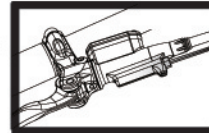


# Hydraulic Disc Brake With Sensor Control Design

## ▼ General Warning & Cautions

- Disc brake calipers, rotors and pads get extremely hot when used. Serious injury could result from contact with a hot brake. Care should be taken not to touch the caliper, rotor or disc brake while it is hot. Be sure to allow the brake to cool before attempting to service it in any way.
  - Stop riding the bike immediately if the oil is leaking. Please carry on the proper repair, if you continue to ride with the oil spilling, the brake system may suddenly lose braking power.
  - Read instructions thoroughly before attempting any work on the Tektro hydraulic disc brake. If you are in any doubt, you should seek the advice of a Tektro Service Center or other qualified mechanic.
  - Be sure to confirm before riding the pads thickness must be more than 0.8 mm. Pads also must be kept clean and free from oil or hydraulic fluid.
  - If the pads become contaminated you must discard them and replace them with a new set.
  - The brake pads are specifically formulated to achieve optimum use with the Tektro hydraulic disc brake system.
- “ Electric cable sensor switch is fixed with function approved, please don't adjust or loosen it. ”**



## ▼ Precautions

### Methods for using mineral oil

1. Always use safety glasses when handling and be careful to avoid contact with eyes. Contact with eyes may result in irritation.
2. Use gloves when handling. Contact with skin may cause skin irritation, rash and discomfort.
3. Make sure you are working in a well ventilated area and cover nose and mouth with a respirator type mask. Inhalation of oil mist or vapors may cause nausea.
4. Do not drink. May cause vomiting or diarrhea.
5. Always keep out of reach of children.
6. Do not cut, heat, weld, or pressurize the oil container as this may cause explosion or fire.

### Emergency care

1. In the event of eye contact, flush with fresh water and seek medical assistance immediately.
2. In the event of skin contact, wash well with soap and water.
3. If you inhale mist or vapor, go immediately to an area with fresh air, stay warm and stable and seek professional medical advice.

### Disposal of used oil

1. Always follow local county and/or state codes for disposal.
2. Use care when preparing oil for disposal.

### Directions for storage

After use, keep the container closed. Store in a cool, dark area, away from direct heat or sunlight.

## ▼ Installation

### A). Tools And Equipment Required

The following tools are necessary to install the Tektro hydraulic disc brake:

- 2mm Allen Wrench
- 4mm Allen wrench
- 5mm Allen wrench
- T25 Torx® wrench

### B). Mounting The Rotor

- (1) Remove the wheel from the bike. Attach the rotor to the hub with the supplied Torx® bolts and tighten it with a T25 Torx® wrench. Final tightening torque: 4-6Nm. [see photo b-1]
- (2) Replace the wheel on the bike according to the manufacturer's instructions.

**NOTE - The rotor must be installed with the "rotation" arrows pointing in the same direction as the forward rotation of the wheel.**

### C). Mounting The Brake Levers

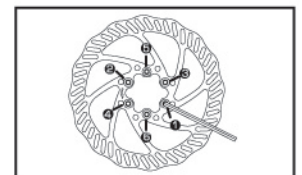
- (1) Place the brake lever with the half clamp on the handlebars and the brake hose pointing towards the center of the handlebar.
- (2) Tighten the brake lever clamp in the desired position by tightening it with the 5mm Allen bolt. Final tightening torque should be 5-7 Nm. [see photo c-1]
- (3) The reach of the brake lever may be adjusted closer to the handlebar by tightening the 2 mm reach-adjuster bolt on the lever. [see photo c-2]

If you adjust the reach after you have already set up the rest of the brake system, you may find that you need to readjust the brake pads. [see "Installing and Removing Brake Pads"]

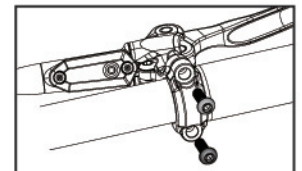
**CAUTION - Do not completely remove any of the bolts on the lever.**

