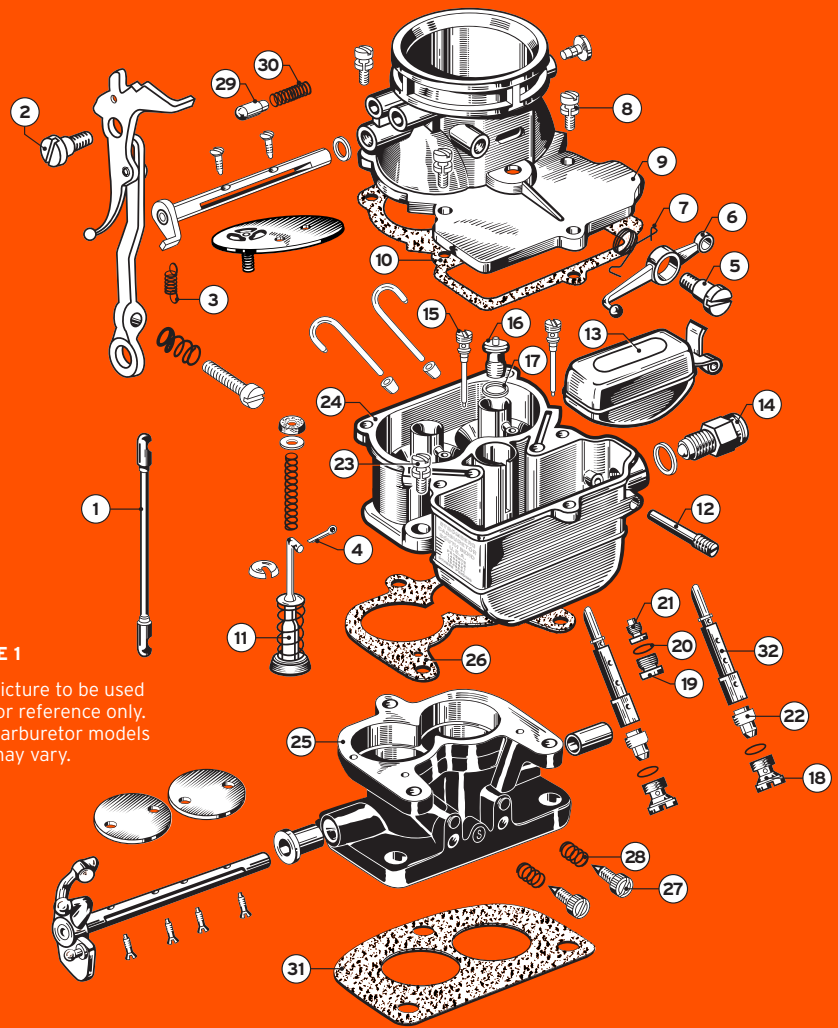




PREMIUM SERVICE KIT INSTALLATION GUIDE

PICTURE 1

NOTE: Picture to be used for reference only. Carburetor models may vary.



YOUR PREMIUM SERVICE KIT INCLUDES:

Diagram No.	Qty	Description
10	1	Airhorn gasket
26	1	Bowl casting gasket
31	1	Manifold gasket
14	1	S-jet inlet valve & gasket
21	1	Acc. pump check valve
27 & 28	2 pairs	Idle mixture screws & springs
11	1	Full accelerator pump
20	5 (2 spares)	Bowl plug ring gaskets
17	1 (97) 2 (BIG97)	Power valve gasket

TOOLS REQUIRED:

- > Stromberg jet wrench - Part 9071K
- > Large and small flat blade screwdrivers
- > Small long nose pliers for spring installation and float adjustment
- > 11/16in AF open-end wrench

NOTE: Please ensure you have the correct Premium Service Kit for your carburetor.

- 9590K-97 Stromberg 97, 48, 40
- 9590K-81 Stromberg 81
- 9590K-BIG-P Stromberg BIG97 Primary

READ THIS FIRST

Stromberg Premium Service Kits are intended for use on Stromberg EE-1 model 97, BIG97, 48, 81 and 40 carburetors that require cleaning, adjustment and minor replacement of parts, but are otherwise in good serviceable condition. If your carburetor is worn, it may require a more extensive rebuild and replacement of parts that are not contained in this kit. Genuine replacement parts for these Stromberg models are available new from your Stromberg dealer. Visit our website at [www.stromberg-97.com](http://www.stromberg-97.com) for further details.

WARNING!

