

The Following procedures cover the installation of Hayes Disc Brakes items purchased as an aftermarket item. When you need to install any of the disc brake components, a qualified technician with the proper tools should do that installation work. Improper installation could cause severe or fatal injuries.

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

A. Cleaning and Care

The brake disc and pads should only be cleaned with isopropyl alcohol (not disc brake cleaner).

B. Brake Pad Change

Due to wear, contamination, or damage, the brake pads will, on occasion have to be replaced. The following procedure is to be followed for that change of brake pads.

(Note: The pads on the El Camino are removed and installed from the top of the caliper)

1. Remove the wheel.
2. Using the tab on the pad backing plate, pull the pad toward the center of the caliper and out.
There is a spring that holds them in place. That spring snaps on to the post at the center of the piston.
3. Repeat the steps for the other pad.
4. Using the box-end of a 9 mm wrench, push the caliper pistons back until they bottom.
This will give you more room to fit in the new pads. Take care not to push on the aluminum post in the center of the piston.

Caution: Don't push on the post in the center of the piston because that will bend the post.

Walk the piston back and forth until the piston is all the way back in the bore. Do the same thing on the other side.

Note: There are two different brake pads, an inner and outer. The pads are labeled "inner" or "outer" on the back of the pad.

5. When installing the pads, use the tab on the pad backing plate to push the new pads into place.

Angle the pad slightly so the post is towards the center of the caliper and push the pad until it snaps into place.

Check that the pad is locked into position.

6. Now repeat the procedure for the other pad.
7. Install the wheel.



Outer and Inner Brake Pads

C. Piston(s) Pumped Out

If the brake lever is stroked without the disc between the pads (and this is possible when brakepads are being changed), the self-adjusting feature will allow the pads to push out. The caliper pistons will be pumped out of their bore. This would cause excessive drag on the disc when the wheel and disc are reinstalled, or even make it impossible to install the wheel and disc.

To fix this problem...

1. Remove the brake pads from the caliper if they are not already removed.

HINT: If the pads are pushed together tight, slide the Hayes travel spacer between the pads and enlarge the gap until it is large enough to pull the pads out

2. With the pads removed, push the pistons all the way back into the caliper using the box end of a 9mm end wrench.

Caution: Don't push on the post in the center of the piston because that will bend the post. Walk the piston back and forth until the piston is all the way back in the bore.

Do the same thing on the other side.

3. When the pistons are back into their Bores, replace the pads – putting them in at a slight angle so that the spring catches the post on the piston.



Travel Spacer

D. Piston Removal

1. Remove the caliper from the bike by removing the two mount bolts.
 2. Remove the brake pads.
 3. Completely remove the caliper hose assembly.
 4. Using the Hayes Caliper Plug Tool, remove the outer caliper plug.
 5. Completely remove the outer caliper piston by pushing it towards the center of the caliper.
 6. Remove the inner caliper piston with compressed air.
- Warning: Wear safety glasses.
- Caution: Do not grab hold of the piston post with pliers. This can destroy the piston.
7. Temporarily block off the fluid port inside the outer caliper half, angle the caliper so the piston is facing downward, then direct pressurized air thru the banjo hole that the hose connects to. This will force the piston out of the caliper.
 8. Carefully remove both square seals from inside the caliper. Caution: Do no scratch the groove in the caliper. This can cause leakage. Use a sharpened wood or plastic stick.
 9. Clean all of the parts. Then rinse each part with isopropyl alcohol. Be sure to clean the caliper through all the holes.

E. Piston Assembly

1. Begin re-assembly of the caliper by lightly lubricating the new square seals with DOT 4 or DOT 3 brake fluid.
 2. Install the two square seals by carefully pushing the seal into each of its seal groove – making sure that the seal is worked into the groove all the way around the seal groove.
 3. Install a new seal around the caliper plug. Note: It is important to use a new seal on the caliper plug each time you remove the plug. A new seal is included in the piston kit.
 4. Using the Hayes Caliper Plug tool, install the outer caliper plug. Tighten to 240 +/- 12 in.-lb. (27.1 +/- 1.4 Nm)
 5. Install the inner piston by sliding it through the center of the caliper and pushing it into the caliper bore with the use of a 9mm box wrench.
 6. Repeat the previous step for the outer piston.
 7. Clean the caliper of any excess brake fluid by spraying it with isopropyl alcohol and wiping it down with a clean cloth.
- Note: Bleeders do not have to be replaced every time the caliper is rebuilt. If it is necessary to replace the bleeder, it is available as a service kit. The thread sealant on the bleeder is there only to seal during the bleeding process. If it wears off, replace it with a wrap of Teflon tape thread sealant.
8. Ensure all parts of the hose connections are clean and free of any hair, dirt, etc., and that the O-rings are not torn or chipped.
 9. Install the hose connection back onto the caliper in the original position.
 10. Reattach the caliper to the frame or fork and bleed the system.
- Note : Complete Bleed Instructions can be found at www.hayesdiscbrake.com.

