

Ok guys listen up, here is a outline of maintenance performed on a Rapid MKII



The first thing you must Respect when you work on your Rapid or any PCP is HPA! High Pressure Air that is used in these guns can Kill!! So always, respect it and follow one simple procedure. Never work on your Rapid with the Bottle attached!!

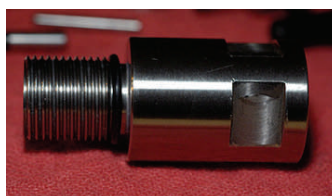
So the maintenance of the Rapid deals with mainly the inspection and re-lubing of the O-rings (seals). The one and only lube you use on the Rapid O-rings, is MolyKote33 aka. Dow Corning 33. This silicone grease acts as a lube and protectant for the rubber o-rings. So if you hear the term, are your seals dry. They are referring to your O-rings, and if there is any silicone grease on them!



So first, TAKE THE BOTTLE OFF. To do this, unscrew the bottle by 1 to 1 1/2 turns (1/16" clearance between the bottle neck and bottle adapter). Now Dry-Fire your Rapid 2 times, this is to relieve the pressure in the Rapid's chamber. The 2nd shot should sound quieter due to less air!! If not, unscrew the bottle by another 1/2 turn and dry-fire 2 more times! Now unscrew the buddy-bottle the rest of the way. You might get a "puff" of air, don't worry, that is just the small residual pressure left in your Rapid. The O-ring that is on the bottle is the first one to check. Make sure it is intact, no cuts or nicks. Also check it if it's brittle (harden). Now re-lube it with a smear of Molykote33. Next remove the stock of your Rapid. This is done by removing the screw on the bottom (under side) of the Rapid.



Now you want to remove the trigger assembly. This is done by driving out the two pins on the side of the receiver. Now slide the trigger cartridge out. Next is to remove the hammer pre-load adjustment screw on the rear of the receiver. Now slide the hammer and spring assembly out, you might find a couple of shims under the spring guide so set them a side and do not forget about them. Also inside the hammer, you will find a washer, a small weight with a spring attached. This is the de-bouncing device. See photo above for the proper assembly sequence!



Now secure you rapid in vise. Now unscrew the bottle adapter. It is torque on! Therefore, it will take some force to remove. Here is the second O-ring to inspect and lube.



Next, remove the valve spring cover and return spring in the front of the receiver. As you unscrew this, be careful it is under spring tension! After you have the cap off, you will see the next o-ring to inspect and lube on the cap.



Now you want to remove the Valve-Stem. On the Valve Stem can be one or two grooves with O-rings in them. If only one O-ring is present, do not worry! I have seen them come both ways. I prefer only One O-ring in the rear groove! Of course, this is the next O-ring to inspect and re-lube.



The last piece to this puzzle to look at is the black valve body. Remove the small setscrew on the side of the receiver, on the bolt handle side. Use a wooden dowel (Chopstick if you have one) to push the valve body out. Insert the dowel through the hammer channel and push the valve body out. Here will be the last O-rings to inspect and lube! One is on the stem section and the last 1 or 2 is on body .

Now we are ready to re-assemble! First, here is a little secret. Look at the side of the Black Valve Body. You can see the small channel that is milled into it, for the setscrew to secure it. If it does not have it, put a small dab of White-Out or even white paint!

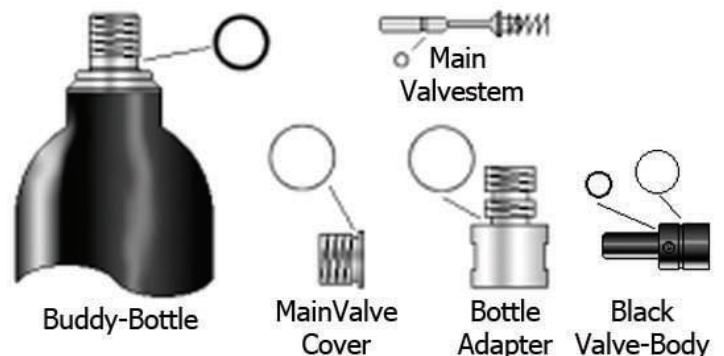
So first, insert the Black valve body in the receiver. As you insert it, make sure the channel with whiteout is aligned with the hole where the setscrew that secures it. Now using a flashlight(torch), shine it down the setscrew hole, you should be able to see the whiteout in the channel!! If not push it out and re-position it. Once line up correctly, screw the setscrew in very carefully. You just want to make contact with the side of the valve body. Once you feel the slight resistance, back the setscrew off by a 1/4 turn!

Now just re-assemble the rest of your Rapid by reversing the procedure above.

Just a few notes: This procedure assumes that you have a newer MKII series. If there was an Anti-tamper plug on the hammer adjustment screw, it was removed!

Here is a list and diagram of the O-rings used in a Fac MKII

- Bottle O-ring _____ BS111
- Bottle adapter _____ BS015
- Valve blanking plug _____ BS015
- Valve body(delrin) Large _____ BS013
- Valve body(delrin) stem _____ 4.1 x 1.6 mm
- Main Valve-Stem _____ BS607



I hope this helps!!
Stuart