

# INSTALLATION INSTRUCTIONS

## HOLLEY BIG BLOCK CHEVROLET STRIP DOMINATOR MANIFOLD

READ AND FOLLOW INSTRUCTIONS BEFORE, DURING  
AND AFTER INSTALLATION TO PRESERVE WARRANTY.

The Holley STRIP DOMINATOR manifolds, 300-4 and 300-5 are designed for use on big block Chevrolet engines (396-454 C.I.D.). They are designed for competition and off-road use only. They have no provision for EGR and no exhaust heat to the manifold. This can adversely affect idle stability and part throttle operation, if used on a street driven vehicle.

**NOTE:** It may be necessary to purchase some of the parts listed below (or the 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  
300-4 Mr. Gasket #117  
300-5 GM#3955527
- B. Thermostat Housing Gasket  
GM# 3701777
- C. Silicone based sealant such as 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
- 3/8" Allen Wrench
- 1/2"-3/8" Socket Set Reducer

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

### INSTALLATION INSTRUCTIONS:

1. Disconnect ground cable from battery.
2. Drain 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 engine is still warm.
3. Disconnect carburetor linkage.
4. Remove gas cap to relieve pressure from fuel system. Disconnect and plug the fuel line at the carburetor.
5. Remove carburetor.
6. Tag and remove coil wires and bracket.
7. Remove top alternator bracket.

8. Remove water pump by-pass hose and top radiator hose complete with thermostat housing. Remove thermostat.
9. Remove distributor cap.
10. Carefully note the position of rotor and distributor vacuum advance can (a sketch is helpful here).
11. Remove distributor hold-down clamp and remove distributor.

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

12. Remove manifold "hold-down" bolts.
13. Loosen or remove one valve cover (it may be necessary to use a new gasket to prevent oil leakage).
14. Carefully remove manifold.
15. Clean old gaskets from cylinder head and block surfaces. (Before cleaning, stuff intake ports in head with paper towels or rags and lay clean, *lint-free* rags in valley or take equal precaution to prevent scrapings from entering cylinder head ports and engine).
16. It is advisable to run a 3/8"-16 tap in each manifold bolt hole in each cylinder head to clean the holes to assure even manifold sealing. If a tap is not available, run a manifold bolt through each hole before installing the manifold. Carefully remove port stuffing and valley rags assuring that no dirt or foreign material has entered the engine.
17. Before installing new manifold, transfer all fittings from the old manifold. Pipe plugs are provided to close off all unused openings. To prevent water leaks, a thin film of silicone sealant should be applied to all threads. See Figure 1 and Figure 3.

On some models it may be difficult to remove the fitting for the water by-pass from the front of the manifold. A substitute can be made from a piece of 1/2" threaded pipe two inches long.

18. 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.

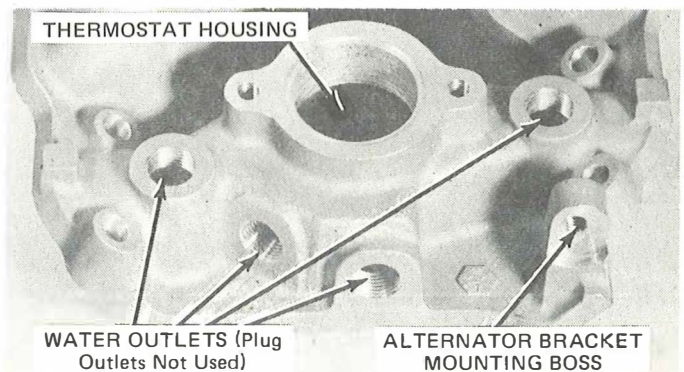


Fig. 1

**NOTE:** Holley Replacement Parts Division strongly recommends the use of new, original equipment intake manifold gaskets (or their equivalent) due to their superior sealing characteristics.

19. Apply sealant to manifold gaskets.
20. Carefully lay intake manifold in place.
21. Start all hold-down bolts by hand; be sure all brackets are under proper bolts.
22. Tighten bolts to 15 ft. lbs. and progress to 25 ft. lbs. in 5 ft. lbs. increments noting the torquing sequence. See Figure 2. Retighten valve covers.
23. Install thermostat, thermostat housing gasket, (using silicone sealant on both sides of gasket) thermostat housing with radiator hose and water pump by-pass hose. Be sure thermostat housing has been cleaned of any old gasket material.
24. Replace distributor so that rotor and vacuum can are in original position. Be sure the distributor housing is seated.

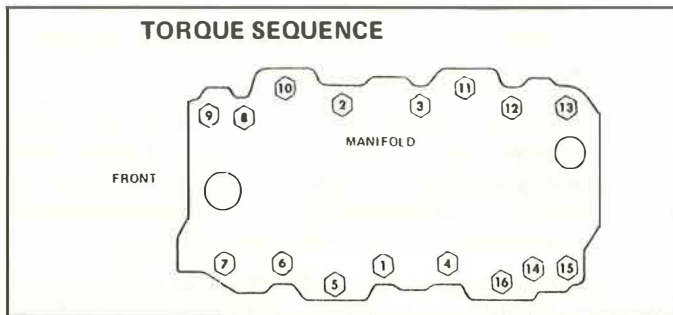


Fig. 2

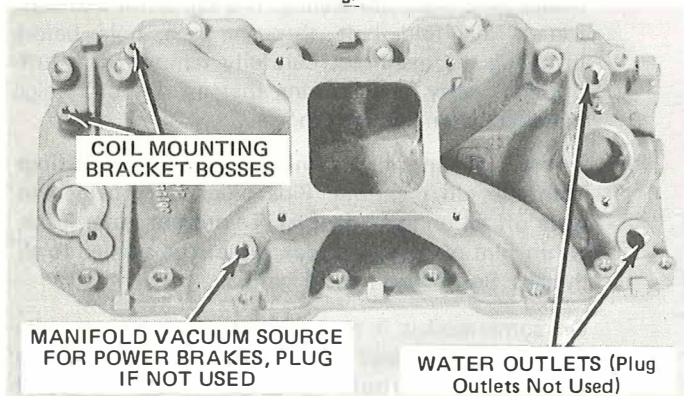


Fig. 3

25. Install distributor hold-down clamp and "snugdown".
26. Install ignition coil, reposition coil in bracket, if necessary, and attach all wires. See Figure 3.
27. Install studs in manifold flange, and lay carburetor gasket in place.
28. If vehicle is equipped with power brakes install power brake line in machined hole on Runner No. 8. This is a "dead-end" vacuum requirement and will not affect flow through the runner. See Figure 3.
29. Install new carburetor, connect throttle linkage, hoses and fuel line according to instructions supplied with carburetor or install original carburetor in reverse order of removal.
30. Install alternator bracket in original location and tighten belt.
31. Close drain and fill radiator to proper level with coolant. Replenish as necessary.
32. Reinstall gas cap.
33. Connect battery.
34. Hook-up timing light and start engine; set timing and tighten distributor.
35. Check for fuel leaks.
36. Install air cleaner. **IMPORTANT:** Check for adequate hood clearance before closing hood.
37. Operate engine for thirty minutes. Allow engine to cool, and check manifold bolts for tightness.

#### 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 assure proper engine performance.

**NOTE:** The cylinder head faces of the manifold are each 45° from the horizontal.

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