HAYTALRAS INTAKE MANIFOLD KITS
SMALL BLOCK CHEVROLET, EFI, 4150 FLANGE
300-260

INSTALLATION INSTRUCTIONS

APPLICATIONS:

300-260 intake manifolds are designed for square-bore throttle valve applications on 1957-86 262-400cid Small Block Chevrolet engines and SBC engines equipped with 1987-91 L98 aluminum Corvette cylinder heads (non-EGR applications). Also, these manifolds will work with any SBC engine equipped with aftermarket cylinder heads, as long as they have a standard port flange opening and bolt hole locations.

These single plane intake manifolds are designed to provide the best performance for high-performance street/strip engine applications to a maximum engine speed of 6500-7000 RPM. The carburetor-mounting pad is designed for Holley square-bore throttle valves. These intake manifolds are designed to accept most stock hardware, but offer performance features; such as high-rise throttle mounting, larger runners for higher RPM ranges, and a choice of two distributor clamp locations. The isolated design of the air/fuel passages helps to increase charge air density and performance

EMISSIONS EQUIPMENT:

300-260 DOES NOT accept an EGR valve. These parts are not legal for sale or use for motor vehicles with pollution-controlled equipment.

BEFORE YOU BEGIN INSTALLATION:

The following instructions must be carefully read and understood before you begin installation. Check the preliminary checklist that should be completed before you begin. Improper application or installation of this product may result in unsatisfactory performance, fuel mileage, or emissions. Failure to follow these installation instructions could result in engine damage and may void your warranty. If you require any assistance regarding this product please contact HOLLEY® Technical Support at: 270-781-9741 or for online assistance refer to the Tech Service section of our website at www.holley.com.

PRELIMINARY CHECKLIST:

- ☐ Carefully read and understand these installation instructions.
- ☐ Check that this intake manifold is the correct choice for your engine application, desired performance level, and local emissions laws.
- ☐ Inspect the manifold for any damage that may have occurred during shipping. If damaged, contact your dealer immediately.
- ☐ Check that all of the parts listed in the Kit Contents list in these instructions have been included with your intake manifold.
- ☐ Inspect all threaded holes.
- ☐ Inspect all internal passages with a flashlight and a stiff wire to be sure that the passages are not obstructed and have been properly cleaned to be free of any debris.
- ☐ Check for sufficient hood clearance with this intake manifold and intended throttle/air cleaner combination to be used. These intake manifolds feature a high-rise throttle mounting flange location; hood clearance could be an issue.
- ☐ Check that you have all of the parts required for the installation. These include the intake manifold gasket set, gasket adhesive, RTV silicone sealant, and pipe thread sealant as shown in the Parts Required list in these installation instructions.
- ☐ Check that you have all the tools you will need to perform the intake manifold installation. A recommended but not exhaustive list is located in these installation instructions.
- ☐ Check that you have the proper intake manifold fasteners for this application.
- ☐ Before removing your old intake manifold, make sure that your ignition system is in good working order; check and note the current ignition timing. Make sure that the timing marker is legible and understandable. With the engine at top dead center on the #1 cylinder, note and mark the orientation of the distributor body to the engine and the orientation of the rotor to the distributor body. This will aid in the re-installation of the distributor. Consult these installation instructions and your vehicles shop manual for specific instructions.
- ☐ Before removing your old intake manifold check the adjustment of your automatic transmission kick-down linkage to make sure it is adjusted properly. Consult your shop manual and make sure that you understand the kick-down linkage adjustment and how to properly adjust it when you install your new intake manifold.

☐ Before removing your old intake manifold check all of your fuel, water, and vacuum hoses and their connections. Make sure that there are no leaks and that the hoses are in good condition. Mark the locations of your hoses making sure that there is a corresponding location on your new intake manifold for all of the hose fittings and gauge sensors. Fitting and hoses that are not in good condition should be replaced.

