GROUP 00

GENERAL <BODY AND CHASSIS>

CONTENTS

HOW TO USE THIS MANUAL

M1001000100488

MAINTENANCE, REPAIR AND SERVICING EXPLANATIONS

This manual provides explanations, etc. concerning procedures for the inspection, maintenance, repair and servicing of the subject model. Unless otherwise specified, each service procedure covers all models. Procedures covering specific models are identified by the model codes, or similar designation (engine type, transaxle type, etc.). A description of these designations is covered in this manual under "VEHICLE IDENTIFICATION."

ON-VEHICLE SERVICE

The "ON-VEHICLE SERVICE" section has procedures for performing inspections and adjustments of particularly important components. These procedures are done with regard to maintenance and servicing, but other inspections (looseness, play, cracking, damage, etc.) must also be performed.

SERVICE PROCEDURES

The service steps are arranged in numerical order. Attention to be paid in performing vehicle service are described in detail in SERVICE POINTS.

DEFINITION OF TERMS

STANDARD VALUE

Indicates the value used as the standard for judging whether or not a part or adjustment is correct.

LIMIT

Shows the maximum or minimum value for judging whether or not a part or adjustment is acceptable.

REFERENCE VALUE

Indicates the adjustment value prior to starting the work (presented in order to facilitate assembly and adjustment procedures, and so they can be completed in a shorter time).

DANGER, WARNING, AND CAUTION

DANGER, WARNING, and CAUTION call special attention to a necessary action or to an action that must be avoided. The differences among DANGER, WARNING, and CAUTION are as follows:

- If a DANGER is not followed, the result is severe bodily harm or even death.
- If a WARNING is not followed, the result could be bodily injury.
- If a CAUTION is not followed, the result could be damage to the vehicle, vehicle components or service equipment.

TIGHTENING TORQUE INDICATION

The tightening torque indicates a median and its tolerance by a unit of N·m (in-lb) or N·m (ft-lb). For fasteners with no assigned torque value, refer to P.00-28.

SPECIAL TOOL NOTE

Only MMC special tool part numbers are called out in the repair sections of this manual. Please refer to the special tool cross-reference chart located at the beginning of each group, for the special tool number that is available in your market.

ABBREVIATIONS

The following abbreviations are used in this manual for classification of model types:

M/T: Manual transaxle, or models equipped with manual transaxle.
MFI: Multiport fuel injection, or engines equipped with multiport fuel injection.
AWD: 4-wheel drive vehicles.
A/C: Air conditioning.
2.0L Engine: 2.0 liter <4G63> engine, or a model equipped with such an engine.
ECM: Engine control module
SWS: Simplified Wiring System

NOTES

EXPLANATION OF MANUAL CONTENTS

Indicates procedures to be performed before the work in that section is started, and procedures to be performed after the work in that section is finished.

Component diagram

A diagram of the component parts is provided near the front of each section in order to give the reader a better understanding of the installed condition of component parts.

Maintenance and servicing procedures

The numbers provided within the diagram indicate the sequence for maintenance and servicing procedures.

- Removal steps :
  The part designation number corresponds to the number in the illustration to indicate removal steps.
- Disassembly steps :
  The part designation number corresponds to the number in the illustration to indicate disassembly steps.
- Installation steps :
  Specified in case installation is impossible in reverse order of removal steps. Omitted if installation is possible in reverse order of removal steps.
- Assembly steps :
  Specified in case assembly is impossible in reverse order of disassembly steps. Omitted if assembly is possible in reverse order of disassembly steps.

Classifications of major maintenance / service points

When there are major points relative to maintenance and servicing procedures (such as essential maintenance and service points, maintenance and service standard values, information regarding the use of special tools, etc.). These are arranged together as major maintenance and service points and explained in detail.

<<A>> : Indicates that there are essential points for removal or disassembly.
>>A<< : Indicates that there are essential points for installation or assembly.

Symbols for lubrication, sealants and adhesives

Symbols are used to show the locations for lubrication and for application of sealants and adhesives. These symbols are included in the diagram of component parts or on the page following the component parts page. The symbols do not always have accompanying text to support that symbol.

- : Grease (Multi-purpose grease unless there is a brand or type specified)
- : Sealant or adhesive
- : Brake fluid or automatic transmission fluid
- : Engine oil, gear oil or air conditioning compressor oil
- : Adhesive tape or butyl rubber tape

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Indicates the group title.

Indicates the section title.

Indicates the group number.

Indicates the page number.

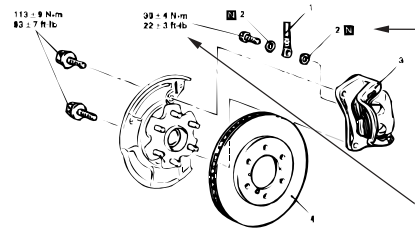
BASIC BRAKE SYSTEM
FRONT DISC BRAKE ASSEMBLY

35A-81

FRONT DISC BRAKE ASSEMBLY

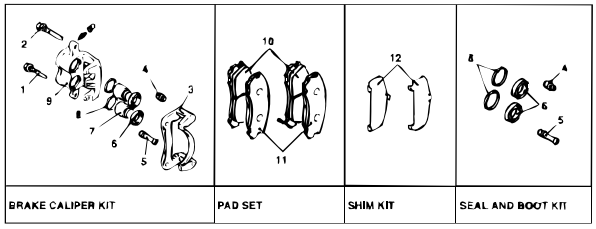
REMOVAL AND INSTALLATION

Pre-removal Operation	Post-installation Operation
• Brake Fluid Draining	• Brake Fluid Supplying and Air Bleeding (Refer to .)



Mark N denotes non-reusable part.

Denotes tightening torque. If there is no indication of tightening torque, refer to tightening torque



BRAKE CALIPER KIT	PAD SET	SHIM KIT	SEAL AND BOOT KIT

Repair kit or parts sets are shown. (Only very frequently used parts are shown.)

REMOVAL STEPS
1. BRAKE HOSE CONNECTION
2. GASKET

REMOVAL STEPS (Cont.)
>>A<< 3. DISC BRAKE ASSEMBLY
4. BRAKE DISC

Required Special Tool:
- MB990520: Disc Brake Piston Expander

Operating procedures, cautions, etc. Removal, installation, disassembly and assembly are described.

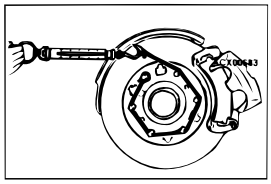
INSTALLATION SERVICE POINT

>>A<< DISC BRAKE ASSEMBLY INSTALLATION

1. To check the brake drag force after mounting the pad, measure the hub torque in the advancing direction using a spring balance with the pad is removed.

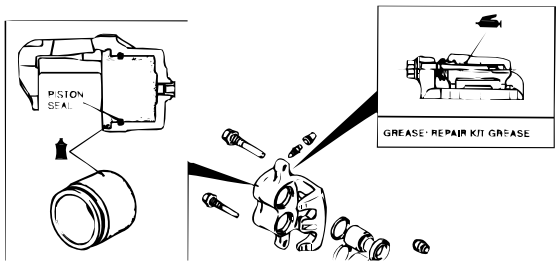
⚠ CAUTION
Do not allow any oil, grease or other contamination to contact the friction surfaces of the pads and brake discs.

2. After re-installing the caliper support to the knuckle, install the pad clips and the pads to the caliper support.



The title of the page (following the page on which the diagram of component parts is presented) indicating the locations of lubrication and sealing procedures.

LUBRICATION AND SEALING POINTS



Indicates (by symbols) where lubrication is necessary.

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TROUBLESHOOTING GUIDELINES

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VERIFY THE COMPLAINT

- Make sure the customer's complaint and the service writer's work order description are understood before starting work.
- Make sure the correct operation of the system is understood. Read the service manual description to verify normal system operation.
- Operate the system to see the symptoms. Look for other symptoms that were not reported by the customer, or on the work order, that may be related to the problem.

DETERMINE POSSIBLE CAUSES

Compare the confirmed symptoms to the diagnostic symptom indexes to find the right diagnosis procedure.
If the confirmed symptoms cannot be found on any symptom index, determine other possible causes.

- Analyze the system diagrams and list all possible causes for the problem symptoms.
- Rank all these possible causes in order of probability, based on how much of the system they cover, how likely they are to be the cause, and how easy they will be to check. Be sure to take experience into account. Consider the causes of similar problems seen in the past. The list of causes should be ranked in order from general to specific, from most-likely to least-likely, and from easy-to-check to hard-to-check.

FIND THE PROBLEM

After the symptoms have been confirmed, and probable causes have been identified, the next step is to make step-by-step checks of the suspected system components, junctions, and links in logical order.
Use the diagnostic procedures in the service manual whenever possible. Follow these procedures carefully to avoid missing an important step in the diagnosis sequence. It might be the skipped step that leads to the solution of the problem.
If the service manual doesn't have step-by-step procedures to help diagnose the problem, make a series of checks based on the ranked list of probable causes. Troubleshooting checks should be made in the order that the list of causes was ranked:

- general to specific
- most-likely to least-likely
- easy-to-check to hard-to-check

REPAIR THE PROBLEM

When the step-by-step troubleshooting checks find a fault, perform the proper repairs. Make sure to fix the root cause of the problem, not just the symptom. Just fixing the symptom, without fixing the root cause, will cause the symptom to eventually return.

VERIFY THE REPAIR

After repairs are made, recheck the operation of the system to confirm that the problem is eliminated. Be sure to check the system thoroughly. Sometimes new problems are revealed after repairs have been made.

HOW TO USE TROUBLESHOOTING/INSPECTION SERVICE POINTS

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⚠ CAUTION

- **During diagnosis, a DTC code associated with other system may be set when the ignition switch is turned on with connector(s) disconnected. On completion, confirm all systems for DTC code(s). If DTC code(s) are set, erase them all.**
- **When the MUT-III detects a diagnostic trouble code, its display informs users whether a mechanical problem currently exists or whether it existed before but normal operation has been restored. The message for the former state identifies it as a "current trouble" and the message for the latter identifies it as a "past trouble". However, if the MFI or SRS airbag-related DTC is set, "Active DTC/Stored DTC" is not displayed. In this case, follow the diagnosis procedure for current trouble.**

Troubleshooting of electronic control systems for which the scan tool can be used follows the basic outline described below. Even in systems for which the scan tool cannot be used, part of these systems still follow this outline.

TROUBLESHOOTING CONTENTS

1. STANDARD FLOW OF DIAGNOSTIC TROUBLESHOOTING
Troubleshooting strategy is shown in each group.

2. SYSTEM OPERATION AND SYMPTOM VERIFICATION TESTS
If verification of the symptom(s) is difficult, procedures for checking operation and verifying symptoms are shown.

3. DIAGNOSTIC FUNCTION
The following diagnostic trouble code diagnosis are shown.
- How to read diagnostic trouble codes
- How to erase diagnostic trouble codes
- Input inspection service points

4. DIAGNOSTIC TROUBLE CODE CHART
If the scan tool displays a diagnostic trouble code, find the applicable inspection procedure according to this chart.

5. SYMPTOM CHART
If there are symptoms, even though the scan tools show that no DTCs are set, inspection procedures for each symptom will be found by using this chart.

6. DIAGNOSTIC TROUBLE CODE PROCEDURES
Indicates the inspection procedures corresponding to each diagnostic trouble code. (Refer to P.00-8.)

7. SYMPTOM PROCEDURES
Indicates the inspection procedures corresponding to each symptom listed in the Symptom Chart. (Refer to P.00-8.)

8. SERVICE DATA REFERENCE TABLE
Inspection items and normal judgment values have been provided in this chart as reference information.

9. CHECK AT ECU TERMINALS
Terminal numbers for the ECU connectors, inspection items, and standard values have been provided in this chart as reference information.

Terminal Voltage Checks
1. Connect a needle-nosed wire probe to a voltmeter probe.

⚠ CAUTION

Short-circuiting the positive (+) probe between a connector terminal and ground could damage the vehicle wiring, the sensor, the ECU, or all three. Use care to prevent this!

2. Insert the needle-nosed wire probe into each of the ECU connector terminals from the wire side, and measure the voltage while referring to the check chart.

   NOTE: Measure voltage with the ECU connectors connected.
   You may find it convenient to pull out the ECU to make it easier to reach the connector terminals. Checks don't have to be carried out in the order given in the chart.
3. If voltage readings differ from normal condition values, check related sensors, actuators, and wiring. Replace or repair as needed.
4. After repair or replacement, recheck with the voltmeter to confirm that the repair has corrected the problem.

Terminal Resistance and Continuity Checks
1. Turn the ignition switch to "LOCK" (OFF) position.
2. Disconnect the ECU connector.

⚠ CAUTION

If resistance and continuity checks are performed on the wrong terminals, damage to the vehicle wiring, sensors, ECU, and/or ohmmeter may occur. Use care to prevent this!

3. Measure the resistance and check for continuity between the terminals of the ECU harness-side connector while referring to the check chart.

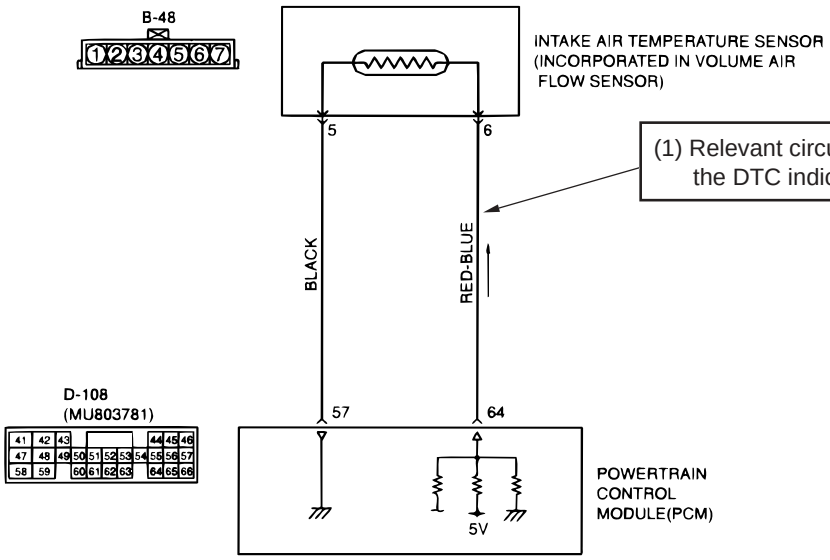
   NOTE: Checks don't have to be carried out in the order given in the chart.
4. If the ohmmeter shows any deviation from the Normal Condition value, check the corresponding sensor, actuator and related electrical wiring, then repair or replace.
5. After repair or replacement, recheck with the ohmmeter to confirm that the repair has corrected the problem.

10. INSPECTION PROCEDURES USING AN OSCILLOSCOPE
When there are inspection procedures using an oscilloscope, these are listed.

HOW TO USE THE INSPECTION PROCEDURES

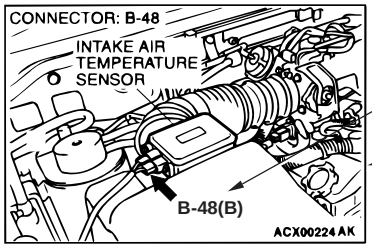
The causes of many of the problems occurring in electric circuitry are generally the connectors, components, the ECU, and the harnesses between connectors, in that order. These inspection procedures follow this order. They first try to discover a problem with a connector or a defective component.

DTC P0110: Intake Air Temperature Circuit Malfunction



(1) Relevant circuit(s) of the component which the DTC indicates are described.

(2) For connector color, refer to GROUP 80A, How to read configuration diagrams.



(3) Shows the location of the connector(s) from the circuit(s) above.

(4) Explains about the operation principle of the component or its relevant parts in that circuit.

CIRCUIT OPERATION

- Approximately 5 volts are applied to the intake air temperature sensor output terminal (terminal 6) from the PCM (terminal 64) via the resistor in the PCM. The ground terminal (terminal 5) is grounded with or PCM (terminal 57).
- The intake air temperature sensor is a negative temperature coefficient type of resistor. When the intake air temperature rises, the resistance decreases.
- The intake air temperature sensor output voltage increases when the resistance increases and decreases when the resistance decreases.

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(5) Explains about technical details.

(6) Describes the conditions for that DTC being set (stored).

(7) Describes possible cause(s)for that DTC.

(8) Start of the diagnosis procedure for that DTC.

(9) Identifies the special tool(s) necessary for diagnosing that DTC.

(10) Provides the inspection procedure for that DTC step by step.

TECHNICAL DESCRIPTION

- The engine coolant temperature sensor converts the engine coolant temperature to a voltage and output it.
- The PCM checks whether this voltage is within a specified range.

DTC SET CONDITIONS

Check Conditions

- Engine coolant temperature was 7°C (45°F) or more immediately before the engine was stopped at the last drive.

TROUBLESHOOTING HINTS (The most likely causes for this code to be set are:)

- Engine coolant temperature sensor failed.
- Open or shorted engine coolant temperature sensor circuit, or loose connector.
- PCM failed.

DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991910: Main Harness A

STEP 1. Using scan tool MB991958, check data list item 15: Transmission Fluid Temperature Sensor.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958 to the data link connector.
(2) Start the engine.
(3) Set scan tool MB991958 to the data reading mode for item 15, Transmission Fluid Temperature Sensor.
- When the engine is cool: Almost equal to the ambient temperature (atmospheric temperature)

NOTE: Set scan tool MB991958 to data reading mode for item number 13, Intake Air Temperature (IAT) Sensor and note the temperature measurement. When the engine is cool, the temperature should be almost equal to the ambient temperature (atmospheric temperature), and the IAT sensor measurement should be approximately the same as the Transmission Fluid Temperature Sensor.

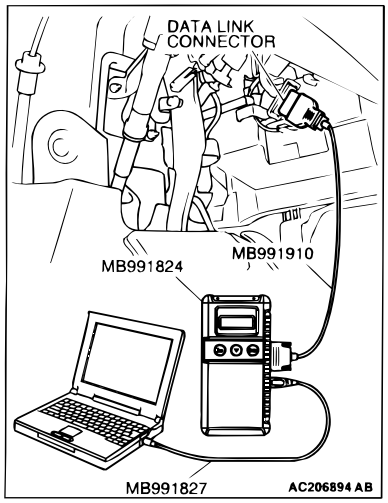
- When the engine is warm: 70 to 80°C (158 to 176°F)

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the sensor operating properly?

YES : It can be assumed that this malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting/ Inspection Service Points – How to Cope with Intermittent Malfunction .

