TESTING

ENGINE COMPRESSION

The manufacturer recommends using a special compression tester (49 0820 280K). Compression testers for piston engines will read only the highest pressure of the 3 combustion chambers in the rotor housing.

COMPRESSION SPECIFICATIONS

Application	Specification
Min. Compression Pressure	86 psi (6.0 kg/cm^2)
Max. Variation	21 psi (1.5 kg/cm^2)

SPARK PLUGS

SPARK PLUG TYPE

Application	Nippondenso No.	NGK No.
All Models	W25EDR14	BR8EQ14

SPARK PLUG SPECIFICATIONS

(1) Gap: In. (mm)	Torque: Ft. Lbs. (N.m)
0.055 (1.4)	11 (15)
(1) See **Fig. 1** .	

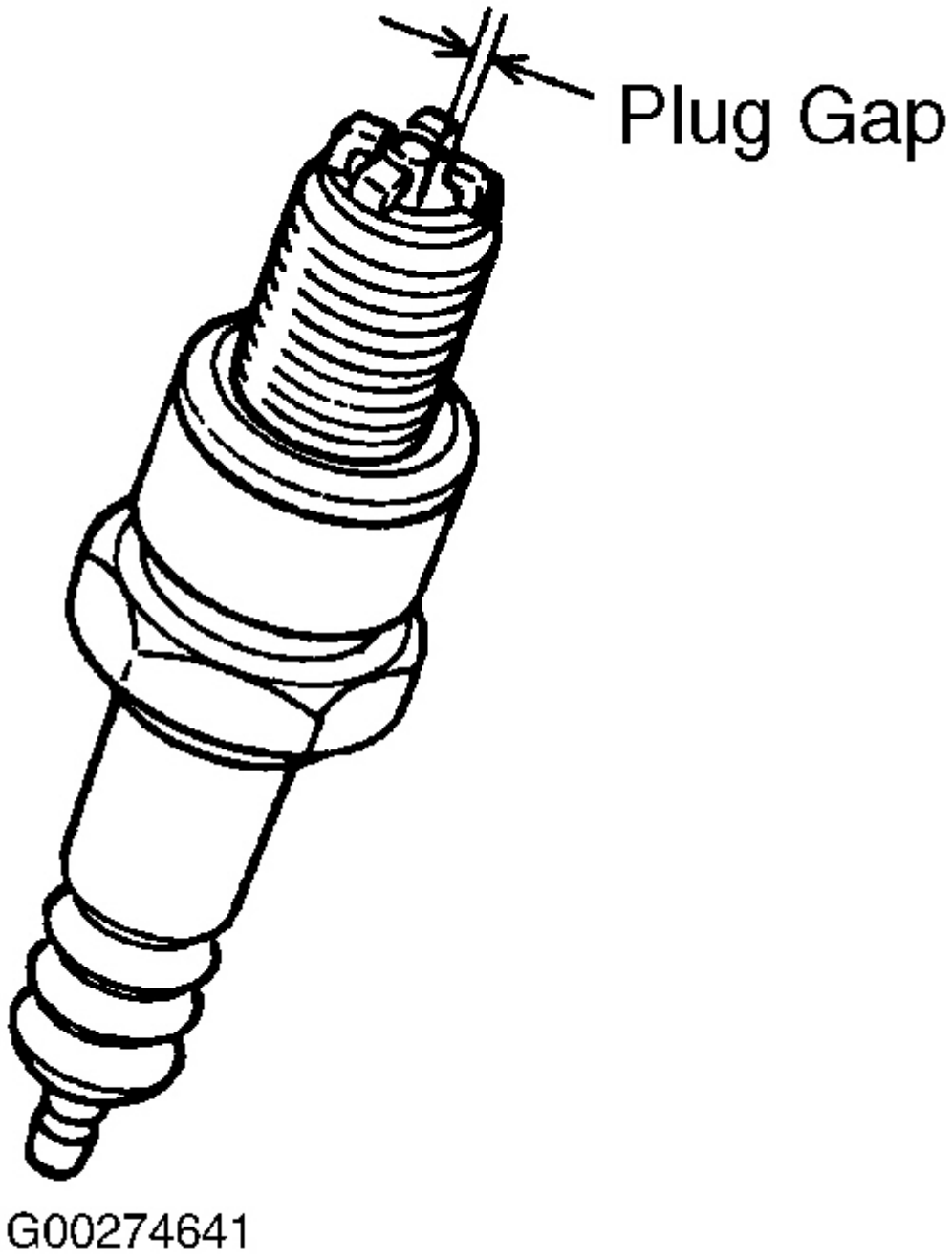

Fig. 1: Identifying Spark Plug Gap
Courtesy of MAZDA MOTORS CORP.

HIGH TENSION WIRE RESISTANCE

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

HIGH TENSION WIRE RESISTANCE

Application	Ohms
All Models	4880 per Foot

High Tension Wire Routing

For high tension wire routing, see **Fig. 2** and **Fig. 3** .

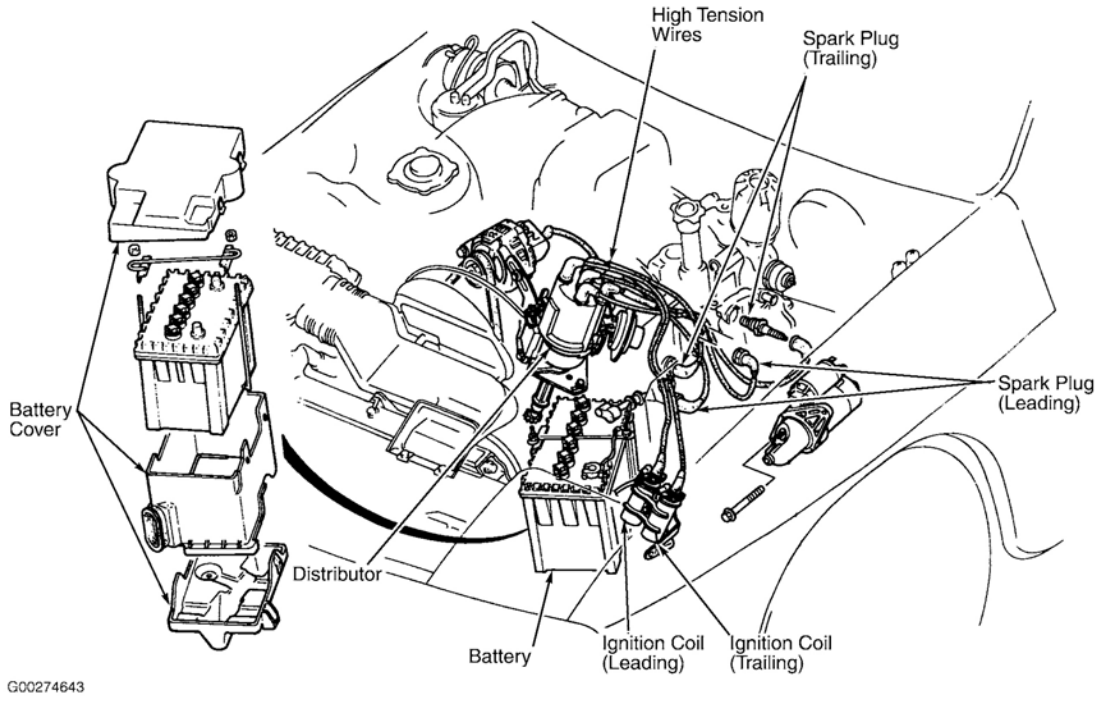

Fig. 2: Identifying High Tension Wire Routing
Courtesy of MAZDA MOTORS CORP.

