1975-79 TUNE-UP PROCEDURES
Ford Motor Co. V6

ENGINE IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER

Engine can be identified by the fifth character of the Vehicle Identification Number (VIN), located on a plate attached to the left corner of the instrument panel, and visible through the windshield.

VIN CODES

Application	Code
2800 cc (170")	Z

TUNE-UP NOTES

NOTE: Due to running changes in production and emission standards, manufacturer recommends that specifications shown on engine compartment Emission Control Tune-Up Decal be used in all instances.

NOTE: The EPA High Altitude emission standards apply to vehicles sold in certain areas outside of California which have an elevation above 4000 feet.

NOTE: When connecting a tachometer to Solid State Ignition (SSI) or Dura Spark ignition coil, install the alligator clip on tachometer into the "DEC" (TACH) cavity.

NOTE: On vehicles equipped with catalytic converters, do not allow or create a condition of engine misfire in more than one cylinder for more than 30 seconds. Damage to converter may result due to loading converter with unburned air/fuel mixture.

ENGINE COMPRESSION

Test compression with all spark plugs removed and engine at normal operating temperature. Crank engine through at least 5 compression strokes before recording pressure.

ENGINE COMPRESSION

Application	Specification
Compression Ratio	8.7:1
Compression Pressure	[1]
Recommended Fuel	Unleaded (87 AKI Minimum)
Maximum Variation Between Cylinders	25%.

[1] - Compression pressure not available from manufacturer.

VALVE CLEARANCE

VALVE CLEARANCE SPECIFICATIONS

Application	Intake	Exhaust
All Models	.014"	.016"

VALVE ARRANGEMENT

I-E-E-I-E-I (Left Bank, Front-to-Rear).
I-E-I-E-E-I (Right Bank, Front-to-Rear).

SPARK PLUGS

SPARK PLUG TYPE

Application	Autolite No.
1975-76	
All Models	AGR-42
1977	
All Models	AWRF-42
1978-79	
All Models	AWSF-42

SPARK PLUG INSTALLATION

Application	Gap	Torque
All Models	.034"	10-15 ft. lbs.

[1] - On 1978 Mustang II, tighten spark plugs to 25-30 ft. lbs.

HIGH TENSION WIRE RESISTANCE

1) Loosen wires from spark plugs by twisting spark plug boot carefully to loosen its seal on spark plug. Remove wire by pulling on plug boot. Remove distributor cap from distributor, leaving wires connected to cap.

NOTE: DO NOT remove wires from distributor cap unless replacement is necessary.

2) Using an ohmmeter, check resistance of each wire by connecting one lead to spark plug terminal and other lead to distributor cap insert. If any wire has over 5000 ohms resistance per inch, remove wire from cap and remeasure. If resistance is still over 5000 ohms per inch, replace wire.

NOTE: Whenever a high tension wire is disconnected, interior of spark plug terminal boot must be coated with dielectric silicone grease before reconnection.

DISTRIBUTOR

All models are equipped with Solid State Ignition (SSI) or Dura-Spark Ignition systems. No adjustments are necessary.

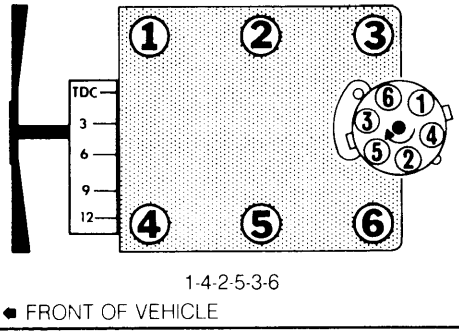

Fig. 1: Firing Order & Timing Marks

IGNITION TIMING

NOTE: If the Dura-Spark two-piece distributor cap must be removed, first remove top portion, then rotor, and then bottom portion. If any spark plug wire is disconnected with this system, the connection must first be greased with silicone grease before it is reattached.

1975-77 Models - Check ignition timing with engine at normal operating temperature, distributor vacuum hose(s) disconnected and plugged and engine running at 600 RPM.

