

2014

REVERB STEALTH

Service Manual



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, 1333 North Kingsbury, 4th floor, Chicago, Illinois, 60642, 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, rockshox.com, avidbike.com, truvativ.com, or 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 posts (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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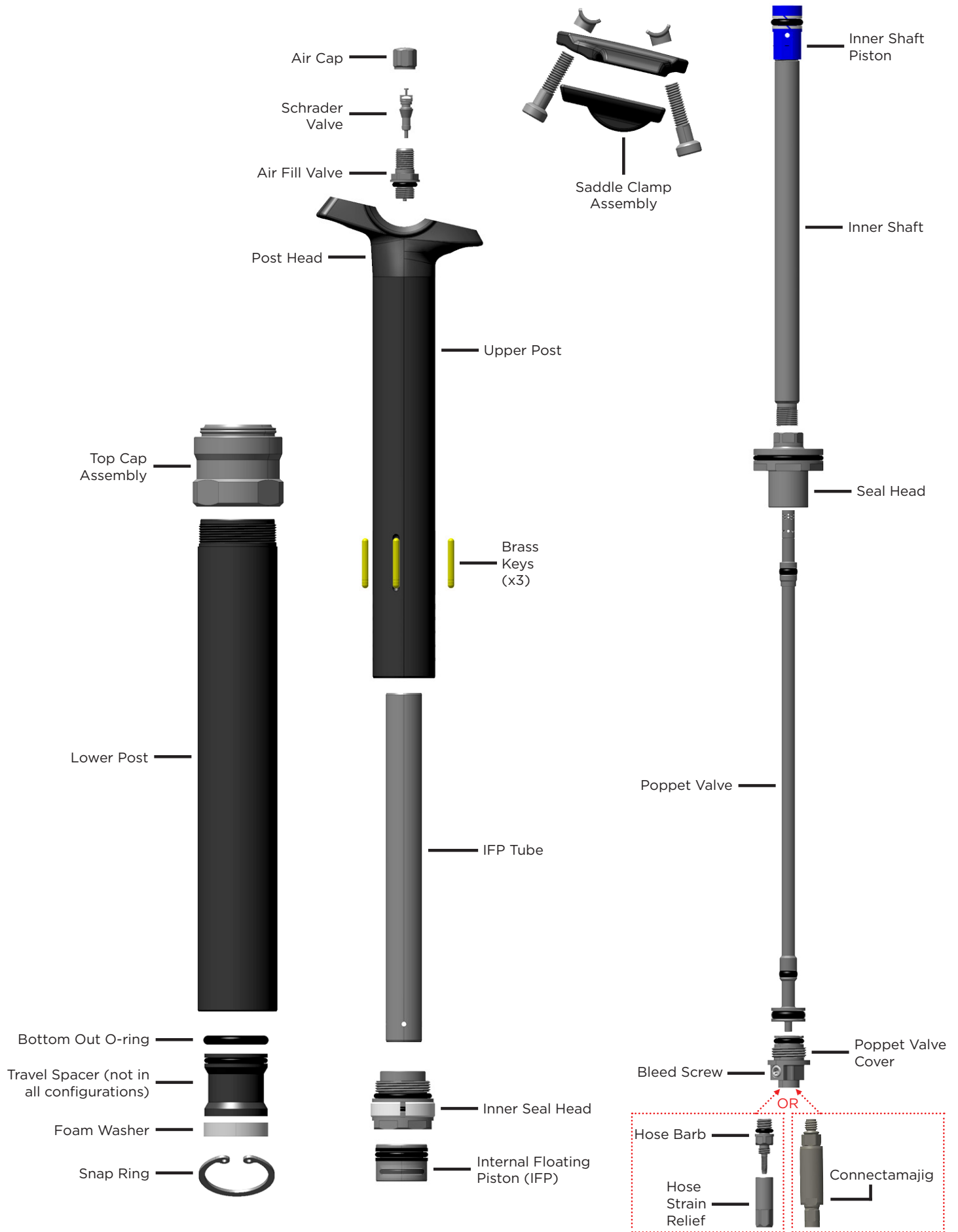


SAFETY FIRST!

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

Protect yourself! Wear your safety gear!

EXPLODED VIEW - REVERB STEALTH



ROCKSHOX REVERB STEALTH SEATPOST SERVICE

We recommend that you have your RockShox Reverb Stealth seatpost serviced by a qualified bicycle mechanic. Servicing RockShox products 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 www.sram.com.

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

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

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

PARTS AND TOOLS

- Safety glasses
- Nitrile gloves
- Apron
- Clean, lint-free rags
- Isopropyl alcohol
- SRAM Butter bicycle grease
- Bench vise with aluminum or plastic soft jaws
- Reverb I.F.P. Height Tool
- Reverb Hydraulic Bleed Kit
- Reverb Stealth Complete Seal Service Kit
- Fluid level gauge
- Fluid pan
- Small drip container
- 7-9 20 cm cable ties
- Suspension pump
- T10 TORX® wrench
- 1.5, 3, and 4 mm hex wrenches
- 6, 7, 9, 10, and 11 mm open end wrenches
- 10, 11, 23, and 34 mm crowfoot sockets
- 23 mm box end wrench
- 34 mm open end wrench
- 9 mm socket, and socket wrench
- Torque wrench
- Downhill tire lever
- Needle nose pliers
- Internal snap ring pliers
- Plastic or wooden dowel
- Metric tape measure or ruler
- Schrader valve tool
- Plastic-tip hammer
- Pick

SAFETY INSTRUCTIONS

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

Place an fluid pan on the floor underneath the area where you will be working on the Reverb.

