



2011 Technical Manual



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GETTING STARTED

This guide provides step-by-step instructions to assist in performing routine maintenance of your Domain front suspension fork.

PARTS

Servicing your fork will require new replacement parts such as dust seals, o-rings, oil, etc. Make sure you have all the parts available before you begin service. Refer to the RockShox Spare Parts Catalog for a complete list of all service kits and corresponding part numbers for the 2011 Domain.

TOOLS

The following chart is a list of the tools needed for service of your 2011 Domain. While this chart is intended to be comprehensive, it is still only a guide. The tools required for each step of service are detailed in the text of each service section.

TOOLS	LOWER LEG REMOVAL	OIL AND DUST SEAL SERVICE	DAMPER SERVICE	SPRING SERVICE	LOWER LEG INSTALLATION	FORK/WHEEL REMOVAL/ INSTALLATION
SAFETY/STARTING EQUIPMENT						
SAFETY GLASSES	X	X	X	X	X	X
APRON	X	X	X	X	X	X
RUBBER GLOVES	X	X	X	X	X	X
CLEAN RAGS (LINT FREE)	X	X	X	X	X	X
OIL PAN	X	X	X	X	X	X
CLEAN WORK AREA	X	X	X	X	X	X
BICYCLE STAND	X	X	X	X	X	X
WRENCHES/PLIERS						
2 mm HEX			X			
4 mm HEX						X
5 mm HEX	X				X	
6 mm HEX						X
19 mm SOCKET			X	X		
24 mm SOCKET			X	X		
TORQUE WRENCH			X	X	X	X
MISC TOOLS						
PLASTIC Mallet	X	X	X	X	X	
LONG DOWEL ROD (PLASTIC OR WOOD)		X			X	
SHARP PICK			X			
DOWNHILL TIRE LEVER OR LARGE FLAT HEAD SCREWDRIVER		X				
35 mm OIL SEAL/DUST WIPER INSTALLER		X				
RULER				X		X
OIL/LIQUIDS						
5wt ROCKSHOX SUSPENSION OIL			X			
15wt ROCKSHOX SUSPENSION OIL					X	
GREASE (SUSPENSION OIL SOLUBLE)		X	X	X	X	
GRADUATED CYLINDER/BEAKER		X	X	X	X	
RED THREADLOCK			X	X		
ISOPROPYL ALCOHOL	X	X	X	X	X	X

DOMAIN TECHNICAL MANUAL

GETTING STARTED (CONTINUED)

RECORD YOUR SETTINGS

Take a moment and record all of your Domain settings in the chart below. This will allow you to return your fork to its original settings after service. Be sure to record the service date as well, this will help you keep track of service intervals.

To determine your compression and rebound settings perform the following:

Rebound - Count the number of clicks while turning the rebound adjuster ⤴ fully counter-clockwise.

Compression (RC only) - Count the number of clicks while turning the compression adjuster ⤴ fully counter-clockwise.

The number of preload spacers will be determined during Spring Service.

MY SETTINGS	SERVICE DATE	UPPER CROWN HEIGHT	NUMBER OF PRELOAD SPACERS	COMPRESSION (RC ONLY)	REBOUND

DOMAIN TECHNICAL MANUAL

GETTING STARTED (CONTINUED)

The following chart lists all of the oil volumes and weights for your Domain as well as tool sizes and torque values for all of the fasteners.

OIL VOLUME CHART

	Damper technology (drive side)	Volume (mL)	Height (mm)	Oil wt	Volume (mL)	Oil wt	Spring technology (non-drive side)	Volume (mL)	Oil wt	Volume (mL)	Oil wt
		Upper leg			Lower leg			Upper leg		Lower leg	
Domain RC	Motion Control IS	325	105	5	10	15	Coil	-	-	40	15
Domain R	Rebound	370	34	5	10	15	Coil	-	-	40	15

TORQUE CHART

Part/fastener	Tool size	Torque
Crown bolts	4 mm	7.3 N-m (65 in-lb)
Bottom bolts	5 mm	7.3 N-m (65 in-lb)
Top caps	24 mm	7.3 N-m (65 in-lb)
Compression adjuster bolt	2 mm	0.6-1.0 N-m (5-9 in-lb)

