

*** ENGINE SYSTEMS UNIFORM INSPECTION GUIDELINES ***

Article Text

1991 Volkswagen Passat
For Volkswagen Technical Site
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Wednesday, August 25, 1999 07:30PM

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

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as part of the inspection process and for communicating their findings 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

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substantial and informed experience or the vehicle manufacturer's recommended service interval.

Some conditions indicate that service or part replacement is required because the part in question is no longer providing the function for which it is intended, does not meet a vehicle manufacturer's design specification or is missing.

- * Example: An exhaust pipe has corroded severely and has a hole in it through which exhaust gases are leaking. Replacement of the exhaust pipe in this case is required due to functional failure.
- * Example: A brake rotor has been worn to the point where it measures less than the vehicle manufacturer's specifications. Replacement of the rotor is required because it does not meet design specifications.

Some conditions indicate that a service or part replacement is suggested because the part is close to the end of its useful life or to address a customer's need, convenience or request. If a customer's vehicle has one of these conditions, the procedure may only be to suggest service.

- * Example: An exhaust pipe is rusted, corroded or weak, but no leaks are present. In this case, the exhaust pipe has not failed. However, there is evidence that the pipe may need replacement in the near future. Replacement of the pipe may be suggested for the customer's convenience in avoiding a future problem.
- * Example: The customer desires improved ride and/or handling, but the vehicle's shocks or struts have not failed. In this case, replacement may be suggested to satisfy the customer's wishes. In this case, replacement of the shocks or struts may not be sold as a requirement.

A customer, of course, has the choice of whether or not a shop will service his or her vehicle. He or she may decide not to follow some of your suggestions. When a customer declines to authorize a service or repair indicated in the MAP Uniform Inspection Guidelines as "required," a MAP shop may refuse service on that system, if proceeding with the work could create or continue an unsafe or unsatisfactory condition.

The following reasons may be used for required and suggested services. These codes are shown in the "Code" column of the Uniform Inspection Guidelines that follow.

ENGINE PERFORMANCE & MAINTENANCE

ENGINE: MISCELLANEOUS

ENGINE OIL

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

ENGINE OIL FILTER/CANISTER

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

ENGINE GASKETS/SEALS

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

ENGINE OIL DRAIN PLUG/GASKET

AA	
Condition	³ Procedure
AA	
Leaking	³ Require repair or replacement.
AA	
Damaged threads	³ Require repair or replacement.
AA	

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NOTE: Some OEMs require replacement of drain plug gasket. Inspect threads in oil pan for damage.

ENGINE OIL WARNING LIGHTS

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

Light not on during bulb check	3	Further inspection required. See NOTE: below.
--------------------------------	---	---

Light stays on or intermittent while engine is running	3	Further inspection required. See NOTE: below.
--	---	---

NOTE: Light may indicate problem with contaminated oil, level, pressure, temperature or problem with circuit.

ENGINE OIL PRESSURE GAUGE

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

Inoperative	3	Further inspection required. See note.
-------------	---	--

Indicates out of range	3	Further inspection required. See note.
------------------------	---	--

NOTE: Gauge may indicate problem with contaminated oil, level, pressure, temperature or problem with gauge.

OIL PRESSURE SENDING UNIT

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

Leaking	3	Require replacement.
---------	---	----------------------

Connector or terminal bent, broken, or loose	3	Require repair or replacement.
--	---	--------------------------------

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

POWER STEERING FLUID

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

See Steering and Suspension Uniform Inspection Guidelines

TIMING BELT

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

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Missing ³ Require replacement. See note.

Damaged ³ Suggest replacement. See note.

Maintenance intervals ³ Suggest replacement to comply with vehicle OEM
³ recommended service intervals.

Oil soaked ³ Suggest replacement. Further inspection
³ required.

Improper adjustment/ ³ Suggest adjustment. See note.
noisy ³

NOTE: Inspect belt tensioners, pulleys and cover.

TIMING BELT TENSIONERS

Condition	Procedure
Missing	³ Require replacement.
Noisy	³ Suggest replacement.
Damaged	³ Require replacement.
Improper adjustment	³ Adjust to OEM specifications.

