










Step	Piccola primary cylinder <i>at handlebar end</i>	C21 secondary cylinder <i>at disc rotor end</i>	C22 secondary cylinder <i>at disc rotor end</i>	Note
1	<ul style="list-style-type: none"> <li>Fix the bike in a stable manner, e.g. with a bike-stand.</li> <li>The bike needs to be positioned so that the primary cylinder is placed higher than the secondary cylinder.</li> <li>Remove the corresponding wheel of the brake to bleed.</li> <li>Note that the brake can perhaps best be bled with it being detached from the bike – were it not for internal brake lines.</li> </ul>			
2	<ul style="list-style-type: none"> <li>Rotate the primary cylinder on the handlebar so that the lever is pointing upwards in vertical sense and the bleed screw is at the highest point.</li> <li>If needed, adjust the lever reach bolt in such a way that the threaded end of the syringe can be installed without any part of the lever blocking this.</li> </ul>			
3		<ul style="list-style-type: none"> <li>Remove the brake-pads.</li> <li>Clean the caliper with a clean dry piece of cloth and the pistons with some q-tips (as to avoid dirt pushed into the seals).</li> <li>Push both pistons completely back inside the caliper with a 'soft' tool from either plastic or wood.</li> <li>Install the 'bleed block' with the brake-pad bolt.</li> </ul>		
-	<p><i>Use syringe with long (for clearing the lever/housing) M5 threaded attachment at this end.</i></p> <p><i>Inspect o-ring of bleed port screw and replace if needed.</i></p>	<p><i>Use syringe with M5 threaded attachment at this end.</i></p> <p><i>Inspect o-ring of bleed port screw and replace if needed.</i></p>	<p><i>Use syringe with M4 threaded attachment at this end.</i></p>	<p><i>Always keep the filled syringes upwards/vertical during the bleeding process – this to keep any air residing in the syringes from moving into the brake system. The syringe hoses need to be long enough to make a nice 180 degrees bend where needed.</i></p>

4	Fill one syringe for use at the primary cylinder for ¼ full (5 ml) with Bionol.	Fill one syringe for use at the secondary cylinder for ¾ full (15 ml) with Bionol.		
5		<ul style="list-style-type: none"><li>Remove secondary cylinder from bike, swivel it by 90 degrees so that the bleed screw points upwards.</li><li>Remove the bleed screw (T10).</li><li>Fill the bleed port to the brim with a drop of Bionol if needed.</li><li>Attach the ¾ full (15 ml) filled syringe without introducing air in the system – hand tight only!</li><li>If needed, a short pull on the syringe can remove any thus introduced air by pulling it into the syringe.</li><li>Re-attach the secondary cylinder to the bike (keeping the syringe upright).</li></ul>	<ul style="list-style-type: none"><li>Remove the small screw at the bleed port (T10).</li><li>Attach the ¾ full (15 ml) filled syringe without introducing air in the system – hand tight only!</li><li>Open the bleed port with a 7mm key by a half to full turn counter clockwise.</li><li>If needed, a short pull on the syringe can remove any air introduced with the syringe attachment by pulling this air into the syringe.</li></ul>	<p><i>C22 secondary cylinder closeup:</i></p>  
6	<ul style="list-style-type: none"><li>Remove the bleed screw (T10)</li><li>Attach the ¼ full (5 ml) filled syringe – hand tight only!</li></ul>			
7		Push (almost) all Bionol from this syringe to the one at the primary cylinder.		<i>Take care not to push any air inside the syringe into the brake system.</i>
8	Push (almost) all Bionol from this syringe to the one at the secondary cylinder.			<i>Take care not to push any air inside the syringe into the brake system.</i>
9		Push (almost) all Bionol from this syringe to the one at the primary cylinder.		<i>Take care not to push any air inside the syringe into the brake system.</i>

