

RELATED MANUAL

MANUAL NAME	MANUAL NO.	APPLICABILITY
SQ416/SQ420/SQ625 Unit Repair Manual	99501-65D01-xxx	Transmission, Transfer and Differentials (Front and Rear) of SQ series.
SQ416/SQ420/SQ625 Wiring Diagram Manual	99512-65D10-015	Applicable model mentioned in FOREWORD of this manual.
SQ416/SQ420/SQ625 Service Manual	99500-65D00-xxx	Vehicles before the vehicle identification number mentioned in FOREWORD of this manual.
SQ416/SQ420/SQ625 Wiring Diagram Manual	99512-65D01-015	

TABLE OF CONTENTS	SECTION
GENERAL INFORMATION	
General Information	0A
Maintenance and Lubrication	0B
HEATING AND AIR CONDITIONING	
Heater and Ventilation	1A
Air Conditioning	1B
STEERING, SUSPENSION, WHEELS AND TIRES	3
Front End Alignment	3A
Power Steering (P/S) System	3B1
Steering Wheel and Column (Not Equipped with Air Bag)	3C
Air Bag Steering Wheel and Column	3C1
Front Suspension	3D
Rear Suspension	3E
Wheel and Tires	3F
DRIVE SHAFT/PROP. SHAFT	
Front Drive Shaft/Shaft Bearing, Oil Seal	4A2
Propeller Shaft	4B
BRAKES	5
Brake Pipe/Hose/Master Cylinder	5A
Front Brakes	5B
Parking and Rear Brakes	5C
Antilock Brake System	5E1

TABLE OF CONTENTS	SECTION
ENGINE	
General Information and Diagnosis (G16/J20)	6
General Information and Diagnosis (H25)	6-1
Engine Mechanical (G16)	6A1
Engine Mechanical (H25)	6A2
Engine Mechanical (J20)	6A4
Engine Cooling	6B
Engine Fuel	6C
Engine and Emission Control System (SFI for G16/J20)	6E1
Engine and Emission Control System (SFI for H25)	6E2
Ignition System (G16)	6F1
Ignition System (J20/H25)	6F2
Cranking System (Reduction Type)	6G
Cranking System (No-Reduction Type)	6G1
Charging System	6H
Exhaust System	6K
TRANSMISSION, CLUTCH AND DIFFERENTIAL	
Manual Transmission (Type 1)	7A
Manual Transmission (Type 2)	7A1
Automatic Transmission	7B1
Clutch (Hydraulic Type)	7C1
Transfer	7D
Differential (Front)	7E
Differential (Rear)	7F
BODY ELECTRICAL SYSTEM	8
Wiring Diagram	8A
Lighting System	8B
Instrumentation/Driver Information	8C
Windows, Mirrors, Security and Lock	8D
Immobilizer Control System	8G
BODY SERVICE	9
RESTRAINT SYSTEM	10
Seat Belt	10A
Air Bag System	10B

0A	6
0B	6-1
1A	6A1
1B	6A2
3	6A4
3A	6B
3B1	6C
3C	6E1
3C1	6E2
3D	6F1
3E	6F2
3F	6G
4A2	6G1
4B	6H
5	6K
5A	7A
5B	7A1
5C	7B1
5E1	7C1
	7D
	7E
	7F
	8
	8A
	8B
	8C
	8D
	8G
	9
	10
	10A
	10B

NOTE:

The screen toned Sections 6 – 6K are included in Volume 2 and Section 8A is in Wiring Diagram Manual.

SECTION 0A

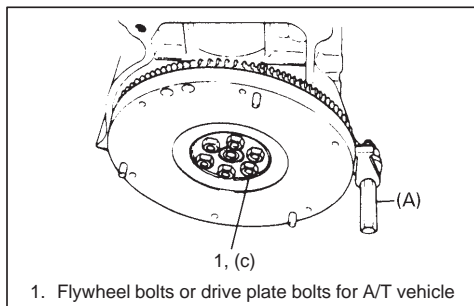
GENERAL INFORMATION

CONTENTS

HOW TO USE THIS MANUAL	0A- 2
PRECAUTIONS	0A- 3
Precautions for Vehicle Equipped with a Supplemental Restraint (Air Bag) System	0A- 3
Diagnosis	0A- 3
Servicing and Handling	0A- 4
General Precautions	0A- 7
Precautions for Catalytic Converter	0A- 9
Precautions for Electrical Circuit Service	0A-10
Electrical Circuit Inspection Procedure	0A-12
Intermittent and Poor Connection	0A-15
Precaution for Installing Mobile Communication Equipment	0A-16
IDENTIFICATION INFORMATION	0A-17
Body Number	0A-17
Engine Identification Number	0A-17
Transmission Identification Number	0A-17
WARNING, CAUTION AND INFORMATION LABELS	0A-18
VEHICLE LIFTING POINTS	0A-19
ABBREVIATIONS MAY BE USED IN THIS MANUAL	0A-21
METRIC INFORMATION	0A-23
Metric Fasteners	0A-23
Fasteners Strength Identification	0A-23
Standard Tightening Torque	0A-24

HOW TO USE THIS MANUAL

- 1) There is a TABLE OF CONTENTS FOR THE WHOLE MANUAL on the third page of this manual, whereby you can easily find the section that offers the information you need. Also, there is a 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.



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

Special Tool

(A): 09924-17810

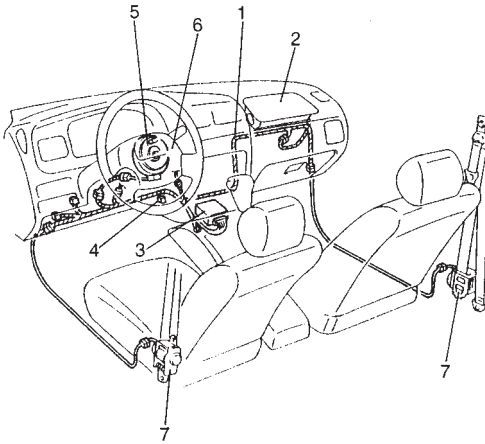
Tightening Torque

(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 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.

