

1975-79 TUNE-UP PROCEDURES

1975 Buick 6-Cylinder

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 Models060"	15 ft. lbs.

SPARK PLUG TYPE

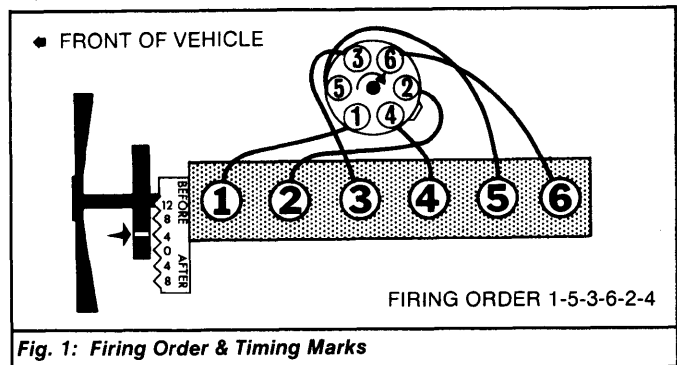
Application	AC NO.
All Models	R46TX

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 3000-20,000 ohms, or fluctuates from infinity to any value, replace wire.

DISTRIBUTOR

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



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 hose disconnected and plugged.

IGNITION TIMING SPECIFICATIONS (DEGREES BTDC@RPM)

Application	Man. Trans.	Auto. Trans.
Federal	10°@850	10°@550
Calif.		10°@600

HOT (SLOW) IDLE RPM

- 1) Block drive wheels, set parking brake and warm engine to operating temperature. Disconnect and plug vacuum advance hose, fuel evaporation and EGR hoses.
- 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.		
Auto. Trans.	425	600

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1975 Buick 6-Cylinder (Cont.)

IDLE MIXTURE

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

TACHOMETER (LEAN DROP) PROCEDURE

- 1) Ensure engine is warmed up, idle speed is set correctly and a 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.		40

COLD (FAST) IDLE RPM

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

FAST IDLE RPM

Application	Man. Trans.	Auto. Trans.
All Models	1800	1700

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.

FUEL PUMP

FUEL PUMP SPECIFICATIONS

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

IGNITION

DISTRIBUTOR

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 SYSTEMS section.

IGNITION COIL SPECIFICATIONS

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 1MV

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