

# 1974-79 TUNE-UP PROCEDURES

## Peugeot 4-Cylinder

### 504, 504 SL

### ENGINE IDENTIFICATION

Engine number is stamped on camshaft tunnel, near starter.

#### ENGINE CODES

Application	Code
1977 Models	
Man. Trans. ....	XNAC, CAL. M
Auto. Trans. ....	XNAC, CAL. A
1978-79 Models	
Man. Trans. ....	UA
Auto. Trans. ....	XA

### MODEL IDENTIFICATION

#### VEHICLE IDENTIFICATION NUMBER

Vehicle Identification Number (serial number) is stamped on right inner fender, just behind front strut mounting plate. The first 3 digits indicate vehicle series. The second 3 digits indicate body type and transmission application.

#### 1977-79 VIN CODES

Application	Code
Sedan	
Man. Trans. ....	A91
Auto. Trans. ....	A93
Station Wagon	
Man. Trans. ....	D91
Auto. Trans. ....	D93

### ENGINE COMPRESSION

- 1) With engine at normal operating temperature, disconnect and plug fuel line to carburetor. Remove float bowl plug and drain fuel from carburetor. Disconnect primary lead from coil, lock throttle plate fully open, and remove all spark plugs.
- 2) Crank engine for 4 seconds on each cylinder to obtain an accurate compression reading. Maximum variation between cylinders should be 14.5 psi (1.0 kg/cm<sup>2</sup>).

#### COMPRESSION PRESSURE SPECIFICATIONS

Application	Pressure psi (kg/cm <sup>2</sup> )
All Models	160 (11.2)

### VALVE CLEARANCE

Valve clearance must be set with engine cold. To adjust valves, rotate crankshaft until valve listed in first column of VALVE CLEARANCE ADJUSTMENT SEQUENCE table is fully open, then adjust valves listed in second column of table. Valves and cylinders are numbered from REAR to FRONT.

#### VALVE CLEARANCE ADJUSTMENT SEQUENCE

Exhaust Valve Open	Valves To Adjust
No. 1	No. 3 Intake, No. 4 Exhaust
No. 3	No. 4 Intake, No. 2 Exhaust
No. 4	No. 2 Intake, No. 1 Exhaust
No. 2	No. 1 Intake, No. 3 Exhaust

#### VALVE CLEARANCE SPECIFICATIONS

Valve	Clearance
Intake	
No. 2 & 3	.004" (.10 mm)
No. 1 & 4	.008" (.20 mm)
Exhaust	.010" (.25 mm)

### VALVE ARRANGEMENT

Right Side - All Exhaust.  
Left Side - All Intake.

### SPARK PLUGS

#### SPARK PLUG SPECIFICATIONS

Application	Specification
Gap	.024-.028" (.6-.7 mm)

#### SPARK PLUG TYPE

Application	Champion No.
All Models	N7Y

### HIGH TENSION WIRE RESISTANCE

Carefully remove high tension wires from spark plugs and distributor cap. Using an ohmmeter, check high tension wire resistance while gently twisting wire. If resistance is not to specification, or fluctuates from infinity to any value, replace wire(s).

#### HIGH TENSION WIRE RESISTANCE

Application	Resistance (Ohms)
All Models	25,000-30,000

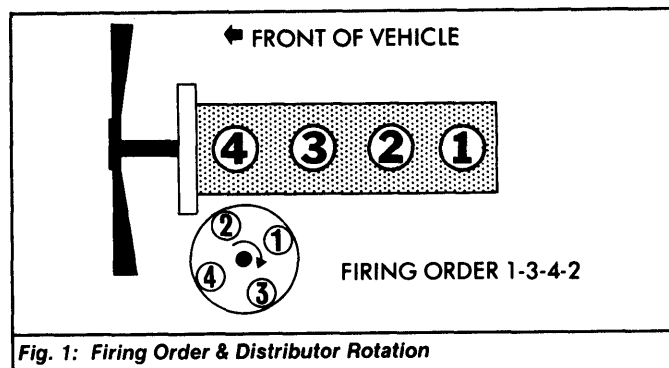


Fig. 1: Firing Order & Distributor Rotation

### DISTRIBUTOR

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

#### DISTRIBUTOR SPECIFICATIONS

Application	Specification
Air Gap <sup>1</sup>	.012-.020" (.30-.50 mm)
Point Gap	.014-.018" (.35-.45 mm)
Dwell Angle	54-60°

<sup>1</sup> - Electronic ignition system only.

### IGNITION TIMING

- 1) Disconnect and plug vacuum advance hose. Connect timing light, dwell meter and tachometer to engine. Start engine and check dwell angle. With engine idling at 850-900 RPM, check ignition timing.
- 2) Timing mark should align with notch on pulley. To adjust timing, loosen distributor flange and turn distributor until timing is to specifications. Tighten flange. Reconnect vacuum hose to distributor.

#### IGNITION TIMING SPECIFICATIONS

Application	RPM	Timing
1975-76 Models	850	5°BTDC
1977-79 Models	900-950	8°BTDC

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## Peugeot 4-Cylinder (Cont.)