PRECAUTIONS

PRECAUTION FOR VEHICLES EQUIPPED WITH A SUPPLEMENTAL RESTRAINT (AIR BAG) SYSTEM



- | | |
|--|---|
| 1. Air bag wire harness | 5. Contact coil |
| 2. Passenger air bag (inflator) module | 6. Driver air bag (inflator) module |
| 3. SDM | 7. Seat belt pretensioner (if equipped) |
| 4. DLC | |

WARNING:

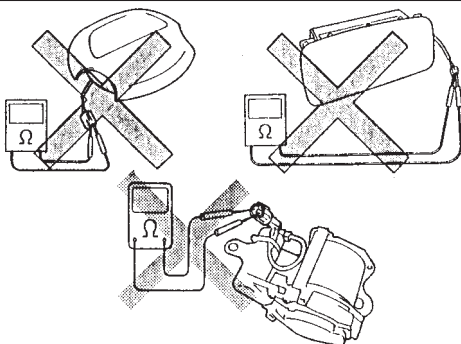
- The configuration of air bag system parts are as shown in the figure. When it is necessary to service (remove, reinstall and inspect) these parts, be sure to follow procedures described in SECTION 10B. Failure to follow proper procedures could result in possible air bag system activation, personal injury, damage to parts or air bag system being unable to activate 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 system activation.
- Do not modify the steering wheel, dashboard, or any other air bag system components. 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 beforehand to avoid component damage or unintended air bag system activation.

DIAGNOSIS

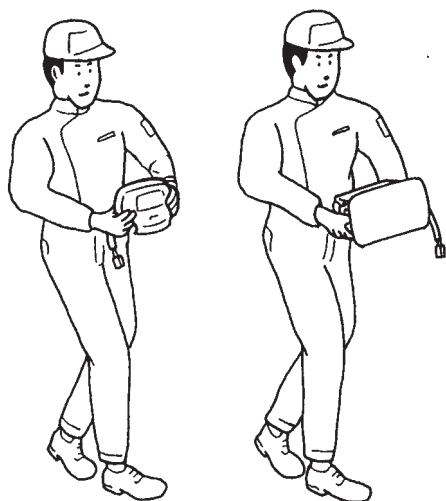
- When troubleshooting air bag system, be sure to follow “DIAGNOSIS” in SECTION 10B. Bypassing these procedures may result in extended diagnostic time, incorrect diagnosis, and incorrect parts replacement.
- Never use electrical test equipment other than that specified in this manual.

WARNING:

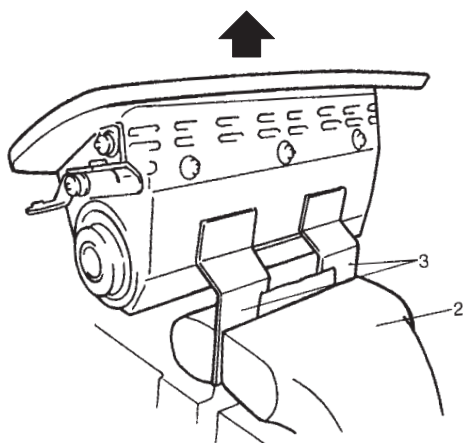
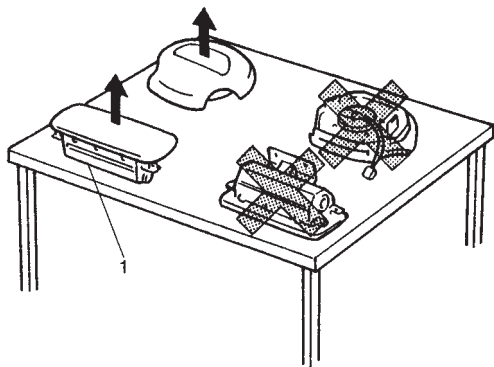
Never attempt to measure the resistance of the air bag (inflator) modules (driver and passenger) and seat belt pretensioners (driver and passenger). It is very dangerous as the electric current from the tester may deploy the air bag or activate the pretensioner.



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

SERVICING AND HANDLING

WARNING:

Many of service procedures require disconnection of "AIR BAG" fuse and all air bag (inflator) module(s) from initiator circuit 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 10B 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.

WARNING:**SDM**

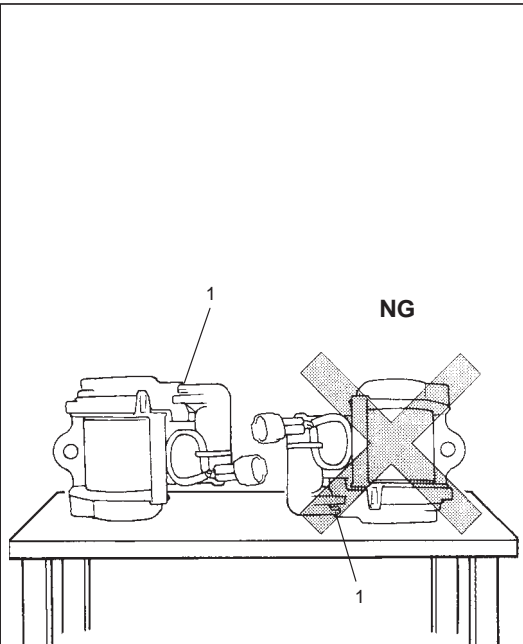
- During service procedures, be very careful when handling a Sensing and Diagnostic Module (SDM). Never strike or jar the SDM.

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.

WARNING:**Driver and Passenger Seat Belt Pretensioners**

- For handling and storage of a live seat belt pretensioner, select a place where the ambient temperature below 65°C (150°F), without high humidity and away from electric noise.
- Never carry seat belt pretensioner by wire or connector of pretensioner. When placing a live seat belt pretensioner on the workbench or some place like that, be sure not to lay it with its exhaust hole provided side facing down. It is also prohibited to put something on its face with an exhaust hole or to put a seat belt pretensioner on top of another. Otherwise, personal injury may result.
- Never dispose of live (inactivated) seat belt pretensioners (driver and passenger). If disposal is necessary, be sure to activate them according to activation procedures described in SECTION 10B before disposal.
- The seat belt pretensioner immediately after activation is very hot. Wait for at least half an hour to cool it off before proceeding the work.
- With many service procedures, gloves and safety glasses should be worn to prevent any possible irritation of the skin or eyes.



1. Exhaust hole

CAUTION:

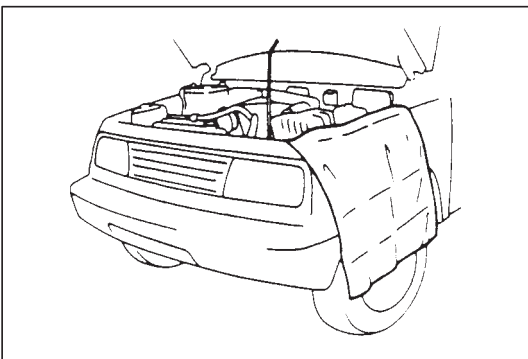
- Even when the accident was light enough not to cause air bags to activate, be sure to inspect system parts and other related parts according to instructions under “Repair and Inspection Required after an Accident” in SECTION 10B.
- When servicing parts other than air bag system, if shocks may be applied to air bag system component parts, remove those parts beforehand.
- When handling the air bag (inflator) modules (driver and passenger), seat belt pretensioners (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) or seat belt pretensioners (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” described in “Service Precautions” under “On-Vehicle Service” in SECTION 10B.
- 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 10B.

