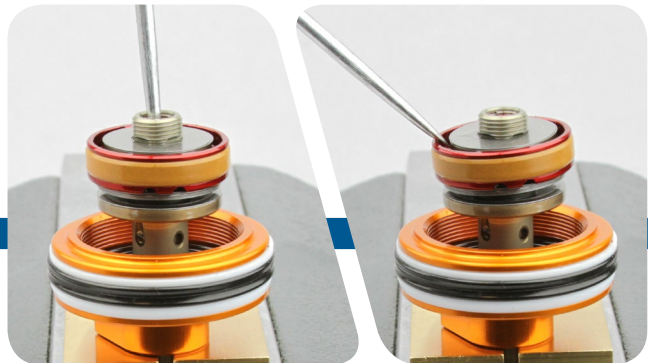
- 13** Install the main piston assembly that was removed in step 5 onto the damper shaft. Use your fingers to squeeze the shims and center the shim stack under the main piston. Use a small pick to center the shim stack along the inside edge of the main piston.

*If desired, install a new piston tune. Refer to the most current RockShox spare parts catalog on the [service page](http://www.sram.com) of [www.sram.com](http://www.sram.com).*

**Be sure to keep the main piston assembly parts in the same order.**

#### NOTICE

If the shims are not centered and in the correct order, the shock will not perform properly.





**14** Spray isopropyl alcohol on the piston nut threads and clean it with a rag.

Apply a thin layer of Loctite® Threadlocker Blue 242® only on the threads of the piston nut, then thread the nut onto the damper shaft.

**RT3:** Use a torque wrench with a 12 mm socket to tighten the nut to 4.5 N·m (40 in-lb).

**RT/RL/R:** Use a torque wrench with a 10 mm socket to tighten the nut to 4.5 N·m (40 in-lb).

Remove the assembly from the vise.

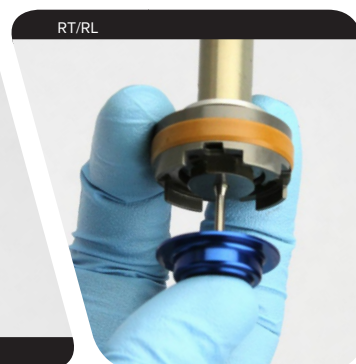
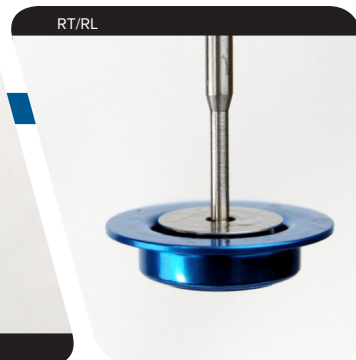
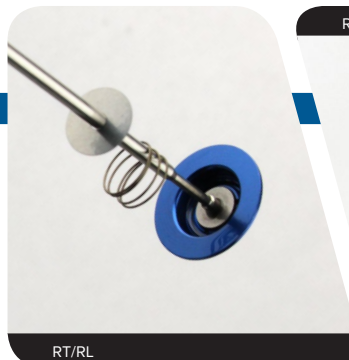


**15** **RT/RL:** Install the top hat spring and top hat washer onto the compression rod. Hold the compression rod vertically so the spring is seated in the groove inside the top hat.

#### NOTICE

If the top hat spring is not seated in the groove inside the top hat, the shock will not perform properly.

Apply a small amount of grease to the tip of the compression rod. Install the compression rod and top hat into the main piston assembly.



**NOTICE**

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray isopropyl alcohol on each part and clean with a rag. Apply grease to the new seal or o-ring. Only use RockShox Dynamic Seal Grease when servicing RockShox shocks.

To prevent damage to the shock use aluminum soft jaws and position the eyelet in the vise so that the adjustment knobs are clear of the vise jaws.

Inspect each part for scratches. Do not scratch any sealing surfaces when servicing your suspension. Scratches can cause leaks.



- 1 Wrap a rag around the end of the damper body. Thread the air valve adapter tool into a shock pump. Thread the pump and adapter into the air fill port.

Pump air into the damper body to force the IFP out of the damper body, into the rag.



RockShox Air Valve Adapter Tool and shock pump

- 2 Spray isopropyl alcohol on the inside and outside of the damper body and clean it with a rag.

Remove a glove and use your finger to inspect the inside and outside of the damper body for scratches, dents, or other surface deformations. If any deformations are found, the damper body will need to be replaced.




- 3 Remove and replace the IFP o-ring. Apply RockShox Dynamic Seal Grease to the o-ring.



- 4 Install the IFP into the damper body with the stepped side visible. Use a metric caliper or ruler to push the IFP to the depth specified in the table below.

