

AVALANCHE
SUSPENSION



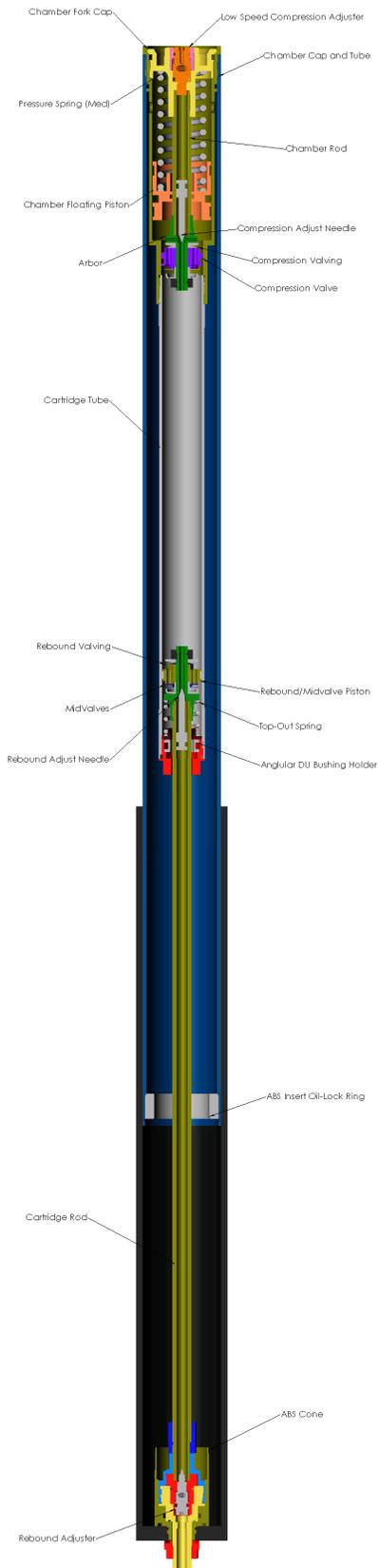
ADVANTAGE
PROGRAM

Making suspension better for everyone.



Models Included:
Fox 40 RC 2005-2008
Fox 40 RC/RC2 2009-2012

Fox 40 RC Cartridge Replacement Damper



Tools, fluid and lubricants required to service and rebuild your Fox 40 for the Avalanche Advantage Cartridge upgrade kit.



Preparing your 2005-2008 Fox 40 for the Avalanche Advantage Cartridge upgrade kit
(2009-2012 Fox 40 similar except where noted)

The following steps will help guide you through the disassembly process and show you how to install the new cartridge:



Remove Damper side fork cap.



Unscrew fork cap and dump any oil that might of leaked from the damper, out the stanchion.



Remove protective cap, just pull it off.



With an Allen key, remove the low speed knob.



With an Allen key, remove the high speed knob.



Remove base bolt adjuster nut.





Remove the stanchion and damper as one unit.





Shown here all the original parts removed.



Remove the bottom out bumper with a coat hanger or welding rod.



Install the abs oil lock ring, with the O.D. champher facing in.



A gentle tap maybe required to seat the oil lock ring depending on the roundness of your lower stanchion.



Install the snap ring.



Make sure it is fully seated.



Clean and relube the bushing and seal.



Insert the stanchion into the lower leg.



Remove the red nut and o-ring.



Insert the damper into the stanchion.



Thread the outer fork cap into the stanchion, being carefull not to cross thread.



At this time it is not necessary to tight all the way.



Make sure you can see the abs cone starting to protrude into the lower leg hole.



Tighten the lower nut snug, our approximately 20-25 inch-lbs.



Make sure that the nut is seated properly.



Unthread the outer fork cap.



Measure out 150 cc/ml of 5wt oil.



Pour into upper stanchion.



Hand tighten the outer fork cap.



Use a paper towel to cover and protect the gold 15 mm hex.



