



INSTALLATION AND ADJUSTMENT INSTRUCTIONS

199R-9503-2

To preserve warranty, these instructions must be read and followed thoroughly before and during installation.

CARBURETOR DESCRIPTION: Model 4175

APPLICATION: Chevrolet vehicles equipped with L-48 or L-82 350 CID engines.

Holley Replacement Parts Division cannot and will not be responsible for any alleged or actual engine or other damage, or other conditions resulting from misapplication of the carburetor described herein.

GENERAL: Prior to and after installing your new carburetor, manually operate the throttle lever and choke mechanism, checking for any sticking or binding. Also, make a visual inspection of the carburetor, looking for any missing parts, bent levers, or any possible shipping damage.

Due to emission requirements, vacuum lines and hoses are becoming more numerous. It is advisable that when disconnecting lines and hoses from your original carburetor, to identify and label them in some manner to avoid confusion during the installation of your Holley replacement carburetor. Trace each line back from the carburetor to its individual component, such as the distributor, and then label that line.

REMOVAL:

1. Before disconnecting the various hoses, linkages, springs, etc., it is advisable to identify them in some manner, so as to facilitate reassembly. Each hose should be labeled as it is removed, using Diagram 2 as a guide.
2. Remove the steel fuel line fitting carefully, since it will be reused during installation of your Holley carburetor.
3. Remove the throttle linkage and automatic transmission controls from the throttle lever. Disassemble and save the throttle return spring from its two anchor points located on the throttle lever and throttle cable bracket as shown in Illustration 1.

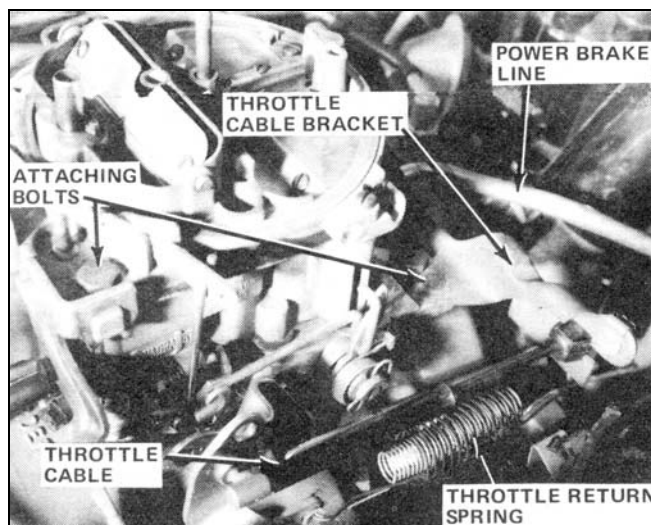


Illustration 1

4. Disconnect the power brake line from the lower rear of the carburetor, if so equipped.
5. Detach the choke hot air tube and choke air supply tube from the carburetor.
6. Remove the two front and two rear attaching manifold flange bolts. Remove the throttle cable bracket, if so equipped, (located at the right rear attaching bolt). Remove the carburetor by lifting it straight upward.
7. Remove the carburetor flange gasket.

8. Place a cloth over the manifold opening to prevent dirt or chips from entering the engine. Keep the exposed ends of the line free from dirt.
9. Clean the gasket surface of the manifold thoroughly.
10. Remove the cloth from the intake manifold.
11. If your application came equipped with a solenoid that is removable from the bracket, use the new replacement bracket packaged with the replacement carburetor. Applications on which the solenoid is welded to the bracket and is not removable will require a new Holley bracket 20-46 and solenoid 46-74.
12. Install four flange studs (provided).
13. Install the new flange gasket (provided).
14. Place your new carburetor on the manifold. Install by hand the holddown nuts on the top threads only until all four (4) nuts have been started (this allows the carburetor to be shifted for easier nut installation). Tighten the nuts evenly in a crisscross pattern.

CAUTION: Overtightening the carburetor manifold flange holddown nuts may result in warped or cracked carburetor throttle bodies. The carburetor holddown nuts should be tightened down progressively in a crisscross pattern, first by hand, and then with the proper wrench. This procedure will help prevent vacuum leaks while avoiding damage to the carburetor throttle body.