These instructions, including the diagrams, must be read and fully understood before installation, otherwise installation should not be attempted. Failure to follow these instructions may result in poor performance, vehicle damage, personal injury or death.

If you have any questions, contact your Stromberg dealer or email us at: [tech@stromberg-97.com](mailto:tech@stromberg-97.com)

WARNING!

Before rebuilding, the carburetor should be removed from the car and dried of any fuel as gasoline and gasoline vapors are very flammable. 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. Never smoke, use an open flame, or produce any sparks where gasoline or gasoline vapors could be present. Doing so may cause a fire or explosion, resulting in property damage, serious personal injury, or death.

WARNING!

A thorough knowledge of carburetor function and repair is required. Therefore, Stromberg recommends that rebuilding and installation be performed by a professional auto mechanic only. An improperly rebuilt carburetor may void your warranty and cause poor performance or lead to property damage, personal injury, or death.

A full range of Genuine Stromberg Service & Restoration Parts is available for Stromberg 97, BIG97, 48 and 81 carburetors.

For help with installation, ask your dealer or visit our Tech Center at: [stromberg-97.com](http://stromberg-97.com)



## 1. DISASSEMBLE CARBURETOR

**A)** Disconnect the accelerator pump rod (1) from the ball sockets at each end. Remove the choke lever fulcrum screw (2) and disconnect the choke valve tension spring (3). Remove parts 4 through 7 in numeric order. Remove the five airhorn screws (8) and their lock washers. Lift the airhorn (9) off with the accelerator pump (11) and lift off the airhorn gasket (10). Remove parts 12 through 22 in numeric order.

### CAUTION:

Stromberg main jets (22) should only be removed and installed with the Stromberg premium jet wrench (9071K) designed for this express purpose. Failure to use the Stromberg jet wrench may result in damage to the jet and poor performance.

**NOTE:** On BIG97-P (Primary) carburetors, the power valve (16) is located in the float bowl, with a (different) accelerator pump valve located under the accelerator pump. BIG97-S (Secondary) carburetors have neither valves, and no pump check valve (21).

**B)** Remove the three bowl casting screws (23) and their lock washers and lift the bowl casting (24) from the throttle body (base) (25). Lift off the gasket (26). Remove the idle adjusting screws (27) and springs (28) from the base casting.

### CAUTION:

The power valve (16) should only be removed or installed with a wide, flat blade screwdriver with a slot cut in the blade to clear the valve pin. Failure to use the correct tool may result in damage to the power valve and poor performance.

**C)** Replace all the gaskets, the inlet valve (14), accelerator pump (11), pump check valve (21) and idle mixture screws (27) and springs (28) with new parts from the kit. Stromberg has replaced the original style 'needle & seat' inlet valve with the Stromberg S-Jet twin-ball design, which is less prone to sticking.

## 2. CLEAN ALL PARTS

**A)** Soak all parts in carburetor cleaner long enough to soften and remove all dirt and other foreign material. If necessary, use a small brush. Make sure the carburetor bores are free of any hard carbon deposits and scrape the gasket surfaces clean.

### WARNING!

Work in a well ventilated area and NEVER use gasoline or any other flammable liquid to wash parts, as the build up of dangerous vapors may cause

severe respiratory injury, or cause a fire or explosion, resulting in property damage, serious personal injury, or death.

### WARNING!

Protective eyewear and gloves must be worn while cleaning. Failure to do so may result in injury to the eyes or blindness, or irritation and injury to the skin.

**B)** Blow out all passages with dry compressed air. Carefully check for damage or any remaining build-up. Pay particular attention to the bottom of the accelerator pump bore which can accumulate dirt.

### WARNING!

Take great care when using compressed air. Always blow away from you and ensure that appropriate eye protection is used.

## 3. INSPECT ALL PARTS

**A)** Every component must be visually inspected prior to reuse. Pay particular attention to the internal passages and threaded parts. Check for cracks, chips or stripped threads.

**B)** Replace any missing, damaged, incorrect or blocked components with Genuine Stromberg Service & Restoration Parts from your Stromberg dealer. Check Picture 1 for anything that may be missing. Note: Choke lever detent pin (29) and spring (30) are not used on Stromberg 40 and 48 models.

### WARNING!

Failure to completely inspect and/or replace any missing, damaged, blocked or incorrect parts may void your warranty, result in poor performance or lead to property damage, personal injury, or death.

**C)** The following list of components requires particular attention, but is not intended to be exhaustive, or relieve you of your need to inspect each and every part. If you are unsure whether to re-use something, please contact your Stromberg dealer.