NO : Go to Step 2.



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Current trouble

Indicates that the trouble is currently present. Carry out troubleshooting as described in the applicable inspection procedure.

Past trouble

Indicates that the trouble is historic, but normal operation has been restored. Observe the applicable inspection procedure with particular emphasis on connector(s) and wiring harness.

HARNESS INSPECTION

Check for an open or short circuit in the harness between the terminals which were faulty according to the connector measurements. Carry out this inspection while referring to GROUP 00E, Harness Connector Inspection P.00E-2. Here, "Check harness between power supply and terminal xx" also includes checking for blown fuse. For inspection service points when there is a blown fuse, refer to "Inspection Service Points for a Blown Fuse ."

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MEASURES TO TAKE AFTER REPLACING THE ECU

If the trouble symptoms have not disappeared even after replacing the ECU, repeat the inspection procedure from the beginning.

CONNECTOR MEASUREMENT SERVICE POINTS

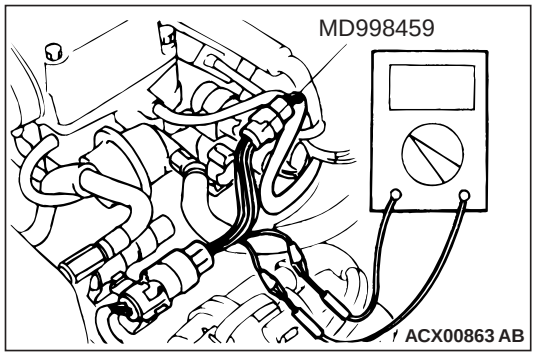
Turn the ignition switch to the "LOCK" (OFF) position when connecting and disconnecting the connectors. Turn the ignition switch to "ON" when measuring, unless there are instructions to the contrary.

IF INSPECTING WITH THE CONNECTOR CONNECTED

Required Special Tool:
MD998459: Test Harness

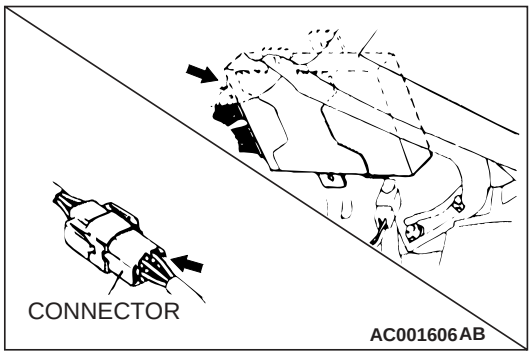
Waterproof Connectors

Be sure to use special tool, MB998459. Never insert a test probe from the harness side, as this will reduce the waterproof performance and result in corrosion.



Ordinary (non-waterproof) Connectors

Check by inserting the multi-meter test probe from the harness side. Note that if the connector (control unit, etc.) is too small to permit insertion of the test probe, it should not be forced; use the backprobing tool for this purpose.

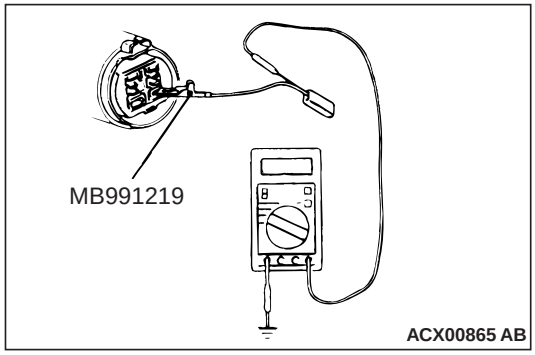


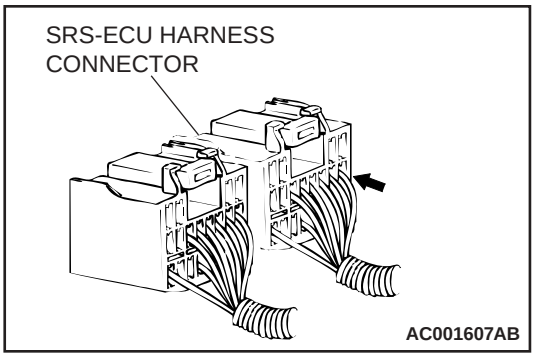
IF INSPECTING WITH THE CONNECTOR DISCONNECTED

<When Inspecting a Female Pin>

- From front side of the connector

  Required Special Tool:
  - MB991219: Inspection Harness (Included in MB991223, Harness Set)
- The inspection harness for connector pin contact pressure should be used. The test probe should never be forcibly inserted, as it may cause a defective contact.





- From back side of the connector (SRS-ECU harness side connector)
  - Since the SRS-ECU harness connector is plated to improve conductivity, observe the warning below when checking this connector.

⚠ *WARNING*

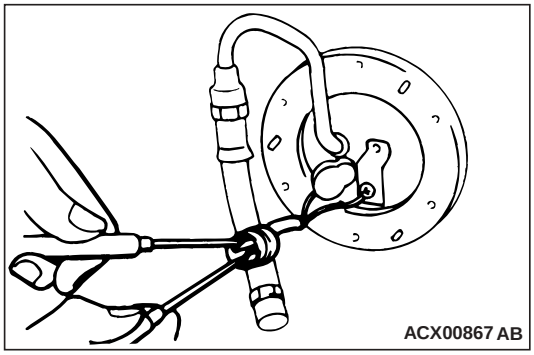
Insert the backprobing tool into the connector from the harness side, and connect the tester to the backprobing tool. If any tool other than the backprobing tool is used, it may cause damage to the harness and other components. Furthermore, measurement should not be carried out by touching the backprobing tool directly against the terminals from the front of the connector. The terminals are plated to increase their conductivity, so that if they are touched directly by the backprobing tool, the plating may break, which will decrease reliability.

<When Inspecting a Male Pin>

⚠ CAUTION

At this time, be careful not to short the connector pins with the test probes. Doing so may damage the circuits inside the ECU.

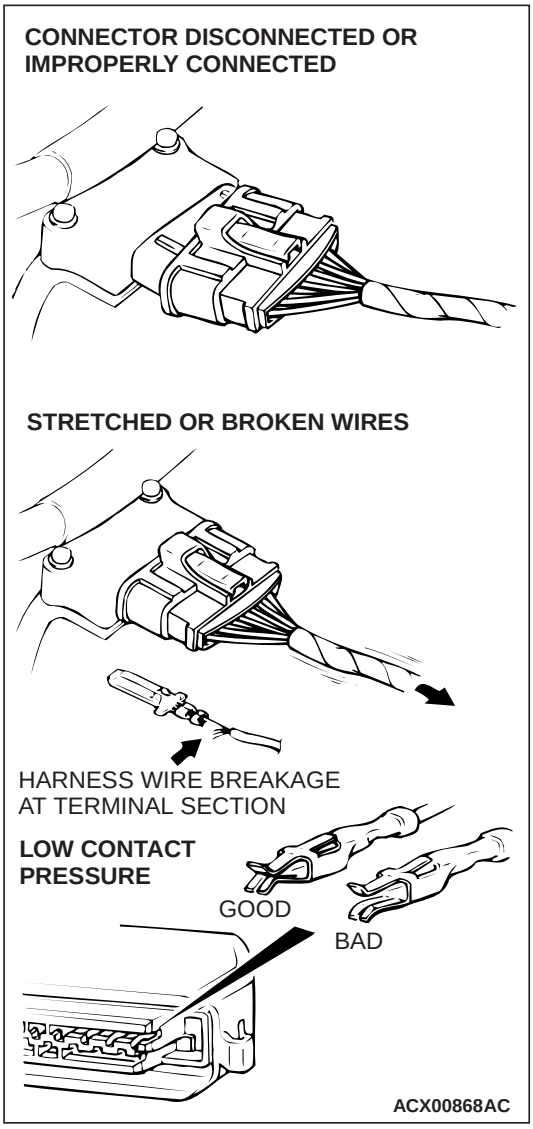
Touch the pin directly with the test probe.



CONNECTOR INSPECTION SERVICE POINTS

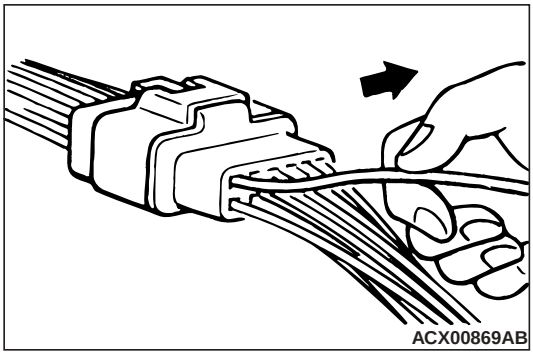
VISUAL INSPECTION

- Connector is disconnected or improperly connected
- Connector pins are pulled out
- Stretched an broken wires at terminal section
- Low contact pressure between male and female terminals
- Low connection pressure due to rusted terminals or foreign matter lodged in terminals



CONNECTOR PIN INSPECTION

If the connector pin stopper is damaged, the terminal connections (male and female pins) will not be perfect even when the connector body is connected, because the pins may pull out of the back side of the connector. Therefore, gently pull the wires one by one to make sure that no pins pull out of the connector.

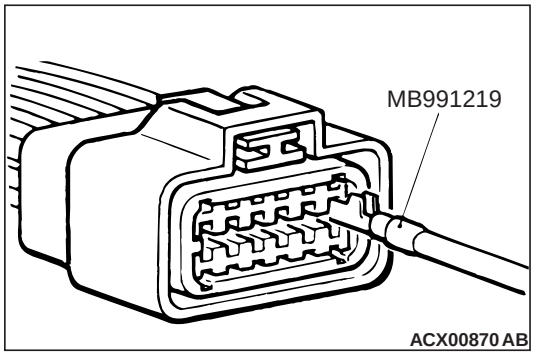


CONNECTOR ENGAGEMENT INSPECTION

Required Special Tool:

- MB991219: Inspection Harness (contained in MB991223 Test Harness)

Use special tool, MB991219 to inspect the engagement of the male pins and female pins. [Pin drawing force: 1 N (0.2 pound) or more]



HOW TO COPE WITH INTERMITTENT MALFUNCTIONS

Most intermittent malfunctions occur under certain conditions. If those conditions can be identified, the cause will be easier to find.

TO COPE WITH INTERMITTENT MALFUNCTION;

1. Ask the customer about the malfunction

Ask what it feels like, what it sounds like, etc. Then ask about driving conditions, weather, frequency of occurrence, and so on.

2. Determine the conditions from the customer's responses

Typically, almost all intermittent malfunctions occur from conditions like vibration, temperature and/or moisture change, poor connections. From the customer's responses, it should be reasoned which condition is most likely.

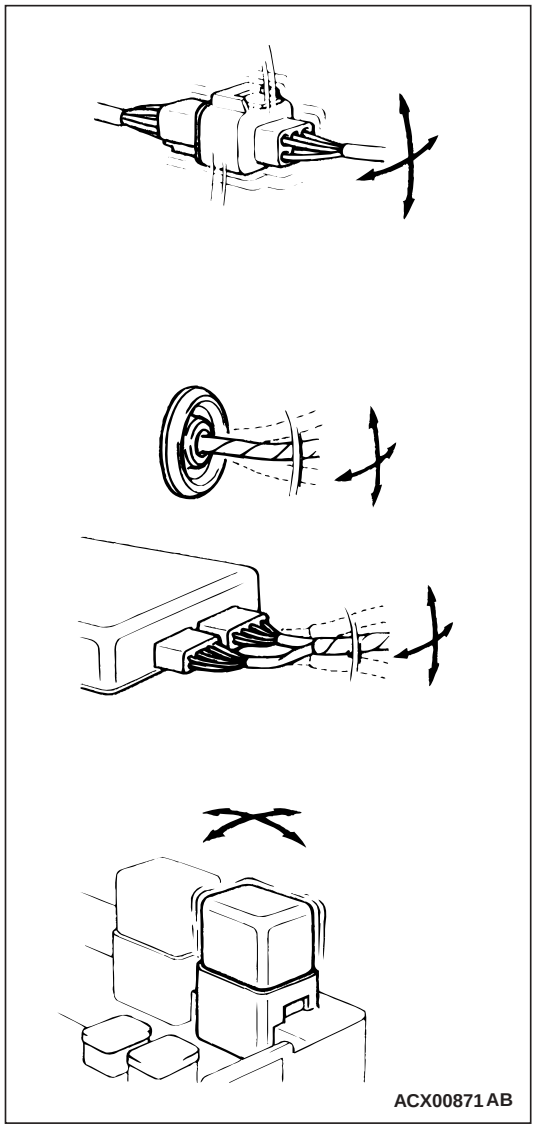
3. Use simulation test

Use the simulation tests below to attempt to duplicate the customer's complaint. Determine the most likely circuit(s) and perform the simulation tests on the connectors and parts of that circuit(s). Be sure to use the inspection procedures provided for diagnostic trouble codes and trouble symptoms.

For temperature and/or moisture condition related intermittent malfunctions, try to change the conditions of the suspected circuit components, then use the simulation tests below.

4. Verify the intermittent malfunction is eliminated

Repair the malfunctioning part and try to duplicate the condition(s) again to verify the intermittent malfunction has been eliminated.



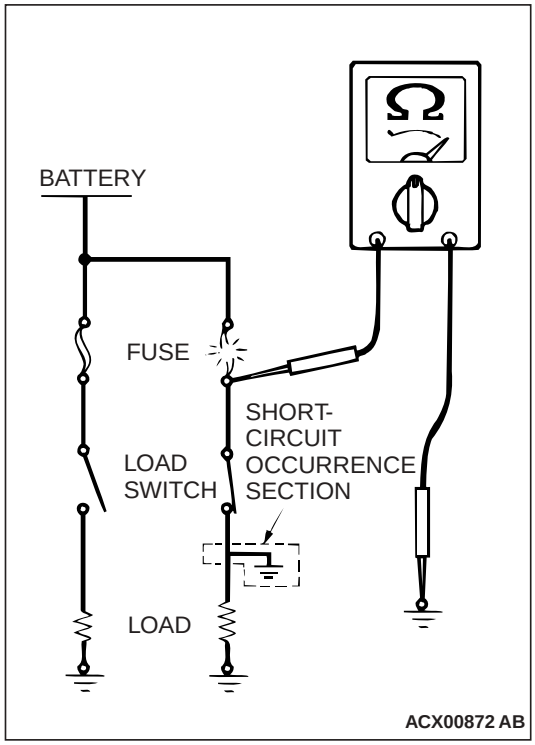
SIMULATION TESTS

NOTE: In case of difficulty in finding the cause of the intermittent malfunction, the data recorder function in the scan tool is effective.

For these simulation tests, shake, then gently bend, pull, and twist the wiring of each of these examples to duplicate the intermittent malfunction.

- Shake the connector up-and-down, and right-and-left.
- Shake the wiring harness up-and-down, and right-and-left. Especially, check the splice points of wiring harnesses carefully. Refer to GROUP 00E, Harness Connector Inspection P.00E-2.
- Shake the part or sensor.

INSPECTION SERVICE POINTS FOR A BLOWN FUSE



Remove the blown fuse and measure the resistance between the load side of the blown fuse and the ground. Close the switches of all circuits which are connected to this fuse. If the resistance is almost 0 Ω at this time, there is a short somewhere between these switches and the load. If the resistance is not 0 Ω, there is no short at the present time, but a momentary short has probably caused the fuse to blow.
The main causes of a short circuit are the following.

- Harness being clamped by the vehicle body
- Damage to the outer casing of the harness due to wear or heat
- Water getting into the connector or circuitry
- Human error (mistakenly shorting a circuit, etc.)

VEHICLE IDENTIFICATION

VEHICLE IDENTIFICATION

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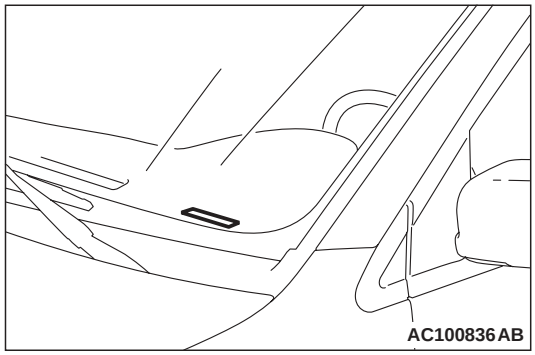
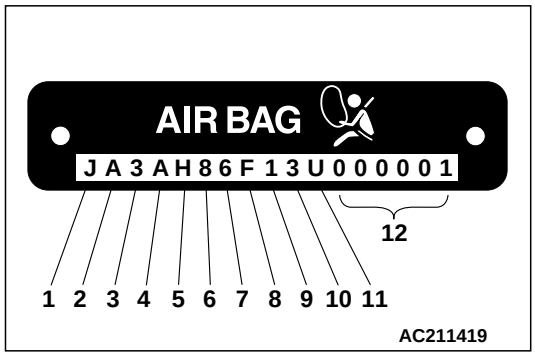


VEHICLES IDENTIFICATION NUMBER LOCATION

The vehicle identification number (VIN) is located on a plate attached to the left top side of the instrument panel.

VEHICLE IDENTIFICATION CODE CHART PLATE



All vehicle identification numbers contain 17 digits. The vehicle number is a code which tells country, make, vehicle type, etc.