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.

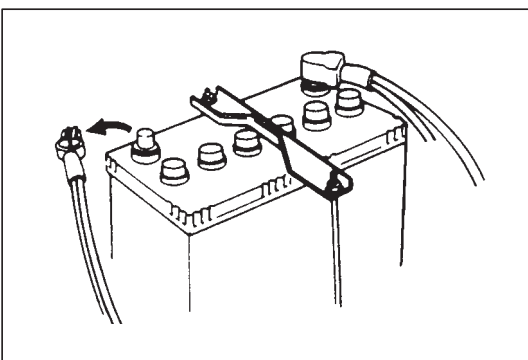
WARNING:

- 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, tail-pipe, 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 moisture-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.
- Make sure the bonnet is fully closed and latched before driving. If it is not, it can fly up unexpectedly during driving, obstructing your view and resulting in an accident.

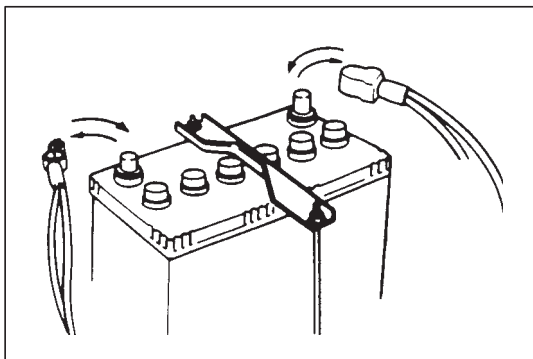


CAUTION:

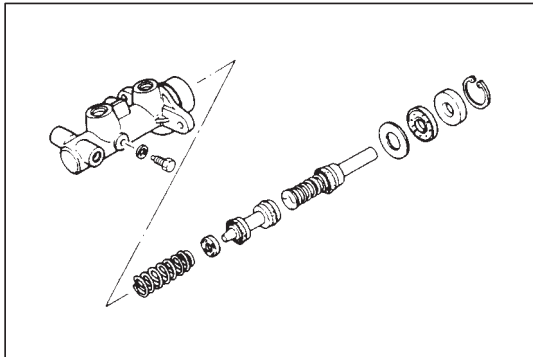
- Before starting any service work, cover fenders, seats and any other parts that are likely to get scratched or stained during servicing. Also, be aware that what you wear (e.g, buttons) may cause damage to the vehicle's finish.



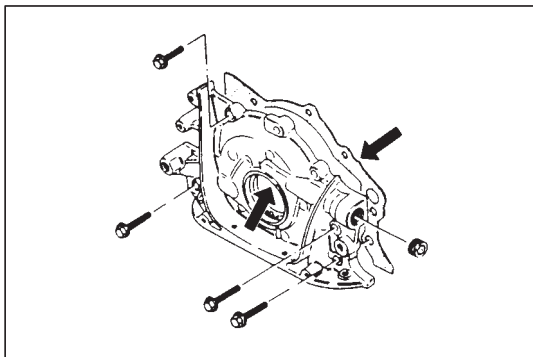
- When performing service to electrical parts that does not require use of battery power, disconnect the negative cable of the battery.



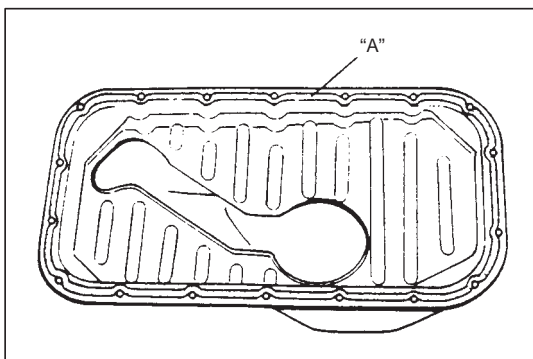
- When removing the battery, be sure to disconnect the negative cable first and then the positive cable. When reconnecting the battery, connect the positive cable first and then the negative cable, and replace the terminal cover.



- 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.

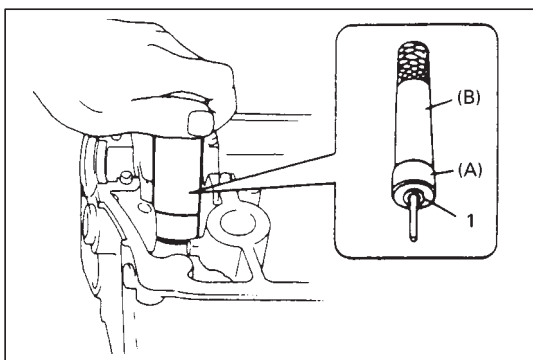


- Whenever you use oil seals, gaskets, packing, O-rings, locking washers, split pins, self-locking nuts, and certain other parts as specified, be sure to use new ones. Also, before installing new gaskets, packing, etc., be sure to remove any residual material from the mating surfaces.



- 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

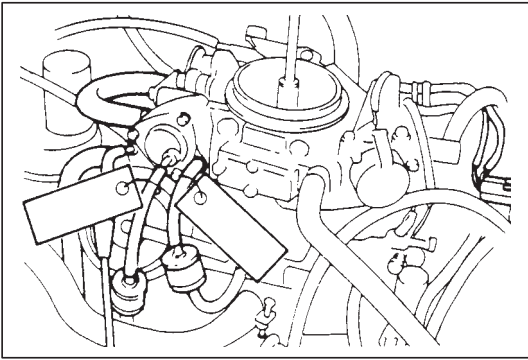


- Be sure to use special tools when instructed.

