

*** ENGINE SYSTEMS UNIFORM INSPECTION GUIDELINES ***

Article Text

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Sunday, March 19, 2000 12:36AM

ARTICLE BEGINNING

GENERAL INFORMATION

Engine Maintenance & Performance
Uniform Inspection Guidelines

All Makes & Models

Last Updated: December, 1994

MAP UNIFORM INSPECTION GENERAL GUIDELINES

OVERVIEW OF MOTORIST ASSURANCE PROGRAM

The Motorist Assurance Program (MAP) is the consumer outreach effort of the Automotive Maintenance and Repair Association, Inc. (AMRA). Participation in the Motorist Assurance Program is drawn from retailers, suppliers, independent repair facilities, vehicle manufacturers and industry associations.

The Motorist Assurance Program was established as an industry-wide effort to address concerns raised by regulators, the media and consumers questioning our ethics and methods of doing business. The automotive repair industry had been bombarded by months of negative stories in the media and scrutiny from state and federal regulators who focused on how the need for repairs is determined. MAP was formed as an industry response to this issue.

Our mission is to strengthen the relationship between the consumer and the auto repair industry. We produce materials that give motorists the information and encouragement to take responsibility for their vehicles - through proper, manufacturer-recommended, maintenance. We encourage participating service and repair shops (including franchisees and dealers) to adopt a Pledge to their Customers and the Motorist Assurance Program developed Standards of Service. All participating service providers have agreed to subscribe to this Pledge and to adhere to the promulgated Standards of Service which demonstrates to their customers that they are serious about customer satisfaction.

These Standards of Service require that an inspection of the vehicle's (problem) system be made according to industry guidelines. After learning that neither the car manufacturers nor any other source had complete guidelines, leading industry organizations, along with other industry participants banded together to address this challenging task. During the past two and a half years, they successfully developed industry inspection guidelines for the following systems: Exhaust, Brakes, ABS, Steering and Suspension, Engine Maintenance and Performance, HVAC, and Electrical systems. Guidelines for Drive Train and Transmission are currently being promulgated. Revisions to the inspection guidelines for Exhaust, Brakes/ABS and Steering and Suspension Systems, which were issued two years ago, are now being published for implementation beginning spring 1997. Participating shops utilize these Uniform Inspection Guidelines as part of the inspection process and for communicating their findings

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to their customers.

The Motorist Assurance Program continues to work cooperatively and proactively with government agencies and consumer groups toward solutions that both benefit the customer and are mutually acceptable to both regulators and industry. We maintain the belief that industry must retain control over how we conduct our business, and we must be viewed as part of the solution and not part of the problem. Meetings with state and other government officials concerned with auto repair and/or consumer protection are conducted. Feedback from these representatives are brought back to members, and the program adjusted as needed.

To assure auto repair customers recourse if they were not satisfied with a repair transaction, the Motorist Assurance Program offers arbitration through MAP/BBB-CARE in cooperation with the Council of Better Business Bureaus and individual participating Bureaus. MAP "piloted" in Indianapolis and Pittsburgh during spring, 1996 - and publicized "roll-outs" in New Jersey, Detroit (MI), Chicago (IL) and Richmond (VA) were conducted. To put some "teeth" in the program, and accreditation requirement for shops was initiated. The requirements are stringent and a self-policing method has been incorporated which includes the "mystery shopping" of outlets. In addition, a committee of service providers had been working diligently developing standards for newspaper, television and Internet advertising.

We welcome you to join us as we continue our outreach ... with your support, both the automotive repair industry and your customers will reap the benefits. Please visit MAP at our Internet site: www.hunter.com/map.htm or contact us at:

808 17th Street, NW Suite 200

Washington, D.C. 20006

Ph. (202) 466-7050 Fax (202) 223-9569

OVERVIEW OF SERVICE REQUIREMENTS & SUGGESTIONS

It is MAP policy that all exhaust, brake, ABS, steering and suspension, wheel alignment, tires and wheels, driveline, engine performance and maintenance and heating, ventilation and air conditioning services be offered and performed under the guidelines and procedures specified in these sections.

Before any service is performed on a vehicle, an inspection of the appropriate system must be performed. The results of this inspection must be explained to the customer and documented on an inspection form. The condition of the vehicle and its components will indicate what services/part replacements may be required or suggested. In addition, suggestions may be made to satisfy the needs expressed by the customer.