NOTICE

When servicing the Reverb Stealth seatpost, do not scratch any sealing surfaces, the upper post, the inside of the lower post, the inner seal head, or damage any replacement o-rings or bushings. Damage to any of these parts can cause leaks and reduce performance of the seatpost.

Use aluminum soft jaws to prevent damage to the seatpost or any seatpost components when clamping into a vise. Clamp the shaft only tight enough to prevent it from spinning in the soft jaws.

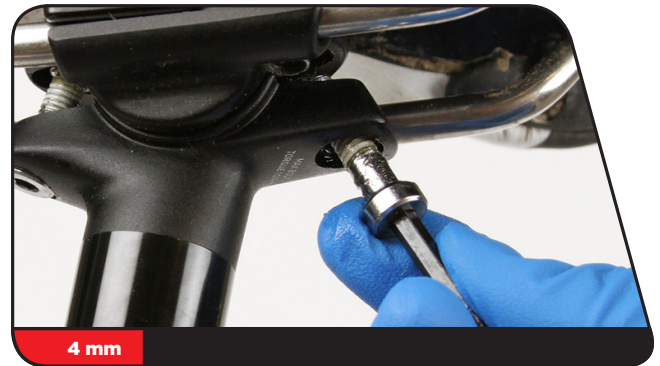
⚠ CAUTION - EYE HAZARD

If you are able to compress the Reverb Stealth without pressing the remote actuator, the seatpost must be returned to an authorized RockShox service center for repair. Do not attempt to disassemble or service the seatpost.

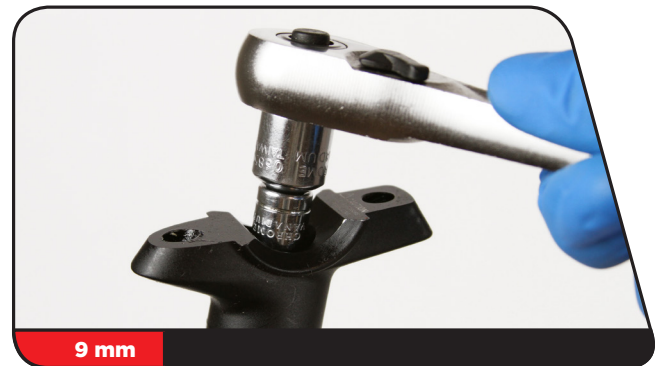


REVERB STEALTH DISASSEMBLY

- 1 Record your saddle settings before beginning service. Use a 4 mm hex wrench to remove the saddle and saddle clamps from the top of the seatpost.



- 2 Use a 9 mm socket to remove the air cap from the upper post.



- 3 Use a 3 mm hex wrench to depress the Schrader valve and release all air pressure from the air chamber.

⚠ CAUTION - EYE HAZARD

Verify all pressure is removed from the Reverb Stealth before proceeding. Failure to do so can cause the inner seal head and inner shaft to separate from the upper post assembly at high velocity. Wear safety glasses.



- 4 Use a Schrader valve tool to remove the Schrader valve from the upper post.



- 5** Use a Schrader valve tool to install a new Schrader valve into the air fill valve.



- 6** Open the seatpost clamp or loosen the seatpost collar binder bolt and remove the Reverb Stealth from the bicycle. It is not necessary to remove the Reverb remote from the handlebar unless the remote housing is too short to allow the Reverb to be removed from the frame.



NOTICE

Use aluminum soft jaws to prevent damage to the seatpost or any seatpost components when clamping into a vise. Clamp the shaft only tight enough to prevent it from spinning in the soft jaws.

- 7** Clamp the post head into a vise with soft jaws.

Standard: Use a 7 mm and a 10 mm open end wrench to disconnect the hose from the poppet cover.

Connectamajig: Hold the Connectamajig coupler on the wrench flats with a 9 mm wrench. Use a 6 mm wrench on the crimped fitting on the hose. Unscrew the coupler from the crimped fitting to disconnect.



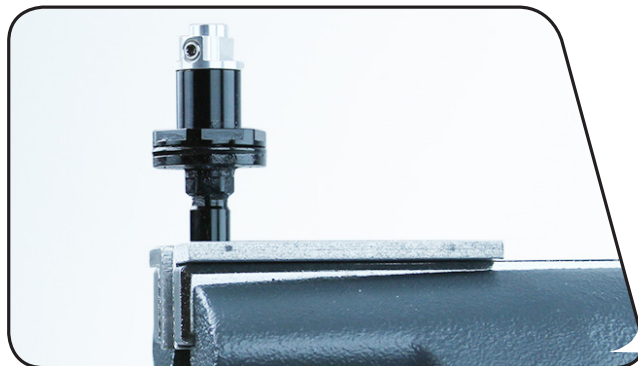
- 8** Use internal snap ring pliers to remove the snap ring from the bottom of the lower post.



- 9** Remove the seatpost from the vise. Tap the seat clamp end of the upper post with your hand or a plastic-tip hammer to expose the inner shaft.



- 10** Clamp the inner shaft close to the seal head in a vise with soft jaws.