KIT CONTENTS:

P/N 300-260

Qty	Description	Qty	Description	Qty	Description
1	300-260 Intake Manifold	4	1/4-28 x 1.0 Low Profile SHC Screws	3	3/8 NPT Hex Pipe Plug
2	Fuel Rail	4	1/4-28 x .75 SHC Screws	1	1/2 NPT Hex Pipe Plug
4	Short Fuel Rail Brackets	2	1/4-28 x .50 SHC Screws	1	1/8 NPT Hex Pipe Plug
4	Long Fuel Rail Brackets	10	1/4" Washers	1	1/4 NPT Hex Pipe Plug
1	Installation Instructions	1	Warranty Card		

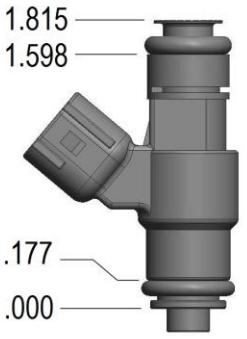
PARTS REQUIRED:

NOTE: It will be necessary to purchase some of the parts listed (or equivalents) in order to properly complete this installation. Determination of equivalency is the responsibility of the consumer. HOLLEY® does not assume that responsibility.

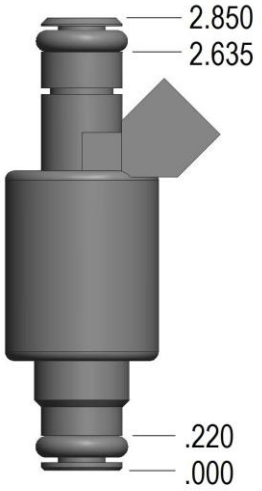
☐ Throttle Body (Holley 112-587, 112-588, or 112-577 is recommended)
☐ Fuel Injectors (see **Fuel Injector Detail** below)
☐ 1" Carb Spacer (required for fuel rail clearance when using taller injectors – see **Fuel Injector Detail** below)
☐ Throttle Cable Bracket (Holley 20-87 is required for fuel rail clearance when using throttle valves 112-587 & 112-588)
☐ Transmission Kickdown Bracket (Holley 20-86 is required for fuel rail clearance this bracket mounts to 20-87)
☐ Intake Manifold Gasket Set (Mr. Gasket P/N 5821 or 101G is recommended)
☐ Valve Cover Gasket Set (Mr. Gasket P/N 175 or 585G)
☐ Oil-Resistant, Silicone-Based Sealant (Mr. Gasket P/N 78080G or equivalent)
☐ Spray Gasket Adhesive (Permatex® 80064 High Tack™ Spray-A-Gasket™ sealant or equivalent)
☐ Throttle Valve-Base Gasket (usually supplied with throttle valve)
☐ Thread Sealer (Earl's P/'N D024ERL or equivalent)
☐ Thread Locking Compound (78091G or equivalent)

NOTE: Never install tapered (pipe) fittings in an aluminum manifold dry without thread sealer or thread damage will occur.

FUEL INJECTOR DETAIL



For this type injector, use the shorter fuel rail brackets. Attach middle fuel rail mount position to bottom hole on manifold. For this type injector, Holley offers 522-361S (1pc.) or 522-368S (8 pcs.)



For this type injector, use the taller fuel rail brackets. Attach middle fuel rail mount position to top hole on manifold. This type injector requires the use of a 1 inch carb spacer like Mr. Gasket 3405. Holley offers this type injector in a variety of flow rates.

TOOLS REQUIRED:

Socket Wrench Set 3/8”-drive ratchet and extensions
Box end/flare Wrenches (optional)
Ignition Wrench Set
Gasket Scraper
Drain Bucket
Torque Wrench
3/8-16 NC Thread Chaser, or tap (for cleaning bolt holes)
Open End Wrenches 3/8” to 1”
10” Adjustable Wrench
Screwdrivers, Standard and Phillips, various lengths
Needle Nose Pliers
Timing Light
File
Vacuum Gauge

OTHER USEFUL SUPPLIES:

Engine Coolant
Shop Towels, Paper and/or Cloth
Engine Oil
Masking Tape
Pad and Pencil
Modeling Clay

INSTALLATION INSTRUCTIONS:

These instructions are designed to cover a wide variety of vehicle applications. If your vehicle is not equipped with any items referred to in these instructions, such as transmission kick-down linkage, air conditioning, or power brakes, proceed to the next step. Also, if you are unfamiliar with any of the procedures in these instructions consult a shop manual for your vehicle and engine application.

CHECK FOR ADEQUATE HOOD HEIGHT:

1. Prior to removing your old manifold, we recommend making several columns of modeling clay and placing them on your air cleaner in various positions.

