

# 1974-79 TUNE-UP PROCEDURES

## Ford Motor Co. V6

### 1974-78 Capri, Capri II

#### ENGINE IDENTIFICATION

Engine designation is located on bottom line of vehicle identification plate which is riveted to top of right fender apron.

#### ENGINE CODES

Application	Code
All Models .....	PX

#### MODEL IDENTIFICATION

#### VEHICLE IDENTIFICATION NUMBER

Vehicle Identification Number is located on vehicle identification plate, which is riveted to top of right fender apron. Number is also stamped on driver's side windshield pillar.

#### ENGINE COMPRESSION

Check compression pressure with battery fully charged and engine at normal operating temperature. Remove all spark plugs and set carburetor throttle plates in wide open position. Crank engine at least 5 compression strokes and note highest reading cylinder. Lowest reading cylinder must be at least 75% of highest reading cylinder.

#### VALVE CLEARANCE

Check valve clearance with engine at normal operating temperature, engine idling, and using a go-no-go type feeler gauge. To adjust clearance, turn adjusting screw until correct clearance is obtained. Adjust valves following VALVE CLEARANCE ADJUSTMENT SEQUENCE table, turning camshaft by hand after adjusting each cylinder.

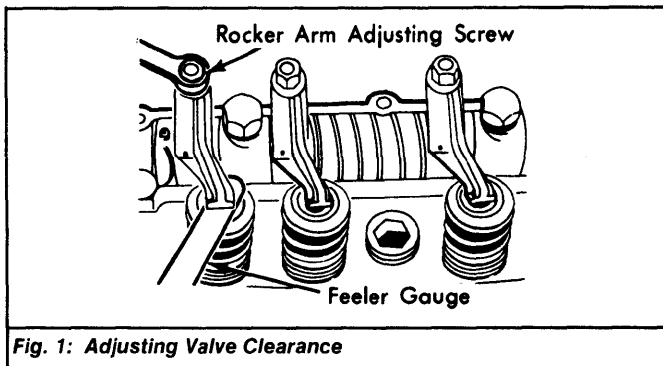


Fig. 1: Adjusting Valve Clearance

#### VALVE CLEARANCE ADJUSTMENT SEQUENCE

Valves Open In Cylinder No.	Adjust Valves In Cylinder No.
5 .....	1
3 .....	4
6 .....	2
1 .....	5
4 .....	3
2 .....	6

#### VALVE CLEARANCE SPECIFICATIONS

Application	Clearance In. (mm)
Intake .....	.014 (.36)
Exhaust .....	.016 (.41)

#### VALVE ARRANGEMENT

I-E-E-I-E-I - Left bank, front-to-rear.  
 I-E-I-E-E-I - Right bank, front-to-rear.

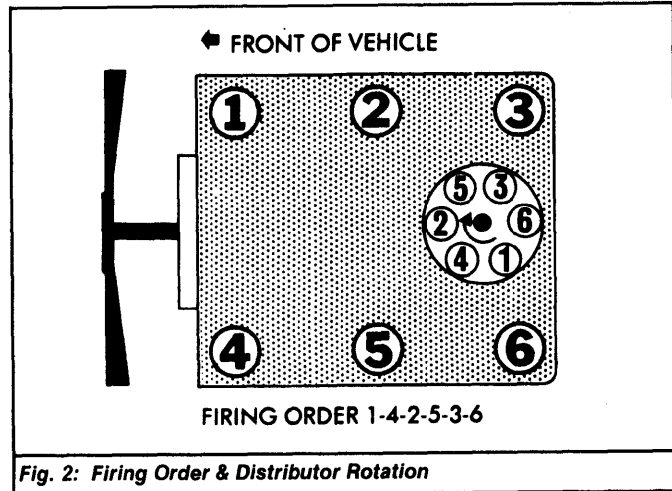


Fig. 2: Firing Order & Distributor Rotation

#### SPARK PLUGS

##### SPARK PLUG SPECIFICATIONS

Application	Specification
Gap .....	.034" (.86 mm)
Torque .....	15-20 ft. lbs. (20-27 N.m)

##### SPARK PLUG TYPE

Application	Autolite No.
1974-77 Models .....	AGR-42
1978 Models .....	AWSF-42

#### HIGH TENSION WIRE RESISTANCE

Carefully remove ends of wire from spark plug and distributor. Using an ohmmeter, check resistance of wire while gently twisting wire. If resistance is not to specification, or fluctuates from infinity to any value, replace wire.

##### HIGH TENSION WIRE RESISTANCE

Application	Resistance
All Models .....	25,000-30,000

#### DISTRIBUTOR

Models are equipped with Bosch single-point distributors or Bosch electronic ignition system.

