

## IDLE SPEED AND MIXTURE ADJUSTMENTS

### Idle Speed Adjustment

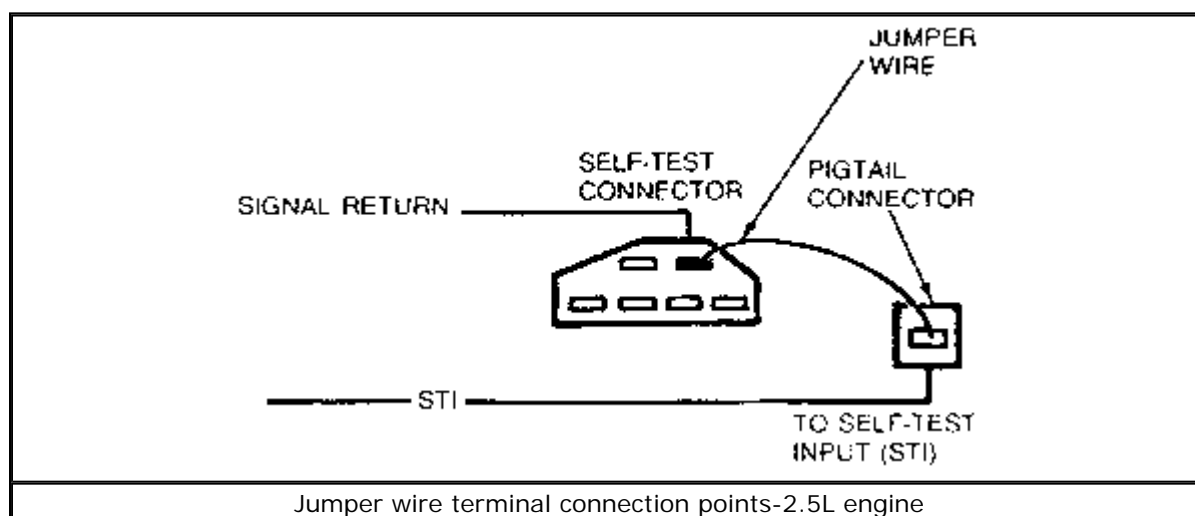
The idle speed on 1991-95 vehicles is preset at the factory, and is not adjustable.

#### 2.5L ENGINE

##### 1986-90 Vehicles

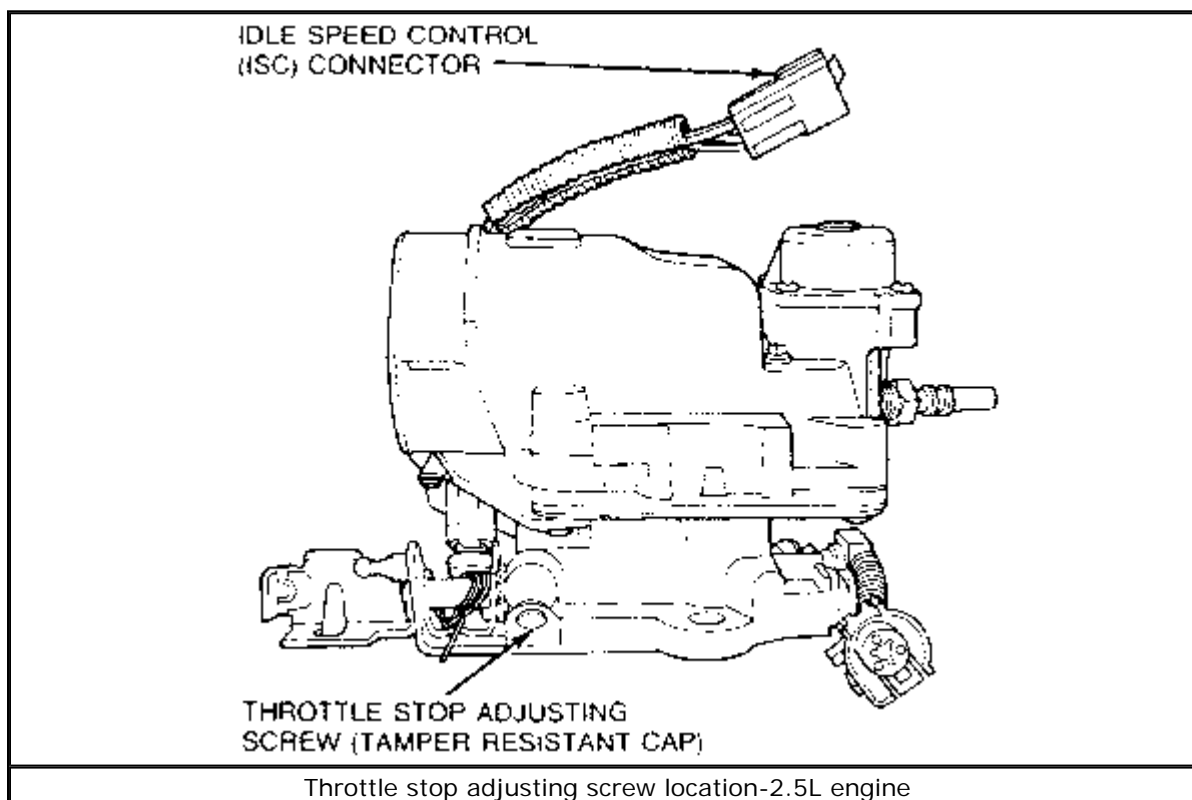
The curb idle and fast idle speeds are controlled by the EEC-IV computer and the Idle Speed Control (ISC) device. If the control system is operating correctly, the speeds are fixed and should not be changed.

