

# INSTALLATION AND ADJUSTMENT INSTRUCTIONS

**TO PRESERVE WARRANTY, THESE INSTRUCTIONS MUST BE READ AND FOLLOWED THOROUGHLY AND COMPLETELY BOTH BEFORE AND DURING INSTALLATION.**

**CARBURETOR DESCRIPTION:** Model 2300

**APPLICATION:** Ford, Ford Truck, Lincoln, Mercury with variable venturi, with feedback, including automatic overdrive transmission.

Holley Replacement Parts Division cannot and will not be responsible for any alleged or actual engine or other damage or other conditions resulting from misapplication of the Holley brand carburetor described herein.

**GENERAL:** This carburetor is designed to fit a range of applications. Extra parts are provided in the package to help in the general installation of your replacement carburetor.

Prior to and after installing your new carburetor, manually operate the throttle lever and choke mechanism. Check for any sticking or binding. Also, make a visual inspection of the carburetor, looking for missing parts, bent levers or any possible shipping damage.

Due to emission requirements, vacuum hoses and electric lines are becoming more numerous. It is advisable when disconnecting hoses and lines to label each to avoid confusion during installation of your replacement carburetor. Trace each line back from the original carburetor to its component, such as the distributor, then label that line.

In the event that any components are unfamiliar, use a tag and numbering system which corresponds each line to its component. See Label and Disconnect.

**After installation of this Holley brand replacement carburetor, check the throttle valve pressure at the transmission according to the Automatic Overdrive sheet provided.** For more detailed information, consult the powertrain section of the **Ford/Mercury shop manual.**

## REMOVAL:

Disconnect all hoses and lines to the air cleaner. Remove air cleaner.

Using masking tape, label vacuum lines for easier identification during installation of your Holley replacement carburetor.

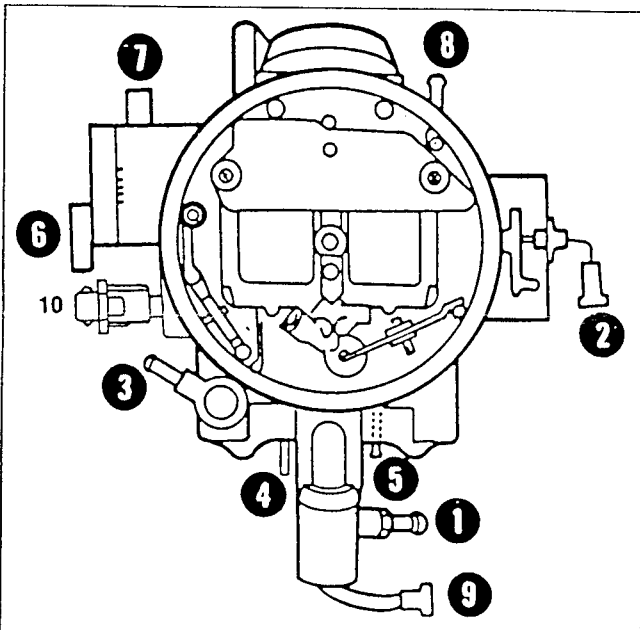
**NOTE:** Choke clean air (line 8) and choke hot air (line 7) will not be needed on Holley replacement carburetor. Also tape wire ends on solenoid wire running to original carburetor. These will not be used on Holley replacement.

Disconnect the throttle cable and the transmission kick-down linkage. Remove the throttle position sensor and stepper motor from the original carburetor. These will later be installed on the Holley replacement carburetor.

**WARNING:** Disconnect the fuel line at the carburetor. It is important to protect the fuel inlet from dirt contamination. Do this by wrapping a lint free cloth around the open end of the fuel line.

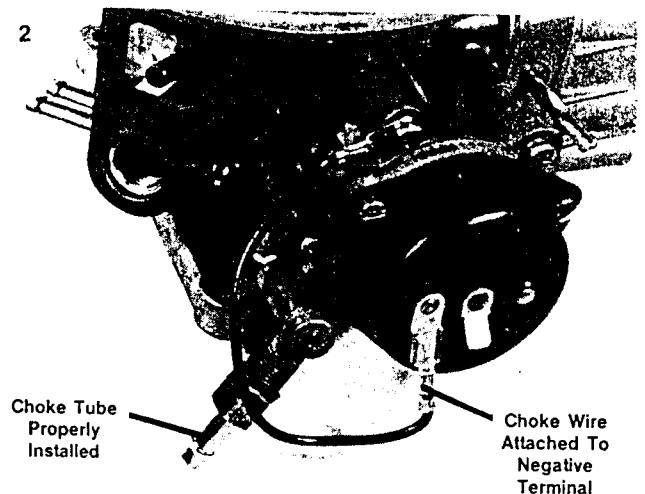
Loosen and remove original carburetor and flange gasket. Do not remove EGR spacer. Clean gasket surface thoroughly, but do not allow any dirt particles to fall into manifold openings (can cause engine damage).

