

PRIME

Master Cylinder Service



This Manual is intended to provide the information necessary for normal maintenance and service of the Prime Master Cylinder. Although the steps and procedures are relatively simple, they should not be attempted until you are thoroughly familiar with the entire set of procedures. Images have been provided to help you in the steps and procedures. Complete Service instructions can be downloaded from the Hayes Disc Brake Website at www.hayesbicycle.com.

Within this manual are specifically labeled comments intended to bring special attention to a general procedure or detailed step. Be aware of, and understand, the meaning of these labels.

Warning: Means that there is the possibility of personal injury to you or to others.

Caution: Means that there is the possibility of damaging the brake or the bike.

Note: Provides general information.

Hint: Provides information that can help you properly complete a specific procedure.

SAFETY INFORMATION

Warning: As a serious rider you are well aware of the need to practice safety in all aspects of the sport. This includes service and maintenance practices as well as riding practices. Before each ride, always check your brakes for proper function and the brake pads for wear. When you ride, always wear a helmet.

Warning: When following any of the procedures below, be sure to keep your hands and fingers from getting caught in the disc. Failure to do so could result in injury. Improper installation could cause severe or fatal injuries.

Warning: This brake has been designed for use on a single person mountain bike. The use on any other vehicle or device will void the warranty and can cause serious injury.

Warning: With use, disc brake components may become very hot. Always allow components to cool before attempting to service your bike.

Warning: When following any of the procedures below, be sure to keep your hands and fingers from getting caught in the disc. Failure to do so could result in injury.

Warning: For riders using the brakes in downhill conditions, it is recommended that you use the 8" disc version of the Hayes Brake. Not all frames and forks will accept and 8" disc. Please check with your frame or fork manufacturer for 8" disc compatibility. Consistently using the 6" disc in downhill conditions may cause the brake fluid to boil.

Warning: If your bike is involved in a fall or crash it is recommended you check your brakes before riding to ensure they are functioning properly. The following checks should be performed: Check that all components are securely mounted to the handlebar, frame, fork, or wheel; check for proper pad installation and retention; check that the brake builds and holds pressure; check hose and fittings for kinks or leaks; check master cylinder body and caliper for damage. Always have a qualified bike mechanic check your brakes if you suspect damage.

Hose Removal and Assembly

The following procedures are to be followed when removing or replacing the hose on the Hayes Prime Pro and Expert brakes.

Master Cylinder Hose Removal

1. Slide the nose cone down the hose.
2. Using an 8mm open end wrench, loosen and remove the hose nut from the master cylinder. Slide it down the hose. (FIG. 1)
3. Pull the hose out of the master cylinder. There will be residual fluid in the master cylinder body. Be careful to avoid spilling the fluid.
4. A new hose insert/compression bushing combination will be needed each time the hose is re-installed. Remove the old hose insert by cutting the hose next to it. The cut needs to be clean with no frayed ends.

Hose Assembly

1. Cut the hose to desired length using hose or cable cutters. The cut end must be clean and perpendicular to itself. **NOTE:** Do not cut the caliper end of the hose for the Prime Pro/Expert as there is a permanent crimp on that end of the hose.
2. Slide the nose cone onto the master cylinder side of the hose
3. Slide the hose nut onto the hose.
4. Push the end of the barbed hose insert into the end of the hose. Be sure it is inserted completely so the stop surface is flush with the end of the hose. Always use a new hose insert/compression bushing. (FIG. 2)
5. Slide the hose into the master cylinder and install the hose nut. Be sure that the hose is inserted completely into the master cylinder.
6. Using an 8mm open-end wrench, torque the hose nut to 70 ± 5 in/lb. [7.9±0.5 Nm]
7. Bleed the system. (**NOTE:** See Bleed Instructions)



FIG. 1



FIG. 2



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Lever Removal and Installation

The following procedures are to be followed when replacing or installing the lever blade and pivot pin assembly on the Hayes Prime Pro and Expert brakes.