SERVICE INTERVALS

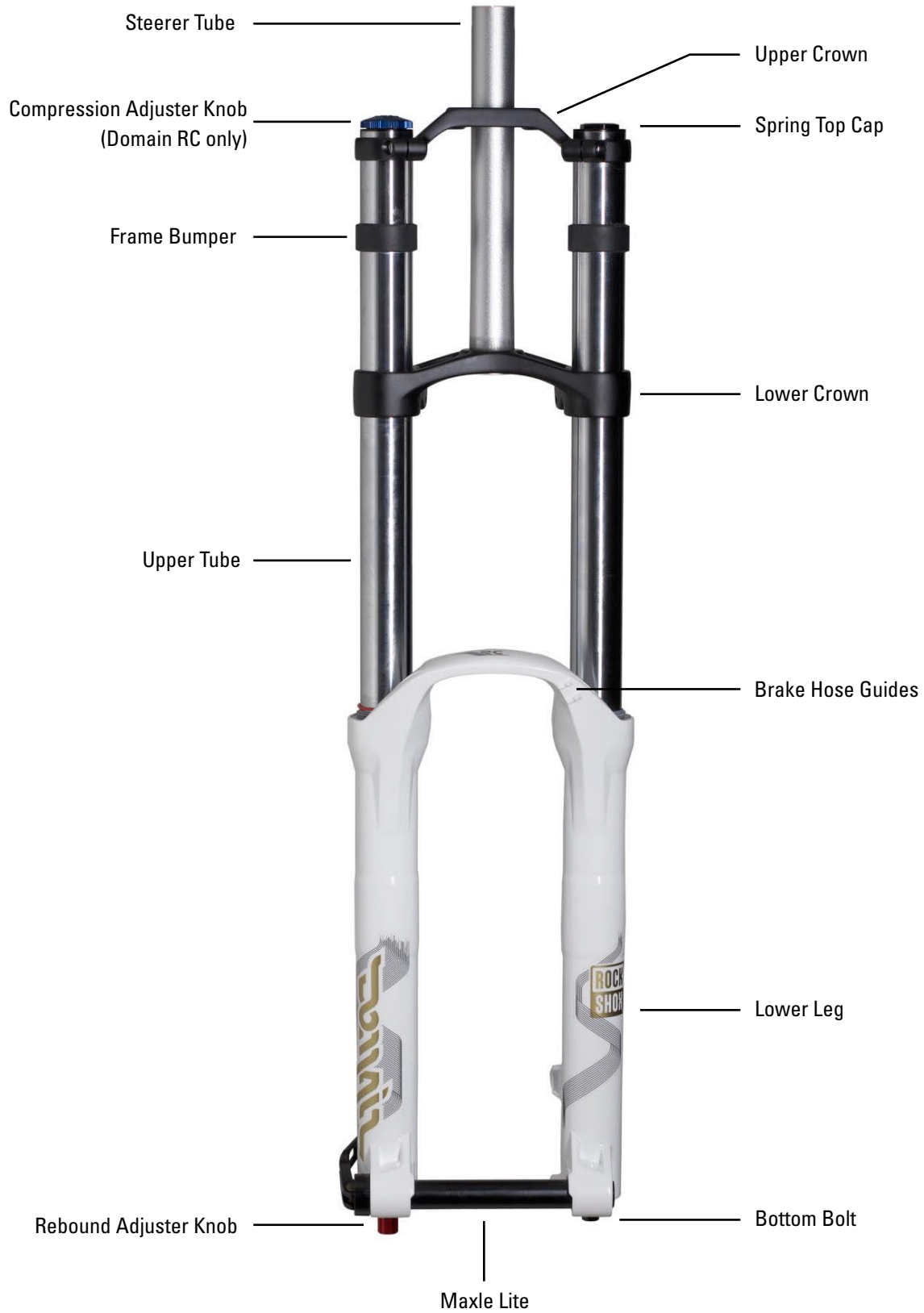
The following chart is a summary of the maintenance/service intervals for RockShox forks. Following this schedule is important to ensure the consistent performance and longevity of your fork. Some of the information listed may not be applicable to your fork.

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

ANATOMY

DRIVE SIDE

NON-DRIVE SIDE





SAFETY FIRST!

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

LOWER LEG REMOVAL

1. Clamp one of the upper tubes, just below the top cap, in a bike stand and place an oil pan beneath the fork to catch any draining oil.