2. Close the hood completely and then reopen it.

3. Measure the clay columns and record your hood clearance.

4. Compare the A-B height of your old intake manifold with your new intake manifold. Also consider that the carburetor/air cleaner combination determines the difference in the air cleaner to hood clearance.

MANIFOLD REMOVAL PROCEDURE:

1. Disconnect the ground cable from the battery.

2. Clean any loose debris, dirt, and grease from the top of the engine adjacent to the intake manifold and valve covers. This will help prevent harmful debris from falling into the engine during the installation process.

3. Identify the vacuum and crankcase ventilation hoses (if any) leading to air cleaner and note the routing and connection points. Remove the air cleaner.

4. 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.

5. Drain the radiator. (It may be necessary to remove the bottom radiator hose if there is no drain plug in the radiator).

6. Disconnect the throttle linkage, transmission kick-down linkage (auto trans. only), and choke rod from the carburetor, (if applicable).

7. Loosen the gas cap to relieve pressure from the fuel system. Disconnect the fuel line at the carburetor. Plug the end of the fuel line to prevent fuel leakage.

8. Remove the carburetor.

9. Tag and disconnect the ignition coil and sensor wires. Remove the ignition coil bracket and the coil.

10. Remove the radiator hose, thermostat housing, and the thermostat.

11. Remove all water and vacuum fittings from the manifold.

12. Remove all remaining brackets (if any) from the manifold.

13. Loosen and remove the valve covers to assist in the manifold removal and the new manifold installation.

14. **DISTRIBUTOR REMOVAL PROCEDURE:**

CAUTION! FOLLOW THESE INSTRUCTIONS CAREFULLY, AS SERIOUS DAMAGE CAN OCCUR WHEN THE IGNITION IS NOT RE-INSTALLED CORRECTLY.

- Set the engine on Top Dead Center (after compression stroke) for #1 cylinder using the crankshaft timing marker.
- Remove the distributor cap.
- Note the position of the rotor and make a mark on the distributor body in line with the rotor tip (it should point to the position of the cylinder #1 spark plug wire on the distributor cap).
- Note the position of the distributor vacuum canister (or other distributor body feature) and place some type of reference mark on a convenient surface not attached to the intake manifold.
- Note the position of the points, if open, how much; if closed, note the distance from the point block to the cam lobe. If the distributor has a magnetic pickup, note the position of the trigger wheel with respect to the pick-up.
- Remove the distributor. DO NOT rotate the engine after removing the distributor (but if you do, the crankshaft timing marker is your reference).

15. Remove the 12 intake manifold-to-cylinder head bolts.

16. Remove the intake manifold. If the intake manifold is stuck hard to the mounting flanges, do not pry against cylinder head port flanges, as they could become damaged and compromise the gasket sealing with your new intake manifold. Double check that all of the bolts have been removed and pry upward carefully at the engine block end seal surfaces.

INSTALLING YOUR NEW HOLLEY MANIFOLD:

1. Clean the cylinder head port flange and the engine block end seal surfaces. To prevent gasket pieces from falling into ports and the lifter valley when cleaning old gaskets from head surfaces, stuff paper towels into all the ports and lay rags in the lifter valley. When clean, carefully remove the paper towels from the cylinder head ports and then the rags from the lifter valley. Make sure that all particles that fell on the rags are completely removed. Wipe surfaces with rags soaked in solvent, such as brake cleaner or lacquer thinner to remove any oils or grease. This is a must for proper manifold/gasket sealing.

2. Apply a thin coat of gasket adhesive to the cylinder head side of the intake gasket surfaces and the cylinder head port flanges. Allow the adhesive to completely dry. Lay the manifold gaskets in place, making sure that gaskets are adhered to the cylinder head port flange and will not slip from their properly installed positions.

3. Trial fit your new intake manifold before applying any RTV silicone sealant. Place the new intake manifold into position; check that it sits down, properly seated on the intake manifold gaskets. There should be gap between the engine block and the manifold at the end seal surfaces. Check to make sure all of the intake manifold bolts can be installed. If there are any other fit issues such as hood clearance or installation of components dependent on the manifold, they should be checked at this time.

4. When you are fully prepared to install the intake manifold, apply a 1/4" wide bead of oil-resistant RTV-silicone sealant to the front and rear block-sealing surfaces, making sure to overlap manifold gaskets at all four corners. **Do not use the cork or rubber end seal gaskets included in the gasket set.** Apply a light film of RTV-silicone around the water passage openings.

