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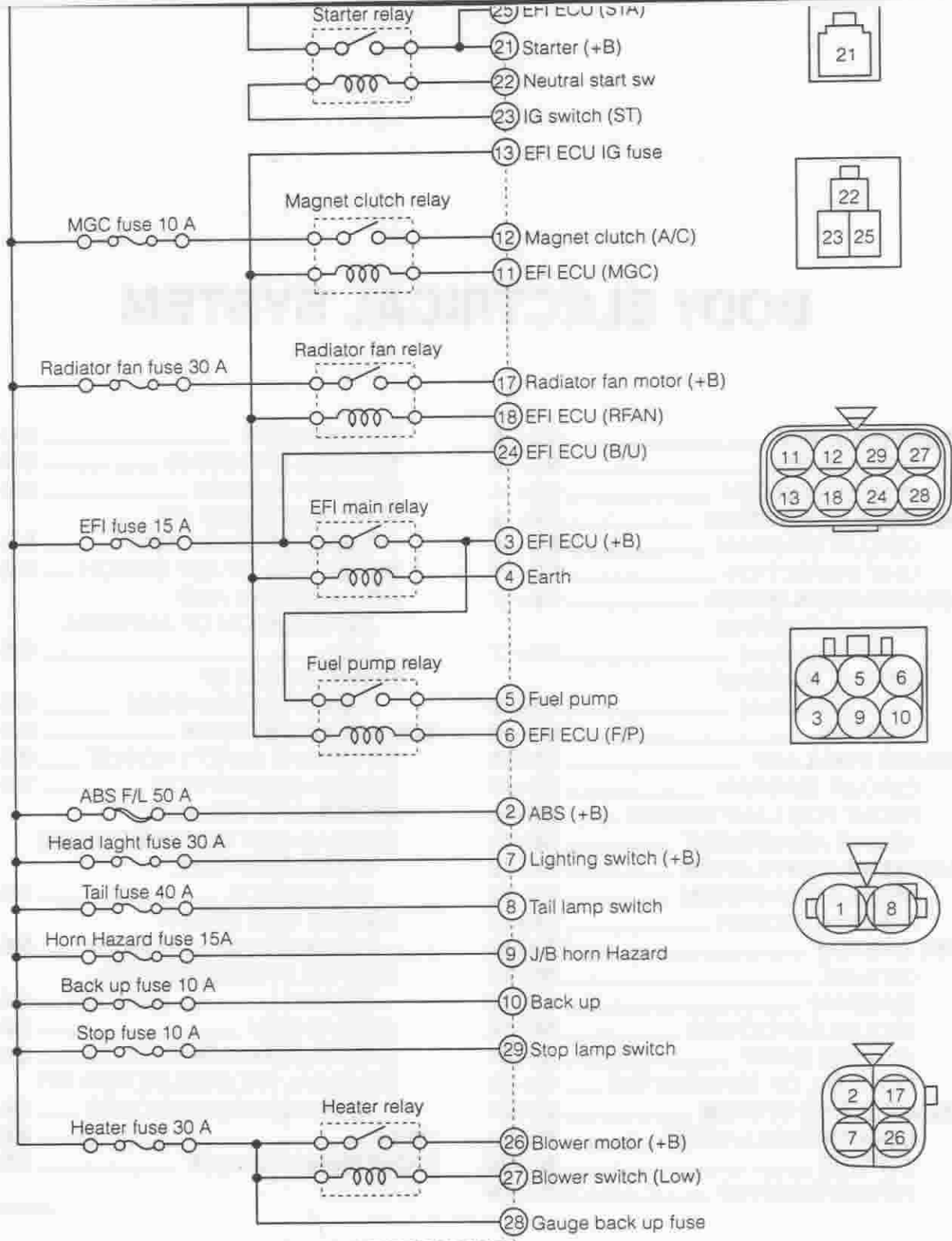


BODY ELECTRICAL SYSTEM

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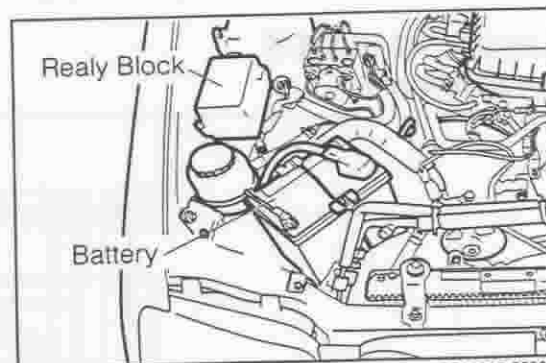
JBE0001-0000



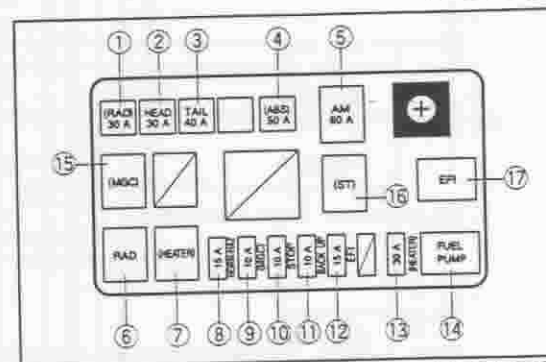
JBEC0002-00001

Location of the Relay block

The relay block is located near the battery in the engine compartment.



JBE00003-00002

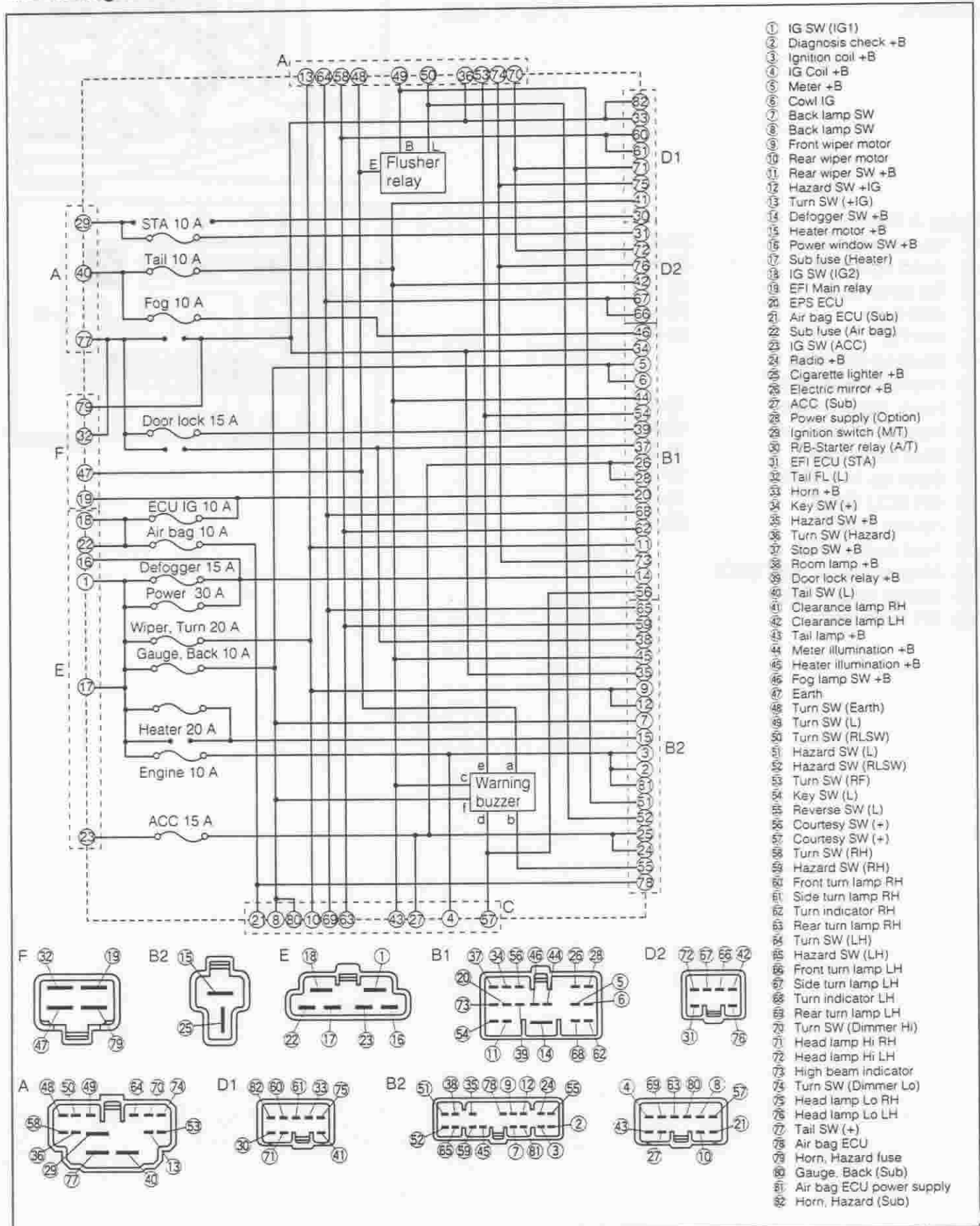


JBE00004-00003

Relay & Fuse

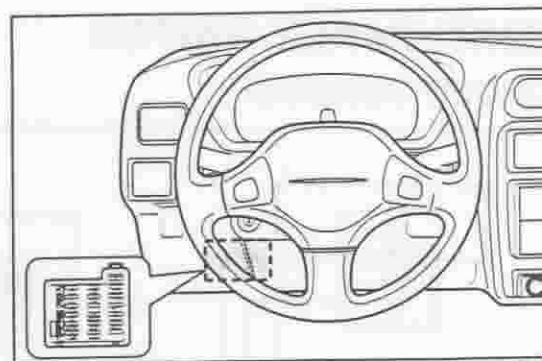
- | | |
|-----------------------------|------|
| ① Radiator fan fuse | 30 A |
| ② Head light fuse | 30 A |
| ③ Tail lamp fuse | 40 A |
| ④ ABS fuse | 50 A |
| ⑤ AM F/L | 60 A |
| ⑥ Radiator fan relay | |
| ⑦ Heater blower relay | |
| ⑧ Horn, Hazard fuse | 15 A |
| ⑨ Magnet clutch fuse | 10 A |
| ⑩ Stop lamp fuse | 10 A |
| ⑪ Back up fuse (EFI) | 10 A |
| ⑫ EFI ECU (BATT) | 15 A |
| ⑬ Heater fuse | 30 A |
| ⑭ Fuel pump relay | |
| ⑮ Magnet clutch relay (A/C) | |
| ⑯ Starter relay (A/T) | |
| ⑰ EFI main relay | |

JUNCTION BLOCK
Circuit diagram



Location of the Junction block (Main fuse block)

The main fuse block is located underneath the steering post at the driver's seat side.



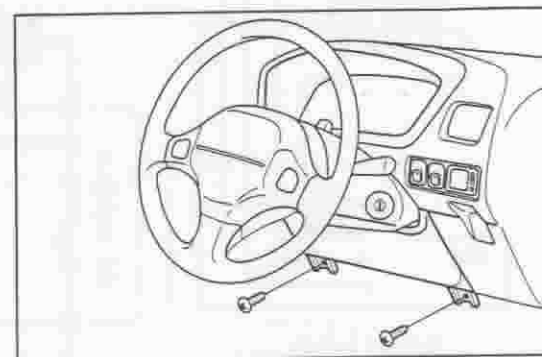
JBE00006-00005

Replacement of the fuse

CAUTION:

- Locate the cause and remedy the problem before installing a new fuse.

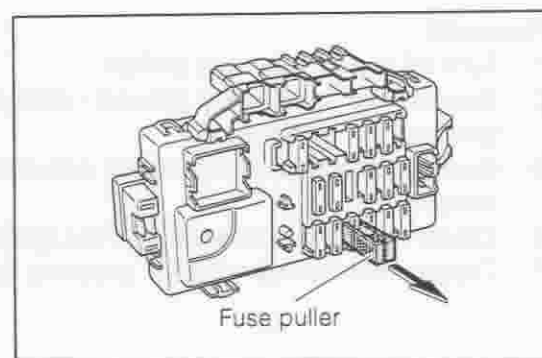
1. Turn the ignition switch off and remove the instrument panel cover.
2. Remove the fuse box cover, while pushing the protruding section.
3. Make sure that the switch of the malfunctioning component is off.
4. Insert the fuse puller and pull out the fuse you want to check.



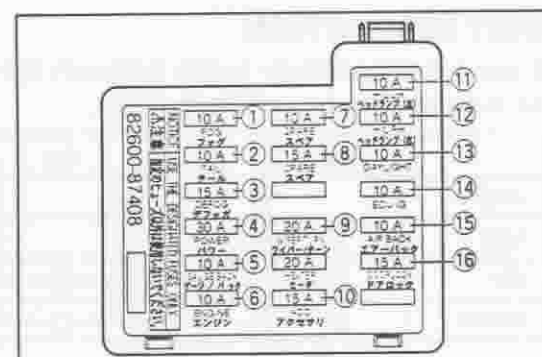
JBE00007-00006

Fuse

① Fog lamp	10 A
② Tail lamp	10 A
③ Defogger	15 A
④ Power Window	30 A
⑤ Gauge and Back up	10 A
⑥ Engine	10 A
⑦ Spare	10 A
⑧ Spare	15 A
⑨ Wiper and Turn signal lights	10 A
⑩ Accessary	15 A
⑪ Head Light (Left)	10 A
⑫ Head Light (Right)	10 A
⑬ Day Light	10 A
⑭ EFI IG	10 A
⑮ Air bag	10 A
⑯ Door Lock	15 A

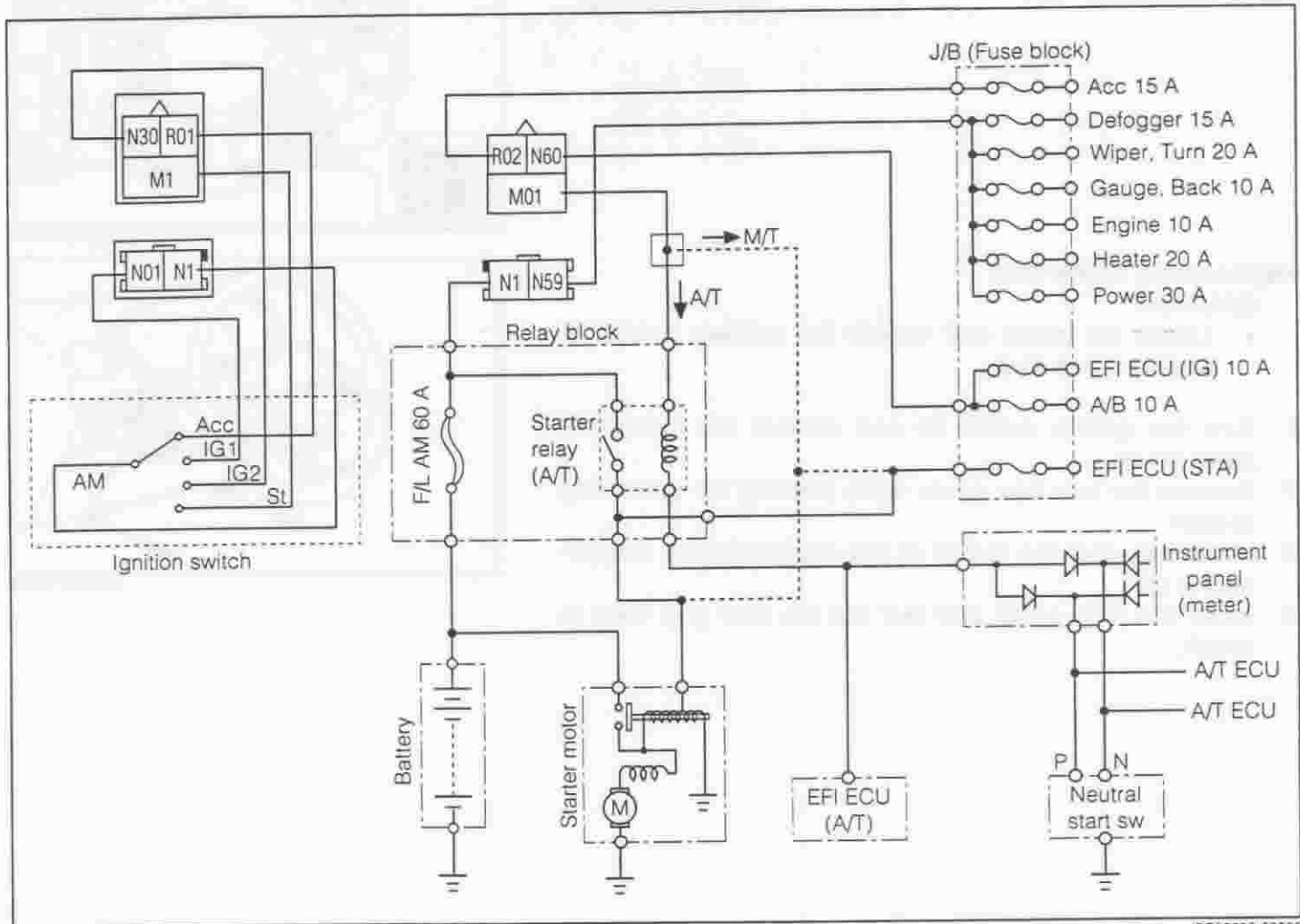


JBE00008-00007



JBE00000-00008

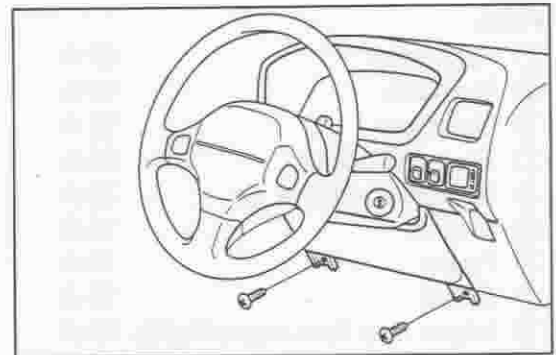
IGNITION KEY SWITCH
CIRCUIT DIAGRAM



JBE00009-00009

Removal

1. Turn off the ignition key switch.
2. Disconnect the battery ground cable from the negative (-) terminal of the battery.
3. Remove the instrument lower panel and steering column lower cover.
4. Disconnect the connectors of the ignition switch.
5. Disconnect the immobilizer antenna terminal, if equipped.

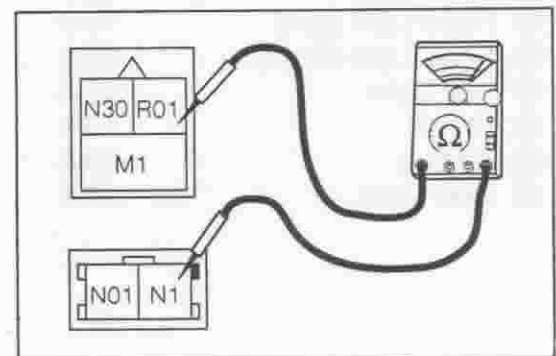


JBE00010-00010

UNIT INSPECTION

Ensure that continuity exists between the respective terminals as indicated in the continuity table.