NO.	ITEMS	CONTENTS
1	Country	J: Japan
2	Make	A: Mitsubishi
3	Vehicle type	3: Passenger car
4	Others	A: Driver and passenger air bags
5	Line	H: LANCER AWD
6	Price class	8: Sports
7	Body	6: 4-door sedan
8	Engine	F: 2.0L
9	Check digits*	0, 1, 2, 3, ----------9, X
10	Model year	3: 2003 year
11	Plant	U: Mizushima
12	Serial number	000001 to 999999

*NOTE: *: Check digit means a singles number or letter X used to verify the accuracy of transcription of vehicle identification number.*

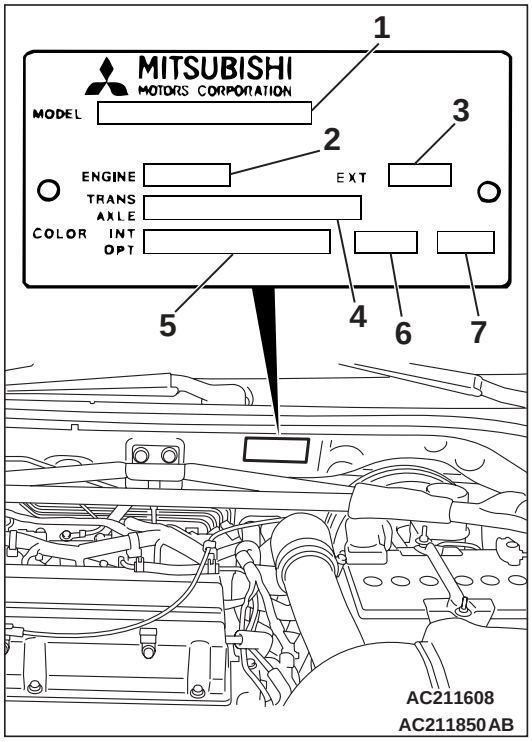
VEHICLE IDENTIFICATION NUMBER LIST

VEHICLES FOR FEDERAL EMISSION REGULATION

VIN (EXCEPT SEQUENCE NUMBER)	BRAND	ENGINE DISPLACEMENT	MODEL CODE
JA3AH86F_3U	MITSUBISHI LANCER EVOLUTION-VIII	2.0L	CT9ASNGFZL2M

VEHICLE INFORMATION CODE PLATE

M1001005400354

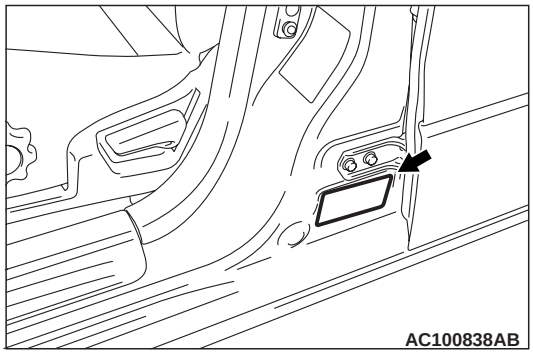


The vehicle information code plate is riveted onto the cowl top outer panel in the engine compartment.
The plate shows model code, engine model, transaxle model and body color code.

NO.	ITEM	CONTENT	
1	MODEL	CT9ASNGF ZL2M	CT9AS: Vehicle model
			NGFZL2M: Model series
2	ENGINE	4G63	Engine model
3	EXT	ZZZ	Exterior code
4	TRANS AXLE	F5M42	F5M42:Transaxle model
5	COLOR	W83	W83: Body color code
6	INT	33X	33X: Interior code
7	OPT	N22	N22: Equipment code

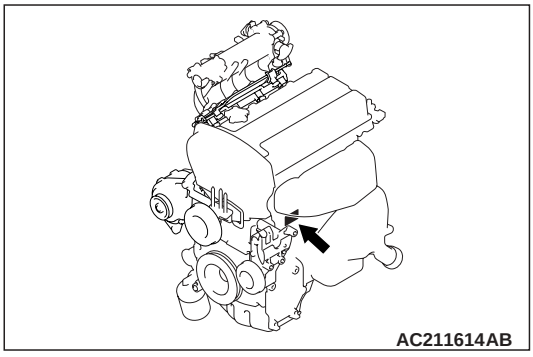
For monotone color vehicles, the body color code shall be indicated.

VEHICLE SAFETY CERTIFICATION LABEL



The vehicle safety certification label is attached to the face of the left door sill.
This label indicates the month and year of manufacture, Gross Vehicle Weight Rating (GVWR), front and rear Gross Axle Weight Rating (GAWR), and Vehicle Identification Number (VIN).

ENGINE MODEL STAMPING



The engine model is stamped on the cylinder block.
These engine model number are as shown as follows.

ENGINE MODEL	ENGINE DISPLACEMENT
4G63	2.0L

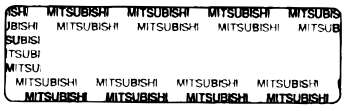
The engine serial number is stamped near the engine model number.

THEFT PROTECTION

In order to protect against theft, a Vehicle Identification Number (VIN) is attached as a plate or label to the following major parts of the engine and transaxle, as well as main outer panels:
Engine cylinder block, Transaxle housing, Fender, Doors, Trunk lid, Quarter panel, Hood, Bumpers
In addition, a theft-protection label is attached to replacement parts for the body outer panel main components, and the same data is stamped into replacement parts for the engine and the transaxle.

THEFT PROTECTION LABEL

FOR ORIGINAL PARTS



FOR REPLACEMENT PARTS

AC101015AB

⚠ CAUTION

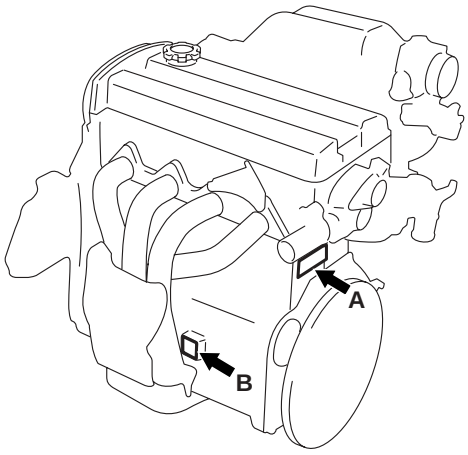
Cautions regarding panel repairs:

1. **When repainting original parts, do so after first masking the theft-protection label. After painting, be sure to peel off the masking tape.**
2. **The theft-protection label for replacement parts is covered by masking tape, so such parts can be painted as is. The masking tape should be removed after painting is finished.**
3. **The theft-protection label should not be removed from original parts or replacement parts.**

LOCATIONS

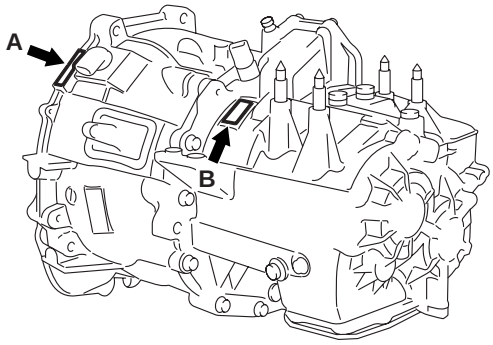
LABEL AREA (A: FOR ORIGINAL EQUIPMENT PARTS, B: FOR REPLACEMENT PARTS)

ENGINE



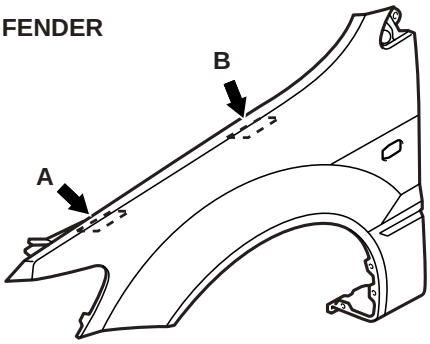
AC211574 AB

MANUAL TRANSAXLE



AC211575 AB

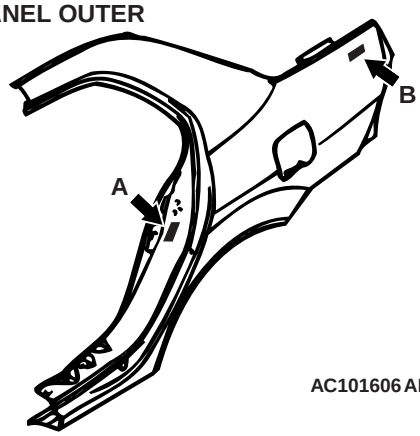
FENDER



AC101605 AB

THE ILLUSTRATION INDICATES LEFT OUTER SIDE.
RIGHT SIDE IS SYMMETRICALLY OPPOSITE.

QUARTER PANEL OUTER

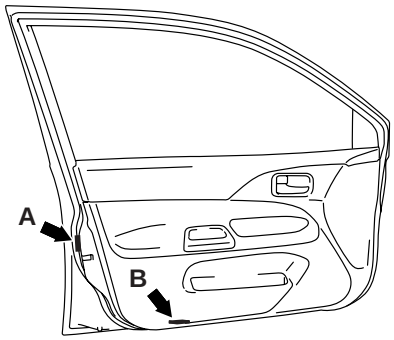


AC101606 AB

THE ILLUSTRATION INDICATES LEFT OUTER SIDE.
RIGHT SIDE IS SYMMETRICALLY OPPOSITE.

LABEL AREA (A: FOR ORIGINAL EQUIPMENT PARTS, B: FOR REPLACEMENT PARTS)

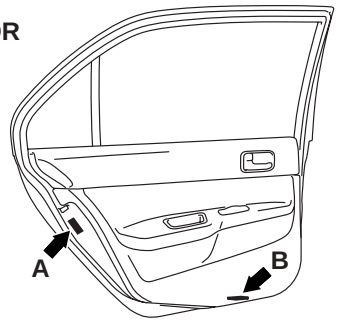
FRONT DOOR



THE ILLUSTRATION INDICATES LEFT INNER SIDE.
RIGHT SIDE IS SYMMETRICALLY OPPOSITE.

AC101607AB

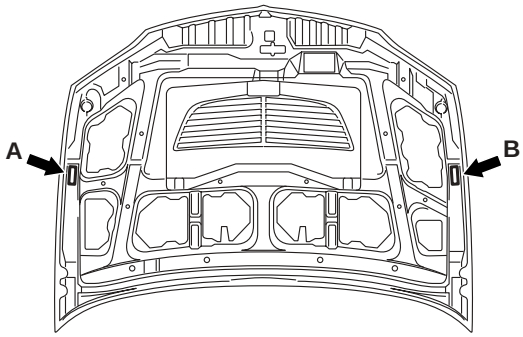
REAR DOOR



THE ILLUSTRATION INDICATES LEFT INNER SIDE.
RIGHT SIDE IS SYMMETRICALLY OPPOSITE.

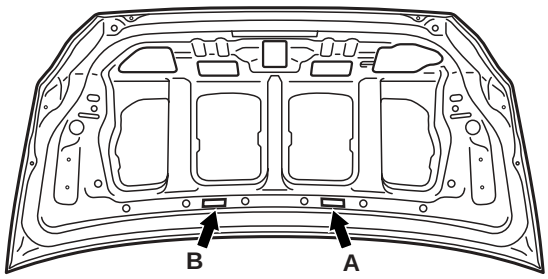
AC101608AB

HOOD



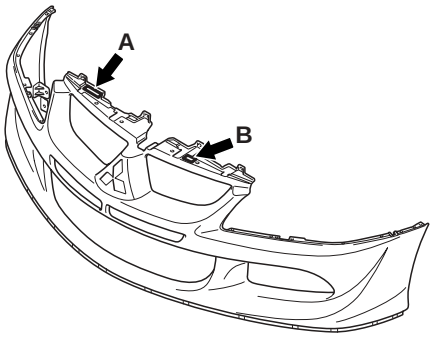
AC211576AB

TRUNK LID



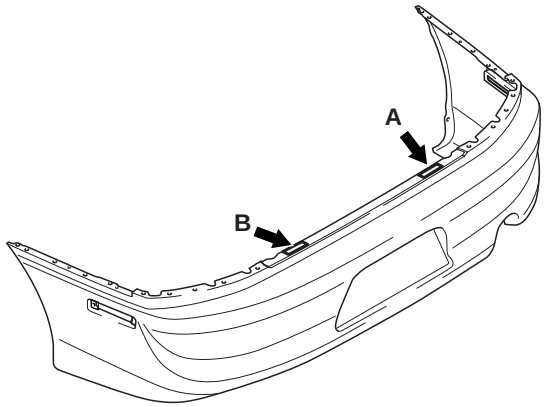
AC212032 AB

FRONT BUMPER



AC211577AB

REAR BUMPER



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TSB Revision

PRECAUTIONS BEFORE SERVICE

M1001000500367

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

1. Items to review when servicing SRS
   (1) Be sure to read GROUP 52B, Supplemental Restraint System (SRS). For safe operation, please follow the directions and heed all warnings.
   (2) Wait at least 60 seconds after disconnecting the battery cable before doing any further work. The SRS system is designed to retain enough voltage to deploy the air bag even after the battery has been disconnected. Serious injury may result from unintended air bag deployment if work is done on the SRS system immediately after the battery cable is disconnected.
   (3) Warning labels must be heeded when servicing or handling SRS components. Warning labels can be found in the following locations.
      • Front impact sensor
      • Sun visor
      • Glove box
      • SRS-ECU
      • Steering wheel
      • Clock spring
      • Joint cover
      • Air bag module (Driver's or front passenger's)
      • Seat belt pre-tensioner
   (4) Always use the designated special tools and test equipment.
   (5) Store components removed from the SRS in a clean and dry place. The air bag module should be stored on a flat surface and placed so that the pad surface is facing upward.
   (6) Never attempt to disassemble or repair the SRS components (SRS-ECU, air bag module, clock spring and seat belt pre-tensioner). If there is a defect, replace the defective part.
   (7) Whenever you finish servicing the SRS, check the SRS warning light operation to make sure that the system functions properly.
   (8) Be sure to deploy the air bag before disposing of the air bag module or disposing of a vehicle equipped with an air bag. (Refer to GROUP 52B P.52B-197, Air Bag Module Disposal Procedures.)
2. Observe the following when carrying out operations on places where SRS components are installed, including operations not directly related to the SRS air bag.
   (1) When removing or installing parts, do not allow any impact or shock to occur to the SRS components.
   (2) If heat damage may occur during paint work, remove the SRS components. After re-installing them, check the SRS warning light operation to make sure that the system functions properly.
      • SRS-ECU, air bag module, clock spring: 93°C (200°F) or more
      • Seat belt pre-tensioner: 90°C (194°F) or more

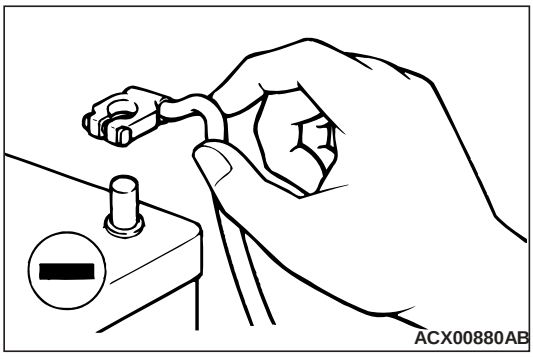
SERVICING ELECTRICAL SYSTEM

⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

1. Note the following before proceeding with working on the electrical system.

   Never perform unauthorized modifications to any electrical device or wiring. Such modifications might lead to a vehicle malfunction, over-capacity or short-circuit that could result in a fire in the vehicle.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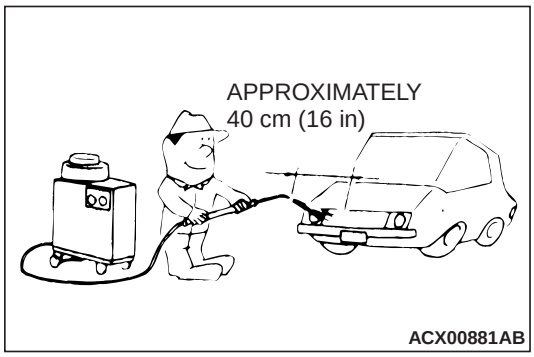
TSB Revision

⚠ CAUTION

- **Before connecting or disconnecting the negative battery cable, be sure to turn the ignition switch to the "LOCK" (OFF) position and turn off the lights. (If this is not done, there is the possibility of semiconductor parts being damaged.)**
- **After completion of the work (and the negative battery terminals is connected), warm up the engine and allow it to idle for approximately 10 minutes under the conditions described below in order to stabilize engine control conditions, and then check to be sure that the idle is satisfactory.**
  - **Engine coolant temperature: 85 – 95°C (185 – 203°F)**
  - **Lights and all accessories: OFF**
  - **Transaxle: "N" position**
  - **Steering wheel: straight-forward position**

2. When servicing the electrical system, disconnect the negative cable terminal from the battery.

VEHICLE WASHING

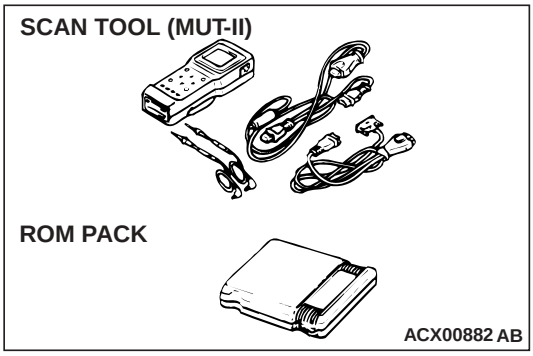


If high-pressure car-washing equipment or steam car-washing equipment is used to wash the vehicle, be sure to maintain the spray nozzle at a distance of at least approximately 40 cm (16 inches) from any plastic parts and all opening parts (doors, luggage compartment, etc.).

APPLYING ANTI-CORROSION AGENT OR OTHER UNDERCOAT AGENTS

Be careful not to apply oil or grease to the heated oxygen sensor. If applied, the sensor may malfunction. Protect the heated oxygen sensor with a cover before applying anti-corrosion agent, etc.

SCAN TOOL (MUT-II)



⚠ CAUTION

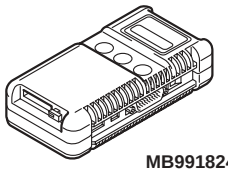
Turn the ignition switch to "LOCK" (OFF) position before disconnecting or connecting the scan tool.

To operate the scan tool, refer to "MUT-II/MUT-II+ Reference Manual."

SCAN TOOL (MUT-III Sub Assembly)

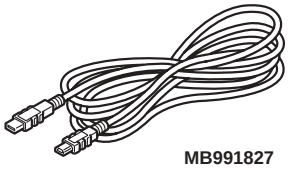
⚠ CAUTION

VEHICLE COMMUNICATION INTERFACE (V.C.I.)