1978-79 Models - 1) Clean front damper surface and make a White mark on proper degree line of damper and pointer. Turn A/C off and de-energize throttle solenoid positioner (if equipped). Disconnect and plug vacuum lines from distributor.
2) On models equipped with dual mode timing ignition module, disconnect the 3-pin switch assembly from ignition module.
3) On all models, connect timing light to No. 1 spark plug and a tachometer to engine.

NOTE: On Dura-Spark ignition systems, use only a clamp-on, inductive type timing light and a tachometer compatible with this system.

1975-79 TUNE-UP PROCEDURES
Ford Motor Co. V6 (Cont.)

4) With engine at normal operating temperature, adjust ignition timing to specification. If initial timing is within 2 degrees of specification, do not adjust. Reconnect 3-pin connector.
5) If more than 2 degrees off, loosen distributor hold-down bolt. Adjust ignition timing to specifications by rotating distributor to align marks on damper and pointer. Tighten hold down bolt and recheck timing.
6) For vehicles with dual mode timing ignition module, reconnect the 3-pin switch assembly connector to module and check its function.

IGNITION TIMING SPECIFICATIONS (BTDC@RPM) [1]

Application	Man. Trans.	Auto. Trans.
1978		
Calif.	10@600	6@600
Federal	10@600	12@600
1979 [2]		
Calif.		[3] 6@650
Federal		9@650

[1] - On 1975-77 models, see Emission Control Tune-Up Decal under hood for specifications.
[2] - Automatic transmission in Neutral.
[3] - Ignition timing is 6°BTDC at 600 RPM in Neutral for Calibration No. 9-4N-RO.

HOT (SLOW) IDLE RPM

VEHICLE PREPARATION

NOTE: Vehicle preparation is not required on 1975-1977 models.

1978-79 Models - 1) Apply parking brake and block wheels. Turn off all accessories. Start engine, bring to normal operating temperature, and turn off engine. All vacuum sensing hoses must remain installed to air cleaner assembly when making carburetor adjustments. Reinstall air cleaner before measuring engine speeds.
2) Disconnect fuel evaporative purge valve signal vacuum hose at the first possible point where vacuum hose can be disconnected. DO NOT disconnect at purge valve or damage to valve may occur. Plug hose and vacuum port.
3) On 1979 models, check throttle and choke linkages for free movement and remove any interference found. Connect tachometer. If equipped with Dura-Spark ignition system (Blue coil tower), use Rotunda tachometer (20362).

NOTE: Some engines may fluctuate in idle speeds, causing variations in engine speed measurement. If this occurs, use average speed.

4) After service, reconnect fuel evaporative purge valve signal vacuum hose. Stop engine and remove all test equipment. Reconnect automatic parking brake release (if equipped).

CURB IDLE SPEED

1975-76 Models - 1) Remove air cleaner and disconnect and plug vacuum hoses. Check ignition timing and adjust if necessary. Reconnect distributor vacuum advance hose.
2) Disconnect and plug EGR valve vacuum hose. Remove spark delay valve (if equipped) and route primary vacuum hose directly to distributor vacuum advance. Leave distributor retard hose connected.
3) With A/C off, check and adjust fast idle RPM. Place transmission in Neutral. Collapse plunger in throttle stop solenoid. Adjust solenoid de-energized idle RPM using screw located on throttle body.
4) Open throttle and allow plunger to extend. Place automatic transmission in Drive. Adjust solenoid plunger screw to obtain solenoid energized idle RPM. See Emission Control Tune-Up Decal for specifiations.

