



SERVICE MANIFOLD P/N 300-204, 300-206, & 300-45

INSTALLATION AND ADJUSTMENT INSTRUCTIONS 199R8230

WARNING! Read and follow these instructions before, during, and after the installation to preserve the warranty.

APPLICATION:

The Holley Pro Dominator manifold tops, P/N 300-204 & 300-206, have been designed for use on the big block Chevrolet manifold base, P/N 300-45. The 300-204 is the top with a square bore carburetor flange and has a center-to-center distance of 9.66". The 300-206 is the top with a Dominator carburetor flange and has a center-to-center distance of 9.70".

PRE-INSTALLATION:

In the vast majority of cases, the manifold may be installed without modification, since the runner openings at the head flanges are already matched to all but the largest head port openings. However, if further port matching is required, material removal should be blended up at least two inches into the runner.

Since the casting lines between the runners and the plenum floor are located entirely outside of the runner entries, an ideal runner approach radius is ensured as cast. It should not be necessary for any modification in this area.

NOTE: It may be necessary to purchase some of the parts listed below (or equivalent) in order to properly complete the manifold installation. Determination of equivalency is the responsibility of the consumer and Holley does not assume that responsibility.

PARTS REQUIRED:

- A. Intake manifold gasket set – #108 Mr. Gasket or equivalent
- B. Thermostat Housing Gasket – GM #10105135
- C. Throttle Operating Linkage – Holley P/N 4022
- D. Silicone-based sealant (Permatex Silicone Form-A-Gasket, Dow Corning Silastic RTV, or equivalent)

TOOLS NEEDED FOR INSTALLATION:

- Socket Set – 3/8 Drive
- Open End Wrenches
- 10" Adjustable Wrench
- Ignition Wrench Set
- Screwdriver Set
- Gasket Scraper
- Needle Nose Pliers
- Drain Bucket
- Timing Light
- Torque Wrench

NOTE: To reduce the chances of engine contamination by dirt or other foreign material, it is advisable to clean the engine exterior before starting the manifold change.

INSTALLATION INSTRUCTIONS:

1. Disconnect the ground cable from the battery.
2. Drain the radiator (it may be necessary to remove the bottom radiator hose, if there is no drain plug in the radiator).

WARNING! Be careful of hot water and steam, if the engine is still warm.

3. Disconnect the throttle linkage.
4. Remove the gas cap to relieve pressure from the fuel system and disconnect and plug the fuel line(s) at the carburetor(s).
5. Remove the carburetor. Tag and remove the coil wires and coil bracket. Remove the top alternator bracket.
6. Remove the top radiator hose complete with the thermostat housing. Remove the thermostat.
7. Remove the distributor cap. Carefully note the position of the rotor and distributor vacuum advance can (a sketch is helpful here). Remove the distributor hold-down clamp and remove the distributor.

NOTE: Do not crank the engine while the distributor is out of the engine.

8. Remove the manifold "hold-down" bolts. Loosen or remove one valve cover (it may be necessary to use a new gasket to prevent oil leakage). Carefully remove the manifold.
9. Clean the old gaskets from the cylinder head and block surfaces. (Before cleaning, stuff the intake ports in the head with paper towels or rags and lay clean, **lint-free** rags in the valley or take equal precautions to prevent scrapings from entering the cylinder head ports and engine. It is advisable to run 3/8-16 tap in each manifold bolt hole in each cylinder head to clean the hole, so that even manifold sealing can be effected. If a tap is not available, run a manifold bolt through each hole before installing the manifold. When the cylinder head and block surfaces are clean, carefully remove the port stuffing and valley rags, ensuring that no dirt or foreign material has entered the engine.
10. Apply a thin coat of silicone sealant to the cylinder head gasket surface. Lay the new manifold gaskets in place by aligning the bolt holes. **NOTE: Do not use sealant on rubber end seals.**
11. Apply sealant to the manifold gaskets. Carefully, lay the intake manifold in place.
12. Start all hold-down bolts by hand. Be sure all brackets are under the proper bolts.
13. Using a flashlight, sight down the runners and adjust the manifold position fore and aft to ensure proper port alignment.
14. Tighten the bolts to 15 ft./lbs. and progress in 5 ft./lb. increments noting the torquing sequence in Figure 1. Retighten the valve cover.

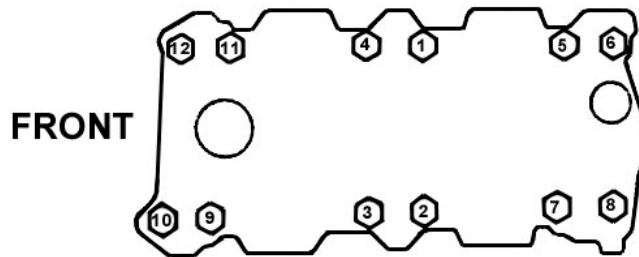


Figure 1

15. Install the thermostat, thermostat housing gasket (using silicone sealant on both sides of the gasket) and thermostat housing. Ensure that the thermostat housing has been cleaned of any old gasket material.
16. Replace the distributor, so the rotor and vacuum can are in the original position. Install the distributor hold-down clamp and "snug down".
17. Install the ignition coil and attach all wires.
18. Install the plenum top onto the manifold base, using silicone sealant on both sides. Tighten the bolts to 10 ft./lbs.
19. Install the studs in the manifold flanges and lay the carburetor gaskets in place. Install the carburetors, as per the carburetor instructions supplied with the carburetor.
20. Connect the throttle linkage, hoses, and fuel line as per carburetor and linkage instructions.
21. Ensure that all unused water fittings are properly plugged.
22. Close, drain, and fill the radiator to the proper level with coolant. Replenish, as necessary.
23. Reinstall the gas cap, connect the battery, and hook up the timing light before starting the engine. Check for fuel leaks, set the timing and tighten the distributor.
24. Check for proper hood clearance before closing the hood. Retorque the manifold bolts to 25 ft./lbs. after warm up.

GENERAL INFORMATION:

1. It is advisable to periodically recheck the torque on the manifold bolts to minimize the possibility of a manifold vacuum leak.
2. If the cylinder heads have been milled or the cylinder block "decked", the cylinder head faces and the end surfaces of the manifold must be milled to compensate. This is necessary to maintain correct port alignment, minimize the possibility of manifold vacuum leaks, and to ensure proper engine performance.

NOTE: The cylinder head faces are each 35° from the horizontal.