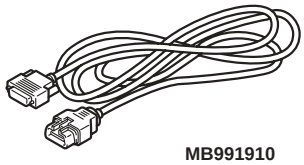
MB991824

MUT-III USB CABLE



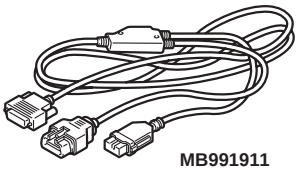
MB991827

MUT-III MAIN HARNESS A



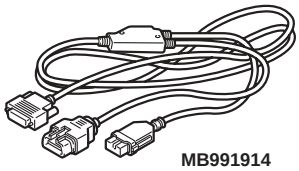
MB991910

MUT-III MAIN HARNESS B



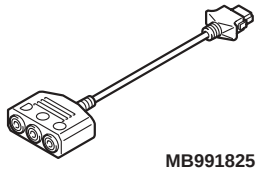
MB991911

MUT-III MAIN HARNESS C



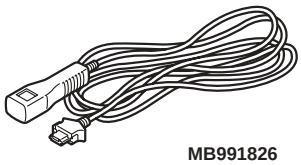
MB991914

MUT-III ADAPTER HARNESS



MB991825

MUT-III TRIGGER HARNESS



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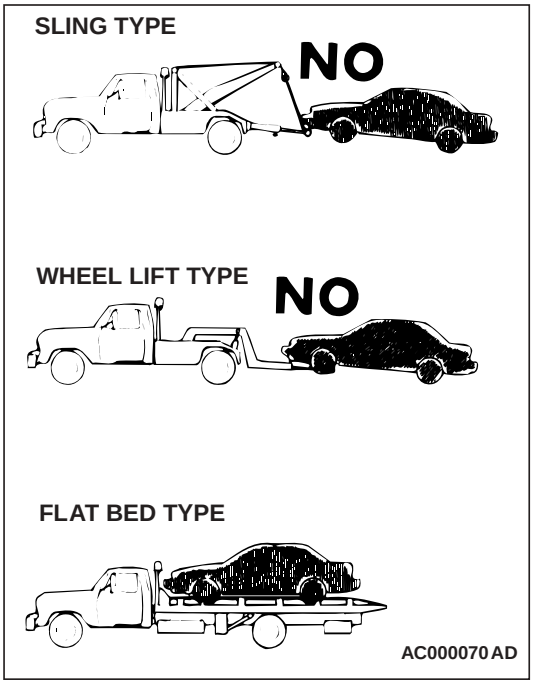
Turn the ignition switch to the "LOCK" (OFF) position before disconnecting or connecting the scan tool.

TOWING AND HOISTING

M1001000800324

WRECKER TOWING RECOMMENDATION

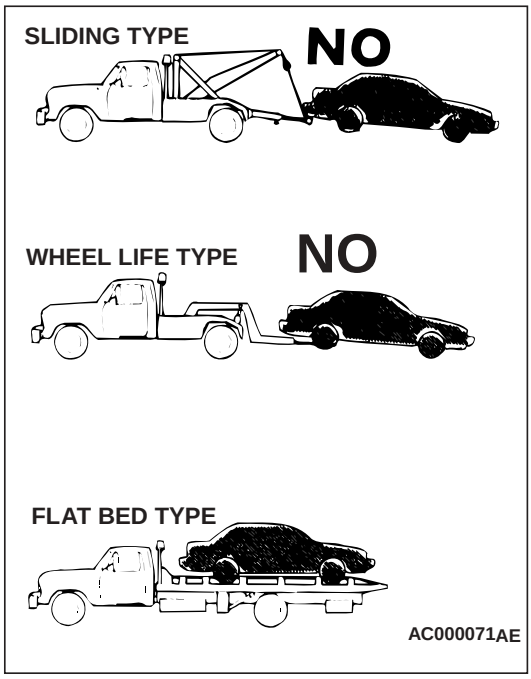
FRONT TOWING PICKUP



⚠ CAUTION

- **The vehicle must not be towed by placing only its front wheels on a rolling dolly, because to do so will result in deterioration of the viscous coupling and in the viscous coupling causing the vehicle to jump forward suddenly.**
- **If this vehicle is towed, use flat bed equipment**

REAR TOWING PICKUP



⚠ CAUTION

- **The vehicle must not be towed by placing only the rear wheels on a rolling dolly, because to do so will result in deterioration of the viscous coupling and in the viscous coupling causing the vehicle to jump forward suddenly.**
- **If this vehicle is towed, use flat bed equipment.**

Automatic transmission vehicle may be towed on the front wheels at speeds not to exceed 50 km/h (30 mph) for distances not to exceed 30 km (18 miles).

SAFETY PRECAUTIONS

The following precautions should be taken when towing the vehicle:

1. DO NOT LIFT OR TOW THE VEHICLE BY ATTACHING TO OR WRAPPING AROUND THE BUMPER.
2. Any loose, protruding, or damaged parts such as hoods, doors, fenders, trim, etc. should be secured or removed prior to moving the vehicle.
3. Refrain from going under a vehicle when it is lifted by the towing equipment, unless the vehicle is adequately supported by safety stands.
4. Never allow passengers to ride in a towed vehicle.
5. State and local rules and regulations must be followed when towing a vehicle.

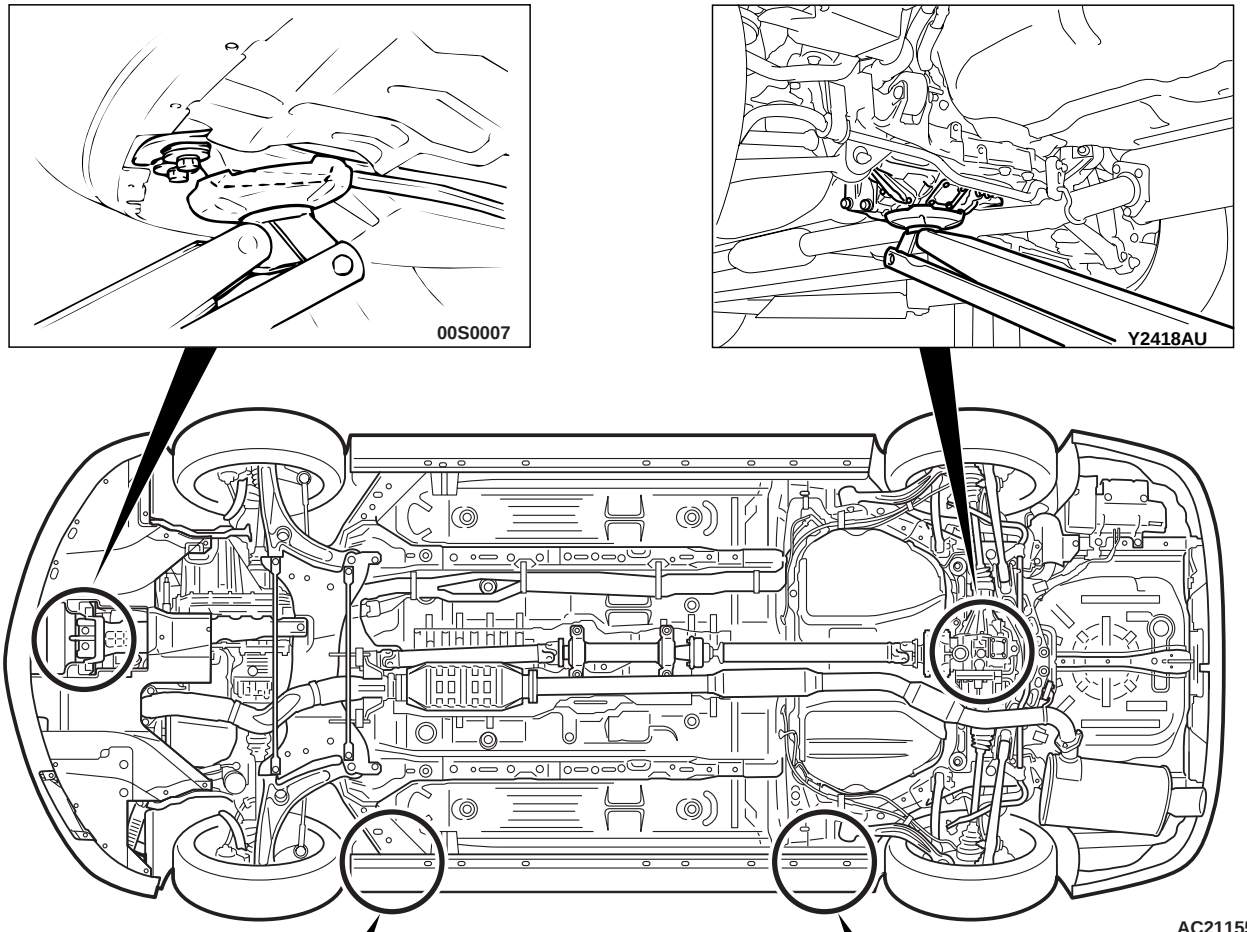
TSB Revision

LIFTING, JACKING SUPPORT LOCATION

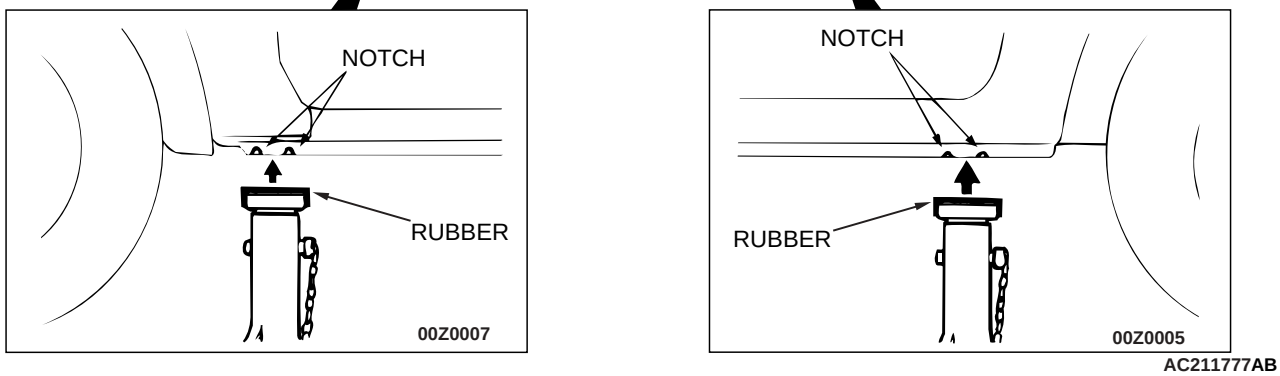
FLOOR JACK

⚠ CAUTION

- **Never support any point other than the specified one, or that point will be deformed.**
- **For lifting, put rubber or similar material between the side sill and rigid rack, or the side sill area will be damaged.**



RIGID RACK



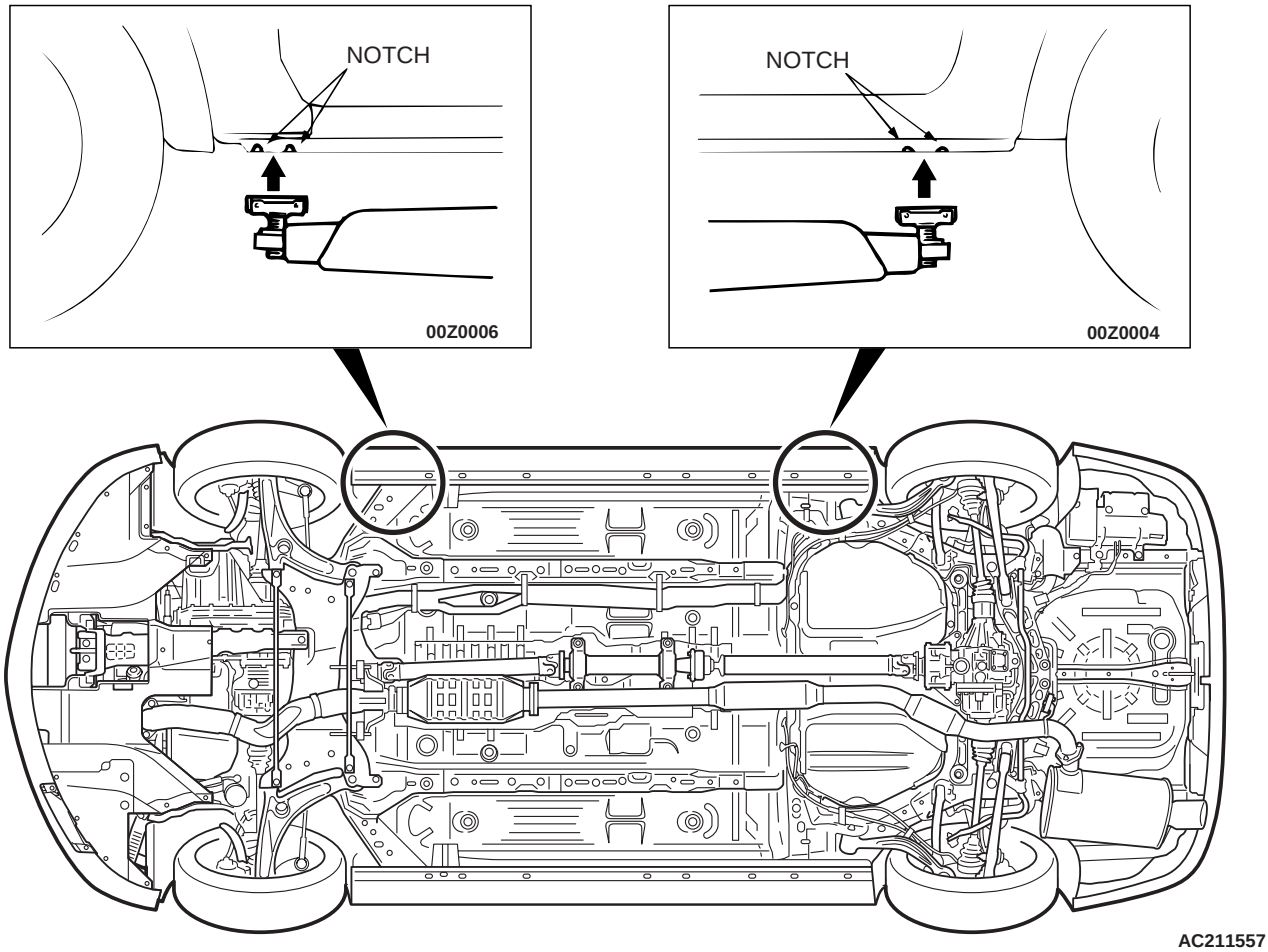
TSB Revision

POST TYPE

Special care should be taken when raising the vehicle on a frame contact type hoist. The hoist must be equipped with the proper adapters in order to support the vehicle at the proper locations.

⚠ CAUTION

When service procedures require removing rear suspension, fuel tank and spare tire, place additional weight on rear end of vehicle or anchor vehicle to hoist to prevent tipping when the location of the center of gravity changes.



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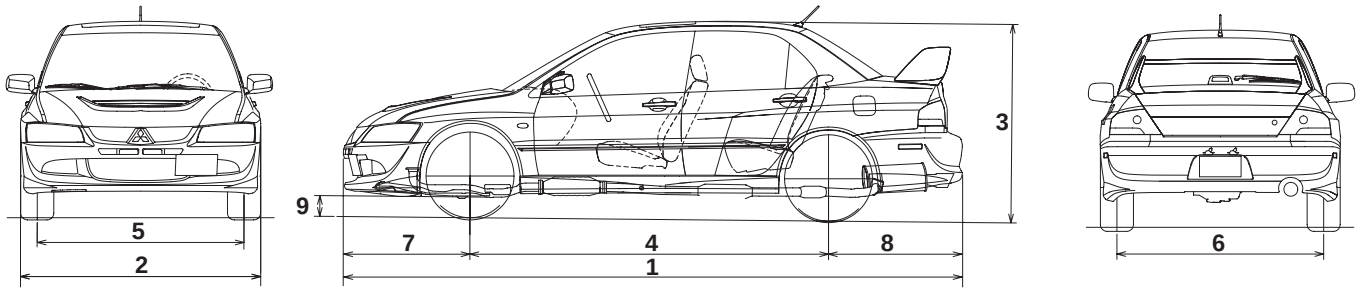
GENERAL DATA AND SPECIFICATIONS

M1001000900376



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GENERAL SPECIFICATIONS

ITEM			CT9A SNGFZL 2M
Vehicle dimension mm (in)	Overall length	1	4,535 (178.5)
	Overall width	2	1,770 (69.7)
	Overall height (unladen)	3	1,450 (57.1)
	Wheelbase	4	2,625 (103.3)
	Tread-front	5	1,515 (59.6)
	Tread-rear	6	1,515 (59.6)
	Front overhang	7	930 (36.6)
	Rear overhang	8	980 (38.6)
	Minimum running ground clearance	9	140 (5.5)
Vehicle weight kg (lb)	Curb weight		1,506 (3,320)
	Gross vehicle weight rating		1,915 (4,222)
	Gross axle weight rating-front		1,030 (2,271)
	Gross axle weight rating-rear		905 (1,995)
Seating capacity			5
Engine	Model No.		4G63 T/C I/C
	Piston displacement		2.0L
Transaxle	Model No.		W5M51
	Type		5-speed forward, 1-speed reverse constant mesh
Fuel system	Fuel supply system		Electronic controlled multiport fuel injection

TSB Revision

TIGHTENING TORQUE

M1001001100340

Each torque value in the table is a standard value for tightening under the following conditions.

1. Bolts, nuts and washers are all made of steel and plated with zinc.
2. The threads and bearing surface of bolts and nuts are all in dry condition.

The values in the table are not applicable:

1. If toothed washers are inserted.
2. If plastic parts are fastened.
3. If bolts are tightened to plastic or die-cast inserted nuts.
4. If self-tapping screws or self-locking nuts are used.