MOTOR MOUNTS

Condition	Procedure
Broken	³ Require replacement.
Oil soaked (rubber mount)	³ Suggest replacement.
Leaking (hydraulic mount)	³ Require replacement.
Missing or broken fasteners	³ Require repair or replacement of ³ fasteners

TORQUE STRUT

Condition	Procedure
Worn or damaged bushings	³ Requirement replacement.
Damaged or missing fasteners	³ Require repair or replacement of ³ fasteners.

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Leaki ng ³ Suggest replacement.

Missi ng ³ Requi re replacement

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

Condition - Lights 3 Procedure  
 ~~~~~

Light doesn't come on during bulb check ³
 AA'

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

On constantly or intermittently ³

NOTE: See service manual for further information.

Condition - Guages 3 Procedure

Inoperati ve

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA' Further inspection required.
 Indicating out of manufacturer's ³ See note.

recommended range

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 <sup>3</sup> Suggest replacement.

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

COOLERS (TRANSMISSION) EXTERNAL; ENGINE OIL; POWER STEERING  
 ~~~~~

Condi ti on Procedure

Leaking ³ Require repair or replacement.

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



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|                                     |   |                                   |
|-------------------------------------|---|-----------------------------------|
| Missing/damaged/corroded thermostat | 3 | Require replacement of thermostat |
|-------------------------------------|---|-----------------------------------|

|                          |                                              |
|--------------------------|----------------------------------------------|
| Improper application     | <sup>3</sup> Require replacement.            |
| Inoperative              | <sup>3</sup> Require replacement.            |
| Damaged/corroded housing | <sup>3</sup> 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, spongy, soft, oil soaked, collapsed, swollen, non-automotive | 3 | Suggest repair or replacement.                                                  |
| 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       |   | 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. |

Missing/damaged mounting hardware <sup>3</sup> Require replacement of hardware.

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**RADIATOR FAN BLADE & FAN CLUTCH**

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Condition - Fan Blade <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition - Fan Clutch <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Noisy/worn bearing <sup>3</sup> Suggest replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Slips (insufficient fan speed) <sup>3</sup> Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Loose fasteners <sup>3</sup> Require repair or replacement of

<sup>3</sup> fasteners.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: Some lateral movement, measured at the fan blade tip, is normal.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**RADIATOR FAN MOTOR**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Vibration/noisy <sup>3</sup> Suggest replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Intermittent/inoperative <sup>3</sup> Require replacement. See note.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing, damaged mounting hardware <sup>3</sup> Require replacement of hardware.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

NOTE: Check fan motor/controls.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**RADIATOR FAN MOTOR RELAY/MODULE & FAN MOTOR RESISTOR**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition - Fan Motor Relay/Module <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Intermittent/inoperative <sup>3</sup> Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing, damaged mounting hardware <sup>3</sup> Require replacement of hardware.

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

```

**ACCESSORY BELTS**

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Condition      3          Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Missing        3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Improper tension  3  Require adjustment or repair.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Improper alignment 3  Further inspection required. See note.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Damaged        3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Noisy          3  Suggest replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
NOTE: Check alignment of pulleys and proper belt installation.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

