

AVALANCHE
SUSPENSION

AVA
ADVANTAGE
PROGRAM

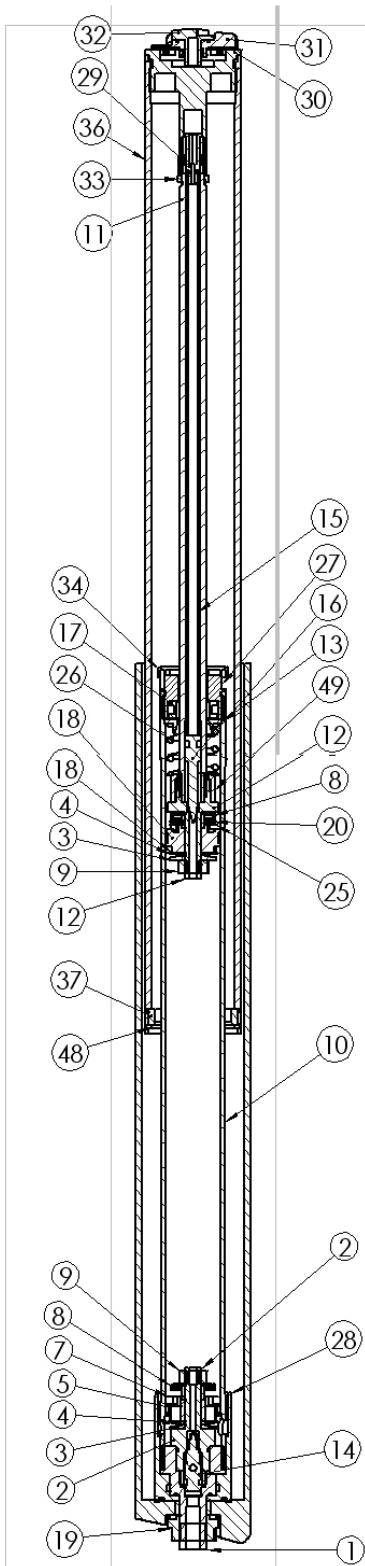
Making suspension better for everyone.



Models Included:

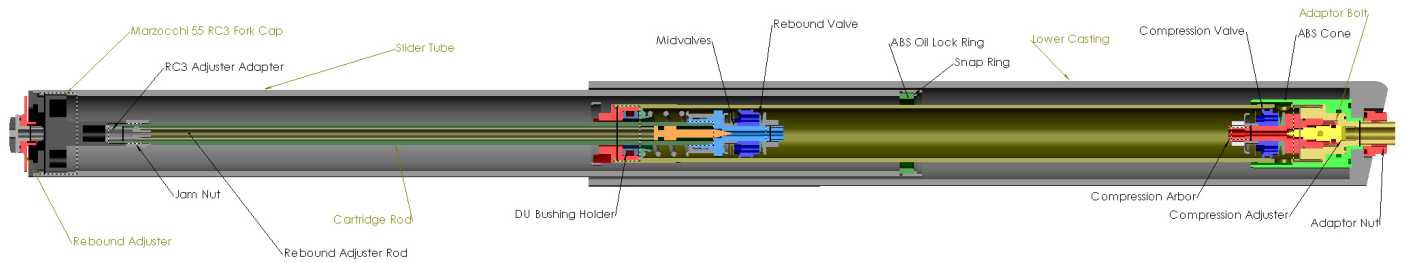
- 2012-13 Marzocchi 55 RC3 EVO Ti 170 mm
- 2010-11 Marzocchi 55 RC3 / Ti 160 mm
- 2009 Marzocchi 55 RC3 160 mm

Requires original Marzocchi 55 RC3 fork rebound cap.



