

# INSTALLATION INSTRUCTIONS

## HOLLEY MODEL 4160 TO MODEL 4150 CONVERSION KIT 34-6 (Less Metering Jets)

**WARNING: TO PRESERVE WARRANTY, INSTRUCTIONS MUST BE READ AND FOLLOWED THOROUGHLY BEFORE AND DURING INSTALLATION.**

### APPLICATIONS

For use in converting Holley Model 4160 carburetor to a Model 4150. A set of two main metering jets must be purchased, separately, to complete the conversion.

**NOTE:** Holley Replacement Parts Division cannot, and will not, be responsible for any alleged or actual engine or other damage resulting from misapplication of the parts described herein.

### GENERAL

This kit is designed to fit a range of applications. Extra parts are provided to facilitate the general conversion. All parts may not be required for each conversion.

Due to emission requirements, the number of vacuum lines and tubes is increasing. It is advisable when disconnecting tubes and lines, to identify them in some manner so as to avoid confusion later. Trace the lines back from the carburetor to the individual components, then identify that line. In the event that any components are unfamiliar, use a numbering system which corresponds each line to its original component.

### MAINTENANCE

**WARNING:** Fuel system components, including fuel lines and the carburetor, should be regularly inspected to assure that no fuel is leaking and that all hoses are sound. Today's controlled emissions engines create high under hood temperatures and can contribute to fast aging of the fuel line and vacuum hoses.

Any hoses which exhibit surface cracks when bent to a 180° position should be replaced.

Tightening of carburetor fuel bowl screws should provide 25-30 in.lbs. of torque in a clockwise direction. Periodically, recheck torque of fuel bowl screws at regular maintenance intervals.

**NOTE:** It will be necessary to purchase a set of two main metering jets and install them into the secondary metering block before the carburetor is reassembled. See Figure 1.

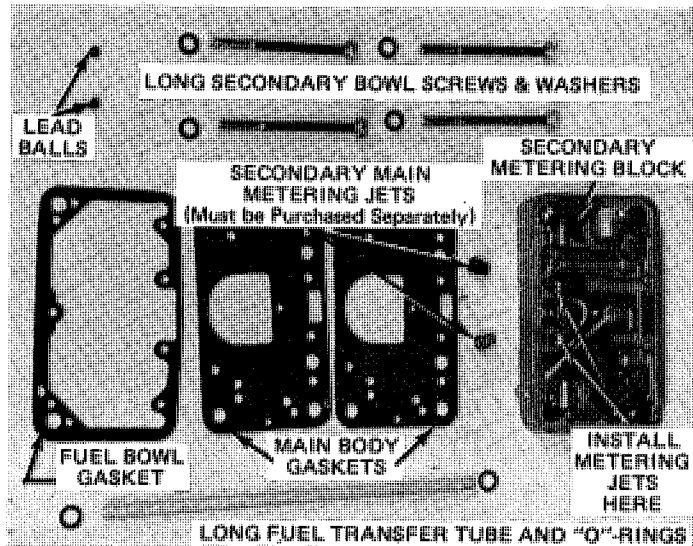


Fig. 1

1. Remove air cleaner, exercising care to detach any vacuum lines to the cleaner and marking them so they can be re-assembled to the cleaner in the same manner.
2. Remove the carburetor by following the procedure outlined below:
  - a. Carefully disconnect fuel line. Do not allow any dirt to enter fuel line or carburetor inlet.
  - b. Disconnect and mark all vacuum lines to the carburetor.
  - c. Disconnect PCV hose.
  - d. Disconnect and remove throttle linkage and transmission kickdown linkage. Save all retaining clips.
  - e. Unbolt — remove carburetor from manifold.
  - f. Empty gasoline from carburetor into a suitable container.

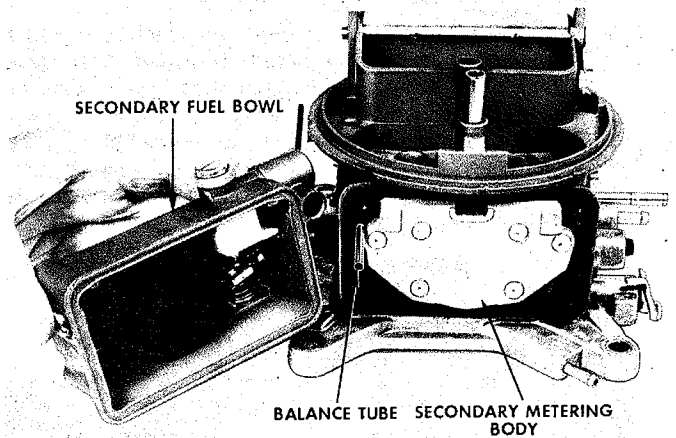


Fig. 2

3. Remove secondary fuel bowl by removing the four (4) short retaining screws. See Figure 2.
4. Remove short fuel transfer tube and "O"-rings. Make sure "O"-rings do not remain in fuel bowl openings.
5. Remove secondary metering body, plate, and gaskets from main body. See Figure 3. **NOTE:** A clutch-head screwdriver must be used. Do not attempt to use a regular screwdriver.

