



# TL-BR001/BR002/BR003 Bleeding Tool

## IMPORTANT NOTICE

The service instructions can be viewed at the following location.  
<https://si.shimano.com>

**For safety, be sure to read these “service instructions” thoroughly before use, follow them for correct use, and store them so that they can be referenced at any time.**

The following instructions must be observed at all times in order to prevent personal injury and physical damage to equipment and surroundings. The instructions are classified according to the degree of danger or damage which may occur if the product is used incorrectly.

<b>DANGER</b>	Failure to follow the instructions will result in death or serious injury.
<b>WARNING</b>	Failure to follow the instructions could result in death or serious injury.
<b>CAUTION</b>	Failure to follow the instructions could cause personal injury or physical damage to equipment and surroundings.

## Important safety information

### WARNING

- Wear approved eye protection while performing maintenance tasks such as replacing components.
- Do not allow any oil or grease to get onto the disc brake rotor and brake pads. Riding the bicycle with oil or grease on the brake shoes may prevent the brakes from operating and result in serious injury due to a fall or collision.
- Do not use the brakes with oil leaking. Doing otherwise may prevent the brakes from operating and result in serious injury.
- Do not use oil other than SHIMANO genuine mineral oil. Doing otherwise may prevent the brakes from operating and result in serious injury.
- Be sure to use only SHIMANO genuine mineral oil from a freshly-opened container. Failure to do so may prevent the brakes from operating and result in serious injury.
- Do not let water or air bubbles get into the brake system. Doing otherwise may prevent the brakes from operating and result in serious injury.

### CAUTION

#### ■ Cautions on SHIMANO genuine mineral oil

- Use appropriate eye protection when handling, and avoid contact with eyes. In the event of eye contact, flush with fresh water and seek medical assistance immediately. Contact with eyes may result in irritation.
- Use gloves when handling. In the event of skin contact, wash well with soapy water. Contact with skin may cause a rash and discomfort.
- Cover nose and mouth with a respirator type mask and use in a well ventilated area. Inhalation of mineral oil mist or vapors may cause nausea.

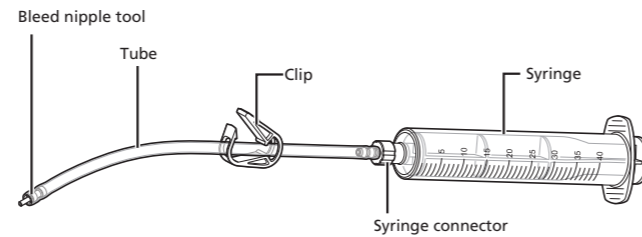
- If mineral oil mist or vapor is inhaled, go immediately to an area with fresh air. Cover up with a blanket. Stay warm and stable and seek professional medical advice.

#### ■ Handling SHIMANO genuine mineral oil

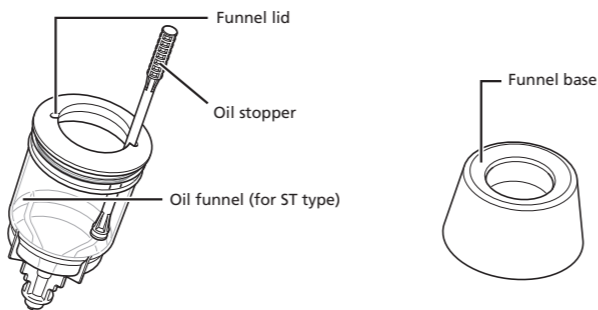
- Do not drink. May cause vomiting or diarrhea.
- Keep out of reach of children.
- Do not cut, let near heat or pressurize the SHIMANO genuine mineral oil container. Doing so may cause an explosion or fire.
- Disposal of used oil: Follow local county and/or state codes for disposal. Use caution when preparing the oil for disposal.
- Directions: Keep the container sealed to prevent foreign objects and moisture from getting inside, and store it in a cool, dark area away from direct sunlight or heat. Keep from heat or flame

## Tools included in the kit

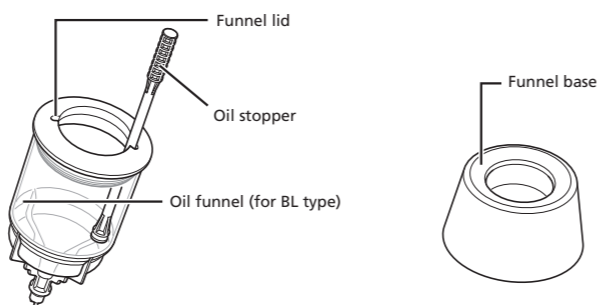
### TL-BR001



### TL-BR002



### TL-BR003



Clip: Prevents oil leakage by blocking the flow of oil in the tube when removing the bleeding tool.

