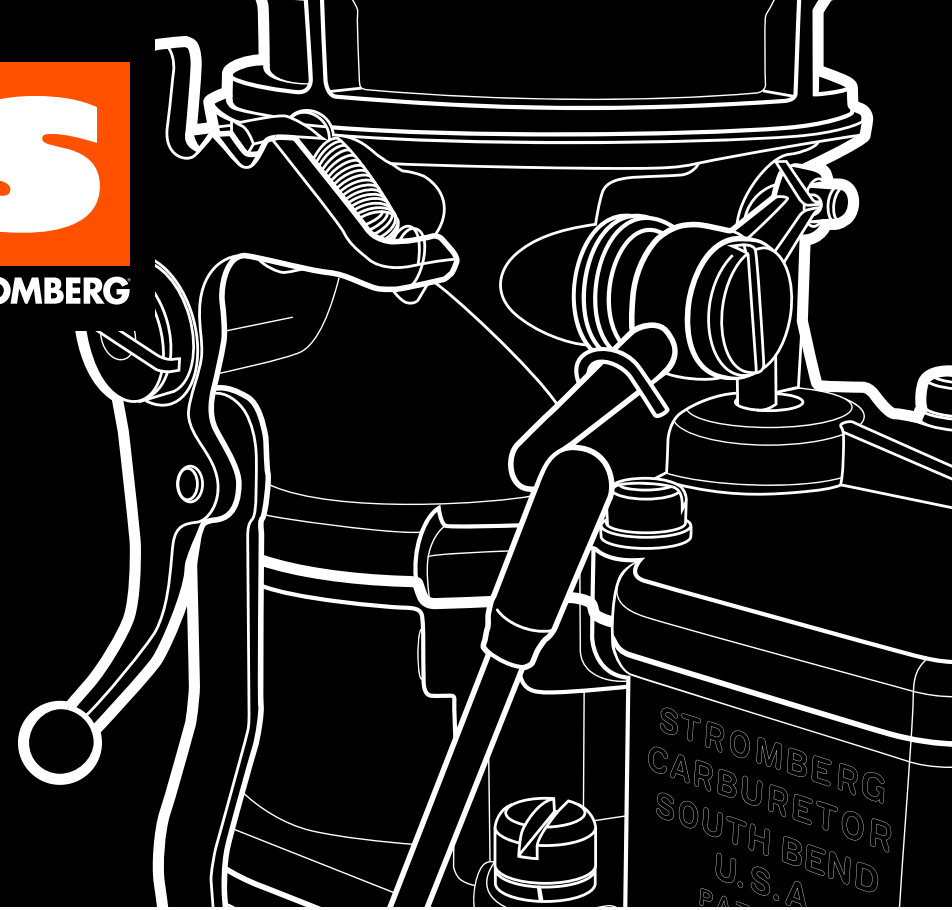




If you need further information
or assistance, please contact
your Stromberg Dealer,
or e-mail us direct at:
tech@stromberg-97.com
or log on to our Tech Center at:
stromberg-97.com



