

Cold Starting, Except Turbo, 1962-1969

Corvair carburetors should be adjusted so that the car will start as per the Owners Guide instructions. When the car is cold, you should depress the accelerator about one half to allow the choke valves to shut and pull the fast idle linkage into position. Then turn the key to start and the engine should run on a fast idle until warmed up. The two choke pull-off assemblies are actuated by engine vacuum as soon as the car starts and they will pull the chokes open a prescribed amount; an important step in the process otherwise the engine would soon flood. If you have a failed pull-off, flooding will occur. The engine should run on a fast idle when cold and come down from the fast idle in stages as the choke coils warm up and open the choke valves further.

Tuning and trouble shooting the choke system would include checking the rods that come through the heads; they should spring up and down freely and should be adjusted so that when the choke valve is shut, the rod end is unscrewed a couple of turns from free entry. Make sure the rods do not bind going up and down because that is a common problem. Check the choke pull-off by holding in on the metal arm, put your finger over the vacuum line nipple and let go of the arm. It should not move out. Replace if defective, otherwise flooding and poor cold running will result. Check the choke pull-off adjustment, it should open the closed choke valve about 3/16" – check with a drill bit. The fast idle is adjusted by bending two different tabs on the linkage – check the shop manual for the method.

For cold starting in extremely cold conditions, you will need to make sure that your accelerator pumps are working at their max – look down the carburetor throats, quickly flip the cross shaft and you should see two squirts of gas enter the venturi area. This is easier to see with the engine off. If everything works correctly, every time you pump the accelerator these two squirts of gas will richen the mixture headed to the cylinders. Liquid gas will not ignite in the cylinders, it must be vaporized so pumping the pedal to help starting should only be done while cranking. Otherwise you risk flooding, which is simply liquid gas that has fouled the plugs.

Hot Starting Except Turbo

Push the accelerator down half way with out pumping, hold it, and turn the key. In the early years, hot restarting became a problem and Chevrolet Division issued TSB 885, May 1, 1963 to address the issue. If you have a 60-63 with a hot start delay, the TSB recommended drilling a 1/8" hole in the side of the carburetors to vent the vapors that collect above the throttle valve when the engine is off. Looking at the side of the carburetor with the idle mixture screw, measure 3/8" left of the screw and 3/8" above the flange area where the hold down nut rests. This should only be done after making sure all the other carburetor adjustments are correct. This includes float level, jetting, idle mixture etc. I have applied this to two of my early models and it does work. On request I can email you a picture from the TSB showing the hole location.

In 1964 the hot restart issue was corrected with the addition of a "vapor vent" on the base of the carburetor. It should be closed with the accelerator depressed and will open only when the accelerator returns to idle after warm up. When you turn the engine off, the vent is open and helps eliminate fuel vapor build up. The key to the valves' success is correct adjustment, which is difficult. Any change in the idle speed screws will change the vent opening: less idle speed screw means move valve opening, more idle speed screw means little or no valve opening. The trick is to use a mirror and check the adjustment only after all other engine idle adjustments have been made and the chokes are open. If you take the time to do it correctly, you will find a significant improvement in hot restarting. Again, this is assuming that all of the other carburetor and tuning items are correct.