```

**ACCESSORY PULLEYS & TENSIONERS**

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Condition - Pulleys  3          Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Damaged             3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Improper alignment  3  Require repair.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Missing, damaged    3  Require repair or replacement of
  mounting hardware  3  hardware.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Condition - Tensioners 3          Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Missing             3  Require replacement
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Noisy               3  Suggest replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Damaged            3  Suggest replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Improper adjustment 3  Require adjustment or repair.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

```

**GASKETS**

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



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Damaged <sup>3</sup> Suggest replacement.  
 Restricted <sup>3</sup> Suggest replacement.  
 Maintenance intervals <sup>3</sup> Suggest replacement to comply with vehicle's  
<sup>3</sup> OEM recommended service intervals.

## THERMOSTATIC AIR DOOR ASSEMBLY

| Condition   | Procedure                      |
|-------------|--------------------------------|
| Missing     | Require replacement.           |
| Damaged     | Suggest repair or replacement. |
| Inoperative | Require repair or replacement. |

## SUPER CHARGER

| Condition   | Procedure                                   |
|-------------|---------------------------------------------|
| Inoperative | <sup>3</sup> Require repair or replacement. |
| Noisy       | <sup>3</sup> Suggest repair or replacement. |

## TURBO CHARGER

| Condition                         | Procedure                                  |
|-----------------------------------|--------------------------------------------|
| Missing                           | Require repair or replacement.             |
| Damaged                           | Suggest repair or replacement.             |
| Leaking                           | Require repair or replacement.             |
| Missing/damaged mounting hardware | Require repair or replacement of hardware. |

## WASTE GATE/CONTROL MECHANISM & CONTROL SOLENOID

| Condition - Control <sup>3</sup> |              |                                                                              |
|----------------------------------|--------------|------------------------------------------------------------------------------|
| Mechanism                        |              | Procedure                                                                    |
| Inoperative                      | <sup>3</sup> | Require repair or replacement. Further inspection required. See NOTE: below. |
| Leaking                          | <sup>3</sup> | Require repair or replacement.                                               |



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[illegible]

Special case:

Speech Recognition:

[illegible]

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

Restricted <sup>3</sup> Require repair or replacement. See NOTE: below.

NOTE: Refer to accepted service procedure.

**CARBURETOR/CHOKE (SEE NOTE:)**

| Condition | <sup>3</sup> | Procedure |
|-----------|--------------|-----------|
|-----------|--------------|-----------|

|                    |              |                                |
|--------------------|--------------|--------------------------------|
| Improper operation | <sup>3</sup> | Require repair or replacement. |
|--------------------|--------------|--------------------------------|

|                                                                  |              |                                |
|------------------------------------------------------------------|--------------|--------------------------------|
| Missing, damaged, binding mounting hardware and other components | <sup>3</sup> | Require repair or replacement. |
|------------------------------------------------------------------|--------------|--------------------------------|

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**

| Condition | <sup>3</sup> | Procedure |
|-----------|--------------|-----------|
|-----------|--------------|-----------|

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

|                         |              |                                  |
|-------------------------|--------------|----------------------------------|
| Restricted/contaminated | <sup>3</sup> | Require repair. See NOTE: below. |
|-------------------------|--------------|----------------------------------|

|         |              |                                |
|---------|--------------|--------------------------------|
| Damaged | <sup>3</sup> | Require repair or replacement. |
|---------|--------------|--------------------------------|

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

**VACUUM HOSES/TUBES**

| Condition | <sup>3</sup> | Procedure |
|-----------|--------------|-----------|
|-----------|--------------|-----------|

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

|                    |              |                                |
|--------------------|--------------|--------------------------------|
| Leaking/restricted | <sup>3</sup> | Require repair or replacement. |
|--------------------|--------------|--------------------------------|

**EARLY FUEL EVAPORATION (EFE)**

| Condition | <sup>3</sup> | Procedure |
|-----------|--------------|-----------|
|-----------|--------------|-----------|

Refer to Early Fuel Evaporation Heater/Grid.

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**POWERTRAIN CONTROL MODULE (PCM)**

|                                                                                  |                                             |
|----------------------------------------------------------------------------------|---------------------------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Condition                                                                        | <sup>3</sup> Procedure                      |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Inoperative                                                                      | <sup>3</sup> Require repair or replacement. |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Damaged                                                                          | <sup>3</sup> Suggest repair or replacement. |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |

**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**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

|                                                       |                           |
|-------------------------------------------------------|---------------------------|
| 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 Position 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          |

\*\*\*\*\*OEM Recommended Service Intervals.\*\*\*\*\*

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**TUBES, HOSES, CLAMPS & GROMMETS**

|                                                                                  |              |                                |
|----------------------------------------------------------------------------------|--------------|--------------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                |
| Condition                                                                        | <sup>3</sup> | Procedure                      |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                |
| Missing                                                                          | <sup>3</sup> | Require replacement.           |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                |
| Damaged                                                                          | <sup>3</sup> | Require repair or replacement. |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                |
| Leaking                                                                          | <sup>3</sup> | Require repair or replacement. |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                |