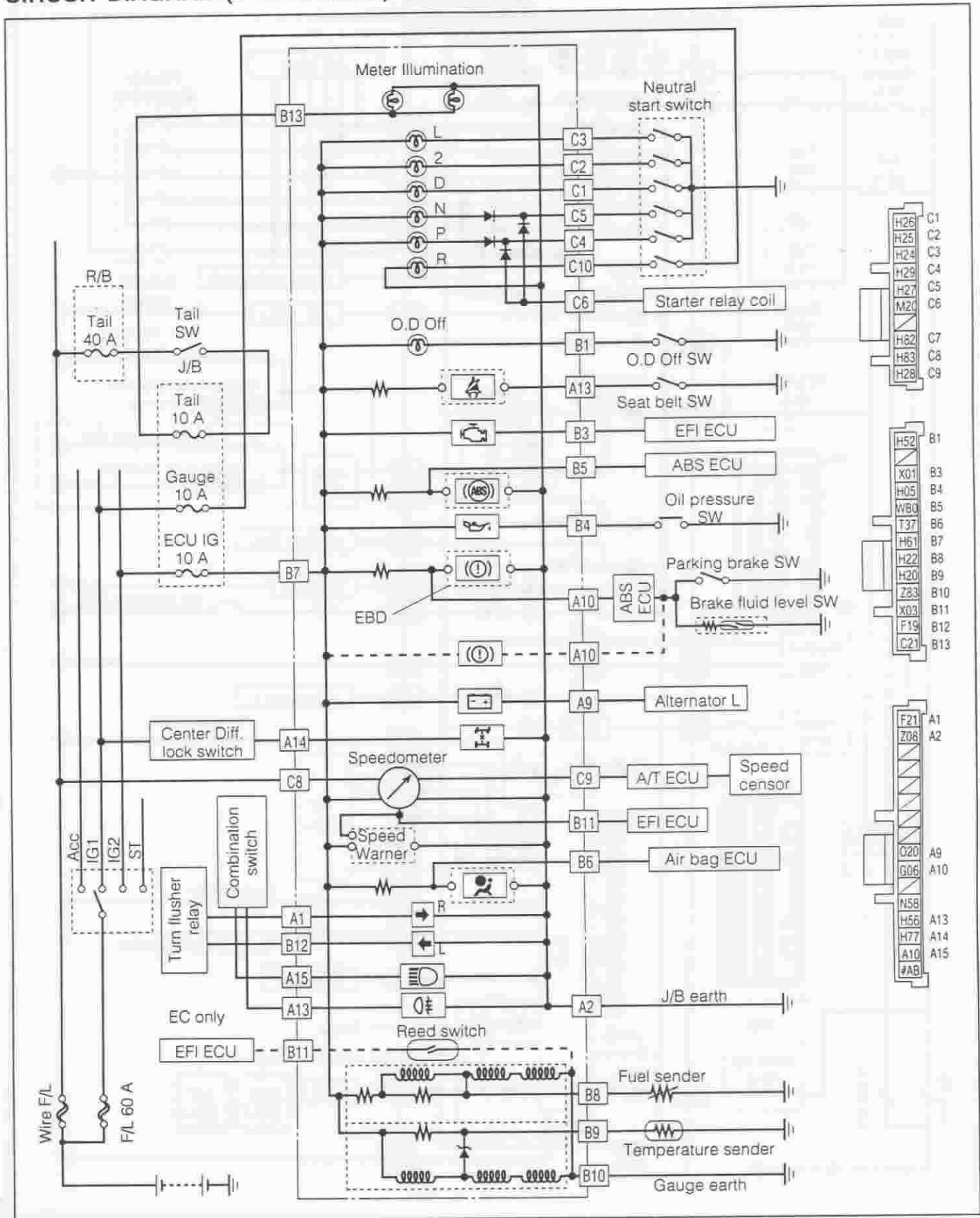
	AM	ACC	IG1	IG2	ST
LOCK					
ACC	○—○				
ON	○—○	○—○	○—○	○—○	
START	○—○		○—○	○—○	○—○



JBE00011-00011

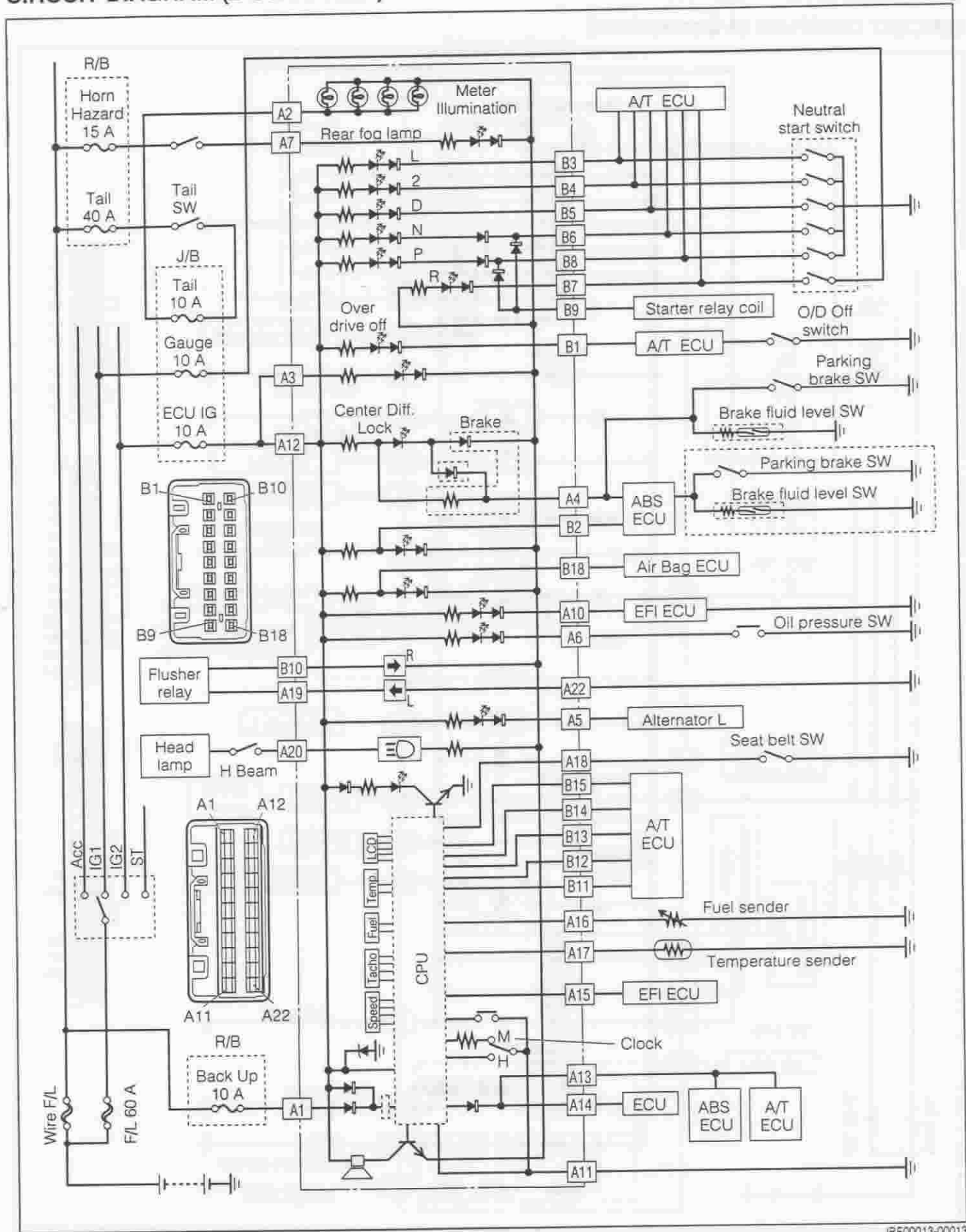
COMBINATION METER

CIRCUIT DIAGRAM (3 Connectors)



JBE9CG12-00012

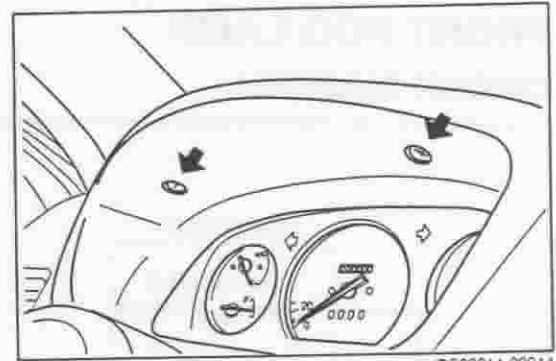
CIRCUIT DIAGRAM (2 Connectors)



JBE00013-00013

REMOVAL

1. Remove the instrument cluster finish panel from the instrument panel by removing the screws.
2. Remove the attaching screws of the combination meter assembly.
4. Disconnect the wire harness couplers at the back side of the combination meter assembly.
5. Remove the combination meter assembly.

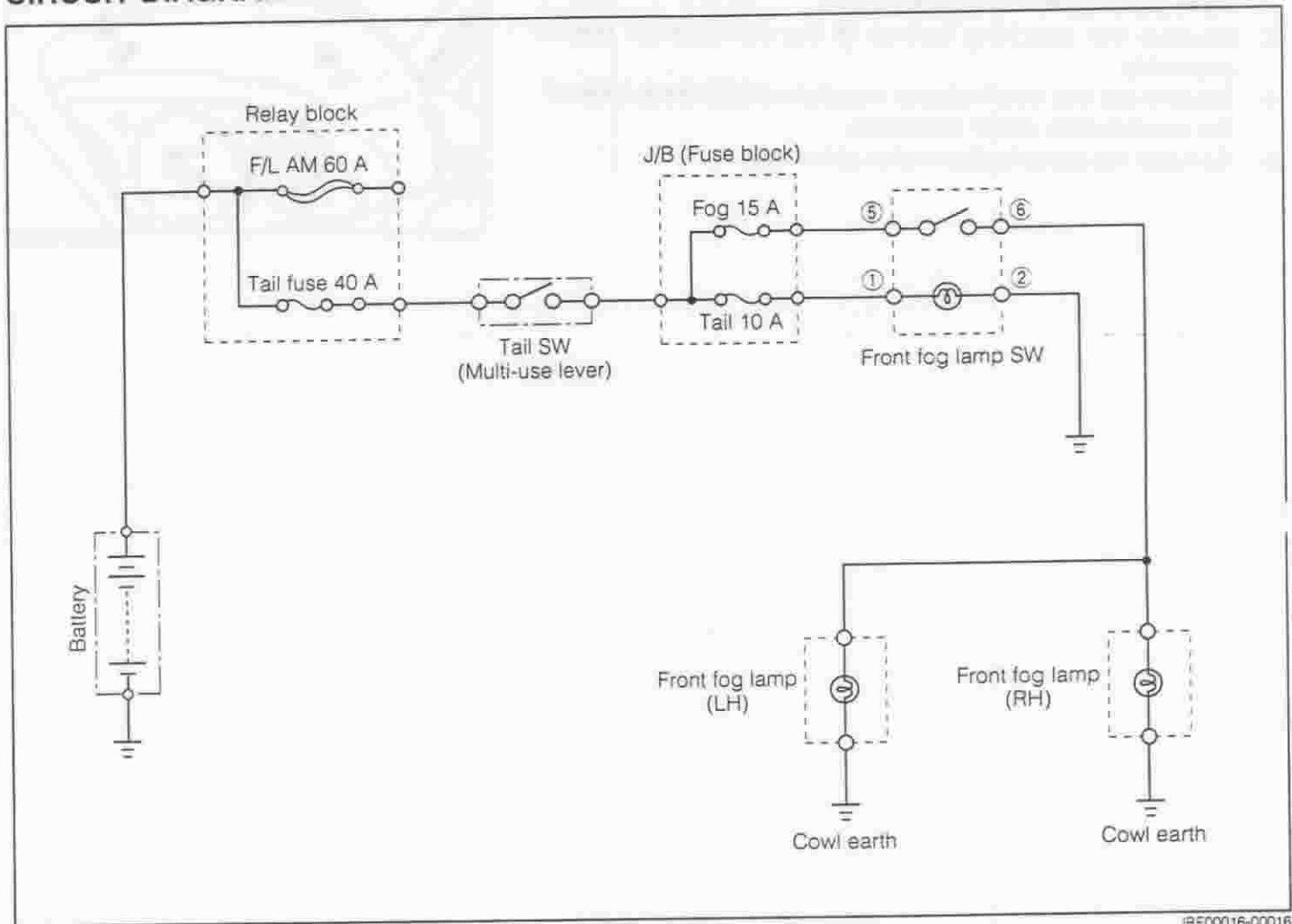


JBE00014-00014



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**FRONT FOG LAMP
CIRCUIT DIAGRAM**

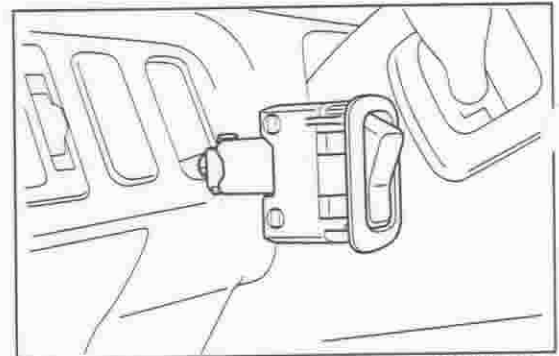


JBE00016-00016

FRONT FOG LAMP SWITCH

Removal

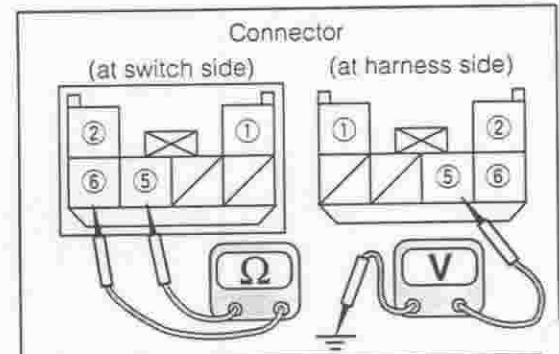
1. Remove the instrument cluster finish lower panel by loosening the attaching screws.
2. Pull out the front fog lamp switch from the instrument panel.
3. Disconnect the connector of the wire harness.



JBE00017-00017

Inspection

1. Connect an ohmmeter to the front fog lamp switch side terminals.
Between Terminal ⑤ and ⑥:
Continuity exists while the switch is turned ON.
2. Connect a voltmeter to the wire harness side terminal and the body earth.
Between Terminal ⑤ and Body Earth:
Battery voltage is applied while the lighting switch (at the multi-use lever) is turned ON.



JBE00018-00018

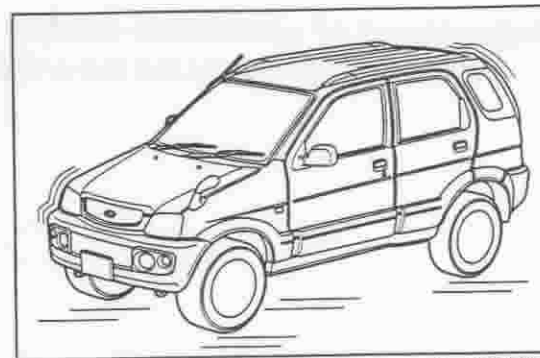
AIMING ADJUSTMENT

Performing Of following operation in advance

1. Seat one person (weighing about 75 kg) at the driver's seat.
2. Set the tire inflation pressure to the specified values.
3. Ensure that a spare tire, tools, a jack are mounted at the specified points.
4. Check to see if the engine oil, transmission oil, window washer fluid, etc. are filled to the specified levels. Fill them, as required. Further more, fuel in the tank is filled up.

JBE00019-00000

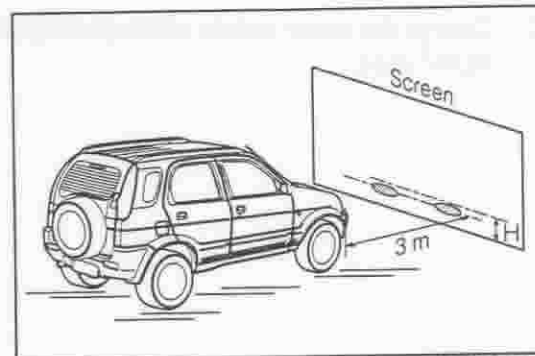
5. Rock the vehicle in up-&-down and right-&-left directions so that the suspensions may support the load evenly and the vehicle may assume the proper vehicle posture.



JBE00020-00019

Setting of reference points on screen

1. Set a screen at 3 m from the front fog lamp lens surface.
2. Measure the center height "H" of the front fog lamps.
3. Draw an "H" line on the screen.

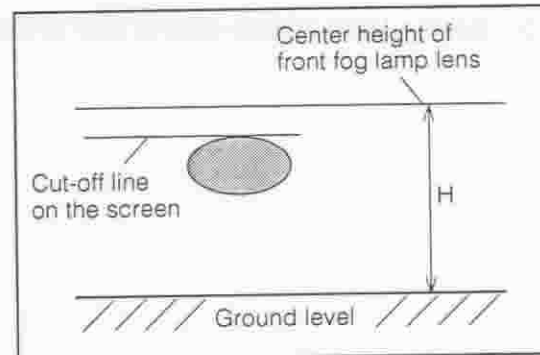


JBE00021-00020

4. Ensure that the cut-off line of the front fog lamp light projected on the screen is below the "H" line.

NOTE:

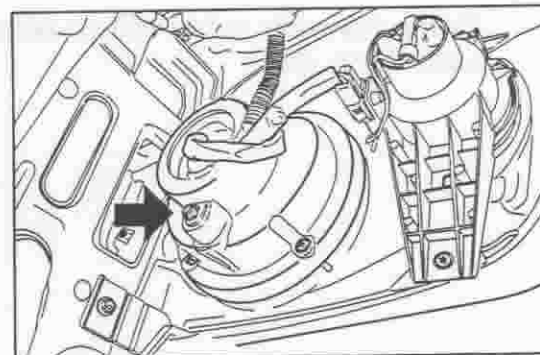
- Keep the engine speed at 1500 rpm or more during the aiming adjustment.



JBE00022-00021

Adjusting of photometric axis

1. If the photometric axis is deviated, adjust the photometric axis by following procedure.
 - (1) Remove the front fender liner by detaching the clips.
 - (2) Adjust the photometric axis adjusting screw provided at the back side of the front fog lamp.
2. After completion of the adjustment, install the front fender liner to the front bumper.