Standard bolt and nut tightening torque

THREAD SIZE		STANDARD TIGHTENING TORQUE		
NOMINAL BOLT DIAMETER (mm)	PITCH (mm)	HEAD MARK "4"	HEAD MARK "7"	HEAD MARK "8"
M5	0.8	2.5±0.5 N·m (23±4 in-lb)	5.0±1.0 N·m (44±9 in-lb)	6.0±1.0 N·m (53±9 in-lb)
M6	1.0	5.0±1.0 N·m (44±9 in-lb)	9.0±2.0 N·m (79±18 in-lb)	10±2 N·m (89±17 in-lb)
M8	1.25	12±2 N·m (107±17 in-lb)	22±4 N·m (16±3 ft-lb)	25±4 N·m (18±3 ft-lb)
M10	1.25	24±4 N·m (18±3 ft-lb)	44±10 N·m (33±7 ft-lb)	53±7 N·m (39±5 ft-lb)
M12	1.25	41±8 N·m (30±6 ft-lb)	83±12 N·m (61±9 ft-lb)	98±12 N·m (72±9 ft-lb)
M14	1.5	73±12 N·m (54±9 ft-lb)	140±20 N·m (104±14 ft-lb)	155±25 N·m (115±18 ft-lb)
M16	1.5	110±20 N·m (81±15 ft-lb)	210±30 N·m (155±22 ft-lb)	235±35 N·m (174±25 ft-lb)
M18	1.5	165±25 N·m (122±18 ft-lb)	300±40 N·m (222±29 ft-lb)	340±50 N·m (251±37 ft-lb)
M20	1.5	225±35 N·m (166±26 ft-lb)	410±60 N·m (303±44 ft-lb)	480±70 N·m (354±52 ft-lb)
M22	1.5	300±40 N·m (222±29 ft-lb)	555±85 N·m (410±62 ft-lb)	645±95 N·m (476±70 ft-lb)
M24	1.5	395±55 N·m (292±40 ft-lb)	735±105 N·m (543±77 ft-lb)	855±125 N·m (631±92 ft-lb)

Flange bolt and nut tightening torque

THREAD SIZE		STANDARD TIGHTENING TORQUE		
NOMINAL BOLT DIAMETER (mm)	PITCH (mm)	HEAD MARK "4"	HEAD MARK "7"	HEAD MARK "8"
M6	1.0	5.0±1.0 N·m (44±9 in-lb)	10±2 N·m (89±17 in-lb)	12±2 N·m (107±17 in-lb)
M8	1.25	13±2 N·m (111±22 in-lb)	24±4 N·m (18±3 ft-lb)	27±5 N·m (20±4 ft-lb)
M10	1.25	26±4 N·m (19±3 ft-lb)	49±9 N·m (36±7 ft-lb)	58±7 N·m (43±5 ft-lb)
M10	1.5	24±4 N·m (18±3 ft-lb)	45±8 N·m (33±6 ft-lb)	55±10 N·m (41±7 ft-lb)
M12	1.25	46±8 N·m (34±6 ft-lb)	95±15 N·m (70±11 ft-lb)	105±15 N·m (78±11 ft-lb)
M12	1.75	43±8 N·m (32±6 ft-lb)	83±12 N·m(61±9 ft-lb)	98±12 N·m (72±9 ft-lb)

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LUBRICATION AND MAINTENANCE

M1001001200314

Maintenance and lubrication service recommendations have been compiled to provide maximum protection for the vehicle owner's investment against all reasonable types of driving conditions. Since these conditions vary with the individual vehicle owner's driving habits, the area in which the vehicle is operated and the type of driving to which the vehicle is subjected, it is necessary to prescribe lubrication and maintenance service on a time frequency as well as mileage interval basis.
Oils, lubricants and greases are classified and graded according to standards recommended by the Society of Automotive Engineers (SAE), the American Petroleum Institute (API) and the National Lubricating Grease Institute (NLGI).

MAINTENANCE SCHEDULES

Information for service maintenance is provided in the "SCHEDULED MAINTENANCE TABLE." Three schedules are provided; one for "Required Maintenance." one for "General Maintenance" and one for "Severe Usage Service."
The item numbers in "SCHEDULED MAINTENANCE TABLE" correspond to the section numbers in "MAINTENANCE SERVICE."

SEVERE SERVICE

Vehicles operating under severe service conditions will require more frequent service.
Component service information is included for vehicles operating under one or more of the following conditions:

1. Trailer towing or police, taxi or commercial type operation.
2. Operation of Vehicle
   (1) Short-trip operation at freezing temperature (engine not thoroughly warmed up)
   (2) More than 50% operation in heavy city traffic during hot weather above 32°C (90°F)
   (3) Extensive idling
   (4) Driving in sandy areas
   (5) Driving in salty areas
   (6) Driving in dusty conditions
   (7) Driving off-road

ENGINE OIL

⚠ CAUTION

Test results submitted to EPA have shown that laboratory animals develop skin cancer after prolonged contact with used engine oil. Accordingly, the potential exists for humans to develop a number of skin disorders, including cancer, from such exposure to used engine oil. Therefore, when changing engine oil, be careful not to touch it as much as possible. Protective clothing and gloves, that cannot be penetrated by oil, should be worn. The skin should be thoroughly washed with soap and water, or use waterless hand cleaner, to remove any used engine oil. Do not use gasoline, thinners, or solvents.

Either of the following engine oils should be used:

1. Engine oil displaying ILSAC certification mark.
2. Engine oil conforming to the API classification SL or SL/CF. For further details, refer to "LUBRICANTS SELECTION."

LUBRICANTS AND GREASES

Semi-solid lubricants bear the NLGI designation and are further classified as grades 0, 1, 2, 3, etc.
Whenever "Chassis Lubricant" is specified, Multipurpose Grease, NLGI grade Number 2, should be used.

FUEL USAGE STATEMENT

⚠ CAUTION

Using leaded gasoline in this car will damage the catalytic converters and heated oxygen sensors, and affect the warranty coverage validity.

This vehicle must use unleaded gasoline only.
This vehicle has a fuel filler tube which is especially designed to accept only the smaller-diameter unleaded gasoline dispensing nozzle.
The 2.0L model is designed to operate on unleaded gasoline having a minimum octane rating of 87 [(MON + RON)/2], or 91 RON.

NOTE:

- *MON: Motor Octane Number*
- *RON: Research Octane Number*

GASOLINE CONTAINING ALCOHOL

Some gasoline sold at service stations contain alcohol although they may not be so identified.
Using fuels containing alcohol is not recommended unless the nature of the blend can be determined as being satisfactory.
Gasohol: A mixture of 10% ethanol (grain alcohol) and 90% unleaded gasoline may be used in your vehicle. If driveability problems are experienced as a result of using gasohol, it is recommended that the vehicle be operated on gasoline.
Methanol: **Do not use gasoline containing methanol (wood alcohol).** Using this type of alcohol can result in vehicle performance deterioration and damage critical parts in the fuel system components. Fuel system damage and performance problems resulting from the use of gasoline containing methanol may not be covered by the new vehicle warranty.

GASOLINE CONTAINING METHYL TERTIARY BUTYL ETHER (MTBE)

Unleaded gasoline containing 15% or less MTBE may be used in your vehicle. (Fuel containing MTBE over 15% in volume may cause reduced engine performance and produce vapor lock or hard starting.

MATERIALS ADDED TO FUEL

Indiscriminate use of fuel system cleaning agents should be avoided. Many of these materials intended for gum and varnish removal may contain highly active solvents or similar ingredients that can be harmful to gasket and diaphragm materials used in fuel system component parts.

RECOMMENDED LUBRICANTS AND LUBRICANT CAPACITIES TABLE

M1001001300344

RECOMMENDED LUBRICANTS

LUBRICANT	SPECIFICATION	REMARK
Engine oil	Fully synthetic engine oils displaying ILSAC GF-3 certification symbol ("Starburst" symbol) or conforming to the API classification SL or SL/CF	For further details, refer to "LUBRICANTS SELECTION" section.
Manual transaxle	Gear oil API classification GL-4 SAE 75W-85W or 75W-90	-
Rear differential gear oil	Hypoid gear oil API classification GL-5 or higher • Above –23°C(–10°F): SAE90, 85W-90, 80W-90 • –34 to –23°C(–30 to –10°F): SAE80W, 80W-90 • Below –34°C(–30°F): SAE75W	-
Power steering fluid	GENUINE MITSUBISHI POWER STEERING FLUID	-
Brakes	Conforming to DOT 3 or DOT 4	-
Engine coolant	MITSUBISHI genuine coolant or equivalent	-
Door hinges	Engine oil	-
Transfer oil	Hypoid gear oil API classification GL-5 SAE90	-

LUBRICANT CAPACITY TABLE

DESCRIPTION		SPECIFICATION
Engine oil dm^3 (qt)	Oil pan (excluding oil filter and oil cooler)	4.5 (4.8)
	Oil filter	0.3 (0.32)
	Oil cooler	0.3 (0.32)
Engine coolant dm^3 (qt)		6.0 (6.3)
Manual transaxle dm^3 (qt)		2.8 (2.9)
Power steering dm^3 (qt)		1.2 (1.3)
Transfer dm^3 (qt)		0.55 (0.58)
Fuel tank dm^3 (gal)		53 (14.0)

LUBRICANT SELECTION

ENGINE OIL

⚠ CAUTION

Never use nondetergent or straight mineral oil.

Oil Identification Symbol

Use only engine oils displaying the ILSAC certification mark ("Starburst" symbol) on the container.

ILSAC CERTIFICATION MARK ("STARBURST" SYMBOL)

ACX00394AI

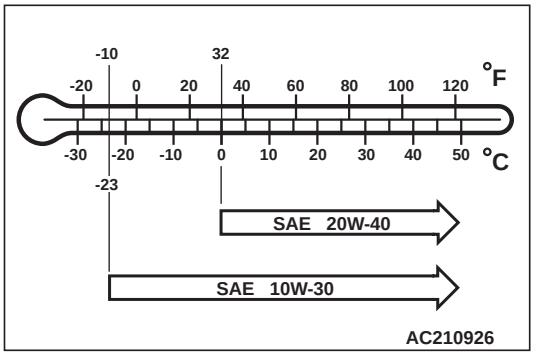
If these oils are not available, an API classification SL or SL/CF can be used.

API SERVICE SYMBOL

AC210927AB

Oil Viscosity

The SAE grade number indicates the viscosity of the oil. A proper SAE grade number should be selected according to ambient temperature.



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SELECTION OF COOLANT

COOLANT

Relationship between Coolant Concentration and Specific Gravity

⚠ CAUTION

- **If the concentration of the coolant is below 30%, the anti-corrosion property will be adversely affected. In addition, if the concentration is above 60%, both the anti-freeze and engine cooling properties will decrease, affecting the engine adversely. For these reasons, be sure to maintain the concentration level within the specified range.**
- **Do not use a mixture of different brands of anti-freeze.**

ENGINE COOLANT TEMPERATURE °C (°F) AND SPECIFIC GRAVITY					FREEZING TEMPERATURE	SAFE OPERATING TEMPERATURE	COOLANT CONCENTRATION (SPECIFIC VOLUME)
10 (50)	20 (68)	30 (86)	40 (104)	50 (122)	°C (°F)	°C (°F)	%
1.054	1.050	1.046	1.042	1.036	−16 (3.2)	−11 (12.2)	30
1.063	1.058	1.054	1.049	1.044	−20 (−4)	−15 (5)	35
1.071	1.067	1.062	1.057	1.052	−25 (−13)	−20 (−4)	40
1.079	1.074	1.069	1.064	1.058	−30 (−22)	−25 (−13)	45
1.087	1.082	1.076	1.070	1.064	−36 (−32.8)	−31 (−23.8)	50
1.095	1.090	1.084	1.077	1.070	−42 (−44)	−37 (−35)	55
1.103	1.098	1.092	1.084	1.076	−50 (−58)	−45 (−49)	60

Example

The safe operating temperature is −15°C (5°F) when the specific gravity is 1.058 at the engine coolant temperature of 20°C (68°F)

SCHEDULED MAINTENANCE TABLE

M1001001400352

SCHEDULED MAINTENANCE SERVICE FOR EMISSION CONTROL AND PROPER VEHICLE PERFORMANCE

Inspection and service should be performed any time a malfunction is observed or suspected.

NO.	EMISSION CONTROL SYSTEM MAINTENANCE	SERVICE INTERVALS	KILOMETERS IN THOUSANDS	24	48	72	96	120	144	168
			MILEAGE IN THOUSANDS	15	30	45	60	75	90	105
			MONTHS	15	30	45	60	75	90	105
1	Fuel system (tank, pipe line and connection, and fuel tank filler tube cap)	Check for leaks			X*3		X		X	
2	Fuel hoses	Check condition			X*3		X		X	
3	Air cleaner filter	Replace		X*1	X	X	X	X	X	X

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NO.	EMISSION CONTROL SYSTEM MAINTENANCE	SERVICE INTERVALS	KILOMETERS IN THOUSANDS	24	48	72	96	120	144	168
			MILEAGE IN THOUSANDS	15	30	45	60	75	90	105
			MONTHS	15	30	45	60	75	90	105
4	Evaporative emission system (except evaporative emission canister)	Check for leaks and clogging					X			
5	Spark plugs	Replace	Iridium-tipped type				X			
6	Ignition cables	Replace					X			
7	Timing belt	Replace					X*1			X*2
8	Drive belt (for generator, water pump, power steering oil pump	Check condition			X		X		X	
9	Exhaust system (connections portion of muffler, muffler pipes and converter heat shields)	Check and service			X*3		X		X	

GENERAL MAINTENANCE SERVICE FOR PROPER VEHICLE PERFORMANCE

NO.	GENERAL MAINTENANCE	SERVICE INTERVALS	KILOMETERS IN THOUSANDS	24	48	72	96	120	144	168
			MILEAGE IN THOUSANDS	15	30	45	60	75	90	105
			MONTHS	15	30	45	60	75	90	105
10	Engine oil	Change		Every 5 months or every 8,000 km (5,000 miles)						
11	Engine oil filter	Replace		Every 5 months or every 8,000 km (5,000 miles)						
12	Manual transaxle oil	Check oil level		X		X		X		X
		Change			X		X		X	
13	Transfer oil	Check oil level		X		X		X		X
		Change			X		X		X	
14	Engine coolant	Change			X		X		X	
15	Coolant hoses (radiator hose, heater hose)	Inspect			X				X	
		Replace					X			
16	Disc brake pads, rotors	Inspect for wear		Every 5 months or every 8,000 km (5,000 miles)						
17	Brake hoses	Check for deterioration or leaks		X	X	X	X	X	X	X

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NO.	GENERAL MAINTENANCE	SERVICE INTERVALS	KILOMETERS IN THOUSANDS	24	48	72	96	120	144	168
			MILEAGE IN THOUSANDS	15	30	45	60	75	90	105
			MONTHS	15	30	45	60	75	90	105
18	Ball joint and steering linkage seals	Inspect for grease leaks and damage		X	X	X	X	X	X	X
19	Suspension system	Inspect for looseness and damage		Every 5 months or every 8,000 km (5,000 miles)						
20	Drive shaft boots	Inspect for grease leaks and damage		Every 5 months or every 8,000 km (5,000 miles)						
21	Rear axle oil	Change	With Limited Slip Differential		X		X		X	
22	SRS air bag	Inspect the SRS system		10 years						
23	Tires	Rotate		Every 5 months or every 8,000 km (5,000 miles)						

NOTE:

*[*1]: For California, Massachusetts, Vermont and Maine, this maintenance is recommended but not required to maintain the emissions warranty.*

*[*2]: This maintenance is not required if previously replaced.*

*[*3]: This maintenance is recommended but is not required to maintain the emissions warranty.*

SCHEDULED MAINTENANCE UNDER SEVERE USAGE CONDITIONS

Maintenance should be carried out according to the following table:

NO.	EMISSION CONTROL SYSTEM MAINTENANCE	SERVICE INTERVALS	KILOMETERS IN THOUSANDS	24	48	72	96	120	144	168
			MILEAGE IN THOUSANDS	15	30	45	60	75	90	105
			MONTHS	16	32	48	64	80	96	112
1	Fuel system (tank, pipe line and connection, and fuel tank filler tube cap)	Check for leaks			X		X		X	
2	Fuel hoses	Check condition			X		X		X	
3	Air cleaner filter	Replace		X	X	X	X	X	X	X
7	Timing belt	Replace					X			X
9	Exhaust system (connections portion of muffler, muffler pipes and converter heat shields)	Check and service			X		X		X	
10	Engine oil	Change		Every 4 months or every 6,000 km (3,750 miles)						

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NO.	EMISSION CONTROL SYSTEM MAINTENANCE	SERVICE INTERVALS	KILOMETERS IN THOUSANDS	24	48	72	96	120	144	168
			MILEAGE IN THOUSANDS	15	30	45	60	75	90	105
			MONTHS	16	32	48	64	80	96	112
11	Engine oil filter	Change		Every 4 months or every 6,000 km (3,750 miles)						
12	Manual transaxle oil	Change		X	X	X	X	X	X	X
13	Transfer oil	Change		X	X	X	X	X	X	X
16	Disc brake pads, rotors	Inspect for wear		Every 4 months or every 6,000 km (3,750 miles)						
19	Suspension system	Inspect for looseness and damage		Every 4 months or every 6,000 km (3,750 miles)						
20	Drive shaft boots	Inspect for grease leaks and damage		Every 4 months or every 6,000 km (3,750 miles)						
23	Tires	Rotate		Every 4 months or every 6,000 km (3,750 miles)						

Severe usage conditions:

1. Driving on dusty, rough, muddy or salt-spread roads
2. Towing or police, taxi or commercial operation
3. Extensive idling and/or low speed operation
4. Repeated short-trip operation at freezing temperatures (engine not thoroughly warmed up)
5. Extended use of brakes while driving
6. Driving in sandy areas
7. More than 50% operation in heavy city traffic during hot weather above 32°C (90°F)

MAINTENANCE SERVICE

1. FUEL SYSTEM (TANK, PIPE LINE AND CONNECTION, AND FUEL TANK FILLER TUBE CAP) (CHECK FOR LEAKS)

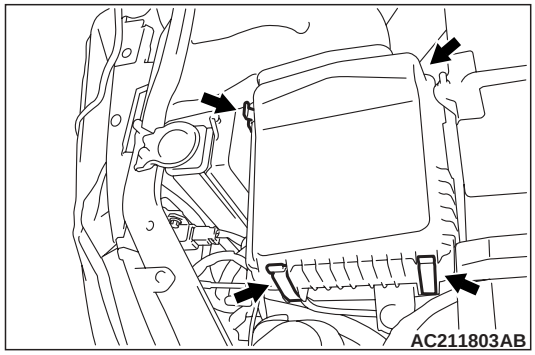
M1001001600293

Check for damage or leakage in the fuel lines and connections.

2. FUEL HOSES (CHECK CONDITION)

M1001001700289

1. Inspect the surface of fuel hoses for heat and mechanical damage. Hard and brittle rubber, cracking, tears, cuts, abrasions and excessive swelling indicate deterioration of the rubber.
2. If the fabric casing of the rubber hose is exposed by cracks and abrasions in the fuel system, the hoses should be replaced.



3. AIR CLEANER ELEMENT (REPLACE)

M1001001800305

The air cleaner element will become dirty during use, reducing its effectiveness. Replace it with a new one.

REPLACEMENT OF AIR CLEANER ELEMENT

1. Unclamp the air cleaner cover.
2. Remove the air cleaner element and install a new one.
3. When clamping the air cleaner cover in place, be sure that the cover is completed closed.