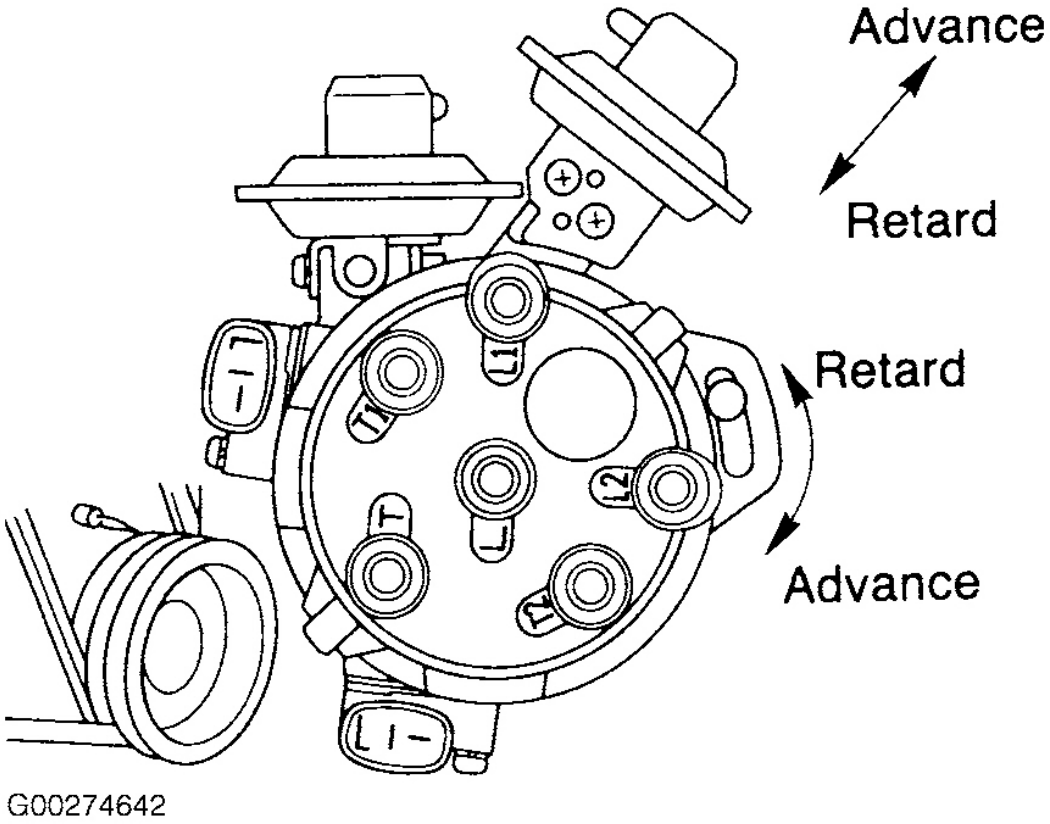

Fig. 3: Locating High Tension Wires On Distributor Cap
Courtesy of MAZDA MOTORS CORP.

ADJUSTMENTS

DISTRIBUTOR

All models are equipped with Mitsubishi electronic ignition with 2 pick-up coils. Air gap is non-adjustable.