ITEM NO.	QTY.	PART NO.
1	1	Comp bolt adapter Boxxer35
2	1	comp arbor bolt
3	1	valve stop
4	1	comp shims
5	1	20 comp piston
6	1	check spool
7	1	check valve
8	1	check valve cup
9	1	6 mm nut
10	1	cart tube 180 mm
11	1	cart rod marz 55 rc3 open bath
12	1	rebound stem
13	1	20 mm top out washer
14	1	high low adj needle-1
15	1	Rebound adjuster rod marz 55 ob
16	1	rebound needle 3
17	1	du bushing holder
18	1	20 rebound piston
19	1	Nut adapter
20	1	17x.25x8mm shim
21	1	10x.25x8mm shim
22	1	11x.10x8mm shim
23	1	13x.10x8mm shim
24	1	15x.10x8mm shim
25	1	17x.10x8mm shim
26	1	Top out .081x.75 spring
27	1	cart tube end cap
28	1	abscone marz 888 35
29	1	Marz 55 RC3 adjuster
30	1	Marz 55 RC3 Fork cap
31	1	Marz 55 RC3 rebound adjuster nknob
32	1	Marz 55 RC3 air cap
33	1	Marx 55 RC3 jam nut
34	1	Cart tube end cap adaptor ring boxxer
35	1	Marz 55 RC3 lower dimensions
36	1	Marz 55 RC3 slider tube
37	1	Marz 55 RC3 abs insert
38	1	check valve cup
39	1	check spool
40	1	comp shims
41	1	valve stop
42	1	6 mm nut
43	1	10x.25x8mm shim
44	1	10x.25x8mm shim
45	1	17x.10x8mm shim
46	1	17x.10x8mm shim
47	1	17x.10x8mm shim
48	1	32 thin mm snap ring
49	1	10 mm rod spacer





Preparing your Marzocchi 55 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 :



Tools needed :

- 10 mm open end wrench
- 15 mm socket
- 17 mm socket
- 24 mm socket
- 2 mm Allen wrench
- cassette socket
- screw driver
- 3 mm allen key
- 5 mm allen key
- Red Loctite
- tape measure
- Propane torch



screwdriver.

Remove low speed knob, pops off with flat blade



nut with 15 mm socket.

Remove o-ring and set parts aside. Wait to loosen base



Remove preload adjuster knob.



Be careful not to lose the detent ball and spring.



Remove fork cap with 24 mm socket.



Check o-ring for damage, replace if needed.



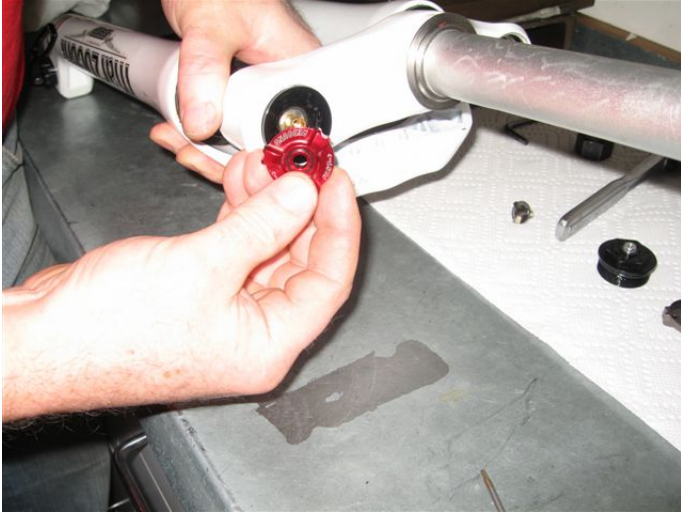
Remove spring and plastic spring collar.



Compress fork and drain any oil to prevent spilling, or plug with cap hand tight.