This section lists the various parts and conditions that indicate required or suggested service or part replacement. Although this list is extensive, it is not inclusive. In addition to this list, a technician may make a suggestion. This suggestion must be based on substantial and informed experience or the vehicle manufacturer's

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Condition	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Contaminated	3	Require replacement of oil and filter.
	3	See NOTE: (1) below.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
High level	3	Determine source of incorrect level and
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA		suggest correction.
Low level	3	
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Maintenance intervals	3	Suggest replacement to comply with vehicles
	3	OEM recommended service intervals.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
NOTE: (1) Determine source of contamination, i.e., engine coolant,		
		fuel, metal particles, when changing oil.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

ENGINE OIL FILTER/CANISTER

Condition	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Contaminated	3	Require replacement of oil and filter.
	3	See NOTE: (1) below.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Damaged	3	Suggest replacement. Further inspection
	3	required. See NOTE: (2) below.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Leaking	3	Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Maintenance intervals	3	Suggest replacement to comply with vehicles
	3	OEM recommended service intervals.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
NOTE: (1) Determine cause of contamination, i.e., engine coolant,		
		fuel, metal particles, when changing oil.
		(2) Determine cause, i.e., broken motor mount.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

ENGINE GASKETS/SEALS

Condition	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Leaking	3	Tighten or suggest replacement as necessary.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

ENGINE OIL DRAIN PLUG/GASKET

Condition	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Leaking	3	Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Damaged threads	3	Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
NOTE: Some OEMs require replacement of drain plug gasket. Inspect		

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```
Leaking                                     3 Suggest replacement.
```

[illegible]

INDICATOR LIGHTS & GUAGES (TEMPERATURE, BRAKE, ENGINE OIL, CHARGING)
 ~~~~~

Condition - Lights                                  3                                  Procedure

```
Light doesn't come on during bulb check 3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA-
```

|                                            |                                                                     |
|--------------------------------------------|---------------------------------------------------------------------|
| Fail to function properly during test mode | <sup>3</sup> Further inspection required.<br><sup>3</sup> See note. |
|--------------------------------------------|---------------------------------------------------------------------|

On constantly or intermittently 3

NOTE: See service manual for further information.

|                                                                                 |          |           |
|---------------------------------------------------------------------------------|----------|-----------|
| <b>AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA</b> |          |           |
| Condition - Guages                                                              | <b>3</b> | Procedure |

Inoperative

3

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA' Further inspection required.  
Indicating out of manufacturer's <sup>3</sup> See note.

[illegible]

NOTE: See service manual for further information.

[illegible][illegible]

Missing <sup>3</sup> Require replacement.

Incorrect application <sup>3</sup> Require replacement.

Modified <sup>3</sup> Suggest replacement.

```
Broken/damaged          3 Suggest replacement.
```

[illegible][illegible][illegible]

Leaking <sup>3</sup> Require repair or replacement.

Damaged fins, tubes or fittings <sup>3</sup> Suggest repair or replacement.  
 ~~~~~

Internal restrictions ³ Require repair or replacement.

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Missing/by-passed ³ Further inspection required.

Air flow restriction ³ Suggest repair.

Missing, damaged, deteriorated ³ Require repair or replacement of
mounting hardware and bushings ³ hardware and/or bushings.

ENGINE COOLING SYSTEM

RADIATOR & RADIATOR CAP

Condition - Radiator ³ Procedure

Leaking ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
 Damaged fins, tubes or fittings ³ Suggest repair or replacement.

Internal restrictions ³ Require repair or replacement.

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Air flow restriction                                     ^ Suggest repair.
Air flow restriction                                     ^ Suggest repair.

```

Missing, damaged, deteriorated ^a Require repair or replacement of

mounting hardware and bushings & hardware and/or bushings.
 ~~~~~

[illegible]

Corroded 3 Suggest repair or replacement.  
 ~~~~~

Condition - Radiator Cap	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Mileage	3	Differential

Missing	5	Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Fail to maintain engine warm-up	3	Require replacement.

fails to maintain proper pressure	5	Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Damaged/bent or corroded	3	Suggest replacement

Damaged/bent or corroded ~ Suggest replacement.
 Missing gaskets/seals 3 Requires replacement

Missing gaskets/seals - require replacement.
 Coolant recovery check valve inoperative 3 Requires replacement

Improper application 3 Require replacement

Improper application require replacement.