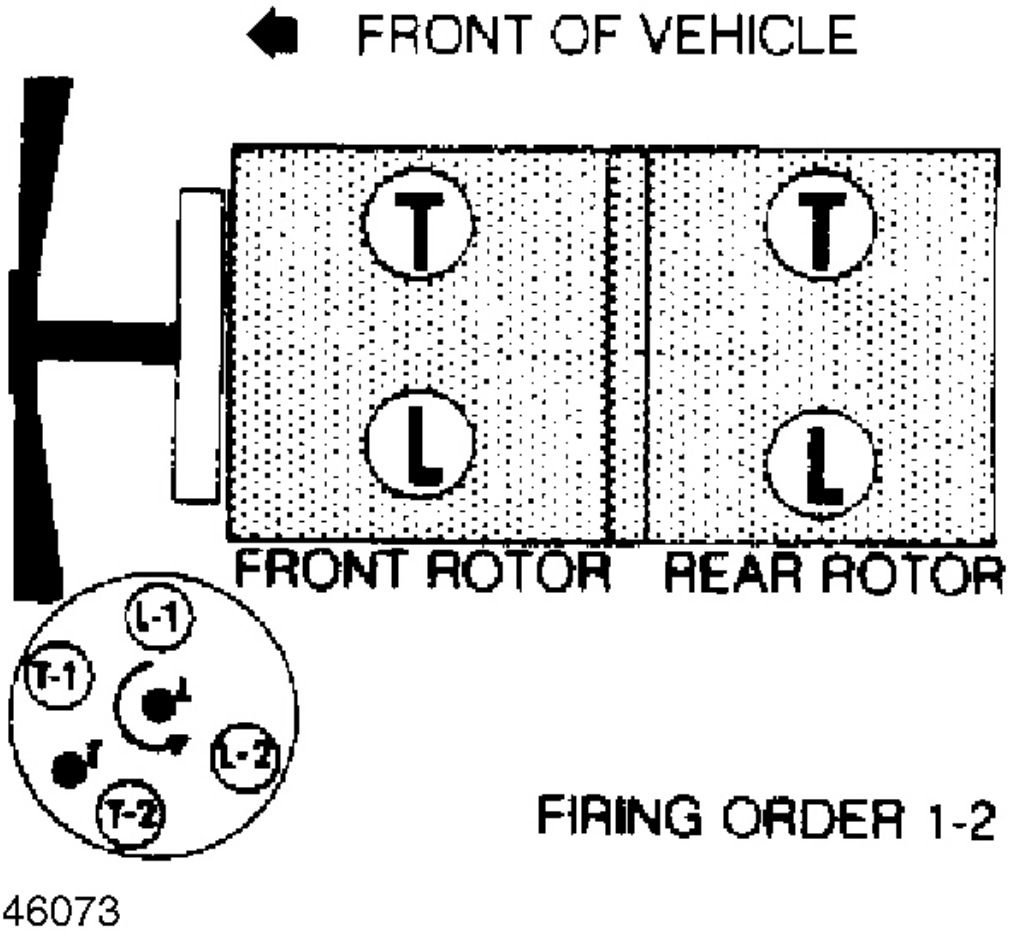

Fig. 4: Firing Order & Distributor Rotation

IGNITION TIMING

NOTE: On vehicles equipped with automatic transmission, place selector lever in "D" position and block the wheels.

1. Warm engine to normal operating temperature. Connect a tachometer, then connect timing light to leading (lower) spark plug of front rotor. Start engine and run at idle speed.
2. Check ignition timing and rotate distributor to correct if necessary. Tighten distributor lock nut and recheck timing.
3. Connect timing light to trailing (upper) plug of front rotor. Start engine and check timing. If not correct, loosen vacuum unit attaching screws. Move vacuum unit in or out to adjust trailing timing. Remove test equipment.