1. Apply the parking brake and block the drive wheels, then place the vehicle in P (AT) or N (MT).
2. Start the engine and let it run until it reaches normal operating temperature, then turn the engine OFF.
3. Disconnect the negative battery cable for at least 5 minutes, then reconnect it.
4. Start the engine and let it run at idle speed for 2 minutes. The idle rpm should now return to the specified idle speed. The idle specifications can be found on the calibration sticker located under the hood.
5. Lightly step on and off the accelerator. The engine rpm should return to the specified idle speed. If the engine does not idle properly, proceed to Step 6.
6. Shut the engine OFF, then remove the air cleaner. Locate the self-test connector and self-test input connector in the engine compartment.
7. Connect a jumper wire between the self-test input connector and the signal return pin, the top right terminal on the self-test connector.



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8. Place the ignition key in the RUN position, but do not start the engine. The Idle Speed Control (ISC) plunger will retract, so wait approximately 10-15 seconds until the plunger is fully retracted.
9. Turn the ignition key to the OFF position. Remove the jumper wire, then unplug the ISC motor from the wiring harness.
10. Start the engine and check the idle speed. On vehicles equipped with automatic transaxles, the idle should be 50 rpm less than that specified on the calibrations sticker. On vehicles equipped with manual transaxles, the idle should be 100 rpm less than that on the calibration sticker. If not, proceed to Step 11.
11. Remove the throttle body from the vehicle. For details regarding this procedure, please refer to *Section 5* of this manual.
12. Using a small punch, or equivalent, punch through and remove the aluminum plug which covers the throttle stop adjusting screw.



[Click to enlarge](#)

13. Remove and replace the throttle stop screw, then install the throttle body assembly onto the vehicle.
14. Start the engine and allow the idle to stabilize. Set the idle rpm to that specified in Step 10.
15. Turn the engine OFF. Reconnect the ISC motor wire harness, remove all test equipment, then reinstall the air cleaner assembly.

