ROCKSHOX

RUDY

2022+
RUDY XPLR

SERVICE MANUAL

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!

⚠WARNING - PRESSURIZED DEVICE

Suspension products may contain pressurized air, nitrogen, springs, and oil.

Always wear certified safety glasses (ANSI Z87.1, EN166 EU) when performing any service on a suspension product (suspension fork, rear shock, seatpost). Failure to wear proper safety glasses can result in SERIOUS INJURY OR DEATH.

RockShox 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 use of specialized tools and lubricants/fluids. Failure to follow the procedures outlined in this service manual may cause damage to your component and void the warranty.

Visit www.sram.com/service for the latest *RockShox Spare Parts Catalog* and technical information. 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.

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

For recycling and environmental compliance information, please visit: www.sram.com/en/company/about/environmental-policy-and-recycling.

Suspension Safety Precautions and Warnings

SAFETY INSTRUCTIONS

To avoid serious injury or death, you MUST understand and follow the safety information in this document.

⚠WARNING - PRESSURIZED DEVICE

Suspension products may contain pressurized air, nitrogen, springs, and oil.

Always wear certified safety glasses (ANSI Z87.1, EN166 EU) when performing any service on a suspension product (suspension fork, rear shock, seatpost).

DO NOT attempt to disassemble a suspension product before the product is fully depressurized. Follow depressurization procedures and remove the air valve as instructed, before attempting disassembly of a suspension product.

When performing service on a suspension product, keep your eyes, face, and body away from any part or lubricant that can suddenly eject under high pressure. DO NOT direct any pressurized suspension part at a person.

DO NOT attempt to puncture, crush, or incinerate any assembled suspension product.

Failure to follow these preventative measures can result in SERIOUS INJURY OR DEATH.

⚠WARNING - CRASH HAZARD

Parts must be tightened to the specified torque.

To avoid separation of parts, threadlocker must be applied as instructed. Failure to apply threadlocker could result in separation of the parts.

Retaining rings must be fully seated in the retaining ring groove. Confirm the retaining ring is fully seated in the retaining ring groove after installation.

Do not use vinegar of any type to clean any part of a RockShox suspension product. Vinegar can cause permanent damage to parts which can, over time, result in product structural failure.

Failure to follow these preventative measures can result in SERIOUS INJURY OR DEATH.

⚠WARNING

Do not ingest oil, fluid, grease, lubricant, or cleaner. Ingestion could lead to SERIOUS INJURY OR DEATH. Seek immediate medical attention if any oil, fluid, grease, lubricant, or cleaner is ingested.

⚠CAUTION

Suspension products may contain lubricants which can lead to skin irritation. Always wear nitrile gloves when servicing suspension products. Failure to properly protect your skin can result in irritation. Seek medical attention if your skin is adversely affected by any suspension oil, fluid, grease, lubricant, and/or cleaner.

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.

Use care when working with sharp tools and parts. Never use sharp tools coated with oil and/or grease. Clean and remove all oil and/or grease from your hands and gloves, and tools before working with any sharp tool or part. Failure to do so can result in personal injury.

Place an oil pan on the floor underneath the product during service to catch any drained or spilled fluids. To avoid a slip and fall, and possible injury or harm, immediately clean any oil, fluid, grease, or lubricant from the floor in your work area.

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Part Preparation and Service Procedures

Part Preparation

Remove the component from the bicycle before service.

Disconnect and remove the remote cable or hydraulic hose from the fork or rear shock, if applicable. For additional information about RockShox remotes, user manuals are available at www.sram.com.

Clean the exterior of the product with mild soap and water to avoid contamination of internal sealing part surfaces.

Service Procedures

The following procedures should be performed throughout service, unless otherwise specified.

Clean the part with RockShox Suspension Cleaner or isopropyl alcohol and a clean, lint-free shop towel. For hard to reach places (e.g. upper tube, lower leg), wrap a clean, lint-free shop towel around a non-metallic dowel to clean the inside.

Clean the sealing surface on the part and inspect it for scratches.

⚠WARNING - CRASH HAZARD

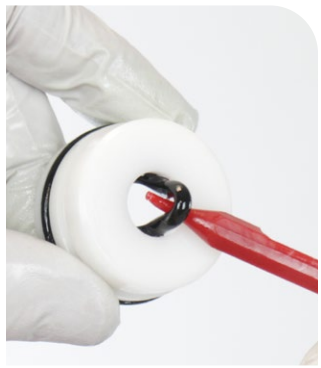
DO NOT use vinegar of any type to clean any part of a RockShox suspension product. Vinegar can cause permanent damage to parts which can, over time, result in product structural failure, serious injury, and possibly death.

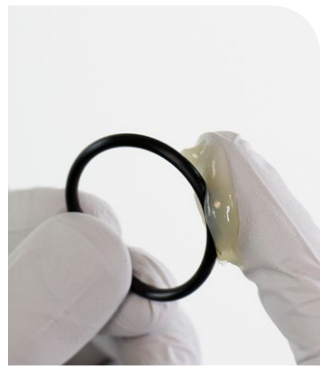
Replace the o-ring or seal with a new one from the service kit. Use your fingers or a pick to pierce and remove the old seal or o-ring.

Apply grease to the new seal or o-ring.

NOTICE

Do not scratch any sealing surfaces when servicing the product. Scratches can cause leaks. Consult the spare parts catalog to replace the damaged part.



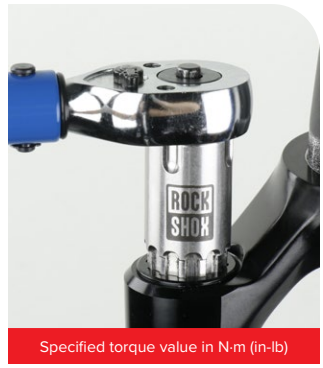


Use aluminum soft jaws when placing a part in a bench vise.

Tighten the part with a torque wrench to the torque value listed in the red bar. When using a crowfoot socket and torque wrench, install the crowfoot socket at 90 degrees to the torque wrench

⚠WARNING - CRASH HAZARD

Parts must be tightened to the specified torque. Failure to do so can result in SERIOUS INJURY OR DEATH.



Specified torque value in N·m (in-lb)

Model Code Identification

Product model code and specification details can be identified with the serial number on the product. Model codes can be used to identify the product type, series name, model name, and product version associated with the production model year. Product details can be used to identify spare parts, service kit, and lubricant compatibility.

Model Code example: **FS-RUDY-ULT-A1**

FS = Product Type - **Front Suspension**
RUDY = Platform/Series - **Rudy**
ULT = Model - **Ultimate**
A1 = Version - (**A** - first generation, **1** - first iteration)

To identify the model code, locate the serial number on the product and enter it into the **Search by Model Name or Serial Number** field at www.sram.com/service.

Warranty and Trademark

For SRAM Warranty information, visit: www.sram.com/warranty.

For SRAM Trademark information, visit: www.sram.com/website-terms-of-use.

Parts, Tools, and Supplies

Parts

- Rudy Ultimate Service Kit - 200 hour
- Rudy Base Service Kit - 200 hour

Safety and Protection Supplies

- Apron
- Clean, lint-free shop towels
- Nitrile gloves
- Oil pan
- Safety glasses

RockShox Tools

- RockShox Bleed Syringe
- RockShox Reverb vise blocks - 10 mm
- RockShox Top Cap/Cassette tool (3/8" / 24 mm)
- RockShox Dust Seal Installation Tool 30 mm
- RockShox Shock Pump

Lubricants and Fluids

- Isopropyl alcohol or RockShox Suspension Cleaner
- Maxima PLUSH Dynamic Suspension Lube Heavy
- Maxima PLUSH 3wt Suspension Oil
- SRAM Butter grease

Bicycle Tools

- Bicycle stand
- Downhill tire lever
- Shock pump

Common Tools

- Air compressor and nozzle
- Bench vise and aluminum soft jaws
- Hex wrenches: 1.5, 2, 2.5, 5 (minimum 110 mm length), 8, 11 mm
- Hex bit sockets: 1.5, 2, 2.5, 5 (minimum 110 mm length), 8, 11 mm
- Internal retaining ring pliers- large
- Long plastic or wooden dowel
- Pick, non-metallic
- Plastic or rubber mallet
- Sockets: 14 mm
- Socket wrench
- T10 TORX wrench and bit socket
- Torque wrench

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 www.sram.com/service.