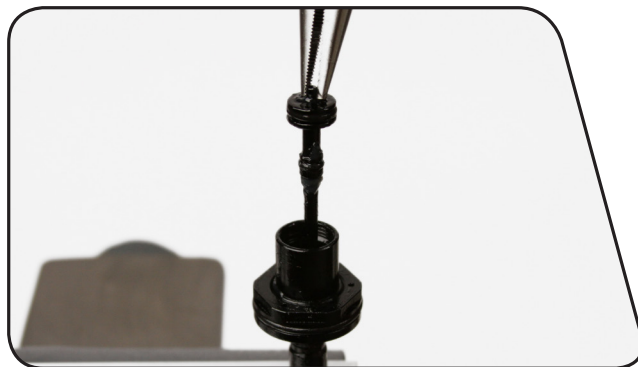
- 11** Use an 11 mm open end wrench to hold the seal head in place and use a 10 mm open end wrench to unthread and remove the poppet cover from the seal head.

NOTICE

To prevent damage to the poppet cover bleed screw, do not allow the 10 mm wrench to contact the bleed screw.



- 12** Use needle nose pliers to pull the poppet valve from the inner shaft.



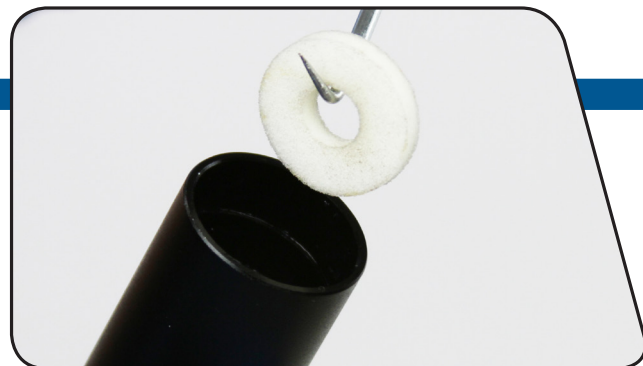
- 13** Use an 11 mm open end wrench to unthread and remove the seal head from the inner shaft.



- 14** Remove the foam washer from the air shaft.

NOTICE

Do not scratch any sealing surfaces when servicing your Reverb Stealth. Scratches can cause leaks.



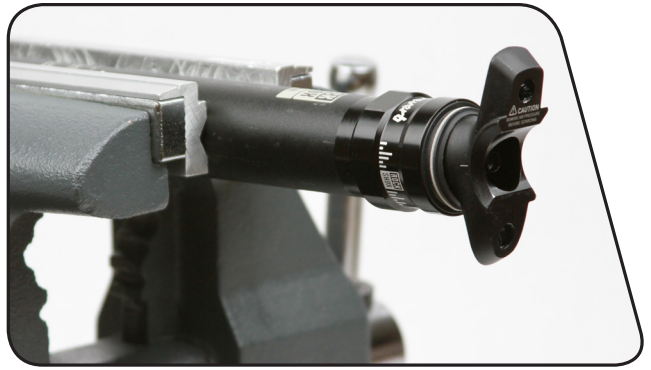
- 15** **355 & 420 mm Reverb Stealth with 100 mm travel, and 420 mm Reverb Stealth with 125 mm travel:** Use a long wooden or plastic dowel to push the false bottom insert from the lower post.



- 16** Use a pick to remove the bottom out o-ring from the lower post.



17 Clamp the lower post horizontally in a vise with soft jaws.



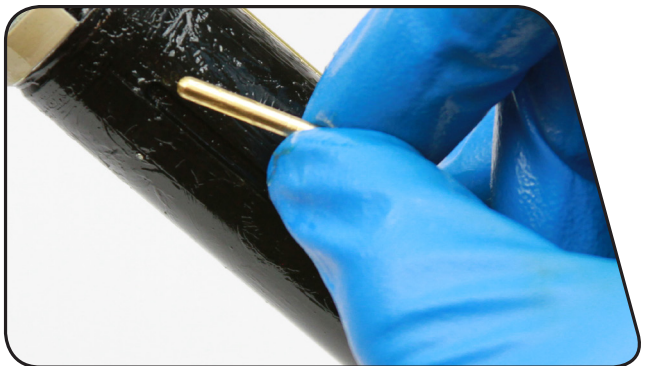
18 Use a 34 mm open end wrench to unthread the top cap assembly from the lower post.



19 Remove the upper post from the lower post.



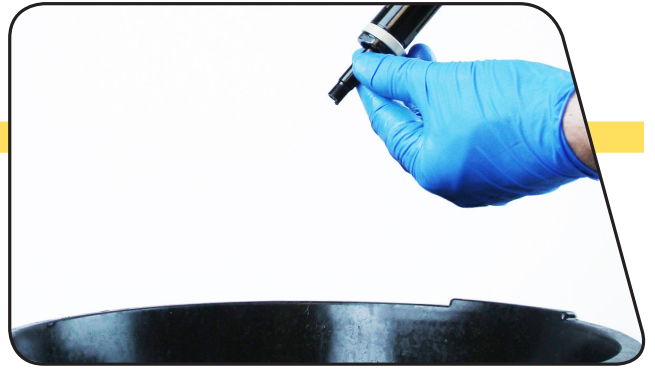
20 Remove the three brass keys from the upper post.



- 21** Point the shaft at an oil pan and slowly push the inner shaft into the upper post. Oil will eject out of the center of the inner shaft. Leave the inner shaft in the upper post. Leave a small amount of inner shaft exposed.

⚠ CAUTION - EYE HAZARD

Fluid will be ejected from the center of the inner shaft. Wear safety glasses.



- 22** Clamp the post head in a vise with soft jaws.