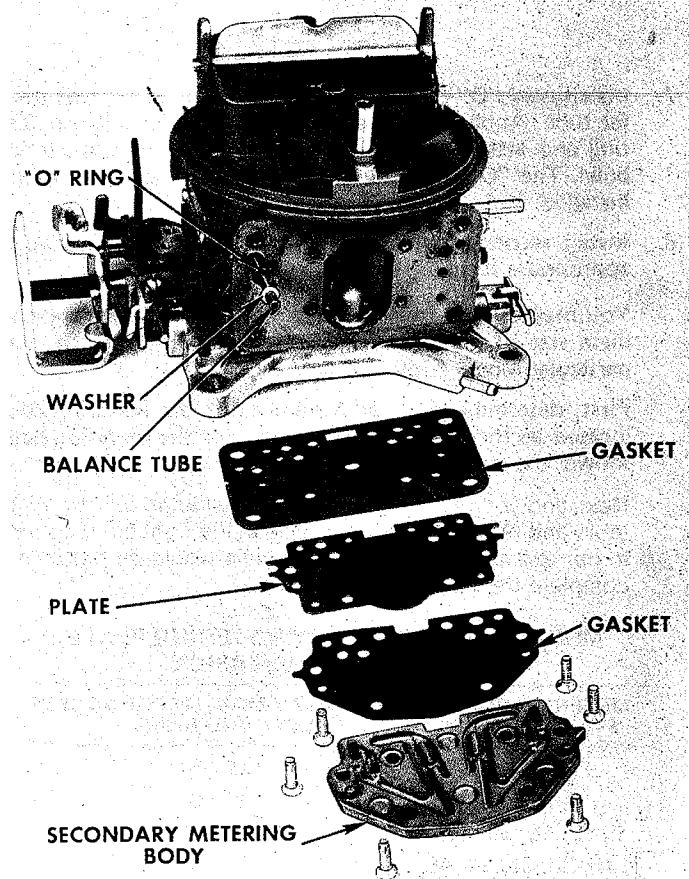


Fig. 3

6. Some older Holley Model 4160 carburetors use a balance tube, as shown in Figure 3. If your carburetor is so equipped, remove the balance tube as follows, otherwise proceed to Step 7:
  - a. Remove the four (4) primary fuel bowl screws, the primary fuel bowl, metering block, and gaskets. See Figure 4.
  - b. Pull the balance tube out of the carburetor and remove the "O"-rings and washers from each end of the balance tube.

- c. Take the two lead balls from the kit, place one each over the holes left by the balance tube and drive them into the hole using a broad-tipped nail set or other suitable tool. See Figure 6. The lead balls should be driven into the balance tube holes in such a way that they expand tightly to prevent leakage. Lead balls, when installed must be below recessed surface of carburetor main body.
- d. Lubricate the accelerator pump transfer tube "O"-ring with a small amount of petroleum jelly or a drop of light oil, if your carburetor is so equipped.
- e. Reassemble primary metering block, fuel bowl and fuel bowl screws using new gaskets provided. Press gaskets firmly onto dowels, make sure that hole in fuel bowl gasket lines up with pump passage in metering block. See Figure 4. Make sure that the accelerator pump lever is underneath the pump actuating lever (See Figure 4) before tightening bowl screws. Torque fuel bowl screws evenly, in stages, to 25 to 30 in.lbs.

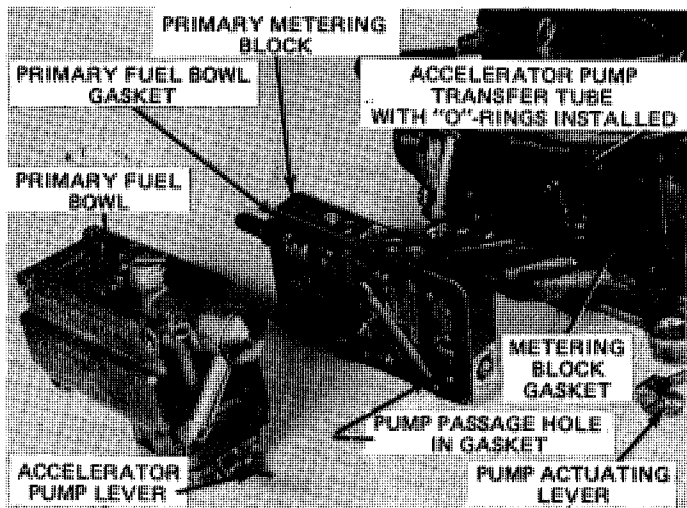


Fig. 4

7. Install new "O"-rings on the extreme ends of the fuel transfer tube. Apply a small amount of petroleum jelly on "O"-ring and install transfer tube into opening in primary fuel bowl. The "O"-ring will roll into proper position as tube is installed.
8. Install secondary metering jets, of your choice, using an appropriate screwdriver or jet wrench.

You may use the following table to determine the approximate size of the secondary metering jets required by your particular Model 4160.

First, determine the stamp number of the metering body located as shown in Figure No. 5. For the metering body shown, the stamp number is 39.