THERMOSTAT/HOUSING

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA					
Condition			3		Procedure

Improper installation ³ Require repair or replacement.

Missing/damaged/corroded thermostat ³ Require replacement of

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3 thermostat

Improper application 3 Require replacement.

Inoperative 3 Require replacement.

Damaged/corroded housing 3 Suggest replacement of housing.

COOLANT HOSES/TUBES (RADIATOR, BY-PASS, HEATER, RECOVERY TANK)

Condition 3 Procedure

Leaking 3 Require repair or replacement.

Brittle, hard, cracked, corroded, 3 Suggest repair or replacement.

spongy, soft, oil soaked, 3

collapsed, swollen, non-automotive 3

Improper routing 3 Suggest repair or replacement.

Restricted 3 Suggest repair or replacement.

Missing/damaged protective sleeves 3 Suggest replacement of sleeves.

Maintenance intervals 3 Suggest replacement to comply

with vehicle's OEM recommended

service intervals.

CLAMPS

Condition 3 Procedure

Missing/damaged 3 Require replacement.

Loose 3 Require repair or replacement.

Corroded 3 Suggest replacement.

NOTE: Be sure to inspect hoses for deterioration.

COOLANT RECOVERY TANK/CAP

Condition 3 Procedure

Missing 3 Require replacement.

Leaking 3 Require repair or replacement.

Damaged 3 Suggest repair or replacement.

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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing, damaged mounting hardware ³ Suggest repair or replacement of
³ hardware.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

COOLANT

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition ³ Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Contaminated ³ Require replacement. Further inspection
³ required. See NOTE: (1).

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Low level ³ Require filling to proper level. See
³ NOTE: (2).

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Improper mixture/type ³ Require correction or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Improper acidity (pH) ³ Suggest correction or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Maintenance intervals ³ Suggest replacement. See NOTE: (3).

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: (1) Determine source of contamination and suggest correction
prior to coolant replacement.

(2) Determine source of incorrect level and suggest repair.

(3) The system should be drained and/or flushed and refilled
with correct coolant according to OEM Recommended Service
Interval and procedure.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

WATER PUMP

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition ³ Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Leaking, damaged ³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Noisy ³ Suggest replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative ³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Broken, missing fasteners ³ Require replacement of fasteners.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

SHROUD/BAFFLES/DEFLECTORS

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition ³ Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing/damaged ³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing/damaged mounting hardware ³ Require replacement of hardware.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

RADIATOR FAN BLADE & FAN CLUTCH

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Condition - Fan Motor Resistor	3	Procedure
Leaking	3	Require repair or replacement.
Contaminated/corroded	3	Suggest repair or replacement.
Intermittent/inoperative	3	Require replacement.
Damaged	3	Suggest replacement.

ACCESSORY BELTS

Condition	3	Procedure
Missing	3	Require replacement.
Improper tension	3	Require adjustment or repair.
Improper alignment	3	Further inspection required. See note.
Damaged	3	Require replacement.
Noisy	3	Suggest replacement.

NOTE: Check alignment of pulleys and proper belt installation.

ACCESSORY PULLEYS & TENSIONERS

Condition - Pulleys	3	Procedure
Damaged	3	Require replacement.
Improper alignment	3	Require repair.
Missing, damaged mounting hardware	3	Require repair or replacement of hardware.

Condition - Tensioners	3	Procedure
Missing	3	Require replacement
Noisy	3	Suggest replacement.
Damaged	3	Suggest replacement.
Improper adjustment	3	Require adjustment or repair.

GASKETS

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Condition	3	Procedure
Leaking	3	Tighten or suggest replacement as necessary.

HEATER CORE

Condition	3	Procedure
Leaking	3	Require repair or replacement.
Damaged fins, tubes, fittings	3	Suggest repair or replacement.
Internal restrictions	3	Suggest repair or replacement.
Missing/by-passed	3	Suggest repair or replacement.
Air flow restriction	3	Suggest repair or replacement.
Missing, damaged deteriorated mounting hardware/bushing	3	Suggest repair or replacement of hardware/bushing
Corroded	3	Suggest repair or replacement.

HEATER CONTROL VALVE

Condition	3	Procedure
Missing/by-passed	3	Suggest repair or replacement.
Leaking	3	Require replacement.
Inoperative	3	Suggest replacement.
Damaged valve/bracket	3	Suggest repair or replacement of valve/bracket

ENGINE COOLING PASSAGES

Condition	3	Procedure
External/internal leak	3	Require repair or replacement.
Restricted cooling passage	3	Require repair.