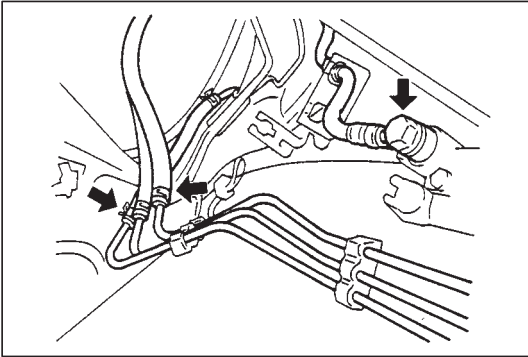
Special Tool

(A): 09917-98221

(B): 09916-58210



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



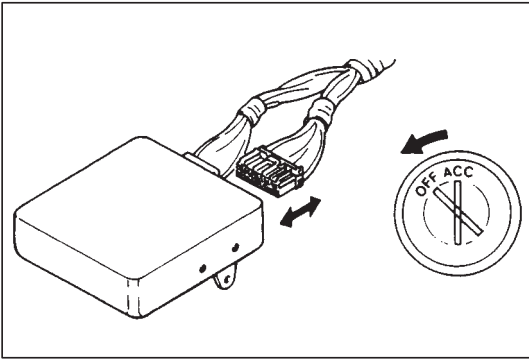
- After servicing fuel, oil, coolant, vacuum, exhaust or brake systems, check all lines related to the system for leaks.

- 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.

PRECAUTIONS FOR CATALYTIC CONVERTER

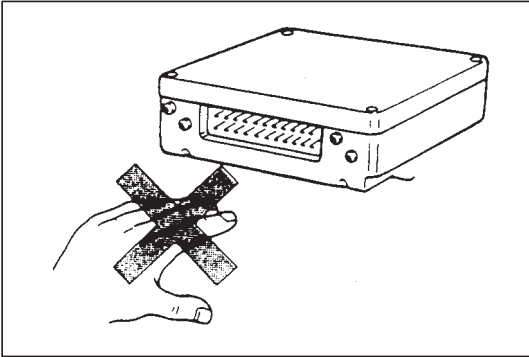
For vehicles equipped with a catalytic converter, use only unleaded gasoline and be careful not to let a large amount of unburned gasoline enter the converter or it can be damaged.

- 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).



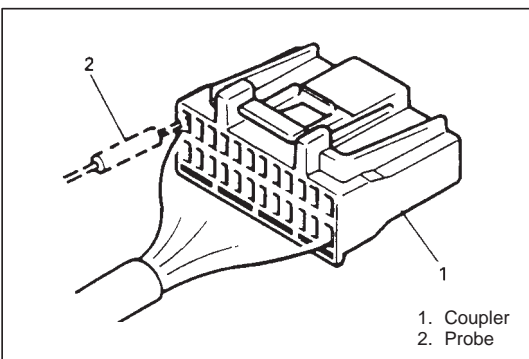
PRECAUTIONS FOR ELECTRICAL CIRCUIT SERVICE

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

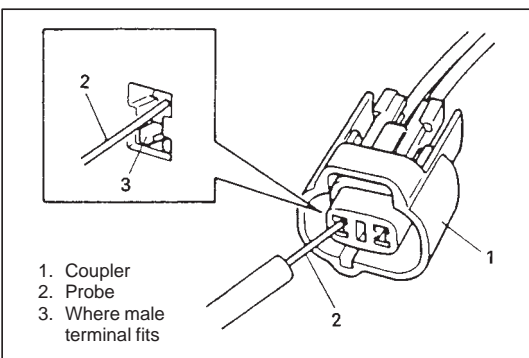


- Be careful not to touch the electrical terminals of parts which use microcomputers (e.g. electronic control unit like as ECM, PCM, P/S controller, etc.). The static electricity from your body can damage these parts.

- 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.

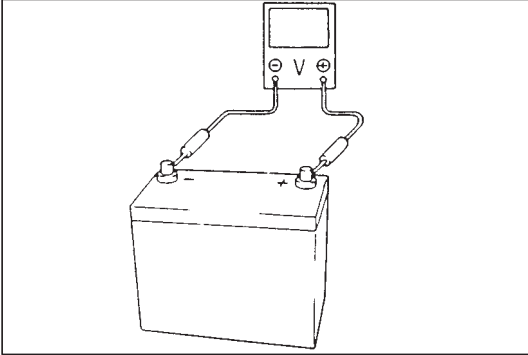


- When taking measurements at electrical connectors using a tester probe, be sure to insert the probe from the wire harness side (backside) of the connector.



- 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 or 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.



- 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.

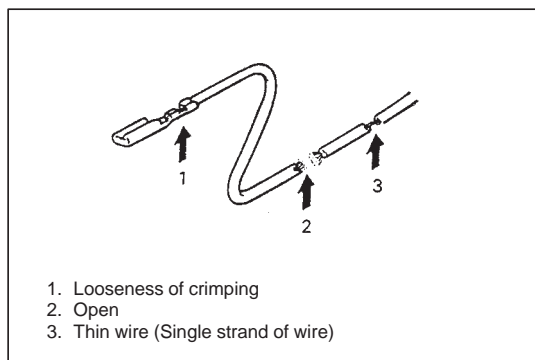
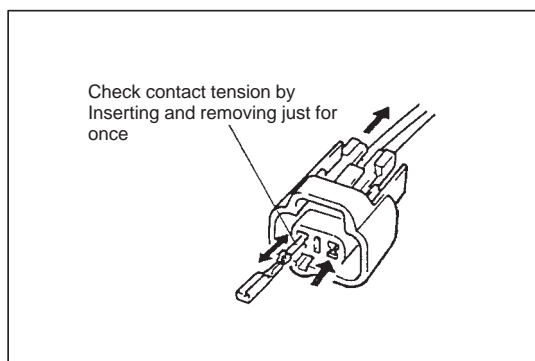
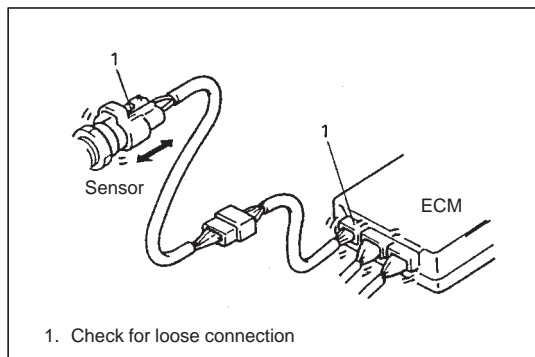
ELECTRICAL CIRCUIT INSPECTION PROCEDURE

While there are various electrical circuit inspection methods, described here is a general method to check its open and short circuit by using an ohmmeter and a voltmeter.

OPEN CIRCUIT CHECK

Possible causes for the open circuit are as follows. As the cause is in the connector or terminal in many cases, they need to be checked particularly carefully.

- Loose connection of connector
- Poor contact of terminal (due to dirt, corrosion or rust on it, poor contact tension, entry of foreign object etc.)
- Wire harness being open



When checking system circuits including an electronic control unit such as ECM, TCM, ABS control module, etc., it is important to perform careful check, starting with items which are easier to check.

