

**AVALANCHE**  
SUSPENSION

**AVA**  
ADVANTAGE  
PROGRAM

Making suspension better for everyone.



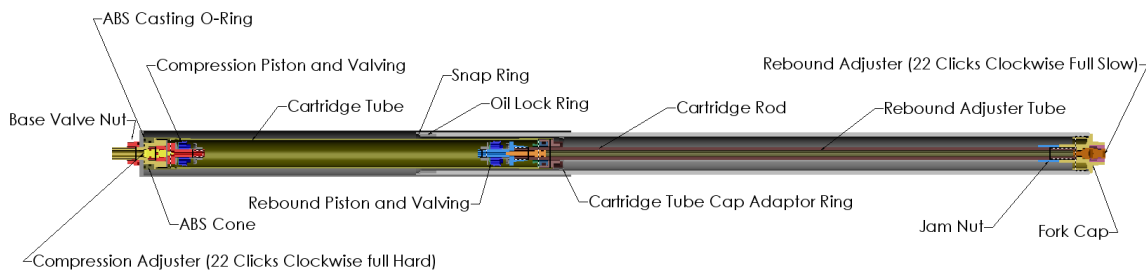
**Models Included:**

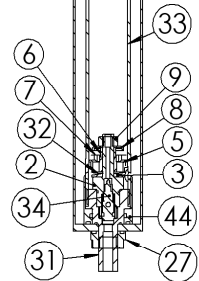
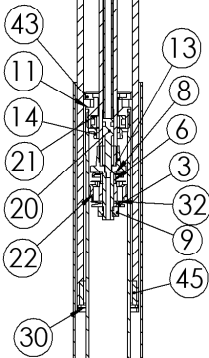
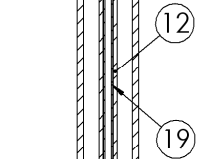
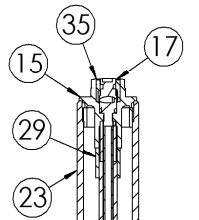
**Boxxer**

