SUZUKI

SZ416

SERVICE MANUAL

USE THIS SERVICE MANUAL WITH MANUALS MENTIONED IN THE FOREWORD OF THIS MANUAL.

SUZUKI
Caring for Customers
99500-79E00-01E
(英)

IMPORTANT

WARNING / CAUTION / NOTE

Please read this manual and follow its instructions carefully. To emphasize special information, the words **WARNING, CAUTION** and **NOTE** have special meanings. Pay special attention to the messages highlighted by these signal words.

WARNING:
Indicates a potential hazard that could result in death or injury.

CAUTION:
Indicates a potential hazard that could result in vehicle damage.

NOTE:
Indicates special information to make maintenance easier or instructions clearer.

WARNING:
This service manual is intended for authorized Suzuki dealers and qualified service mechanics only. Inexperienced mechanics or mechanics without the proper tools and equipment may not be able to properly perform the services described in this manual.
Improper repair may result in injury to the mechanic and may render the vehicle unsafe for the driver and passengers.

WARNING:
For vehicles equipped with a Supplemental Inflatable Restraint Air Bag System:

- **Service on or around air bag system components or wiring must be performed only by an authorized Suzuki dealer. Please observe all WARNINGS and SERVICE PRECAUTIONS in Section 9J under "On-Vehicle Service" and the Air Bag System Component and Wiring Location view in Section 9J before performing service on or around air bag system components or wiring. Failure to follow WARNINGS could result in unintended air bag deployment or could render the air bag inoperative.**
  Either of these two conditions may result in severe injury.
- **If the air bag system and another vehicle system both need repair, Suzuki recommends that the air bag system be repaired first, to help avoid unintended air bag deployment.**
- **Do not modify the steering wheel, dashboard, or any other air bag system component (on or around air bag system components or wiring). Modifications can adversely affect air bag system performance and lead to injury.**
- **If the vehicle will be exposed to temperatures over 93°C, 200°F (for example, during a paint baking process), remove the air bag system components (air bag inflator module, sensing and diagnostic module, forward discriminating sensor) beforehand to avoid component damage or unintended deployment.**

FOREWORD

This SERVICE MANUAL has been prepared exclusivery for SZ416.

Applicable model: SZ416

It describes only different service information of SZ416 as compared with VITARA (SE416) 3 door models of and after body No.s listed column 1 in related service manual table on next page.

Therefore, whenever servicing SZ416, consult this service manual first.
And for any section, item or description not found in this service manual, refer to the SERVICE MANUALs and SUPPLEMENTARY SERVICE MANUALs mentioned in next page.

When replacing parts or servicing by disassembling, it is recommended to use SUZUKI genuine parts, tools and service materials (lubricant, sealants, etc.) as specified in each description.

All information, illustrations and specifications contained in this literature are based on the latest product information available at the time of publication approval. And used as the main subject of description is the vehicle of standard specifications among others. Therefore, note that illustrations may differ from the vehicle being actually serviced. The right is reserved to make changes at any time without notice.

RELATED SERVICE MANUALS:
Refer to next page.

- **VITARA (SE416) SERVICE MANUAL (99500-60A10)**
- **VITARA (SE416) SUPPLEMENTARY SERVICE MANUAL (99501-60A70)**
- **VITARA (SE416) SUPPLEMENTARY SERVICE MANUAL (99501-61A10)**

SUZUKI MOTOR CORPORATION
OVERSEAS SERVICE DEPARTMENT

Related Service Manual

Service manals listed below are in the chronological order with the latest one at the top.
For efficient use of manuals, start with the one at the top of the list (i. e., the latest one). If desired section, item or description is not found in it, try next one in the list and do the same one by one till what is being searched is found.

No.	SERVICE MANUAL RELATED TO THIS MANUAL	APPLICABILITY
1	VITARA (SE416) SUPPLEMENTARY SERVICE MANUAL (99501-61A10)	This manual describes the items that should be updated (modefied and added) in the Service Manual (99501-60A70) below after it was issued. **Applicable model:** ● VITARA (SE416) 3 door model and 5 door model on and after following body No.s. JSAETA01C01 110001 JSAETA01CST100001 JSAETA01V01 110001 JSAETA01VST100001 JSAETA02C01 120001 JSAETA02V01 120001 JSAETD01V01 100001 JSAETD01VST100001 JS3TA01VT4140001 TA01C – 160001 TA01V – 160001 TD01V – 160001
2	VITARA (SE416) SUPPLEMENTARY SERVICE MANUAL (99501-60A70)	This manual describes the items that should be updated (modified and added) in the Service Manual (99500-60A10) below after it was issued. **Applicable model:** ● VITARA (SE416) 3 door model and 5 door model on and after following body No.s. JSAETA01C00200001 JSAETA01V00200001 JSAETA02C00100001 JSAETA02V00100001 JSAETD01V00150001 2S3TA01C00950001 2S3TA01V00950001 JS3TA01CR4140001 JS3TA01VR4140001 TA01C – 130001 TA01V – 130001 TA02C – 100001 TA02V – 100001 TD01V – 150001
3	VITARA (SE416) SERVICE MANUAL (99500-60A10)	This manual is the base manual for the above manual. **Applicable model:** ● VITARA 3 door model vehicles on and after following body No. JSAETA01C00160001 JSAETA01V00140001 TA01C – 110001 TA01V – 110001

0A

SECTION 0A

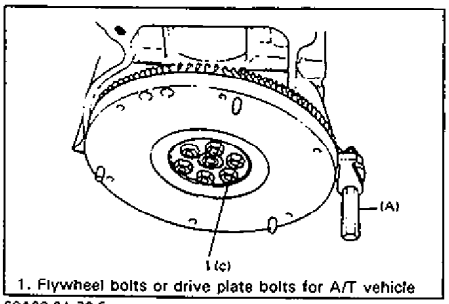
GENERAL INFORMATION

CONTENTS

79E00-0A-1-1

HOW TO USE THIS MANUAL

1) There is a TABLE OF CONTENTS FOR THE WHOLE MANUAL on the first page of this manual, whereby you can easily find the section that offers the information you need. Also, there is a TABLE OF CONTENTS on the first page of EACH SECTION, where the main items in that section are listed.
2) Each section of this manual has its own pagination. It is indicated at the top of each page along with the Section name.
3) The SPECIAL TOOL usage and TORQUE SPECIFICATION are given as shown in figure below.



1. Flywheel bolts or drive plate bolts for A/T vehicle

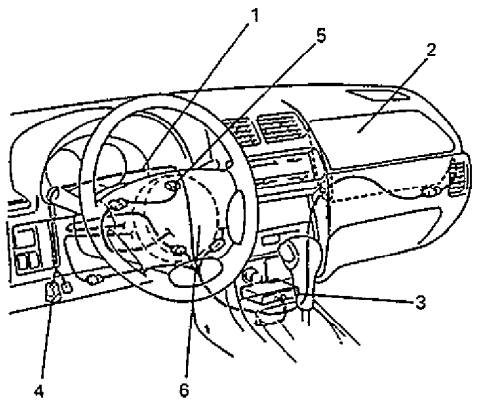
60A20-6A-72-5

6) Install oil pump. Refer to Item "Oil pump" for installation of oil pump.
7) Install flywheel (M/T vehicle) or drive plate (A/T vehicle). Using special tool, lock flywheel or drive plate, and tighten flywheel or drive plate bolts to specification.

Special Tool
(A): 09924-17810

Tightening Torque
(c): 78 N·m (7.8 kg-m, 56.0 lb-ft)

4) A number of abbreviations are used in the text.
   For their full explanations, refer to "ABBREVIATIONS MAY BE USED IN THIS MANUAL." of this section.
5) The SI, metric and foot-pound systems are used as units in this manual.
6) DIAGNOSIS and CORRECTION are included in each section as necessary.
7) At the end of each section, there are descriptions of SPECIAL TOOLS, REQUIRED SERVICE MATERIALS and TIGHTENING TORQUE SPECIFICATIONS that should be used for the servicing work described in that section.



1. Air bag wire harness
2. Passenger air bag (inflator) module
3. SDM
4. "AIR BAG" fuse box
5. Contact coil
6. Driver air bag (inflator) module

61A10-0A-3-1

PRECAUTIONS

PRECAUTION FOR VEHICLES EQUIPPED WITH A SUPPLEMENTAL INFLATABLE RESTRAINT AIR BAG SYSTEM

WARNING:

- **The configuration of air bag system parts are as shown in the figure. When it is necessary to service (remove, reinstall and inspect) these parts, be sure to follow procedures described in Section 9J. Failure to follow proper procedures could result in possible air bag deployment, personal injury, damage to parts or air bag being unable to deploy when necessary.**
- **If the air bag system and another vehicle system both need repair, Suzuki recommends that the air bag system be repaired first, to help avoid unintended air bag deployment.**
- **Do not modify the steering wheel, dashboard, or any other air bag system component. Modifications can adversely affect air bag system performance and lead to injury.**
- **If the vehicle will be exposed to temperatures over 93°C, 200°F (for example, during a paint baking process), remove the air bag system components (air bag (inflator) modules, sensing and diagnostic module) beforehand to avoid component damage or unintended deployment.**

DIAGNOSIS

- **When troubleshooting air bag system, be sure to follow "DIAGNOSIS" in Section 9J. Bypassing these procedures may result in extended diagnostic time, incorrect diagnosis, and incorrect parts replacement.**
- **Never use electrical test equipment other than that specified in this manual.**

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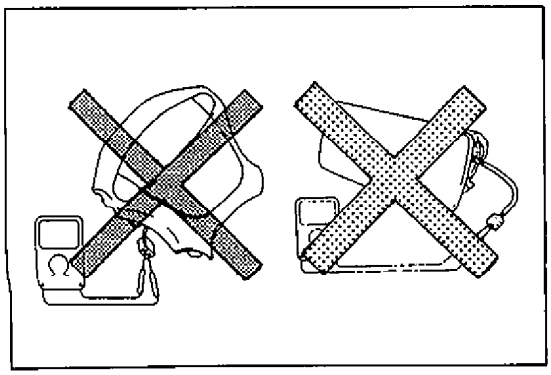
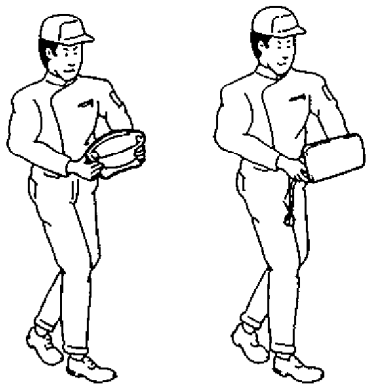


60A50-0A-2-5

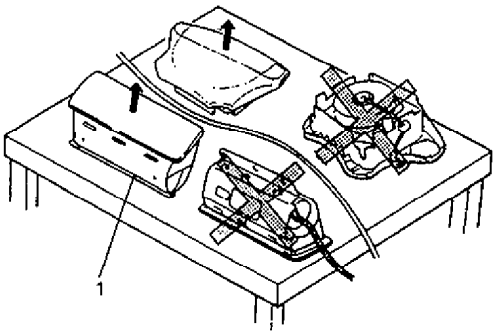
WARNING:

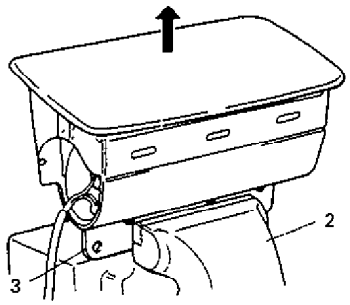
Never attempt to measure the resistance of the air bag (inflator) modules (driver and passenger). It is very dangerous as the electric current from the tester may deploy the air bag.

ALWAYS CARRY AIR BAG (INFLATOR) MODULE WITH TRIM COVER (AIR BAG OPENING) AWAY FROM BODY.



ALWAYS PLACE AIR BAG (INFLATOR) MODULE ON WORKBENCH WITH TRIM COVER (AIR BAG OPENING) UP, AWAY FROM LOOSE OBJECTS.





1. Slit on workbench
2. Workbench vise
3. Lower mounting bracket

HANDLING AND SERVICING

WARNING:

- **Many of service procedures require disconnection of "AIR BAG" fuse and air bag (inflator) modules (driver and passenger) from deployment loop to avoid an accidental deployment.**

Driver and Passenger Air Bag (Inflator) Modules

- **For handling and storage of a live air bag (inflator) module, select a place where the ambient temperature below 65°C (150°F), without high humidity and away from electric noise.**
- **When carrying a live air bag (inflator) module, make sure the bag opening is pointed away from you. In case of an accidental deployment, the bag will then deploy with minimal chance of injury. Never carry the air bag (inflator) module by the wires or connector on the underside of the module. When placing a live air bag (inflator) module on a bench or other surface, always face the bag up, away from the surface. As the live passenger air bag (inflator) module must be placed with its bag (trim cover) facing up, place it on the workbench with a slit or use the workbench vise to hold it securely at its lower mounting bracket. This is necessary so that a free space is provided to allow the air bag to expand in the unlikely event of accidental deployment. Otherwise, personal injury may result.**
- **Never dispose of live (undeployed) air bag (inflator) modules (driver and passenger). If disposal is necessary, be sure to deploy them according to deployment procedures described in Section 9J before disposal.**
- **The air bag (inflator) module immediately after deployment is very hot. Wait for at least half an hour to cool it off before proceeding the work.**
- **After an air bag (inflator) module has been deployed, the surface of the air bag may contain a powdery residue. This powder consists primarily of cornstarch (used to lubricate the bag as it inflates) and by-products of the chemical reaction. As with many service procedures, gloves and safety glasses should be worn.**

SDM

- **During service procedures, be very careful when handling a Sensing and Diagnostic Module (SDM). Never strike or jar the SDM. Never power up the air bag system when the SDM is not rigidly attached to the vehicle. All SDM and mounting bracket fasteners must be carefully torqued and the arrow must be pointing toward the front of the vehicle to ensure proper operation of the air bag system. The SDM could be activated when powered while not rigidly attached to the vehicle which could cause deployment and result in personal injury.**

CAUTION:

- Even when the accident was light enough not to cause air bags to deploy, be sure to inspect system parts and other related parts according to instructions under "Repair and Inspection Required after an Accident" in Section 9J.
- When servicing parts other than air bag system, if shocks may be applied to air bag system component parts, remove those parts beforehand.
- When handling the air bag (inflator) modules (driver and passenger) or SDM, be careful not to drop it or apply an impact to it. If an excessive impact was applied (e.g., dropped from a height of 91.4 cm (3 feet) or more), never attempt disassembly or repair but replace it with a new one.
- When grease, cleaning agent, oil, water, etc. has got onto air bag (inflator) modules (driver and passenger), wipe off immediately with a dry cloth.
- Air bag wire harness can be identified easily as it is covered with a yellow protection tube. Be very careful when handling it.
- When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.
- Do not apply power to the air bag system unless all components are connected or a diagnostic chart requests it, as this will set a diagnostic trouble code.
- Never use air bag system component parts from another vehicle.
- When using electric welding, be sure to temporarily disable air bag system referring to "Disabling Air Bag System" under "Service Precaution" in Section 9J.
- Never expose air bag system component parts directly to hot air (drying or baking the vehicle after painting) or flames.
- WARNING / CAUTION labels are attached on each part of air bag system components. Be sure to follow the instructions.
- After vehicle is completely repaired, perform "Air Bag Diagnostic System Check" described in "Diagnosis" in Section 9J.

GENERAL PRECAUTIONS

The WARNING and CAUTION below describe some general precautions that you should observe when servicing a vehicle. These general precautions apply to many of the service procedures described in this manual, and they will not necessarily be repeated with each procedure to which they apply.

WARNING:

- **Whenever raising a vehicle for service, be sure to follow the instructions under "VEHICLE LIFTING POINTS" on SECTION 0A.**
- **When it is necessary to do service work with the engine running, make sure that the parking brake is set fully and the transmission is in Neutral (for manual transmission vehicles) or Park (for automatic transmission vehicles), Keep hands, hair, clothing, tools, etc. away from the fan and belts when the engine is running.**
- **When it is necessary to run the engine indoors, make sure that the exhaust gas is forced outdoors.**
- **Do not perform service work in areas where combustible materials can come in contact with a hot exhaust system. When working with toxic or flammable materials (such as gasoline and refrigerant), make sure that the area you work in is well-ventilated.**
- **To avoid getting burned, keep away from hot metal parts such as the radiator, exhaust manifold, tailpipe, muffler, etc.**
- **New and used engine oil can be hazardous. Children and pets may be harmed by swallowing new or used oil. Keep new and used oil and used engine oil filters away from children and pets.**
  Continuous contact with used engine oil has been found to cause [skin] cancer in laboratory animals. brief contact with used oil may irritate skin. To minimize your exposure to used engine oil, wear a long-sleeve shirt and moisuture-proof gloves (such as dishwashing gloves) when changing engine oil. If engine oil contacts your skin, wash thoroughly with soap and water. Launder any clothing or rags if wet with oil, recycle or properly dispose of used oil and filters.

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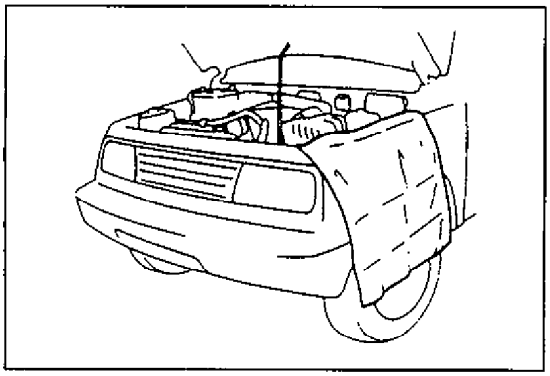
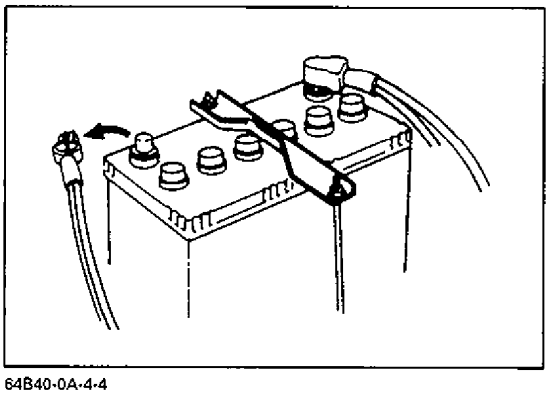


64B40-0A-4-3

CAUTION:

- **Before starting any service work, cover fenders, seats and any other parts that are likely to get scratched or stained during servicing. Also, be aware that what you wear (e.g, buttons) may cause damage to the vehicle's finish.**



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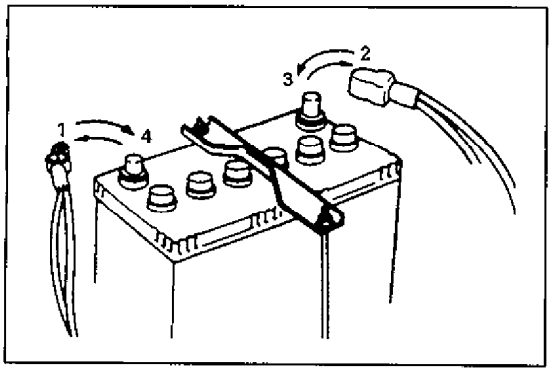
- **When performing service to electrical parts that does not require use of battery power, disconnect the negative cable of the battery.**



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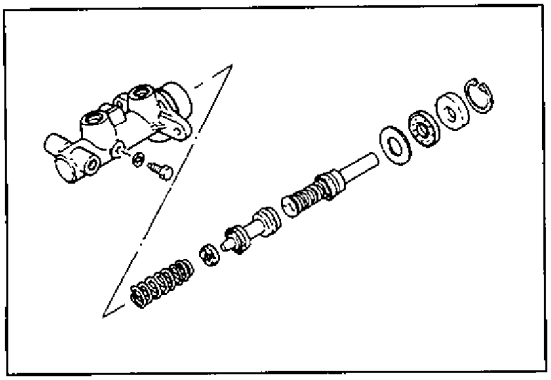
- **When removing the battery, be sure to disconnect the negative cable first and then the positive cable. When reconnecting the battery, connect the positive calbe first and then the negative cable, and replace the terminal cover.**



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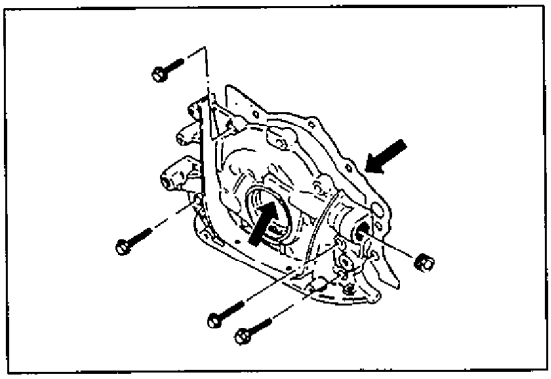
- When removing parts that are to be reused, be sure to keep them arranged in an orderly manner so that they may be reinstalled in the proper order and position.



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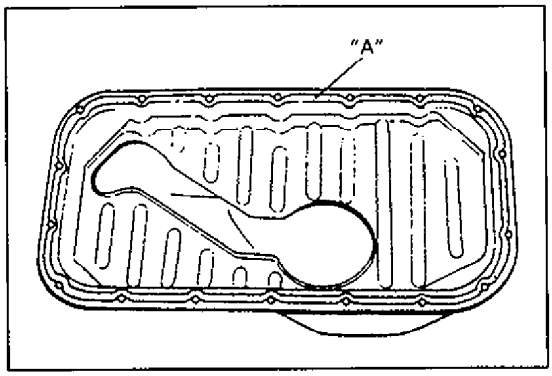
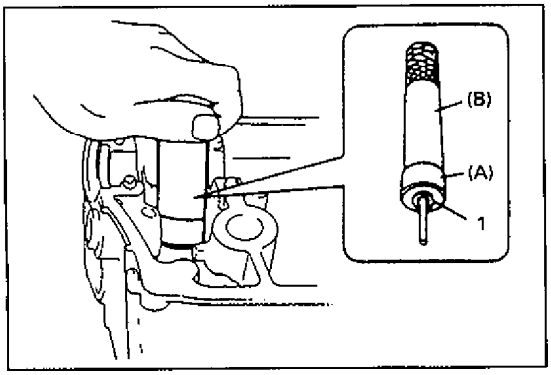
- Whenever you use oil seals, gaskets, packing, O-rings, locking washers, split pins, self-locking nuts, and certain other parts as specified, be sure to use new ones. Also, before installing new gaskets, packing, etc., be sure to remove any residual material form the mating surfaces.



64B40-0A-5-3

- Make sure that all parts used in reassembly are perfectly clean.
- When use of a certain type of lubricant, bond or sealant is specified, be sure to use the specified type.

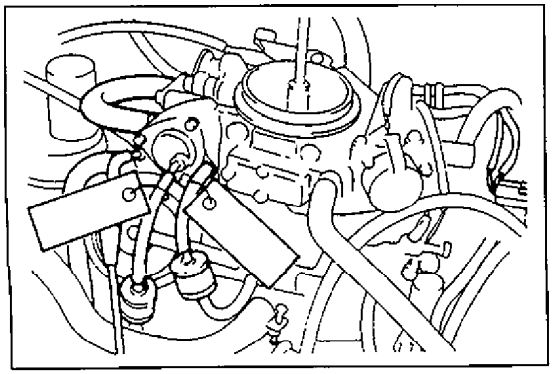
"A": Sealant 99000-31150



60G00-0A-7-4

- Be sure to use special tools when instructed.

Special Tool
(A): 09917-98221
(B): 09916-58210



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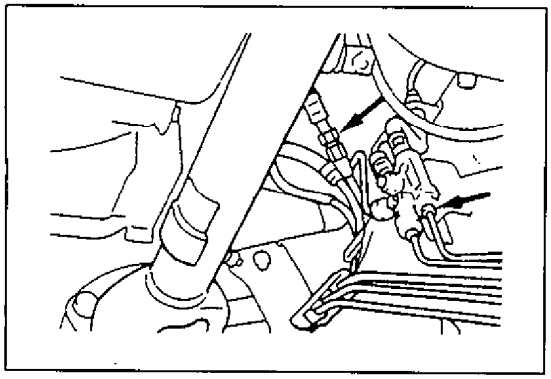
- When disconnecting vacuum hoses, attach a tag describing the correct installation positions so that the hoses can be reinstalled correctly.



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- After servicing fuel, oil, coolant, vacuum, exhaust or brake systems, check all lines related to the system for leaks.

- For vehicles equipped with fuel injection systems, never disconnect the fuel line between the fuel pump and injector without first releasing the fuel pressure, or fuel can be sprayed out under pressure.

50G00-0A-8-4

PRECAUTION FOR CATALYTIC CONVERTER

For vehicles equipped with a catalytic converter, use only unleaded gasoline and be careful not to let a large amount of unburned gasoline enter the converter or it can be damaged.

- Conduct a spark jump test only when necessary, make it as short as possible, and do not open the throttle.
- Conduct engine compression checks within the shortest possible time.
- Avoid situations which can result in engine misfire (e.g. starting the engine when the fuel tank is nearly empty.)

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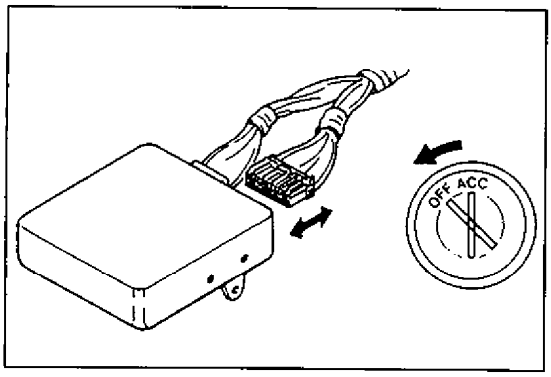

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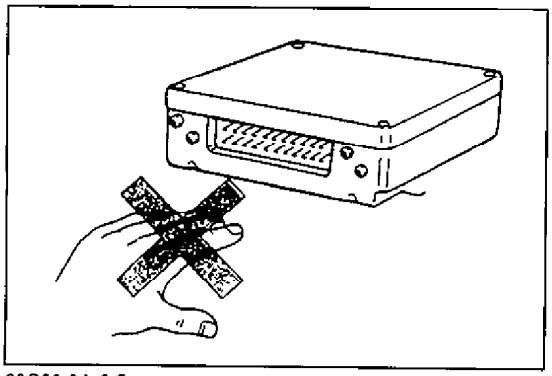
PRECAUTIONS FOR ELECTRICAL CIRCUIT SERVICE

- When disconnecting and connecting coupler, make sure to turn ignition switch OFF, or electronic parts may get damaged.



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- Be careful not to touch the electrical terminals of parts which use microcomputers (e.g. electronic control unit like as ECM, TCM, ABS control module, SDM etc). The static electricity from your body can damage these parts.

- Never connect any tester (voltmeter, ohmmeter, or whatever) to electronic control unit when its coupler is disconnected. Attempt to do it may cause damage to it.
- Never connect an ohmmeter to electronic control unit with its coupler connected to it. Attempt to do it may cause damage to electronic control unit and sensors.
- Be sure to use a specified voltmeter / ohmmeter. Otherwise, accurate measurements may not be obtained or personal injury may result.

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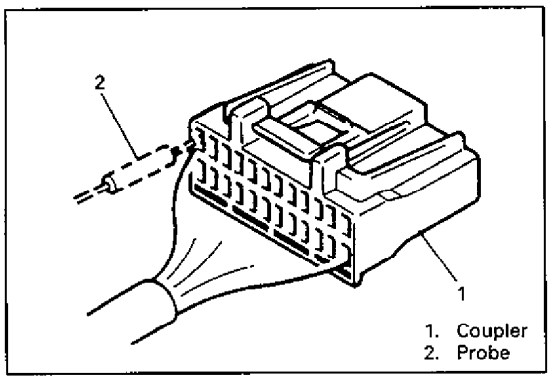

- When taking measurements at electrical connectors using a tester probe, be sure to insert the probe from the wire harness side (backside) of the connector.

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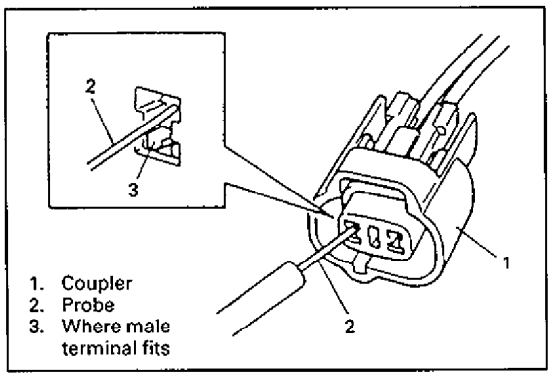
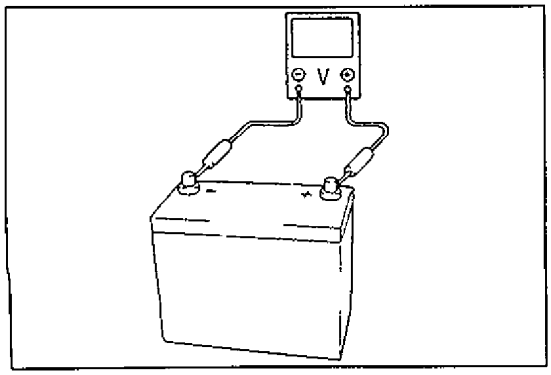


60G00-0A-9-3

- When connecting meter probe from terminal side of coupler because it can't be connected from harness side, use extra care not to bend male terminal of coupler of force its female terminal open for connection.
  In case of such coupler as shown connect probe as shown to avoid opening female terminal.
  Never connect probe where male terminal is supposed to fit.

- When checking connection of terminals, check its male half for bend and female half for excessive opening and both for locking (looseness), corrosion, dust, etc.

60G00-0A-9-4



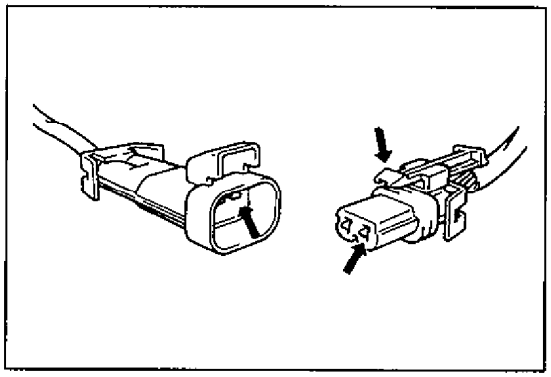
60G00-0A-9-5

- Before measuring voltage at each terminal, check to make sure that battery voltage is 11V or higher. Such terminal voltage check at low battery voltage will lead to erroneous diagnosis.

INTERMITTENTS AND POOR CONNECTION

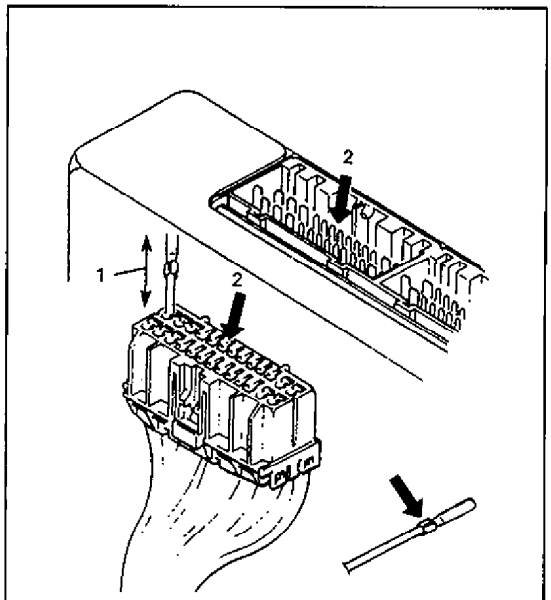
Most intermittents are caused by faulty electrical connections or wiring, although a sticking relay or solenoid can occasionally be at fault. When checking it for proper connection, perform careful check of suspect circuits for:

60G00-0A-10-1



50G00-9J-14-5

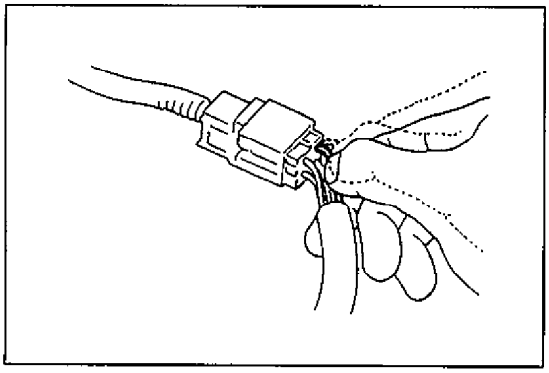
- Poor mating of connector halves, or terminals not fully seated in the connector body (backed out).
- Dirt or corrosion on the terminals. The terminals must be clean and free of any foreign material which could impede proper terminal contact.
  However, cleaning the terminal with a sand paper or the like is prohibited.



1. Check contact tension by inserting and removing just for once.
2. Check each terminal for bend and proper alignment.

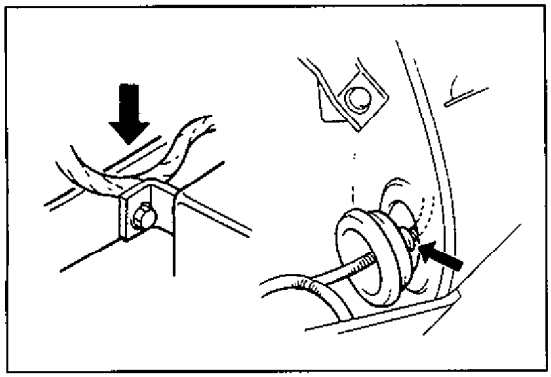
60G00-0A-10-3

- Damaged connector body, exposing the terminals to moisture and dirt, as well as not maintaining proper terminal orientation with the component or mating connector.
- Improperly formed or damaged terminals.
  Check each connector terminal in problem circuits carefully to ensure good contact tension by using the corresponding mating terminal.
  If contact tension is not enough, reform it to increase contact tension or replace.



60G00-0A-10-5

- Poor terminal-to-wire connection.
  Check each wire harness in problem circuits for poor connection by shaking it by hand lightly. If any abnormal condition is found, repair or replace.



60G00-0A-11-1

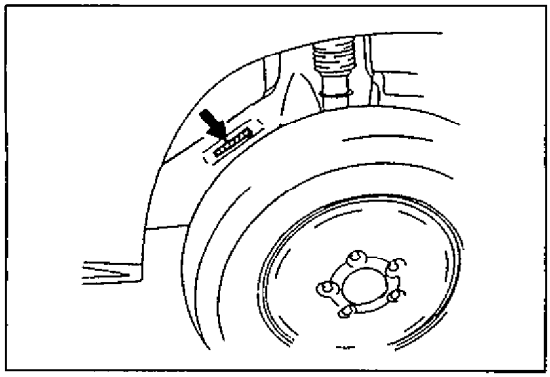
- Wire insulation which is rubbed through, causing an intermittent short as the bare area touches other wiring or parts of the vehicle.
- Wiring broken inside the insulation. This condition could cause continuity check to show a good circuit, but if only 1 or 2 strands of a multi-strand-type wire are intact, resistance could be far too high.

  If any abnormality is found, repair or replace.

IDENTIFICATION INFORMATION

BODY NUMBER

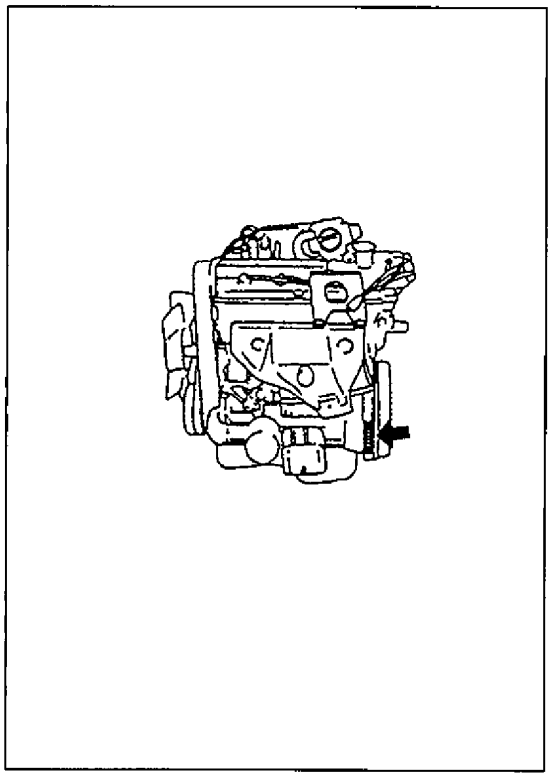
The vehicle body number is punched on the chassis inside the tire housing on the right front side.



85F00-0A-9-1

ENGINE IDENTIFICATION NUMBER

The number is punched on the cylinder block.

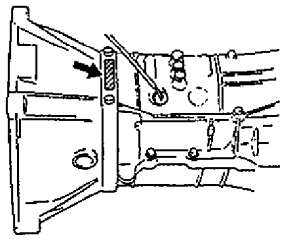


79E00-0A-12-2

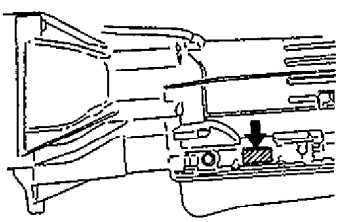
TRANSMISSION IDENTIFICATION NUMBER

The number is located on the transmission case.

M/T



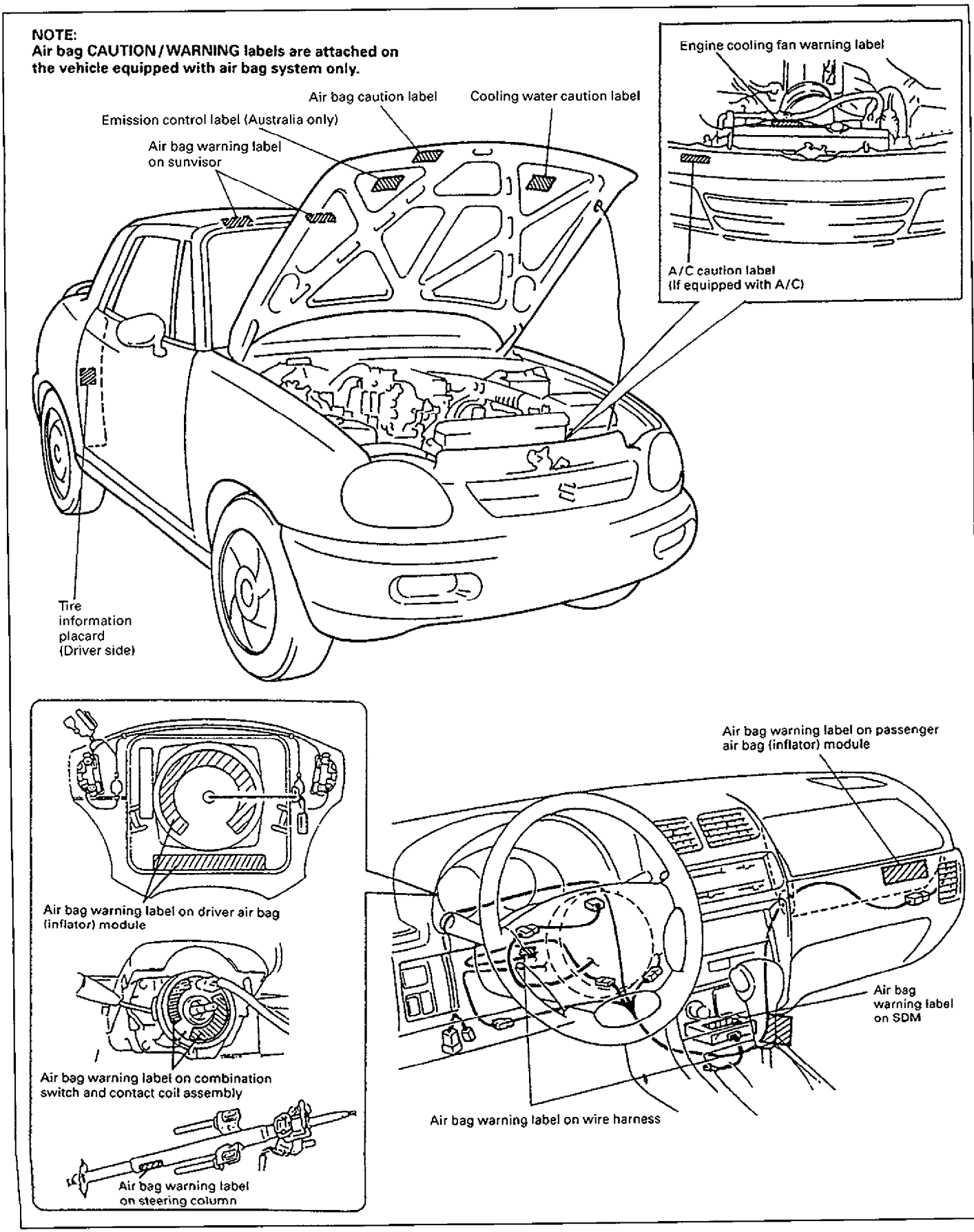
4-speed A/T



79E00-0A-12-4

WARNING, CAUTION AND INFORMATION LABELS

The figure below shows main labels among others that are attached to vehicle component parts. When servicing and handling parts, refer to WARNING/CAUTION instructions printed on labels. If any WARNING/CAUTION label is found stained or damaged, clean or replace it as necessary.

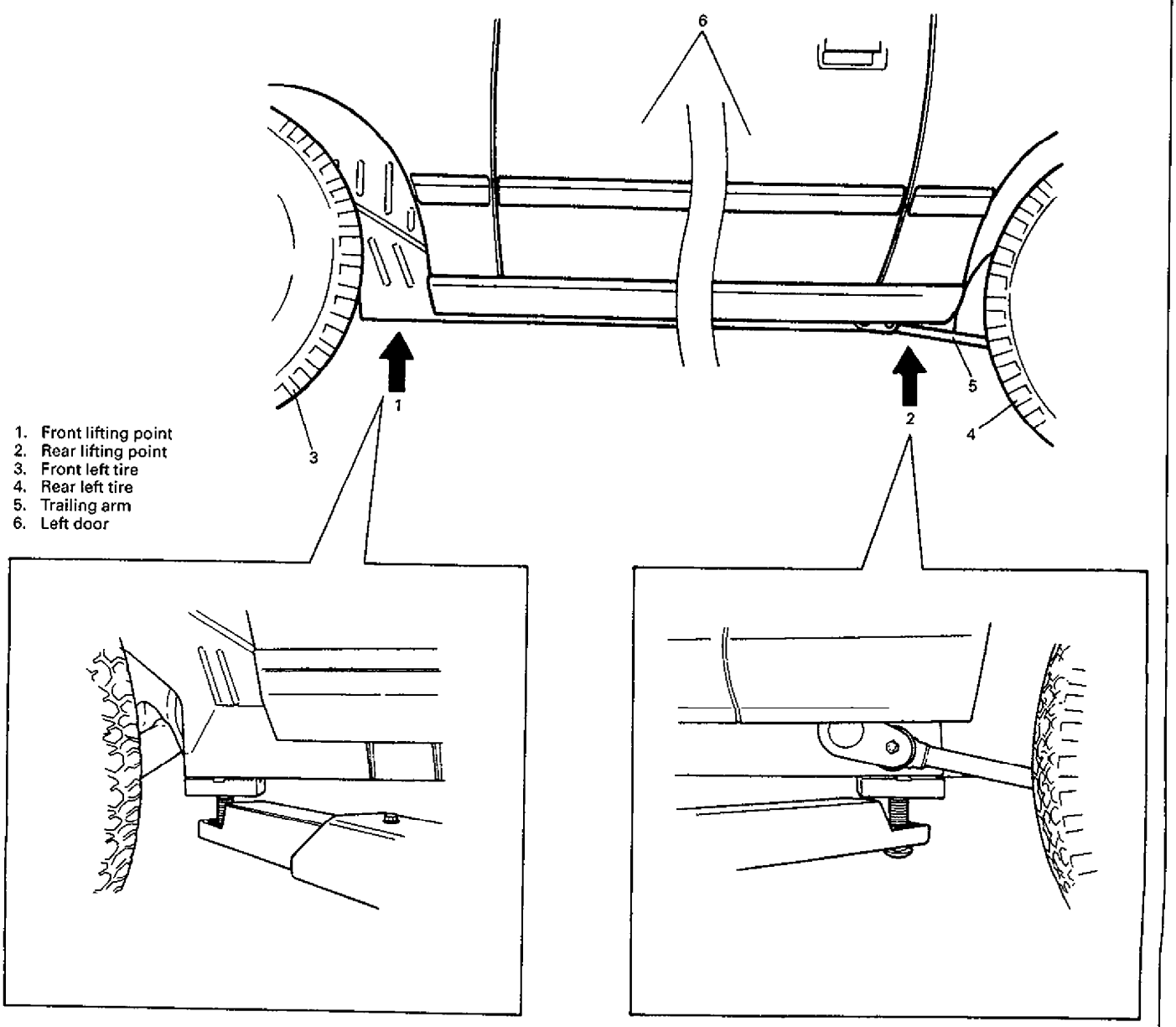


VEHICLE LIFTING POINTS

WARNING

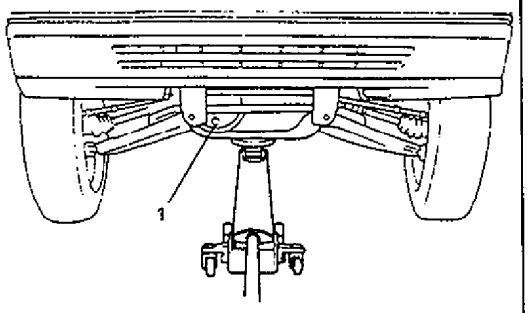
- **When using frame contact hoist, apply hoist as shown (right and left at the same position). Lift up the vehicle till 4 tires are a little off the ground and make sure that the vehicle will not fall off by trying to move vehicle body in both ways. Work can be started only after this confirmation.**
- **Before applying hoist to underbody, always take vehicle balance throughout service into consideration. Vehicle balance on hoist may change depending of what part to be removed.**
- **Make absolutely sure to lock hoist after vehicle is hoisted up.**
- **Before lifting up the vehicle, check to be sure that end of hoist arm is not in contact with brake pipe, fuel pipe, bracket or any other part.**

When using frame contact hoist:

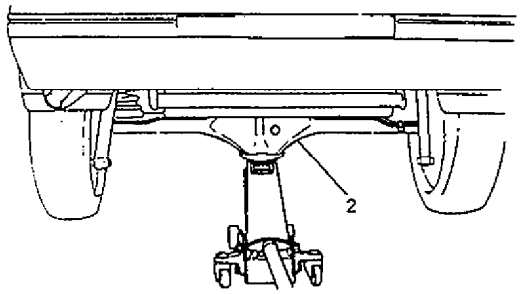


1. Front lifting point
2. Rear lifting point
3. Front left tire
4. Rear left tire
5. Trailing arm
6. Left door

When using floor jack:



1. Front differential housing



2. Rear axle

60A20-0A-12-1

In raising front or rear vehicle end off the floor by jacking, be sure to put the jack against the center portion of the front suspension frame or rear axle housing.

To perform service with either front or rear vehicle end jacked up, be sure to place safety stands under chassis frame so that body is securely supported. And then check to ensure that chassis frame does not slide on safety stands and the vehicle is held stable for safety's sake.

WARNING:

- **Never apply jack against suspension parts (i.e., stabilizer, etc) or vehicle floor, or it may get deformed.**
- **If the vehicle to be jacked up only at the front or rear end, be sure to block the wheels on ground in order to ensure safety.**
  After the vehicle is jacked up, be sure to support it on stands. It is extremely dangerous to do any work on the vehicle raised on jack alone.

85F00-0A-11-3

ABBREVIATIONS MAY BE USED IN THIS MANUAL

A

- ABS : Anti-lock Brake System
- ATDC : After Top Dead Center
- API : American Petroleum Institute
- ATF : Automatic Transmission Fluid
- ALR : Automatic Locking Retractor
- AC : Alternating Current
- A/T : Automatic Transmission
- A/C : Air Conditioning
- ABDC : After Bottom Dead Center
- A/F : Air Fuel Mixture Ratio
- A-ELR : Automatic-Emergency Locking Retractor

B

- B+ : Battery Positive Voltage
- BTDC : Before Top Dead Center
- BBDC : Before Bottom Dead Center

C

- CKT : Circuit
- CMP Sensor : Camshaft Position Sensor (Crank Angle Sensor, CAS)
- CO : Carbon Monoxide
- CPP Switch : Clutch Pedal Position Switch (Clutch Switch, Clutch Start Switch)
- CPU : Central Processing Unit
- CRS : Child Restraint System

D

- DC : Direct Current
- DLC : Data Link Connector (Assembly Line Diag. Link, ALDL, Serial Data Link, SDL)
- DOHC : Double Over Head Camshaft
- DOJ : Double Offset Joint
- DRL : Daytime Running Light
- DTC : Diagnostic Trouble Code (Diagnostic Code)

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E

- EBCM : Electronic Brake Control Module, ABS Control Module
- ECM : Engine Control Module
- ECT Sensor : Engine Coolant Temperature Sensor (Water Temp. Sensor, WTS)
- EGR : Exhaust Gas Recirculation
- EGR Pressure Transducer : EGR Modulator
- EGRT Sensor : EGR Temperature Sensor (Recirculated Exhaust Gas Temp. Sensor, REGTS)
- EFE Heater : Early Fuel Evaporation Heater (Positive Temperature Coefficient, PTC Heater)
- ELR : Emergency Locking Retractor
- EVAP : Evaporative Emission
- EVAP Canister : Evaporative Emission Canister (Charcoal Canister)
- EVAP Canister Purge Valve : EVAP Solenoid Purge Valve (SP Valve)

F

- 4WD : 4 Wheel Drive

G

- GEN : Generator
- GND : Ground

H

- HC : Hydrocarbons
- HO2S : Heated Oxygen Sensor

I

- IAC Valve : Idle Air Control Valve (Idle Speed Control Solenoid Valve, ISC Solenoid Valve)
- IAT Sensor : Intake Air Temperature Sensor (Air temperature Sensor, ATS)
- IG : Ignition
- ISC Actuator : Idle Speed Control Actuator (Motor)

L

LH : Left Hand

M

MAF Sensor : Mass Air Flow Sensor (Air Flow Sensor, AFS, Air Flow Meter, AFM)

MAP Sensor : Manifold Absolute Pressure Sensor (Pressure Sensor, PS)

Max : Maximum

MFI : Multiport Fuel Injection (Multipoint Fuel Injection)

Min : Minimum

MIL : Malfunction Indicator Lamp ("CHECK ENGINE" Light)

M/T : Manual Transmission

N

NOx : Nitrogen Oxides

O

OBD : On-Board Diagnostic System (Self-Diagnosis Function)

O/D : Overdrive

OHC : Over Head Camshaft

O2S : Oxygen Sensor

P

PNP : Park/Neutral Position

P/S : Power Steering

PSP Switch : Power Steering Pressure Switch (P/S Pressure Switch)

PCV : Positive Crankcase Ventilation

R

RH : Right Hand

S

SAE : Society of Automotive Engineers

SDM : Sensing and Diagnostic Module

SFI : Sequential Multiport Fuel Injection

SIR : Supplemental Inflatable Restraint

SOHC : Single Over Head Camshaft

85F00-0A-13-1

T

TBI : Throttle Body Fuel Injection (Single-Point Fuel Injection, SPI)

TCC : Torque Converter Clutch

TCM : Transmission Control Module (A/T Controller, A/T Control Module)

TP Sensor : Throttle Position Sensor

TVV : Thermal Vacuum Valve (Thermal Vacuum Switching Valve, TVSV, Bimetal Vacuum Switching Valve, BVSV)

TWC : Three Way Catalytic Converter (Three Way Catalyst)

2WD : 2 Wheel Drive

V

VIN : Vehicle Identification Number

VSS : Vehicle Speed Sensor

W

WU-OC : Warm Up Oxidation Catalytic Converter

WU-TWC : Warm Up Three-Way Catalytic Converter

METRIC INFORMATION

METRIC FASTENERS

Most of the fasteners used for this vehicle are metric. When replacing any fasteners, it is most important that replacement fasteners be the correct diameter, thread pitch and strength.

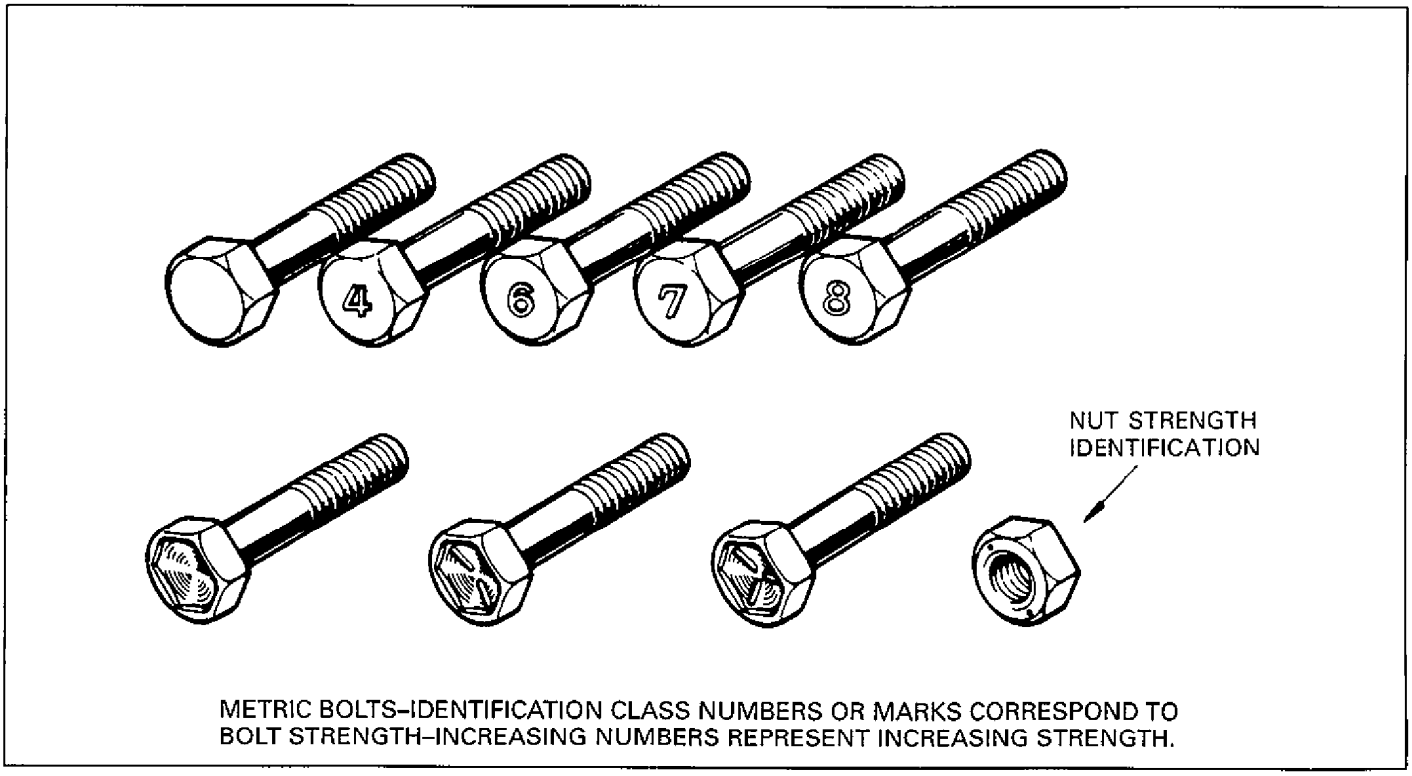
64B40-0A-8-1

FASTENER STRENGTH IDENTIFICATION

Most commonly used metric fastener strength property classes are 4T, 7T and radial line with the class identification embossed on the head of each bolt. Some metric nuts will be marked with punch mark strength identification on the nut face. Figure shows the different strength markings.

When replacing metric fasteners, be careful to use bolts and nuts of the same strength or greater than the original fasteners (the same number marking or higher). It is likewise important to select replacement fasteners of the correct size. Correct replacement bolts and nuts are available through the parts division.

64B40-0A-8-2



METRIC BOLTS–IDENTIFICATION CLASS NUMBERS OR MARKS CORRESPOND TO BOLT STRENGTH–INCREASING NUMBERS REPRESENT INCREASING STRENGTH.

64B40-0A-8-3

STANDARD TIGHTENING TORQUE

Each fastener should be tightened to the torque specified in each section of this manual. If no description or specification is provided, refer to the following tightening torque chart for the applicable torque for each fastener. When a fastener of greater strength than the original one is used, however, use the torque specified for the original fastener.

NOTE:

- **For the flanged bolt and nut, add 10% to the tightening torque given in the chart below.**
- **The chart below is applicable only where the fastened parts are made of steel light alloy.**

Tightening torque chart

STRENGTH / THREAD DIAMETER (mm)	Conventional bolt			"4T" bolt			"7T" bolt		
	N·m	kg-m	lb-ft	N·m	kg-m	lb-ft	N·m	kg-m	lb-ft
4	1.5	0.15	1.0	2.3	0.23	2.0			
5	3.0	0.30	2.5	4.5	0.45	3.5			
6	5.5	0.55	4.0	10	1.0	7.5			
8	13	1.3	9.5	23	2.3	17.0			
10	29	2.9	21.0	50	5.0	36.5			
12	45	4.5	32.5	85	8.5	61.5			
14	65	6.5	47.0	135	13.5	98.0			
16	105	10.5	76.0	210	21	152.0			
18	160	16	116.0	240	24	174.0			

85F00-0A-15-1

SECTION 3A

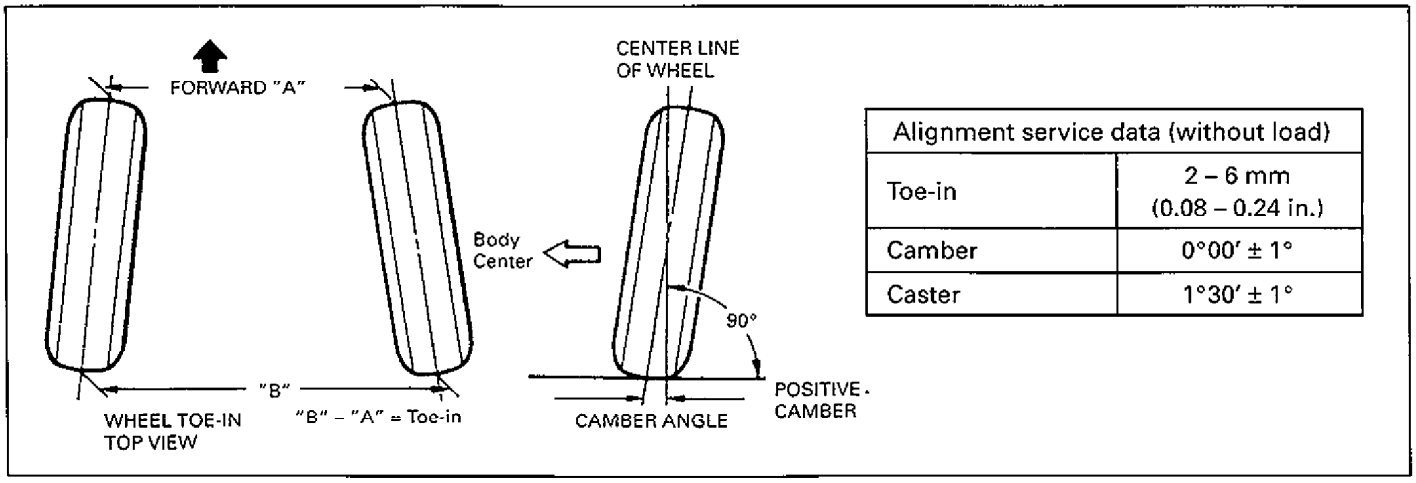
FRONT END ALIGNMENT

NOTE:
For the descriptions (items) not found in this section, refer to the same section of the Service Manual mentioned in FOREWORD of this manual.

CONTENTS

79E00-3A-1-1

GENERAL INFORMATION



Alignment service data (without load)	
Toe-in	2 – 6 mm (0.08 – 0.24 in.)
Camber	0°00′ ± 1°
Caster	1°30′ ± 1°

79E00-3A-1-2

Front alignment refers to the angular relationship between the front wheels, the front suspension attaching parts and the ground. Generally, the only adjustment required for front alignment is toe setting.
Camber and caster can't be adjusted. Therefore, should camber or caster be out of specification due to the damage caused by hazardous road conditions or collision, whether the damage is in body or in suspension should be determined. If the body is damaged, it should be repaired and if suspension is damaged, it should replaced.

77500-3A-1-3

SECTION 3C1

AIR BAG STEERING WHEEL AND COLUMN

WARNING:
The procedures in this section must be followed in the order listed to temporarily disable the Air Bag System and prevent false diagnostic codes from setting.
Failure to follow procedures could result in possible air bag deployment, personal injury or otherwise un needed air bag system repairs.

CAUTION:
When fasteners are removed, always reinstall them at the same location from which they were removed. If a fastener needs to be replaced, use the correct part number fastener for that application. If the correct part number fastener is not available, a fastener of equal size (or stronger) may be used. Fasteners that are not reused, and those requiring thread-locking compound, will be called out. The correct torque values must be used when installing fasteners that require them. If the above procedures are not followed, parts or system damage could result.

61A10-3C1-1-1

NOTE:
For the descriptions (items) not found in this section, refer to the same section of the Service Manual mentioned in FOREWORD of this manual.

CONTENTS

79E00-3C1-1-2

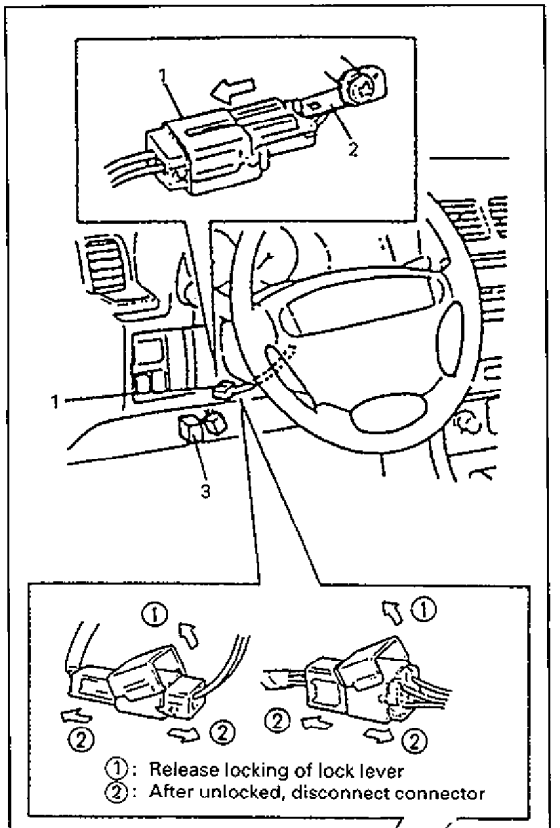
ON-VEHICLE SERVICE

SERVICE PRECAUTIONS

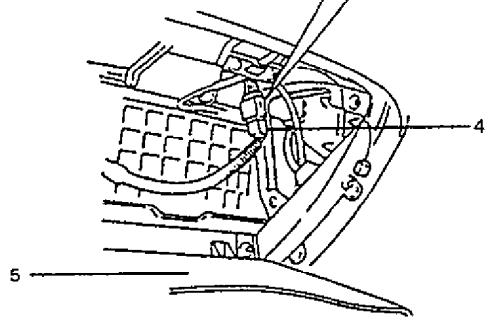
- WARNING/CAUTION labels are attached on each part of air bag system components. Be sure to follow the instructions.

> **WARNING:**
> **When performing service on or around air bag system components or air bag system wiring, follow the procedures listed below to temporarily disable the air bag system. Refer to appropriate service manual procedures. Failure to follow procedures could result in possible air bag deployment, personal injury or unneeded air bag system repairs.**

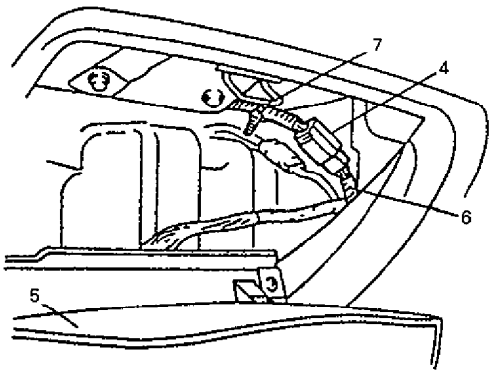
- Many of the service procedures require disconnection of the "AIR BAG" fuse and air bag (inflator) modules (driver and passenger) from the deployment loop to avoid an accidental deployment.
- Never use air bag component parts from another vehicle.
- If the vehicle will be exposed to temperatures over 93°C (200°F) (for example, during a paint baking process), remove the air bag system components.
- When servicing, if shocks may be applied to air bag system component parts, remove those parts beforehand.



For left hand steering vehicle



For right hand steering vehicle

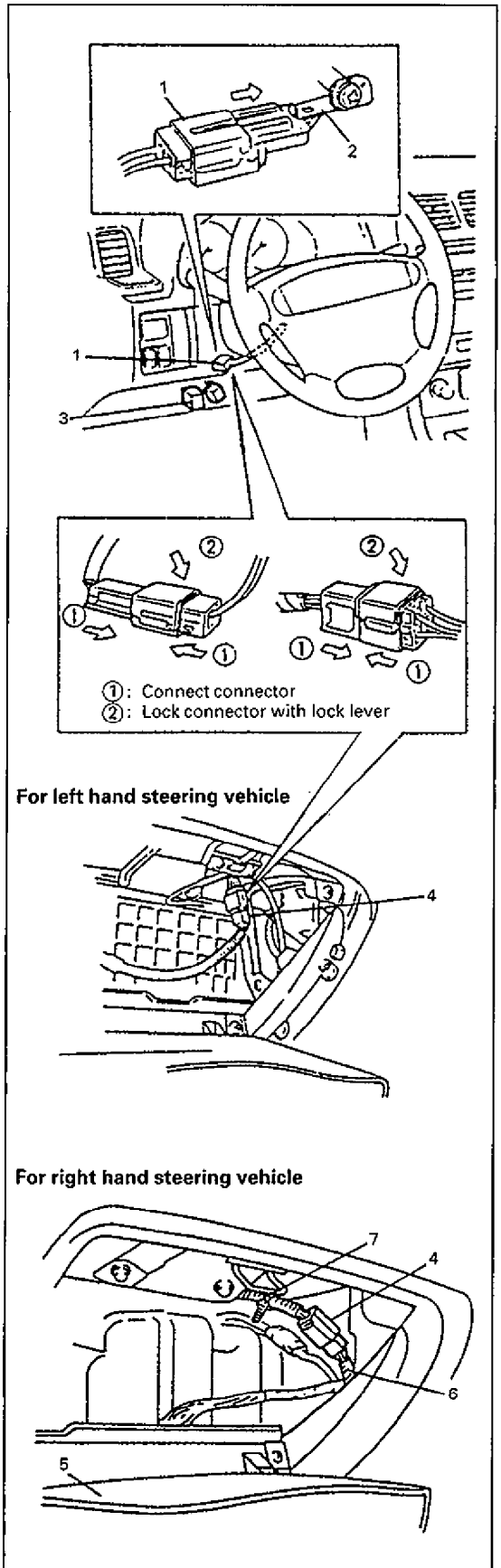


1. Yellow connector of driver air bag (inflator) module
2. Connector stay
3. Air bag fuse box
4. Yellow connector of passenger air bag (inflator) module
5. Glove box
6. Air bag harness (covered with yellow protection tube)
7. Clamp

DISABLING AIR BAG SYSTEM

1) Turn steering wheel so that vehicle's wheels (front tires) are pointing straight ahead.
2) Turn ignition switch to "LOCK" position and remove key.
3) Remove "AIR BAG" fuse from the air bag fuse box.
4) Driver side
   Remove steering wheel side cap (left) and disconnect Yellow connector of driver air bag (inflator) module.
5) Passenger side
   Pull out glove box while pushing its stopper from both right and left sides and disconnect Yellow connector of passenger air bag (inflator) module.

NOTE:
With "AIR BAG" fuse removed and ignition switch ON, "AIR BAG" warning lamp will be ON.
This is normal operation and does not indicate an air bag system malfunction.



1. Yellow connector of driver air bag (inflator) module
2. Connector stay
3. Air bag fuse box
4. Yellow connector of passenger air bag (inflator) module
5. Glove box
6. Air bag harness (covered with yellow protection tube)
7. Clamp

ENABLING AIR BAG SYSTEM

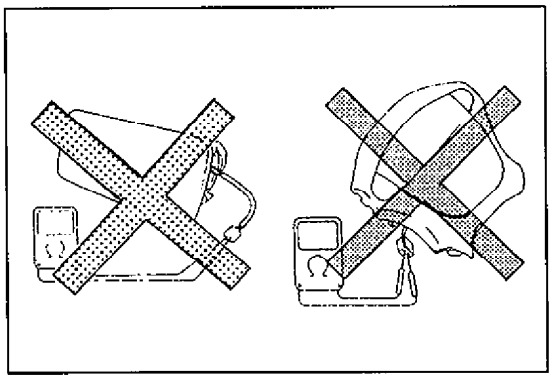
1) Turn ignition switch to "LOCK" and remove key.
2) Connect Yellow connector of passenger air bag (inflator) module and Yellow connector of driver air bag (inflator) module respectively, and be sure to lock each connector with lock lever.
3) Fix connectors (driver and passenger) respectively.
   Driver air bag (inflator) module connector:
   Fit onto connector stay.
   Passenger air bag (inflator) module connector:
   For left hand steering vehicle, fit onto connector stay.
   For right hand steering vehicle, Fix air bag harness with clamp.
4) Install glove box and steering wheel side cap.
5) Install "AIR BAG" fuse to air bag fuse box.
6) Turn ignition switch to "ON" and verify that "AIR BAG" warning lamp flashes 7 times and then turns off.
   If it does not operate as described, perform the "Air Bag Diagnostic System Check" in Section 9J.

HANDLING PRECAUTIONS

Live (Undeployed) Air Bag (Inflator) Module (Driver and Passenger)

Special care is necessary when handling and storing a live (undeployed) air bag (inflator) module. The rapid gas generation produced during deployment of the air bag could cause the air bag (inflator) module, or an object in front of the air bag (inflator) module, to be thrown through the air in the unlikely event of an accidental deployement.

61A10-3C1-7-1

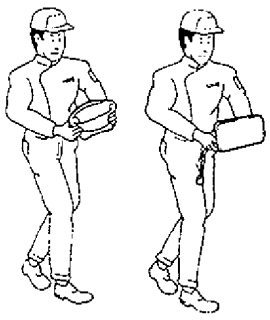


61A10-3C1-7-2

WARNING:
Never attempt to measure the resistance of the air bag (inflator) modules (driver and passenger). It is very dangerous as the electric current from the tester may deploy the air bag.

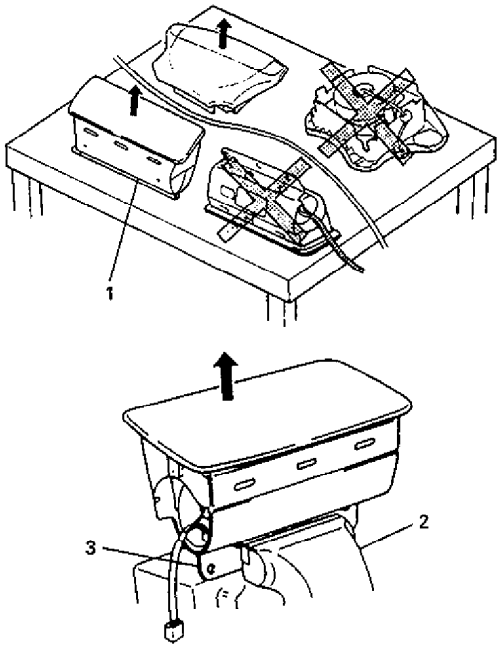
- Never attempt disassembly of the air bag (inflator) module.
- If any abnormality is found, be sure to replace it with new one as an assembly.
- When an abnormality is noted as existing in the live (undeployed) air bag (inflator) module, be sure to deploy it before discarding it. (Refer to "Air Bag (Inflator) Modules Disposal" in SECTION 9J.)
- When grease, cleaning agent, oil water, etc., got on the air bag (inflator) modules (driver and passenger), wipe it off immediately with a dry cloth.
- When handling an air bag (inflator) module, be very careful not to allow it to undergo any impact such as dropping.
  If a strong impact was applied to an air bag (inflator) module (For exmple, it has been dropped from a height of 91.4 cm (3 ft).), it must be replaced with a new one.

61A10-3C1-7-3



ALWAYS CARRY AIR BAG (INFLATOR) MODULE WITH TRIM COVER (AIR BAG OPENING) AWAY FROM BODY.

ALWAYS PLACE AIR BAG (INFLATOR) MODULE ON WORKBENCH WITH TRIM COVER (AIR BAG OPENING) UP, AWAY FROM LOOSE OBJECTS.



1. Slit on workbench
2. Work bench vise
3. Lower mounting bracket

61A10-3C1-8-1

WARNING:

- **For handling and storing an air bag (inflator) module, select a place where the ambient temperature below 65°C (150°F), without high humidity and away from electric noise.**
- **When carrying a live air bag (inflator) module, make sure the bag opening is pointed away from you. In case of an accidental deployment, the bag will then deploy with minimal chance of infury. Never carry the air bag (inflator) module by the wires or connector on the underside of the module.**
- **When placing a live air bag (inflator) module on a bench or other surface, always face the bag up, away from the surface. As the live passenger air bag (inflator) module must be placed with its bag (trim cover) facing up, place it on the workbench with a slit or use the workbench vise to hold it securely at its lower mounting bracket.**
  If is also prohibited to place anything on top of the trim cover and stack air bag (inflator) modules.
  This is necessary so that a free space is provided to allow the air bag to expand in the unlikely event of accidental deployment.

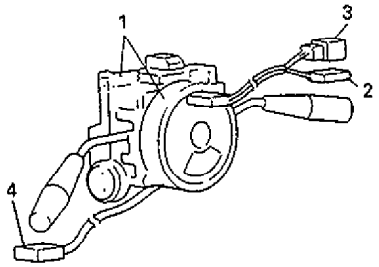
Otherwise, personal injury may result.

Deployed Air Bag (Inflator) Module (Driver and Passenger)

WARNING:

- **Immediately after deployment, the air bag (inflator) module is very hot. Wait for at least 30 minutes to cool it off before starting servicing (handling) it.**
- **Do not apply water, etc. to deployed air bag (inflator) module.**
- **After an air bag (inflator) module has been deployed, the surface of the air bag may contain a powdery residue. This powder consists primarily of cornstarch (used to lubricate the bag as it inflates) and byproducts of the chemical reaction. As with many service procedures, gloves and safety glasses should be worn.**
- **Wash your hands with mild soap and water after completing the work.**

Refer to the procedure described under "Deployed Air Bag (Inflator) Module Disposal" in SECTION 9J, for details.

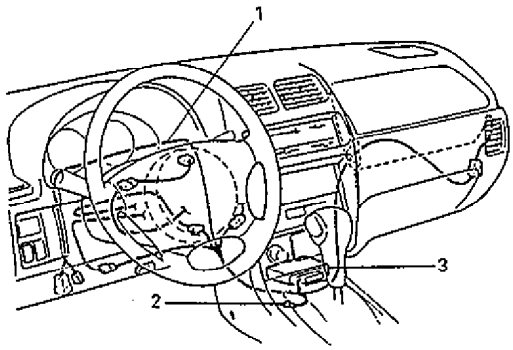


1. Contact coil and combination switch assembly
2. To horn
3. Connector to driver air bag (inflator) module
4. Connector to air bag wire harness

60A50-3C1-7-1

Contact Coil and Combination Switch Assembly

Do not turn contact coil (on combination switch) more than allowable number of turns (about two and a half turns from the center position clockwise or counterclockwise respectively), or coil will break.



1. Air bag wire harness
2. Ground
3. SDM case ground

79E00-3C1-7-2

Air Bag Wire Harness and Connectors

Air bag wire harness can be identified easily as it is covered with a yellow protection tube. Be very careful when handling it.

CAUTION:
When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.

- When installing it, be careful so that the air bag wire harness is not caught or does not interfere with other parts.
- Make sure all air bag system grounding points are clean and grounds are securely fastened for optimum metal-to matal contact. Poor grounding can cause intermittent problems that are difficult to diagnose.

DISPOSAL PRECAUTIONS

Do not dispose of live (undeployed) air bag (inflator) modules (driver and passenger). When disposal is necessary, be sure to deploy it first according to the procedure described in SECTION 9J and then dispose it. Refer to SECTION 9J for disposal procedure.

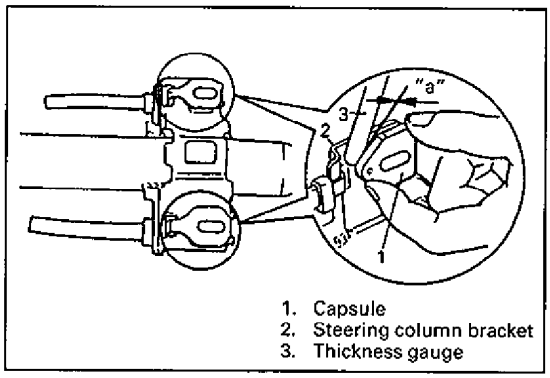
WARNING:
Failure to follow proper air bag (inflator) module disposal procedures can result in air bag deployment which could cause personal injury. Undeployed air bag (inflator) modules must not be disposed of through normal refuse channels. The undeployed air bag (inflator) module contains substances that can cause severe illness or personal injury if the sealed container is damaged during disposal.

CHECKING STEERING COLUMN FOR ACCIDENT DAMAGE

NOTE:
Vehicles involved in accidents resulting in body damage or where steering column has been impacted may also have a damaged or misaligned steering column.

In such a case, following steps should be performed.

60A20-3C2-9-1



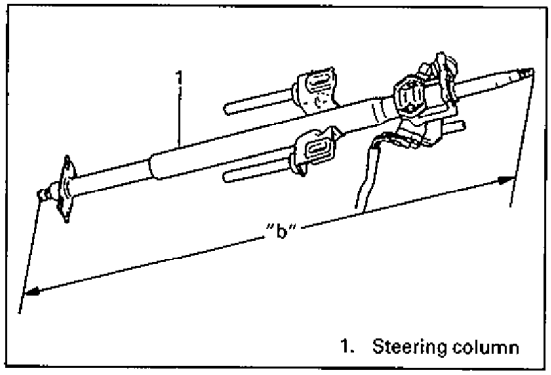
1. Capsule
2. Steering column bracket
3. Thickness gauge

85F00-3C2-3-2

CHECKING PROCEDURE

1) Check clearance between capsules and steering column bracket as shown. Clearance should be 0.0 mm (0.0 in.) on both sides.

   Clearance "a": 0.0 mm (0.0 in.)