Service Hours Interval	Maintenance	Benefit
Every ride	Clean dirt from upper tubes and wiper seals.	Extends wiper seal lifespan
		Minimizes damage to upper tubes
		Minimizes lower leg contamination
Every 50 Hours	Perform lower leg service	Restores small bump sensitivity
		Reduces friction
		Extends bushing lifespan
Every 200 Hours	Perform damper and spring service	Extends suspension lifespan
		Restores small bump sensitivity
		Restores damping performance

Record Your Settings

Use the charts below to record your settings to return your fork 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.	Charger Damper Only Low-speed Compression setting - count the number of clicks while turning the compression adjuster fully counter-clockwise.
50				
100				
150				
200				

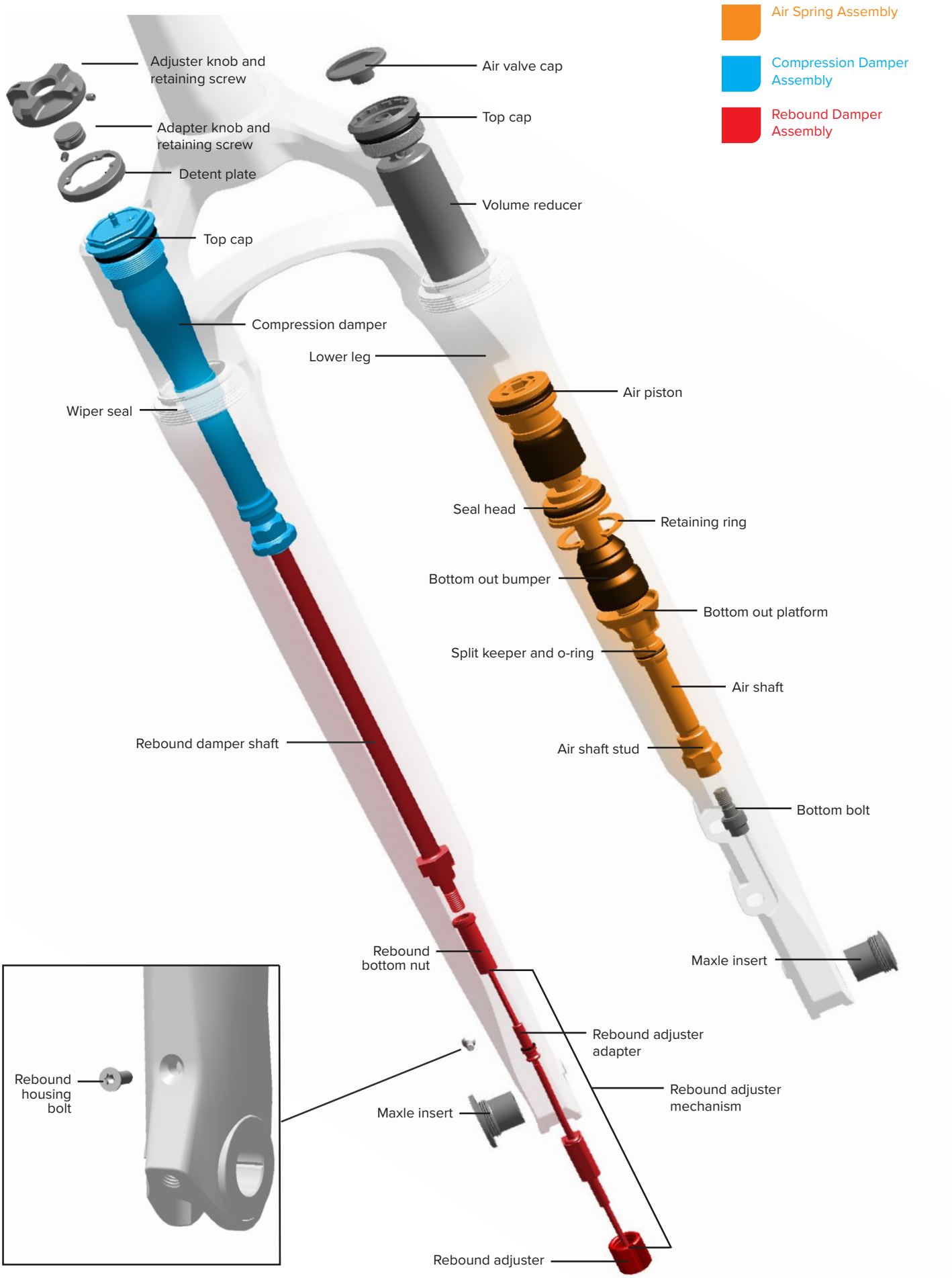
Torque Values

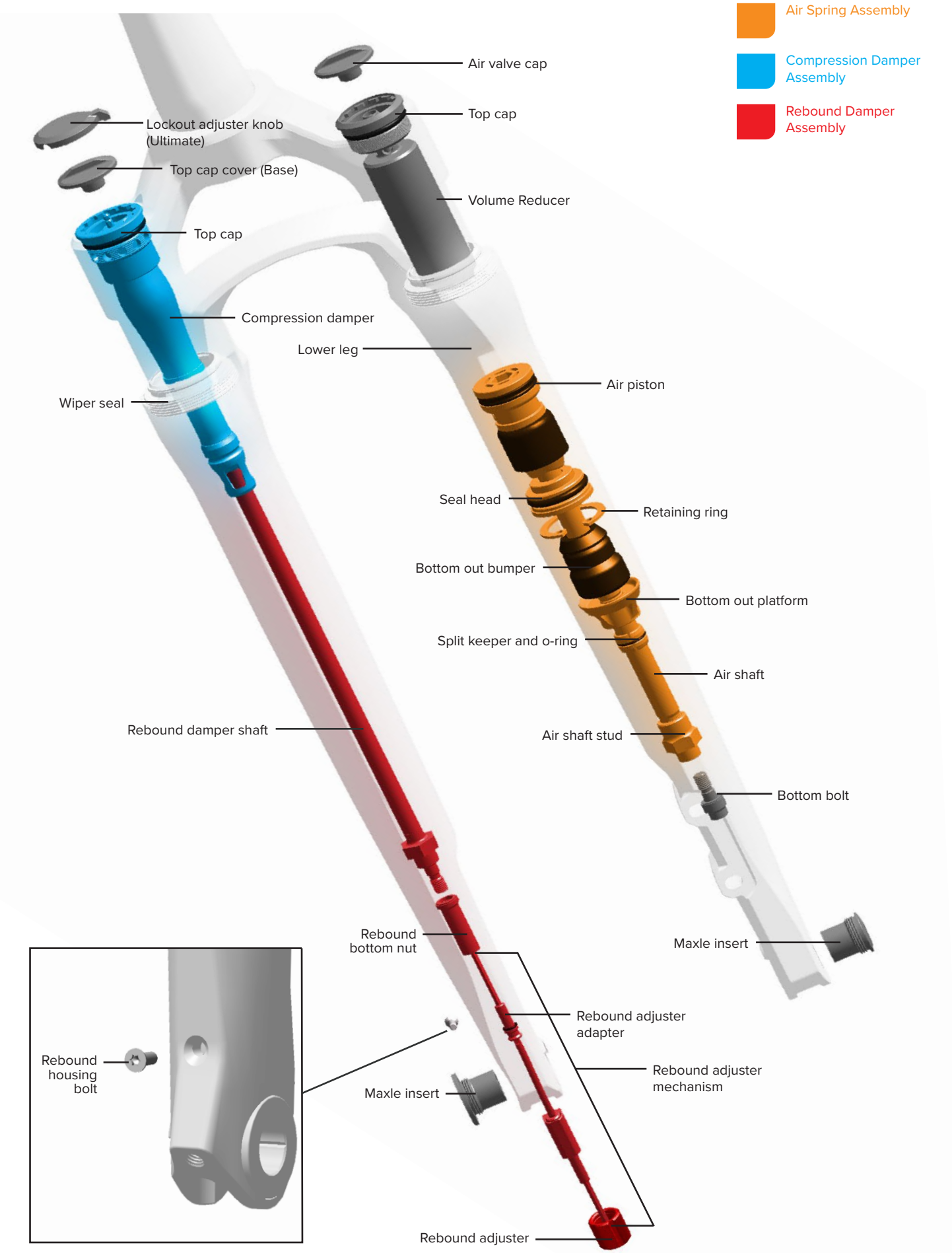
Part	Tool	Torque
Air side bottom bolt	5 mm hex bit socket (minimum 110 mm length)	7 N·m (62 in-lb)
Damper side - rebound bottom nut	5 mm hex bit socket (minimum 110 mm length)	4 N·m (35 in-lb)
Top caps	Top cap/cassette tool	28 N·m (250 in-lb)
Maxle inserts (reverse threaded)	8 mm and 11 mm hex bit sockets	8 N·m (70 in-lb)
Charger Race Day 2 Damper lockout adjuster knob retaining screw and adapter knob	1.5 mm	0.4 N·m (3 in-lb)
Charger Race Day Damper lockout adjuster knob retaining screw	2 mm	0.4 N·m (3 in-lb)
Damper bleed screw	T10 TORX	1.7 N·m (15 in-lb)
Air stud	14 mm socket	3 N·m (26 in-lb)