### D). Mounting The Adapter

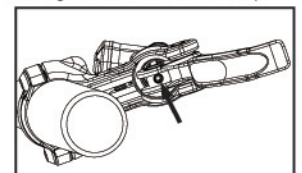
- (1) Before installing the calipers, ensure each wheel axle is correctly seated in the dropouts (the brake rotor should be on the caliper mounting side.)
- (2) Select the correct adapter (front or rear) for the disc brake position on the bike.
- (3) Holding the correct adapter, with the engraved 'F' or 'R' facing toward you (away from the rotor and wheel), position it behind the frame/fork mounting holes. Bolt the adapter in this position to the frame/fork mounts. Now the engraved 'F' or 'R' should not be visible behind the mounts. Tighten the bolts to a final tightening torque of 6-8Nm. [see photo d-1]
- (4) Make sure the pads are correctly positioned in the caliper (see section on installing & removing pads), then place the caliper over the rotor with the bleed screw facing away from the wheel. Attach the caliper to the adapter using the supplied Allen bolts. Do not tighten the bolts at this stage. [see photo d-2]
- (5) With the caliper mounting bolts still loose, depress the brake lever. The caliper will correctly center itself to the rotor. Keeping the brake lever depressed, tighten the caliper mounting bolts. Final tightening torque should be 6-8 Nm.



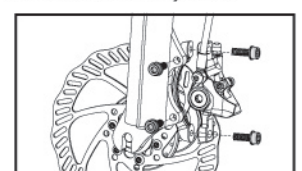
b-1 Rotor torquing sequence



c-1. Tighten the brake lever clamp



c-2. Alter the reach adjustment



d-1. Mount the adapter to the frame/fork  
d-2. Attach the caliper to the adapter

## ▼ Service

### A). When To Bleed The System

You should always bleed the system after you have shortened or replaced the hose or have opened the system to the air at any time. Additionally, if the brake action feels spongy, you may improve performance by bleeding the system.

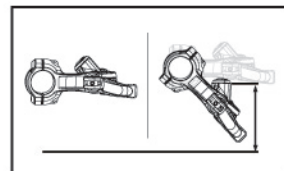
### B). Tools And Equipment Required

- |                     |   |
|---------------------|---|
| 1. 2mm Allen wrench | 6. Piece of tubing                      |
| 2. 4mm Allen wrench | 7. Tektro brake fluid                   |
| 3. 7mm spanner      | 8. Piston holder                        |
| 4. T15 Torx® wrench | 9. A clean, empty bottle or plastic bag |
| 5. 20cc syringe     | 10. A cleaning towel                    |

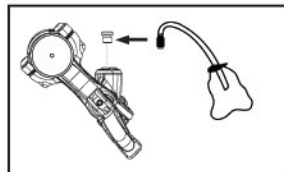
**CAUTION** - Cleanliness is a very important part of any maintenance of the Tektro hydraulic disc brake. If the pads or rotor become contaminated with oil, or if the hydraulics become contaminated with impurities, braking performance will be greatly impaired. Use only Tektro brake fluid with the Tektro hydraulic disc brake. Other brake fluids may not be compatible and may damage the system.

### C). Step By Step Guide

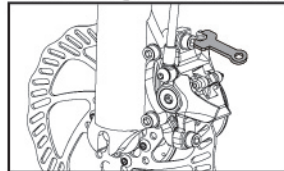
1. With the brake correctly installed, place the bike in a stand or similar device to hold it securely parallel to the ground.
2. Firmly attach a long plastic tube (supplied in the service kit) over the outlet valve, placing the other end into the syringe with oil by suitable volume.
3. Using a 4mm Allen wrench, slightly loosen the brake lever's bracket retaining bolt. Turn the brake lever so that the reservoir tank is parallel to the ground. [see photo f-2]
4. Using a T15 Torx® wrench remove the bolt that is on top of the reservoir tank. [see photo f-3]
5. Place the outlet valve on the hole and firmly attach a long plastic tube over the outlet valve, placing the other end into a clean, dry empty bottle, or plastic bag. [see photo f-4]
6. Open the outlet valve on the caliper slightly (1/8 turn to 1/4 turn). Brake fluid should now appear in the plastic tube connected to it. You may also notice air bubbles in the tube. [see photo f-5]
7. Start filling the reservoir with new mineral oil by pushing the syringe. Air bubbles may come out the tube from the outlet valve on the reservoir tank of the brake lever's bracket. Be sure to fill the oil by pushing the syringe until the oil is out of the outlet valve on the reservoir tank of the brake lever's bracket, so that no air gets into the system. [see photo f-6]
8. Tighten the bleed valve. Final tightening torque should be 4-6 Nm Replace the rubber outlet valve cover.
9. Depress the brake lever a few times. The action should feel stiff and not spongy. [see photo f-7]
10. When no more air bubbles appear to be coming out of the outlet valve, remove the outlet valve from the bracket. Using a T15 Torx® wrench tighten the bolt on that side reservoir tank. Final tightening torque 2-4 Nm.
11. Wipe the lever, caliper, and hose with a lint-free towel.