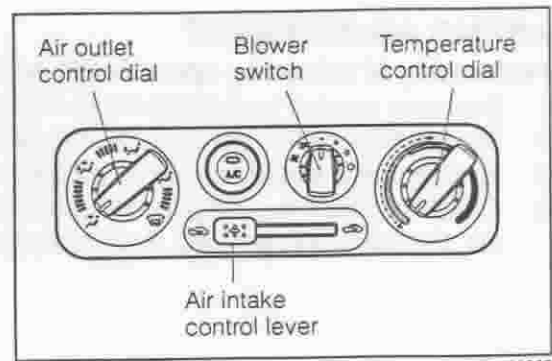


JBE00023-00022

HEATER & VENTILATION

VENTILATION SYSTEM

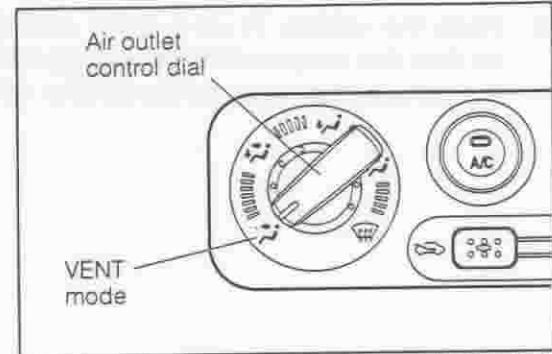
Ensure that the control dials and lever move in a right-and-left direction without stiffness and binding over the full range .



JBE00024-00023

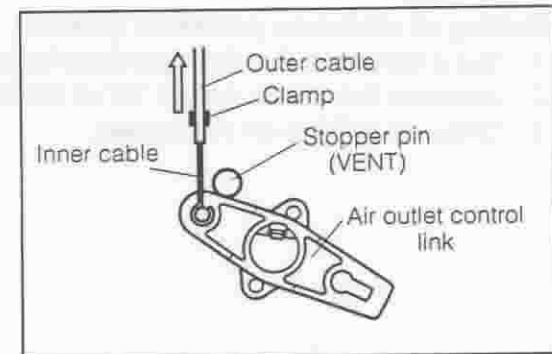
Adjustment of ventilation control

1. Set the air outlet control dial to the VENT mode.



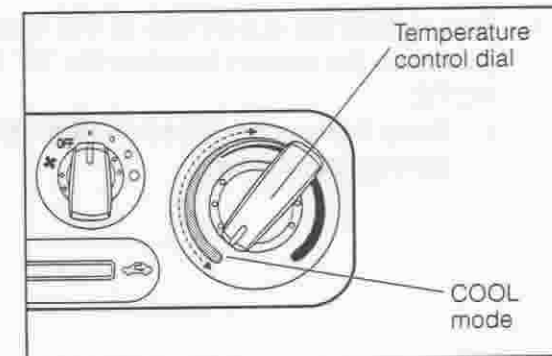
JBE00025-00024

2. Clamp the outer cable while pulling the outer cable toward VENT side.



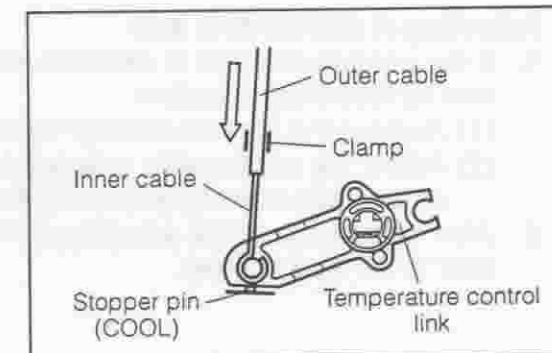
JBE00026-00025

3. Set the temperature control dial to the COOL mode.



JBE00027-00026

4. Clamp the outer cable while pushing the outer cable toward COOL side.

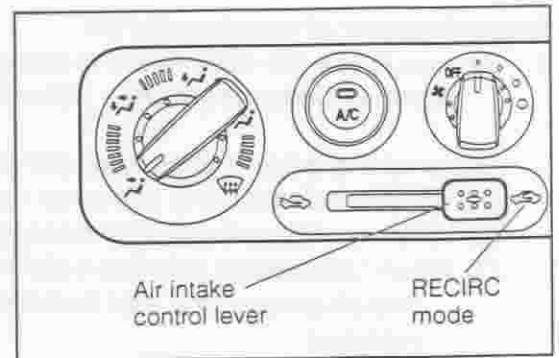


JBE00028-00027

5. Set the air intake control lever to the RECIRC mode.

NOTE:

- The right figure indicates the LHD vehicle.
The mode mechanism is symmetrical between the LHD vehicle and the RHD vehicle.

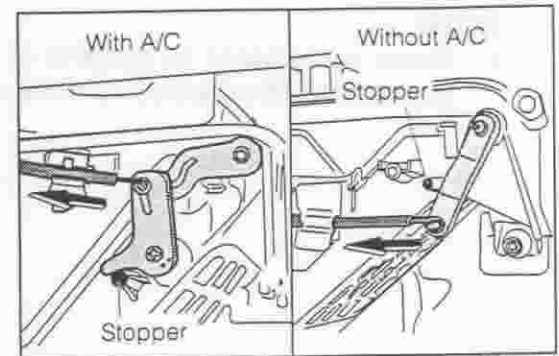


JSE00029-00028

6. Clamp the outer cable while pulling the outer cable toward RECIRC side.

NOTE:

- The right figure indicates the LHD vehicle.
The RHD vehicle is symmetrical to the LHD vehicle.



JBE00030-00029

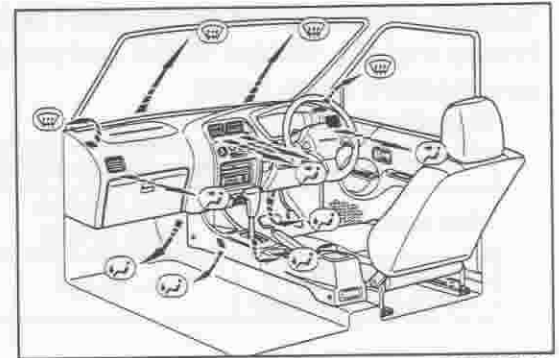
7. After completion of the adjustments in the steps 1 through 6, set the blower switch to the most highest position. Check the following items.

Connect the connectors of the blower switch and A/C switch to the harness connectors at the vehicle side.

- When the VENT mode is selected, ensure that no air leaks from the foot side outlet and defroster.
- When the DEF mode is selected, ensure that no air leaks from the foot side outlet and register.
- When the FOOT mode is selected, ensure that no air leaks from the register. If not, readjust the control cable.

NOTE:

- The air is discharged in a lesser volume under the FOOT mode, compared with that under the "VENT".



JBE00031-00030

AIR CONDITIONER

Replenishing amount of refrigerant gas

WARNING:

- When the refrigerant gas is replenished from the high pressure side, never start the engine. Failure to observe this warning may cause a reverse flow of the refrigerant gas, resulting in burst of the gas can, cylinder, etc.

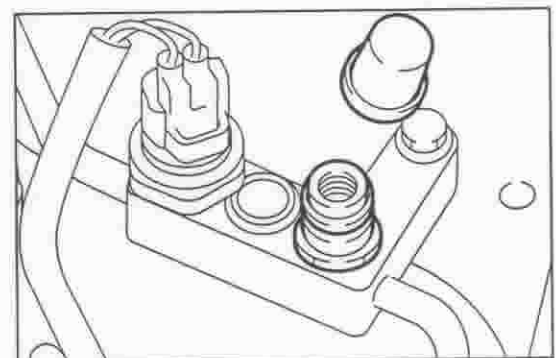
NOTE:

- Excessive charging of the refrigerant gas will affect the cooling performance adversely.

- Replenish the refrigerant gas, until you see no bubbles through the sight glass.
- After you confirm that bubbles have disappeared by seeing through the sight glass, add another 100 g of refrigerant gas.

Replenishing Amount of Refrigerant Gas:

- 400 ± 30 g (Other than tropical specifications)
- 420 ± 30 g (Tropical specifications)



JBE00033-00032

Replenishment of compressor oil

1. Be sure to use the designated compressor oil.

Name of Compressor Oil: ND—OIL—8

2. Replenishing amount of compressor oil.

- (1) When condenser only has been replaced: 40 cc
- (2) When cooling unit only has been replaced: 40 cc
- (3) When compressor only has been replaced:

The oil amount of a new compressor should be the same as that of the compressor that has been replaced.

NOTE:

- Some compressor oil remains in the cooling unit or condenser. Hence, the oil of that remaining amount must be drained from the new compressor.

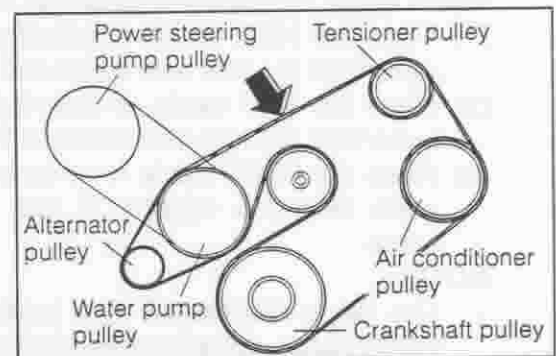
JBE00034-00000

Tension adjustment of compressor belt

Ensure that the tension of the compressor belt is within the specifications given below.

Specifications:

	When a new belt is installed	When a used belt is installed
Belt tension	590 ± 100 N·m (60 ± 10 kgf)	390 ± 50 N·m (40 ± 5 kgf)
Deflection when a force of 100 N·m (10 kgf) is applied	9 - 11 mm	13 - 15 mm



JBE00035-00033

NOTE:

- If the tension does not comply with the specifications above, adjust it by loosening the bolt.
- For the detailed procedure for the belt tension adjustment, refer to the Section CH of the relative service manual of the engine concerned.

ITC SYSTEM

OUTLINE

For enhanced safety of the motor vehicle, the ITC system (Integrated Timer Control system) has the following functions.

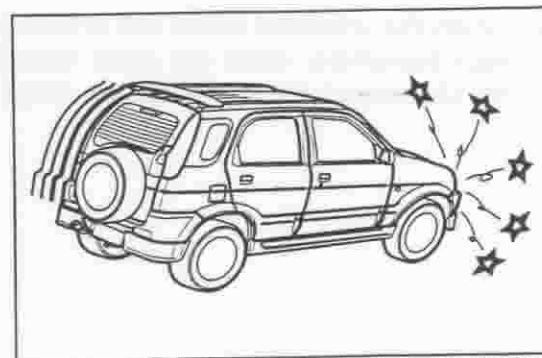
1. Impact-detecting door unlocking system
2. All-door lock, interlocked with door lock button
3. Room lamp timer
4. Function to prevent battery from becoming "dead"

JBE00036-00000

Impact-detecting door unlocking system

In the event that an impact beyond the specified value is applied to the vehicle, all of the doors are unlocked three seconds after the impact detection. When the switch of the room is set to positions in which the illumination of those lamps is interlocked with the door, the lamp will go on simultaneously as the hazard lamp goes on.

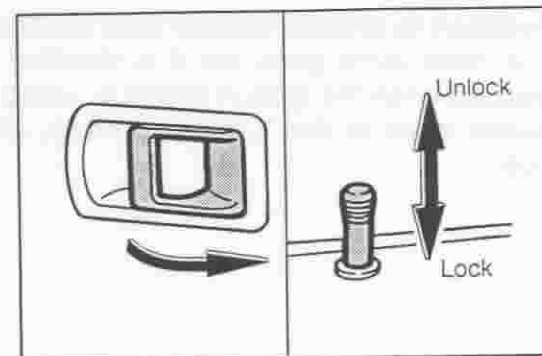
Moreover, the impact is detected in all around horizontal directions.



JBE00037-00034

All-door lock, interlocked with door lock button

All of the side doors can be locked and unlocked, interlocked with the door lock button switch at the driver's seat side.

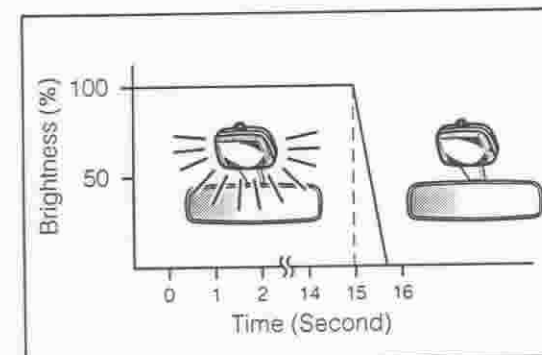


JBE00038-00035

Room lamp timer

The room lamp timer is illuminated when any door is open with the ignition switch set to the OFF position.

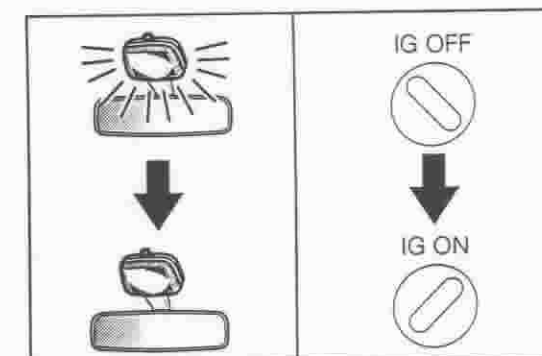
The room lamp is illuminated for 15 seconds and starts to dim when all doors which are closed and locked are unlocked by the keyless transmitter.



JBE00039-00036

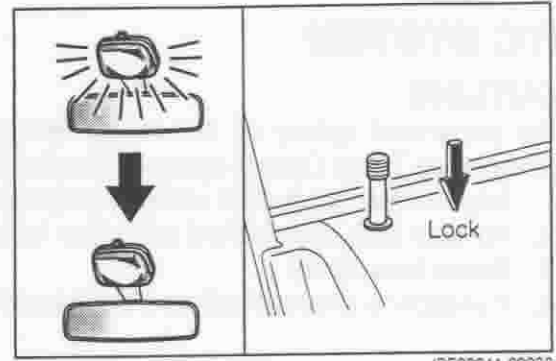
In the following cases, however, the room lamp will not go on for 15 seconds, but starts to dim immediately.

1. With the ignition switch set to the ON position, when any open door is closed, thereby making all doors closed:
2. When the ignition switch is switched from the OFF position to ON position while the room lamp is being illuminated for 15 seconds by the lamp timer.



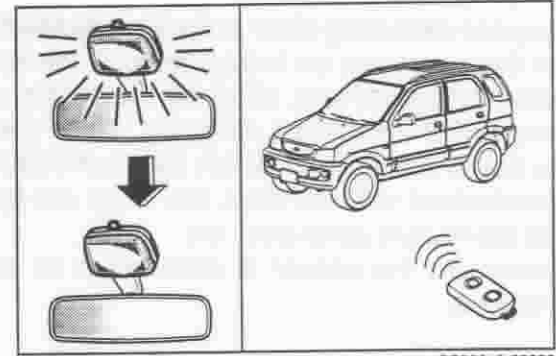
JBE00040-00037

3. When any open door is closed, thereby making all doors closed, and the doors are locked by means of the door lock button.
4. When the doors are locked by means of the door lock button while the room lamp is being illuminated for 15 seconds by the room lamp timer.



JBE00041-00038

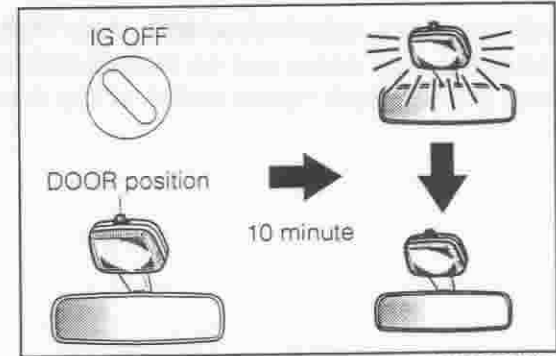
5. When the unlocked doors are locked by means of the keyless transmitter while the room lamp is being illuminated for 15 seconds by the room lamp timer.



JBE00042-00039

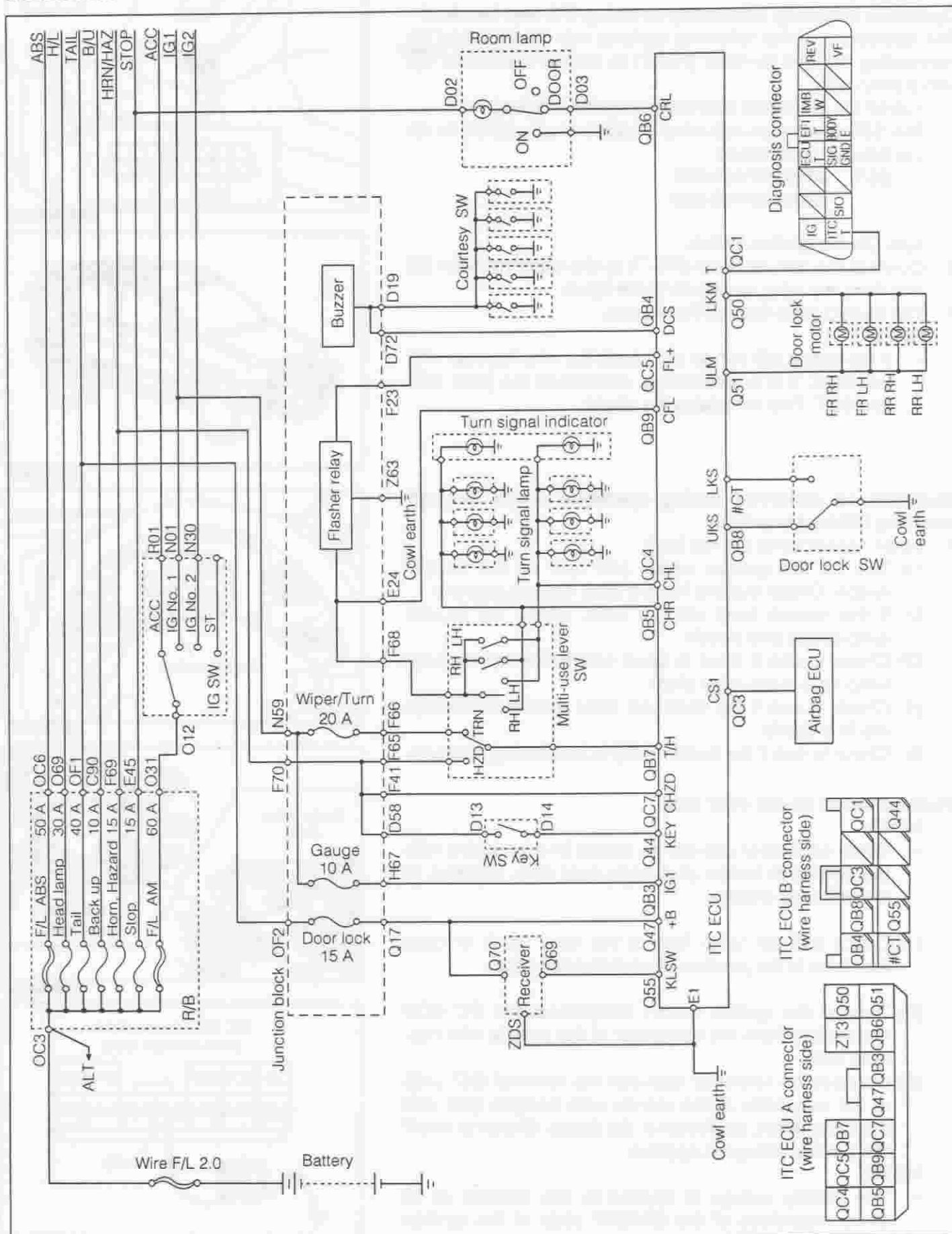
Function to prevent battery from becoming "dead"

The room lamp goes out if a duration of 10 minutes has elapsed when the ignition switch is turned OFF, the room lamp switch is set to the "DOOR" position, and also any door is open.