Do not scratch the upper tube while clamping it into the bike stand. Clean any debris from the stand clamping surface. A clean rag wrapped around the upper tube may be used to protect the tube surface.

2. Firmly pull the external rebound adjuster knob and remove it from the drive side shaft.
3. Use a 5 mm hex wrench to loosen both shaft bolts three to four turns.
4. Use a plastic mallet to firmly strike each shaft bolt to free the shafts from their press-fit to the lower leg. Remove the shaft bolts completely and allow the oil to drain.

If oil doesn't drain from either side, the press-fit may not be completely released. Re-install the shaft bolt two to three turns and strike it again.

5. Remove the lower leg from the fork by firmly pulling each upper tube out of the lower leg assembly.
Do not hit the brake arch with any tool when removing the lower leg as this could damage the fork. If an upper tube does not slide out of the lower leg, the press-fit may not be completely released. Re-install the shaft bolt 2 to 3 turns and strike it again.
6. Allow any remaining oil in the lower leg to drain into the oil pan.
7. Spray isopropyl alcohol onto the upper tubes and clean with a lint free rag.
Inspect the upper tubes for damage. Damage such as scratches, chips or wear marks on the surface of the upper tube can cause oil to leak during use and allow dirt and debris to contaminate the internals of the fork. Damaged upper tubes should be replaced.

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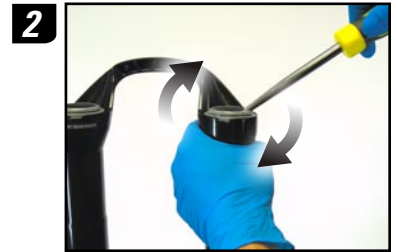
SEAL SERVICE

INTRODUCTION

Suspension fork seals are considered "wear and tear" parts and require regular maintenance. The frequency of seal replacement will depend on the frequency of riding, riding terrain, rider body weight, and type of fork. The following chapter covers wiper and oil seal removal and installation.

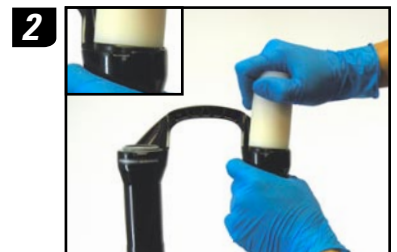
WIPER & OIL SEAL REMOVAL

1. Position the tip of a downhill tire lever or large, flat head screwdriver underneath the lip of the lower black oil seal, above the upper bushing.
2. Stabilize the lower leg upright on a bench top or on the floor. Hold the lower leg firmly and use downward force on the tool handle to leverage both seals out at the same time.
Be sure to stabilize the lower leg in order to prevent it from slipping while installing the seal. Do not allow the lower legs to twist in opposite directions, compress toward each other, or be pulled apart. This will damage the lower leg.
3. Spray isopropyl alcohol on and into the lower leg. Wipe the lower legs clean, then wrap a clean, lint free rag around a dowel and clean the inside of each lower leg.



WIPER & OIL SEAL INSTALLATION

1. Position the oil seal, with the grooved side visible, onto the stepped side of the 35 mm seal installation tool.
2. Hold one of the lower legs firmly and use the seal installation tool to push the oil seal evenly and completely into that leg. Repeat for the other leg.
Be sure to stabilize the lower leg in order to prevent it from slipping while installing the seal. Do not allow the lower legs to twist in opposite directions, compress toward each other, or be pulled apart. This will damage the lower leg.
3. Position the dust wiper seal, with the grooved side visible, into the recessed side of the 35 mm seal installation tool.
4. Hold one of the lower legs firmly and use the seal installation tool to push the dust wiper evenly and completely into that leg. Repeat for the opposite leg.