1977 California Models (2700 VV Carburetor) - 1) With engine at normal operating temperature, parking brake set and drive wheels blocked, connect tachometer to engine. Turn off all accessories.
2) If equipped, remove TVS vacuum hoses at air cleaner and install a by-pass in hoses removed. On all models, remove air cleaner assembly and plug vacuum lines removed from air cleaner.
3) On models equipped with throttle stop solenoid or solenoid/dashpot assembly, run engine at 2500 RPM for 15 seconds. Allow engine to return to idle. Place automatic transmission in Drive.
4) Check curb idle RPM and adjust throttle solenoid if not to specifications. Next, collapse solenoid plunger and check solenoid de-energized RPM. If necessary, adjust to specification by means of throttle adjustment screw. After adjustment, check accelerator pump lever lash adjustment.
5) On all other models, run engine at 2500 RPM for 15 seconds. Allow engine to return to idle. Place automatic transmission in Drive. Check curb idle RPM and adjust to specifications. After adjustment, check dashpot clearance and accelerator pump lever lash adjustment.

1977 Federal Models (2150 Carburetor) - 1) With engine at normal operating temperature, parking brake set and drive wheels blocked, connect tachometer to engine. Remove air cleaner and plug vacuum lines to air cleaner. Turn off all accessories.
2) On models equipped with throttle stop solenoid or solenoid/dashpot assembly, collapse solenoid plunger by forcing throttle lever against plunger. Check solenoid de-energized RPM and adjust to specification by means of throttle adjustment screw.
3) On all vehicles, run engine at 2500 RPM for 15 seconds. Allow engine to return to idle. Place automatic transmission (if equipped) in Drive. Check curb idle RPM and adjust to specifications.

NOTE: If specified curb idle RPM cannot be obtained on vehicles with dashpot, ensure clearance exists between dashpot plunger and throttle lever.

4) If curb idle speed adjustment is required on vehicles with dashpot, check dashpot clearance and adjust if not within specifications. On all vehicles, install air cleaner. Recheck curb idle speed and adjust if necessary. Final curb idle speed reading must be taken with air cleaner installed.

1978 Models - 1) On models without idle speed solenoid, adjust throttle stop screw until specified curb idle RPM is obtained. Make sure screw is against stop. Dashpot (if equipped) clearance must be checked and adjusted. Collapse dashpot plunger and check clerance between plunger and pad on throttle lever.
2) On models with idle speed solenoid but without A/C, adjust hex head screw at rear of solenoid until specified curb idle RPM is obtained. With engine running, force throttle lever pad against solenoid plunger. Now adjust throttle stop screw until specified solenoid de-energized RPM is obtained.
3) On models with A/C, place A/C control lever in the "ON" position. Open throttle slightly to allow solenoid plunger to extend fully. Release throttle. Disconnect A/C compressor clutch lead.
4) To adjust A/C on RPM, turn hex head screw at rear of solenoid until correct RPM is obtained. To adjust A/C off RPM, move A/C control lever to the "OFF" position. Reconnect A/C compressor clutch lead. Adjust throttle stop screw until specified RPM is obtained.

1975-79 TUNE-UP PROCEDURES
Ford Motor Co. V6 (Cont.)

1975-78 IDLE SPEED (RPM) SPECIFICATIONS [1]

Application	Curb Idle	Solenoid De-Energized
1977		
California		
Man. Trans.	800	600
Auto. Trans.	750	600
Federal		
Man. Trans.	850	.....
Auto. Trans.	750	700
1978		
California		
Man. Trans.	750	650
Auto. Trans.	850	700
Federal		
Bobcat & Pinto	.....	650
Mustang		
Man. Trans.	850	700
Auto. Trans.	750	650

[1] - On 1975-76 models, see Emission Control Tune-Up Decal under hood for specifications.

1979 Models - 1) Place A/C selector lever in "OFF" position and bring engine to normal operating temperature. Fully open choke (2150 carburetor) or fully seat choke enrichment rod (2700 VV carburetor). Place shift lever in Neutral (manual transmission) or Drive (automatic transmission) when checking idle speeds.

NOTE: The method of adjusting each engine depends upon the speed controlling devices used. Examine carburetor, determine devices and check for proper operations. Then adjust speed settings.