JBE00043-00040

DIAGRAM



JBE00044-00041

TROUBLE-SHOOTING

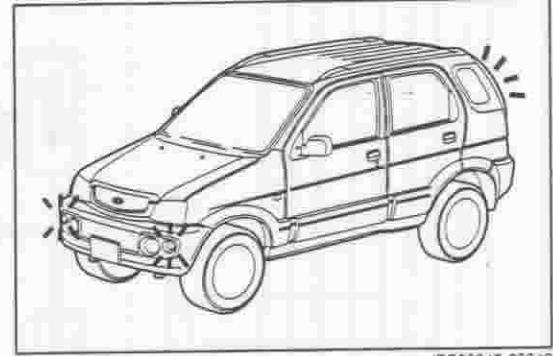
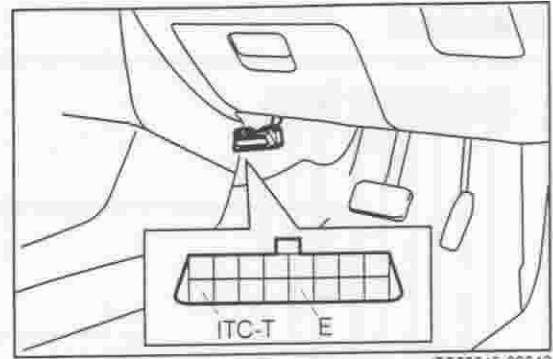
Operation checking method by shorting ITC-test terminal

The operations of the following systems can be checked by connecting the test terminal (ITC-T) to the earth terminal (E) with a jump wire.

1. Pull off the diagnosis connector from the bracket.
The SST (extension-sub-wire) enables much easier to do the following procedure.
SST: 09991-87404-000
09991-87403-000
2. Turn ON the ignition switch.
3. Connect the test terminal (ITC-T) to the earth terminal (E) with the jump wire, as shown in the figure.
4. The hazard lamp flashes three times.

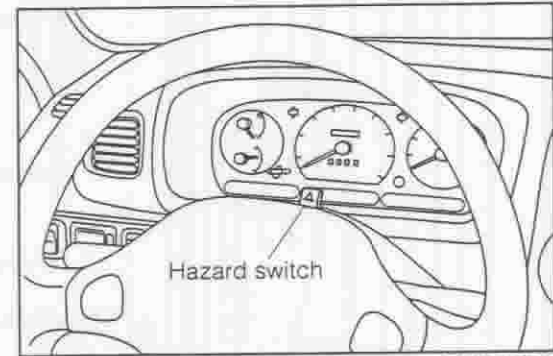
NOTE:

- If the lamps will not go on, check the wire harness and unit itself. If it is satisfactory, disconnect the jump wire and SST. This completes the check.



Malfunctions observed during operation check through shorting ITC-test terminal

1. When hazard lamp will not flash:
 - (1) Turn off the ignition switch and turn on the hazard switch. Check that the hazard lamp flashes properly.
 - (2) If the hazard lamp will not flash, check the hazard lamp circuit and switch.
 - (3) Check to see if there is open wire in the horn/hazard lamp fuse at the relay block.
 - (4) Check to see if the multi-use lever switch connectors are fit properly.
 - (5) Check to see if the flasher relay is functioning properly.



Malfunction of power door lock

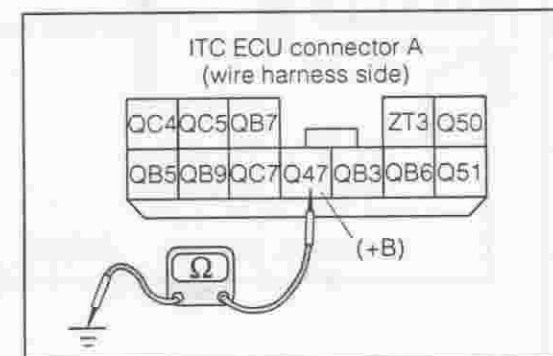
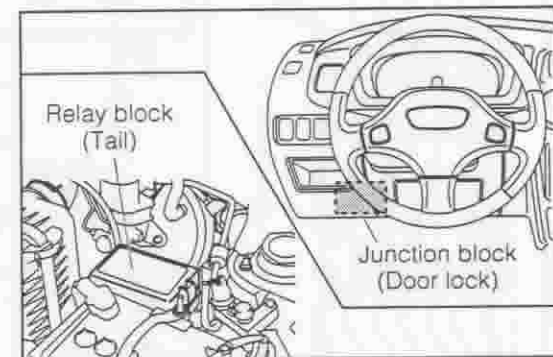
NOTE:

- When each door can not be locked in interlocking with the door lock button at driver's seat side, proceed to the following checks.

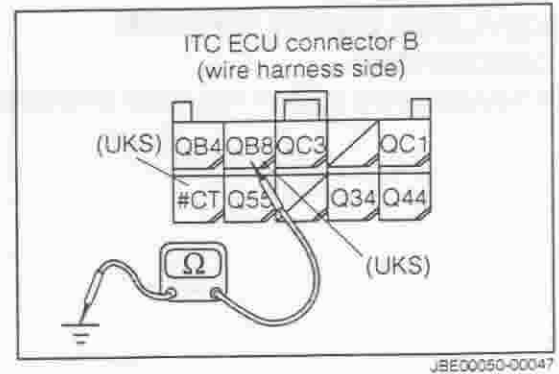
- (1) Check that tail lamp fuse at the relay block or door lock fuse at the junction block has not melted.
- (2) Turn off the ignition switch. Disconnect the ITC ECU connectors from the connector at the vehicle wire harness side.
- (3) Connect the voltmeter between the terminal Q47 (+B) of the connector at the vehicle wire harness side and the body earth, as shown in the figure. Check to see if the battery voltage is applied.

NOTE:

- The battery voltage is applied to this terminal at all times regardless of the ON/OFF state of the ignition switch.



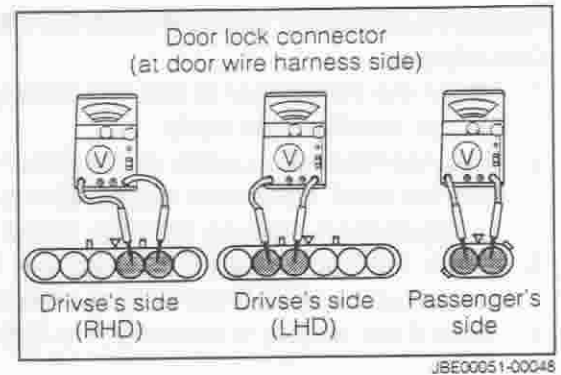
- (4) Connect the ohmmeter between the ITC ECU B connector terminal and body earth. Ensure that the continuity exists between the terminal and body earth.
- Between Terminal QB8 (UKS) and Body Earth:
Continuity exists.
- Between Terminal #CT (LKS) and Body Earth:
Continuity exists.



NOTE:

- This terminal has no continuity when the door lock button at driver's seat side is locked. Conversely, it has continuity when the door lock button at the driver's seat is not locked.
- If this check reveals abnormality, check the door lock control switch and wire harness.

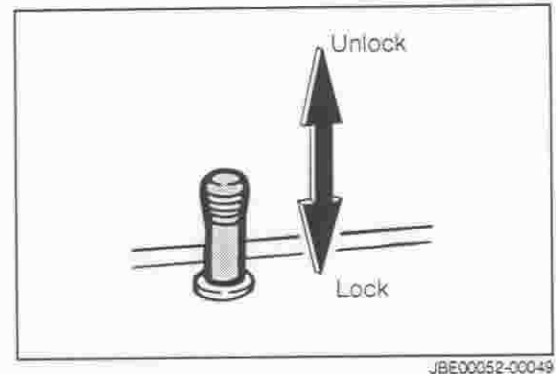
- (5) Connect the ITC ECU connector with the connector at the vehicle wire harness side. (Connect the connectors that were disconnected at Step (2) into the original positions.)
- (6) Disconnect the door lock motor connector at the door side whose locking is inoperative from the connector at the vehicle wire harness side. Connect a circuit tester in its voltmeter mode, as shown in the figure.



- (7) Turn on the ignition switch and lock or unlock the door lock button at the driver's seat. Check to see if the voltmeter registers the battery voltage. If there is abnormality, check the wire harness.

NOTE:

- The current during the locking state flows in the reverse direction, as opposed to the current during the unlocking state.



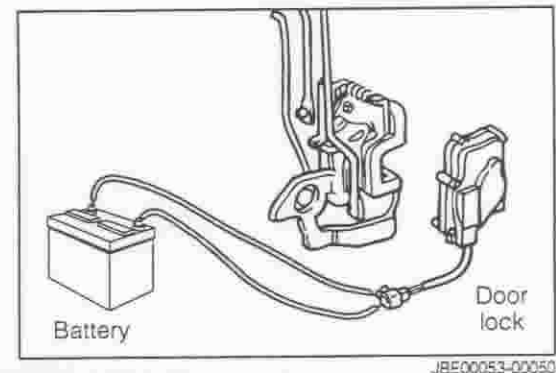
- (8) If there is no abnormality in the check at Step (7), apply the battery voltage directly to the door lock motor terminal to see if the door lock functions.

CAUTION:

- Never let the current flow for ten seconds or more continuously.

NOTE:

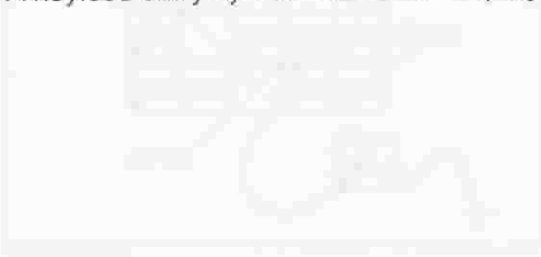
- If the lock motor has no abnormality, the ITC ECU is regarded as faulty. Replace the ITC ECU.



KEYLESS ENTRY SYSTEM**DESCRIPTION**

A keyless entry system has been employed on some grades. All doors can be locked by a remote control.

JBE00054-00000

**OUTLINE OF OPERATION**

1. When a transmitter switch is pushed, weak electric waves are emitted. In this way, all doors can be locked by a remote control.
2. The remote control is possible within an about three-meter radius of the vehicle center. However, this operation range may be narrowed or the system may not function when the battery is weak or there are strong electric waves or noises. Moreover, there is an area where the system is difficult to function, depending upon the shape of a vehicle body.

JBE00055-00000

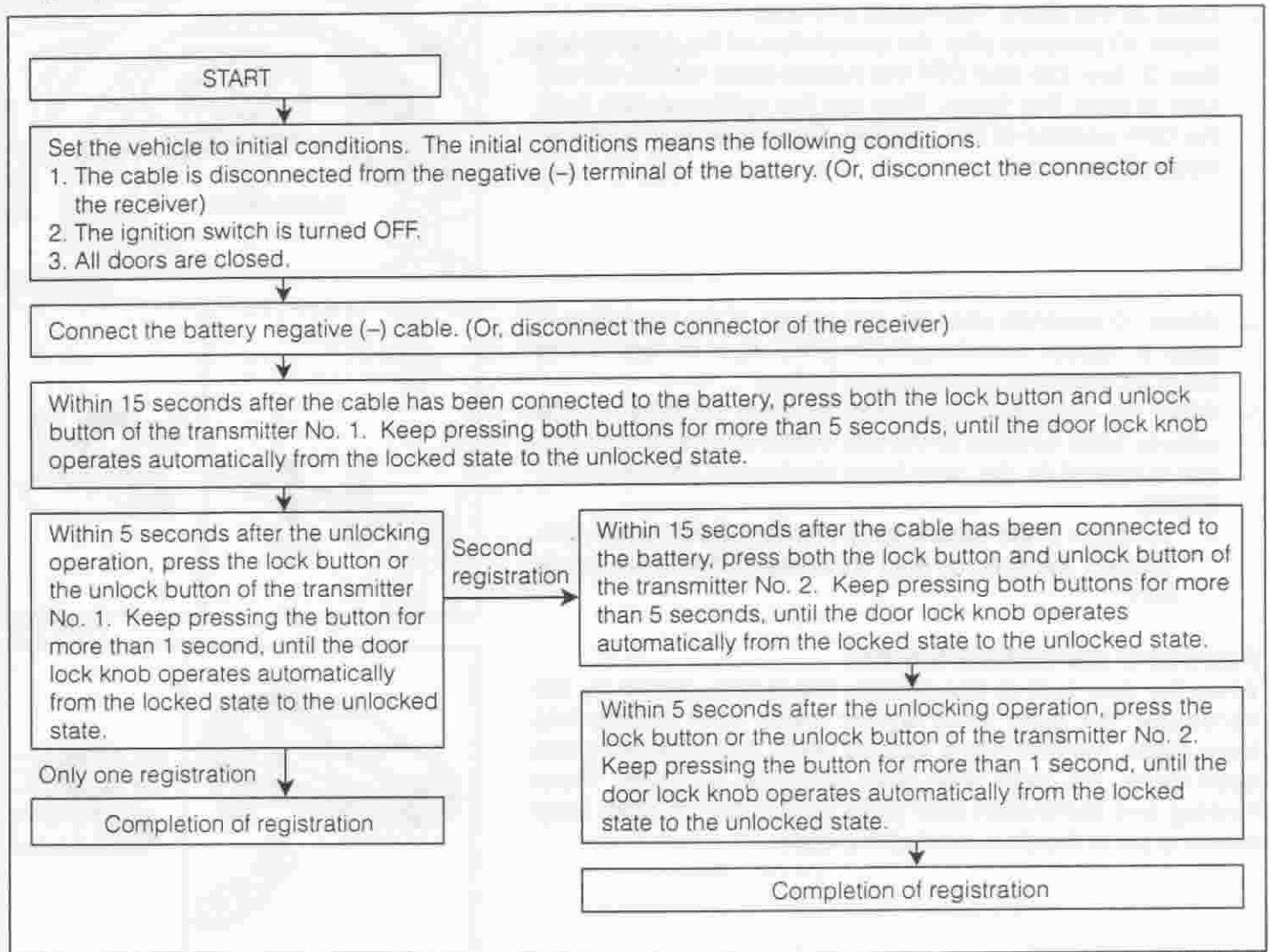
REGISTRATION OF IDENTIFICATION CODE**Description**

1. When the transmitter is lost, the battery is dead, or another transmitter is added, it is necessary to register the identification code.
2. Two identification codes at maximum can be registered at each receiver. Therefore, two transmitters can be used. Each time registration is made for the third time or more, one code will be erased in order of registration, starting from the oldest one.
3. When the transmitter is lost, register the identification code twice successively. This will erase the old identification code that has been memorized in the receiver.
4. Even if the battery is removed, no identification code will be lost.

JBE00056-00000



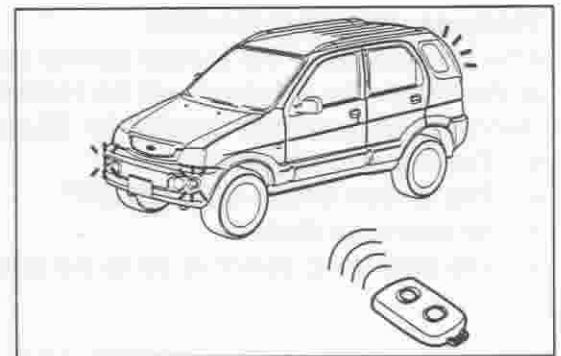
Registration method of identification code



JBE00057-00000

Hazard answer back function

When the door lock is operated by the remote control by the transmitter, the hazard lamp and the room lamp answer back. After locking has been made, the hazard lamp flashes once. After unlocking has been made, the hazard lamp flashes twice and the room lamp goes on fifteen seconds. The room lamp illumination takes place only when the room lamp switch is set to the door-interlocking state.



JBE00058-00051

Customizing function

If the user does not opt to have the hazard lamp answer back function, it is possible to change the hazard lamp answer back function to the room lamp answer back function by executing the customizing function.

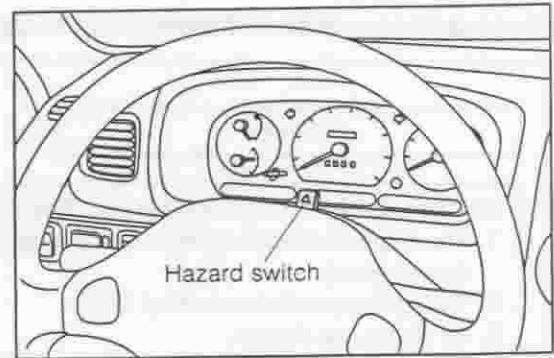
The following indicates the switching procedure.

NOTE:

- The initial condition when the battery is installed is the hazard lamp answer back mode.

JBE00059-00000

1. Turn OFF the ignition switch.
2. Close all the doors. Then open any door.
3. Within 10 seconds after the completion of the operation in Step 2, turn ON and OFF the hazard lamp switch repeatedly at least five times. Then set the ignition switch from the OFF position to ON position. Then open any door and close all the doors.

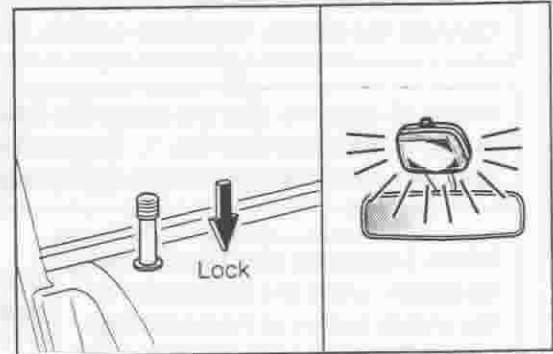


JBE00060-00052

4. Within 10 seconds after the completion of the operation in Step 3, repeat unlocking/locking the door at least three times by means of the door lock button.
5. When the mode has been changed from the hazard lamp answer back function to the room lamp answer back function successfully, the room lamp goes on for two seconds.