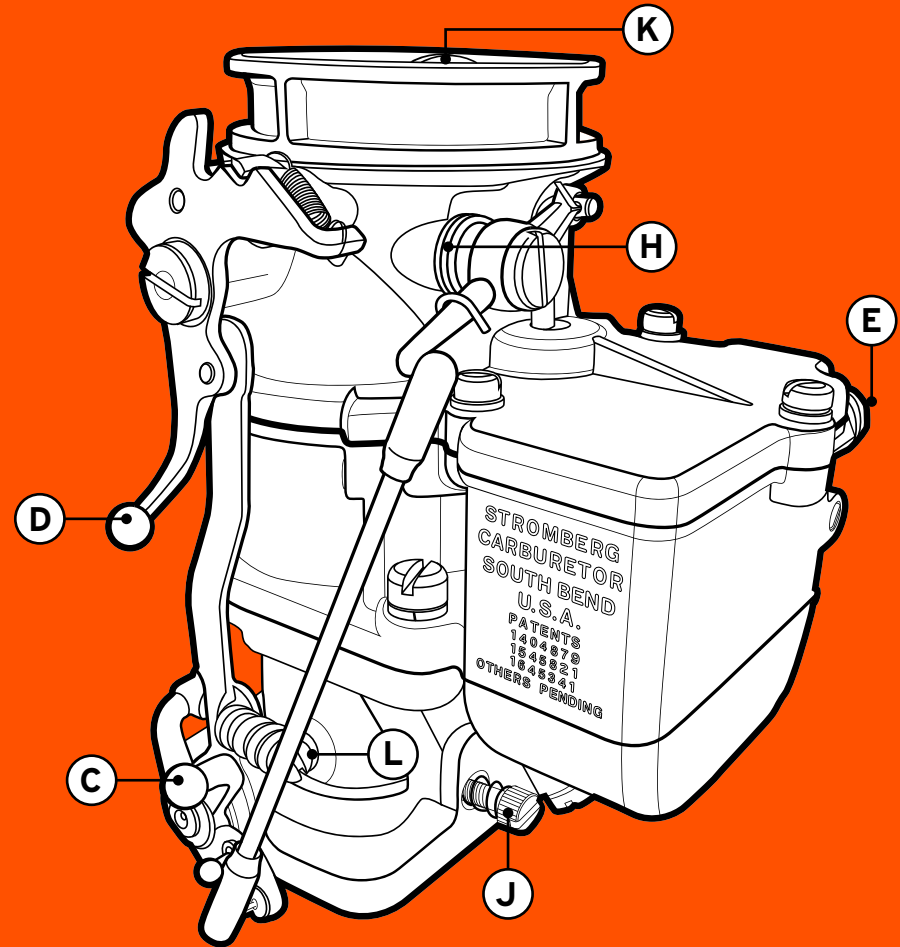
STROMBERG 97 & 81 OWNER'S MANUAL



THANK YOU

for choosing a Genuine Stromberg carburetor. This Owner's Manual will make installation and adjustment as safe and trouble-free as possible. It contains several warnings, cautions and notes. Please read them all. It also includes important information about the Stromberg warranty and what to do if you have a problem.

Please remember, if you have any questions about carburetor installation and adjustment or need to discuss a problem after installation, please contact us at: **tech@stromberg-97.com**



READ THIS FIRST

WARNINGS! AND NOTES

These instructions must be read and fully understood before beginning installation. If these instructions are not fully understood, installation should not be attempted. Failure to follow these instructions, including illustrations, may void your warranty and may result in poor performance, vehicle damage, property damage, severe personal injury or death. If you need information or assistance, please contact your Stromberg dealer or email us direct at: tech@stromberg-97.com

WARNING!

Always perform any work on the fuel system in a well ventilated area. Failure to do so may result in the build up of dangerous gasoline vapors, which are very flammable and can cause severe respiratory injury or death. Make sure that the engine is cool before beginning the installation of this carburetor. Never smoke, use an open flame, or produce any sparks in an area where gasoline or gasoline vapors could be present. Doing so may cause a fire or explosion, resulting in property damage, serious personal injury, or even death.

WARNING!

A thorough knowledge of the vehicle's mechanical and electrical systems is required. Stromberg recommends installation and tuning by a specialist professional mechanic only. An improperly installed or tuned carburetor may void your warranty, and may result in poor performance, property damage, personal injury, or death.

WARNING!

This carburetor is not designed for MARINE or AIRCRAFT applications

NOTE: This product is legal only for off-road use or for use on pre-emission controlled motor vehicles/engines. In the USA, this means pre-1966 domestic vehicles certified to California standards, pre-1968 domestic vehicles certified to federal standards and all pre-1968 foreign vehicles.

The Genuine Stromberg 97 carburetor is built and calibrated to original factory specification, and supplied as standard with 0.045" main jets and a No.65 power valve. After extensive testing, our Stromberg 81 models are supplied with 0.036" main jets and a No.71 power valve. Different tuning may be required for altitude; other and non-standard engines; multiple carburetion; forced induction or special fuels; and local or seasonal fuel formulations.

In some areas, pump gasoline can contain large percentages of ethanol. While your Stromberg carburetor will operate on this fuel, performance may be impaired if it is not retuned.