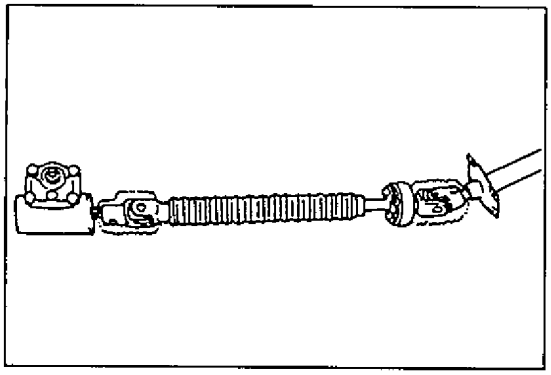


1. Steering column

79E00-3C1-8-3

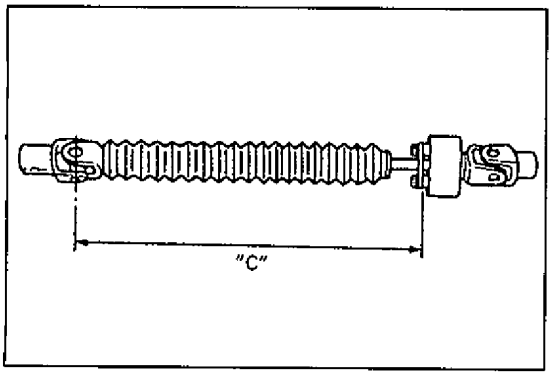
2) Take measurement "b" as shown. If it is shorter than specified length, replace column assembly with new one.

   Specified length "b": 773.5 ± 0.8 mm (30.45 ± 0.03 in.)



79E00-3C1-8-4

3) Check steering shaft joints and shaft for any damages such as crack, breakage, malfunction or excessive play. If anything is found faulty, replace as shaft assembly.
4) Check steering shaft for smooth rotation. If found defective, replace as column assembly.



79E00-3C1-8-5

5) Check steering lower shaft for specified length.
   If it is shorter than specified length, replace it with new one.

   Length "c": 262 mm (10.3 in.)

SECTION 3C2

STEERING WHEEL, COLUMN AND SHAFT (NOT EQUIPPED WITH AIR BAG SYSTEM)

NOTE:

- For the descriptions (items) not found in this section, refer to the same section of the Service Manual mentioned in FOREWORD of this manual.
- All steering wheel and column fasteners are important parts in that they could affect the performance of vital parts and systems, and / or could result in major repair expense. They must be replaced with one of the same part number or with an equivalent part if replacement becomes necessary. Do not use a replacement part of lesser quality or substitute design. Torque values must be used as specified during reassembly to assure proper retention of this part.

79E00-3C2-1-1

CONTENTS

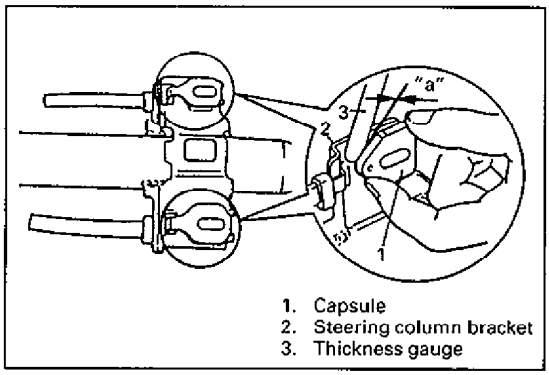
79E00-3C2-1-2

CHECKING STEERING COLUMN FOR ACCIDENT DAMAGE

NOTE:
Vehicles involved in accidents resulting in body damage or where steering column has been impacted may also have a damaged or misaligned steering column.

In such a case, following steps should be performed.

60A20-3C2-9-1



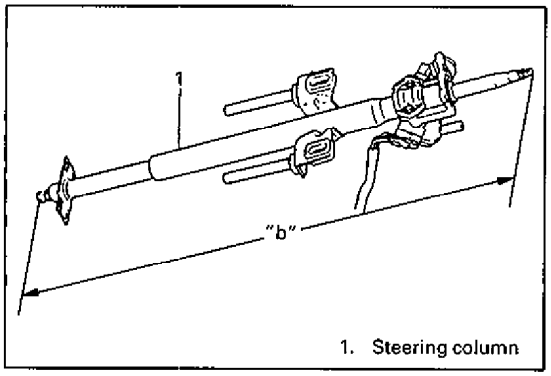
1. Capsule
2. Steering column bracket
3. Thickness gauge

85F00-3C2-3-2

CHECKING PROCEDURE

1) Check clearance between capsules and steering column bracket as shown. Clearance should be 0.0 mm (0.0 in.) on both sides.

Clearance "a": 0.0 mm (0.0 in.)

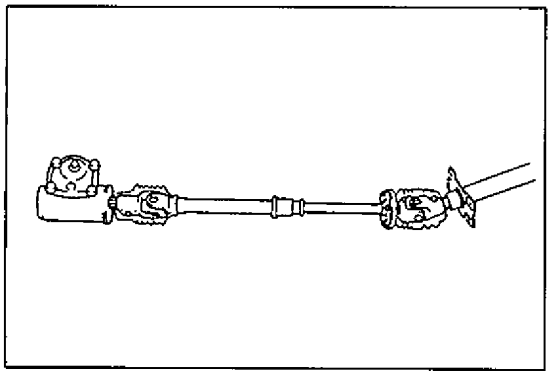


1. Steering column

79E00-3C2-2-3

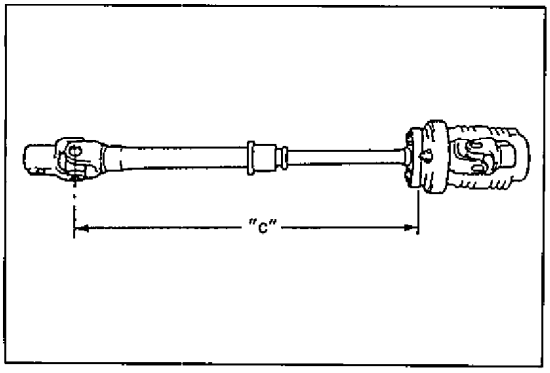
2) Take measurement "b" as shown. If it is shorter than specified length, replace column assembly with new one.

Specified length "b": 787.5 ± 0.8 mm (31.00 ± 0.03 in.)



85F00-3C2-3-4

3) Check steering shaft joints and shaft for any damages such as crack, breakage, malfunction or excessive play. If anything is found faulty, replace as shaft assembly.
4) Check steering shaft for smooth rotation. If found defective, replace as column assembly.



79E00-3C2-2-5

5) Check steering lower shaft for specified length.
If it is shorter than specified length, replace it with new one.

Length "c": *273 mm (10.7 in.)
314 mm (12.4 in.)
***For vehicle with power steering system**

SECTION 3F

WHEELS AND TIRES

NOTE:

- **For the descriptions (items) not found in this section, refer to the same section of the Service Manual mentioned in FOREWORD of this manual.**
- **All wheel fasteners are important attaching parts in that they could affect the performance of vital parts and systems, and / or could result in major repair expense. They must be replaced with one of the same part number or with an equivalent part if replacement becomes necessary. Do not use a replacement part of lesser quality or substitute design. Torque values must be used as specified during reassembly to assure proper retention of all parts.**
  There is to be no welding as it may result in extensive damage and weakening of the metal.

79E00-3F-1-1

CONTENTS

79E00-3F-1-2

GENERAL DESCRIPTION

TIRES

This vehicle is equipped with following tire.
4WD MODEL ..... P195/65R 15 (P205/70R 15 ; Australian spec. vehicle only)
The tires are of tubeless type. The tires are designed to operate satisfactorily with loads up to the full rated load capacity when inflated to the recommended inflation pressure.
Correct tire pressures and driving habits have an important influence on tire life. Heavy cornering, excessively rapid acceleration, and unnecessary sharp braking increase tire wear.

61A20-3F-1-3S

WHEELS

Standard equipment wheels are 15 x 5 ½ JJ steel wheels.

SECTION 8

BODY ELECTRICAL SYSTEM

WARNING:
For vehicles equipped with a Supplemental Inflatable Restraint Air Bag System:

- **Service on or around Air Bag System Components or Wiring must be performed only by an authorized Suzuki dealer. Please observe all WARNINGS and SERVICE PRECAUTIONS in Section 9J under "On-Vehicle Service" and the Air Bag System Component and Wiring Location view in Section 9J before performing service on or around Air Bag System Components or Wiring. Failure to follow WARNINGS could result in unintended air bag deployment or could render the air bag inoperative. Either of these two conditions may result in severe injury.**
- **Technical service work must be started at least 90 seconds after the ignition switch is turned to the "LOCK" position and the negative cable is disconnected from the battery.**
  Otherwise, the air bags may be deployed by reserve energy in the Sensing and Diagnostic Module (SDM).

NOTE:

- **For the descriptions (items) not found in this section, refer to the same section of Service Manual mentioned in FOREWORD of this manual.**
- **When the text says "If equipped", the subject vehicle may or may not be equipped with that system depending on models or statutory regulations.**

79E00-8-1-1

CONTENTS

79E00-8-1-1

GENERAL DESCRIPTION

The body electrical components of this vehicle are designed to operate on 12 volts power supplied by the battery. The electrical system utilizes negative grounded polarity.

WIRING

All body low voltage wires are insulated. The insulation is color coded for identification of individual body circuit.

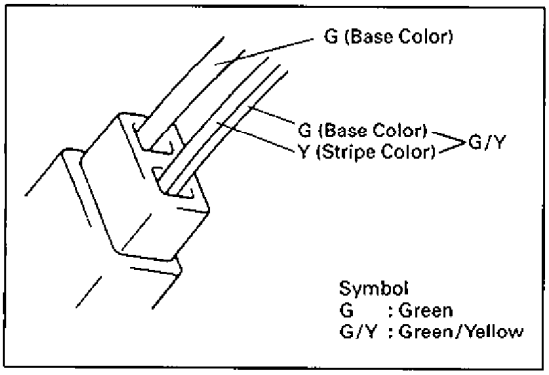
50G00-8-2-1

Symbol	Wire Color	Symbol	Wire Color
B	Black	O	Orange
Bl	Blue	R	Red
Br	Brown	W	White
G	Green	Y	Yellow
Gr	Gray	P	Pink
Lbl	Light blue	V	Voilet
Lg	Light green		

WIRE COLOR SYMBOLS

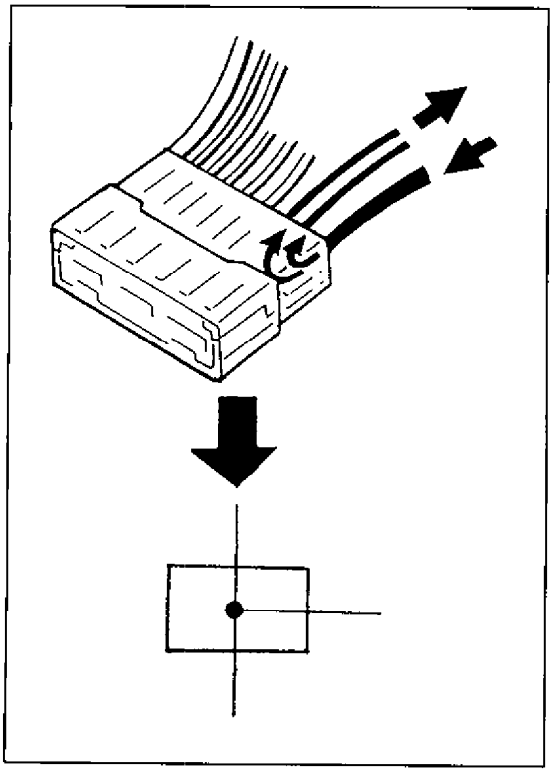
The initial alphabet(s) of the color name is used to represent each color as listed at the left.

61A10-8-2-2



There are two types of wire color: one-color type and 2-color type (with a stripe). In case of 2-color type, the first alphabet ("G" of the example in the figure at the left) represents the basic color (color of wire insulation) and the next alphabet ("Y" of the example) represents the color of stripe.

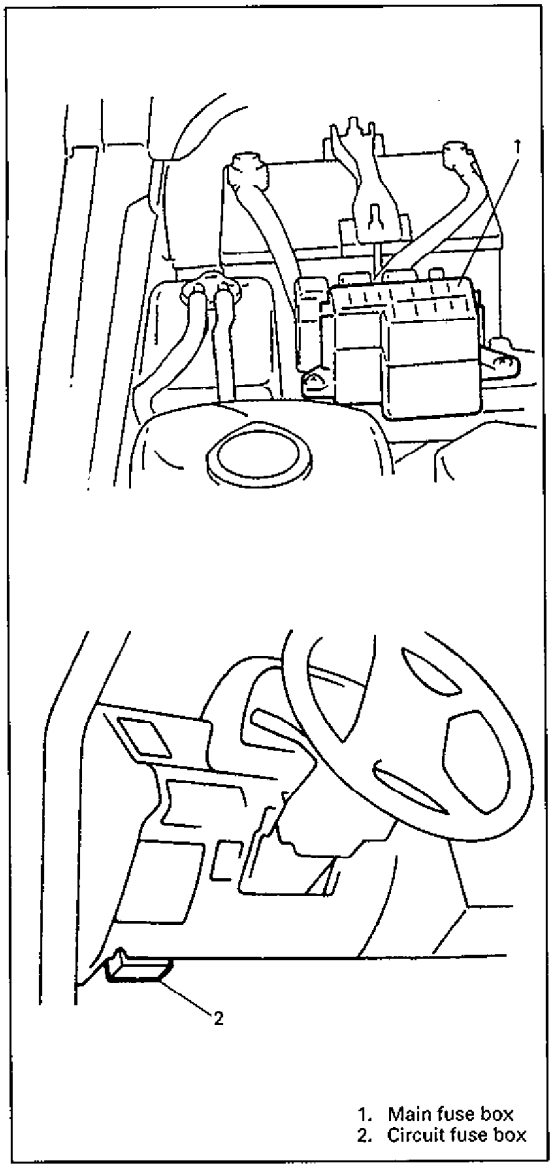
61A10-8-2-3



JOINT CONNECTOR (J/C)

- Wiring of this vehicle employs joint connectors (J/C) which divide one wire into several different wires or combine several different wires into one wire.
- The joint connector is illustrated left.

61A10-8-2-4



1. Main fuse box
2. Circuit fuse box

79E00-8-3-1

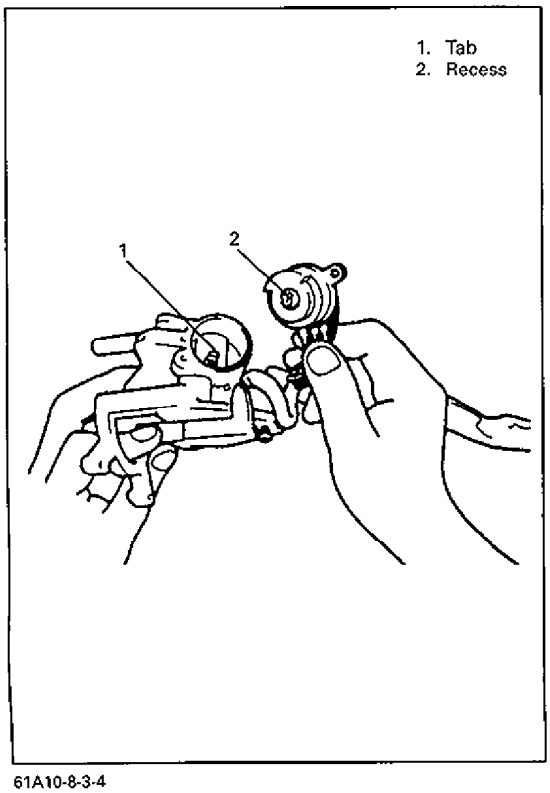
ON VEHICLE SERVICE

FUSES AND SWITCHES

FUSES

The main fuse box is located on the fender apron panel in the engine room and the fuse box is installed to underside of the instrument cover panel. The data and arrangement of each fuse are as shown to "POWER SUPPLY DIAGRAM" in this section.

CAUTION:
- **When replacing a fuse, be sure to use one having a correct rated amperage.**
- **Before replacing a fuse, turn OFF every switch of electric equipment including main switch.**



1. Tab
2. Recess

61A10-8-3-4

IGNITION (MAIN) SWITCH

Inspection

Remove steering column referring to Steering Section (3C1 or 3C2). And then remove steering lock/main switch from steering column referring to Steering Section (3C1 or 3C2).

Checking continuity between terminals

Use a circuit tester to check continuity at each switch position.

Key \ Wire color		W/Y	Bl	B/W	Y/B	B/Y	B	B	G	G
OUT	LOCK	○								
IN	ACC	○—○							○	○
	ON	○—○	○—○							
	START	○	○			○	○—○			

If any continuity is not obtained, replace main switch.
Reverse removal procedure to install. At installation, position ignition switch so that its recess is mated with tab on bracket.

COMBINATION SWITCH

The turn signal/dimmer switch incorporates the turn signal, hazard warning, dimmer and passing light switches.

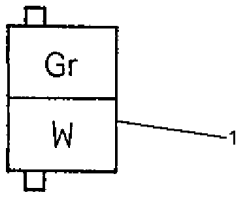
Inspection

1) Disconnect negative (–) cable at battery.
2) Remove steering column hole cover.
3) Disconnect combination switch coupler(s).

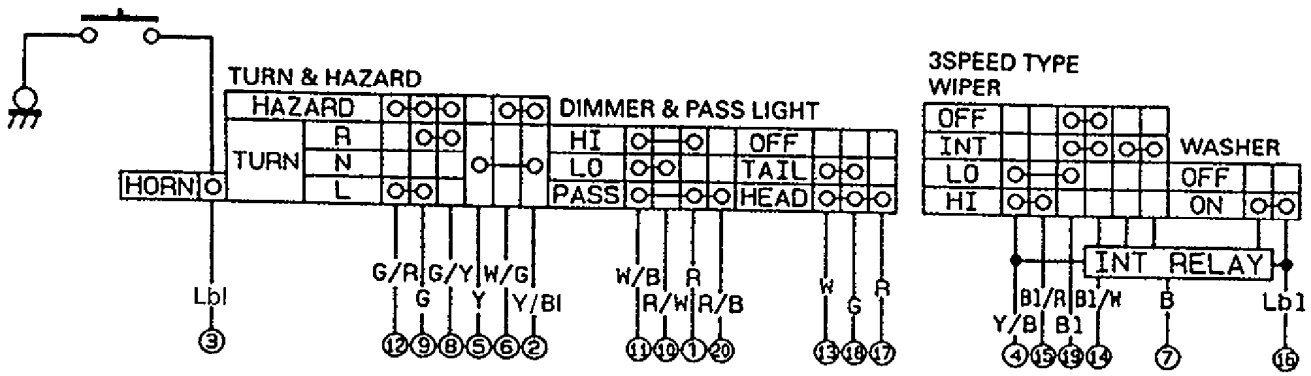
61A10-8-4-1

CONNECTOR

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
R	Y/Bl	Lbl	Y/B	Y	W/G	B	G/Y	G	R/W
W/B	G/R	W	Bl/W	Bl/R	Lbl	R	G	Bl	R/B
⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳



Continuity between terminals

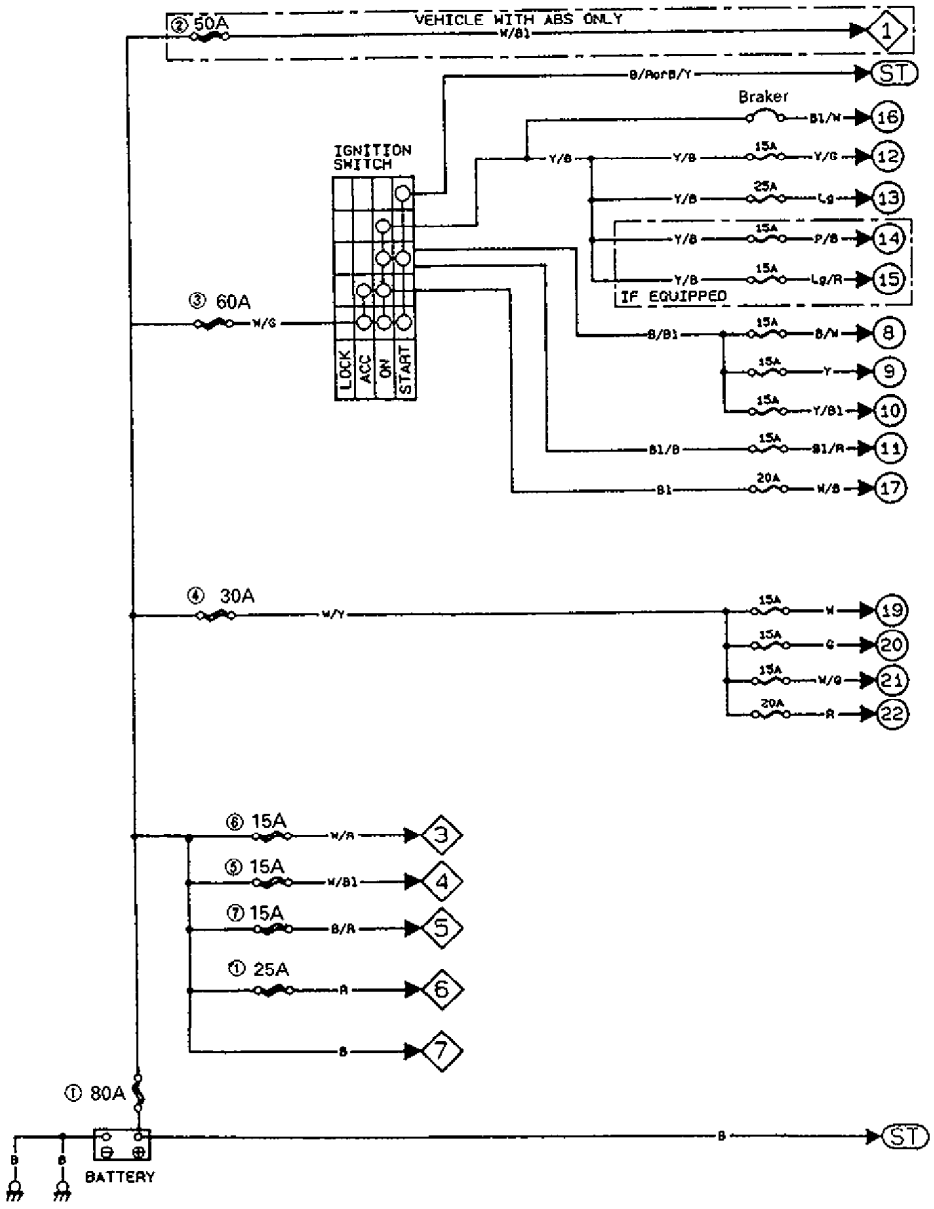


B : Black	G/Y : Green/Yellow	W/G : White/Green
Bl : Blue	R : Red	Y : Yellow
Bl/R : Blue/Red	R/B : Red/Black	Y/B : Yellow/Black
Bl/W: Blue/White	R/W : Red/White	Y/Bl : Yellow/Blue
G : Green	W : White	Lbl : Light blue
G/R : Green/Red	W/B : White/Black	Gr : Gray

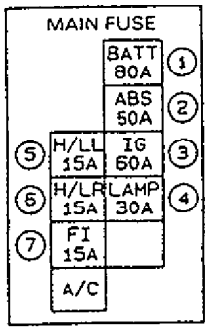
1. For air bag system (If equipped)

79E00-8-4-1

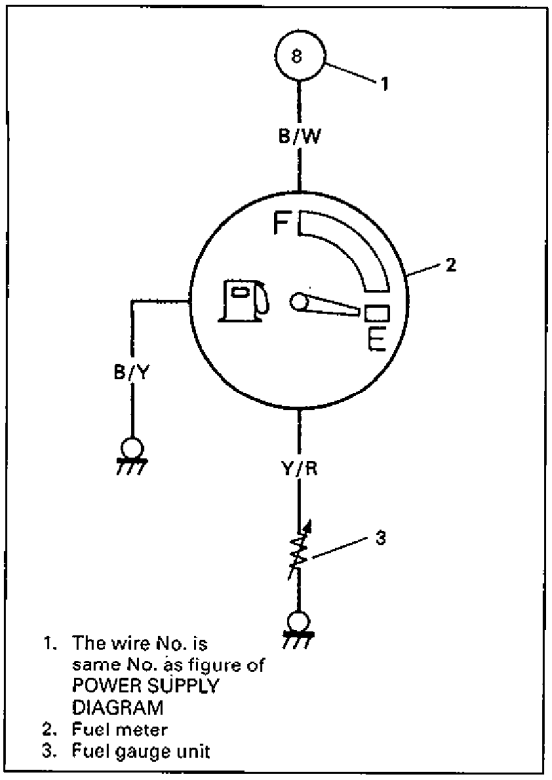
POWER SUPPLY DIAGRAM



1. To ABS system
3. To headlight (RH)
4. To headlight (LH)
5. To electronic fuel injection main relay
6. To A/C system
7. To generator
8. To ignition coil
9. To turn signal light & back up light
10. To wiper & washer
11. To air bag system
12. To rear defogger
13. To heater
14. To sliding roof
15. To seat heater
16. To power window
17. To cigarette lighter & radio
19. To small, tail & licence plate light
20. To stop light & horn
21. To hazard
22. To door lock
ST. To starting motor



FUSE BOX		⑲	⑳	㉑	㉒	⑰
	15A FOG	15A TAIL DOME	15A STOP HORN	15A HAZARD	20A DOOR LOCK	20A CIGAR RADIO
15A IG COIL METER	15A TURN BACK	15A WIPER WASHER	15A REAR DEFG	25A HEATER	15A SUN ROOF	15A SEAT HEATER
⑧	⑨	⑩	⑫	⑬	⑭	⑮



1. The wire No. is same No. as figure of POWER SUPPLY DIAGRAM
2. Fuel meter
3. Fuel gauge unit

79E00-8-6-1

COMBINATION METER
FUEL METER/FUEL GAUGE UNIT

DESCRIPTION OF CIRCUIT

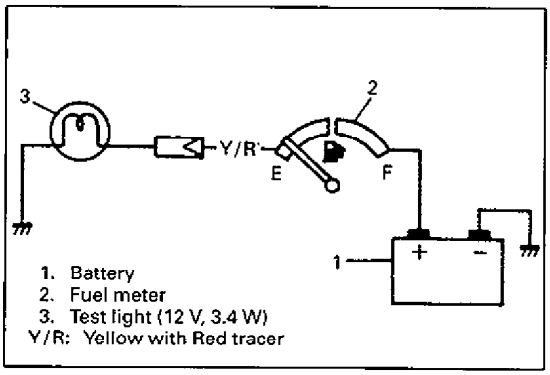
The fuel meter circuit consists of the fuel meter and the fuel gauge unit in the tank. Current flowing through the meter coil is varied to control the movement of the meter pointer.

When the tank is full, the fuel level gauge resistance is decreased allowing more current flow into the meter coil causing the pointer to move to the "F" (FULL) position.

TROUBLE DIAGNOSIS

Condition	Possible cause	Correction
Fuel level meter shows no operation.	IG. fuse blown	Replace fuse to check for short.
	Fuel meter faulty	Check meter.
	Fuel level gauge unit faulty	Check gauge unit.
	Wiring or grounding faulty	Repair.

60A50-8-7-3



1. Battery
2. Fuel meter
3. Test light (12 V, 3.4 W)

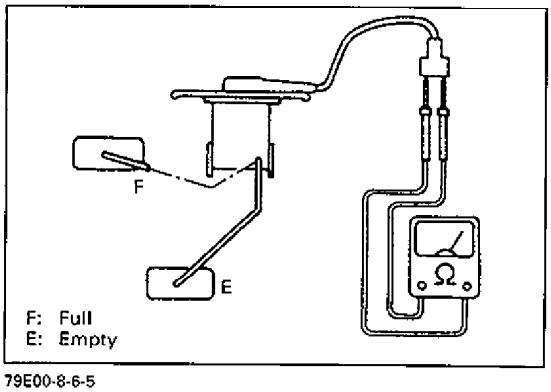
Y/R: Yellow with Red tracer

85F00-8-8-3

INSPECTION

FUEL METER

1) Remove rear bumper.
2) Disconnect Y/R (Yellow with Red tracer) lead wire going to gauge unit.
3) Use bulb (12 V, 3.4 W) in position to ground above lead wire as shown.
4) Turn main switch ON.
5) Make sure bulb is lighted with meter pointer fluctuating several seconds thereafter.
6) If meter is faulty, replace it.



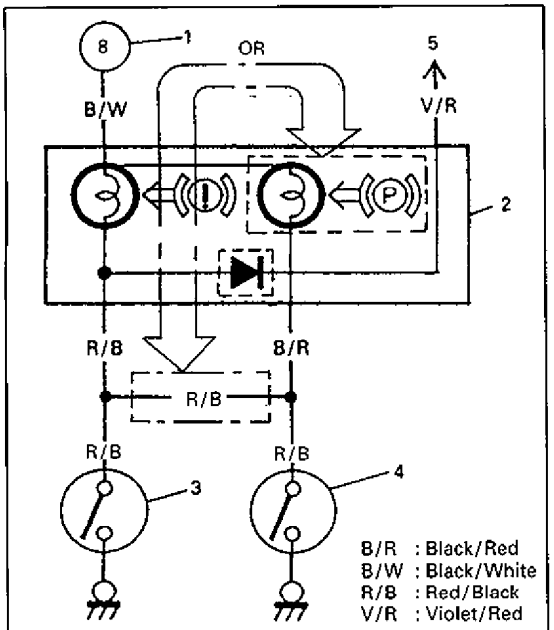
F: Full
E: Empty

79E00-8-6-5

GAUGE UNIT

Use an ohmmeter to confirm that level gauge unit changes in resistance with the change of float position.

Position	Resistance
E	120 ± 7Ω
F	3 ± 2Ω
1/2	32.5 ± 4Ω



1. The wire No. is same No. as figure of POWER SUPPLY DIAGRAM.
2. Combination meter
3. Brake fluid level switch
4. Parking brake switch
5. To ignition switch

79E00-8-7-1

BRAKE WARNING LIGHT (If equipped)

DESCRIPTION OF CIRCUIT

The brake warning light circuit consists of a brake fluid level switch installed in the master cylinder reservoir, and the light (brake warning light) in the gauge cluster. Also, this circuit is additionally provided with the parking brake switch which warns that the parking brake is applied.

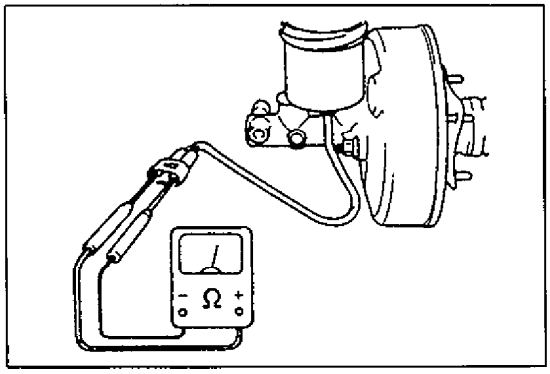
OPERATION OF WARNING LIGHT

1) When the engine is stopped the warning light comes on, if the ignition switch is turned ON and the parking brake is applied.
2) For the bulb check, the warning light comes on briefly during engine starting regardless of the brake fluid level position and the parking brake operation.
3) After the engine is started, release the parking brake. If the light goes off, the brake fluid level is adequate.

TROUBLE DIAGNOSIS

Condition	Possible cause	Correction
Brake warning light (parking brake light) shows no lighting.	Light fuse blown	Replace fuse to check for short.
	Bulb burnt out	Replace bulb.
	Parking brake switch faulty	Check parking brake switch.
	Wiring or grounding faulty	Repair

60A50-8-10-3



60A20-8-14-3

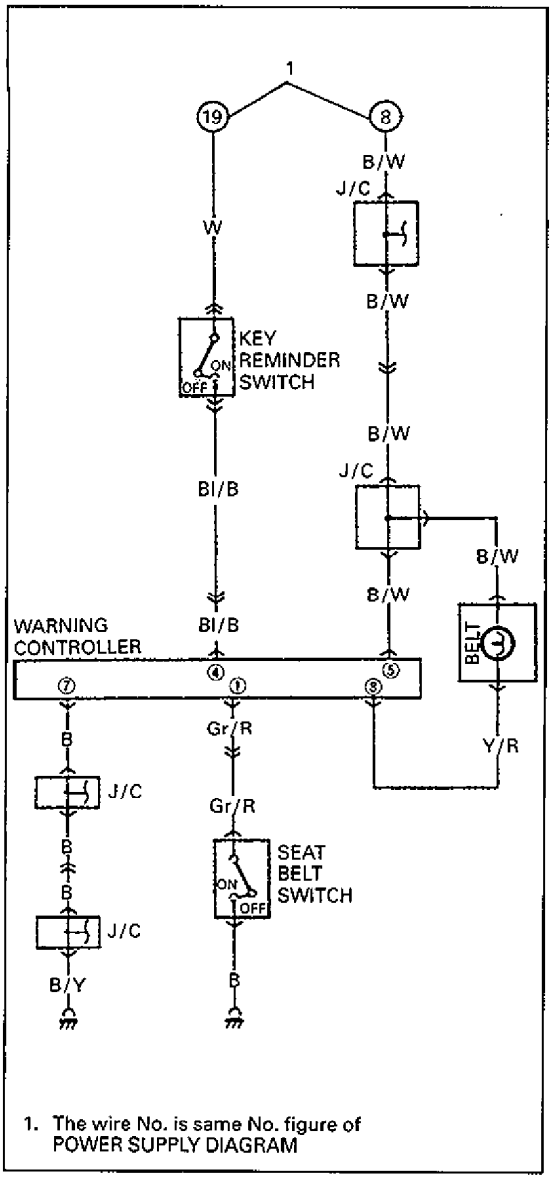
INSPECTION

- BRAKE FLUID LEVEL SWITCH
  Use an ohmmeter to check switch for continuity. If found defective, replace switch.

OFF position (float up)	No continuity
ON position (float down)	Continuity

- PARKING BRAKE SWITCH
  Use an ohmmeter to check switch for continuity.
  If found defective, replace switch.

OFF position (release the parking brake)	No continuity
ON position (parking brake lever pulled up)	Continuity



1. The wire No. is same No. figure of POWER SUPPLY DIAGRAM

79E00-8-8-1

SEAT BELT WARNING LIGHT/BUZZER (If equipped)

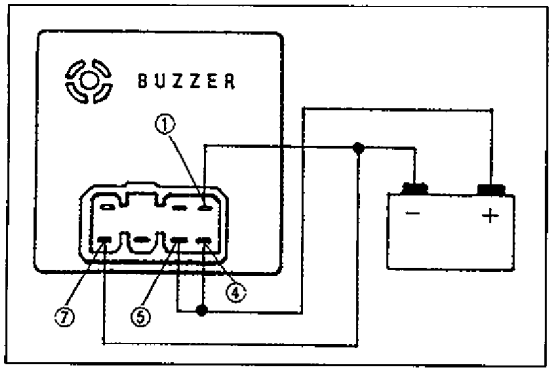
DESCRIPTION OF CIRCUIT

The seat belt warning light/buzzer circuit is a system to light and sound the light and buzzer respectively for several seconds, urging the driver to wear his seat belt. After several seconds passed, the buzzer stops sounding whether the seat belt is worn or not.

TROUBLE DIAGNOSIS

Condition	Possible cause	Correction
Seat belt warning light/ buzzer shown no lighting/ sounding.	Light fuse blown	Replace fuse to check for short.
	Bulb burnt out	Replace bulb.
	Buzzer faulty (no sounding)	Replace buzzer.
	Wiring or grounding faulty	Repair.

60A50-8-11-4



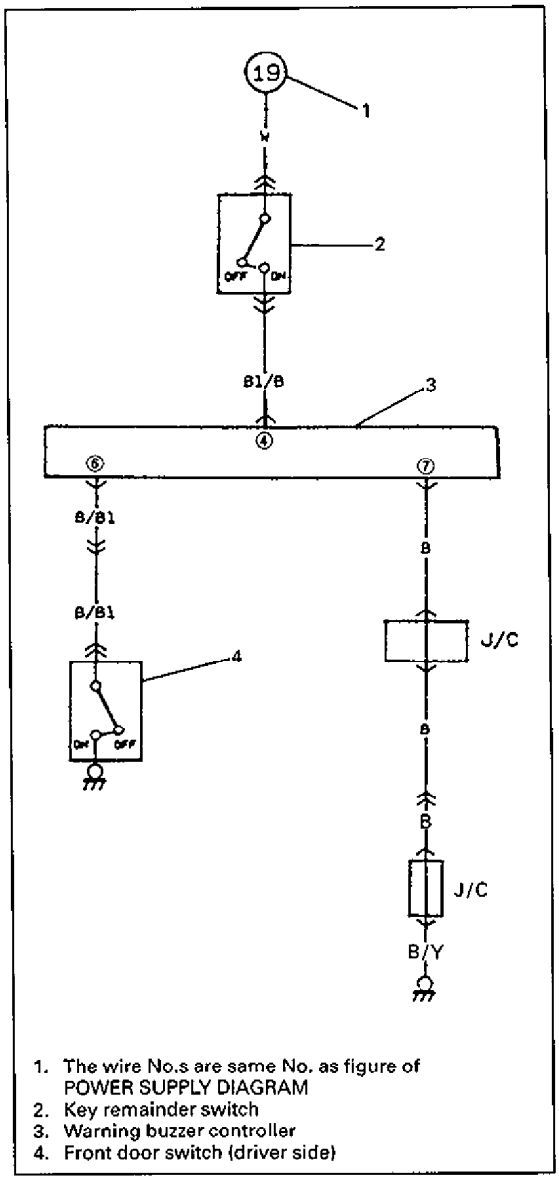
60A20-8-16-5

INSPECTION

When warning light/buzzer do not make lighting/sounding, use above circuit diagram as reference to check bulb, buzzer, wiring, etc.

INSPECTION OF WARNING CONTROLLER

Connect negative (−) terminal of battery to terminals ① and ⑦ of controller and positive (+) terminal of battery to terminals ④ and ⑤ of controller and check that buzzer emits buzzing sound for 4 to 8 seconds. Also, it should operate likewise when the terminals are disconnected and reconnected. If check result is not satisfactory, replace.



1. The wire No.s are same No. as figure of POWER SUPPLY DIAGRAM
2. Key remainder switch
3. Warning buzzer controller
4. Front door switch (driver side)

79E00-9-9-1

MAIN SWITCH KEY WARNING BUZZER (If equipped)

DESCRIPTION OF CIRCUIT

The main switch key warning buzzer circuit is a system to sound the buzzer if the driver leaves the vehicle with the main switch key inserted in place, (i.e. the main switch key is turned to ACC or OFF position) urging him to take it out.

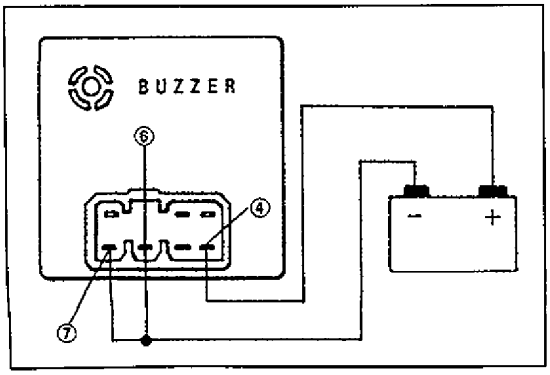
INSPECTION

If main switch key warning buzzer does not sound, use its wiring diagram in figure above as reference to check buzzer, wiring, etc.

TROUBLE DIAGNOSIS

Condition	Possible cause	Correction
Main switch key warning buzzer shows no sounding. Applicable to vehicle equipped with buzzer.	Buzzer fuse blown Buzzer faulty Wiring or grounding faulty	Replace fuse to check for short. Replace buzzer. Repair.

60A50-8-12-4

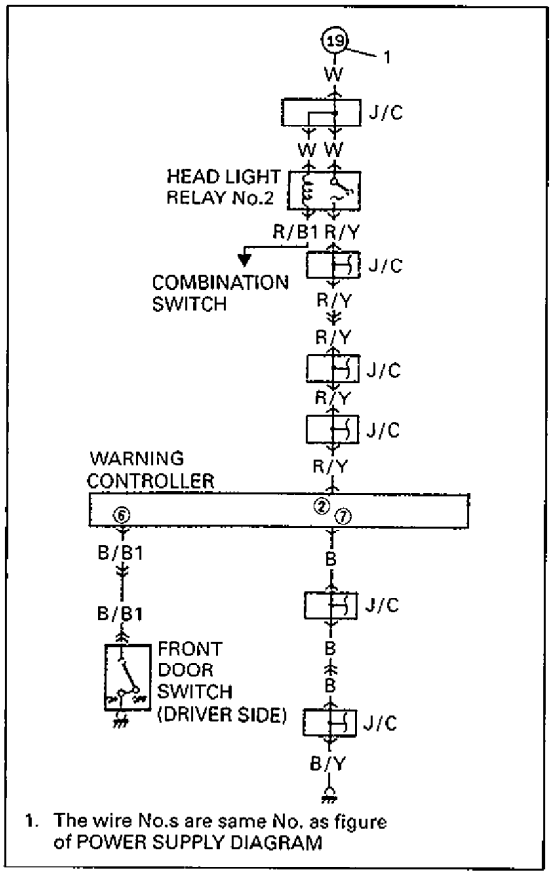


60A20-8-17-3

INSPECTION OF WARNING CONTROLLER

With positive (+) terminal of battery connected to terminal ④ of controller and negative (–) one to ⑦ , also connect negative (–) one to ⑥ as shown in figure.

If buzzer emits buzzing sound then, controller is in good condition. If not, replace.



1. The wire No.s are same No. as figure of POWER SUPPLY DIAGRAM

79E00-8-10-1

LIGHT REMAINDER WARNING BUZZER

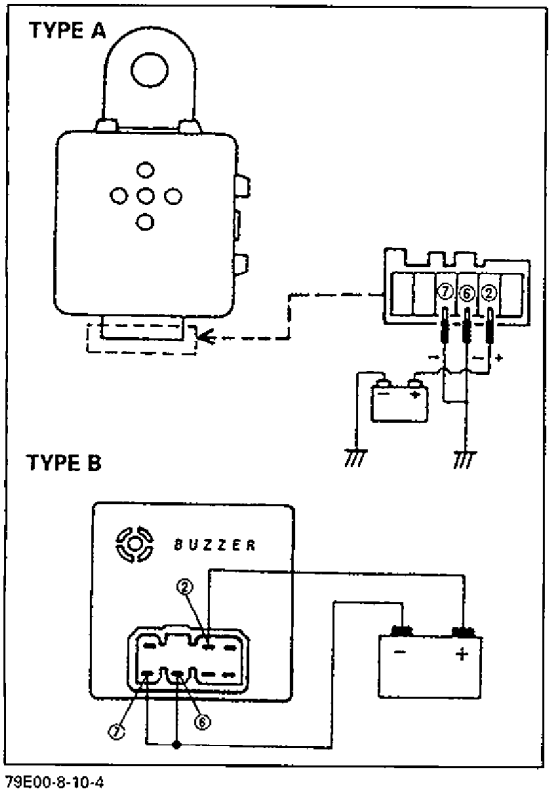
DESCRIPTION OF CIRCUIT

The light warning buzzer circuit is a system to sound the buzzer when the driver turns OFF the ignition and door switch (driver side) turns ON (i.e. driver side door opens) while the lights are still ON, warning driver to turn off the lights.

TROUBLE DIAGNOSIS

Condition	Possible cause	Correction
Light warning buzzer shows no sounding. Applicable to vehicle equipped with buzzer.	Buzzer fuse blown Buzzer faulty Driver side door switch faulty	Replace fuse to check for short. Replace buzzer. Replace door switch.

79E00-8-10-3



79E00-8-10-4

INSPECTION

When the warning buzzer does not make sounding, use the above circuit diagram as reference to check the buzzer, wiring, etc.

INSPECTION OF WARNING CONTROLLER

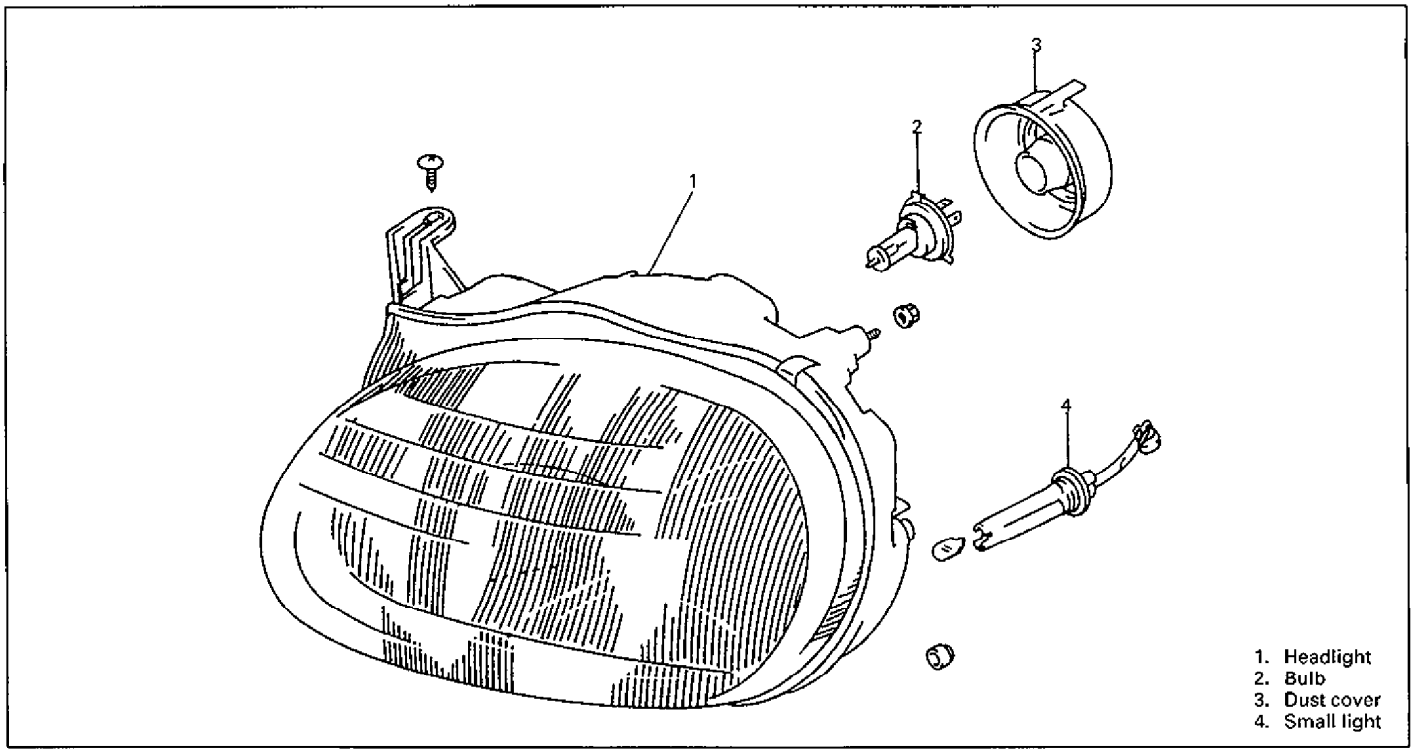
First, connect positive (+) terminal of battery to terminal ② of controller and negative (–) one to terminals ⑥ and ⑦ of controller.

If buzzer emits buzzing sound then, controller is in good condition. If not, replace.

LIGHTING SYSTEM

HEADLIGHTS

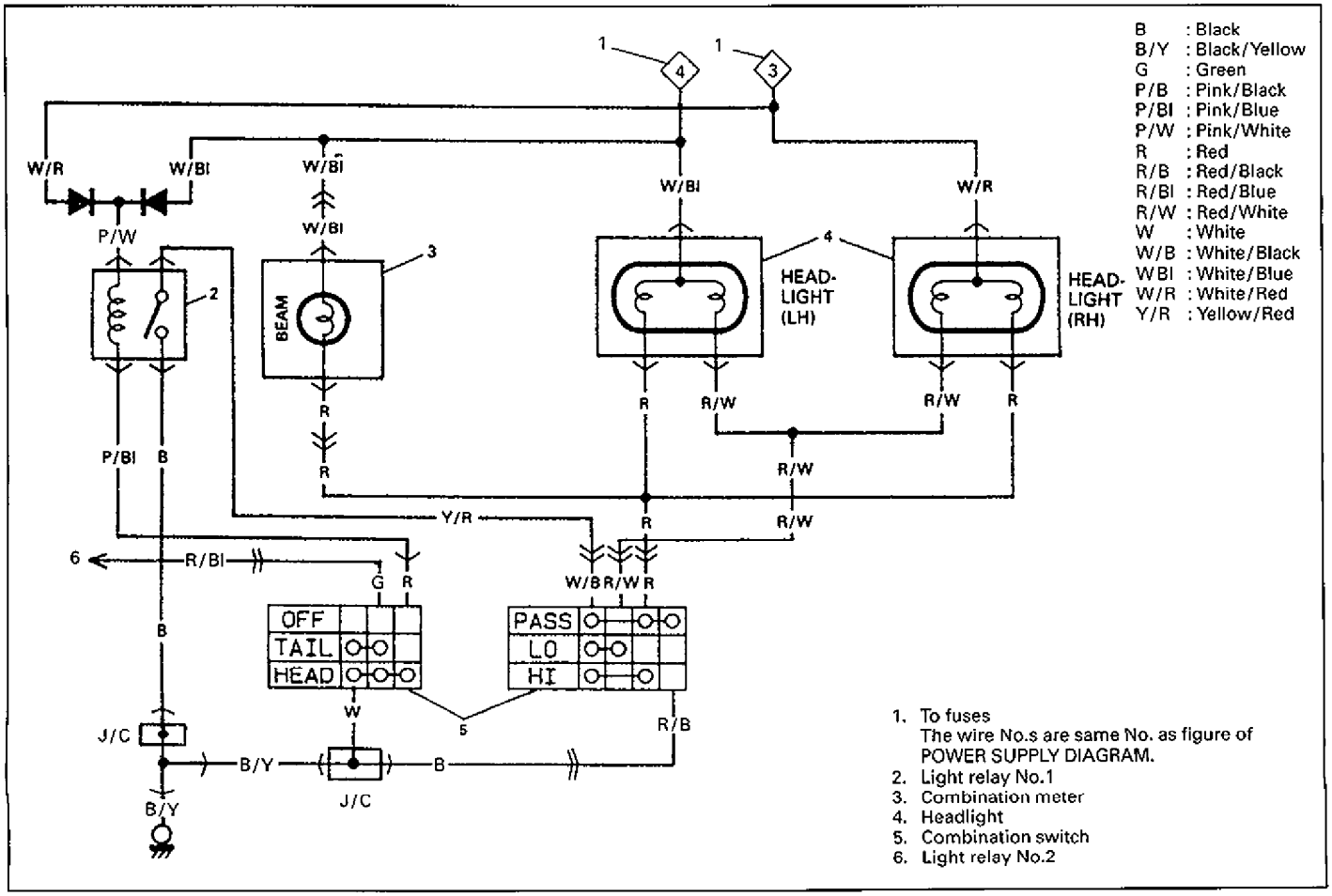
When the headlights are turned on, so is the small light system. As for the circuit of the small light system, refer to the following pages.



1. Headlight
2. Bulb
3. Dust cover
4. Small light

79E00-8-11-1

Circuit



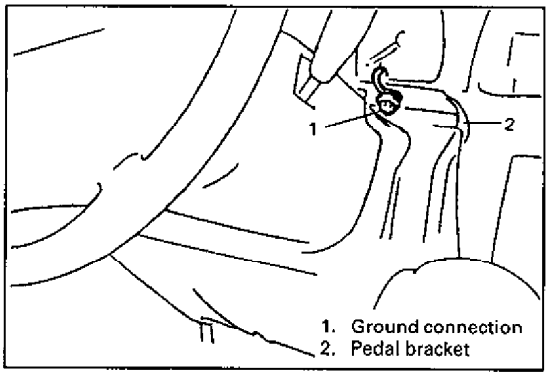
1. To fuses
   The wire No.s are same No. as figure of POWER SUPPLY DIAGRAM.
2. Light relay No.1
3. Combination meter
4. Headlight
5. Combination switch
6. Light relay No.2

79E00-8-11-3

Trouble Diagnosis

Trouble	Possible cause	Correction
Only one light does not light.	• Bulb burnt out • Fuse blown • Socket, wiring or grounding faulty	Replace bulb. Replace fuse. Repair as necessary.
Headlights do not light.	• Main fuse and/or fuses blown • Lighting and dimmer switches faulty • Defective light relay • Defective diode • Wiring or grounding faulty	Replace main fuse and/or fuses to check for short. Check switches. Replace light relay. Replace diode. Repair as necessary.
Only one beam ("Hi" or "Lo") does not light.	• Bulb burn out • Lighting or dimmer switch faulty	Replace bulb. Check switch.

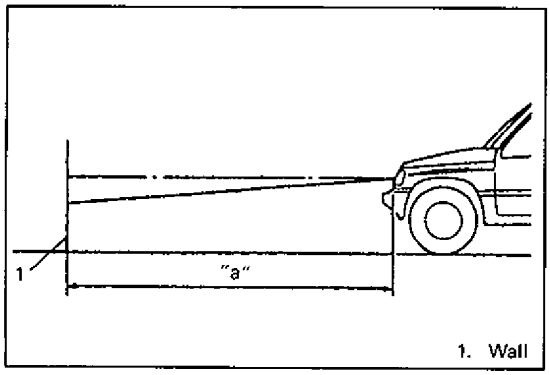
50G00-8-16-1



79E00-8-12-3

Inspection

1) Check lighting and dimmer switches for each terminal-to-terminal continuity.
   Refer to "FUSES AND SWITCHES" in this section.
2) The headlight as gound at cowl dash side panel on each side and pedal bracket.



79E00-8-12-4

HEADLIGHT AIMING

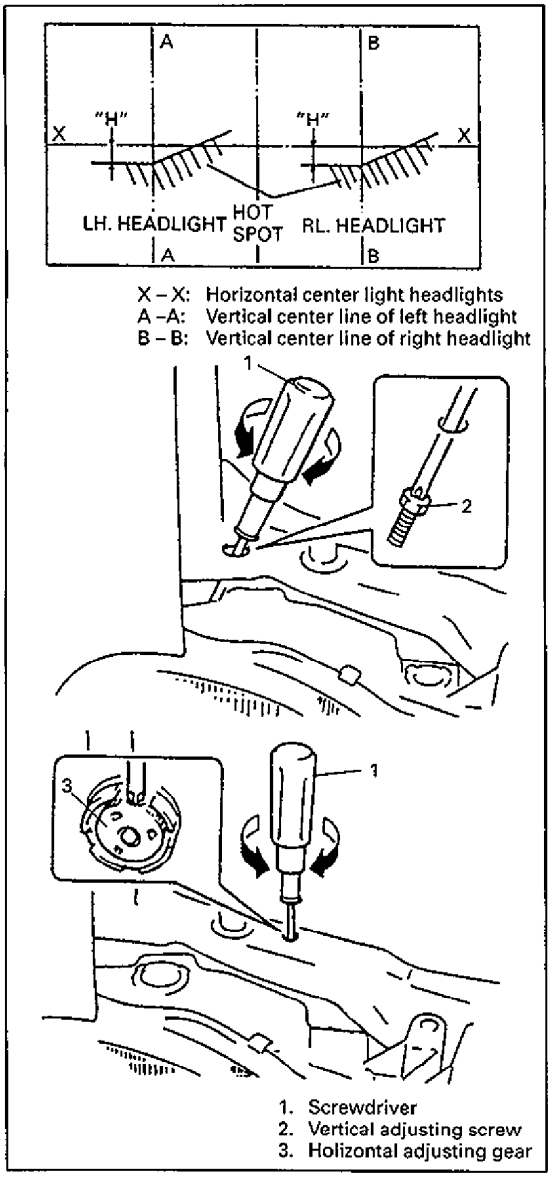
NOTE:
Unless otherwise obligated by local regulations, adjust headlight aiming according to following procedure.

Before adjustment, made sure the following.
① Place vehicle on a flat surface in front of blank wall as below ahead of headlight surface.

Clearance "a": 10 m (32.8 ft)

② Adjust air pressure of all tires to a specified value respectively.
③ Move vehicle body up and down by hand.
④ Carry out with one driver aboard as below.

Driver's weight: 75 kg (165 lb)



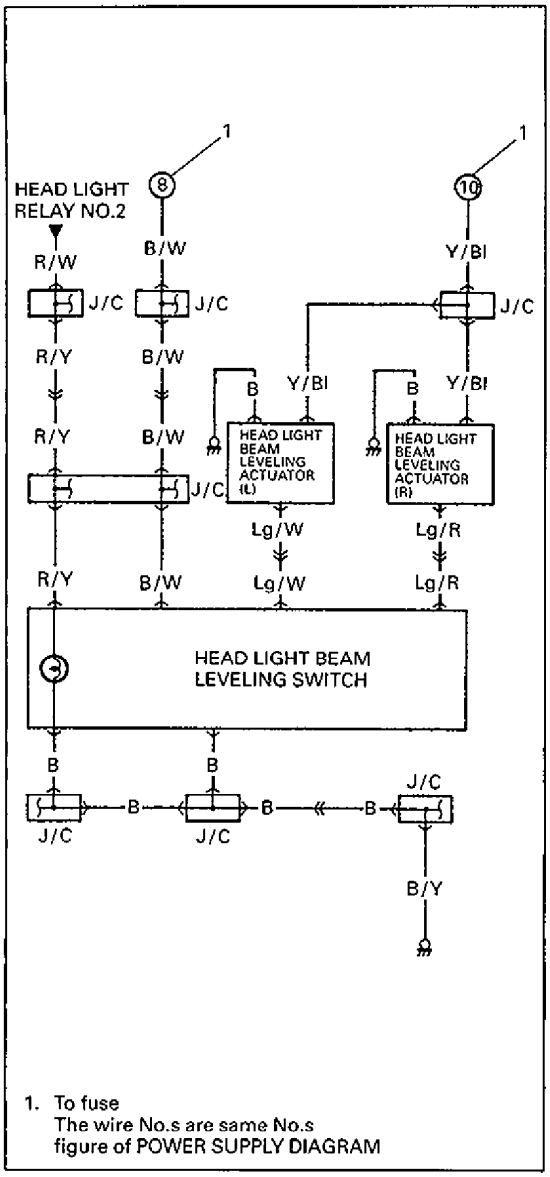
79E00-8-13-1

Adjustment

1) Check to see if hot spot (high intensity zone) of each main (low) beam axis falls as illustrated.

   Clearance "H": Approx. 130 mm (3.66 in.)

2) If headlight aiming is not set properly, align it to specification by adjusting aiming screw and aiming gear.



1. To fuse
   The wire No.s are same No.s figure of POWER SUPPLY DIAGRAM

79E00-8-14-1

HEADLIGHT BEAM LEVELING SYSTEM (If equipped)

This system consists of the headlight leveling switch and headlight leveling actuator. It is used to lower both headlight aiming angles from the initial setting level by operating the leveling switch on the instrument.

NOTE:

When inspecting and adjusting the headlight beam, make sure to set the leveling switch to the "0" position with the ignition switch "ON", or down stroke from the initial setting level will be reduced.

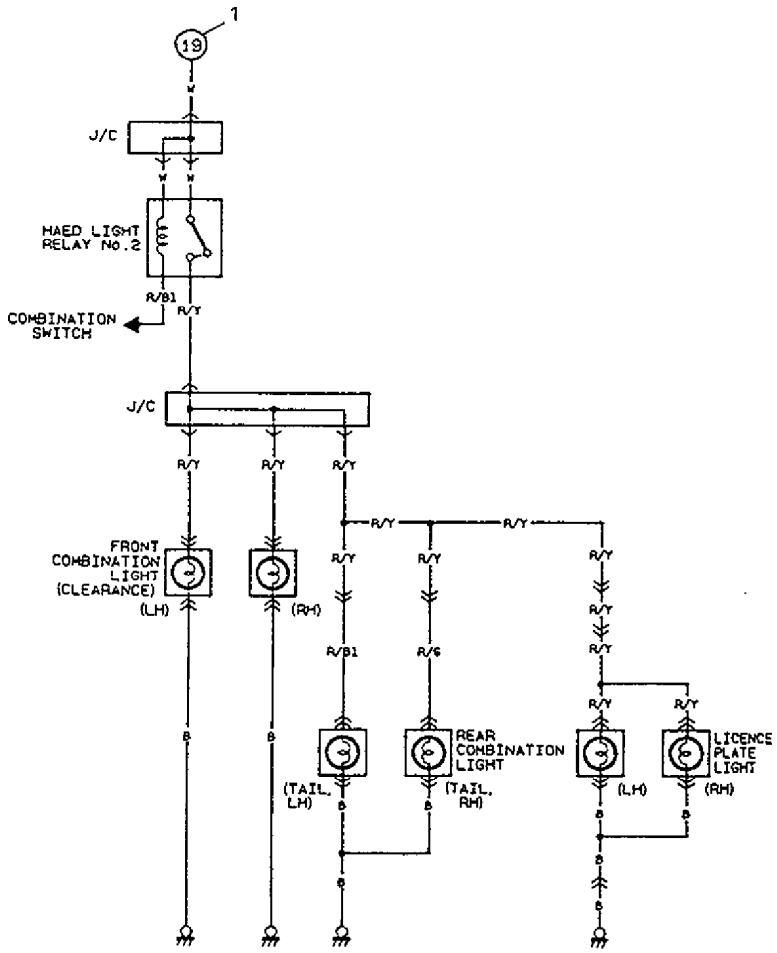
TROUBLE DIAGNOSIS

Trouble	Possible cause	Correction
Headlight leveling actuator(s) shows no operating.	IG. fuse blown	Replace fuse to check for short.
	Leveling switch faulty	Replace leveling swtich.
	Leveling actuator faulty	Replace headlight assembly.
	Wiring or gounding faulty	Repair.

79E00-8-14-4

SMALL, TAIL AND LICENSE PLATE LIGHT

CIRCUIT



1. To fuses
   The wire No.s are same No. as figure of POWER SUPPLY DIAGRAM

79F00-8-15-1

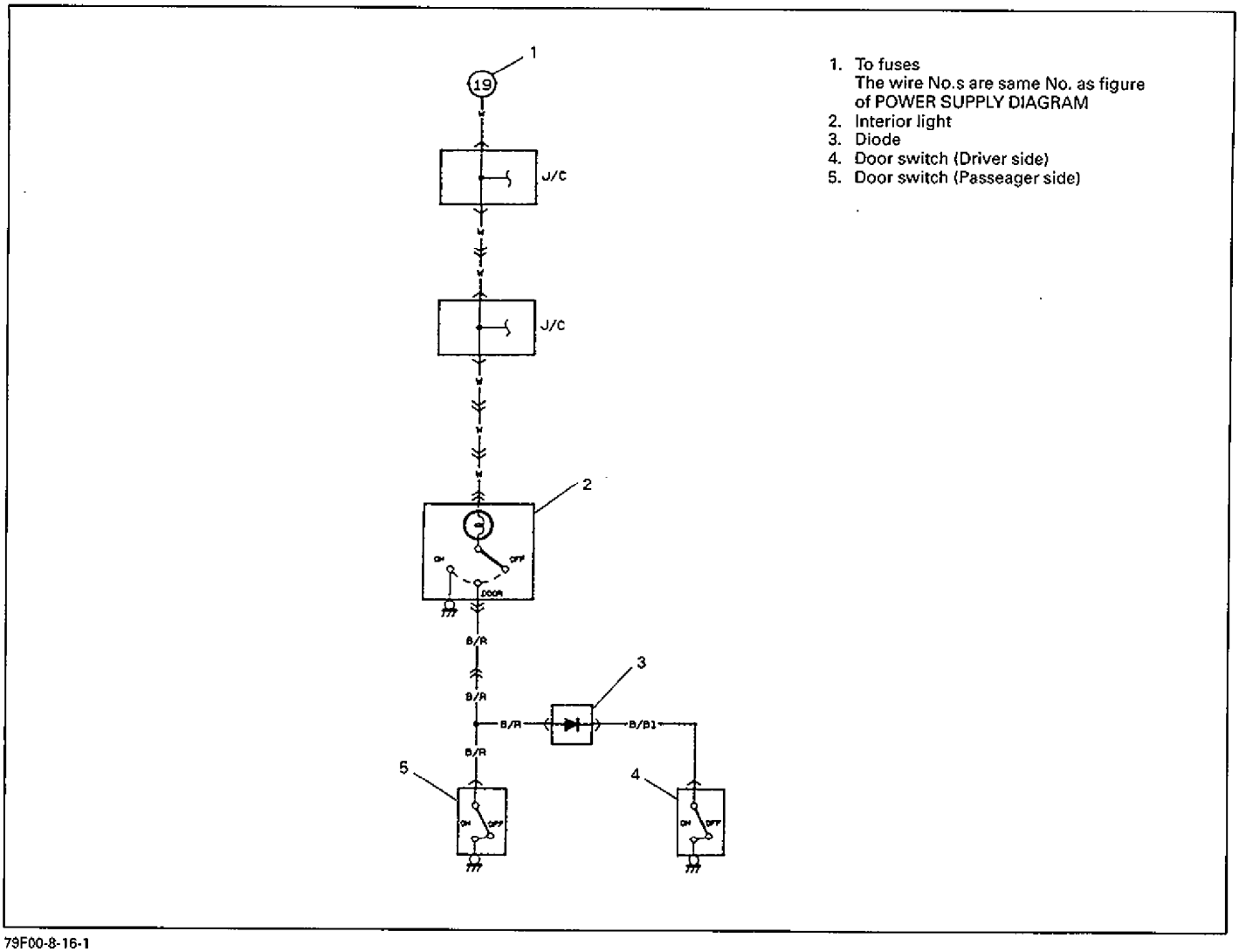
TROUBLE DIAGNOSIS

Trouble	Possible cause	Correction
Lights do not light.	• Main fuse and/or fuses blown	Replace main fuse and/or fuses to check for short.
	• Light relay faulty	Replace light relay
	• Lighting switch faulty	Check switch.
	• Wiring or grounding faulty	Repair as necessary.

85F00-8-19-5

INTERIOR LIGHTS

CIRCUIT



1. To fuses
   The wire No.s are same No. as figure of POWER SUPPLY DIAGRAM
2. Interior light
3. Diode
4. Door switch (Driver side)
5. Door switch (Passeager side)

79F00-8-16-1

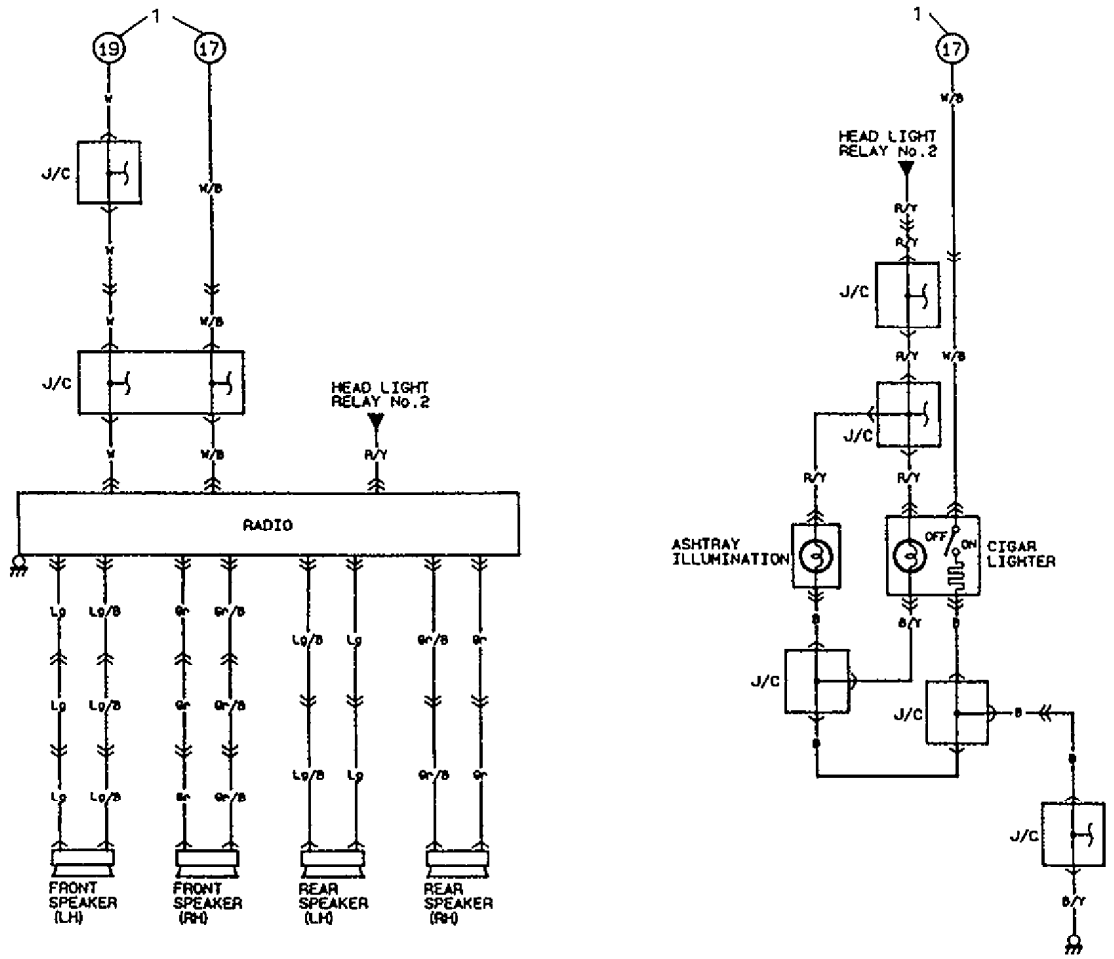
TROUBLE DIAGNOSIS

Trouble	Possible cause	Correction
Interior light does not light.	• Fuse blown	Replace fuse to check for short.
	• Switch faulty	Check switch.
	• Wiring or grounding faulty	Repair as necessary.

60A20-8-25-2

CIGARETTE LIGHTER AND RADIO (If equipped)

CIRCUIT



1. To fuses
   The wire No.s are same No. as figure of POWER SUPPLY DIAGRAM

79F00-8-17-1

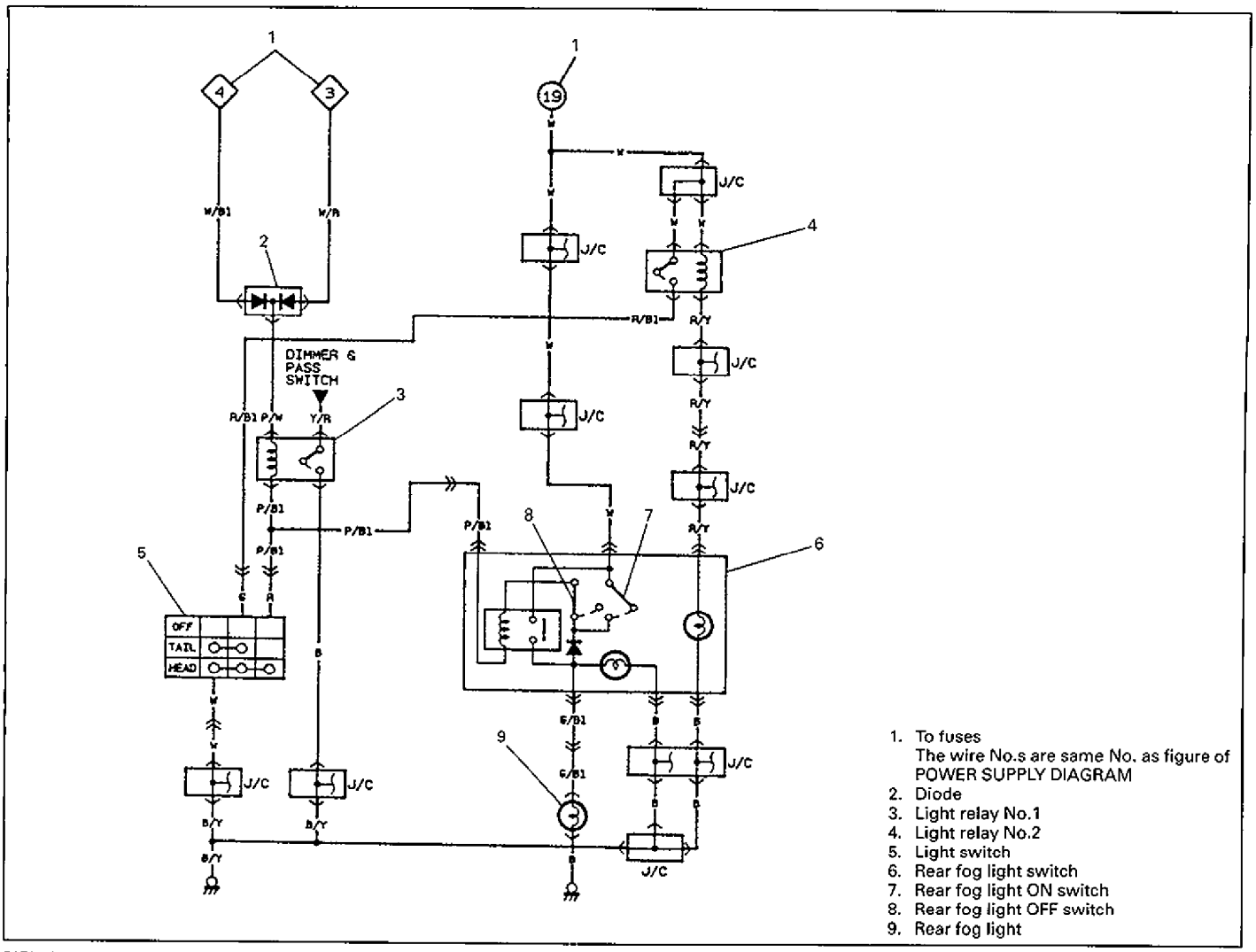
TROUBLE DIAGNOSIS

Trouble	Possible cause	Correction
Cigarette lighter / radio (optional) do not work.	• Fuse blown	Replace fuse to check for short.
	• Ignition switch faulty	Check switch.
	• Wiring or grounding faulty	Repair as necessary.

85F00-8-23-4

REAR FOG LIGHT (If equipped)

CIRCUIT



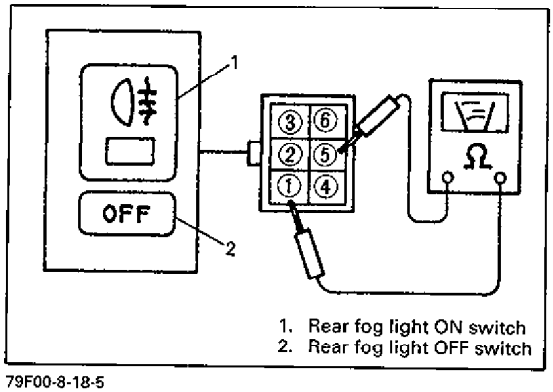
1. To fuses
   The wire No.s are same No. as figure of POWER SUPPLY DIAGRAM
2. Diode
3. Light relay No.1
4. Light relay No.2
5. Light switch
6. Rear fog light switch
7. Rear fog light ON switch
8. Rear fog light OFF switch
9. Rear fog light

79F00-8-18-1

TROUBLE DIAGNOSIS

Trouble	Possible cause	Correction
Lights do not light.	• Main fuse and/or fuses blown	Replace main fuse and/or fuses to check for short.
	• Light relay faulty	Replace light relay
	• Lighting switch faulty	Check switch.
	• Wiring or grounding faulty	Repair as necessary.

85F00-8-19-5



1. Rear fog light ON switch
2. Rear fog light OFF switch

79F00-8-18-5

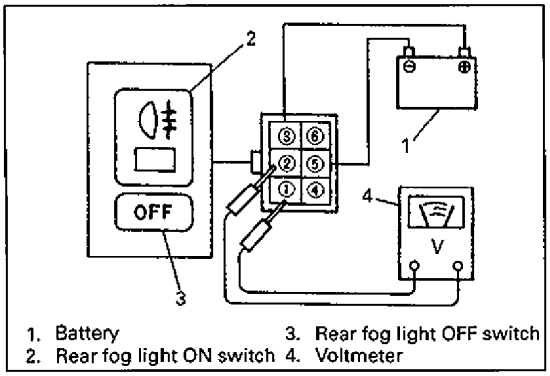
INSPECTION

Rear Fog Light Switch

Use a circuit tester to check rear fog light switch for continuity as follows.

If switch has no continuity between terminals, replace.

1) Connect circuit tester to both ① and ⑤.
2) Check for continuity by pushing ON switch.
3) Check if countinuity is off when pushing OFF switch with ON switch remain pushed.



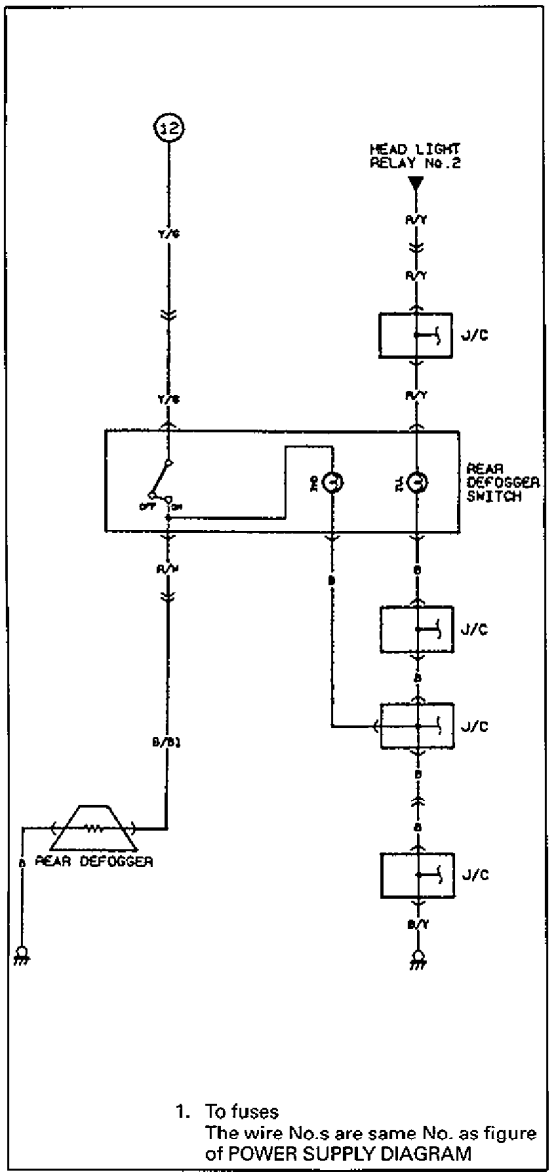
1. Battery
2. Rear fog light ON switch
3. Rear fog light OFF switch
4. Voltmeter

79E00-8-19-1

4) Check for continuity between terminal ① and ② when connecting terminal ③ to negative (–) cabele, and terminal ⑤ to positive (+) cable.

REAR WINDOW DEFOGGER (If equipped)

The optional rear window defogger system has horizontal ceramic silver compound elements and two vertical bus bar. The system is operated by the defogger switch in the instrument panel.



