



## **8019 OVAL PORT STEALTH 8018 RECTANGULAR PORT STEALTH**

### **INTAKE MANIFOLD INSTALLATION INSTRUCTIONS**

**This instruction sheet is designed to cover a wide variety of vehicle applications. If your vehicle is not equipped with the items referred to in these instructions (EGR, transmission kick-down linkage, air conditioning, or power brakes), proceed to the next step.**

Thank you for choosing WEIAND for your manifold needs. It is our concern that you follow these instructions carefully, so that you can achieve the desired results. Slight errors in installation can make a big difference in performance, mileage, and emissions. Warranty is void if proper installation procedures are not followed. PLEASE READ THE INSTRUCTIONS COMPLETELY BEFORE INSTALLATION.

**IMPORTANT:** Although all WEIAND parts pass several inspections, it is imperative that the installer personally inspects the parts before installation. Run a stiff wire through all passages while shining a bright light into it. Also, wash the part using mild soap and water solution. Check the fit on all bolt holes for proper alignment and thread any fittings in first by hand. Failure to perform these simple checks could result in engine damage and may void your warranty.

#### **APPLICATION:**

Available for both oval (8019) and rectangular port (8018) cylinder head equipped big block Chevrolet engines, are Weiland's advanced hi-rise "Stealth" manifolds. These are the most advanced dual plane, 180° intakes on the market. They combine excellent bottom-end performance with an exceptionally broad power curve that extends to 6800 RPM. They are ideally suited to a number of applications, including high performance street and marine use, E.T. Bracket racing, and even RVs, tow vehicles, etc. "Stealth" manifolds are designed to be used in conjunction with more aggressive camshaft profiles, high performance ignition and exhaust systems, etc. They have a square bore carburetor pad to accommodate 650-850 cfm aftermarket carburetors.

The "Stealth" manifolds have been designed to accept most stock hardware, such as coolant and vacuum lines, coils, brackets. Little alterations, if any, will be required.

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

#### **PARTS REQUIRED:**

- Intake manifold gasket set, such as Fel-Pro P/N 1212 for oval port heads, or P/N 1275 for rectangular ports.
- Thermostat housing gasket, GM P/N 3701777, or Fel-Pro P/N 2201, 2202
- Divorced choke assembly, GM P/N 3992082, and cover P/N 3986944
- Oil-resistant, silicone based sealant, such as Permeates Silicone "Form-a-Gasket", Dow Corning Silastic, or equivalent.
- Spray gasket adhesive, such as Fel-Pro's Spray Tack, P/N 2200
- Pipe plugs, if needed.
- Carburetor base gasket (usually supplied with the carburetor).
- Teflon tape

**NOTE:** Never install tapered (pipe) fittings in an aluminum manifold without Teflon tape or thread damage will likely occur.

## TOOLS REQUIRED:

- ❑ Socket wrench set—3/8" drive ratchet and extensions
- ❑ Open end wrenches—3/8" to 1"
- ❑ Box end/flare wrenches (optional)
- ❑ 10" adjustable wrench (crescent)
- ❑ Ignition wrench set
- ❑ Screwdrivers—standard & Phillips, various lengths
- ❑ Gasket scraper
- ❑ Needle nose pliers
- ❑ Drain bucket
- ❑ Timing light
- ❑ Torque wrench
- ❑ File
- ❑ 3/8" x 16NC tap (for cleaning bolt holes).

## MANIFOLD REMOVAL PROCEDURE:

1. Disconnect the ground cable from the battery.
2. Identify the vacuum and crankcase ventilation hoses (if any leading to air cleaner and note routing and connection points). Remove the air cleaner.
3. Prior to removing any other vacuum lines, identify the routing of the lines. Mark and remove the vacuum lines from the carburetor and/or intake manifold.