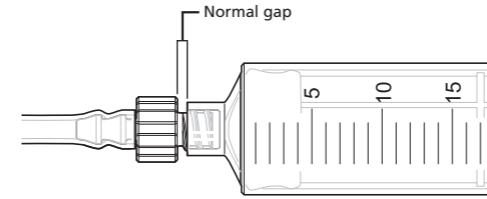
Bleed nipple tool: Connects the tube to the bleed nipple.

Funnel lid: Prevents oil spillage.

## How to use

### Notice

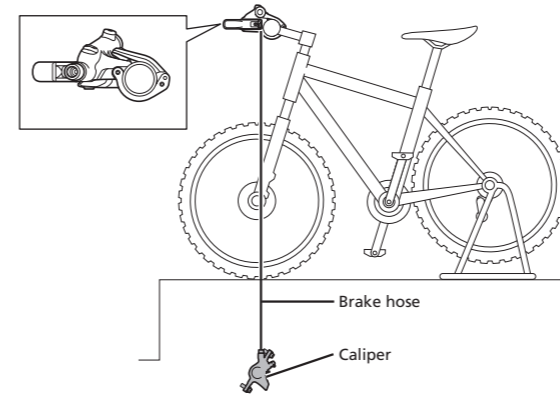
- The method for adding SHIMANO genuine mineral oil and bleeding air may be different depending on the model. When adding SHIMANO genuine mineral oil and bleeding air, be sure to also refer to the “Adding SHIMANO genuine mineral oil and bleeding air” section of the dealer’s manual for each model.
- When attaching the syringe connector to the syringe, tighten it with your hand until it makes contact. Overtightening it using a tool such as pliers may cause damage to the syringe. It is normal to have a gap like that in the figure below.



- With the spacer for bleeding (yellow) still attached to the calipers, place the bicycle into a bicycle stand or similar, as shown in the figure.

#### BL type

Set the brake lever parallel to the ground.

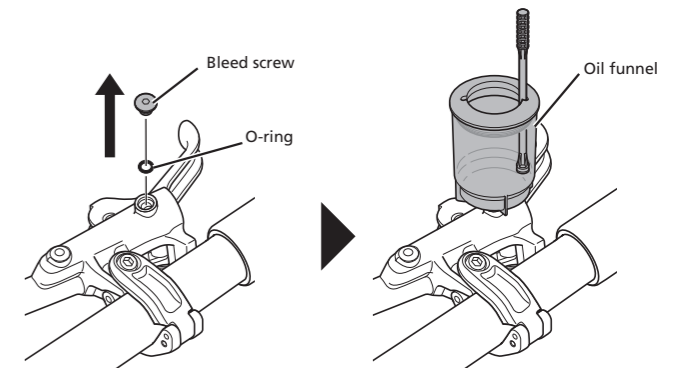


#### ST type

Turn over the bracket cover from the front side. Refer to the dealer’s manual for each model and adjust the lever angle.



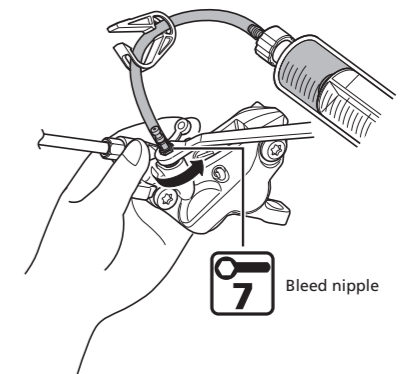
- Remove the bleed screw and O-ring, and attach the oil funnel. For information on the tool size for the bleed screw, refer to the dealer’s manual for each model.