1. To fuses
The wire No.s are same No. as figure of POWER SUPPLY DIAGRAM

79E00-8-19-2

TROUBLE DIAGNOSIS

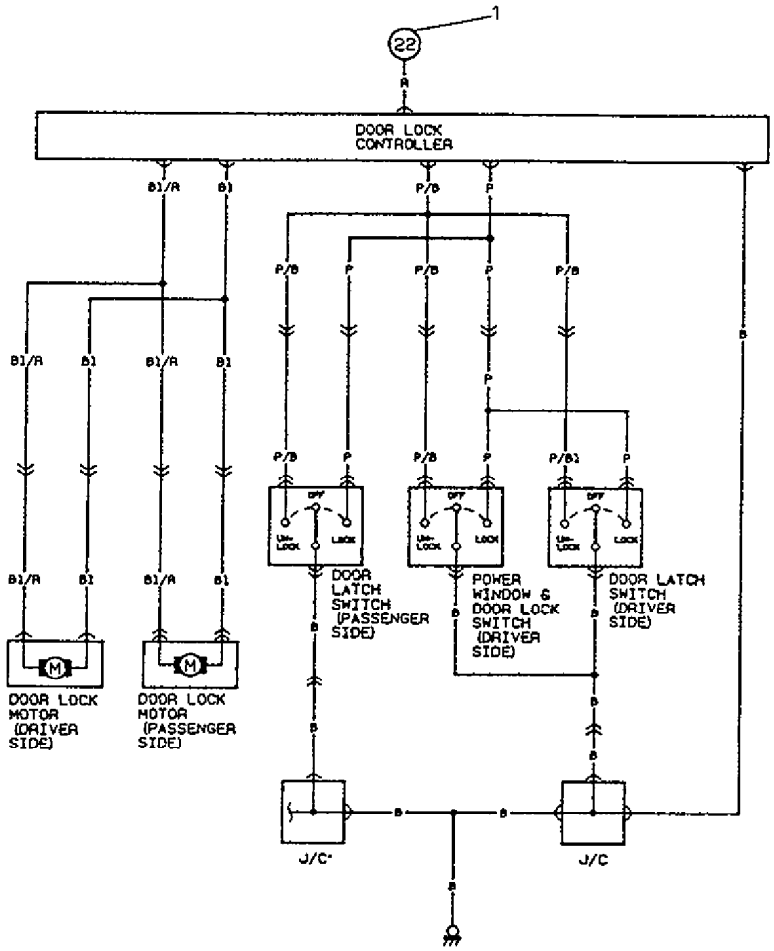
Trouble	Possible cause	Correction
Defogger won't work.	• Defogger switch faulty	Check switch.
	• Defogger heat wire faulty	Check heat wire.
	• Wiring or grounding faulty	Repair as necessary.

60A20-8-32-4

CENTRAL LOCKING SYSTEM (If equipped)

CIRCUIT

1. To fuses
   The wire No.s are same No. as figure of POWER SUPPLY DIAGRAM



79F00-8-20-1

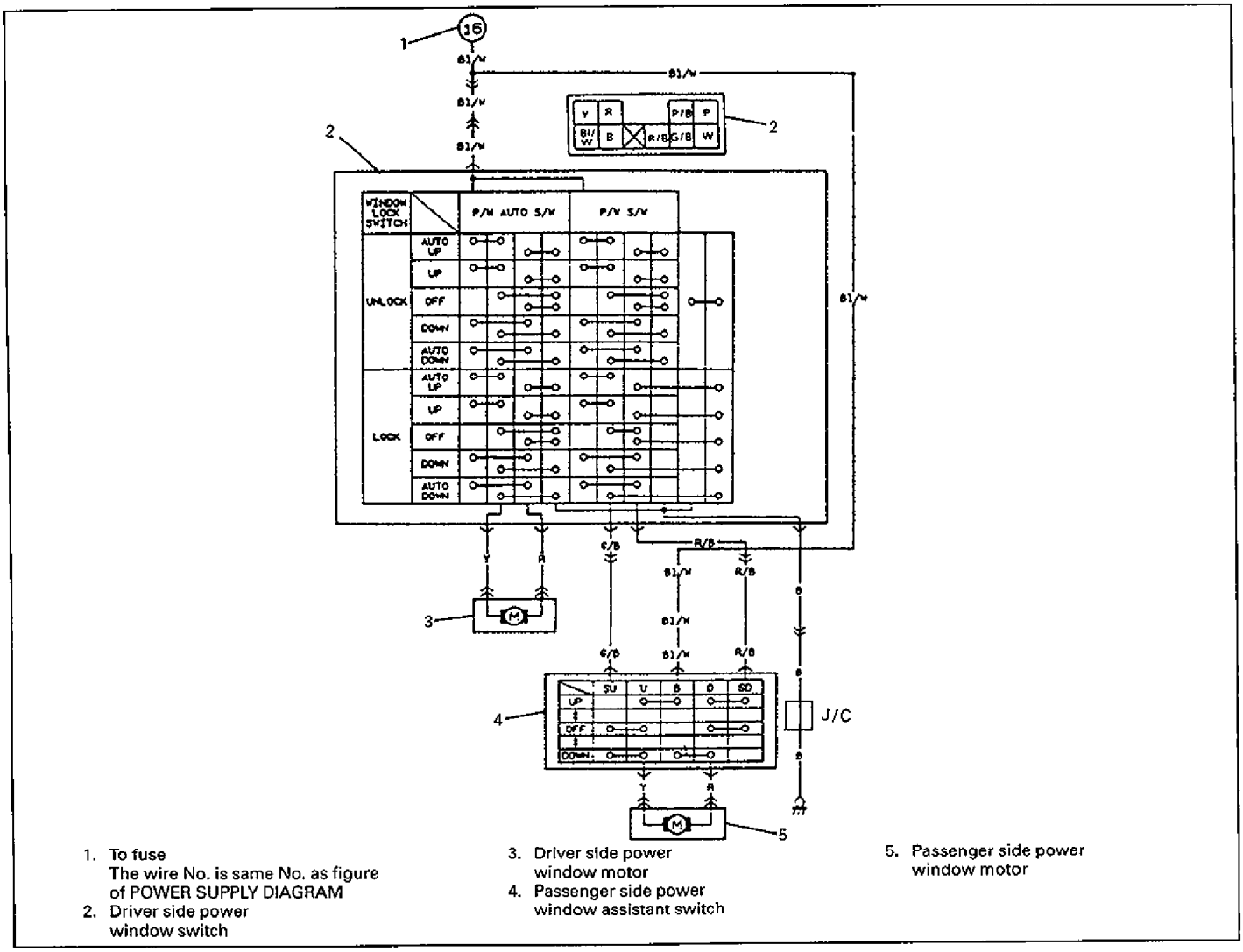
TROUBLE DIAGNOSIS

Condition	Possible cause	Correction
All power door locks do not operate.	• Main fuse and/or fuses blown	Replace main fuse and/or fuses to check for short.
	• Wiring or grounding faulty	Repair as necessary.
	• Power door lock switch, or knob switch faulty.	Replace.
	• Controller faulty	Replace.
Only one power door lock does not operate.	• Wiring or socket faulty	Repair as necessary.
	• Actuator (door lock motor) faulty	Replace.

61A10-8-44-1

POWER WINDOW CONTROL SYSTEM (If equipped)

WIRING DIAGRAM



1. To fuse
   The wire No. is same No. as figure of POWER SUPPLY DIAGRAM
2. Driver side power window switch
3. Driver side power window motor
4. Passenger side power window assistant switch
5. Passenger side power window motor

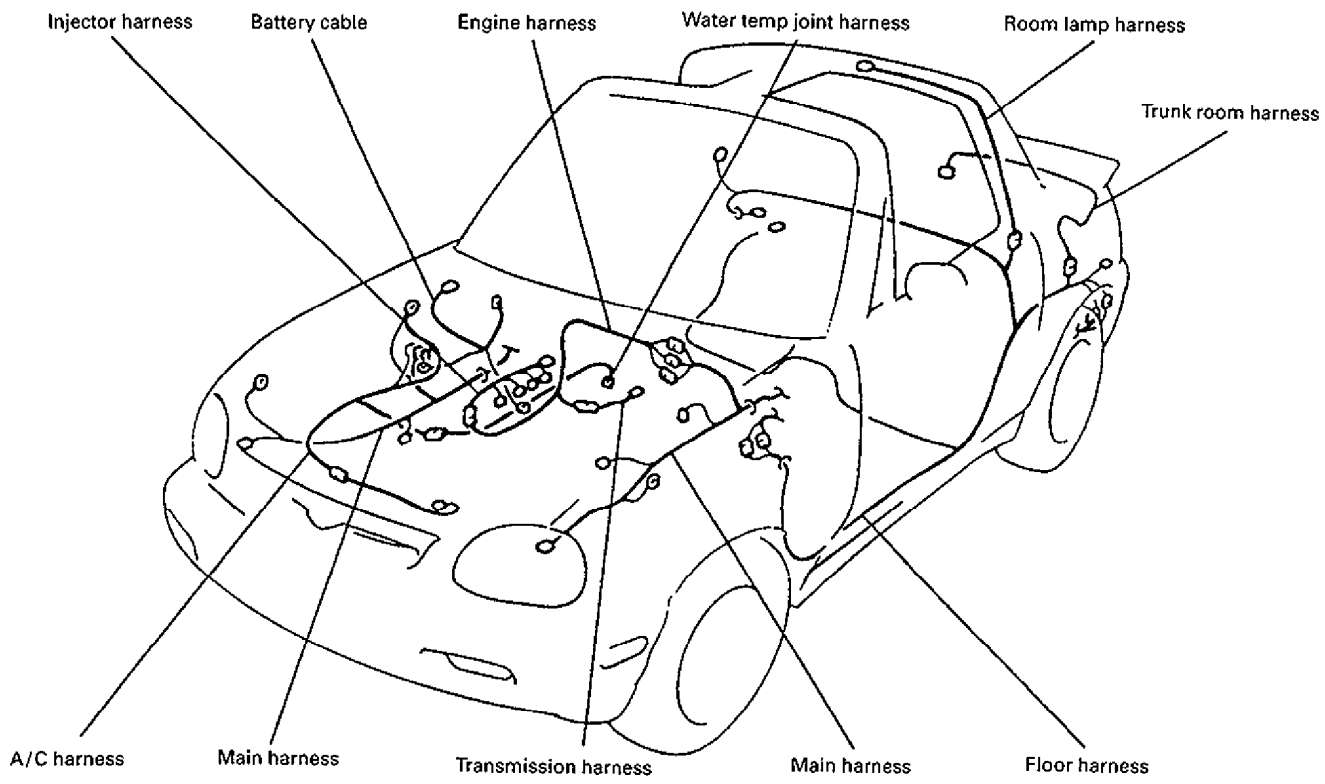
79F00-8-21-1

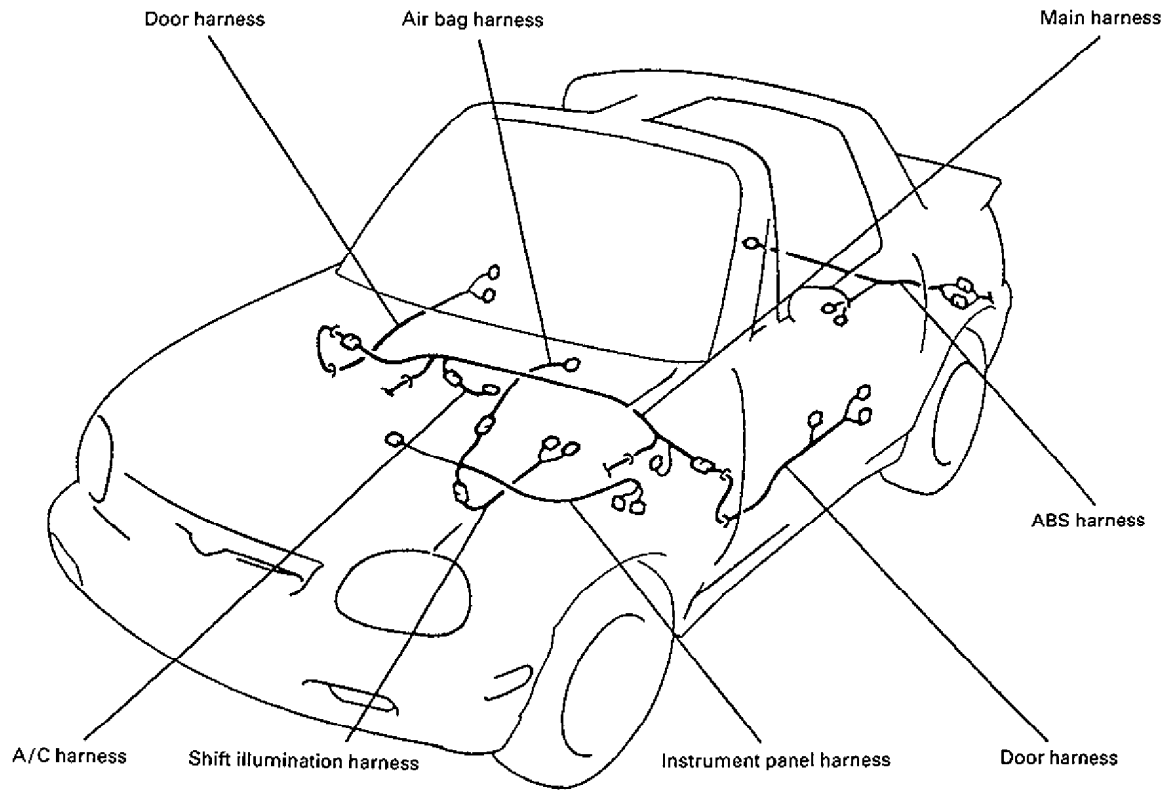
TROUBLE DIAGNOSIS

Condition	Possible cause	Correction
All power window motors do not operate.	• Main fuse and/or fuses blown	Replace main fuse and/or fuses to check for short.
	• Wiring or grounding faulty	Repair as necessary.
Some switches do not operate.	• Wiring or socket faulty	Repair as necessary.
	• Window lock switch faulty	Replace.
Only one actuator does not function.	• Wiring or socket faulty	Repair as necessary.
	• Actuator faulty	Replace.

61A50-8-30-1S

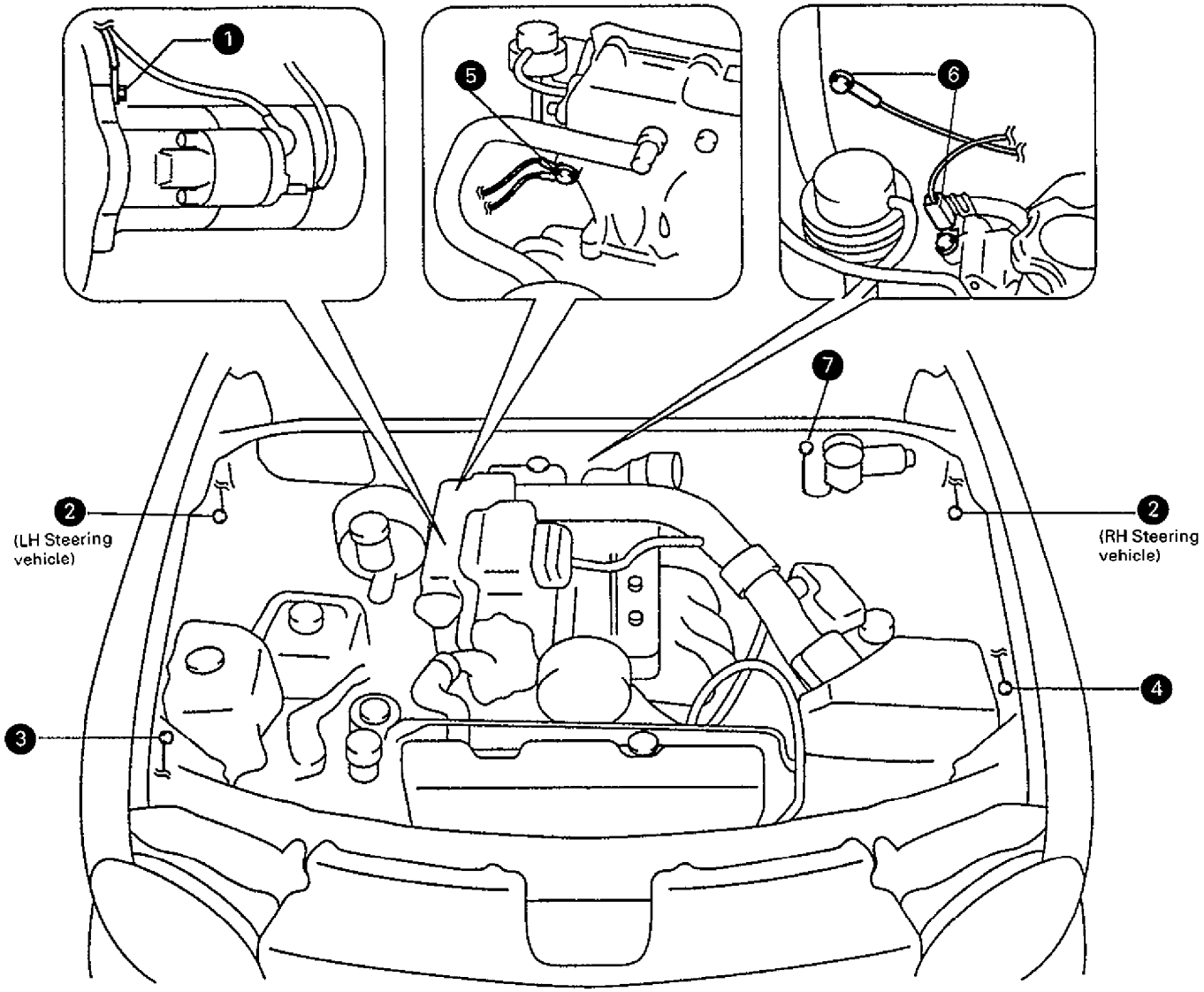
WIRING HARNESS ROUTING





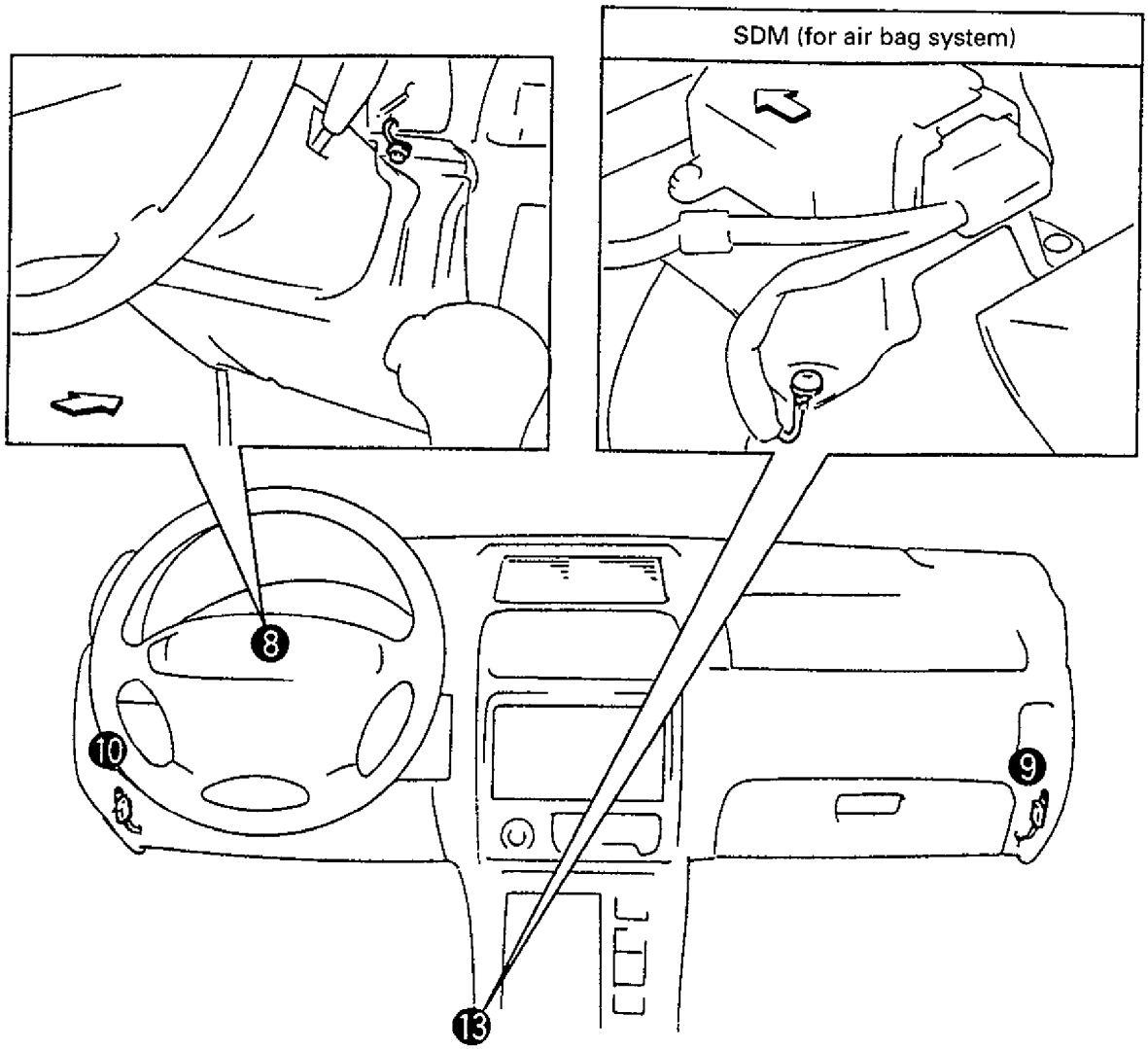
GROUNDING POINTS

ENGINE ROOM



1 : Starting motor
2 : Condensor fan motor
Brake differential switch, ABS solenoid.
3 : DRL resister, Front combination light (RH),
Side marker light (RH). Front turn signal light (RH),
Rear wiper motor, F & R washer motor,
4 : Horn, Side marker light (LH),
Front combination light (LH),
Front turn signal light (LH),
5 : EFI, TCM, Data link connector
6 : EFI, Brake fluide level switch
7 : Wiper motor

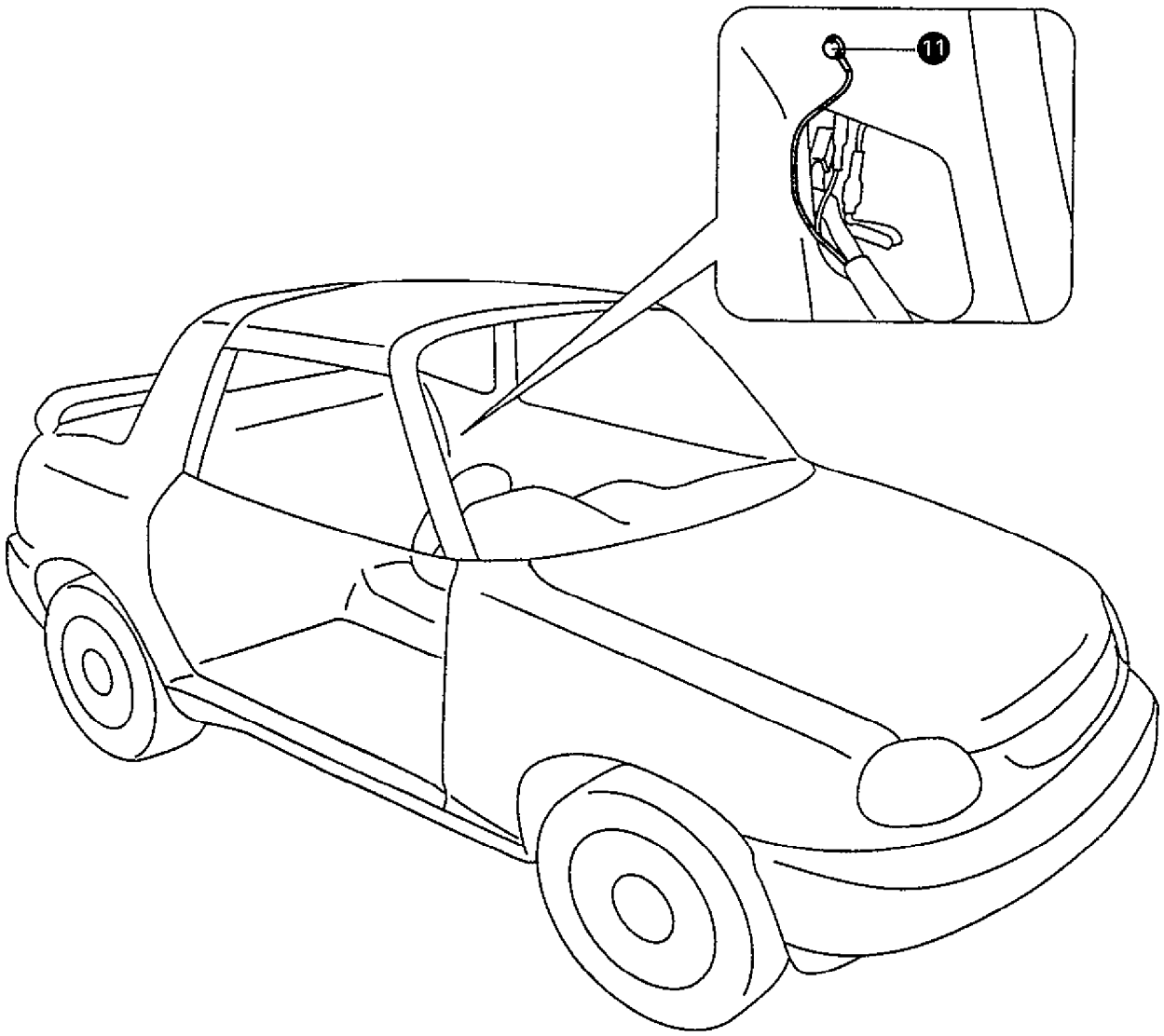
INSTRUMENT PANEL



8, 9, 10 :
Transmission range switch, Front and Rear wiper, Turn signal indicator light, Rear defogger, clock, cigarette lighter, ABS check relay, Headlight, door lock controller, 4WD switch, Illumination controller, A/C amplifire, Heter blower motor, DRL controller, DIM-DIP controller, Data link connector, Warning controller, Power window, Remote control mirror, Horn, IG. switch, Water temp. meter,

REAR SECTION

⑪ : Rear defogger, Seat belt switch, Fuel level gauge, Room light, License plate light, Side marker light, Rear combination light, Rear turn signal light, Brake light, Back up light, Door switch



SECTION 9A

BODY SERVICE

WARNING:
For vehicles equipped with a Supplemental Inflatable Restraint Air Bag System:

- **Service on or around Air Bag System Components or Wiring must be performed by an authorized Suzuki dealer. Please observe all WARNINGS and SERVICE PRECAUTIONS in Section 9J under "On Vehicle Service" and the Air Bag System Component and Wiring Location view in Section 9J before performing service on or around Air Bag System Components or Wiring. Failure to follow WARNINGS could result in unintended air bag deployment or could render the air bag inoperative. Either of these two conditions may result in severe injury.**
- **Technical service work must be started at least 90 seconds after the ignition switch is turned to the "LOCK" position and the negative cable is disconnected from the battery.**
  Otherwise, the air bags may be deployed by reserve energy in the Sensing and Diagnostic Module (SDM).
- **When body servicing, if shock may be applied to air bag system component parts, remove those parts beforehand. (Refer to Section 9J).**

NOTE:

- **For the descriptions (items) not found in this section, refer to the same section of the Service Manual mentioned in FOREWORD of this manual.**
- **Fasteners are important attaching parts in that they could affect the performance of vital components and systems, and / or could result in major repair expense. They must be replaced with one of the same part number or with an equivalent part if replacement becomes necessary. Do not use a replacement part of lesser quality or substitute design. Torque values must be used as specified during reassembly to assure proper retention of these parts.**

61A20-9-1-1

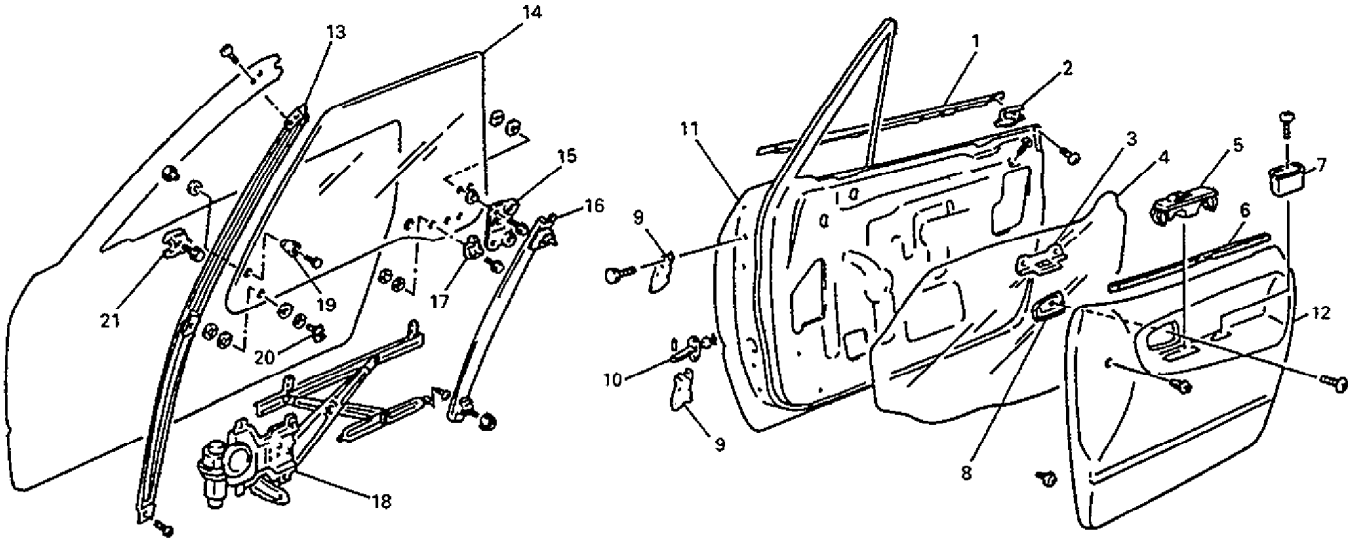
CONTENTS

79E00-9A-1-1

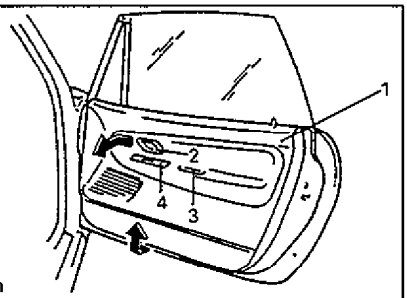
ON VEHICLE SERVICE

FRONT DOOR

1. Outer weatherstrip
2. Trim support
3. Inside pull handle bracket
4. Door sealing cover
5. Power window switch
6. Inner weatherstrip
7. Inside pull handle case
8. Door inside handle
9. Door hinge
10. Door open stop
11. Door panel
12. Door trim
13. Door center sash
14. Door window glass
15. Rear sash bracket sub ass'y
16. Door rear sash
17. Door glass stabilizer
18. Window regulator ass'y
19. Door glass stopper
20. Regulator bottom bolt
21. Window up stopper

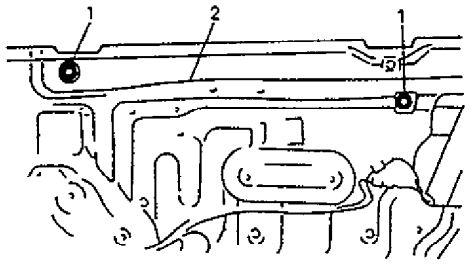


60A50-9A-2-1



1. Door trim
2. Inside door handle ass'y
3. Door inside pull handle case
4. Power window switch

60A50-9A-2-4



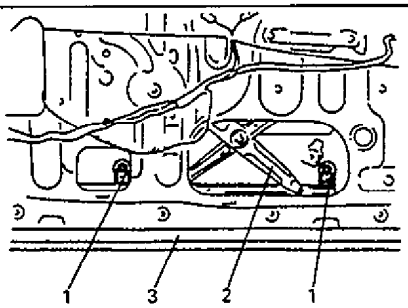
1. Glass stopper bolt
2. Door

60A50-9A-2-5

DOOR WINDOW GLASS

REMOVAL

1) Remove inside door handle ass'y mounting screw and detach inside door handle ass'y from door trim by sliding it forward.
2) Remove power window switch and remove door inside pull handle case.
3) Remove door trim.
4) Remove door sealing cover.
5) Remove glass stopper.

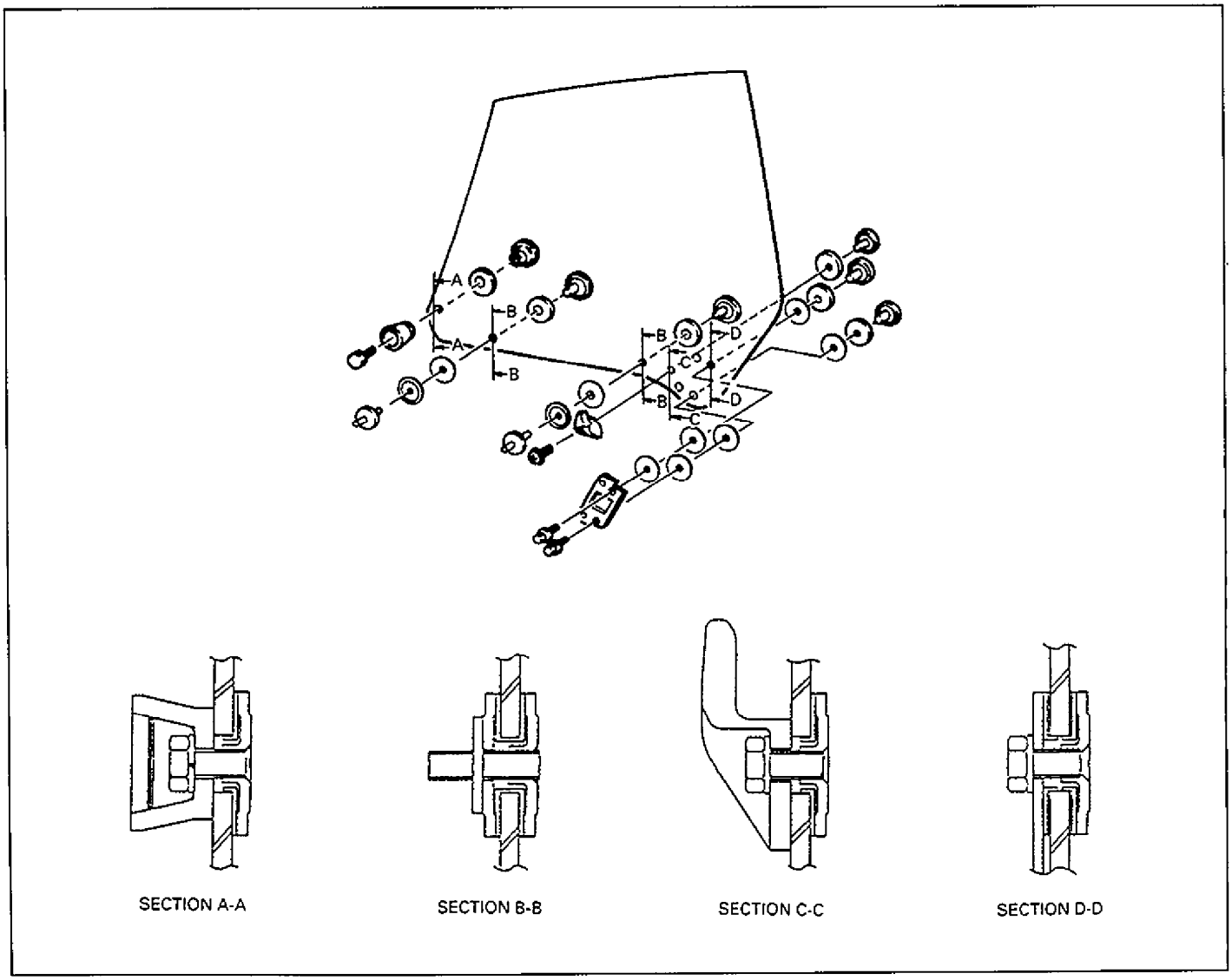


1. Glass bottom channel attaching nut
2. Window regulator ass'y
3. Door

60A50-9A-3-1

6) Remove door outer weatherstrip.
7) Remove trim support when window glass is all the way down.
8) Remove glass bottom channel attaching nuts.
9) Pull out door window glass.

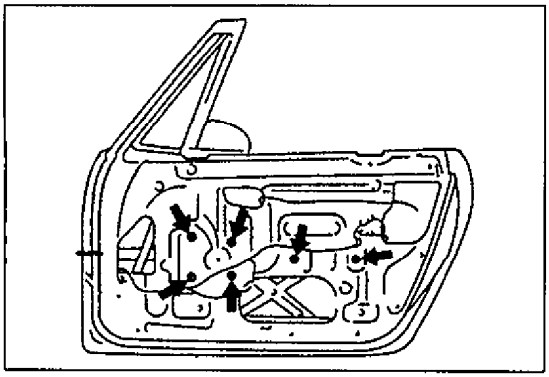
INSTALLTION



60A50-9A-3-2

Install in reverse order of removal procedure noting following point.

- When replacing door window glass, install parts as shown.


60A50-9A-4-1

DOOR WINDOW REGULATOR

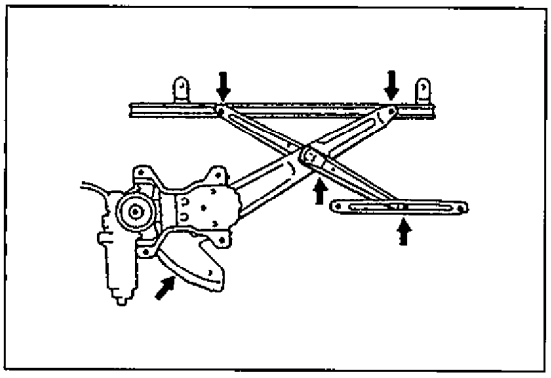
REMOVAL

1) Remove door window glass. Refer to door window glass removal section.
2) Remove window regulator attaching screws.
3) Pull out window regulator from the nearest largest opening.

INSPECTION

- Check gear for wear or damage.

60A50-9A-4-2

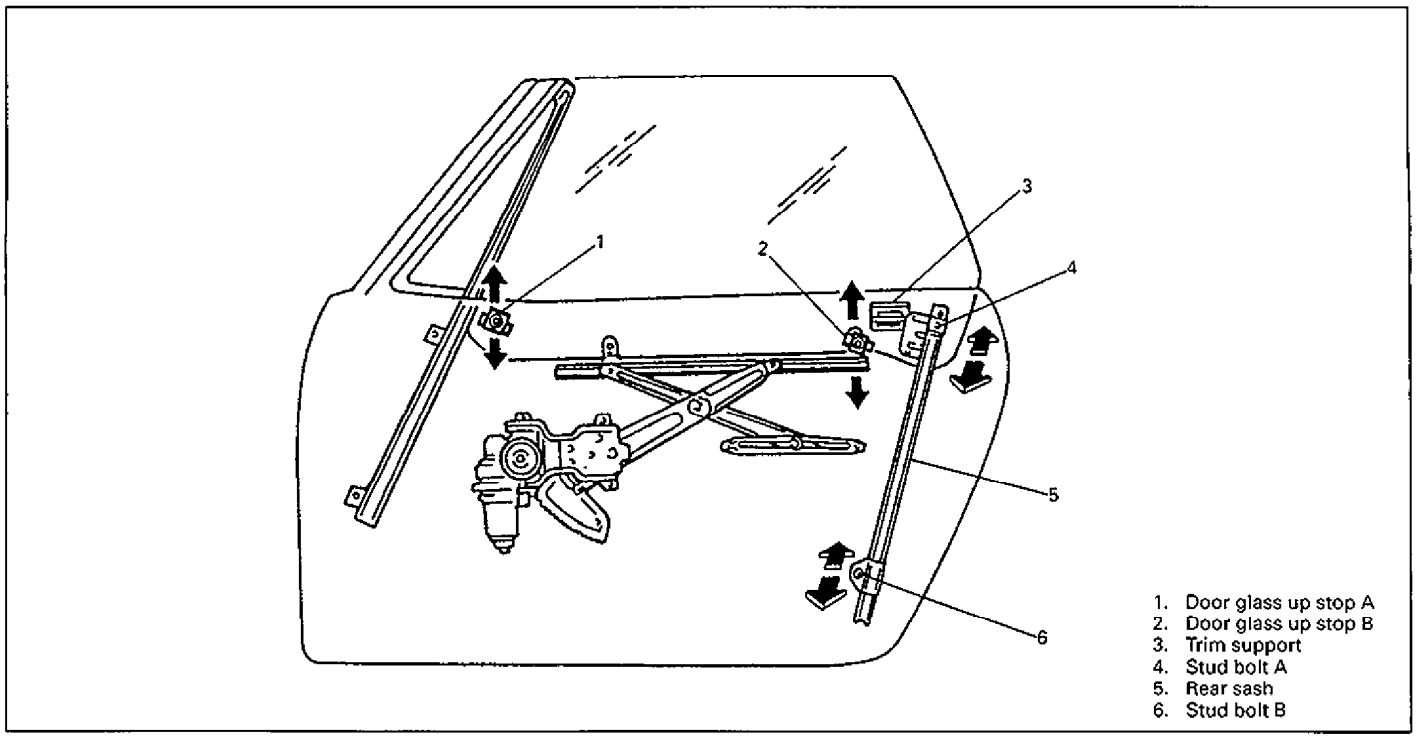

60A50-9A-4-3

INSTALLATION

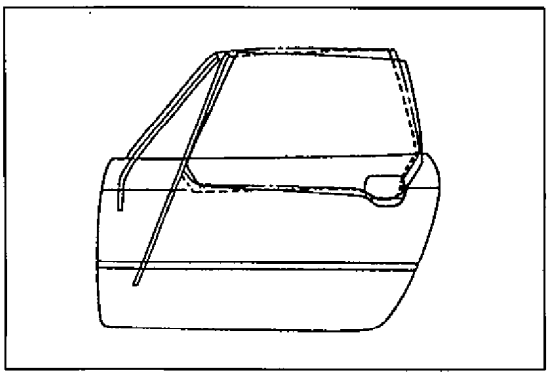
Reverse removal sequence to install door window regulator.

1) Apply multi-purpose grease to sliding parts.
2) Follow ADJUSTMENT in this section.

ADJUSTMENT



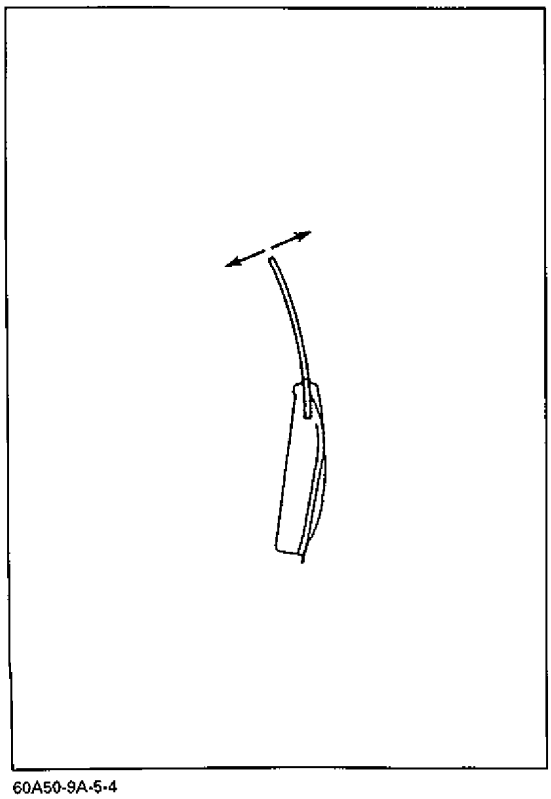
60A50-9A-5-1



60A50-9A-5-3

Up / Down Direction

1) When door glass is tilted forward or rearward, or height is not balanced, make up/down adjustment by using door glass up stops A and B.



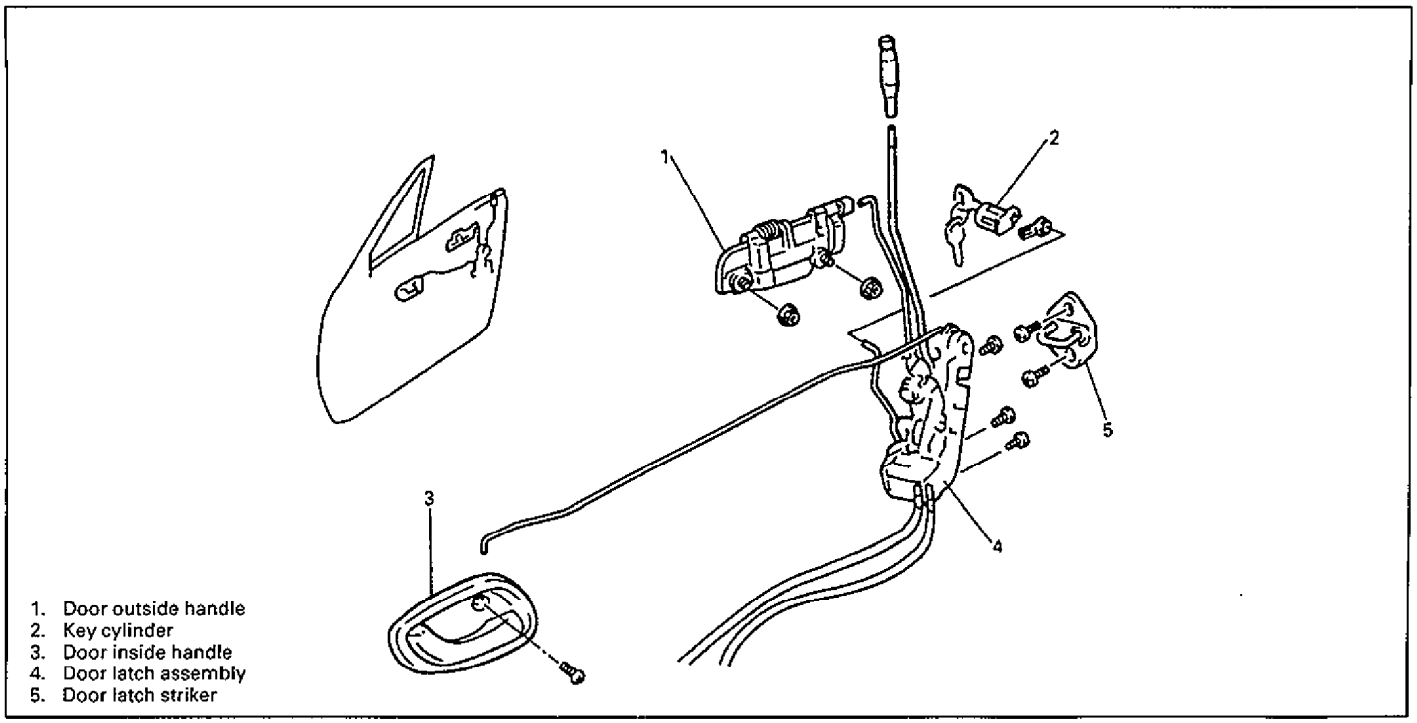
60A50-9A-5-4

Right / Left Direction

1) Loosen fixing screws of trim support.
2) Move lower end of rear sash by adjusting stud bolt B.
3) Move upper end of rear sash by adjusting stud bolt A as necessary.
4) With door glass raised fully, tighten trim support fixing screws so that looseness of width direction can be absorbed.

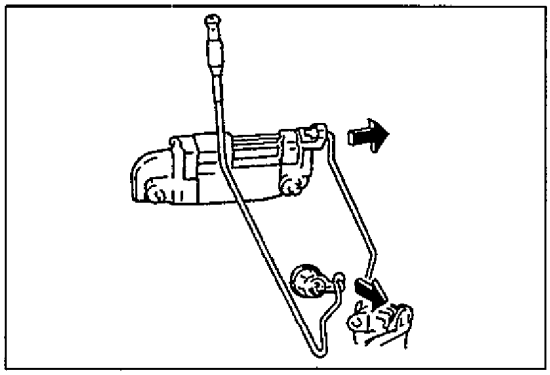
NOTE:
Note that adjustment should be done mainly by using above Step 2) and Step 3) should be used for fine adjustment.

FRONT DOOR LOCK



1. Door outside handle
2. Key cylinder
3. Door inside handle
4. Door latch assembly
5. Door latch striker

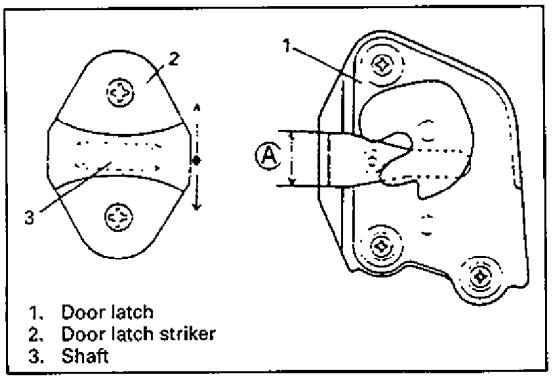
60A50-9A-6-1



60A50-9A-6-3

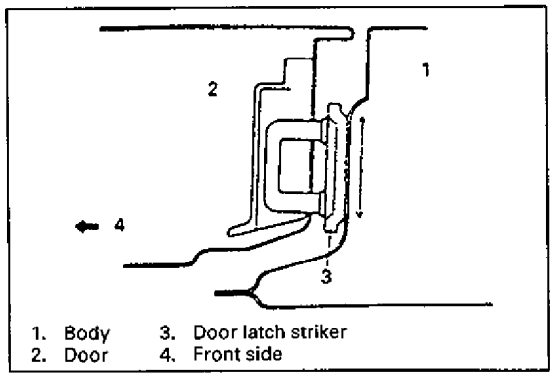
REMOVAL

1) Remove door trim, power window switch and door sealing cover.
   For details, refer to Step 1) to 4) of Door Window Glass Removal.
2) After disconnecting each joint of control link, remove door inside handle, outside handle and door latch ass'y.



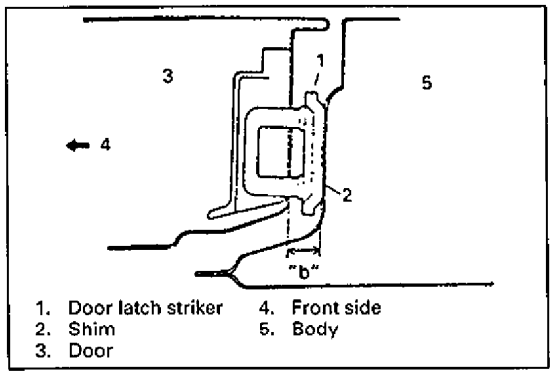
1. Door latch
2. Door latch striker
3. Shaft

60G00-9-6-1



1. Body
2. Door
3. Door latch striker
4. Front side

64B40-9-8-1



1. Door latch striker
2. Shim
3. Door
4. Front side
5. Body

60A50-9A-7-3

INSTALLATION

Reverse removal sequence for installation while using care for following items.

- Install door latch striker.
  Move door latch striker up and down so that its shaft approximately aligns with the center of groove Ⓐ of door latch.

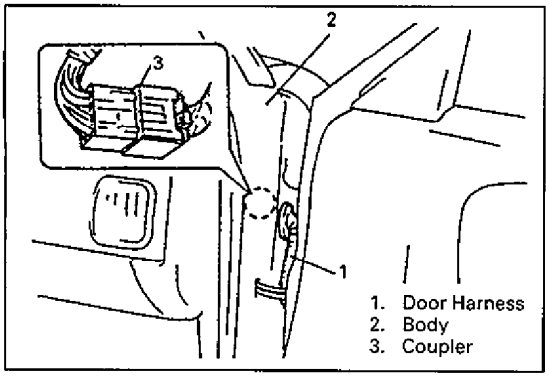
  NOTE:
  Striker should be placed level and moved vertically, Do not adjust door latch.

  Move door lacth striker sideways to adjust to 0 mm (0 in.) the door surface-to-body surface difference with door closed.

In order to correctly obtain door striker position in fore-and-aft direction, increase or decrease number of spacers inserted between body and striker to adjust it. Dimension "b" should be adjusted to specified value.

Dimension "b": 11.1 – 13.1 mm (0.44 – 0.51 in.)

NOTE:
Apply oil or grease to striker joints periodically.

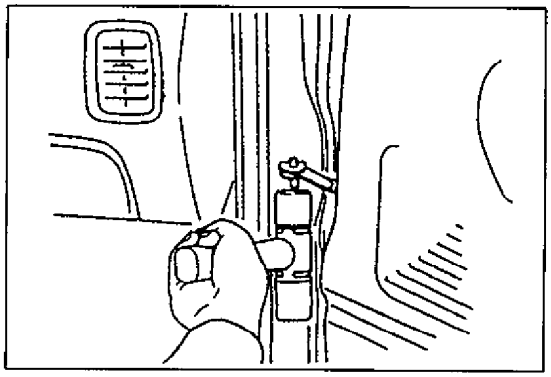


60A50-9A-8-1

FRONT DOOR ASSEMBLY

REMOVAL

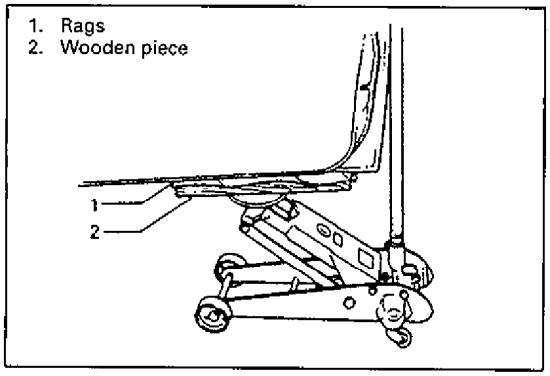
1) Disconnect door harness coupler, and remove door harness from body.



60A50-9A-8-2

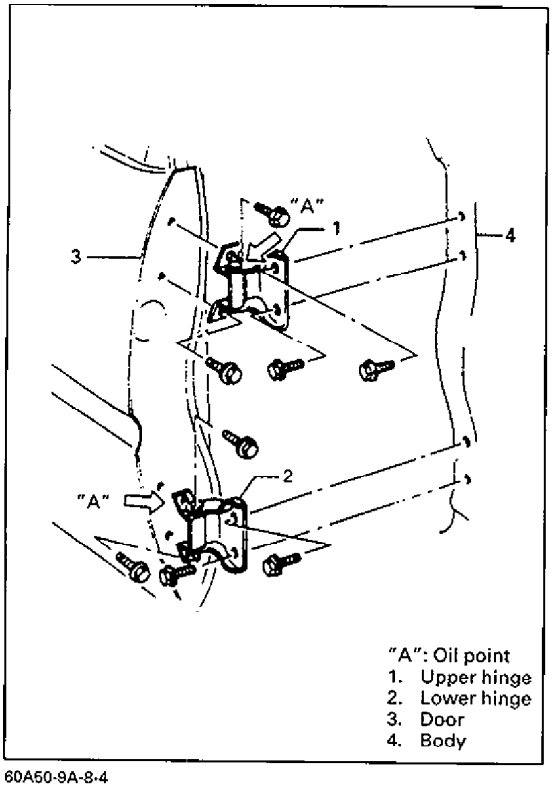
2) Remove stopper pin upward by tapping it with hammer.

NOTE:
Be careful not to damage the body



60G00-9-7-3

3) Using a jack, support door panel with a piece of wood placed between jack and panel.
4) Remove door ass'y by loosening hinge mounting bolts.



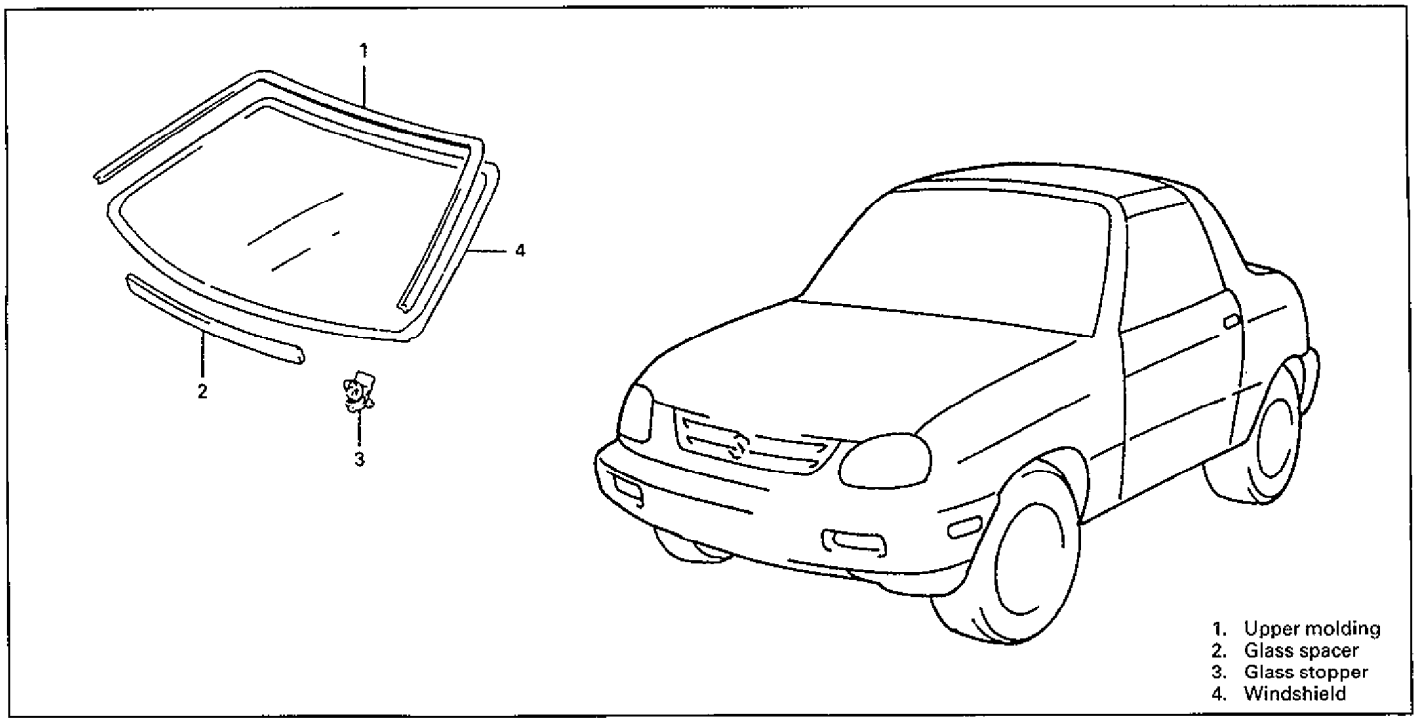
60A50-9A-8-4

INSTALLTION

Reverse removal sequence to install front door.

- When weatherstrip is hardened, water leak may develop. In such case, replace it with new one.
- After installing, adjust door latch striker position by referring to DOOR LOCK INSTALLATION section so that door is positioned correctly.

FRONT WINDSHIELD



60A50-9A-9-1

The windshield is installed by using a special type of adhesive (that is, one component urethane adhesive used with primer). For windshield glass replacement, it is important to use an adhesive which provides sufficient adhesion strength and to follow the proper procedure.

CAUTION:

- **Described here is the glass replacement by using one component urethane adhesive to be used with primer in combination. Each adhesive has its own drying and setting time and must be handled and used in a certain specific procedure. Negligence in following such procedure or misuse of the adhesive in any way hinders its inherent adhesive property. Therefore, before the work, make sure to read carefully the instruction and description given by the manufacturer of the adhesive to be used and be sure to follow the procedure and observe each precaution throughout the work.**
- **Should coated surface be scratched or otherwise damaged, be sure to repair damaged part, or corrosion may start from there.**

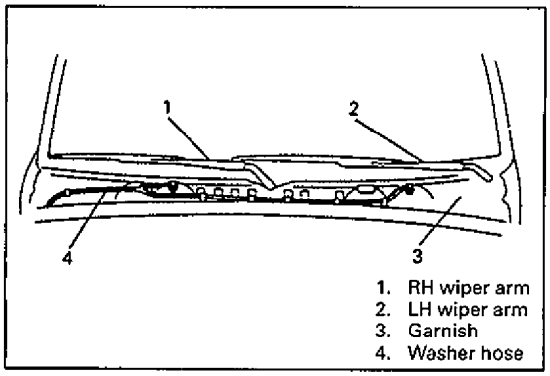
Use an adhesive of above mentioned type which has following property.

Shearing strength: 40 kg / cm^2 (569 lb / in^2) or more

Adhesive materials and tools required for removal and installation.

- One component urethane adhesive and primers used in combination (For one sheet of windshield).
  Adhesive (600 g (21.2 oz.))
  Primer for glass (20 g (0.7 oz.))
  Primer for body (20 g (0.7 oz.))
  Primer for urethane (molding) (20 g (0.07 oz.))
- Eyeleteer
- Piano string
- Brush for primer application (3 pcs)
- Knife
- Rubber sucker grip
- Sealant gun (for filling adhesive)
- Putty spatula (for correcting adhered parts)

64B40-9-21-1



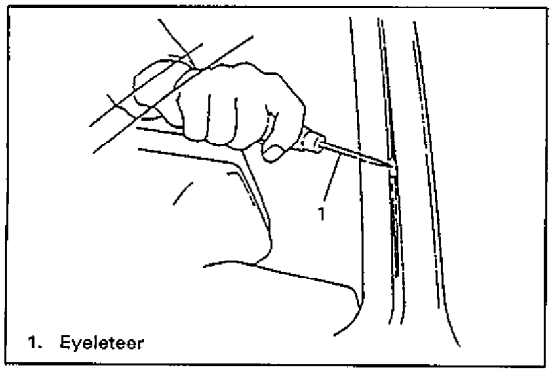
1. RH wiper arm
2. LH wiper arm
3. Garnish
4. Washer hose

60A50-9A-10-3

REMOVAL

1) Clean both inside and outside of glass and around it.
2) Remove wiper arms, windshield washer hose, garnish and spacers.
3) Remove windshield upper molding.
4) Using tape, cover body surface around glass to prevent any damage.
5) Remove rear view mirror, sunvisor, and front pillar trims (right & left).
6) Remove instrument panel. Refer to "INSTRUMENT PANEL" in section 9.
7) Remove roof lining. Refer to "ROOF LINING" in this section.

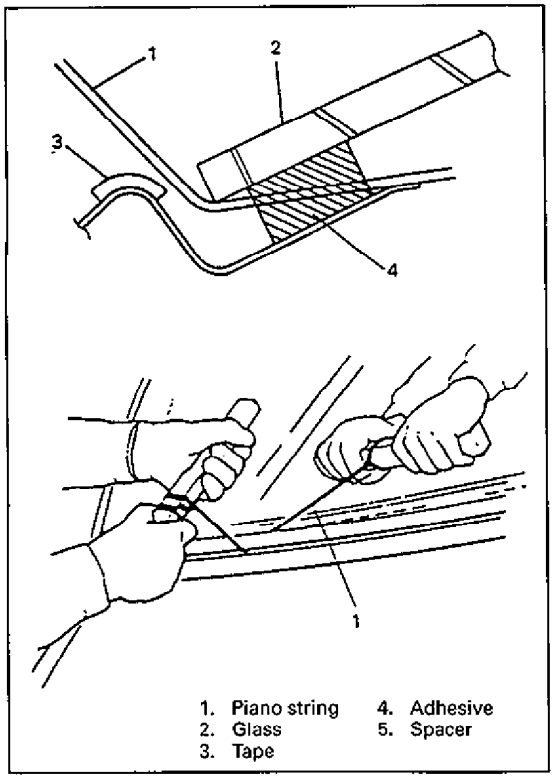
60A50-9A-10-4



1. Eyeleteer

60G00-9-13-5

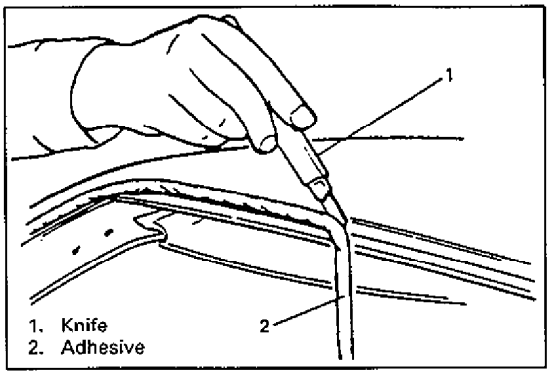
8) Drill hole with eyeleteer through adhesive and let piano string pass through it.



60G00-9-14-1

9) Cut adhesive all around glass with piano string.

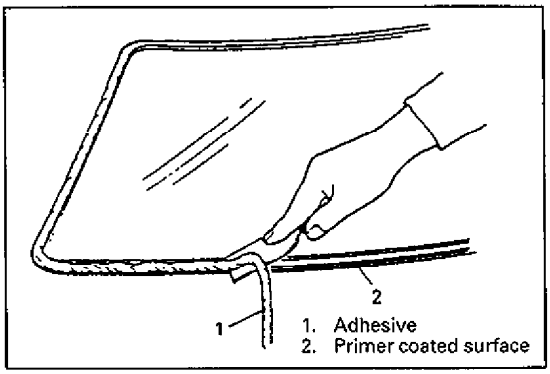
NOTE:
Use piano string as close to glass as possible so as to prevent damage to body.



60G00-9-14-3

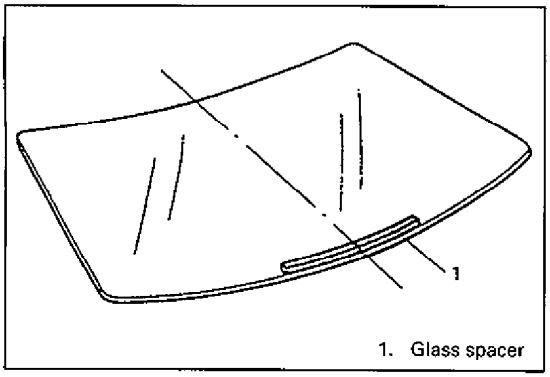
10) Using knife, smooth remaining adhesive on body side so that it is 1 – 2 mm thick all around.

NOTE:
Before using knife, clean with alcohol or the like to remove oil from it.



60G00-9-14-4

11) When re-using glass, remove adhesive from glass leaving 2 – 3 mm (0.08 – 0.12 in.) thickness. Use care not to damage primer coated surface.

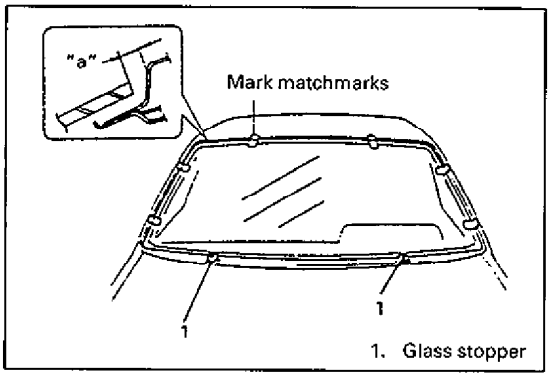


1. Glass spacer

60G00-9-15-1

INSTALLATION

1) Using cleaning solvent, clean window frame (body) where glass is to be adhered. (Let it dry for more than 10 minutes.)
2) Install spacers (2 pcs) to lower side of window frame (body).
3) Peel paper from one side of new glass spacer and attach that lower side to windshield glass.

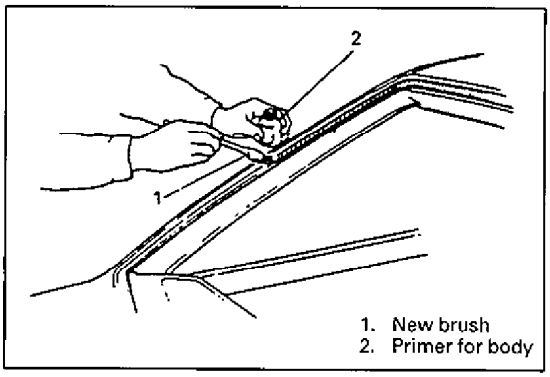


1. Glass stopper

60A50-9A-12-2

4) To determine installing position of glass to body, position glass against body so that clearance between upper end of glass and body is about 5.9 mm (0.256 in.) and clearances between each side end (right & left) of glass and body are even. Then mark matchmarks on glass and body as shown in figure. Upper clearance can be adjusted by moving stoppers position.

Clearance "a": 5.9 mm (0.256 in.)

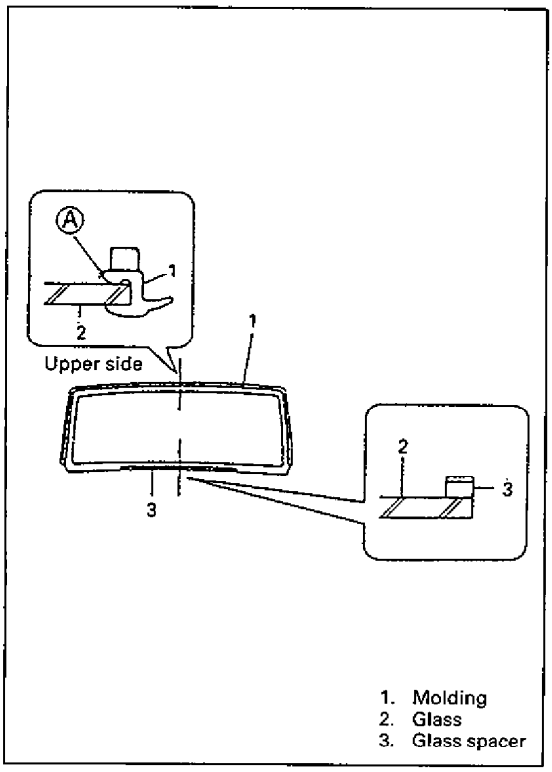


1. New brush
2. Primer for body

60A50-9A-12-3

5) Using new brush, apply sufficient amount of primer for body along body surface where windshield glass is to be adhered.

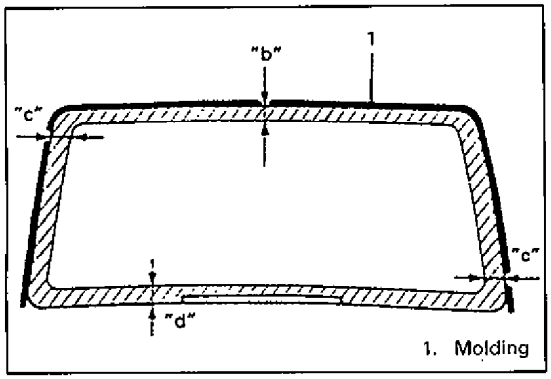
NOTE:
Be sure to refer to primer manufacturer's instruction for proper handling and drying time.



1. Molding
2. Glass
3. Glass spacer

60A50-9A-12-4

6) Install upper molding to glass. Warming molding for over half an hour at 35°C (95°F) temperature will facilitate work.
7) Clean glass surface to be adhered to body with clean cloth. If cleaning solvent is used, let it dry for more than 10 minutes.
8) Clean molding surface Ⓐ with clean cloth. (Refer to left figure.)



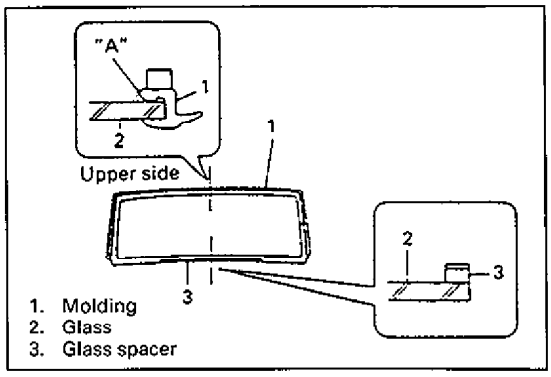
60A50-9A-13-1

9) Using new brush, apply sufficient amount of primer for glass along glass surface to be adhered to body.

NOTE:

- **Be sure to refer to primer manufacturer's instruction for proper handling and drying time.**
- **Do not touch primer coated surface.**

Width "b": Approx. 16.5 mm (0.65 in.)
"c": Approx. 16.5 mm (0.65 in.)
"d": Approx. 23.0 mm (0.90 in.)

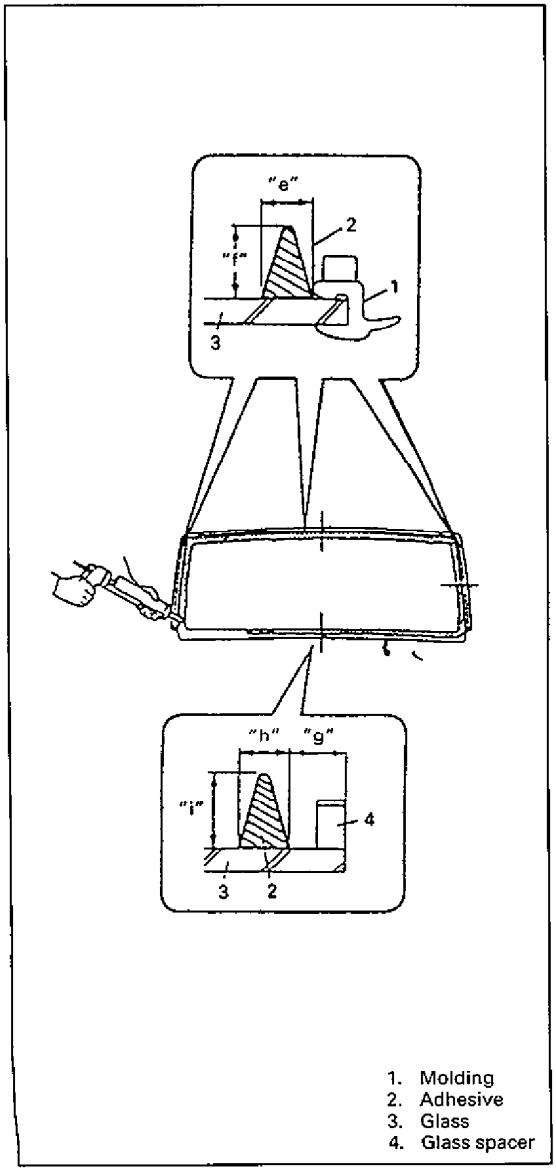


60A50-9A-13-2

10) Using new brush, apply sufficient amount of primer for molding (Urethane) to surface "A" as shown in figure.

NOTE:

- **Be sure to refer to primer manufacturer's instruction for proper handling and drying time.**
- **Do not touch primer coated surface.**



60A50-9A-13-3

11) Apply adhesive referring to figure at the left.

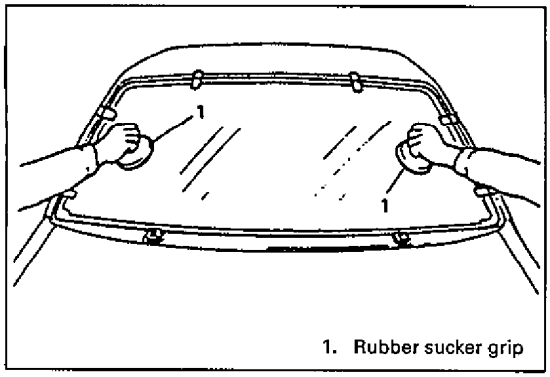
NOTE:

- **Start from bottom side of glass.**
- **Be careful not to damage primer.**
- **Height of adhesive applied to lower side should be higher than that of other three sides.**

Upper, right and left sides
Width "e" : Approx. 11 mm (0.43 in.)
Height "f" : Approx. 17 mm (0.67 in.)

Lower side
Distance "g" : Approx. 11 mm (0.43 in.)
Width "h" : Approx. 11 mm (0.43 in.)
Height "i" : Approx. 25 mm (0.98 in.)

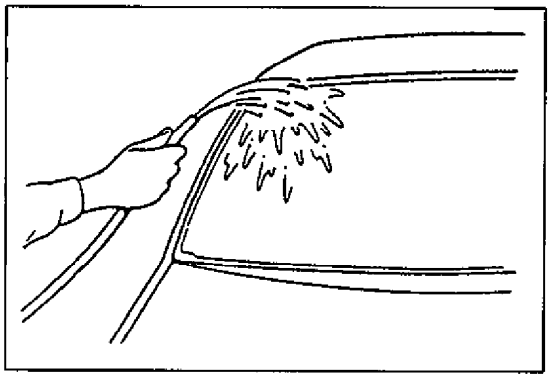
- **Press glass against body quickly after adhesive is applied.**
- **Use of rubber sucker grip is helpful to hold and carry glass after adhesive is applied.**



1. Rubber sucker grip

60A50-9A-14-1

12) Peel remaining paper from molding and dam.
13) Holding rubber sucker grips, place glass onto body by aligning mating matchmarks marked in step 5) and press it.
14) Remove matchmarks.



50G00-9-22-2

15) Check for water leakage by running water from hose over window. If leakage is found, dry window and fill leaky point with adhesive. If water still leaks even after that, remove glass and start installation procedure all over again.

NOTE:

- **Do not use high pressure water.**
- **Do not blow compressed air directly at adhesive applied part when drying.**
- **Do not use infrared lamp or the like for drying.**

CAUTION:
Upon completion of installation, note the following.

- **Sudden closing of door before adhesive is completely set may cause glass to become loose or to come off. Therefore, if door is opened or closed before adhesive is completely set, make sure to open all door glasses and use proper care.**
- **If molding is not securely in place, hold it down with a tape until adhesive is completely set.**
- **Each adhesive has its own setting time. Be sure to refer to manufacturer's instruction, check setting time of adhesive to be used and observe precautions to be taken before adhesive is set.**
- **Refrain from driving till adhesive is completely set so as to ensure proper and sufficient adhesion.**

60A50-9A-14-3

16) Install rear view mirror, roof lining, front pillar trims, sun-visor, air ventilator garnish and wipers.

BACK WINDOW

Back window glass is installed by using a special type of adhesive (that is, one component urethane adhesive used with primer). For back window glass replacement, it is important to use an adhesive which provides sufficient adhesion strength and to follow the proper procedure.

CAUTION:
- **Described here is the glass replacement by using one component urethane adhesive to be used with primer in combination. Each adhesive has its own drying and setting time and must be handled and used in a certain specific procedure. Negligence in following such procedure or misuse of the adhesive in any way hinders its inherent adhesive property. Therefore, before the work, make sure to read carefully the instruction and description given by the manufacturer of the adhesive to be used and be sure to follow the procedure and observe each precaution throughout the work.**
- **Should coated surface be scratched or otherwise damaged, be sure to repair damaged part, or corrosion may start from there.**

Use an adhesive of above mentioned type which has following property.

Shearing strength: 40 kg/cm^2 (569 lb/in^2) or more

60A50-9A-15-1

Adhesive materials and tools required for removal and installation.
- One component urethane adhesive and primers used in combination (For one sheet of window glass).
  Adhesive (260 g (9.2 oz.))
  Primer for glass (20 g (0.7 oz.))
  Primer for body (20 g (0.7 oz.))
  Primer for urethane (molding) (20 g (0.7 oz.))
- Eyeleteer
- Piano string
- Brush for primer application (3 pcs.)
- Knife
- Rubber sucker grip
- Sealant gun (for filling adhesive)
- Putty spatula (for correcting adhered parts)

NOTE:
Wear gloves when removing and installing glass.
Use care not to cause damage to heating wire for rear defogger.

REMOVAL

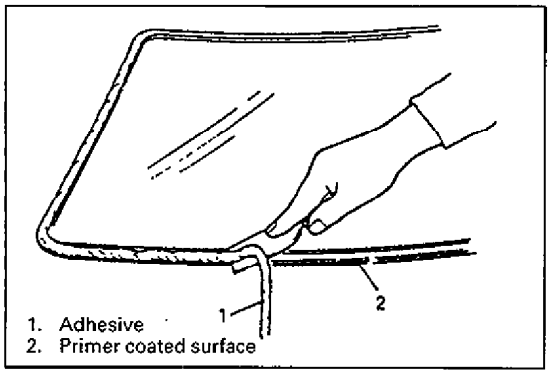
1) Clean both inside and outside of glass and around it.
2) Remove lower molding.
3) Remove upper molding by cutting with knife.
4) Using tape, cover body surface around back window glass to prevent any damage.
5) Remove seatbelts, rear corner trims, rear trim, rear pillar trims and rear window defogger wires.

60A50-9A-16-1

6) Remove roof lining. Refer to "ROOF LINING" in this section.
7) Drill hole with eyeleteer through adhesive and let piano string pass through it.
8) Cut adhesive all around glass with piano string (refer to front windshield section).

