

## **Title: gggGary's "secret" front brake install with "reverse-bleed"**

Symptom: MC piston was stuck in, Zero brake action.

Prepare the brake system:

1. Flush the existing lines with brake cleaner and air pressure.
2. Refurb existing caliper & piston (or buy a new piston).
  - Note; there is no need to remove the caliper bracket from the fork for an overhaul
  - A. Use a screwdriver to back out the pad retaining screw
  - B. Remove the one bolt that holds the caliper to the bracket
  - C. Remove the caliper from bracket.
  - D. If you have removed the bracket for cleaning it can be reinstalled to the fork leg with the two bolts washers and lock washers
3. Reassemble the caliper, mounting sleeve cleaned & lubricated
  - Note: The sleeve inside the rubber grommet must be lightly greased and the piston should move freely.
  - 1. To assemble; insert piston fully, pushed in all the way in to get the dust seal and retaining ring back in place.
  - 2. Install the pad tensioning spring bracket, tighten the pad retaining screw just enough to keep the bracket in place.

Reverse Bleed procedure:

1. Ensure MC is on the handle bar position so the path from caliper to reservoir is all uphill - no low spots to trap air.
2. Put the bike on the kick-stand, handle bars fully to left

3. Ensure the fluid flow-path is ALL uphill

Note: On Specials with the angled MC you may need to rotate the MC on the bar a bit or even rotate the bars forward in the risers so the path is ALL uphill.

4. Next, hold the assembled caliper in your hand. no brake line or banjo attached. Just the caliper. Bleeder in and tightened. (you won't need to use it).

1. Use a bit of compressed air (don't try to seal your air gun to the brake line opening) and carefully use the air pressure to extend the piston to it's outer limit - the rubber boot will be smooth no folds left.

- Note: Use a C-clamp to limit how far the piston extends, as this process fully extends the hydraulic cylinder with air only, not brake fluid yet. Over-extending will pop the cylinder out of the housing

5. Hold the caliper so the hole where the brake line attaches is pointed straight up and slowly pour fresh brake fluid into the caliper until it is filled.

Note: Do not attach the caliper to the bracket yet.

6. Attach the brake line, banjo bolt, and two copper washers.
7. Tighten the banjo bolt fully
8. With the brake line bolt pointed up so it's at the high point of the caliper - caliper held low so the fluid path to the MC is all uphill - slowly squeeze the piston fully into the caliper housing.

Note: If you have done a good job with cleaning and assembly this can be done easily with your thumbs. Brake fluid will go up

the line through the MC and into the reservoir. Continue until the piston is fully retracted in the caliper.

9. Install the caliper to the bracket and pads with the bolt through the sleeve
10. Finish tightening the pad retaining screw, the banjo bolt, and bleeder.
11. Add a bit of brake fluid to the MC reservoir
12. Use the lever and pump the piston out so the pads contact the rotor

Note: because the reservoir is at an angle, keep a close watch on fluid level, it will go down as you pump out the piston.

13. Squeeze & release the lever a time or two, to get small air bubbles hiding in the MC bore out to the reservoir

Note: you should see the bubbles rising in the reservoir

14. Straighten the handle bars, and finish filling the reservoir
15. A bit later and the next day repeat the side stand bars left squeeze release a time or two. I do this on a semi regular basis on all my brake systems, it keeps best lever feel.

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