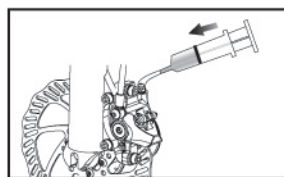
f-2. Position the lever parallel to ground



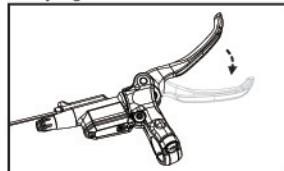
f-3. Remove the bolt  
f-4. Attach a bag or a bottle to the tube



f-5. Open the outlet valve 1/4 turn



f-6. Fill the reservoir with oil by pushing the syringe



f-7. Depress the brake lever

## ▼ Installing and Removing Brake Pads

**CAUTION** - The pads and rotor must be kept clean and free from oil or hydraulic fluid. If the pads become contaminated you must discard them and replace them with a new set. The brake pads are specifically formulated to achieve optimum use with the Tektro hydraulic disc brake system.

### Removing the brake pads

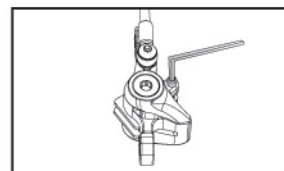
1. The Tektro hydraulic disc brake pads and pad connecting spring are held in place by a 3mm pad retainer bolt on the caliper. To remove the pads and pad connecting spring, unscrew the retainer bolt. Then gently push out the pads and holder - this may be easiest to achieve by using the Allen wrench.
2. Once free of the caliper, the pads may be easily removed from the pad connecting spring.

### Installing the brake pads

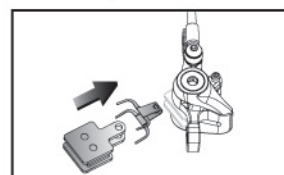
1. Position each pad on an opposite side of the holder so that the two braking surfaces are facing each other.
2. Taking care not to touch the braking surfaces, push the pads in the holder together and insert into the caliper so that the protruding lip with the retainer bolt hole is aligned with the bolt hole on the caliper.
3. Insert the retainer bolt and tighten it with a 3mm Allen wrench. Final tightening torque should be 3-5 Nm.

**NOTE** - New pads require about 30-40 full stops to achieve their optimum braking power. This process is called bedding-in. After bedding-in is complete you may need to readjust the pads.

**WARNING:** Tektro hydraulic disc brake offers considerable braking power. Test your Tektro hydraulic disc brake gradually on a flat surface until you become accustomed to the braking power. If you lend your bike to another person, make sure they are also properly accustomed to the brake power before riding.



e-1. Unscrew pad retainer bolt



e-2. Replace pads and holder

## ▼ General Maintenance

### Pad replacement

Pads should be replaced if they become contaminated or have less than 0.8mm thickness. [see "Installing and Removing Brake Pads"]

### Before riding

- Check the pads for wear or contamination.
- Check the hose for cracking, wear or deformation. Replace if necessary.
- Check if the brake system is operating correctly.

### After riding

- Remove any mud or contamination from the rotor slot on the caliper.
- Clean the caliper body with a cloth.

### At regular intervals

- Check the oil level in the reservoir.
- Lubricate the brake lever pivot with grease.
- Check to make sure that all the bolts are tightened to the correct torque specifications.

## ▼ Warranty

Tektro hydraulic disc brakes are warranty against manufacturing defects in materials and / or workmanship for a period of two years period from the date of original retail purchase. Not covered under this warranty is damage resulting from improper installation, adjustment or maintenance, lack of maintenance, alterations, crashes or use judged by Tektro to be excessive or abusive. For warranty related questions or more information on the Tektro disc brake please contact a Tektro Service Center or contact us directly at :

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