**Race/RC/R2C2/Team/Keronite/World Cup**

**2009-2012 –35mm**

**Totem and Lyrik same as Boxxer 32 Instructions**





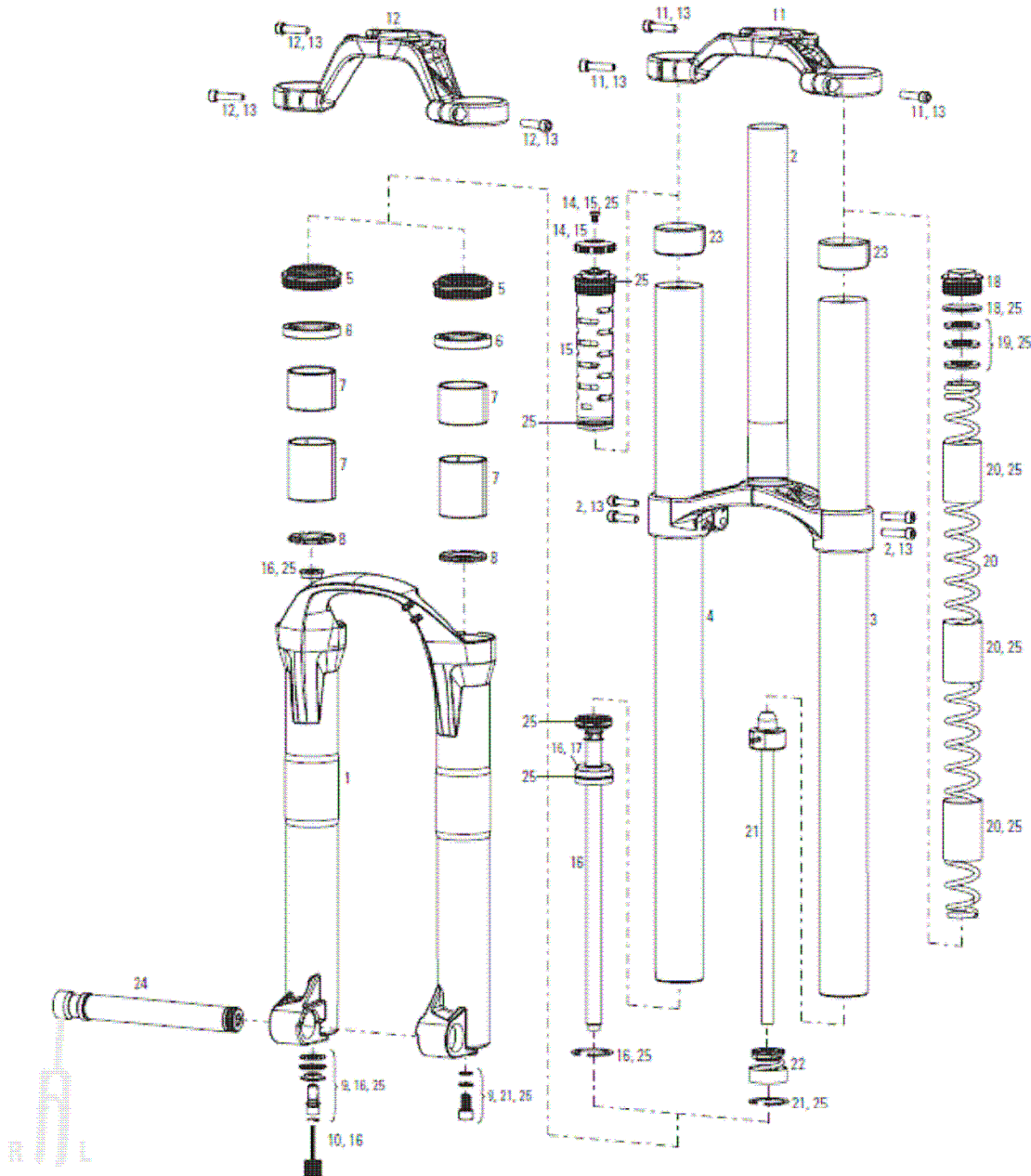
**Materials List**  
**Boxxer 35 Cartridge Kit**

ITEM NO.	QTY.	Description
2	1	comp arbor bolt
3	1	valve stop
5	1	20 comp piston
6	1	check spool
7	1	check valve
8	1	check valve cup
9	1	6 mm nut
11	1	cart tube end cap
12	1	cart rod
13	1	rebound stem
14	1	20 mm top out washer
15	1	fork cap boxxer
17	1	rebound adjuster
19	1	rebound adjuster rod
20	1	rebound needle
21	1	du bushing holder
22	1	20 rebound piston
23	1	Boxxer slider tube
27	1	Nut adapter
29	1	cart rod jam nut
30	1	31 mm snap ring
31	1	Comp bolt adapter 10mm
32	1	comp shims
33	1	cart tube
34	1	high low adj needle-1
35	1	adjuster detent THD
36	1	check valve cup
37	1	check spool
38	1	check valve
39	1	comp shims
40	1	valve stop
41	1	6 mm nut
42	1	boxxer casting dim
43	1	Cart tube end cap adaptor ring boxxer
44	1	abscone boxxer
45	1	Boxxer abs insert



Shown below for reference is the exploded view of the stock 35 mm Boxxer Race, use this in conjunction with the service manual provided by Rockshox to disassemble your fork to prepare it for the cartridge upgrade.