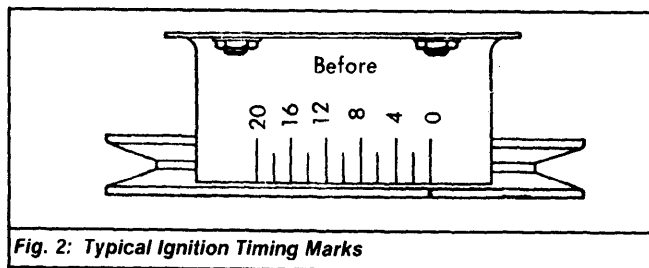


Fig. 2: Typical Ignition Timing Marks

### IDLE SPEED & MIXTURE

**NOTE:** Idle speed and mixture adjustments are made using screws on primary carburetor only. DO NOT touch screws on secondary carburetor.

**1975-76 Models** - Warm engine to normal operating temperature. Turn idle speed screw to set idle RPM to specifications. Adjust mixture screw until maximum RPM increase is obtained, then reset idle to specifications.

**1977 Models** - 1) Warm engine to normal operating temperature. Check or adjust dwell angle and ignition timing. Place manual transmission in Neutral (automatic transmission in Drive) and turn of air conditioning (if equipped).

2) Disconnect air injection system by detaching air hose from check valve. Turn idle mixture screw to obtain specified CO% level. Turn idle adjustment screw until engine idles at 950 RPM.

3) Recheck that CO% level has remained within specifications. If not, repeat idle mixture and idle speed adjusting procedure until proper CO% level and RPM are obtained. Reattach hose to air injection check valve. Readjust idle speed to 900 RPM if necessary.

#### IDLE SPEED & CO% LEVEL SPECIFICATIONS

Application	RPM	CO%
1975-76 Models	850-900	
1977-79 Models	900-950	1.5-2.5

**1978-79 Models** - 1) Warm engine to normal operating temperature. Connect wires 82A and 83B at fuel evaporation electrovalves to ground with jumper wires.

2) Connect tachometer and exhaust gas analyzer to vehicle. Remove air filter and disconnect canister purge hose at recirculating valve. Turn A/C system off (if equipped). Adjust mixture screw to obtain proper CO% level. Adjust idle speed to 900-950 RPM with idle speed screw.

3) Repeat procedure as necessary until both idle speed and mixture are correct. Remove ground wire from electrovalves and adjust idle speed to specified RPM. Reconnect canister purge hose and install air cleaner.

### COLD (FAST) IDLE RPM

**1975-76 Models** - 1) Warm engine to normal operating temperature. With regulator feed wire disconnected, unplug 3-pin connector from electronic control unit. Engine should now run at fast idle.

2) Remove domed nut (No. 1) and loosen lock nut (No. 2). See Fig. 3. Engine speed should be 1400-1450 RPM. If engine speed is not correct, adjust screw (No. 3) to correct specification using a 3 mm Allen wrench.

3) Reconnect 3-pin connector. After a few minutes, idle speed should return to 900 RPM. Reconnect regulator feed wire, tighten lock nut (No. 2), and install domed nut.

**1977-79 Models** - 1) With engine at operating temperature, ensure idle speed is adjusted to 900 RPM. Place transmission Neutral and turn all electrical accessories off. Disconnect hose (with Red ring) from deceleration vacuum unit.

2) Disconnect hose (with Green ring) from "T" connector at deceleration valve and attach it where hose was removed from deceleration vacuum unit.

3) Remove domed nut (No. 1). See Fig. 3. Loosen lock nut (No. 2) and start engine. Engine speed should be 1500-1550 RPM. If engine speed is not correct, adjust screw (No. 3) to correct specification using a 3 mm Allen wrench.

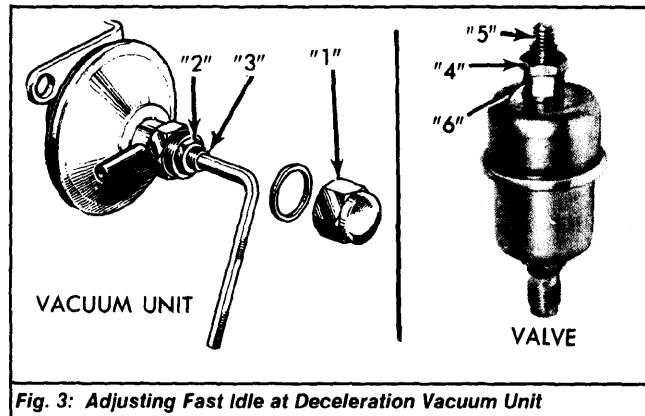


Fig. 3: Adjusting Fast Idle at Deceleration Vacuum Unit

4) Tighten lock-nut (No. 2) and install domed nut, making sure gasket is in place. Install vacuum hoses to their original locations. Loosen lock nut (No. 4) on deceleration valve.

5) Increase engine speed to 3000 RPM without load, and allow engine speed to decrease. Unscrew threaded rod (No. 5) 1/2 turn at a time until 900 RPM is obtained, then unscrew threaded an additional 1/2 turn and tighten lock nut.

**NOTE:** Do not use mixture control screw in threaded rod (No. 5) of deceleration valve to obtain proper fast idle speed. Always hold valve (No. 6) with wrench when loosening or tightening lock nut on deceleration valve, so as not to exert force on diaphragm.

#### COLD (FAST) IDLE SPECIFICATIONS

Application	RPM
1976 Models	1400-1450
1977-79 Models	1500-1550

### EXHAUST EMISSION SYSTEMS

See appropriate articles in EXHAUST EMISSION SYSTEMS section.

### IGNITION SYSTEM

#### DISTRIBUTOR

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

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

### FUEL SYSTEM

#### CARBURETORS

##### CARBURETORS

Application	Model
All Models	Solex 1-Bbl.

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