1. PRE-INSTALLATION CHECKLIST

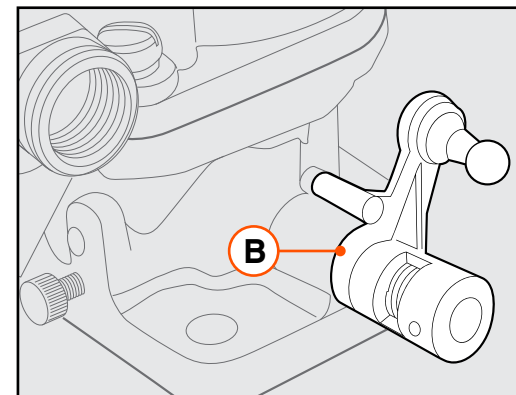
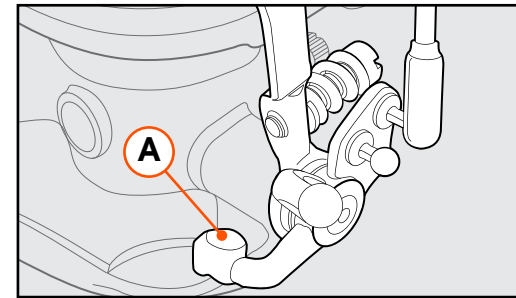
- A)** Inspect your carburetor for possible shipping damage. Verify that all linkages operate freely by manually opening the throttle butterflies (throttle plates) to Wide Open Throttle (see A) and back to closed without any binding.

WARNING:

Do not use the carburetor if the linkage binds in any way. A binding linkage may result in improper throttle function and uncontrolled speed, which can cause property damage, serious personal injury, or death.

- B)** Do you have the correct throttle and choke linkage and fuel supply for your particular application? Use only parts sold specifically for use with Stromberg carburetors on your engine/vehicle.

- C)** Hand throttle linkage parts (see B) are not supplied. If required, please install the parts from your old Stromberg carburetor. Please inspect any parts used from your old carburetor for wear or damage prior to installation. Do not use worn or damaged parts.



2. REMOVE EXISTING CARBURETOR

WARNING:

Always disconnect your vehicle's battery, make sure the ignition is off and the engine is cool before performing any work on the fuel system. Failure to do so may result in sparks or burns, and cause a fire or explosion, resulting in property damage, serious personal injury, or death.

- A) Disconnect the vehicle's battery and carefully remove the air cleaner.
- B) Disconnect all linkages - throttle and choke (at C & D).
- C) Carefully disconnect the fuel line from the carburetor (at E).

NOTE: Disconnecting fuel lines will usually result in some gasoline being spilled. Use a catch bottle or tray to collect excess fuel. Clean up any spilled gasoline before continuing.

- D) Unbolt and remove the carburetor from the intake manifold.
- E) Remove all traces of the old gasket from the carburetor mounting flange.

NOTE: Do not allow gasket or other materials to fall into the manifold.

3. INSTALL NEW STROMBERG CARBURETOR

- A) Verify that the mounting surface of the intake manifold (and any spacers or adapters) is completely flat.

WARNING:

Before beginning installation of the carburetor, verify that all mechanical and electrical systems

are in good working order. These include engine components like intake manifold and gaskets, electrical components including but not limited to distributor, spark plug wires, battery, battery cables, starter and starter solenoid, and fuel system including fuel tank and fuel lines. Any damaged or improperly operating components must be replaced prior to installing the carburetor. Failure to do so may result in poor performance, property damage, serious personal injury, or death.

WARNING:

Any damaged or warped intake components must be replaced prior to installing the carburetor. In addition to poor performance, failure to do so may result in improper throttle function and uncontrolled speed, or component failure or gas vapor that may ignite – all of which may cause property damage, serious personal injury, or death.

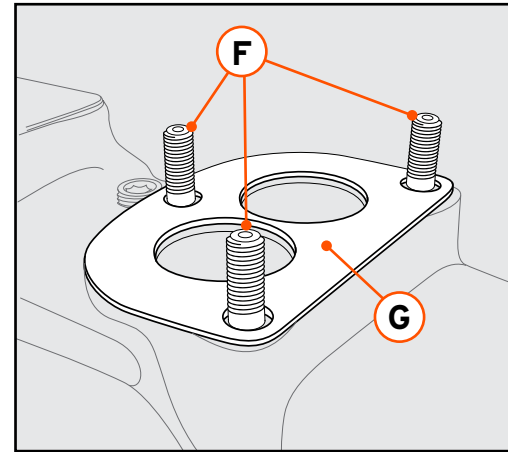
WARNING:

This carburetor is not designed for use with engines or transmissions requiring any computer control. Use with these applications may cause damage.

- B) Inspect all carburetor mounting studs (see F) to ensure that they are straight. New studs, spring washers and nuts are available from Stromberg (kit 89067K-3).
- C) Place the new carburetor flange gasket - supplied - (see G) onto the intake manifold studs.