- 1) Disconnect negative cable from battery.
- 2) Check each connector at both ends of the circuit being checked for loose connection. Also check lock condition of connector if equipped with connector lock.
- 3) Using a test male terminal, check both terminals of the circuit being checked for contact tension of its female terminal. Check each terminal visually for poor contact (possibly caused by dirt, corrosion, rust entry of foreign object, etc.). At the same time, check to make sure that each terminal is locked in the connector fully.
- 4) Using continuity check or voltage check procedure described in the following page, check the wire harness for open circuit and poor connection with its terminals. Locate abnormality, if any.

Continuity Check

1) Measure resistance between connector terminals at both ends of the circuit being checked (between A-1 and C-1 in the figure). If no continuity is indicated (infinity or over limit), that means that the circuit is open between terminals A-1 and C-1.

2) Disconnect the connector included in the circuit (connector-B in the figure) and measure resistance between terminals A-1 and B-1. If no continuity is indicated, that means that the circuit is open between terminals A-1 and B-1. If continuity is indicated, there is an open circuit between terminals B-1 and C-1 or an abnormality in connector-B.

Voltage Check

If voltage is supplied to the circuit being checked, voltage check can be used as circuit check.

1) With all connectors connected and voltage applied to the circuit being checked, measure voltage between each terminal and body ground.

If measurements were taken as shown in the figure at the left and results were as listed below, it means that the circuit is open between terminals B-1 and A-1.

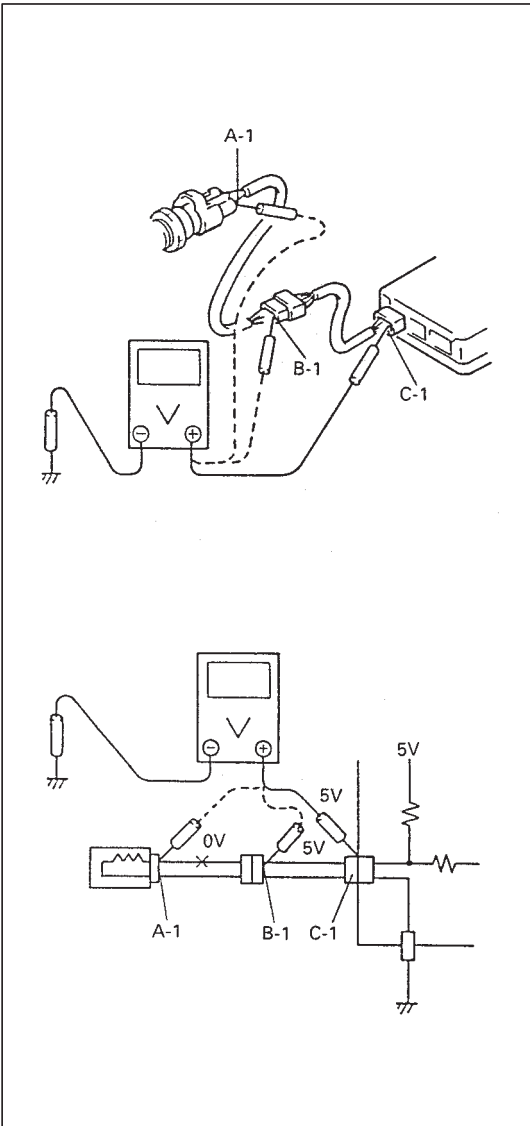
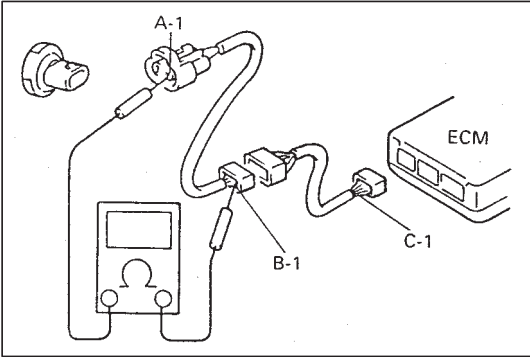
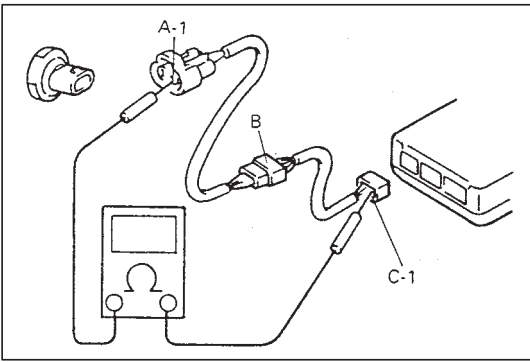
Voltage Between:

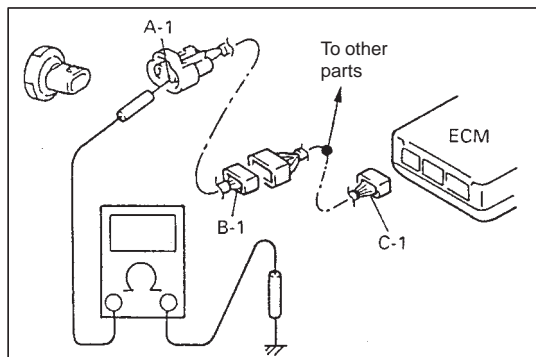
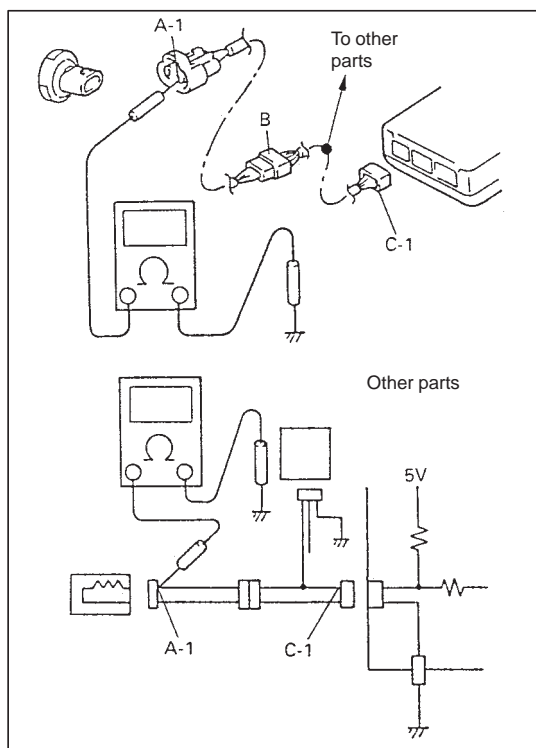
- C-1 and body ground: Approx. 5V
- B-1 and body ground: Approx. 5V
- A-1 and body ground: 0V

Also, if measured values were as listed below, it means that there is a resistance (abnormality) of such level that corresponds to the voltage drop in the circuit between terminals A-1 and B-1.