**WARNING:** Hot water and steam may be present if the engine is still warm.

4. Drain the radiator. (It may be necessary to remove the bottom radiator hose if there is no drain plug in the radiator).
5. Disconnect the throttle linkage, transmission kick-down linkage (auto trans. Only), and choke rod from the carburetor, if applicable.
6. Loosen the gas cap to relieve pressure from the fuel system. Disconnect the fuel line at the carburetor using flare wrenches. Plug the end of the fuel line to prevent fuel leakage. Remove the carburetor.
7. Tag and disconnect the ignition coil and sensor wires. Remove the ignition coil bracket and the coil.
8. Remove the radiator hose, thermostat housing, and the thermostat.
9. Remove all water and vacuum fittings from the manifold.
10. Remove all remaining brackets (if any) from the manifold.
11. Loosen and remove valve covers to assist in the manifold removal and the new manifold instructions.

**IGNITION REMOVAL PROCEDURES:** In some applications, removal of your distributor is not necessary. If so, move on to step 12.

**CAUTION:** Follow these instructions carefully, as serious damage can occur if ignition is not reinstalled correctly.

- A. Remove the distributor cap.
  - B. Note the position of the rotor and make a mark on the distributor case in line with the rotor tip.
  - C. Note the position of the distributor vacuum canister and place some type of reference mark on some convenient surface.
  - D. Note the position of the points, if open, how much; if closed, note the distance from the point block to the cam lobe.
  - E. Remove the distributor. DO NOT rotate the engine after removing the distributor.
12. Remove the 16 intake manifold-to-cylinder head bolts. **You will only be reinstalling 12 bolts.**
  13. Remove the intake manifold.

## INSTALLING YOUR WEIAND MANIFOLD:

1. To prevent gasket pieces from falling into ports and valley when cleaning old gaskets from head surfaces, lay rags into ports and valley. When clean, remove the stuffing carefully. Make sure that all the particles that fell on the rags are completely removed. Wipe surfaces with rags soaked in lacquer thinner or alcohol to remove any oil or grease. This is a must for proper manifold/gasket sealing.
2. Apply a thin coat of spray adhesive to the cylinder head side of the intake gasket surface. Lay the manifold gasket in place at this time. **DO NOT USE THE FACTORY STEEL VALLEY PAN.**  
2A. Due to their superior sealing qualities, WEIAND recommends using a high performance style intake manifold gasket set, such as Fel-Pro's P/N 1212 for oval ports, or P/N 1275 for rectangular ports.
3. Apply a 1/4" wide bead of oil-resistant RTV-silicone sealant to the front and rear block sealing surfaces, making sure to overlap the manifold gaskets at all four corners. Do not use cork or rubber seals.

**NOTE:** Thread sealant should be used on all bolt threads.

4. Carefully, lay your WEIAND intake manifold in place. If the manifold must be moved, recheck the gaskets. Install the intake bolts initially torquing to 10 ft./lbs, then to 15 ft./lbs., and finally 25 ft./lbs., all using the factory GM torque sequence.
5. Install the thermostat, gasket, and housing (using silicone sealant on both sides of the gasket). Be sure the thermostat housing has been cleaned of any old gasket material.
6. Install the heater and radiator hoses.

**NOTE:** Because of the elevated design of the water crossover, it will be necessary to extend the water pump bypass hose or install a 1/2" P x 5/8" hose nipple (with a 45° bend) into the manifold. You may also plug both outlets and drill 2 1/8" holes in your thermostat. This then becomes your bypass.

7. If you had to remove your distributor, install it at this time. Make sure your distributor engages the oil pump drive shaft.
8. Check the location of the rotor and distributor body, making sure your reference marks line up. Refer to the ignition removal section (steps B, C, & D). Tighten the distributor body just enough that it can still be rotated by hand.
9. Install all water sensors and vacuum fittings into the manifold.

