1992 Volvo 940

Submodel: | Engine Type: L4 | Liters: 2.3 Fuel Delivery: FI | Fuel: GAS

Refer to the Parking Brake Cable adjustment procedure, earlier in this section.

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- 1. Using the appropriate parking brake cable adjustment procedure, gain access to the adjuster and loosen it so that the tension is removed from the cable.
- 2. Raise and safely support the vehicle safely
- 3. Remove the brake line-to-axle clamp, as required.
- 4. Remove the caliper and hang it out of the way. Be careful not to crimp hoses or lines.
- 5. Remove the disc. Don't attempt to remove the hub.
- 6. Using brake spring pliers, remove one retaining spring from the shoe assembly.
- 7. Remove the shoes from the vehicle, taking note of the location and placement of the adjuster.

To install:

- 8. Check for hydraulic leaks, worn components, and the brake shoes contact surface for signs of wear.
- 9. Thoroughly clean the hardware, surfaces, and backing plate with an appropriate brake cleaner.
- 10. Assemble the shoes with one spring and install onto the vehicle.
- 11. Install the other retaining spring.
- 12. Place adjuster in position and align shoes for disc reinstallation.
- 13. Install the brake disc. Check that the disc turns freely without binding on the shoes.
- 14. Reinstall the brake caliper. Always use new retaining bolts and tighten them to 42 ft. lbs. (57 Nm).
- 15. Reinstall the brake line-to-axle clamp, as required.
- 16. Adjust the brake shoes (except 700 series) and then the cables, as described earlier in this section.
- 17. Reinstall the wheels.
- 18. Lower the vehicle.
- 19. Check the emergency brake for proper holding and adjust the cables as necessary. Full braking effect must be possible within 3-5 notches, after adjustment.

Fig. 1: The parking brake shoes are retained by two springs, one at the top . . .



Fig. 2: . . . and one at the bottom



Fig. 3: A pair of needlenose pliers works very well to remove the springs



Fig. 4: After the top spring is removed, take out the adjuster



Fig. 5: When the top spring has been removed, the shoes can be removed with the bottom spring still attached



Fig. 6: Thoroughly clean the parking brake backing plate prior to installation



Fig. 7: Use a proper high temperature grease to lubricate the backing plates



Fig. 8: Disassembled view of the parking brake shoes and associated hardware



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- 1. The parking brake should be fully applied when the handle is moved no more than ten notches. If adjustment is required, adjust the brake shoes first.
- 2. For 850 models, full braking should be reached when the handle is raised about five notches. If cable adjustment is required:
 - A. Remove the square cover plate under the armrest in the middle console.
 - B. Turn the adjustment screw so that full braking is obtained between the second and eighth notch.
 - C. Replace the square cover plate.
- 3. Raise and safely support the vehicle.
- Remove the rear wheels.
- 5. With the brake handle released, install a brake adjusting tool through the hole in the rotor between the studs.
- 6. Turn the adjuster wheel until the rotor will not turn.
- 7. Loosen the adjuster wheel 4-5 notches
- 8. Make sure the rotor turns freely. If the shoes are binding inside the rotor even after lossening the adjuster more, remove the rotor to repair the problem.
- 9. Move the handle again: adequate braking power should be obtained at 3–7 notches with a normal pull force of approximately 65 lbs. (84 Nm). If cable adjustment is required, remove the access panel behind the brake handle and adjust through the opening in the rear console.
- 10. The yoke on top of the brake handle should be at right angles to the parking brake lever. If the yoke is out of alignment, lower the handle and turn the nuts at the cable ends to adjust. There should always be at least 0.1 inch (2mm) thread protruding.
- 11. Make sure the indicator light on the instrument panel illuminates when the brake is applied.

Fig. 1: The parking brake is adjusted through an opening in the rotor on 850/C70/S70/V70 models



Fig. 2: Parking brake adjustment on 240, Coupe and 700 series models

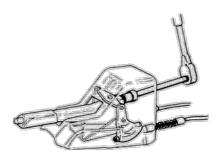
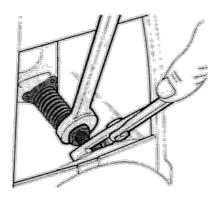


Fig. 3: Parking brake adjustment on 900 series models



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240 Series

- 1. Apply the parking brake.
- 2. Remove the hub caps for the rear wheels and loosen the lug nuts a few turns.
- 3. Raise and safely support the vehicle
- 4. Remove the wheel and tire assembly.
- 5. Release the parking brake.
- 6. Remove the bolt and the wheel from the pulley.
- 7. Remove the rubber cover for the front attachment of the cable sleeve and nut, as well as the attachment for the rubber suspension ring on the frame.
- 8. Remove the cable from the other side of the attachment in the same manner.
- 9. Hold the return spring in position. Pry up the lock and remove the lock pin so the cable releases form the lever.
- 10. Remove the return spring with washers.
- 11. Loosen the nut for the rear attachment of the cable sleeve.
- 12. Lift the cable forward after loosening both side of the attachments and remove it

To install:

- 13. Adjust the rear brake shoes of the parking brake by removing the rear ashtray between the front seat backs
- 14. Tighten the parking brake cable adjusting screw so the brake is fully applied when pulled up 2–3 notches.
- 15. If one cable is stretched more than the other, they can be individually adjusted by removing the parking brake cover (2 screws) and turning the individual cable adjusting nut at the front of each yoke pivot.
- 16. Install the ashtray and parking brake cover, if equipped.
- 17. Install new rubber cable guides for the cable suspension
- 18. Place the cable in position in the rear attachment and tighten the nut.
- 19. Install the washers and return spring.
- 20. Oil the lock pin and install it, together with the cable, on the lever.
- 21. Install the attachment and rubber cable guide on the frame.
- 22. Install the cable in the same manner on the side of the vehicle.
- 23. Place the cable sleeve in position in the front attachments and install the rubber covers
- 24. Lubricate and install the pulley on the pull rod.
- 25. Adjust the pulley so the parking brake is fully engaged with the lever at the 3rd or 4th notch.
- 26. Install the wheel and tire assemblies
- 27. Lower the vehicle.