> Main jets (22): Check for signs of wear or blockage and confirm that the jets are a matched pair (the size is written on the side).

> Power valve (16): Check for wear, damage and operation. The hole in the side should not be blocked and the extending pin should move up and down freely on the spring. On a BIG97-P, also check the accelerator pump valve, though note that the pin is different - flush with the top of the valve.

> Airhorn gasket surface (9): Check for warping, especially across the float bowl cover section, which can cause fuel leaks in operation. The surface should be flat to within 0.005 inch.

> Accelerator pump rod (1): Check for a good, tight fit on the linkage at both ends, and confirm that you have the correct length rod for your carburetor: approx 3.85in overall length (off the carburetor) for Stromberg 97, BIG97 and 81, and approx 3.63in for 48 and 40.

> Emulsion tubes (32): Removing the emulsion tubes is optional on carburetors already in good serviceable condition, but if you do, check that all holes are clear, especially those nearest the tip, which can be crushed from over-tightened main jets. Emulsion tubes are critical to efficient carburetor operation. Visit the Stromberg Tech Center for help on removal.

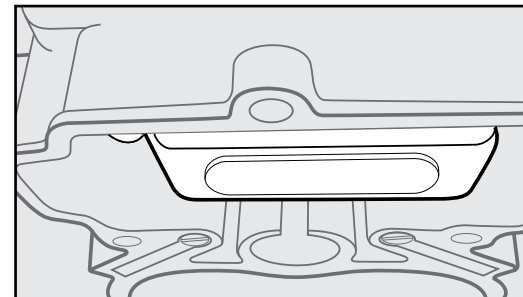
## 4. REASSEMBLE CARBURETOR

**A)** If removed, install the emulsion tubes (32) with the long end of the tip at the top. Then, using a Stromberg jet wrench, screw the main jets (22) in until they touch the emulsion tubes. Then install parts 21 to 12 in reverse numeric order into the carburetor bowl casting (24).

### CAUTION:

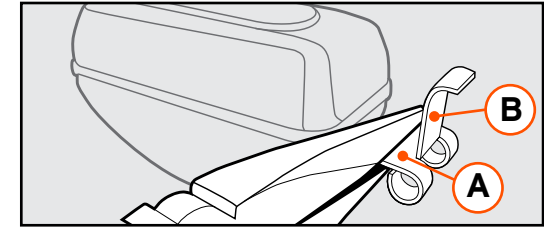
Do NOT over-tighten the main jets. Over-tightening can crush the emulsion tubes which will result in poor performance.

**B)** For your own safety, we recommend setting the float level dry – as we do at the factory with excellent results. Install the float then adjust the hinge to ensure that it sits level in the bowl when the Stromberg S-jet (14) is fully closed. To check this, hold the carburetor upside down and eye the float through to check it is parallel with the edge of the casting (**see Picture 2**).



PICTURE 2

**C)** If the float is not level, adjust it by bending the hinge. When adjusting, always grip the hinge at points A and B with small long-nose pliers (**see Picture 3**).



PICTURE 3

**D)** Install parts 28 and 27 into the throttle body (25). Insert the new gasket (26) on top of the throttle body and fix the bowl casting (24) with the three lock washers and screws (23), tightening the screws gradually to 10in/lb torque. Do not over-tighten.

**E)** Install the new accelerator pump (11), taking care not to wrinkle the leather pump seal. Place the new airhorn gasket (10) on top of the bowl (24). Slide the airhorn over the end of the accelerator pump (11) and fasten it to the bowl with the five lock washers and screws (8) to 5in/lb torque. Install parts 7 to 2 in reverse numeric order. Attach the accelerator pump rod (1).

**F)** Manually operate the throttle lever and choke mechanisms, checking for sticking, binding, 'over-center' movement, or malfunction.

### WARNING!

Any sticking, binding, or 'over-center' movement could result in uncontrolled engine speed, property damage, serious personal injury, or death.

**NOTE:** These instructions, warnings, cautions, and notes are limited to carburetor rebuilding and servicing. Stromberg has separate instructions, with warnings, cautions, and notes, for carburetor installation and set-up.

For advice on carburetor installation and set-up, visit the Stromberg Tech Center at [www.stromberg-97.com](http://www.stromberg-97.com)

## WARRANTY

While the individual parts in this Premium Service Kit are covered by the Stromberg Limited Warranty, the use of this kit alone does not guarantee that the rebuilt carburetor will deliver correct performance and economy.

For full details of the Stromberg Limited Warranty, please visit: [www.stromberg-97.com](http://www.stromberg-97.com)