NOTE: Use the gasket dry. Do not use any cement, glue or RTV sealant.

- D) Place the carburetor on top of the manifold gasket on the studs. Install washers, then nuts. Tighten nuts in a progressive manner to a recommended 15 ft./lbs. of torque.



NOTE: Do not overtighten the mounting studs or bolts. Overtightening can result in damage to the manifold, manifold studs or carburetor base, that is not covered under warranty.

4. ATTACH THE LINKAGE

- A) Attach the throttle linkage to the carburetor (see C). Have a second person operate the throttle linkage from inside the vehicle, opening to Wide Open Throttle and back to idle while you inspect the throttle operation on the carburetor.

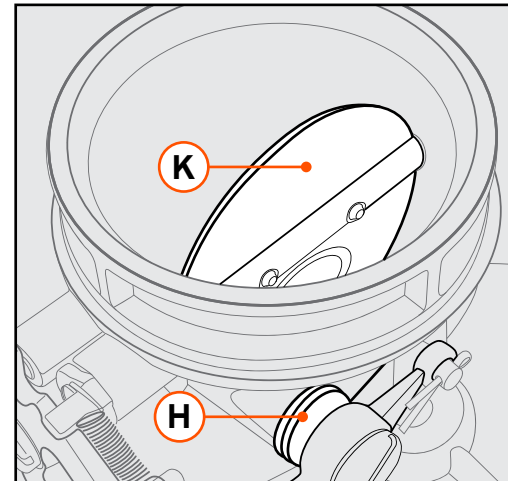
WARNING:

Check and correct the assembled linkage for interference, sticking or binding action. Any sticking, binding, or 'over-center' movement could result in uncontrolled engine speed, property damage, serious personal injury, or death.

- B) Attach the choke linkage (at D), ensuring no interference, binding, or sticking when operated from inside the vehicle. Ensure that the choke plate is vertical (see K) when the choke control is in the 'off' position.

WARNING:

Always use a throttle return spring that has sufficient tension to return the carburetor to idle when the throttle is not depressed. Failure to use an effective throttle return spring may result in uncontrolled engine speed, property damage, serious personal injury, or death. Do NOT rely on the carburetor accelerator pump lever return spring (See H) to act as your throttle return spring.



5. CONNECT THE FUEL LINE

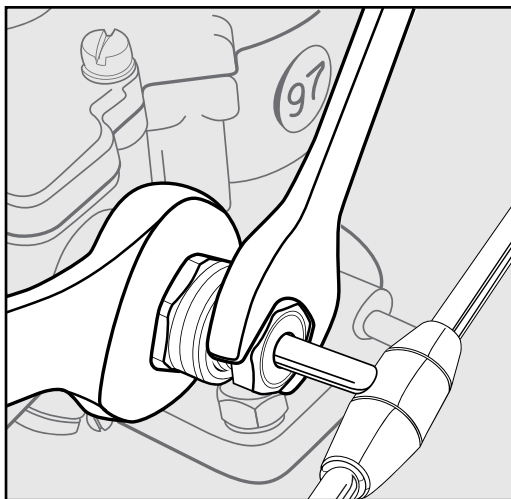
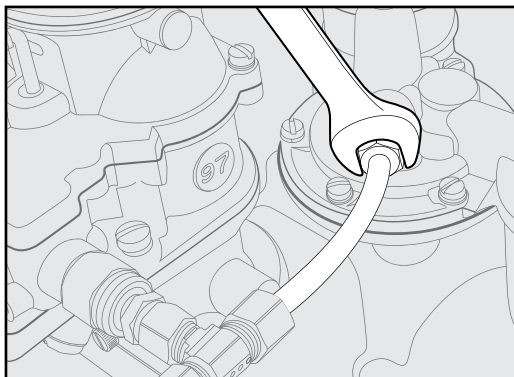
CAUTION:

Thoroughly flush the fuel lines before connecting to the carburetor. Do not allow any dirt or other particles to enter the carburetor fuel system.

- A) Install the correct fuel line to the S-jet inlet fitting (at E). Do not fully tighten the fitting at this time.
- B) If you are using the original type metallic fuel line, installation is easier if you loosen (about a turn), but do not remove, the fuel line fitting at the fuel pump outlet.