COIL SPRING SERVICE

COIL SPRING REMOVAL/SERVICE

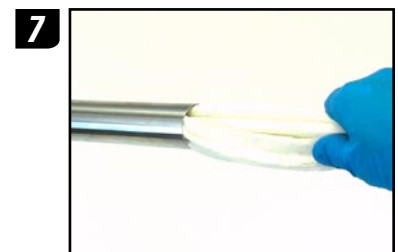
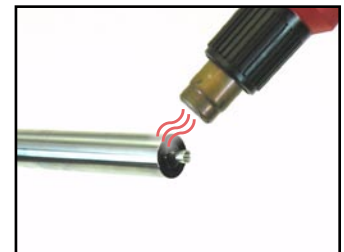
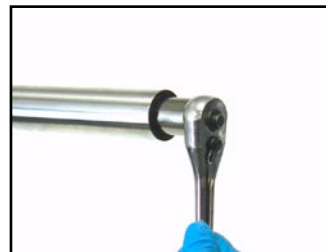
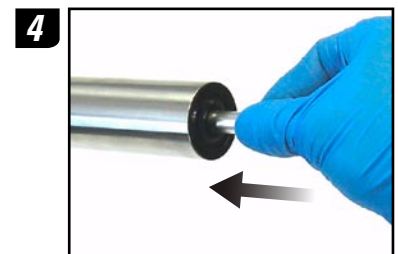
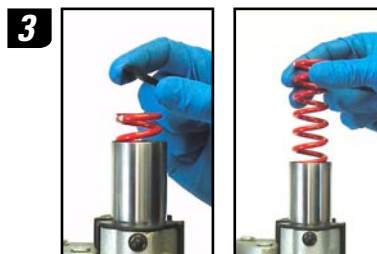
1. Use a 24 mm socket wrench to unthread and remove the spring top cap.
2. Use a pick to remove the top cap o-ring. Apply grease to a new o-ring and install it.
3. Remove the spring pre-load spacer(s) then pull the coil spring from the upper tube.
4. Push the spring shaft into the upper tube, leaving just enough shaft exposed to hold onto with your fingers. Use a 19 mm socket wrench to loosen and unthread the base plate.

The base plate is reverse threaded.

If the base plate is difficult to unthread, use a heat gun, according to the manufacturer's instructions, to moderately and evenly heat the bottom of the upper tube in order to soften the threadlock that bonds the upper tube and base plate.

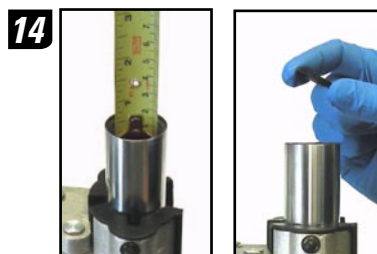
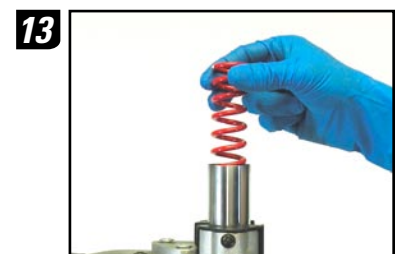
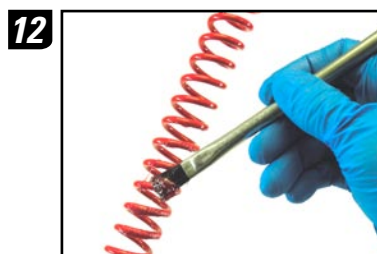
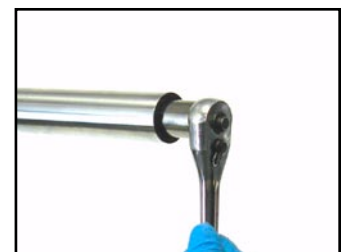
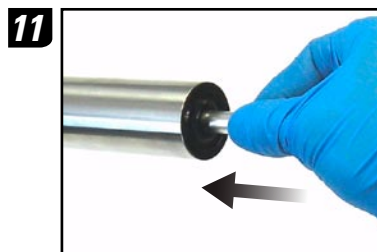
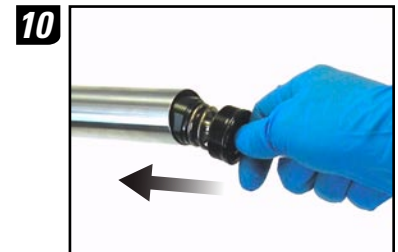
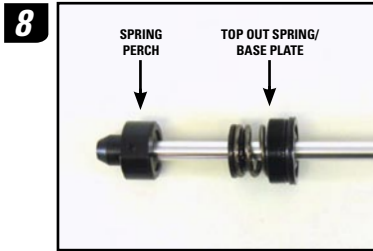
⚠ CAUTION
To reduce the risk of burns, do not touch the heated parts until after they have cooled down. Do not aim the heat gun at a single area continuously for long period of time, this may damage the parts. Allow the parts to cool down naturally. Do not attempt to accelerate the cooling process, this may damage the parts.