Place a clean cloth over manifold opening to prevent any foreign materials from entering engine.

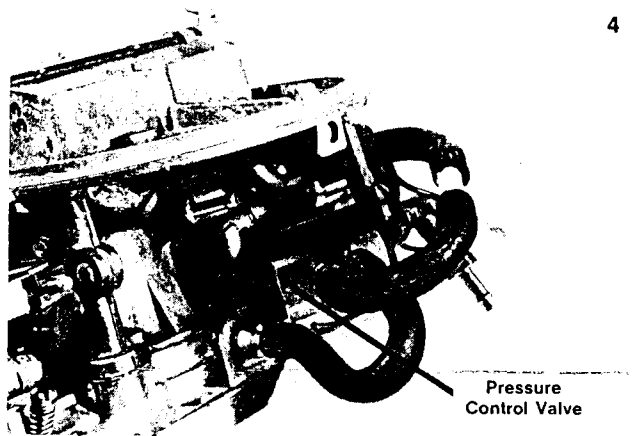
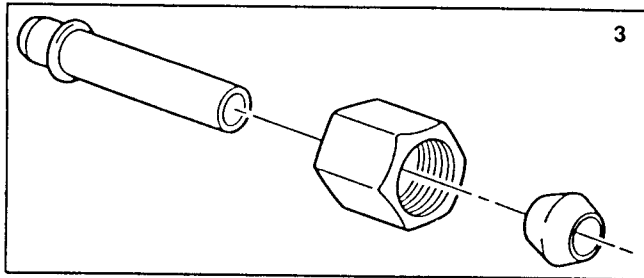


### LABEL AND DISCONNECT

- |   |   |
|---|---|
| 1) Fuel Inlet                             | 8) Choke Clean Air<br>(Disconnect and Plug Hose)                |
| 2) Throttle Position Sensor               | 9) Cranking Fuel Solenoid<br>(Disconnect Not Used)              |
| 3) Bowl Vent                              | 10) Stepper Motor<br>(Disconnect and Install on new carburetor) |
| 4) Spark                                  |   |
| 5) EGR                                    |   |
| 6) Electric Choke                         |   |
| 7) Choke Hot Air<br>(Disconnect and Plug) |   |



As shown in Figure 2 connect the choke tube and choke wire to the replacement carburetor. To install the choke wire, remove the top screw that holds the choke housing to the carburetor. Attach the choke wire end with eyelet terminal and reinstall screw. Slip the other end of the choke wire onto the negative (-) terminal of the choke cap. Shown below is the assembly procedure of the choke tube.



Figures 4 and 5 show the correct installation of the vacuum hoses from the carburetor to the pressure control valve. Figure 5 shows a cutaway top view of the rear of the carburetor. Match the letters for correct hose placement (i.e.) take a piece of hose and connect (A) the vacuum tube on the carburetor to (A) the plastic "T" and so on. Cut to fit the hose, do not use any more than necessary.

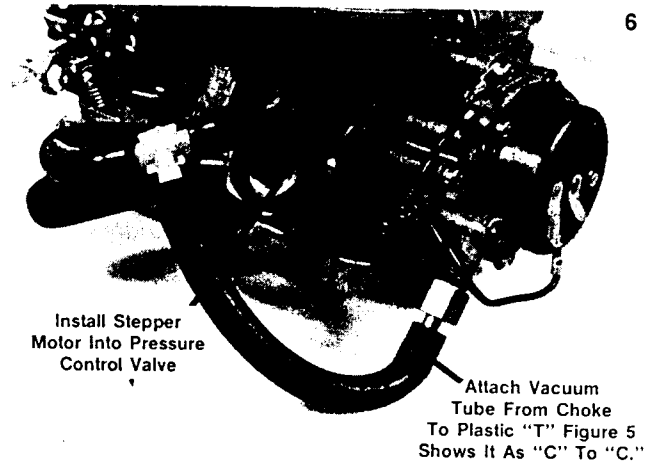
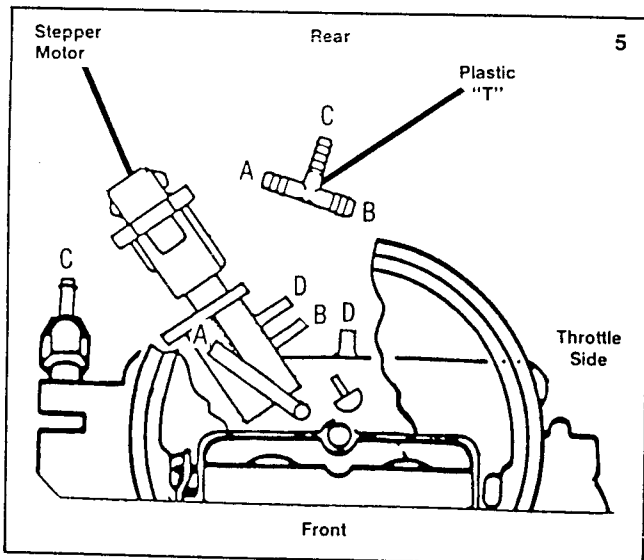