NOTE:
Use piano string as close to glass as possible so as to prevent damage to body.

60A50-9A-16-2



1. Adhesive
2. Primer coated surface

60A50-9A-16-3

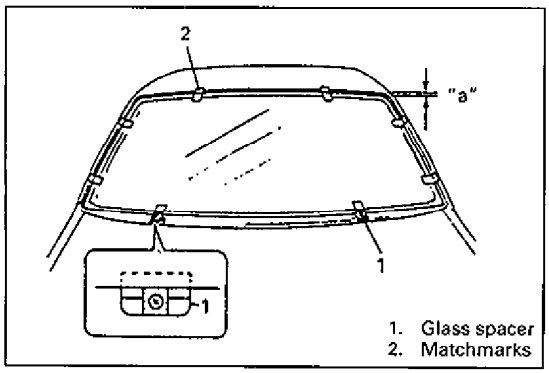
9) Using knife, smooth remaining adhesive on body side so that it is 1 – 2 mm thick all around.

NOTE:
Before using knife, clean it with alcohol or the like to remove oil from it.

10) When re-using glass, remove adhesive from glass leaving 2 – 3 mm (0.08 – 0.12 in.) in thickness. Use care not to damage primer coated surface.

INSTALLATION

1) Using cleaning solvent, clean window edge where window glass is to be adhered. (Let it dry for more than 10 minutes.)
2) Install spacer (2 pcs.) to lower side of back window.
3) Install new back window upper molding to glass. (Don't peel off paper of molding at this stage). Warming moldings for over half an hour at 35°C (95°F) temperature will facilitate work.

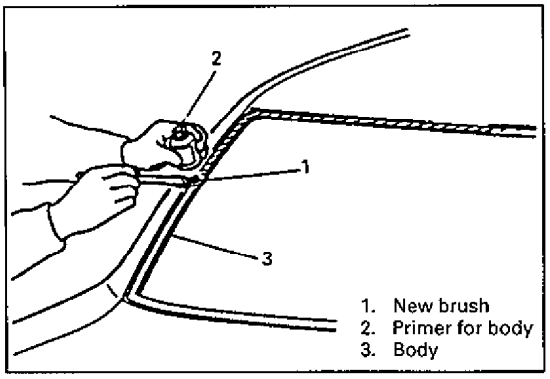


1. Glass spacer
2. Matchmarks

60A50-9A-16-5

4) To determine installing position of glass to body, position glass against body so that clearance between upper end to glass and body is specified value below and clearances between each side end (right & left) of glass and body are even. Then mark matchmarks on glass and body as shown.
Upper clearance can be adjusted by moving spacers position.

Clearance "a": 6.7 mm (0.264 in.)

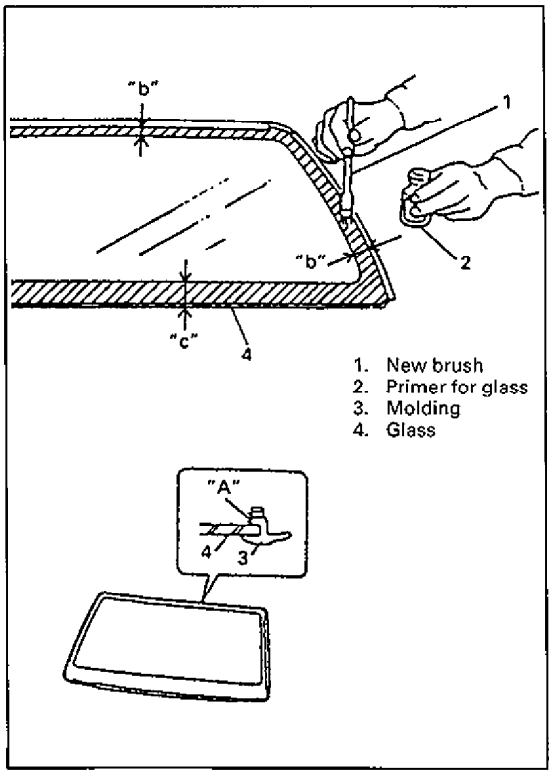


60A50-9A-17-1

5) Using new brush, apply sufficient amount of primer for body along body surface where window is to be adhered.

NOTE:
Be sure to refer to primer manufacturer's instruction for proper handling and drying time.

6) Clean glass surface to be adhered to window with clean cloth. If cleaning solvent is used, let it dry for more than 10 minutes.



60A50-9A-17-2

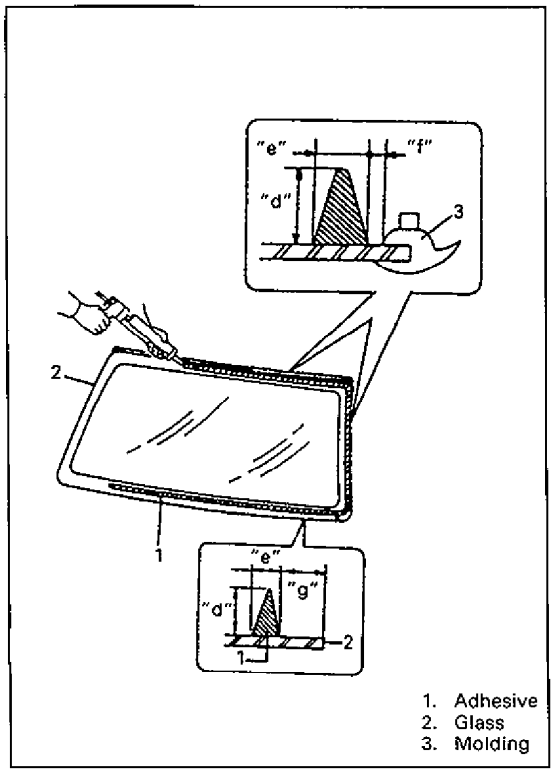
7) Clean molding surface "A" with clean cloth. (Refer to figure.)
8) Using new brush, apply sufficient amount of primer for glass along glass surface to be adhered to window.

NOTE:
- **Be sure to refer to primer manufacturer's instruction for proper handling and drying time.**
- **Do not touch primer coated surface.**

Width "b": about 13 mm (0.50 in.)
"c": about 16 mm (0.60 in.)

9) Using new brush, apply sufficient amount of primer for molding (Urethane) to surface "A" as shown in figure.

NOTE:
- **Be sure to refer to primer manufacturer's instruction for proper handling and drying time.**
- **Do not touch primer coated surface.**

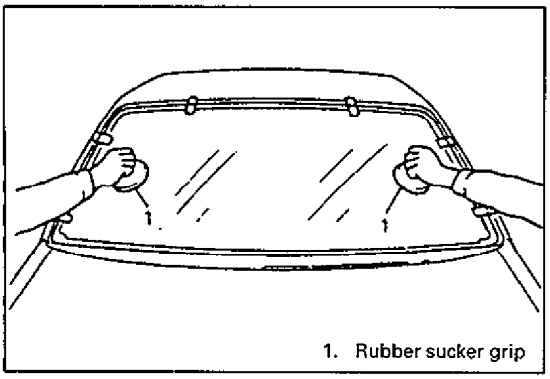


60A50-9A-17-4

10) Apply adhesive as shown left.

NOTE:
- **Start from bottom side of glass.**
- **Height of applied adhesive should exceed that of molding.**
- **Adhesive should be applied evenly especially in height.**
- **Be careful not to damage primer.**
- **Press glass against body quickly after adhesive is applied.**
- **Use of rubber sucker grips is helpful to hold and carry glass after adhesive is applied.**

Height "d" : Approx. 14 mm (0.55 in.)
Width "e" : Approx. 7 mm (0.28 in.)
Dimension "f" : Approx. 2 mm (0.08 in.)
Dimension "g" : Approx. 14 mm (0.55 in.)



1. Rubber sucker grip

60A50-9A-18-1

11) Peel paper from moldings.
12) Holding rubber sucker grips, place glass onto body by aligning mating matchmarks in step 4) and press it.
13) Remove matchmarks.
14) Install new back window lower moldings.
15) Check for water leakage by pouring water over window through a hose. If leakage is found, dry window and fill leaky point with adhesive. If water still leads even after that, remove glass and start installation procedure all over again.

NOTE:
- **Do not use high pressure water.**
- **Do not blow compressed air directly at adhesive applied part when drying.**
- **Do not use an infrared lamp or the like for drying.**

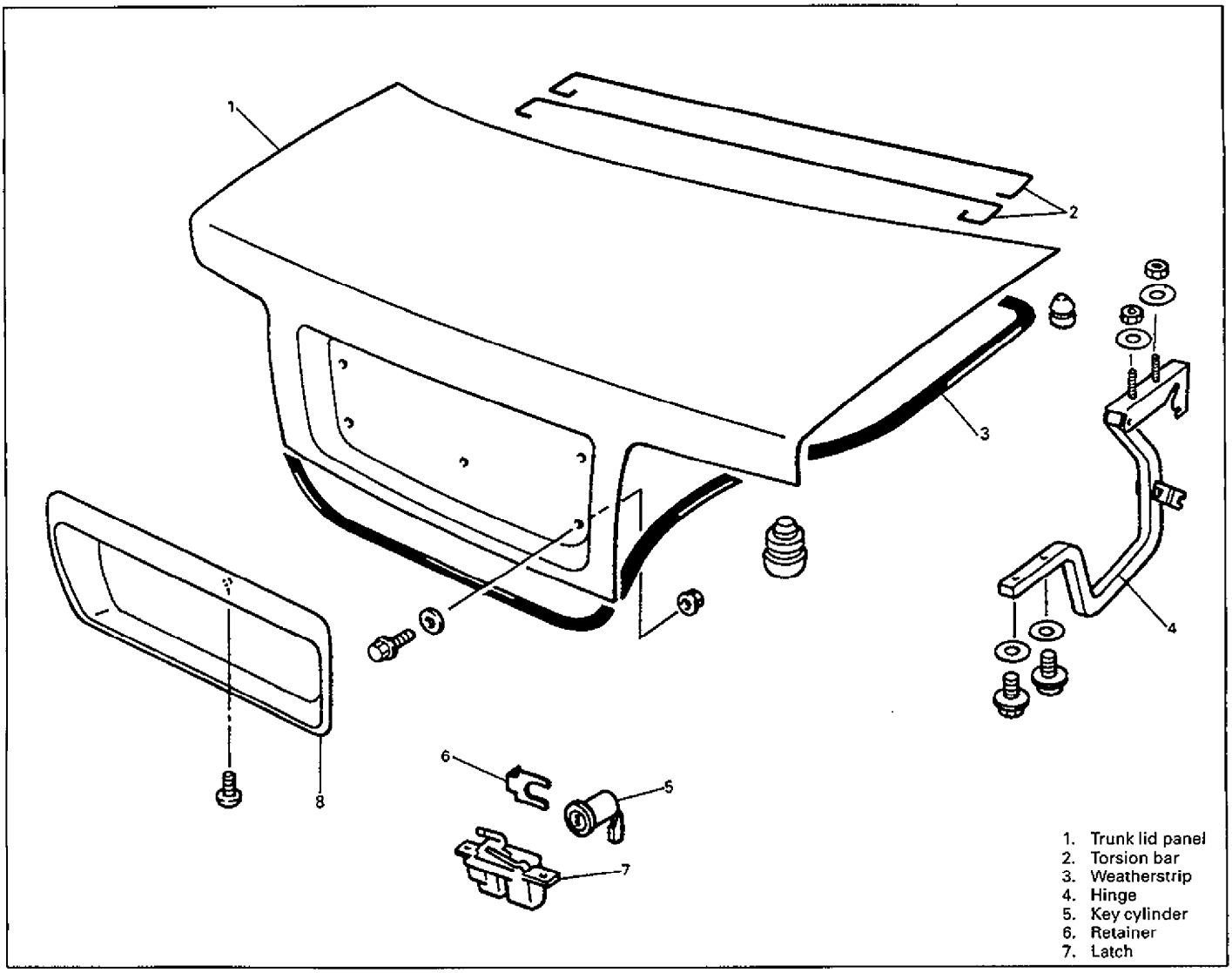
CAUTION:
Upon completion of installation, note the following.
- **Sudden closing of door before adhesive is completely set may cause glass to become loose or to come off. Therefore, if door is opened or closed before adhesive is completely set, make sure to open all door glasses and use proper care.**
- **If molding is not securely in place, hold it down with a tape until adhesive is completely set.**
- **Each adhesive has its own setting time. Be sure to refer to manufacturer's instruction, check setting time of adhesive to be used and observe precautions to be taken before adhesive is set.**
- **Refrain from driving till adhesive is completely set so as to ensure proper and sufficient adhesion.**

60A50-9A-18-2

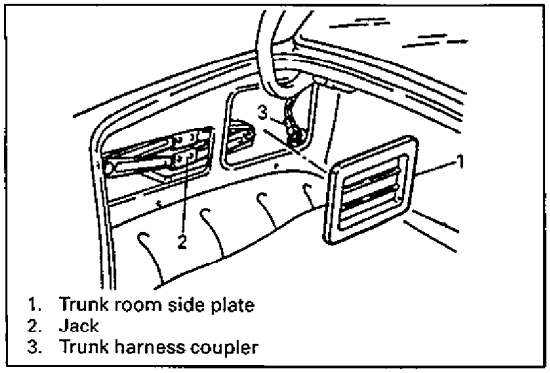
16) Install all the pieces removed in step 5) of REMOVAL.

Seat belt anchor bolt tightening torque:
45 N·m (4.5 kg-m, 32.5 lb-ft)

TRUNK LID



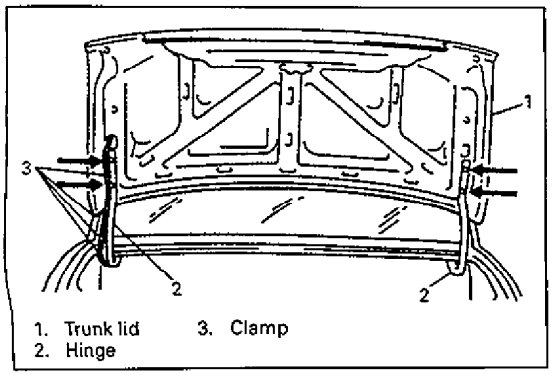
79E00-9A-19-1



60A50-9A-19-4

REMOVAL

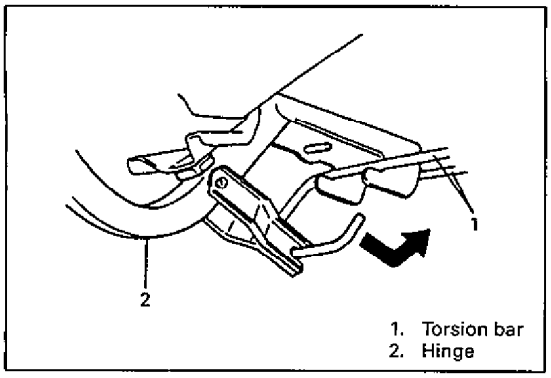
1) Remove trunk room side plate and disconnect trunk harness coupler.



60A50-9A-19-5

2) Remove trunk room harness from hinge.
3) Remove trunk lid attaching bolts, and trunk lid.

NOTE:
Handle removed trunk lid carefully. Dropping it can cause damage to itself and vehicle's body.

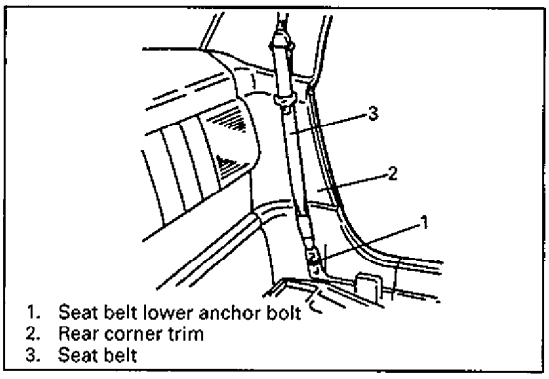


1. Torsion bar
2. Hinge

60A50-9A-20-1

4) Remove torsion bars.

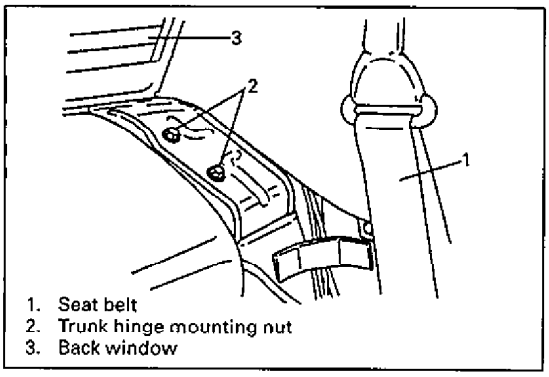
WARNING:
When removing torsion bar, be careful for its repulsion.



1. Seat belt lower anchor bolt
2. Rear corner trim
3. Seat belt

60A50-9A-20-2

5) Remove rear corner trim by removing seat belt lower anchor bolt.



1. Seat belt
2. Trunk hinge mounting nut
3. Back window

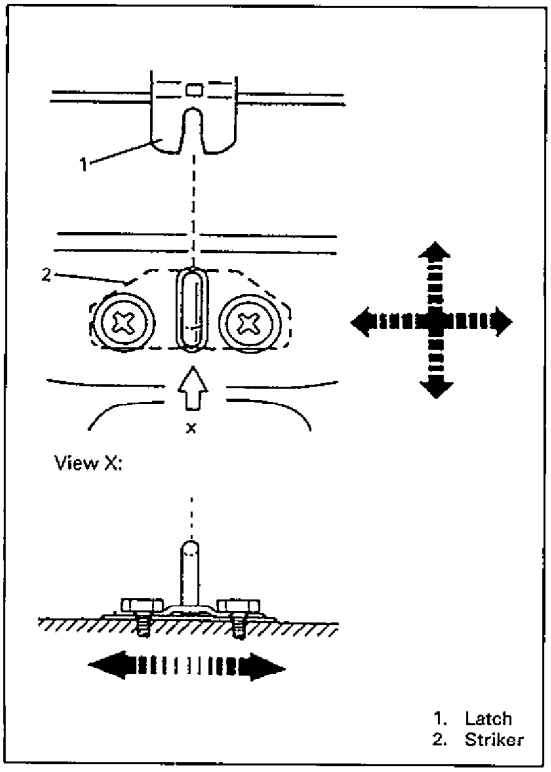
79E00-9A-20-3

6) Remove trunk hinge mounting nut, and remove trunk hinge.
7) Remove trunk harness from trunk.

INSTALLATION

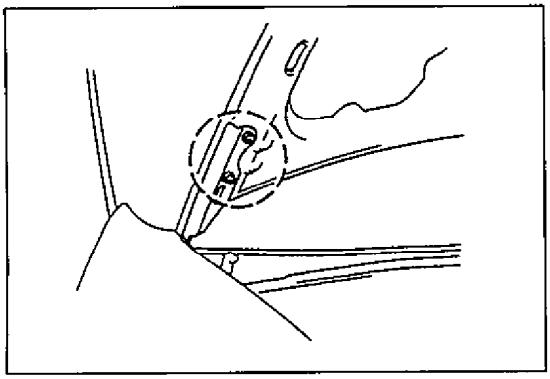
Reverse removal sequence noting following point.

- Adjust trunk lid latch striker so that striker shaft approximately aligns with the center of groove of trunk lid latch.
- **Seat belt lower anchor bolt tightening torque:**
  45 N·m (4.5 kg-m, 32.5 lb-ft)



1. Latch
2. Striker

60A50-9A-20-4

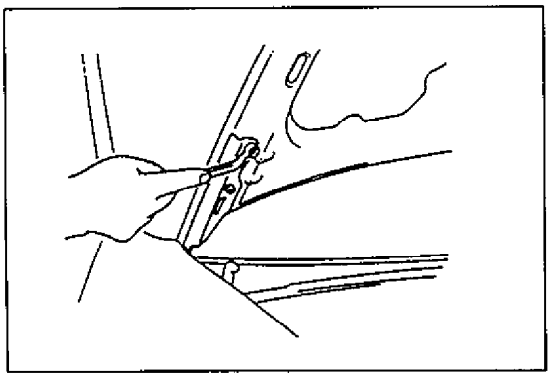

60A50-9A-21-1

HOOD

REMOVAL

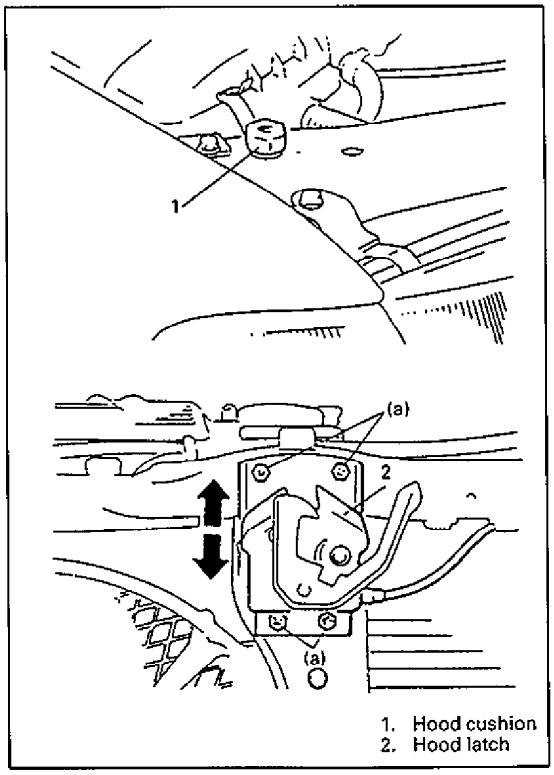
Remove four mounting bolts to detach hood.

NOTE:
Handle removed hood carefully. Dropping it can cause damage to itself and vehicle's body.


60A50-9A-21-2

ADJUSTMENT

A. Fore-and-aft and right-and-left adjustment
Slacken four mounting bolts for adjustment.



1. Hood cushion
2. Hood latch

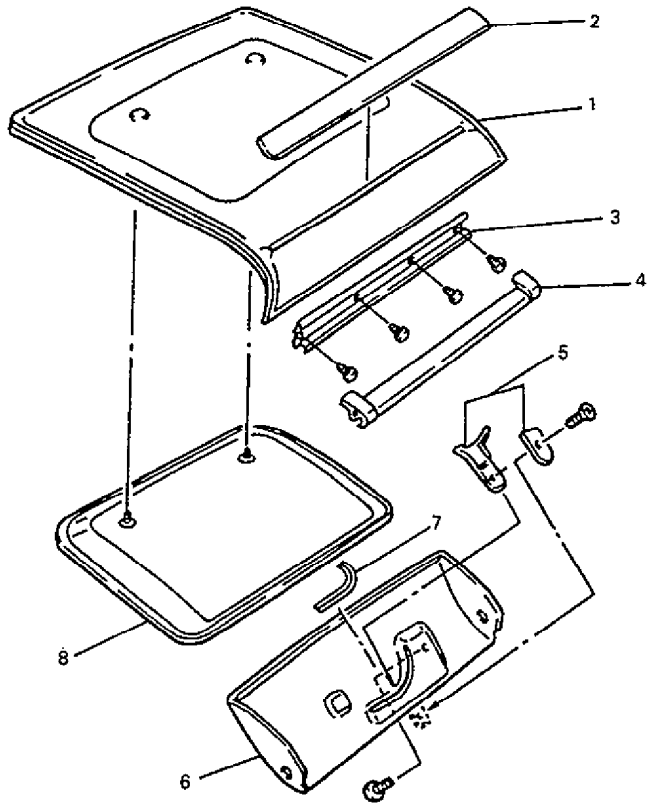
60G00-9-24-3

B. Vertical adjustment
If only one side (right or left) of hood is not level with front fender, make it level by tightening or loosening hood cushion.

WARNING:
If hood latch does not work smoothly, lubricate it using care not to put oil onto hood latch mounting bolt.

Tightening Torque
(a): 5.5 N·m (0.55 kg-m, 4.0 lb-ft)

HATCH ROOF

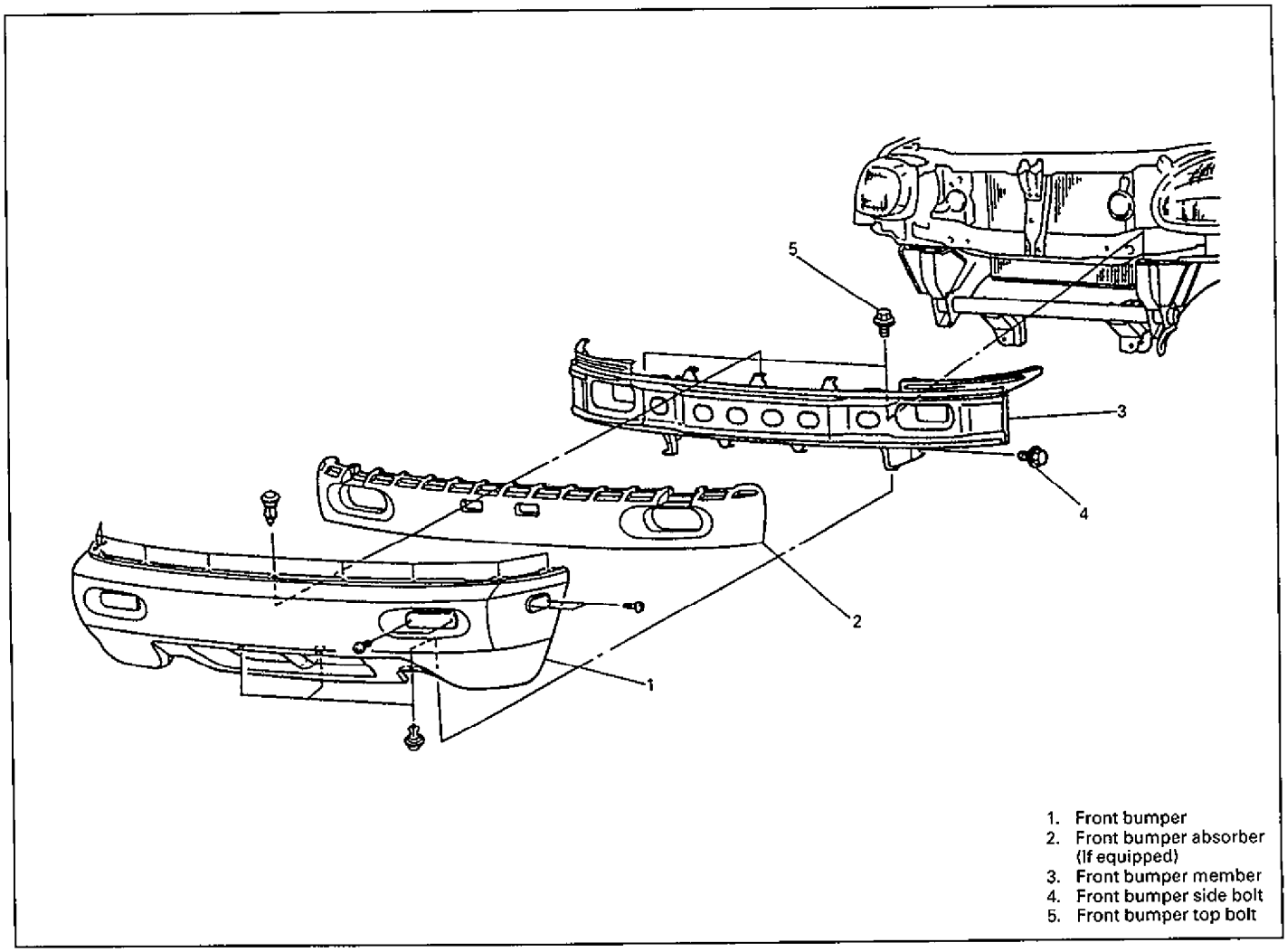


1. Hatch roof glass ass'y
2. Roof side molding
3. Roof side rail
4. Opening weatherstrip
5. Lever ass'y
6. Roof side trim
7. Trim molding
8. Hatch roof shade

60A50-9A-22-1

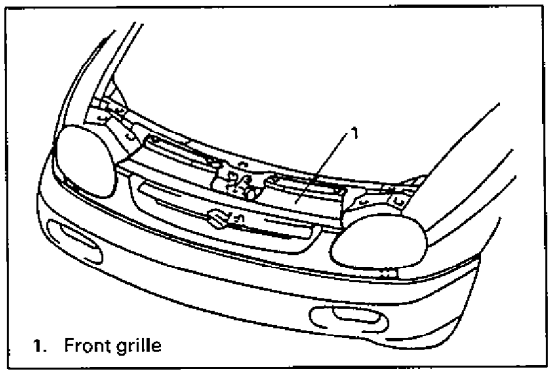
BUMPERS

FRONT BUMPER



1. Front bumper
2. Front bumper absorber (If equipped)
3. Front bumper member
4. Front bumper side bolt
5. Front bumper top bolt

79E00-9A-23-1

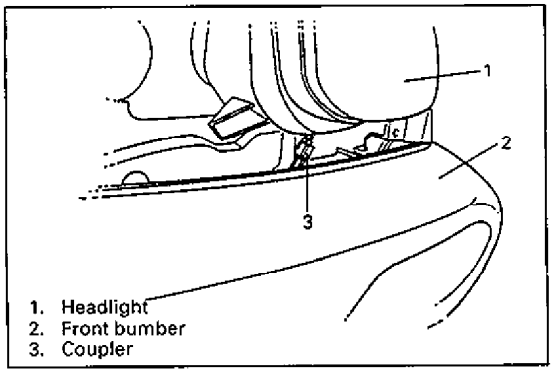


1. Front grille

60A50-9A-23-4

REMOVAL (bumper ass'y)

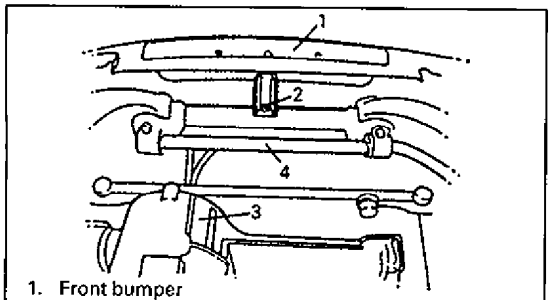
1) Remove front grille.



1. Headlight
2. Front bumber
3. Coupler

60A50-9A-23-5

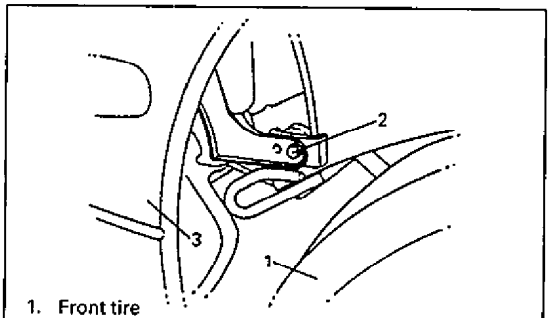
2) Remove coupler underneath headlight.



1. Front bumper
2. Clip
3. Front differential housing
4. Front stabilizer bar

60A50-9A-24-1

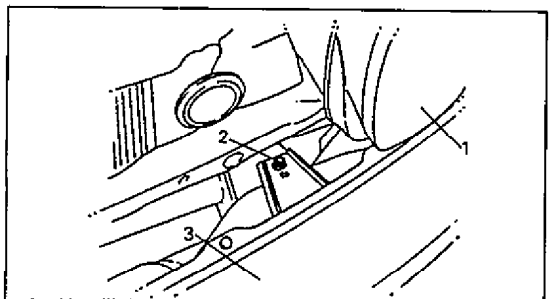
3) Remove clip underneath the bumper.



1. Front tire
2. Bumper side bolt
3. Front bumper

60A50-9A-24-2

4) Remove bumper side bolts.



1. Headlight
2. Bumper top bolt
3. Front bumper

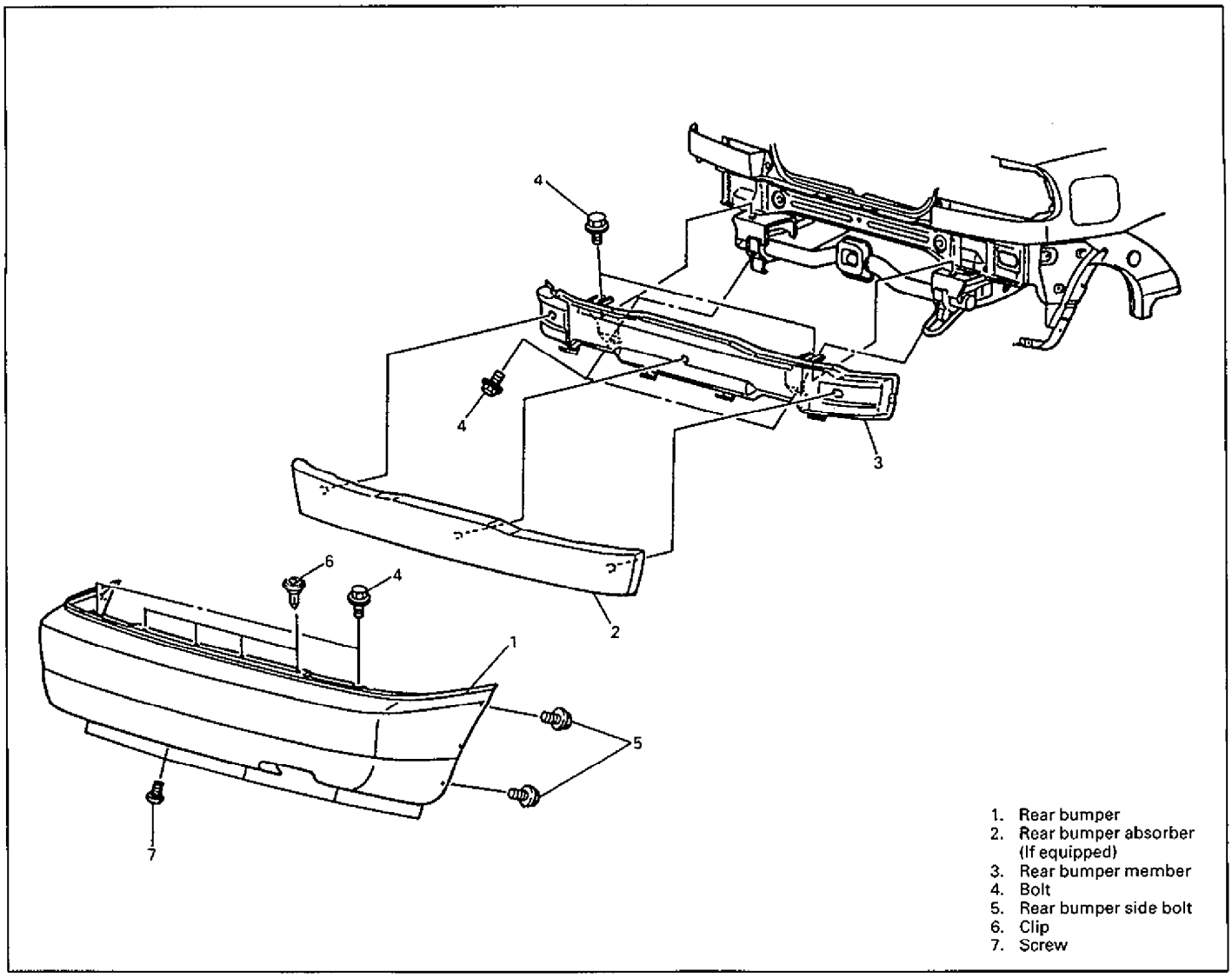
60A50-9A-24-3

5) Remove bumper top bolts.
6) Remove front bumper ass'y.
7) Remove side marker and turn signal light.

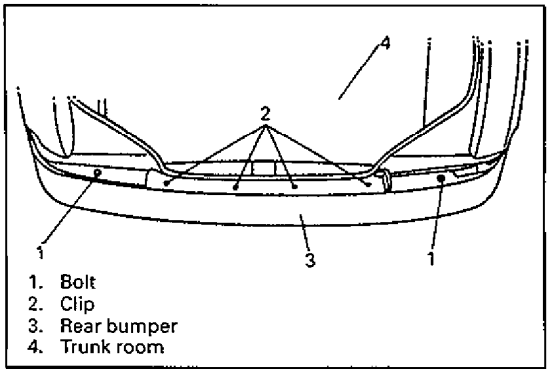
INSTALLATION (as an assembly)

Reverse removal procedure for installation.

REAR BUMPER



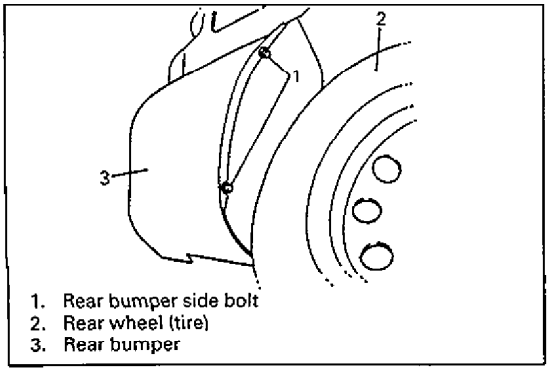
79E00-9A-25-1



60A50-9A-25-4

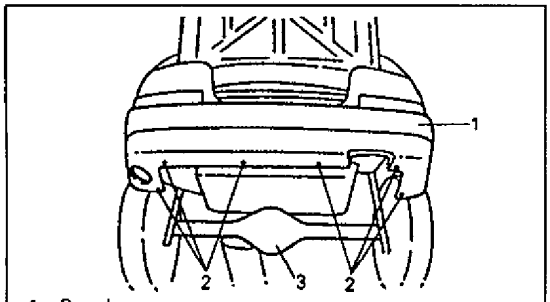
REMOVAL

1) Remove rear combination lights.
2) Remove four clips and two bolts on the top of bumper.



60A50-9A-25-5

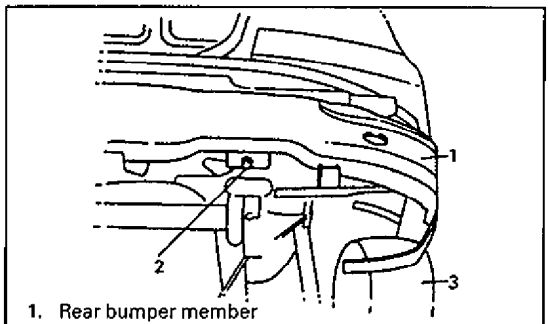
3) Remove rear bumper side bolts.



1. Rear bumper
2. Screw
3. Rear differential housing

60A50-9A-26-1

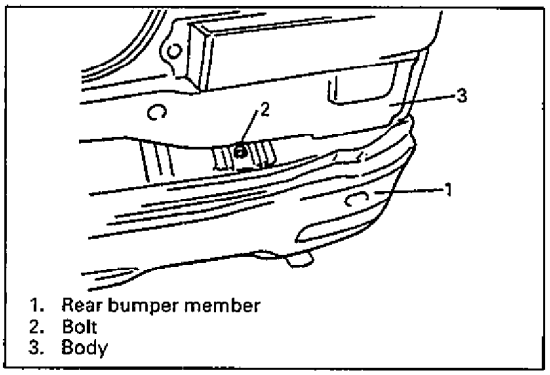
4) Remove screws underneath the bumper.
5) Remove rear bumper and rear bumper absorber.



1. Rear bumper member
2. Bolt
3. Rear tire

60A50-9A-26-2

6) Remove 2 bolts underneath the bumper member.



1. Rear bumper member
2. Bolt
3. Body

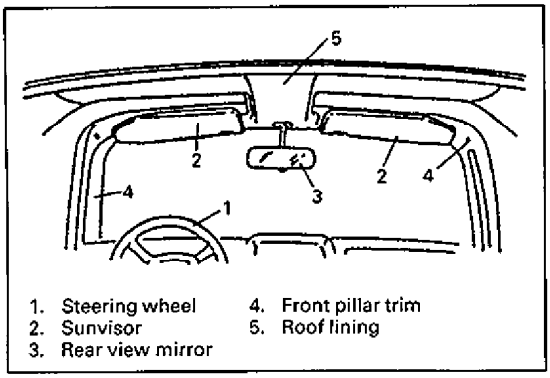
60A50-9A-26-3

7) Remove 2 bolts on the top of bumper member.
8) Remove rear bumper member.

INSTALLATION

Reverse removal procedure for installation

ROOF LINING

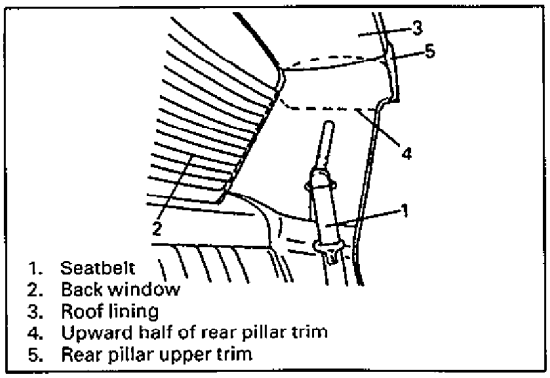


1. Steering wheel
2. Sunvisor
3. Rear view mirror
4. Front pillar trim
5. Roof lining

79E00-9A-27-1

REMOVAL

1) Remove both hatchroofs.
2) Remove inside rear view mirror and position hole clip.
3) Remove both sunvisor assembly.
4) Remove dome light.
5) Remove front pillar trims.



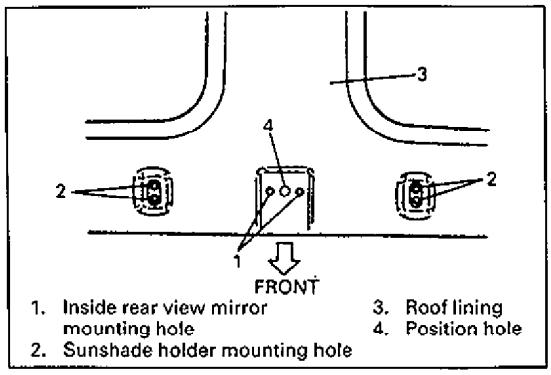
1. Seatbelt
2. Back window
3. Roof lining
4. Upward half of rear pillar trim
5. Rear pillar upper trim

60A50-9A-27-2

6) Remove rear pillar upper trim and remove upward half (do not remove entire trim) of rear pillar trims.
7) Remove 3 clips.
8) Remove roof lining.

INSTALLATION

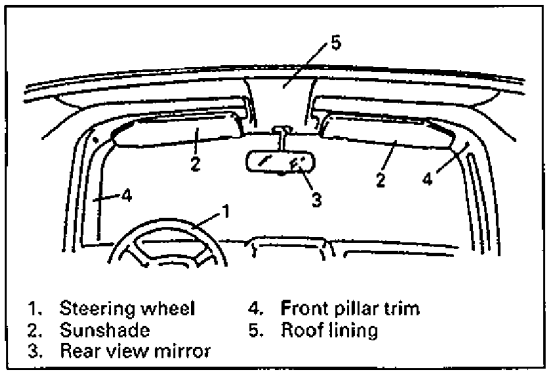
1) Install roof lining by aligning position hole and sunvisor mounting hole as shown in figure. Install clip to position hole.
2) Install center clips, then install other clips.



1. Inside rear view mirror mounting hole
2. Sunshade holder mounting hole
3. Roof lining
4. Position hole

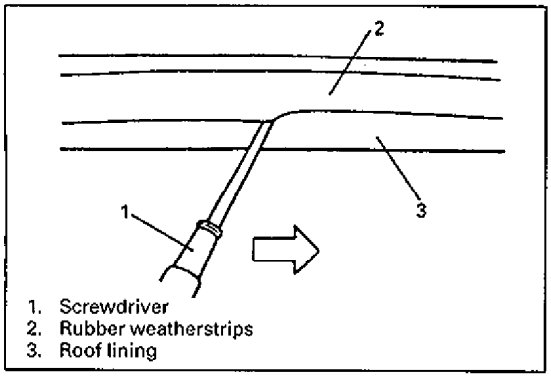
79E00-9A-27-3

3) Install remaining parts which were removed in REMOVAL section.



1. Steering wheel
2. Sunshade
3. Rear view mirror
4. Front pillar trim
5. Roof lining

60A50-9A-27-5



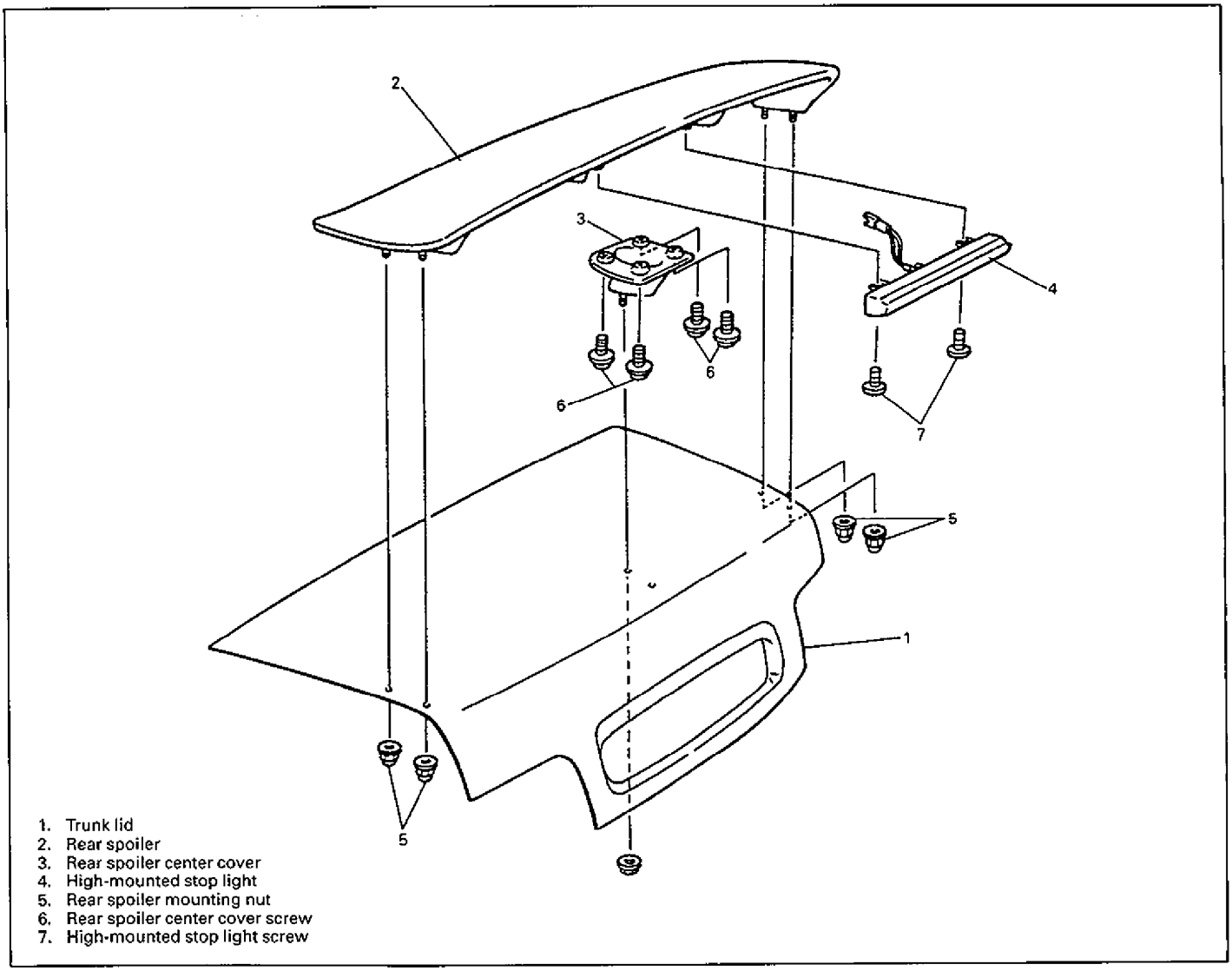
1. Screwdriver
2. Rubber weatherstrips
3. Roof lining

60A50-9A-28-1

4) Using screwdriver, pull out the rubber weatherstrips outward to be on roof lining.
Do this to where rubber weatherstrip meets the roof lining.

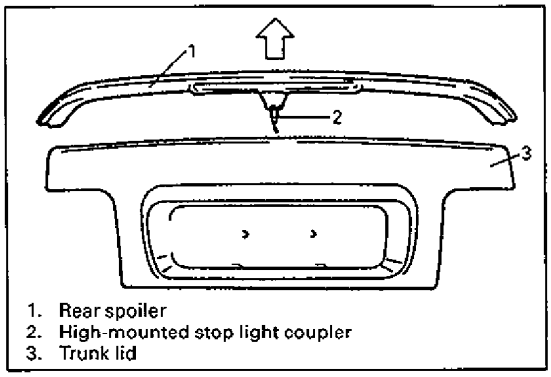
NOTE:
Move the screwdriver slowly so as not to damage the rubber weatherstrips.

REAR SPOILER AND HIGH-MOUNTED STOP LIGHT



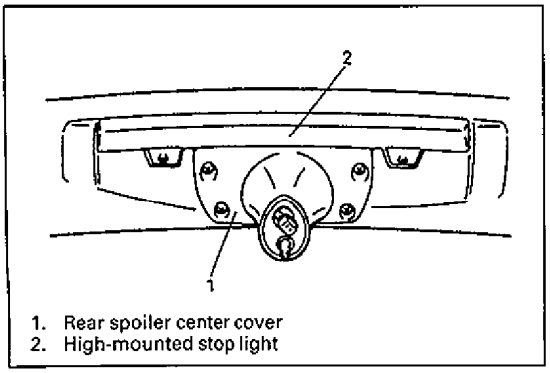
1. Trunk lid
2. Rear spoiler
3. Rear spoiler center cover
4. High-mounted stop light
5. Rear spoiler mounting nut
6. Rear spoiler center cover screw
7. High-mounted stop light screw

60A50-9A-29-1



1. Rear spoiler
2. High-mounted stop light coupler
3. Trunk lid

60A50-9A-29-4



1. Rear spoiler center cover
2. High-mounted stop light

60A50-9A-29-5

REMOVAL

1) Remove rear spoiler mounting nuts.
2) Remove high-mounted stop light coupler.
3) Remove rear spoiler assembly from trunk lid.

NOTE:
When removing rear spoiler from tnunk lid be careful not to damage the body with the studs mounted on rear spoiler.

4) Remove rear spoiler center cover.
5) Remove high-mounted stop light.

NOTE:
When working on rear spoiler, be careful not to damage the painted surface of rear spoiler.

INSTALLATION

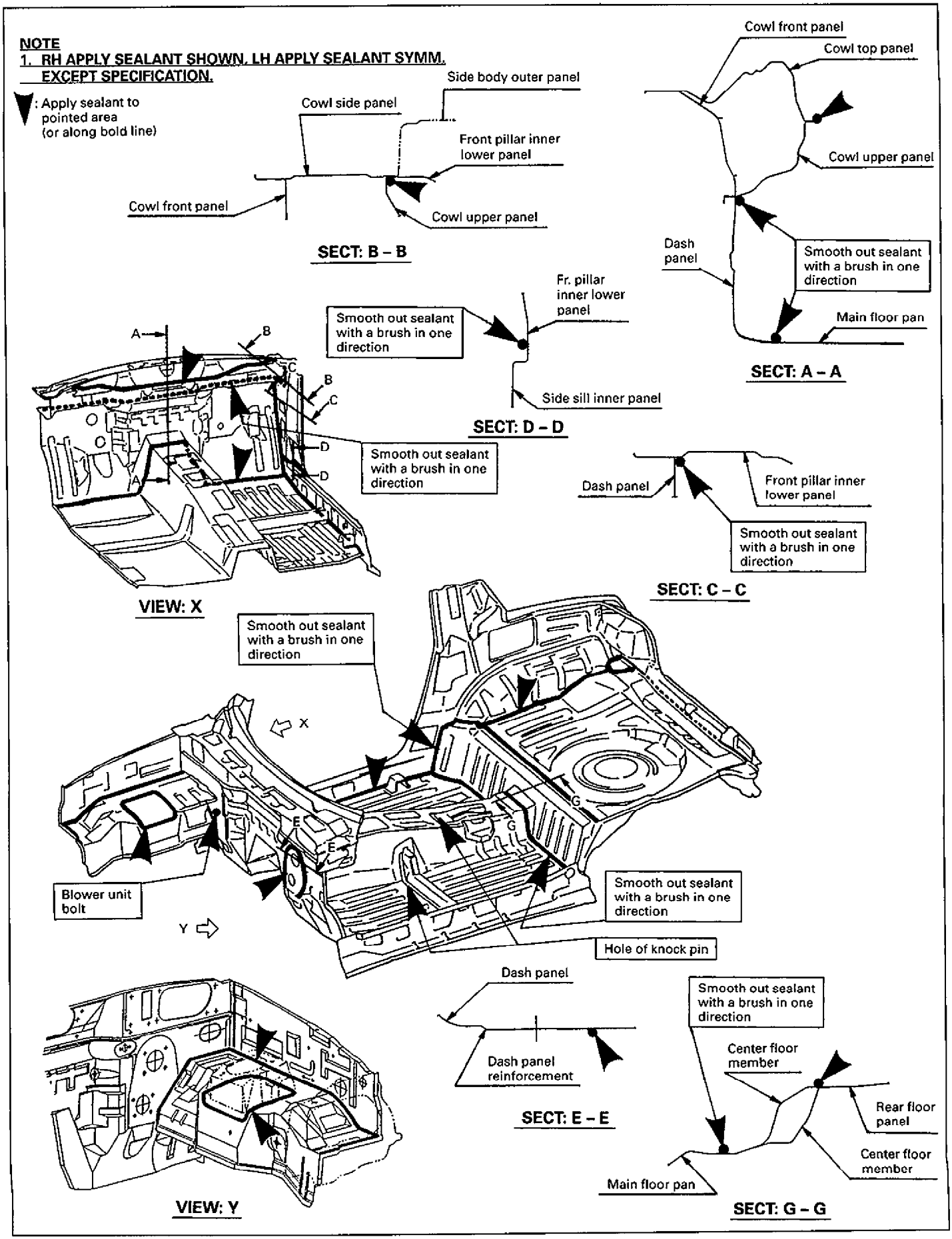
Reverse removal procedure for installation noting following point.

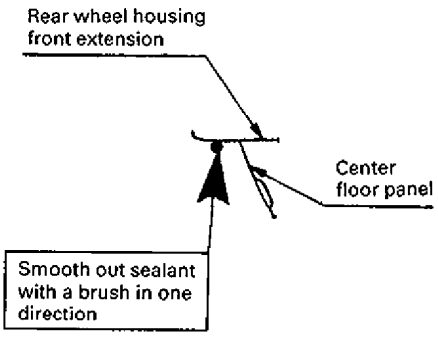
- If new adhesive is in need to install high-mounted stop light, have a size of 10 mm x 370 mm (0.4 in x 14.5 in) double-sided adhesive ready.
- Be careful not to damage the body with the studs mounted on rear spoiler.

60A50-9A-30-1

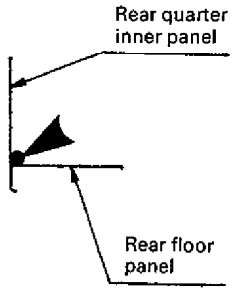
SEALANT APPLICATION AREAS

UNDERBODY SEALANT APPLICATION AREAS

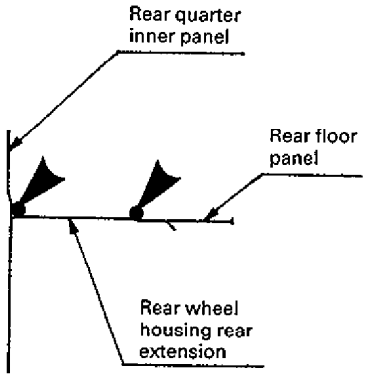




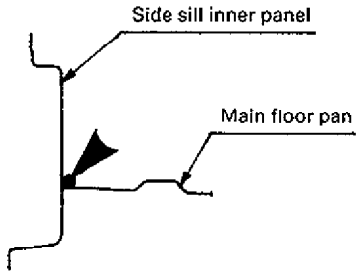
SECT: H – H



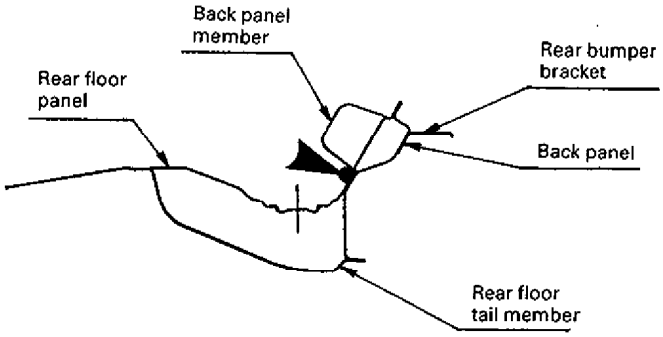
SECT: I – I



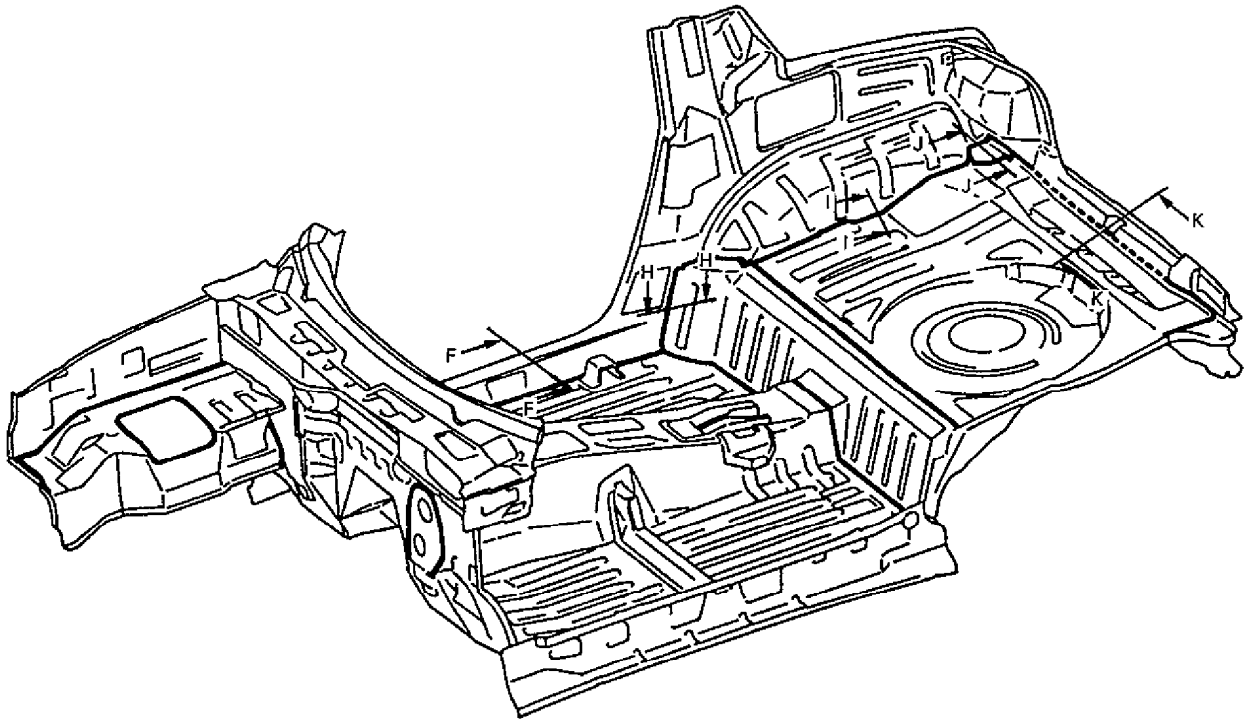
SECT: J – J



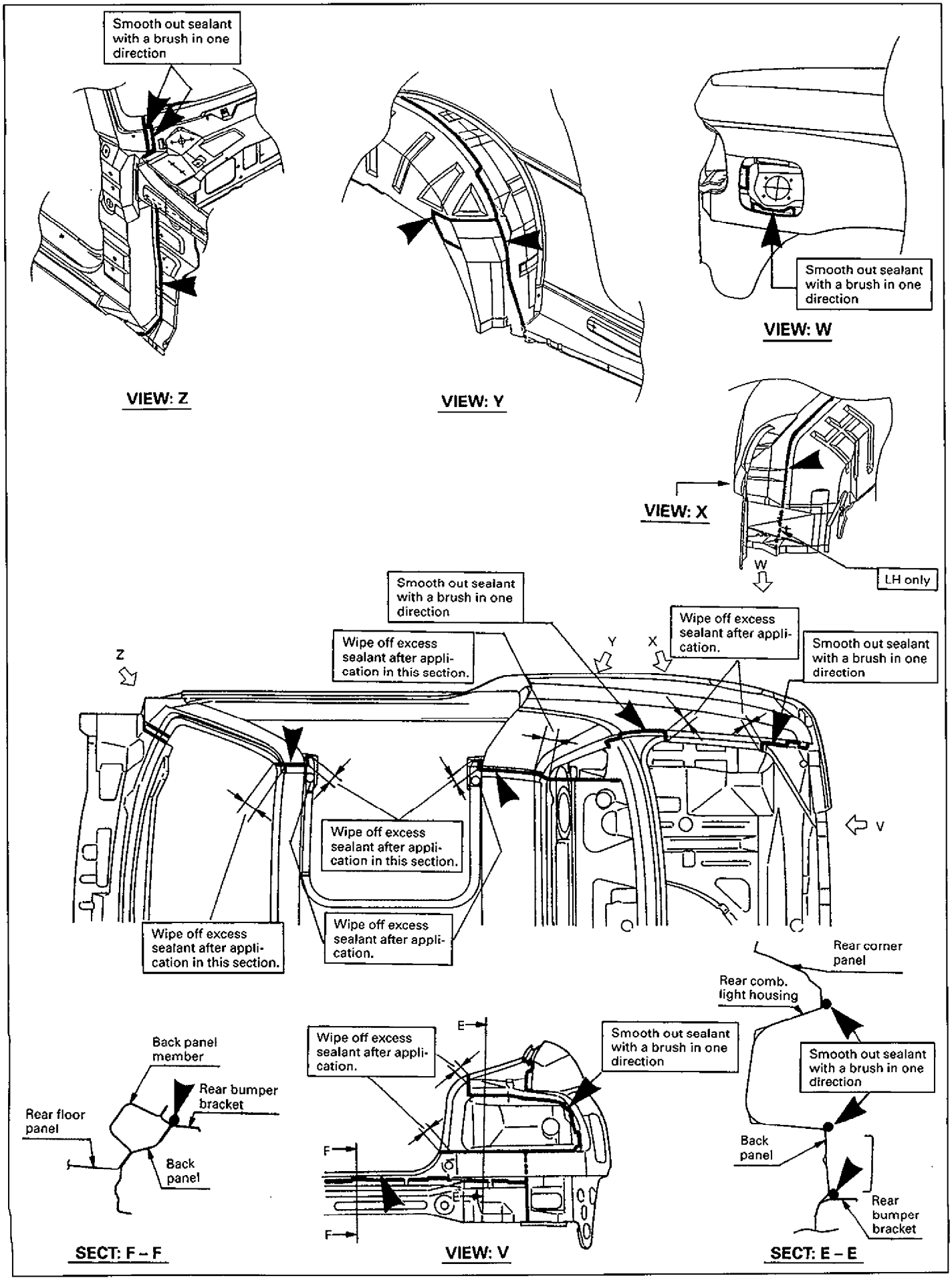
SECT: F – F

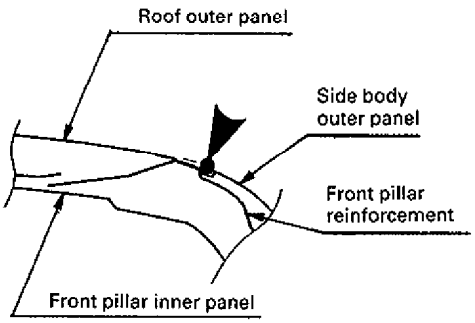


SECT: K – K

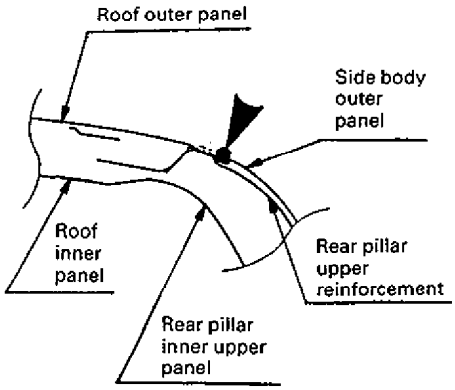


BODY SEALANT APPLICATION AREAS

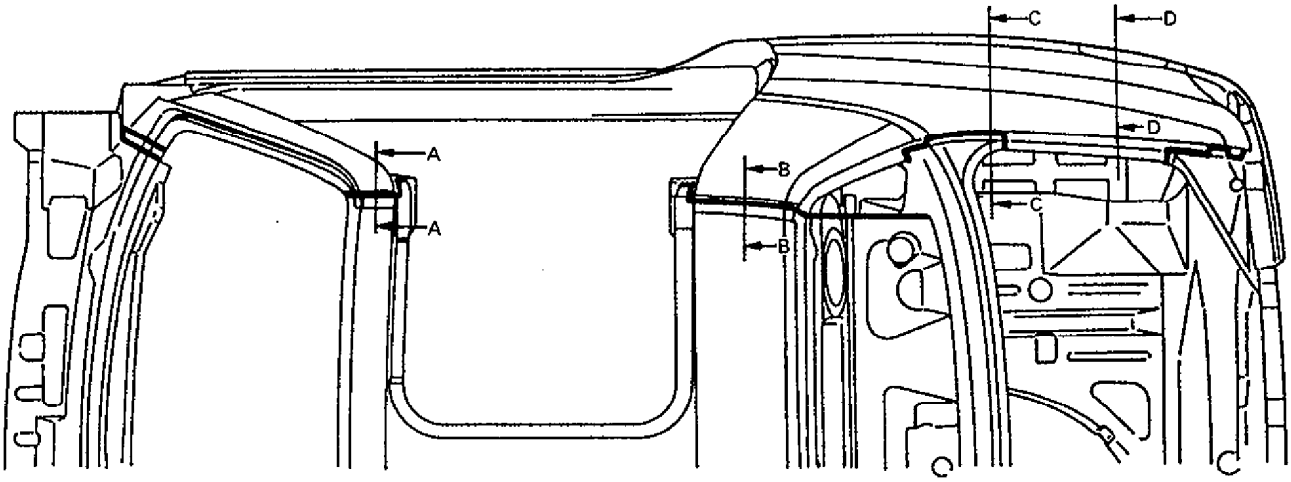


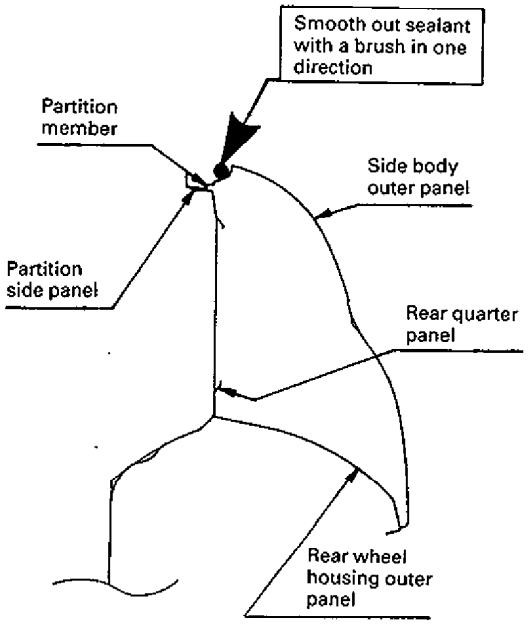


SECT: A – A

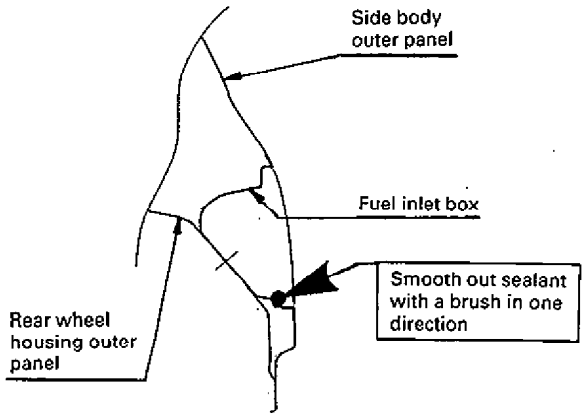


SECT: B – B



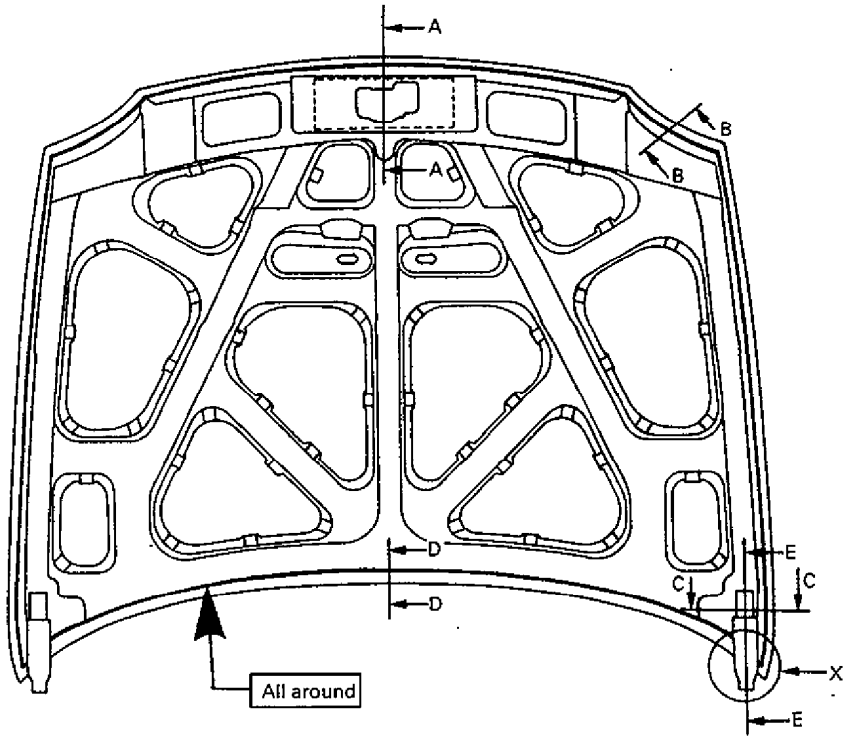


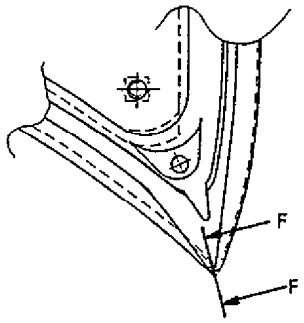
SECT: C – C



SECT: D – D

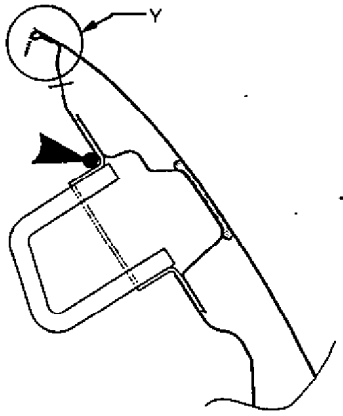
HOOD





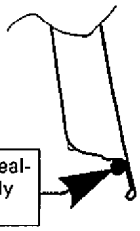
DETAIL: X

SECT: F – F

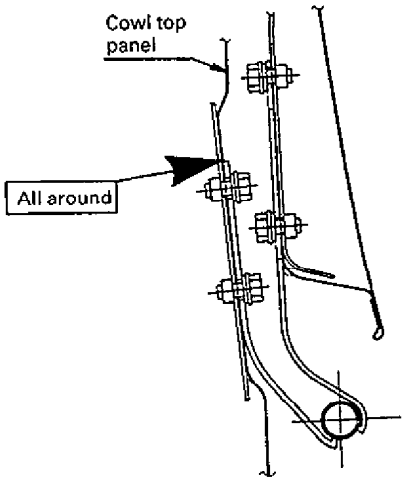


SECT: A – A

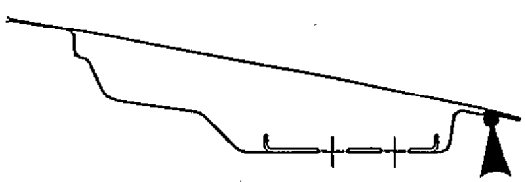
DETAIL: Y



SECT: D – D



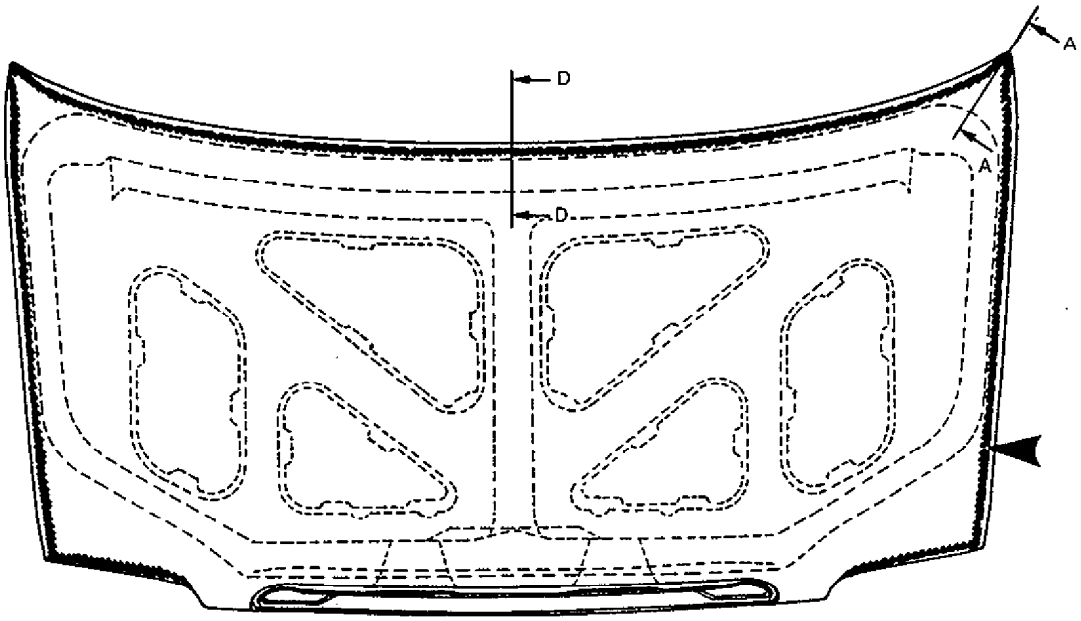
SECT: E – E

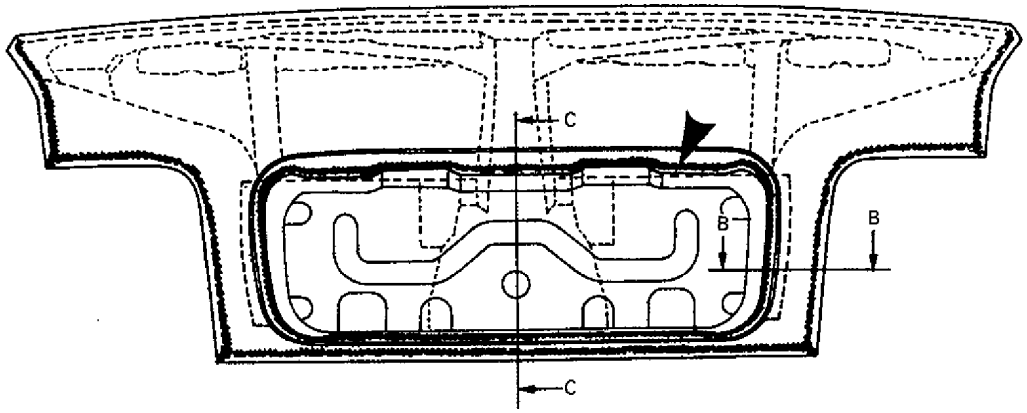


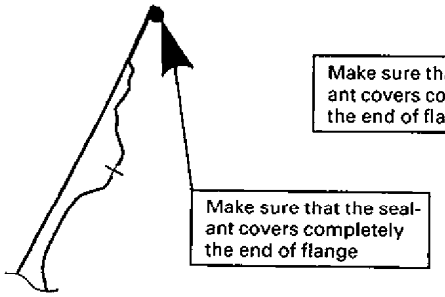
SECT: C – C

SECT: B – B

TRUNK LID







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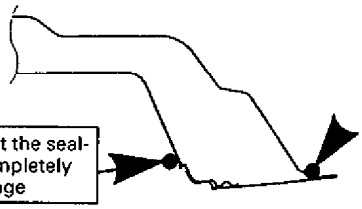

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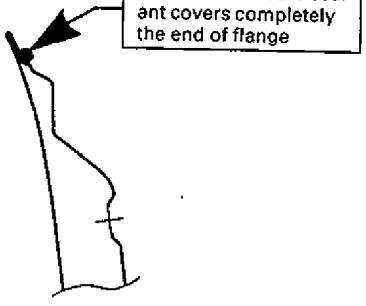
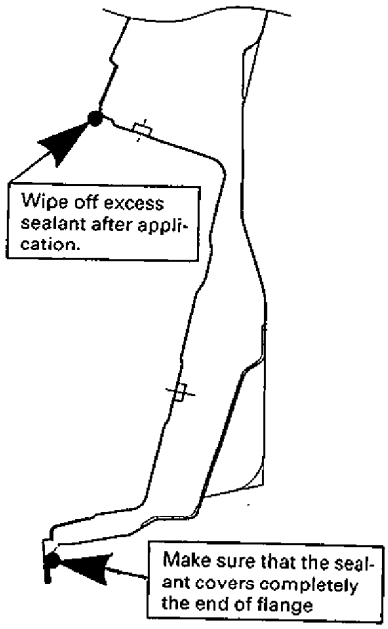


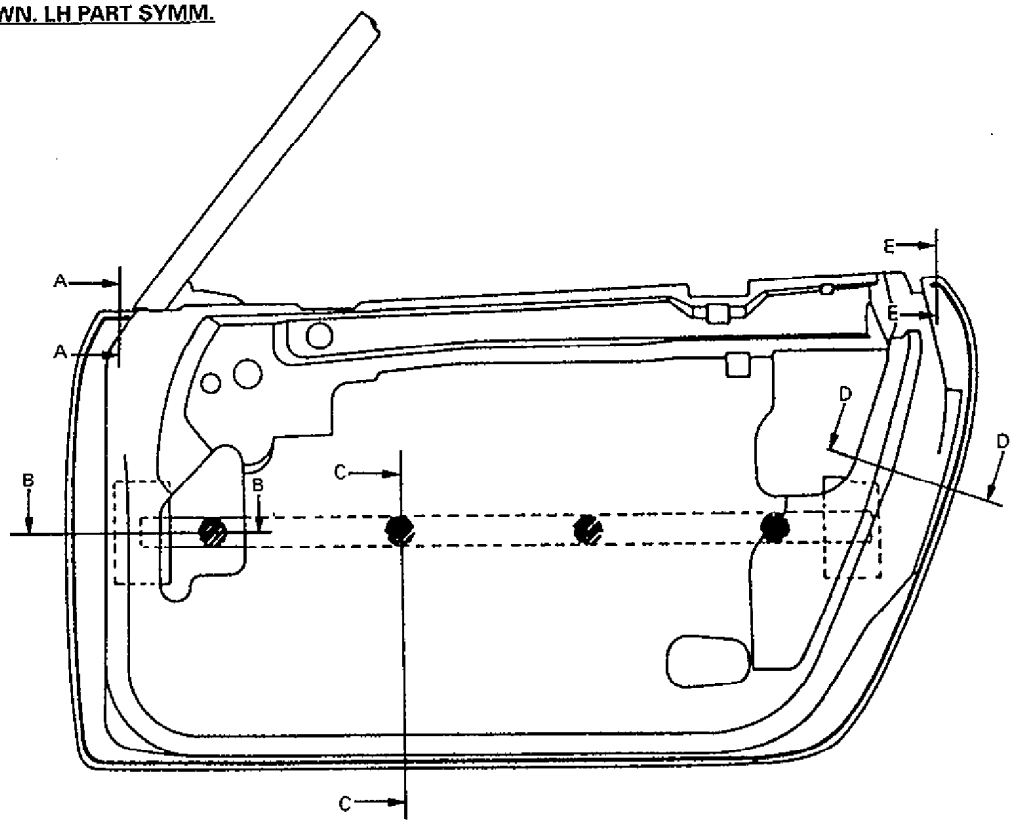
SECT: D – D



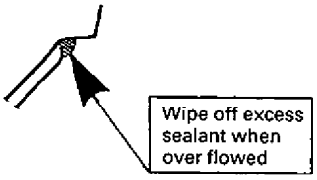
SECT: C – C

DOOR

NOTE
RH PART SHOWN. LH PART SYMM.