**NOTE:** Use Teflon tape or pipe dope on all pipe threads.

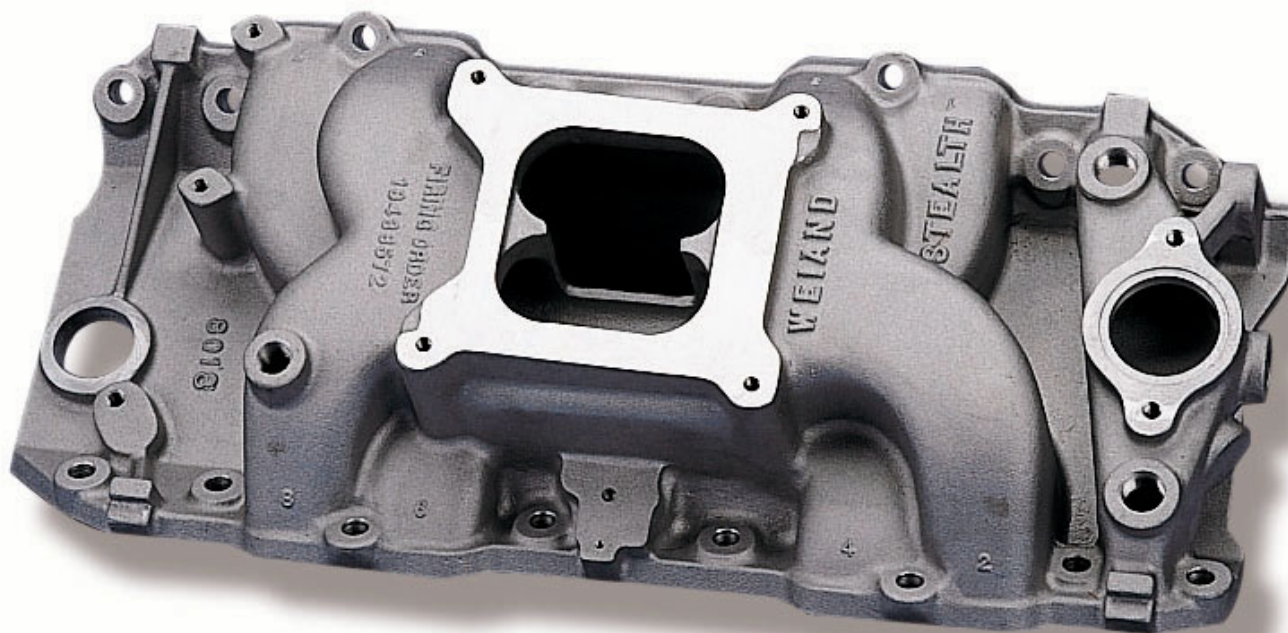
10. Plug all unused water and vacuum ports in the manifold.
11. Install your four carburetor studs in the manifold. Place the carburetor gasket on a clean carburetor pad. Do not use any type of sealant on the carburetor gasket.
12. Install the carburetor. Connect all linkage and throttle springs.
13. Connect all vacuum and fuel lines. Refer to your tags or drawing for correct placement.
14. Automatic transmissions only: Adjust the kickdown or throttle pressure linkage for proper shift points. Check all linkages, making sure that there are no obstructions in function.
15. If required, reinstall the valve covers with new gaskets.
16. Install the A/C and coil brackets, coil, wires, and all brackets that were removed from the manifold.
17. Close the drain and fill the radiator to the proper level with coolant.
18. Retighten the gas cap.
19. Connect the battery cable.

20. Hook up the timing light and start the engine. Set the timing to the factory specifications. Tighten the distributor.
21. Check for possible fuel, oil, or coolant leaks. Check for proper choke operation.
22. Install the air cleaner. CAUTION: Check to be sure that there is adequate clearance for the throttle and choke linkages through their range of travel. IMPORTANT: Check for adequate hood clearance before closing the hood.
23. Operate the engine for 30 minutes. Allow the engine to cool and retorque the manifold bolts to 25 ft./lbs., again using the factory GM torque sequence.

**YOUR MANIFOLD INSTALLATION IS COMPLETE.  
NOW IS A GOOD TIME TO CHANGE YOUR OIL AND FILTER!**

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