

# Rochester Carburetors

## MODEL "H"

### 1961 DESIGN CHANGES

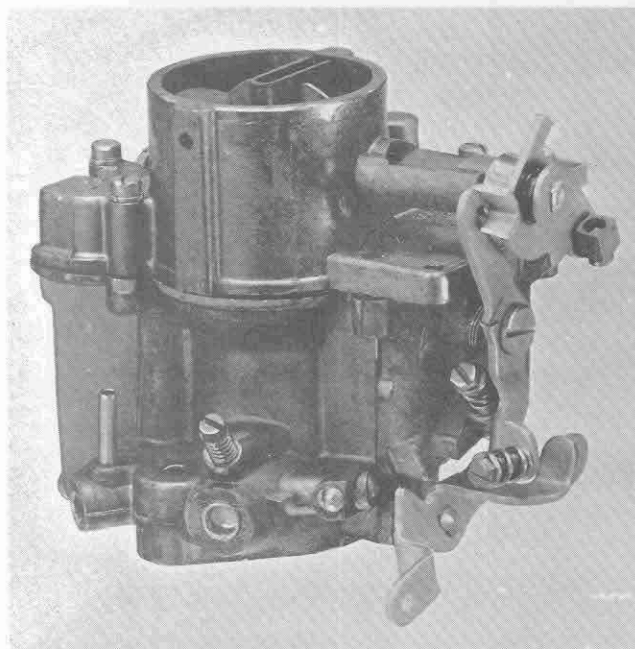
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PAGE 1 OF 1  
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SUPPLEMENT NO. 1 TO  
BULLETIN 9D-11 DATED  
JANUARY, 1960

#### CHEVROLET "CORVAIR" — Model H

##### APPLICATION\*

Passenger — Powerglide and Synchronesh  
Station Wagon — Powerglide and Synchronesh  
LDFC — Powerglide and Synchronesh  
Hi-Performance — Synchronesh

\*Refer to 9C bulletin for carb. nos.



##### APPEARANCE

The 1961 Model H carburetor for the Chevrolet Corvair is the same basic design as in 1960 except for the following changes.

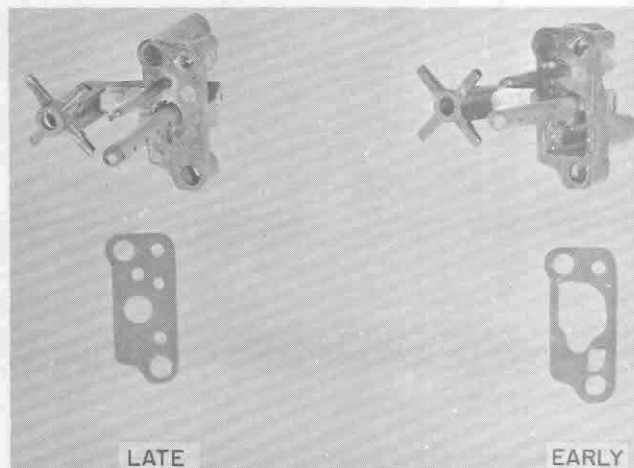
The choke system has been completely re-designed with the addition of an individual manual choke mounted in the air horn of each carburetor. A single control knob on the dash will operate the choke on each carburetor simultaneously.

A fast idle cam is mounted on the end of the choke valve shaft to increase engine speed during the engine warm-up period. In operation, the cam actuates a kick lever which pushes the throttle lever increasing the throttle valve opening. The fast idle cam is eccentric so that the proper engine fast idle speed will be maintained for any degree of choke valve opening.

The external bowl vent has been removed and the carburetor bowl is vented by the internal vent only.

##### OPERATION

The following changes were made for improved operation and performance.



##### Main Metering System

In early production carburetors the venturi cluster has a vapor cavity in the cluster casting directly over the main well.

The vapor cavity will be blocked off by a solid gasket on Powerglide application and will be open on the Synchronesh.

The main well insert is used with the solid gasket in the Powerglide units.

To standardize for service the solid venturi cluster gasket will be used on all applications. A main well insert is included in the repair kit and should always be used with the solid venturi cluster gasket. In later production carburetors the venturi cluster will not have the vapor dome and main well inserts will be used on all models.

##### Pump System

A new pump assembly will be used for improved pump performance. The vapor vent ball seat will have a square approach seat, the square seat allows a narrower seating surface, resulting in a more positive seal and reduces the possibility of the vent ball sticking on its seat.

##### Choke System

The manual choke operates basically the same as on the Model B carburetor. Synchronization of the choke valves is very important to make sure they fully close and open together for efficient choke operation.

##### Adjustments

All adjustments remain the same as on the 1960 models except the manual choke which requires a fast idle setting. The pump adjustment procedure is new on the early Powerglide units.

Refer to 9C bulletin for correct adjustment procedure and settings.

Refer to 9D-1 bulletin for complete carburetor metering specifications.

Refer to 9D-11 manual for operation and overhaul procedures.