NOTE:

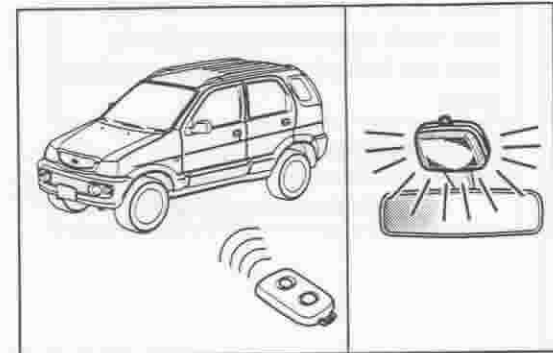
- To return to the hazard lamp answer back function, disconnect the battery, thus returning to the initial condition.



JBE00061-00053

Room lamp answer back function

When the door lock is operated by the remote control by the transmitter, the room lamp answer back. After locking has been made, the room lamp flashes twice. After unlocking has been made, the room lamp goes on for fifteen seconds. These flashing and illumination take place only when the room lamp switch is set to the door-interlocking state.



JBE00062-00054

Thirty-second timer function

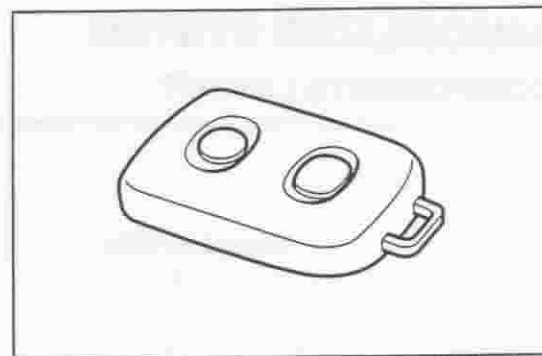
After completion of the remote control door locking by means of the transmitter, all doors will be locked if the following conditions given below are satisfied for 30 seconds:

- The key is not inserted.
- The ignition switch is turned OFF.
- All doors are closed.
- The door knob switch is set to the unlock side.

JBE00063-00000

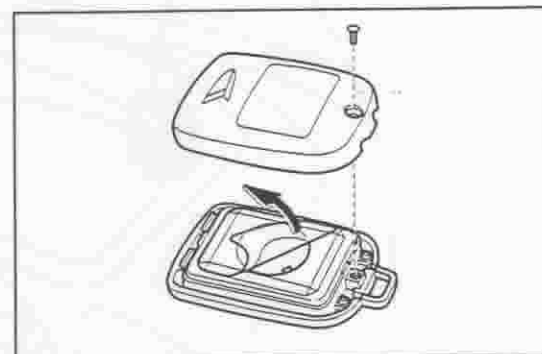
DISPOSAL OF TRANSMITTER

1. When the transmitter battery is dead or a vehicle with the keyless system is to be disposed, it is necessary to disassemble the transmitter and dispose its components separately.



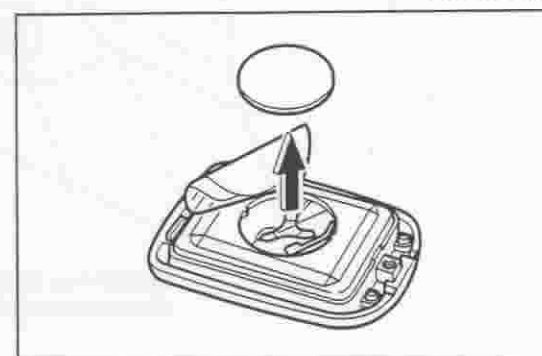
JBE00064-00055

2. Remove the cover by loosening the attaching screw.
3. Peel of the seal.



JBE00065-00056

4. Remove the lithium battery. Dispose the battery, circuit board and case separately.



JBE00066-00057

Part for replacement

BATTERY SET, TRANSMITTER

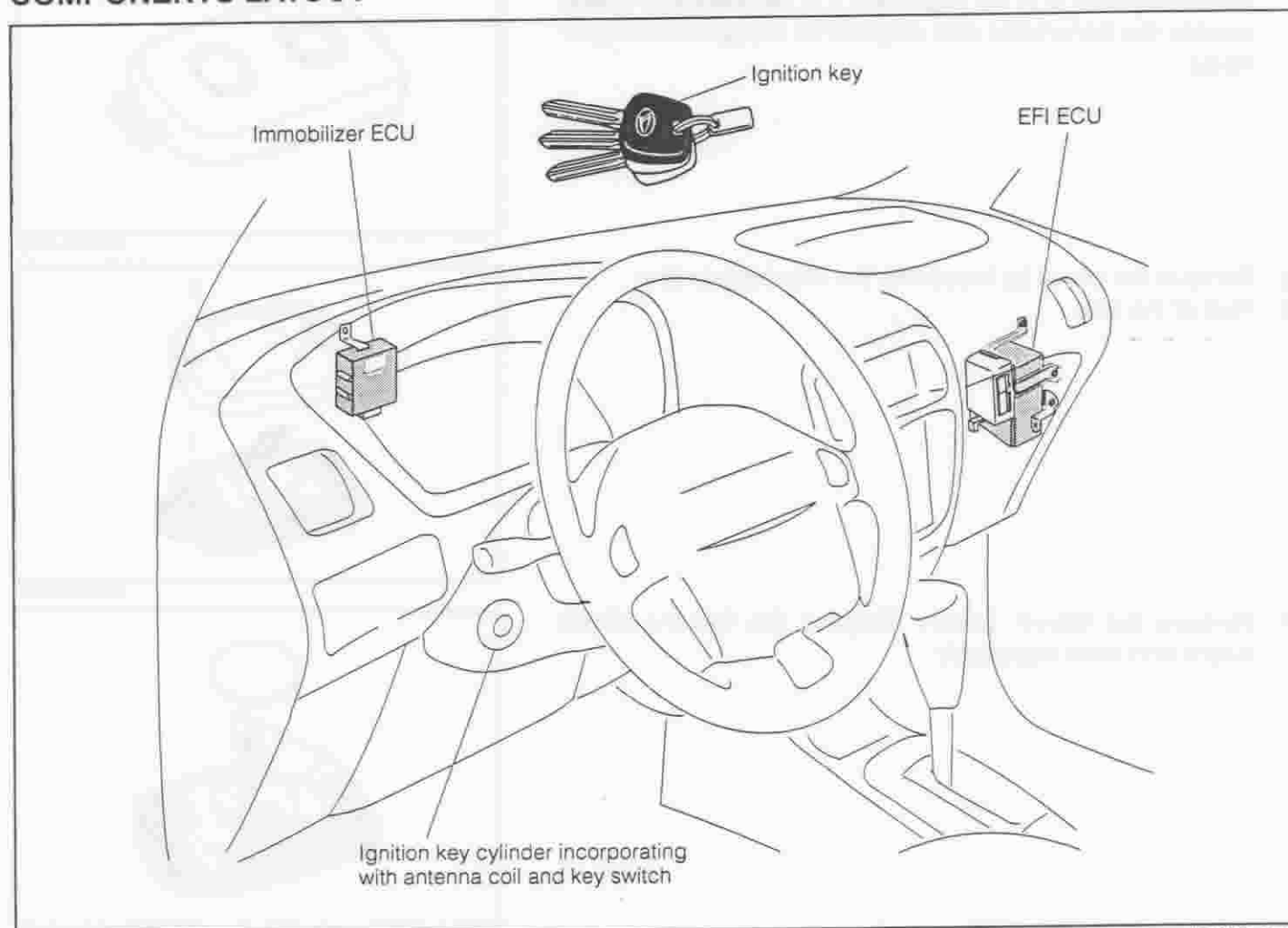
Part No.: 89706-87701

NOTE:

- The battery set consists of a battery, a seal and a screw.

JBE00067-00000

IMMOBILIZER SYSTEM COMPONENTS LAYOUT



JBE00069-00058

OUTLINE

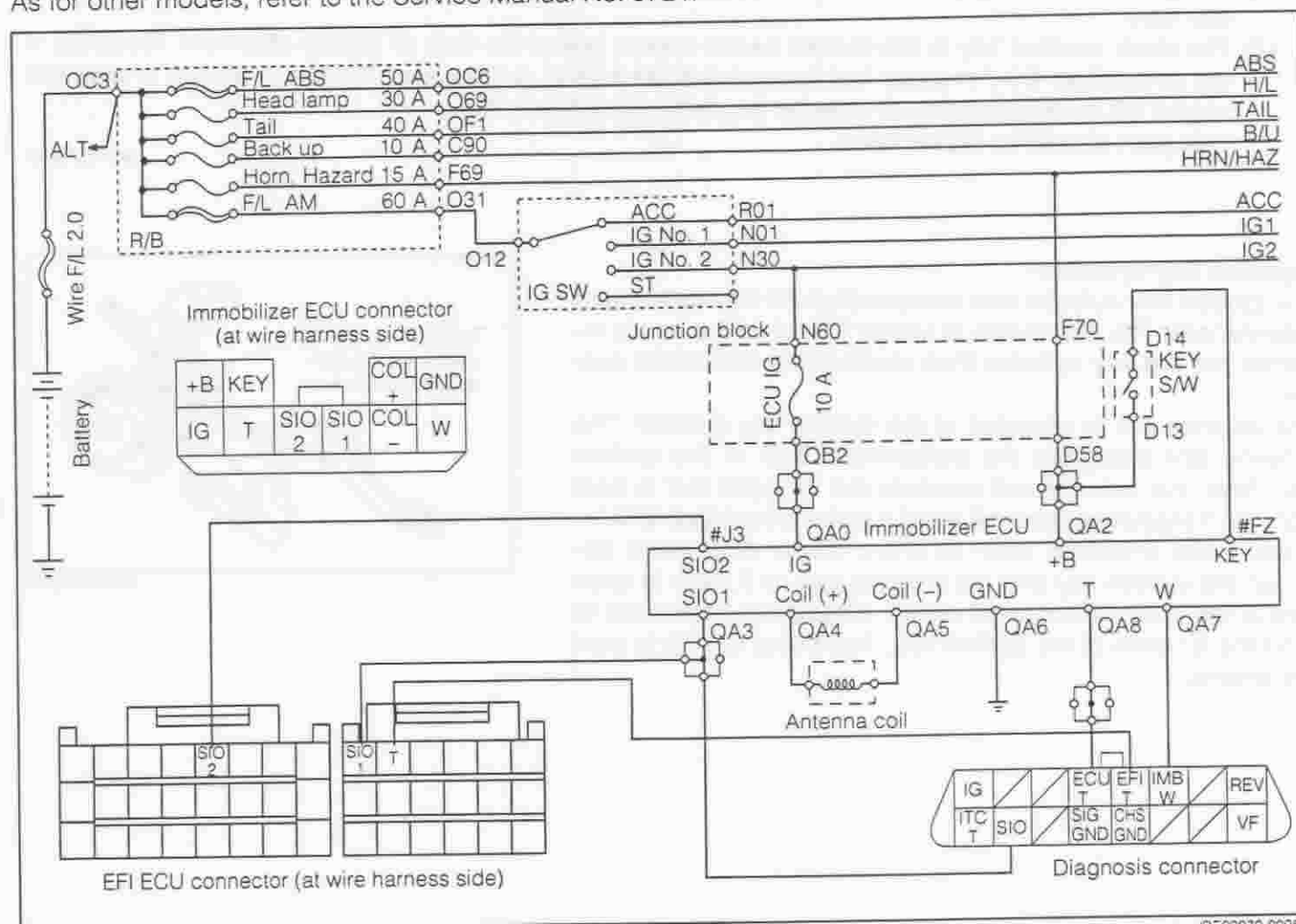
This system consists of a transponder-built-in key, an antenna coil, an immobilizer ECU and EFI ECU. In this immobilizer system.

In this immobilizer system, when the key is inserted into the ignition key cylinder, the key switch is turned ON, thus starting the system. Then, comparison is made between the code memorized in the immobilizer ECU and the code memorized in the key. When both codes match with each other, the immobilizer ECU sends to the EFI ECU the permission signals for ignition and fuel injection. The key ID code is a transponder intrinsic code, whereas the rolling code takes a different value every time the engine is started. This code is renewed and memorized in the EFI ECU and immobilizer ECU as the rolling code for the next starting.

JBE00069-00000

WIRING DIAGRAM

This figure applies to EC (1.0-liter and 1.3-liter) and AUS (1.3-liter).
As for other models, refer to the Service Manual No. 9721.



JBE00070-00059

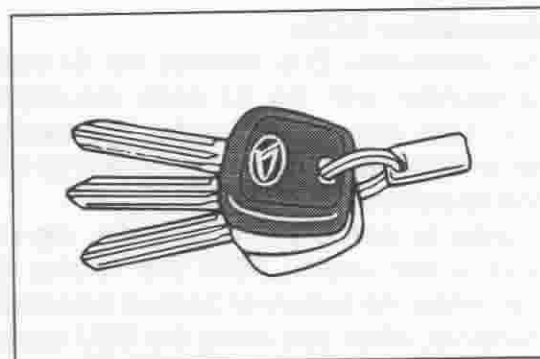
COMPONENTS

<Ignition key>

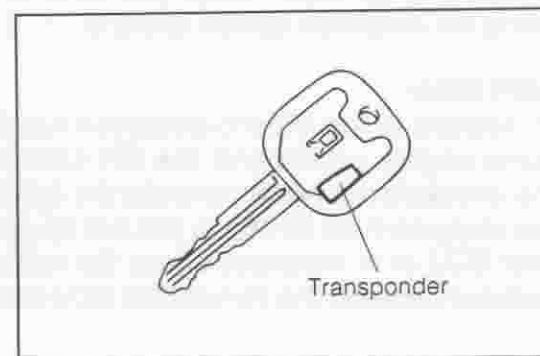
The vehicle is provided with three ignition keys.

1. A black-covered master key
2. Two gray-covered sub keys

The transponder is built in the cover of each of the three keys. Each key has a different recorded ID code. In this system, the operation/releasing of the system can be performed by comparing and collating the ID code with the data memorized in the immobilizer ECU. Although two sub keys are provided for the vehicle, up to three keys can be registered, as required, by means of the sub key registration function of the master key.



JBE00071-00061



JBE00072-00061

CAUTION:

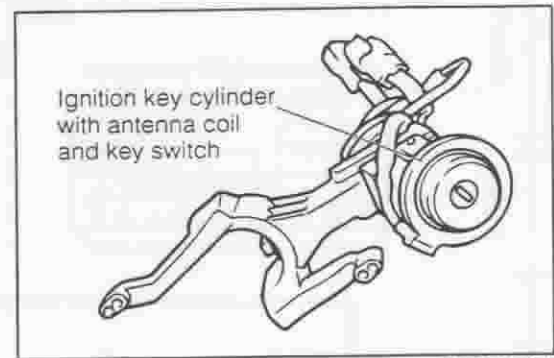
- The master key has the following functions. Utmost care must be paid as to its handling.
 - (1) Using the master key (black cover), it is possible to perform the new registration and renewal of the sub keys.
 - (2) The black covered key is memorized as the master key at the time of factory shipment. However, if the immobilizer ECU memory has been cleared at time of repairs, etc., the key used first to start the engine will be registered as the master key in the immobilizer ECU. This point should be kept in mind.

JBE00073-00000

<Ignition key cylinder>

The ignition key cylinder has incorporated the key switch and antenna coil. The key switch is turned ON when the key is inserted into the key cylinder, thus starting the immobilizer system.

The antenna coil is provided at the ignition key cylinder. The antenna coil energizes the transponder built in the ignition key. Also, the antenna coil receives the ID code that is sent from the transponder and will send it to the immobilizer ECU. If any metal shielding, such as a key holder ring, exists between the ignition key and the antenna coil, or if there is open wire in the antenna coil or its circuit, it becomes impossible to read the ID code of the ignition key, thus being unable to start the engine.



JBE00074-00062

<Immobilizer ECU>

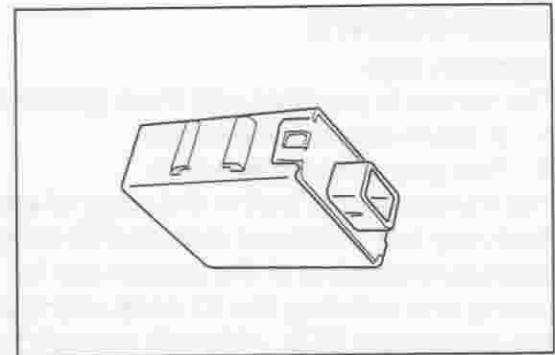
The immobilizer ECU collates the ID code sent from the key transponder with the ID code recorded in the immobilizer ECU. Only when the ID codes are matched with each other, the immobilizer ECU sends the signal of continuation of engine operation to the EFI ECU.

In order to memorize the ID code, the immobilizer ECU employs a non-volatile ROM that retains the memorized data even when the battery or backup fuse is disconnected.

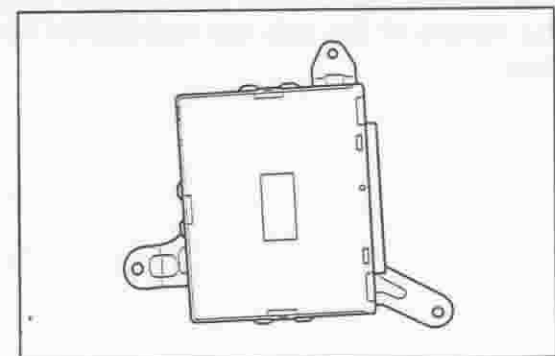
Therefore, when you erase the ECU memory and register the master key ID code newly, you have to erase the memory, using the diagnosis system (DS-21).

<EFI ECU>

In addition to the hitherto-employed functions as the conventional engine control unit, the EFI ECU has the functions as the immobilizer function whereby the ignition and fuel injection are stopped if the ID codes can not be collated in the immobilizer ECU or in instances where the rolling codes can not be collated between the immobilizer ECU and the EFI ECU.



JBE00075-00063



JBE00076-00064

TROUBLE-SHOOTING**TROUBLE-SHOOTING HINTS**

Before checking the immobilizer system, check the diagnosis code of the EFI system to determine whether the malfunction is caused by the immobilizer system or by the EFI system.

CAUTION:

- In the immobilizer system, the system is composed with the same rolling code shared in common among the ignition key, immobilizer ECU and EFI ECU. Hence, if the immobilizer ECU and/or EFI ECU are replaced with that of another vehicle during the checking of the immobilizer ECU or EFI system, the immobilizer system will be regarded as malfunctioning. Therefore, do not replace the immobilizer ECU and/or EFI ECU with that of another vehicle unnecessarily.
- If you have to replace the immobilizer ECU and/or EFI ECU, erase the rolling codes memorized in the immobilizer ECU and EFI ECU. Then, register the ID code of the ignition key to the immobilizer ECU.