2) On carburetors with dashpots, dashpot clearance must be adjusted each time curb idle speed is adjusted. Before each speed check, run engine at 2500 RPM for 15 seconds in either Neutral (manual transmission) or Park (automatic transmission). Allow engine speed to return to curb idle. Measure speed within 15 seconds, but less than 2 minutes.

3) Repeat speed checks 3 times until a stable idle RPM is obtained. If the average RPM is not within 50 RPM of specifications, adjust engine speed as follows:

4) On models without solenoid devices, turn throttle stop adjustment screw until specified RPM is obtained. To check dashpot clearance, collapse dashpot plunger and measure between plunger and throttle lever pad. Adjust if not to specification.

5) On models with anti-diesel Throttle Solenoid Positioner (TSP), turn hex head on rear of solenoid until specified curb idle is obtained. For TSP off adjustment, run engine with shift lever in Neutral (manual transmission) or Park (automatic transmission). Collapse TSP plunger by forcing throttle lever pad against plunger. Then turn throttle stop adjustment screw until specified TSP off speed is obtained.

6) On models with A/C Throttle Solenoid Positioner (TSP), adjust A/C on speed by moving climate control selector to A/C "ON" position and placing blower speed to "HIGH" position. Open throttle to allow TSP plunger to extend fully. Disconnect A/C compressor clutch lead at compressor.

7) Check A/C on RPM and adjust TSP (if necessary) by turning hex head on rear of solenoid until specified A/C on speed is obtained. Then, move climate control selector to "OFF" position and reconnect A/C compressor clutch wire. To adjust A/C off speed, turn throttle stop adjustment screw until specified RPM is obtained.

NOTE: For 1979 vehicles equipped with 2700 VV carburetors, check and adjust (if necessary) accelerator pump lever lash each time the A/C off or curb idle RPM is adjusted. To do so, push down lightly on top of nylon nut located on accelerator pump to take up linkage clearances. Check for .010" lever lash between top of pump stem and pump lever. Turn nylon nut to adjust.

1979 CURB IDLE SPEED SPECIFICATIONS

Application	A/C Off RPM	A/C On RPM
2800cc (170")		
California	650	750
Federal	700	.....

1979 TSP OFF IDLE SPEED SPECIFICATIONS

Application	TSP Off RPM ±50 RPM
2800cc (170")	
California	600

IDLE MIXTURE

NOTE: If adjustments to the air/fuel mixture are made that require removing the idle limiter caps, it is imperative that the Blue service limiter caps be installed. Idle mixture should be adjusted only during carburetor repair or when necessary as a result of government inspection laws.

EXHAUST GAS ANALYZER PROCEDURE

1975 Federal Models - 1) With engine at normal operating temperature, ensure timing and idle speed are set to specification and that idle limiter caps are in full rich position.

2) Place heater control lever in maximum heat position. On vehicles equipped with Dual Spark Delay Valve (DSDV), disconnect and plug DSDV hose at manifold. Disconnect air cleaner-to-vapor canister hose and leave air cleaner installed. Disconnect air injection by-pass valve air hose at check valve.

3) Connect exhaust gas analyzer to vehicle. Place manual transmission in Neutral (automatic transmission in Drive). Increase engine RPM and allow to return to idle position. Allow 10 seconds to pass before reading meter, but complete readings within 60 seconds.

4) If CO level is not within specifications on Emission Control Tune-Up Decal, remove air cleaner and idle mixture screw limiter caps. Adjust mixture screws as required to obtain correct CO level. Readjust idle speed if necessary (with air injection connected). After service, install Blue service limiter caps.

OPTIMUM IDLE METHOD

NOTE: This procedure is to be used only when propane enrichment equipment is not available.

1977 California Models - 1) Connect tachometer and bring engine to normal operating temperature. Disconnect vapor canister hose from air cleaner. Remove idle mixture screw limiter caps using care not to bend screws. Run engine at 2500 RPM for 15 seconds.

2) If engine is equipped with air injection, proceed as follows: if equipped with one or 2 vacuum lines at side of dump valve, disconnect and plug lines. For valves with one line at top, check line to see if it is connected to intake manifold. If not, remove and plug line at dump valve and connect a slave line from dump valve vacuum fitting to an intake manifold vacuum fitting.