SECT: A – A



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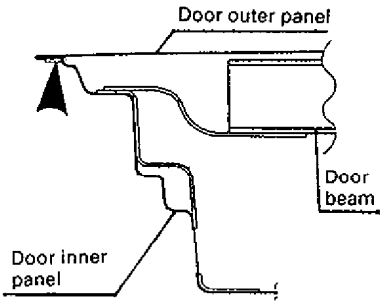

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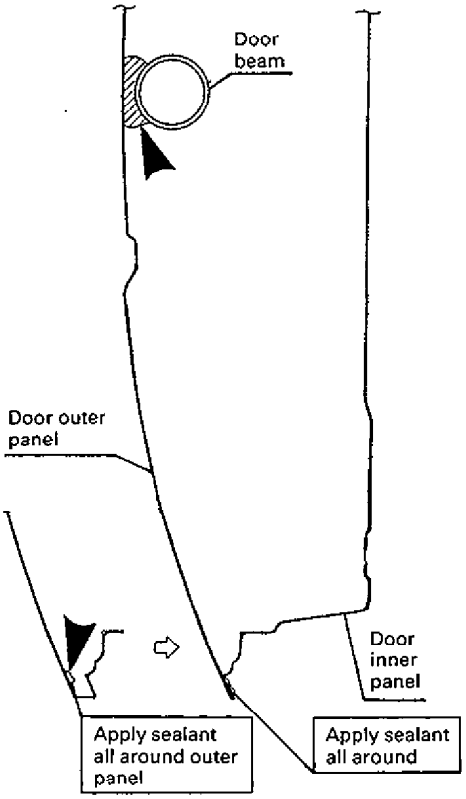

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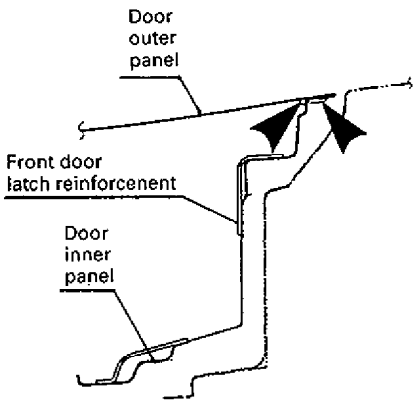
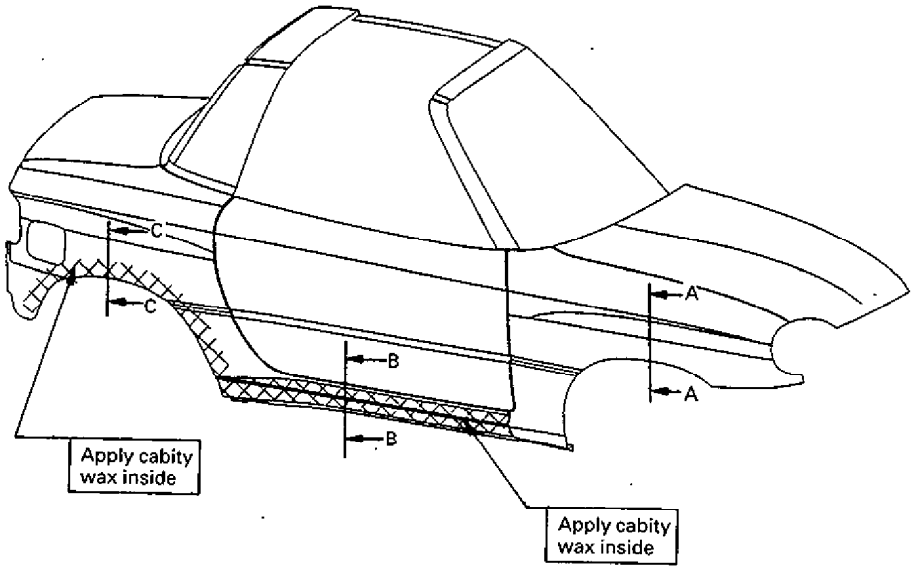
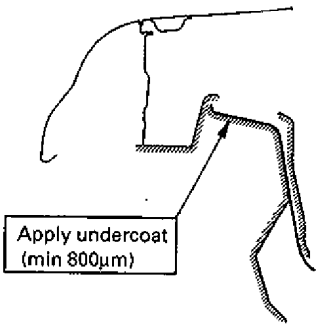


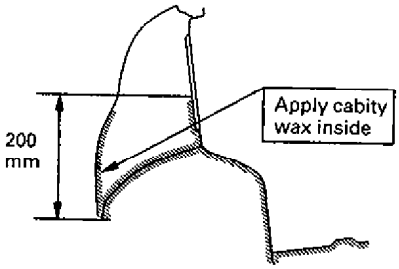
SECT: D – D

RUSTPROOF APPLICATION AREAS





SECT: A – A



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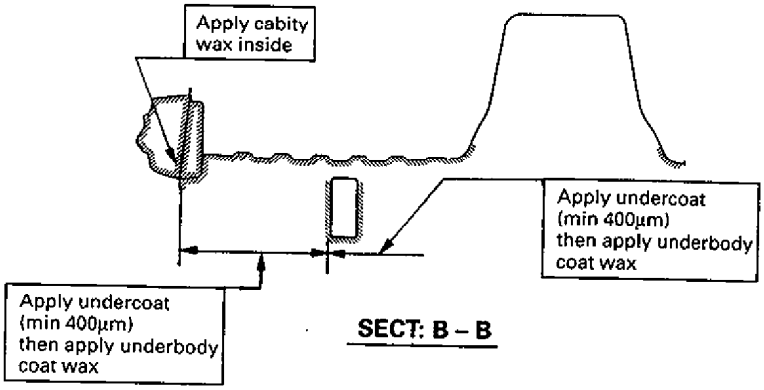
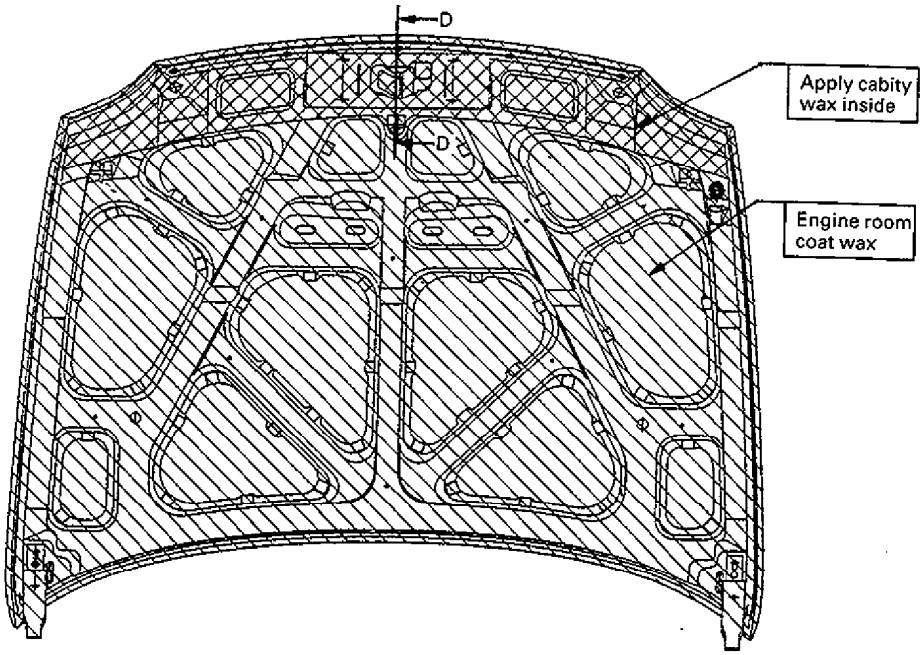
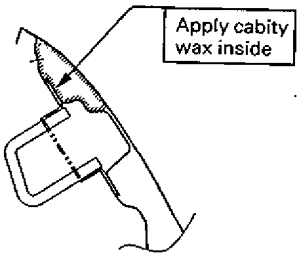


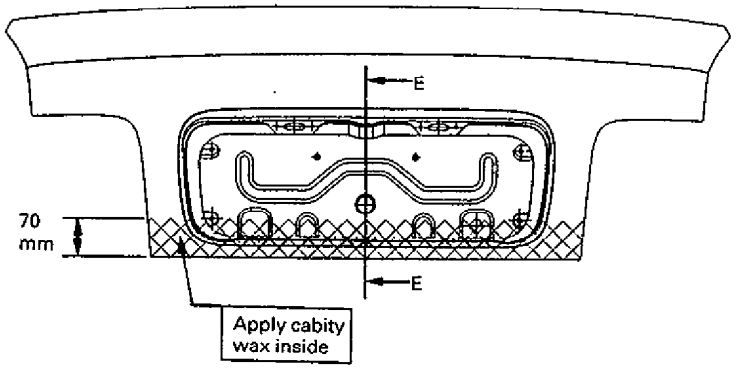
SECT: B – B



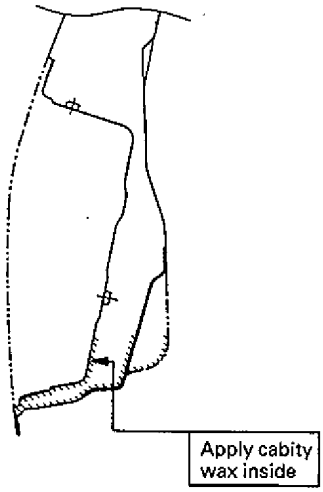
FRONT HOOD



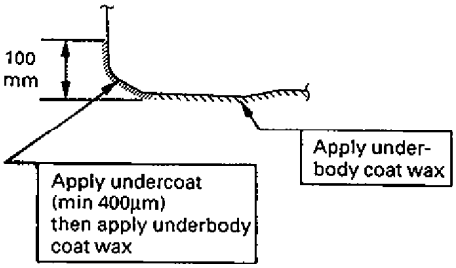
SECT: D – D



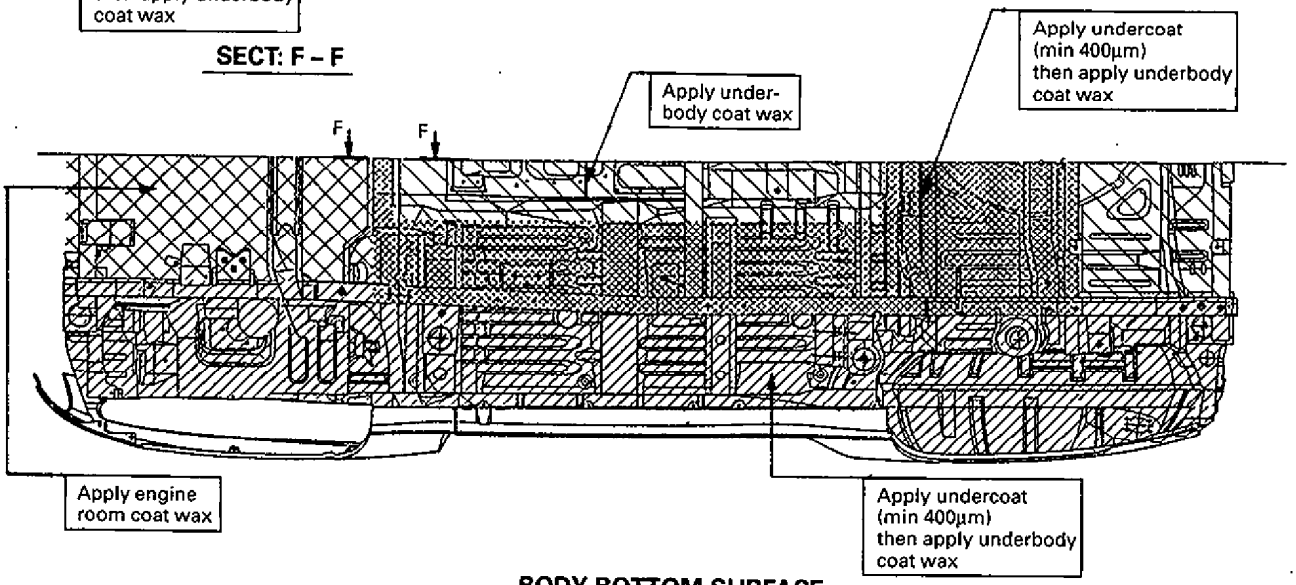
TRUNK LID



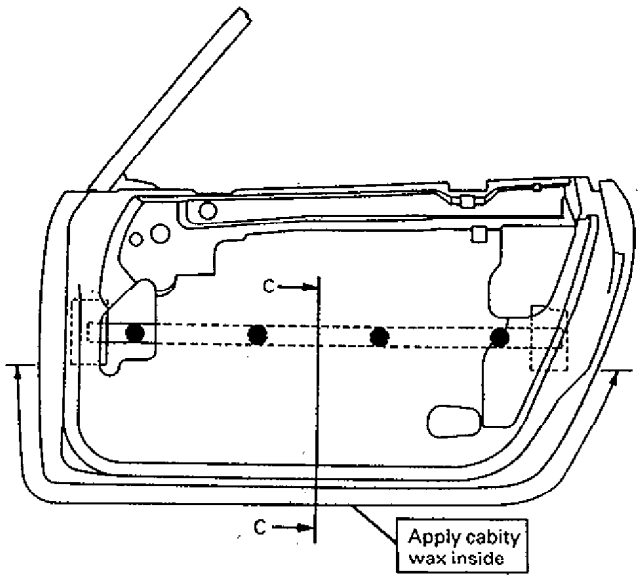
SECT: E – E



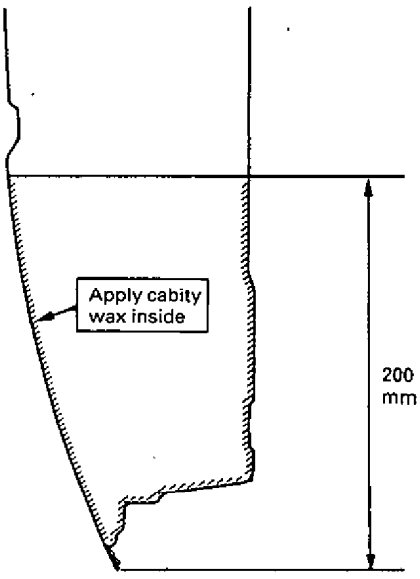
SECT: F – F



BODY BOTTOM SURFACE



DOOR

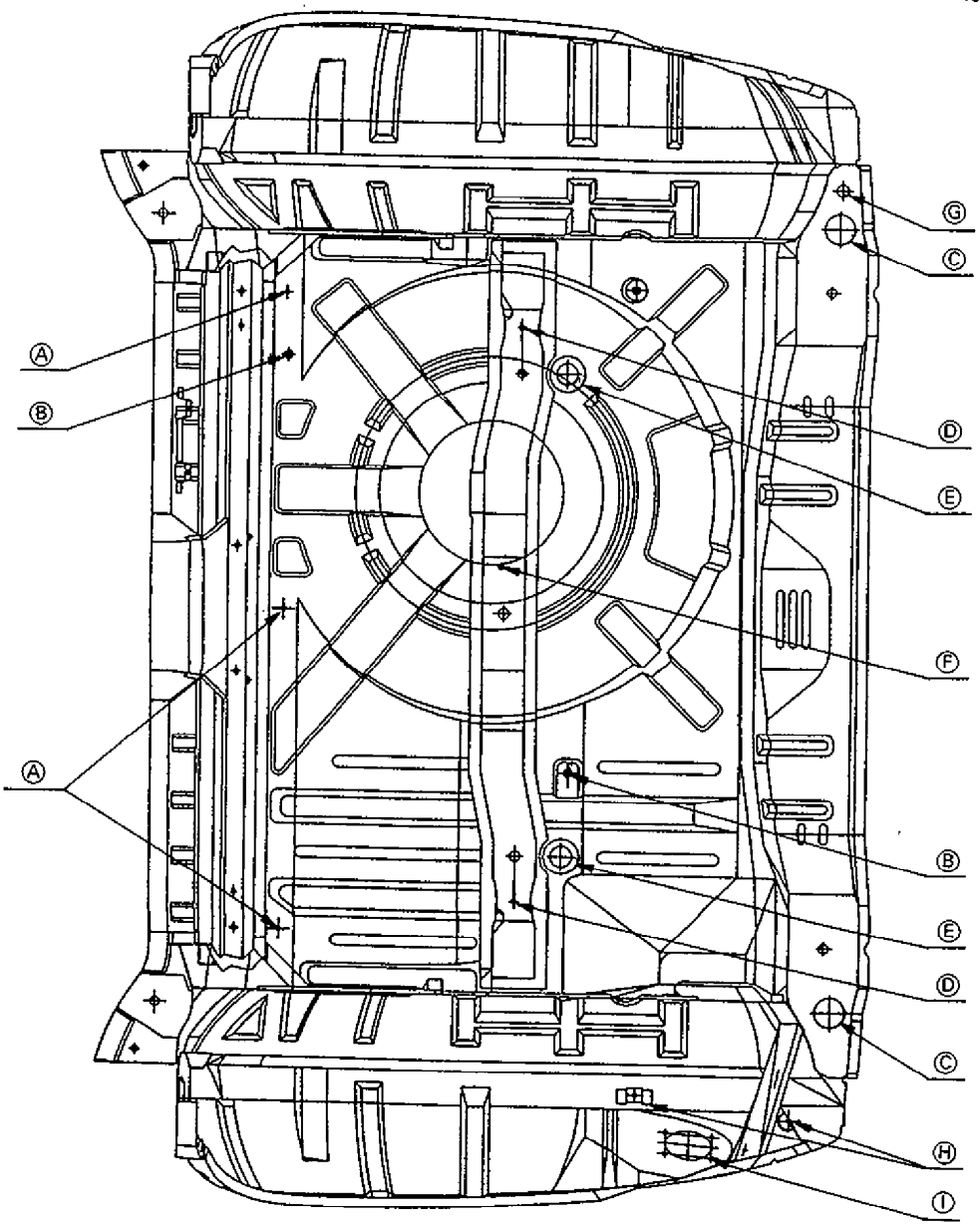


SECT: C – C

MASKING AREAS

Mask following area:

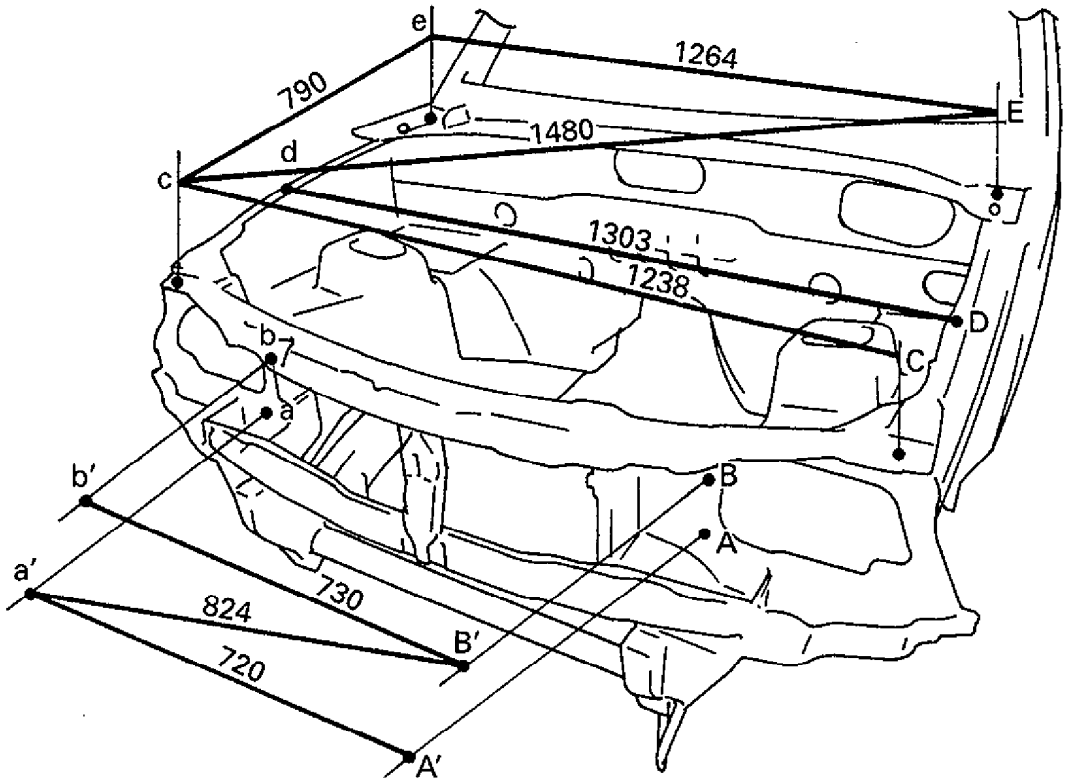
Ⓐ Hole for trunk room trim
Ⓑ Hole for trunk room strap
Ⓒ Hole for wire harness
Ⓓ Hole for body mount
Ⓔ Hole for drain
Ⓕ Hole for ABS harness
Ⓖ Hole for breather hose
Ⓗ Mating surface for fuel protector
Ⓘ Mating surface for fuel neck



REAR FLOOR PANEL

BODY DIMENSIONS

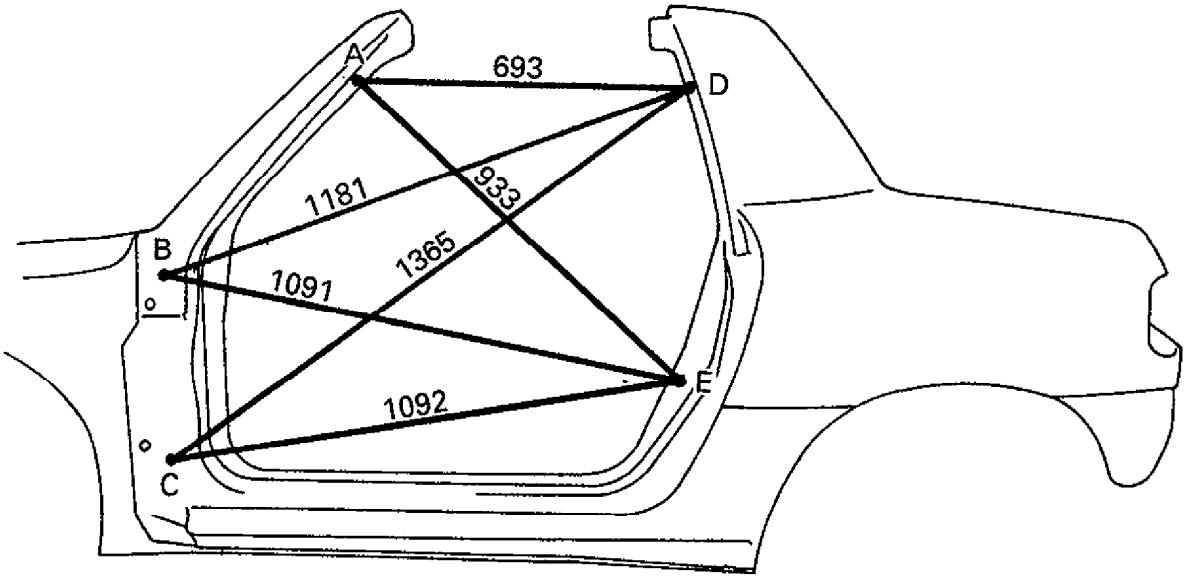
NOTE:
The right and left measurements are equal.



UNIT = mm

Code	Measurement location	Hole diameter (mm)	Code	Measurement location	Hole diameter (mm)
A, a	Lamp support panel reference hole	ø7	D, d	Front fender panel fitting nut hole (on front fender apron)	–
B, b	Lamp support panel reference hole	ø7	E, e	Hood hinge fitting nut hole (rear)	–
C, c	Front panel fitting nut hole (edge) (on front upper member)	–			

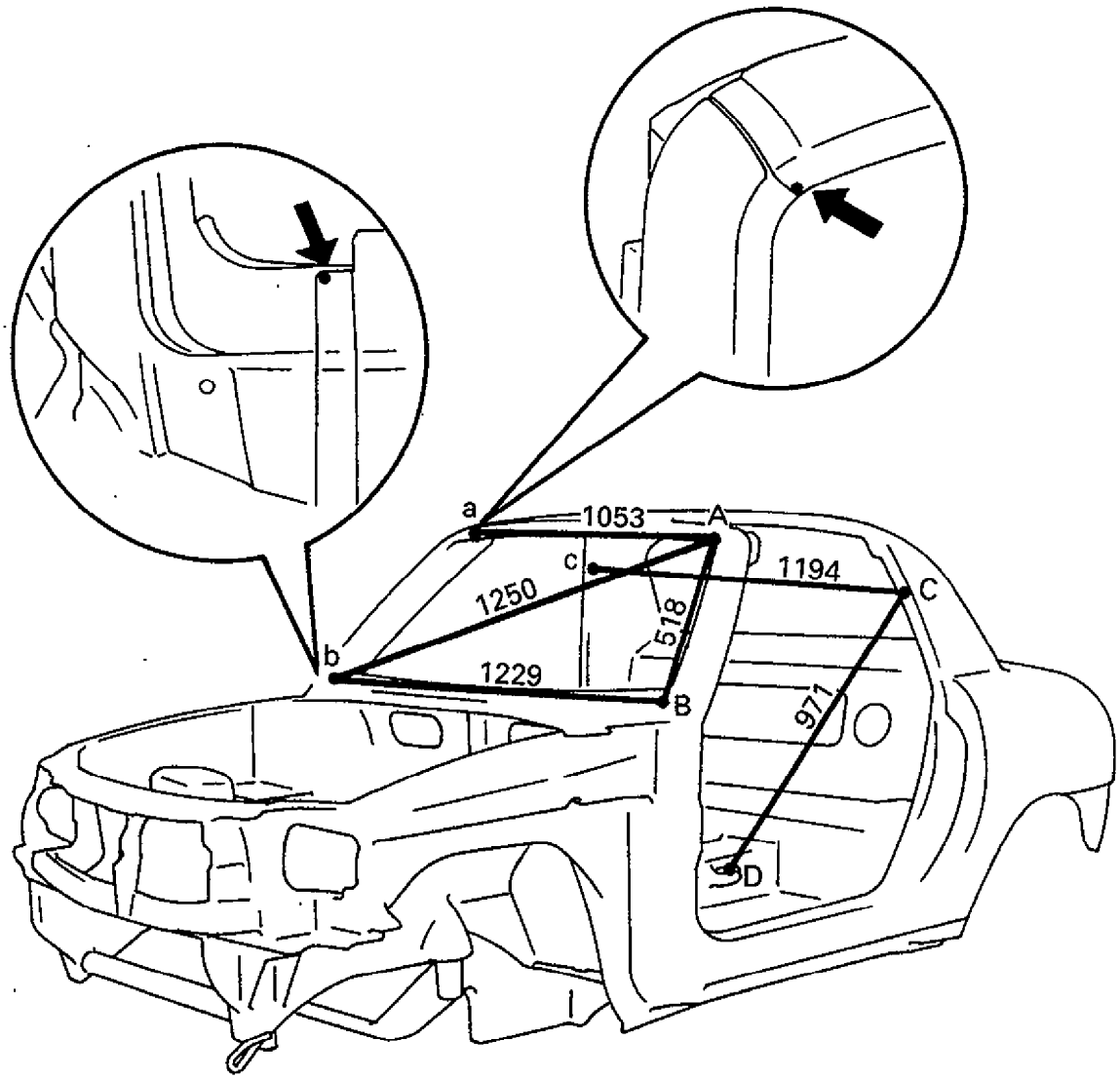
NOTE:
The right and left measurements are equal



UNIT = mm

Code	Measurement location	Hole diameter (mm)	Code	Measurement location	Hole diameter (mm)
A	Side body outer panel reference hole	ø7	D	Side body outer panel reference hole	ø7
B	Front door hinge fitting nut hole (Upper)	–	E	Side body outer panel reference hole	ø7
C	Front door hinge fitting nut hole (Lower)	–			

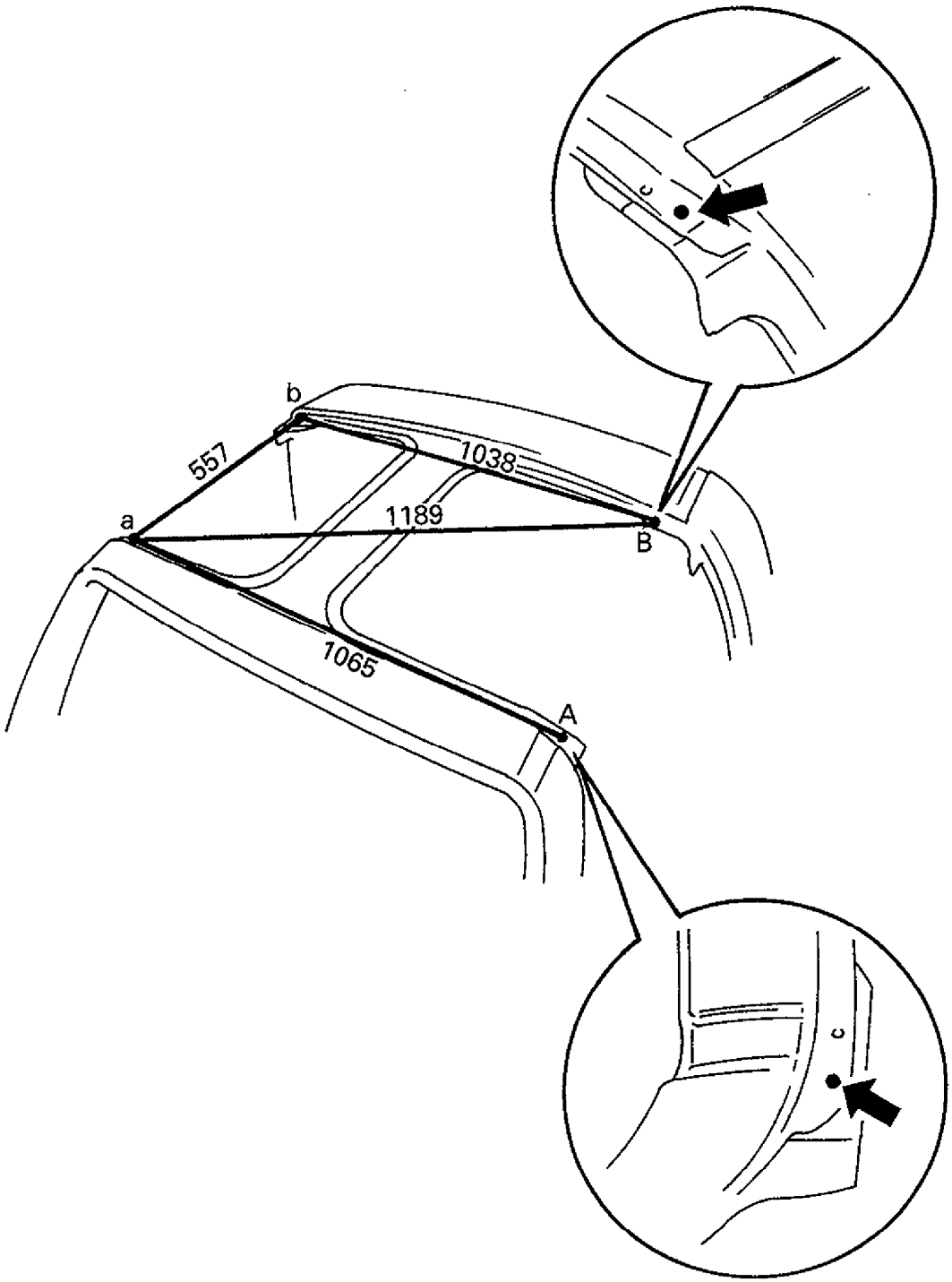
NOTE:
The right and left measurements and equal.



UNIT = mm

Code	Measurement location	Hole diameter (mm)
A, a	Roof panel edge	–
B, b	Cowling panel upper edge	–
C, c	Side body outer panel reference hole	ø7
D, d	Front seat slide inner adjuster fitting nut hole (Rear)	–

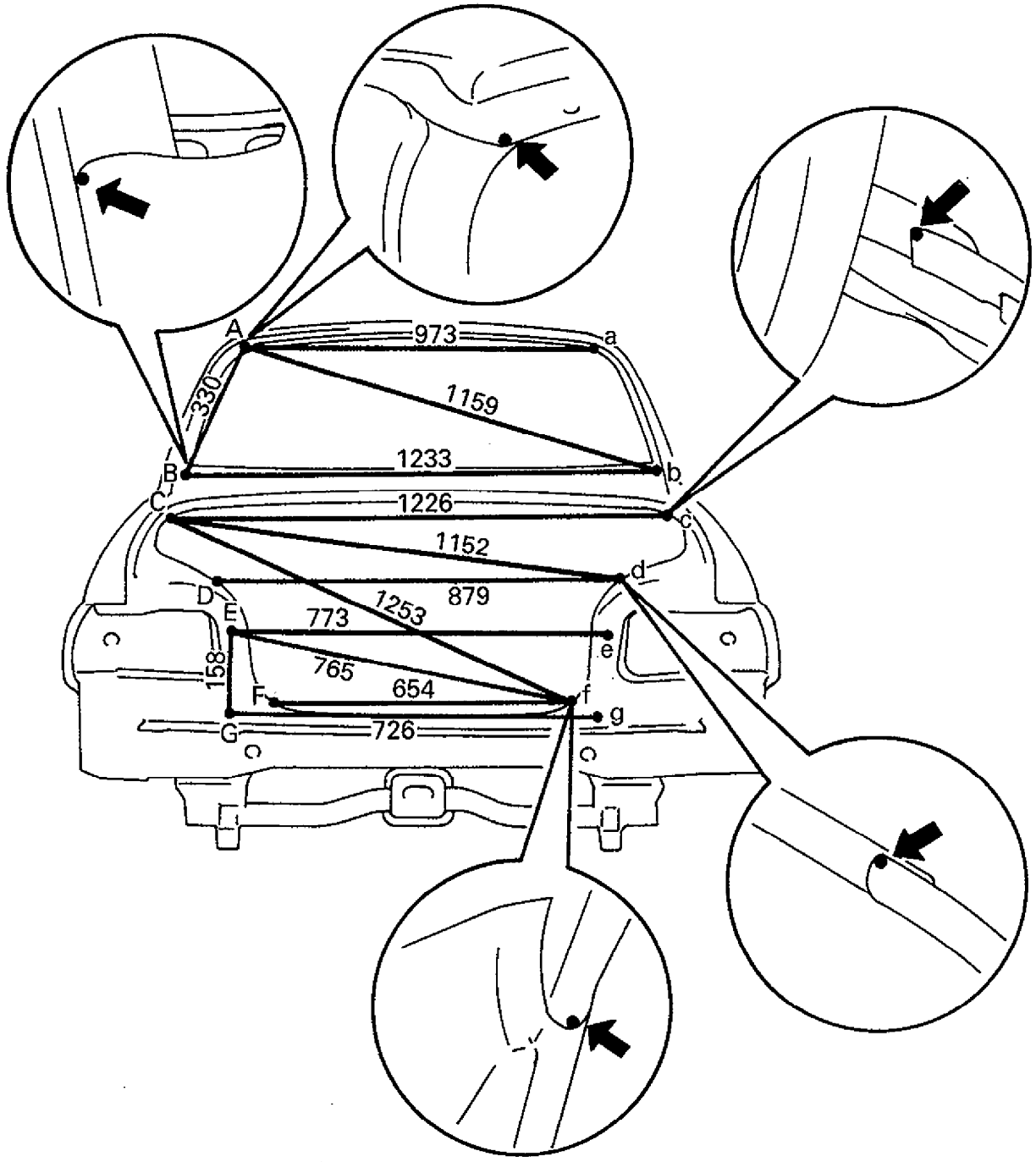
NOTE:
The right and left measurements are equal.



UNIT = mm

Code	Measurement location
A, a	Roof outer panel hole (outer)
B, b	Roof outer panel hole (outer)

NOTE:
The right and left measurements are equal.



UNIT = mm

Code	Measurement location	Hole diameter (mm)	Code	Measurement location	Hole diameter (mm)
A, a	Roof outer panel edge	–	E, e	Rear combination light fitting nut hole	–
B, b	Partition member edge	–	F, f	Rear combination light panel edge (upper)	–
C, c	Side body outer panel edge	–	G, g	Back side extension nut hole	–
D, d	Rear combination light panel edge (lower)	–			

SECTION 9J

AIR BAG SYSTEM (OPTIONAL)

WARNING:
This vehicle is equipped with a Supplemental Inflatable Restraint Air Bag System. Service on or around Air Bag System Components or Wiring must be performed only by and authorized Suzuki dealer. Please observe all WARNINGS, CAUTIONS, SERVICE PRECAUTIONS, HANDLING PRECAUTIONS and DISPOSAL PRECAUTIONS in this section under "On-Vehicle Service" and the Air Bag System Component and Wiring Location view in this section before performing service on or around Air Bag System Components or Wiring. Failure to follow WARNINGS could result in unintended air bag deployment or could render the air bag inoperative. Either of these two conditions may result in severe injury.

CAUTION:
When fasteners are removed, always reinstall them at the same location from which they were removed. If a fastener needs to be replaced, use the correct part number fastener for that application. If the correct part number fastener is not available, a fastener of equal size and strength (or stronger) may be used. Fasteners that are not reused, and those requiring thread-locking compound, will be called out. The correct torque value must be used when installing fasteners that require it. If the above conditions are not followed, parts or system damage could result.

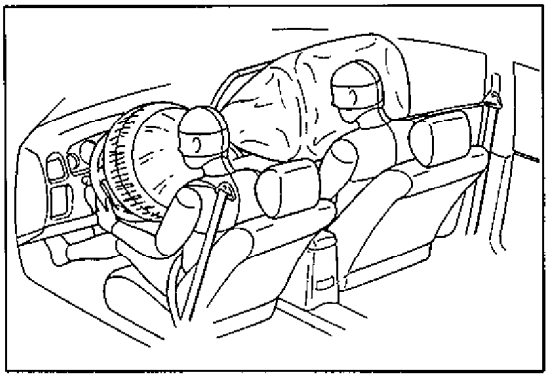
79E00-9J-1-1

CONTENTS

79E00-9J-1-2

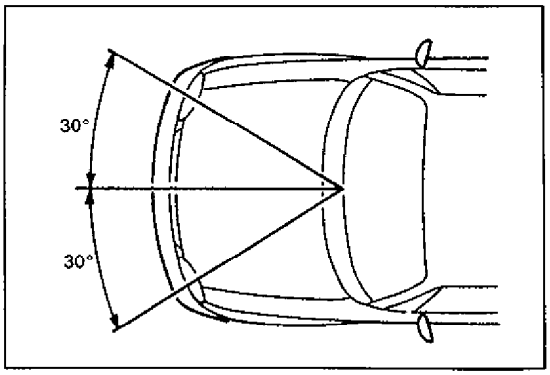
79E00-9J-2-1

GENERAL DESCRIPTION



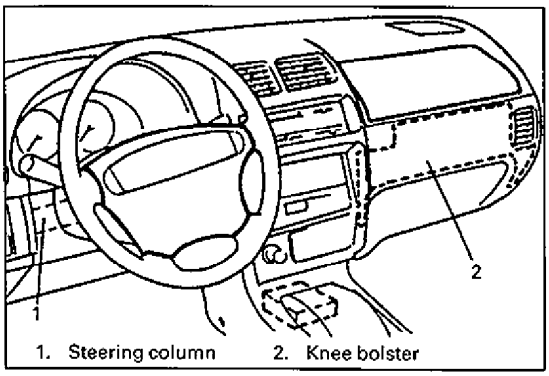
79E00-9J-3-1

The Supplemental Inflatable Restraint Air Bag System helps supplement the protection offered by the driver and front passenger seat belts by deploying an air bag from the center of the steering wheel and from the top of the instrument panel in front of passenger.



79E00-9J-3-2

The air bag deploys when the vehicle is involved in a frontal crash of sufficient force up to 30 degrees off the centerline of the vehicle.

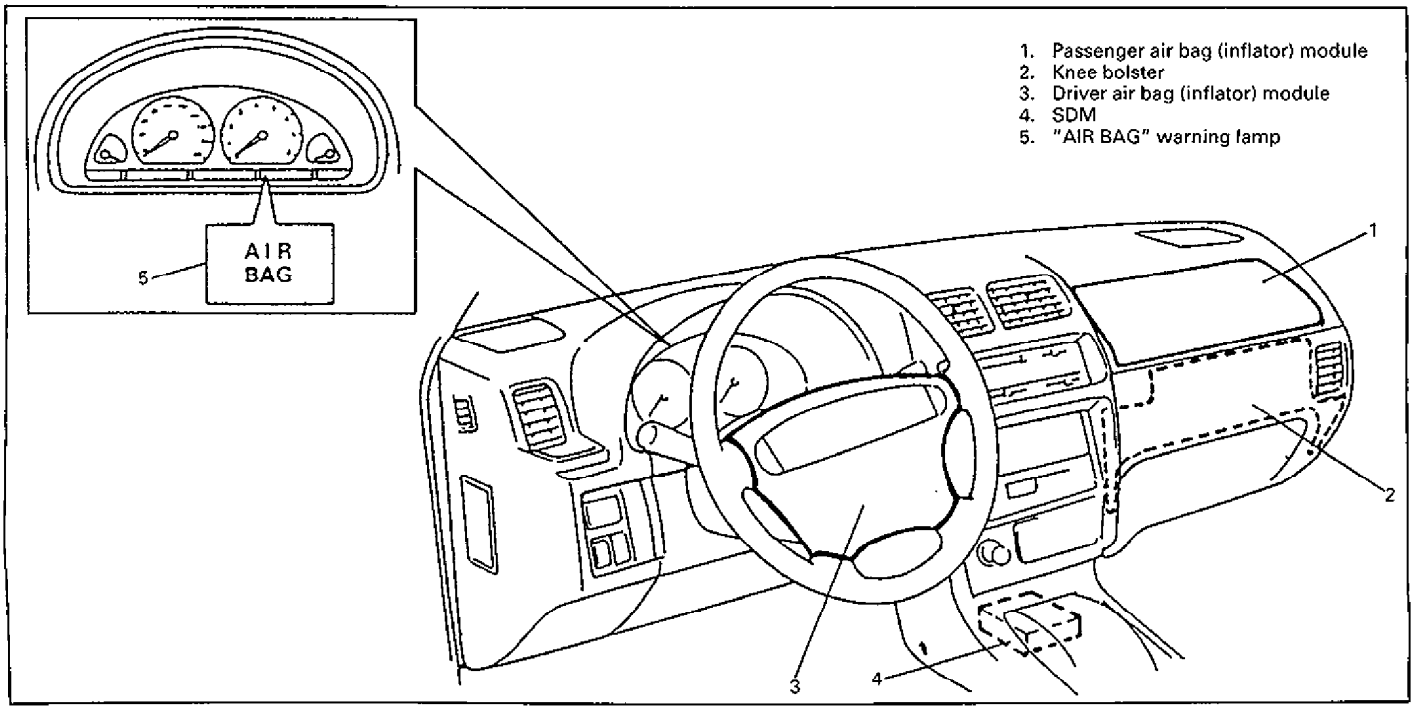


1. Steering column 2. Knee bolster

79E00-9J-3-3

To further absorb the crash energy there is a knee bolster located beneath the instrument panel for both the driver and passenger and the steering column is collapsible.

AIR BAG SYSTEM COMPONENTS



79E00-9J-3-4

AIR BAG SYSTEM DESCRIPTION

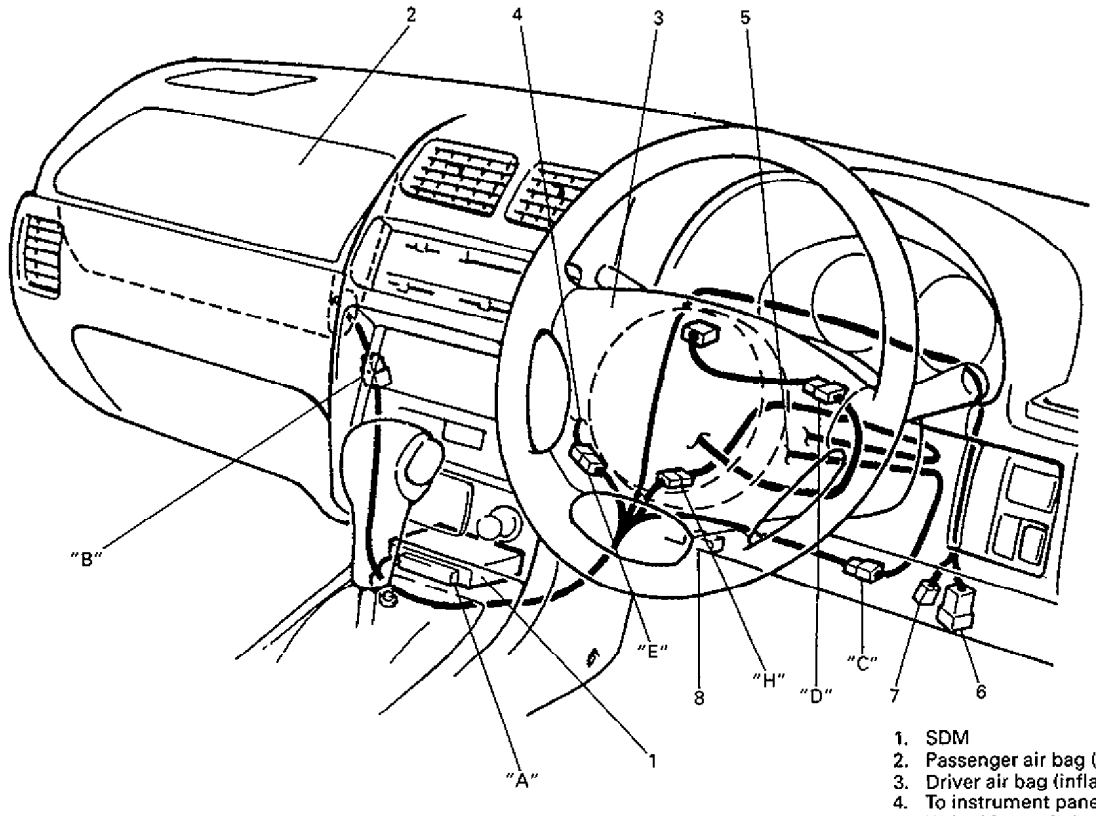
The air bag system consists of the Sensing and Diagnostic Module (SDM), the driver air bag (inflator) module, the contact coil assembly, the passenger air bag (inflator) module and the "AIR BAG" warning lamp in the instrument cluster. The SDM, contact coil assembly (driver side only), driver air bag (inflator) module, passenger air bag (inflator) module and connector wires make up the deployment loops. The function of the deployment loops is to supply current through the air bag (inflator) modules, which will cause deployment of the air bags in the event of a frontal crash of sufficient force, up to 30 degrees off the centerline of the vehicle. The air bag (inflator) modules are only supplied enough currect to deploy when the SDM detect vehicle velocity changes severe enough to warrant deployment.

The SDM contains a sensing device which converts vehicle velocity changes to an electrical signal. The electrical signal generated is processed by the SDM and then compared to a value stored in memory. When the generated signal exceeds the stored value, additional signal processing is performed and the generated signals are compared to signals stored in memory. When two of the generated signals exceed the stored values, the SDM will cause current to flow through the air bag (inflator) modules deploying the air bags.

79E00-9J-4-1

SYSTEM WIRING LOCATION VIEW AND CONNECTORS

For Right Hand Steering Vehicle

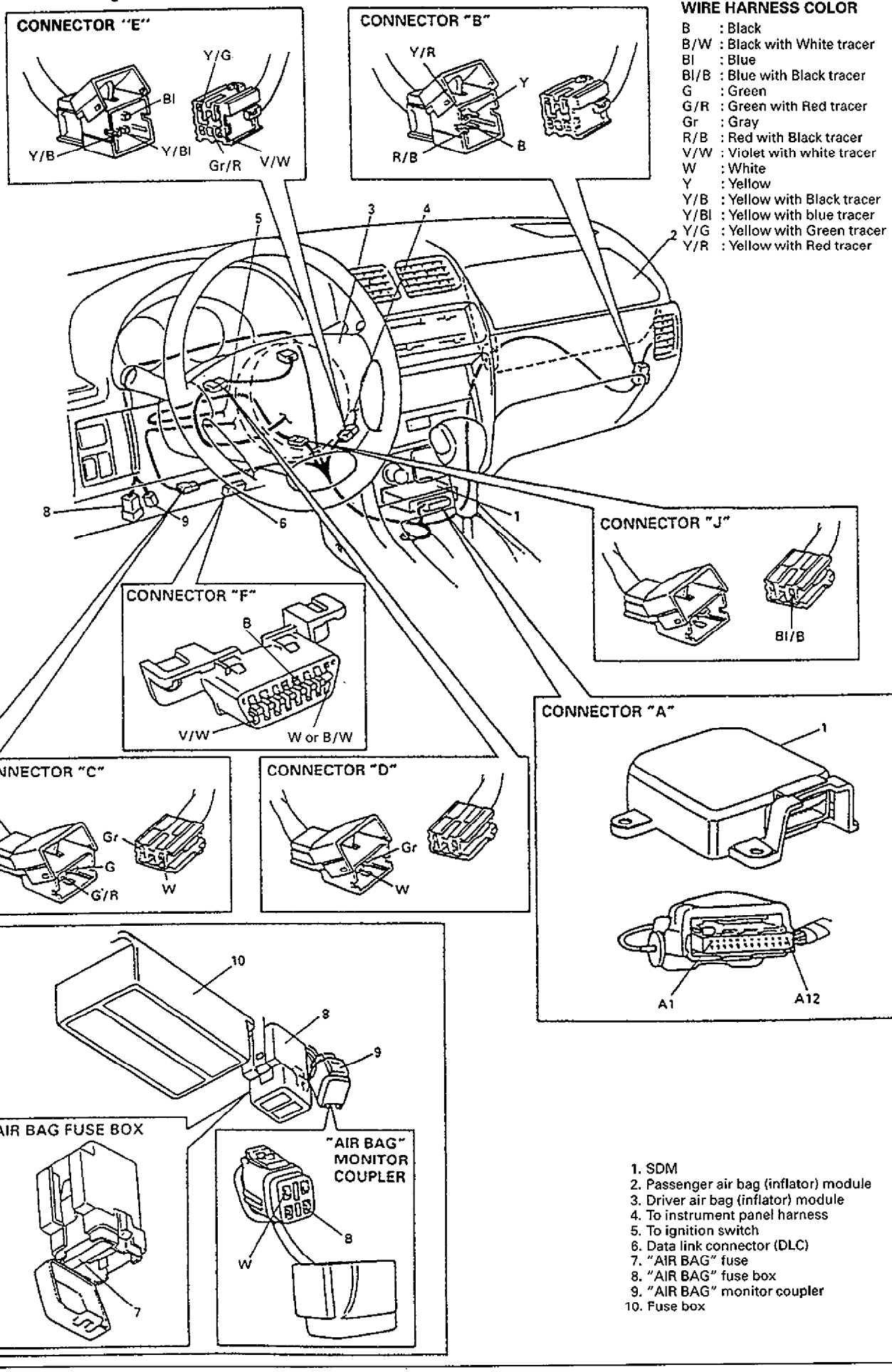


"A"~"E", "H" : Connector

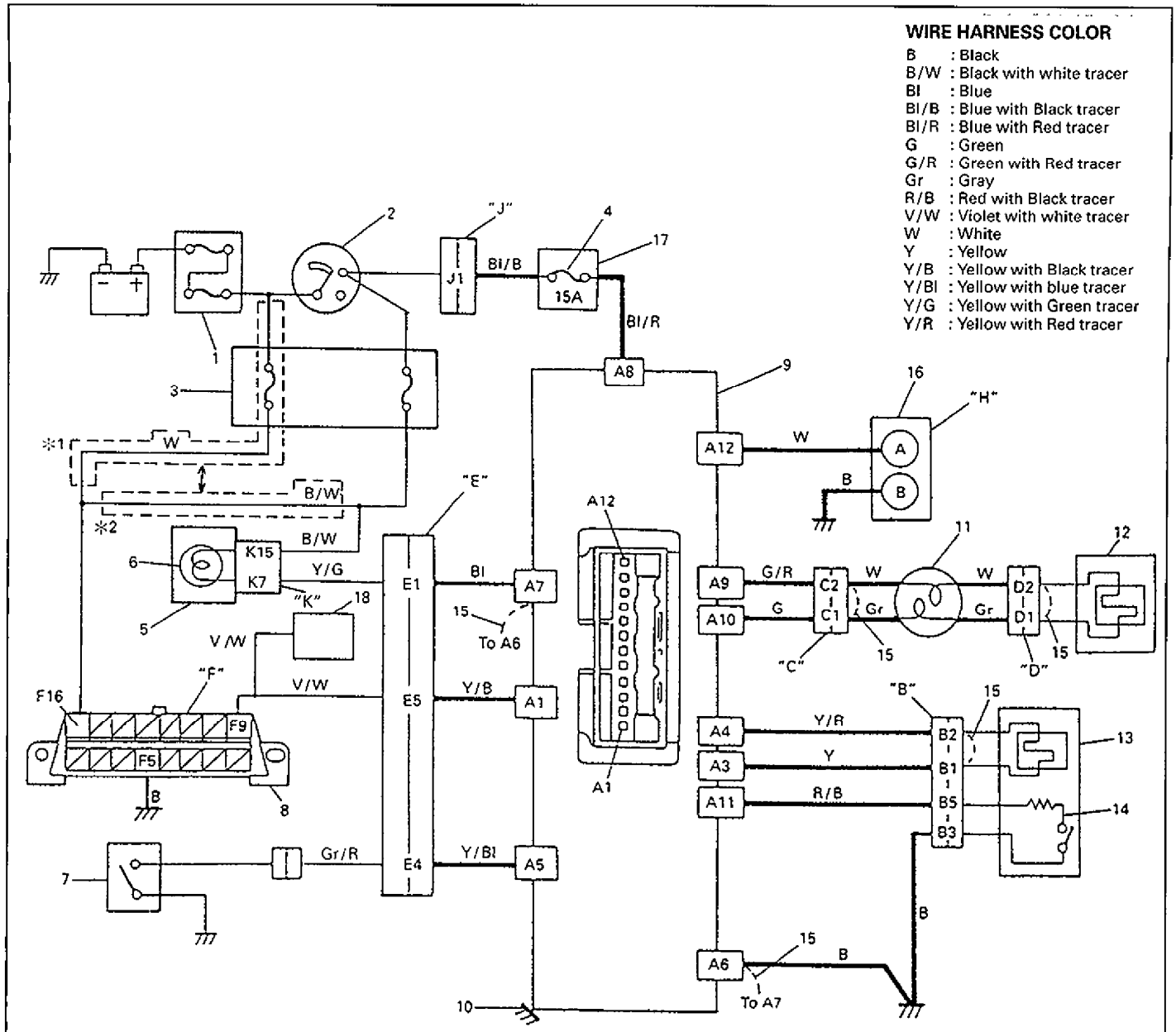
1. SDM
2. Passenger air bag (inflator) module
3. Driver air bag (inflator) module
4. To instrument panel harness
5. To ignition switch
6. "AIR BAG" fuse box
7. "AIR BAG" monitor coupler
8. Data link connector (DLC)

NOTE:
For detail of couplers and fuse, refer to next page.

For Left Hand Steering Vehicle



SYSTEM WIRING DIAGRAM



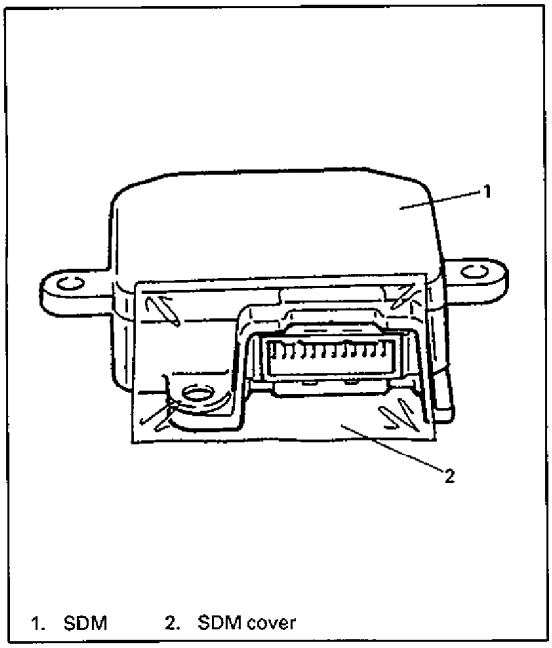
"A" ~ "F", "H", "J" ~ "K" : Connector
—— : Air bag harness (Covered with Yellow tube)

*1: Without immobilizer system
*2: With immobilizer system

1. Main fuse box
2. Main switch (ignition switch)
3. Fuse box
4. "AIR BAG" fuse
5. Combination meter
6. "AIR BAG" warning lamp
7. Seat belt switch
8. Data link connector (DLC)
9. SDM
10. Case ground
11. Contact coil
12. Driver air bag (inflator) module
13. Passenger air bag (inflator) module
14. Low pressure sensor
15. Shorting bar
16. "AIR BAG" monitor coupler
17. "AIR BAG" fuse box
18. ABS control module (Electronic brake control module) (if equipped)

CONNECTOR "A"

PIN. NO.	SDM TERMINATION	
A1	Serial data link connector	
A2	——	
A3	Passenger initiator circuit	Low
A4		High
A5	Driver seat belt switch	
A6	Ground	
A7	"AIR BAG" warning lamp	
A8	Ignition (Power source)	
A9	Driver initiator circuit	High
A10		Low
A11	Low pressure sensor	
A12	Diagnosis switch	



1. SDM 2. SDM cover

60A50-9J-7-1

COMPONENT DESCRIPTION

SDM (SENSING AND DIAGNOSTIC MODULE)

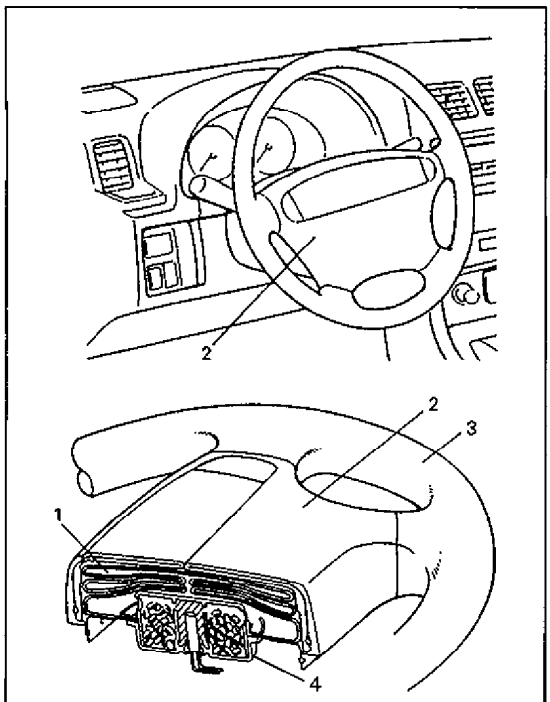
WARNING:
- **During service procedures, be very careful when handling a Sensing and Diagnostic Module (SDM).**
- **Be sure to read "SERVICE PRECAUTIONS" and "HANDLING PRECAUTIONS" before starting to work and observe every precaution during work. Neglecting them may result in personal injury or undeployment of the air bag when necessary.**

CAUTION:
After detecting one time of such collision as to meet deployment conditions, the SDM must not be used.
Refer to "DIAGNOSIS" when checking the SDM.

The Sensing and Diagnostic Module (SDM) is designed to perform the following functions in the air bag system:

1) Energy Reserve
   - The SDM maintains a reserve energy supply to provide deployment energy after ignition voltage is lost in a frontal crash.
2) Frontal Crash Detection
   - The SDM monitors vehicle velocity changes to detect frontal crashes which are severe enough to warrant deployment.
3) Air Bag Deployment
   - When a frontal crash of sufficient force is detected, the SDM will cause enough current to flow through the air bag (inflator) modules to deploy the air bags.
4) Frontal Crash Recording
   - The SDM records information regarding the air bag system status during a frontal crash.
5) Malfunction Detection
   - The SDM performs diagnostic monitoring of the air bag system electrical components and sets a diagnostic trouble code when a malfunction is detected.
6) Malfunction Diagnosis
   - ● The SDM displays air bag diagnostic trouble codes and system status information through the use of special tool (Tech-1, scan tool).
   - ● The SDM provides air bag diagnostic trouble codes by flashing "AIR BAG" warning lamp when on-board diagnosis function is used (Diagnosis switch terminal is ground.).
7) Driver Notification
   - The SDM warns the vehicle driver of air bag system malfunctions by controlling the "AIR BAG" warning lamp.
8) Communication with Tech-1
   - ● DTC display or DTC clear.
   - ● In response to the output request from Tech-1, DTC recorded in the memory, each initiator circuit resistance and ignition voltage as recognized by SDM at the time of the output request are provided.

60A50-9J-7-2



1. Inflatable bag
2. Trim cover
3. Steering wheel
4. Inflator

60A50-9J-8-1

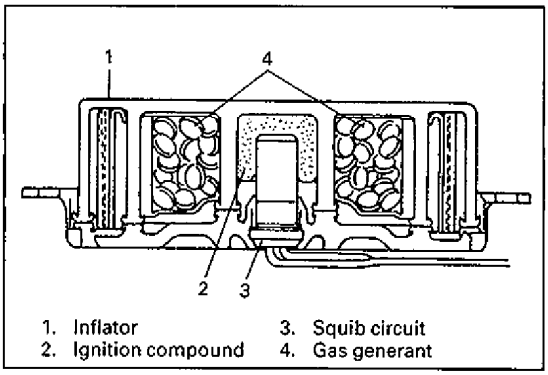
DRIVER AIR BAG (INFLATOR) MODULE

WARNING:

- **Never attempt to disassemble or repair the driver air bag (inflator) module. If any abnormality is found, be sure to replace it with new one as an assembly.**
- **Be sure to read "SERVICE PRECAUTIONS" and "HANDLING PRECAUTIONS" before starting to work and observe every precaution during work. Neglecting them may result in personal injury or undeployment of the air bag when necessary.**

The driver air bag (inflator) module consists of an inflatable bag, an inflator and a trim cover, and is mounted to the center of the steering wheel.

The driver inflatable bag is made of nylon material and coated with neoprene only on its inside surface.

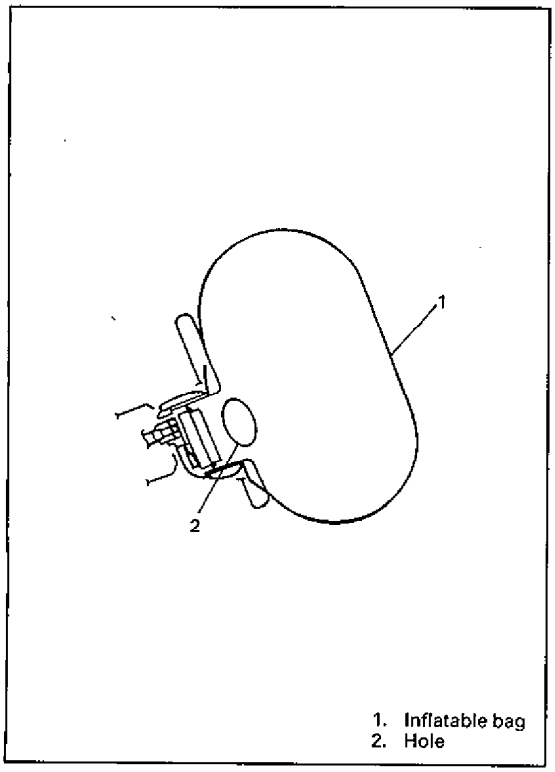


1. Inflator
2. Ignition compound
3. Squib circuit
4. Gas generant

60A50-9J-8-3

The driver inflator consists of a squib circuit. an ignition compound and a gas generant.

When a collision occurs, the deployment current from SDM flows through the squib circuit to ignite the ignition compound by which the gas generant ignites instantly.
As the gas generant burns, a large amount of nitrogen gas is generated and deploys the inflatable bag quickly.



1. Inflatable bag
2. Hole

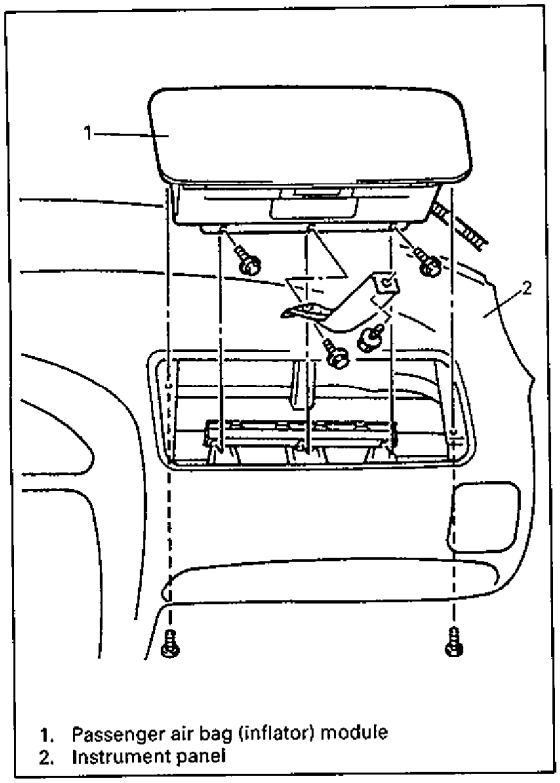
60A50-9J-8-4

When the inflatable bag deploys, its expansion force causes the trim cover.
Nitrogen gas in the inflatable bag is let out through two exhaust holes in the back of the bag at the right and left.

PASSENGER AIR BAG (INFLATOR) MODULE

WARNING:

- **Never attempt to disassemble or repair the passenger air bag (inflator) module. If any abnormality is found, be sure to replace it with new one as an assembly.**
- **Be sure to read "SERVICE PRECAUTIONS" and "HANDLING PRECAUTIONS" before starting to work and observe every precaution during work. Neglecting them may result in personal injury or undeployment of the air bag when necessary.**

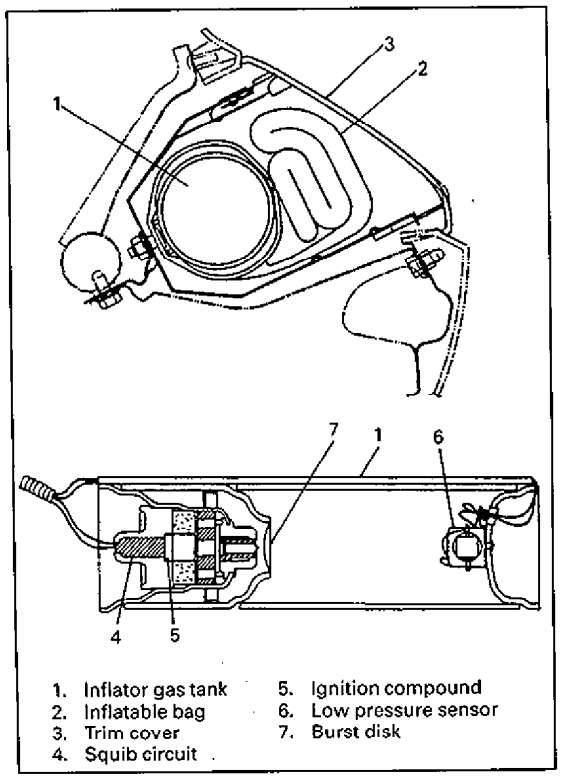


1. Passenger air bag (inflator) module
2. Instrument panel

79E00-9J-9-1

The passenger air bag (inflator) module consists of an inflatable bag, an inflator, a low pressure sensor and a trim cover, and is mounted above the glove box in the instrument panel on the passenger side.

The passenger inflatable bag is made of nylon material and not coated.



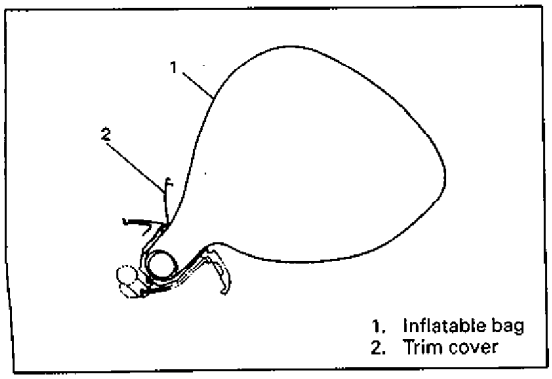
1. Inflator gas tank
2. Inflatable bag
3. Trim cover
4. Squib circuit
5. Ignition compound
6. Low pressure sensor
7. Burst disk

79E00-9J-9-3

The passenger inflator consists of squib circuit, ignition compound, piston, burst disk and inflator gas tank.

At a collision, deployment current from SDM flows through the squib circuit to ignite the ignition compound which then pushes the piston. The piston ruptures the burst disk and makes a hole in the inflator gas tank. Through that hole, inflator gas (argon gas) filled in the inflator gas tank under a high pressure is discharged to quickly deploy the inflatable bag.

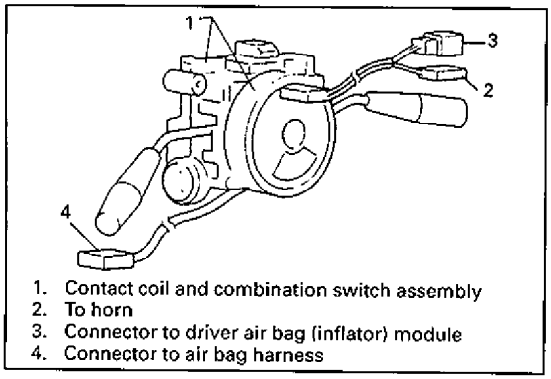
The low pressure sensor senses the pressure in the inflator gas tank. When the sensed pressure is higher than the specified level, the sensor remains in closed circuit but when it is lower than that level, it becomes open circuit and warns occurrence of an abnormality.



1. Inflatable bag
2. Trim cover

60A50-9J-9-5

Once deployment starts, expansion force of the inflatable bag forces the trim cover and move up.

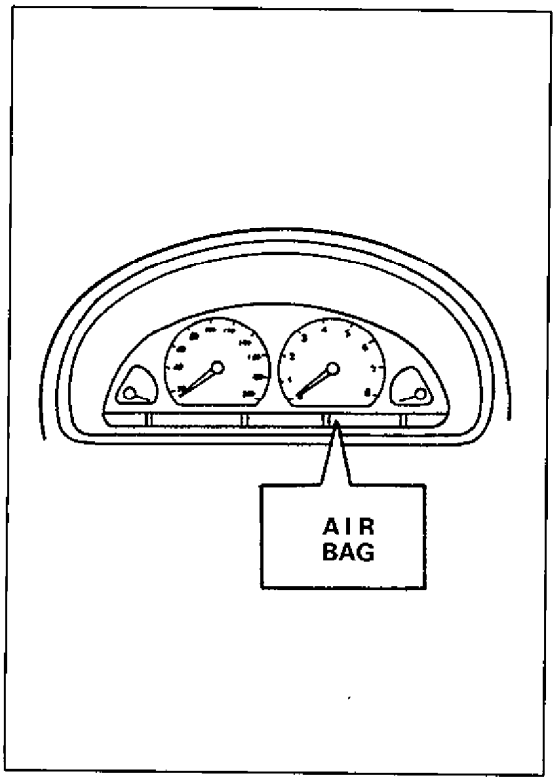


1. Contact coil and combination switch assembly
2. To horn
3. Connector to driver air bag (inflator) module
4. Connector to air bag harness

60A50-9J-10-1

CONTACT COIL AND COMBINATION SWITCH ASSEMBLY

The contact coil assembly consists of three current carrying coils; two for the deployment loop and one for the horn circuit. The contact coil assembly is combined with the combination switch assembly and mounted together on the steering column, allowing rotation of the steering wheel while maintaining continuous contact of the driver deployment loop to the driver air bag (inflator) module.



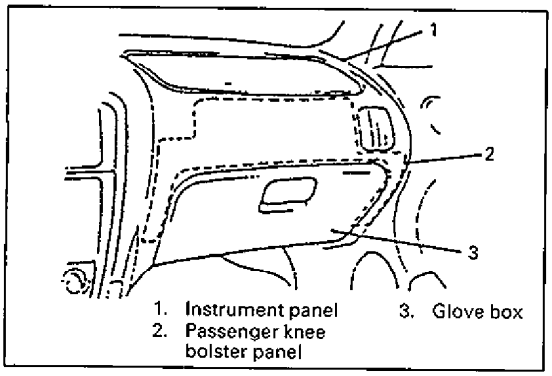
60A50-9J-10-2

"AIR BAG" WARNING LAMP

The "AIR BAG" warning lamp is located in the combination meter and controlled by SDM.
The "AIR BAG" warning lamp is used in the air bag system to do the following:

- Verify lamp and SDM operation by flashing 7 times when the ignition switch is first turned "ON".
- Warn the vehicle driver of air bag electrical system malfunctions which could potentially affect the operation of the air bag system. These malfunctions could result in undeployment in case of a frontal crash or deployment for conditions less severe than intended.

The "AIR BAG" warning lamp is the key to driver notification of air bag system malfunctions. For proper lamp operation, refer to the "Air Bag Diagnostic System Check" in this section.

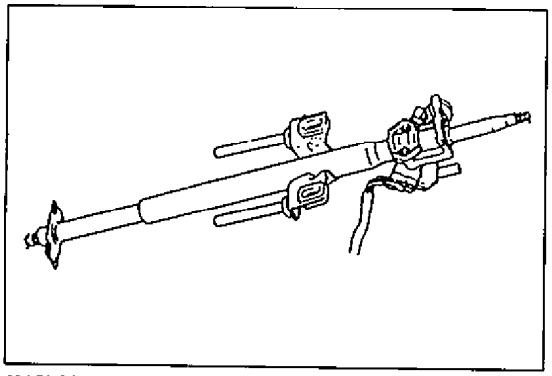


1. Instrument panel
2. Passenger knee bolster panel
3. Glove box

79E00-9J-10-4

KNEE BOLSTER

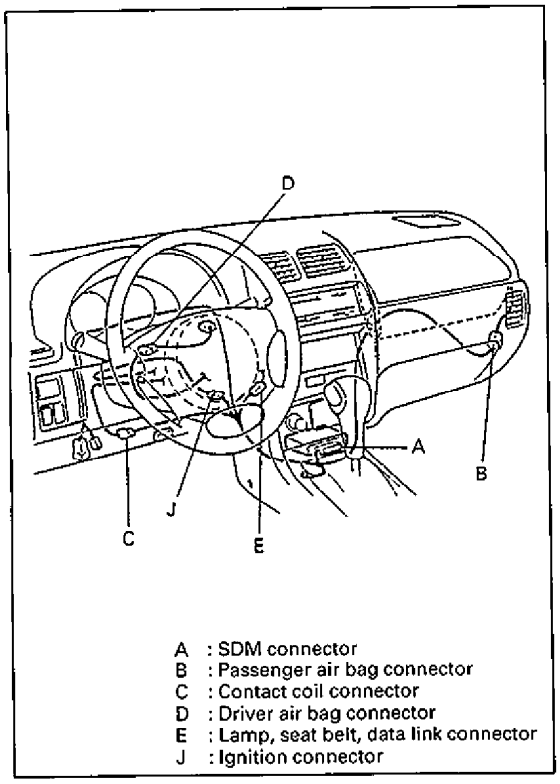
The knee bolster is used to absorb energy and control the forward movement of front passenger during a frontal crash, by limiting leg movement.



60A50-9J-11-1

STEERING COLUMN

The steering column is energy absorbing and is designed to compress in a frontal crash to decrease the chance of injury to the driver.



A : SDM connector
B : Passenger air bag connector
C : Contact coil connector
D : Driver air bag connector
E : Lamp, seat belt, data link connector
J : Ignition connector

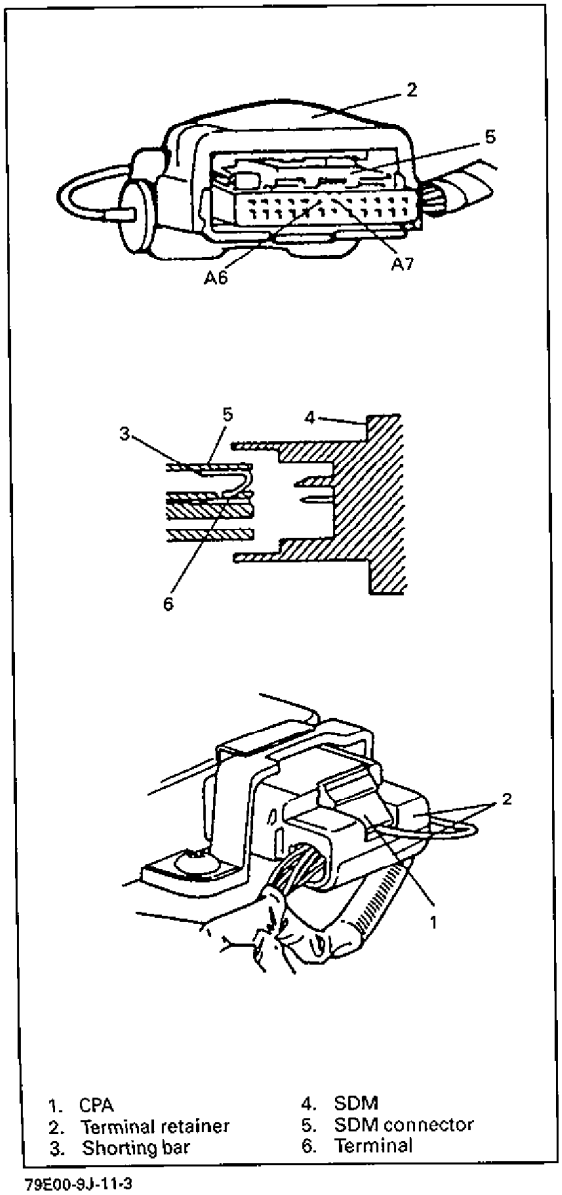
60A50-9J-11-2

AIR BAG WIRE HARNESS AND CONNECTORS

CAUTION:
When an open in wire harness, damaged wire harness, connector or terminals is found, replace wire harness, connectors and terminals as an assembly.

The air bag wire harness can be identified easily as it is covered with a yellow protection tube. Be very careful when handling it.

Each connector has a terminal lock mechanism (operated by the terminal retainer) and a connector lock mechanism (operated by connector position assurance or connector lock lever). Also, connectors "A", "B", "C" and "D" have a short mechanism (operated by shorting bar).