JBE00077-0000

DESCRIPTION

1. A self-diagnosis system is built in the ECU. If any abnormality should occur in the immobilizer system, the self-diagnosis system memorizes the malfunction phenomenon in the ECU in the form of malfunction code number.
2. When the test terminal of the check connector is connected with the ground terminal, the malfunction code number that has been memorized in the ECU will be indicated in a form of blinking of the check lamp in the SST.
3. This memorized malfunction code number is erased when the battery ground cable is disconnected from the negative (-) terminal of the battery or when the backup fuse in the relay block assembly is disconnected with the ignition key switch turned off.

JBE00078-0000

READ OUT OF DIAGNOSIS CODE**Method using check lamp**

In the method using the check lamp, a two-digit code number will be indicated.

1. Connect the test terminal of the diagnosis connector with the ground terminal, using a jump wire.
2. Connect a check lamp between the terminals as illustration.

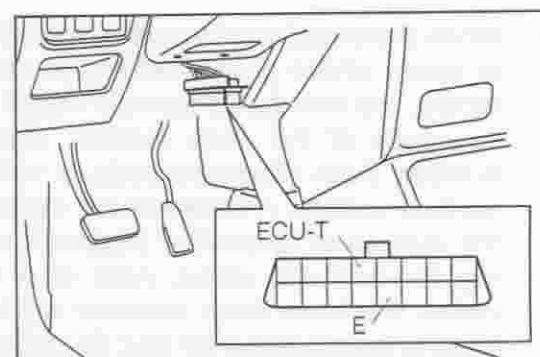
NOTE:

- Prepare the following SST.
SST: 09991-97201-000

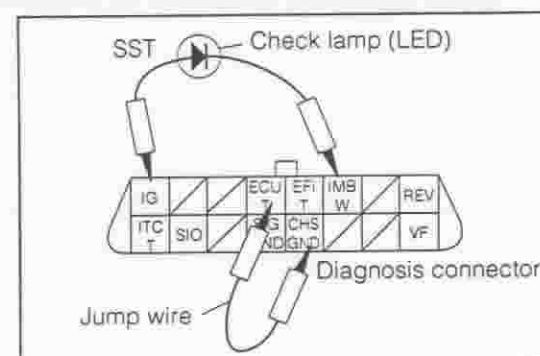
CAUTION:

- As for the check lamp, make sure to use a LED (light emitting diode) type. Bulb type check lamp is not suitable for this system.

3. Set the ignition switch to the ON position.
4. Read the diagnosis code by observing the number of blinking of the indicator lamp.



JBE00079-0005

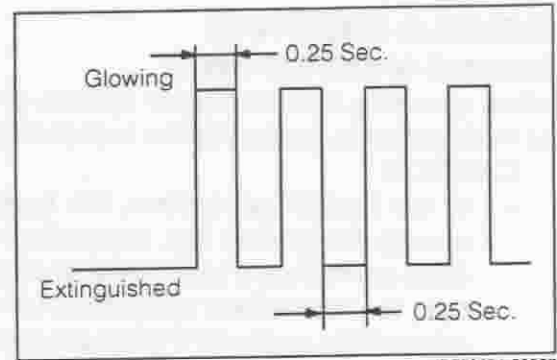


JBE00080-0006

EXPLANATION OF DIAGNOSIS CODE

1. Indication of normal code

The check lamp glows for 0.25 second, 0.25 second later after the ignition switch has been turned ON. After a lapse of 0.25 second, the check lamp again glows for 0.25 second. Then, this pattern will be repeated.



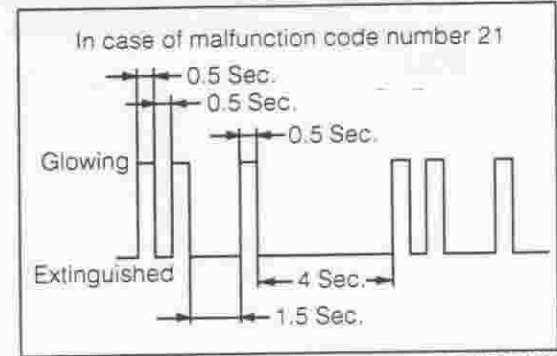
JBE00081-00067

2. Indication of malfunction code

• When a single malfunction code is indicated:

The diagnosis malfunction code is composed of two digits. Those two numbers are indicated by blinking of the check lamp. Four seconds later after the ignition switch has been turned on, the check lamp indicates first the number of the tens digit of the diagnosis code by blowing the same times as the number. The lamp glows for 0.5 second each time and then it is extinguished for 0.5 second. After a pause of 1.5 seconds, the check lamp indicates the number of the units digit of the diagnosis code by glowing the same times as the number.

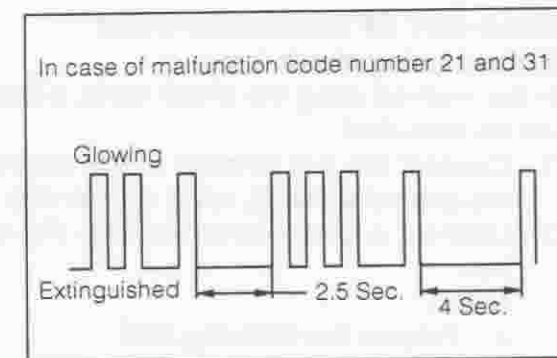
The lamp glows for 0.5 second each time and then it is extinguished for 0.5 second. Then, this pattern will be repeated after a pause of 4.0 seconds.



JBE00082-00068

• When plural malfunction codes are indicated:

In cases where plural malfunction codes have been detected, the two-digit diagnosis codes are indicated in the sequence of the code number, starting from a smaller number. Each diagnosis code is indicated in above described pattern. A pause of 2.5 seconds occurs between the outputs of respective diagnosis codes, thus separating one from the others. After all of the plural diagnosis codes that have been detected are indicated, the check lamp is extinguished for four seconds. Then, the detected plural diagnosis codes will be indicated again.

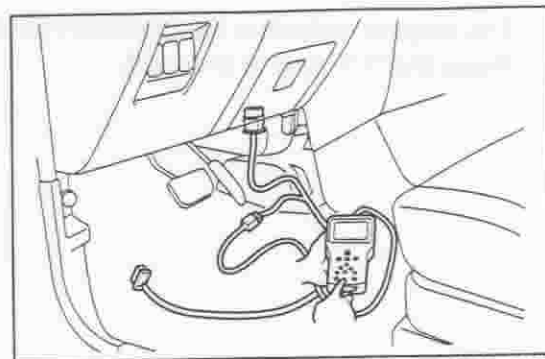


JBE00083-00069



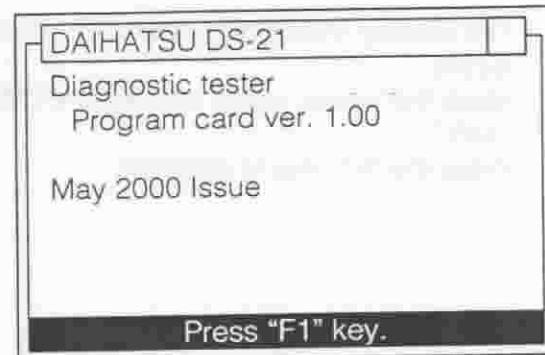
Method Using Diagnostic Tester (DS-21)

1. Connect the diagnostic tester (DS-21) to the diagnosis check connector.



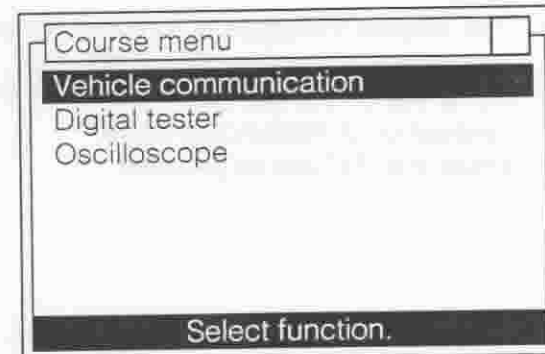
JBE00084-00070

2. Turn ON the ignition key.
3. Turn ON the power supply of the tester. Then, the display indicates the screen of the figure on the right. Press the "F1" key to proceed.



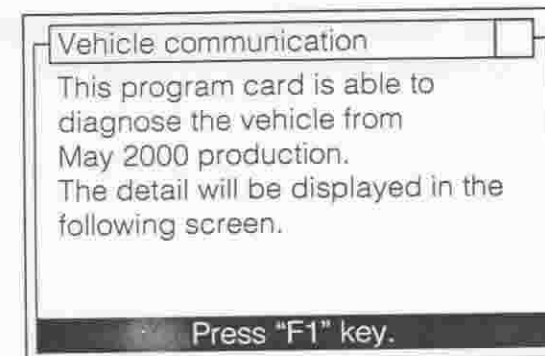
JBE00085-00071

4. The display indicates a screen in which a course menu is selected. Move the cursor, using the [▲] and [▼] keys, to select the "Vehicle communication." Press the "F1" key to proceed.



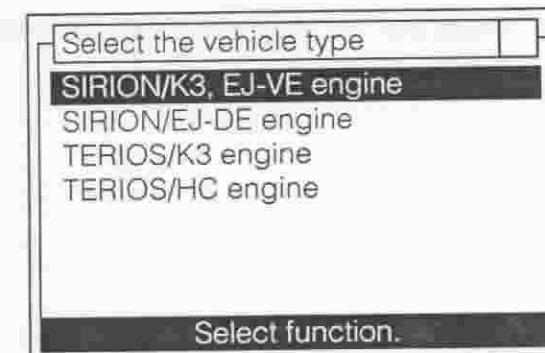
JBE00086-00072

5. The display indicates the comment screen. Press the "F1" key to proceed.



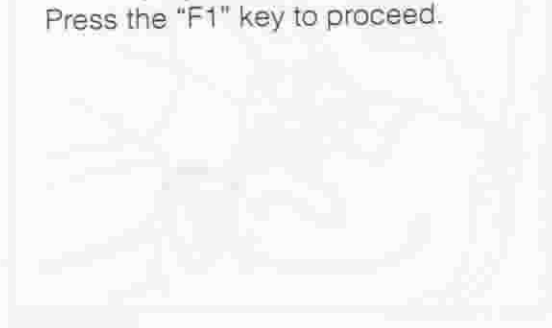
JBE00087-00073

6. The display indicates a screen in which the vehicle model is selected. Move the cursor, using the [▲] and [▼] keys, to select the applicable vehicle. Press the "F1" key to proceed.

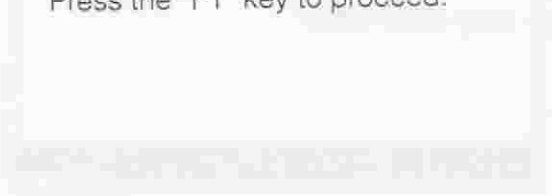


JBE00088-00074

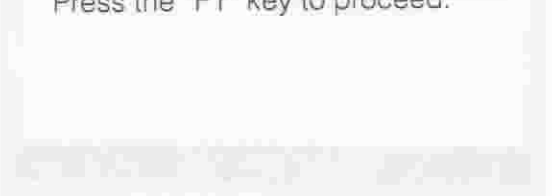
7. The display indicates the comment screen.
Press the "F1" key to proceed.



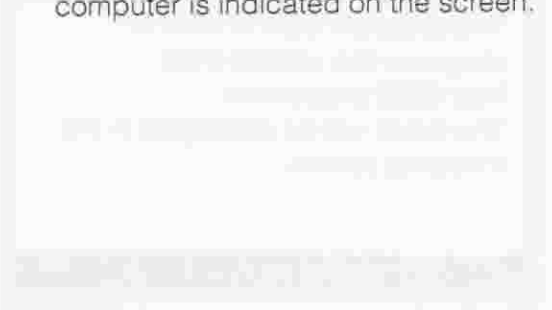
8. The display indicates a screen in which the system is selected.
Move the cursor, using the [▲] and [▼] keys, to select the "IMB."
Press the "F1" key to proceed.



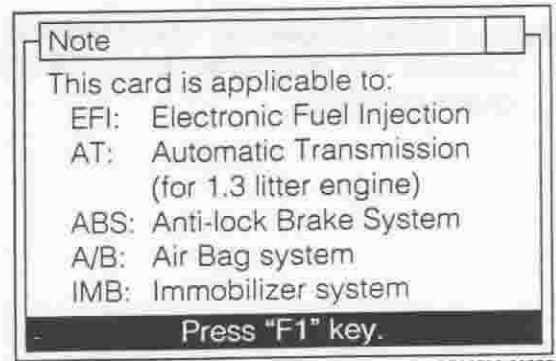
9. The display indicates a screen in which the vehicle communication item of the IMB is selected.
Move the cursor, using the [▲] and [▼] keys, to select the "Indication of malfunction code."
Press the "F1" key to proceed.



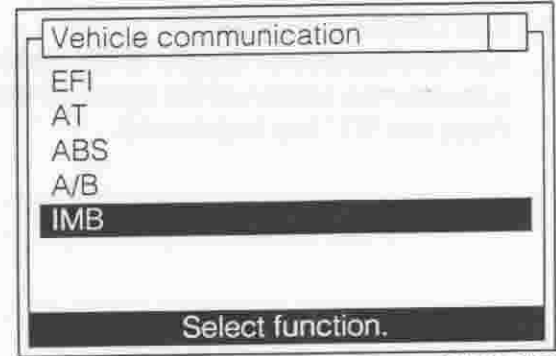
10. The number of all malfunction codes memorized in the computer is indicated on the screen.



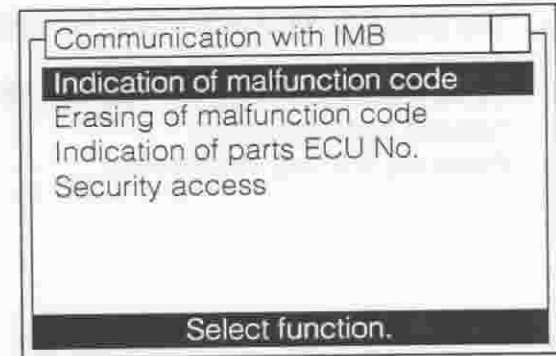
11. Press the "F1" key to indicate the malfunction code numbers.



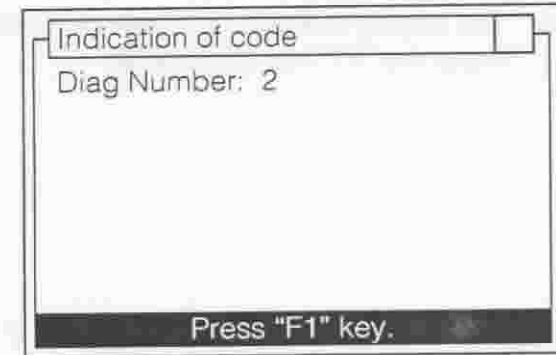
JBE00089-00075



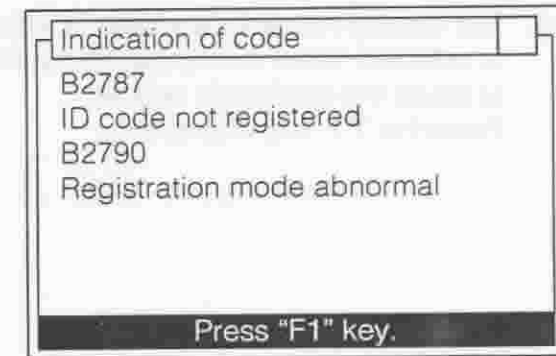
JBE00090-00076



JBE00091-00077



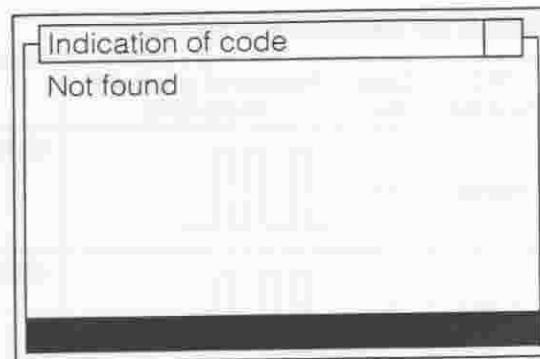
JBE00092-00078



JBE00093-00079

REFERENCE:

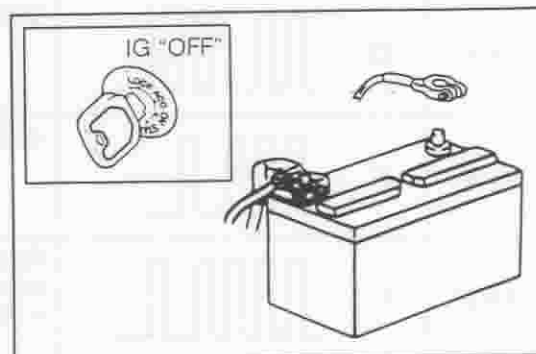
- If there is no malfunction code, the message in the figure on the right is indicated.



JBE00094-00080

ERASING METHOD OF DIAGNOSIS CODES

To erase the diagnosis codes memorized in the ECU after malfunctions have been repaired, disconnect the battery ground cable from the negative (-) terminal of the battery for at least 10 seconds with the ignition switch turned off.



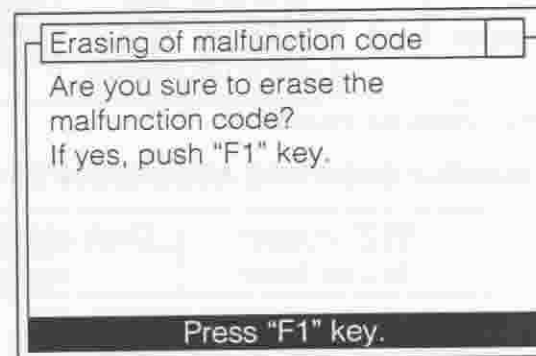
JBE00095-00081

Method Using Diagnostic Tester (DS-21)

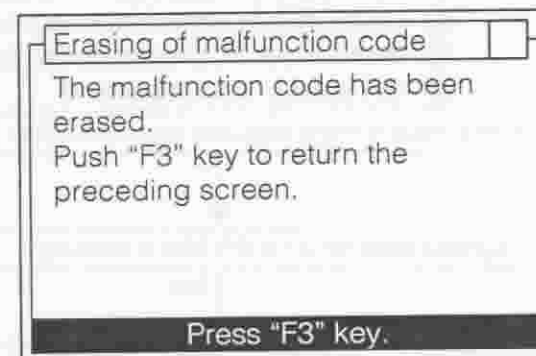
REFERENCE:

- Even after the malfunction code has been erased, the data at the time of malfunction remains memorized.
- To erase the data at the time of malfunction, it is necessary to perform the above-mentioned operation.