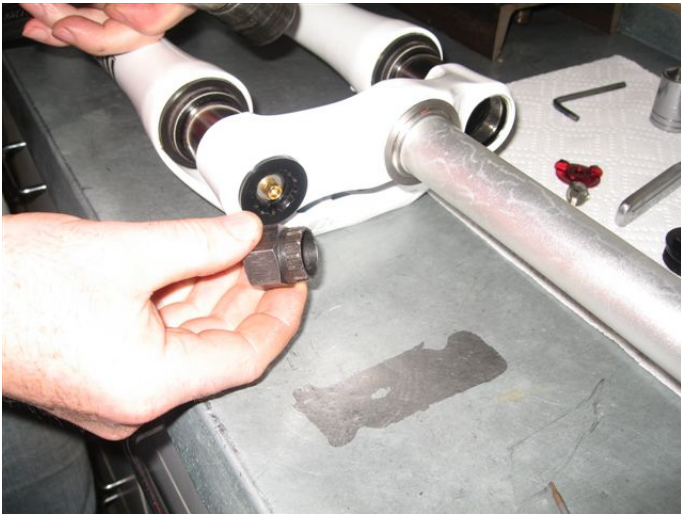


Remove air assist cap.



Remove rebound adjuster knob, be careful not to lose small o-ring on back of knob.

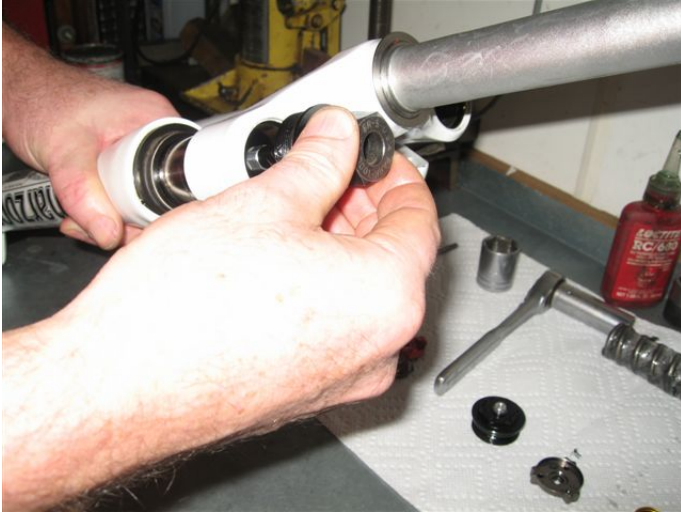
Remove rebound adjuster knob, be careful not to lose



With the cassette socket remove the fork cap.



Be careful not to slip as it will damage the cap.



Inspect o-ring and cap for damage, replace if necessary.



Pump and drain as much oil as possible.



Reinstall cap hand tight to prevent damage and oil from spilling.



Remove base nut with 17 mm socket



Tension the fork to help keep the internals from spinning when removing the nut.



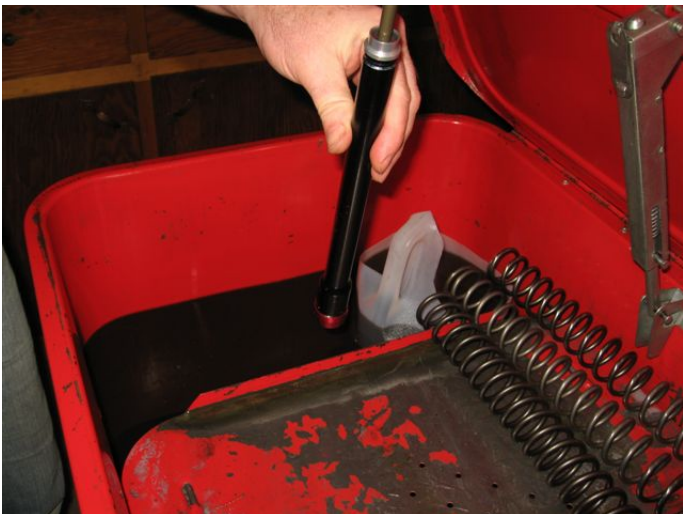
Inspect condition of lower casting hole and set the nut aside.



Allow the oil to drain from the fork.



Remove the damper assembly.



Drain remaining oil.



Remove the Allen bolt on the spring side.



Inspect hole for damage or debris, replace o-ring if needed.



Allow oil to drain.



Remove upper stanchions.



Clean uppers and lowers, wipe seals and lube seals.



Inspect lower stanchion for damage or debris.



down.

Install ABS oil lock ring with chamfer facing out or



exposed.