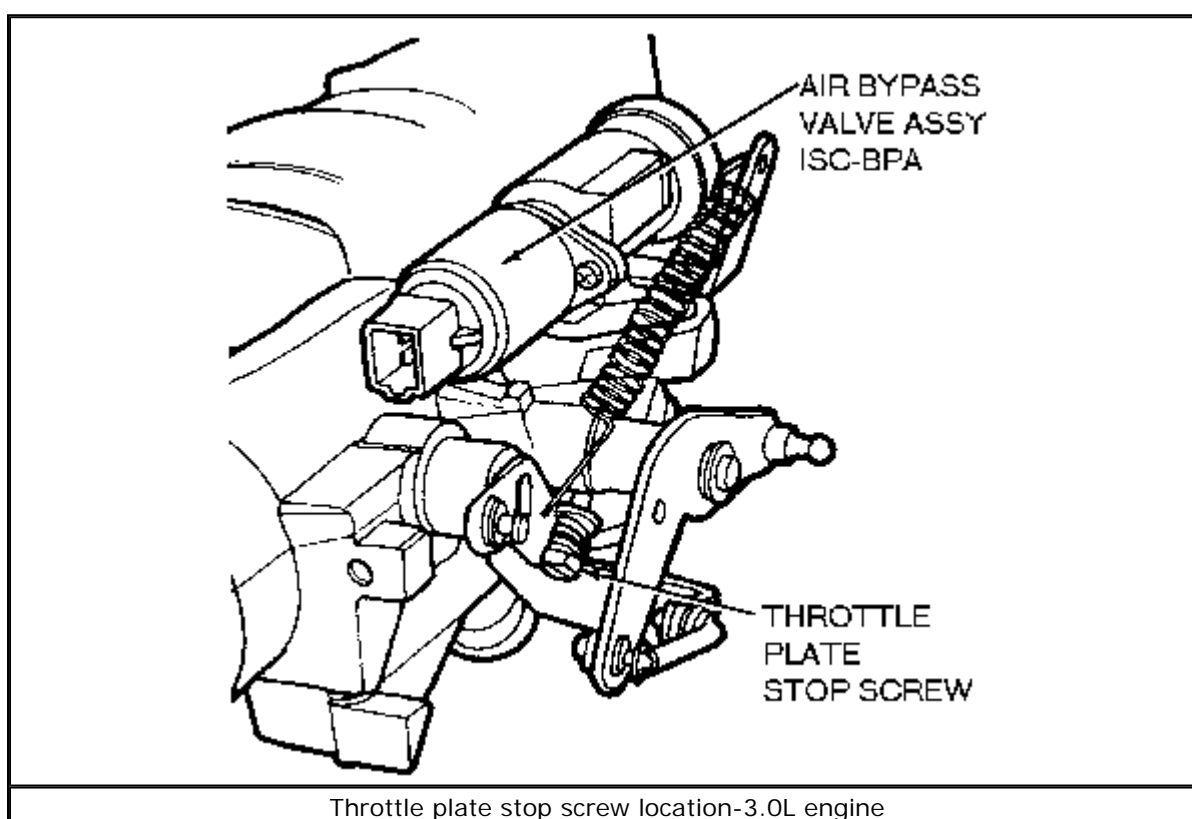
### 3.0L ENGINE-EXCEPT SHO

#### 1986-90 Vehicles

The curb idle speed rpm is controlled by the EEC-IV computer (ECM) and the Idle Speed Control (ISC) air bypass valve assembly. The throttle stop screw is factory set and does not directly control the idle speed.

Adjustment of this setting should be performed only as part of a full EEC-IV diagnosis of irregular idle conditions or idle speeds. Failure to accurately set the throttle plate stop position as described in the following procedure could result in false idle speed control.

1. Apply the parking brake, turn the A/C control selector OFF and block the wheels.
2. Connect a tachometer and an inductive timing light to the engine. Start the engine and allow it to reach normal operating temperatures.
3. Unplug the Spark Output (SPOUT) line at the distributor, then check and/or adjust the ignition timing to the specification listed on the underhood emission calibration decal.
4. Shut the engine OFF and remove the PCV hose from the PCV valve. Install a 0.20 in. (5mm) diameter orifice, tool T86P-9600-A or equivalent.
5. Disengage the electrical connector from the idle speed control/air bypass valve solenoid.