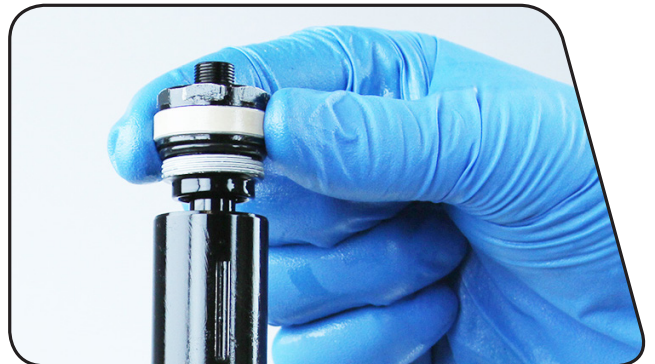
- 23** Use a 23 mm box end wrench to unthread the inner seal head from the bottom of the upper post.

NOTICE

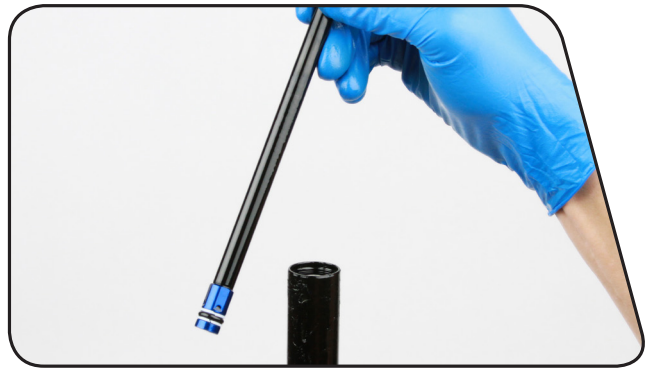
To prevent damage to the internal seal head wrench flats, make sure the wrench is firmly tightened against the wrench flats while unthreading the seal head from the upper post. Be careful not to scratch the inner shaft as this is a critical sealing surface.



- 24** Remove the inner seal head from the upper post by hand.



25 Pull the inner shaft from the upper post by hand.



26 Remove the top cap assembly from the upper post.



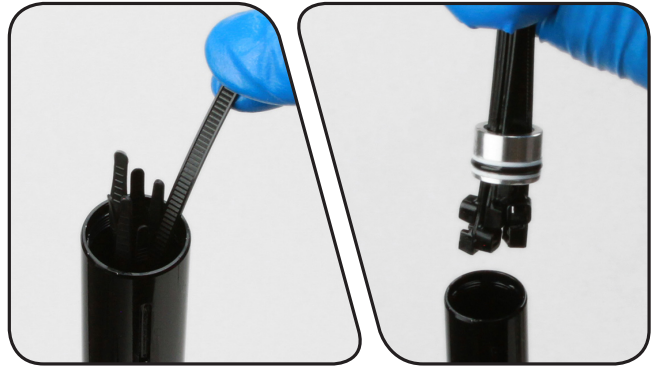
27 Insert a 1.5 mm hex wrench into one of the cross holes of the IFP tube. Use pliers to carefully pull the IFP tube out of the upper post.



28 Remove the upper post from the vise and pour the fluid into a container. Clamp the post head back into the vise with soft jaws.



- 29** Insert seven to nine 20 cm long cable ties, one at a time, into the upper post through the IFP. Pull all of the cable ties simultaneously out of the upper post, removing the IFP in the process.



NOTICE

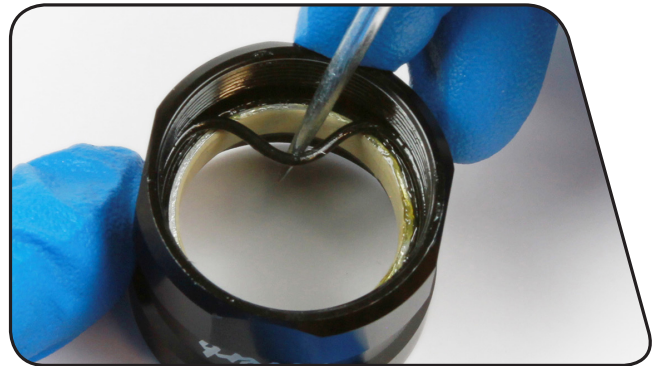
Use caution when servicing the Reverb Stealth seatpost not to scratch any sealing surfaces, being especially careful not to scratch the upper post, the inside of the lower post, the inner seal head, or damage any o-rings or bushings.

Use aluminum soft jaws to prevent damage to the seatpost or any seatpost components when clamping into a vise. Clamp the shaft only tight enough to prevent it from spinning in the soft jaws.

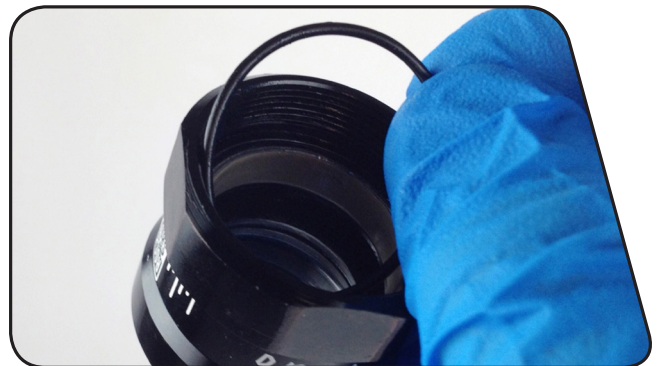
- 1 Clamp the top cap assembly by the wrench flats into a flat section of the soft jaws. Use a downhill tire lever to pry the dust wiper from the top cap. Remove the top cap from the vise. Use a pick to remove the o-ring and foam ring.

