

### P/N 0-80457SA & 0-80458SA

# **QUICK START**CARBURETOR INSTALLATION INSTRUCTIONS

Congratulations on your purchase of a new Holley carburetor built by craftsmen to exacting standards in our Bowling Green, Kentucky facility. Every carburetor is 100% wet-flow tested before it leaves our facility for "bolt on and go" performance.

Should you experience any problems or need parts assistance that this quick start manual or the complete installation manual does not address, please feel free to contact our technical service department at 1-866-464-6553 Monday through Friday, 8 a.m. to 5 p.m. CST or log on to <a href="www.holley.com">www.holley.com</a> for a database of technical information and online support.

## Before you get started - Do you really need a new carburetor or is there an underlying problem?

Holley Performance highly recommends the following items be checked and/or corrected prior to installation of your new carburetor to ensure optimum performance from your engine and your new Holley carburetor.

Many times a carburetor is looked at as the prime culprit or the main cause for a myriad of other engine-related difficulties that might exist. Therefore, it's best to check and verify the condition of the complete engine system before proceeding with any carburetor work. There should be no *vacuum leaks*, *the ignition timing should be properly set*, *and the engine should be in sound mechanical condition*.

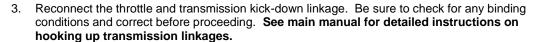
Tuning or replacing the carburetor won't cure bad valves, leaky head gaskets, worn piston rings, or cracked and leaking vacuum lines.

Complaint/	Possible engine causes/ Checks to	Possible carburetor causes
Problem	perform	
	1. Faulty EGR valve	Binding or sticking choke
Backfires	2. Bad ignition coil	<b>2.</b> Accelerator pump not operating properly
	3. Fouled spark plugs or spark plug wires	3. Clogged air or fuel filter
	<b>4.</b> Improper ignition timing	4. Restricted bowl vents
	5. Valve timing off	5. Vacuum leaks
	6. Valve train parts- broken or worn	
Cuts out, Misses	<ol> <li>Faulty spark plugs or spark plug wires</li> </ol>	<ol> <li>Dirty or plugged fuel inlet</li> </ol>
	2. Faulty ignition coil	2. Contamination in fuel/ Old Gas
	3. Restricted fuel filter or contaminated fuel	3. Faulty power valve
	4. Low fuel pressure	4. Restricted fuel bowl vents
	5. Improper ignition timing	5. Improper fuel pressure
	<b>6.</b> Low Compression	6. Incorrect jetting
	<ol><li>Bad distributor cap or rotor</li></ol>	
	8. Valve train parts broken or worn	
	<ol> <li>Incorrect fuel pressure</li> </ol>	Float level incorrect
Floods		2. Trash in the needle and seat
		3. No or dirty fuel filter
Hard Start - Cold	<ol> <li>Vacuum leak or improper connections</li> </ol>	1. Low fuel in gas tank
	<ol><li>Faulty ignition wires or plugs</li></ol>	<ol><li>Binding or sticking choke</li></ol>
	<ol><li>Incorrect choke setting, faulty choke</li></ol>	3. No fuel in carburetor
	<ol><li>Sticky EGR valve</li></ol>	4. Engine or carburetor flooded
	<ol><li>Improper float level</li></ol>	<ol><li>Defective accelerator pump</li></ol>
	<ol><li>Clogged or dirty fuel filter</li></ol>	
	<ol><li>Moisture in distributor cap</li></ol>	
	8. Improper ignition timing	
Hard start - Hot	<ol> <li>Vacuum leak or improper connections</li> </ol>	<ol> <li>Binding or sticking choke</li> </ol>
	<ol><li>Faulty ignition wires or plugs</li></ol>	2. No fuel in carburetor
	<ol><li>Incorrect choke setting, faulty choke</li></ol>	<ol><li>Engine or carburetor flooded</li></ol>
	<ol><li>Carburetor flooding</li></ol>	4. Leaking float bowl
	<ol><li>Clogged or dirty fuel filter</li></ol>	5. Fuel percolation
	<ol><li>Improper float level</li></ol>	6. Vapor lock
	<ol><li>Weak battery or starter</li></ol>	
	8. Engine overheating	
	<ol><li>Improper ignition timing</li></ol>	
Hesitation, Sag, Stumble	<ol> <li>Fuel contamination/ Old Gas</li> </ol>	<ol> <li>Defective accelerator pump</li> </ol>
	<ol><li>Improper ignition timing</li></ol>	<ol><li>Incorrect accelerator pump nozzle</li></ol>
	<ol><li>Improper alternator voltage output</li></ol>	3. Fuel level too low
	<ol><li>Improper EGR valve operation</li></ol>	4. Carburetor loose on manifold/ Vacuum leak
	<ol><li>Incorrect accelerator pump shot</li></ol>	5. Incorrect power valve
		6. Secondaries opening too soon
Lack of power, Sluggish, or Spongy	<ol> <li>Air filter dirty or plugged</li> </ol>	Throttle not opening all the way
	2. Improper ignition timing	2. Dirty or plugged fuel inlet
	3. Restricted fuel filter	3. Faulty or incorrect power valve
	4. Improper EGR valve operation	4. Float level too low
	5. Improper valve timing	5. Float or needle and seat sticking
	6. Low compression	6. Incorrect or plugged main jets
	7. Restricted exhaust	7. Secondaries not opening correctly