Figure 6 above also shows the routing of the vacuum hose. Install stepper motor and vacuum hose from choke tube to the plastic "Tee." If a new stepper motor is required, purchase Holley P/N 46-145.

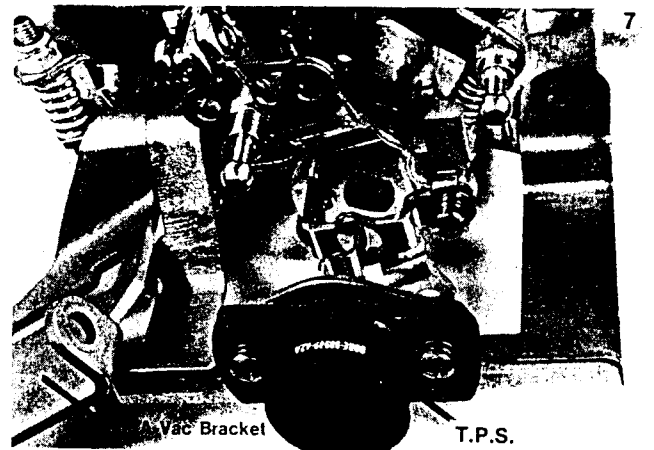
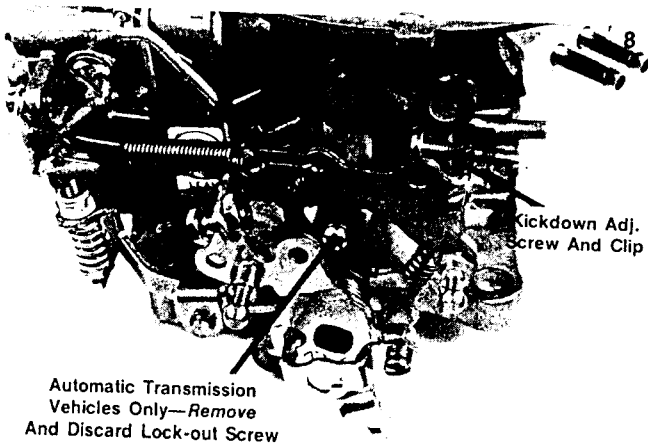


Figure 7 illustrates correct bracket placement. Attach sol-a-vac bracket first (if required). Next, install the T.P.S. bracket on top of the sol-a-vac bracket.

### SPECIAL INSTRUCTIONS CHOKE SIDE MOUNTED T.P.S. VARIABLE VENTURI CARBURETOR

- Some installations may have the T.P.S. (Throttle Position Sensor) mounted on the "Choke Side" of the carburetor.
- This Holley Replacement Carburetor provides for the T.P.S. to be mounted on the "Throttle Side" of the carburetor instead of the "Choke Side." A bracket is included for this purpose.
- It will be necessary to purchase a new Holley T.P.S. unit, P/N 11-505.
- A new wiring connector (with two (2) female ends) is supplied in the carburetor's unassembled parts package.
- Plug this connector into the T.P.S. unit and route the Ford wiring around the front of the carburetor to the new T.P.S. location to make the final connection.