CASTING CORE/EXPANSION PLUGS

Condition	3	Procedure
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Condition - Control³

Solenoid

³

Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative ³ Require repair or replacement. Further inspection

³ required. See NOTE: below.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Leaking ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: Inoperative includes intermittent operation or out of OEM

specification.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

IDLE AIR CONTROL (IAC)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition

³

Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing ³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative ³ Require repair or replacement. Further inspection

³ required. See NOTE: below.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged ³ Suggest replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing/damaged ³ Require repair or replacement of hardware.

mounting hardware ³

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: Inoperative includes intermittent operation or out of OEM

specifications. Some components may be serviceable; check for

accepted cleaning procedure.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

CHARGE AIR COOLER "INTERCOOLER" (CAC)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition

³

Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing ³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Leaking ³ Require repair or replacement

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged ³ Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing/damaged mounting hardware ³ Require repair or replacement of

³ hardware.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

INTAKE AIR TEMP SENSOR (IAT)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition

³

Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing ³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative ³ Require repair or replacement. Further inspection

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Restricted ³ Require repair or replacement. See NOTE: below.

NOTE: Refer to accepted service procedure.

CARBURETOR/CHOKE (SEE NOTE:)

Condition			3	Procedure		

Improper operation ³ Require repair or replacement.

Missing, damaged, binding mounting ^s Require repair or replacement.

```
hardware and other components          3
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
```

NOTE: Proper operation of a carburetor includes the ability to control fuel mixtures during all phases of driving operation to comply with all federal and local emission standards.

Adjustments are to be considered repairs.

THROTTLE BODY

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA					
Condition		3			Procedure

Leaking ³ Require repair or replacement.

Restricted/contaminated ³ Require repair. See NOTE: below.

.....
Damaged³ Require repair or replacement.
.....

NOTE: Some components may be serviceable; check for accepted

```
cleaning procedure.
```

VACUUM HOSES/TUBES

Condition		3	Procedure	

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Missing ³ Require replacement.

[illegible][illegible]

EARLY FUEL EVAPORATION (EFE)

Condition		3	Procedure	

Refer to Early Fuel Evaporation Heater/Grid.

[illegible]

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POWERTRAIN CONTROL MODULE (PCM)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Condition	3 Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Inoperative	3 Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Damaged	3 Suggest repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	

SENSORS/ACTUATORS DEFINITIONS

NOTE: The conditions and procedures apply to, but are not limited to the following list of components (SAE J1930 Terminology).

SENSORS/ACTUATORS DEFINITIONS

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Sensor	Abbreviation
02 Sensor	02S
Intake Air Temperature Sensor	IAT
Manifold Absolute Pressure Sensor	MAP
Engine Coolant Temperature Sensor	ECT
Barometric Pressure Sensor	BARO
Crankshaft Position Sensor	CKP
Throttle Positon Sensor	TPS
Camshaft Position Sensor	CMP
Park Neutral Position	PNP
Clutch Pedal Position Switch	CPP
Wide Open Throttle Switch	WOT Switch
Exhaust Gas Recirculation Valve Position Sensor	EGR Valve Position Sensor
Mass Air Flow Sensor	MAF
Volume Air Flow Sensor	VAF
Power Steering Pressure Sensor	PSP
Vehicle Speed Sensor	VSS
Fan Control Sensor	FS
Knock Sensor	KS
Air Conditioning Cycling Switch	AC
Exhaust Gas Recirculating Temperature Sensor	EGRT
Transmission Range Switch	TR Switch

Actuators	Abbreviation
Idle Speed Control Actuator	ISC
Idle Air Control	IAC
Exhaust Gas Recirculation Solenoid	EGR Solenoid
Vacuum Regulator Solenoid
Mix Control Solenoid	MC Solenoid
Torque Converter Clutch	TCC
Fuel Injector

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Evaporative Emission Canister Purge Valve	EVAP
Secondary Air Injection By-Pass	Air By-Pass
Secondary Air Injection Diverter	Air Diverter
Waste Gate Control Solenoid

Condition		3	Procedure

Missing ³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative ³ Require repair or replacement. Further inspection

[illegible][illegible]

Missing/damaged mounting hardware ³ ³ Require repair or replacement of hardware.