Voltage Between:

- C-1 and body ground: Approx. 5V
 - B-1 and body ground: Approx. 5V
 - A-1 and body ground: Approx. 3V
- } 2V voltage drop





SHORT CIRCUIT CHECK (Wire harness to ground)

- 1) Disconnect negative cable from battery.
- 2) Disconnect connectors at both ends of the circuit to be checked.

NOTE:

If the circuit to be checked is connected to other parts, disconnect all connectors of those parts. Otherwise, diagnosis will be misled.

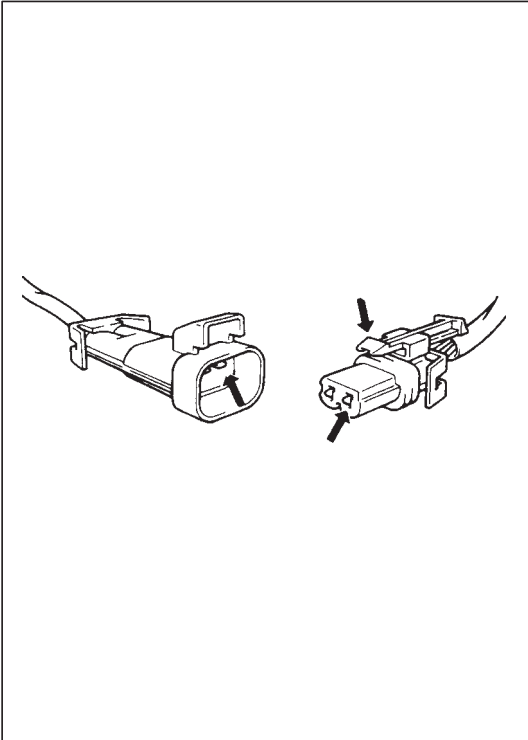
- 3) Measure resistance between terminal at one end of circuit (A-1 terminal in figure) and body ground. If continuity is indicated, it means that there is a short to ground between terminals A-1 and C-1 of the circuit.

- 4) Disconnect the connector included in circuit (connector B) and measure resistance between A-1 and body ground. If continuity is indicated, it means that the circuit is shorted to the ground between terminals A-1 and B-1.

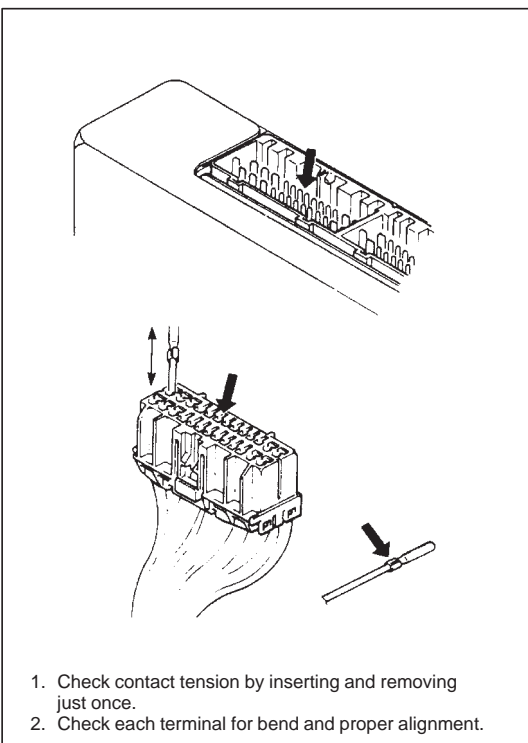
INTERMITTENT AND POOR CONNECTION

Most intermittent 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:

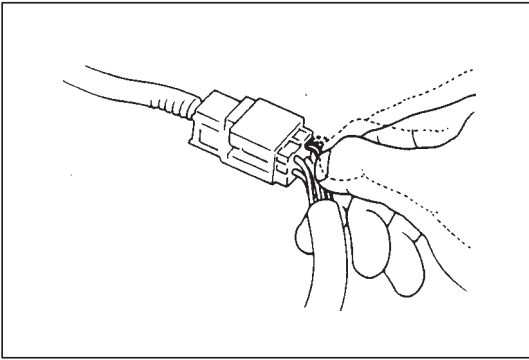
- Poor mating of connector halves, or terminals not fully seated in the connector body (backed out).
- Dirt or corrosion on the terminals. The terminals must be clean and free of any foreign material which could impede proper terminal contact.
However, cleaning the terminal with a sand paper or the like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

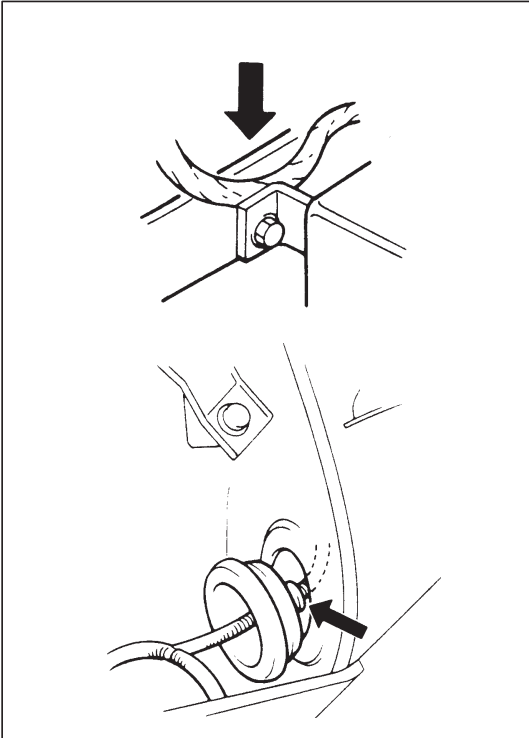


1. Check contact tension by inserting and removing just once.
2. Check each terminal for bend and proper alignment.



- 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.



- 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.

PRECAUTION FOR INSTALLING MOBILE COMMUNICATION EQUIPMENT

When installing mobile communication equipment such as CB (Citizens-Band)-radio or cellular-telephone, be sure to observe the following precautions.

Failure to follow cautions may adversely affect electronic control system.