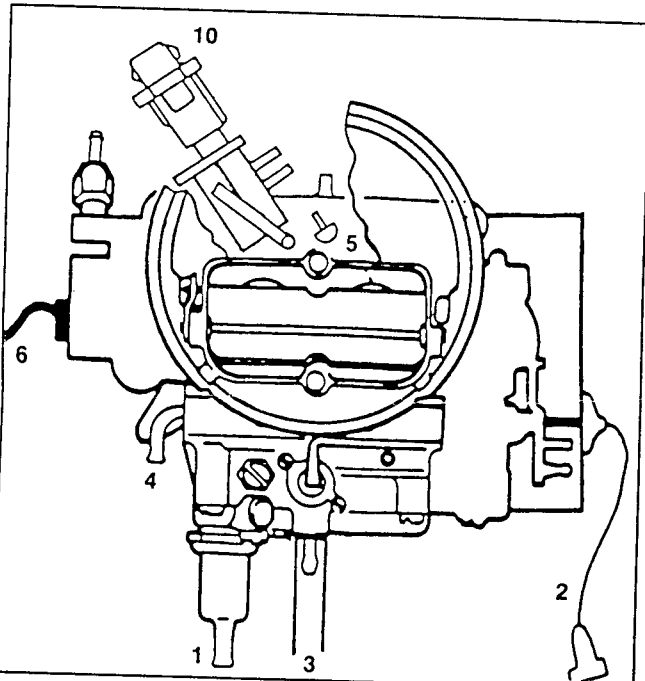
As shown in figure 8, install the kickdown adjusting screw and retaining clip. Remove the lockout screw if your vehicle is equipped with an automatic transmission.

## INSTALLATION:

Remove protective cloth from manifold opening.

Place provided flange gasket on opening and tighten down Holley replacement carburetor at this time.

**CAUTION:** Overtightening the carburetor flange hold down nuts may result in a warped or cracked carburetor throttle body. The carburetor hold down nuts should be tightened down progressively, in a criss-cross pattern, so that vacuum leaks are prevented, while avoiding damage to the carburetor throttle body.



### CONNECT

- |                             |   |
|-----------------------------|---|
| 1) Fuel Inlet               | 7) Choke Hot Air<br>(Not Applicable)          |
| 2) Throttle Position Sensor | 8) Choke Clean Air<br>(Not Applicable)        |
| 3) Bowl Vent                | 9) Cranking Fuel Solenoid<br>(Not Applicable) |
| 4) Spark                    | 10) Stepper Motor                             |
| 5) E.G.R.                   |   |
| 6) Electric Choke           |   |

**NOTE:** Choke hot air (7), choke clean air (8) and cranking fuel solenoid (9) will not be used on Holley. In addition tape wire connector end of cranking fuel solenoid harness (on vehicle) to prevent accidental shorting of circuit.

**NOTE:** Any hoses which show surface cracks when bent 180° should be replaced.

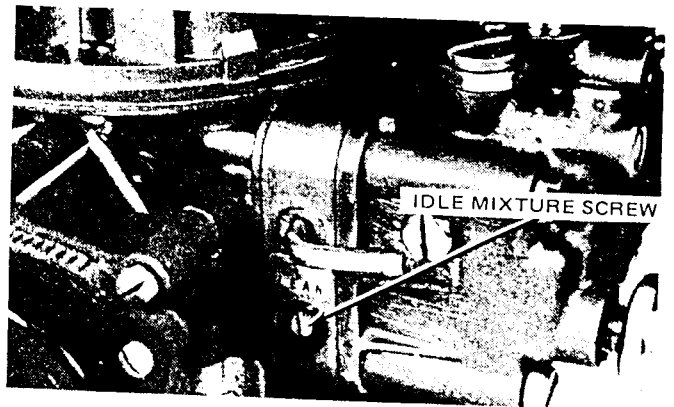
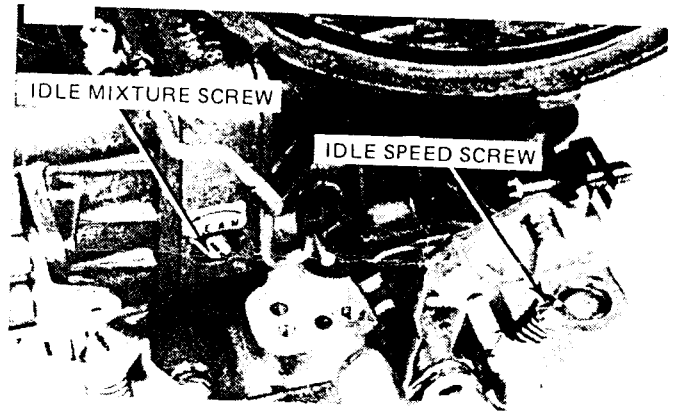
Set the parking brake and block the drive wheels.