- On the screen in Step 8 on the preceding page, select the "Erasing of malfunction code." Press the "F1" key to proceed.
- Press the "F1" key to erase the malfunction codes.



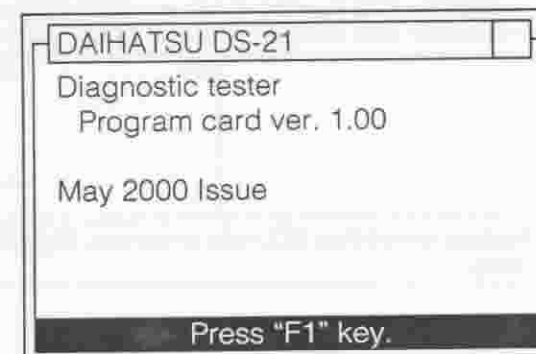
JBE00096-00082



JBE00097-00083




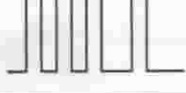


SECURITY ACCESS**Releasing method**

- Insert the trouble shooting program into the DS-21 and turn it ON.
- With the screen of the right figure indicated, input the keys in the sequence of "Δ", "▽", "F2", "F2" and "F1". Then, the security is released.
- After gaining access, it becomes possible to execute the items Initializing of EEPROM.



JBE00098-00084

TABLE OF DIAGNOSIS CODES

DTC Code No.	Code No.	Number of glowing of check lamp	Diagnosis Item	Diagnosis contents
B2796	12		Malfunction of transponder	When there is no reply from key transponder after the coil has energized key transponder. (This diagnosis code is cleared if ID code can be read normally next time.)
B2795	21		Unmatching of ID codes	When immobilizer ECU determines that an attempt was made to start engine, using an unregistered key:
B2787	23		Unregistered ID codes	When transponder code to immobilizer ECU is unregistered: (Code to backup RAM is not memorized.)
B2790	31		Abnormality of registration mode	At time of registration of sub key, terminal T is not connected to ground, or an attempt is made to make registration, using a sub key. (Code to backup RAM is not memorized.)
B2788	41		Faulty communication between immobilizer ECU and EFI ECU • Non-matching of codes	When a signal of non-matching of code is received at time of communication with EFI ECU:
B2789	42		Faulty communication between immobilizer ECU and EFI ECU • When there is no reply of code:	When reply of code has not been received within specified time from EFI ECU at time of communication with EFI ECU:

DTC: Diagnostic Trouble Code

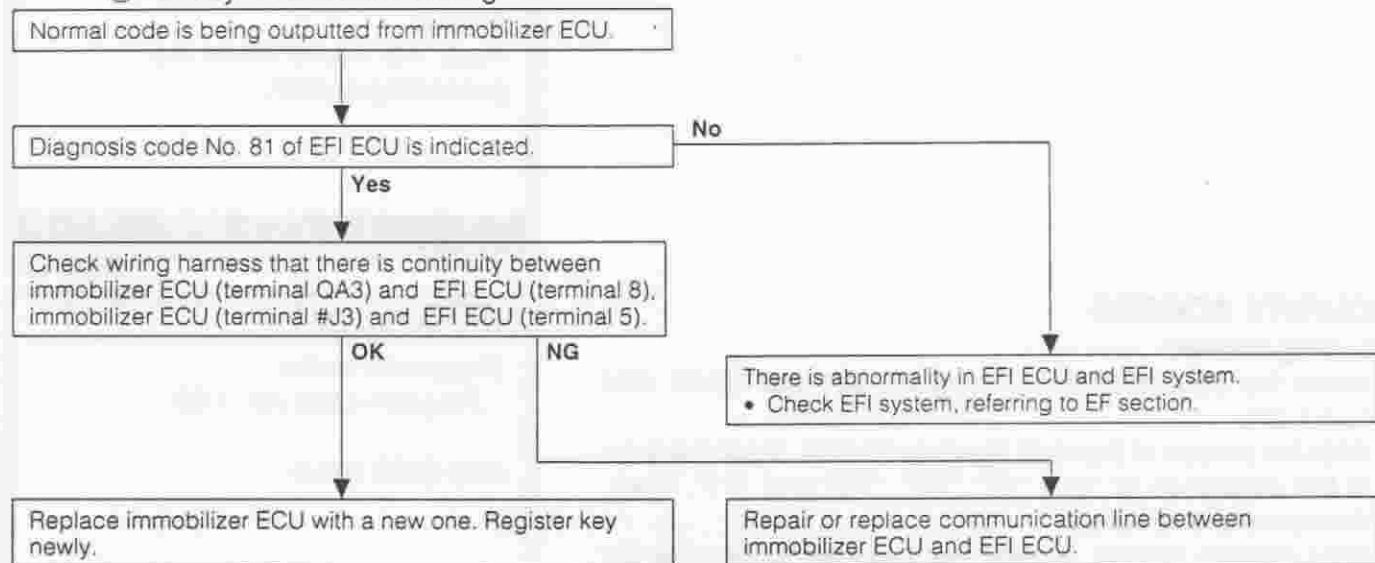
JBE00099-00085

TROUBLE SHOOTING ACCORDING TO DIAGNOSIS CODE

1	DS-21 on screen	Check lamp indication
	DTC No. B0000	Normal

NOTE:

- In this case, the followings are possible causes.
 - Open wire or short between immobilizer ECU and EFI ECU
 - Immobilizer ECU malfunctioning
 - EFI system malfunctioning

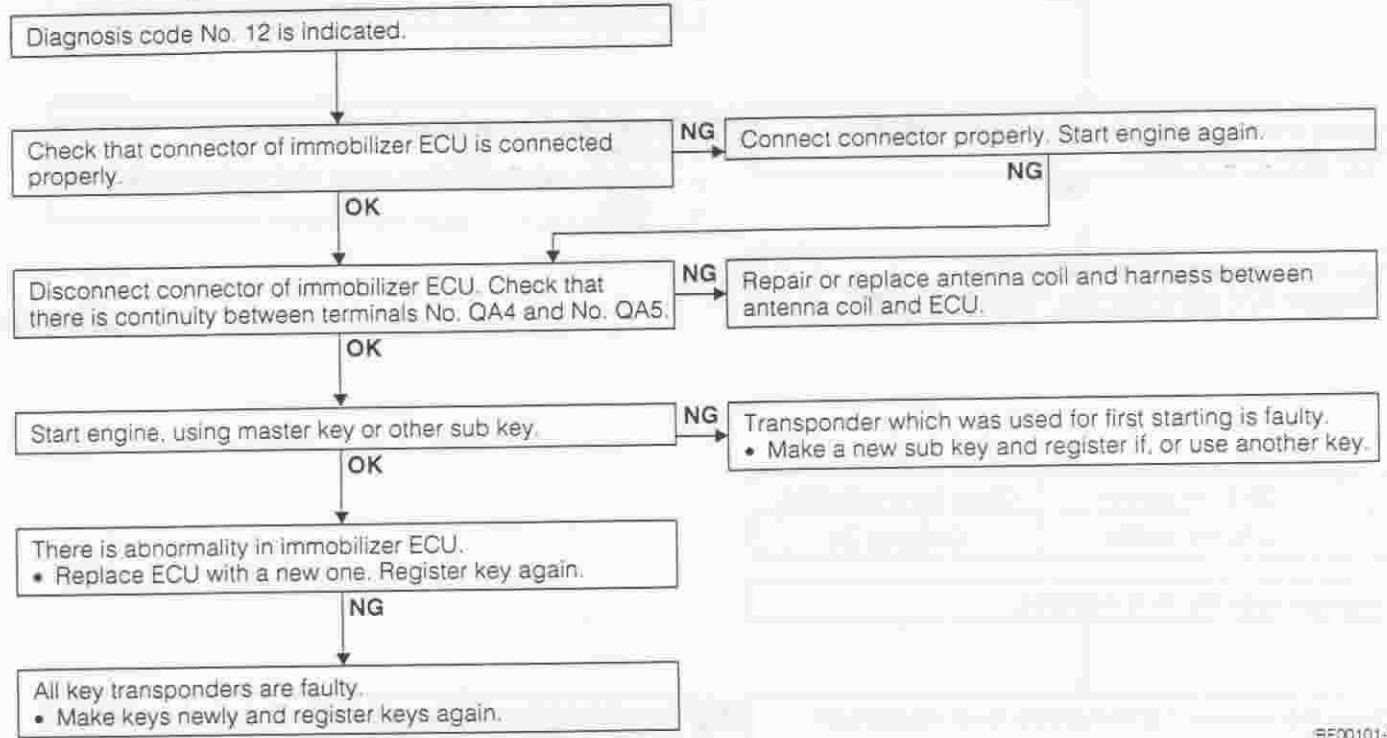


JBE00100-00000

2	DS-21 on screen	Check lamp indication
	DTC No. B2796	Code No. 12

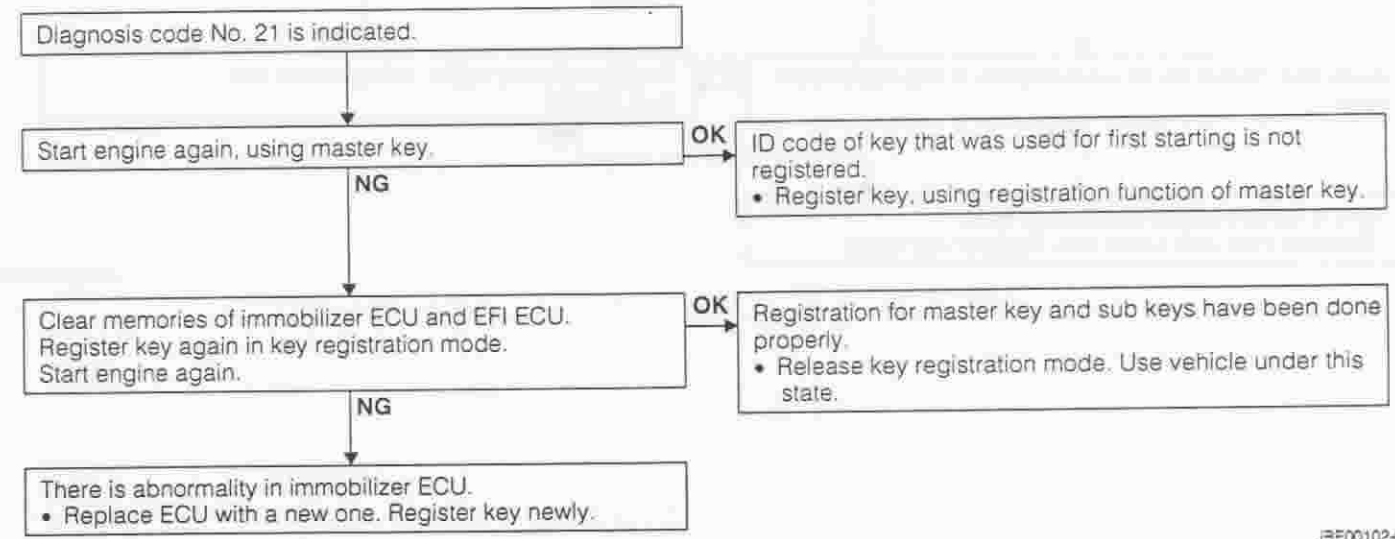
NOTE:

- In this case, the followings are possible causes.
 - ① Poor contacts in ECU connector or terminal
 - ② Open wire or short in antenna coil or harness
 - ③ Key transponder malfunctioning



JBE00101-00000

3	DS-21 on screen	Check lamp indication
	DTC No. B2795	Code No. 21



JBE00102-00000

4	DS-21 on screen	Check lamp indication
	DTC No. B2787	Code No. 23

Diagnosis code No. 23 is indicated.

Start engine again, using master key.

OK

ID code of key that was used for first starting is not registered.
 • Register key, using registration function of master key.

NG

Register master key and sub keys in key registration mode. Start engine again.

OK

Registration for master key and sub keys have been done properly.
 • Release key registration mode. Use vehicle under this state.

NG

There is abnormality in immobilizer ECU.
 • Replace ECU with a new one. Register key newly.

JBEEG103-00000

5	DS-21 on screen	Check lamp indication
	DTC No. B2790	Code No. 31

Diagnosis code No. 31 is indicated.

Check that terminal T of immobilizer is connected with ground properly.

NG

Connect terminal T of immobilizer with ground properly. Register sub key again. Start engine.

OK

NG

OK

Sub key have been registered properly.
 • Release key registration mode. Use vehicle under this state.

OK

Check that master key is used properly in key registration mode.

NG

Register sub key again, using master key. Start engine.

OK

NG

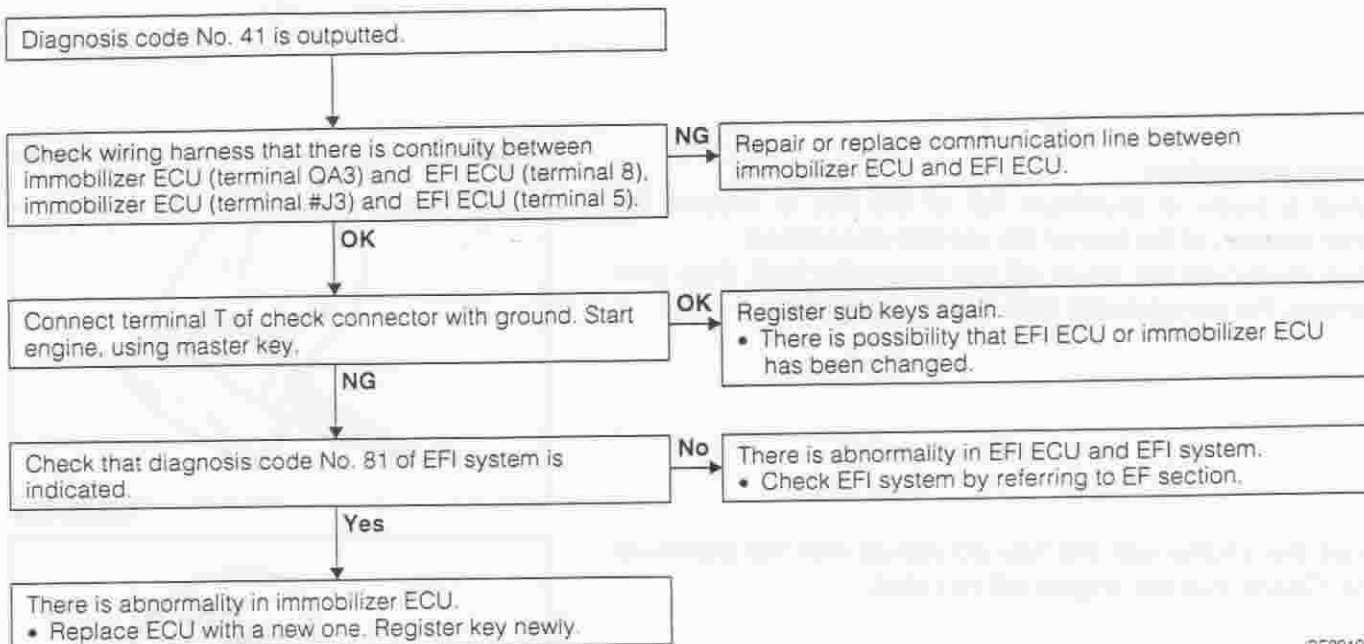
There is abnormality in immobilizer ECU.
 • Replace ECU with a new one. Register key newly.

JBED0104-00000

6	DS-21 on screen	Check lamp indication
	DTC No. B2788	Code No. 41

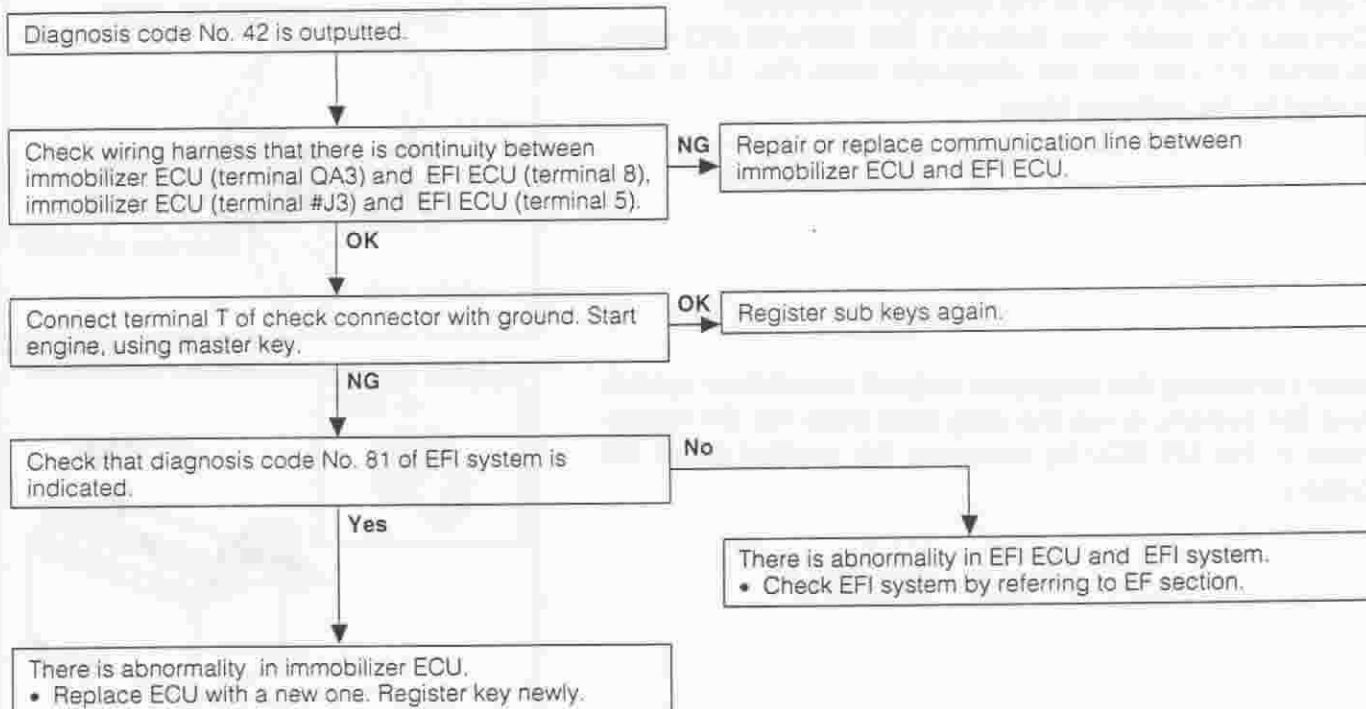
NOTE:

- There are cases that this code is outputted when the EFI ECU or immobilizer ECU is borrowed from other vehicles.



