

ELEVATE

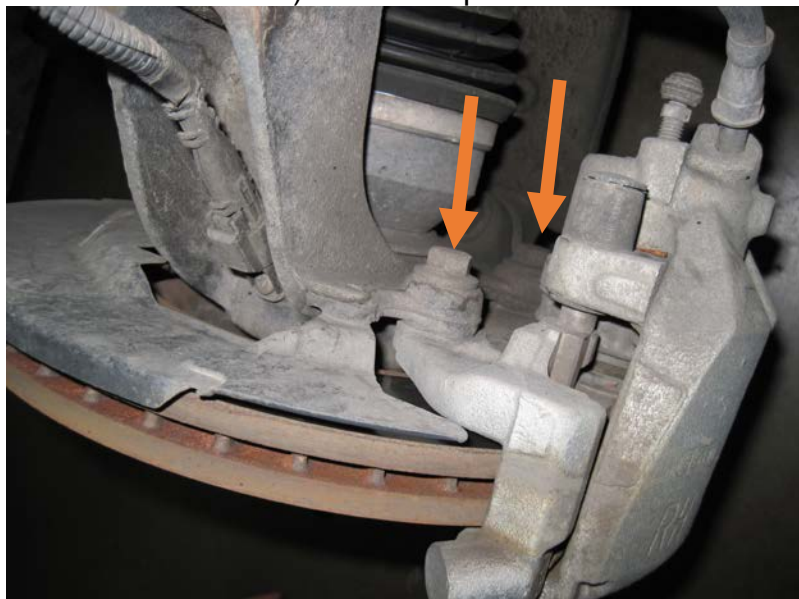
Volvo Front Brake System

Tools needed:

- ¼" combination wrench
- 10mm combination wrench
- 11mm combination wrench
- 15mm socket/ratchet
- 17mm combination wrench

Please completely read through these instructions to familiarize yourself with the project before starting. There is no cutting, drilling or other permanent modification required to install this kit. Installation should be performed by a professional technician with brake component experience. Note that the entire surface of the rotor is not swept by design.

1. Raise front of vehicle (using a lift or jack) and ensure vehicle is stable on lift or jack stands.
2. Remove front wheels.
3. Remove ELEVATE brake pads and brake pad heat shields from ELEVATE caliper by removing spring clip and sliding pads and heat shields out the top or bottom of the caliper.
4. It is recommended that you perform one caliper/rotor exchange at a time to minimize loss of brake fluid. Top off brake fluid in the master cylinder (under hood) and do not allow the brake master cylinder to run dry during component installation.
5. Disconnect factory rubber brake hose at the hard line (not at the caliper).
6. Connect ELEVATE caliper/brake line assembly to the factory hard line and tighten. Set ELEVATE caliper on suspension component or suspend using a hanger or the like. DO NOT allow caliper to hang from brake line as this can damage the brake line.
7. Using a 15mm socket/ratchet, remove the two bolts that attach the caliper to the hub. Remove brake caliper (with brake hose attached) and brake pads.



8. Remove brake rotor by sliding it off of the hub if rotors are being changed.
9. Remove 300mm rotor splash shield (if so equipped) if you are upgrading to 320mm rotors.
10. Install brake rotor. Use a lug nut to keep rotor in position and from sliding off of hub.
11. Determine which caliper is for the left side and which is for the right side (relative to driver's seated position). Calipers are one directional because of the differential piston bore design (one end of the caliper having larger pistons than the other). The caliper must be mounted in a specific position relative to the rotor rotation. The caliper must be mounted so that the smaller piston end is closest to the rotor entrance, and the larger piston end toward the rotor exit. The larger piston end provides slightly greater clamping force to compensate for pad taper that can occur under extended severe use applications. An improperly mounted caliper (reverse rotation) will cause increased pad taper and reduce overall braking efficiency.



Pictured is a RIGHT side caliper. Note smaller diameter pistons at top and larger diameter piston at bottom.

12. Mount caliper to hub using factory bolts with thread locking compound. Torque to at least 80ftlb (110Nm)



13. With caliper solidly mounted, slide brake pads and brake pad heat shield into place. The brake pad heat shields are placed between the caliper pistons and the back of the brake pads.



14. Retain brake pads and brake pad heat shields with spring clip.



15. Attach brake line with the rubber grommet on the brake line to strut housing.
16. Attach braided stainless steel brake line to hard line and tighten.

17. Repeat process for other side of vehicle.
18. Bleed brakes thoroughly using both the inside and outside bleeder screws on the top of each caliper. Be sure to maintain proper brake fluid level in master cylinder. A ¼" combination wrench is used for the bleeder screws.
19. With brakes fully bled and all bleeder screws closed, pump the brakes several times and double check for any leaks.
20. Mount wheels, lower vehicle and tighten lug nuts.
21. Perform a careful, short, controlled test drive. Ensure all bolts, nuts and fittings are secure and bed the brake pads.
22. After bedding the pads and driving for 50 miles (80km), check to ensure that all hardware is still tight.

Bedding Procedure

The purpose of bedding the rotor is to allow the pad and rotor to mate and produce a layer of pad material on the fresh rotor. This must be accomplished while also bringing the system into normalized use without harming the system with excessive heat while new.

1. While the vehicle is stationary, pump the brake pedal to ensure pad contact. The brake pedal should feel firm, and have standard travel.
2. Drive the vehicle cautiously a short distance to test fit and function. The brakes should be smooth, with no vibrations, judder, etc.
3. Drive the vehicle to a remote area and perform at least 20 brake applications of 3-second duration. Use light deceleration with varying starting speeds. Stoplight traffic can work well for this.
4. The purpose of this procedure is to gradually increase the temperature in the components without inducing thermal shock, and to mate the brake pad and rotor friction surfaces. The pad must deposit a layer of friction material on the rotor.
5. After the repeated stops, drive the vehicle for several miles (on highway generally) with little or no braking in order to adequately cool the components.
6. While on highway, safely perform 10 more braking applications using light to medium pressure for periods of about 5 seconds, with at least one minute between applications for cooling.
7. After the above process is completed, the system is ready for normal use.