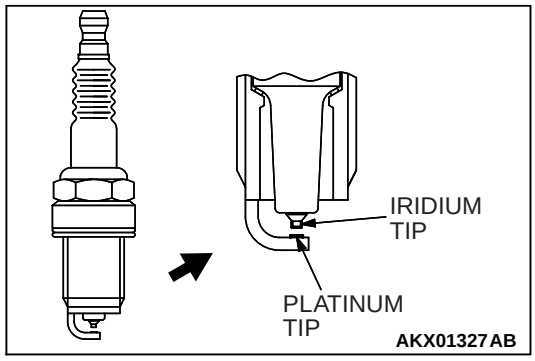
4. EVAPORATIVE EMISSION CONTROL SYSTEM (EXCEPT EVAPORATIVE EMISSION CANISTER) (CHECK FOR CLOGGING)

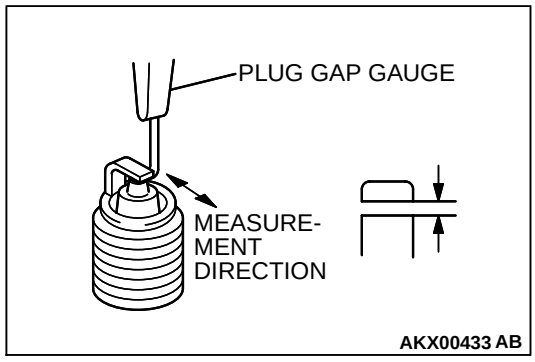
M1001001900294

If the fuel-vapor vent line is clogged or damaged, fuel vapor will escape into the atmosphere causing excessive emissions. Disconnect the line at both ends, and blow it clean with compressed air. Remove the fuel tank filler tube cap from the filler tube and check to see if there is evidence that the seal makes improper contact to the filler tube.

5. SPARK PLUGS (REPLACE)

M1001002000250





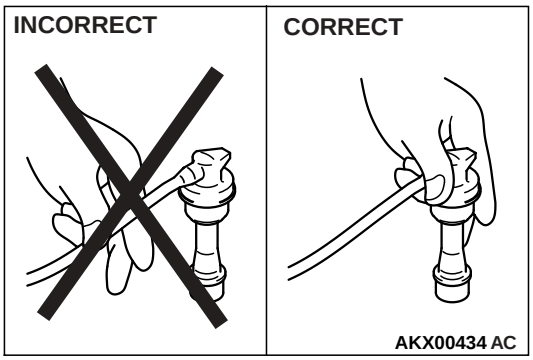
⚠ CAUTION

Iridium plugs are used. Use care not to damage the iridium and platinum tips of the plugs. Do not adjust the spark plug gap.

1. Spark plugs must spark properly to assure proper engine performance and reduce exhaust emission level. Therefore, they should be replaced periodically with new ones.
   Spark plug type

MAKER	IDENTIFICATION NO.
NGK	IGR7A-G

2. The new plugs should be checked for the proper gap.
   Spark plug gap: 0.7 – 0.8 mm (0.028 – 0.031 inch)
3. Install the spark plugs and tighten to 25±5 N·m (18±4 ft-lb).



6. IGNITION CABLES (REPLACE)

M1001002100127

⚠ CAUTION

When disconnecting an ignition cable, be sure to hold the cable boot. If the cable is disconnected by pulling on the cable alone, you might break the cable.

The ignition cables should be replaced periodically with new ones. After replacing, make sure that the ignition cables are routed properly and fully seated.

7. TIMING BELT (REPLACE)

M1001002300165

Replace the belt with a new one according to the maintenance schedule on P.00-32 to assure proper engine performance. For removal and installation procedures, refer to GROUP 11A, Timing Belt P.11A-50.

8. DRIVE BELT (FOR GENERATOR, WATER PUMP AND POWER STEERING OIL PUMP) (CHECK CONDITION)

M1001002500352

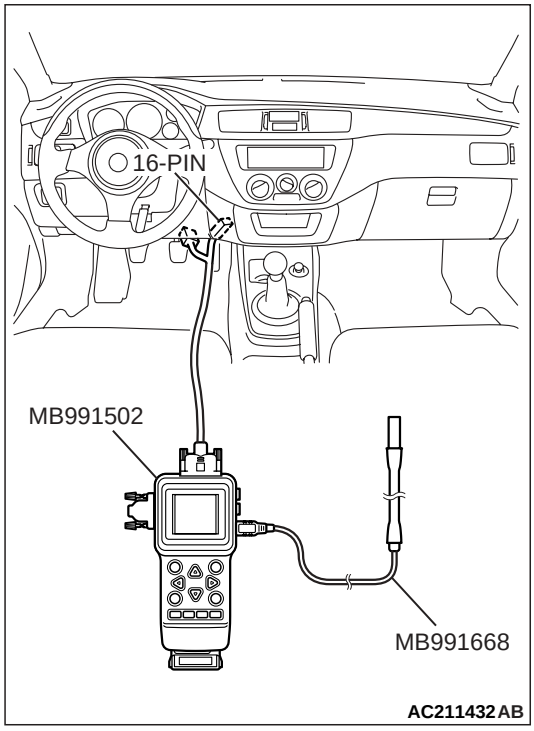
Drive Belt Tension Check

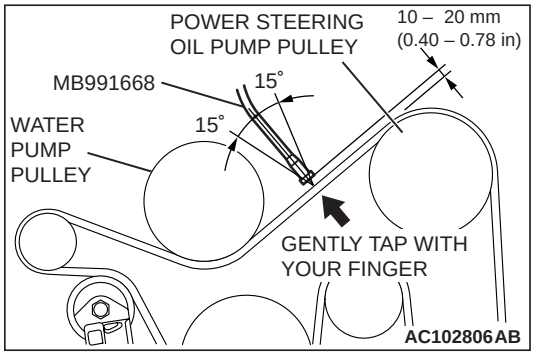
<When using scan tool MB991502>

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991668: Belt Tension Meter Set

1. Check the drive belt tension. (Refer to P.11A-7.)
2. Measure the drive belt tension vibration frequency by the following procedures:





⚠ CAUTION

To prevent damage to scan tool MB991502, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991502.

(1) Connect special tool MB991668 to scan tool MB991502.
(2) Connect the scan tool MB991502 to the data link connector.
(3) Turn the ignition switch to "ON" position, and select "BELT TENSION" on the menu screen.

⚠ CAUTION

- **The temperature of the surface of the belt should be as close to normal temperature as possible.**
- **Do not allow any contaminants such as water or oil to get onto the microphone.**
- **If strong gusts of wind blow against the microphone or if there are any loud sources of noise nearby, the values measured by the microphone may not correspond to actual values.**
- **If the microphone is touching the belt while the measurement is being made, the values measured by the microphone may not correspond to actual values.**
- **Do not take the measurement while the vehicle's engine is running.**

(4) Hold special tool MB991668 to the middle of the drive belt between the pulleys (at the place indicated by arrow), approximately 10 – 20 mm (0.40 – 0.78 inch) away from the rear surface of the belt so that it is perpendicular to the belt (within an angle of ± 15 degree).
(5) Gently tap the middle of the belt between the pulleys (the place indicated by the arrow) with your finger as shown in the illustration, and measure that the vibration frequency of the belt is within the standard value.

Standard value: 110 – 144 Hz

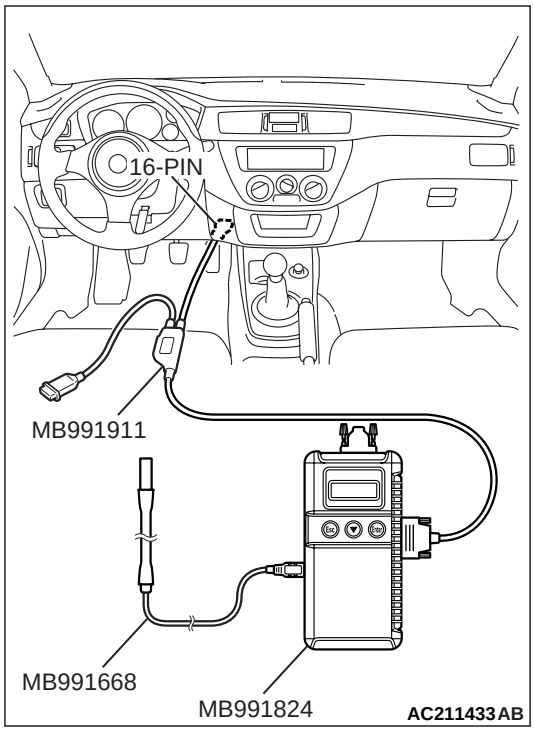
3. If not within the standard value, replace the auto-tensioner. (Refer to P.11A-50.)

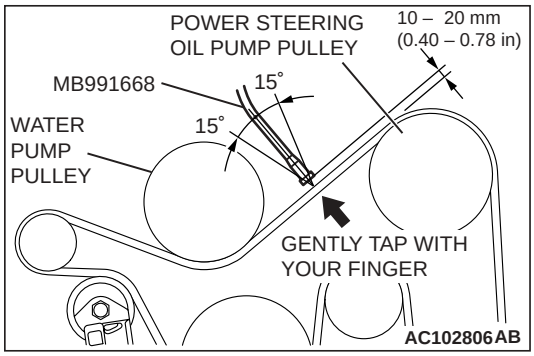
<When using scan tool MB991958>

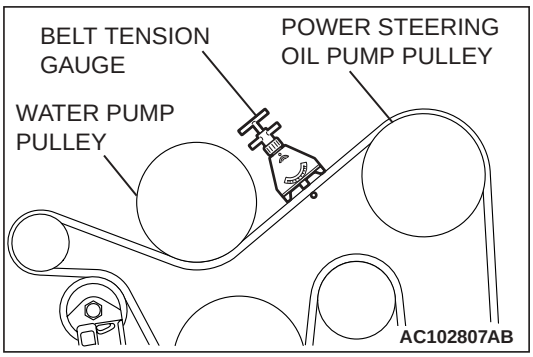
Required Special Tools:

- MB991668: Belt Tension Meter Set
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991911: Main Harness B

1. Check the drive belt tension. (Refer to P.11A-7.)
2. Measure the drive belt tension vibration frequency by the following procedures:







⚠ CAUTION

To prevent damage to scan tool MB991824, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991824.

(1) Connect special tool MB991668 to scan tool MB991824.
(2) Connect scan tool MB991911 to scan tool MB991824.
(3) Connect scan tool MB991911 to the data link connector.
(4) Turn the ignition switch to the "ON" position and select "Belt Tension Measurement" from the menu scan tool MB991824 screen.

⚠ CAUTION

- **The temperature of the surface of the belt should be as close to normal temperature as possible.**
- **Do not allow any contaminants such as water or oil to get onto the microphone.**
- **If strong gusts of wind blow against the microphone or if there are any loud sources of noise nearby, the values measured by the microphone may not correspond to actual values.**
- **If the microphone is touching the belt while the measurement is being made, the values measured by the microphone may not correspond to actual values.**
- **Do not take the measurement while the vehicle's engine is running.**

(5) Hold special tool MB991668 to the middle of the drive belt between the pulleys (at the place indicated by arrow), approximately 10 – 20 mm (0.40 – 0.78 inch) away from the rear surface of the belt so that it is perpendicular to the belt (within an angle of ± 15 degree).
(6) Gently tap the middle of the belt between the pulleys (the place indicated by the arrow) with your finger as shown in the illustration, and measure that the vibration frequency of the belt is within the standard value.

Standard value: 110 – 144 Hz

3. If not within the standard value, replace the auto-tensioner. (Refer to P.11A-50.)

<When using a tension gauge>

1. Check the drive belt tension. (Refer to P.11A-7.)
2. Use a belt tension gauge in the middle of the belt between the pulleys (at the place indicated by the arrow) to measure that the belt tension is within the standard value.

Standard value: 245 – 412 N

3. If not within the standard value, replace the auto-tensioner.(Refer to P.11A-50.)

9. EXHAUST SYSTEM (CONNECTIONS, PIPES AND CONVERTER HEAT SHIELDS) (CHECK AND SERVICE AS REQUIRED)

M1001005800266

1. Check for holes and exhaust gas leaks due to damage, corrosion, etc.
2. Check the joints and connections for looseness and exhaust gas leaks.
3. Check the rubber hangers and brackets for damage.

10. ENGINE OIL (CHANGE)

M1001002600326

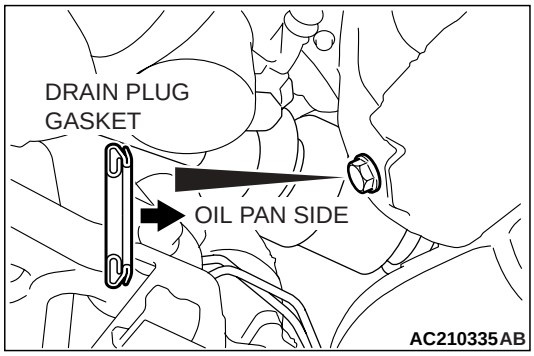
1. Start the engine and allow it to warm up until the temperature of the coolant reaches 80°C (176°F) to 90°C (194°F).

⚠ *WARNING*

Use care as oil could be hot.

2. Remove the engine oil filler cap.
3. Remove the drain plug to drain oil.
4. Install a new drain plug gasket so that it faces in the direction shown in the illustration, and then tighten the drain plug to the specified torque.

   Tightening torque: 39 ± 5 N·m (29 ± 3 ft-lb)

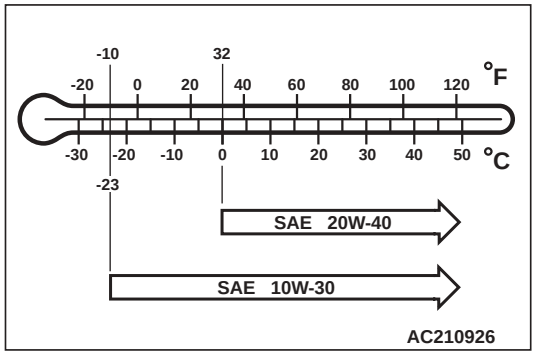


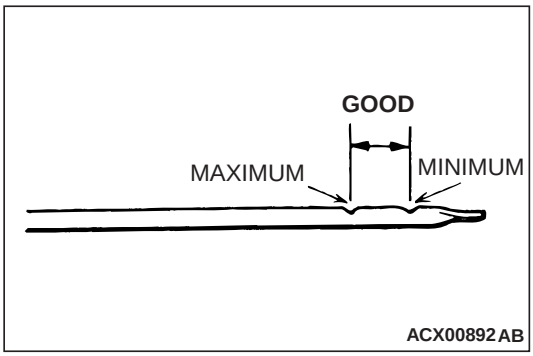
⚠ CAUTION

- **Do not use conventional petroleum based motor oil. Using conventional motor oil may cause engine or turbocharger damage.**
- **Do not used "blends" of conventional oil and synthetic oil.**

5. Refill the specified quantity of oil.
   - **Specified Engine Oil: Fully synthetic engine oils displaying ILSAC GF-3 certification symbol ("Starburst" symbol) or conforming to the API classification SL or SL/CF**
   - **Total quantity (Includes volume inside oil filter and oil cooler): 5.1 dm^3 (5.4 quarts)**

   NOTE: SAE 5W-30 fully synthetic engine oil can be used to improve engine start ability in very cold weather areas where the lowest atmospheric temperature is below –23°C (–10°F).
6. Install the engine oil filler cap.
7. Start the engine and run it at idle for a few minutes.





8. Stop the engine and check to ensure that the engine oil level is within the level range indicated on the dip stick.

11. ENGINE OIL FILTER (REPLACE)

M1001002700301

The quality of replacement filters varies considerably. Only high quality filters should be used to assure most efficient service. Genuine oil filters require that the filter is capable of withstanding a pressure of 1,800 kPa (261 psi) are high quality filters and are recommended as follows:

Mitsubishi Oil Filter Part Number: MD356000 or equivalent

Engine Oil Filter Selection

The same type of filter is recommended as a replacement filter for this vehicle. It is possible, particularly in cold weather, that this vehicle may develop high oil pressure for a short duration. Make sure that any replacement filter used on this vehicle is a high-quality filter. The filter must withstand a pressure of 1,800 kPa (261 psi) [manufacturer's specifications] to avoid filter and ultimately engine damage. The following is a high-quality filter and is strongly recommended for use on this vehicle: Mitsubishi Engine Oil Filter Part number MD356000. Any replacement oil filter should be installed in accordance with the oil filter manufacturer's installation instructions.

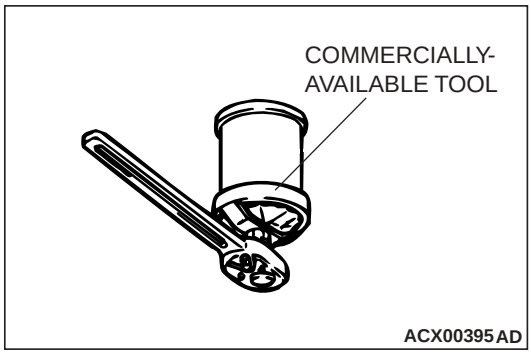
Oil Filter Replacement

1. Start the engine and allow it to warm up until the temperature of the coolant reaches 80°C (176°F) to 90°C (194°F).

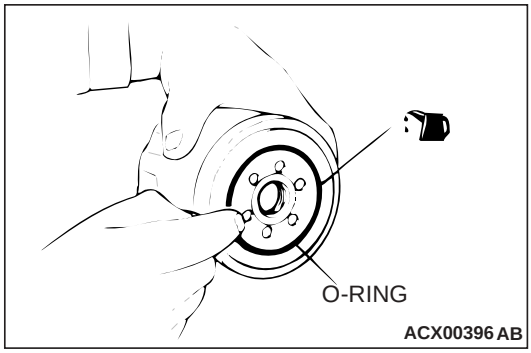
⚠ WARNING

Use care as oil could be hot.

2. Remove the engine oil filler cap.
3. Remove the drain plug to drain oil.
4. Remove the side cover.



5. Use the commercially-available tool to remove the engine oil filter.
6. Clean the filter bracket side mounting surface and ensure the old O-ring has been removed.



7. Apply a small amount of engine oil to the O-ring of the new oil filter.
8. Where the oil filter O-ring touches the oil pan flange, tighten the oil filter to the specified torque using the commercially-available tool.

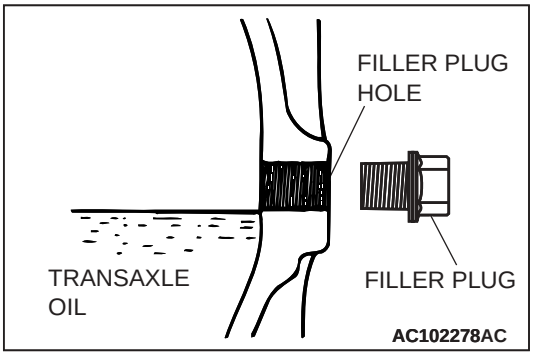
   Tightening torque: Approximately 3/4 turn [14 ± 2 N·m (124 ± 18 in-lb)]
9. Install the side cover.
10. Install the drain plug and refill engine oil. (Refer to Engine Oil Replacement P.12-3.)
11. Rev the engine a few times, and check to be sure that no engine oil leaks from the installation section of the oil filter.