5. Pull the spring shaft and base plate from the upper tube.
6. Spray isopropyl alcohol on the coil spring, spring shaft, base plate, and the outside of the upper tube and wipe dry with a clean rag. Inspect the spring shaft assembly for damage. Replace entire assembly if necessary.
7. Spray isopropyl alcohol into the upper tube. Wrap a clean, lint free rag around a long dowel and insert into the upper tube to clean inside the upper tube.



COIL SPRING INSTALLATION

8. Make sure the base plate is installed on the spring shaft so that the small top out spring is oriented toward the spring perch.
9. Apply a small amount of grease to the base plate outer o-ring. Apply a small amount of red threadlock to the base plate threads.
Avoid getting any grease on the seal head threads.
10. Insert the spring perch, spring shaft, and base assembly into the upper tube. Hand thread the base plate into the upper tube.
The base plate is reverse threaded.
11. Push the spring shaft into the upper tube, leaving just enough shaft exposed to hold onto with your fingers. Use a 19 mm socket wrench to tighten the base plate to 7.9 N·m (70 in-lb).
12. Use a grease brush and apply a generous amount of grease to the entire length of the coil spring.
13. Identify the smaller diameter end of the coil spring. Install the coil spring, with the smaller diameter end first, into the upper tube.
14. Use a ruler to measure the distance from the top of the coil spring to the top of the upper tube. This distance should be at least 14 mm but not more than 16 mm. If the measurement is greater than 16 mm, add preload spacers until the measurement falls between 14-16 mm (each preload spacer is 2 mm thick).
If the distance measures greater than 16 mm and is not corrected, the coil spring will experience up/down play in the upper tube and the fork will make a 'knocking' noise. If the distance is less than 14 mm, the coil spring will bind in the upper tube which can lead to damage of the coil spring.
15. Clean the top cap, then apply grease to the top cap threads and o-ring. Insert the top cap into the upper tube/crown and hand thread it into the upper tube. Be careful not to damage the top cap o-ring upon installation. Use a 24 mm socket wrench to tighten the top cap to 7.3 N·m (65 in-lb).



DAMPER SERVICE

DAMPER REMOVAL/SERVICE

- 1. Domain RC only:** Turn the compression adjuster knob counter-clockwise until it stops. Record your setting by counting the number of clicks. This will make tuning your fork after service easier.
- 2. Domain RC only:** Use a 2 mm hex wrench to remove the compression adjuster knob retaining bolt. Remove the compression adjuster knob.
- 3. Domain RC only:** Use a 24 mm socket wrench to unthread the compression damper top cap.
Domain R only: Use a 24 mm socket wrench to unthread the top cap.
- 4. Domain RC only:** Remove the compression damper from the upper tube by pulling it up and rocking side to side. Once removed, clean the upper tube threads with a rag.
- 5. Domain RC only:** Use a pick to remove the compression damper o-rings located at the top and bottom of the damper. Apply grease to the new o-rings and install them.
Domain R only: Use a pick to remove the top cap o-ring. Apply grease to a new o-ring and install it.
Do not scratch or damage the top cap or the surface of the piston during removal of the o-rings. Any damage will allow oil to bypass the o-rings during use, resulting in oil leakage and decreased damper performance.
- Pour any remaining oil from the upper tube into the oil pan.