10	Repeat both preceding steps 8 and 9 at least one more time – or as many more times needed until there are no air bubbles escaping out of the brake system at either primary or secondary cylinder – finishing with nearly all ( $\frac{3}{4}$ full or 15 ml) of the Bionol in the syringe at the primary cylinder end.		<i>Take care not to push any air inside the syringe into the brake system.</i>
11		To ensure there is no air in the secondary cylinder, pull/push a few times quickly on the syringe: this may get any remaining air bubbles to escape from the secondary cylinder. Give a final short push on the syringe as to avoid any air pulling into secondary cylinder during the removal of the syringe at the next step.	<i>It is best done with the bleed port of the secondary cylinder pointing upwards (removed from bike and swivelled by 90 degrees). If possible, combine with next step.</i>
12		<ul style="list-style-type: none"><li>Remove the secondary cylinder from the bike, swivel it by 90 degrees so that the bleed port with the still attached syringe points upwards.</li><li>Remove the syringe.</li><li>Fill the bleed port to the brim with a drop of Bionol if needed.</li><li>Install the bleed screw (2 Nm, T10) without introducing air into the brake system.</li><li>Re-attach the secondary cylinder to the bike.</li></ul>	<ul style="list-style-type: none"><li>Close the bleed port with a 7mm key by turning it clockwise (1,5 Nm).</li><li>Pull softly on the syringe (as to avoid spillage during removal) and then remove it from the bleed port.</li><li>Install the small screw at the bleed port (0,5 to 1 Nm, T10).</li></ul> <div><i>C22 secondary cylinder closeup:</i>  </div>

13	<ul style="list-style-type: none"> <li>Remove the primary cylinder from the handlebar and hold it in your hand at the exact position as shown – the syringe is still attached and needs to be kept upright as to avoid any air getting into the primary cylinder!</li> <li>Then pull/push on the syringe multiple times to move all air from the high-pressure compartment to the brake fluid reservoir – and into the syringe.</li> </ul>		<p><i>Position for this step, attached syringe not shown:</i></p> 
14	<ul style="list-style-type: none"> <li>Rotate the primary cylinder in your hand to the exact position as shown – the syringe is still attached and needs to be kept upright as to avoid any air getting into the primary cylinder!</li> <li>Now pull the lever for 20 mm – measured at the outer tip of the lever – and hold it in this position.</li> <li>Then pull/push on the syringe multiple times to move all air from the high-pressure compartment to the brake fluid reservoir (which will only be pulled into the syringe at the next step).</li> </ul>		<p><i>Position for this step, attached syringe not shown:</i></p>  <p><i>This opens the secondary space of the main cylinder to the openings between reservoir and high-pressure compartment.</i>  <u>IMPORTANT:</u> if the lever cannot be pulled by the 20 mm as described at the second bullet point you have to push the pistons back into the caliper and redo this step!</p>

15	<ul style="list-style-type: none"> <li>• Rotate the primary cylinder so that the bleed port – with still attached syringe – is at the highest point, the syringe is now pointing upwards.</li> <li>• Then pull/push on the syringe multiple times to move all air from the brake fluid reservoir into the syringe.</li> </ul>		<p><i>Position for this step, attached syringe not shown:</i></p> 
16	<ul style="list-style-type: none"> <li>• Re-attach the primary cylinder to the handlebar so that the lever is pointing upwards in a vertical sense and the bleed port – with still attached syringe – is at the highest point.</li> <li>• Now gently push on the syringe to fill the primary cylinder completely – taking care not to push any air that remains inside the syringe into the brake system.</li> </ul>		<p><i>The action described at the second bullet of this step avoids an underfilled system – by making sure that the membrane is in its proper position for a 100% filled brake system.</i></p>
17		Remove the bleed block and gently push both pistons all the way back into caliper with a soft tool from either plastic or wood.	<p><i>This avoids an overfilled system.</i></p>
18	<ul style="list-style-type: none"> <li>• Remove the syringe from the bleed port.</li> <li>• Fill the bleed port to the brim with a slight overflow of Bionol if needed.</li> <li>• Install the bleed screw (1 Nm, T10) without introducing air into the brake system.</li> </ul>		

19		Reinstall the bleed block and test if the bite-point feels stable – this will take three to four lever pulls but then the bite-point should be very firm: a ‘dong’ according to the Trickstuff manual ;-)	<i>Should the ‘Trickstuff dong’ not appear (...) or the bite point remains a bit soft, please re-do steps 4 to 19.</i>
20	Clean up the primary cylinder.	Clean up the secondary cylinder.	<i>Remove any lingering Bionol with some water and bio-degradable dishwash soap. Take special care to avoid contaminating the brake-pads or disc rotor by any remaining Bionol.</i>
21	Adjust to proper angle on handlebar and fix lever-clamp bolt (max 1 Nm, H2,5 and note that rotation should be possible in case of a fall as to avoid damaging brake-lever or top tube of frame).	<ul style="list-style-type: none"> <li>• Install brake-pads and brake-pad bolt with securing splint.</li> <li>• Reinstall wheel.</li> <li>• Adjust position properly to disc rotor and fix both caliper bolts (6 Nm according to the Trickstuff manual).</li> </ul>	<i>Enjoy a perfectly bled Piccola.</i>