Throttle plate stop screw location-3.0L engine

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6. Start the engine and run it at 2,000 rpm for 30 seconds.
7. If equipped with an automatic transaxle, place the selector in D. If equipped with a manual transaxle, place the selector in Neutral.
8. Check and/or adjust (if necessary) the idle speed to 740-780 rpm by turning the throttle plate stop screw.
9. After adjusting the idle speed, stop the engine, then disconnect the battery for at least 5 minutes.
10. Start the engine and confirm that the idle speed is now adjusted to specifications; if not, readjust as necessary.
11. Turn the engine OFF and remove all test equipment. Reconnect the PCV entry line,

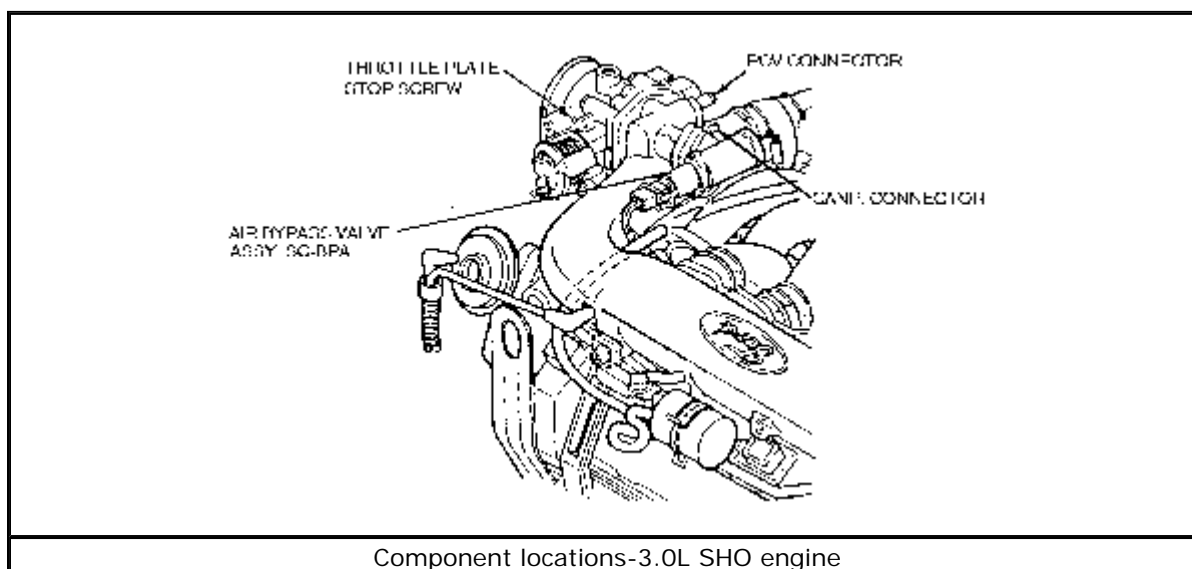
the SPOUT line and the idle speed control/air bypass solenoid.

12. Make sure the throttle plate is not stuck in the bore and that the linkage is not preventing the throttle from closing.

### 3.0L SHO ENGINE

#### 1989-90 Vehicles

1. Apply the parking brake, turn the A/C control selector OFF, then block the wheels.
2. Connect a tachometer and an inductive timing light to the engine. Start the engine and allow it to reach normal operating temperatures.
3. Unplug the Spark Output (SPOUT) line at the distributor, then check and/or adjust the ignition timing to the specification listed on the underhood emission calibration decal.
4. Stop the engine and disconnect the PCV hose at the intake manifold. Plug the PCV hose. Remove the Canister Purge Solenoid (CANP) hose from the intake manifold, then connect tool No. T89P-9600-AH or equivalent, between the PCV and CANP ports.