**BOXXER RACE - MOTION CONTROL IS - 35mm (2009-2010)**

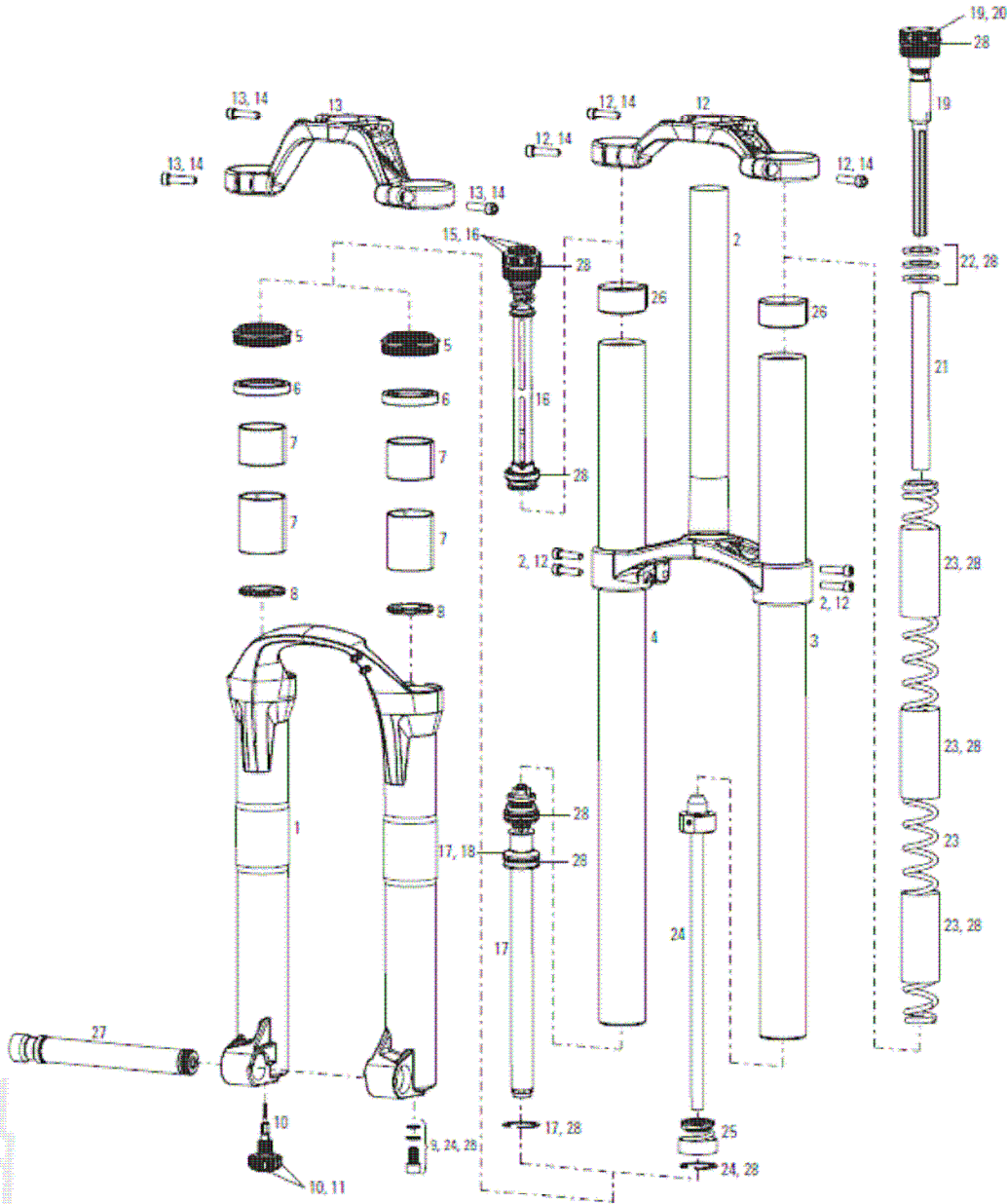


**Note:**

1. All service kits include any and all replaceable o-rings, retaining rings, crush washers, crush washer retainers, and shaft bolts/nuts.
2. Rebound damper and spring shaft kits include crush washers, crush washer retainers and shaft bolts, as well as upper tube retaining rings and rebound adjuster knob.
3. Damper side - rider's right. Spring side - rider's left.
4. All lower legs include decals, bottom-out bumpers, bushings, oil seals and dust seals installed.
5. All lower legs do not include Boxxer DH Maxle.
6. Boxxer Race lower leg is NOT compatible with Boxxer Team and World Cup. Boxxer Race lower leg includes an insert in the right/rebound shaft bolt hole to accommodate the Boxxer Race rebound damper steel shaft.
7. Refer to the 2010 Boxxer Race Technical Manual ([www.sram.com](http://www.sram.com)) for oil volumes, air pressure settings and torque values.

Shown below for reference is the exploded view of the stock 35 mm Boxxer Team, use this in conjunction with the service manual provided by Rockshox to disassemble your fork to prepare it for the cartridge upgrade.