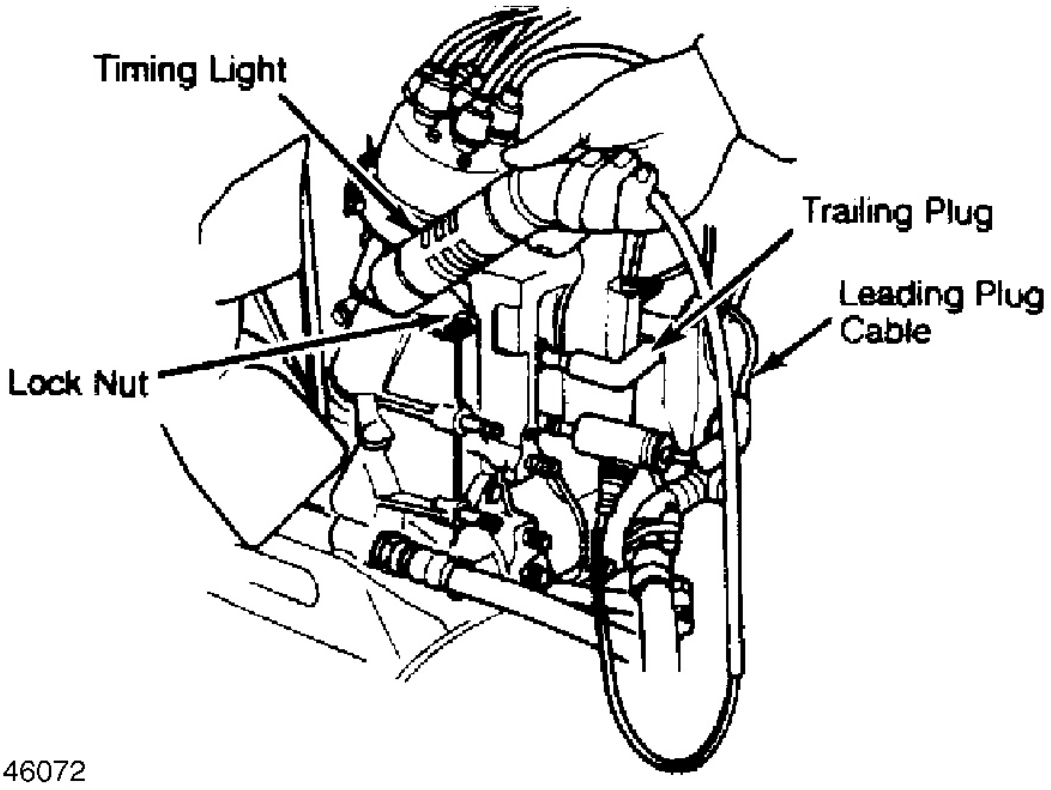

Fig. 5: Connecting Timing Light (Check Leading Plug Timing First)