1. CPA
2. Terminal retainer
3. Shorting bar
4. SDM
5. SDM connector
6. Terminal

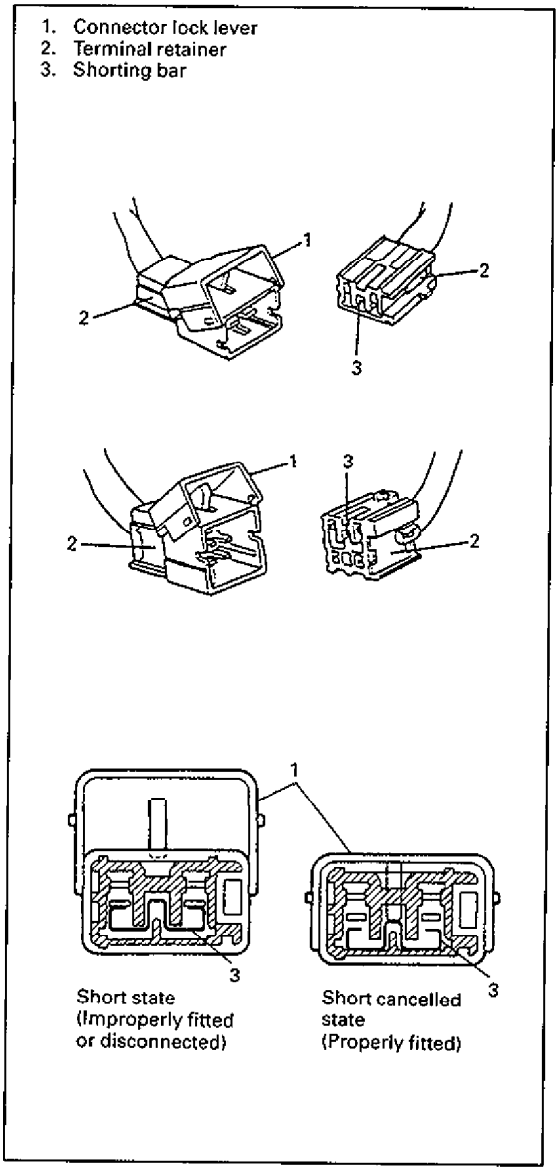
79E00-9J-11-3

A. SDM Connector

Connector position assurance (CPA):
The Connector Position Assurance (CPA) is a small plastic insert that is inserted through the lock (locking tabs) of connector. The purpose of the CPA is to assure the connector halves are securely connected and they cannot vibrate apart. The CPA must be in place to ensure good contact between the mating terminals.

Shorting bar:
Disconnecting the connector from SDM will cause the shorting bar to short between terminals "A6" and "A7" of the connector on the harness side. (The "AIR BAG" warning lamp circuit is shorted to the ground.) When the ignition switch is turned ON in this state, the "AIR BAG" warning lamp will stay ON.

Terminal retainer (Terminal position assurance: TPA):
The function of the TPA is to keep the terminal securely seated in the connector body. The TPA is not to be removed from the connector body.



79E00-9J-12-1

B. Passenger Air Bag (Inflator) Module Connector

C. Contact Coil Connector

D. Driver Air Bag (Inflator) Module Connector

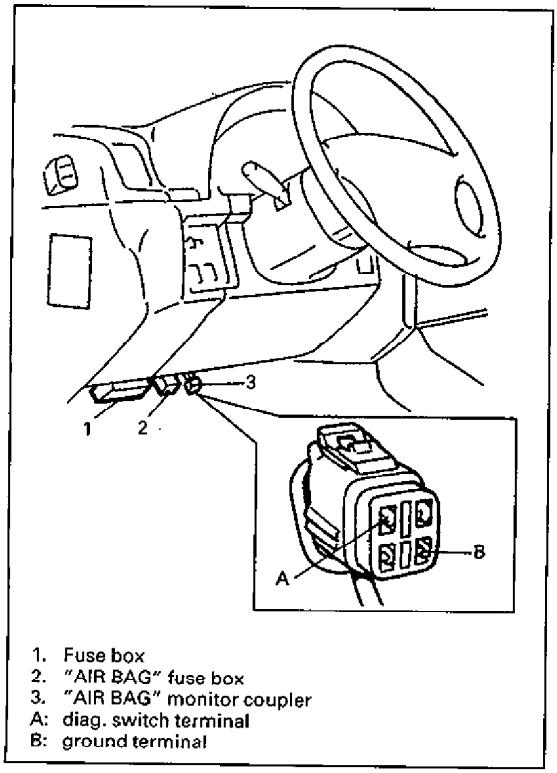
E. "AIR BAG" warning lamp, Seat Belt, Data Link Connector

J: Ignition Connector

Connector lock lever:
Functions of the connector lock lever are: to connect connectors securely, to cancel shorts and to lock connectors against disconnection.

Terminal retainer (Terminal position assurance: TPA):
The function of the TPA is to keep the terminal securely seated in the connector body. The TPA is not to be removed from the connector body.

B, C, D connector only
Shorting bar:
Function of the shorting bar is to short circuit the "HI" and "LO" terminals of the initiator circuit on its module side when the connector is disconnected. This prevents potential difference from occurring between both terminals to avoid malfunction.



60A50-9J-12-2

"AIR BAG" MONITOR COUPLER
"AIR BAG" monitor coupler has a diagnosis switch terminal and a ground terminal.
With these terminals being shorted, the "AIR BAG" warning lamp flashes to indicate the current diagnostic trouble code. (For details of diagnostic trouble code, refer to 9J-20.)

DEFINITIONS:

AIR BAG – An inflatable cloth cushion designed to deploy in certain frontal crashes. It supplements the protection offered by the seat belts by distributing the impact load more evenly over the vehicle occupant's head and torso.

AIR BAG WIRE HARNESS – The wires and connectors that electrically connect the components in the air bag system.

B+ – Battery voltage, the voltage available at the battery at the time of the indicated measurement. With the key "ON" and the engine not running, the system voltage will likely be between 10 and 14 volts. At idle the voltage may be 14 to 16 volts. The voltage could be as low as 7 to 10 volts during engine cranking.

BULB CHECK – The SDM will cause the "AIR BAG" warning lamp to flash 7 times and then go "OFF" whenever the ignition switch transitions to the "ON" position from any other ignition switch position and no malfunctions are detected.

CKT – Circuit

DATA LINK CONNECTOR (DLC) – Formerly "ALDL", a connector which is connected by wires to multiple on-board computers allowing communication with an off-board computer, such as a Tech-1 (scan tool).

DEPLOY – To inflate the air bag.

DEPLOYMENT LOOPS – The circuits which supply current to the air bag (inflator) modules to deploy the air bags.

DIAGNOSTIC TROUBLE CODE (DTC) – A numerical designator used by the SDM to indicate specific air bag system malfunctions.

EEPROM – Electrically Erasable Programmable Read Only Memory. Memory which retains its contents when power is removed from the SDM.

INITIATOR – The electrical component inside the air bag (inflator) module which, when sufficient current flows, sets off the chemical reaction that inflates the air bag.

IGNITION COMPOUND – Compound that ignites instantly when heated by the current flowing through the heat wire.

SCAN TOOL – An off-board computer, such as a Tech-1 used to read diagnostic information from on-board computers via the data link connector.

SDM – Sensing and Diagnostic Module which provides reserve energy to the deployment loops, deploys the air bags when required and performs diagnostic monitoring of all air bag system components.

SERIAL DATA – This is a series of data exchanged between SDM or other controller and Tech-1 (scan tool) for communication.

RESERVE VOLTAGE – The reserve energy supply (voltage) from the SDM which provides deployment power when vehicle voltage is lost in a frontal crash.

DIAGNOSIS

WARNING:
To avoid deployment when troubleshooting the air bag system, do not use electrical test equipment such as a battery powered or AC powered voltmeter, ohmmeter, etc., or any type of electrical equipment other than that specified in this manual. Do not use a non-powered probe type tester.
Instructions in this manual must be followed carefully, otherwise personal injury may result.

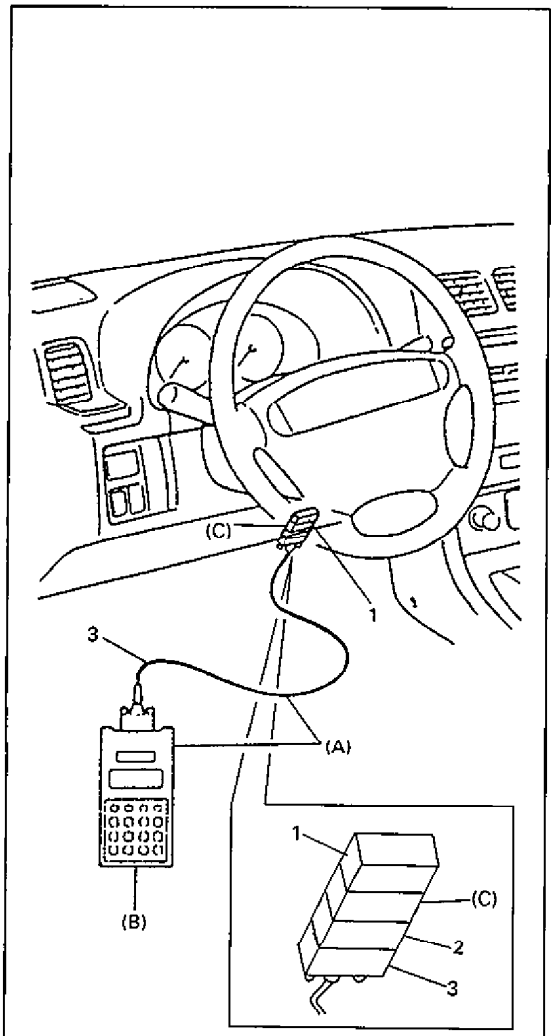
50G00-9J-13-1

DIAGNOSTIC TROUBLE CODES

The "Air Bag Diagnostic System Check" must always be the starting point of any air bag system diagnosis. The "Air Bag Diagnostic System Check" checks for proper "AIR BAG" warning lamp operation and checks for air bag diagnostic trouble codes using the Tech-1 (scan tool) or On-board diagnosis function.

1) Current diagnostic trouble codes – Malfunctions that are presently being detected.
2) History diagnostic trouble codes – All malfunctions detected since the last time the history memory was cleared.

60A50-9J-14-2



1. Data link connector
2. DLC cable adapter
3. DLC cable

60A50-9J-14-3

TECH-1 (SCAN TOOL) DIAGNOSTICS

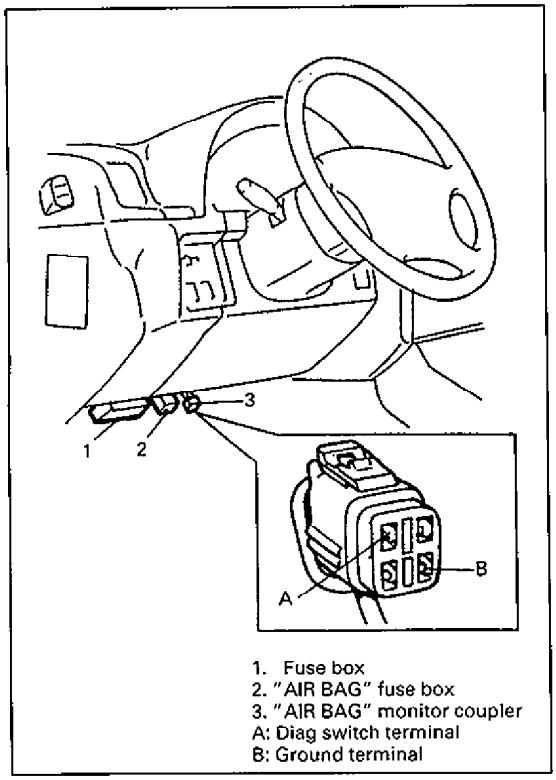
The Tech-1 (scan tool) is used for following purposes.

- To read current and history diagnostic trouble codes.
- To clear all diagnostic trouble codes after a repair is completed.
- To read "voltage of ignition power", "driver and passenger side resistance" and etc recognized by SDM when the output command by using Tech-1 was inputted.

NOTE:
The Tech-1 must be updated to communicate with the air bag system through a replaceable cartridge before it can be used for air bag system diagnostics. To use the Tech-1, change cartridge first, then connect it to the data link connector and turn the ignition switch "ON".

Refer to the Tech-1 Operator's Manual for specific information on how to use the Tech-1.

Special Tool
(A): Tech-1 (scan tool)
(B): Tech-1 cartridge for air bag
(C): 09931-96020 16/12 pin DLC adapter



1. Fuse box
2. "AIR BAG" fuse box
3. "AIR BAG" monitor coupler
A: Diag switch terminal
B: Ground terminal

60A50-9J-15-1

DTC CHECK USING "AIR BAG" WARNING LAMP

1) Turn "ON" ignition switch and wait till "AIR BAG" warning lamp has flashed 7 times.
2) By using service wire, connect diagnosis switch terminal and ground terminal on "AIR BAG" monitor coupler.
3) To read diagnostic trouble code, watch "AIR BAG" warning lamp. (For frequency of code signal, refer to page 9J-20).

   If diagnostic trouble code is not indicated, check diagnosis switch circuit according to Chart F in page 9J-32.

NOTE:

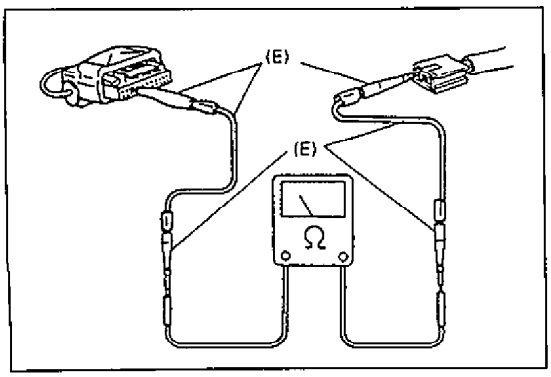
- **When there are 2 or more diagnostic trouble codes, all applicable code will be indicated from smaller number to large number in order.**
- **On-board diagnosis function is not possible to read history diagnostic trouble code or clear diagnostic trouble code.**

USE OF SPECIAL TOOLS

WARNING:
To avoid deployment when troubleshooting the air bag system, do not use electrical test equipment such as a battery powered or AC powered voltmeter, ohmmeter, etc., or any type of electrical equipment other than that specified in this manual. Do not use a non-powered probe type tester. Instructions in this manual must be followed carefully, otherwise personal injury may result.

You should be familiar with the tools listed in this section under the heading "SPECIAL TOOLS". You should be able to measure voltage and resistance. You should be familiar with proper use of a scan tool such as the Tech-1 Diagnositc Computer, Connector Test Adapter Kit, Driver/Passenger Load Tool, and the Digital Multimeter.

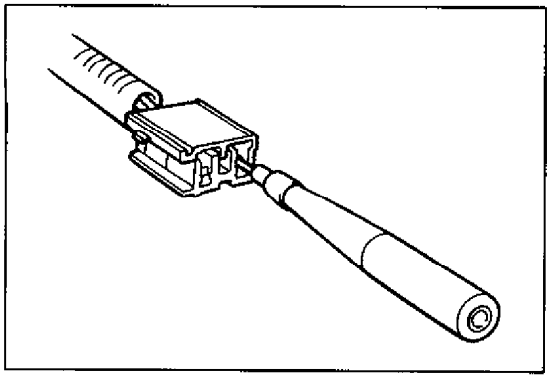
60A50-9J-15-4



60A50-9J-15-5

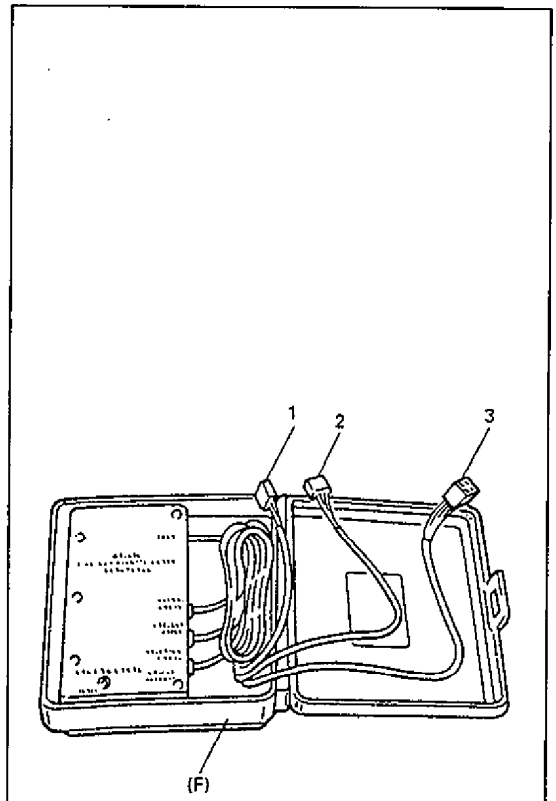
Special Tool (Connector Test Adapter Kit)
(E): 09932-75020

This must be used whenever a diagnostic procedure requests checking or probing a terminal.
Using the appropriate adapter in the special tool will ensure that no damage to the terminal will occur from the multimeter probe, such as spreading or bending.



60G00-9J-16-1

The adapter will also give an idea of whether contact tension is sufficient, helping to find an open or intermittent open due to poor terminal contact.



1. Connector for driver air bag (inflator) module
2. Connector for contact coil and driver air bag (inflator) module (Located near the base of the steering column)
3. Connector for passenger air bag (inflator) module

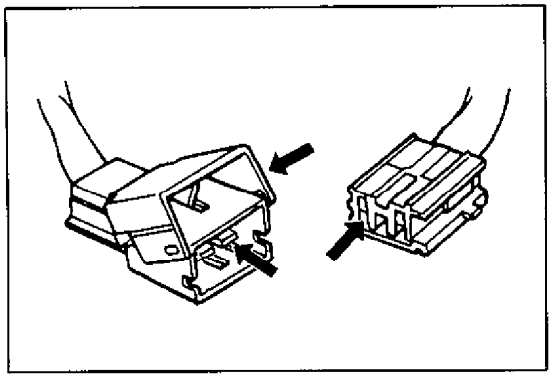
60A50-9J-16-2

Special Tool (Air Bag Driver / Passenger Load Tool)
(F): 09932-75010

This tool is used only when called for in this section. It is used as a diagnostic aid and safety device to prevent inadvertent air bag (inflator) module deployment.
The load tool has three connectors attached to its case are electrically functional and serve as resistive load substitutions.
No more than two connectors are used at any time.
One of connectors is used to substitute the load of the driver air bag (inflator) module when it is connected at the top of the column to the contact coil assembly.
Another connector is used to substitute the load of the driver air bag (inflator) module and the contact coil assembly when it is connected at the base of the column to the air bag wire harness.
The third connector is used to substitute for the load of the passenger air bag (inflator) module when connected to the passenger air bag (inflator) module harness connector.
By substituting the resistance of the load tool when called for, a determination can be made as to whether an inflator circuit component is causing system malfunction and which component is causing the malfunction.
The load tool should be used only when specifically called for in the diagnostic procedures.

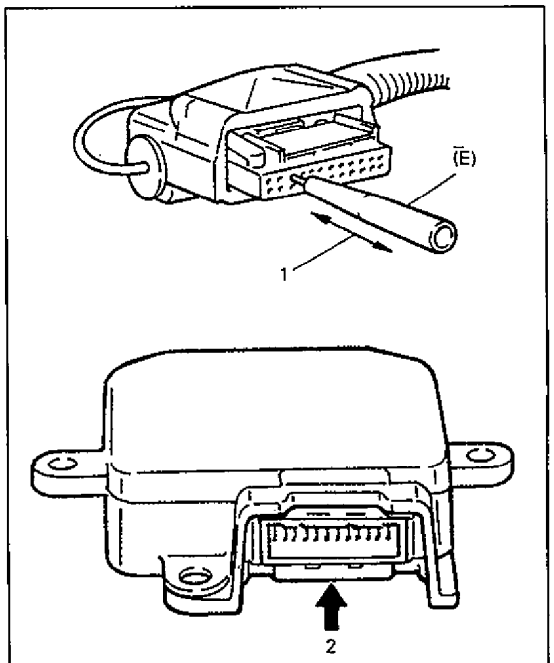
INTERMITTENTS AND POOR CONNECTIONS

Most intermittents are caused by faulty electrical connections or wiring. When a check for proper connection is requested in a diagnostic flow chart, perform careful check of suspect circuits for:



60A50-9J-17-1

- Poor mating of connector halves, or terminals not fully seated in the connector body (backed out).
- Dirt or corrosion on the terminals. The terminals must be clean and free of any foreign material which could impede proper terminal contact.
  However, cleaning the terminal with a sand paper or the like is prohibited.

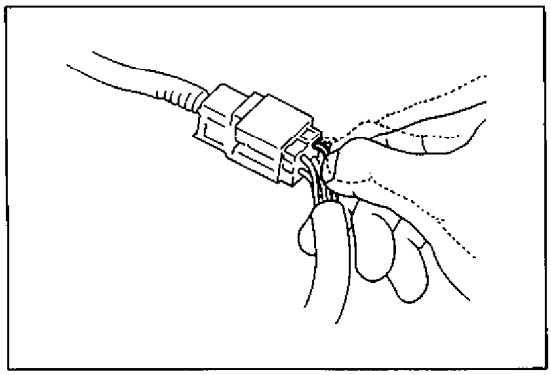


1. Check contact tension by inserting and removing just for once.
2. Check each terminal for bend and proper alignment.

60A50-9J-17-2

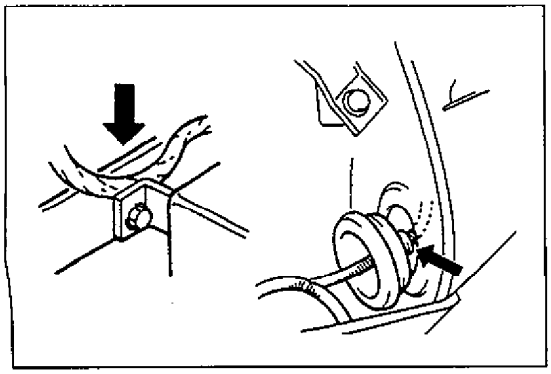
- Damaged connector body, exposing the terminals to moisture and dirt, as well as not maintaining proper terminal orientation with the component or mating connector.
- Improperly formed or damaged terminals.
  Check each connector terminal in problem circuits carefully to ensure good contact tension by using the corresponding mating terminal included in the connector test adapter kit (special tool).
  If contact tension is not enough, reform it to increase contact tension or replace.

Special Tool (Connector test adapter kit)
(E): 09932-75020



50G00-9J-15-3

- Poor terminal-to-wire connection.
  Check each wire harness in problem circuits for poor connection by shaking it by hand lightly. If any abnormal condition is found, change the wire harness assembly or component parts with new ones.



50G00-9J-15-4

- Wire insulation which is rubbed through, causing an intermittent short as the bare area touches other wiring or parts of the vehicle.
- Wiring broken inside the insulation. This condition could cause a continuity check to show a good circuit, but if only 1 or 2 strands of a multi-strand-type wire are intact, resistance could be far too high.
  If any abnormality is found, repair or replace as a wire harness assembly.

AIR BAG DIAGNOSTIC SYSTEM CHECK

WARNING:
To avoid deployment when troubleshooting the air bag system, do not use electrical test equipment such as a battery powered or AC powered voltmeter, ohmmeter, etd., or any type of electrical equipment other than that specified in this manual. Do not use a non-powered probe type tester.
Instructions in this manual must be followed carefully, otherwise personal injury may result.

50G00-9J-16-1

CAUTION:
The order in which diagnostic trouble codes are diagnosed is very important. Failure to diagnose the diagnostic trouble codes in the order specified may result in extended diagnostic time, incorrect diagnosis and incorrect parts replacement.

60G00-9J-18-2

The diagnostic procedures used in this section are designed to find and repair air bag system malfunctions. To get the best results, it is important to use the diagnostic charts and follow the sequence listed below.

A. PERFORM THE "AIR BAG DIAGNOSTIC SYSTEM CHECK".
   The "Air Bag Diagnostic System Check" must be the starting point of any air bag system diagnostics. The "Air Bag Diagnostic System Check" checks for proper "AIR BAG" warning lamp operation, the ability of the SDM to communicate through the "Serial Data" line or "AIR BAG" warning lamp and whether air bag diagnostic trouble codes exist.

B. REFER TO THE PROPER DIAGNOSTIC CHART AS DIRECTED BY THE "AIR BAG DIAGNOSTIC SYSTEM CHECK".
   The "Air Bag Diagnostic System Check" will lead you to the correct chart to diagnose any air bag system malfunctions. Bypassing these procedures may result in extended diagnostic time, incorrect diagnosis and incorrect parts replacement.

C. REPEAT THE "AIR BAG DIAGNOSTIC SYSTEM CHECK" AFTER ANY REPAIR OR DIAGNOSTIC PROCEDURES HAVE BEEN PERFORMED.
   Performing the "Air Bag Diagnostic System Check" after all repair or diagnostic procedures will ensure that the repair has been made correctly and that no other malfunctions exist.

60A50-9J-18-3

NOTES ON SYSTEM CHECK CHART:
Number(s) below refer to circled number(s) on the Air Bag Diagnostic System Check Chart.

1) The "AIR BAG" warning lamp should flash 7 times after ignition is first turned "ON".

2) This test checks for proper operation of the "Serial Data" line. This test will also identify the stored diagnostic trouble codes and whether they are current or history.

79E00-9J-16-1

AIR BAG DIAGNOSTIC SYSTEM CHECK

① 1) Make sure that battery voltage is between 10 – 14 V.
2) Note "AIR BAG" warning lamp when ignition switch is turned "ON".

- Does "AIR BAG" warning lamp flash 7 times, then go "OFF"?

YES

NO

- "AIR BAG" warning lamp comes "ON" after flashing 7 times.
- "AIR BAG" warning lamp comes "ON" steady. → Go to Chart B
- "AIR BAG" warning lamp does not come "ON". → Go to Chart C
- "AIR BAG" warning lamp keeps flashing after flashing 7 times. → Go to Chart E

② 1) Ignition switch "OFF".
2) Connect Tech-1 (scan tool) to data link connector, follow directions as given in Tech-1 cartridge operator's manual.
3) Ignition switch "ON".

- Request air bag diagnostic trouble code display.

- "NO CODES" is displayed. → Air bag system is functional and free of malfunctions.
- History diagnostic trouble codes are displayed only.
- Scan tool indicates "NO DATA RECEIVED". → Go to Chart D
- Diagnostic trouble codes are displayed.

NOTE:
As execution of the "CLEAR CODES" command by Tech-1 will clear all diagnostic trouble codes, record all diagnostic trouble codes before servicing.

1) Ignition switch "OFF".
2) When DTC 51 is set, go to DTC 51 chart.
3) When DTC 53 is set, go to DTC 53 chart.
4) When DTC 19 is set, go to DTC 19 chart.
5) When DTC 25 is set, go to DTC 25 chart.
6) When DTC 71 is set, go to DTC 71 chart.

1) Ignition switch "OFF".
2) When DTC 51 is set, go to DTC 51 chart.
3) When DTC 53 is set, go to DTC 53 chart.
4) When DTC 19 is set, go to DTC 19 chart.
5) When DTC 25 is set, go to DTC 25 chart.

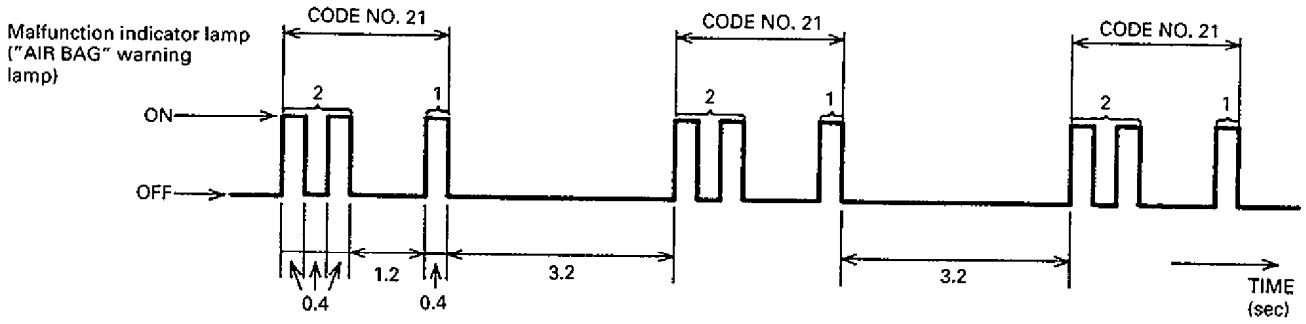
- Diagnose remaining current diagnostic trouble codes from lowest to highest.

When only history diagnostic trouble codes exist, an intermittent trouble has occured at some place. Check the connector, harness, etc. related to the sensed DTC (Refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section).

1) Clear diagnostic trouble codes.
2) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

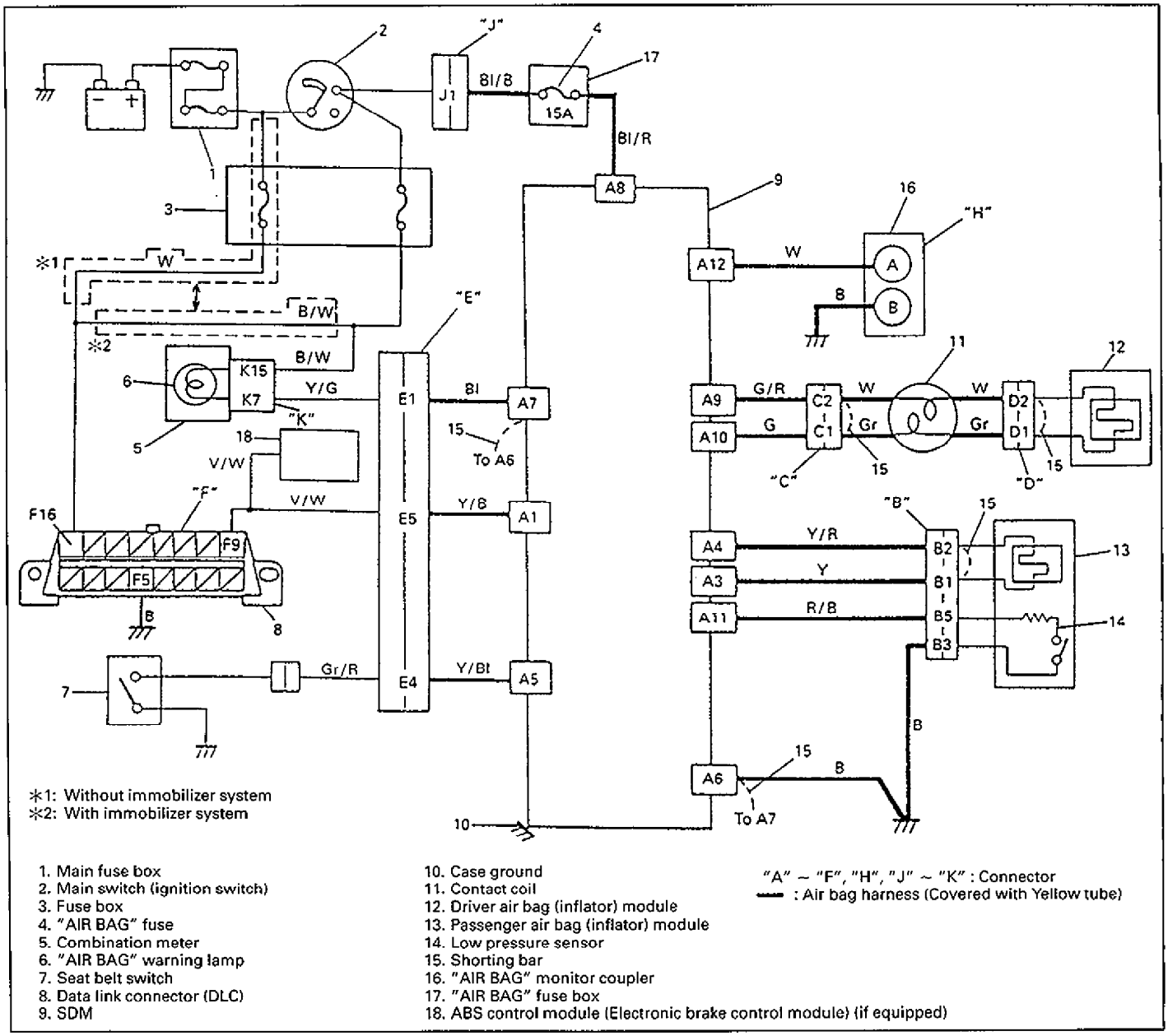
DIAGNOSTIC TROUBLE CODE TABLE

EXAMPLE: DRIVER INITIATOR CIRCUIT RESISTANCE HIGH (CODE NO. 21)



DIAGNOSTIC TROUBLE CODE NO.	DIAGNOSTIC TROUBLE CODE MODE	DIAGNOSTIC AREA	DIAGNOSIS
12	1 2	Normal	This code appears when none of the other codes (below codes) are identified. **NOTE: "NO CODES" message appears on Tech-1 and not DTC 12.**
15	1 5	Passenger initiator circuit	Diagnose trouble according to "DIAGNOSTIC FLOW CHART" corresponding to each code No.
16	1 6		
17	1 7		
18	1 8		
19	1 9		
21	2 1	Driver initiator circuit	
22	2 2		
24	2 4		
25	2 5		
26	2 6		
37	3 7	Low pressure sensor circuit	
38	3 8		
51	5 1	Frontal crash detected	
53	5 3		
61	6 1	"AIR BAG" warning lamp circuit	
71	7 1	SDM	SDM failure

CHART A – SDM INTEGRITY CHECK



※1: Without immobilizer system
※2: With immobilizer system

1. Main fuse box
2. Main switch (ignition switch)
3. Fuse box
4. "AIR BAG" fuse
5. Combination meter
6. "AIR BAG" warning lamp
7. Seat belt switch
8. Data link connector (DLC)
9. SDM
10. Case ground
11. Contact coil
12. Driver air bag (inflator) module
13. Passenger air bag (inflator) module
14. Low pressure sensor
15. Shorting bar
16. "AIR BAG" monitor coupler
17. "AIR BAG" fuse box
18. ABS control module (Electronic brake control module) (if equipped)

"A" ~ "F", "H", "J" ~ "K" : Connector
▬▬ : Air bag harness (Covered with Yellow tube)

79E00-9J-21-1

CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test confirms a current malfunction. If no current malfunction is occurring (History DTC set), the "Diagnostic Aids" for the appropriate diagnostic trouble code should be referenced. The SDM should not be replaced for a History Diagnostic Trouble Code.
2) This test checks for a malfunction introduced into air bag system during the diagnostic process. It is extremely unlikely that a malfunctioning SDM would cause a new malfunction to occur during the diagnostic process.
3) When all circuitry outside the SDM has been found to operate properly, as indicated by the appropriate diagnostic chart, then and only then should the SDM be replaced.

50G00-9J-18-1

CHART A – SDM INTEGRITY CHECK

This chart assumes that the "AIR BAG DIAGNOSTIC SYSTEM CHECK" and either a symptom chart or a diagnostic trouble code chart diagnosis have been performed. When all circuity outside the SDM has been found to operate properly, as indicated by the appropriate diagnostic chart, and the symptom or DTC remains current, the following diagnostic procedures must be performed to verify the need for SDM replacement.

① 1) Ignition switch "OFF".
2) Reconnect all air bag system components, ensure all components are properly mounted.
3) Ensure the ignition switch has been "OFF" for at least 30 seconds.
4) Note "AIR BAG" warning lamp as ignition switch is turned "ON".

- Does "AIR BAG" warning lamp flash 7 times then go "OFF"?

YES → 1) The symptom or DTC is no longer occurring.
2) Clear air bag diagnostic trouble code.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

NO →

② • Request diagnostic trouble code display using a scan tool or on-board diagnosis function.

- Is the same symptom or DTC occurring as was when the "AIR BAG" DIAGNOSTIC SYSTEM CHECK" was first performed?

NO → 1) Ignition switch "OFF".
2) Go to the appropriate chart for the indicated malfunction.

YES →

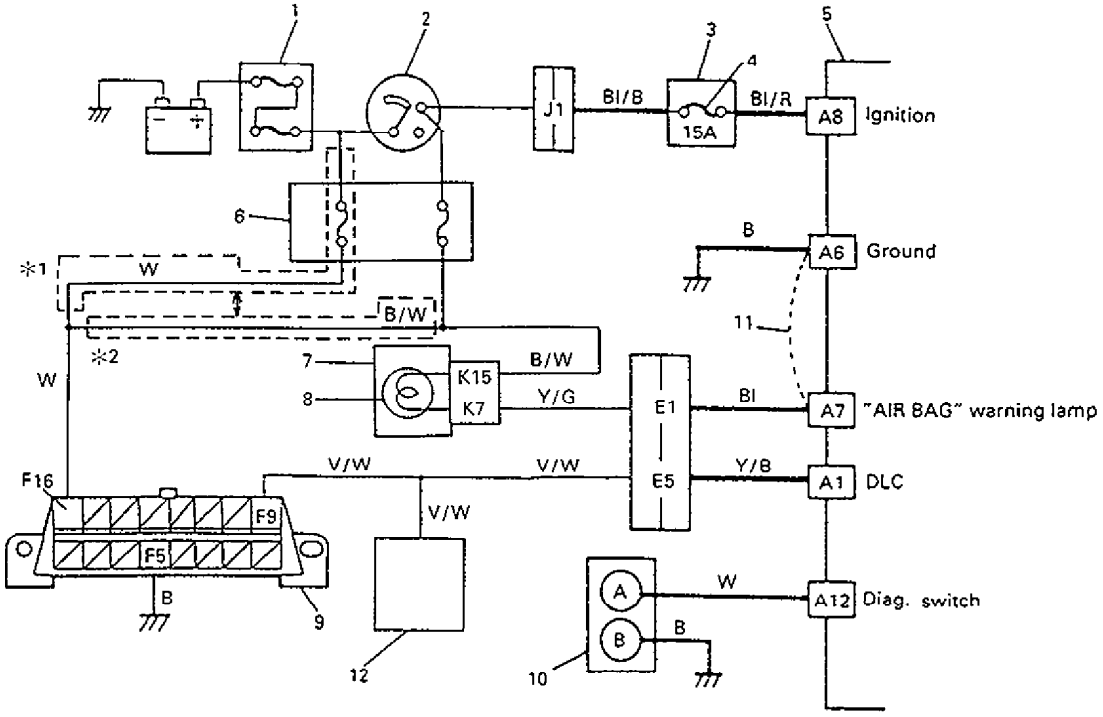
③ 1) Clear air bag diagnostic trouble code.
2) Ensure the ignition switch has been "OFF" for at least 30 seconds.
3) Note "AIR BAG" warning lamp as ignition switch is turned "ON".

- Does "AIR BAG" warning lamp flash 7 times then go" OFF"?

NO → 1) Ignition switch "OFF".
2) Replace SDM. (Refer to "On-vehicle service")
3) Reconnect all air bag system components, ensure all components are properly mounted.
4) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

YES → Air bag system is functional and free of malfunctions. No further diagnosis is required.

CHART B – "AIR BAG" WARNING LAMP COMES "ON" STEADY



※1: Without immobilizer system
※2: With immobilizer system

—: Air bag harness (Covered with Yellow tube)

1. Main fuse box
2. Main switch (ignition switch)
3. "AIR BAG" fuse box
4. "AIR BAG" fuse
5. SDM
6. Fuse box
7. Combination meter
8. "AIR BAG" warning lamp
9. Data link connector (DLC)
10. "AIR BAG" monitor coupler
11. Shorting bar
12. ABS control module (if equipped)

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) An open "AIR BAG" fuse would cause the "AIR BAG" warning lamp to come "ON" steady.
2) A disconnected SDM harness connector will cause the warning lamp to come "ON" steady via the shorting bar from terminal "A7" to terminal "A6" (ground).
3) This test checks for an open in the "Ignition" circuit to the SDM.
4) This test checks for a short from the "AIR BAG" warning lamp circuit to ground.
5) This test checks whether a short to ground caused the "AIR BAG" fuse to open.
6) This test determines whether the short to ground is due to a short in the wiring.

CHART B – "AIR BAG" WARNING LAMP COMES "ON" STEADY

① 1) Ignition switch "OFF".
2) Remove and inspect "AIR BAG" fuse.
• Is fuse good?

YES

② • Inspect SDM harness connector connection to SDM.
• Is it securely connected to the SDM?

NO

1) Properly connect SDM harness connector to SDM.
2) Install "AIR BAG" fuse.

YES

③ 1) Install "AIR BAG" fuse.
2) Disconnect driver and passenger air bag (inflator) modules, "B" and "D" yellow connectors respectively.
3) Ignition switch "ON".
4) Measure voltage on SDM harness connector from terminal "A8" to terminal "A6" (Ground).
• Is voltage 1 V or less?

NO

④ 1) Ignition switch "OFF".
2) Insert a piece of paper (thickness of 0.2mm (0.008 in.)) between SDM harness connector shorting bar and terminals ("A6" and "A7") to disconnect terminal "A7" from "A6", measure resistance from SDM harness connector terminal "A6" to "A7".
• Does specified digital multimeter display "OL" (infinite)?

YES

• Replace SDM. (Refer to "On-vehicle service")

NO

• Repair short from CKT "BI" or "Y/G" to ground.

YES

1) Ignition switch "OFF".
2) Repair open in CKT "BI/R" or "BI/B".

NO

⑤ 1) Replace "AIR BAG" fuse.
2) Ignition switch "ON", wait 10 seconds, then ignition switch "OFF".
3) Remove and inspect "AIR BAG" fuse.
• Is fuse good?

YES

• Install "AIR BAG" fuse.

NO

⑥ 1) Disconnect SDM.
2) Replace "AIR BAG" fuse.
3) Ignition switch "ON", wait 10 seconds, then ignition switch "OFF".
4) Remove and inspect "AIR BAG" fuse.
• Is fuse good?

NO

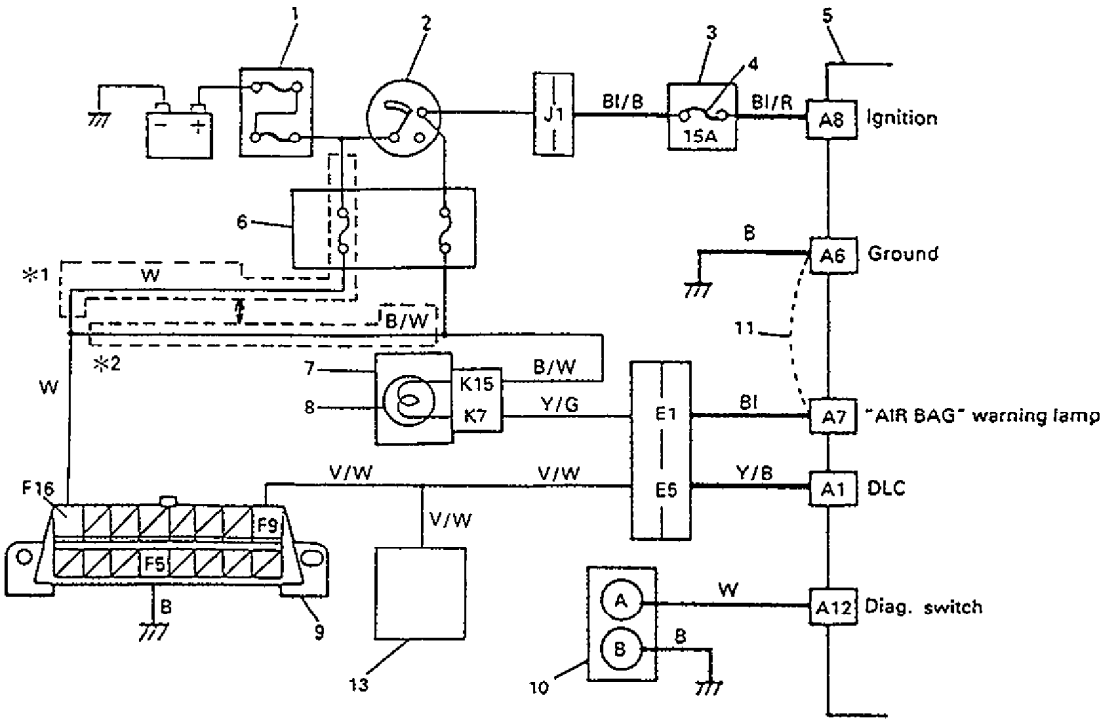
1) Repair short to ground in CKT "BI/R".
2) Reconnect SDM.
3) Replace "AIR BAG" fuse.

YES

1) Replace SDM.
2) Install "AIR BAG" fuse.

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

CHART C – "AIR BAG" WARNING LAMP DOES NOT COME "ON"



*1: Without immobilizer system
*2: With immobilizer system

—: Air bag harness (Covered with Yellow tube)

1. Main fuse box
2. Main switch (ignition switch)
3. "AIR BAG" fuse box
4. "AIR BAG" fuse
5. SDM
6. Fuse box
7. Combination meter
8. "AIR BAG" warning lamp
9. Data link connector (DLC)
10. "AIR BAG" monitor coupler
11. Shorting bar
12. "Combination Meter" fuse
13. ABS control module (if equipped)

CAUTION:
- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test determines whether the malfunction is in the "AIR BAG" warning lamp circuitry or in the instrument cluster power feed circuitry.
2) This test checks for an open between instrument cluster and SDM in the "AIR BAG" warning lamp circuitry.
3) This test checks whether the open is due to a bad bulb.
4) This test checks an open in the instrument cluster.
5) This test determines whether the malfunction is due to a short from the "AIR BAG" warning lamp circuit to B+.
6) This test checks for an open in air bag harness.
7) This test checks for a short to B+ in air bag harness.
8) This test checks whether "Combination Meter" fuse is an open.
9) An open "Combination Meter" fuse would cause the lamps of instrument cluster to come "OFF".
10) This test checks for a short to ground in instrument panel harness.
11) This test checks whether the malfunction is due to an open power feed circuit from the "Combination Meter" fuse to 16–P connector "B/W" wire terminal.

CHART C – "AIR BAG" WARNING LAMP DOES NOT COME "ON"

① • Note instrument cluster (Combination meter) as ignition switch is turned "ON".
• Does the "OIL" or "BATTERY" indicator (warning lamp) come "ON"?

YES

② 1) Ignition switch "OFF".
2) Disconnect SDM.
3) Disconnect driver and passenger air bag (inflator) modules, "B" and "D" yellow connectors respectively.
4) Remove instrument cluster.
5) Check for proper connection at instrument cluster harness 16–P connector "Y/G" wire terminal and SDM harness connector terminal "A7".
6) If OK then disconnect instrument cluster 16–P connector.
7) Measure resistance from SDM harness connector terminal "A7" to instrument cluster 16–P connector "Y/G" wire terminal "K7".

• Does specified digital multimeter display "OL" (infinite)?

NO

③ • Remove and inspect "AIR BAG" bulb.
• Is bulb good?

YES

④ 1) Install bulb.
2) Check for proper connection to instrument cluster at 16–P connector "B/W" wire terminal.
3) If OK then connect instrument cluster 16–P connector.
4) Measure resistance on instrument cluster from 16–P connector "B/W" wire terminal "K15" to SDM harness connector terminal "A7".

• Does specified digital multimeter display "OL" (infinite)?

NO

⑤ 1) Disconnect instrument cluster 16–P connector.
2) Reconnect SDM.
3) Ignition switch "ON".
4) Measure voltage from instrument cluster harness 16-P connector "Y/G" wire terminal "K7" to ground.

• Is voltage 1 volt or less?

NO

Go to CHART C–(A), of next page.

YES

Go to Chart A

NO

•Replace bulb.

YES

⑥ 1) Disconnect "E" yellow connector.
2) Check for proper connection at "E" yellow connector "BI" wire terminal "E1".
3) If OK then measure resistance from SDM harness connector terminal "A7" to "E" yellow connector terminal "E1".

• Does specified digital multimeter display "OL" (infinite)?

YES

• Repair high resistance or open in CKT "BI". (in air bag harness)

NO

• Repair high resistance or open in CKT "Y/G". (in instrument panel harness)

YES

• Service instrument cluster.

YES

Go to Chart C–(B), of next page.

1) Install instrument cluster.
2) Reconnect all air bag system components, ensure all components are properly mounted.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

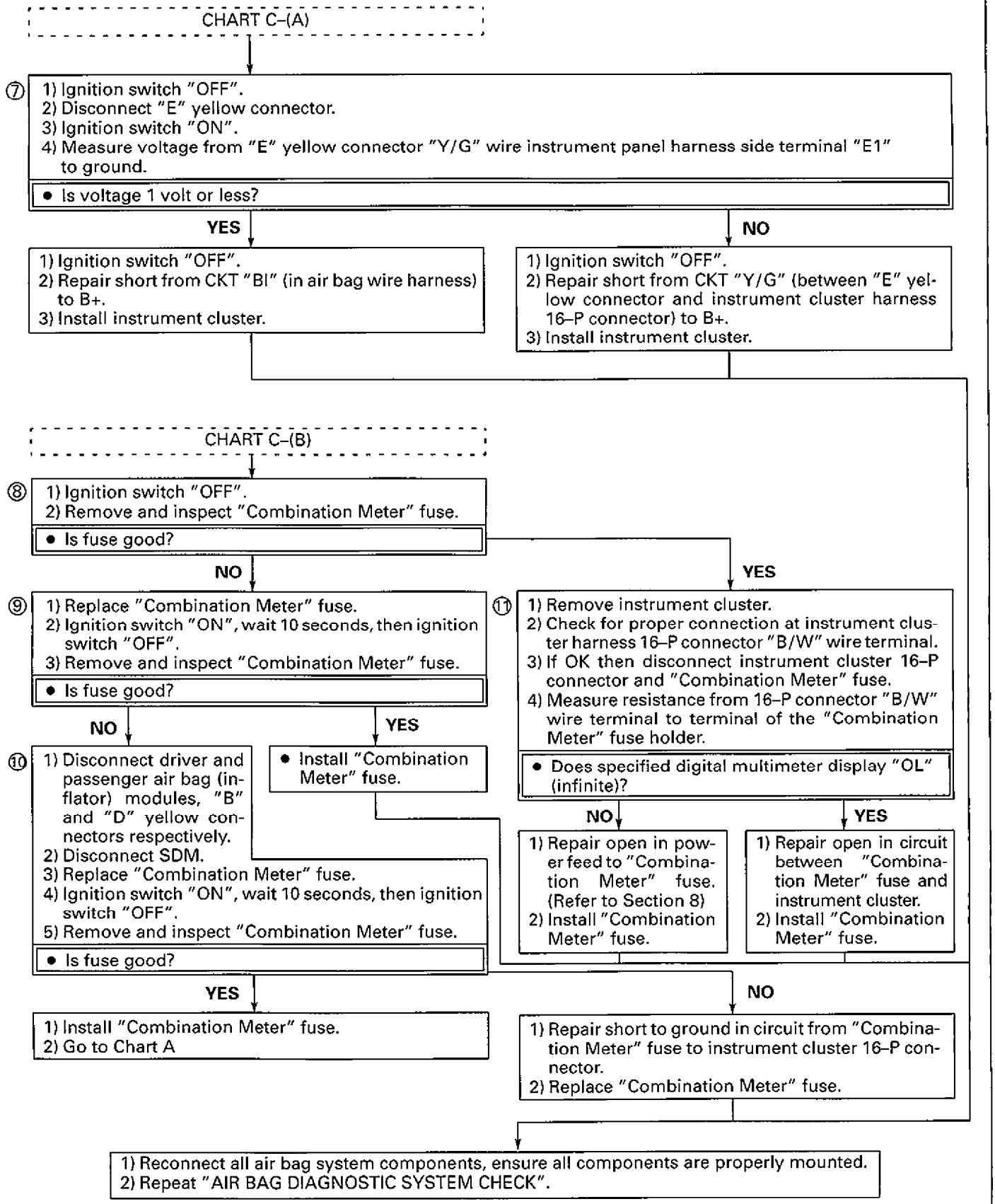
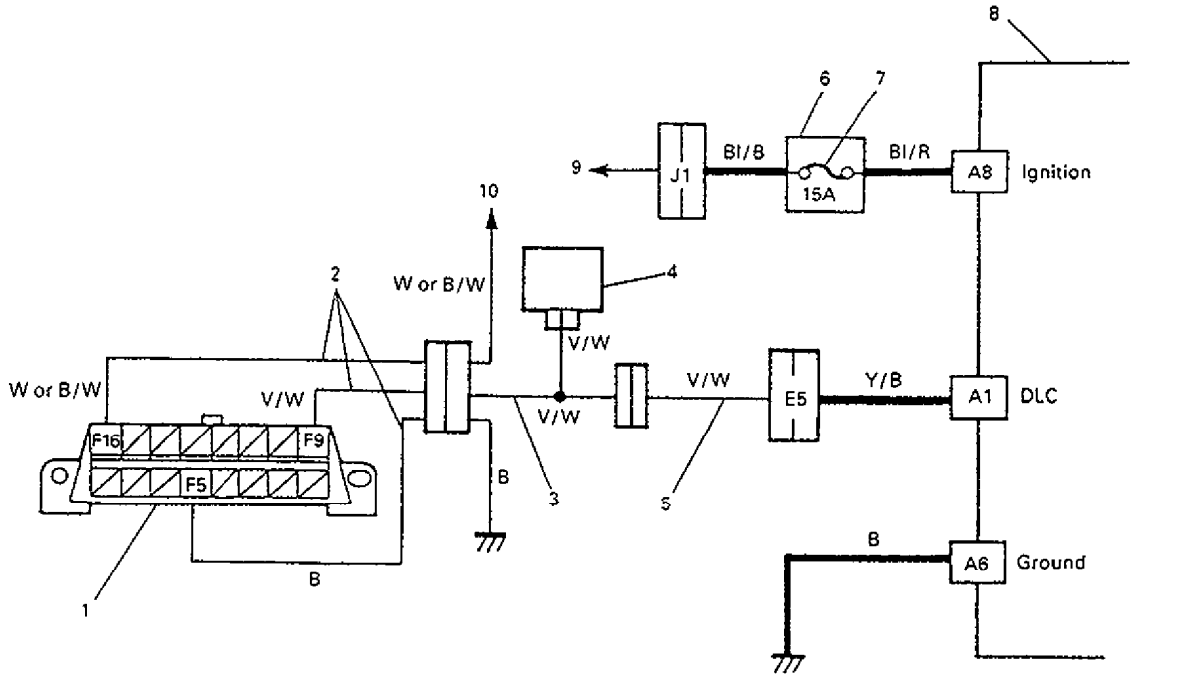


CHART D – SDM CANNOT COMMUNICATE THROUGHT THE SERIAL DATA CIRCUIT



1. Data link connector (DLC)
2. Monitor harness
3. Main harness
4. ABS control module (if equipped)
5. Instrument panel harness
6. "AIR BAG" fuse box
7. "AIR BAG" fuse
8. SDM
9. To main switch (ignition switch)
10. To fuse box

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) An improper connection to the data link connector will prevent communications from being established.
2) This test checks for an open in the "Serial Data" circuit.
3) This test checks whether an abnormality is in SDM or in any other part. Once the integrity of the "Serial Data" circuit including proper connections has been confirmed and ABS control module can communicate, the SDM must be malfunctioning.
4) This test check for a short to ground in the "Serial Data" circuit.
5) This test checks for a short to B+ or other power circuit in the "Serial Data" circuit.
6) This test checks whether the malfunction is caused by a short in ABS control module (if equipped). With ABS control module disconnected from "Serial Data" circuit, if SDM and the scan tool can communicate, ABS control module may be malfunctioning. Once the integrity of the "Serial Data" circuit including proper connections has been confirmed and SDM cannot communicate, the SDM must be malfunctioning.

CHART D – SDM CANNOT COMMUNICATION THROUGH THE SERIAL DATA CIRCUIT

① 1) Make sure that scan tool is free from malfunction and correct cartridge for air bag system is used.
2) Check for proper connection of scan tool to data link connector.
- Is the connection good?

YES ↓ / NO →
- Properly connect scan tool to data link connector.

② 1) Ignition switch "OFF".
2) Disconnect SDM.
3) Disconnect driver and passenger air bag (inflator) modules, "B" and "D" yellow connectors respectively.
4) Check for proper connection at data link connector terminal "F9" and SDM harness connector terminal "A1".
5) If OK then measure resistance from data link connector terminal "F9" to SDM harness connector terminal "A1".
- Does specified digital multimeter display "OL" (infinite)?

NO ↓ / YES →
- Repair open in CKT "Y/B" (in air bag harness) or "V/W".

③ For vehicle not equipped with ABS control module, go to step④
1) Connect scan tool to data link connector after setting ABS cartridge.
2) Ignition switch "ON".
- Can ABS control module communicate?

NO ↓ / YES →
1) Ignition switch "OFF".
2) Check for proper connection at data link connector terminal "F9" and SDM harness connector terminal "A1".
3) If both connections are good, replace SDM. (Refer to "On-vehicle service".)

④ 1) Ignition switch "OFF".
2) Disconnect ABS control module (if equipped).
3) Measure resistance from data link connector terminal "F9" to terminal "F4" (ground).
- Does specified digital multimeter display "OL" (infinite)?

YES ↓ / NO →
- Repair short from CKT "Y/B" (in air bag harness) or "V/W" to ground.

⑤ 1) Ignition switch "ON".
2) Measure voltage on data link connector from terminal "F9" to terminal "F4" (ground).
- Is voltage 1 volts or less?

YES ↓ / NO →
1) Ignition switch "OFF".
2) Repair short from CKT "Y/B" (in air bag harness) or "V/W" to B+ or other power circuit.

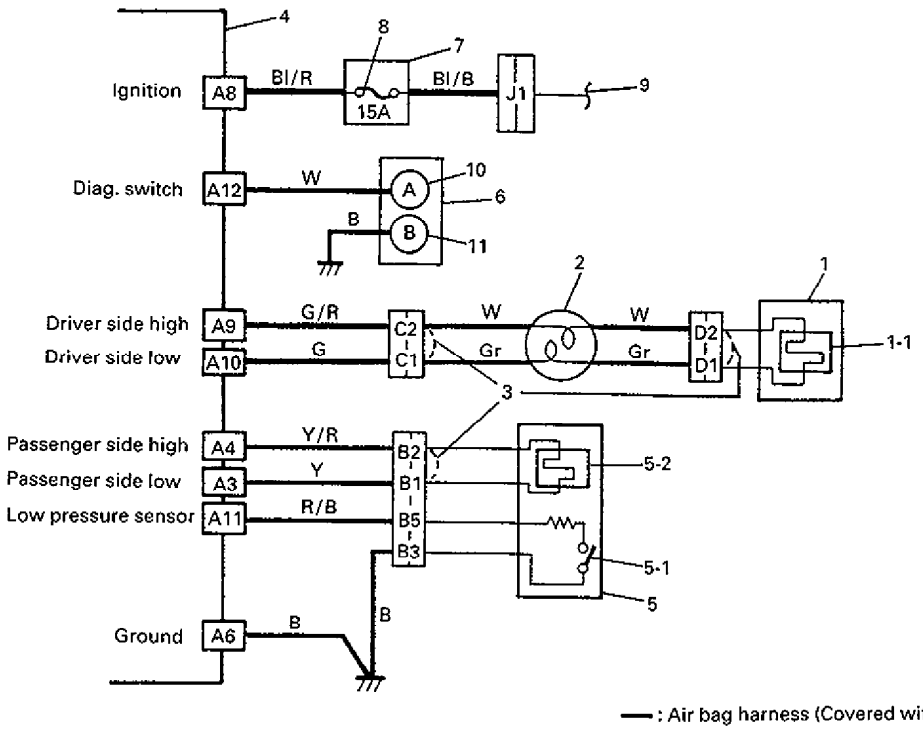
⑥ For vehicle not equipped with ABS control module, go to step ⑦
1) Ignition switch "OFF".
2) Connect SDM, driver and passenger air bag (inflator) module connectors. (Disconnect ABS control module.)
- Can SDM communicate?

NO ↓ / YES →
- Replace ABS control module. (Short to ground or B+ in ABS control module.)

⑦ 1) Ignition switch "OFF".
2) Check for proper connection at data link connector terminal "F9" and SDM harness connector terminal "A1".
3) If both connections are good, replace SDM. (Refer to "On-vehicle service".)

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

CHART E – "AIR BAG" WARNING LAMP KEEPS FLASHING



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator
6. "AIR BAG" monitor coupler
7. "AIR BAG" fuse box
8. "AIR BAG" fuse
9. To main switch (ignition switch)
10 Diagnosis switch terminal
11 Ground terminal

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test checks if flashing cycle of "AIR BAG" warning lamp indicates DTC.
2) This test checks if flashing of "AIR BAG" warning lamp is caused by grounding of diagnosis switch terminal.
3) This test checks for a short from CKT "W" to B+.

60A50-9J-30-1

CHART E – "AIR BAG" WARNING LAMP KEEPS FLASHING

① • After "AIR BAG" warning lamp has flashed 7 times, does the flashing frequency of it indicate the DTC? (For frequency of code signal, refe to page 9J-20.)

YES

NO → Go to Chart A

② 1) Ignition switch "OFF".
2) Note "AIR BAG" monitor coupler.

Is diagnosis switch terminal connected to ground terminal by using service wire?

NO

YES → • Disconnect service wire from "AIR BAG" monitor coupler

③ 1) Disconnect SDM.
2) Check for proper connection at "AIR BAG" monitor coupler terminals "A" and "B".
3) If OK then measure resistance on "AIR BAG" monitor coupler from "A" to "B" (ground).

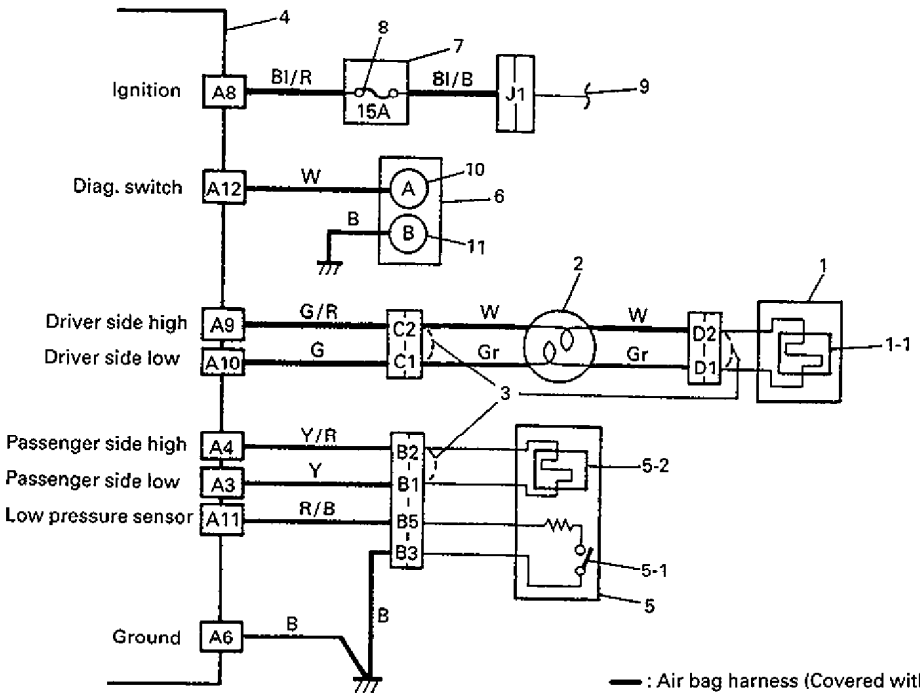
• Does specified digital multimeter display "OL" (infinite)?

YES → Go to Chart A

NO → • Repair short from CKT "W" to ground.

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

CHART F – "AIR BAG" WARNING LAMP CANNOT INDICATE DTC BY FLASHING



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator
6. "AIR BAG" monitor coupler
7. "AIR BAG" fuse box
8. "AIR BAG" fuse
9. To main switch (ignition switch)
10 Diagnosis switch terminal
11 Ground terminal

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) The "AIR BAG" warning lamp should flash 7 times after ignition is first turned "ON".
2) This test checks for an open in CKT "W".
3) This test checks for an open in CKT "B".

60A50-9J-32-1

CHART F – "AIR BAG" WARNING LAMP CANNOT INDICATE DTC BY FLASHING

① 1) Make sure that battery voltage is between 10 – 14 V.
2) Note "AIR BAG" warning lamp when ignition switch is turned "ON".

- Does "AIR BAG" warning lamp flash 7 times, then go "OFF"?

YES → ② 1) Disconnect SDM.
2) Check for proper connection at "AIR BAG" monitor coupler terminal "A" and SDM harness connector terminal "A12".
3) If OK then measure resistance from "AIR BAG" monitor coupler terminal "A" to SDM harness connector terminal "A12".

- Does specified digital multimeter display "OL" (infinite)?

NO → ③ 1) Check for proper connection at "AIR BAG" monitor coupler terminal "B".
2) If OK then measure resistance from "AIR BAG" monitor coupler terminal "B" to ground.

- Does specified digital multimeter display "OL" (infinite)?

NO → Go to Chart A

YES → • Repair open in CKT "B".

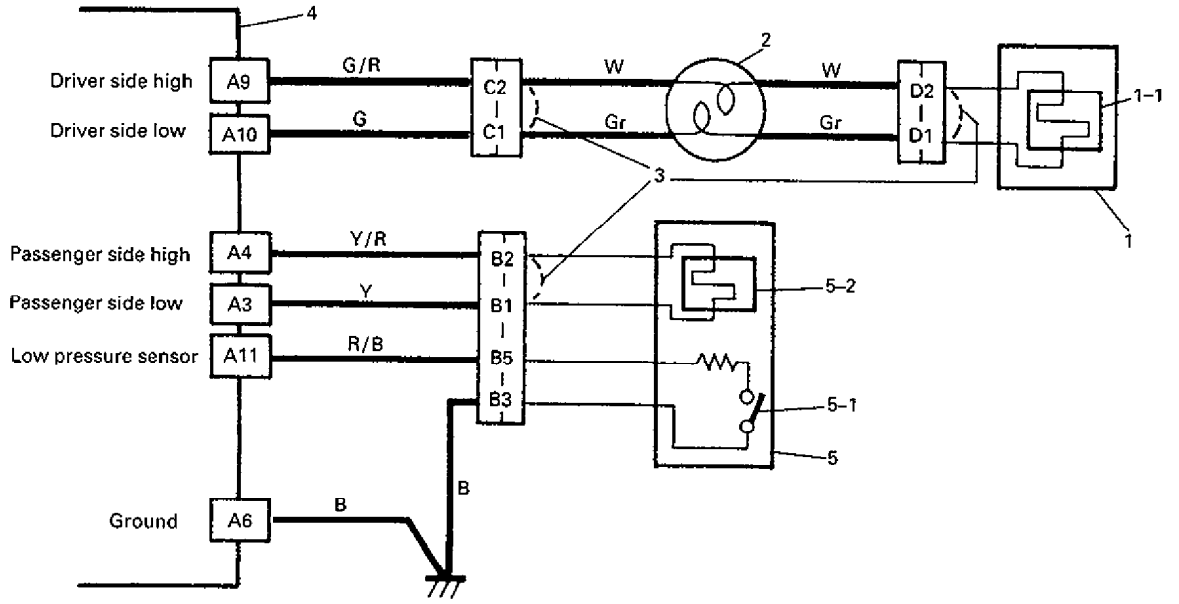
YES → • Repair open in CKT "W".

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Perform "AIR BAG DIAGNOSTIC SYSTEM CHECK" in 9J-18.

NO

- "AIR BAG" warning lamp comes "ON" steady. → Go to Chart B
- "AIR BAG" warning lamp does not come "ON". → Go to Chart C
- "AIR BAG" warning lamp keeps flashing after flashing 7 times. → Go to Chart E

DTC 15 – PASSENGER INITIATOR CIRCUIT RESISTANCE HIGH



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The combined resistance of the passenger air bag (inflator) module, harness wiring and connector terminal contact is above a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test determines whether the malfunction is in the passenger air bag (inflator) module circuity or in the SDM wiring harness circuitry.
2)This test checks whether the malfunction is due to high resistance in CKT "Y/R".
3)This test checks whether the malfunction is due to high resistance in CKT "Y".

60A50-9J-34-1

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a poor connection at terminals "B1" and "B2" of the passenger air bag (inflator) module harness connector, SDM terminals "A3" and "A4", or a poor wire to terminal connection in CKT "Y/R" or "Y". This test for this diagnostic trouble code is only run while the "AIR BAG" warning lamp is performing the bulb check, unless DTC 17 or DTC 26 is detected. When a scan tool "Clear Codes" command is issued and the malfunction is still present, the DTC will not reappear until the next ignition cycle.

60A50-9J-34-5

DTC 15 – PASSENGER INITIATOR CIRCUIT RESISTANCE HIGH

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① 1) Ignition switch "OFF".
2 Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Check for proper connection to passenger air bag (inflator) module at terminals "B1" and "B2".
4) If OK then connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
5) Ignition switch "ON".

- Is DTC 15 current?

YES ↓

② 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Check for proper connection to SDM at terminals "A3" and "A4".
5) If OK then measure resistance from SDM harness connector terminal "A4" to passenger air bag (inflator) module harness connector terminal "B2".

- Is resistance 2.0 Ω or less?

YES ↓

③ • Measure resistance from SDM harness connector terminal "A3" to passenger air bag (inflator) module harness connector terminal "B1".

- Is resistance 2.0 Ω or less?

YES ↓

Go to Chart A

NO →

1) Ignition switch "OFF".
2) Replace passenger air bag (inflator) module. (Refer to "On-vehicle service")

NO →

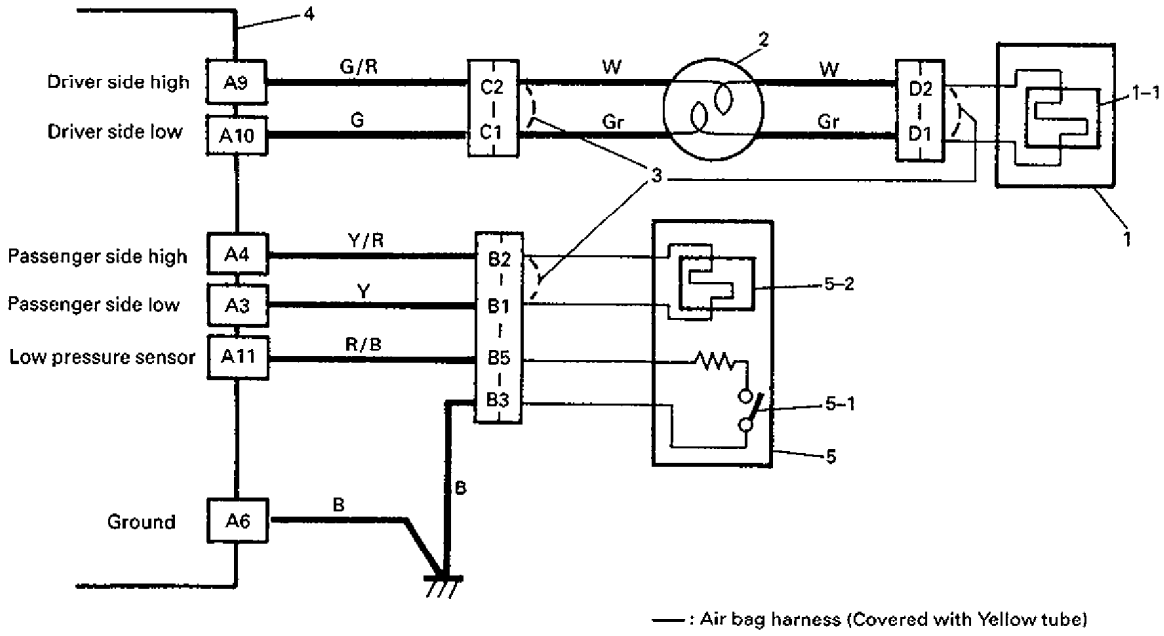
- Repair high resistance in CKT "Y/R".

NO →

- Repair high resistance in CKT "Y".

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 16 – PASSENGER INITIATOR CIRCUIT RESISTANCE LOW



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag intiator

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The combined resistance of the passenger air bag (inflator) module, harness wiring and connector terminal contact is below a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) DTC 16 and 22 will set simultaneously when the "Driver Side High" circuit is shorted to the "Passenger Side High" circuit due to parallel current paths.
2) This test determines whether the malfunction is in the passenger air bag (inflator) module circuitry or in the SDM wiring harness circuitry.
3) This test checks for a short from the "Passenger Side High" circuit to the "Passenger Side Low" circuit.
4) This test checks for a short from the "Passenger Side High" circuit to the "Driver Side Low" circuit.

60A50-9J-36-1

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a short between CKT "Y/R" and CKT "G/R", CKT "G" or CKT "Y", or a malfunctioning shorting bar on the passenger air bag (inflator) module which would require replacement of the module. The test for this diagnostic trouble code is only run while the "AIR BAG" warning lamp is performing the bulb check, unless DTC 17 or DTC 26 is detected. When a scan tool "Clear Codes" command is issued and the malfunction is still present, the DTC will not reappear until the next ignition cycle.

60A50-9J-36-5

DTC 16 – PASSENGER INITIATOR CIRCUIT RESISTANCE LOW

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① • Is DTC 22 also current?

YES

1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Repair short from CKT "G/R" to CKT "Y/R".

NO

② 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Check the "B" yellow connector lock lever and shorting bar for short cancelling function.
4) If OK then connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
5) Ignition switch "ON".

• Is DTC 16 current?

YES

③ 1) Ignition switch "OFF.
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Measure resistance on SDM harness connector from terminal "A3" to terminal "A4".

• Does specified digital multimeter display "OL" (infinite)?

YES

④ • Measure resistance on SDM harness connector from terminal "A4" to terminal "A10".

• Does specified digital multimeter display "OL" (infinite)?

YES

Go to Chart A

NO

• Repair short from CKT "Y/R" to CKT "G".

NO

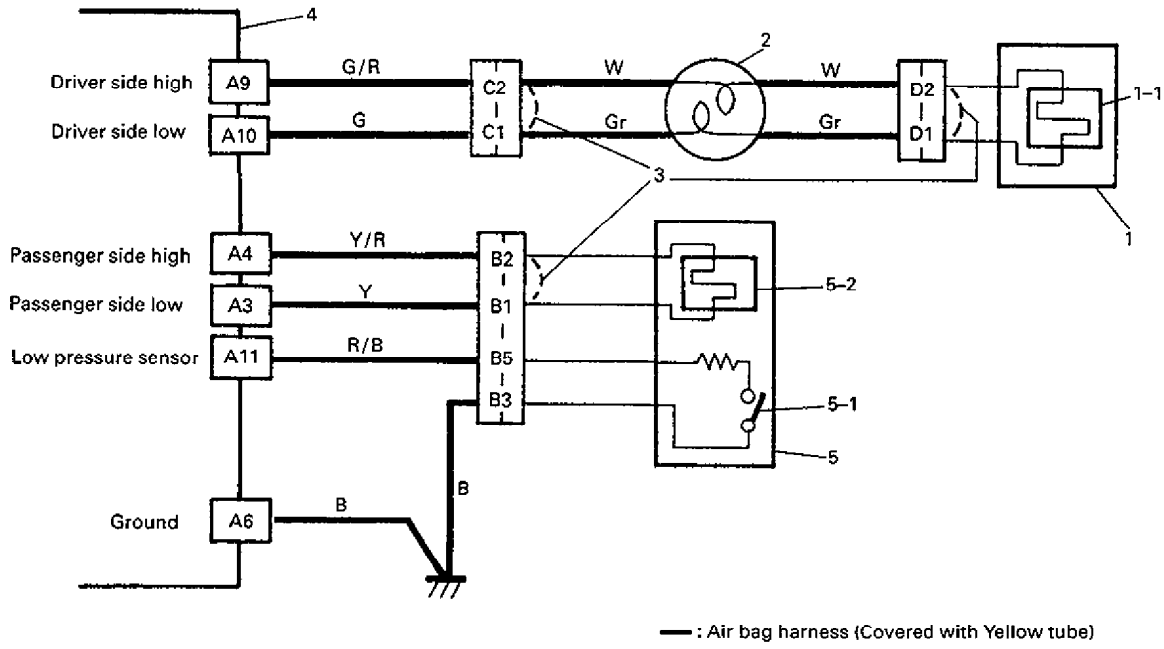
1) Ignition switch "OFF".
2) Replace passenger air bag (inflator) module. (Refer to "On-vehicle service")

NO

• Repair short from CKT "Y/R" to CKT "Y".

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 17 – PASSENGER INITIATOR CIRCUIT OPEN



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The combined resistance of the passenger air bag (inflator) module, harness wiring and connector terminal contact is above or equal to a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test determines whether the malfunction is in the passenger air bag (inflator) module circuitry or in the SDM wiring harness circuitry.
2) This test checks whether the malfunction is due to high resistance in CKT "Y/R".
3) This test checks whether the malfunction is due to high resistance in CKT "Y".

60A50-9J-38-1

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a poor connection at the passenger air bag (inflator) module harness connector terminals "B1" and "B2", SDM terminals "A3" and "A4", or an open in CKT "Y/R" or CKT "Y".

60A50-9J-38-5

DTC 17 – PASSENGER INITIATOR CIRCUIT OPEN

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Check for proper connection to passenger air bag (inflator) module at terminals "B1" and "B2".
4) If OK then connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
5) Ignition switch "ON".

- Is DTC 17 current?

YES

② 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Check for proper connection to SDM at terminals "A3" and "A4".
5) If OK then measure resistance from SDM harness connector terminal "A4" to passenger air bag (inflator) module harness connector terminal "B2".

- Is resistance 2.0 Ω or less?

YES

③
- Measure resistance from SDM harness connector terminal "A3" to passenger air bag (inflator) module harness connector terminal "B1".

- Is resistance 2.0 Ω or less?

YES

Go to Chart A

NO

- Repair high resistance or open in CKT "Y".

NO

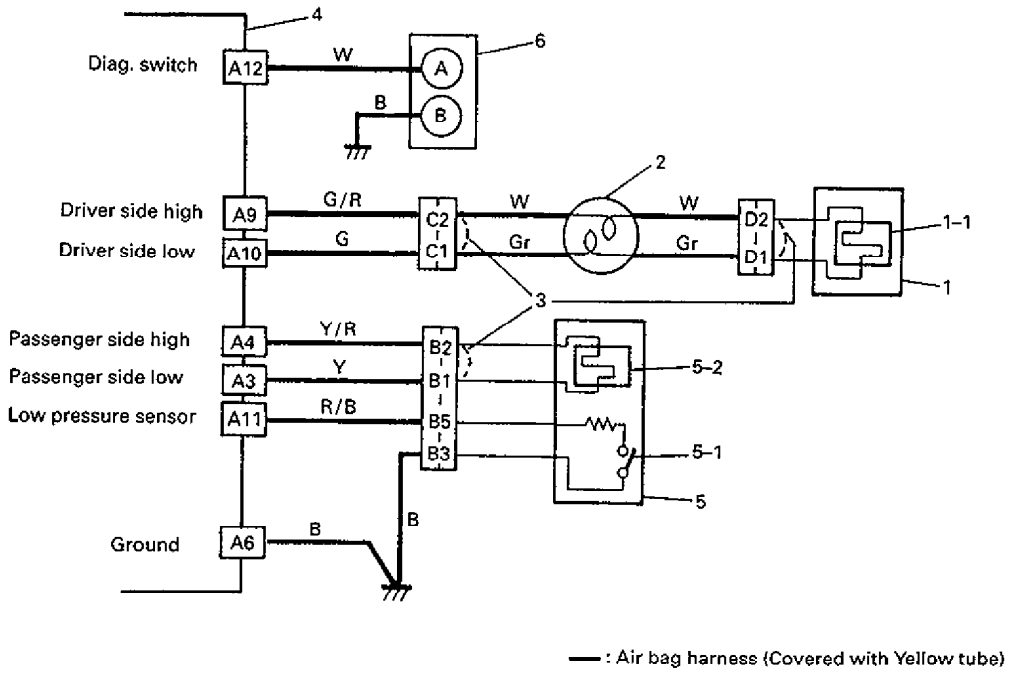
- Repair high resistance or open in CKT "Y/R".