3) Place automatic transmission in Drive. Adjust idle speed to specified curb idle RPM, plus the specified optimum idle speed range RPM. See Emission Control Tune-Up Decal under hood.

4) Adjust idle mixture screw to obtain maximum idle RPM, leaving mixture screw in the leanest position that will maintain maximum idle RPM. On 2700 VV carburetor, lean is counterclockwise (clockwise for 2150 carburetor).

5) Now turn mixture screw in the lean direction until specified curb idle RPM is obtained. Install a new limiter cap and recheck idle speed to ensure that cap installation did not change setting. Remove tachometer and reconnect vapor canister hose.

1978 California Models - 1) Air cleaner must be installed and all hoses attached. Apply parking brake and block wheels. Warm

1975-79 TUNE-UP PROCEDURES
Ford Motor Co. V6 (Cont.)

engine to normal operating temperature. Turn off engine and connect tachometer.
2) Trace canister purge valve vacuum hose from valve (on canister) to first connection. Disconnect hose at this point and plug all openings. Do not disconnect hose at purge valve. Disconnect canister purge hose from air cleaner and cap air cleaner opening. Disconnect and plug PVC system hose from air cleaner.
3) If engine is equipped with air injection, proceed as follows: if equipped with one or 2 vacuum lines at side of dump valve, disconnect and plug lines. For valves with one line at top, check line to see if it is connected to intake manifold. If not, remove and plug line at dump valve and connect a slave line from dump valve vacuum fitting to an intake manifold vacuum fitting.

NOTE: Some engines may experience normal RPM variances at idle, causing changes in engine speed measurements. If this occurs, use average speed.

4) Remove idle mixture screw limiter caps. Check curb idle speed and adjust if necessary. With engine idling, place transmission in specified position for propane enrichment check. See Emission Control Tune-Up Decal under hood. Adjust engine RPM to alternate idle speed change RPM as shown on decal. Note new idle speed on tachometer.

NOTE: If specification calls for "0", the above idle speed adjustment is not necessary. Also note that on automatic transmission equipped vehicles, transmission position may differ from that used for idle fuel mixture check. Be sure to use correct position.

5) Adjust idle mixture screw lean or rich and adjust idle speed screw until best idle is obtained at new idle speed RPM. Turn idle mixture screw clockwise (lean) until engine speed drops by specified alternate idle speed change RPM. Do not perform if specified change is "0".
6) Turn off engine. Install new limiter caps with tangs at maximum rich stop. Avoid changing mixture screw settings. If settings are changed, repeat procedure starting at step **4)**. Reconnect all hoses to original fittings. Remove test equipment.

PROPANE ENRICHMENT PROCEDURE

NOTE: See Emission Control Tune-Up Decal under hood for Propane Enrichment specifications. Unless otherwise noted, the procedure for adjusting idle mixture on 2150 and 2700 VV carburetors is basically the same. For 2700 VV carburetors, substitute the words "venturi air by-pass screw" for "idle mixture screw(s)" in the procedure.

1975 California Models & 1976-77 Models - 1) With engine at normal operating temperature and idle speed correct, disconnect air cleaner-to-vapor canister hose. If applicable, disconnect PCV-to-air cleaner hose and plug air cleaner connection.
2) On models with 2700 VV carburetor and air injection, proceed as follows: if equipped with one or 2 vacuum lines at side of dump valve, disconnect and plug lines. For valves with one line at top, check line to see if it is connected to intake manifold. If not, remove and plug line at dump valve and connect a slave line from dump valve vacuum fitting to an intake manifold vacuum fitting.
3) On all models, plug propane enrichment set (Rotunda T75L-9600-A) into air cleaner canister purge nipple. Place manual transmission in Neutral or automatic transmission in Drive.
4) With engine at idle speed, richen mixture (using bottled propane) to obtain maximum RPM. Continue to richen mixture until RPM drops. If RPM gain is within specifications, remove propane enrichment set and reconnect all hoses. Recheck idle, deceleration valve, and mixture settings.
5) If RPM gain was higher than specified, richen mixture screw (without injecting propane) until RPM increase is equal to the excess increase. For example, if increase was 80 RPM and desired increase is 50 RPM, adjust mixture screws rich for a 30 RPM increase. Readjust idle speed after each mixture screw adjustment.
6) If RPM gain was lower than specified, lean mixture screw (without injecting propane) until RPM decrease is equal to the RPM lag. For example, if increase was zero RPM and desired increase is 20 RPM, adjust mixture screw lean for a 20 RPM loss. Readjust idle speed after each mixture screw adjustment.