5. Carefully, lay your HOLLEY® intake manifold in place. If the manifold must be moved, the RTV-silicone may need to cleaned and re-applied. For the bolts to be installed in bolt holes that are drilled through, apply a dab of thread sealer on the threads. For the blind bolt holes, apply a drop of motor oil to the bolt threads. Install the intake bolts initially torquing to 10 ft./lbs., then 15 ft./lbs., following the factory GM sequence (**Figure 1**), and finally torque to 25 ft./lbs.

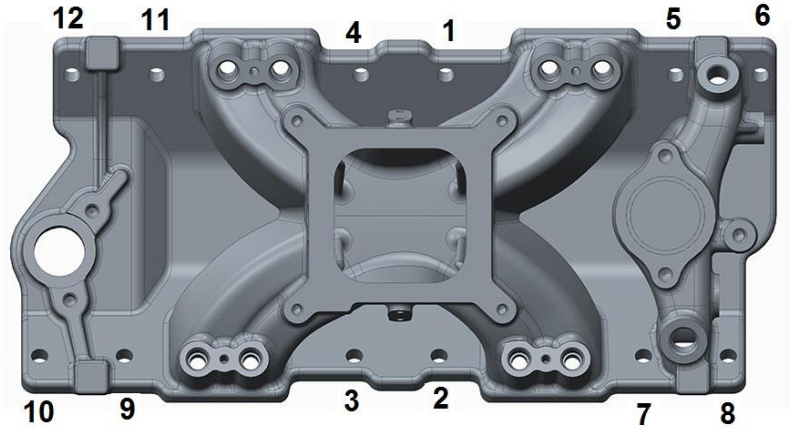


Figure 1

6. Apply a silicone lubricant to each fuel injector O-ring and insert injectors into the ports of the manifold. To avoid interference of the injector wiring harness with the throttle cable, orient injector connectors as shown (**Figure 2**).

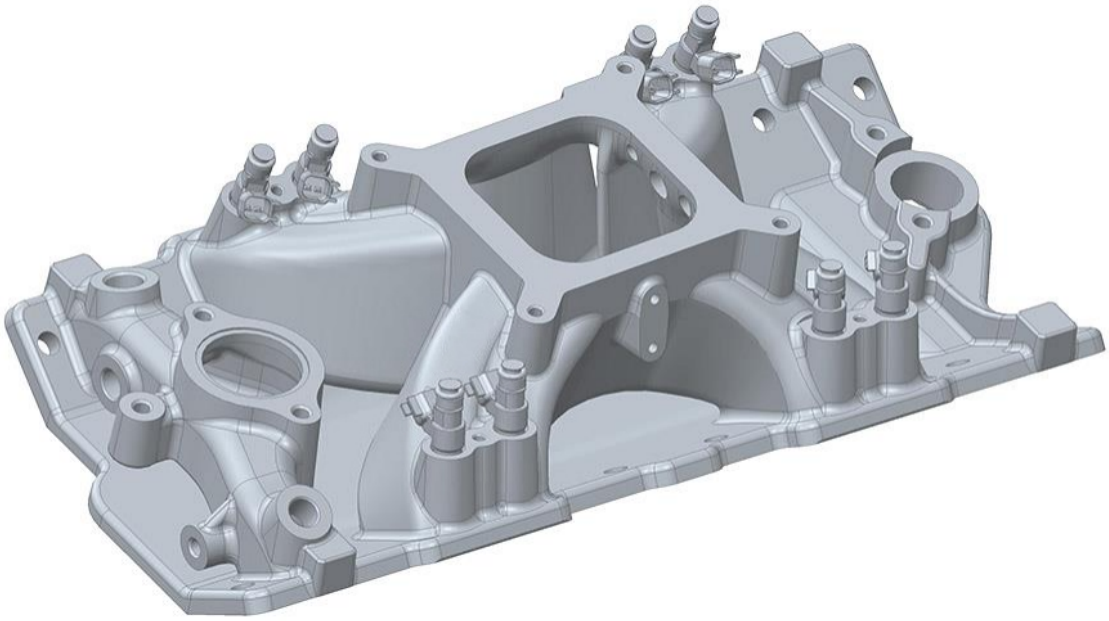


Figure 2

7. Apply thread locking compound to the 4-1/4-28 x .75 screws. Use these screws and 4-1/4" washers to attach the fuel rail brackets to the manifold. Orient the brackets (**Figure 3**) for attaching the fuel rail. Torque each screw to 75 in-lbs., then torque again to 90 in-lbs.