15. Cut the metal fuel line off two and a half inches from the end closest to the carburetor. Clean both cut ends. Install the cut tube into the carburetor fuel inlet fitting. Adequate rubber fuel hose and two (2) hose clamps are supplied in the package. By carefully bending the metal fuel line and installing a suitable length of hose, a neat and reliable splice can be made. Do not allow routing of the fuel line to contact any hot surfaces.

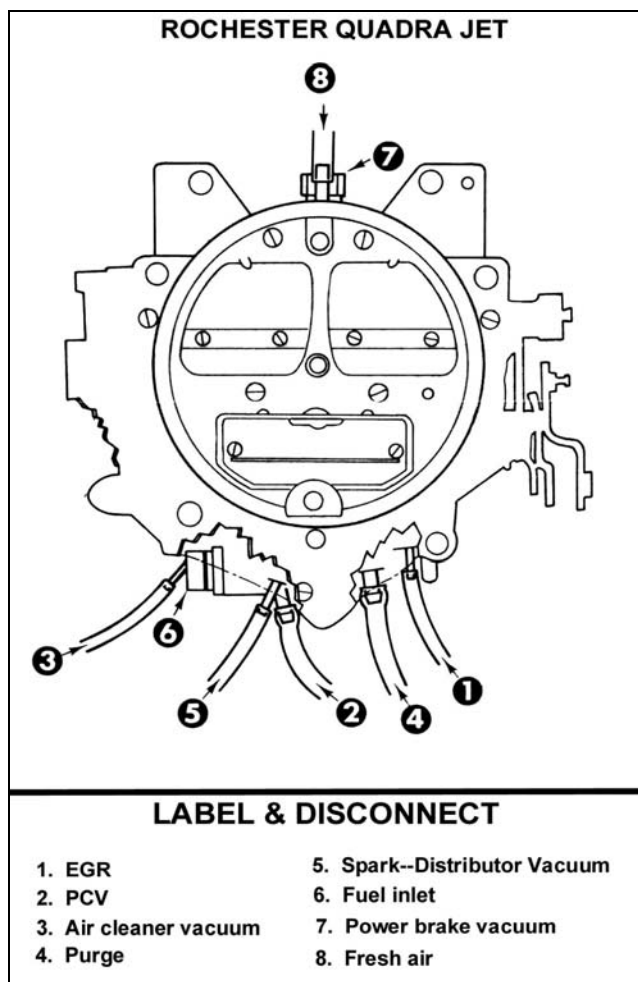


Diagram 2

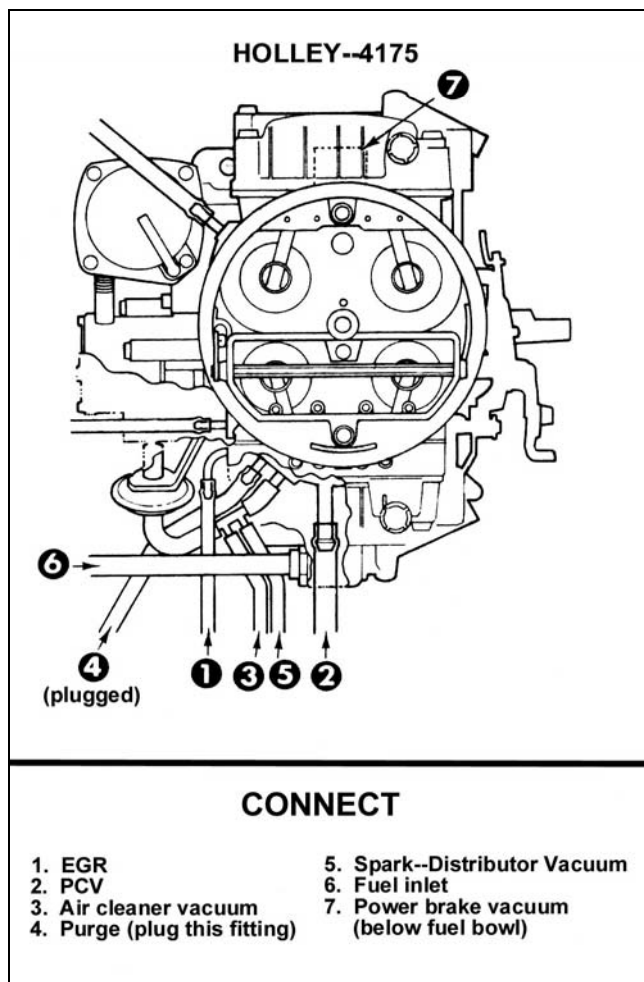


Diagram 3

WARNING: In all cases where the fuel line has been cut, it is essential that it be clean to insure that no metal particles enter the fuel bowl after the new carburetor installation. This is performed by disconnecting the fuel line at the pump and blowing the line clean with compressed air. Holley does not recommend the procedure where the coil wire is disconnected, the engine is cranked for a few revolutions, and the fuel is collected in a container. This procedure is unsafe because sparking can occur either at the coil, or at the distributor end of the coil wire, and then ignite any fuel spilled in the engine compartment.

RECOMMENDATION: It is recommended that a quality inline fuel filter, such as Holley P/N 162-523, be installed between the fuel pump and the carburetor. This will assure that the clean filtered fuel will be delivered to the engine and will provide additional protection against possible carburetor flooding.

16. Install the throttle cable, mounting bracket supplied, on the new carburetor, and install the throttle cable into the bracket.
17. If there exists a ball stud on the original carburetor throttle lever that cannot be removed, a similar ball can be found in the enclosed parts.
18. Install the throttle ball on the carburetor and connect the throttle cable.
19. Install the throttle return spring (transferred from the original carburetor).
20. Reconnect the vacuum hoses, using Diagrams 2 and 3 as a guide. Plug any vacuum connections not used.
21. Attach the electric lead to the clip on the choke cap. Attach the other end of the lead to a 12V power supply. Do not attach to the ignition coil. It is advisable to connect the lead to a source that only has power when the ignition switch is in the run position, such as at the fuse box located inside your vehicle.

CAUTION: Before starting the engine, be certain that there is no manner of interference when the throttle is operated between the idle and wide-open throttle positions. Any binding or interference could cause the throttle to stick during operation and possibly result in a loss of throttle control (uncontrolled engine speed during normal operation of your vehicle).