- Inject oil from the syringe.

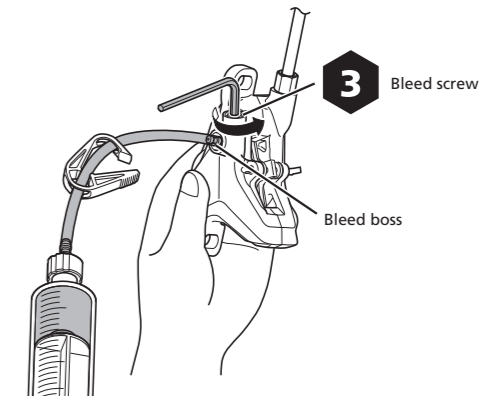
#### Bleed nipple-type calipers

Set a 7 mm box wrench in place, fill the syringe with oil, then attach the tube to the bleed nipple. Loosen the bleed nipple by a 1/8 of a turn to open it. Push the piston of the syringe to add the oil. Oil will start to come out from inside the oil funnel. Continue adding the oil until there are no more air bubbles in the oil that is coming out.



#### Bleed boss-type calipers

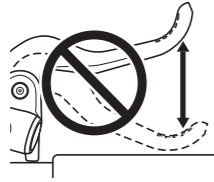
Set a 3 mm hexagon wrench to the bleed screw, remove the bleed boss cap, fill the syringe with oil, then attach the tube to the bleed boss. Loosen and open the bleed screw by 1/8 of a turn. Push the piston of the syringe to add the oil. Oil will start to come out from inside the oil funnel. Continue adding the oil until there are no more air bubbles in the oil that is coming out.



4. Once there are no more air bubbles mixed in with the oil, temporarily tighten the bleed nipple/bleed screw, and remove the syringe.

**At this point, do not repeatedly depress and release the lever.**

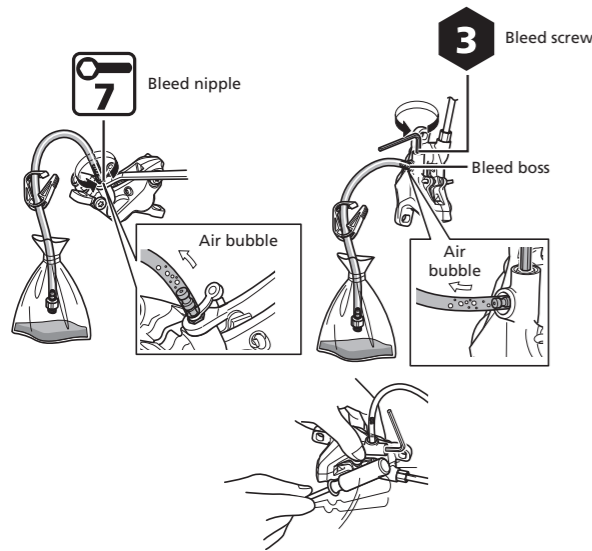
This will cause air bubbles to mix with the oil in the caliper and require extra time for bleeding the air. (If the lever was depressed and released repeatedly, drain out all of the oil then add the oil again.)



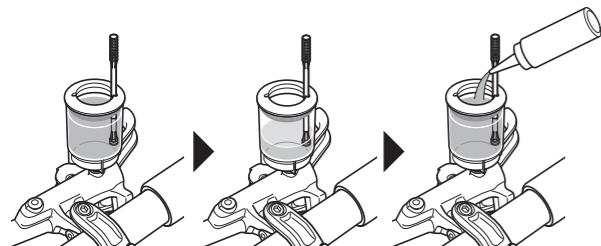
With ST types, once there are no more air bubbles mixed in the oil, refer to the dealer's manual for each model to adjust the lever angle, then add oil one more time until there are no more air bubbles mixed in the oil.

