FULLFIL RAMP Service

Tools needed:
450mm long dowel or pipe
1.5mm hex wrench
3 mm hex wrench
10mm wrench
11mm socket
Cassette tool
Philips screwdriver

1) After removing the fork from the bicycle, turn the ramp knob to the lightest setting (counterclockwise), to ensure all air is released during deflation of the air spring.

2) Remove the dust covers from both the top and bottom Schrader valve. Release all air pressure from the air spring leg by depressing the Schrader core in both the top and the bottom Schrader valves.

3) With the air released take a 10mm wrench and unthread the Schrader valve located on the bottom of the disc leg, until it protrudes roughly 5mm. Thread the Schrader cap back on to the valve and use your rubber mallet to tap the Schrader cap and release the air spring rod from the lowers. Once released continue to unthread the Schrader valve from bottom of the fork.

4) Loosen the setscrew on the red rebound knob until the knob can slide off of the damper screw. Remove the damper screw using the rebound removal knob in combination with the open end 10 mm wrench. **Skip to step 4a if removal tool is not being used.** Holding the removal knob while turning the screw will maintain the position of the rebound needle in the damper rod.

4a) If the removal knob is not used, turn the rebound to the full slow position (clockwise) before removing the red knob. Remove the red rebound knob and set aside. Use a 10mm open end wrench and unthread the damper screw, the rebound needle will unthread to the end of the damper rod as the damper screw unthreads. Feel for the threads of the damper screw to release from the rod, and then pull the damper screw straight out of the rebound needle. The rebound needle will now be flush with the end of the damper rod. Use the 3mm hex key to turn the rebound needle back down into place. Tighten until firm resistance is encountered, then back off by half a turn.

5) Thread the Schrader valve (with the Schrader cap threaded on) part way into the damper rod and tap the screw firmly with the mallet to unseat the damper rod. Remove the Schrader valve. Slide the fork lower casting off of the stanchion assembly and set the casting aside. Lubricating oil may drip from the casting and stanchions.

6) For LOOP TR and RIBBON forks skip to step 7. With the STAGE fork you will need to remove the bottom out peg from the end of the stanchion. Using your thumb apply firm pressure to the side of the gray peg until it pops loose and can be removed. Inspect the peg for damage and set aside.

7) After checking again, that all pressure has been released from the air chamber use snap ring pliers (for LOOP TR/RIBBON) or small crew driver (STAGE) to remove the snap ring at the bottom of the air spring stanchion. Thread the Schrader valve into the end of the spring side rod. Gripping the screw, pull firmly on the rod to remove the spring assembly.

8) With the air spring assembly removed from the stanchion, carefully inspect the parts and rod for any abnormal wear or broken parts. Replace any parts that are worn or damaged. Set the air spring assembly aside.

9) Hold the orange RAMP knob with your finger and use a 11mm socket to unthread the lock nut on the Schrader valve. Lift the orange RAMP knob off of the Schrader valve and wipe clean then set knob and lock nut aside.

10) Use your cassette tool to unthread the air cap counterclockwise then lift off of the Schrader valve. Clean any dirt from the inside of the cap and inspect the ID of the cap for any damage or wear.

11) With the air cap removed, you will need to use a 450mm long (or longer) dowel or pipe to remove the RAMP piston assembly from the stanchion. Hold the crown assembly upright and using your dowel/pipe, push the RAMP piston through the stanchion and out the bottom. The RAMP piston cannot be removed from the top because the threads at the top of the stanchion can damage the piston, and on the STAGE the stanchions are tapered near the crown. Clean, inspect, and replace any necessary seals on the RAMP piston and Schrader valve. If you are having any air leaks from the Schrader valve it is good to replace the 2 orings on the OD and the Schrader core as well.
NOTE: If you have had trouble with the RAMP not working properly contact MRP Service Department.