NO

1) Ignition switch "OFF".
2) Replace passenger air bag (inflator) module. (Refer to "On-vehicle service")

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 18 – PASSENGER INITIATOR CIRCUIT SHORT TO GROUND



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator
6. "AIR BAG" monitor coupler

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The voltage measured at "Passenger Side Low" is below a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test determines whether the malfunction is occurring in the passenger air bag (inflator) module circuitry.
2) This test checks for a short from "Passenger Side High" to ground.
3) This test checks for a short from "Passenger Side Low" to ground.

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a short to ground in the passenger air bag (inflator) module circuits. Inspect CKTs "Y/R" and "Y" carefully for cutting or chafing.
If the wiring pigtail of the passenger air bag (inflator) module is damaged the component must be replaced.

DTC 18 – PASSENGER INITIATOR CIRCUIT SHORT TO GROUND

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

①
1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steerig column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
4) Ignition switch "ON".

- Is DTC 18 current?

YES

②
1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Measure resistance on SDM harness connector from terminal "A4" to terminal "A6" (ground).

- Does specified digital multimeter display "OL" (infinite)?

YES

③
- Measure resistance on SDM harness connector from terminal "A3" to terminal "A6" (ground).
- Does specified digital multimeter display "OL" (infinite)?

YES

Go to Chart A

NO

1) Ignition switch "OFF".
2) If wire harness is damaged, repair its cause. Replace passenger air bag (inflator) module. (Refer to " On-vehicle service")

NO

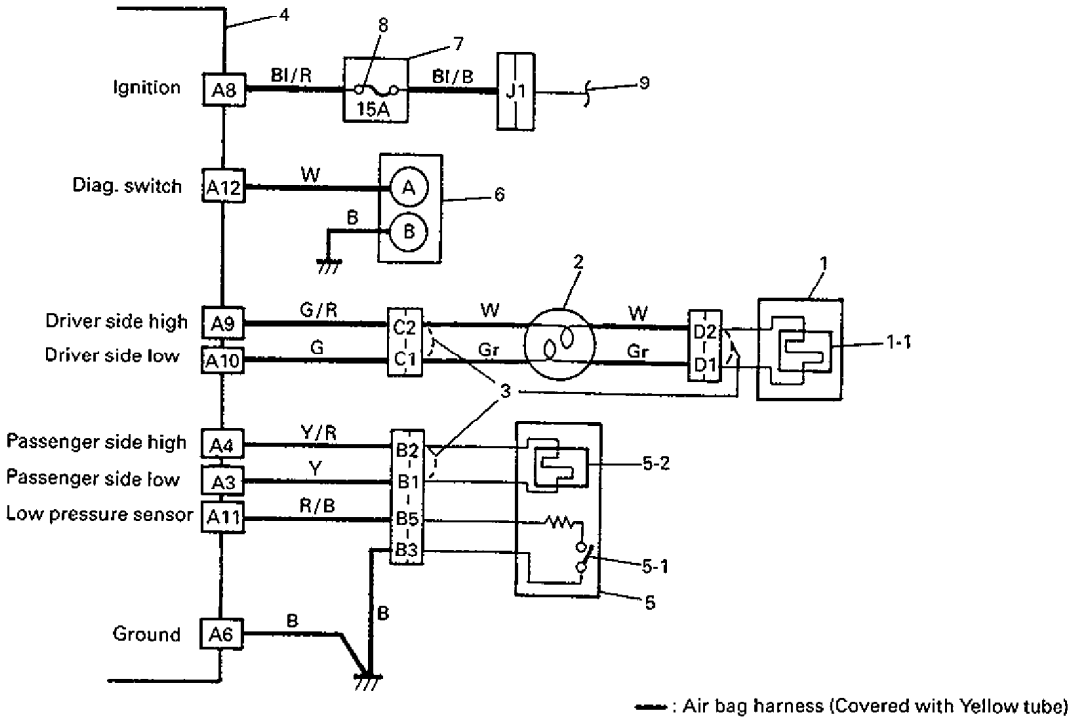
- Repair short from CKT "Y/R" to ground.

NO

- Repair short from CKT "Y" to ground.

1) Reconnect all air bag system components, ensure all components are properlly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 19 – PASSENGER INITIATOR CIRCUIT SHORT TO IGNITION



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator
6. "AIR BAG" monitor coupler
7. "AIR BAG" fuse box
8. "AIR BAG" fuse
9. To main switch (ignition switch)

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The voltage measured at "Passenger Side Low" is above a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test determines whether the malfunction is occurring in the passenger air bag (inflator) module circuitry.
2) This test checks for a short from "Passenger Side High" to B+.
3) This test checks for a short from "Passenger Side Low" to B+.

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a short to B+ in the passenger air bag (inflator) module circuits. A DTC 19 history would be accompanied by DTC 71 current. A careful inspection of the circuits and components indicated on DTC 19 charts is essential to ensure that the replacement SDM will not be damaged.

60A50-9J-42-1

DTC 19 – PASSENGER INITIATOR CIRCUIT SHORT TO IGNITION

CAUTION:
When DTC 19 has been set it is necessary to replace the SDM.
Setting DTC 19 will also cause DTC 71 to set. When a scan tool "CLEAR CODES" command is issued and the malfunction is still present, DTCs 19 and 71 will remain current. When a scan tool "CLEAR CODES" command is issued and the malfunction is no longer present, DTC 19 will clear but DTC 71 will remain current. Ensure that the short to B+ condition is repaired prior to installing a replacement SDM to avoid damaging the SDM.

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
4) Ignition switch "ON".

- Is DTC 19 current?

YES

② 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Measure voltage on SDM harness connector from terminal "A4" to terminal "A6" (ground).

- Is voltage 1 volt or less?

YES

③
- Measure voltage on SDM harness connector from terminal "A3" to terminal "A6" (ground).

- Is voltage 1 volt or less?

YES

Go to Chart A

NO

1) Ignition switch "OFF".
2) If wire harness is damaged, repair its cause. Replace passenger air bag (inflator) module. (Refer to " On-vehicle service")

NO

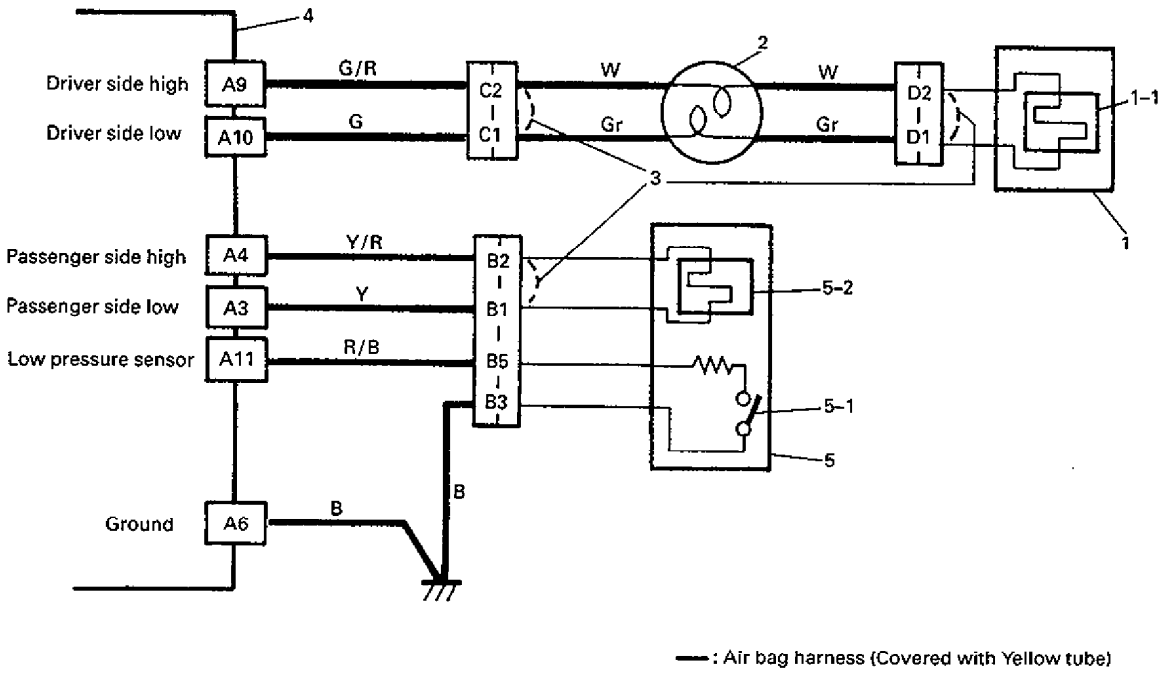
1) Ignition switch "OFF".
2) Repair short from CKT "Y/R" to B+.

NO

1) Ignition switch "OFF".
2) Repair short from CKT "Y" to B+.

1) Replace SDM.
2) Reconnect all air bag system components, ensure all components are properly mounted.
3) Clear diagnostic trouble codes.
4) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 21 – DRIVER INITIATOR CIRCUIT RESISTANCE HIGH



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The combined resistance of the driver air bag (inflator) module, contact coil assembly, harness wiring and connector terminal contact is above a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test determines whether the malfunction is in the driver air bag (inflator) module circuitry or in the SDM wiring harness circuitry.
2) This test checks whether the malfunction is due to high resistance in CKT "G/R".
3) This test checks whether the malfunction is due to high resistance in CKT "G".
4) This test determines whether the malfunction is in the driver air bag (inflator) module or the contact coil assembly.

60A50-9J-44-1

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a poor connection at terminals "C1" and "C2" of the contact coil connector at the base of the steering column, terminals "D1" and "D2" of the driver air bag (inflator) module connector in the steering wheel lower cover, SDM terminals "A9" and "A10" or a poor wire to terminal connection in CKT "G/R" or CKT "G". The test for this diagnostic trouble code is only run while the "AIR BAG" warning lamp is performing the bulb check, unless DTC 17 or DTC 26 is detected. When a scan tool "Clear Codes" command is issued and the malfunction is still present, the DTC will not reappear until the next ignition cycle.

60A50-9J-44-2

DTC 21 – DRIVER INITIATOR CIRCUIT RESISTANCE HIGH

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Check for proper connection to contact coil assembly connector at terminals "C1" and "C2".
4) If OK then connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
5) Ignition siwtch "ON".

- Is DTC 21 current?

YES

② 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Check for proper connection to SDM at terminals "A10" and "A9".
5) If OK then measure resistance from SDM harness connector terminal "A9" to driver air bag (inflator) module harness connector terminal "C2".

- Is resistance 2.0 Ω or less?

YES

③
- Measure resistance from SDM harness connector terminal "A10" to driver air bag (inflator) module harness connector terminal "C1".

- Is resistance 2.0 Ω or less?

YES

Go to Chart A

NO

- Repair high resistance in CKT "G".

NO

- Repair high resistance in CKT "G/R".

NO

④ 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool from driver air bag (inflator) module harness connector.
3) Remove air bag (inflator) module from steering wheel. (Refer to Section 3C1)
4) Connect driver/passenger load tool to air bag (inflator) module connector of contact coil on steering column.
5) Reconnect driver air bag (inflator) module harness connector at the base of the steering column.
6) Ignition switch "ON".

- Is DTC 21 current?

YES

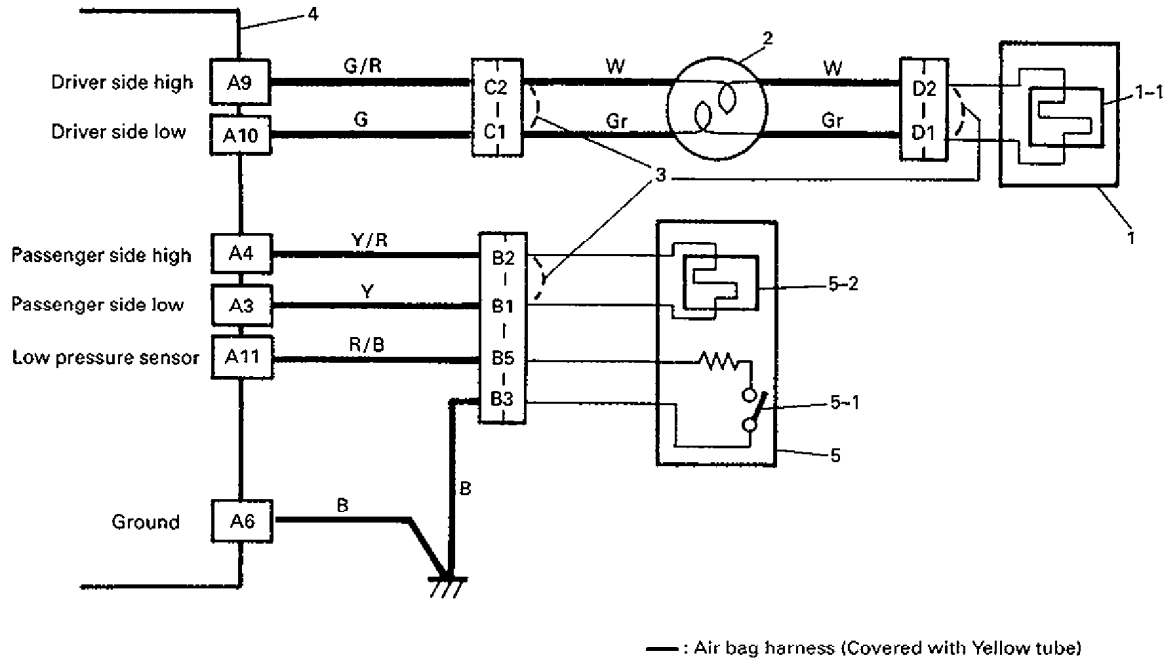
1) Ignition switch "OFF".
2) Replace contact coil assembly. (Refer to Section 3C1)

NO

1) Ignition switch "OFF".
2) Replace driver air bag (inflator) module. (Refer to Section 3C1)

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 22 – DRIVER INITIATOR CIRCUIT RESISTANCE LOW



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The combined resistance of the driver air bag (inflator) module, contact coil assembly, harness wiring and connector terminal contact is below a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) DTC 16 and 22 will set simultaneously when the "Driver Side High" circuit is shorted to the "Passenger Side High" circuit due to parallel current paths.
2) This test determines whether the malfunction is in the driver air bag (inflator) module circuitry or in the SDM wiring harness circuitry.
3) This test checks for a short from the "Driver Side High" circuit to the "Driver Side Low" circuit.
4) This test checks for a short from the "Driver Side High" circuit to the "Passenger Side Low" circuit.
5) This test determines whether the malfunction is in the driver air bag (inflator) module or the contact coil assembly.

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a short between CKT "G/R" and CKT "G", CKT "Y/R" or CKT "Y", or a malfunctioning shorting bar on the driver air bag (inflator) module or contact coil assembly which would require replacement of the component. The test for this diagnostic trouble code is only run while the "AIR BAG" warning lamp is performing the bulb check, unless DTC 17 or DTC 26 is detected. When a scan tool "Clear Codes" command is issued and the malfunction is still present, the DTC will not reappear until the next ignition cycle.

DTC 22 – DRIVER INITIATOR CIRCUIT RESISTANCE LOW

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① • Is DTC 16 also current?

NO

② 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steer-ing column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Check the "C" yellow connector lock lever and shorting bar for short cancelling function.
4) If OK then connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
5) Ignition switch "ON".

• Is DTC 22 current?

YES

③ 1) Ignitin switch "OFF".
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Measure resistance on SDM harness connector from terminal "A10" to terminal "A9".

• Does specified digital multimeter display "OL" (infinite)?

YES

④ • Measure resistance on SDM harness connector from terminal "A3" to terminal "A9".

• Does specified digital multimeter display "OL" (infinite)?

YES

Go to Chart A

NO

• Repair short from CKT "G/R" to CKT "Y".

NO

• Repari short from CKT "G/R" or CKT "G".

YES

1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Repair short from CKT "G/R" to CKT "Y/R".

NO

⑤ 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool from driver air bag (inflator) module harness connector.
3) Remove driver air bag (inflator) module from steering wheel. (Refer to Section 3C1)
4) Check the "D" yellow connector lock lever and shorting bar for short cancelling function.
5) If OK then connect driver/passenger load tool to air bag (inflator) module connector of contact coil on the steering column.
6) Reconnect driver air bag (inflator) module harness connector at the base of the steering column.
7) Ignition siwtch "ON".

• Is DTC22 current?

YES

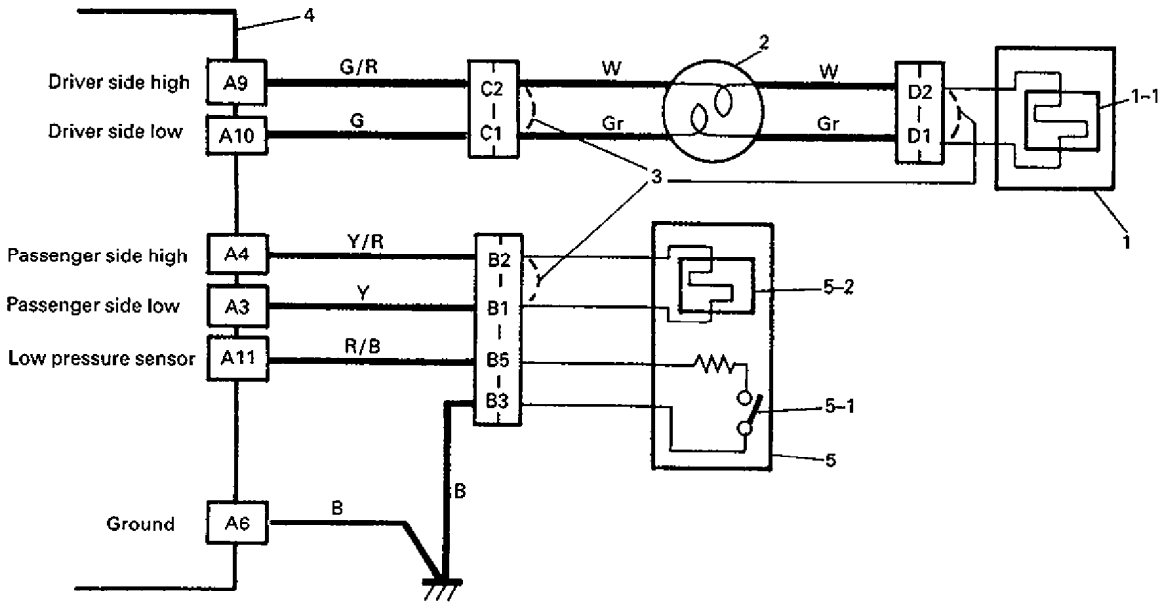
1) Ignition switch "OFF".
2) Replace contact coil assembly. (Refer to Section 3C1)

NO

1) Ignition switch "OFF".
2) Replace driver air bag (inflator) module. (Refer to Section 3C1)

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 24 – DRIVER INITIATOR CIRCUIT SHORT TO GROUND



—— : Air bag harness (Covered with Yellow tube)

1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator
6. "AIR BAG" monitor coupler

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The voltage measured at "Driver Side Low" is below a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test determines whether the malfunction is occurring in the driver air bag (inflator) module circuitry.
2) This test checks for a short from "Driver Side High" to ground.
3) This test checks for a short from "Driver Side Low" to ground.
4) This test determines whether the malfunction is in the driver air bag (inflator) module or contact coil assembly.

60A50-9J-48-1

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a short to ground in the driver air bag (inflator) module circuits. Inspect CKTs "G/R" and "G" carefully for cutting or chafing.

If the wiring pigtail of the contact coil assembly or driver air bag (inflator) module is damaged the component must be replaced.

60A50-9J-48-2

DTC 24 – DRIVER INITIATOR CIRCUIT SHORT TO GROUND

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
4) Ignition switch "ON".

- Is DTC 24 current?

YES

② 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Measure resistance on SDM harness connector from terminal "A9" to terminal "A6" (ground).

- Does specified digital multimeter display "OL" (infinite)?

YES

③
- Measure resistance on SDM harness connector from terminal "A10" to terminal "A6" (ground).
- Does specified digital multimeter display "OL" (infinite)?

YES

Go to Chart A

NO

- Repair short from CKT "G/R" to ground.

NO

④ 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool from driver air bag (inflator) module harness connector.
3) Remove air bag (inflator) module from steering wheel. (Refer to Section 3C1)
4) Connect driver/passenger load tool to air bag (inflator) module connector of contact coil on steering column.
5) Reconnect driver air bag (inflator) module harness connector at the base of the steering column.
6) Ignition switch "ON".

- Is DTC 24 current?

YES

1) Ignition switch "OFF".
2) If wire harness is damaged, repair its cause. Replace contact coil assembly. (Refer to Section 3C1)

NO

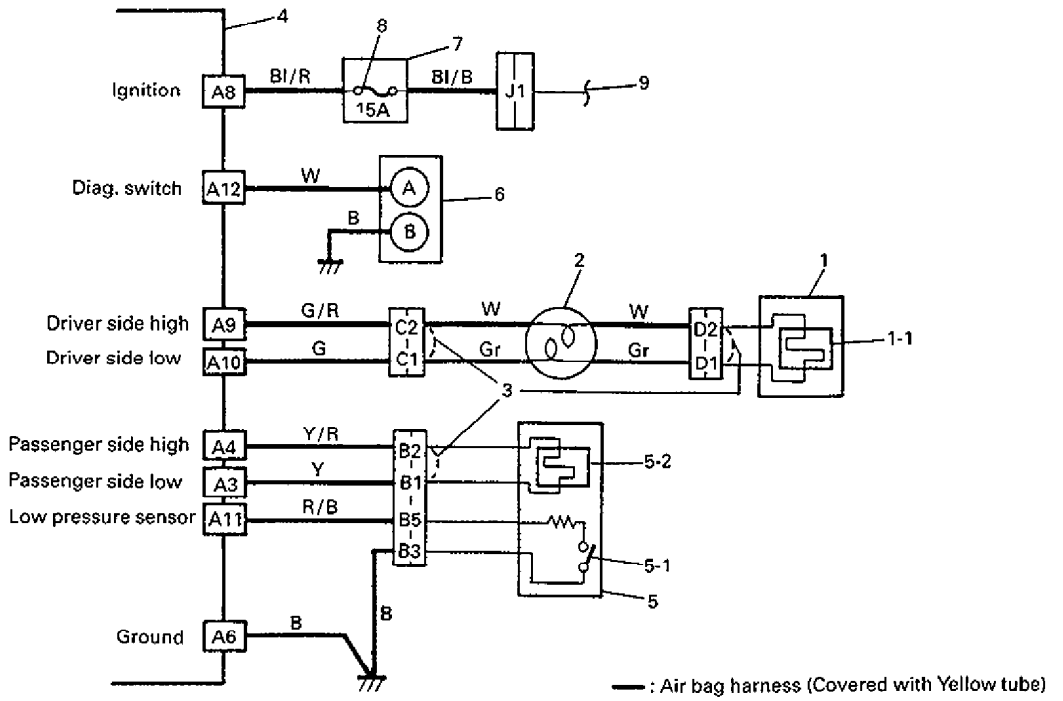
1) Ignition switch "OFF".
2) If wire harness is damaged, repair its cause. Replace driver air bag (inflator) module. (Refer to Section 3C1)

NO

- Repair short from CKT "G" to ground.

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 25 – DRIVER INITIATOR CIRCUIT SHORT TO IGNITION



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator
6. "AIR BAG monitor coupler
7. "AIR BAG" fuse box
8. "AIR BAG" fuse
9. To main switch (ignition switch)

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The voltage measured at "Driver Side Low" is above a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test determines whether the malfunction is occurring in the driver air bag (inflator) module circuitry.
2) This test checks for a short from "Driver Side High" to B+.
3) This test checks for a short from "Driver Side Low" to B+.
4) This test determines whether the malfunction is in the driver air bag (inflator) module or contact coil assembly.

60A50-9J-50-1

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a short to B+ in the driver air bag (inflator) module circuits. A DTC 25 history would be accompanied by DTC 71 current. A careful inspection of the circuits and components indicated on DTC 25 charts is essential to ensure that the replacement SDM will not be damaged.

60A50-9J-50-2

DTC 25 – DRIVER INITIATOR CIRCUIT SHORT TO IGNITION

CAUTION:
When DTC 25 has been set it is necessary to replace the SDM.
Setting DTC 25 will also cause DTC 71 to set. When a scan tool "CLEAR CODES" command is issued and the malfunction is still present, DTCs 25 and 71 will remain current. When a scan tool "CLEAR CODES" command is issued and the malfunction is no longer present, DTC 25 will clear but DTC 71 will remain current. Ensure that the short to B+ condition is repaired prior to installing a replacement SDM to avoid damaging the SDM.

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
4) Ignition switch "ON".

- Is DTC 25 current?

YES

② 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Measure voltage on SDM harness connector from terminal "A9" to terminal "A6" (ground).

- Is voltage 1 volt or less?

YES

③
- Measure voltage on SDM harness connector from terminal "A10" to terminal "A6" (ground).
- Is voltage 1 volt or less?

YES

1) Ignition switch "OFF".
2) Go to Chart A.

NO

1) Ignition switch "OFF".
2) Repair short from CKT "G" to B+.

NO

1) Ignition switch "OFF".
2) Repair short from CKT "G/R" to B+.

NO

④ 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool from driver air bag (inflator) module harness connector.
3) Remove air bag (inflator) module from steering wheel. (Refer to Section 3C1)
4) Connect driver/passenger load tool to air bag (inflator) module connector of contact coil on steering column.
5) Reconnect driver air bag (inflator) module harness connector at the base of the steering column.
6) Ignition switch "ON".

- Is DTC 25 current?

YES

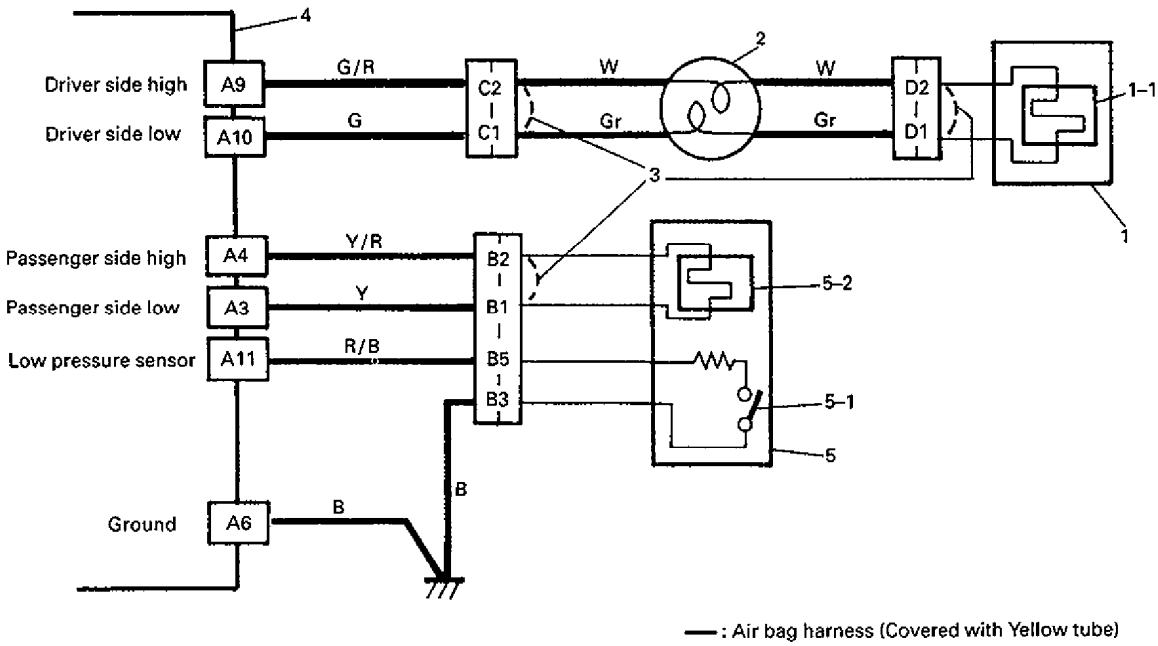
1) Ignition switch "OFF".
2) If wire harness is damaged, repair its cause. Replace contact coil assembly. (Refer to Section 3C1)

NO

1) Ignition switch "OFF".
2) If wire harness is damaged, repair its cause. Replace driver air bag (inflator) module. (Refer to Section 3C1)

1) Repalce SDM.
2) Reconnect all air bag system components, ensure all components are properly mounted.
3) Clear diagnostic trouble codes.
4) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 26 – DRIVER INITIATOR CIRCUIT OPEN



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The combined resistance of the driver air bag (inflator) module, contact coil assembly, harness wiring and connector terminal contact is above or equal to a specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test determines whether the malfunction is in the driver air bag (inflator) module circuitry or in the SDM wiring harness circuitry.
2) This test checks whether the malfunction is due to high resistance in CKT "G/R".
3) This test checks whether the malfunction is due to high resistance in CKT "G".
4) This test determines whether the malfunction is in the driver air bag (inflator) module or the contact coil assembly.

60A50-9J-52-1

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a poor connection at the driver air bag (inflator) module terminals "D1" and "D2", contact coil assembly terminals "C1" and "C2", SDM terminals "A9" and "A10", or an open in CKT "G/R" or CKT "G".

60A50-9J-52-2

DTC 26 – DRIVER INITIATOR CIRCUIT OPEN

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Check for proper connection to contact coil assembly connector at terminals "C1" and "C2".
4) If OK then connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
5) Ignition switch "ON".

- Is DTC 26 current?

YES → ② 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool.
3) Disconnect SDM.
4) Check for proper connection to SDM at terminals "A9" and "A10".
5) If OK then measure resistance from SDM harness connector terminal "A9" to driver air bag (inflator) module harness connector terminal "C2".

- Is resistance 2.0 Ω or less?

YES → ③
- Measure resistance from SDM harness connector terminal "A10" to driver air bag (inflator) module harness connecto to terminal "C1".

- Is resistance 2.0 Ω or less?

YES → Go to Chart A

NO → Repair high resistance or open in CKT "G".

NO → Repair high resistance or open in CKT "G/R".

NO → ④ 1) Ignition switch "OFF".
2) Disconnect driver/passenger load tool from driver air bag (inflator) module harness connector.
3) Remove air bag (inflator) module from steering wheel. (Refer to Section 3C1)
4) Connect driver/passenger load tool to air bag (inflator) module connector of contact coil on steering column.
5) Reconnect driver air bag (inflator) module harness connector at the base of the steering column.
6) Ignition switch "ON".

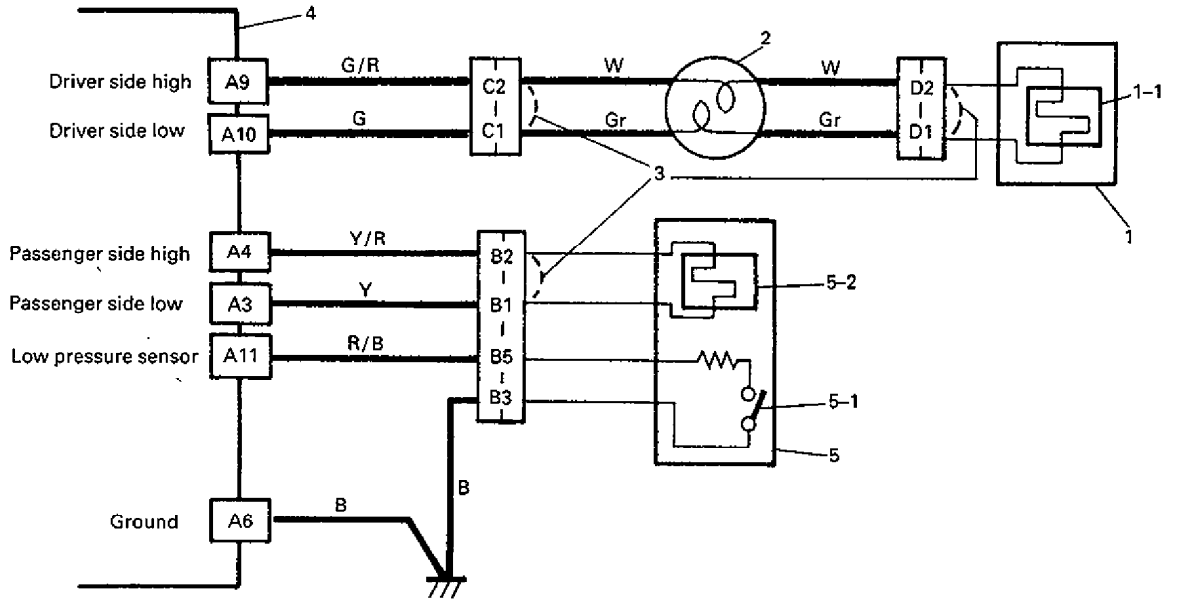
- Is DTC 26 current?

YES → 1) Ignition switch "OFF".
2) Replace contact coil assembly. (Refer to Section 3C1)

NO → 1) Ignition switch "OFF".
2) Replace driver air bag (inflator) module. (Refer to Section 3C1)

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 37 – LOW PRESSURE SENSOR SHORTED OR SHORT TO GROUND



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator
6. "AIR BAG" monitor coupler

CAUTION:

- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:

The voltage measured at "Low Pressure Sensor" terminal "A11" is less than or equal to specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test checks for a short across the low pressure sensor circuit inside the passenger air bag (inflator) module.
2) This test checks for a short from the "Low Pressure Sensor" circuit to ground.

60A50-9J-54-1

DIAGNOSTIC AIDS:

An intermittent condition is likely to be caused by a short from CKT "R/B" to ground or a malfunction in the low pressure sensor circuit inside the passenger air bag (inflator) module which would require replacement of the passenger air bag (inflator) module.

60A50-9J-54-2

DTC 37 – LOW PRESSURE SENSOR SHORTED OR SHORT TO GROUND

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Check for backed out and/or shorted terminals on the passenger air bag (inflator) module harness connector.
4) If OK then connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
5) Ignition switch "ON".

- Is DTC 37 current?

YES

② 1) Ignition switch "OFF".
2) Disconnect SDM.
3) Disconnect driver/passenger load tool.
4) Measure resistance on passenger air bag (inflator) module harness connector from terminal "B5" to terminal "B3" (ground).

- Does specified digital multimeter display "OL" (infinite)?

YES

Go to Chart A

NO

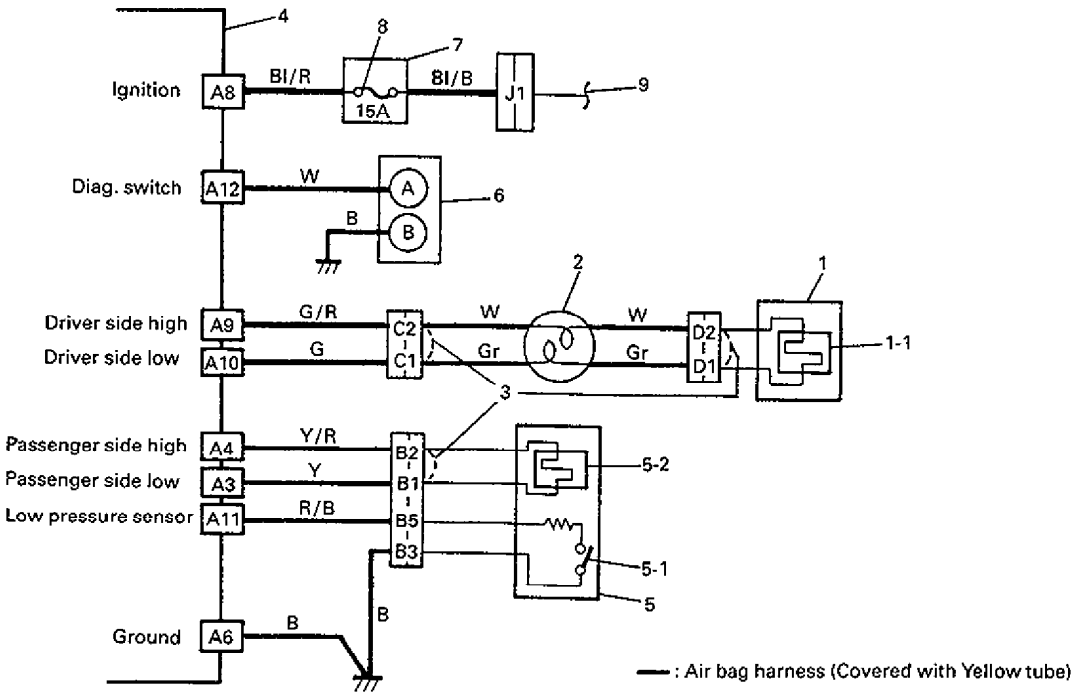
- Repair short from CKT "R/B" to ground.

NO

1) Ignition switch "OFF".
2) Replace passenger air bag (inflator) module. (Refer to "On-vehicle service")

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

DTC 38 – LOW PRESSURE DETECTED, LOW PRESSURE SENSOR OPEN OR SHORT TO IGNITION



1. Driver air bag (inflator) module
1-1. Driver air bag initiator
2. Contact coil
3. Shorting bar
4. SDM
5. Passenger air bag (inflator) module
5-1. Low pressure sensor
5-2. Passenger air bag initiator
6. "AIR BAG" monitor coupler
7. "AIR BAG" fuse box
8. "AIR BAG" fuse
9. To main switch (ignition switch)

CAUTION:
- **When measurements are requested in this chart use specified digital multimeter with correct terminal adapter from special tool (Connector test adapter kit).**
- **When a check for proper connection is requested refer to "INTERMITTENTS AND POOR CONNECTIONS" in this section.**
- **When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.**

DTC WILL SET WHEN:
The voltage measured at "Low Pressure Sensor" terminal "A11" is greater than or equal to specified value for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.
1) This test checks for an open in the low pressure sensor circuit inside the passenger air bag (inflator) module.
2) This test checks for an open in the "Low Pressure Sensor" circuit.
3) This test checks for an open in the ground feed to the low pressure sensor.
4) This test checks for a short from the "Low Pressure Sensor" circuit to B+.

60A50-9J-56-1

DIAGNOSTIC AIDS:
An intermittent condition is likely to be caused by a poor connection to the SDM at terminal "A11", a poor connection at the passenger air bag (inflator) module harness connector terminal "B3" or "B5", an open in CKT "R/B" or CKT "B", a short from CKT "R/B" to B+ or a malfunction in the low pressure sensor circuit inside the passenger air bag (inflator) module which would require replacement of the passenger air bag (inflator) module.

60A50-9J-56-2

DTC 38 – LOW PRESSURE DETECTED, LOW PRESSURE SENSOR OPEN OR SHORT TO IGNITION

Before executing items in this chart, be sure to perform "AIR BAG DIAGNOSTIC SYSTEM CHECK".

① 1) Ignition switch "OFF".
2) Disconnect driver air bag (inflator) module, "C" yellow connector located near the base of the steering column and passenger air bag (inflator) module, "B" yellow connector behind the glove box.
3) Check for proper connection to passenger air bag (inflator) module harness connector terminal "B3" and "B5".
4) If OK then connect special tool (driver/passenger load tool) to driver and passenger air bag (inflator) module harness connectors disconnected at the above step respectively.
5) Ignition switch "ON".

- Is DTC 38 current?

YES

② 1) Ignition switch "OFF".
2) Disconnect SDM.
3) Disconnect driver/passenger load tool.
4) Check for proper connection to SDM at terminal "A11".
5) If OK then measure resistance from SDM harness connector terminal "A11" to passenger air bag (inflator) module harness connector terminal "B5".

- Is resistance 5.0 Ω or less?

YES

③
- Measure resistance from SDM harness connector terminal "A6" (ground) to passenger air bag (inflator) module harness connector terminal "B3".
- Is resistance 5.0 Ω or less?

YES

④ 1) Ignition switch "ON".
2) Measure voltage on SDM harness connector from terminal "A11" to terminal "A6" (ground).

- Is voltage 1 volt or less?

YES

1) Ignition switch "OFF".
2) Go to Chart A.

NO

1) Ignition switch "OFF".
2) Repair short from CKT "R/B" to B+.

NO

- Repair open in CKT "B".

NO

- Repair open in CKT "R/B".

NO

1) Ignition switch "OFF".
2) Replace passenger air bag (inflator) module. (Refer to "On-vehicle service")

1) Reconnect all air bag system components, ensure all components are properly mounted.
2) Clear diagnostic trouble codes.
3) Repeat "AIR BAG DIAGNOSTIC SYSTEM CHECK".

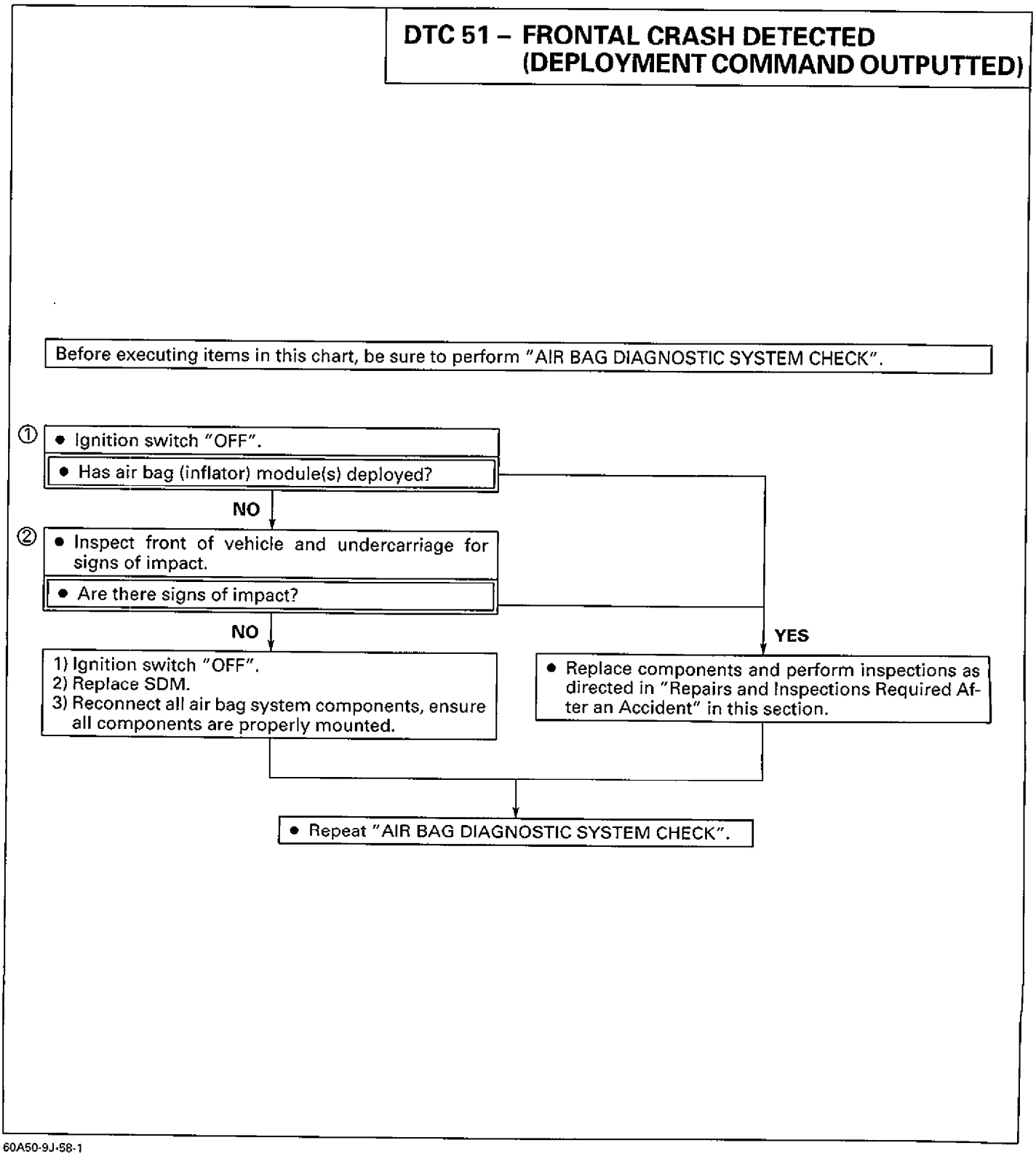
DTC 51 – FRONTAL CRASH DETECTED (DEPLOYMENT COMMAND OUTPUTTED)

DTC WILL SET WHEN:

The SDM detects a frontal crash of sufficient force to warrant deployment of the air bags. (SDM outputs a deployment command.)

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) If air bag (inflator) module(s) has not deployed, DTC 51 may have set falsely.
2) If DTC 51 has set with no signs of fontal impact, the diagnostic trouble code has set falsely.



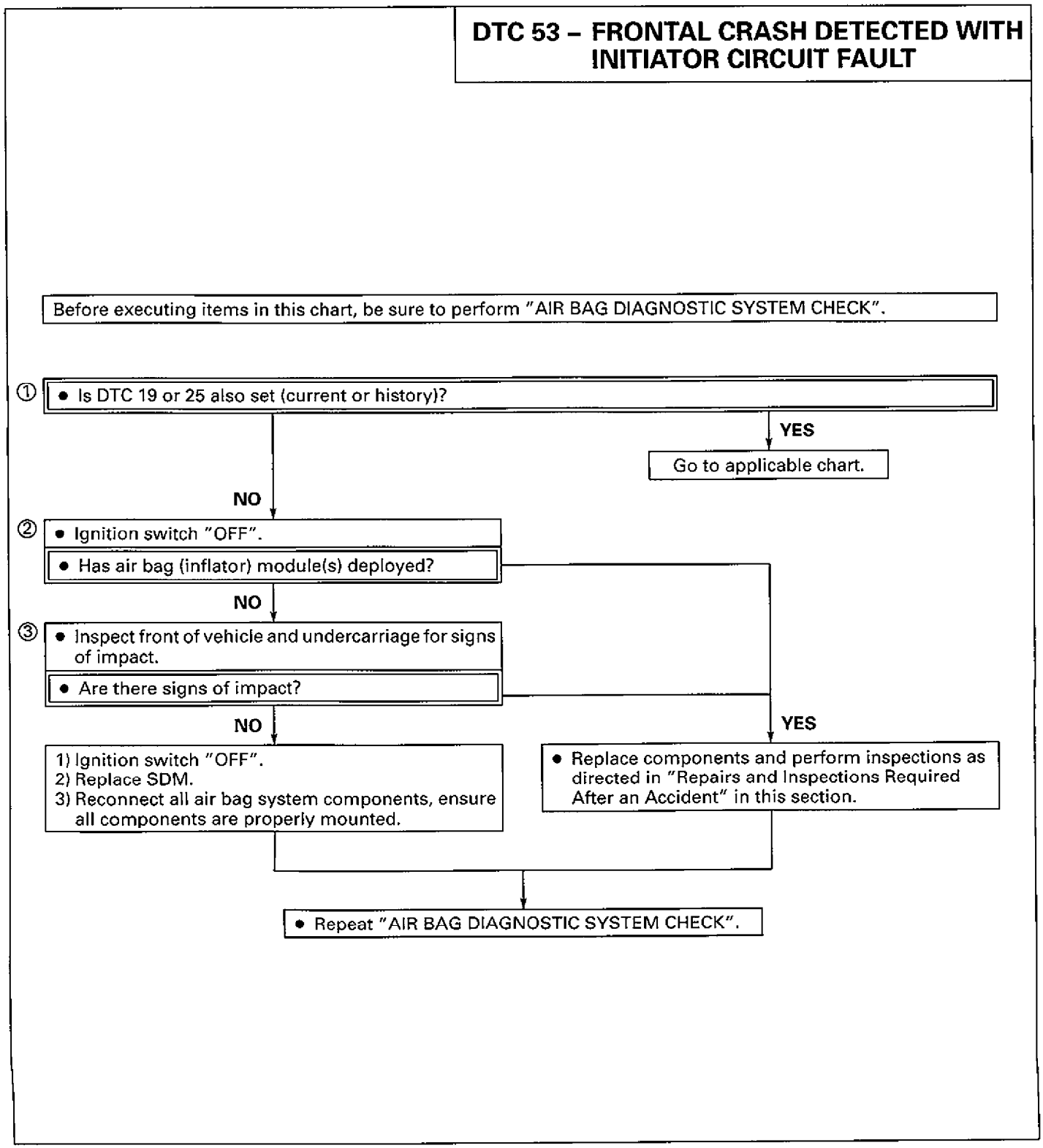
DTC 53 – FRONTAL CRASH DETECTED WITH INITIATOR CIRCUIT FAULT

DTC WILL SET WHEN:

The SDM detects a frontal crash of sufficient force to warrant deployment of the air bags (SDM outputs a deployment command) with initiator circuit fault.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.

1) This test checks if DTC concerning initiator circuit which is shorted to ignition is set when a deployment command was output.
2) If air bag (inflator) module(s) has not deployed, DTC 53 may have set falsely.
3) If DTC 53 has set with no signs of fontal impact, the diagnostic trouble code has set falsely.

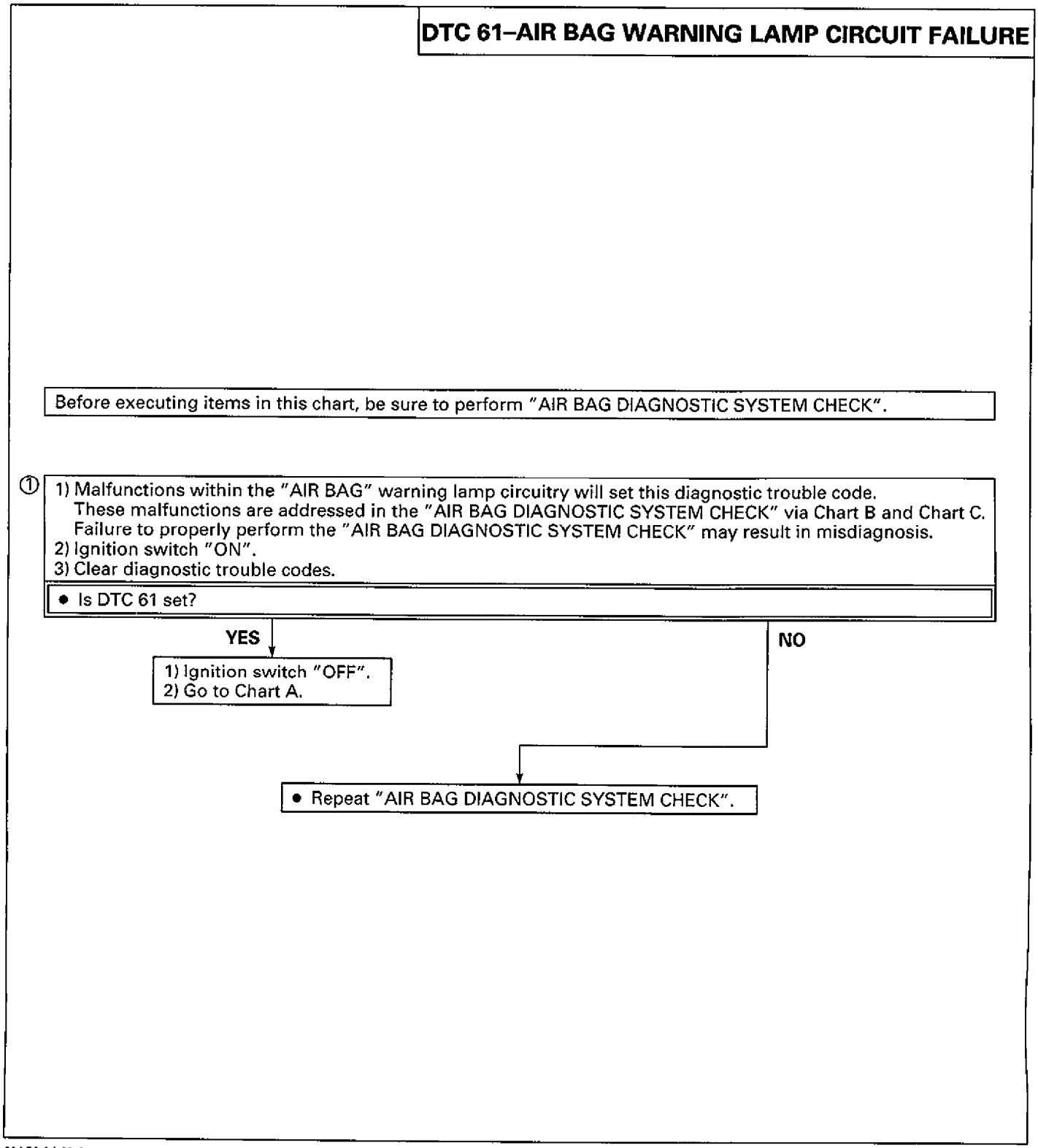


DTC 61 – AIR BAG WARNING LAMP CIRCUIT FAILURE

DTC WILL SET WHEN:
The output voltage at the "AIR BAG" warning lamp circuit terminal does not match the commanded state of the warning lamp driver for specified time.

DTC CHART TEST DESCRIPTION: Number(s) below refer to circled number(s) on the diagnostic chart.
1) This test rechecks whether an abnormality is in SDM or in "AIR BAG" warning lamp circuitry.

DIAGNOSTIC AIDS:
Refer to CHART B and C to diagnose warning lamp circuit malfunctions.

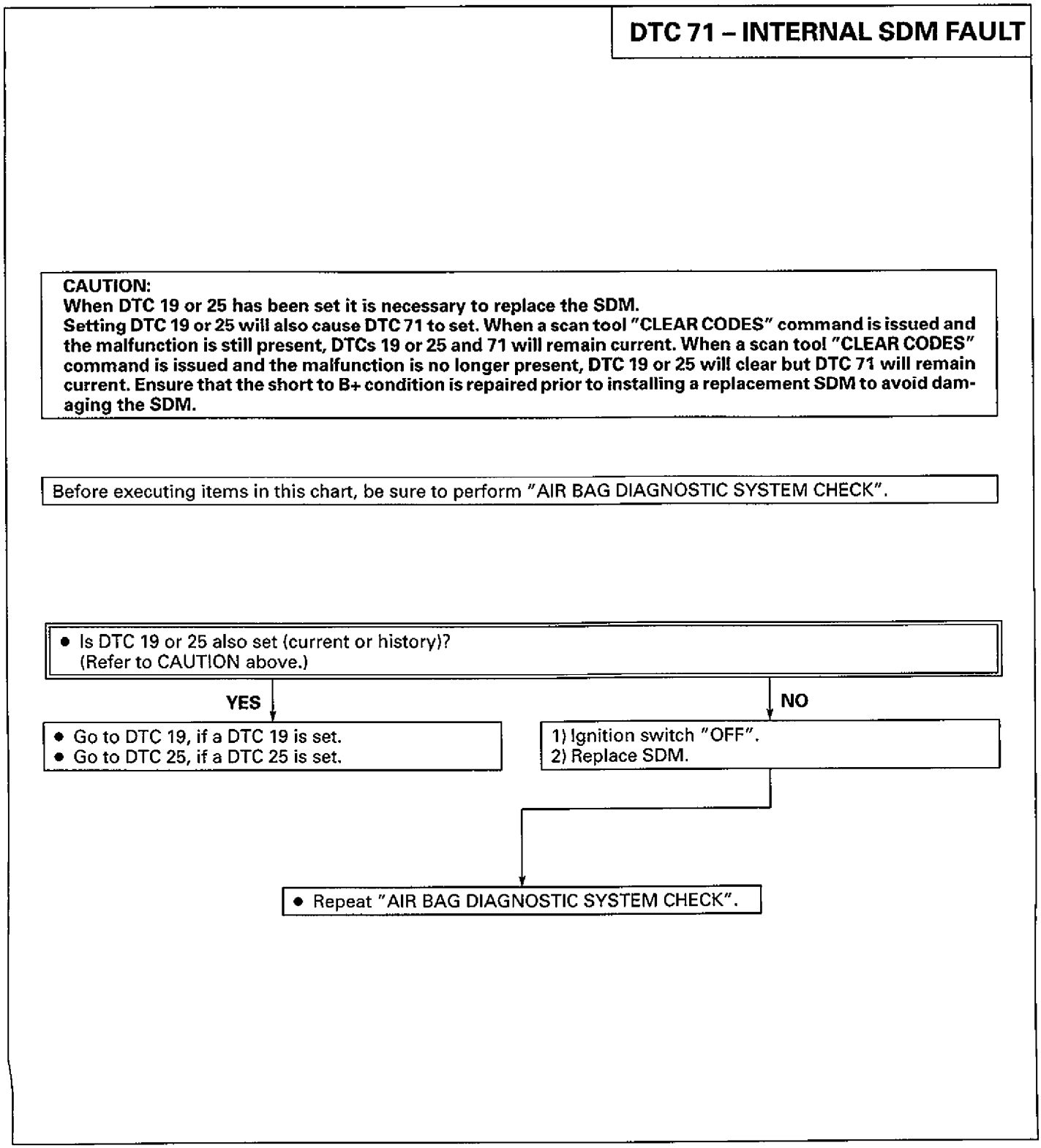


DTC 71 – INTERNAL SDM FAULT

DTC SET WILL WHEN:
An internal SDM fault is detected by the SDM.

NOTE:
DTC 71 can never be cleared once it has been set.

60A50-9J-61-1



60A50-9J-61-2

ON-VEHICLE SERVICE

SERVICE PRECAUTIONS

SERVICING

WARNING/CAUTION labels are attached on each part of air bag system components. Be sure to follow the instructions.

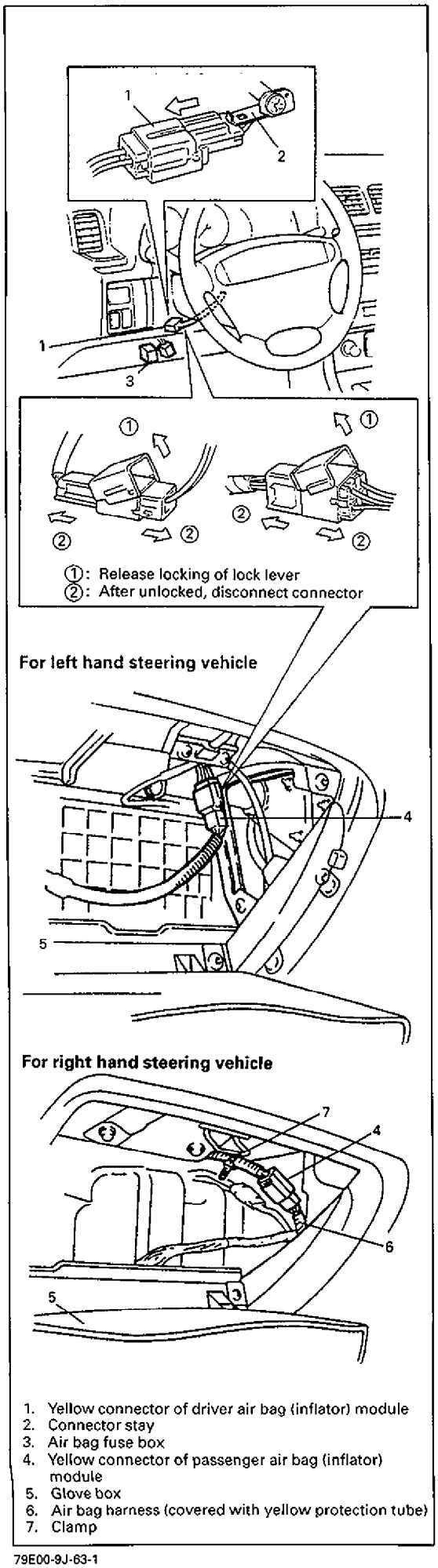
WARNING:
- **If the air bag system and another vehicle system both need repair, Suzuki recommends that the air bag system be repaired first, to help avoid unintended air bag deployment.**
- **Do not modify the steering wheel, dashboard, or any other air bag system component. Modifications can adversely affect air bag system performance and lead to injury.**
- **Failure to follow procedures could result in possible air bag deployment, personal injury or unneeded air bag system repairs.**

- Many of the service procedures require disconnection of the "AIR BAG" fuse and air bag (inflator) modules (driver and passenger) from the deployment loop to avoid an accidental deployment.
- Do not apply power to the air bag system unless all components are connected or a diagnostic chart requests it, as this will set a diagnostic trouble code.
- The "Air Bag Diagnostic System Check" must be the starting point of any air bag diagnostics. The "Air Bag Diagnostic System Check" will verify proper "AIR BAG" warning lamp operation and will lead you to the correct chart to diagnose any air bag malfunctions. Bypassing these procedures may result in extended diagnostic time, incorrect diagnosis, and incorrect parts replacements.
- Never use air bag component parts from another vehicle.
- If the vehicle will be exposed to temperatures over 93°C (200°F) (for example, during a paint baking process), remove the air bag system components (air bag (inflator) module, sensing and diagnostic module) beforehand to avoid component damage or unintended deployment.
- When servicing, if shocks may be applied (e.g., dropped from a height of 91.4 cm (3 feet) or more.) to air bag system component parts, remove those parts beforehand.
- When using electric welding, be sure to disconnect air bag (inflator) module connectors (driver and passenger) respectively.
- When applying paint around the air bag system related parts, use care so that the harness or connector will not be exposed to the paint mist.
- Never expose air bag system component parts directly to hot air (drying or baking the vehicle after painting) or flames.

60A50-9J-62-1

WARNING:
When performing service on or around air bag system components or air bag wiring, follow the procedures listed in next page to temporarily disable the air bag system. Refer to appropriate service manual procedures. Failure to follow procedures could result in possible air bag deployment, personal injury or unneeded air bag system repairs.

60G00-9J-50-1

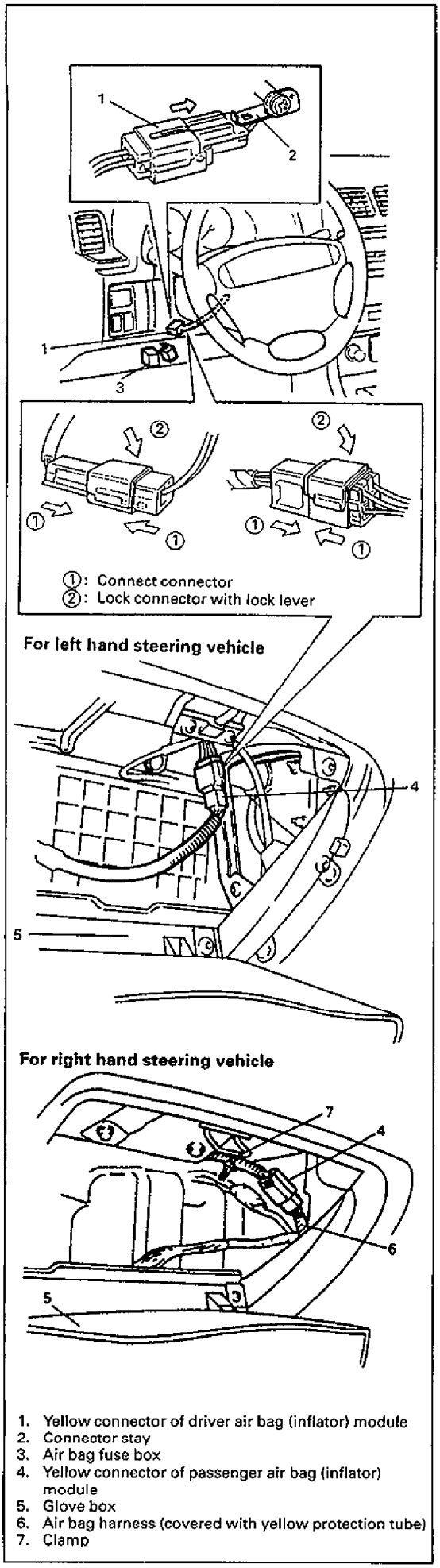


1. Yellow connector of driver air bag (inflator) module
2. Connector stay
3. Air bag fuse box
4. Yellow connector of passenger air bag (inflator) module
5. Glove box
6. Air bag harness (covered with yellow protection tube)
7. Clamp

DISABLING AIR BAG SYSTEM

1) Turn steering wheel so that vehicle's wheels (front tires) are pointing straight ahead.
2) Turn ignition switch to "LOCK" position and remove key.
3) Remove "AIR BAG" fuse from the air bag fuse box.
4) Driver side:
   Remove steering wheel side cap (left) and disconnect Yellow connector of driver air bag (inflator) module.
5) Passenger side:
   Pull out glove box while pushing its stopper from both right and left sides and disconnect Yellow connector of passenger air bag (inflator) module.

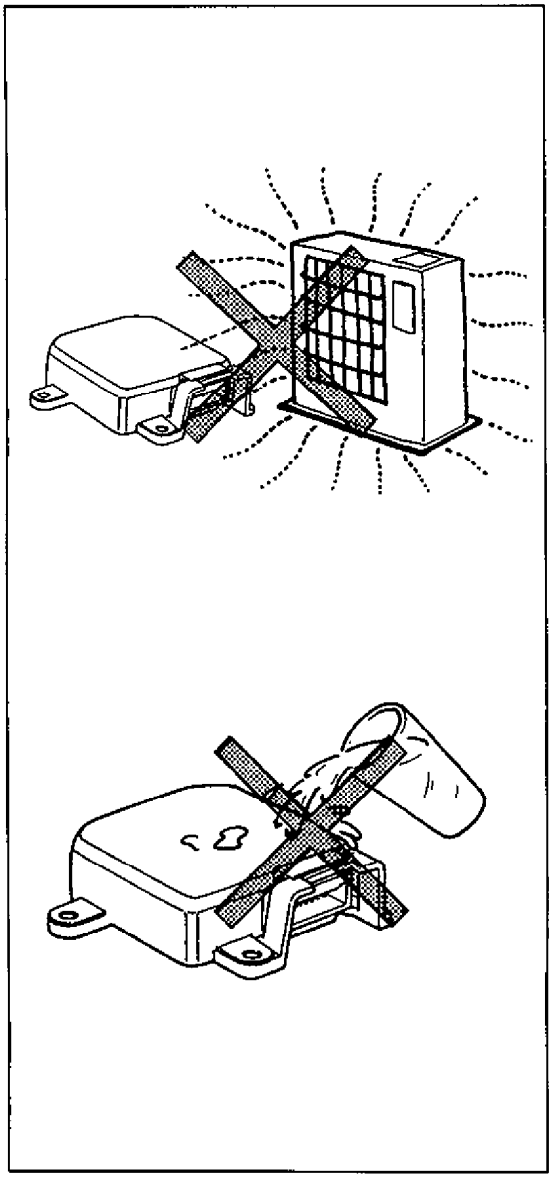
NOTE:
With "AIR BAG" fuse removed and ignition switch ON, "AIR BAG" warning lamp will be ON.
This is normal operation and does not indicate an air bag system malfunction.



1. Yellow connector of driver air bag (inflator) module
2. Connector stay
3. Air bag fuse box
4. Yellow connector of passenger air bag (inflator) module
5. Glove box
6. Air bag harness (covered with yellow protection tube)
7. Clamp

ENABLING AIR BAG SYSTEM

1) Turn ignition switch to "LOCK" and remove key.
2) Connect Yellow connector of passenger air bag (inflator) module and Yellow connector of driver air bag (inflator) module respectively, and be sure to lock each connector with lock lever.
3) Fix connectors (driver and passenger) respectively.
   Driver air bag (inflator) module connector:
   Fit onto connector stay.
   Passenger air bag (inflator) module connector:
   For left hand steering vehicle, fit onto connector stay.
   For right hand steering vehicle, Fix air bag harness with clamp.
4) Install glove box and steering wheel side cap.
5) Install "AIR BAG" fuse to air bag fuse box.
6) Turn ignition switch to "ON" and verify that "AIR BAG" warning lamp flashes 7 times and then turns off.
   If it does not operate as described, perform the "Air Bag Diagnostic System Check" in this section.



60A50-9J-64-1

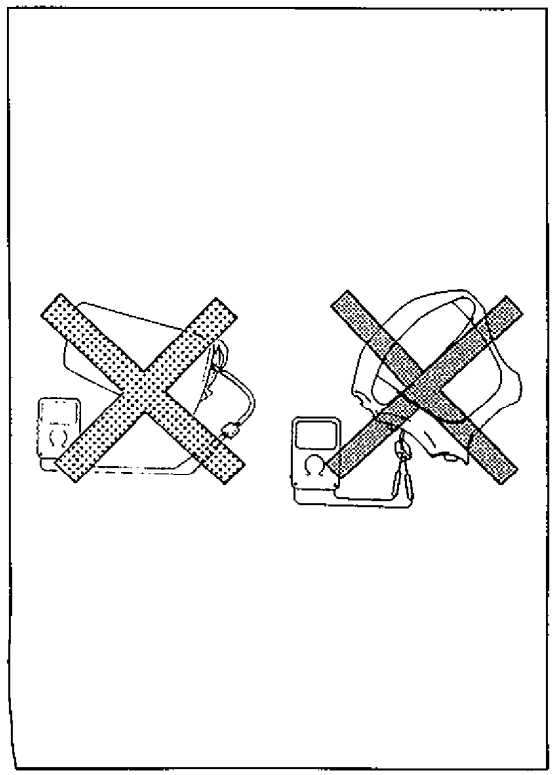
HANDLING PRECAUTIONS

SDM

WARNING:
Never power up air bag system when SDM is not rigidly attached to the vehicle. Otherwise, personal injury may result.

CAUTION:
After detecting one time of such collision as to meet deployment conditions, the SDM must not be used.
Refer to "DIAGNOSIS" when checking the SDM.

- Never attempt disassembly of SDM.
- When storing SDM, select a place where neither high temperature nor high humidity is anticipated and oil, water and dust are kept off.
- If SDM was dropped from a height of 91.4 cm (3 ft) or more or if it is found to be damaged or deformed, replace it with a new one.
- If installation part of SDM was damaged, repair that part completely before reinstallation.
- All SDM and mounting bracket fasteners must be carefully torqued to ensure proper operation of the air bag system.



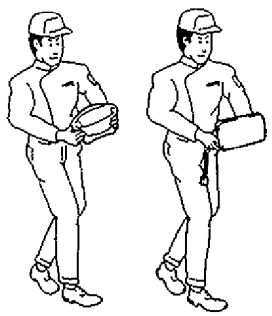
60A50-9J-64-2

LIVE (UNDEPLOYED) AIR BAG (INFLATOR) MODULES (DRIVER AND PASSENGER)

Special care is necessary when handling and storing a live (undeployed) air bag (inflator) modules. The rapid gas generation produced during deployment of the air bag could cause the air bag (inflator) module, or an object in front of the air bag (inflator) module, to be thrown through the air in the unlikely event of an accidental deployment.

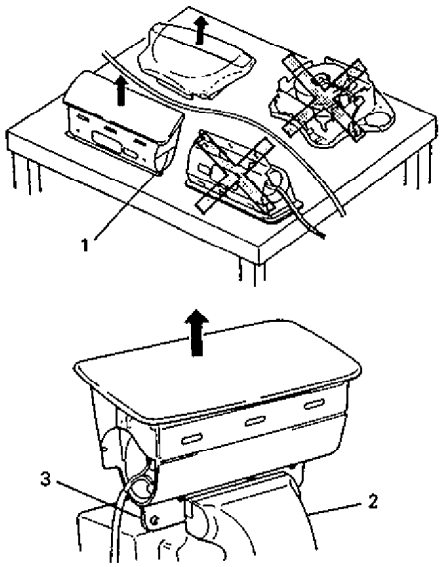
WARNING:
Never attempt to measure the resistance of the air bag (inflator) modules (driver and passenger). It is very dangerous as the electric current from the tester may deploy the air bag.

- Never attempt disassembly of the air bag (inflator) module.
- If any abnormality is found, be sure to replace it with new one as an assembly.
- When an abnormality is noted as existing in the live (undeployed) air bag (inflator) module, be sure to deploy it before discarding it.



ALWAYS CARRY AIR BAG (INFLATOR) MODULE WITH TRIM COVER (AIR BAG OPENING) AWAY FROM BODY.

ALWAYS PLACE AIR BAG (INFLATOR) MODULE ON WORKBENCH WITH TRIM COVER (AIR BAG OPENING) UP, AWAY FROM LOOSE OBJECTS.



1. Slit on workbench
2. Workbench vise
3. Lower mounting bracket

60A50-9J-65-1

- When grease, cleaning agent, oil, water, etc., got on the air bag (inflator) modules (driver and passenger), wipe it off immediately with a dry cloth.
- If air bag (inflator) module was dropped from a height of 91.4 cm (3 ft) or more, it should be replaced.

WARNING:

- **For handling and storage of a live air bag (inflator) module, select a place where the ambient temperature below 65°C (150°F), without high humidity and away from electric noise.**
- **When carrying a live air bag (inflator) module, make sure the bag opening is pointed away from you. In case of an accidental deployment, the bag will then deploy with minimal chance of injury. Never carry the air bag (inflator) module by the wires or connector on the underside of the module.**
- **When placing a live air bag (inflator) module on bench or other surface, always face the bag up, away from the surface. As the live passenger air bag (inflator) module must be placed with its bag (trim cover) facing up, place it on the workbench with a slit or use the workbench vise to hold it securely at its lower mounting bracket.**
  It is also prohibited to place anything on top of the trim cover and stack air bag (inflator) modules.
  This is necessary so that a free space is provided to allow the air bag to expand in the unlikely event of accidental deployment.

Otherwise, personal injury may result.

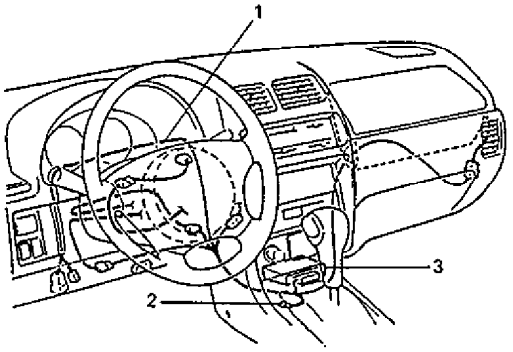
DEPLOYED AIR BAG (INFLATOR) MODULES (DRIVER AND PASSENGER)

WARNING:

- **The air bag (inflator) module immediately after deployment is very hot. Wait for at least 30 minutes to cool it off before proceeding the work.**
- **Do not apply water, oil, etc to deployed air bag (inflator) module.**
- **After an air bag (inflator) module has been deployed, the surface of the air bag may contain a powdery residue. This powder consists primarily of cornstarch (used to lubricate the bag as it inflates) and byproducts of the chemical reaction. As with many service procedures, gloves and safety glasses should be worn.**
- **Wash your hands with mild soap and water after completing the work.**

Refer to the procedure described under "Deployed Air Bag (Inflator) Module Disposal" in this section.

60A50-9J-65-2



1. Air bag wire harness
2. Ground
3. SDM case ground

60A50-9J-66-1

AIR BAG WIRE HARNESS AND CONNECTORS

Air bag wire harness can be identified easily as it is covered with a yellow protection tube. Be very careful when handling it.

- When an open in air bag wire harness, damaged wire harness, connector or terminal is found, replace wire harness, connectors and terminals as an assembly.
- When installing it, be careful so that the air bag wire harness is not caught or does not interfere with other parts.
- Make sure all air bag system grounding points are clean and grounds are securely fastened for optimum metal-to metal contact. Poor grounding can cause intermittent problems that are difficult to diagnose.

DISPOSAL PRECAUTIONS

Do not dispose of live (undeployed) air bag (inflator) modules (driver and passenger). When disposal is necessary, be sure to deploy the air bag according to deployment procedure described under "Driver/Passenger Air Bag (Inflator) Modules Disposal" in this section.

WARNING:
Failure to follow proper air bag (inflator) module disposal procedures can result in air bag deployment which could cause personal injury. Undeployed air bag (inflator) modules must not be disposed of through normal refuse channels.
The undeployed air bag (inflator) module contains substances that can cause severe illness or personal injury if the sealed container is damaged during disposal.

61A20-9J-67-2S

REPAIRS AND INSPECTIONS REQUIRED AFTER AN ACCIDENT

CAUTION:
- **All air bag system components, including the electrical harness (component mounting points), must be inspected after an accident. If any components are damaged or bent, they must be replaced even if a deployment did not occur.**
- **Never use air bag system parts from another vehicle.**
- **Do not attempt to service the parts below. Service of these parts is by replacement only.**
  - **Driver/Passenger air bag (inflator) module**
  - **SDM**
  - **Contact coil and combination switch assembly**
  - **Air bag wire harness.**
- **Proper operation of the sensors and air bag system requires that any repairs to the vehicle structure return it to its original production configuration.**

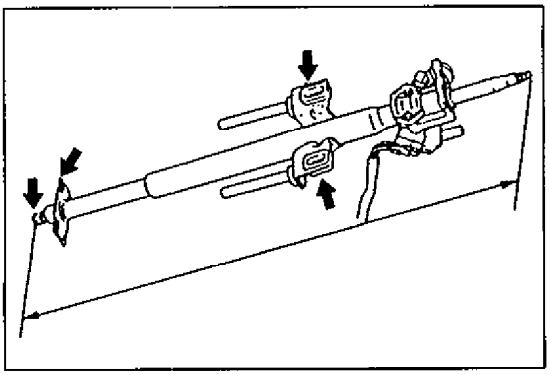
CAUTION:
After detecting one time of such collision as to meet deployment conditions, the SDM must not be used. Refer to "DIAGNOSIS" when checking the SDM.

60A50-9J-67-1

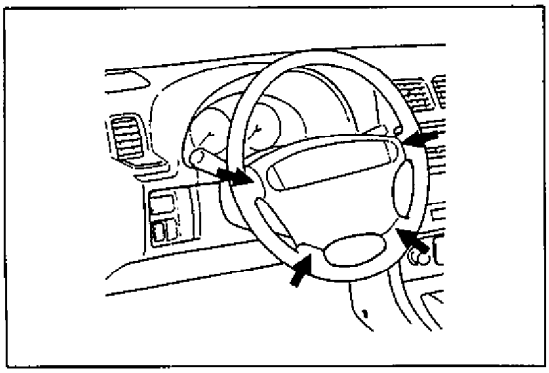
ACCIDENT WITH DEPLOYMENT – COMPONENT REPLACEMENT

Certain air bag system components must be replaced. Those components are:
- Driver and passenger air bag (inflator) modules.
  - Replace with new one.
- SDM after detecting such collision as to meet deployment conditions.
  - Replace with new one.

60A50-9J-67-3



60A50-9J-67-4

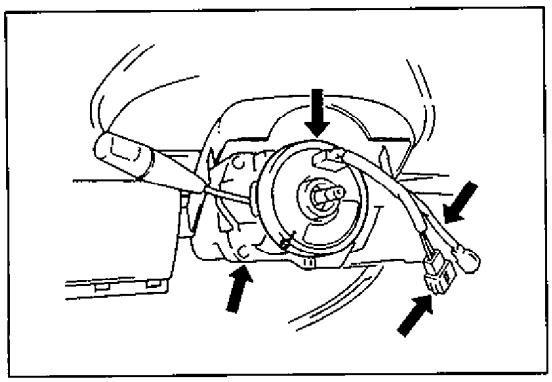


60A50-9J-67-5

ACCIDENT WITH OR WITHOUT DEPLOYMENT – COMPONENT INSPECTIONS

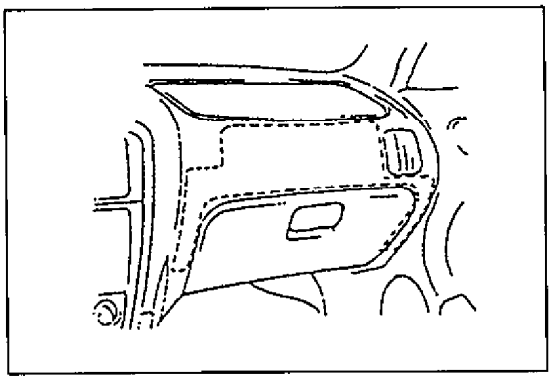
Certain air bag and restraint system components must be inspected after any crash, whether the air bag deployed or not. Those components are:
- Steering column and shaft joints.
  - Check for length, damage and bend according to "Checking Steering Column for Accident Damage" in Section 3C1.
- Steering column bracket.
  - Check for damage and bent. If any, replace.
- Steering wheel and driver air bag (inflator) module.
  - Check for damage or air bag (inflator) module fitness.
  - Check trim cover (pad surface) for cracks.
  - Check wire harness and connector for damage or tightness.