NOTE: Inoperative includes intermittent operation or out of OEM

specifications. Contaminated components may be serviceable;
check for accepted cleaning procedure.

POSITIVE CRANKCASE VENTILATION SYSTEM (PCV)

POSITIVE CRANKCASE VENTILATION VALVE (PCV VALVE)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Condition	3	Procedure

Missing³ Require replacement.

[illegible]

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Restricted ³ Suggest replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Maintenance intervals ³ Suggest replacement to comply with vehicle's

3 OEM recommended service intervals.

PCV BREATHING ELEMENT

Condition		3	Procedure	

Missing³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Damaged 3 Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Restricted³ Suggest replacement.

Maintenance intervals ³ Suggest replacement to comply with vehicle's

3 OEM recommended service intervals.

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TUBES, HOSES, CLAMPS & GROMMETS

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Condition	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Missing	3	Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Damaged	3	Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Leaking	3	Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Restricted	3	Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

ORIFICE

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Condition	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Missing	3	Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Restricted	3	Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Maintenance intervals	3	Suggest replacement to comply with vehicle's
	3	OEM recommended service intervals.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

OIL SEPARATOR/FILTER

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Condition	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Missing	3	Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Restricted	3	Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Damaged	3	Suggest repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Maintenance intervals	3	Suggest replacement to comply with vehicle's
	3	OEM recommended service intervals.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

IGNITION SYSTEM

BATTERY

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Condition	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Refer to Starting/Charging System information.		
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

BATTERY CABLES/WIRES/CONNECTORS (SEE NOTE:)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Condition	3	Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		

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BATTERY TRAY/HOLD DOWN HARDWARE

Condition		Procedure
Missing	3	Require replacement.
Damaged/corroded	3	Suggest repair or replacement. See NOTE: 3 below.

NOTE: If battery tray/hold down hardware no longer performs intended purpose, require repair or replacement.

FUSIBLE LINK

Condition	Procedure
Damaged	Suggest repair or replacement.
Open	Require replacement.

IGNITION SWITCH

Condition		Procedure
Damaged	3	Suggest replacement.
Inoperable/intermittent	3	Require replacement.

PARK NEUTRAL SWITCH (PNP)

Condition	Procedure
Inoperable/intermittent ³	Require replacement.

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specifications.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

IGNITION HARNESS (PRIMARY)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition ³ Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged ³ Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Mis-routed ³ Suggest repair.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Open fusible link ³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Shorted/open ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Connector terminal problem ³ Require repair or replacement.

(bent, broken, corroded or loose) ³

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Excessive resistance ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Poor ground ³ Require repair.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

DISTRIBUTOR

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition ³ Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Bent shaft, worn bushings ³ Further inspection required. See NOTE:

and/or cam lobe ³ below.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged ³ Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing, damaged mounting ³ Require repair or replacement of hardware.

hardware ³

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Worn gear ³ Suggest replacement of gear.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Broken gear ³ Require replacement of gear.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Oil soaked ³ Further inspection required. See NOTE:

³ below.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: Refer to OEM recommended service procedures.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

DISTRIBUTOR CAP

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition ³ Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged ³ Suggest replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Corroded/eroded terminals ³ Suggest replacement.

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AAAAAA
Burned/carbon tracked/arcing ³ Require replacement.
AAAAAA
Missing carbon button ³ Require replacement.
AAAAAA
AAAAAA
Loose ³ Suggest repair or replacement.
AAAAAA

DISTRIBUTOR ROTOR

AAAAAA
Condition ³ Procedure
AAAAAA
Damaged ³ Suggest replacement.
AAAAAA
Corroded/eroded ³ Require replacement.
AAAAAA
Loose ³ Suggest repair or replacement.
AAAAAA
Missing, damaged hold down ³ Require repair or replacement of fastener
fastener ³
AAAAAA
Burned/carbon tracked ³ Require replacement.
AAAAAA

IGNITION WIRES/BOOTS/TERMINAL (SECONDARY - SEE NOTE: (1))

AAAAAA
Condition ³ Procedure
AAAAAA
Damaged ³ Suggest repair or replacement.
AAAAAA
Oil soaked ³ Suggest replacement.
AAAAAA
Open/shorted ³ Require repair or replacement.
AAAAAA
Mis-routed ³ Suggest repair. See NOTE: (2).
AAAAAA
Missing/damaged mounting ³ Suggest repair or replacement of hardware.
³ See NOTE: (2).
AAAAAA
Loose terminal ³ Suggest repair or replacement.
AAAAAA
Corroded ³ Suggest repair or replacement.
AAAAAA
High/Low resistance ³ Require repair or replacement.
AAAAAA

NOTE: (1) It is not required to replace ignition wires in sets.