1978 Models - 1) Block wheels and apply parking brake. Connect tachometer to engine and bring engine to normal operating temperature. Ensure tachometer is compatible with Dura-Spark ignition system.
2) Disconnect and plug canister purge hose from air cleaner or PVC line tee. Disconnect crankcase vent hose from air cleaner and cap air cleaner hole. Check curb idle speed and reset if necessary.
3) If engine is equipped with air injection, proceed as follows: if equipped with one or 2 vacuum lines at side of dump valve, disconnect and plug lines. For valves with one line at top, check line to see if it is connected to intake manifold. If not, remove and plug line at dump valve and connect a slave line from dump valve vacuum fitting to an intake manifold vacuum fitting.
4) Plug propane enrichment set (Rotunda T75L-9600-A) into air cleaner canister purge nipple. With engine idling, slowly open propane bottle valve until engine speed reaches a maximum and then begins to drop (note maximum amount of speed increase). If speed will not drop, check propane supply. If necessary, repeat procedure with new propane bottle.
5) If speed increase is within specification, reconnect vacuum and emission control lines to original fittings.
6) If increase is higher than specification, enrich mixture (without propane) by turning mixture screws clockwise in equal amounts until RPM increases as necessary. Repeat propane enrichment procedure.
7) When specification is met, remove propane enrichment set and reconnect all vacuum and emission hoses to original fittings. Set curb idle speed to specification. If curb idle speed was readjusted, check internal fuel bowl vent clearance. Turn off engine and disconnect tachometer.

1979 Models - 1) Leave all vacuum signal hoses attached to air cleaner assembly when relocating air cleaner for carburetor adjustments. Air cleaner must be installed for engine speed checks.
2) Apply parking brake and block wheels. Disconnect and plug vacuum hose for automatic brake release (if equipped). Connect tachometer to engine. Be sure tachometer is compatible with Dura-Spark ignition system.
3) Disconnect and plug fuel evaporative purge return hose at engine. Disconnect fuel evaporative purge hose at air cleaner and plug nipple.
4) Disconnect flexible fresh air tube from air cleaner duct or adapter. Insert hose from propane enrichment set (Rotunda T75L-9600-A) into duct or fresh air tube.
5) For vehicles equipped with air injection, disconnect and plug hoses of dump valves equipped with two fittings. If dump valves have one fitting, remove and plug hose at valve. Connect slave hose to dump valve and intake manifold vacuum fittings.
6) Be sure idle mixture screw(s) is(are) set to maximum rich position (counterclockwise against stop). Check curb idle speed or A/C off RPM and set to specifications. With shift lever in Neutral, run engine at 2500 RPM for 15 seconds before each mixture check.
7) With engine idling at normal operating temperature, place transmission shift lever in Neutral for manual transmission or Drive for vehicles with automatic transmissions. Gradually open propane tool valve and watch for engine speed gain on tachometer. When speed reaches maximum and begins to drop off, note amount of speed gain.

NOTE: If engine speed will not drop off, check bottle gas supply. Repeat if necessary with new bottle.

8) Compare measured speed gain to specifications. If idle mixture adjustment is necessary, adjust to reset RPM. If speed increase is within RPM gain specification, proceed to step **15)**.
9) If measured speed gain is zero RPM and minimum speed gain specification is zero RPM, proceed to step **12)**.