Be sure the ring is fully seated and ring groove is fully



Install 34 mm snap ring. Set uppers aside.



Remove the fork rebound cap from the damper rod, using a 10 mm wrench and the cassette socket.



Loosen the jam nut and use it to continue loosening the cartridge rod from the cap.



Remove the fork cap and set aside.



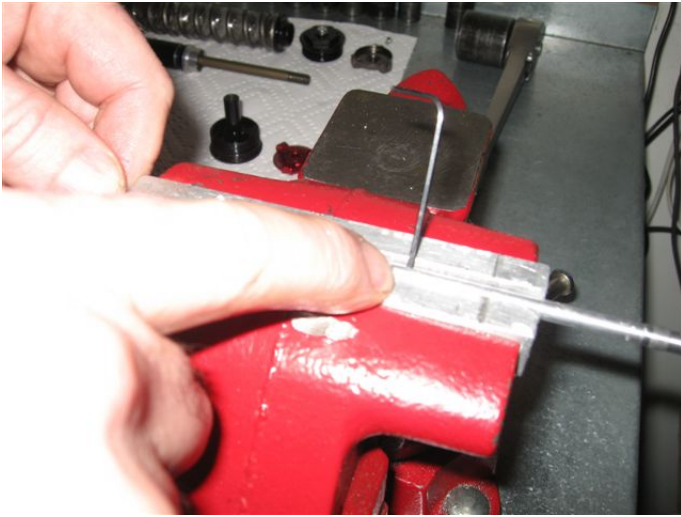
Unscrew the rebound adjuster rod from the cartridge rod.



Remove the jam nut.



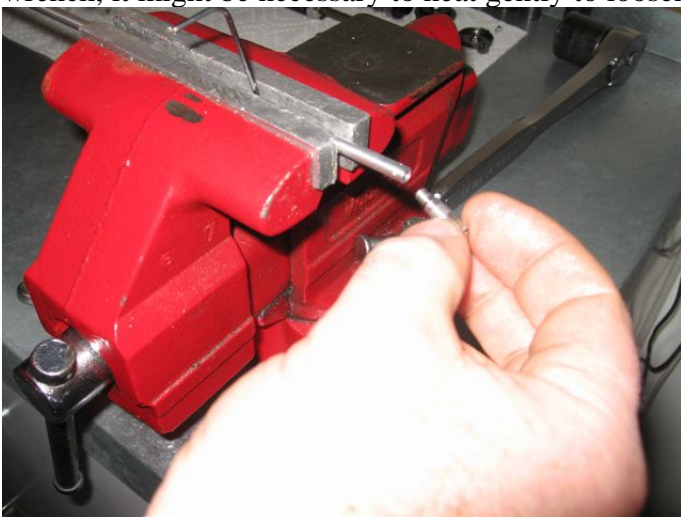
It might be jammed on the rod and require 8mm shaft clamps or a soft jaw vise.



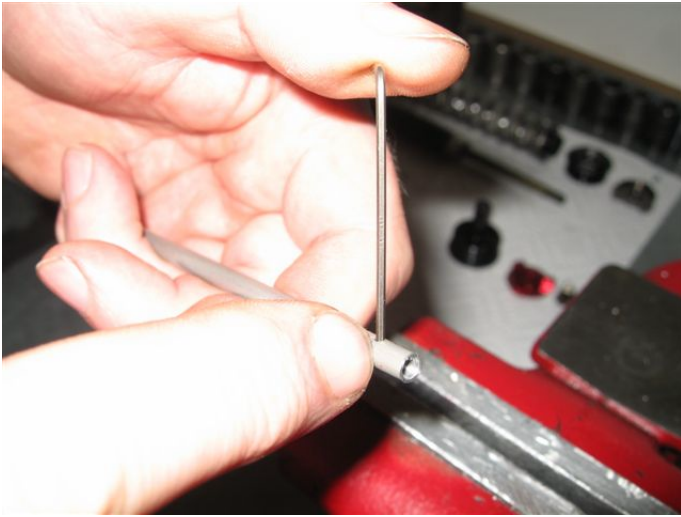
Insert a small drill or allen key in the air bleed hole of the rebound adjuster rod and install in soft jaw vise as shown.



remove the threaded upper end with a 3 mm Allen wrench, it might be necessary to heat gently to loosen Loctite.