The cap must not be tightened with the wrench, only hand tight.

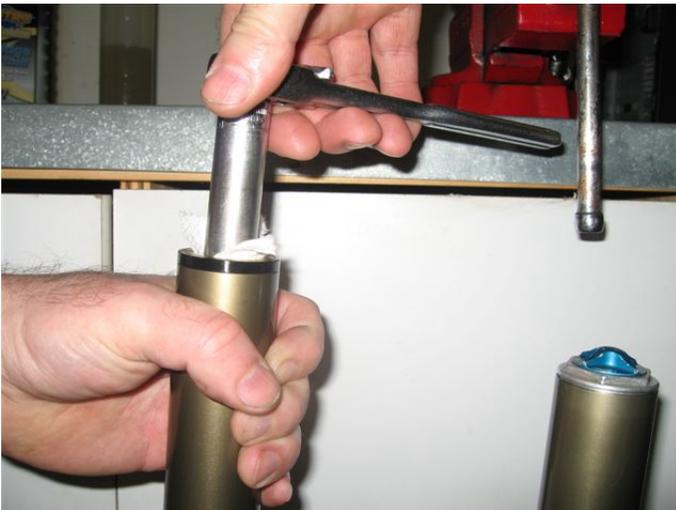


Warning, over tightening will make it impossible to remove the cartridge.



Tighten the lower adaptor nut to 15-20 inch-lbs.

Changing and removing your oil in your Fox 40 for the Avalanche Advantage Cartridge upgrade kit



cap from the stanchion.

With a 15 mm 6 point socket remove the outer chamber



Dump the outer oil from the stanchion.



Remove the cartridge damper assembly.



Using a wide adjustable wrench and a 6 point 15 mm socket loosen the inner fork chamber cap assembly.



Use the damper rod to plunge the inner chamber outward.



Remove the inner chamber cap assembly.



Once removed the oil is ready to be dumped.



Dump and cycle rod to remove oil from damper.

Filling your oil in your Fox 40 for the Avalanche Advantage Cartridge upgrade kit



oil level.

The larger of the two steps is the fill line for the cartridge



Pour oil approximately 5 mm above the fill line, cycle the cartridge rod a few times to bleed the rebound circuit and recheck the oil level, add as necessary to maintain this oil level.



With the cartridge outer chamber wrench flats clamped gently in the vise, plunge the inner chamber fork cap assembly into the outer chamber and rotate clockwise to start the fork cap threads, turn as many turns as possible by hand.



Tighten the inner cap with a 6 point 15 mm socket.



2 mm.

The cap should be recessed below the outer cap by about



Using very short strokes at first, starting at 1 in compression strokes, then 2 inch and so forth until all 8 inches of stroke is completely bled, bleed the air

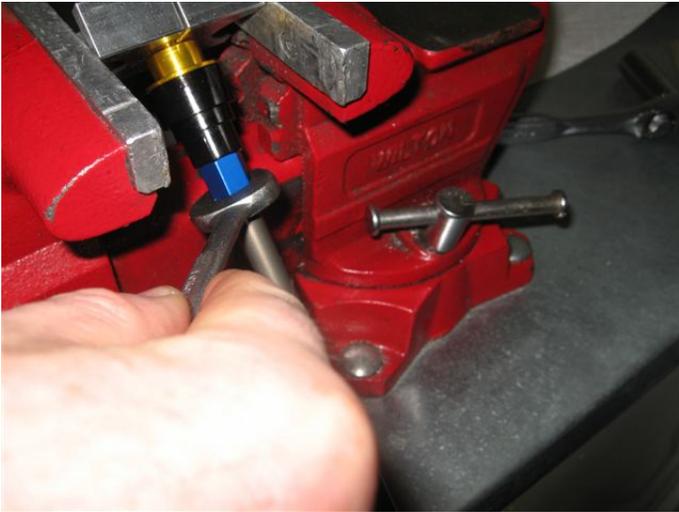
bubbles out of the damper, always hold the damper vertical, as the goal is to migrate the air bubbles to the top and plunge them out through the chamber floating piston rod bleed holes.