Except 240 Series

SHORT CABLE — RIGHT SIDE

- 1. Raise and safely support the vehicle.
- 2. Remove the passenger side rear wheel
- 3. Remove the right brake caliper and hang it from the coil spring with a wire.
- 4. Remove the brake disc.
- 5. Unhook the rear return spring and remove the brake shoes.
- 6. Push out the pin holding the cable to the brake lever
- 7. Remove the rubber bellows (boot) from the backing plate and remove the bellows from the cable.
- 8. Remove the spring clip, pin and cable from the back of the differential housing.
- 9. Remove the cable guide on the differential by removing the top bolt from the housing cover.
- 10. Remove the cable

To install:

- 11. Install the cable guide on the new cable
- 12. Check the rubber bellows for wear or damage and replace if necessary. Install the bellows and position it through the hole in the backing plate. Make sure the bellows sits correctly on the backing plate.
- 13. Smear the contact surfaces of the brake levers with a thin layer of heat resistant graphite grease
- 14. Connect the cable to the lever and install the pin.

NOTE: The arrow stamped on the lever should point upward and outwards.

- 15. Push the cable through and place the lever in position behind the rear axle flange.
- 16. Install the cable guide on the axle.
- 17. Connect the cable to the equalizer using the pin and spring clip.
- 18. Install the brake shoes and rear return spring.
- 19. Install the brake disc and caliper. Use new bolts, and tighten to 43 ft. lbs. (58 Nm). Make sure the disc rotates freely,
- 20. Adjust the parking brake.
- 21. Install the wheel
- 22. Lower the vehicle.

LONG CABLE — LEFT SIDE

- 1. Remove the center console.
- 2. Slacken the parking brake adjusting screw.
- 3. Remove the cable lock ring and remove the cable

- 4. Pull out the cable from the spring sleeve.
- Raise and safely support the vehicle.
- 6. Remove the driver side rear wheel.
- 7. Remove the left rear brake caliper and hang it from the coil spring with a piece of wire.
- 8. Remove the brake disc and rear return spring.
- 9. Remove the brake shoes.
- 10. Push out the pin holding the cable to the lever.
- 11. Remove the rubber bellows from the backing plate and remove the bellows from the cable.
- 12. Pull out the cable from the backing plate and the equalizer on top of the rear axle.
- 13. Remove the cable clamp on the sub-frame, above the driveshaft, and the cable.

To inetall

- 14. Install the new cable through the grommet in the floor; check that the grommet sits correctly.
- 15. Clamp the cable to the sub-frame.
- 16. Smear the contact surfaces of the brake levers with a thin layer of heat resistant graphite grease.
- 17. Connect the cable to the lever and install the pin.

NOTE: The arrow stamped on the lever should point upward and outwards.

- 18. Push the cable through and place the lever in position behind the rear axle flange.
- 19. Install the cable guide on the axle.
- 20. Connect the cable to the equalizer using the pin and spring clip.
- 21. Install the brake shoes and rear return spring.
- 22. Install the brake disc and caliper. Use new bolts. and tighten to 43 ft. lbs. (58 Nm). Make sure the disc rotates freely.
- 23. Adjust the parking brake.
- 24. Install the wheel.
- 25. Lower the vehicle.

Fig. 1: Parking brake and cable exploded view

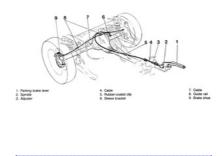
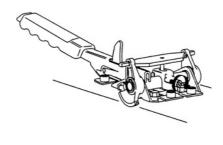
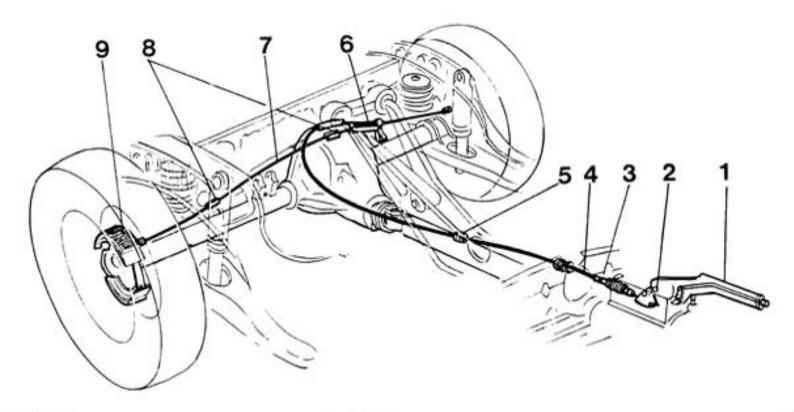


Fig. 2: Release the tension on the cable by backing off the bolt on the handle





- Parking brake lever
- 2. Spindle
- Adjuster

- 4. Cable
- 5. Rubber-coated clip
- 6. Sleeve bracket

- 7. Cable
- 8. Guide rail
- 9. Brake shoe

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The cable operated emergency brake is a complete separate brake system acting only on the rear wheels. When the lever in the vehicle is pulled up, cables running to the rear of the vehicle actuate 2 sets of brake shoes. These shoes expand against the machined surface inside the rear brake disc. The system must, however, remain in proper repair and adjustment so that it will hold the vehicle when parked and be available for emergency use if needed.