Oil Volume and Lubricant

		Damper					Spring					
			Upper Tube		Lower Leg			Upper Tube			Lower Leg	
Fork	Model	Damper	Oil Weight	Volume (mL)	Oil	Volume (mL)	Spring	Oil	Volume (mL)	Grease	Oil	Volume (mL)
RUDY XPLR	FS-RUDY-ULT-A1	Charger Race Day	Maxima PLUSH 3wt	Bleed	Maxima PLUSH Dynamic Suspension Lube Heavy	15	Solo Air	Maxima PLUSH Dynamic Suspension Lube Heavy	5	Apply SRAM Butter grease to Air Piston	Maxima PLUSH Dynamic Suspension Lube Heavy	15
	FS-RUDY-ULT-A2	Charger Race Day 2										
	FS-RUDY-BSE-A1	Rebound only										

IMPORTANT:
Use ONLY RockShox, SRAM, and Maxima suspension oils/fluids and grease, unless otherwise specified. Use of any other lubricants can damage seals and decrease performance.


Air Spring Assembly
Compression Damper Assembly
Rebound Damper Assembly
Adjuster knob and retaining screw
Adapter knob and retaining screw
Detent plate
Top cap
Compression damper
Wiper seal
Rebound damper shaft
Air valve cap
Top cap
Volume reducer
Lower leg
Air piston
Seal head
Retaining ring
Bottom out bumper
Bottom out platform
Split keeper and o-ring
Air shaft
Air shaft stud
Bottom bolt
Maxle insert
Rebound bottom nut
Rebound adjuster adapter
Rebound adjuster mechanism
Maxle insert
Rebound adjuster
Rebound housing bolt


Air Spring Assembly
Compression Damper Assembly
Rebound Damper Assembly
Air valve cap
Top cap
Lockout adjuster knob (Ultimate)
Top cap cover (Base)
Volume Reducer
Top cap
Compression damper
Lower leg
Air piston
Wiper seal
Seal head
Retaining ring
Bottom out bumper
Bottom out platform
Split keeper and o-ring
Air shaft
Rebound damper shaft
Air shaft stud
Bottom bolt
Rebound bottom nut
Maxle insert
Rebound adjuster adapter
Rebound housing bolt
Maxle insert
Rebound adjuster mechanism
Rebound adjuster

1 All fork models: Clamp the fork in a bicycle work stand vertically with the steerer tube oriented upward.

⚠WARNING - PRESSURIZED DEVICE

To avoid possible SERIOUS INJURY OR DEATH, position the fork vertically with the steerer tube upward so the top cap is directed upward and away from you and others.

Bicycle work stand

2 **Ultimate:** Make sure the compression is unlocked.

Charger Race Day 2

Charger Race Day

3 Remove the air valve cap.

4

⚠WARNING - PRESSURIZED DEVICE

Always wear certified safety glasses (ANSI Z87.1, EN166 EU).

Verify all air pressure is removed from the suspension component. Failure to do so can result in SERIOUS INJURY OR DEATH. Refer to the Suspension Safety Precautions and Warnings section for detailed Pressurized Device warnings and instructions.

Perform the following air transfer and purge process to depressurize the positive and negative air spring chambers.

While holding the lower leg arch and pushing the lower leg down, depress the Schrader valve and slowly release air pressure. While depressing the Schrader valve, slowly allow the lower leg to compress while applying opposing pressure until you feel a sudden decrease in compressing resistance, then hold the lower leg in place to allow both air chambers to depressurize. As air transfers from the negative to the positive air chamber, air transfer should be heard.

While depressing the Schrader valve, push the lower leg down to extend the fork until there is no resistance and the fork can be fully extended. The negative air spring chamber is fully depressurized when the fork can fully be extended and no resistance is felt.

Repeat the process two to three times.

Pick or small hex wrench

Pick or small hex wrench

Pick or small hex wrench

Pick or small hex wrench

5

Remove the Schrader valve core from the top cap and set it aside.

Schrader valve tool

Schrader valve tool

6

Compress and extend the fork to confirm the negative air chamber has been depressurized.

NOTICE

The Maxle inserts are reverse threaded. To avoid damaging the fork when removing or installing Maxle inserts, carefully read the instructions and follow directional arrows.

7 Use an 8 mm hex wrench to remove the Maxle insert from the spring side of the lower leg by rotating the insert **clockwise**.

8 Use an 11 mm hex wrench to remove the Maxle insert from the damper side of the lower leg by rotating the insert **clockwise**.

9 Remove the rebound housing bolt from the damper side of the lower leg.

Holding the fork horizontally to remove the rebound set screw will assist in removing the rebound assembly from the lower leg.

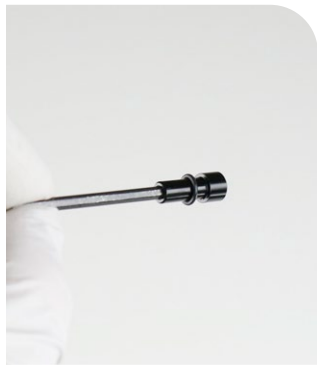
10 Remove the rebound mechanism from the damper side of the lower leg.

2.5 mm

Rebound adjuster adapter

Remove the black rebound adjuster adapter from the rebound bottom nut. Check that the o-ring is around the rebound nut. If not, it may be resting on the bottom bolt; use a pick to remove it from the lower leg and install it on the rebound nut.

2.5 mm



11 Place an oil pan beneath the fork to catch the draining oil.

⚠CAUTION

Place an oil pan on the floor underneath the product during service to catch any drained or spilled fluids. To avoid a slip and fall, and possible injury or harm, immediately clean any oil, fluid, grease, or lubricant from the floor in your work area.

Oil Pan

12 Use a 5 mm extension (minimum 110 mm length) to loosen the rebound bottom nut and bottom bolt 3 to 4 turns.

5 mm (minimum 110 mm length)

5 mm (minimum 110 mm length)

13 Insert a 5 mm extension or hex wrench (minimum 110 mm length) into the bolt head of the **spring side** lower leg. Strike the wrench to dislodge the shaft from the lower leg. The bolt head should contact the bottom of the lower leg.

Remove the **spring side** bottom bolt. Clean the bolt and set it aside.

5 mm (minimum 110 mm length) & Mallet

5 mm (minimum 110 mm length)

14 Insert a 5 mm hex wrench (minimum 110 mm length) into the **rebound bottom nut**. Strike the wrench to dislodge the shaft from the lower leg.

Remove the **rebound bottom nut**. Make sure the crush washer is either still in the rebound bottom nut or is no longer in the lower leg. Remove the crush washer if it is in the lower leg.

Clean the bolt and set it aside.