Unscrew and inspect threads, remove any hardened loctite

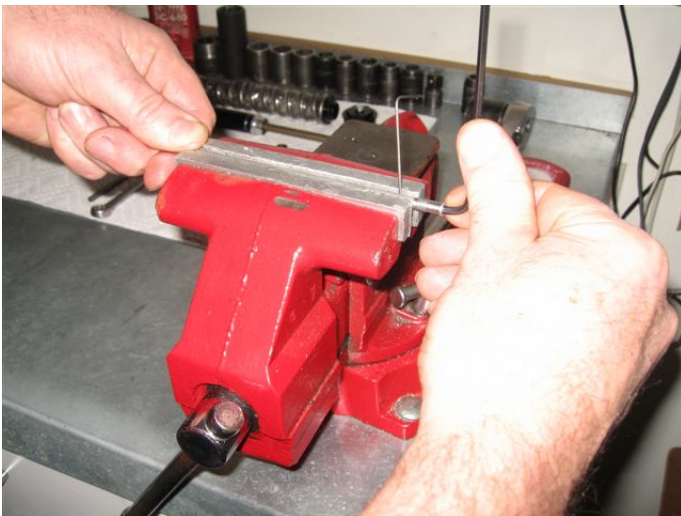


adjuster rod.

Insert small drill or allen key in the AVA supplied



Position in vise as shown and apply red loctite.

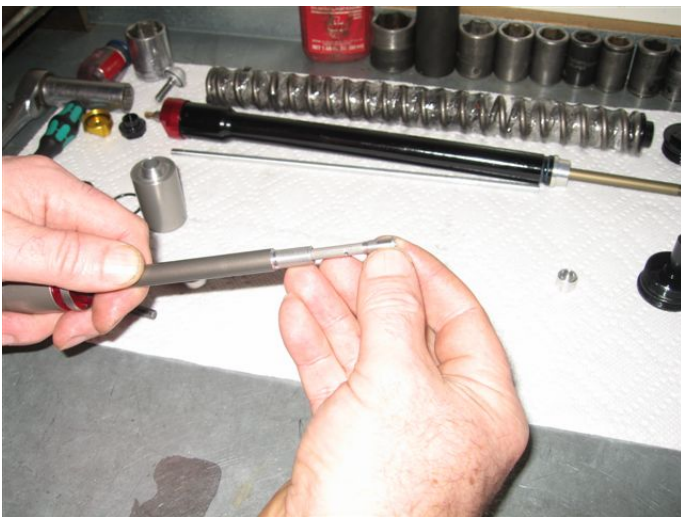


tighten.

Tighten until the shoulder bottoms on rod, do not over



Make sure the adjuster threaded completely on.



Screw adjuster rod assy into AVA damper rod, be careful not to cross thread it, make sure it turns by hand before using the Allen key.



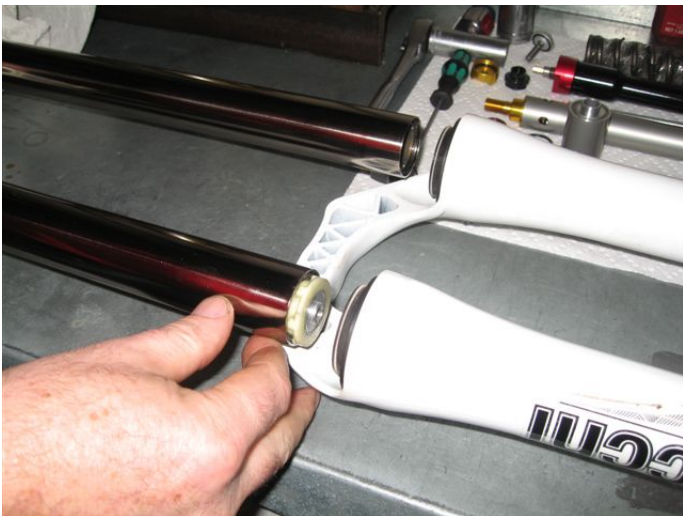
Screw in until threads are not exposed.