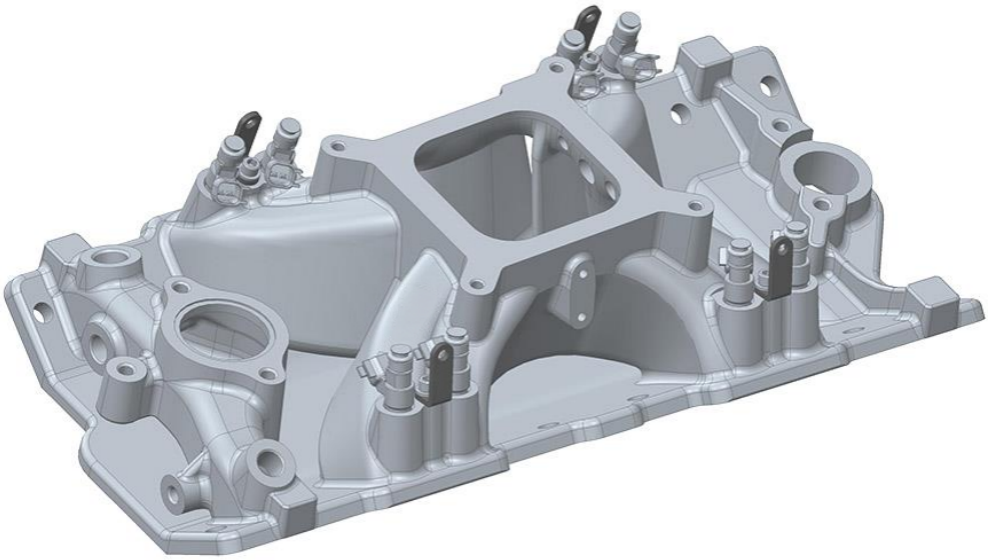


Figure 3

8. Assemble the fuel rails to the injectors. Check to see that the fuel rail brackets are oriented correctly for attachment of the fuel rails, then attach fuel rails to brackets (**Figure 4**) using 4 - ¼" washers and 4 - 14-28 x 1.0 low profile SHC screws with thread locking compound. Torque each screw to 75 in-lbs., then torque again to 90 in-lbs.

9. Attach each fuel rail to the intake manifold using 2 - ¼" washers and 2 - ¼-28 x .50 screws with thread locking compound. If using the shorter fuel rail brackets, the bottom hole on the manifold will be used. If using the taller fuel rail brackets, the upper hole of the manifold will be used. Torque each screw to 75 in-lbs., then torque again to 90 in-lbs.