**BOXXER TEAM - MISSION CONTROL DH - 35mm (2009-2010)**

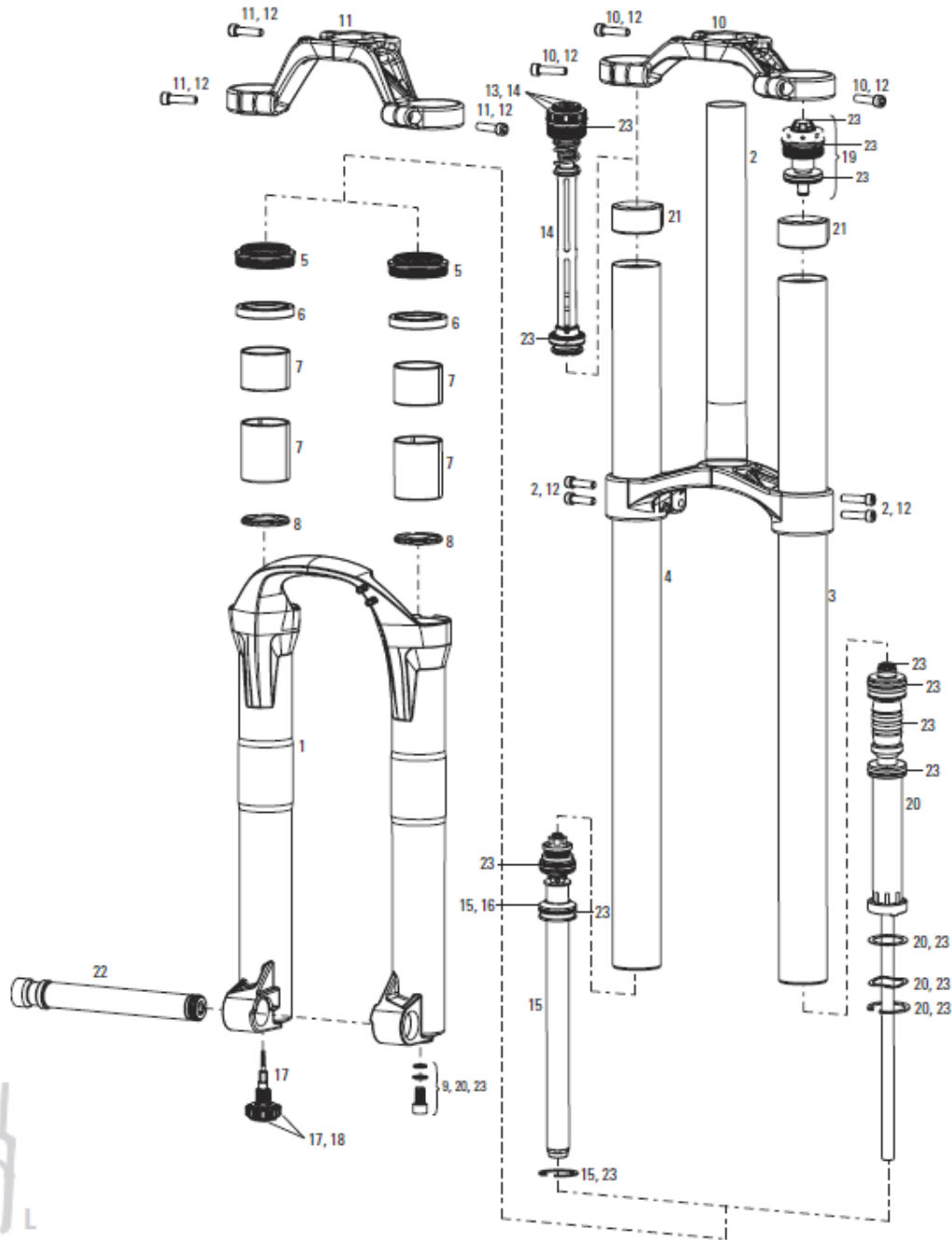


**Note:**

1. All service kits include any and all replaceable o-rings, retaining rings, crush washers, crush washer retainers, and shaft bolts/nuts.
2. Spring shaft kit includes crush washer, crush washer retainer and shaft bolt, as well as upper tube retaining ring.
3. Damper side - Rider's right. Spring side - Rider's left.
4. All lower legs include decals, bottom-out bumpers, bushings, oil seals and dust seals installed.
5. All lower legs do not include Boxxer DH Maxx.
6. Boxxer Race lower leg is NDT compatible with Boxxer Team and World Cup.
7. Refer to the 2010 Boxxer Team Technical Manual ([www.sram.com](http://www.sram.com)) for oil volumes, air pressure settings and torque values.

Shown below for reference is the exploded view of the stock 35 mm Boxxer World Cup, use this in conjunction with the service manual provided by Rockshox to disassemble your fork to prepare it for the cartridge upgrade.

**BOXXER WORLD CUP - MISSION CONTROL DH - 35mm (2009-2010)**



**Note:**

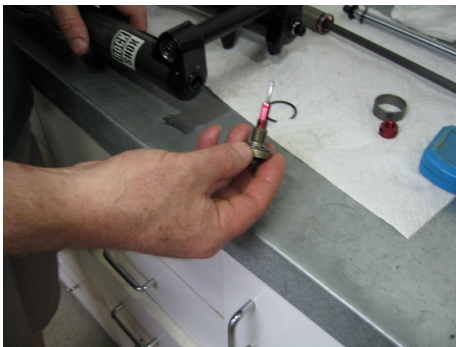