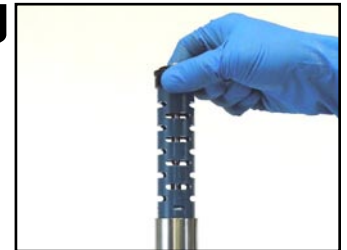
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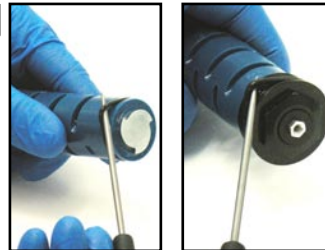
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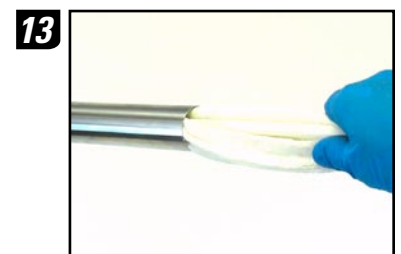
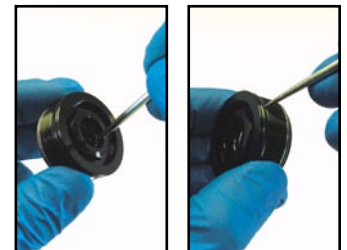
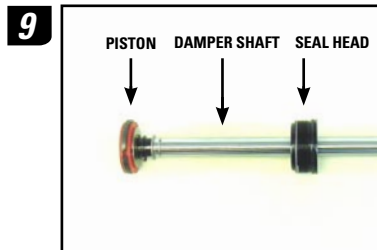
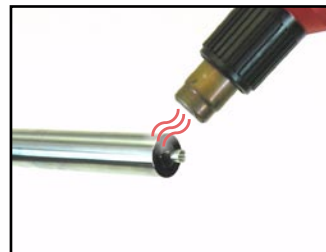
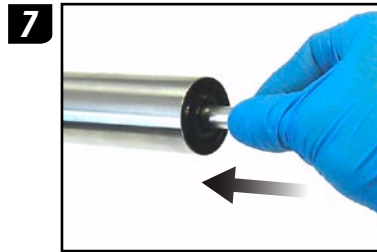
DAMPER INSTALLATION

7. Push the damper shaft into the upper tube, leaving just enough shaft exposed to hold onto with your fingers. Use a 19 mm socket wrench to loosen and unthread the seal head.
The seal head is reverse threaded.

If the seal head is difficult to unthread, use a heat gun, according the manufacturer's instructions, to moderately and evenly heat the bottom of the upper tube in order to soften the threadlock that bonds the upper tube and seal head.

CAUTION
To reduce the risk of burns, do not touch the heated parts until after they have cooled down. Do not aim the heat gun at a single area continuously for long period of time, this may damage the parts. Allow the parts to cool down naturally. Do not attempt to accelerate the cooling process, this may damage the parts.

8. Position the upper tube upright. Pull down on the damper shaft to remove the rebound damper and seal head assembly from the upper tube.
9. Slide the seal head off the damper shaft. Use a pick to remove the inner and outer seal head o-rings. Apply grease to the new o-rings and install them.
Do not scratch or damage the seal head during removal of the o-rings. Any damage will allow oil to bypass the o-rings during use, resulting in decreased damper performance and travel loss.
10. Spray isopropyl alcohol on the rebound damper shaft and clean with a lint free rag.
11. Remove the glide ring from the rebound shaft assembly. Apply grease to the new glide ring and install it.
12. Apply grease to the seal head inner o-ring. Slide the rebound seal head onto the rebound damper shaft.
13. Spray isopropyl alcohol into the upper tube. Wrap a clean, lint free rag around a dowel and clean the inside of the upper tube.



DAMPER INSTALLATION (CONTINUED)

14. Apply a small amount of grease to the seal head outer o-ring. Apply a small amount of red threadlock to the seal head threads.
Avoid getting any grease on the seal head threads.
15. Insert the rebound damper piston into the bottom of the upper tube at an angle, with the side of the glide ring opposite the split entering the upper tube first. Continue to angle and rotate until the glide ring is in the upper tube. Hand thread the seal head into the bottom of the upper tube.
The seal head is reverse threaded.
16. Push the rebound damper shaft into the upper tube, leaving just enough shaft exposed to hold onto with your fingers. Use a 19 mm socket wrench to tighten the base plate to 7.9 N·m (70 in-lb).
17. Orient the upper tube upright in the bicycle stand. Pull the rebound damper shaft down to the fully extended position. Measure and slowly pour 5wt RockShox suspension oil into the upper tube, using the following volumes:

Fork	Oil Volume (±3 mL)
Domain RC	325 mL
Domain R	370 mL

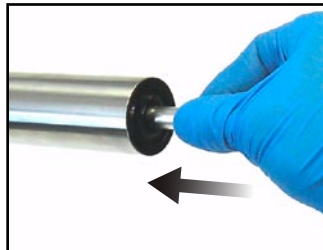
Oil volume is critical. Too much oil reduces available travel, too little oil decreases damping performance.