12. MANUAL TRANSAXLE OIL

M1001002800171

Check oil level

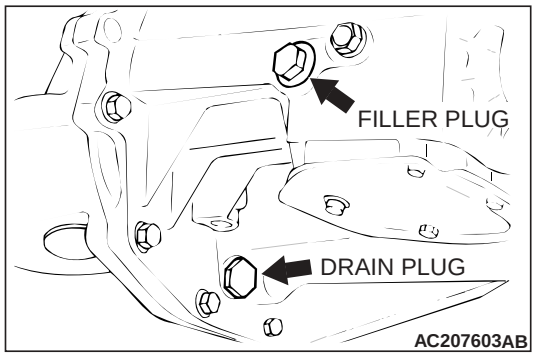
Inspect each component for evidence of leakage. Check the oil level by removing the filler plug.



1. Remove the filler plug.
2. Check that the oil level is up to the lower edge of the filler plug hole.
3. Check that the oil is not noticeably dirty.
4. Tighten the filler plug to the specified torque.

   Tightening torque: 32 ± 2 N·m (23 ± 2 ft-lb)

Change oil

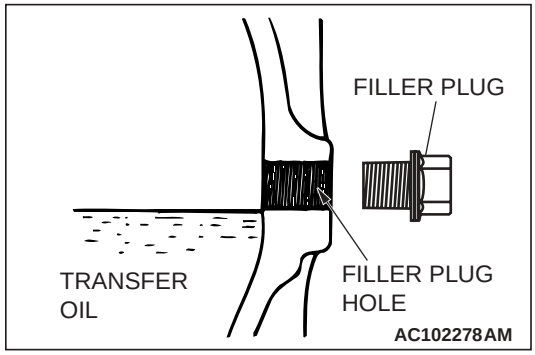


1. Remove the filler plug.
2. Remove the drain plug and drain the oil.
3. Tighten the drain plug to the specified torque.
   Tightening torque: 32 ± 2 N·m (23 ± 2 ft-lb)
4. Fill with gear oil API classification GL-4 SAE 75W-85W or 75W-90 until the level comes to the lower portion of filler plug hole.
   Quantity: 2.8 dm^3 (2.9 quarts)
5. Tighten the filler plug to the specified torque.
   Tightening torque: 32 ± 2 N·m (23 ± 2 ft-lb)

13. TRANSFER OIL

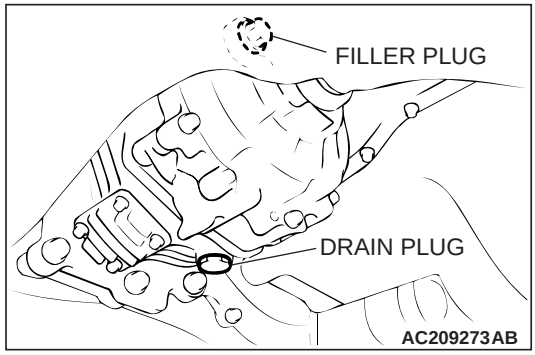
M1001003000101

Transfer Oil Level Check



1. Remove the filler plug.
2. Check that the oil level is up to the lower edge of the filler plug hole.
3. Check that the oil is not noticeably dirty.
4. Tighten the filler plug to the specified torque.
   Tightening torque: 32 ± 2 N·m (23 ± 2 ft-lb)

Transfer Oil Change



1. Remove the filler plug.
2. Remove the drain plug and drain the oil.
3. Tighten the drain plug to the specified torque.
   Tightening torque: 32 ± 2 N·m (23 ± 2 ft-lb)

⚠ CAUTION
Cover the heat protector of the front exhaust pipe with cardboard or something similar when refilling transfer oil so that transfer oil does not enter the area between the front exhaust pipe and heat protector.

4. Fill with hypoid gear oil API classification GL-5 SAE90 until the level comes to the lower portion of filler plug hole.
   Quantity: 0.55 dm^3 (0.58 quart)
5. Tighten the filler plug to the specified torque.
   Tightening torque: 32 ± 2 N·m (23 ± 2 ft-lb)

14. ENGINE COOLANT (CHANGE)

M1001003100313

Check the cooling system parts such as the radiator, heater and oil cooler hoses, thermostat and their connections for leakage and damage.

Changing Coolant

Required Special Tool:

- MB991871: LLC Changer

1. Remove the under cover (Refer to GROUP 51, Front Bumper P.51-2).

⚠ ***WARNING***

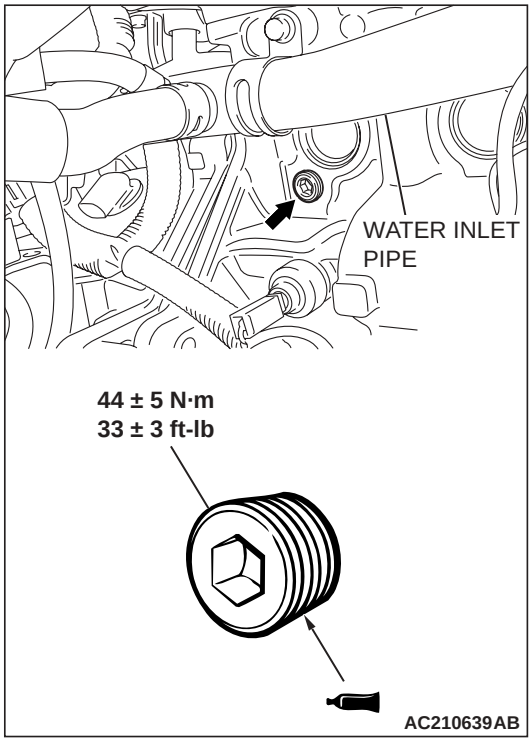
When removing the radiator cap, use care to avoid contact with hot coolant or steam. Place a shop towel over the cap and turn the cap counterclockwise a little to let the pressure escape through the vinyl tube. After relieving the steam pressure, remove the cap by slowly turning it counterclockwise.

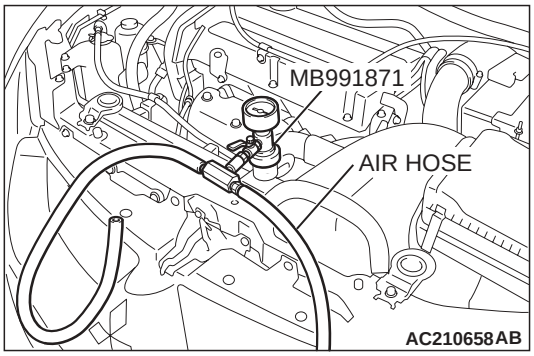
2. Drain the water from the radiator, heater core and engine after unplugging the radiator drain plug and removing the radiator cap.
3. Drain the water in the water jacket by unplugging the drain plug of the cylinder block.
4. Remove the reserve tank and drain the coolant.
5. Drain the cooling water then clean the path of the cooling water by injecting water into the radiator from the radiator cap area.
6. Apply the designated sealant to the screw area of the cylinder block drain plug, and then tighten to the standard torque.

   Specified sealant: 3M™ AAD Part No. 8731 or equivalent

   Tightening torque: 44 ± 5 N·m (33 ± 3 ft-lb)

7. Securely tighten the drain plug of the radiator.
8. Assemble the reserve tank.





⚠ CAUTION

Do not use alcohol or methanol anti-freeze or any engine coolants mixed with alcohol or methanol anti-freeze. The use of an improper anti-freeze can cause corrosion of the aluminum components.

9. By referring to the section on coolant, select an appropriate concentration for safe operating temperature within the range of 30 to 60%. Use special tool MB991871 to refill the coolant. A convenient mixture is a 50% water and 50% antifreeze solution [freezing point: –31°C (–32.8 °F)].

   Recommended antifreeze: Mitsubishi Genuine Coolant or equivalent

   Quantity: 6.0 dm^3 (6.3 quarts)

   NOTE: For how to use special tool MB991871, refer to its manufacturer's instructions.

10. Reinstall the radiator cap.
11. Start the engine and let it warm up until the thermostat opens.
12. After repeatedly revving the engine up to 3,000 r/min several times, then stop the engine.
13. Remove the radiator cap after the engine has become cold, and pour in coolant up to the brim. Reinstall the cap.

⚠ CAUTION

Do not overfill the reserve tank.

14. Add coolant to the reserve tank between the "FULL" and "LOW" mark if necessary.
15. Install the under cover (Refer to GROUP 51, Front Bumper P.51-2).

15. COOLANT HOSES (RADIATOR HOSE, HEATER HOSE) (INSPECT)

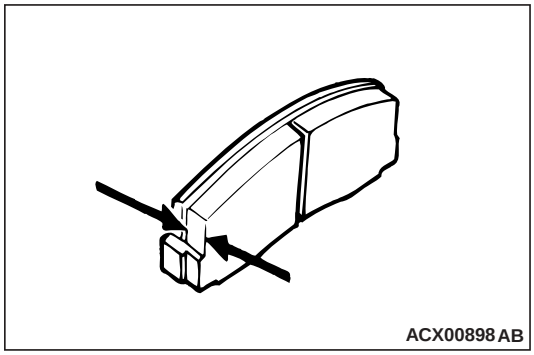
M1001009700012

Inspect the surface of radiator hoses and heater hoses for heat and mechanical damage. Hard and brittle rubber, cracking, tears, cuts, abrasions and excessive swelling indicate deterioration of the rubber.

16. DISC BRAKE PADS, ROTORS (INSPECT FOR WEAR)

M1001003200268

Disc Brake Pads Check

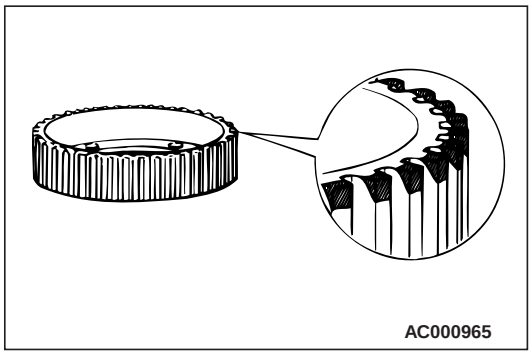

ACX00898 AB

Check for fluid contamination and wear. Replace the complete set of pads if any one pad is defective.

Thickness of lining
Minimum limit: 2.0 mm (0.08 inch)

⚠ CAUTION
The pads for the right and left wheels should be replaced at the same time. Never split or intermix brake pad sets. All four pads must be replaced as a complete set.

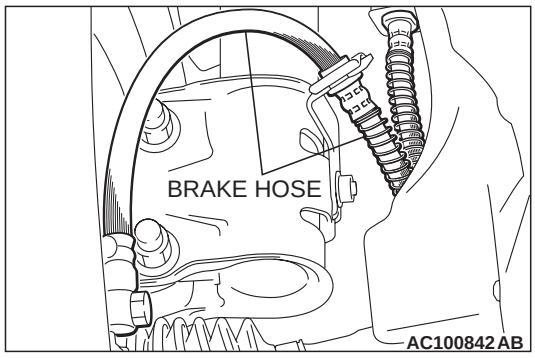
Rotors Check


AC000965

Check whether the ABS rotor teeth are broken or deformed. Replace the Eight Ball Fixed Joint (EBJ) assembly of the driveshaft, respectively, if the teeth are damaged or deformed.

17. BRAKE HOSES (CHECK FOR DETERIORATION OR LEAKS)

M1001003400295



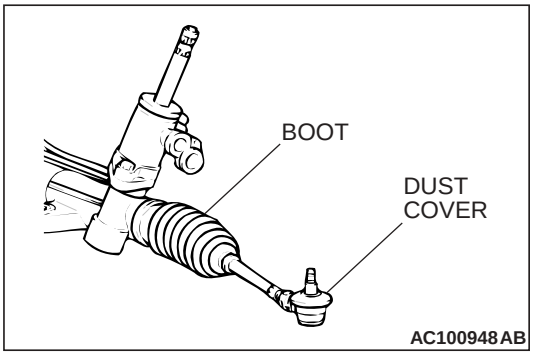
AC100842 AB

Inspection of brake hoses should be included in all brake service operations.
The hoses should be checked for:

1. Incorrect length, severe surface cracking, pulling, scuffing or worn spots. (If the fabric casing of the hoses is exposed by cracks or abrasion in the rubber hose cover, the hoses should be replaced. Eventual deterioration of the hose and possible bursting failure may occur.)
2. Incorrect installation, twisting or interference with wheel, tire or chassis.

18. BALL JOINT AND STEERING LINKAGE SEALS (INSPECT FOR GREASE LEAKS AND DAMAGE)

M1001003500300



1. These components, which are permanently lubricated at the factory, do not require periodic lubrication. Damaged seals and boots should be replaced to prevent leakage or grease contamination.
2. Inspect the dust cover and boots for proper sealing, leakage and damage. Replace them if defective.

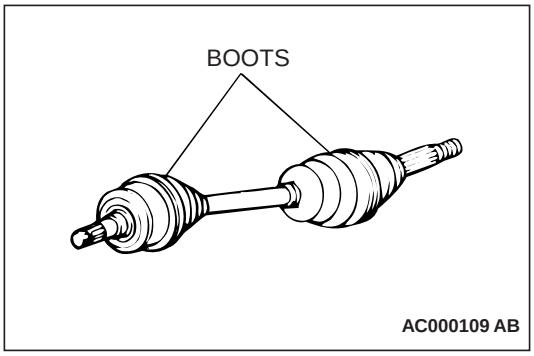
19. SUSPENSION SYSTEM (INSPECT FOR LOOSENESS AND DAMAGE)

M1001009600026

Visually inspect the front/rear suspension components for deterioration and damage. Re-tighten the front/rear suspension components retaining bolts to specified torque.

20. DRIVE SHAFT BOOTS (INSPECT FOR GREASE LEAKS AND DAMAGE)

M1001003600299



1. These components, which are permanently lubricated at the factory, do not require periodic lubrication. Damaged seals and boots should be replaced to prevent leakage or grease contamination.
2. Inspect the dust cover and boots for proper sealing, leakage and damage. Replace them if defective.

21. REAR AXLE OIL (CHANGE)

M1001007500045

Before the changing the rear axle oil, check that there is no oil leakage from the rear axle housing.

1. Remove the filler plug.
2. Remove the drain plug and drain out the oil.
3. Replace the packing for drain plug and tighten the drain plug to the specified torque.

   Tightening torque: 64 ± 4 N·m (47 ± 3 ft-lb)
4. Refill engine oil via the filler hole.
   - **Specified gear oil: Hypoid gear oil MITSUBISHI Genuine Gear Oil Part No. 8149630 EX or equivalent**
   - **Quantity: 0.55 dm^3 (0.58 quart)**

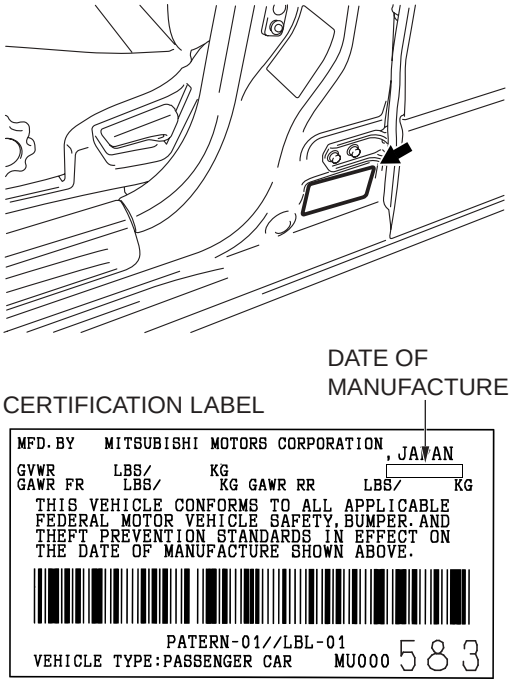
5. Replace the gasket for drain plug and tighten the drain plug to the specified torque.

Tightening torque: 49 ± 9 N·m (37 ± 6 ft-lb)

22. SRS AIR BAG (INSPECT THE SRS SYSTEM)

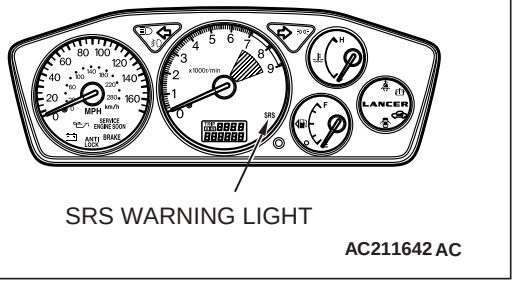
M1001003700296

The SRS must be inspected by an authorized dealer 10 years after the car manufacture date shown on the certification label located on the left center sill.

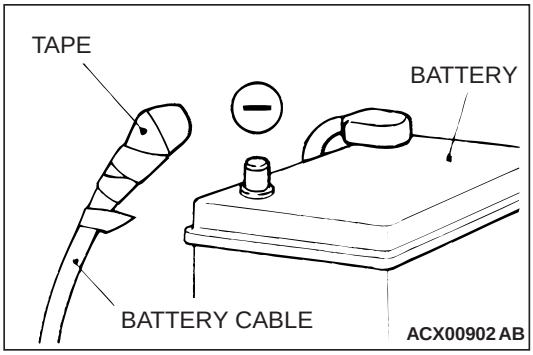


SRS Warning Light Check

Turn the ignition key to the "ON" position. Does the "SRS" warning light illuminate for about seven seconds, and then remain off for at least five seconds after turning OFF? If yes, the SRS system is functioning properly. If no, refer to GROUP 52B, Diagnosis P.52B-26.



SRS Component Visual Check



⚠ ***DANGER***

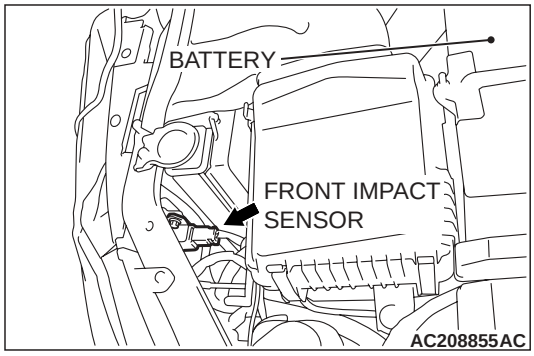
Wait at least 60 seconds after disconnecting the battery cable before doing any further work. The SRS system is designed to retain enough voltage to deploy the air bag for a short time even after the battery has been disconnected. Serious injury may result from unintended air bag deployment if work is done on the SRS system immediately after the battery cable is disconnected.

⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

1. Turn the ignition switch to the "LOCK" (OFF) position, disconnect the negative battery cable and tape the terminal.
2. Remove the floor console assembly. (Refer to GROUP 52A, Floor Console P.52A-7.)
3. Disconnect a connector from the SRS-ECU.

Front Impact Sensors



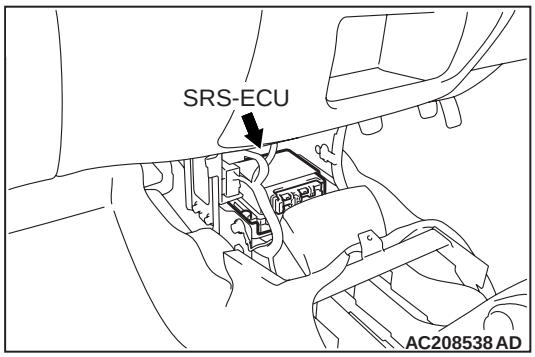
1. Check that the arrows on the sensors face toward the front of the vehicle.

⚠ ***WARNING***

- ***The SRS may not activate if a front impact sensor is not installed properly, which could result in serious injury or death to the vehicle's driver and passenger.***
- ***If a dent, crack, deformation or rust is detected, replace with a new sensor.***

2. Check the front side member and front impact sensor for deformation or rust.
3. Check the front impact sensor wiring harness for binding; Check the connector for damage; and check the terminals for deformation. Replace the sensor and/or wiring harness if they fail the visual check (Refer to GROUP 52B, SRS Service Precautions P.52B-18 and GROUP 52B, Front Impact Sensor P.52B-179).

SRS Air Bag Control Unit (SRS-ECU)



⚠ ***WARNING***

The SRS may not activate if the SRS-ECU (with built-in safing G-sensor and analog G-sensor) is not installed properly, which could result in serious injury or death to the vehicle's driver and front passenger.

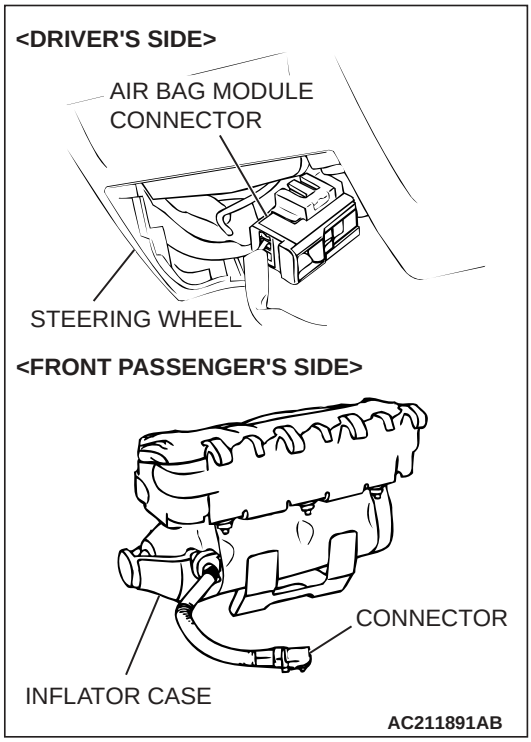
1. Check the SRS-ECU case and brackets for dents, cracks, deformation or rust.
2. Check the connector for damage, and check the terminals for deformation or rust. Replace the SRS-ECU if it fails the visual checks above. (Refer to GROUP 52B, SRS Air Bag Control Unit P.52B-182.)

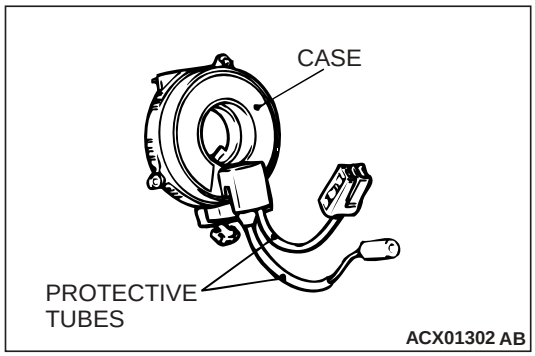
Air Bag Module, Steering Wheel and Clock Spring

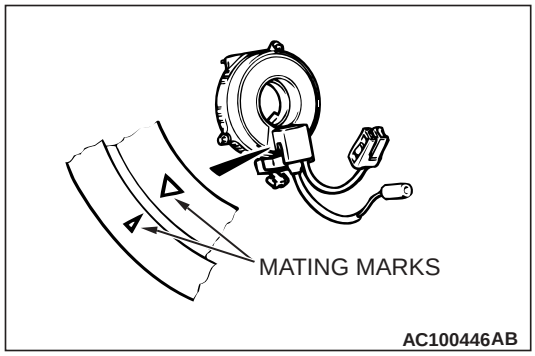
⚠ ***WARNING***

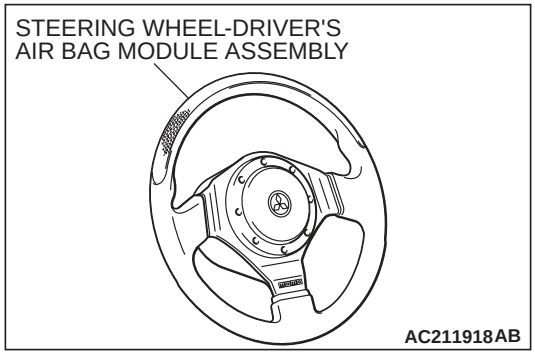
- ***The removed air bag module should be stored in a clean, dry place with the pad cover face up.***
- ***Replace any visually inspected part if it fails the following inspection.***

1. Remove the steering wheel-driver's air bag module assembly and clock spring. (Refer to GROUP 52B, Air Bag Module and Clock Spring P.52B-184.)
2. Check the pad cover for dents, cracks or deformation.
3. Check the connector for damage and deformed terminals, and check the harness for binding.
4. Check the air bag inflator case for dents, cracks or deformation.
5. Check the harness (built into the steering wheel) and connectors for damage, and check the terminals for deformation.









6. Check the clock spring connectors and protective tube for damage, and terminals for deformities.
7. Visually check the case for damage.

⚠ WARNING

If the clock spring's mating mark is not properly aligned, the steering wheel may not completely rotate during a turn, or the flat cable within the clock spring may be severed, obstructing normal operation of the SRS and possibly leading to serious injury to the vehicle's driver and front passenger.

8. Align the mating marks of the clock spring first. After turning the front wheels to the straight-ahead position, install the clock spring to the column.

   Mating Marks Alignment;

   After turning the clock spring fully clockwise, turn it approximately 3 turns counterclockwise until the mating marks are aligned.

9. Install the steering column covers and steering wheel-driver's air bag module assembly. (Refer to GROUP 52B, Air Bag Module and Clock Spring P.52B-184.)
10. Check the steering wheel for noise, binding or difficult operation.

⚠ DANGER

The SRS may not activate if any of the above components are not installed properly, which could result in serious injury or death to the vehicle's driver and front passenger.

11. Check the steering wheel for excessive free play. Replace any part if it fails visual inspection (Refer to GROUP 52B, Air Bag Module and Clock Spring P.52B-184).

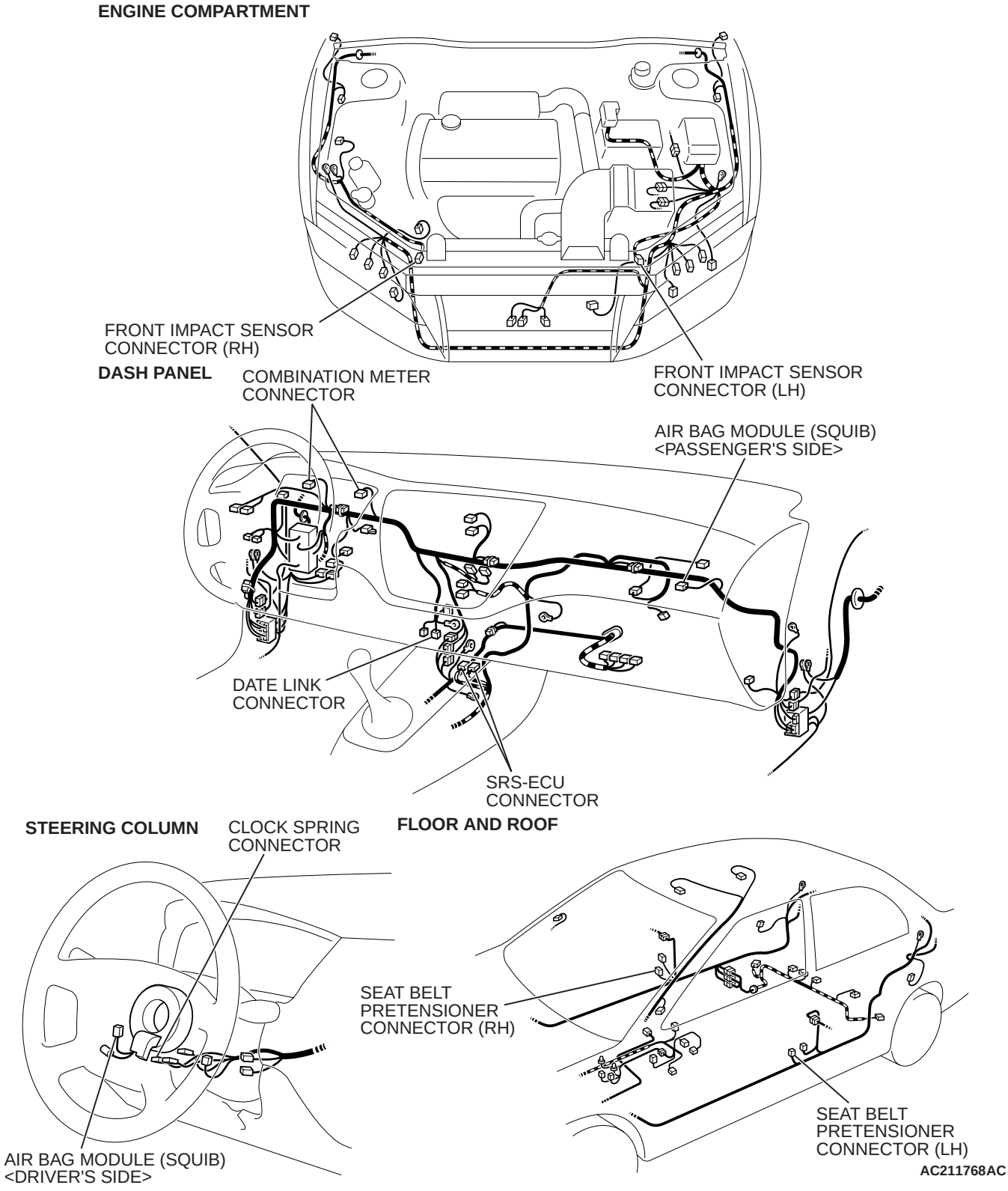
Seat belt with pre-tensioner

⚠ WARNING

- ***If the seat belt pre-tensioner is not installed securely and correctly, the seat belt pre-tensioner may not operate normally.***
- ***If a dent, crack, deformation or rust is detected, replace with a new seat belt pre-tensioner.***

1. Check the seat belt pre-tensioner for dents or deformation.
2. Check that the seat belt pre-tensioner is installed correctly to the vehicle body. Replace the seat belt pre-tensioner if it fails the visual checks above (Refer to GROUP 52B, Seat Belt Pre-tensionerP.52B-192).

Wiring Harness



1. Check the connector for poor connection.

TSB Revision

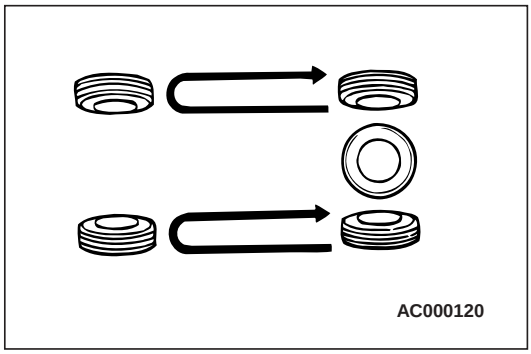
⚠ DANGER

The SRS system may not operate if SRS harnesses or connectors are damaged or improperly connected, which could result in serious injury or death to the vehicle's driver and front passenger.

2. Check the harness for binds, the connectors for damage, and the terminals for deformation. Replace any connector or harness that fails the visual inspection (Refer to GROUP 52B, SRS PrecautionP.52B-18).

23. TIRES (ROTATE)

M1001008900284



Rotate tires regularly to equalize tire wear and help extend tire life. Recommended tire rotation is every 8,000 km (5,000 miles) under normal driving conditions and every 6,000 km (3,750 miles) in severe driving conditions.
Timing for the rotation may vary according to vehicle condition, road surface conditions, and individual driver's habits.
When rotating tires, check for uneven wear, damage, and wheel alignment. Abnormal wear is usually caused by incorrect tire pressure, improper wheel alignment, out-of balance wheels, or severe braking.
The first rotation is the most important, to achieve more uniform wear for all tires on the vehicle.

MAIN SEALANT AND ADHESIVE TABLE

M1001003800312

APPLICATION		3M™ NO.	LOCTITE®/ PERMATEX®NO.
ENGINE AND DRIVETRAIN	Between rocker cover and camshaft bearing cap. Between rocker cover, semicircular packing and cylinder head. Between oil pressure switch and engine.	3M™ AAD Part No. 8660 Ultrapro High Temp. Silicone Gasket or 3M™ AAD Part No. 8679 Black/8678 Black Press-In-Place Silicone gasket strips	Permatex® Ultra Black 598, No.82180
	Between engine coolant temperature switch, engine coolant temperature sensor, thermo valve, thermo switch, joint, engine coolant temperature gauge unit (large-size) and engine	3M™ AAD Part No. 8731 Medium Strength Blue Threadlocker	Loctite®242 Blue Service Tool Removable 24200
	Between oil pan and engine block	3M™ AAD Part No. 8672, 3M™ AAD Part No. 8704 or 3M™ AAD Part No. 8679/ 3M™ AAD Part No. 8678	Permatex® Ultra Gray 599, No.82194

APPLICATION		3M™ NO.	LOCTITE®/ PERMATEX®NO.
WEATHER-STRIPPING FOR GLASS	Between tempered glass, body flanges, and weatherstrip	3M™ AAD Part No. 8509 Auto Bedding and Glazing Compound or 3M™ AAD Part No. 8633 Windo-weld Resealant	–
WEATHER-STRIPPING FOR GLASS	Between laminated glass and weatherstrip	3M™ AAD Part No. 8633	–
INTERIORS	Adhesive of vinyl chloride cloth	3M™ AAD Part No. 8088 General Trim Adhesive or 3M™ AAD Part No. 8064 Vinyl Trim Adhesive	Permatex® Vinyl Repair Kit No.81786
	Adhesion of door weatherstrip	3M™ AAD Part No. 8001 (yellow) or 3M™ AAD Part No. 8008 (black) Super Weatherstrip Adhesive or 3M™ AAD Part No. 8011 Black Weatherstrip Adhesive	Permatex® Super Black Weatherstrip Adhesive No.82, 81850
	Sealing of various grommets and packing	3M™ AAD Part No. 8509 or 3M™ AAD Part No. 8678	–
	Adhesion of headliners and various interior decorative materials	3M™ AAD Part No. 8088 General Trim Adhesive or 3M™ AAD Part No. 8090 Super Trim Adhesive	Permatex® Spray Adhesive No.82019
BODY SEALANTS	Sealing of sheet metal joints, drip rail, floor, side panels, trunk, front panel, tail gate hinge	3M™ AAD Part No. 8531 Heavy Drip-Check Sealer (gray) or 3M™ AAD Part No. 8302 Ultrapro Autobody Sealant (clear) or 3M™ AAD Part No. 8361 Urethane A/B Sealant (gray or white)	–
	Miscellaneous body sealants (originally mounted w/ adhesive tape) • Waterproof door film • Fender panel • Splash shield • Mud guard • Rear combination lamp	3M™ AAD Part No. 8633 Windo-weld Resealant	–
	Fuel Tank and Pad	3M™ AAD Part No. 8088 General Trim Adhesive or 3M™ AAD Part No. 8090 Super Trim Adhesive	Permatex® Spray Adhesive No.82019

APPLICATION		3M™ NO.	LOCTITE®/ PERMATEX®NO.
CHASSIS SEALANT	Sealing of various flange faces and threaded parts. Packing of fuel level sensor	3M™ AAD Part No. 8730 High Strength Red Thread lock or 3M™ AAD Part No. 8731 Medium Strength Blue Threadlocker	Loctite®272 High Strength and High Temperature 27200
	Sealing of various threaded parts, dust covers. Differential carrier packing, dust covers and ball joint and linkage. Packing and shims of steering box, sealing of rack support cover and top cover of steering box housing, seal of junction face of knuckle arm flange	3M™ AAD Part No. 8672 Ultrapro High Temp. Silicone Gasket or 3M™ AAD Part No. 8679 (black) or 3M™ AAD Part No. 8678 (black) Press-In-Place Silicone gasket strips 3M™ AAD Part No. 8661 or 3M™ AAD Part No. 8663 Super Silicone sealant	Permatex® The Right Stuff No.25223
	Seal of brake shoe hold-down pin and wheel cylinder of drum brakes	3M™ AAD Part No. 8633 Windo-weld Resealant	–
QUICK FIX ADHESIVE	–	3M™ AAD Part No. 8155 Quick Fix Adhesive	Loctite®Quicktite Super Glue 21309
ANAEROBIC STRONG SEALING AGENT	Fixing of various threads, bolts, screws. Fixing of differential drive gear bolt, Connecting of tilt steering bolt. Fan, pulley, gear sealing of small gaps and flange faces	3M™ AAD Part No. 8730 High Strength Threadlocker or 3M™ AAD Part No. 8731 Medium Strength Threadlocker	Loctite®271, High-Strength Threadlocker 27100 or 27200
UNDERCOATING AGENT	-	3M™ AAD Part No. 8883 Rubberized Undercoating Aerosol or 3M™ AAD Part No. 8864 Body Schutz Undercoating (qt)	Permatex® Heavy-Duty Undercoating 81833

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