1. All service kits include any and all replaceable o-rings, retaining rings, crush washers, crush washer retainers, and shaft bolts/nuts. Air service kits include schrader valve(s).
2. Rebound damper and spring shaft kits include crush washers, crush washer retainers and shaft bolts, as well as upper tube retaining rings and rebound adjuster knob.
3. Damper side – rider's right. Spring side – rider's left.
4. All lower legs include decals, bottom-out bumpers, bushings, oil seals and dust seals installed.
5. All lower legs do not include Boxxer DH Maxle.
6. Boxxer Race lower legs NDT compatible with Boxxer Team and World Cup.
7. Refer to the 2010 Boxxer World Cup Technical Manual ([www.sram.com](http://www.sram.com)) for oil volumes, air pressure settings and torque values.

## Preparing your Boxxer 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:



For 35 mm Boxxer Team/World Cup remove rebound base bolt adjuster



For 35 mm Boxxer Team/World Cup disassemble similar to above procedure



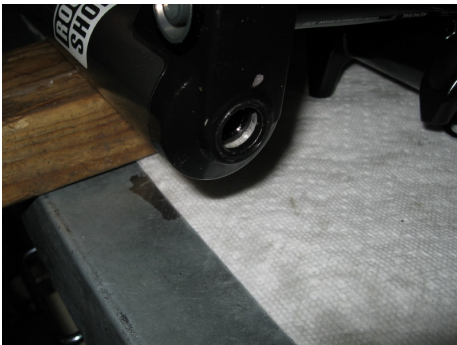
For 35 mm Boxxer Race disassemble similar to above procedure