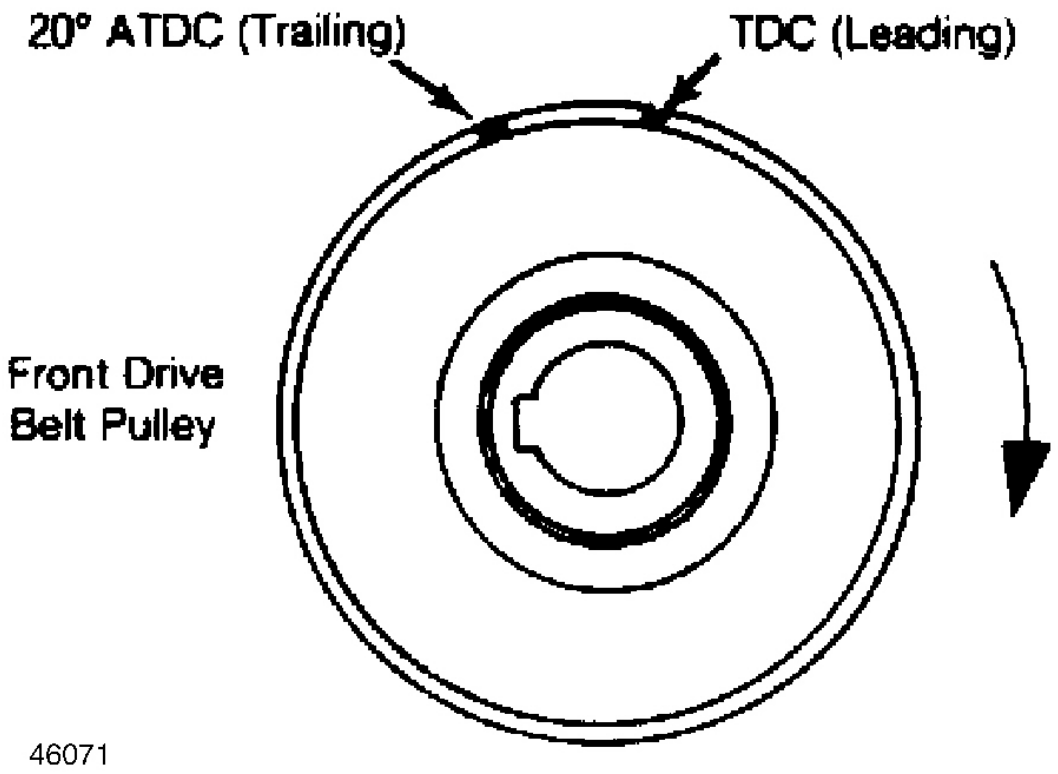

Fig. 6: Ignition Timing Mark Location

IGNITION TIMING (DEGREES ATDC @ RPM)

Application	Timing
Leading	TDC @ 750
Trailing	20 @ 750

IDLE SPEED & MIXTURE

Idle Speed

1. Switch off all accessories. Remove fuel filler cap. Disconnect and plug idle compensator tube at air cleaner. Connect tachometer to engine. Ensure parking brake is engaged and wheels are blocked.
2. On manual transmission models, make sure dashpot rod does not keep throttle lever from returning to stop. On air conditioned models, make sure throttle opener does not keep throttle lever from returning to stop.
3. Warm engine to normal operating temperature. Place automatic transmission in "D". Check idle speed. Adjust curb idle speed to specification by turning throttle adjusting screw.

NOTE: Mixture adjustment is not part of normal tune-up procedure and should not be

performed unless carburetor is overhauled or vehicle fails emissions testing.

Idle Mixture

1. Idle mixture adjustment requires removal of carburetor to remove limiter cap. Using a hacksaw, cut through limiter cap and mixture screw 0.4" (10 mm) from cap end. Remove mixture screw and install new mixture screw.
2. To install new mixture screw, tighten screw lightly and ensure it is fully seated. Back screw out 3 turns for preliminary adjustment. Reinstall carburetor with new gaskets and warm engine to normal operating temperature.
3. To adjust idle mixture, set idle speed to idle set specification by turning throttle set screw (automatic transmission in "N"). Set idle speed to highest RPM obtainable by turning mixture screw. Reset idle speed to idle set specification by turning throttle screw. See **Fig. 7** .
4. Turn mixture screw until lean drop specification is obtained (automatic transmission in "N"). On automatic transmission, shift transmission to "D" and set idle speed to curb idle specification by turning throttle screw.

IDLE SPEED & MIXTURE SPECIFICATIONS

Application	Curb Idle RPM	Idle Set RPM	Lean Drop RPM
Man. Trans.	750	770	750
Auto. Trans.	(1) 750	(2) 870	(2) 840

(1) Transmission in "D".

(2) Transmission in "N".