**Measure the IFP depth from the lowest part of the IFP.**

Shock Stroke	IFP insertion Depth
35 mm	48.1 mm
37.5 mm	50.2 mm
40 mm	52.3 mm
42.5 mm	54.5 mm
45 mm	56.6 mm
47.5 mm	58.7 mm
50 mm	60.8 mm
 50 mm*	67.2 mm
52.5 mm	62.9 mm
55 mm	65 mm
57.5 mm	67.2 mm
60 mm	69.3 mm
62.5 mm	71.4 mm
65 mm	73.5 mm

\*Trek PowerFly



**NOTICE**

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray isopropyl alcohol on each part and clean with a rag. Apply grease to the new seal or o-ring. Only use RockShox Dynamic Seal Grease when servicing RockShox shocks.

To prevent damage to the shock use aluminum soft jaws and position the eyelet in the vise so that the adjustment knobs are clear of the vise jaws.

Inspect each part for scratches. Do not scratch any sealing surfaces when servicing your suspension. Scratches can cause leaks.



- 1 Clamp the damper body into the RockShox Rear Shock Body Vise Block.

Tighten the vise firmly enough so that the IFP cannot move in the damper body. Check this by using your finger to push on the IFP.

If the IFP does move, use a shock pump to push out the IFP, and then reset it to the depth specified in the table.

Wrap a clean rag around the damper body.

**Do not overtighten the vise so that the damper body gets crushed.**

**NOTICE**

The RockShox Rear Shock Body Vise Block holds the IFP in place. Failure to use the vise block when clamping the damper body into the vise may result in improper IFP height. Improper IFP height can cause the damper to fail.



- 2 Pour new RockShox 7wt suspension oil into the damper body until it is level with the top.



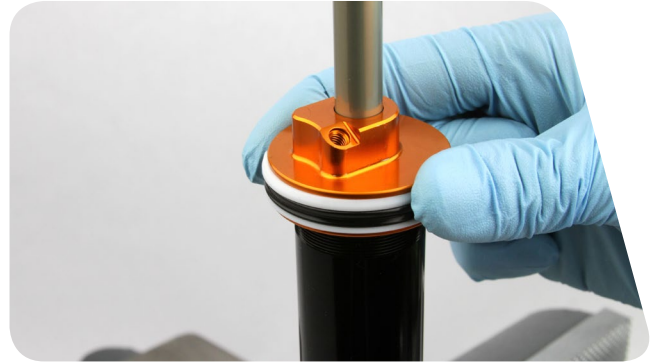
RockShox 7wt suspension oil



- 3** Check that the rebound adjuster knob is set to the fastest rebound setting. Rotate the rebound adjuster counter-clockwise until it stops. Slide the seal head/air piston until it stops at the end of the damper shaft.



- 4** Use your hand to install the seal head/air piston onto the damper body.
- Do not hold on to the shaft eyelet or damper shaft while inserting the seal head. It will move the piston/shaft assembly, causing too much fluid to displace out of the damper body.**
- Check that the compression ball is removed from the seal head/air piston.**
- Fluid will be displaced out of the bleed port.*



- 5** Use a torque wrench with 17 mm crowfoot to tighten the seal head/air piston to 28 N·m (248 in-lb).
- Install the crowfoot onto the torque wrench at a 90° angle to the handle to ensure an accurate torque reading.**



- 6** Allow air bubbles to escape from the bleed port in the seal head. Insert the new compression ball into the bleed port.



- 7** Use a 2 mm hex wrench to thread the bleed screw into the bleed port until you feel it touch the compression ball, then tighten the bleed screw an additional ½ turn.

### NOTICE

Overtightening the bleed screw can damage the compression ball.



- 8** **RT3/RT:** Use a shock pump with the air valve adapter tool to pressurize the damper body to 350 psi.

**RL:** Use a shock pump with the air valve adapter tool to pressurize the damper body to 500 psi.

**R:** Use a shock pump with the air valve adapter tool to pressurize the damper body to 250 psi.

*If you have the proper fill equipment, you may substitute air with nitrogen.*

**Once you have pressurized the shock, remove the air valve adapter tool from the air fill port before removing it from the shock pump. Separating the pump from the adapter first will cause all of the air to escape from the shock.**



- 9** Use a Schrader valve tool to install the damper air/nitrogen fill port cap.



- 10** Remove the shock from the vise.  
Spray the damper assembly with isopropyl alcohol and clean it with a rag.

**NOTICE**

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray isopropyl alcohol on each part and clean with a rag. Apply grease to the new seal or o-ring. Only use RockShox Dynamic Seal Grease when servicing RockShox shocks.