5. Bleed the air.

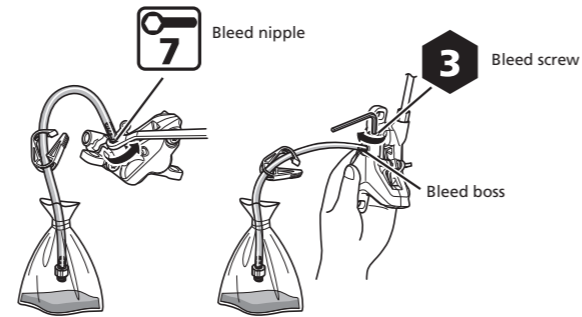
Set a 7 mm box wrench/3 mm hexagon wrench in place and attach the tube with bag to the bleed nipple/bleed boss. Loosen the bleed nipple/bleed screw. After a little while, the oil and air bubbles will flow naturally from the bleed nipple/bleed boss into the tube. In this way, it is possible to easily extract the greater part of the air bubbles remaining inside the brake system. It may help to shake the hose gently or to tap the reservoir tank or caliper gently with a cross head screwdriver or similar, or move the position of the caliper at this time.



6. While bleeding the air, maintain the oil level by adding additional oil. As the oil level in the oil funnel drops, add additional oil to maintain an oil level that keeps air from being sucked into the reservoir tank.

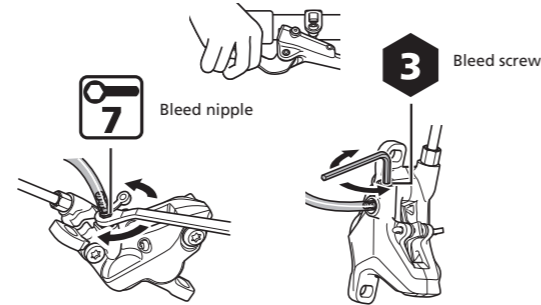


7. Once no more air bubbles come from the bleed boss/bleed nipple, temporarily close the bleed screw/bleed nipple.

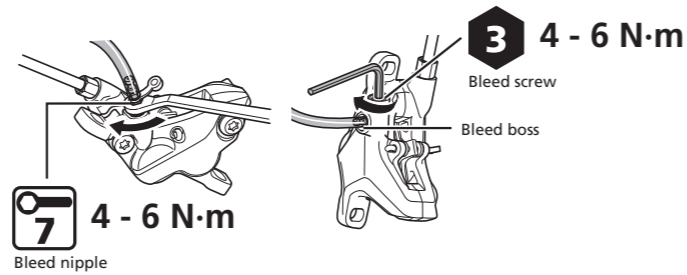


8. With the lever depressed, loosen and tighten the bleed screw/bleed nipple in rapid succession.

Loosen and tighten for approximately 0.5 seconds each time to release any air bubbles inside the caliper.



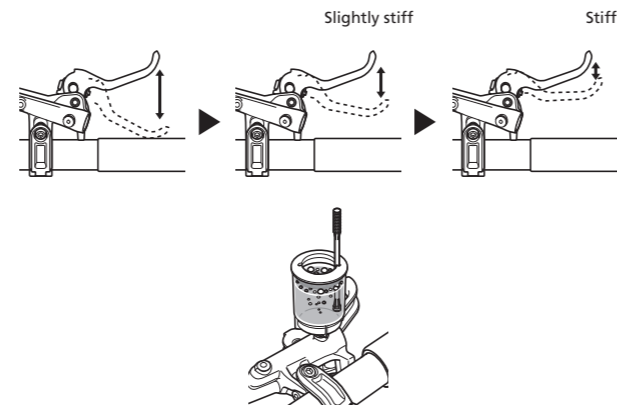
9. Repeat step 8 two to three times, then tighten the bleed screw/bleed nipple.



10. If the lever is slowly operated, air bubbles in the system will rise up into the oil funnel. Once the air bubbles stop appearing, depress the lever as far as it will go.

Check that the lever has become stiff.

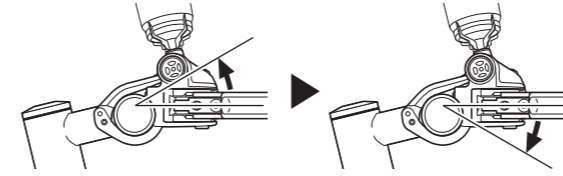
If the lever does not become stiff, repeat the procedures from step 5.