Install jam nut with round end on first.



Have the other parts laid out and ready.



Install upper stanchions.



Make sure the lower holes are aligned.



Install the allen bolt and tighten.



Prep the ABS cone with grease.



Install o-ring (20 x 2.0)



Install cartridge in the fork, gently not to knock off the o-ring.



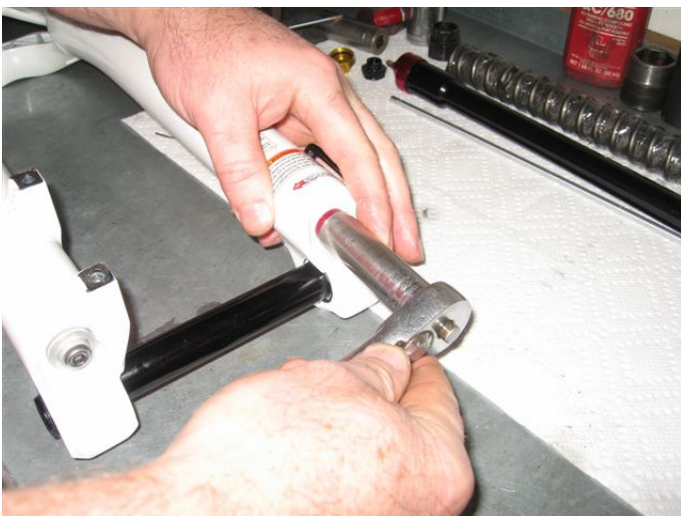
Use the allen driver to help center it through the hole.



Push cartridge through the lower casting hole.



Install the nut and o-ring (-014)



Tighten with 15 mm socket, do not over tighten or torque down (15-20 in-lbs)



exposed.

The nut should be flush and about 2.5 mm of gold threads



Over fill upper damper side with approx 200-250 cc of oil



Cup hand over stanchion and force air bubbles out of cartridge, overfill to keep cartridge covered while bleeding cartridge rod.



Repeatedly pull damper rod up and down until air bubbles disappear and a smooth damping feel throughout the stroke is achieved.



Measure to top of oil with stanchion and rod completely compressed. Add or remove oil to set the height to 30 mm (standard) from top.



This is how we measure from top.



Install the rebound fork cap.



It should bottom on rod before contacting the jam nut.



Make sure the rebound adjuster move freely.



Bring the jam nut up and tighten gently against the cap with a 10 mm wrench. Extreme caution must be used as the parts are very fragile and will break if over tightened.



Install fork cap with stanchions fully extended.



Use the cassette socket to tighten the fork cap.



Torque to Marzocchi specs.



Add 50 cc of fork oil to the spring side.



lower insert.

Install fork spring, be sure it is centered in the plastic



Install the upper plastic spring collar.



Install the fork cap



Torque to Marzocchi specs.



Install the preload adjuster knob making sure the ball and detent spring are in place, trick: use a grease gob to hold them in place.



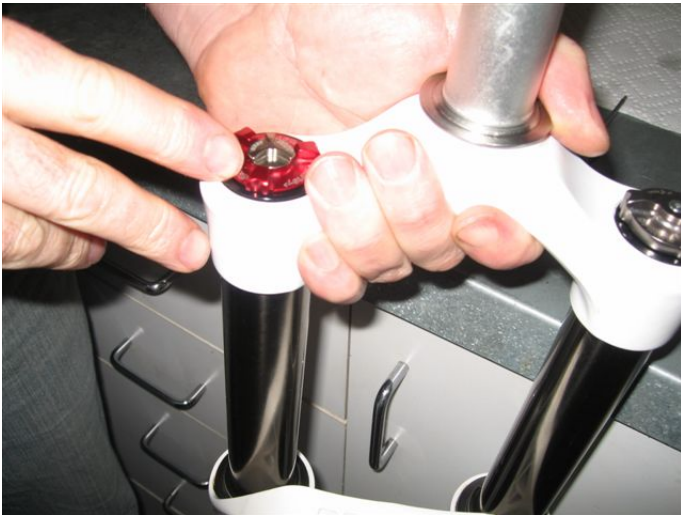
Tighten knob screw.



