

SAFETY WARNINGS & INFORMATION

WARNING - Disc brakes offer a significant increase in performance over traditional cable-actuated systems. Follow the break-in recommendations listed in this manual and allow yourself time to learn and become accustomed to the braking characteristics.

WARNING - Disc brakes, calipers, and rotors get VERY HOT during regular use. DO NOT touch or attempt to service the rotor or caliper until you've allowed for sufficient cooling to occur.

WARNING - Leaking oil indicates a potential BRAKE FAILURE. If you're system is leaking oil stop immediately and determine the nature of the problem. DO NOT continue to ride a leaking system.

WARNING - If your bike is involved in a fall or crash, fully check the brake function including: the lever, caliper and rotor are securely attached to the bike, pads are correctly installed and functioning, the cable, (if applicable) is operating smoothly and the lever feels firm when applying the brake. Always have a qualified mechanic check the brakes if you have any doubts.

WARNING - Pad thickness must be at least 2.2mm. Confirm this before each ride. Keep pads clean and free of oil or hydraulic fluid. If pads become contaminated, discard and replace.

WARNING - TEKTRON braking systems are designed for use on a single rider bicycle. Use of these system on any other vehicle or apparatus will void the warranty, possibly causing you great personal harm or injury.

CAUTION - Read this manual completely before attempting to install or work on your TEKTRON brakes. If you are unfamiliar with any element of assembly or maintenance of TEKTRON braking systems please consult a qualified mechanic for assistance.

CAUTION - Only use TEKTRON branded replacement mineral oil when servicing the brakes. Other disc brake fluids, ESPECIALLY DOT based oils, will harm the system and compromise braking performance.

CAUTION - Cleanliness is a very important part of any maintenance of a TEKTRON brake system. If the pads or rotor become contaminated with oil, or if the system becomes contaminated with impurities, braking performance will be greatly impaired.

Hazard statements :

H304 May be fatal if swallowed and enters airways.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements :

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P331 Do NOT induce vomiting.

P405 Store locked up.

P501 Dispose of contents/container to local/regional/national/international regulations.

First Aid:

In the event of accident, seek medical advice immediately. (Supply this owner's manual or the safety data sheet to assist medical professionals.)

If inhaled, move to a well ventilated area. In the event of respiratory tract irritation, seek medical advice immediately. **If contact is made with skin**, gently wash the affected area with soap and water. In the event of skin irritation, seek medical advice immediately. **If contact is made with eyes**, rinse with clean water for several minutes. In the event of eye irritation, seek medical advice immediately. **If ingested**, rinse the mouth thoroughly with water. Drink water in small amounts frequently to dilute. Do not induce vomiting. In all cases of doubt or where symptoms persist, seek medical advice immediately.

PARKING LOCK LEVER

This brake comes equipped with a parking lock lever. This lever can be used to keep the bike parked on a hill, keep the bike still while loading or unloading cargo, keep the bike still while getting on and off, or other uses as your specific situation may require.

SETTING THE PARKING LOCK LEVER

To operate this parking lock lever, allow the bike to come to a complete stop. With the bike stopped, rotate the larger of the two levers away from the handlebar. The smaller lever will accompany the larger one to an extent. (Fig 1a) Rotate the two levers until you hear a click and it cannot rotate further. The smaller lever will pop away from the larger lever. (Fig 1b) Next squeeze the brake lever until you hear it click. (Fig 1c) The parking lock lever has a built-in ratcheting mechanism to allow locking to occur at different thresholds. This will allow for the lock to be set even with worn-in pads and rotors.

RELEASING THE PARKING LOCK LEVER

In order to disengage the parking lock, rotate the smaller lever toward the larger lever until they are nested. (Fig 2a) Then rotate both levers back toward the handlebar. (Fig 2b) Exercise caution when doing so, as the bike will be able to move once again.