##### DISTRIBUTOR SPECIFICATIONS

Application	Specification
Point Gap .....	.025-.027" (.58-.69 mm)
Dwell Angle .....	37-41°
Breaker Arm Spring Tension .....	17-21 ozs. (525-650 g)
Condenser Capacity .....	.18-.26 mfd.

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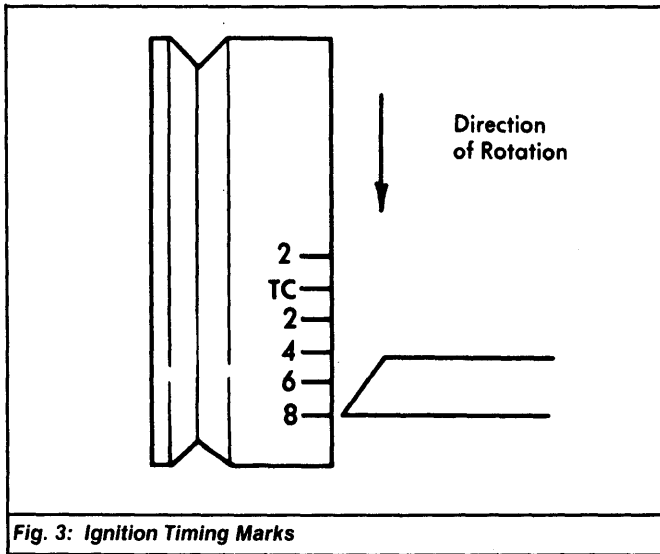


Fig. 3: Ignition Timing Marks

## IGNITION TIMING

Check or adjust ignition timing with engine at normal operating temperature, idle speed reduced to 600 RPM, and distributor vacuum hose(s) disconnected and plugged.

### IGNITION TIMING SPECIFICATIONS

Application	Timing
1974-77 Models	1°
1978 Models	12°BTDC

1 - See emission control/tune-up decal for specifications.

## HOT (SLOW) IDLE RPM

**1974 Models** - 1) Warm engine to normal operating temperature. Check or adjust ignition timing. Disconnect carburetor decel valve hose and plug end of decel valve fitting.

2) Place manual transmission in Neutral (automatic transmission in Drive). With air cleaner installed, adjust idle speed to specifications by turning idle adjusting screw.

3) Place heater in maximum heat position and reconnect all vacuum hoses. Disconnect air injection supply hose at check valve and disconnect evaporative canister purge line from air cleaner.

4) Check idle CO% level and, if necessary, adjust to specifications. If necessary, repeat adjustment procedure until both idle speed and CO% level are correct.

**1975-78 Models** - 1) Remove air cleaner, then disconnect and plug vacuum hoses. Check timing and adjust if necessary, then reconnect distributor vacuum advance hose(s). Disconnect and plug EGR valve vacuum hose.

2) Remove spark delay valve (if equipped) and route primary vacuum hose directly to distributor vacuum advance. Leave distributor retard hose connected.

3) Place manual transmission in Neutral (automatic transmission in Drive). Turn A/C system off (if equipped). Check and adjust fast idle RPM. On 1978 models, turn curb idle speed screw in or out to obtain specified idle RPM.

4) On 1975-77 models, disconnect throttle stop solenoid lead. With plunger in throttle stop solenoid collapsed, adjust solenoid de-energized idle RPM using adjusting screw located on throttle body. Reconnect solenoid, open throttle, and allow solenoid plunger to extend. Adjust solenoid plunger contact screw to obtain solenoid energized idle RPM.

### IDLE SPEED SPECIFICATIONS

Application	RPM
1974-77 Models	1
1978 Models	
Man. Trans.	
Federal	850
Calif.	800
Auto. Trans.	750

1 - See emission control/tune-up decal for specifications.

## IDLE MIXTURE

**NOTE:** When taking readings, air cleaner must be in place. Each time idle speed is adjusted, Thermoject air injection system must be connected.

**1974 Models** - See HOT (SLOW) IDLE RPM adjustment procedure in this article.

**1975-78 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 cap air cleaner connection. Disconnect Thermoject by-pass valve air hose at check valve.

2) Using Adapter (T75L-9600-A), attach propane gas bottle to air cleaner at vapor canister hose nipple. Place manual transmission in Neutral (automatic transmission in Drive).

3) With engine at idle speed, richen mixture (using bottled gas) to obtain maximum RPM. Continue to richen mixture until RPM drops. If speed does not drop with valve fully open, check propane gas bottle supply.

4) If RPM gain is within specification given on emission control/tune-up decal, remove propane adapter and reconnect all hoses. Recheck idle speed and mixture settings.

5) If RPM gain was HIGHER than specified, richen mixture screw (without injecting gas) until RPM increase is equal to the excess increase. Remove limiter cap if necessary to obtain excess RPM. Readjust idle speed after each mixture screw adjustment.