1975-79 TUNE-UP PROCEDURES
Ford Motor Co. V6 (Cont.)

10) If measured speed gain is more than than specification, turn mixture screw(s) counterclockwise in equal amounts and repeat steps **6)** through **8)** until measured speed rise meets reset RPM specification. After final adjustment, proceed to step **15)**.
11) If measured speed gain is less than specifications, turn mixture screw(s) clockwise in equal amounts and repeat steps **6)** through **8)** until speed rise meets reset RPM specifications. After final adjustment, proceed to step **15)**.
12) If there is zero increase in RPM and the minimum speed gain specification is zero RPM, perform the following speed drop test. While watching tachometer, adjust mixtue screw(s) clockwise by number of turns specified on decal. Note drop in engine speed.
13) If measured speed drop is equal to or drops off more than speed drop specification, return mixture to maximum rich position or mixture screw(s) to position prior to adjustment. Then proceed to step **15)**.
14) If measured speed drop is less than the specified minimum, leave mixture in adjusted position and repeat steps **6)** through **13)**.

NOTE: For 2700 VV carburetors, connect vacuum gauge (Rotunda T77L-9510-A) to vacuum tap on venturi valve cover. Check control vacuum. If not within specified limits, turn venturi valve diaphragm adjusting screw clockwise to increase or counterclockwise to decrease. Remove vacuum gauge and check curb idle speed. Reset if necessary. Then check internal vent clearance, resetting if necessary.

15) Check curb idle speed and remove all test equipment. Reconnect all components and reinstall air cleaner, if removed.

COLD (FAST) IDLE RPM

NOTE: Before making cold (fast) idle RPM adjustments, prepare vehicle as outlined under HOT (SLOW) IDLE RPM.

1975-76 Models - Ensure ignition timing is properly adjusted, engine is at normal operating temperature, transmission is in Neutral, and spark delay valve (if equipped) is removed. Set throttle to kickdown step of fast idle cam. With adjustment screw against kickdown step of cam, adjust fast idle RPM to specification.

1977 Models - 1) With engine at normal operating temperature, remove air cleaner and plug vacuum lines. Remove spark delay valve (if equipped). Route distributor vacuum advance hose directly to the advance side of the distributor.
2) Disconnect and plug fuel deceleration valve hose (if equipped) at carburetor. Remove and plug EGR vacuum line at EGR valve. Turn off all accessories.
3) With choke valve fully open, place fast idle adjustment screw on kickdown step of fast idle cam. Adjust screw until specified fast idle RPM is obtained. Reconnect all vacuum hoses, reinstall spark delay valve and fuel deceleration valve (if equipped).

1978-79 Models - 1) On models with 2700 VV carburetors, remove and plug distributor vacuum advance hose. On all other models (2150 carburetor), remove spark delay valve from system by attaching distributor vacuum advance hose directly to advance side of distributor.
2) On all models, trace EGR signal vacuum advance hose from EGR to carburetor. If an EGR/PVS valve or cold weather modulator is located in routing, disconnect EGR hose at EGR valve and plug hose. If no EGR/PVS valve or cold weather modulator is found, DO NOT detach EGR vacuum hose.
3) With engine running at normal operating temperatures, open choke plate fully (2150 carburetor) or fully seat cold enrichment rod (2700 VV carburetor). Place shift lever in Neutral (manual transmission) or Park (automatic transmission). Run engine at 2500 RPM for 15 seconds. Then place fast idle lever on 2nd highest step (2150 carburetor) or high step (2700 VV carburetor) of fast idle cam.
4) Allow engine speed to stabilize for 15 seconds to 2 minutes and measure fast idle RPM. Repeat procedure 3 times and adjust if not within 100 RPM of specification.
5) When specified speed is obtained, turn off engine and reconnect vacuum hoses previously removed. Be sure to reinstall spark delay valve if removed from system.

