

XTR M-975 DISC BRAKES: Bleeding Instructions

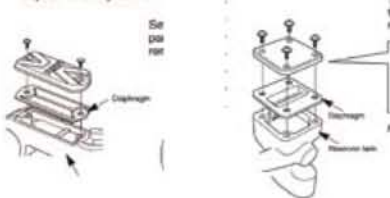
The procedure for bleeding Shimano disc brakes is identical throughout our line, with one exception. Both XTR (BL-M975/ST-M975) and the new XT (BL-M775/ST-M775) levers need to be rotated up until the reservoir is parallel to the ground; be sure to leave enough hose length when cutting to allow for this.



3. Install the bleeding tool so that the foam rubber seal is centered over the reservoir.



1. Press into separator that unscrews bicycle into a bicycle stand.



2. Remove the reservoir top cap and diaphragm from lever.



4. Use the large handle to tighten the bleeding tool on to the reservoir.

5. Fill the syringe with Shimano Mineral Oil. Make sure all bubbles travel to the top of the syringe.



Pro Tip:
Removing the rear caliper from the frame and letting it hang from the brake lever will create a more direct path for air to leave the line.



6. Attach the syringe to the bleed nipple on the caliper. Use a 7mm open-end wrench to open the bleed nipple.

Pro Tip:
After opening the bleed nipple, squeeze the lever to force the air that was in the bleed nipple into the syringe.



7. Using light pressure on the syringe, begin to push the mineral oil through the system.

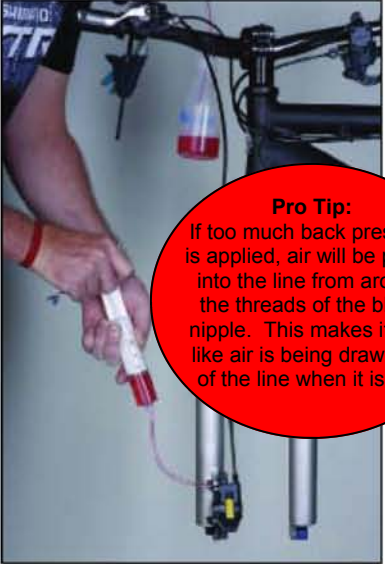
Pro Tip:
Always use light pressure on the syringe. Too much will compress air bubbles allowing them to dissolve in the fluid.



8. While pushing mineral oil through the system, be sure that all excess oil is flowing in to the plastic catch bottle attached to reservoir. Continue to push fluid through system until no bubbles appear in the reservoir.



9. Once no more bubbles appear at the reservoir, stop pressure on the syringe. Close the bleed nipple and cycle the brake 5-10 times. More bubbles will make their way from the reservoir into the transparent tube and catch bottle.



Pro Tip:
If too much back pressure is applied, air will be pulled into the line from around the threads of the bleed nipple. This makes it look like air is being drawn out of the line when it is not.

10. With the syringe still attached, open the bleed nipple and lightly pull back on the syringe. This will aid in the removal of any bubbles that are trapped in the caliper. It may be necessary to push fluid into the system and then back pressure on the syringe a few times to remove all air bubbles from the caliper.



11. Close the bleed nipple (4-6nm; 35-53 in. lbs.).



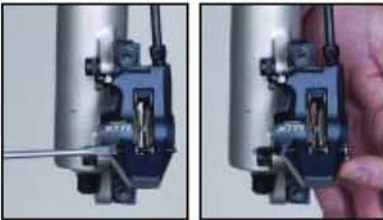
Pro Tip:
If there is air in the line, the lever will ramp up, feeling a little firmer with each pull of the lever



12. Check for a firm and distinct stopping point at the brake lever. If the lever feels soft, return to step #10 and repeat. If a firm feel is achieved, remove the syringe, wipe off excess oil and replace the bleed nipple cover.



13. Once the lever feels firm, remove the yellow bleeding block from the caliper.



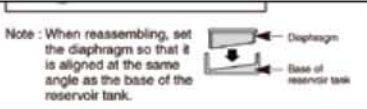
14. Then install the pads and spider spring into the caliper. Secure with the fixing screw and snap ring.



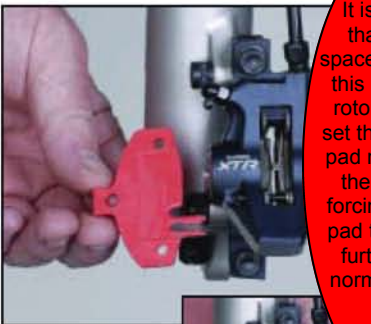
Pro Tip:
If installing a new diaphragm, get it wet with mineral oil to keep bubbles from getting stuck under it.



17. Top off the reservoir with Mineral Oil and replace the top cap and diaphragm.



18. Make sure the diaphragm and top cap are oriented correctly on the reservoir.



Pro Tip:
It is essential that the pad spacer is used for this step. If the rotor is used to set the pads, one pad may contact the rotor first, forcing the other pad to come out further than it normally would.



15. Place the orange travel spacer into the caliper, snapping it into the fixing screw. Depress brake lever 5-10 times to move the pistons into operating position.



16. Remove the reservoir clamp portion of the bleed tool. Be careful not to move the bike and cause fluid to spill.



19. Tighten top cap fixing screws to recommended torque spec. (0.3 – 0.5nm; 2.7-4.4 in. lbs.). Wipe away excess fluid.



20. Loosen caliper fixing bolts and install the wheel/rotor on to the bike.



21. When using an IS caliper, use the supplied pan-handle style shim to center the caliper over the rotor. If using a post-style caliper, loosen the caliper mounting bolts, depress the brake lever and tighten the caliper fixing bolts. Tighten all caliper bolts to recommended torque. (6-8nm; 53-69 in. lbs.).

Pro Tip:
Is caliper shims come in .2mm and .5mm thicknesses. They can be combined to create different thicknesses in .1mm increments from .4mm and thicker.