Next, find your stamp number in the left hand column of the table and read the correct jet size in the right hand column. In our example, two 122-70 main jets would be required to complete the conversion.

**MODEL 4160 SECONDARY METERING PLATE TO MAIN JET CONVERSION**

METERING PLATE STAMP NUMBER	EQUIVALENT MAIN METERING JETS LEFT AND RIGHT
3	122-56
4, 32, 40	122-59
5, 13, 18, 30, 33	122-63
6, 19, 20, 35, 41, 48	122-69
7, 34	122-53
8, 9, 16, 23, 36	122-67
10, 12, 22, 28, 43	122-71
11, 24, 38	122-73
14	122-85
15	122-83
17, 37, 39	122-70
21, 29, 31, 44, 46	122-75
25	122-77
26, 27, 47	122-79
42	122-95
45	122-84

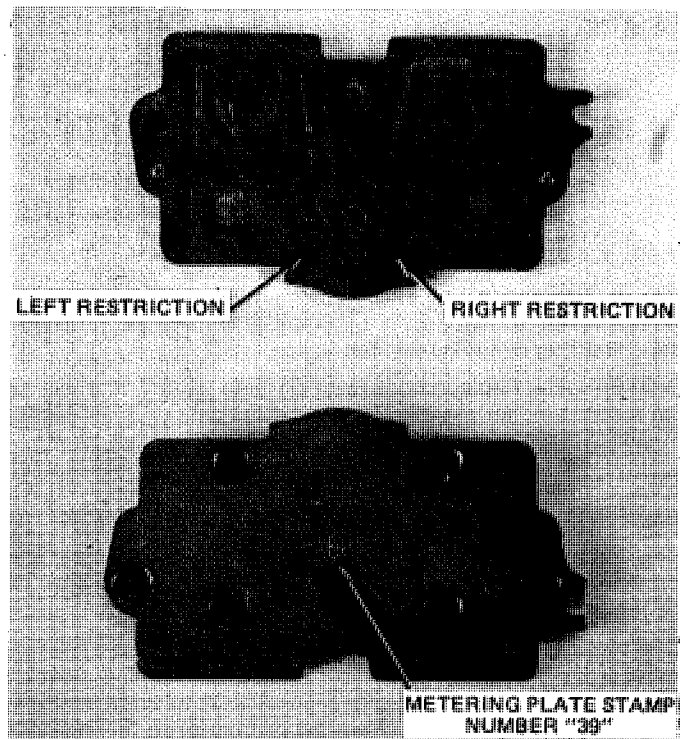


Fig. 5

The following plates have staggered jets. Figure No. 5 shows how to distinguish between left and right.

METERING PLATE STAMP NUMBER	EQUIVALENT MAIN METERING JETS LEFT	METERING JETS RIGHT
10-3	122-64	122-69
4482	122-87	122-82
5790	122-70	122-69
5792	122-65	122-59
6217	122-78	122-82
6221	122-72	122-75

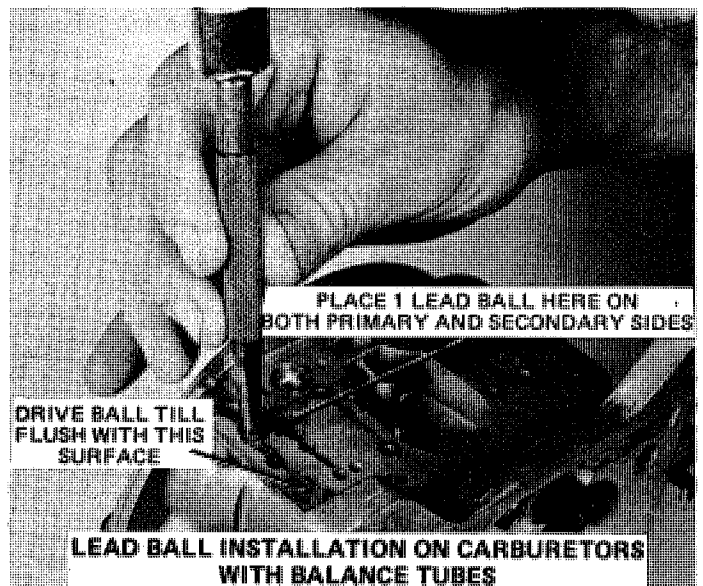


Fig. 6

9. Install secondary metering body gasket. Press gasket firmly on metering body. Install fuel bowl gasket on face of metering body. Install fuel bowl gasket on face of metering body. On "double-pumper" models, make sure hole in gasket lines up with pump passage in metering block. See Figure 4.
10. Place metering block and gasket assembly on carburetor main body.
11. Carefully slide secondary fuel bowl on fuel transfer tube and seat bowl on gasket. Install four (4) long bowl screws and new gaskets supplied in kit. Torque screws evenly, in stages, 25 to 30 in. lbs.
12. Reinstall carburetor on engine as described in the original carburetor instruction sheet. This is basically the reverse of the steps outlined in Step No. 2. Check to make sure that the throttle linkage does not bind or stick.
13. Start engine and check for leaks. If a leak is found, reassemble carburetor as previously described exercising care not to pinch "O"-rings and to properly install all gaskets.