| Restricted                                                                       | <sup>3</sup> | Require repair or replacement. |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                |

**ORIFICE**

|                                                                                  |              |                                              |
|----------------------------------------------------------------------------------|--------------|----------------------------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                              |
| Condition                                                                        | <sup>3</sup> | Procedure                                    |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                              |
| Missing                                                                          | <sup>3</sup> | Require replacement.                         |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                              |
| Restricted                                                                       | <sup>3</sup> | Require repair or replacement.               |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                              |
| Maintenance intervals                                                            | <sup>3</sup> | Suggest replacement to comply with vehicle's |
|                                                                                  | <sup>3</sup> | OEM recommended service intervals.           |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |                                              |

**OIL SEPARATOR/FILTER**

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

**IGNITION SYSTEM**

**BATTERY**

|                                                                                  |              |           |
|----------------------------------------------------------------------------------|--------------|-----------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |           |
| Condition                                                                        | <sup>3</sup> | Procedure |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |           |
| Refer to Starting/Charging System information.                                   |              |           |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |           |

**BATTERY CABLES/WIRES/CONNECTORS (SEE NOTE: )**

|                                                                                  |              |           |
|----------------------------------------------------------------------------------|--------------|-----------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |              |           |
| Condition                                                                        | <sup>3</sup> | Procedure |

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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Damaged<sup>3</sup> Suggest repair or replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Corroded<sup>3</sup> Suggest repair or replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
High resistance<sup>3</sup> Require repair or replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Loose<sup>3</sup> Require repair or replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Missing, damaged, deteriorated<sup>3</sup> Require repair or replacement.  
mounting hardware<sup>3</sup>  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
NOTE: Cable/wires includes all wires and terminals connected to the  
battery.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**BATTERY TRAY/HOLD DOWN HARDWARE**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Condition<sup>3</sup> Procedure  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Missing<sup>3</sup> Require replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Damaged/corroded<sup>3</sup> Suggest repair or replacement. See NOTE:  
<sup>3</sup> below.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
NOTE: If battery tray/hold down hardware no longer performs  
intended purpose, require repair or replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FUSIBLE LINK**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Condition<sup>3</sup> Procedure  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Damaged<sup>3</sup> Suggest repair or replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Open<sup>3</sup> Require replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**IGNITION SWITCH**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Condition<sup>3</sup> Procedure  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Damaged<sup>3</sup> Suggest replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Inoperable/intermittent<sup>3</sup> Require replacement.  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**PARK NEUTRAL SWITCH (PNP)**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Condition<sup>3</sup> Procedure  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Inoperable/intermittent<sup>3</sup> Require replacement.

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

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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
**Damaged** <sup>3</sup> Suggest replacement.

Out of specification <sup>3</sup> Require replacement.

Oil soaked <sup>3</sup> Further inspection required. See NOTE: below.

[illegible]

NOTE: Inoperative includes intermittent operation or out of OEM specification. Refer to OEM recommended service procedures.

## STATOR/RELUCTOR

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

**Damaged**                      <sup>3</sup> Requi re replacem ent.

## CRANK SENSOR (CKP)

Condition 3 Procedure

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Inoperative <sup>3</sup> Require repair or replacement. Further

**3 inspection required. See NOTE: below.**

[illegible]

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

NOTE: Inoperative includes intermittent operation or out of OEM

### CAM SENSOR (CMP)

Condition 3 Procedure

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Inoperative <sup>3</sup> Require repair or replacement. Further

3 inspection required. See NOTE: below.

[illegible]

Missing/damaged mounting hardware ..... 3

[illegible]

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[illegible]

(bent broken corroded or loose) <sup>3</sup>

Excessive resistance <sup>3</sup> Require repair or replacement

Poor ground <sup>3</sup> Require repair

**Repar - grana**

and/or cam lobe <sup>3</sup> below.

**Damaged** <sup>3</sup> Suggest repair or replacement.

Missing, damaged mounting <sup>3</sup> Require repair or replacement of hardware.

<sup>3</sup> below

**NOTE:** Refer to OEM recommended service procedures.

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Corroded/eroded terminals <sup>3</sup> Suggest replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Burned/carbon tracked/arcing <sup>3</sup> Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Loose <sup>3</sup> Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**DISTRIBUTOR ROTOR**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Corroded/eroded <sup>3</sup> Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Loose <sup>3</sup> Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing, damaged hold down fastener <sup>3</sup> Require repair or replacement of fastener fastener <sup>3</sup>

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Burned/carbon tracked <sup>3</sup> Require replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged <sup>3</sup> Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Oil soaked <sup>3</sup> Suggest replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Open/shorted <sup>3</sup> Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Mis-routed <sup>3</sup> Suggest repair. See NOTE: (2).

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing/damaged mounting <sup>3</sup> Suggest repair or replacement of hardware.

<sup>3</sup> See NOTE: (2).

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Loose terminal <sup>3</sup> Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Corroded <sup>3</sup> Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