Install rebound knob, be sure the o-ring is in place.



Install the air cap.



The low speed rebound damping is set to 13 clicks out

(standard)



The low speed compression damping is set to 11 clicks out (standard). Use a ground down #2 flat blade screwdriver to insert up into the base.

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 rebound and the standard setting is 13 clicks out (counterclockwise) from full hard. The 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 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

Wet/already assembled:

Approx. volume of 85/150 fork oil needed is 250 cc, overfill and set oil height from fully compressed for actual measurement.

Standard oil height from top fully compressed: 30 mm for Marzocchi 55, 170 travel

Optional Stiffer height from top fully compressed: 25 mm

Optional Softer height from top fully compressed: 35 mm

Compression and Rebound Settings:

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

Standard:

Compression 11 clicks out from full clockwise, 22 total.

Rebound 13 clicks out from full clockwise, 28 total.

Downhill roots/rocky conditions:

Compression 17 clicks out from full clockwise

Rebound 16 clicks out from full clockwise

All Mountain smooth/drops conditions:

Compression 8 clicks out from full clockwise

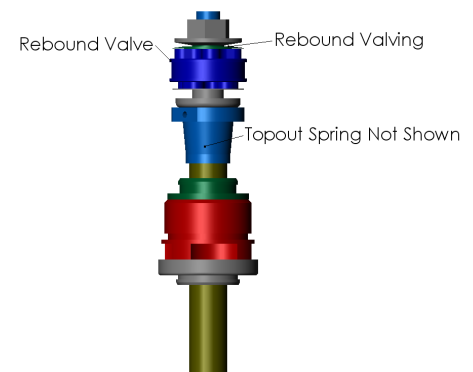
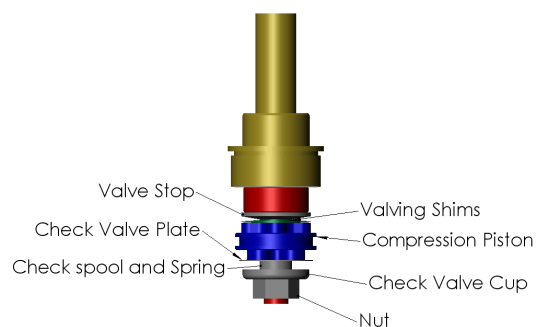
Rebound 11 clicks out from full clockwise

Urban large drops to flat conditions:

Compression 5 clicks out from full clockwise

Rebound 9 clicks out from full clockwise

Revalving the Cartridge Kit:



Standard Valving:
6mm ID Shims

Compression	Rebound
	17x.10
17x.10	17x.10
15x.10	13x.10
16x.10	10x.10
15x.10	16x.10
14x.10	15x.10
13x.10	14x.10
12x.10	12x.10
11x.10	10x.10
10x.10	8x.20
8x.20	

Optional Stiffer Compression/Slower Rebound Valving:

Compression	Rebound
	17x.10
17x.10	17x.10
15x.10	17x.10
16x.10	
15x.10	13x.10
14x.10	10x.10
	16x.10
13x.10	15x.10
12x.10	14x.10
11x.10	12x.10
10x.15	10x.10
8x.20	8x.20

Optional Softer Compression/Faster Rebound Valving:

Compression	Rebound
	17x.10
17x.10	17x.10
14x.10	12x.10
16x.10	10x.10
14x.10	16x.10
12x.10	14x.10
10x.10	12x.10
8x.20	10x.10
	8x.20

Disclaimer

Avalanche Suspension Inc. is not responsible for any damages to you or others from riding, transporting or other use of your Avalanche Advantage Marzocchi 55 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 Marzocchi 55 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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