For 35 mm Boxxer Race a insert bushing must be removed to install the cartridge kit, it is difficult to see because the powder coat has covered it up and makes it look like part of the lower casting



For 35 mm Boxxer Race a insert bushing can be removed by using a socket that is slightly larger than the hole by tapping it with a hammer until it breaks free of the press fit and powder coat



For 35 mm Boxxer Race a insert bushing can be seen half way pressed out, continue tapping gently until it pops into the leg



For 35 mm Boxxer Race a insert bushing is shown removed here





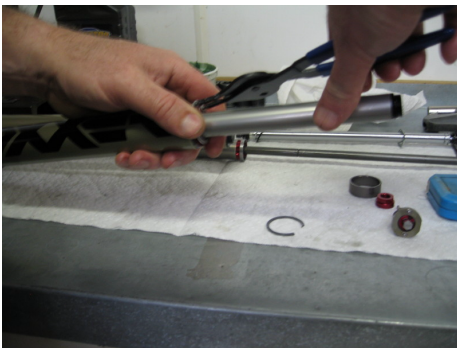
assembly

For 35 mm Boxxer Race/Team/World Cup remove the upper slider



assembly

For 35 mm Boxxer Race remove the snap ring and rebound damper rod



damper rod assembly

For 35 mm Boxxer Team/World Cup remove the snap ring and rebound



removed

For 35 mm Boxxer Team/World Cup rebound damper rod assembly shown



For 35 mm Boxxer Race rebound damper rod assembly shown removed



For the 35 mm Boxxer the bottom out bumper shown being removed



Clean the slider tube and lower leg of any remaining chips, flush if necessary



In the plastic bag provided are an oil lock ring(ABS Insert) and a snap ring



The oil lock ring will have an arrow pointing to the champher, this will face out or down to prevent damage when sliding over the ABS cone.



Insert the oil lock ring (ABS insert) with the internal chamfer facing out



Insert the snap ring

For the 35 mm Boxxer install the oil lock ring with the chamfer facing out/down so the oil lock ring can engage the bottom out cone smoothly



For the 35 mm Boxxer insert the snap ring



Insert the slider tube shown in the 35 mm Boxxer



Prepare the cartridge kit as shown, remove the fork cap

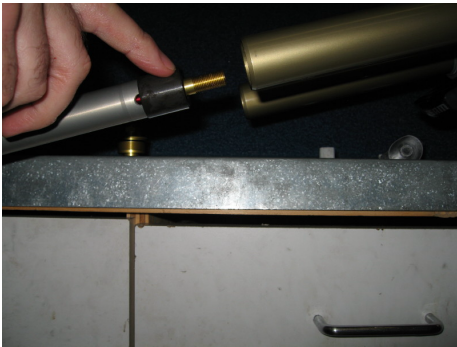


bottom of the ABS cone

Use RTV or thick grease to help secure the -019(Boxxer 35) o-ring to the



Inset the o-ring into the bottom groove



Insert the cartridge assembly into the slider/lower leg, take care to not knock off the base o-ring



O-ring shown installed on the Boxxer 35 mm kit



Insert the cartridge assembly into the 35 mm slider/lower leg, take care to not knock off the base o-ring



Guide the cartridge assembly thru the entire slider tube



Line the 10 mm adaptor bolt to the lower hole



Push it thru until the ABS cone bottoms on the lower leg



Prepare the 10 mm adaptor nut with RTV to help secure the -014 o-ring



Thread the nut with the o-ring facing the lower leg



Thread the nut with the o-ring facing the lower leg shown on the Boxxer

35 mm



Tighten the nut to 10-15 in-lbs



Pour out at least 350 cc of cartridge fork oil 85/150 or equivalent



Pour all the oil into upper stanchion. This will overfill the leg so it will be easier to bleed the air out, you will be dumping the excess out later after you set the proper oil level. Cup your hand over the stanchion to pressurize the damper to force all the oil into the fork.