12) When installing the RAMP piston give the outer o-ring on the piston a light coating of fork oil. Insert the piston through the bottom of the non-damper stanchion, with the long shaft of the assembly facing the crown. Once you feel the piston rest against the end of the stanchion plug relief, gently push the piston into the inner diameter of the stanchion. You will find using your thumb and rocking it on the piston the easiest way to get the piston to slide into the stanchion. Once in the stanchion use your dowel/pipe to push the piston towards the crown until the Schrader valve is exposed out of the top of the crown.

14) With the RAMP piston in place, take your air cap and install it onto the Schrader valve. Gently push the assembly down until you feel the threads of the stanchion meet the threads on the air cap assembly. By hand, thread the cap into the stanchion clockwise a few revolutions making sure the cap is not cross threading. Use your cassette tool to tighten the air cap the rest of the way and until the cap is snug, 5Nm is tight enough.

15) With the air cap tightened down install the orange RAMP knob and align the hex at the base of the Schrader threads with the ID hex of the RAMP knob. Hold the RAMP knob with your fingers and use your 11mm socket tighten the lock nut down into place **by hand**. NOTE: FAILURE TO HOLD THE RAMP KNOB WHILE TIGHTENING THE LOCK NUT AND SURPASSING 2Nm OF TORQUE WILL RESULT IN DAMAGE.

16) Inspect the ID of the air spring side stanchion for any wear or scratches, if there are any contact MRP about replacing. Take a marble size dollop of stanchion grease and smear it on the ID of the stanchion roughly 10mm down from the end of the stanchion. Lightly grease the main piston seal and wear band, then insert the air spring assembly into the stanchion. Push the air spring rod down about 10mm and release some of the natural air build up out of the Schrader valve at the top of the crown. Now press the negative air seal head into the end of the stanchion and install the snap ring into the snap ring groove.

17) For LOOP SL/TR forks jump to step 18. For STAGE forks you will now want to reinstall the bottom out peg. Slide the peg over the air spring rod so the bottom out bumper is facing away from the stanchion. Then with the peg lined up on the stanchion, press down firmly until you feel the bottom out peg snap into place.

18) Before installing the lower casting, clean and inspect the wiper seals and foam rings for dirt or damage. Replace if needed. Re-grease the wiper seals before installing the lower casting.

19) With the stanchion assembly still inverted, slide the lower casting onto the stanchions. As soon as the lower bushings in the casting engage the stanchions, stop and pour approximately 15cc of fork oil into the

screw hole of each lower casting leg. Hold the fork at an angle while pouring to avoid getting oil in the ends of the damper and spring rods.

20) Resume sliding the casting onto the stanchions until the casting touches the damper rod. Use the corner of a shop rag or cotton swabs to remove excess oil that may have gotten into the end of the damper rod, then install the damper screw.

21) Use the rebound removal knob to hold the rebound adjustment stationary as the damper screw is tightened (if you do not have the rebound removal knob refer to 21b). If the screw encounters resistance before fully tightening, oil may still be trapped in the socket of the rebound needle. Remove the screw and use a cotton swab to wick away oil pooled in the hex socket, then install the screw and tighten to 75 inch-lbs (8.5 Nm).

21b) If the rebound removal knob is not used, before installing the screw use the 3 mm hex key to screw the rebound needle inside the damper rod until it is near the end of the damper rod. Use a cotton swab to wick away any oil trapped in the socket of the rebound needle. Insert the key of the damper screw into the socket of the rebound needle and thread the screw into the rod. Tighten the screw to 75 inch-lbs (8.5 Nm).

22) Wipe away any oil on the damper screw and install the red rebound knob then compress the fork until the casting touches the air spring rod. Install the Schrader valve and tighten to 75 inch-lbs (8.5 Nm).

23) Inflate the FULFILL air spring. With both chambers at zero psi, you will want to start with the positive chamber at the top of the crown and inflate it to your desired starting pressure. Next inflate the negative chamber to the same pressure as the positive chamber. If you are looking to refine your air spring further, please refer to MRP's inflation chart for different negative spring pressures.