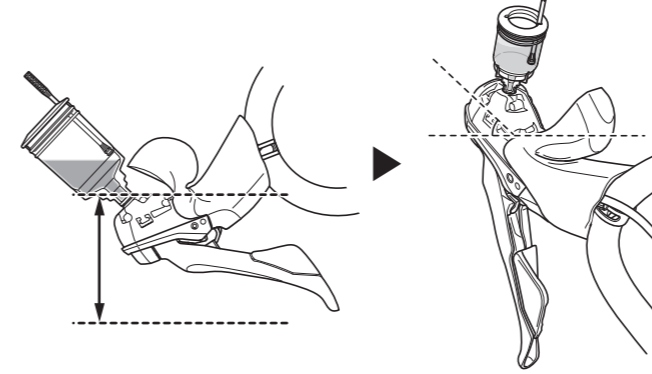
11. Change the lever angle two times, and perform step 10 for each angle.

Check that there are no remaining air bubbles. For information on the lever angle, refer to the dealer's manual for each model.

BL type



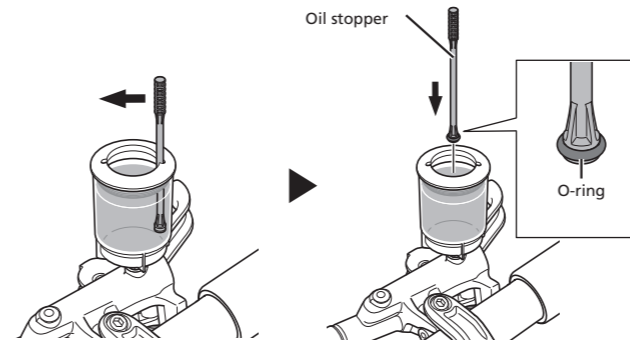
ST type



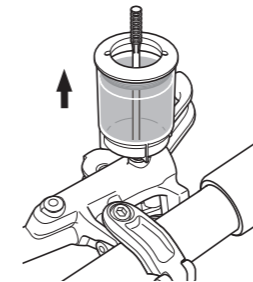
12. Set the lever horizontally.

13. Plug the oil funnel with the oil stopper.

Remove the oil stopper from the funnel lid, face the side with the attached O-ring downward, and plug the funnel.

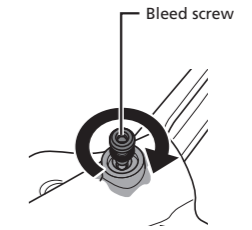


14. Remove the oil funnel with the oil stopper still in place.



15. Tighten with a screw to which an O-ring has been attached.

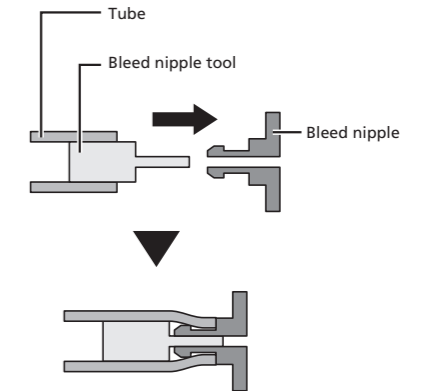
Tighten until oil flows out to make sure that no air bubbles remain inside the reservoir tank. Do not operate the brake lever. If operated, there is a risk of air bubbles entering the cylinder. For information on the tool size and tightening torque for the bleed screw, refer to the dealer's manual for each model.



16. Wipe away any oil that has overflowed.

#### Notice

- If the bleed nipple tool is pulled out of the tube, insert the bleed nipple tool a short distance into the tube, then attach the tube to the bleed nipple. This will cause the bleed nipple tool to settle into the correct position.



## SHIMANO

SHIMANO NORTH AMERICA BICYCLE, INC.  
One Holland, Irvine, California 92618, U.S.A. Phone: +1-949-951-5003

SHIMANO EUROPE B.V.  
High Tech Campus 92, 5656 AG Eindhoven, The Netherlands Phone: +31-402-612222

SHIMANO INC.  
3-77 Oimatsu-cho, Sakai-ku, Sakai City, Osaka 590-8577, Japan