However, you may suggest replacement of the entire secondary wire set for preventive maintenance.

(2) Proper routing, hardware, heat shields, etc. are intended to prevent premature failure of secondary ignition components.

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SPARK PLUGS (SEE NOTE: (1))

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Condition	3	Procedure
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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged	3	Require replacement.
---------	---	----------------------

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Shorted	3	Require replacement.
---------	---	----------------------

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Fouled	3	Require repair or replacement. See NOTE: (2).
--------	---	-----------------------------------------------

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Maintenance interval	3	Suggest replacement. See NOTE: (3).
----------------------	---	-------------------------------------

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Eroded electrode	3	Suggest replacement.
------------------	---	----------------------

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Incorrect gap	3	Require repair or replacement.
---------------	---	--------------------------------

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: (1) It is not required to replace spark plugs in sets.

However, you may suggest replacement of the other plugs for preventive maintenance.

(2) Determine cause of fouling and suggest repair.

(3) Suggest replacement to comply with vehicle's OEM recommended service intervals.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

DISTRIBUTOR ADVANCE/RETARD (MECHANICAL/VACUUM)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition	3	Procedure
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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged	3	Suggest repair or replacement.
---------	---	--------------------------------

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative	3	Require repair or replacement.
-------------	---	--------------------------------

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Out of specification	3	Require repair or replacement.
----------------------	---	--------------------------------

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ELECTRONIC SPARK CONTROL MODULE

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition	3	Procedure
-----------	---	-----------

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged	3	Suggest replacement.
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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative	3	Require repair or replacement. Further inspection required. See NOTE: below.
-------------	---	------------------------------------------------------------------------------

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NOTE: Inoperative includes intermittent operation, out of OEM specifications.

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GAS CAP

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition	3	Procedure
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FUEL PUMP (IN TANK/EXTERNAL - ELECTRICAL OR MECHANICAL)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Condition	3 Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Inoperative	3 Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Noisy	3 Suggest replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Leaking	3 Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Damaged	3 Suggest repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Missing, damaged mounting hardware	3 Requires repair or replacement of hardware
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	

ELECTRIC FUEL PUMP CONTROL CIRCUIT

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Condition	3 Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
See Electrical Uniform Inspection Guidelines.	
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	

LIQUID VAPOR SEPARATOR

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Condition	3 Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Missing	3 Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Leaking	3 Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Damaged	3 Suggest repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Inoperative	3 Require repair or replacement
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	

ROLL-OVER VALVE

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Condition	3 Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Missing	3 Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Damaged	3 Suggest repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Inoperative	3 Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
Leaking	3 Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	

INERTIA FUEL SHUT OFF SWITCH

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	
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Condition	3	Procedure
Inoperative	3	Require repair or replacement.
Missing	3	Require replacement.
Damaged	3	Suggest replacement.

FUEL LINES/CLAMPS/O-RINGS/CONNECTORS (SEE NOTE)

Condition	3	Procedure
Missing	3	Require replacement.
Leaking	3	Require repair or replacement.
Restricted	3	Require repair or replacement.
Routed incorrectly	3	Suggest repair.
Damaged	3	Suggest repair or replacement.

NOTE: When replacing fuel lines/hoses, replace with products that meet(s) or exceed(s) OEM design specifications.

FUEL FILTER & IN-TANK FUEL STRAINER

Condition - External Filter	3	Procedure
Missing	3	Require replacement.
Restricted/contaminated	3	Require replacement.
Leaking	3	Require repair or replacement.
Damaged	3	Suggest replacement.
Maintenance interval	3	Suggest replacement to comply with OEM recommended service interval.
Missing, damaged mounting hardware	3	Suggest repair. Further inspection required.
Condition - In-Tank	3	Procedure
Missing	3	Require replacement.
Damaged	3	Require replacement.
Restricted	3	Require repair or replacement.

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Damaged 3 Suggest replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restricted/contaminated 3 Suggest repair. Further inspection required.

3 See NOTE: below.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: Some components may be serviceable; check for accepted
cleaning procedure.