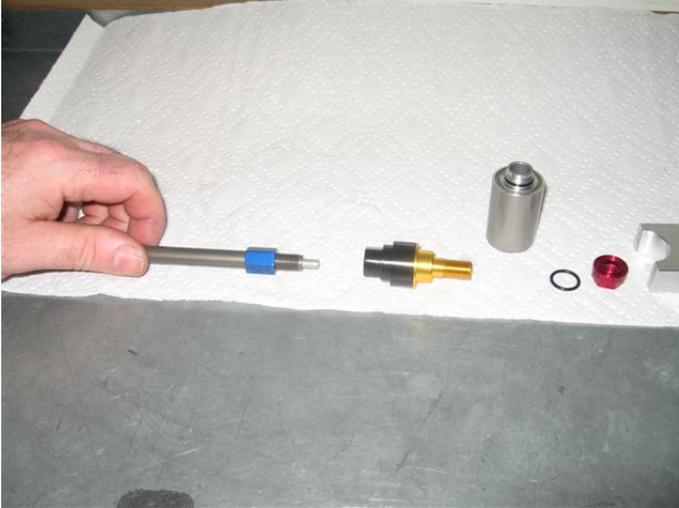


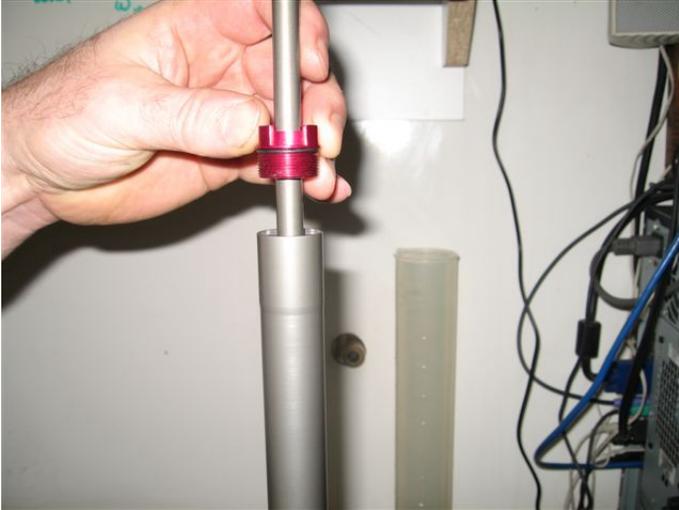
Make one final stroke and dump any excess out of the outer chamber cap holes. The damper should be clear of air bubbles and no hissing sounds should be heard when cycling the damper rod.