5 mm (minimum 110 mm length) & Mallet

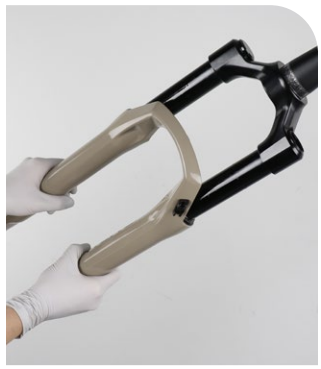
5 mm (minimum 110 mm length)

15 Firmly pull the lower leg downward until fluid begins to drain. Continue pulling downward to remove the lower leg.

If the lower leg does not slide off of the upper tube or if oil does not drain from either side, the press fit of the shaft(s) into the lower leg may still be engaged. Reinstall the bottom bolt and bottom nut 2 to 3 turns and repeat the previous step.

NOTICE

Do not strike the fork arch with any tool when removing the lower leg as this could damage the lower leg.



50 Hour Service Continue the 50 Hour Service with Lower Leg Service.

200 Hour Service Continue the 200 Hour Service with Lower Leg Seal Service.

1 Remove the wire spring.

2 Remove the foam rings.

Pick

3 Clean the foam rings.

4 Soak the foam rings in suspension oil.

Maxima PLUSH Dynamic Suspension Lube Heavy

5 Install the foam rings under the wiper seals.

Confirm the foam rings are installed evenly in the space under the wiper seals and do not protrude over the bushings.

Install the wire spring.

50 Hour Service Continue the 50 Hour Service with Lower Leg Installation.

1 Remove the outer wire springs from the wiper seals.

Remove and discard the foam rings.

2 Stabilize the lower leg on a bench top or on the floor. Place the tip of a downhill tire lever under the wiper seal. Press down on the downhill tire lever handle to remove the seal.

Repeat on the other side. Discard the wiper seals.

NOTICE

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

Downhill Tire Lever

Downhill Tire Lever

3 Remove the bottom cup from the lower leg. Clean the inside and outside of the lower leg.

4 Soak the new foam rings in suspension oil. Install the new foam rings into the lower leg.

Maxima PLUSH Dynamic Suspension Lube Heavy

5 Remove the outer wire spring from each new wiper seal and set them aside.

6 Insert the narrow end of a new wiper seal into the recessed end of the 30 mm RockShox Dust Seal Installation tool.

30 mm Dust Seal Installation Tool

30 mm Dust Seal Installation Tool

7 Hold the lower leg steady and use a mallet to seat the dust wiper seal into the lower leg until the seal surface is flush with the top of the lower leg.

Repeat on the other side.

NOTICE

Only press the wiper seal into the lower leg until it is flush with the top surface of the lower leg. Pressing the wiper seal below the top surface of the lower leg will compress the foam rings.

30 mm Dust Seal Installation Tool

30 mm Dust Seal Installation Tool

8 Install the outer wire spring.

200 Hour Service Continue the 200 Hour Service with Air Spring Service.

Air Spring Service

⚠WARNING- EYE HAZARD

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.

Travel Change Adjustment - Optional

To increase or decrease the travel in your Rudy fork, the air spring must be replaced with the correct length air spring shaft assembly. Refer to the RockShox Spare Parts Catalog available on our website at sram.com/service for spare part kit details.

200 Hour Service Solo Air Spring Service

NOTICE

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

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray RockShox Suspension Cleaner or isopropyl alcohol onto each part and clean with a clean lint-free shop towel.

Apply SRAM Butter grease to the new seals and o-rings.

SRAM Butter Grease

1 Clamp the fork in a bicycle work stand vertically with the steerer tube oriented upward.

⚠WARNING - PRESSURIZED DEVICE

To avoid possible SERIOUS INJURY OR DEATH, position the fork vertically with the steerer tube upward so the top cap is directed upward and away from you and others.

Bicycle work stand

2 Confirm the Schrader valve core is NOT INSTALLED in the air spring top cap before proceeding. Remove the Schrader valve core if installed.

RockShox Schrader Valve Tool

RockShox Schrader Valve Tool

3 The positive and negative air spring chambers **must be FULLY depressurized** before removing the air spring top cap assembly.

Slowly compress and extend (push up/pull down) the air spring shaft to allow any remaining negative air pressure to bypass the air transfer dimple on the inside surface of the upper tube.

The negative air spring chamber is fully depressurized when the shaft can be pulled to full extension. When released, the air spring shaft will retract into the upper tube slightly due to pressure created when the air piston is extended past the air bypass dimple in the upper tube. This is normal.

Repeat the process two to three times.

4 **⚠WARNING - PRESSURIZED DEVICE**

Always wear certified safety glasses (ANSI Z87.1, EN166 EU).

Verify all air pressure is removed from the suspension component. Failure to do so can result in SERIOUS INJURY OR DEATH. Refer to the Suspension Safety Precautions and Warnings section for detailed Pressurized Device warnings and instructions.

Unthread and remove the air spring top cap. Press down firmly when loosening the top cap.

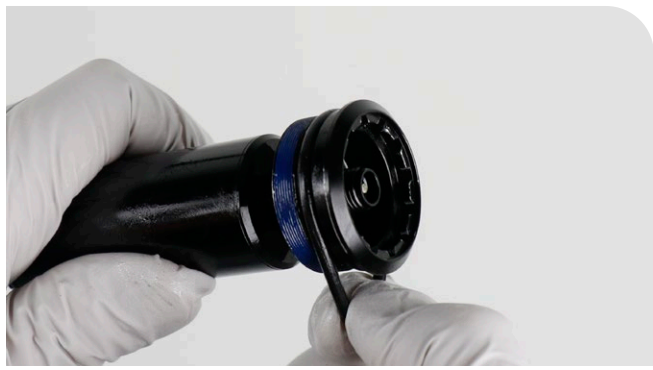
NOTICE

The fork top caps are tightened to a high torque value. Ensure the fork is held securely in the bicycle stand. To avoid damage to the top cap, press the top cap / cassette tool squarely and firmly down when loosening. Use a socket wrench with a long handle for extra leverage.

Top Cap/Cassette Tool

5 Remove the top cap o-ring. Install a new o-ring.

Do not apply grease to the top cap threads.



6 Place the tips of large retaining ring pliers into the eyelets of the retaining ring, and remove the retaining ring.

NOTICE

Do not scratch the air shaft while removing the retaining ring. Scratches on the air shaft will allow air to bypass the seal head into the lower leg. Scratches can result in reduced spring performance.

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Retaining Ring Pliers


Retaining Ring Pliers

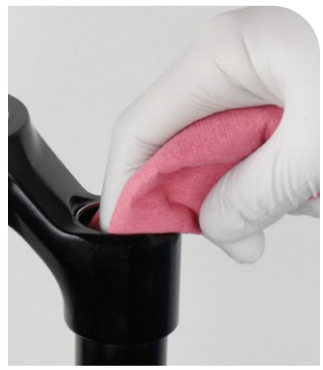
7 Firmly pull on the air shaft to remove the air spring assembly from the upper tube. Clean and inspect the assembly for damage.

8 Clean the inside and outside of the upper tube.

Inspect the inside and outside of the upper tube for damage.

NOTICE

Scratches on the inside surface of the upper tube can cause air to leak. If an internal scratch is visible, then replace the crown steerer upper tube (CSU).



9 Clamp the air shaft into the 10 mm slot in the Reverb Vise Blocks.

Use a 14 mm socket to remove the air shaft stud from the air shaft.

10 mm slot - Reverb Vise Blocks

14 mm socket

10 Remove the inner o-rings on the air shaft stud.

Clean the air shaft stud.

Apply grease and install a new o-ring.

Pick

11 Remove the o-ring from the split keeper. Remove the split keeper from the air shaft.

Remove the top out bottom-out platform, bottom out bumper, retaining ring, and seal head from the air shaft.

Clean and inspect the shaft for damage.

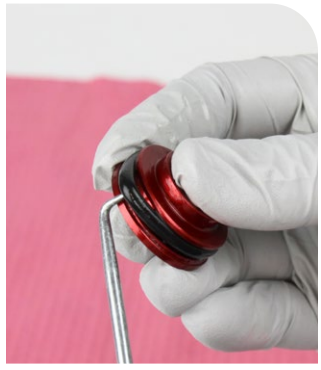
NOTICE

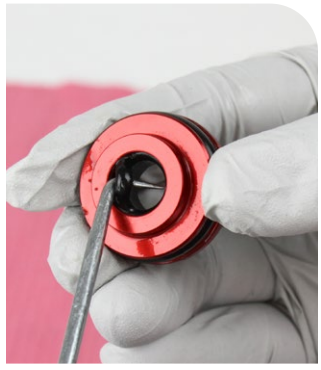
Scratches on the air spring shaft can cause air to leak. If a scratch is visible the air spring assembly may need to be replaced.

