

C - SPECIFICATIONS - 4-CYL

Article Text

1989 Toyota MR2

For Rse 555 Main Street Clarksville Va 22901

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ARTICLE BEGINNING

1989 ENGINE PERFORMANCE

4-Cyl Service & Adjustment Specifications

MR2

NOTE: Use this section to quickly find specifications related to servicing and on-vehicle adjustments. This section may be used for quick reference when familiar with proper adjustment procedures and only need a specification.

BATTERY SPECIFICATIONS

BATTERY SPECIFICATIONS TABLE

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Application                               Amp Hr. Rating

MR2 ..... 66
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FLUID CAPACITIES

MR2 FLUID CAPACITIES TABLE

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Application                               Qts. (L)

Crankcase (Includes Filter) ..... 3.5 (3.3)
Cooling System (Includes Heater)
  Man. Trans. (Without A/C) ..... 12.9 (12.2)
  Auto. Trans. (With A/C) ..... 13.6 (12.9)
Auto. Trans. (1) (Dexron II) ..... 3.3 (3.1)
Man. Trans. (SAE 75W-90 or 80W-90) ..... 2.7 (2.6)

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(1) - Drain and refill capacity.

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REPLACEMENT INTERVALS

REPLACEMENT INTERVALS TABLE

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Component                               Interval           Interval
                                         Months            Miles

Air Filter ..... 36 ..... 30,000
Coolant (Radiator) ..... 72 ..... 60,000

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Fuel Filter	60,000
Oil & Filter(1)	12	10,000
Oxygen Sensor	80,000
Spark Plugs	36	30,000
Timing Belt	60,000

(1) - For severe service, replace every 5000 miles or 6 months. Severe service is police, taxi, trailer towing or door-to-door delivery service.

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ADJUSTMENT INTERVALS

ADJUSTMENT INTERVALS TABLE

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Application	Interval Months	Interval Miles
Valve Adjustment 72 60,000

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BELT ADJUSTMENT SPECS

BELT ADJUSTMENT TABLE (1)

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Application	New Belt	Used Belt
Alternator 175 (79) 115 (52)
A/C 160 (73) 105 (48)

(1) - Tension in Lbs. (Kg) using Burroughs tension gauge.

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MECHANICAL CHECKS

ENGINE COMPRESSION

COMPRESSION SPECIFICATIONS TABLE

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Application	Specification
Compression Ratio 9.4:1
Normal Compression Pressure 178 psi (12.5 kg/cm ²)
Minimum Compression Pressure 142 psi (10.0 kg/cm ²)
Maximum Variation Between Cylinders	.. 14 psi (1.0 kg/cm ²)

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VALVE CLEARANCE

VALVE CLEARANCE SPECIFICATIONS TABLE

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Application (1) In. (mm)

Exhaust008-.012 (.20-.30)

Intake006-.010 (.15-.25)

(1) - Adjust valves with engine cold.

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VALVE ARRANGEMENT

NOTE: Right and left sides refer to engine, as viewed from flywheel.

MR2

Right Side - All intake.
Left Side - All exhaust.

IGNITION SYSTEM SPECS

DISTRIBUTOR

DISTRIBUTOR PICK-UP COIL AIR GAP TABLE

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Application In. (mm)

All Models008-.016 (.2-.4)

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DISTRIBUTOR PICK-UP COIL RESISTANCE TABLE

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Application Ohms

All Models 140-180

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IGNITION COIL

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

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Application Primary Secondary

MR25-.7 11,000-16,000

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HIGH TENSION WIRE RESISTANCE

HIGH TENSION WIRE RESISTANCE TABLE

AA

Application Ohms (Maximum)

All Models 25,000

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SPARK PLUG SPECIFICATIONS

SPARK PLUG APPLICATIONS

SPARK PLUG APPLICATIONS TABLE

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Application NGK Nippondenso

MR2 BCPR5EP11 PQ16R

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SPARK PLUG SPECIFICATIONS

SPARK PLUG SPECIFICATIONS TABLE

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Application Gap Torque In. (mm) Ft. Lbs. (N.m)

MR2043 (1.10) 13 (18)

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IGNITION TIMING SPECS

IGNITION TIMING (Degrees BTDC @ RPM) TABLE

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Application Base Timing Advance Timing

MR2 10@800 . (1) More than 12@Idle

(1) - More than 16 degrees BTDC at idle on manual transaxle models.

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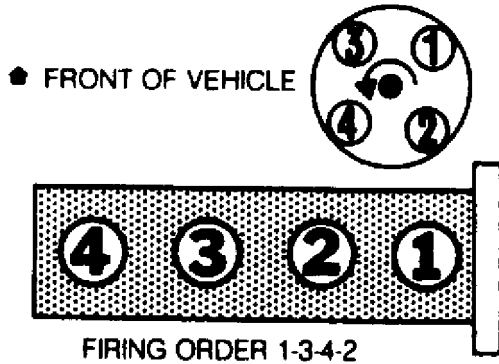


Fig. 1: Firing Order & Distributor Rotation

FUEL SYSTEM SPECS

IDLE SPEED & MIXTURE

IDLE SPEED SPECIFICATIONS TABLE

Application	Idle RPM
MR2	800

FUEL PUMP SPECS

FUEL PUMP PERFORMANCE TABLE

Application	(1) Pressure psi (kg/cm ²)	(2) Pressure psi (kg/cm ²)
MR2	38-44 (2.7-3.1)	30-33 (2.1-2.3)

(1) - With fuel pressure regulator vacuum hose disconnected and plugged.

(2) - With vacuum hose connected to pressure regulator.

TPS ADJUSTMENT SPECS

TPS ADJUSTMENT SPECIFICATIONS TABLE (TPS) ADJUSTMENT SPECIFICATIONS TABLE

(1) Ohmmeter Reading
