

AVALANCHE
SUSPENSION

AVA
ADVANTAGE
PROGRAM

Making suspension better for everyone.



Models Included:
Fox 34 Float, Talas, 26, 27.5 and 29



Thank You for purchasing an Avalanche Advantage Cartridge Kit. The following instructions are intended for those experienced with the mechanics of suspension service. Please follow the instructions carefully and thoroughly. If there are any please contact Avalanche Down Hill Racing for further assistance.

Do not dispose of waste oil inappropriately! Contact your local recycling center for information on proper disposal.

Disclaimer

Avalanche Suspension Inc. is not responsible for any damages to you or others from riding, transporting or other use of your Avalanche Advantage Fox 34 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 34 cartridge kit fork breaks or malfunctions, Avalanche Suspension Inc. will assume no liability or obligation beyond the repair or replacement of your fork.

Before getting started you will need to locate the following tools and consumables

Tools, fluid and lubricants required to service and rebuild your Fox 34 for the Avalanche Advantage Cartridge upgrade kit

Tools:

6 point sockets: 28mm, 15mm

Open end wrench : ½ in

Hex Keys : 2mm , 5mm

Snap Ring plier (Craftsman Model
Number #47412)

Small Flat blade Screw driver

Coat hanger or welding wire

Soft face hammer

In-Lbs Torque wrench

Graduated Cylinder (Optional) Small tape measure or ruler

Consumables:

Rubber Gloves

Spectro oil 85/150

Shop rags

Isopropyl alcohol

Water proof grease (Bel

Silicon RTV

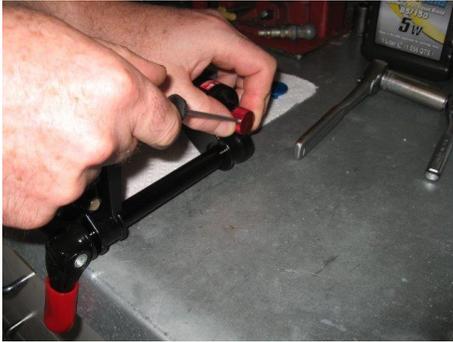


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Preparing your Fox 34 for the Avalanche Advantage Cartridge upgrade kit

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.



With an Allen key, remove the low speed knob.



Using a 15 mm Ratchet loosen the damper retaining nut



Remove the retaining nut fully



Using a 2mm Allen wrench loosen remove the bolt retaining the compression knob



Remove the blue compression damping knob



Remove the small spring from the compression knob assembly



Remove the black high speed knob and expose the fork cap hex



Loosen the for cap using a 28 mm 6 point ratchet



Unscrew the fork full with you fingers

Removing the CDT/FIT Cartridge



Using a 10mm Ratchet loosening the retaining nut on the spring leg



Tap the nut with a soft face hammer to un-seat the press fit. **Do not strike the lead of any exposed external thread. It will damage it!**



Remove the spring retaining nut and seal washer



Push the sprung rod through the casting



The fox F.I.T cartridge should slide out of the fork easily

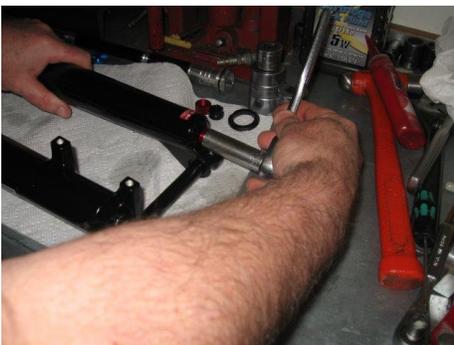
Separate the Uppers and Lower



Unscrew the Air spring cap **Skip this Step if your fork has a mechanical spring**



Depress the Schrader valve with a screwdriver to release the air pressure
Skip this Step if your fork has a mechanical spring



Loosen the retaining Nut on the Sprung side of the fork



On the Sprung side tap the nut with a soft face hammer to un-seat the press fit. Push the spring assembly through the casting just like the damper side. **Do not strike the lead of any exposed external thread. It will damage it!**



Gently separate the upper sliders from the lower casting



Using a bent coat hanger or welding wire create a hook and remove the factory bottom out bumper



Remove the bottom out bumper you will not need this, only on the damper side, the air side bumper can remain installed to prevent damage to the stanchions from severe bottom out.