CAUTION:

When connecting the fuel line, hold the carburetor inlet fitting with an 11/16in open-end wrench. This fitting must not be allowed to turn in the carburetor. If the fitting is allowed to turn, it could over-tighten, damaging the bowl casting. It could also upset the pre-set float level adjustment, causing carburetor malfunction and flooding.



WARNING:

Use only rubber and steel fuel lines approved for automotive fuel applications and ensure that any hose clamps are secure. If there are any signs of cracking or fatigue in the hose, replace it immediately. Failure to do so may result in fuel leaks and a fire resulting in property damage, serious personal injury, or death.

WARNING:

Never use Teflon tape or thread sealant on the fuel inlet fittings or rubber hose. They may cause fuel leaks and a fire resulting in property damage, serious personal injury, or death.

CAUTION:

Before proceeding, make sure the fuel line does not touch the intake manifold or any other engine parts.

CAUTION:

Running without a fuel filter voids the carburetor warranty. It is essential that a quality inline fuel filter is installed between the fuel tank and carburetor. This is mandatory as a safeguard against possible flooding which could result from unfiltered foreign particles becoming lodged inside the fuel inlet valve. Filter elements should be cleaned or replaced regularly to assure maximum protection. Always use new, clean fuel.

- C) Go back and tighten ALL the fuel line fittings on the carburetor, fuel pump and any fuel distribution block. Be sure not to over-tighten the fittings.

6. INSTALL THE AIR CLEANER

- A) Check for adequate clearance between the air cleaner, carburetor linkages and fuel lines.
- B) Check for adequate clearance between the air cleaner and hood before closing the hood.

WARNING:

Check and correct any air cleaner-to-carburetor and air cleaner-to-hood interference that may cause the linkage to stick or bind. Any sticking, binding, or 'over-center' movement could result in uncontrolled engine speed, property damage, serious personal injury, or death.

CAUTION:

Running without an air cleaner is discouraged. Dirt and varnish will accumulate and upset the carburetor air/fuel metering balance. Dirt and debris can also enter the fuel bowl causing further problems.

NOTE: Any air filter element must be clean and of sufficient capacity to pass 200 cfm of air per carburetor. Lower capacities can cause rich running conditions.

7. START THE ENGINE

- A) Prime the carburetor: Crank the engine over to fill the carburetor. If the vehicle is equipped with an electric fuel pump, you will need to reconnect the battery and pulse the fuel pump on and off to fill the carburetor.

WARNING:

Protective eyewear must be worn before the fuel pump is first turned on. Failure to do so may result in injury to the eyes or blindness.

WARNING:

If you crank the engine over to fill the carburetor, make sure the ignition is disabled by removing the coil wire from the distributor. Failure to do so may cause a fire or explosion resulting in property damage, serious personal injury, or death.

WARNING:

Due to the inherent danger of gasoline and gasoline vapors, you should have a helper ready with a fire extinguisher when starting the engine after installation of any new carburetor.

WARNING:

Watch closely for signs of fuel flooding when the fuel pump is first turned on or when the engine is first started. If flooding is apparent, stop the engine immediately. Disconnect the fuel line, remove the fuel inlet fitting (see E) and check for blockage or dirt. Clean as required, reinstall fitting and reconnect fuel system. Clean up any raw fuel. Flooding does not necessarily indicate a faulty carburetor.

WARNING:

Stromberg carburetors are designed for fuel pressure of 2.5psi MAXIMUM measured at the carburetor. Excess pressure can cause flooding which may cause a fire or explosion resulting in property damage, serious personal injury, or death. Many modern electric fuel pumps are designed to provide higher pressures and are not suitable for Stromberg carburetor applications without a fuel pressure regulator of the correct range. Always check the manufacturer's specification.

WARNING:

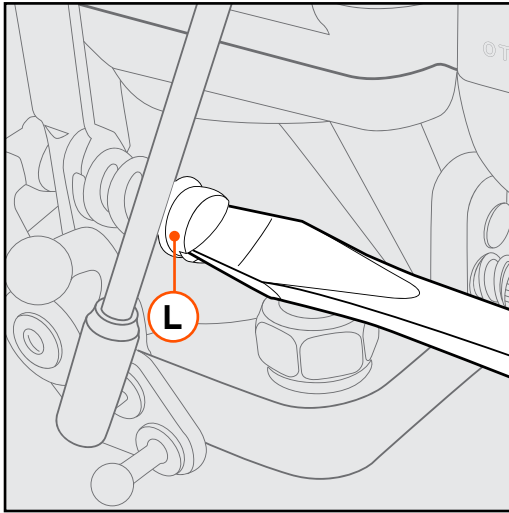
If your vehicle is equipped with an automatic transmission, confirm that the transmission is in park before starting. If your vehicle has a manual transmission, verify that it is in neutral with the parking brake activated before starting. Failure to do so may result in unintended vehicle movement resulting in property damage, serious personal injury, or death.