12 Remove the outer and inner o-rings on the seal head.

Clean the seal head.

Apply grease and install new o-rings.

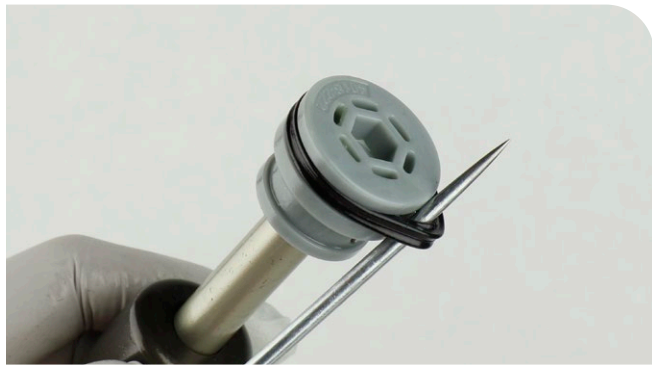




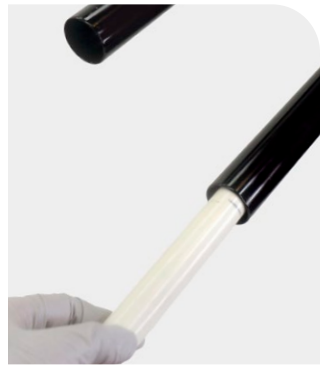
13 Remove the air piston outer o-ring.

Clean the air piston.

Apply grease and install a new o-ring.



14 Apply a liberal amount of grease evenly around the end of a clean plastic dowel, approximately 60 mm from one end. Use the dowel to apply the grease to the inside surface of the upper tube, approximately 60 mm into the tube.



15 Apply a liberal amount of grease around the air shaft.

Install the seal head, retaining ring bottom out bumper, and bottom out platform onto the air shaft.

Install both pieces of the split keeper into the groove on the shaft, then install the split keeper o-ring. *Do not grease the split keeper o-ring.*

Slide the bottom out platform over the split keeper and check that the split-keeper o-ring is not visible.

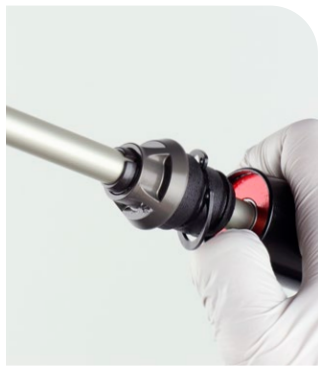
16 Clamp the air shaft into the 10 mm slot in the Reverb Vise Blocks.

Install the air shaft stud onto the air shaft and tighten.

Remove the air shaft from the vise.

14 mm | 3 N·m (26 in-lb)

17 Insert the seal head into the upper tube and firmly press it into the upper tube until it stops.



18 Place the tips of the retaining ring pliers into the eyelets of the retaining ring.

Use the pliers to push the seal head into the upper tube while installing the retaining ring into the groove. Release the retaining ring pliers when the ring is fully seated in the groove.

Confirm the retaining ring is properly seated in the retaining ring groove by using the retaining ring pliers to rotate the retaining ring and seal head back and forth a few times, then firmly pull down on the air shaft.

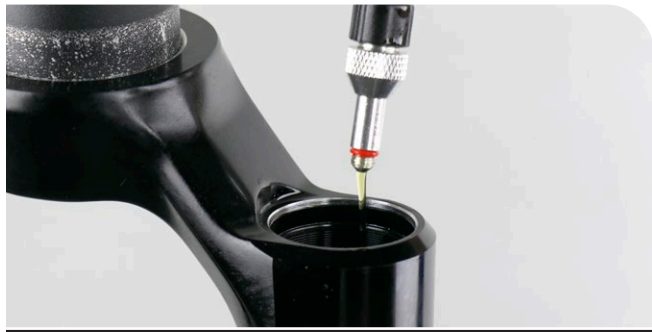
⚠WARNING - CRASH HAZARD

Retaining rings must be fully seated in the retaining ring groove. Confirm the retaining ring is fully seated in the retaining ring groove after installation. Failure to do so can result in SERIOUS INJURY OR DEATH.

Retaining Ring Pliers

Retaining Ring Pliers

19 Inject or pour 5 mL of suspension oil into the air spring upper tube.



5 mL	Maxima PLUSH Dynamic Suspension Lube Heavy

20 Install the top cap and tighten.

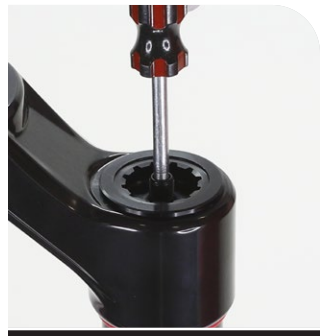
⚠WARNING - CRASH HAZARD

Parts must be tightened to the specified torque. Failure to do so can result in SERIOUS INJURY OR DEATH.

Top Cap/Cassette Tool	28 N·m (250 in-lb)

21 Install the Schrader valve core into the top cap and tighten it finger tight.

RockShox Schrader Valve Tool



RockShox Schrader Valve Tool

200 Hour Service Continue the 200 Hour Service for a Charger Race Day Damper.

200 Hour Service Continue the 200 Hour Service for a Charger Race Day 2 Damper.

200 Hour Service Charger Race Day 2 Damper Removal

⚠CAUTION

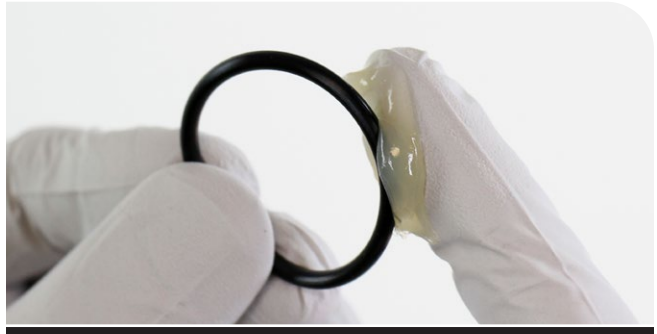
Place an oil pan on the floor underneath the product during service to catch any drained or spilled fluids. To avoid a slip and fall, and possible injury or harm, immediately clean any oil, fluid, grease, or lubricant from the floor in your work area.

NOTICE

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

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray RockShox Suspension Cleaner or isopropyl alcohol onto each part and clean with a clean lint-free shop towel.

Apply SRAM Butter grease to the new seals and o-rings.



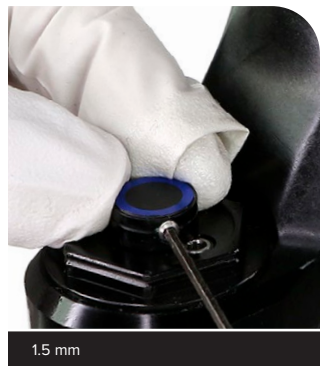
SRAM Butter Grease

1 Turn the lockout adjuster knob to the open, unlocked position. Remove the knob.

Unlocked

1.5 mm

Remove the detent plate. Loosen the adapter knob. Remove the adapter knob.



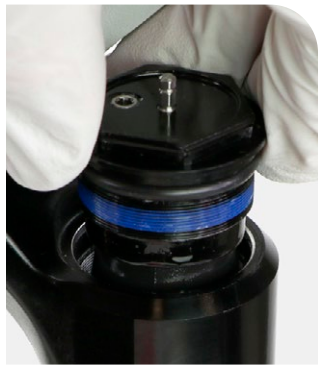
1.5 mm

2 Unthread the damper top cap and remove the damper assembly. Press down firmly when loosening the top cap.

NOTICE

The fork top caps are tightened to a high torque value. Ensure the fork is held securely in the bicycle stand. To avoid damage to the top cap, press the top cap / cassette tool squarely and firmly down when loosening. Use a socket wrench with a long handle for extra leverage.

