



1981 Corvette Heater Core Replacement (with Air)

A step by step guide to removing and replacing the heater core

Written by Paul Shelley (September 2004)

DISCLAIMER: This procedure may vary from Corvette to Corvette. Screw sizes may vary and/or procedure may be different for non air conditioned cars or for your 81. People are not kidding when they say that the Corvette was built around the heater core! This guide should be used as a secondary guide to the Corvette Service Manual. Procedure in the Service Manual should take precedence. Please remember, SAFETY FIRST.

- 1) Drain coolant from car.
- 2) Remove T-Tops.
- 3) Remove passenger seat by removing the two ½ inch bolts on rear rails and the two ½ inch bolts on front rails.
- 4) Remove carpet tack rail from left side bottom of body on passenger side (4 screws.)
- 5) Remove inside passenger kick panel (1 screw.)
- 6) Remove glove box insert (2 screws on top and 2 screws on bottom; all inside the glove box.)
- 7) Remove parking brake arm rest cover.
- 8) Remove passenger and driver side center console knee rest panels (4 screws in each.)
- 9) Peel back passenger side carpet.
- 10) Place rags or an old sheet on flooring under dash to catch all the debris (easier clean up.)
- 11) Remove center console shifter cover screws to free the plate (4 screws, 2 on each side; do not remove it.)
- 12) Remove center console gauge plate (2 screws on top, 2 screws on side.) After these 4 screws are removed, look under the center console plate where the center console and gauge plates mate. There are 2 screws that attach them together. Remove those two screws to separate the plates (1 on driver's side, 1 on passenger side.)
- 13) Gently pull gauge plate forward from the top of the dash; reach behind and disconnect the plug to the panel (top third of panel is where the plug is located.)
- 14) Remove gauge plate from car. (NOTE: I pulled mine to one side, left the radio wired and laid it on the drivers side foot compartment. You may be able to bungi cord it the steering wheel if the cables are not long enough, but it needs to be out of the way of the dash opening that was created by it's removal)
- 15) Remove 2 dash retainer screws on passenger side of dash (far left side of dash board.) **WORD OF CAUTION HERE:** The passenger side of the dash will now be hanging loose! Any excess pressure on this may break the dash, so pay particular attention to torquing the dash (especially in the later steps while you have your arm thorough the glove box hole.)
- 16) In center console "hole", remove duct work.
- 17) Under *passenger side feet area*, remove duct work.
- 18) You should now have only one piece of duct work left and a huge mess on your hands.
- 19) Jack up passenger side of car, slide under the car and CUT the hoses to the heater core just below the heater core pipe stubs. IF you plan to reuse the hoses (which, I DO NOT RECOMMEND -change them while you're this far in-) then just disconnect the hoses.
- 20) Remove hose clamps (not absolutely needed but it made my life much easier getting the core out of the car)
- 21) *Inside the passenger compartment*, remove all mounting bolts on the remaining duct work (2 bottom, 1 top.)
- 22) Remove the heater control mechanism plate (3X 5/16 screws; 2 front, 1 behind.) The rear one is hard to get to and I left it until I dropped the duct, after step 27.

- 23) To disconnect the cable, using a screwdriver, pry slide the retainer up the shaft and then slide the cable up the shaft.
- 24) Disconnect all vacuum lines to the top of the mech plate.
- 25) The entire duct is now disconnected from the inside of the car but has one more bolt in the engine compartment that needs to be taken off to release it from the fire wall.
- 26) *Engine compartment, passenger side* - Looking down on fire wall behind where the duct work was, there is a bolt with a nut sticking out of the fire wall. With air conditioning, this "appears" to be holding the plastic housing to the fire wall but the actual stud is part of the duct work inside the car. Remove the nut from the stud.
- 27) *Back inside the car*, pull the duct work back toward the rear of the car and then push up and tilt back toward you. Again, push up and continue this motion until the duct is free. Once free, there is one more vacuum line to disconnect off the main vacuum pump on the duct.
- 28) Carefully rotate the duct counterclockwise to remove it from under the dash. The duct and core are now removed from the car.
- 29) Cut away or remove any access hosing that was left on the core.
- 30) Remove retainer screw that holds the plate assembly and hose stubs. Remove retainer plate.
- 31) Slide the rubber grommet off the hose stubs.
- 32) Remove screws (4 total) from under the gasket material on the duct. You can identify the screw location (5/16 heads) by looking at the other side of the flange and locate the screw holes.
- 33) Remove back cover of duct.
- 34) Remove heater core from duct and replace.
- 35) Reassemble in reverse order.