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FUEL/COLD START INJECTORS (SEE NOTE: (1))

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Condition 3 Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative 3 Require repair or replacement. Further
inspection required. See NOTE: (2) below.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged 3 Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing, damaged mounting 3 Require repair or replacement of hardware.
hardware 3

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Leaking 3 Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: (1) It is not required to replace injectors in sets. However,
you may suggest replacement of all injectors for preventive
maintenance.

(2) Inoperative included intermittent operations out of OEM
specifications. Some components may be serviceable; check
for accepted cleaning procedure.

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THROTTLE BODY

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Condition 3 Procedure

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Leaking 3 Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restricted/contaminated 3 Require repair. See NOTE: below.

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Damaged 3 Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: Some components may be serviceable; check for accepted
cleaning procedure.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

CARBURETOR/CHOKE

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition 3 Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Improper air/fuel control 3 Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing, damaged hardware 3 Require repair or replacement of

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³ hardware.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Leaking ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Contaminated ³ Require repair or replacement. Further

³ inspection required. See NOTE: below.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Improper mechanical operation ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: Some components may be serviceable; check for accepted
cleaning procedure.

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EARLY FUEL EVAPORATION VALVE (HEAT RISER ASSEMBLY)

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Condition ³ Procedure

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Inoperative, binding ³ Require repair or replacement.

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Leaking exhaust ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Noisy ³ Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

EARLY FUEL EVAPORATION, HEATER/GRID (EFE)

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition ³ Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restricted ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged ³ Suggest repair or replacement.

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EXHAUST GAS RECIRCULATION SYSTEM (EGR)

EGR VALVE

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Condition ³ Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing ³ Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Leaking ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restricted passage ³ Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged ³ Suggest repair or replacement.

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Maintenance interval ³ Suggest repair or replacement to comply with

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[illegible]

CONTROL SOLENOID

Condition	Procedure
Missing	Require replacement.
Damaged	Suggest replacement.
Inoperative	Require replacement.

EVAPORATIVE SYSTEMS

EVAPORATIVE EMISSION CANISTER (EVAP)

Condition	Procedure
Damaged	3 Suggest replacement.
Missing	3 Require replacement.
Leaking	3 Require replacement.
Saturated	3 Require replacement.
Inoperative	3 Require repair or replacement.

EVAPORATIVE EMISSION CANISTER FILTER (EVAP FILTER)

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Condition          3          Procedure
Missing            3  Require replacement.
Restricted          3  Suggest replacement.
Maintenance interval  3  Suggest repair or replacement to comply with
                     3  OEM recommended service interval.

```

HOSES / CLAMPS / TUBES

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Condition	3	Procedure
Missing	3	Require replacement.
Damaged	3	Suggest replacement.
Leaking	3	Require repair or replacement.
Restricted	3	Require repair or replacement.

EVAPORATIVE EMISSION CANISTER PURGE VALVE (ELECTRICAL/VACUUM)

Condition	3	Procedure
Missing	3	Require replacement.
Damaged	3	Suggest replacement.
Inoperative	3	Require replacement.
Leaking	3	Require replacement.

GAS CAP

Condition	3	Procedure
Missing	3	Require replacement.
Leaking	3	Require replacement.
Damaged	3	Suggest replacement.

LIQUID/VAPOR SEPARATOR

Condition	3	Procedure
Missing	3	Require replacement.
Leaking	3	Require replacement.
Damaged	3	Suggest repair or replacement.
Inoperative	3	Require repair or replacement.

ROLL OVER VALVE

Condition	3	Procedure
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TRANSMISSION & CLUTCH RELATED INSPECTION INFORMATION

AUTOMATIC TRANSMISSION FILTER

Condition		Procedure
Contaminated	3	Require replacement of fluid and filter.
Maintenance intervals	3	Suggest replacement to comply with OEM recommended service intervals.

TRANSMISSION FLUID

```

Condition          3          Procedure
See * TRANSMISSION UNIFORM INSPECTION GUIDELINES *. (1)
(1) - TRANSMISSION UNIFORM INSPECTION GUIDELINES article is not
      available at this time.

```

CLUTCH FLUID

```

Condition          3          Procedure
See * TRANSMISSION UNIFORM INSPECTION GUIDELINES *. (1)
(1) - TRANSMISSION UNIFORM INSPECTION GUIDELINES article is not
      available at this time.

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END OF ARTICLE