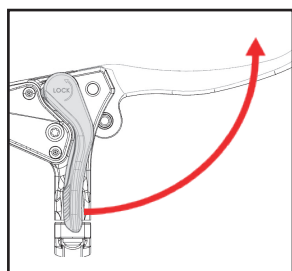


Fig 1a

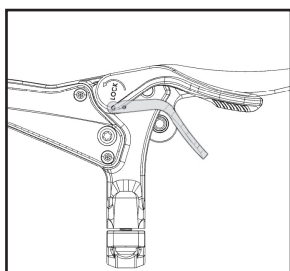


Fig 1b

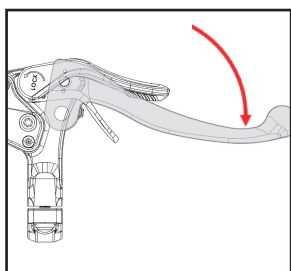


Fig 1c

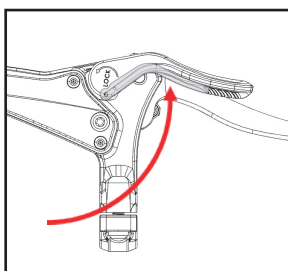


Fig 2a

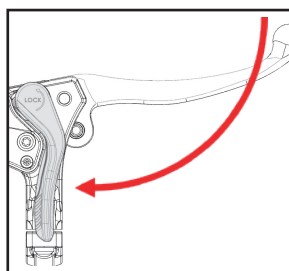


Fig 2b

INSTALLATION & ADJUSTMENT

TOOLS REQUIRED

- 4 mm Hex Wrench
- 5 mm Hex Wrench
- T25 Torx Wrench

MOUNTING THE ROTOR

Remove the wheel from the bike. Mount the rotor to the hub with the supplied Torx bolts and tighten with a T25 Torx wrench. Final tightening torque: 4-6Nm. Install 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. (Fig 3)

MOUNTING THE ADAPTER

Before installing the calipers, ensure each wheel axle is correctly seated in the dropouts. (The brake rotor should be on the caliper mounting side). Select the correct adapter (front or rear, post mount or IS mount) for the size of rotor. Depending on the adapter, mount the adapter to the fork/frame using the accompanying hardware (if necessary). Final tightening torque: 6-8Nm.

MOUNTING THE CALIPER

Attach the caliper to the fork/frame or adapter using the supplied M5 bolts. (Fig 4) 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: 6-8Nm.

ADJUST HOSE ANGLE

Calipers with banjo fittings allow for the hose angle to be adjusted in order to improve hose routing. Loosen the banjo bolt with 4 mm hex wrench and adjust hose angle for proper routing. (Fig 5) Re-tighten the banjo bolt while the hose is at the desired angle. Final tightening torque: 6-8Nm.

This adjustment may have allowed air into the caliper. Ensure the brake system is operating correctly before riding. A brake bleed procedure may be necessary.

MOUNTING THE BRAKE LEVER

Use a 4 mm hex wrench to remove the two brake lever clamp bolts and remove the clamp. Install the brake lever onto the bar and reinstall the clamp and clamp bolts. With the brake lever in the preferred position, tighten the clamp bolt using the 4 mm hex wrench. (Fig 6)

Recommended brake lever clamp tightening torque: 5-7 Nm*
(Refer to handlebar manufacturer's specifications).

Switch Sensor

Model of E-brake with switch sensor/cable at brake lever is designed for power cut-off function of motor system during the braking or for rear breaking light. It's fixed with function approval, any adjustment or re-assembly needs to be confirmed the sensor is working in normal before riding.

PAD AND ROTOR BED-IN PROCEDURE

Bedding in your new pads and rotors is critical to the performance of the brakes. Properly bedding-in your pads and rotors will ensure the highest performance and best operating conditions.

Accelerate your bike to a moderate speed and apply the brakes. Slow the bike to a walking speed and then release the brakes. Repeat this process 15 - 20 times to transfer the pad material to the braking surface of the rotor. You will feel the brakes becoming more powerful throughout this process.

Then accelerate your bike to a higher speed and apply more pressure to the brake lever until at a walking speed. Release the lever and repeat this process 10 - 15 times. Allow the brakes to cool before continuing to ride.