NOTICE

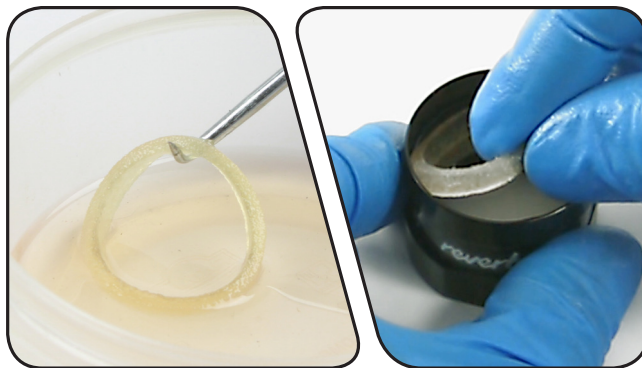
Tighten the vice only enough to hold the top cap securely in place to prevent the top cap from becoming misshaped.



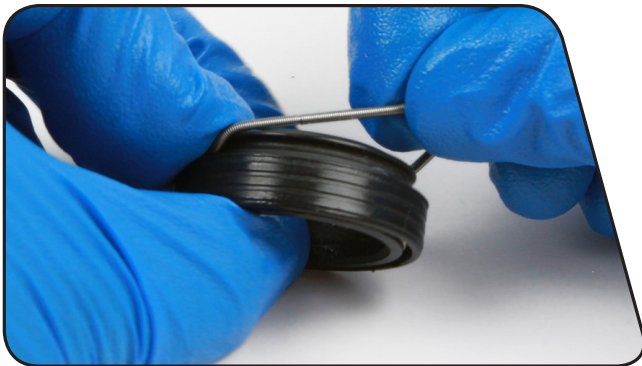
- 2 Install a new o-ring into the top cap.



- 3** Soak a new foam ring in Reverb Hydraulic Fluid. Install it into the top cap above the bushing.



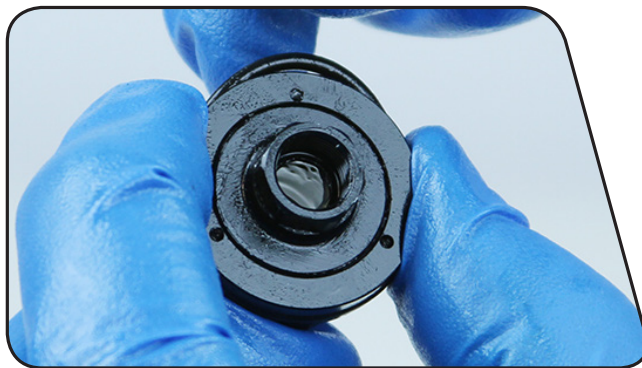
- 4** Carefully remove the energizer ring from the new dust wiper.



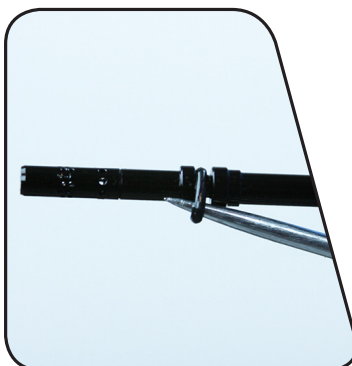
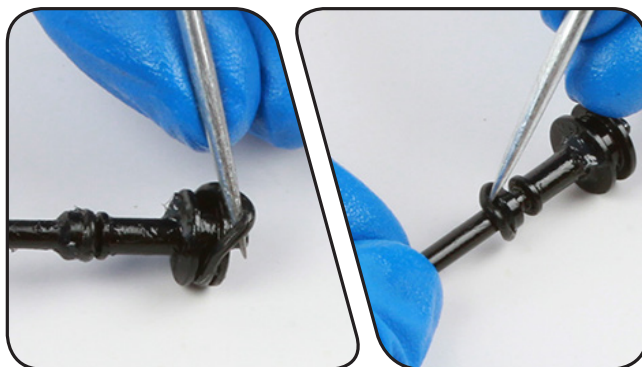
- 5** Insert the small end of the new dust wiper into the end of the lower post. Orient the top cap on the bench with the logo facing up, and use the lower post to press the dust wiper into the top cap. Reinstall the energizer ring.



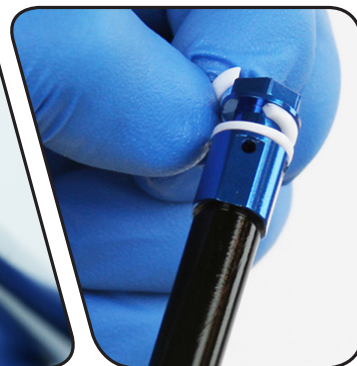
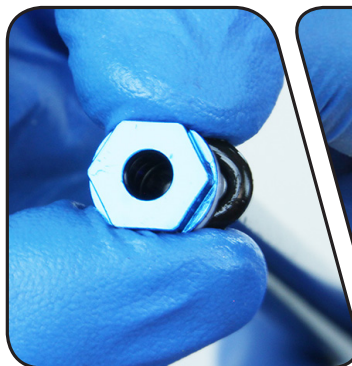
- 6** Use your fingers to remove the o-rings from the seal head. Clean any dirt or debris from the seal head, and install new o-rings.



- 7** Use your fingers or a pick to remove the o-rings from the poppet valve. Clean the poppet valve, then install new o-rings.