You can use oil height to measure oil fill. This method is recommended for use only when the lower leg is attached to the fork. Pour suspension oil into the upper tube. Compress the fork a few times to circulate the oil throughout the damping system. If the fork is still on the bike, you will need to unweight the front of the bike to allow the fork to fully extend. Measure from the top of the upper tube to the top of the oil level. The measurement should be 105 mm (Domain RC only) or 34 mm (Domain R only). Add or remove oil as necessary.

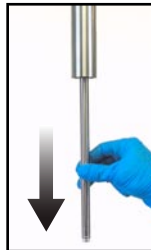
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DAMPER INSTALLATION (CONTINUED)

18. Domain RC only: Apply grease to the compression damper top cap threads, top cap o-ring, and piston o-ring. Insert the compression damper into the top of the upper tube and push downward until the damper is fully seated in the upper tube.

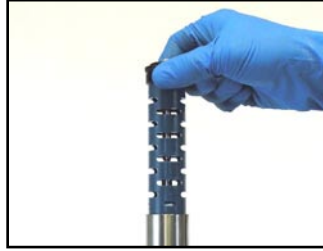
Domain R only: Apply grease to the top cap threads and top cap o-ring. Insert the top cap into the upper tube.

19. Domain RC only: Use a 24 mm socket wrench to thread the compression damper into the upper tube and tighten it to 7.3 N·m (65 in-lb).

Domain R only: Use a 24 mm socket wrench to thread the top cap into the upper tube and tighten it to 7.3 N·m (65 in-lb).

20. Domain RC only: Re-install the compression adjuster knob and retaining bolt. Tighten the retaining bolt to 0.6-1 N·m (5-9 in-lb). Reset the compression adjuster knob to its original setting (documented in the table in the "Getting Started" section).

18



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LOWER LEG INSTALLATION

1. Spray the upper tubes with isopropyl alcohol and wipe with a clean rag.
2. Clean and inspect the shaft bolts, nylon crush washers, and crush washer retainers. Replace any crush washers and crush washer retainers if damaged.

You must clean dirty crush washers and replace damaged crush washers. Dirty or damaged crush washers can cause oil to leak from the fork.

3. Apply a liberal amount of grease to the inner surfaces of the dust wiper and oil seal.
4. Gently slide the lower leg assembly onto the upper tubes. Be sure each upper tube is inserted into its corresponding side of the lower. Slide the upper tubes into the lower leg until you feel the spring and damper shafts make contact with the inside of the legs, then pull the upper tubes back out a few centimeters to provide clearance for oil lubrication installation.

Make sure both dust seals slide onto the tubes correctly without folding the seals' lip.

5. Invert the fork to about 45 degrees, with the fork legs pointing upward. Measure and pour 10 mL of 15wt RockShox suspension oil into the drive side lower leg through the shaft bolt hole, then inject/pour 40 mL of 15wt suspension oil into the non-drive side lower leg through the shaft bolt hole.
6. Slowly slide each upper tube completely into the lower leg until the shaft threads are visible through the shaft bolt holes.

Sliding the upper tubes and lower legs together too quickly will cause oil to spray out of the shaft bolt holes.

7. Check for oil in the shaft threads. If there is oil in this area, use the corner of a rag to clean and dry the threads.
8. Thread the rebound damper and coil spring shaft bolts into the threaded shaft ends, through the lower leg holes. Use a 5 mm hex to tighten bolts to 7.3 N·m (65 in-lb).
9. Insert the external rebound adjuster knob onto the rebound shaft bolt. To secure the rebound adjuster, press firmly to engage the retaining clip on the shaft bolt.
10. Spray isopropyl alcohol on the entire fork and wipe it with a clean rag.



FORK INSTALLATION

INTRODUCTION

Re-installing the fork onto your bike is the final step in servicing your Domain fork. Once you have installed the fork onto your bike, you will be ready to ride!