**NOTE:** If increase was 80 RPM and desired increase was 50 RPM, adjust mixture screw rich for 30 RPM increase.

6) If RPM gain was LOWER than specified, lean mixture screw (without injecting gas) until RPM decrease is equal to the RPM lag. Readjust idle speed after each mixture screw adjustment.

**NOTE:** If increase was zero RPM and desired increase was 20 RPM, adjust mixture screw lean for a 20 RPM loss.

## COLD (FAST) IDLE RPM

**1974 Models** - Warm engine to normal operating temperature. Place fast idle screw on fast idle cam, against shoulder of 1st step. Fast idle speed should be set to specifications. If necessary, turn fast idle screw to obtain specified RPM.

**1975-78 Models** - 1) Set fast idle with engine at normal operating temperature, ignition timing set to specifications and EGR vacuum hose disconnected and plugged. Remove spark delay valve (if equipped) and route primary vacuum hose directly to distributor vacuum advance.

2) Turn A/C off and place manual transmission in Neutral (automatic transmission in Drive). Set throttle so fast idle adjusting screw contacts kickdown step of choke cam, and adjust screw to obtain specified RPM.

### FAST IDLE SPECIFICATIONS

Application	RPM
All Models	1700 RPM

# 1974-79 TUNE-UP PROCEDURES

## Ford Motor Co. V6 (Cont.)

### ACCELERATOR & KICKDOWN LINKAGE ADJUSTMENT

**1974-77 Models** - 1) Remove air cleaner. Depress and hold accelerator pedal to full throttle position. Turn throttle adjusting nut counterclockwise until carburetor is just in wide open throttle position. Operate accelerator pedal several times to ensure full throttle can be obtained. Install air cleaner.

2) To adjust kickdown cable on vehicles with automatic transmission, depress and hold accelerator pedal in wide open throttle position. Place transmission in full kickdown position.

3) Loosen nut "A" and adjust nut "B" until there is a clearance of .02-.08" (0.5-2.0 mm) between carburetor linkage kickdown lever and throttle operating shaft. See Fig. 4. Tighten nuts and operate linkage to ensure that full transmission kickdown can be obtained.

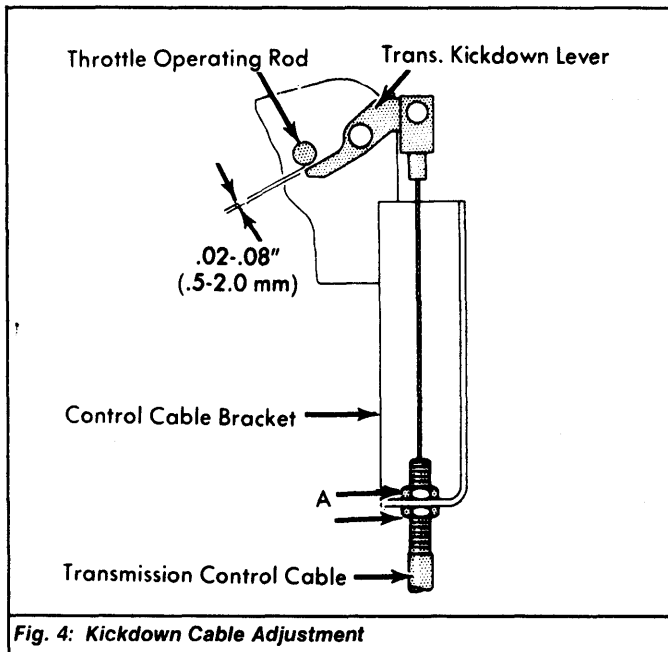


Fig. 4: Kickdown Cable Adjustment

### FUEL PUMP

#### FUEL PUMP SPECIFICATIONS

Application	Specification
Pressure .....	3.5-5.5 psi (.25-.39 kg/cm <sup>2</sup> )
Volume .....	1 pint in 25 seconds.

### EXHAUST EMISSION SYSTEMS

See appropriate articles in EXHAUST EMISSION SYSTEMS section.

### IGNITION SYSTEM

#### DISTRIBUTOR

Models are equipped with Bosch single-point distributors or Bosch electronic ignition system.

**Other Data & Specifications** - See appropriate Bosch ignition system article in DISTRIBUTORS & IGNITION SYSTEMS section.

#### IGNITION COIL

##### IGNITION COIL SPECIFICATIONS

Application	Resistance (Ohms)
Primary	
1974-76 Models .....	1.0-2.0
1977-78 Models .....	1.3-1.6
Secondary .....	7000-9300

### FUEL SYSTEMS

#### CARBURETOR

##### CARBURETORS

Application	Model
1974-77 Models .....	Motorcraft 2150
1978 Models	
Federal .....	Motorcraft 2150
Calif. ....	Motorcraft 2700 VV

**Other Data & Specifications** - See appropriate Motorcraft Carburetor article in FUEL SYSTEMS section.