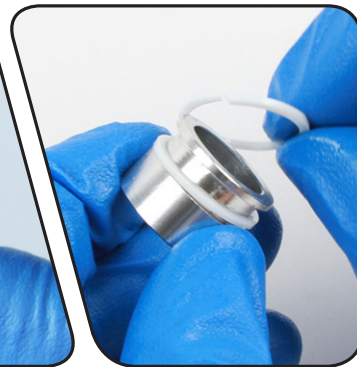
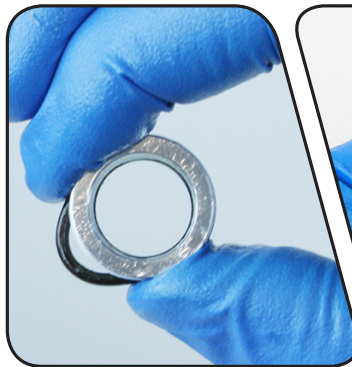
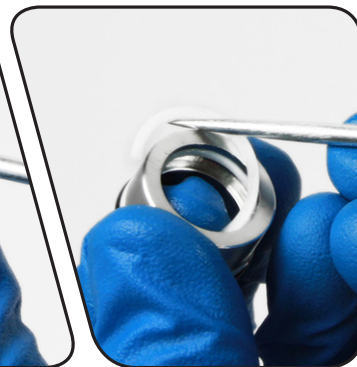


- 8** Use your fingers to remove the two backup rings and the o-ring from the inner shaft piston. Clean the inner shaft piston and install two new backup rings and a new o-ring. The o-ring must be located between the backup rings.



- 9** Use your fingers to remove the two external backup rings and o-ring. Use a pick to remove the two internal backup rings and o-ring.

Clean the IFP and install two new external backup rings and o-ring, and two new internal backup rings and a new o-ring. The o-rings must be located between the backup rings.



10 Remove the bushing from the inner seal head by hand. Use your fingers or a pick to remove the two external o-rings, the internal U-cup, and the internal top out bumper. Be careful not to scratch any of the surfaces of the inner seal head.

Clean the inner seal head.

Install the internal U-cup with the open end facing away from the wrench flats on the seal head. Install external o-rings and the bushing.

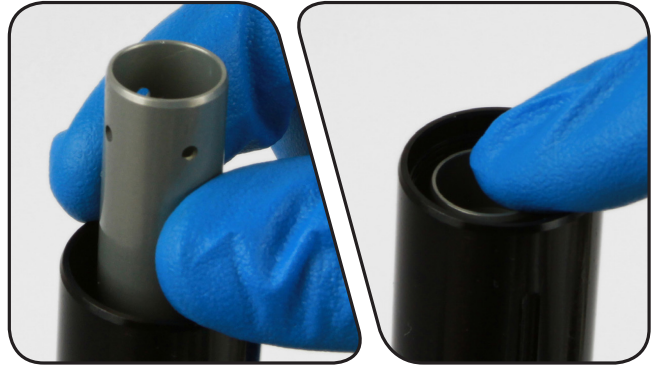


REVERB STEALTH REASSEMBLY

- 1** Clamp the post head into a vise with soft jaws. Apply a liberal amount of SRAM Butter to the top cap seals and bushing. Slide the top cap onto the upper post with the wiper seal facing the post head.



- 2** Install the IFP tube with cross holes facing up into the upper post. Push down firmly on the IFP tube until it snaps securely into the upper post. Ensure the IFP tube is secured and centered. The IFP tube should be below the top of the upper post when installed correctly.



- 3** Apply a thin layer of SRAM Butter to the IFP internal and external glide rings and o-rings. Use the Reverb IFP Height Tool to press the IFP into the upper post to the "Stealth All" line on the IFP height tool (a depth of 30 mm). The orientation of the IFP is not critical.



- 4** Pour Reverb fluid into the IFP tube until the fluid overflows into the upper post and is level with the top of the upper post. Use your finger to remove any bubbles from the surface of the Reverb fluid.



- 5** Apply a liberal amount of SRAM Butter to the internal U-cup. Install the internal seal head back onto the inner shaft with the wrench flats facing up. Slide the internal seal head back onto the inner shaft.



- 6** Insert the end of the inner shaft piston into the IFP tube just enough for the piston o-ring to engage the IFP tube.



- 7** Thread the inner seal head into the upper post to completely install the inner shaft piston into the IFP tube.

Use a 23 mm crowfoot socket to tighten the seal head to 27-29 N•m (238-256 in-lb). *Install the crowfoot socket at 90 degrees to the torque wrench.*

Just before the internal seal head o-ring engages with the upper post, wipe any excess oil away from the internal seal head o-ring with a rag.

NOTICE

Do not scratch the shaft with the wrench as this is a critical sealing surface.



NOTICE

Make sure that the inner shaft does not get pressed any further into the IFP tube until the seatpost is completely reassembled.

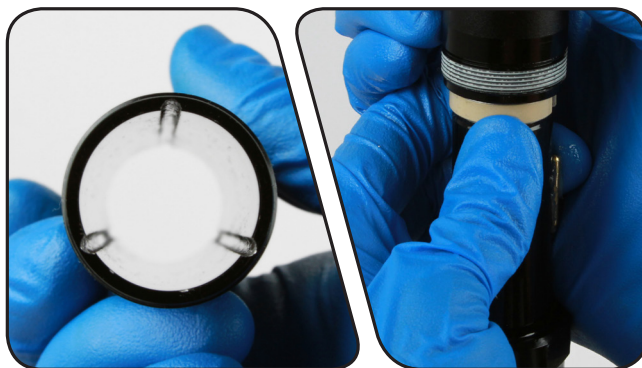
If it does get pressed into the IFP tube, the inner shaft must be removed from the IFP tube (steps 23-24, page 13, and step 25, page 14), the IFP tube filled with additional Reverb fluid (step 4, page 21), and the inner shaft reinstalled (steps 6-7, page 22).