22. Temporarily plug the air cleaner vacuum fitting in the intake manifold. Start the engine and check for leaks.

CURB IDLE SETTING: The idle mixture has been preset for proper emissions. However, differences in engines and transmissions may necessitate slight adjustments.

23. Adjust the idle speed to obtain the speed indicated on the decal in the engine compartment. If the car is equipped with an idle solenoid, the curb idle speed should be set with the solenoid disconnected. Reconnect the solenoid setting idle speed to the specifications on the decal.

NOTE: Be sure the solenoid is actually extended when setting the high idle, as this solenoid is only activated with the air conditioning running, on some applications. Adjust the mixture needles (within the range of the limiters) to obtain a smooth idle.

ROUGH IDLE AND VACUUM LEAKS: If a rough idle persists after the engine has been started and the mixture screws have been properly adjusted, check for vacuum leaks. These could result from unplugged vacuum fittings, a torn or improperly installed flange gasket, improper torque on the throttle body to manifold nuts, or improper replacement of vacuum lines. Where applicable, if the intake manifold was changed, a manifold vacuum leak could occur at the head to intake manifold surfaces due to a damaged gasket or improper torquing of the manifold bolts. Frequently, manifold vacuum leaks occur from the valley side of the manifold. These are very difficult to detect, unless a discernible whistle can be heard.

FAST IDLE SETTING: Check the fast idle speed with the engine at operating temperature. Turn the engine off. Using your hands, open the throttle halfway and hold the choke plate closed. Close the throttle and then release the choke plate. The fast idle cam is now engaged on the top step. Start the engine without depressing the accelerator. If the engine stalls, repeat the above procedure.

NOTE: Do not put the transmission in gear while checking the fast idle speed. The fast idle speed is preset to an equivalent 1700-1900 RPM. Adjust to these limits, if necessary, by turning the fast idle adjustment screw.

24. After adjusting the fast idle, open the throttle slightly to disengage the fast idle cam. Allow the throttle to return to idle and shut off the engine.
25. Install the air cleaner stud and air cleaner gasket.

WARNING: IN ALL CASES, IT IS ESSENTIAL THAT THE THICK AIR CLEANER GASKET (supplied with this carburetor) MUST BE USED. FAILURE TO DO SO WILL RESULT IN UNCONTROLLED ENGINE SPEED.

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