  If any faulty condition is found in above checks, replace faulty part.



60A50-9J-68-1

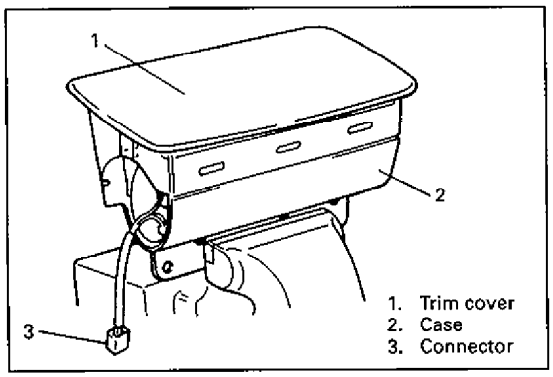
- Contact coil & combination switch assembly.
  - Check wire harness and connectors for damage or tightness.
  - Check contact coil case for damage.



61A20-9J-69-2

- Instrument panel member, reinforcement and knee bolster & panel.
  - Check for any distortion, bending, cracking or other damage.

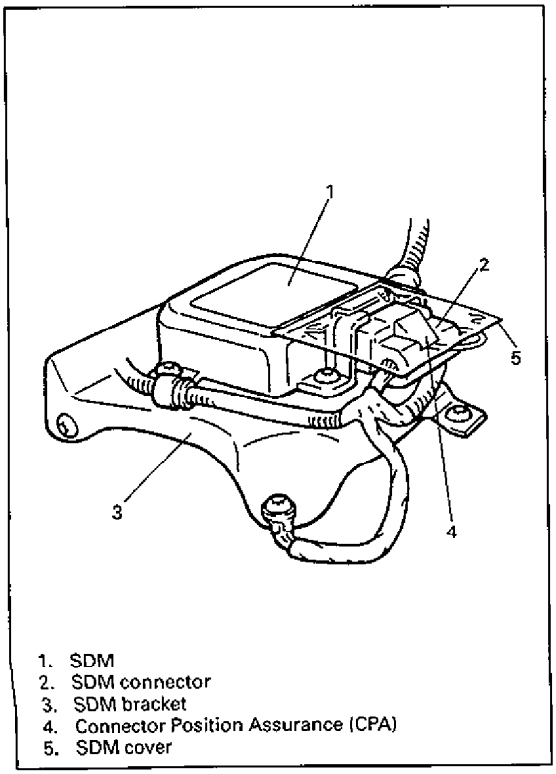
  If any, repair or replace.



61A10-9J-46-3

- Passenger air bag (inflator) module.
  - Check for dents, cracks, damage or fitness.
  - Check trim cover for cracks or deformities.
  - Check harness and connector for damage or tightness.

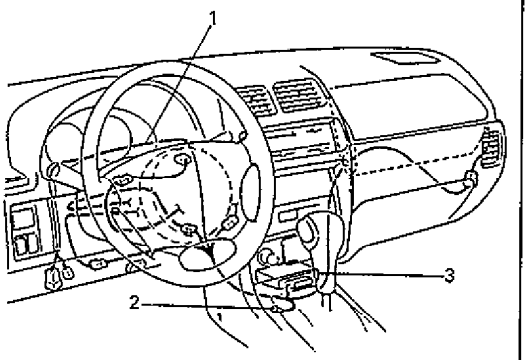
  If any, repair or replace.



79E00-9J-69-4

- SDM and SDM bracket.
  - Check for external damage such as deformation, scratch, crack, peeled paint, etc..
  - Check whether SDM can installed properly due to a cause in itself. (There is a gap between SDM and SDM bracket, or it cannot be fixed securely.)
  - Check whether connector or lead wire of SDM has a scorching, melting or damage.
  - Check whether connector can be connected securely or locked.
  - Check SDM connector and terminals for tightness.
  - Check SDM sets a diagnostic trouble code and the diagnostic chart leads to a malfunctioning SDM.

  If any faulty condition is found in above checks, replace.



1. Air bag wire harness
2. Ground
3. SDM case ground

60A50-9J-69-4

- Air bag wire harness and connections.
  - Check for damages, deformities or poor connections. (Refer to "Intermittents and Poor Connections" in this section.)
  - Check wire harness clamps for tightness.

  If any faulty condition is found, correct or replace.

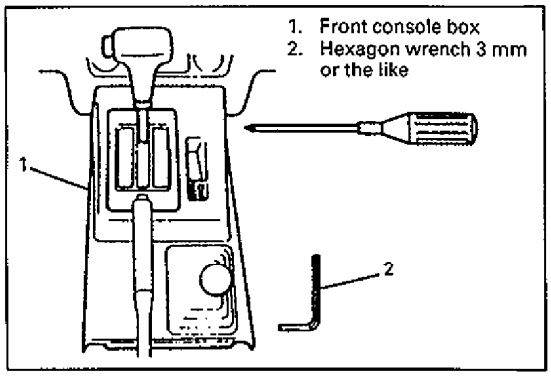
- Seat belts and mounting points.
  - Refer to "Seat Belt" in Section 9A in this manual.
- "AIR BAG" warning lamp (air bag system).
  - After vehicle is completely repaired, perform "Air Bag Diagnostic System Check" described in diagnosis section.

79E00-9J-70-3

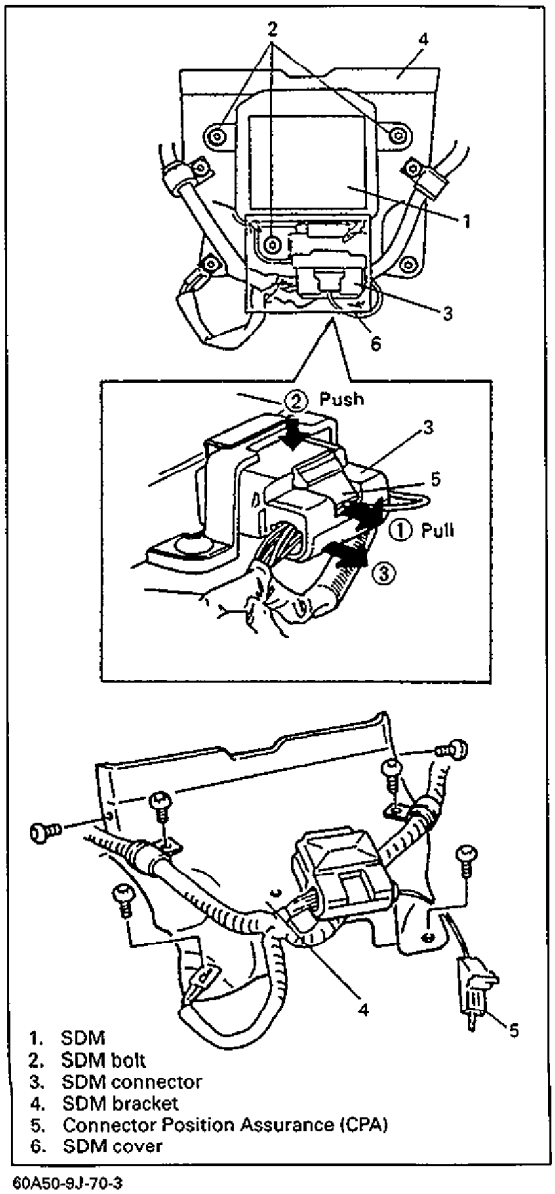
SDM

WARNING:
During service procedures, be very careful when handling a Sensing and Diagnostic Module (SDM).
Be sure to read "SERVICE PRECAUTIONS" and "HANDLING PRECAUTIONS" before starting to work and observe every precaution during work. Neglecting them may result in personal injury or undeployment of the air bag when necessary.

60A50-9J-70-1



79E00-9J-71-2



60A50-9J-70-3

REMOVAL

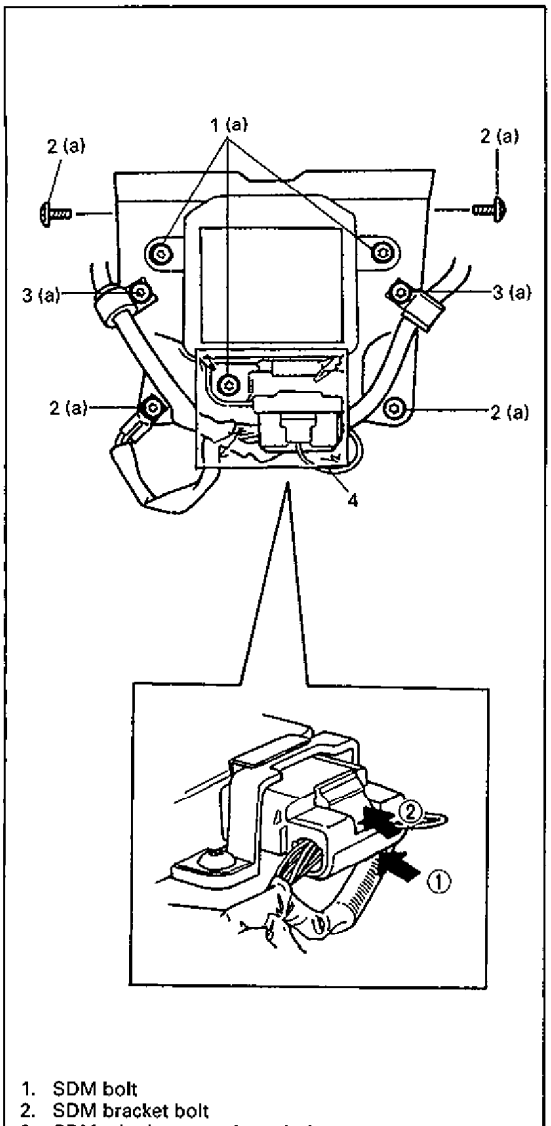
1) Disconnect negative cable at battery.
2) Disable air bag system. Refer to "Disabling Air Bag System" earlier in this section.
3) Remove rear console box first and then front console box by removing screws and clips.
4) Disconnect SDM connector from SDM.
   Remove Connector Position Assurance (CPA) first and then disconnect connector while pushing connector lock, refer to the left figure.
5) Remove SDM and SDM bracket from vehicle.

INSPECTION

CAUTION:
- **Do not connect a tester whatever type it may be.**
- **Never repair or disassemble SDM.**
- **If SDM was dropped from a height of 91.4 cm (3 ft) or more, it should be replaced.**

- Check SDM and SDM bracket for dents, cracks or deformation.
- Check SDM connector for damage, cracks or lock mechanism.
- Check SDM terminal for bent, corrosion or rust.

If any faulty condition is found in above checks, replace.



1. SDM bolt
2. SDM bracket bolt
3. SDM wire harness clamp bolt
4. SDM cover

60A50-9J-71-1

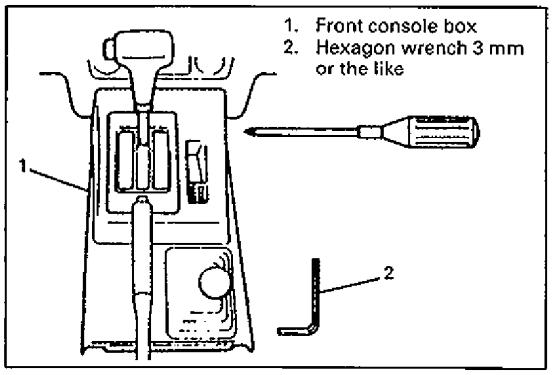
INSTALLATION

1) Check that none of following faulty conditions exists.
   - Bend, scratch, deformity in SDM bracket
   - Foreign matter or rust on mating surface of SDM bracket with SDM
   - Loosened SDM bracket bolts
2) Install SDM and SDM bracket to vehicle.
3) Tighten SDM, SDM bracket and SDM wire harness clamp bolts to specified torque.

Tightening Torque
(a): 5.5 N·m (0.55 kg-m, 4.0 lb-ft)

4) Connect SDM connector to SDM and install CPA to connector securely.

CAUTION:
As this connector has Connector Position Assurance (CPA) refer to the left figure for its installation procedure.



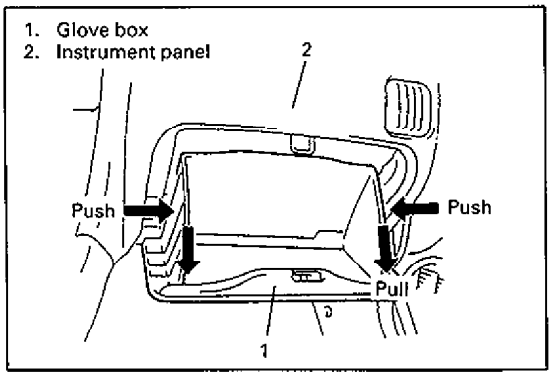
60A50-9J-71-4

5) Install front console box first and then rear console box by installing screws and clips.
6) Connect negative cable to battery.
7) Enable air bag system. Refer to "Enabling Air Bag System" earlier in this section.

PASSENGER AIR BAG (INFLATION) MODULE

WARNING:
- **Never attempt to disassemble or repair the passenger air bag (inflator) module. If any abnormality is found, be sure to replace it with new one as an assembly.**
- **Be sure to read "SERVICE PRECAUTIONS" and "HANDLING PRECAUTIONS" before starting to work and observe every precaution during work. Neglecting them may result in personal injury or undeployment of the air bag when necessary.**

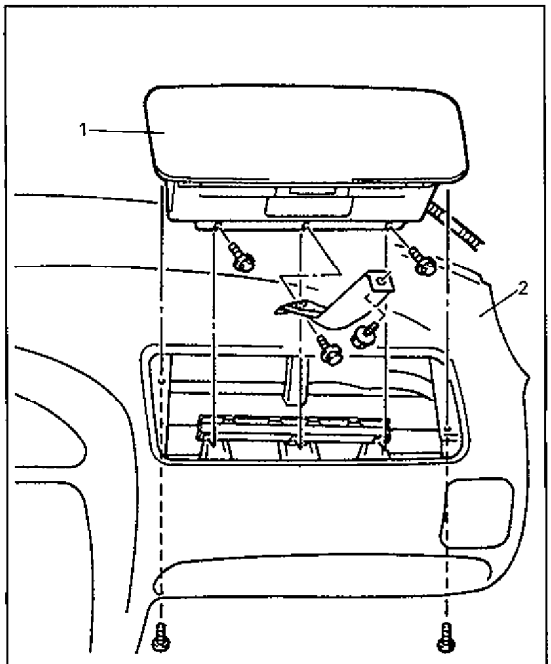
60G00-9J-60-1



60G00-9J-60-2

REMOVAL

1) Disconnect negative battery cable from battery.
2) Open glove box, then while pressing glove box stopper, pull out glove box from instrument panel.
3) Disable air bag system. Refer to "Disabling Air Bag System" earlier in this section.



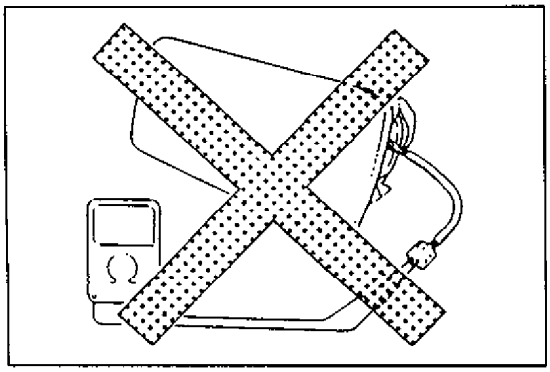
1. Passenger air bag (inflator) module
2. Instrument panel

79E00-9J-73-3

4) Remove passenger air bag (inflator) module attaching bolts and screws, and passenger air bag (inflator) module from vehicle.

WARNING:
- **When carrying a live air bag (inflator) module, make sure the bag opening is pointed away from you. Never carry air bag (inflator) module by wires or connector on the side of the module. In case of an accidental deployment, the bag will then deploy with minimal chance of injury.**
- **As the live passenger air bag (inflator) module must be kept with its bag (trim cover) facing up while being stored or left standing, place it on the workbench with a slit or use the workbench vise to hold it securely at its lower mounting bracket. This is necessary so that a free space is provided to allow the air bag to expand in the unlikely event of accidental deployment.**
- **Observe "Handling Precautions" earlier in this section for handling and storing it.**

Otherwise personal injury may result.

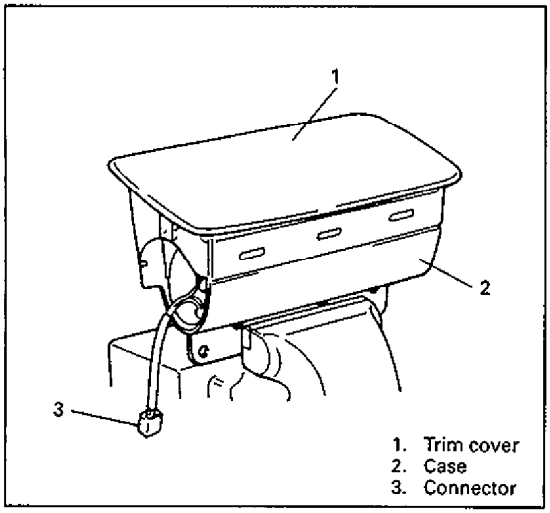


60A50-9J-72-5

INSPECTION

WARNING:
Never measure resistance of passenger air bag (inflator) module or disassemble it. Otherwise personal injury may result.

CAUTION:
If air bag (inflator) module was dropped from a height of 91.4 cm (3 ft) or more, it should be replaced.

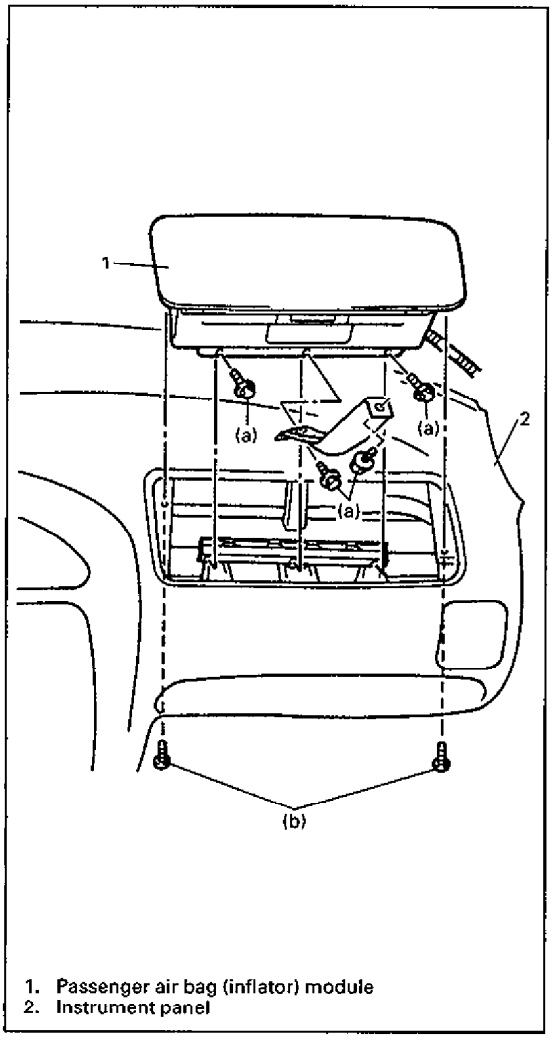


1. Trim cover
2. Case
3. Connector

60G00-9J-61-1

Check air bag (inflator) module appearance visually for following symptoms and if any one of them is applicable, replace with a new one.

- Air bag has deployed.
- There is a crack in trim cover (pad surface).
- Wire harness or connector is damaged.
- Air bag (inflator) module is damaged or a strong impact (e.g., dropping) was applied to it.



1. Passenger air bag (inflator) module
2. Instrument panel

79E00-9J-74-2

INSTALLATION

1) Install passenger air bag (inflator) module to vehicle.
2) Tighten passenger air bag (inflator) module attaching bolts and screws to specified torque.

Tightening Torque
(a): 23 N·m (2.3 kg-m, 16.5 lb-ft)
(b): 5.5 N·m (0.55 kg-m, 4.0 lb-ft)

3) Connect negative battery cable to battery.
4) Enable air bag system. Refer to "Enabling Air Bag System" earlier in this section.

DRIVER AIR BAG (INFLATOR) MODULE

Refer to SECTION 3C1 for removal, inspection and installation.

CONTACT COIL AND COMBINATION SWITCH ASSEMBLY

Refer to SECTION 3C1 for removal, inspection and installation.

"AIR BAG" WARNING LAMP

Refer to SECTION 8 for removal and installation.

60G00-9J-61-3

DRIVER/PASSENGER AIR BAG (INFLATOR) MODULES DISPOSAL

WARNING:
Failure to follow proper air bag (inflator) module disposal procedures can result in air bag deployment which may cause personal injury. Undeployed air bag (inflator) modules must not be disposed of through normal refuse channels.
The undeployed air bag (inflator) module contains substances that can cause severe illness or personal injury if the sealed container is damaged during disposal.

Do not dispose of the live (undeployed) air bag (inflator) modules (driver/passenger). When disposal of the air bag (inflator) module(s) or entire vehicle including the air bag (inflator) module(s) is necessary, deploy the air bag according to the procedure described under "Deployment Outside Vehicle" or "Deployment Inside Vehicle".

The method employed depends upon the final disposition of the particular vehicle, as noted in "Deployment Outside Vehicle" and "Deployment Inside Vehicle" in this section.

Deployment Outside Vehicle ..... disposing of the air bag (inflator) module(s) only (i.e., the vehicle itself will be used again).

Deployment Inside Vehicle ..... scrapping the entire vehicle including the air bag (inflator) module(s).

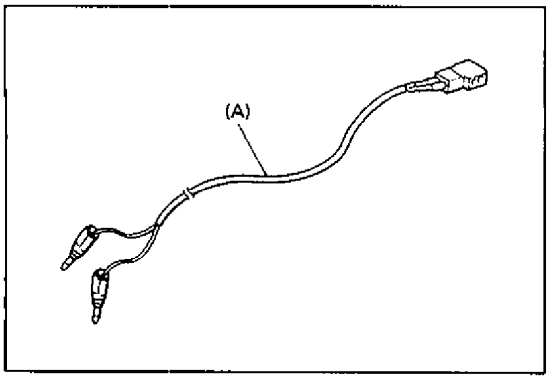
DEPLOYMENT OUTSIDE VEHICLE

Use this procedure when the vehicle itself is used again (only the air bag (inflator) module(s) are disposed of).

WARNING:
Following precautions must be observed for this work. Failure to observe any of them may result in personal injury.

- **To avoid an accidental deployment, this work should be performed by no more than one person.**
- **The procedure should be followed strictly as described here.**
- **Be sure to read "Handling Precautions" for the air bag (inflator) module beforehand.**
- **Never connect deployment harness to any power source before connecting deployment harness to the air bag (inflator) module. Deployment harness shall remain shorted and not be connected to a power source until the air bag is to be deployed.**
- **Since a large amount of smoke is produced when air bag is deployed, select a well-ventilated area.**
- **The air bag (infaltor) module will immediately deploy the air bag when a power source is connected to it. Wear safety glasses throughout this entire depoyment and disposal procedure.**
- **Wear suitable ear protection when deploying air bag. Also, advise those who are in the area close to deployment site to wear suitable ear protection.**
- **Do not deploy driver and passenger air bag (inflator) modules at the same time.**

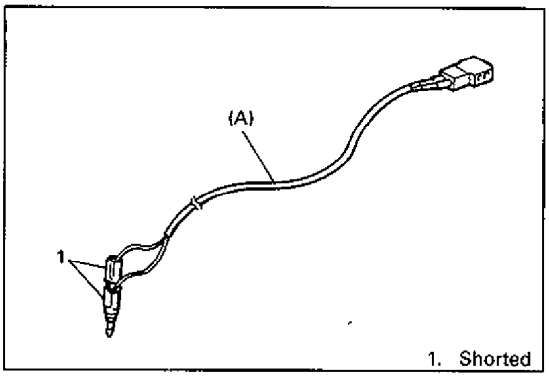
The following procedure requires use of special tool(s) (deployment harness and/or passenger air bag (inflator) module deployment fixture). Do not attempt procedure without it (them).



60G00-9J-63-1

1) Turn ignition switch to "LOCK", remove key and put on safety glasses.
2) Check that there is no open, short or damage in special tool (Deployment harness). If any faulty is found, do not use it and be sure to use new deployment harness.

Special Tool (Deployment harness)
(A): 09932-75030

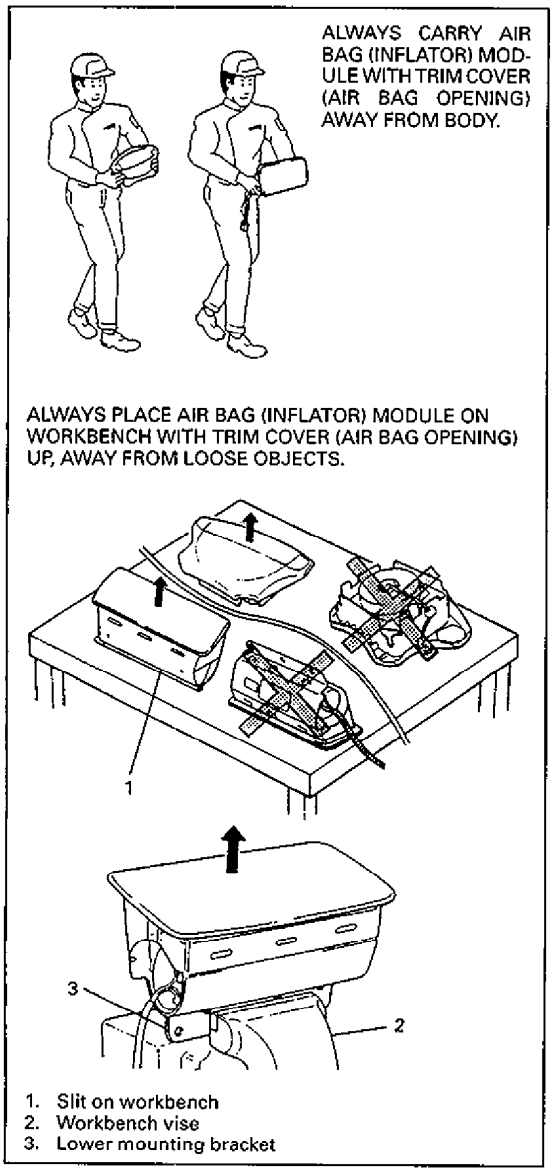


1. Shorted

60G00-9J-63-2

3) Short the two deployment harness leads together by fully seating one banana plug into the other.

WARNING:
Deployment harness shall remain shorted and not be connected to a power source until the air bag is to be deployed.



1. Slit on workbench
2. Workbench vise
3. Lower mounting bracket

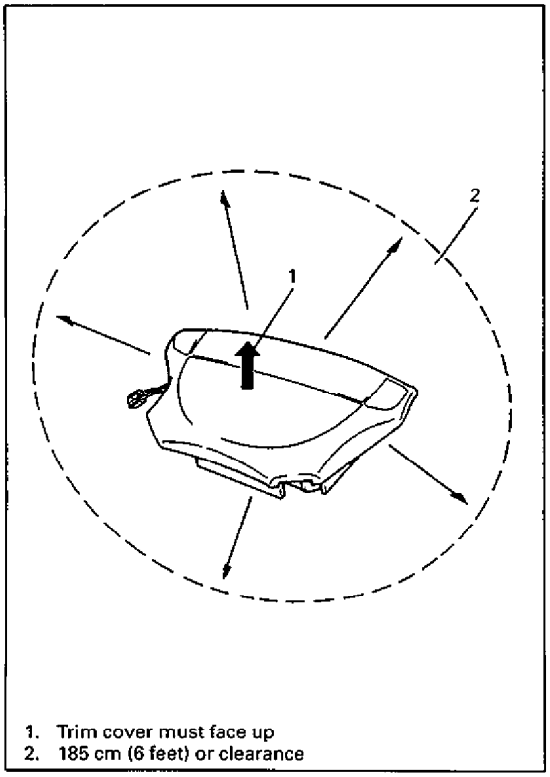
60A50-9J-75-5

4) Remove driver or passenger air bag (inflator) module from vehicle referring to SECTION 3C1 or 9J.
5) With driver air bag (inflator) module, remove horn lead, horn buttons and clamp from driver air bag (inflator) module.

WARNING:
- **Always carry a live air bag (inflator) module with trim cover away from you.**
- **When storing a live air bag (inflator) module or when leaving a live air bag (inflator) module unattended on a bench or other surface, always face the bag and trim cover up and away from the surface. As the live passenger air bag (inflator) module must be placed with its bag (trim cover) facing up, place it on the workbench with a slit or use the workbench vise to hold it securely at its lower mounting bracket.**
  This is necessary so that a free space is provided to allow the air bag to expand in the unlikely event of accidental deployment.

Failure to follow procedures may result in personal injury.

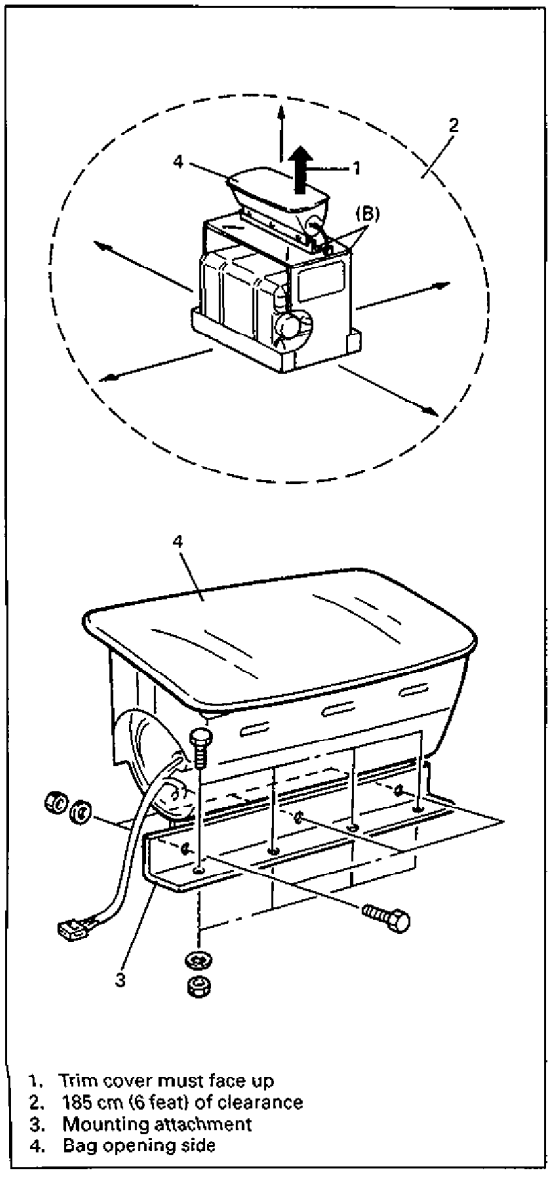
6) Temporarily place driver or passenger air bag (inflator) module on the workbench or the vise according to above WARNING.



1. Trim cover must face up
2. 185 cm (6 feet) or clearance

60G00-9J-64-1

7) In case of Driver Air Bag (Inflator) Module
   ① Clear a space on the ground about 185 cm (6 feet) in diameter where the driver air bag (inflator) module is to be deployed. A paved, outdoor location where there is no activity is preferred. If an outdoor location is not available, a space on the shop floor where there is no activity and sufficient ventilation is recommended.
   Ensure no loose or flammable objects are within the deployment area.
   ② Place the driver air bag (inflator) module, with its vinyl trim cover facing up, on the ground in the space just cleared.



1. Trim cover must face up
2. 185 cm (6 feet) of clearance
3. Mounting attachment
4. Bag opening side

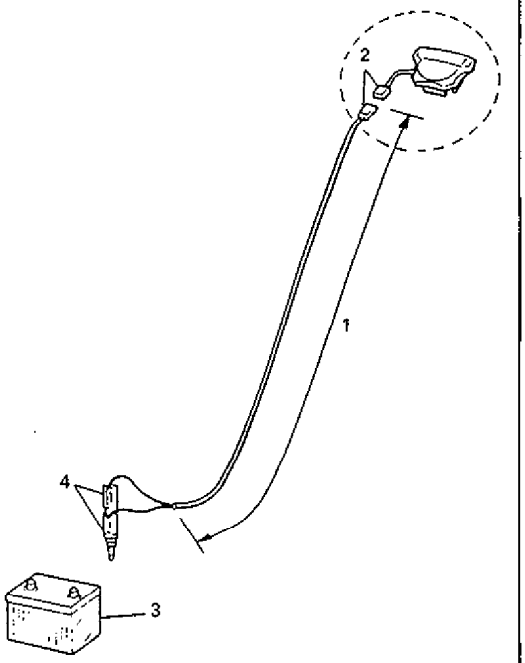
60G00-9J-64-3

7) In case of Passenger Air Bag (Inflator) Module
   ① Clear a space on the ground approximately 185 cm (6 feet) in diameter where the fixture (special tool) with attached air bag (inflator) module is to be placed for deployment. A paved outdoor location where there is no activity is preferred. If an outdoor location is not available, a space on the shop floor where there is no activity and sufficient ventilation is recommended. Ensure that no loose or flammable objects are within the deployment area.
   ② Place spcial tool (passenger air bag (inflator) module deployment fixture) on the ground in the space cleared in Step ①, if it has not already been placed there.

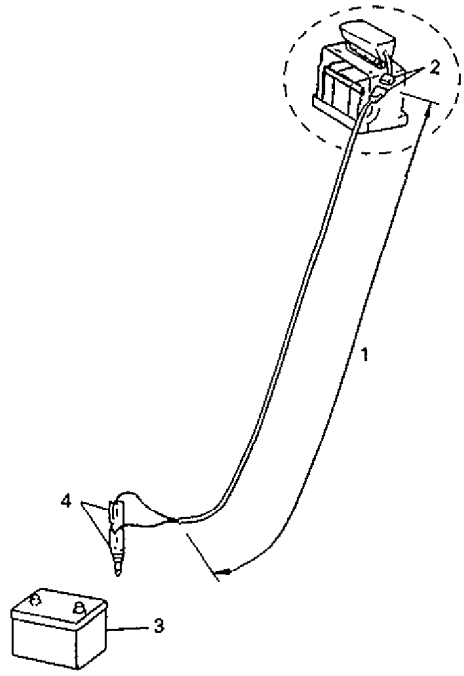
Special Tool
(Passenger air bag (inflator) module deployment fixture)
(B): 09932-75040

   ③ Fill plastic reservoir in fixture (special tool) with water or sand. This is necessary to provide sufficient stabilization of the fixture during deployment.
   ④ Attach the passenger air bag (inflator) module in the fixture (special tool) using mounting attachment and hold-down bolts and nuts.
   Air bag (inflator) module must be mounted such that the bag will deploy upward. Securely hand-tighten all fasteners prior to deployment.

Driver (Inflator) Module



Passenger (Inflator) Module



1. Stretch deployment harness to full length 10 m (33 ft)
2. Connect connectors
3. Power source (12 V vehicle battery)
4. Short the two deployment harness leads

8) Stretch the deployment harness from the driver or passenger air bag (inflator) module to its full length 10 m (33 ft).
9) Place a power source near the shorted end or the deployment harness. Recommended application: 12 Volts minimum, 2 amps minimum. A vehicle battery is suggested.
10) Verify that the area around the driver or passenger air bag (inflator) module is clear or all people and loose or flammable objects.
11) Verify that the driver air bag (inflator) module is resting with its vinyl trim cover facing up.
    Verify that the passenger air bag (inflator) module is firmly and properly secured in passenger air bag (inflator) module deployment fixture (special tool).
12) Connect the driver or passenger air bag (inflator) module to the deployment harness connector and lock connector with lock lever.
13) Notify all people in the immediate area that you intend to deploy the air bag (inflator) module.

NOTE:

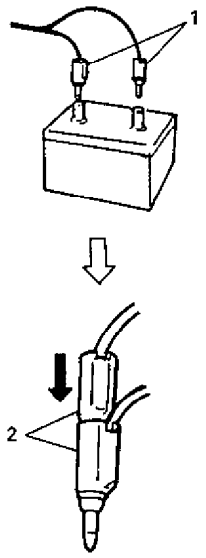
- **When the air bag deploys, the rapid gas expansion will create a substantial report. Wear suitable ear protection. Notify all people in the immediate area that you intend to deploy the air bag (inflator) module and suitable ear protection should be worn.**
- **When the air bag deploys, the driver air bag (inflator) module may jump about 30 cm (one foot) vertically. This is a normal reaction of the driver air bag (inflator) module to the force of the rapid gas expansion inside the air bag.**
- **After the air bag (inflator) module has been deployed, the surface of the air bag may contain a powdery residue. This powder consists primarily of cornstarch (used to lubricate the bag as it inflates) and byproducts of the chemical reaction.**

WARNING:

Safety precautions must be observed when handling a deployed air bag (inflator) module.

- **After deployment, the metal surfaces of the air bag (inflator) module will be very hot. Do not touch the metal areas of the driver or passenger air bag (inflator) module for about 30 minutes after deployment.**
- **Do not place the deployed air bag (inflator) module near any flammable objects.**
- **Do not apply water, oil, etc to deployed air bag (inflator) module.**
- **If the deployed air bag (inflator) module must be moved before it is cool, wear gloves and handle by the air bag or vinyl trim.**

Failure to follow procedures may result in fire or personal injury.



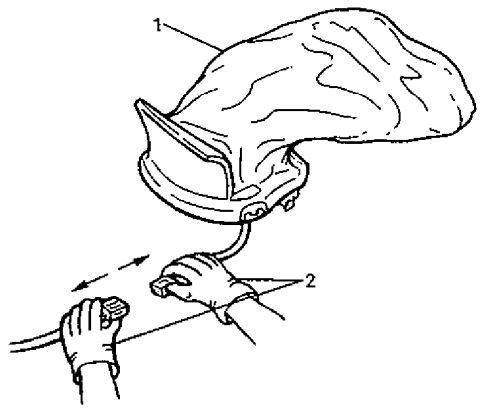
1. Connect one banana plug to positive terminal of power source (12 V vehicle battery) and then the other to negative terminal to immediately deploy.
2. Short the two deployment harness leads.

60G00-9J-66-1

14) Separate the two banana plugs on the deployment harness.
15) Connect the deployment harness to the power source (12 V vehicle battery) to immediately deploy the driver or passenger air bag.
16) Disconnect the deployment harness from power source (12 V vehicle battery) and short the two deploment harness leads together by fully seating one banana plug into the other.

17) In the unlikely even that the driver or passenger air bag (inflator) module did not deploy after following these procedures, proceed immediately with Steps 22) through 25). If the air bag (inflator) module did deploy, proceed with Steps 18) through 21).

60G00-9J-66-3



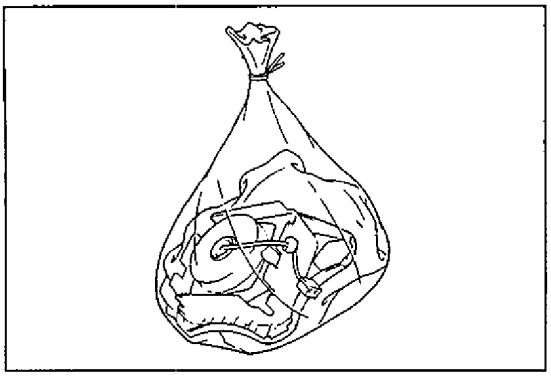
1. Deployed air bag (inflator) module
2. Gloves

60A50-9J-78-5

18) Put on a pair of shop gloves to protect your hands from possible irritation and heat when handling the deployed air bag (inflator) module.

NOTE:
As a precaution, gloves and safety glasses are recommended to prevent any possible irritation of the skin or eyes.

19) Disconnect the deployment harness from the air bag (inflator) module as soon after deployment as possible. This will prevent damage to the deployment harness due to possible contact with the hot air bag (inflator) module canister. The deployment harness are designed to be reused. They should, however, be inspected for damage after each deployment and replaced if necessary.



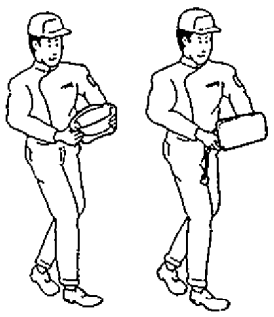
60A50-9J-79-1

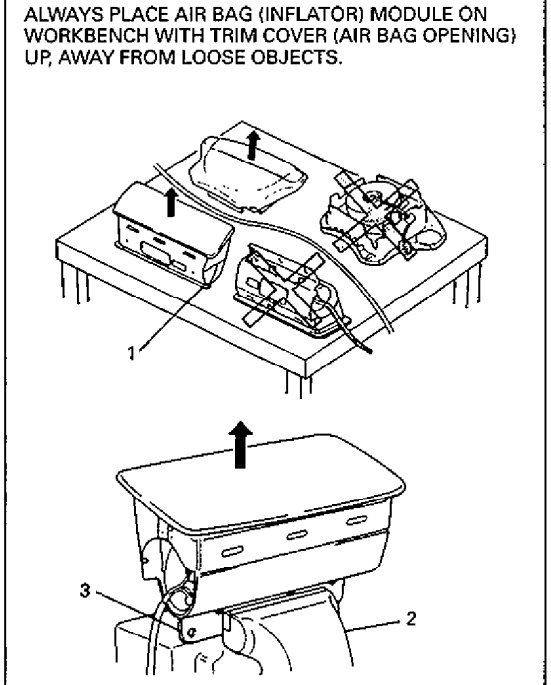
20) Dispose of the deployed air bag (inflator) module through normal refuse channels after it has cooled for at least 30 minutes and tightly seal the air bag (inflator) module in a strong vinyl bag. (Refer to "Deployed Air Bag (Inflator) Modules Disposal" in detail.)
21) Wash your hands with mild soap and water afterward.

NOTE:
The remaining steps are to be followed in the unlikely event that the air bag (inflator) module did not deploy after following these procedures.

22) Ensure that the deployment harness has been disconnected from the power source and that its two banaba plugs have been shorted together by fully seating one banana plug into the other.
23) Disconnect the deployment harness from the air bag (inflator) module.

60G00-91-67-2





1. Slit on workbench
2. Workbench vise
3. Lower mounting bracket

60A50-9J-79-5

WARNING:
- **Always carry a live air bag (inflator) module with trim cover away from you.**
- **When storing a live air bag (inflator) module or when leaving a live air bag (infaltor) module unattended on a bench or other surface, always face the bag and trim cover up and away from the surface. As the live passenger air bag (inflator) module must be placed with its bag (trim cover) facing up, place it on the workbench with a slit or use the workbench vise to hold it securely at its lower mounting bracket.**
  This is necessary so that a free space is provided to allow the air bag to expand in the unlikely event of accidental deployment.

Failure to follow procedures may result in personal injury.

24) Temporarily store the air bag (inflator) module with its vinyl trim cover facing up, away from the surface upon which is rests.
25) Contact your local distributor for further assistance.

DEPLOYMENT INSIDE VEHICLE

Use this procedure when scrapping the entire vehicle including the driver and/or passenger air bag (inflator) module(s).

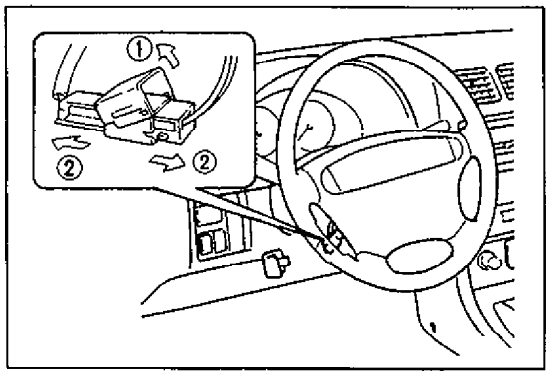
CAUTION:
When vehicle itself will be used again, deploy the air bag module outside vehicle according to "Deployment Outside Vehicle", for deploying it inside will cause the instrument panel, glove box and their vicinity to be deformed.
Failure to observe this CAUTION could cause unneeded vehicle inspection and repair.

WARNING:
Following precautions must be observed for this work. Failure to observe any of them may result in personal injury.

- **To avoid an accidental deployment, this work should be performed by no more than one person.**
- **The procedure should be followed strictly as described here.**
- **Be sure to read "Handling Precautions" for the air bag (inflator) module beforehand.**
- **Never connect deployment harness to any power source before connecting deployment harness to the air bag (inflator) module. Deployment harness shall remain shorted and not be connected to a power source until the air bag is to be deployed.**
- **The air bag (inflator) module will immediately deploy the air bag when a power source is connected to it. Wear safety glasses throughout this entire deployment and disposal procedure.**
- **Wear suitable ear protection when deploying air bag. Also, advise those who are in the area close to deployment site to wear suitable ear protection.**
- **Do not deploy driver and passenger air bag (inflator) modules at the same time.**

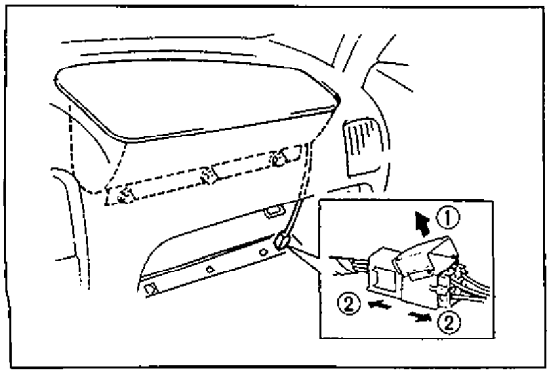
1) Turn ignition switch to "LOCK", remove key and put on safety glasses.
2) Remove all loose objects from front seats and instrument panel.

60G00-9J-68-1



60A50-9J-80-4

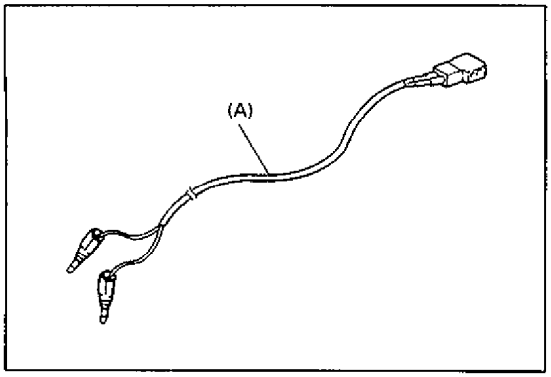
3) Driver side:
Remove steering wheel side cap (left side) and disconnect air bag (inflator) module connector.



60A50-9J-80-5

Passenger side:
Remove glove box from instrument panel and disconnect air bag (inflator) module connector.

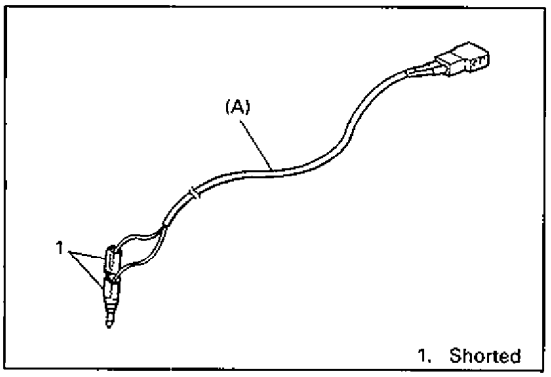
4) Confirm that each air bag (inflator) module is securely mounted.



60G00-9J-69-1

5) Check that there is no open/short or damage in special tool (Deployment harness). If any faulty is found, do not use it and be sure to use new deployment harness.

Special Tool (Deployment harness)
(A): 09932-75030

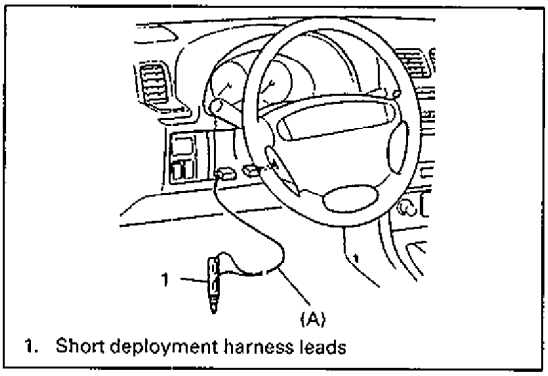


1. Shorted

60G00-9J-69-2

6) Short the two deployment harness leads together by fully seating one banana plug into the other.

WARNING:
Deployment wires shall remain shorted and not be connected to a power source until the air bag is to be deployed.

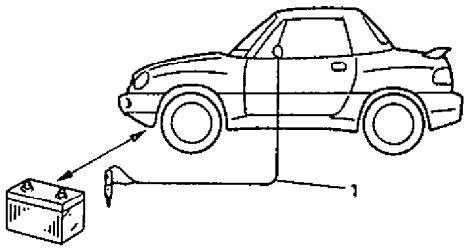


1. Short deployment harness leads

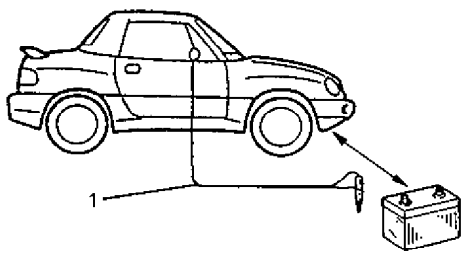
60A50-9J-81-3

7) Connect deployment harness connector to air bag (inflator) module (driver or passenger) and lock connector with lock lever.

Driver side for left hand steering vehicle



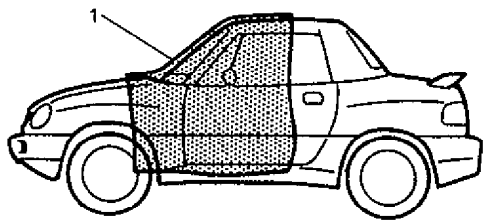
Driver side for right hand steering vehicle



1. Stretch deployment harness to its full length 10 m (33 ft).

79E00-9J-82-4

8) Route deployment harness out the vehicle.
9) Verify that the inside of the vehicle and the area surrounding the vehicle are clear of all people and loose or flammable objects.
10) Stretch the deployment harness to its full length 10 m (33 ft).
11) Place a power source near the shorted end of the deployment harness. Recommended application: 12 Volts minimum, 2 amps minimum. A vehicle battery is suggested.



1. Drop clutch blanket or similar item.

79E00-9J-83-1

12) Completely cover windshield area and front door window openings with a drop cloth, blanket to similar item. This reduces the possibility of injury due to possible fragmentation of the vehilce's glass or interior.
13) Notify all people in the immediate area that you intend to deploy the air bag (inflator) module.

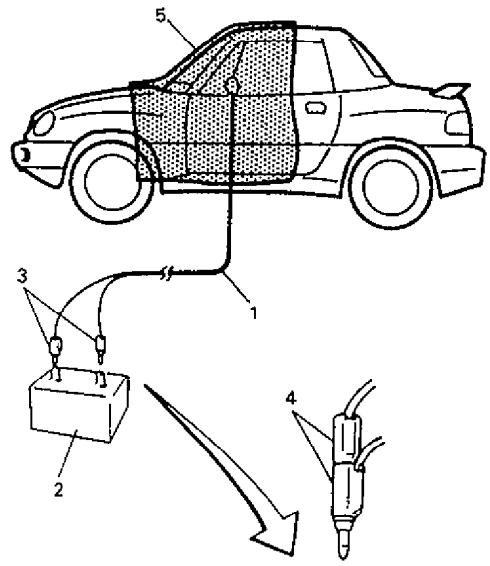
NOTE:

- **When the air bag deploys, the rapid gas expansion will create a substantial report. Wear suitable ear protection. Notify all people in the immediate area that you intend to deploy the air bag (inflator) module and suitable ear protection should be worn.**
- **After the air bag (inflator) module has been deployed, the surface of the air bag may contain a powdery residue. This powder consists primarily of cornstarch (used to lubricate the bag as it inflates) and byproducts of the chemical reaction.**

WARNING:
Safety precautions must be observed when handling a deployed air bag (inflator) module.

- **After deployment, the metal surfaces of the air bag (inflator) module will be very hot. Do not touch the metal areas of the air bag (inflator) module for about 30 minutes after deployment.**
- **Do not apply water, oil, etc to deployed air bag (inflator) module.**
- **If the deployed air bag (inflator) module must be moved before it is cool, wear gloves and handle by the air bag or vinyl trim.**

Failure to follow procedures may result in fire or personal injury.



1. Stretch it to full length 10 m (33 ft)
2. Power source (12 V vehicle battery)
3. Connect one banana plug to positive terminal of power source (12 V vehicle battery) and then the other to negative terminal to immediately deploy.
4. Short harness leads after deployment
5. Drop cloth, blanket or similar them

79E00-9J-83-4

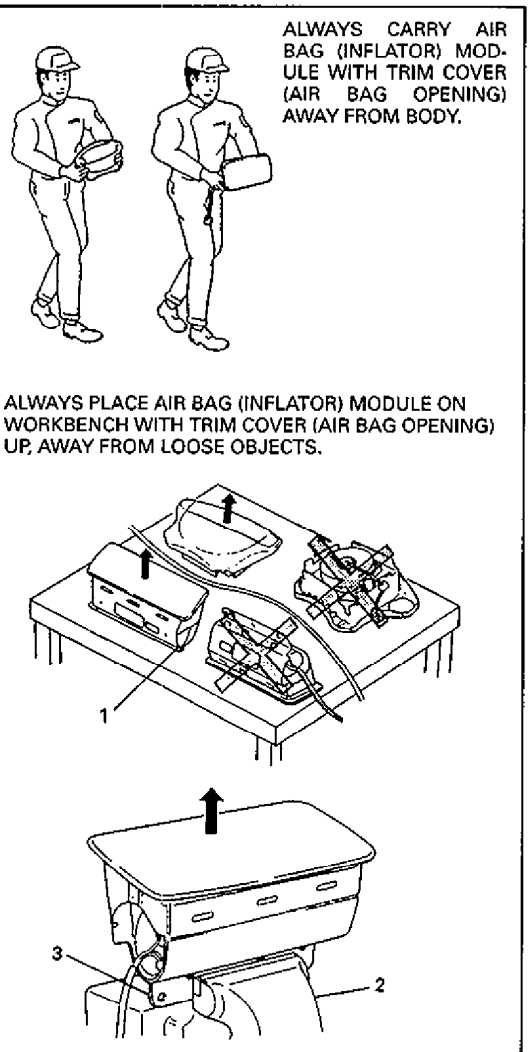
14) Separate the two banana plugs on the deployment harness.
15) Connect the deployment harness to the power source (12 V vehicle battery) to immediately deploy the driver or passenger air bag.
16) Disconnect the deployment harness from the power source (12 V vehicle battery) and short the harness leads together by fully seating one banana plug into the other.

17) Put on a pair of shop gloves to protect your hands from possible irritation and heat when handling the deployed air bag (inflator) module.

NOTE:
As a precaution, gloves and safety glasses are recommended to prevent any possible irritation of the skin or eyes.

18) Disconnect the deployment harness from the air bag (inflator) module as soon after deployment as possible. This will prevent damage to the deployment harness due to possible contact with the hot air bag (inflator) module canister. The deployment harness are designed to be reused. They should, however, be inspected for damage after each deployment and replaced if necessary.
19) Carefully remove drop cloth from vehicle and clean off any fragments or discard drop cloth entirely.
20) Repeat Steps 2) through 19) to deploy driver or passenger air bag (inflator) module, if it does not try to deploy.
21) In the unlikely event that either or both of the air bag (inflator) modules proceed immediately with Steps 23) through 25). If the air bag (inflator) module did deploy, proceed with Steps 22).

60G00-9J-71-1



1. Slit on workbench
2. Workbench vise
3. Lower mounting bracket

60A50-9J-83-3

22) With both air bags deployed the vehicle may be scrapped in the same manner as a non-air bag equipped vehicle.
23) Remove the undeployed air bag (inflator) module(s) from the vehicle. For driver air bag (inflator) module refer to SECTION 3C1, for passenger air bag (inflator) module refer to "On-Vehicle Service" in this section.

WARNING:
- **Always carry a live air bag (inflator) module with trim cover away from you.**
- **When storing a live air bag (inflator) module or when leaving a live air bag (inflator) module unattended on a bench or other surface, always face the bag up, away from the surface.**
  This is necessary so that a free space is provided to allow the air bag to expand in the unlikely event of accidental deployment.

Failure to follow procedures could result in personal injury.

24) Temporarily store the air bag (inflator) module with the air bag opening facing up, away from the surface upon which it rests. Refer to "Service Precaution" in this section for details.
25) Contact your local distributor for further assistance.

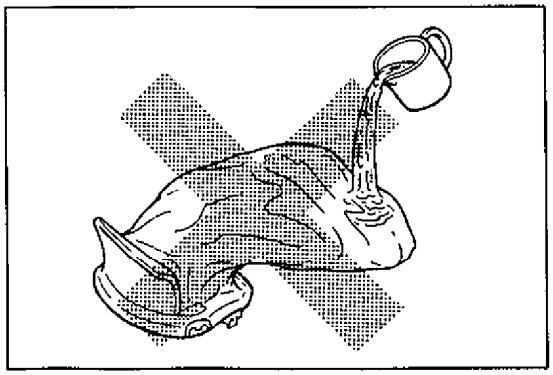
DEPLOYED AIR BAG (INFLATOR) MODULES DISPOSAL

WARNING:
Failure to follow proper air bag (inflator) module disposal procedures can result in air bag deployment which may cause personal injury. Undeployed air bag (inflator) modules must not be disposed of through normal refuse channels.
The undeployed air bag (inflator) module contains substances that can cause severe illness or personal injury if the sealed container is damaged during disposal.

Deployed air bag (inflator) modules (driver/passenger) can be disposed of through normal refuse channels just like any other parts. For their disposal, however, following points should be noted.

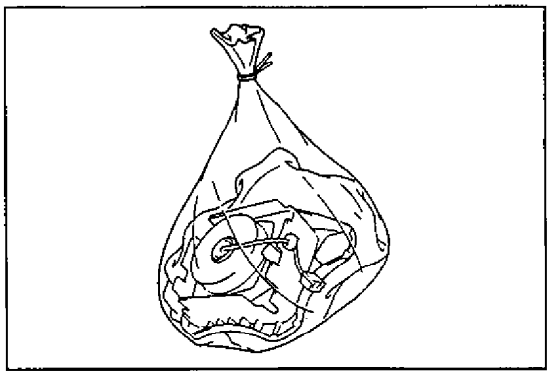
- The air bag (inflator) module immediately after deployment is very hot. Wait for 30 minutes to cool it off before handling it.

79E00-9J-86-1



60G00-9J-72-3

- Never apply water, oil, etc to deployed air bag (inflator) module to cool it off and be careful so that water, oil etc. does not get on the deployed air bag (inflator) module.
- After the air bag (inflator) module has been deployed, the surface of the air bag may contain a powdery residue. This powder consists primarily of cornstarch (used to lubricate the bag as it inflates) and byproducts of the chemical reaction. As with many service procedures, you should wear gloves and safety glasses.

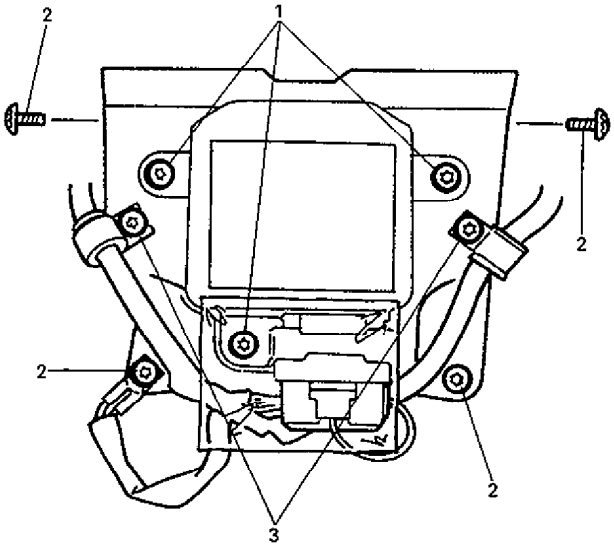


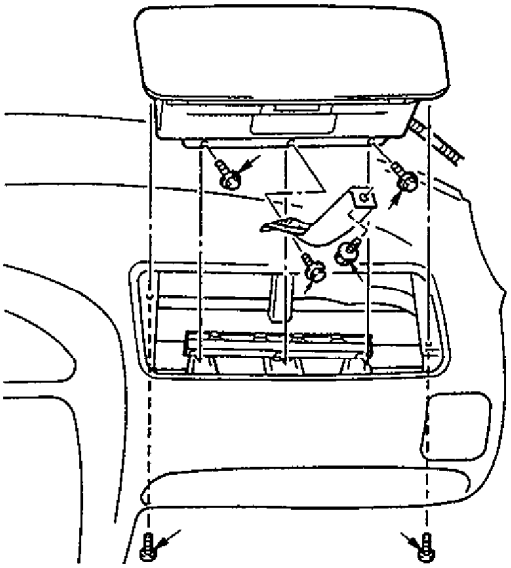
60G00-9J-72-4

- When disposing of the deployed air bag (inflator) module alone, be sure to seal it in a vinyl bag.
- When air bag (inflator) module(s) have been deployed inside the vehicle which is going to be scrapped, leave them as installed to the vehicle.
- Be sure to wash your hands with mild soap and water after handling it.

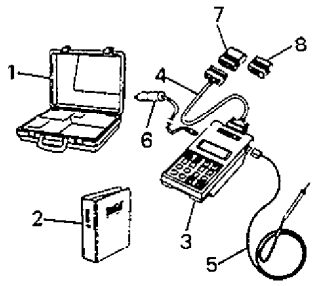
TIGHTENING TORQUE SPECIFICATIONS

Fastening parts		Tightening torque		
		N·m	kg-m	lb-ft
1. SDM bolts		5.5	0.55	4.0
2. SDM bracket bolts				
3. SDM wire harness clamp bolts				
4. Passenger air bag (inflator) module	screws	5.5	0.55	4.0
	bolts	23	2.3	16.5
5. Driver air bag (inflator) module bolts		Refer to Section 3C1.		



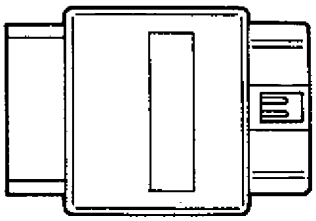


SPECIAL TOOLS

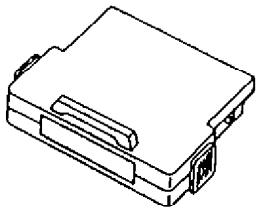


1. Storage case
2. Operator's manual
3. Tech 1A
4. DLC cable
5. Test lead / probe
6. Power source cable
7. DLC cable adapter
8. Self-test adapter

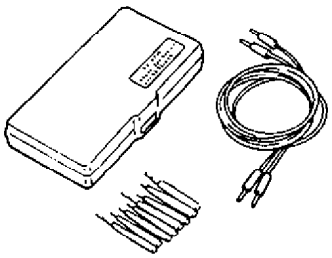
09931-76011
Tech 1 (scan tool) kit



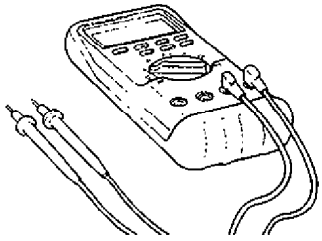
09931-96020
16/12 pin DLC adapter



Tech 1 cartridge for air bag

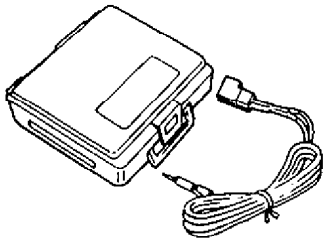


09932-75020
Connector test adaptor kit

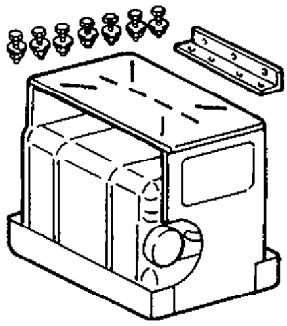


Digital multimeter for which the maximum test current is 10 mA or less at the minimum range of resistance measurement.

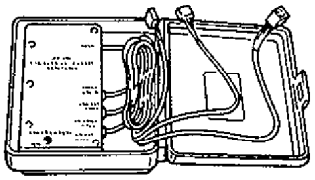
WARNING:
Be sure to use the specified digital multimeter.
Otherwise, air bag deployment or personal injury may result.



09932-75030
Air bag deployment harness



09932-75040
Passenger air bag (inflator) module deployment fixture

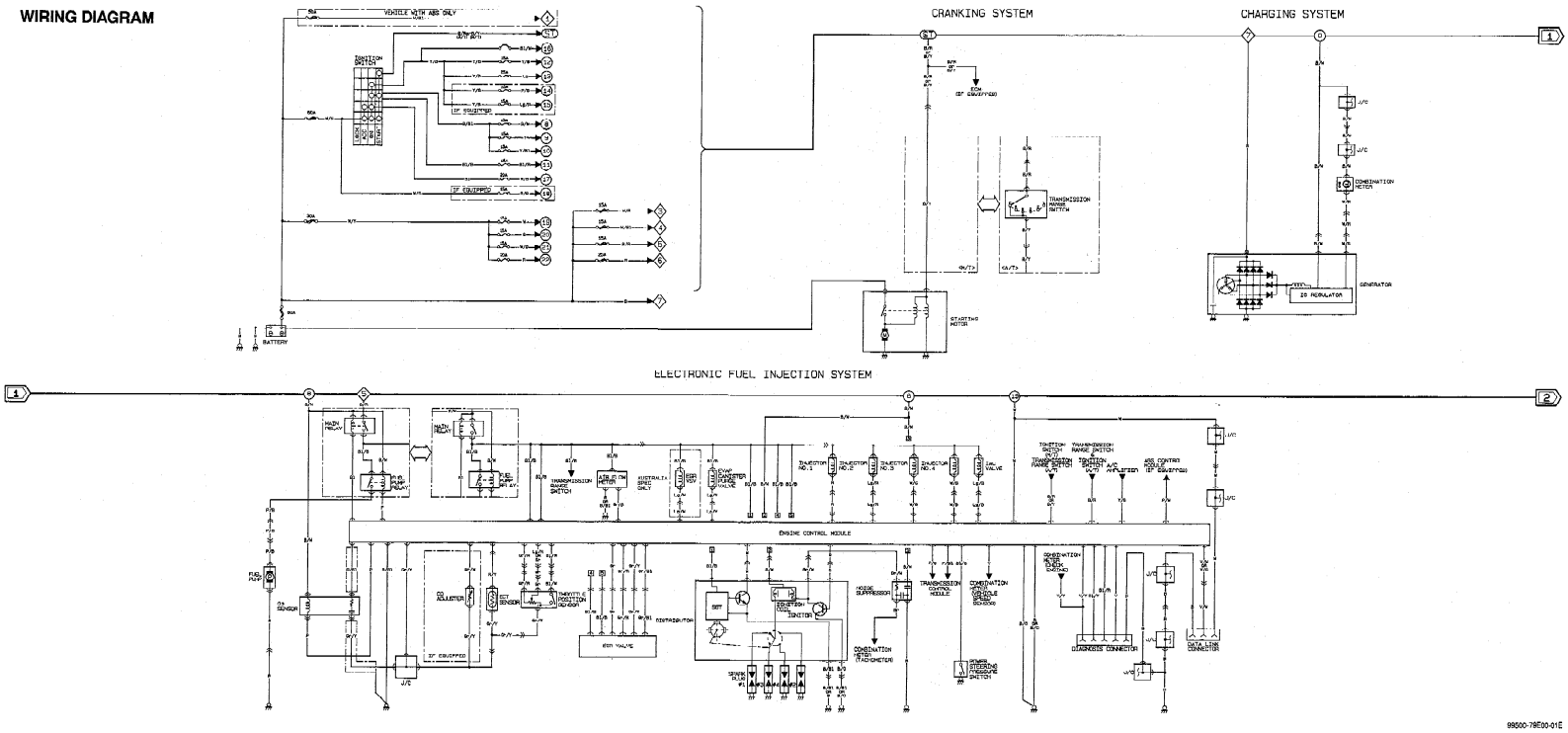


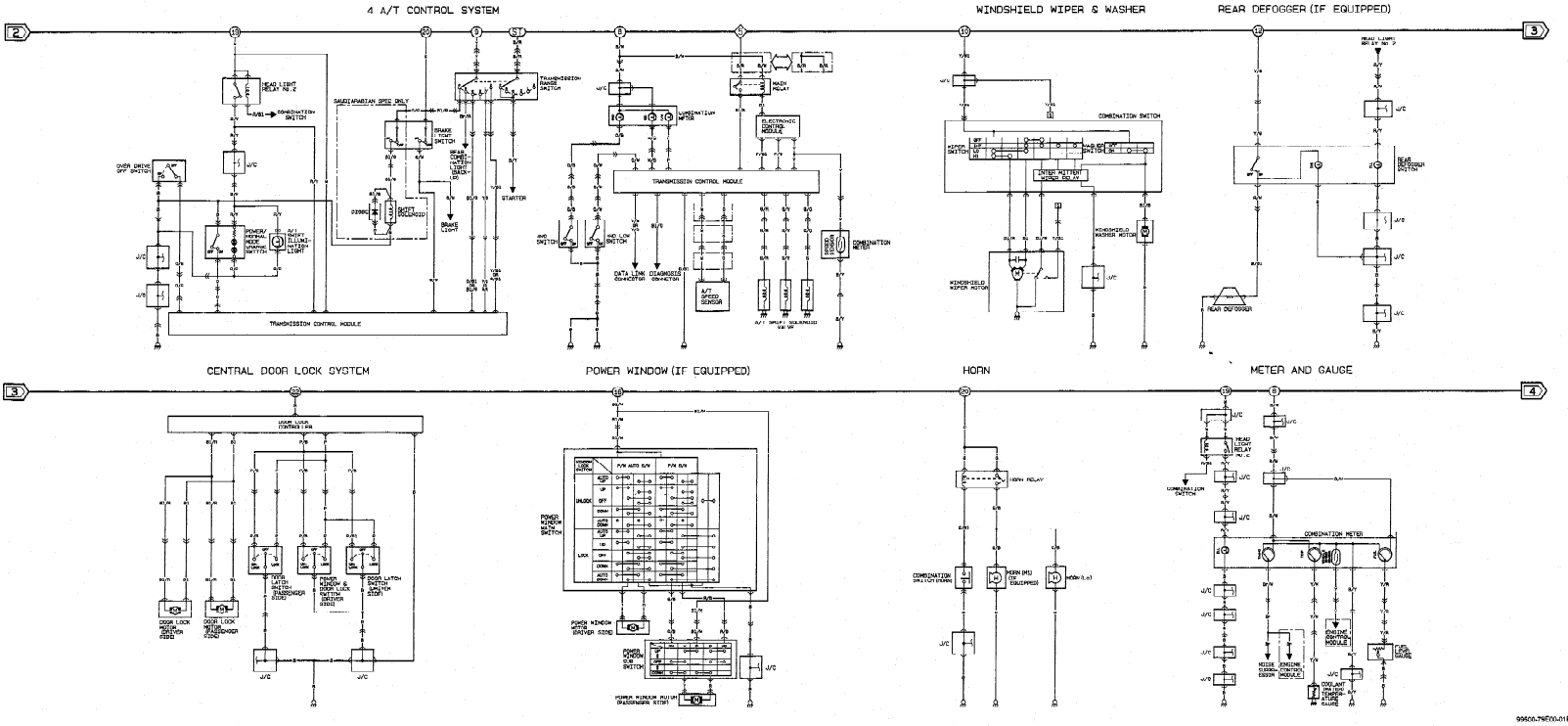
09932-75010
Air bag driver/passenger load tool

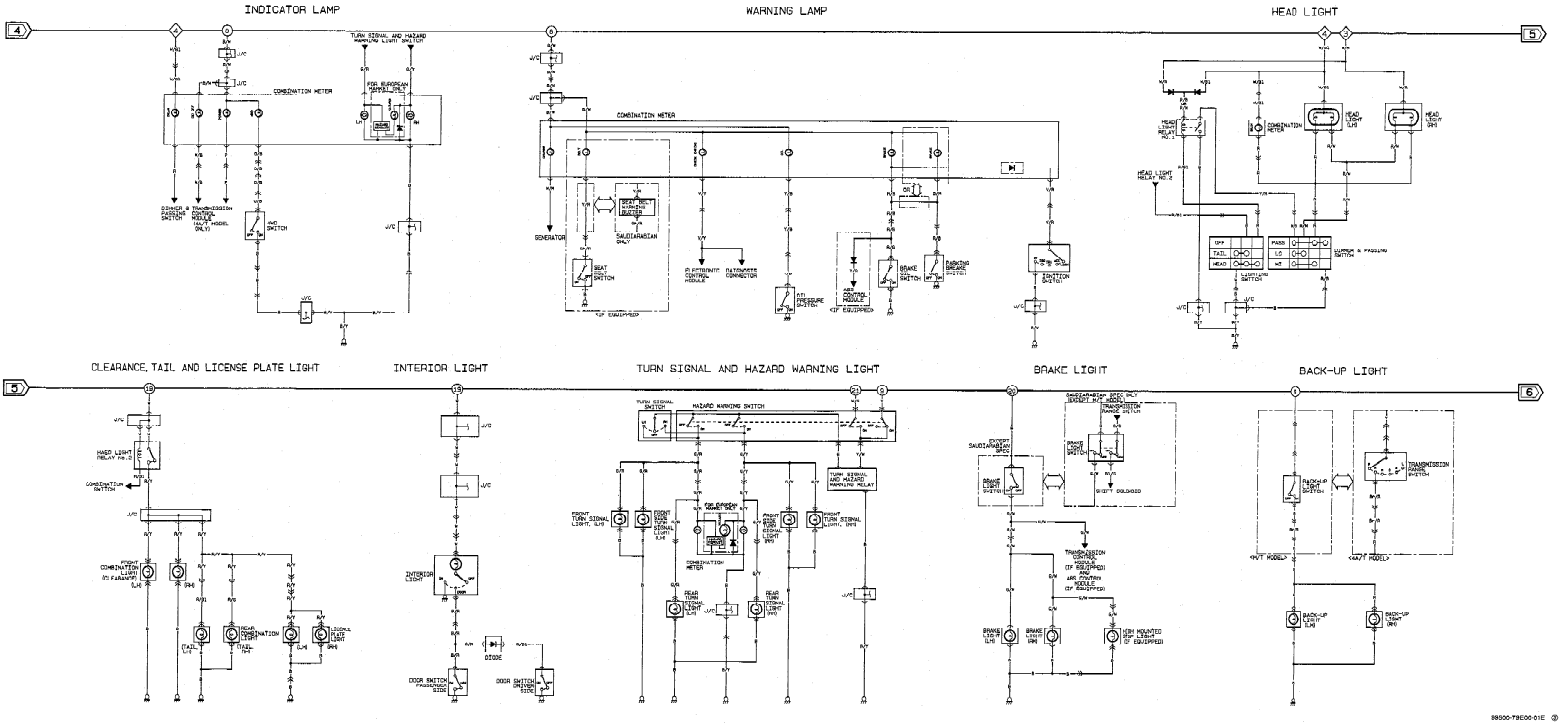
60A50-9J-86-1

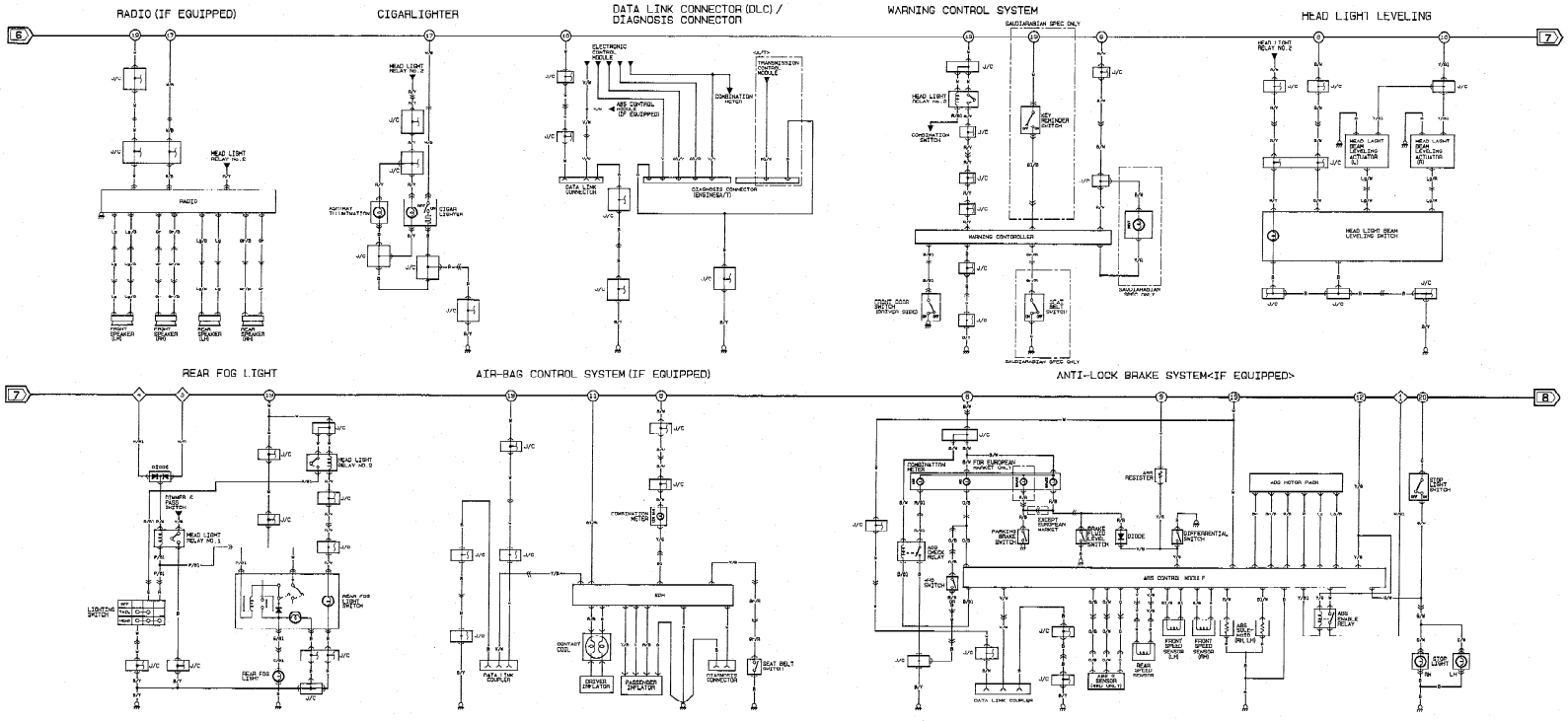
— MEMO —

WIRING DIAGRAM









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