- 8** Apply a liberal amount of SRAM Butter to the key slots. Reinstall the brass keys into the slots. The orientation of the brass keys is not critical.

When replacing the keys, make sure that the new keys have the same number of etched lines as the old keys.



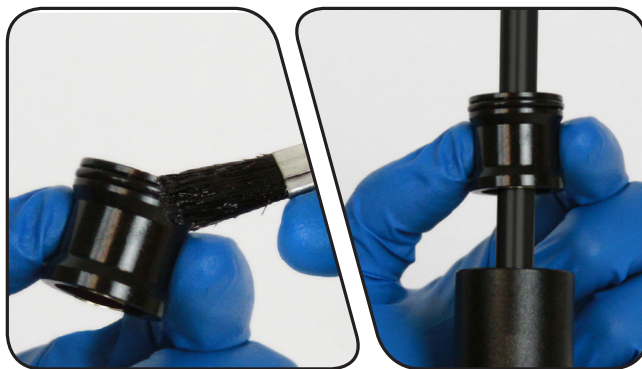
- 9** Slide the lower post over the upper post and onto the inner seal head. Squeeze the inner seal head bushing, then slide the lower post down and over the seal head bushing. Align the lower post with the brass keys and ensure the laser etched RockShox logo is lined up with the back of the seat post head.



- 10** Install a new bottom out bumper into the lower post.



- 11** **355 & 420 mm Reverb Stealth with 100 mm travel, and 420 mm Reverb Stealth with 125 mm travel:** Apply SRAM Butter to the false bottom insert o-ring, then install it into the lower post. Orientation of the false bottom insert is not critical.



12 Install a new foam washer into the lower post.



13 Clamp the inner shaft in a vise with soft jaws. Thread the seal head onto the inner shaft, then use an 11 mm crowfoot socket to tighten the seal head to 5.7-7.9 N•m (50-70 in-lb). *Install the crowfoot socket at 90 degrees to the torque wrench.*

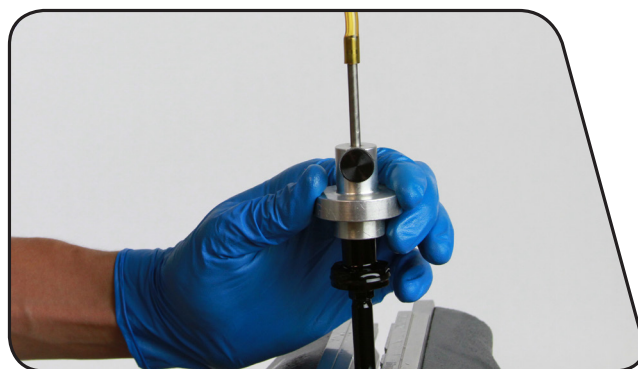


14 A specific amount of Reverb fluid must be removed from the inner shaft. Consult the chart below and set the fluid level height for your Reverb Stealth.

Reverb Model Length (mm)/ Travel (mm)	Set fluid level gauge to this length (± 0.5 mm):
355 / 100	186.5
380 / 125	186.5
420 / 100	251.5
420 / 125	226.5
430 / 150	211.5



15 Insert the fluid level gauge into the inner shaft, then pull out on the plunger to remove the fluid. Repeat this process until no more fluid is removed from the inner shaft.



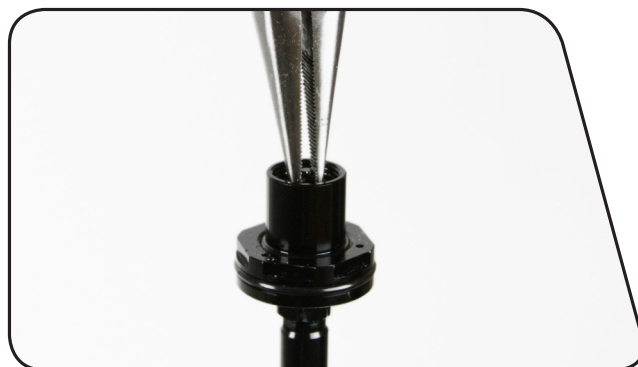
- 16** Apply a small amount of SRAM Butter to the poppet valve o-rings.

NOTICE

Do not apply grease to the area between the poppet valve o-rings as the post will not function properly if there is grease in that area.



- 17** Insert the poppet valve into the inner shaft, then use needle nose pliers to press it firmly into the seal head.



- 18** Hold the seal head in place with an 11 mm open end wrench. Thread the poppet valve cover onto the seal head, then use a 10 mm crowfoot socket to tighten the poppet valve cover to 5.7-7.9 N•m (50-70 in-lb). *Install the crowfoot socket at 90 degrees to the torque wrench.*

NOTICE

To prevent damage to the poppet valve cover bleed screw, do not allow the 10 mm crowfoot socket to contact the bleed screw of the poppet valve cover.



19 Pull the upper post out of the lower post until it stops.



20 Use internal snap ring pliers to reinstall the snap ring. Check that the snap ring is securely installed in the groove by using the snap ring pliers to rotate it in the groove.