Temporarily plug the vacuum line to the air cleaner.

Start engine and check for fuel or any vacuum leaks. Repair any defects before air cleaner is reinstalled.

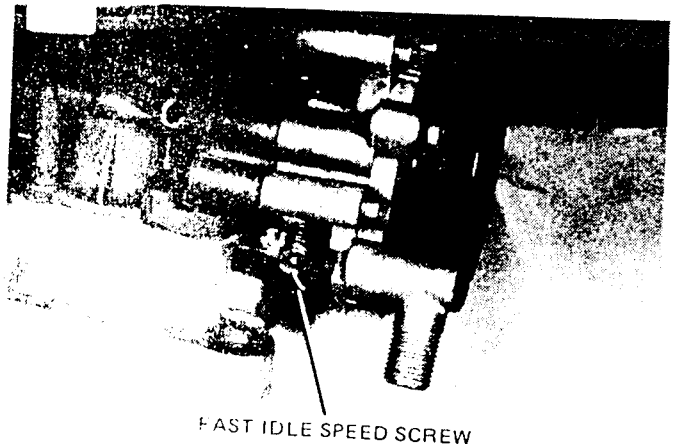
## IDLE SPEED SETTINGS

**NOTE:** The idle speed and mixture are preset at the factory—only minor adjustments may be required.



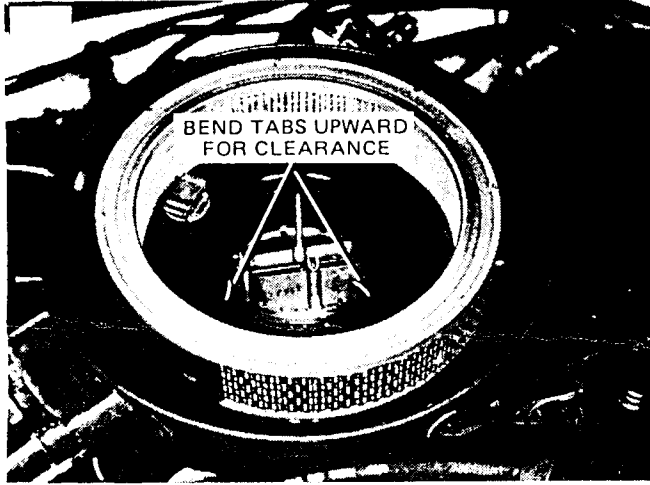
With the engine running at operating temperature, parking brake engaged, drive wheels blocked, vacuum lines plugged and the choke fully open, set the *idle speed* to manufacturers specifications designated on decal in the engine compartment.

To check the choke fast idle speed, make sure that the engine is at operating temperature. Turn the engine off. Open the throttle halfway, hold the choke plate closed, release the throttle, release the choke plate. (This positions the fast idle screw on the proper step of the fast idle cam.)



With the parking brake on, drive wheels blocked, transmission in neutral, start the engine without touching the accelerator. The fast idle speed is preset at the factory from 1700 to 1900 RPM. Adjust to these limits, if necessary by adjusting the fast idle speed screw.

**WARNING:** Do not put transmission in gear while checking the fast idle speed.



Install air cleaner stud into carburetor air horn.

First place thin gasket on top of air horn, then place metal spacer on top of thin gasket. On top of metal spacer, place the neoprene coated gasket.

Install air cleaner assembly. Bend tabs inside up. Slowly lower hood to check for air cleaner and stud clearance. Remove stud and cut to length with hacksaw. Reinstall air cleaner stud. Reinstall air cleaner assembly, tighten wing nut. Reconnect all lines to air cleaner. To avoid hood punctures **DO NOT SLAM HOOD THE FIRST TIME AFTER INSTALLING AIR CLEANER ASSEMBLY.**

Reconnect all vacuum lines to air cleaner.

**Cold Starting:** Press the accelerator pedal to the floor, then let up. Start the engine and allow to run for ten seconds before engaging the transmission. If the engine stalls repeat the procedure. Do not press the accelerator pedal before engaging the transmission, or engine stalling may result.

**Hot Starting:** Slowly press the accelerator pedal 1/3 to 1/2 way to the floor. Hold throttle until engine starts and stabilizes.