High/Low resistance <sup>3</sup> Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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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[illegible]

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| Condition | <sup>3</sup> | Procedure            |
|-----------|--------------|----------------------|
| Missing   | <sup>3</sup> | Require replacement. |
| Leaking   | <sup>3</sup> | Require replacement. |
| Damaged   | <sup>3</sup> | Suggest replacement. |

**FUEL FILLER NECK/HOSES/CLAMPS/RESTRICTOR**

| Condition                          | <sup>3</sup> | Procedure                                  |
|------------------------------------|--------------|--------------------------------------------|
| Missing                            | <sup>3</sup> | Require replacement.                       |
| Leaking                            | <sup>3</sup> | Require repair or replacement.             |
| Damaged                            | <sup>3</sup> | Suggest repair or replacement.             |
| Missing, damaged mounting hardware | <sup>3</sup> | Require repair or replacement of hardware. |

**FUEL TANK/CELL**

| Condition                          | <sup>3</sup> | Procedure                                                     |
|------------------------------------|--------------|---------------------------------------------------------------|
| Leaking                            | <sup>3</sup> | Require repair or replacement.                                |
| Loose baffles                      | <sup>3</sup> | Require repair or replacement.                                |
| Damaged                            | <sup>3</sup> | Suggest repair or replacement.                                |
| Missing, damaged mounting hardware | <sup>3</sup> | Require repair or replacement of hardware.                    |
| Contaminated                       | <sup>3</sup> | Suggest repair. Further inspection required. See NOTE: below. |

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

**FUEL LEVEL SENDER**

| Condition   | <sup>3</sup> | Procedure                      |
|-------------|--------------|--------------------------------|
| Inoperative | <sup>3</sup> | Suggest repair or replacement. |
| Leaking     | <sup>3</sup> | Require repair or replacement. |
| Damaged     | <sup>3</sup> | Suggest repair or replacement. |

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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FUEL PUMP (IN TANK/EXTERNAL - ELECTRICAL OR MECHANICAL)**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged <sup>3</sup> Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Missing, damaged mounting <sup>3</sup> Requires repair or replacement of hardware  
hardware <sup>3</sup>

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**ELECTRIC FUEL PUMP CONTROL CIRCUIT**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

See Electrical Uniform Inspection Guidelines.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**LIQUID VAPOR SEPARATOR**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged <sup>3</sup> Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative <sup>3</sup> Require repair or replacement

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**ROLL-OVER VALVE**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition <sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Damaged <sup>3</sup> Suggest repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**INERTIA FUEL SHUT OFF SWITCH**

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|                                                                                  |                                             |
|----------------------------------------------------------------------------------|---------------------------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Condition                                                                        | <sup>3</sup> Procedure                      |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Inoperative                                                                      | <sup>3</sup> Require repair or replacement. |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Missing                                                                          | <sup>3</sup> Require replacement.           |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Damaged                                                                          | <sup>3</sup> Suggest replacement.           |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |

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

|                                                                                  |                                             |
|----------------------------------------------------------------------------------|---------------------------------------------|
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Condition                                                                        | <sup>3</sup> Procedure                      |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Missing                                                                          | <sup>3</sup> Require replacement.           |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Leaking                                                                          | <sup>3</sup> Require repair or replacement. |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Restricted                                                                       | <sup>3</sup> Require repair or replacement. |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Routed incorrectly                                                               | <sup>3</sup> Suggest repair.                |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |
| Damaged                                                                          | <sup>3</sup> Suggest repair or replacement. |
| AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA |                                             |

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

**FUEL FILTER & IN-TANK FUEL STRAINER**

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

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FUEL ACCUMULATOR/DAMPENER**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition<sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FUEL PRESSURE REGULATOR**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition<sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Restricted/contaminated<sup>3</sup> Suggest repair. Further inspection required.

<sup>3</sup> See NOTE: below.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FUEL RAIL**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition<sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FUEL DISTRIBUTOR**

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Condition<sup>3</sup> Procedure

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Inoperative<sup>3</sup> Require repair or replacement. Further

<sup>3</sup> inspection required. See NOTE: below.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

Out of specification<sup>3</sup> Require repair or replacement.

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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

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AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
 Damaged<sup>3</sup> Suggest replacement.

Restricted/contaminated <sup>3</sup> Suggest repair. Further inspection required.

<sup>3</sup> See NOTE: below.

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

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

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

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
Inoperative <sup>3</sup> Require repair or replacement. Further

<sup>3</sup> inspection required. See NOTE: (2) below.

**Damaged** <sup>3</sup> Suggest repair or replacement.

Missing, damaged mounting <sup>3</sup> Require repair or replacement of hardware.

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

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.

## THROTTLE BODY

Condition <sup>3</sup> Procedure

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

[illegible]

Restricted/contaminated <sup>3</sup> Require repair. See NOTE: below.  
 ~~~~~