21 Clamp the lower post in a vise. Use a 34 mm crowfoot socket to tighten the top cap to 27-29 N•m (238-256 in-lb). *Install the crowfoot socket at 90 degrees to the torque wrench.*



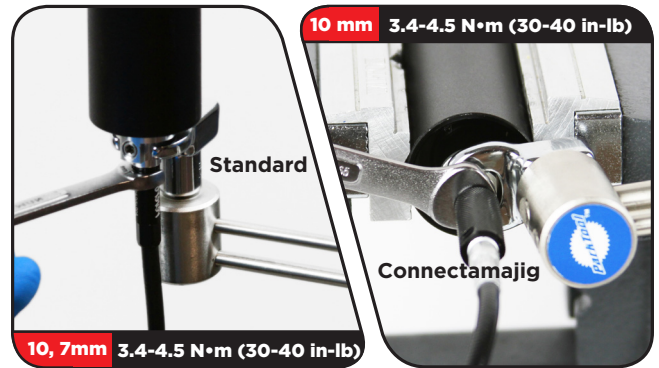
22 Use a shock pump to pressurize the seatpost to 250 psi (17.2 bar). Use a 9 mm socket to reinstall the air cap.



REMOTE AND HOSE BLEED

- 1** **Standard:** Thread the hose barb into the poppet valve cover. Hold the hose barb in position with a 7 mm open end wrench, and use a 10 mm crowfoot socket to tighten the poppet valve cover to 3.4-4.5 N•m (30-40 in-lb).

Connectamajig: Hold the poppet valve cover with a 10 mm open end wrench and tighten the Connectamajig to 3.4-4.5 N•m (30-40 in-lb).



- 2** Loosen the remote clamp bolt and rotate the remote so that the bleed screw is at the highest point.

If there is a shifter installed on the matchmaker clamp, you will need to remove it before adjusting the clamp bolt.



- 3** Turn the speed adjuster barrel the opposite direction of the arrow (counter clockwise) until it stops.



- 4** Fill one Reverb bleed syringe 3/4 full with Reverb fluid. Hold the syringe upright, cover the tip with a rag, and gently depress the plunger to purge any air bubbles from the syringe.

NOTICE

Only use the syringes that come with the Reverb Stealth Bleed Kit. Do not use any syringe that has been in contact with DOT fluid.



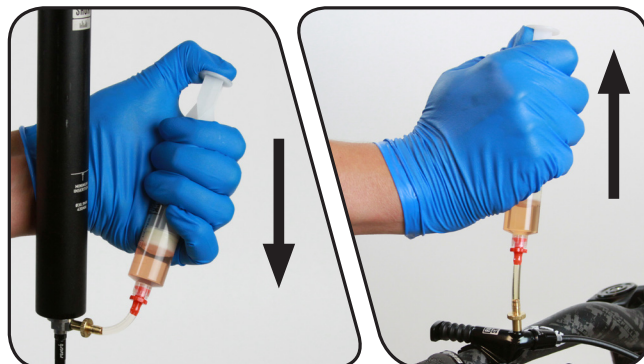
- 5** Use a T10 TORX® to remove the bleed screw from the remote. Install the fluid filled syringe into the bleed port.



- 6** Use a T10 TORX® to remove the bleed screw from the bottom of the seatpost, then install the empty syringe into the bleed port.



- 7** Depress the remote syringe plunger while pulling out on the seatpost syringe plunger. Depress the plunger of the syringe attached to the seatpost while pulling out on the remote syringe plunger. Repeat these steps several times until bubbles stop coming out of the system and into the syringes.

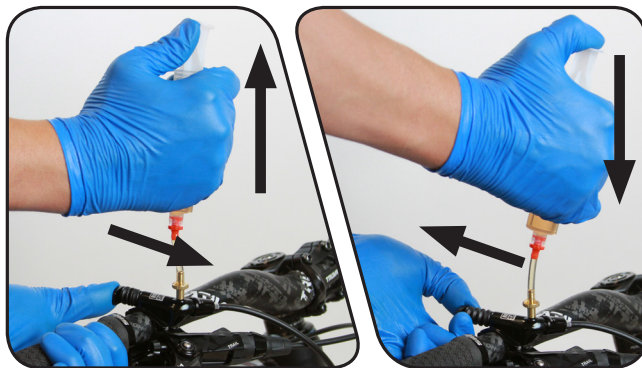


- 8** Disconnect the syringe from the seatpost bleed port. Use a T10 TORX® to reinstall the bleed screw and tighten to 1.1-2.2 N•m (10-20 in-lb).

Use isopropyl alcohol and a rag to clean any Reverb fluid from the seatpost.



- 9** Pull up on the remote syringe plunger and slowly depress the remote actuator. Press in on the remote syringe plunger until the remote lever fully extends. Repeat this process a few times until no more bubbles are pulled from the system.



- 10** Depress the remote syringe plunger and make sure the remote actuator is fully extended. Remove the syringe and use a T10 TORX® to reinstall the bleed screw and tighten to 1.1-2.2 N•m (10-20 in-lb).

Use isopropyl alcohol and a rag to clean any Reverb fluid from the remote.



- 11** Depress the remote actuator five times. Release it to allow the actuator to return to its extended position. Pull back on the actuator. If it doesn't move, you have successfully bled the remote and are finished servicing your Reverb Stealth. If a gap is present, repeat remote bleed steps 5-11, pages 28-29.



- 12** Reinstall the Reverb Stealth into the bicycle frame. Tighten the seatpost collar to the manufacturer's recommended torque, but **do not exceed 6.7 N•m (59.3 in-lb)**.



- 13** Reinstall the saddle and saddle clamps onto the seatpost. Use a 4 mm hex wrench and tighten the saddle clamp bolts to 2.2 N•m (19.5 in-lb).



This concludes the service for RockShox Reverb Stealth.