NOTE: If the fuel inlet fitting is replaced for any reason, the float level may need readjustment. Instructions can be found on the Stromberg Tech Center at www.stromberg-97.com.

- B)** Check for leaks at fuel line and inlet fittings.
- C)** Start engine and recheck for leaks at fuel line and inlet fittings.

8. TUNING

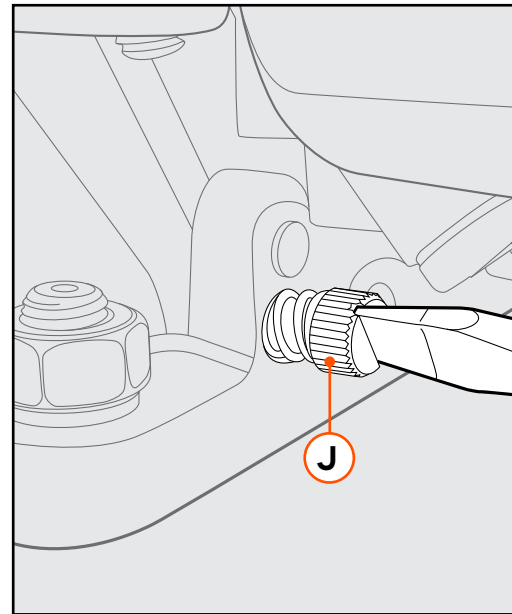
- A)** Set the idle: With the engine at operating speed and the choke plate fully open, set the idle speed (rpm) to the manufacturer's recommended setting using the throttle stop screw (see L). Turn the screw clockwise for faster idle speed or counter-clockwise for slower idle speed.



- B)** Now adjust the idle mixture (idle quality) using the idle needle screws (see J) with the engine at normal operating temperature, the air cleaner in place, the throttle fully closed and the choke fully open (see K). Turn the idle screws IN (clockwise) to provide a leaner mixture and OUT (counter-clockwise) to provide a richer mixture.

Starting with each screw 1-1/2 turns out from the fully 'in' position (the factory setting), adjust the idle mixture screws one at a time. Turn the first idle screw in slowly (1/4 turn at a time) until the engine begins to lag or run irregularly. Then turn the same screw out slowly until the engine begins to roll or gallop, then back in slightly to provide the smoothest idle. Repeat this same procedure to adjust the other screw. Re-adjust the first screw if required.

- C)** Winter and Summer Settings: Your new Stromberg carburetor is supplied with the accelerator pump rod in the W (Winter) position on the throttle linkage. The S (Summer) and W settings partially determine the volume of enrichment fuel discharged into the venturi when the accelerator pump is rapidly depressed. The linkage will discharge greater enrichment in the W position. The correct setting should be determined by the driver to suit local operating conditions. If the vehicle tends to stumble on acceleration, try changing the rod to the other position, then try the acceleration test again.



NOTE: If you have an engine vacuum gauge, set the idle screws to provide the highest and most steady manifold vacuum reading at idle.

NOTE: In some areas, 'winter' fuel blends are used to assist in cold-engine starting and drivability. Since these fuels can result in excessive fuel vaporization if the engine is operated in a heated area such as a garage, setting the idle can be more difficult because excess vapor is drawn into the throat and enriches the mixture. The idle will be erratic and may seem unable to hold a set. It is advisable, therefore, to perform the final settings outdoors after the engine has been brought to operating temperature.

NOTE: Since available fuel formulations vary with the season, carburetor settings may require readjustment throughout the year.

9. TROUBLESHOOTING

- A)** Carburetors can be frustratingly difficult to troubleshoot and are often blamed for every possible engine-related difficulty. Please check and verify the condition of the complete engine system before proceeding with any carburetor work.