#### Installation:

**NOTE:** Please see the enclosed instruction manual for complete removal, installation, and tuning instructions.

- Place the new carburetor flange gasket, provided with the carburetor, in the proper position on the intake manifold.
- 2. Place the carburetor on top of the flange gasket on the manifold. Install the hold down nuts and snug down progressively in a "criss-cross" pattern (60-80 in./lbs.), as shown in **Figure 1**.



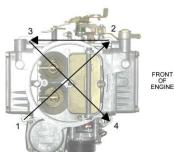


Figure 1

4. Reconnect the appropriate vacuum hoses to the carburetor. Be sure to plug any vacuum sources not used (Figures 2 and 3).

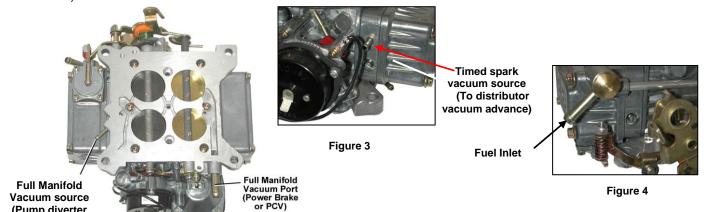
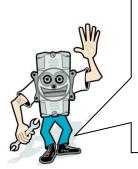


Figure 2

- 5. Connect the fuel feed line along with an appropriate inline filter (Figure 4).
- Connect the electric choke lead (supplied) to the
  positive terminal of the choke cap. Connect the other
  end to an ignition-activated 12 volt power source. Do
  not hook to the positive side of the ignition coil.
  Hookup of this wire is NOT optional (Figure 5).



(Pump diverter valve or cruise control)

#### **Mr. Carbtune's Helpful Hints:**

Tips on hooking up the Electric Choke 12V Power Wire. This wire must be hooked up to a 12 volt power supply that is switched on and off with the ignition switch for the choke to function properly. Proper places to get 12 volt, switched power include: fuse panel, ignition switch (must install 10 amp fuse), or accessory power terminals. Do not tap into any power source connected to the ignition coil or distributor, as this may cause misfiring and starting problems. Also please be aware that most O.E. choke connections are not a full 12 volts.



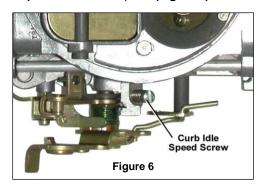
Positive terminal of choke cap

Figure 5

- Recheck all connections and bolts for tightness and/or leaks.
- 8. Start vehicle and recheck for leaks.
- 9. Start the vehicle and let it warm up to operating temperature.

#### **Installation Continued:**

10. Adjust the curb idle speed (Figure 6).



#### Mr. Carbtune's Helpful Hints:

In most cases the curb idle screw is the only adjustment you should make. Place the transmission in park or neutral. (MAKE SURE THE PARKING BRAKE IS ON OR THE WHEELS ARE CHOCKED.) Adjust the screw clockwise to increase RPM and counter-clockwise to decrease engine RPM at idle.



11. Adjust the idle fuel mixture, if necessary (Figures 7 and 8).

## Mr. Carbtune's Helpful Hints: THE IDLE MIXTURE IS FACTORY SET. In the unlikely

THE IDLE MIXTURE IS FACTORY SET. In the unlikely event that your engine requires a slightly different mixture, follow these instructions: The idle system supplies the air/fuel mixture to operate the engine at idle and low speeds. The idle mixture screws are located on the sides of the primary metering block. Turning the screws clockwise will "lean" the idle system. Turning the screws counter-clockwise will "richen" the idle system. The initial adjustment is made by turning the mixture screws in a clockwise direction until they lightly bottom. Back them both off 1 1/2 turns. Then, turn the needles inward 1/8 turn at a time until the engine begins to run worse or you see a 100 RPM drop on your tachometer. Then, turn them out 1/8 turn each until the engine smoothes out (or reaches your desired RPM). Both idle mixture needles should be adjusted an even number of turns.



Idle / Mixture Needles

Figure 7



Figure 8

- 12. Further adjustments are not needed in most cases, but if you should need to perform any of the following, these references should help:
  - a) Fast idle when cold (See page 9 of installation manual)
  - b) Choke adjustment (See page 9 of installation manual)
  - c) Vacuum secondary (See page 12 of installation manual)

If you experience any problems with the installation or tuning of this unit,

## STOP!

DO NOT RETURN IT TO THE PLACE OF PURCHASE without FIRST calling Holley toll free at 1-866-464-6553.

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Holley Performance Products

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