24 mm



Clean the upper tube threads.

3 Replace the o-ring on the top cap.

1 Insert the rebound adjuster knob or a 2.5 mm hex into the rebound shaft until it contacts the rebound adjuster screw. Rotate the knob counter-clockwise until it stops to open the rebound.

Remove the rebound adjuster knob or hex from the shaft.

2.5 mm or Rebound Adjuster

2 Remove the bleed screw from the top cap.

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.

T10

3 Hold the damper over an oil pan. Compress the rebound shaft to purge the oil from the port in the damper top cap. Cycle the rebound shaft to empty the oil from the damper top cap.

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.

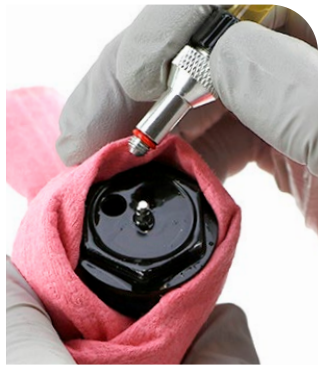
4 Fill a bleed syringe full with suspension oil. Slowly depress the plunger to remove any air bubbles from the syringe.

NOTICE

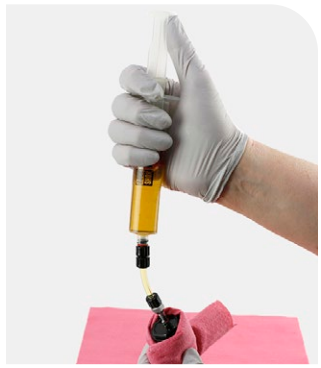
Only use the syringe included with the RockShox Standard Bleed kit. Do not use syringes that have been in contact with DOT brake fluid. DOT brake fluid will permanently damage the damper.

Maxima PLUSH 3wt RockShox Bleed Syringe

5 Hold the damper vertically. Thread the syringe into the top cap bleed port. Inject the oil into the damper assembly.



Release the plunger and air will purge into the syringe. Compress and release the plunger to inject oil into the damper. Refill the syringe when necessary.



6 Remove the bleed syringe from the top cap.

Make sure the rebound shaft is fully extended and there is a small amount of positive pressure in the system before the syringe is removed. This prevents air getting back into the damper.

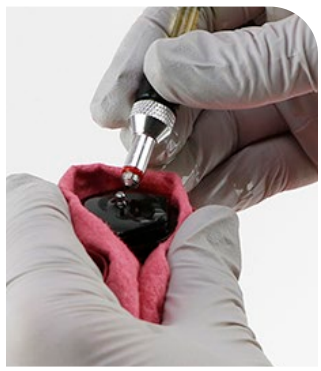
Fill the bleed syringe half full with suspension oil. Slowly depress the plunger to remove any air bubbles from the syringe.

NOTICE

Only use the syringe included with the RockShox Standard Bleed kit. Do not use syringes that have been in contact with DOT brake fluid. DOT brake fluid will permanently damage the damper.

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.



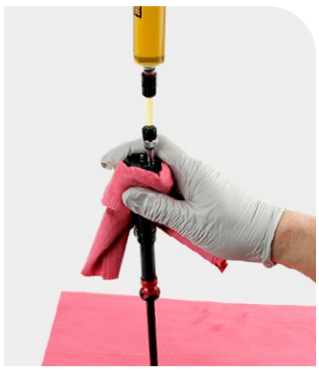
7 Hold the damper vertically. Thread the syringe into the top cap bleed port.

8 Inject the oil into the damper assembly.

Push the assembly down to compress the rebound shaft. The syringe will fill up.

Depress the syringe to inject oil into the damper assembly and allow the rebound shaft to fully extend.

Repeat cycling the fluid 3-4 times.



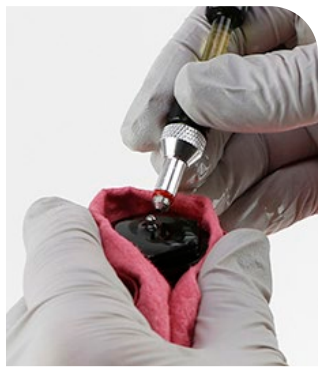
9 Push the syringe handle down, then release the plunger. Allow the bladder to come to a natural resting position by waiting a few moments until the syringe stops filling.

Use a shop towel to cover the bleed tip and bleed port, then unthread and remove the syringe.

Make sure the damper is fully extended and there is a small amount of positive pressure in the system before the syringe is removed. This prevents air getting back into the damper.

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.

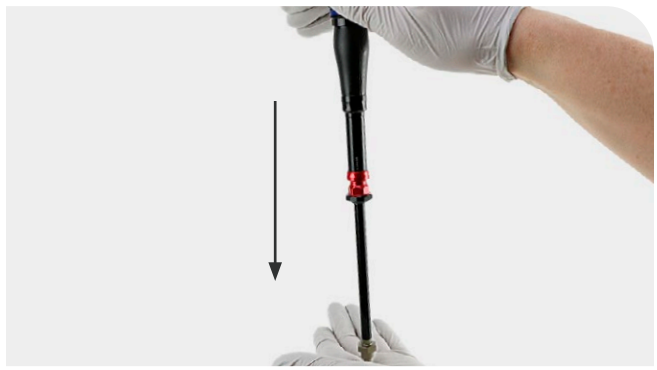


10 Install the bleed screw.

T10

11 Rapidly push the rebound shaft in and out 15-20 times.

12 Compress the damper in a vertical position for five minutes. This will allow the remaining bubbles to float to the top.

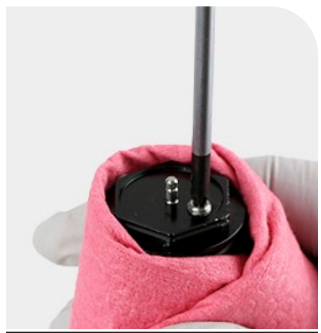


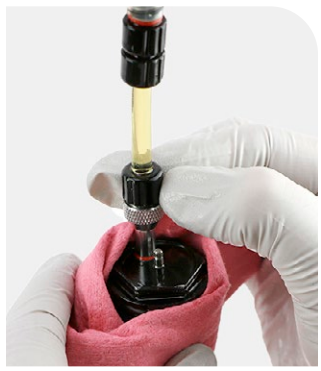
13 Extend the rebound shaft.

Remove the bleed screw. Thread a half full syringe into the bleed port.

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.



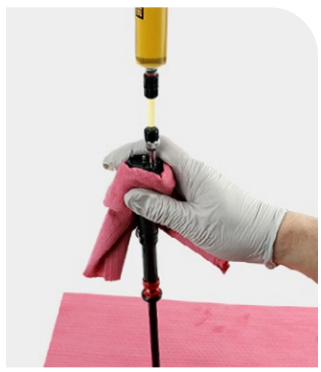


14 Push the assembly down to compress the rebound shaft. The syringe will fill up.

Depress the syringe to inject oil into the damper assembly and allow the rebound shaft to fully extend.

Repeat cycling the fluid 3-4 times.

If bubbles still purge, then repeat step 11-13 until there are no more bubbles.



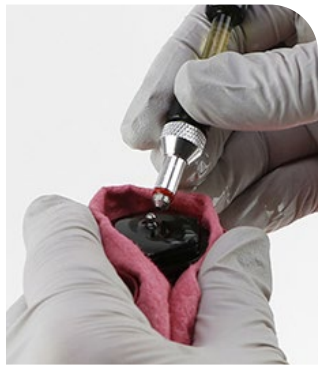
15 Push the syringe handle down, then release the plunger. Allow the bladder to come to a natural resting position by waiting a few moments until the syringe stops filling.

Use a shop towel to cover the bleed tip and bleed port, then unthread and remove the syringe.

Make sure the damper is fully extended and there is a small amount of positive pressure in the system before the syringe is removed. This prevents air getting back into the damper.