## MODEL "H"

# 1962 DESIGN CHANGES

## CHEVROLET "Corvaire"

### \*Applications

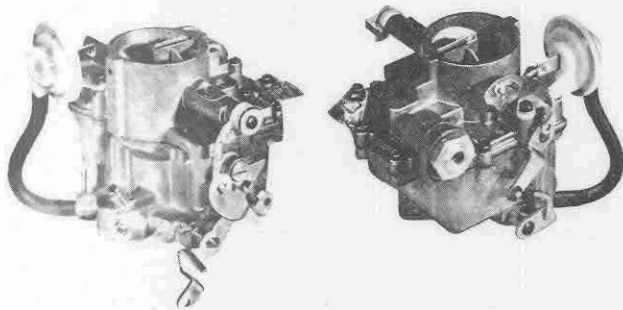
#### STANDARD ENGINE

Automatic Transmission  
Synchronesh

#### HI-PERFORMANCE

Automatic Transmission  
Synchronesh

\*Refer to 9C Bulletin for Carburetor numbers



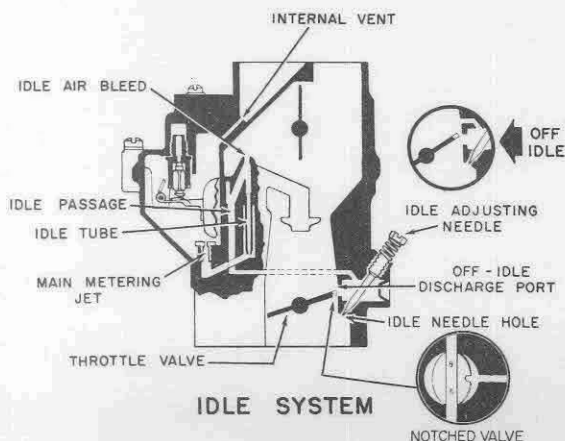
The Model H for 1962 has the following changes:

1. Choke rod, levers, fast idle cam and a choke vacuum a choke vacuum break diaphragm are added, to operate the choke automatically.
2. New throttle lever with fast idle and choke unloader tang added.
3. Throttle valve notched adjacent to off-idle port for improved idle characteristics.
4. Revision of the idle system.
5. Complete recalibration for 1962 engine.

### OPERATION

The following changes were made for improved operation and performance.

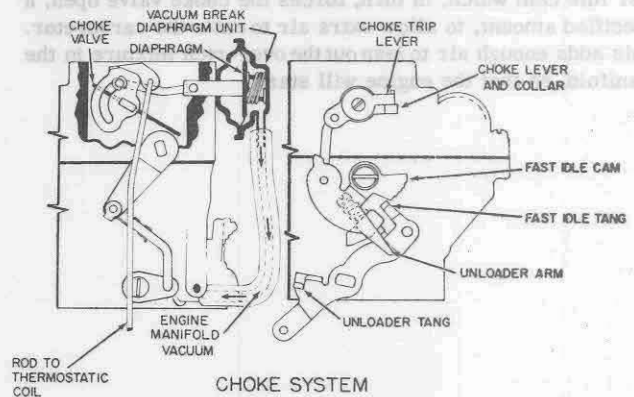
### IDLE SYSTEM



Operation is basically the same as on previous models except for the following changes which were made for improved idle operation and low speed performance.

The idle channel restriction has been removed along with the idle air bleed located just below the restriction. The idle air bleed in the top of the cluster has been greatly enlarged. Along with these changes, the throttle valve has been notched adjacent to the off-idle discharge port.

### CHOKE SYSTEM



The choke system on the model H carburetor for 1962 is fully automatic. A separate choke will be used in each carburetor and will operate independently.

The choke system will consist of a choke valve located in the carburetor air horn, a vacuum break diaphragm, fast idle cam, choke linkage and a thermostatic coil which is located beneath the engine cylinder head. The thermostatic coil is connected to the choke valve by a rod. The choke operation is controlled by a combination of intake manifold vacuum, the offset choke valve, atmospheric temperature and exhaust manifold heat.

The thermostatic coil located on the engine is calibrated to hold the choke valve closed when the engine is cold. As the engine is started, air velocity against the offset choke valve causes the valve to open slightly, against the torque of the thermostatic coil. When the engine is started and running, intake manifold vacuum applied to the vacuum diaphragm unit mounted on the carburetor air horn will open the choke valve to a point where the engine will continue to run without loading or stalling. The choke valve will remain in this position until the engine begins to warm up and the heat from the engine manifold warms up the thermostatic coil to relax its tension and allows the choke valve to gradually open. Opening of the choke valve is controlled directly by air flow through the carburetor air horn past the offset choke valve and manifold heat acting upon the thermostatic coil.

To prevent stalling during the warm-up period, it is necessary to run the engine at a slightly higher idle speed than for a warm engine. This is accomplished by a fast idle tang on the throttle lever which rests on steps of the fast idle cam.