Rebuilding your Fox 40 for the Avalanche Advantage Cartridge upgrade kit







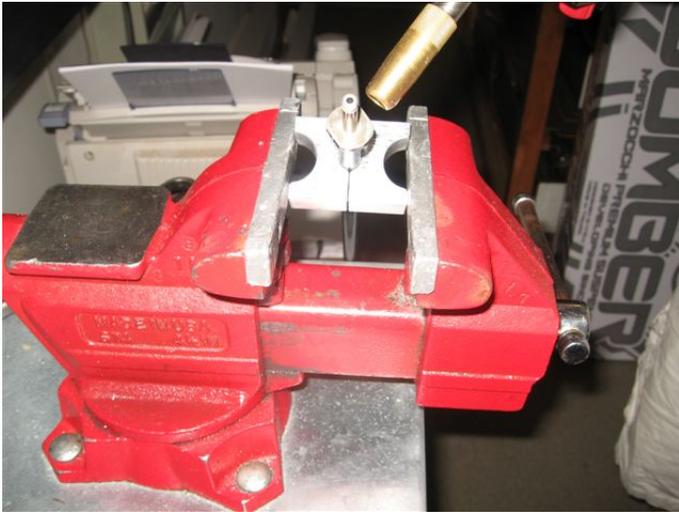








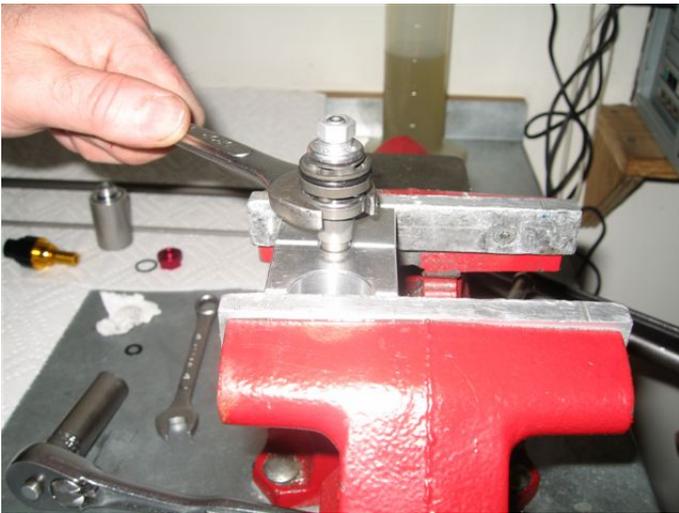






Pressure spring and Compression Valving















The fork can now be reassembled with the crowns and installed on your frame as described by your owners manuals.

Adjustments and internal settings are described in more detail in the following pages. The fork cap adjuster is the low speed compression and the standard setting is 12 clicks out (counterclockwise) from full hard. The 10 mm adaptor bolt contains the low speed rebound adjuster and the standard setting is 12 clicks out (counterclockwise) from full hard. It can be turn by inserting a small (3.75 mm wide max) flat blade screwdriver up into the lower leg adaptor bolt.

Set-up Options:

Oil Type:

Recommended oil:

[Golden Spectro 85/150 Cartridge Fork Fluid 5wt or equivalent](#)

Pro Honda HP Fork Oil 5wt

Pro Circuit Fork Fluid PC-01

Yamalube 01 Suspension Oil / KYB 01

Bel-Ray Fork Fluid 5wt

There are many others that we have not tested but as long as they say for Cartridge Forks and or 85/150 rating they will work fine, all 5 wt fork oils are not the same so beware of lesser quality oils that may foam up easily

Oil Volume (outer): Dry assembly:

Standard volume: 150 ml/cc - Fox 40

Oil Volume (cartridge): Dry assembly:

Approx volume: 200 ml/cc - Fox 40, over filed and bleed

Compression and Rebound Settings:

These are rough starting points, adjustments will vary from rider to rider

Standard:

Compression (fork top) 12 clicks out from full clockwise

Rebound (fork bottom) 12 clicks out from full clockwise

Downhill roots/rocky conditions:

Compression 17 clicks out from full clockwise

Rebound 15 clicks out from full clockwise

All Mountain smooth/drops conditions:

Compression 8 clicks out from full clockwise

Rebound 10 clicks out from full clockwise

Urban large drops to flat conditions:

Compression 5 clicks out from full clockwise

Rebound 8 clicks out from full clockwise

[Revalving the Cartridge Kit:](#)

For more details see above link to 20 mm Cartridge Revalving Procedure:

Disclaimer

Avalanche Suspension Inc. is not responsible for any damages to you or others from riding, transporting or other use of your Avalanche Advantage Rockshox Fox 40 or mountain bike. User fully understands that mountain bike riding and/or racing is dangerous and hard on equipment. In the event your Avalanche Advantage Fox 40 cartridge kit fork breaks or malfunctions, Avalanche Suspension Inc. will assume no liability or obligation beyond the repair or replacement of your fork.



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