⚠CAUTION

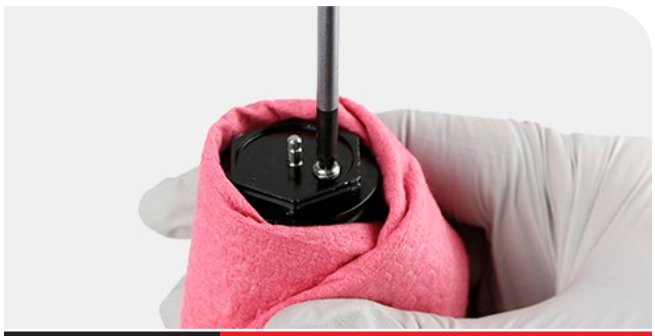
Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.



16 Install the bleed screw.

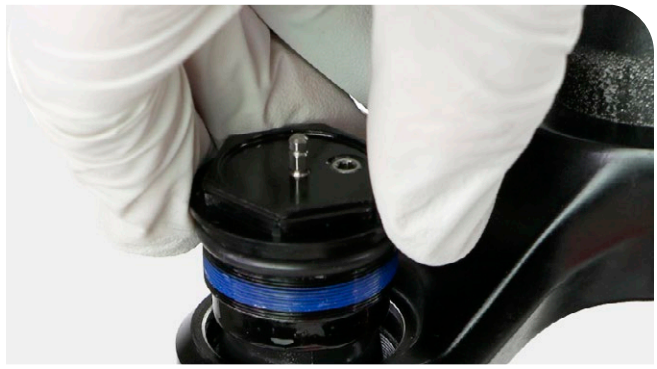
Cycle the rebound shaft a few times. If the damper still feels like it has air inside, go back to step 10 and repeat.

Clean the Charger Race Day 2 Damper assembly.



T10	1.7 N·m (15 in-lb)

1 Install the Charger Race Day 2 Damper into the damper side upper tube.



2 Thread the top cap into the upper tube and tighten it. Press down firmly when tightening the top cap.

⚠WARNING - CRASH HAZARD

Parts must be tightened to the specified torque. Failure to do so can result in SERIOUS INJURY OR DEATH.

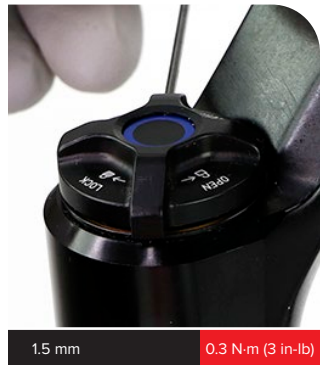
24 mm	28 N·m (250 in-lb)

3 Position the detent plate with the cutouts placed in line with the fork crown.

Install the adapter knob with the screw facing forward. Rotate the knob clockwise until it stops.

1.5 mm	0.3 N·m (3 in-lb)

Install the adjuster knob on the top cap so the flange is pointed away from the steerer tube. Rotate the adjuster knob clockwise until it stops on the last detent and the set screw is facing forward. Hold the knob down and tighten the set screw.



1.5 mm | 0.3 N·m (3 in-lb)

200 Hour Service Continue the 200 Hour Service with Lower Leg Installation.

200 Hour Service Charger Race Day Damper Removal

⚠CAUTION

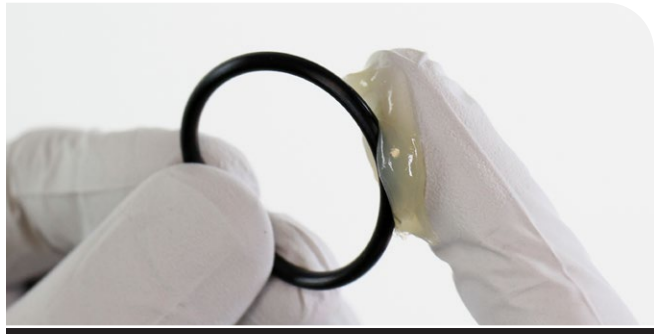
Place an oil pan on the floor underneath the product during service to catch any drained or spilled fluids. To avoid a slip and fall, and possible injury or harm, immediately clean any oil, fluid, grease, or lubricant from the floor in your work area.

NOTICE

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

When replacing seals and o-rings, use your fingers or a pick to remove the seal or o-ring. Spray RockShox Suspension Cleaner or isopropyl alcohol onto each part and clean with a clean lint-free shop towel.

Apply SRAM Butter Grease to the new seals and o-rings.



SRAM Butter Grease

1 **Ultimate:** Loosen the set screw inside the lockout knob, and remove the lockout adjuster knob.

Base: Remove the damper cap.

2 mm Ultimate

Base

2 Remove the Race Day Damper assembly.

NOTICE

The fork top caps are tightened to a high torque value. Ensure the fork is held securely in the bicycle stand. To avoid damage to the top cap, press the top cap / cassette tool squarely and firmly down when loosening. Use a socket wrench with a long handle for extra leverage.

Top Cap/Cassette Tool

Clean the upper tube threads.

3 Replace the o-ring on the top cap.

1 Insert the rebound adjuster knob or a 2.5 mm hex into the rebound shaft until it contacts the rebound adjuster screw. Rotate the knob counter-clockwise until it stops to open the rebound.

Remove the rebound adjuster knob or hex from the shaft.

2.5 mm or Rebound Adjuster

2 Fully extend the damper shaft, then remove the bleed screw from the top cap.

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.

T10

3 Hold the damper over an oil pan. **Slowly** compress the rebound shaft to purge the oil from the port in the damper top cap. Cycle the rebound shaft to empty the oil from the damper top cap.

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.

4 Fill a bleed syringe full with suspension oil. Slowly depress the plunger to remove any air bubbles from the syringe.

NOTICE

Only use the syringe included with the RockShox Standard Bleed kit. Do not use syringes that have been in contact with DOT brake fluid. DOT brake fluid will permanently damage the damper.

Maxima PLUSH 3wt RockShox Bleed Syringe

5 Hold the damper vertically. Thread the syringe into the top cap bleed port. Inject the oil into the damper assembly.

Release the plunger and air will purge into the syringe. Compress and release the plunger to inject oil into the damper.

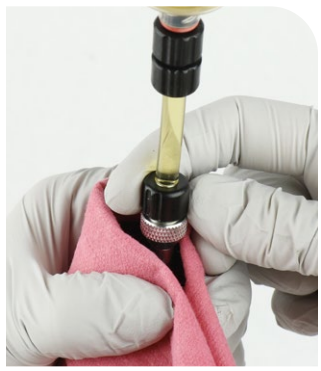
6

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.

Fully extend the rebound shaft, then remove the bleed syringe from the top cap.

Make sure the rebound shaft is fully extended and there is a small amount of positive pressure in the system before the syringe is removed. This prevents air getting back into the damper.



7 Fill the bleed syringe half full with suspension oil. Slowly depress the plunger to remove any air bubbles from the syringe.

NOTICE

Only use the syringe included with the RockShox Standard Bleed kit. Do not use syringes that have been in contact with DOT brake fluid. DOT brake fluid will permanently damage the damper.

Maxima PLUSH 3wt RockShox Bleed Syringe

8 Hold the damper vertically. Thread the syringe into the top cap bleed port.

9 Inject the oil into the damper assembly.

Push the assembly down to compress the rebound shaft. The syringe will fill up.

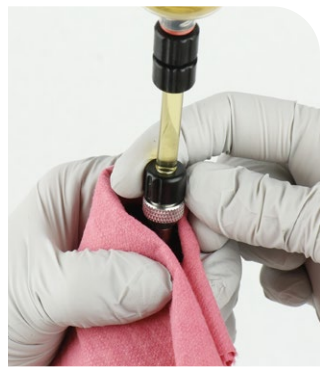
Depress the syringe to inject oil into the damper assembly and allow the rebound shaft to fully extend.

Repeat cycling the fluid 3-4 times.

10 Push the syringe handle down, then release the plunger. Allow the bladder to come to a natural resting position by waiting a few moments until the syringe stops filling.

Use a shop towel to cover the bleed tip and bleed port, then unthread and remove the syringe.

Make sure the rebound shaft is fully extended and there is a small amount of positive pressure in the system before the syringe is removed. This prevents air getting back into the damper.



⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.

11 Install the bleed screw.

T10

12 Rapidly push the rebound shaft in and out 15-20 times.

13 Compress the damper in a vertical position for five minutes. This will allow the remaining bubbles to float to the top.

14 Extend the rebound shaft.

Remove the bleed screw. Thread a half full syringe into the bleed port.

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.

T10

15 Push the assembly down to compress the rebound shaft. The syringe will fill up.

Depress the syringe to inject oil into the damper assembly and allow the rebound shaft to fully extend.

Repeat cycling the fluid 3-4 times.

If bubbles still purge, then repeat step 11-13 until there are no more bubbles.

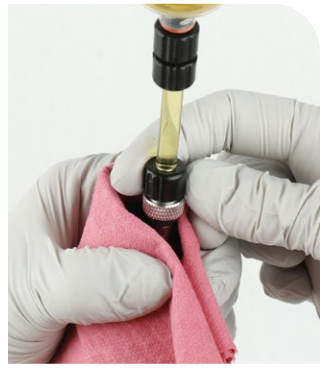
16 Push the syringe handle down, then release the plunger. Allow the bladder to come to a natural resting position by waiting a few moments until the syringe stops filling.

Use a shop towel to cover the bleed tip and bleed port, then unthread and remove the syringe.

Make sure the damper is fully extended and there is a small amount of positive pressure in the system before the syringe is removed. This prevents air getting back into the damper.

⚠CAUTION

Always wear safety glasses. Do not allow oil, fluid, grease, lubricant, or cleaner to contact your eyes or face. Seek immediate medical attention if irritation occurs.



17 Install the bleed screw.

Cycle the rebound shaft a few times. If the damper still feels like it has air inside, go back to step 10 and repeat.

Clean the Charger Race Day Damper assembly.

T10	1.7 N-m (15 in-lb)

1 Install the Charger Race Day Damper into the damper side upper tube.

2 Install the top cap and tighten.

⚠WARNING - CRASH HAZARD

Parts must be tightened to the specified torque. Failure to do so can result in SERIOUS INJURY OR DEATH.

Top Cap/Cassette Tool	28 N·m (250 in-lb)

3 **Ultimate**: Install the adjuster knob with the tab in the 11 o'clock, unlocked position, then tighten the retaining screw. Check the adjuster knob to verify it rotates into the "Locked" position.

Base: Thread on the damper cap.

Ultimate

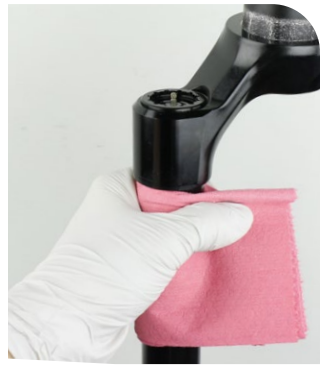
2 mm	0.4 N·m (3 in-lb)

Base

200 Hour Service Continue the 200 Hour Service with Lower Leg Installation.

50/200 Hour Service Lower Leg Installation

1 Clean the upper tubes.



2 Apply grease to the inner surfaces of the wiper seals.

Wiper seals may already be greased from the factory. Do not apply extra grease to seals that already have grease on them.

SRAM Butter grease

3 Hold the lower leg flat and inject 15 mL of suspension oil into each lower leg.

Keep the lower leg flat to prevent oil from leaking out.

NOTICE

Do not exceed the recommended oil volume per leg as this can damage the fork.

15 mL: Maxima PLUSH Dynamic Suspension Lube Heavy

15 mL: Maxima PLUSH Dynamic Suspension Lube Heavy

4 Orient the fork so that it is parallel to the ground.

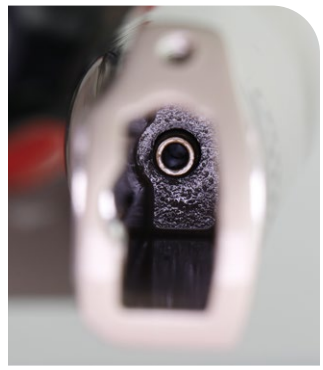
Slide the lower leg onto the upper tube enough to engage the upper bushing with the upper tube.

NOTICE

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

5 Slide the lower leg assembly along the upper tubes until it stops and the spring and damper shafts are visible through the lower leg bolt holes.

Use a pick or small, long hex wrench to guide the shaft through the damper side bolt hole as you install the lower leg. Continue to install the lower leg until the shaft is through the bolt hole.



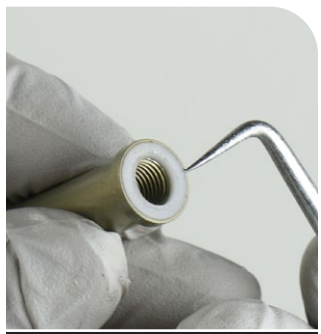
6 **200 Hour Service** Use a pick and needle nose pliers to remove the crush washer from the rebound bottom nut and spring bottom bolt.

Discard and install a new crush washer.

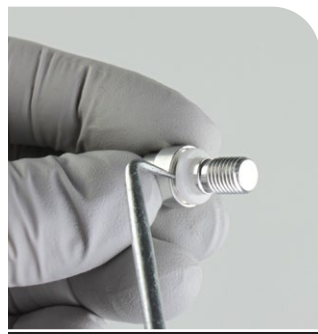
NOTICE

Do not damage the bolt threads.

Do not reuse crush washers or crush washer retainers. Dirty or damaged crush washers can cause oil to leak from the fork.



Pick



Pick

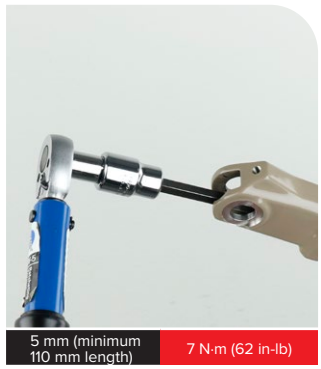
7

⚠WARNING - CRASH HAZARD

Parts must be tightened to the specified torque. Failure to do so can result in SERIOUS INJURY OR DEATH.Install the silver bottom bolt into the **spring side** shaft of the lower leg.

Install the silver bottom bolt into the spring side shaft of the lower leg.

5 mm (minimum 110 mm length) Spring Side



5 mm (minimum 110 mm length) 7 N·m (62 in-lb)

Install the rebound bottom nut into the **damper side** shaft of the lower leg. Be careful not to push the damper shaft back through the bolt hole.

5 mm (minimum 110 mm length) Damper Side

5 mm (minimum 110 mm length) 4 N·m (35 in-lb)

8

Install the rebound mechanism into the damper side lower leg, making sure to fully seat the rebound adjuster adapter into the bottom nut.

Use a 2.5 mm hex wrench or the Rebound Adjuster to hold the rebound mechanism against the lower leg, align the bolt holes, and install the rebound housing bolt.

Refer to your pre-service recorded rebound setting to adjust the rebound.

2.5 mm hex T10

NOTICE

The Maxle inserts are reverse threaded. To avoid damaging the fork when removing or installing Maxle inserts, carefully read the instructions and follow directional arrows.

9 Use an 8 mm hex socket to install the Maxle insert into the spring side of the lower leg by rotating the insert **counter-clockwise** and tighten.

Use an 11 mm hex socket to install the Maxle insert into the damper side of the lower leg by rotating the insert **counter-clockwise** and tighten.

⚠WARNING - CRASH HAZARD

Parts must be tightened to the specified torque. Failure to do so can result in SERIOUS INJURY OR DEATH.Install the silver bottom bolt into the **spring side** shaft of the lower leg.

10 Refer to your pre-service recorded settings to pressurize your air spring, or use the air chart on the fork's lower leg and pressurize the air spring.

You may see a drop in the indicated air pressure on the pump gauge while filling the air spring; this is normal. Continue to fill the air spring to the recommended air pressure.

Cycling the fork will equalize the positive and negative air chambers. After the fork is cycled 3-4 times, check the pressure and add air as needed.

11 Install the air valve cap onto the top cap of the air spring top cap.

12 Clean the entire fork.

This concludes the service of your RockShox Rudy XPLR suspension fork.

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