Lever and Pivot Pin Removal

1. Remove the reach adjust stop screw from the lever blade using a T-10 Torx driver. (FIG. 3)
2. The pivot pin is made up of two parts. The pivot pin bolt and the pivot pin nut. (FIG. 4) The pivot pin nut needs to be removed first. This is located on the underside (the side without the stroke adjust lever) of the master cylinder body. Using a T-25 Torx driver unthread the pivot pin nut. Then use the Torx driver to unthread the pivot pin bolt on the top side of the master cylinder body (the side with the stroke adjust lever). (FIG. 5)
3. Remove the lever pivot bushings on each side of the lever blade.
4. Unthread the lever from slider using the reach adjust knob. Turn this in a counter-clockwise direction until the lever is free from the slider.
5. If you are removing the slider and slider pivot from the pushrod, first locate the two flats on the pushrod. You may have to push the rubber boot down a bit to locate them. Grab the flats with a needle nose pliers and use a 7mm open-end wrench to unthread the slider and slider pivot from the pushrod. (FIG. 6)

Lever and Pivot Pin Installation

1. Install the slider and slider pivot onto the pushrod of the master cylinder by holding the flats on the pushrod with a needle nose pliers and using a 7mm open-end wrench to thread the slider and slider pivot onto the pushrod.
2. Thread the lever blade onto the slider by turning the reach adjust knob clockwise.
3. Insert the two lever bushings on either side of the lever blade at the pivot point.
4. The pivot pin is made up of two pieces. One piece is the pivot pin bolt. This is the longer of the two pins and is threaded just below the head and at the end of the pin. (FIG. 4) This needs to be threaded into the master cylinder body first. Using a T-25 Torx driver thread the pivot pin bolt into the top side (side with the stroke adjust lever) of the master cylinder body. Ensure the lever is in line with the pivot points on the master cylinder body while inserting the pivot pin bolt. Tighten to 40 ± 4 in/lb [4.5 ± 0.5 Nm].
5. Insert the pivot pin nut into the underside (side without the stroke adjust lever) of the master cylinder and using a T-25 Torx driver tighten it down to 10 ± 1 in/lb [1.1 ± 0.1 Nm].
6. Install the reach adjust stop screw into the lever blade using a T-10 Torx driver and tighten down to 18 ± 2 in/lb [2.0 ± 0.2 Nm]



FIG. 3



FIG. 4



FIG. 5



FIG. 6

WARRANTY INFORMATION

Any Hayes Bicycle Group component found by the factory to be defective in materials and/or workmanship within two years from the date of purchase will be repaired or replaced at the option of the manufacturer, free of charge, when received at the factory with proof of purchase, freight prepaid. Any other warranty claims not included in this statement are void. This includes assembly costs (for instance by the dealer), which shall not be covered by Hayes Bicycle Group. This warranty does not cover breakage, bending, or damage that may result from crashes or falls. This warranty does not cover any defects or damage caused by alterations or modifications of new Hayes Bicycle Group parts or by normal wear, accidents, improper maintenance, damages caused by the use of parts of different manufactures, improper use or abuse of the product, or failure to follow the instructions contained in an instruction manual for the specific component. Any modifications made by the user will render the warranty null and void. The cost of normal maintenance or replacement of service items, which are not defective, shall be paid for by the original purchaser. This warranty is expressly in lieu of all other warranties, and any implied are limited in duration to the same duration as the expressed warranty herein. Hayes Bicycle Group shall not be liable for any incidental or consequential damages. If for any reason warranty work is necessary, return the component to the place of purchase. In the USA, contact Hayes Bicycle Group for a return authorization number (RA#) at (888) 686-3472. At that time, instructions for repair, return, or replacement shall be given. Customers in countries other than USA should contact their dealer or local Hayes Bicycle Group distributor.



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