NOTE: Do not come to a complete stop at any time during this process. Doing so can lead to uneven pad material deposition and can affect the performance of the brakes while riding.

NOTE: This braking system is designed for use with 2.3 mm thickness rotors. For optimal results, use TEKTRÖ 2.3 mm thickness rotors. 1.8 mm thickness rotor are not recommended to be used with this system.

NOTE: This braking system is designed to use pads that measure 5.0 mm thick (including backing plate). Using pads that are thinner than 5.0mm is not recommended for this system.

NOTE: Cargo bike disc brakes use No. 50 oil hose.

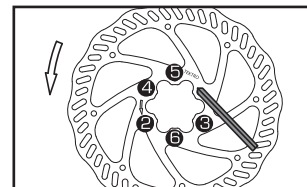


Fig 3

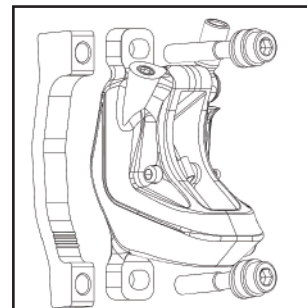


Fig 4

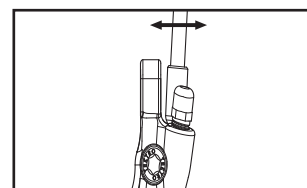


Fig 5

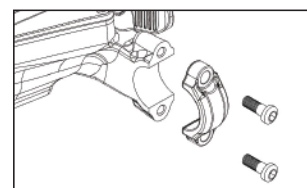


Fig 6

GENERAL MAINTENANCE

PAD REPLACEMENT

Pads should be replaced if they become contaminated or have less than 2.2mm thickness. (Pad friction material & metal backing plate). (FIG 7)

BEFORE RIDING

Check the pads for wear or contamination.
Check the hose for cracking, wear or deformation.
Replace if necessary.
Check that 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.

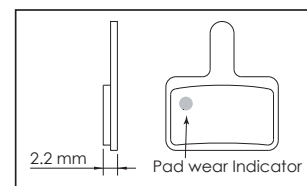


Fig 7

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 brake system.

Tools And Equipment Required

- 3 mm Hex Wrench
- 4 mm Hex Wrench
- 5 mm Hex Wrench
- T15 Torx Wrench
- TEKTRO Bleed Kit
- Clean Towel or Rag
- Isopropyl Alcohol
- TEKTRO Mineral Oil

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.

Step-by-step Instructions

- Place the bike in a stand. Use a 4 mm hex wrench to loosen the lever clamp and position lever body so that it is parallel to the ground. (Fig 8a)
- Remove the caliper from the bike using a 5 mm hex wrench. Remove brake pads from caliper using a 3 mm hex wrench to avoid contamination during the bleed procedure. (Fig 8b)
- Insert a disc brake piston setting tool or other non-sharp tool and push the pistons back into the caliper.
- Insert TEKTRO bleed block into caliper. Bleed block ensures that pistons will not move inward during bleed procedure.
- Using a T15 Torx, remove the caliper bleed port screw. (Fig 8c)
- Attach a section of plastic tubing with the appropriate bleed fitting to your syringe supplied with the bleed kit. Fill Syringe halfway with TEKTRO mineral oil. Hold the syringe vertically with the tip up and tap out any air bubbles. Install the bleed fitting into the caliper bleed port.
- Using a T15 Torx, remove the reservoir bleed screw from the lever body.
- Install the appropriate bleed fitting into the reservoir bleed port. Firmly attach a long plastic tube over the bleed fitting, placing the other end into a clean, dry empty bottle or plastic bag. (Fig 8d)
- Start filling the brake with new mineral oil by slowly pushing the plunger of the syringe. Air bubbles may come out of the reservoir. Continue pushing fluid until you no longer see bubbles coming out of the tube. (Fig 8e)
- Remove the plastic bag or collection bottle, section of tube, and bleed fitting from the brake lever reservoir. Re-install the T15 reservoir bleed screw. Tighten to 2-4Nm.
- With the bleed plug installed at the reservoir, you may now remove the syringe and knurled bleed fitting from the caliper. Re-install the T15 caliper bleed plug. Tighten to 0.8-1.2Nm.
- Wipe off any excess oil from the lever and caliper body using isopropyl alcohol and a clean towel or rag.
- Remove the bleed block and reinstall the brake pads using a 3 mm hex wrench