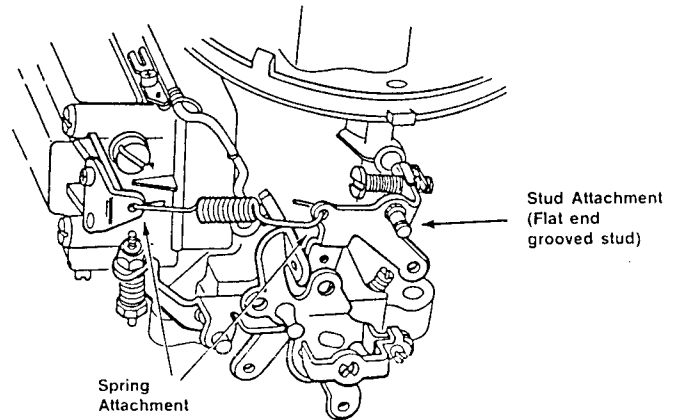
**GENERAL:**

In addition to your Holley carburetor, the correct engine timing, the spark plug gap and heat range, the condenser and its wiring, the valve lash, the condition of the PCV valve and the correct operation of exhaust heat valves affect the efficiency and performance of your vehicle's engine.

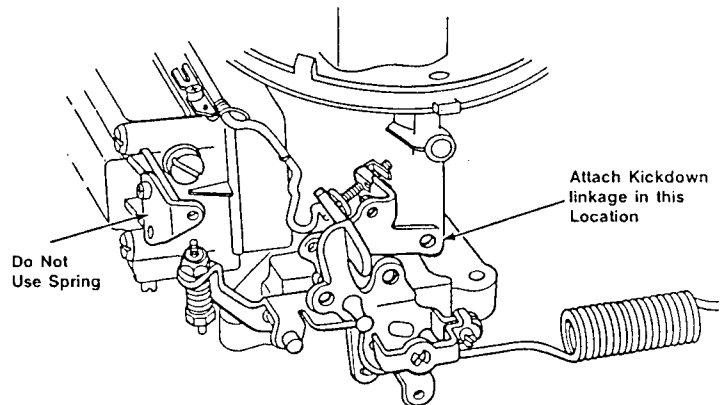
**NOTICE:**

This carburetor is designed to fit both 3 speed automatic and automatic overdrive transmission Ford vehicles. The proper kickdown stud and spring placement is critical for each type of transmission to function properly.

For conventional 3 speed automatic overdrive transmissions, assemble the kickdown hardware:



For automatic overdrive transmissions (AOD), assemble the kickdown hardware:



Follow the procedure in the general instructions for adjustment.

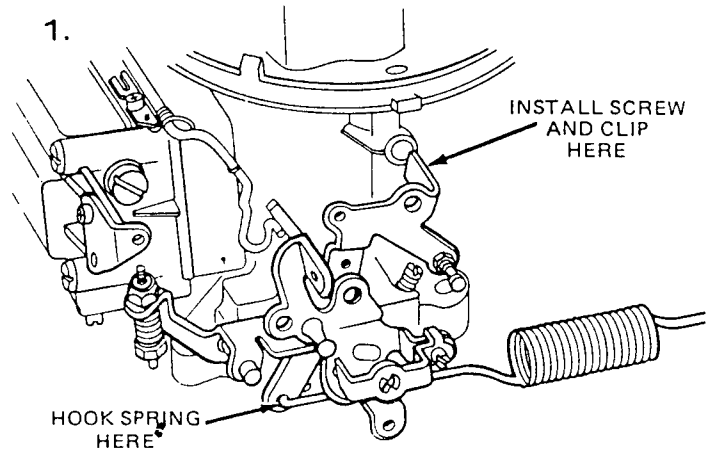
# INSTALLATION NOTES AND ADJUSTMENTS FOR FORD AUTOMATIC OVERDRIVE TRANSMISSIONS (AOT)

After carburetor installation, hook up the original overdrive return spring as shown in Figure 1.

Install the transmission kickdown screw and clip as shown in Figure 1 and Figure 3.

**WARNING:** At this time, with engine off, and fuel line disconnected, check throttle operation. Be certain there is no manner of interference when the throttle lever is operated between idle and full wide open throttle positions. Any binding or interference could cause throttle to stick open during vehicle operation, resulting in an accident due to uncontrolled engine speed.

Adjust throttle valve pressure to manufacturing specifications using the following procedure.



## THROTTLE VALVE PRESSURE ADJUSTMENT

**WARNING:** After carburetor installation and before driving vehicle check transmission Throttle Valve Pressure or transmission damage may result.

1. Remove 1/8" pipe plug as shown and connect a 0-100 psi pressure gauge (with a long flexible hose) to the throttle valve pressure tap located on the right side of the transmission. See Figure 2.