Cycle rod and stanchion to remove all air bubbles and insert the rebound adjust rod. Make sure when the cartridge rod provides damping for the entire stroke, continue bleeding by pulling up on the rod until it is consistent all the way to the upper end. Measured from top of compressed stanchion and cartridge rod, set oil height to specified amount in set-up chart provided to you. Standard oil height is 125 mm from top of stanchion with fork fully compressed.





Screw on the fork cap



Make sure the fork cap bottoms on the cartridge rod before the jam nut



Bring the jam nut up to the fork cap and tighten with a slight squeeze on the two wrenches, approximately 10 in-lbs, be careful not to over tighten as these parts can easily be damaged



Screw on the fork cap with fork stanchion fully extended.



Tighten fork cap hand tight

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 12 clicks out (counterclockwise) from full hard. The 10 mm adaptor bolt contains the low speed compression adjuster and the standard setting is 12 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: (Recommended, more accurate way)**

Standard height from top fully compressed: 125 mm

Optional Stiffer height from top fully compressed: 115 mm – Boxxer 32 mm

95 mm – Boxxer 35 mm

Optional Softer height from top fully compressed: 140 mm – Boxxer 32 mm

150 mm – Boxxer 35 mm

## **Compression and Rebound Settings:**

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

### **Standard:**

Compression 12 clicks out from full clockwise

Rebound 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

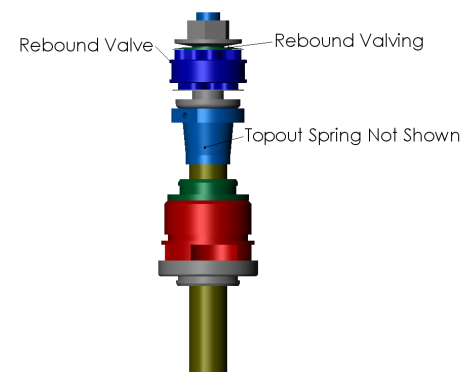
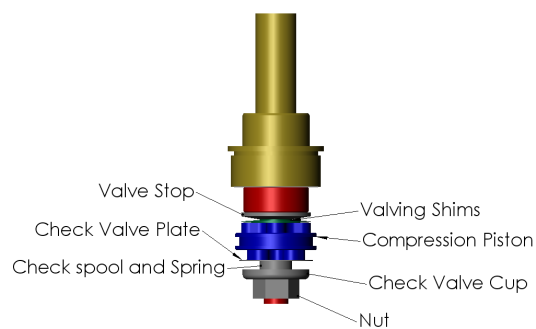
### **Urban large drops to flat conditions:**

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:**



Standard Valving:

6mm ID Shims

<b>Compression</b>	<b>Rebound</b>
17x.10	17x.10
15x.10	12x.10
16x.10	
15x.10	10x.10
14x.10	16x.10
13x.10	15x.10
12x.10	14x.10
11x.10	12x.10
10x.10	10x.10
8x.20	8x.20

Optional Stiffer Compression/Slower Rebound Valving:

<b>Compression</b>	<b>Rebound</b>
17x.10	17x.10
16x.10	17x.10
15x.10	12x.10
14x.10	10x.10
13x.10	16x.10
12x.10	14x.10
11x.15	12x.10
10x.15	10x.10
8x.20	8x.20

Optional Softer Compression/Faster Rebound Valving:

<b>Compression</b>	<b>Rebound</b>
17x.10	17x.10
14x.10	11x.10
16x.10	9x.10
14x.10	15x.10
12x.10	13x.10
10x.10	11x.10
8x.20	9x.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 Rockshox Boxxer 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 Boxxer 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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