- Keep the antenna as far away as possible from the vehicle's electronic control unit.
- Keep the antenna feeder more than 20 cm (7.9 in.) away from electronic control unit and its wire harnesses.
- Do not run the antenna feeder parallel with other wire harnesses.
- Confirm that the antenna and feeder are correctly adjusted.

IDENTIFICATION INFORMATION BODY NUMBER

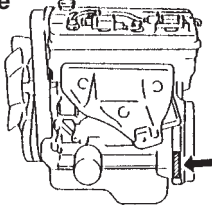
The vehicle body number is on the left side of instrument panel and punched on the chassis inside the tire housing on the right front side. It is possible to identify the country of origin (the production plant) of the vehicle by the first three digits of the body number as shown below.

JSAxxx Japan (Iwata) produced
2S2xxx Canada (CAMI) produced

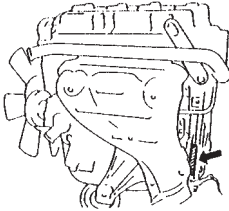
ENGINE IDENTIFICATION NUMBER

The number is punched on the cylinder block.

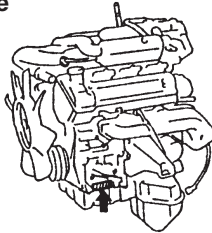
G16 engine



J20 engine



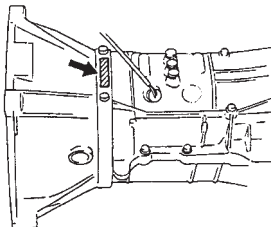
H25 engine



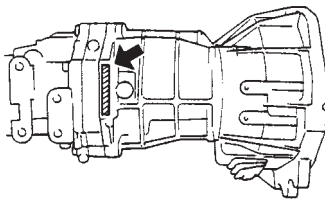
TRANSMISSION IDENTIFICATION NUMBER

The number is located on the transmission case.

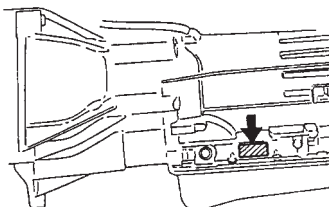
M/T (Type1)



M/T (Type2)



4-speed A/T

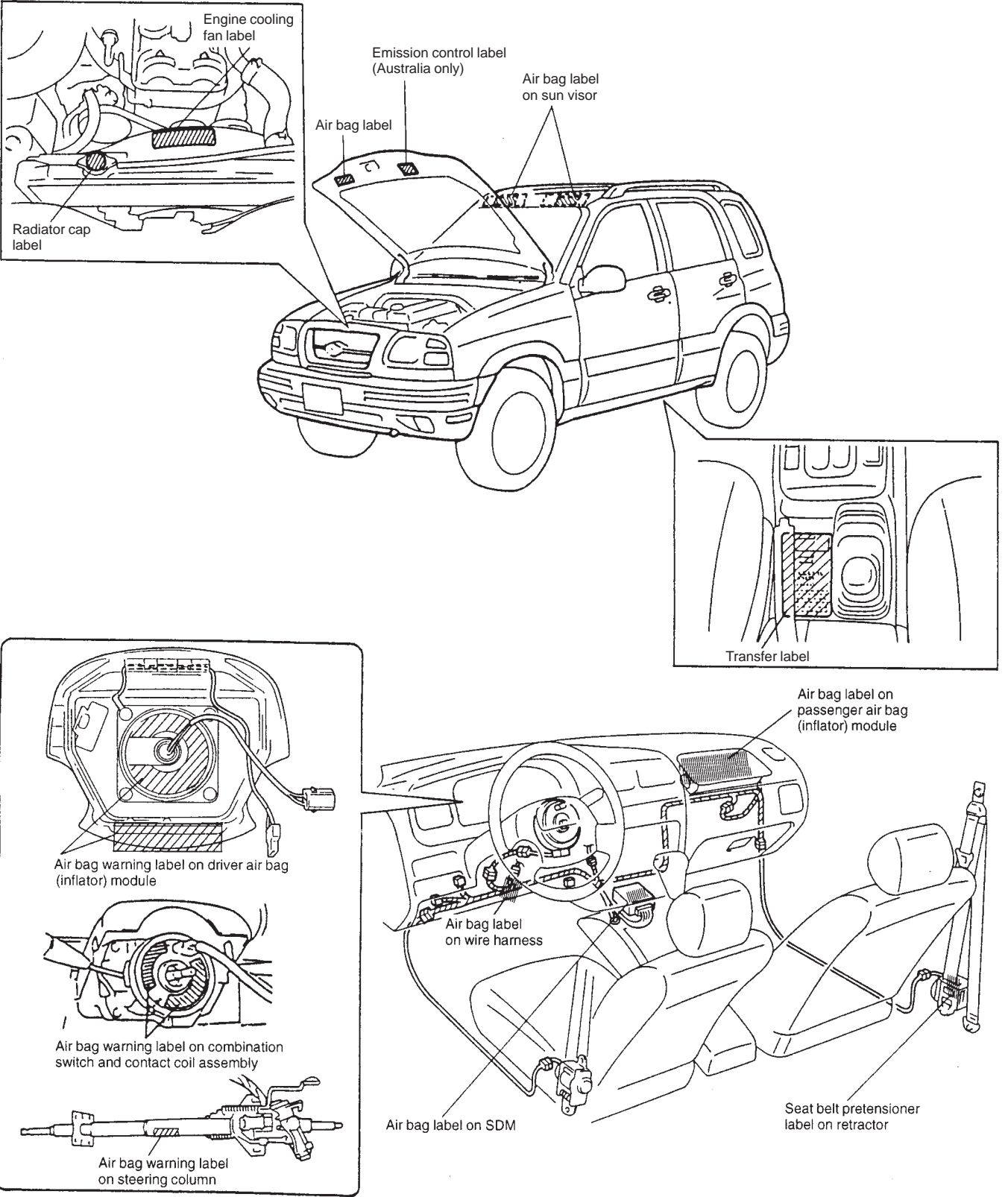


WARNING, CAUTION AND INFORMATION LABELS

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.

NOTE:

Air bag CAUTION/WARNING labels are attached on the vehicle equipped with air bag system only.