2. With the fast idle cam off and the throttle lever returned to the curb idle position, set the parking brake and start engine. Perform the following adjustments with the engine at idle and the transmission in neutral.

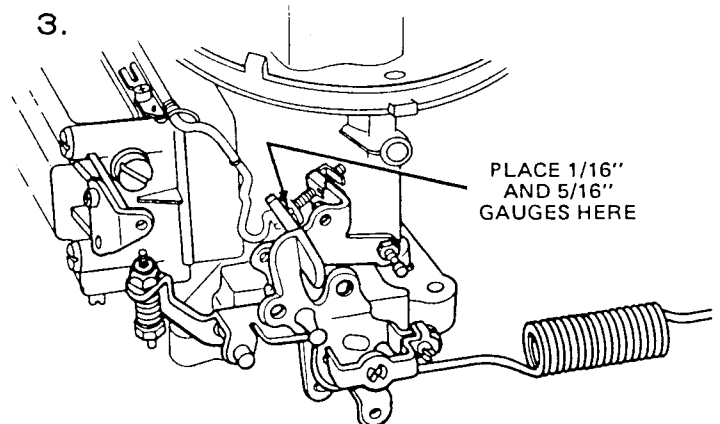
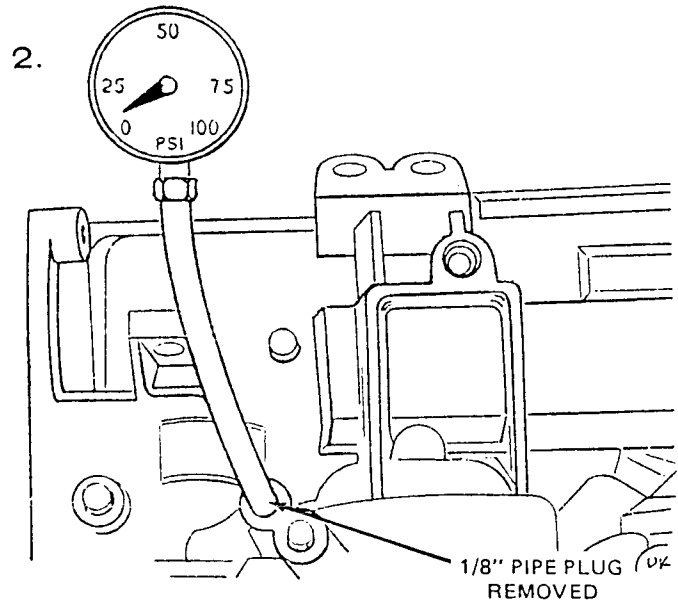
3. Place a 1/16" thick gauge between the adjustment screw on the throttle lever and the throttle lever tang. See Figure 3.

With the transmission in neutral, the pressure reading should not exceed 5 psi. If pressure is more than this limit, turn the adjustment screw on throttle lever in 1/2 turn adjustments until pressure readings are 5 psi (.35kg/cm<sup>3</sup>) or less.

4. If the pressure reading cannot be lowered to 5 psi (insufficient adjusting capacity) the control rod adjustment should be backed off at the lower end (near the transmission). This will then allow further adjustment at the carburetor end of rod. Lower pressure reading to 5 psi or less before continuing to next step.

5. Remove the 1/16" thick gauge and replace it with a 5/16" thick gauge. The pressure reading should now adjust from 22 to 28 psi with the transmission in neutral.

6. If the procedures above are found ineffective, consult the powertrain section of the **Ford Car Shop Manual**. Refer to section 17 under "Throttle Valve (TV) Control Linkage System", "Linkage Adjustment at Carburetor" and "Linkage at Transmission".



# NOTICE

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For conventional 3 speed automatic transmissions, assemble the kickdown hardware according to Figure 1.