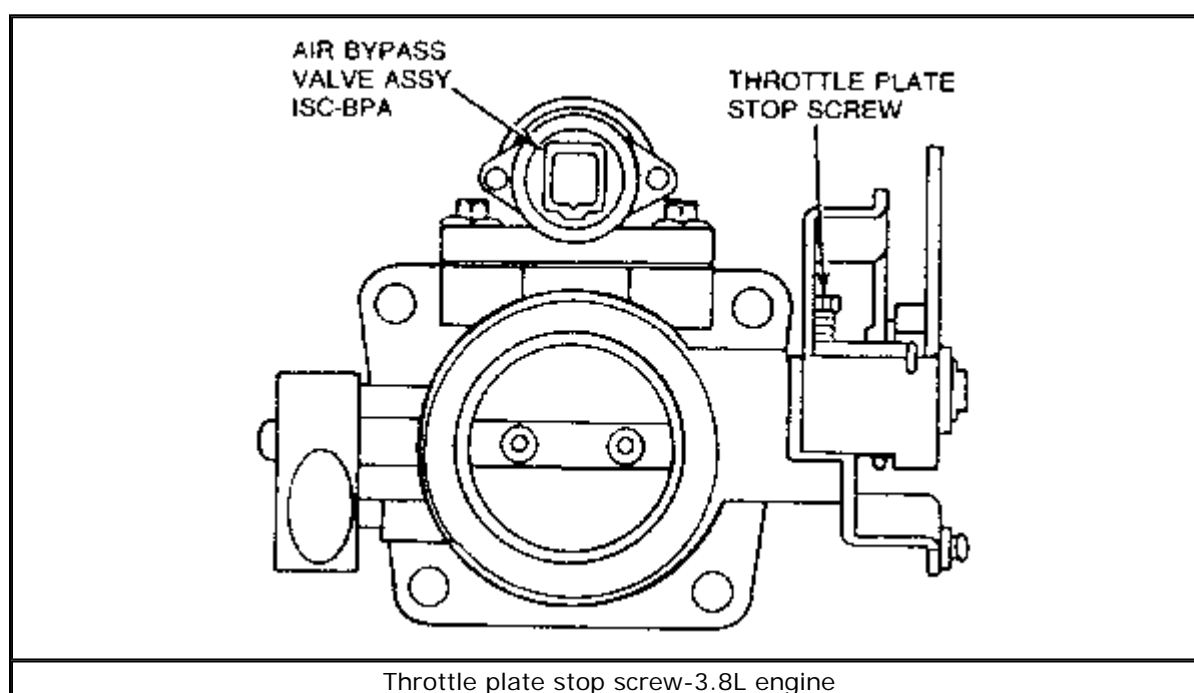
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5. Disconnect the idle speed control/air bypass solenoid.
6. Start the engine and let it idle. Place the transaxle selector lever in N.
7. Check and/or adjust the idle speed to 770-830 rpm by turning the throttle plate stop screw.
8. Turn the engine OFF, then repeat Steps 6 and 7.
9. Stop the engine and remove all test equipment. Remove tool T89P-9600-AH or equivalent, then unplug the PCV hose. Connect the PCV and CANP hoses. Reconnect the idle speed control/air bypass solenoid.
10. Make sure the throttle is not stuck in the bore and the linkage is not preventing the throttle from closing.

### 3.8L ENGINE

#### 1988 Vehicles

1. Apply the parking brake, block the drive wheels and place the vehicle in P (AT) or N (MT).
2. Start the engine and let it run until it reaches normal operating temperature, then turn the engine OFF.
3. Connect an inductive tachometer, then start the engine and run it at 2,500 rpm for 30 seconds.
4. Allow the engine idle to stabilize, then place the automatic transaxle in P or the manual transaxle in neutral.
5. Adjust the engine idle rpm to the specification shown on the vehicle emission calibration label by turning the throttle stop screw.
6. After the idle speed is within specification, repeat Steps 3-6 to ensure that the adjustment is correct.
7. Turn the engine OFF, then disconnect the test equipment and unblock the wheels.



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### 1989-90 Vehicles

1. Apply the parking brake, block the drive wheels, and place the vehicle in P.
2. Start the engine and let it run until it reaches normal operating temperature, then turn the engine OFF.
3. Back the throttle plate stop screw clear off the throttle lever pad.
4. Place a 0.010 in. (0.25mm) feeler gauge between the throttle plate stop screw and the throttle lever pad. Turn the screw in until contact is made, then turn it and additional  $1\frac{1}{2}$  turns. Remove the feeler gauge.
5. Start the engine and let the idle stabilize for 2 minutes. Lightly depress and release the accelerator, then let the engine idle.

### Idle Mixture Adjustment

Idle mixture is controlled by the electronic control unit. No adjustment is possible.

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