

# 1975-79 TUNE-UP PROCEDURES

## Pontiac 6-Cylinder

### 1975-76 Pontiac

#### ENGINE IDENTIFICATION

##### VEHICLE IDENTIFICATION NUMBER

Fifth character of Vehicle Identification Number (VIN), located on plate attached to top left side of instrument panel, is the engine code letter.

##### VIN CODE

Application	Code
250" 1-Bbl. ....	D

##### ENGINE IDENTIFICATION CODE

Engine sequence code, model year, plant and division are stamped on right side of engine block behind distributor.

#### TUNE-UP NOTES

**NOTE:** In order to comply with emission standards, specifications shown on Emission Control Tune-Up Decal must 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.

**CAUTION:** Before making a compression test or cranking engine with a remote starting switch, disconnect ignition "BATT" (Pink wire) at distributor.

**CAUTION:** Do not remove spark plug wires with engine running. High Energy Ignition (HEI) secondary voltage is higher than standard ignition systems and may cause harmful electrical shock.

**CAUTION:** Damage to HEI electronic module and/or ignition coil may result if "TACH" terminal, in distributor cap connector, is directly grounded.

#### ENGINE COMPRESSION

Test compression pressure with engine at normal operating temperature, all spark plugs removed and throttle and choke valves wide open.

##### COMPRESSION SPECIFICATIONS

Application	Specification
Compression Ratio .....	8.2:1
Recommended Fuel .....	Unleaded (87 AKI Minimum)
Compression Pressure .....	100 psi Minimum
Max. Variation Between Cylinders .....	30%

#### VALVE CLEARANCE

Hydraulic Lifters ..... Zero Lash

#### VALVE ARRANGEMENT

E-I-I-E-E-I-I-E-E-I-I-E (Front to Rear).

#### SPARK PLUGS

##### SPARK PLUG INSTALLATION

Application	Gap	Torque
All Models .....	.060"	15 ft. lbs.

##### SPARK PLUG TYPE

Application	AC NO.
All Models .....	R46TX

#### HIGH TENSION WIRE RESISTANCE

Carefully remove ends of wire from spark plug and distributor. Using an ohmmeter, check resistance while gently twisting wire. If resistance is not to 3000-10,000, or fluctuates from infinity to any value, replace wire.

#### DISTRIBUTOR

All models are equipped with High Energy Ignition system and no adjustment is required.

**NOTE:** For a no start condition, check connection of Pink wire at distributor cap.

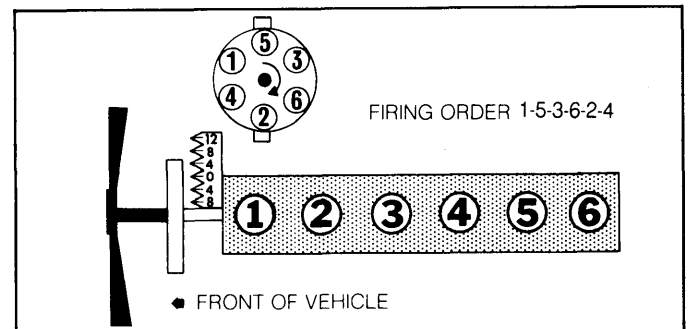


Fig. 1: Firing Order & Timing Marks

#### IGNITION TIMING

Set ignition timing with engine at hot (slow) idle speed, man. trans. in Neutral or auto. trans. in Drive, A/C off and vacuum advance disconnected and plugged.

##### IGNITION TIMING SPECIFICATIONS (DEGREES BTDC@RPM)

Application	Man. Trans.	Auto. Trans.
1975-76		
Federal .....	6°@850	10°@550
Calif. ....	6°@850	10°@600

#### HOT (SLOW) IDLE RPM

1) Block drive wheels, set parking brake and warm engine to operating temperature. Disconnect and plug vacuum advance, fuel evaporation and EGR lines.

2) Leave air cleaner in place. Turn A/C off (solenoid de-energized) and place idle speed screw on low step of fast idle cam. Turn idle speed screw to obtain specified "Curb Idle" RPM.

3) Disconnect A/C compressor lead at compressor. Turn A/C on and place automatic transmission in Drive. Open throttle slightly to allow solenoid plunger to fully extend, then turn Allen screw on solenoid to obtain specified "Solenoid Energized" RPM. Reconnect compressor lead after adjustment.

##### IDLE SPEED (RPM)

Application	Curb Idle	Solenoid Energized
Federal		
Man. Trans .....	425	850
Auto. Trans .....	425	550
Calif.		
Man. Trans .....	425	850
Auto. Trans. ....	425	600

#### IDLE MIXTURE

**NOTE:** Idle mixture screws are preset by manufacturer. Manufacturer recommends mixture adjustment only after major carburetor overhaul, parts replacement or emissions failure.

# 1975-79 TUNE-UP PROCEDURES

## Pontiac 6-Cylinder (Cont.)

### TACHOMETER (LEAN DROP) PROCEDURE

- 1) Ensure engine is warmed up, idle speed is set correctly and accurate tachometer is installed. All accessories must be OFF and air cleaner installed.
- 2) Set parking brake. Place automatic transmission in Drive and manual transmission in Neutral.
- 3) Set idle speed with solenoid energized, to 1200 RPM on Federal man. trans., 580 RPM on Federal auto., trans. or 640 RPM on Calif. auto. trans.
- 4) Turn screw counterclockwise (richer) until highest RPM reading is reached. DO NOT turn screw past high RPM point. Reset curb idle speed as in step 3). Turn mixture screw clockwise to obtain specified drop in RPM.

#### SPECIFIED RPM DROP

Application	Man. Trans.	Auto. Trans.
Federal .....	350 .....	30
Calif. ....	350 .....	40

### COLD (FAST) IDLE RPM

**NOTE:** Some models do not have adjustable Cold (Fast) Idle RPM speed.

With engine at normal operating temperature, disconnect and plug hose at EGR valve. Position cam follower on highest step of cam follower. Bend cam follower to obtain specified RPM.

#### FAST IDLE RPM

Application	Man. Trans.	Auto. Trans.
All Models .....	1800 .....	1800

### AUTOMATIC CHOKE

Disconnect choke coil rod from upper lever. Hold choke plate closed and push down on choke coil rod to end of travel. Top of choke coil rod should be even with bottom of hole in lever. If necessary, bend rod at offset.

### DASHPOT ADJUSTMENT

If equipped, adjust dashpot so there is .040" clearance between tip of plunger and throttle lever with plunger of dashpot fully depressed and throttle at normal idle position.

### FUEL PUMP

#### FUEL PUMP SPECIFICATIONS

Application	Specification
Pressure (at idle) .....	4-5 psi
Volume (at cranking speed) .....	1 pint in 30 sec.

### IGNITION

#### DISTRIBUTOR

All models are equipped with Delco-Remy - High Energy Ignition.

**NOTE:** Module must be replaced as a unit. A liberal coat of silicone grease **MUST** be applied to surface on which module will be mounted.

**Other Data & Specifications** - Also see Delco Ignition Systems in DISTRIBUTORS & IGNITION SYSTEM section.

#### IGNITION COIL

Application	Specification
Resistance	
Primary (At 75°F) .....	.2-1.0 Ohm
Secondary (At 75°F) .....	6000-30,000 Ohms
Current Draw .....	5-6 Amps
Coil Output .....	35 KV

### CARBURETION

#### CARBURETORS

Application	Model
All Models 1-Bbl. ....	Rochester MV1

**Other Data & Specifications** - Also see Rochester Carburetors in FUEL SYSTEMS section.