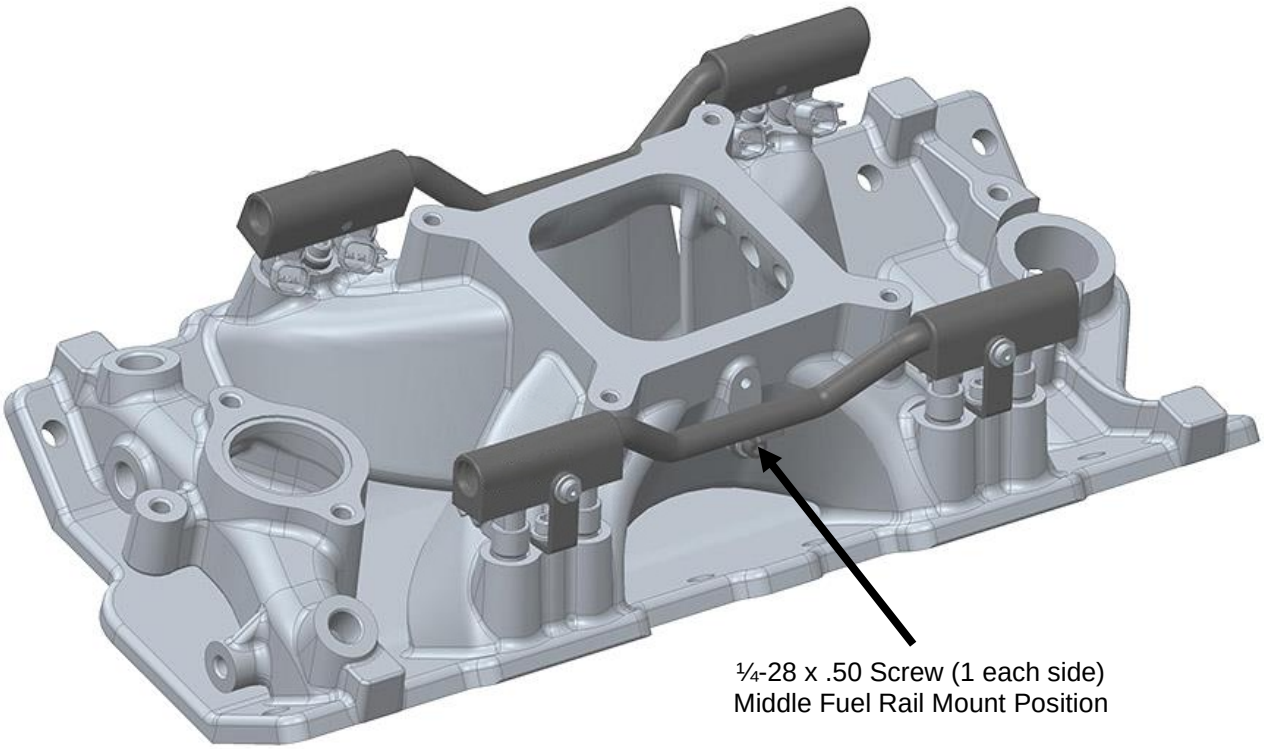


Figure 4

10. Install the thermostat, gasket, and thermostat housing. Be sure that the thermostat housing is in good condition and has been cleaned of any old gasket material. If the mounting flange on the thermostat housing is not flat or is damaged, replace it before continuing.

11. Install the heater hose fitting, heater hose, and radiator hoses. Use thread sealer on the threads of the heater hose fitting .

12. Install the gauge sensors and vacuum fittings into the manifold. Use thread sealer on the pipe threads of the sensors and fittings. Install pipe plugs in any unused water and vacuum ports in the manifold (plugs have been provided in the kit).

13. Install the distributor and gasket orienting the rotor and the distributor body according to the reference marks made before the distributor was removed (Distributor Removal Section). Make sure that your distributor engages the oil pump drive shaft and seats properly down against the gasket and manifold. Install the distributor clamp and tighten the bolt just enough that the distributor body can still be rotated by hand.

14. Install your four carburetor studs in the manifold. Place the carburetor gasket on the clean carburetor pad. Do not use any type of sealant on the carburetor gasket.

15. Install the throttle valve and throttle cable bracket. Connect all linkage and throttle springs. Rotate throttle lever to wide-open throttle position and check for smooth operation.

16. Connect all vacuum and fuel lines. Refer to your tags or drawings for correct placement.

17. **Automatic transmissions only:** Attach transmission kick-down bracket if needed (20-86). Adjust kick-down or throttle pressure linkage for proper shift points (refer to your vehicle's shop manual for the proper adjustment procedure). Check all linkages, making sure that they function freely.

18. Reinstall valve covers and new gaskets.

19. Install the A/C and coil brackets, coil, wires, and all brackets that were removed from the manifold.

20. Close the drain and fill the radiator to the proper level with coolant. While filling, allow trapped air to bleed from the intake manifold at the heater hose fitting until coolant flows from the fitting. Then, re-install the heater hose and continue adding coolant to the proper level.

21. **IMPORTANT!** Change the oil to remove any coolant or debris that may have contaminated the crank case.

22. Retighten the gas cap and connect the battery cable.

23. Hook up the timing light and start the engine. Set the timing to factory specs. Tighten the distributor.

24. Check for possible fuel, oil, or coolant leaks and for proper choke operation.

25. Install the air cleaner.

CAUTION! Check to be sure that there is adequate clearance for the throttle and choke linkages through their full range of travel.

IMPORTANT: Check for adequate hood clearance before closing the hood.

26. Operate the engine for 30 minutes. Allow the engine to cool and re-torque the manifold bolts following step 4 above.

27. YOUR MANIFOLD INSTALLATION IS COMPLETE.

HOLLEY® Technical Support
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