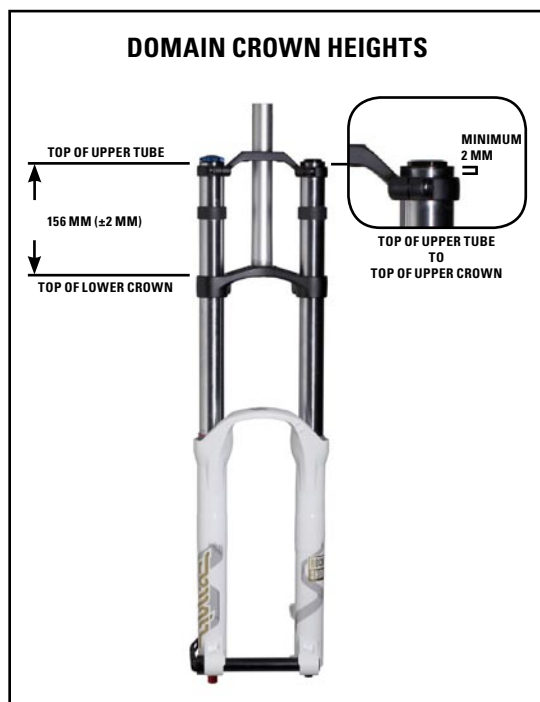
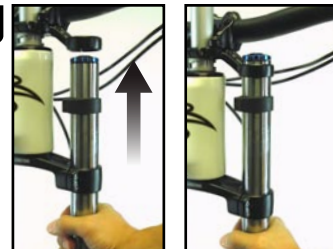
1. Slide each upper tube through the lower crown, leaving enough clearance to install the frame bumpers.
2. Spray a liberal amount of isopropyl alcohol or water on the inner surface of the frame bumpers and re-install the bumpers onto the upper tubes.
3. Gently push and twist the upper tubes through the upper crown. With a minimum extension of 2 mm, position both upper tubes to extend past the top of the upper crown by an equal amount. Measure the distance from the top of the upper tube to the top of lower crown. This distance must be

156 mm (+/- 2 mm). Align the logo on the drive side upper tube with the logo on the lower leg.
Refer to the Domain crown heights diagram for proper crown height dimensions. Improper crown height placement can cause a reduction in handling performance, travel, and/or cause fork damage.

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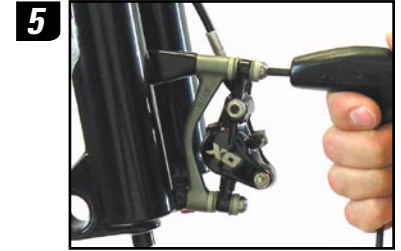


FORK INSTALLATION (CONTINUED)

4. Use a 4 mm hex wrench to torque the four lower crown bolts in an alternating fashion to 7.3 N·m (65 in-lb). Torque the two upper crown bolts to 7.3 N·m (65 in-lb).



5. Re-install the brake according to the brake manufacturer's instructions. Fasten the brake hose to the brake hose guides on the fork's lower leg.



6. Position your wheel in the lower leg dropouts. The hub should seat firmly in the dropouts. Be sure to position the disc brake rotor in the caliper. Verify that neither the rotor, hub, nor rotor bolts interfere with the lower legs. If you are unfamiliar with adjusting your disc brakes, see your brake manufacturer's instructions.



7. Place the Maxle lever in the open position.

8. Slide the axle through the right side of the hub until it engages the threads of the left dropout.

9. Position the quick release lever in the slot on the axle flange and turn the axle lever clockwise until it is hand tight.



Never use any other tool to tighten the axle into the lower leg. Over-tightening of the axle can damage the axle and/or the lower leg.

10. Lift the lever out of the slot in the axle and rotate it to a point 180 degrees from where you want the lever to be located in the closed position.

11. Close the Maxle quick release lever.

The quick release mechanism is an "over-center cam", similar to the quick release found on many bicycle wheels. When closing the lever, tension should be felt when the quick release lever is in the horizontal position (90 degrees to the lower leg), and the quick release lever should leave a clear imprint in the palm of your hand. If resistance is not felt at the 90 degree position and if the lever does not leave a clear imprint in the palm of your hand, tension is insufficient. To increase tension, open the quick release lever and insert a 2.5 mm hex into the tension adjuster located in the center of the lever cam. Turn the adjuster clockwise one click and re-check lever tension. Repeat until the quick release lever tension is sufficient.



12. Re-check that all damping adjusters are at their original positions (documented in the table in the "Getting Started" section), or refer to the Domain Tuning Guide to aid in tuning adjustments for the rider.

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