FAST IDLE RPM SPECIFICATIONS

Application	RPM
1975 (All Models)	1600
1976-78	
Man. Trans.	1700
Auto. Trans.	1600
1979	
California	[1] 1750
Federal	[2] 1600

[1] - Fast idle cam set on highest step.
[2] - Fast idle cam set on 2nd highest step.

AUTOMATIC CHOKE

AUTOMATIC CHOKE SETTING

Application	Setting
1975	2NR
1976	3NR
1977	[1] Index
1978-79	Index

[1] - Choke setting is 2 notches rich (2NR) on 1977 Federal models equipped with automatic transmission.

ACCELERATOR PUMP LEVER ADJUSTMENT

1977 Models With 2700 VV Carburetor - 1) Apply slight downward pressure on top of nylon nut located on accelerator pump to take-up free play. Using a feeler gauge, check clearance between accelerator pump stem and pump lever.
2) Clearance should be .010". If incorrect, turn nylon nut on accelerator pump. This adjustment must be checked and/or set if curb idle speed is adjusted.

DECELERATION VALVE ADJUSTMENT

NOTE: If vehicle is equipped with transmission interlocked deceleration system, ensure that interlock is functioning properly and then disconnect one wire from solenoid vacuum valve.

1975-76 Models - 1) Ensure engine temperature is normal and that timing and idle are correct. Remove air cleaner. Using a "T" fitting, connect a vacuum gauge between deceleration valve and carburetor.
2) With transmission in Neutral, raise engine speed to 3000 RPM for 5 seconds. Release throttle and measure the time required for vacuum to drop to zero. If time is not greater than 2 seconds, adjust valve to obtain this time. If time cannot be adjusted to specification, replace valve.

DASHPOT ADJUSTMENT

1976 Models - Energize throttle stop solenoid by turning ignition on. Open throttle until solenoid plunger extends. Move fast idle cam so that fast idle screw does not contact cam with plunger extended. Fully collapse dashpot stem and adjust clearance between collapsed stem and throttle lever pad to .094."
1977 Models - Collapse dashpot plunger and check clearance between plunger and throttle lever pad using a feeler gauge. Clearance should be .060". Adjust dashpot if clearance is incorrect.

1975-79 TUNE-UP PROCEDURES
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FUEL PUMP

Check fuel pump at idle RPM with engine at normal operating temperature and transmission in Neutral.

FUEL PUMP SPECIFICATIONS

Application	Specification
Pressure	3.0-6.0 psi
Volume (Minimum)	One pint in 25 seconds.

[1] – Pressure reading on 1975 models should be 3.5-4.5 psi.

IGNITION SYSTEM

DISTRIBUTOR

All models are equipped with Motorcraft Solid State Ignition (SSI) or Dura-Spark ignition systems.

Other Data & Specifications – Also see Motorcraft Ignition Systems in DISTRIBUTORS & IGNITION SYSTEMS section.

IGNITION COIL

IGNITION COIL SPECIFICATIONS

Application	Specification
1975-77	
Primary Resistance (At 75°F)	1.0-1.2 Ohms
Secondary Resistance (At 75°F)	7000-13,000 Ohms
Resistor Wire (At 75°F)	1.3-1.4 Ohms
Coil Output	20,000 Minimum
1978-79	
Primary Resistance (at 75°F)	
Dura-Spark I	.71-.77 Ohm
Dura-Spark II	1.13-1.23 Ohms
Secondary Resistance (at 75°F)	
Dura-Spark I	7350-8250
Dura-Spark II	7700-9300 Ohms
Ballast Resistor Resistance (at 75°F)	
Dura-Spark I	Not Used
Dura-Spark II	1.05-1.15 Ohms
Coil Output	36,000 Minimum

CARBURETION

CARBURETORS

Application	Model
1975-76	
All Models	Motorcraft 2150
1977-79	
Federal	Motorcraft 2150
California	Motorcraft 2700 VV

Other Data & Specifications – Also see Motorcraft Carburetors in FUEL SYSTEMS section.