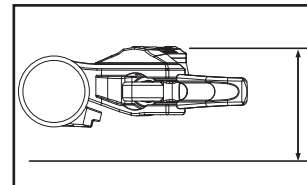


Fig 8a

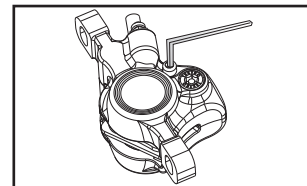


Fig 8b

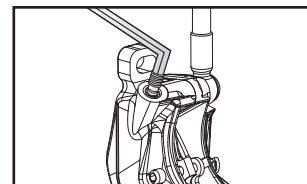


Fig 8c

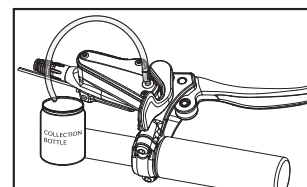


Fig 8d

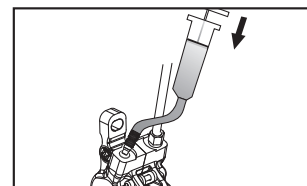


Fig 8e

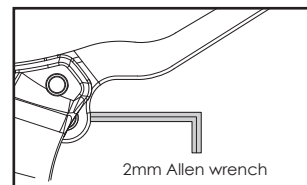


Fig 9

SYSTEM FEATURES

LEVER REACH ADJUSTMENT

The reach of the lever can be adjusted to accommodate different riders preferences. To move the lever blade closer to the handlebar, use a 2 mm hex wrench and thread the reach adjuster counter-clockwise. To move the lever blade further from the handlebar, thread the adjuster clockwise.

PAD AND ROTOR SPECIFICATIONS

New TEKTRO braking systems have implemented 2 key improvements for improved performance on cargo bikes; 2.3 mm thick rotors and 5.0 mm brake pads.

If there is laser-etched designation of "5mm Pad" and (or) "2.3mm rotor only" or "E.2.3" on the caliper of your hydraulic disc brakes (Fig 10a + 10b), make sure to replace your brake pads and rotors according to the original setup of each model. You can find more information about 2.3mm rotors and 5.0mm pads on TEKTRO website.

Rotor replacement: (Fig 10c)

2.3mm thickness rotor should be replaced if worn to 1.9mm thickness.

1.8mm thickness rotor should be replaced if worn to 1.5mm thickness.

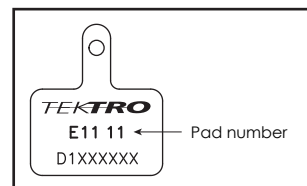


Fig 10a

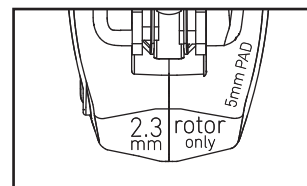


Fig 10b

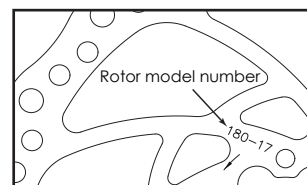


Fig 10c

SAFETY INSTRUCTIONS OF MINERAL OIL

Tektro hydraulic disc brakes are warranted against manufacturing defects in materials and/or workmanship for a period of two years 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.

- This warranty does not apply normal wear and tear.
- This warranty does not cover when product has been modified.
- This warranty does not cover any damages caused by using parts from other manufacturer.

For warranty related questions or more information please contact a Tektro Service Center or contact us directly at: <http://www.tektro.com/contact.php>

TW: info@tektro.com.tw US: info@trpcycling.com EU: service@tektro.eu