Installing the ABS Bottoming Ring



On the damper stanchion check for a snap ring groove at the bottom, some stanchions do not have the groove and the oil lock ring cannot be used with this fork and cartridge. Not to worry the hydraulic anti-bottoming system is secondary as compared to the air spring ramp-up created by the air side and is not required for most fork set-ups. Keep the oil lock ring and snap ring in a safe place as if the upper stanchions are ever replaced they most likely could be use on these new stanchions.



Install the abs oil lock ring, with the I.D. chamfer facing out.



Insert the retaining ring back into the groove. Make sure it is fully seated before proceeding to the next step.

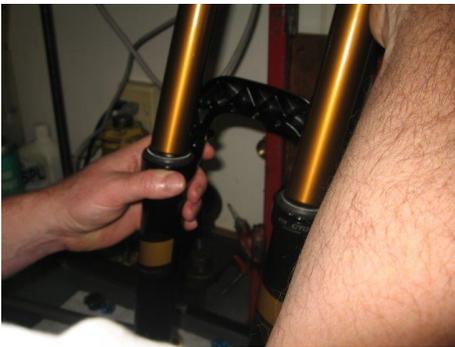
Installing the Avalanche cartridge:



Using a clean paper towel wipe off any old grease and dirt from the dust seal



Apply new grease to the dust seal



Gently reassemble the fork sliders to the lower casting. Don't force this step. It helps to get one seal started first then rock it over to the second. After both seals have accepted the sliders gently slip the tubes past the bushings.



Push the assembly together and the air spring shaft should go through the casting. A small screw driver can be helpful to gently align the shaft to the hole.



Slide the factory washer onto the air or spring shaft



Thread the factory nut onto the shaft



Tighten the nut snug, do not try to torque as it will just crush the washer



Apply a bit of grease to the 1.5 x 12 mm o-ring on the ABS cone of the Avalanche Cartridge



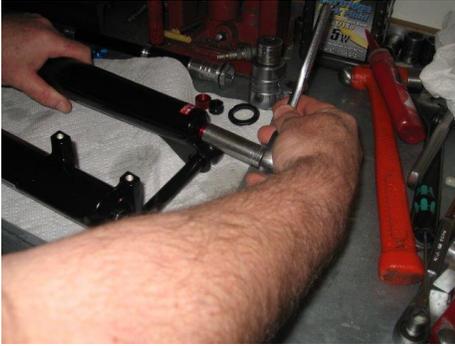
Insert the Avalanche Cartridge into the damping leg



Push the gold end through the fork casting as shown. Use a small screw driver to help line up the assembly



Thread the red retaining nut with included O-ring onto the assembly



Tighten the retaining nut, be careful not to over tighten as they are small aluminum parts, typical torque is 15 inch-lbs



Fill the Damper tube with 85/150 oil to near the top as shown



Cycle the damper rode up and down until the oil has no air bubbles visible



Measure the oil height makes sure it is 35mm(standard) from the top of the fork repeat the previous step until the correct reading is achieved



Thread the fork cap on fully to the grey shaft until the threads bottom out. **Then tighten the blue jam nut up to the gold cap.**



Using a 1/2 inch wrench and 15mm 6 point socket tighten the jam nut. **Be very careful these parts are delicate. Use a paper towel on the fork cap hex to avoid scratching the finish.**



Thread the fork cap in by hand initially



Install the fork back on your bike,

Go out and Ride

Recharge the air spring to your designed specs if applicable.
Step back and double check your work

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 an additional Document. The fork cap adjuster is the low speed rebound and the standard setting is 11 clicks out (counterclockwise) from full hard. The bottom 10 mm adaptor bolt contains the low speed compression adjuster and the standard setting is 11 clicks out (counterclockwise) from full hard. It can be turned by inserting a small (3.75 mm wide max) flat blade screwdriver up into the lower leg gold 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 level (outer): Dry assembly:

Standard height: 35 mm from top fully compressed

Compression and Rebound Settings:

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

Standard:

Rebound (fork top) 11 clicks out from full clockwise

Compression (fork bottom) 11 clicks out from full clockwise

Downhill roots/rocky conditions:

Rebound 15 clicks out from full clockwise

Compression 17 clicks out from full clockwise

All Mountain smooth/drops conditions:

Rebound 10 clicks out from full clockwise

Compression 8 clicks out from full clockwise

Urban large drops to flat conditions:

Rebound 8 clicks out from full clockwise

Compression 5 clicks out from full clockwise

[Revalving the Cartridge Kit:](#)

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

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