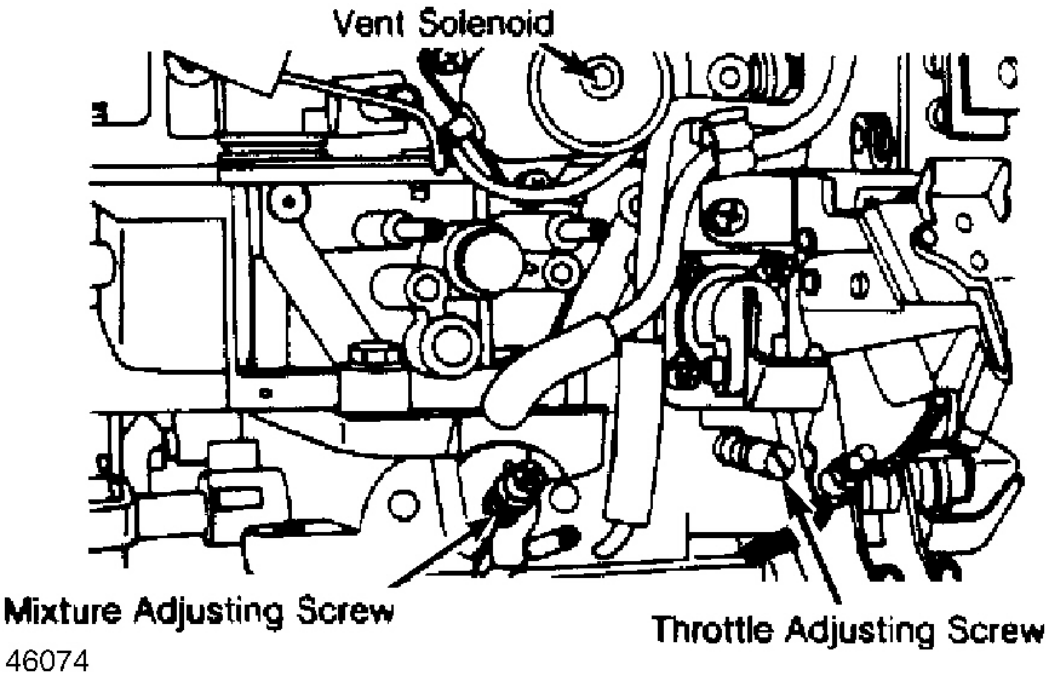

Fig. 7: Carburetor Adjusting Screw Locations

COLD (FAST) IDLE RPM

NOTE: Carburetor must be removed to check and/or adjust fast idle.

Adjust fast idle by setting angle of primary throttle valve with choke valve fully closed. Clearance between primary throttle valve and throttle bore should be .040-.047" (1.0-1.2 mm). If not to specification, bend fast idle rod until correct clearance is obtained.

SERVICING

EMISSION CONTROL

See EMISSIONS section.

SPECIFICATIONS

IGNITION

Distributor

All models are equipped with Mitsubishi electronic ignition with 2 pick-up coils. Air gap is non-adjustable.

IGNITION COIL RESISTANCE - OHMS @ 68°F (20°C)

Primary	Secondary
1.2-1.5	N/A

FUEL SYSTEMS

FUEL PUMP PERFORMANCE

Pressure: psi (kg/cm^2)	Pints (Liters): Volume In 30 Sec.
2.8-3.6 (.2-.3)	1.5 (.7)

Carburetor

All models use a Nikki 4-Bbl. carburetor.

BATTERY

BATTERY SPECIFICATIONS

Application	Amp Hr. Capacity
Standard	50
Optional	55

STARTER

All models are equipped with a Mitsubishi starter using an overrunning clutch.

STARTER SPECIFICATIONS

Application	Volts	Amps	Test RPM
Man. Trans.	11.5	60	6500
Auto. Trans.	11.5	100	3500

ALTERNATOR

All models are equipped with a Mitsubishi alternator.

ALTERNATOR SPECIFICATIONS

Application	Rated Amp Output
All Models	50

ALTERNATOR REGULATOR

All models are equipped with a Mitsubishi voltage regulator.

REGULATOR OPERATING VOLTAGE @ 68°F (20°C)

Application	Voltage

All Models	13.5

SERVICE SPECIFICATIONS

BELT ADJUSTMENT

Application	(1) Deflection In. (mm)
Alternator Belt	.5-.7 (13-17)
Air Pump Belt	.43-.51 (11-13)
A/C Belt	.39-.47 (10-12)
(1) Deflection is with 22 lbs. (10 kg) pressure applied midway on longest belt run.	

REPLACEMENT INTERVALS

Component	Interval (Miles)
Engine Oil	7500
Oil Filter	15,000
Air Filter	30,000
Spark Plugs	30,000

FLUID CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	4.9 qts. (4.6L)
Cooling System (Includes Heater)	10.0 qts. (9.5L)
Man. Trans. (SAE 90)	2.1 qts. (1.9L)
Auto Trans. (ATF Type F)	6.6 qts. (6.2L)
Rear Axle (SAE 90)	
Standard	2.6 pts. (1.2L)
Limited Slip	3.4 pts. (1.6L)
Fuel Tank	16.6 gals. (63L)