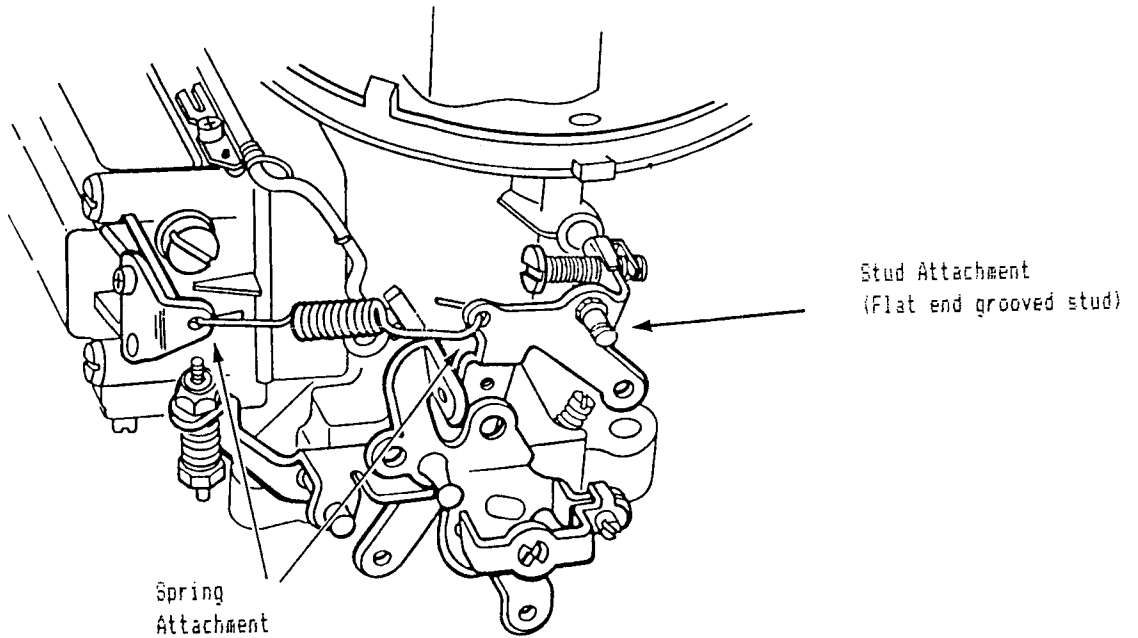


Figure 1

For automatic overdrive transmissions (AOD), assemble the kickdown hardware according to Figure 2.

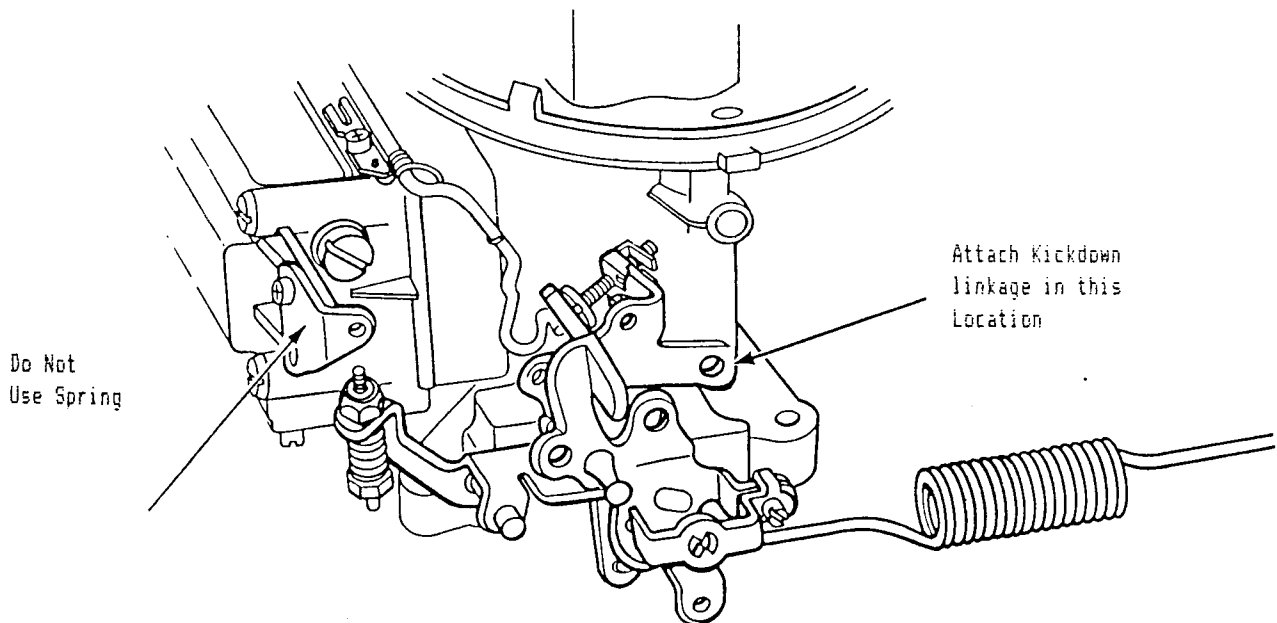


Figure 2

Follow the procedure in the general instruction guide for adjustment.