To prevent damage to the shock use aluminum soft jaws and position the eyelet in the vise so that the adjustment knobs are clear of the vise jaws.

Inspect each part for scratches. Do not scratch any sealing surfaces when servicing your suspension. Scratches can cause leaks.



- 1** Clamp the shaft eyelet in the vise with soft jaws.

Install the Counter Measure™ onto the damper body. Apply RockShox Dynamic Seal Grease to the seal head/air piston seals.



- 2** Inject 1 mL of Maxima® Maxum4 Extra 15w50 into the air can before installing the air can onto the damper. Firmly press the air can down until the sealhead/air piston is inserted into the air can.

**CAUTION- EYE HAZARD**

Fluid will eject out of the holes as you install the air can onto the damper. Wear safety glasses.



- 3** Remove the shock from the vise, turn it over and clamp the damper body eyelet in the soft jaws.

Inject another 1 mL of Maxima® Maxum4 Extra 15w50 into the air can.



- 4** Clamp the air shaft eyelet into the vise. Press the air can onto the shaft eyelet until it is hand tight.

Spray isopropyl alcohol on the outside of the air can and clean it with a rag.



- 5** Remove the shock from the vise. Turn it over and clamp the damper body eyelet in the vise.

Stabilize the air can with a strap wrench to prevent it from rotating. Use a torque wrench with a 13 mm crowfoot to tighten the air can to 4.5 N·m (40 in-lb).



- 6** Remove the shock from the vise. Spray isopropyl alcohol on the shock and clean it with a rag.

- 7** Install the sag indicator o-ring.



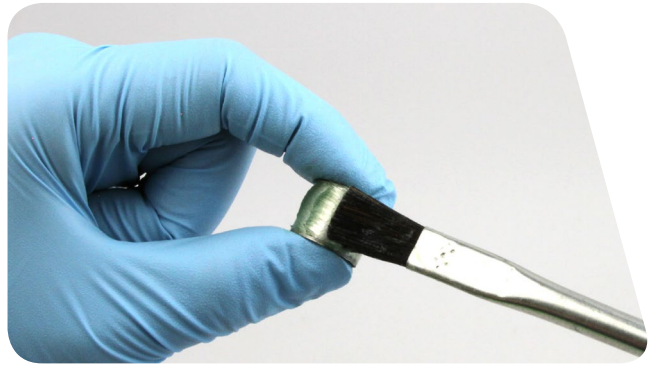


- 8 Use a shock pump to pressurize the shock to the desired air pressure, then install the valve cap.



### Eyelet Bushing Installation

- 1 Apply a light layer of grease to the outside of the new bushing.



- 2 Position the shaft eyelet and eyelet bushing between the soft jaws of a vise. Slowly turn the vise handle to begin pressing the eyelet bushing into the shaft eyelet.

**Check the alignment of the bushing as it enters the eyelet. If the bushing starts to enter the eyelet at an angle, remove the bushing from the eyelet, regrease the bushing, and repeat this step until the bushing enters the eyelet straight.**

Continue to press the eyelet bushing until it is seated in the shaft eyelet.

Remove the shock from the vise and repeat the installation process for the other bushing and eyelet.



## Mounting Hardware Installation

Some mounting hardware is easily installed using only your fingers. Press the bushing pin into the shock eyelet bushing until the pin protrudes from both sides of the eyelet an equal amount. Next, press an end spacer, large diameter side first, onto each end of the bushing pin. If this works, you have completed mounting hardware and bushing service.

If you are unable to install your mounting hardware using your fingers, use the RockShox rear shock bushing removal/installation tool.

- 1 Thread the small end of the push pin onto the threaded rod until the push pin is flush or slightly protrudes from the hex-shaped end of the push pin.



- 2 Insert the threaded rod through the bushing pin then through the shaft eyelet so that the bushing pin is positioned between the push pin and the eyelet.



- 3 Thread the large, open end of the catcher onto the rod until it rests on the eyelet.



- 4 Clamp the catcher in a vise or hold it secure with a 13 mm wrench. Use a second 13 mm wrench to thread the push pin along the rod until it pushes the bushing pin into the shock eyelet bushing.

Continue to thread the push pin until the bushing pin protrudes from both sides of the eyelet an equal amount.

*You may need to unthread the catcher slightly to check the bushing pin spacing.*



- 5** Press an end spacer, large diameter side first, onto each end of the bushing pin.



- 6** Reinstall the shock to your bicycle frame according to the bicycle manufacturer's instructions.

**This concludes the service for the Deluxe™ RT3/RT/RL/R rear shock.**

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