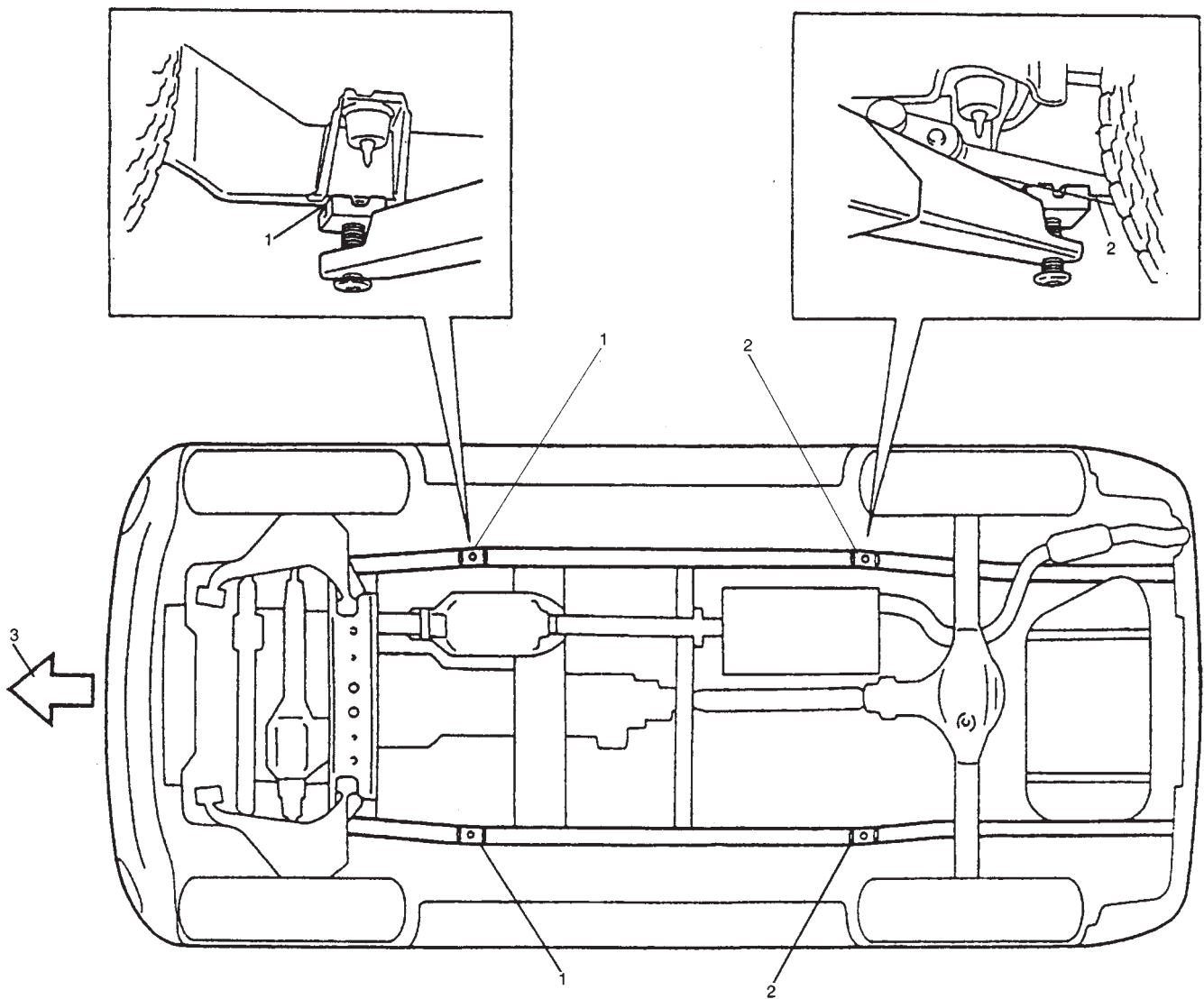


VEHICLE LIFTING POINTS

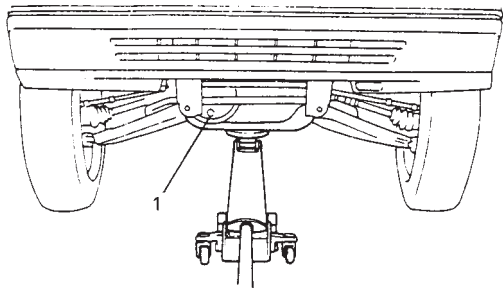
WARNING

- 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.

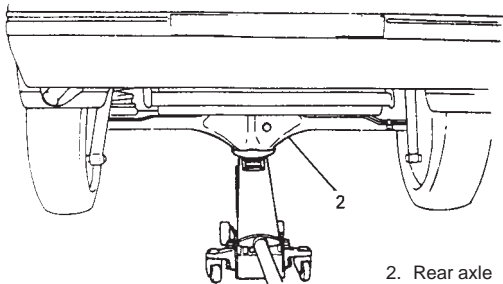
When using frame contact hoist:



1. Front lifting point
2. Rear lifting point
3. Front

When using floor jack:

1. Front differential housing



2. Rear axle housing

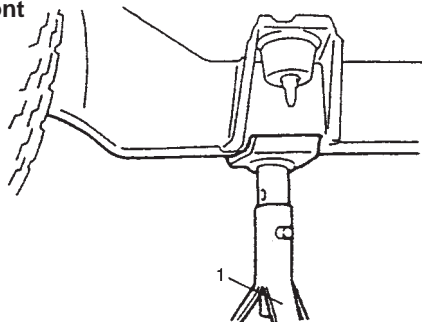
In raising front or rear vehicle end off the floor by jacking, be sure to put the jack against the center portion of the front suspension frame or rear axle housing.

WARNING:

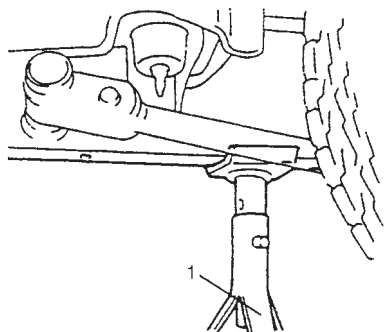
- Never apply jack against suspension parts (i.e., stabilizer, etc.) or vehicle floor, or it may get deformed.
- If the vehicle to be jacked up only at the front or rear end, be sure to block the wheels on ground in order to ensure safety.

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.

Front



Rear



1. Safety stands

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.

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)

E

EBCM	: Electronic Brake Control Module, ABS Control Module
EBD	: Electric Brake force Distribution
ECM	: Engine Control Module
ECT Sensor	: Engine Coolant Temperature Sensor (Water Temp. Sensor, WTS)
EGR	: Exhaust Gas Recirculation
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
EPS	: Electronic Power Steering
EVAP	: Evaporative Emission
EVAP Canister	: Evaporative Emission Canister (Charcoal Canister)

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)
ICM	: Immobilizer Control Module
IG	: Ignition
ISC Actuator	: Idle Speed Control Actuator (Motor)