



# RE-BLEEDING THE AURA DAMPER LOOP MODEL FORKS WITH INTERNAL TRAVEL ADJUST

Necessary tools, parts, and supplies:

Socket wrench, 10 mm  
Rubber or plastic mallet  
Rebound removal knob WB-97-702 (optional)  
Open-end wrench, 10 mm  
Hex keys, 2 & 3 mm  
Goggles or other eye protection  
White Brothers bleed tool WB-FT180-2 (or substitute 6 cm cut piece of 1.75 section innertube)  
Spare o-rings 102523  
Fork or suspension oil, 5 wt., 8 oz (total oil retained in legs and damper, 6 oz.)  
A clean, wide-mounted container to capture draining oil  
Cotton swabs  
Shop rags or wipes

1) After removing the fork from the bicycle, loosen the air side screw until it protrudes 3 - 5 mm from the bottom of the fork and tap it firmly with a mallet to unseat the compression rod inside the leg. Remove the screw and release air pressure from the schrader valve at the top of the air spring leg. Lubricating oil may drip from the leg with the screw removed. Slide the lower casting to the fully extended position on the stanchion assembly.

2) Loosen the set screw on the red rebound knob until the knob can slide off of the screw.

3) Remove the damper screw using the rebound removal knob in combination with the open end 10 mm wrench. Holding the removal knob while turning the screw will maintain the position of the rebound needle in the damper rod.

3a) If the removal knob is not used, the rebound needle will unthread to the end of the damper rod as the screw comes out. Use the 3 mm hex key to turn the rebound needle back down into place. Tighten until firm resistance is encountered, then back off by 2 turns.

4) Thread the spring side screw part way into the damper rod and tap the screw firmly with the mallet to unseat the damper rod. Remove the screw. Slide the fork lower casting off of the stanchion assembly and set the casting aside. Lubricating oil may drip from the casting and stanchions.

5) Set the blue damper knob to the full threshold position (all the way clockwise), then back it off by one or two clicks to a soft threshold. This will allow stroking of the damper rod during the bleed process but will prevent sudden movement that might spray oil.

6) Invert the stanchion assembly and pull the damper rod to full extension. Using the 2 mm hex key, remove the small bleed screw in the damper seal head. Thread the air side screw several turns into the damper rod so that the screw can be gripped to move the rod up and down.

7) Push the bleed tool (or the cut piece of innertube) onto the damper side stanchion to create a bleed reservoir that extends approximately 5 cm above the seal head. Fill the bleed reservoir with oil up to about 1 cm from the top.

8) Push the damper rod down slowly until the end of the rod is near the top of the bleed reservoir. Air bubbles will rise up through the reservoir as they are expelled from the damper. If the oil in the reservoir has become foamy with air, pour some of it off into a clean container to allow the small bubbles to dissipate before re-using it.

9) Refill the bleed reservoir to within 1 cm of the top with fresh oil and slowly pull the damper rod to full ex-

tension again. The fresh oil will be drawn into the damper. Do not allow the oil level in the bleed reservoir to fall so low that air is drawn into the damper.

10) Repeat steps 8 and 9 above until no bubbles rise through the reservoir and the oil in the reservoir is pure liquid without foam. Finish the stroking with the rod fully extended.

11) Tip the stanchion to nearly horizontal to pour off most (but not all) of the oil left in the bleed reservoir into a clean container. Wrap a shop rag around the stanchion just below the bleed tool and remove the tool from the stanchion. The end of the stanchion should retain a shallow pool of oil. Install the bleed screw and turn until moderately tight; excessive tightening can strip the threads in the seal head.

12) Turn the fork right-side-up over the wide-mouthed container and let the excess oil drain out. As the oil drains, slowly stroke the damper rod into and out of the stanchion several times.

13) Push the rod into the stanchion as far as it will go, turn the blue knob to fully closed and quickly turn the stanchion assembly back to the inverted position. This step will force remaining air bubbles out of the damper tube and into the stanchion so that they can be bled away.

14) Pull the rod out to full extension, remove the bleed screw and reattach the bleed reservoir to the stanchion. Compress the rod slowly until it bottoms, then fill the bleed reservoir to within 1 cm from the top. Slowly stroke the rod up and down. As bubbles rise, replenish the oil as needed. Continue stroking and refilling until bubbling stops.

15) As in step 11 above, extend the rod, pour off the excess oil, remove the bleed tool and install the bleed screw moderately tight.

16) Free oil remaining around the damper reservoir must be drained completely before inserting the stanchion assembly into the lower casting. Turn the fork upright with the damper-side stanchion over a clean container. Turn the blue knob counterclockwise to the fully open position. Stroke the damper rod up and down through its travel several times to expel excess oil. Continue until oil drainage stops.

17) After excess oil has drained, the damper rod should compress fully. In Loop models for 26/650 wheels, the damper rod at full compression will protrude approximately 9 mm from the end of the stanchion, in models for 29-inch wheels approximately 34mm. If the rod does not compress fully, invert the stanchion assembly, loosen the bleed screw by several turns and put moderate pressure on the rod. With the bleed screw nearly removed, the rod should slowly move downward as excess oil is expelled. When the rod reaches a hard bottom, retighten the bleed screw to prevent entry of air. Stroke the damper rod again with the assembly upright to drain free oil into the container. Extend the rod fully and reset the blue knob to the closed position (clockwise as far as possible).

18) Before reassembling the lower casting to the stanchion assembly, check the o-rings on the air spring screw and damper screw. Damaged o-rings should be replaced and coated with fork grease before further reassembly.

19) Make sure the bottom out bumper and washer (or riser for 29") are on the compression rod of the air spring. 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 10 ml of fork oil into the screw hole of the spring leg for lubrication, 2 ml of oil into the damper leg. Hold the fork at an angle while pouring to avoid getting oil in the ends of the damper and compression 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 from 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 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).

21a) If the rebound removal knob is not used, before installing the screw use the 3 mm allen key to un-

screw the rebound needle inside the damper rod until it is near the end of the rod. This should only be done with damper rod fully extended. 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 screw and install the red rebound knob. Turn the blue compression knob to the fully open position and compress the fork until the casting touches the compression rod of the air spring. Install the air spring screw and tighten to 75 inch-lbs (8.5 Nm). Inflate the fork to working pressure.