NOTE: Proper engine compression, timing, spark plug gap and heat range, distributor point condition and wiring, valve lash and other factors are very important to achieving optimum engine efficiency and performance. There should be no vacuum leaks. The carburetor float and ignition timing should be properly set. Tuning the carburetor will not cure bad valves, incorrect timing or poor compression.

10. MAINTENANCE

- A)** After an initial running period, check and retighten all nuts and screws as required. The presence of liquid fuel demands further checks.

WARNING:

Fuel system components operating under severe conditions, such as high under-hood temperatures, should be periodically inspected to ensure tight fasteners, sound hoses and absolutely no fuel leaks. High temperatures promote faster ageing of non-metallic materials. Metallic materials can age with engine vibration and may warp or fatigue if not properly assembled and maintained.

11. WARRANTY

All Stromberg products receive numerous checks and tests to ensure optimum quality and performance. Stromberg also takes customer support very seriously, and this extends to fair Limited Warranty terms and procedures across our full product range as outlined below.

Stromberg warrants its new products to be free from defects in material and workmanship for one (1) year from the date of original purchase by the Purchaser.

Limited Warranty

STROMBERG PROVIDES NO WARRANTY EITHER EXPRESS OR IMPLIED OTHER THAN THIS LIMITED WARRANTY. STROMBERG EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL STROMBERG OR ITS AGENTS, EMPLOYEES, OFFICERS, DIRECTORS, RELATED ENTITIES OR SUCCESSORS, BE LIABLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES ARISING OUT OF, OR IN CONNECTION WITH, PRODUCTS OR SERVICES SOLD, WHETHER BASED IN WARRANTY, CONTRACT, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY), OR ANY OTHER LEGAL THEORY. STROMBERG'S MAXIMUM LIABILITY SHALL NOT EXCEED THE PURCHASE PRICE OF THE PRODUCT. STROMBERG NEITHER ASSUMES, NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR US, ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF THIS GENUINE STROMBERG PRODUCT. STROMBERG DOES NOT WARRANT WHATSOEVER ANY ACCESSORIES OR PARTS SUPPLIED BY OTHER MANUFACTURERS.

Any implied warranty determined to be applicable is limited to the duration of this warranty. This warranty gives you specific legal rights. However, you may also have other rights that may vary from state to state or province. This Limited Warranty constitutes the entire understanding between Stromberg and the Purchaser.

Warranty Procedure

To claim under this Limited Warranty:

1. CONTACT US FIRST! You can email us at warranty@stromberg-97.com. Most carburetor issues are simple and can be addressed quickly with email advice. Please remember to check Section 9. Troubleshooting and look for further advice on the Stromberg Tech Center at www.stromberg-97.com
2. If you cannot contact us, contact the place of purchase, providing the dated purchase receipt and a clear description of the problem.
3. If the product needs replacement, we will provide a Return Goods Authorization (RGA) number and an address for return. We will provide a replacement on return of the product so enclose your RGA number and a return address. NO RETURNS WILL BE ACCEPTED WITHOUT AN RGA NUMBER. No replacements will be shipped without return of the original product.

DO NOT send products directly to Stromberg without our prior notice. Stromberg assumes no responsibility for products sent directly to Stromberg.

Warranty Exclusions

Stromberg does not warrant products which are damaged as a result of improper installation or application, including but not limited to:

1. Failing to follow or deviating from any installation guidance provided by Stromberg;
2. Modifying or altering the carburetor beyond factory specifications, outside what could be considered tuning for optimum performance;
3. Subjecting the product to adverse conditions, abuse, neglect, accident, collisions, dirt or contaminants, water or corrosion, gum or varnish, use of improper or poor quality fuel or fuel additives, or faulty repair; and
4. Improper adjustment, fire from a backfire, running without a quality air filter and fuel filter, or excessive fuel pressure. Stromberg also does not warrant, and disclaims all liability for, products used for racing, or any non-automotive, marine, or aircraft application or purpose.

Stromberg is the sole and final judge of whether a product is covered by the warranty. In the event that Stromberg determines that a defect in material or workmanship exists, Stromberg's responsibility is strictly limited to the repair or replacement of the defective product or parts, as Stromberg elects, and the return of the repaired or replaced product or parts to the Purchaser, freight prepaid. Stromberg has no other obligation, and makes no other warranties - whether express or implied.

As used herein, the term 'Purchaser' shall mean the original purchaser or consumer of the Stromberg product. The Limited Warranty is restricted to the Purchaser. The warranty is not assignable or otherwise transferable.