Damaged ³ Require repair or replacement.

s may be serviceable; check for accepted

```
cleaning procedure.
```

CARBURETOR/CHOKE

Condi ti on ³ Procedure

Improper air/fuel control ³ Require repair or replacement.

_____ Suggests repair or replacement.

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Maintenance interval ³ Suggest repair or replacement to comply with
 ³ OEM recommended service intervals.

AA

EGR PIPE/PLATE/COOLER

AA

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

AA

Missing	³ Require replacement.
---------	-----------------------------------

AA

Leaking	³ Require repair or replacement.
---------	---

AA

Restricted	³ Require repair or replacement.
------------	---

AA

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

AA

EGR CONTROLS (ELECTRICAL/VACUUM)

AA

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

AA

Missing	³ Require replacement.
---------	-----------------------------------

AA

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

AA

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

AA

Leaking	³ Require repair or replacement.
---------	---

AA

Restricted	³ Require repair or replacement.
------------	---

AA

EGR INTAKE/EXHAUST MANIFOLD PASSAGES

AA

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

AA

Leaking	³ Require repair or replacement.
---------	---

AA

Restricted	³ Require repair or replacement.
------------	---

AA

AIR INJECTION SYSTEM

AIR PUMP

AA

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

AA

Missing	³ Require replacement.
---------	-----------------------------------

AA

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

AA

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

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Missing ³ Require replacement.

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Damaged	³	Suggest repair or replacement.
Restricted	³	Require repair or replacement.
Leaking	³	Require repair or replacement.
Missing, damaged mounting hardware	³	Suggest repair or replacement of hardware.

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)

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

HOSES/CLAMPS/TUBES

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```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Condi tion          3                      Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Missing             3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Damaged             3  Suggest replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Leaking             3  Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Restricted          3  Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

```

EVAPORATIVE EMISSION CANISTER PURGE VALVE (ELECTRICAL/VACUUM)

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Condi tion          3                      Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Missing             3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Damaged             3  Suggest replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Inoperative         3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Leaking             3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

```

GAS CAP

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Condi tion          3                      Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Missing             3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Leaking             3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Damaged             3  Suggest replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

```

LIQUID/VAPOR SEPARATOR

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Condi tion          3                      Procedure
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Missing             3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Leaking             3  Require replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Damaged             3  Suggest repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Inoperative         3  Require repair or replacement.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

```

ROLL OVER VALVE

```

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Condi tion          3                      Procedure

```