JBE00105-00000

7	DS-21 on screen	Check lamp indication
	DTC No. B2789	Code No. 42



JBE00106-00000

FUNCTION CHECK OF IMMOBILIZER SYSTEM

The function check of the immobilizer system can be performed by doing the following two checks.

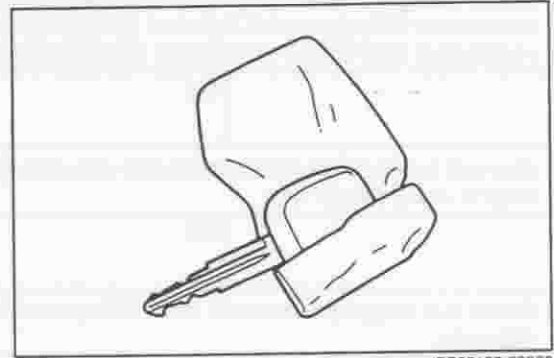
1. Ensure that the engine starts by using the master key and sub key.
2. Ensure that the engine will not start with a key without the transponder.

In the check 1, the system can be checked easily by using the master key and sub key.
Now we explain that the check can be made in the following method as one of the check method of 2.

JBE00107-00000

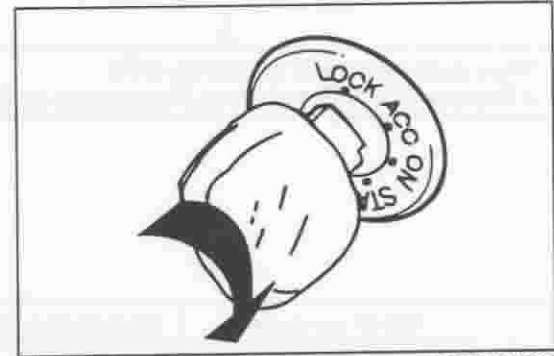
Checking procedure

1. Wind a piece of aluminum foil or the like at around the resin section of the key of the vehicle concerned.
(The aluminum foil shuts off the magnetic field, thus preventing the transponder from being energized.)



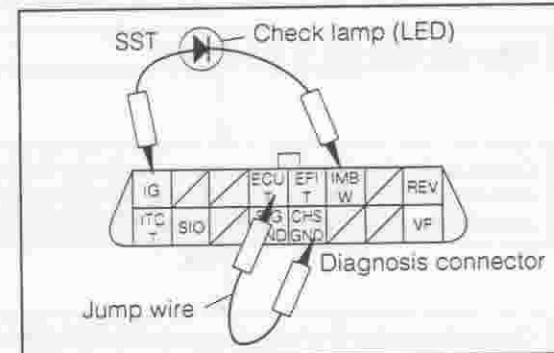
JBE00108-00086

2. Start the engine with the key wound up with the aluminum foil. Check that the engine will not start.



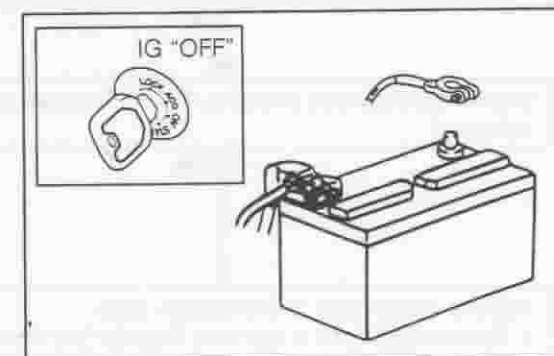
JBE00109-00087

3. Install the check lamp to the diagnosis connector.
Connect the jump wire between Test terminal and earth terminal. Ensure that the diagnosis code No. 12 is outputted by the indicator lamp.



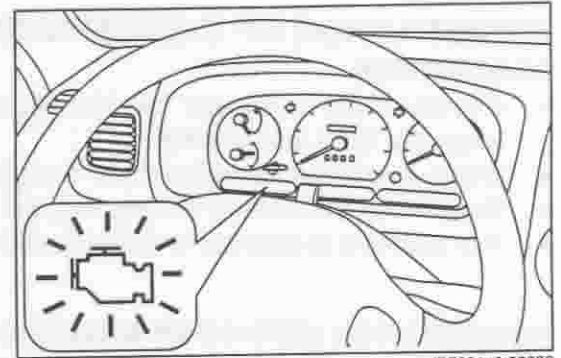
JBE00110-00088

4. After confirming the diagnosis code of immobilizer system and EFI system, erase the diagnosis code No. 81 memorized in the EFI ECU by removing the terminal (-) of the battery



JBE00111-00089

5. Ensure that the diagnosis code No. 81 has been erased and that the normal code is being outputted. Remove the check lamp and jump wire from the diagnosis connector.



JBE00112-00090

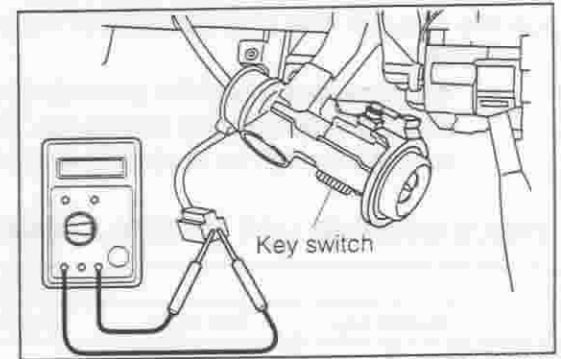
INSPECTION OF KEY SWITCH

1. Disconnect the connector of the wire harness.
2. Confirm the continuity of the key switch connector at the time when the key is inserted into or pulled out from the key cylinder.

Specification:

With the Key Inserted: Continuity exists.

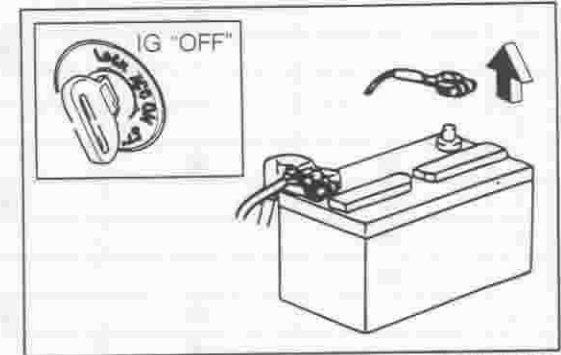
With the Key Not Inserted: No continuity exists.



JBE00113-00091

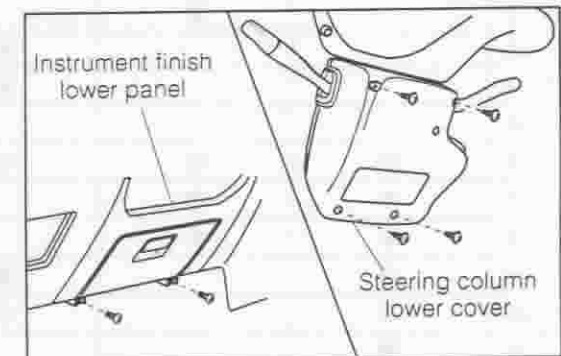
REPLACEMENT AND INSTALLATION OF ANTENNA COIL

1. Disconnect the battery ground cable from the negative (-) terminal of the battery.



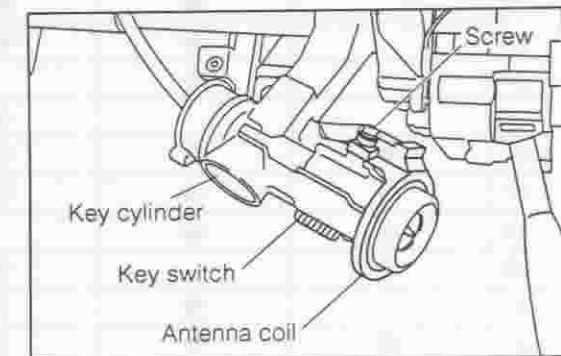
JBE00114-00092

2. Remove the instrument lower finish panel and steering column lower cover by loosening the attaching screws.
3. Remove the steering column upper cover.
4. Disconnect the connector of the antenna coil and remove the wire band.
5. Removal of antenna coil.
 - (1) Loosen the antenna coil attaching screw.
 - (2) Remove the antenna coil from the ignition key cylinder.



JBE00115-00093

6. Attach a new antenna coil to the ignition key cylinder and tighten the attaching screw.
7. Attach a new wire band.
8. Connect the connector of the antenna coil.
9. Install the steering column upper cover.
10. Install the steering column lower cover and instrument lower finish panel with attaching screws.
11. Connect the battery ground cable to the negative (-) terminal of the battery.



JBE00116-00094

REGISTRATION OF IDENTIFICATION CODE

DESCRIPTION

- It is essential to register the identification code at the time when the transmitter is lost or added and when the ECU is replaced.
- When a new identification code is registered, the old identification code will be erased.
- Even when the battery is removed, the identification code memory will not be lost.
- It is possible to register an identification code for one master key and three sub keys at the maximum.

JBE00117-00000

REGISTRATION METHOD OF IDENTIFICATION CODE

When replacing the parts bearing a [●] mark in the following table or changing the identification code, follow the relevant flow chart to register the identification code.

NOTE:

- We have described the procedure on the assumption that the immobilizer ECU is a new part and has no identification code registered. Therefore, as regards the immobilizer ECU already memorizing registration codes, be sure to perform initializing, using the DS-21. (Refer to BE-31 page)

JBE00118-00000

TABLE SHORING LIST OF REPLACEMENT PARTS

	Replacement parts					Relevant flow chart No.
	Master key	Sub key 1	Sub key 2	Immobilizer ECU	EFI ECU	
1	●					A
2		●				B
3			●			B
4				●		C
5					●	C
6	●	●				D
7	●		●			D
8	●			●		E
9	●				●	A
10		●	●			F
11		●		●		G
12		●			●	G
13			●	●		G
14			●		●	G
15				●	●	C
16	●	●	●			H
17	●	●		●		I
18	●	●			●	I
19	●		●	●		I
20	●		●		●	I
21	●			●	●	A
22		●	●	●		J
23		●	●		●	J
24		●		●	●	G
25			●	●	●	G
26	●	●	●	●		K
27	●	●	●		●	K
28	●	●		●	●	L
29	●		●	●	●	L
30		●	●	●	●	J
31	●	●	●	●	●	K

JBE00119-00000

Flow chart No. [A]

- ① Perform initializing of the IMB/ECU, using the DS-21.
- ② Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
- ③ Insert into the key cylinder the master key for which an identification code is registered.
- ④ Turn ON the ignition switch.
- ⑤ Turn OFF the ignition switch and pull out the key from the key cylinder.
- ⑥ Within 10 seconds after completion of Step ⑤, turn ON the ignition switch, using the sub key 1.
- ⑦ Turn OFF the ignition switch and pull out the key from the key cylinder.
- ⑧ Within 10 seconds after completion of Step ⑦, turn ON the ignition switch, using the sub key 2.
- ⑨ Turn OFF the ignition switch and pull out the key from the key cylinder.
- ⑩ This completes the registration.

JBE00120-00000

Flow chart No. [B]

- ① Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
- ② Insert the master key into the key cylinder.
- ③ Turn ON the ignition switch.
- ④ Turn OFF the ignition switch and pull out the key from the key cylinder.
- ⑤ Within 10 seconds after completion of Step ④, turn ON the ignition switch, using the sub key to be registered.
- ⑥ Turn OFF the ignition switch and pull out the key from the key cylinder.
- ⑦ Within 10 seconds after completion of Step ⑥, turn ON the ignition switch, using another sub key.
- ⑧ Turn OFF the ignition switch and pull out the key from the key cylinder.
- ⑨ This completes the registration.

JBE00121-00000

Flow chart No. [C]

① Connect the terminal T of the IMB of the diagnosis connector to the terminal E.

② Insert the master key into the key cylinder.

③ Turn ON the ignition switch.

④ Turn OFF the ignition switch and pull out the key from the key cylinder.

⑤ Within 10 seconds after completion of Step ④, turn ON the ignition switch, using the sub key.

⑥ Turn OFF the ignition switch and pull out the key from the key cylinder.

⑦ Within 10 seconds after completion of Step ⑥, turn ON the ignition switch, using another sub key.

⑧ Turn OFF the ignition switch and pull out the key from the key cylinder.

⑨ This completes the registration.

JBE00122-00000

Flow chart No. [D]

① Perform initializing of the IMB/ECU, using the DS-21.

② Connect the terminal T of the IMB of the diagnosis connector to the terminal E.

③ Insert into the key cylinder the master key for which an identification code is registered.

④ Turn ON the ignition switch.

⑤ Turn OFF the ignition switch and pull out the key from the key cylinder.

⑥ Within 10 seconds after completion of Step ⑤, turn ON the ignition switch, using the sub key to be registered.

⑦ Turn OFF the ignition switch and pull out the key from the key cylinder.

⑧ Within 10 seconds after completion of Step ⑦, turn ON the ignition switch, using another sub key.

⑨ Turn OFF the ignition switch and pull out the key from the key cylinder.

⑩ This completes the registration.

JBE00123-00000

Flow chart No. [E]

① Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
② Insert into the key cylinder the master key for which an identification code is registered.
③ Turn ON the ignition switch.
④ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑤ Within 10 seconds after completion of Step ④, turn ON the ignition switch, using the sub key.
⑥ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑦ Within 10 seconds after completion of Step ⑥, turn ON the ignition switch, using another sub key.
⑧ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑨ This completes the registration.

JBE00124-00000

Flow chart No. [F]

① Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
② Insert the master key into the key cylinder.
③ Turn ON the ignition switch.
④ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑤ Within 10 seconds after completion of Step ④, turn ON the ignition switch, using the sub key to be registered.
⑥ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑦ Within 10 seconds after completion of Step ⑥, turn ON the ignition switch, using another sub key to be registered.
⑧ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑨ This completes the registration.

JBE00125-00000

Flow chart No. [G]

① Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
② Insert the master key into the key cylinder.
③ Turn ON the ignition switch.
④ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑤ Within 10 seconds after completion of Step ④, turn ON the ignition switch, using the sub key to be registered.
⑥ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑦ Within 10 seconds after completion of Step ⑥, turn ON the ignition switch, using another sub key.
⑧ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑨ This completes the registration.

JBE00126-00000

Flow chart No. [H]

① Perform initializing of the IMB/ECU, using the DS-21.
② Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
③ Insert into the key cylinder the master key for which an identification code is registered.
④ Turn ON the ignition switch.
⑤ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑥ Within 10 seconds after completion of Step ⑤, turn ON the ignition switch, using the sub key 1 for which an identification code is registered.
⑦ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑧ Within 10 seconds after completion of Step ⑦, turn ON the ignition switch, using the sub key 2 for which an identification code is registered.
⑨ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑩ This completes the registration.

JBE00127-00000

Flow chart No. [I]

① Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
② Insert into the key cylinder the master key for which an identification code is registered.
③ Turn ON the ignition switch.
④ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑤ Within 10 seconds after completion of Step ④, turn ON the ignition switch, using the sub key for which an identification code is registered.
⑥ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑦ Within 10 seconds after completion of Step ⑥, turn ON the ignition switch, using another sub key.
⑧ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑨ This completes the registration.

JBE00128-00000

Flow chart No. [J]

① Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
② Insert the master key into the key cylinder.
③ Turn ON the ignition switch.
④ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑤ Within 10 seconds after completion of Step ④, turn ON the ignition switch, using the sub key for which an identification code is registered.
⑥ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑦ Within 10 seconds after completion of Step ⑥, turn ON the ignition switch, using another sub key for which an identification code is registered.
⑧ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑨ This completes the registration.

JBE00129-00000

Flow chart No. [K]

① Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
② Insert into the key cylinder the master key for which an identification code is registered.
③ Turn ON the ignition switch.
④ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑤ Within 10 seconds after completion of Step ④, turn ON the ignition switch, using the sub key for which an identification code is registered.
⑥ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑦ Within 10 seconds after completion of Step ⑥, turn ON the ignition switch, using another sub key for which an identification code is registered.
⑧ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑨ This completes the registration.

JBED0130-00000

Flow chart No. [L]

① Connect the terminal T of the IMB of the diagnosis connector to the terminal E.
② Insert into the key cylinder the master key for which an identification code is registered.
③ Turn ON the ignition switch.
④ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑤ Within 10 seconds after completion of Step ④, turn ON the ignition switch, using the sub key for which an identification code is registered.
⑥ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑦ Within 10 seconds after completion of Step ⑥, turn ON the ignition switch, using another sub key.
⑧ Turn OFF the ignition switch and pull out the key from the key cylinder.
⑨ This completes the registration.

JBED0131-00000

SRS AIR BAG SYSTEM

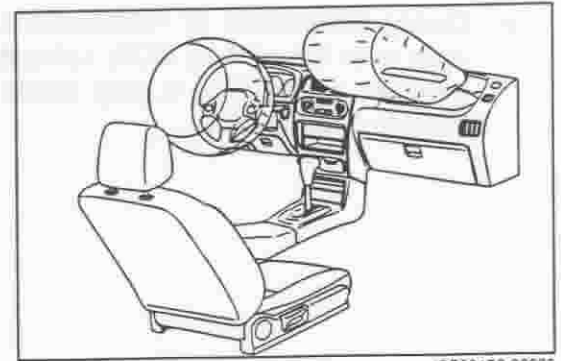
IMPORTANT SAFETY NOTICE

SRS AIR BAG SYSTEM

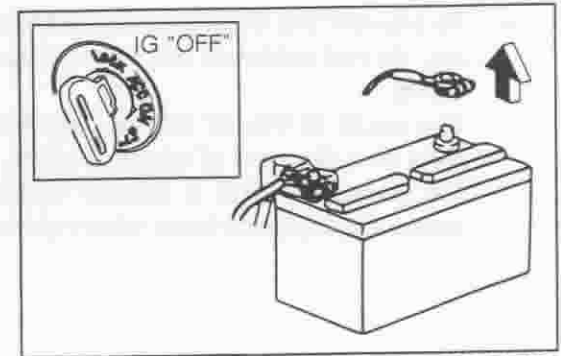
WARNING:

- Make certain to perform operations of the air bag system according to the correct procedure and method. Failure to observe this notice may cause the air bag system to operate unexpectedly during the service operation, resulting in serious accidents. Furthermore, if wrong repairs should be performed, there are the possibilities that the air bag system fail to operate when required.
- Before servicing the air bag components or the seat belt pretensioner device, perform the following procedures:
 - (1) Check the status of the air bag warning lamp, or confirm whether or not any abnormality code is present, using the DS-21.
 - (2) Read the diagnosis codes and put it on record.
 - (3) Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then, wait for at least 90 seconds to prevent the air bag from the deployment.
- It should be noted that, when the negative (-) terminal of the battery is detached, the memory of the ECU control of the other system will be erased at the same time.
- Never bring your face, arms and body to the front of the air bag unit during the removal.

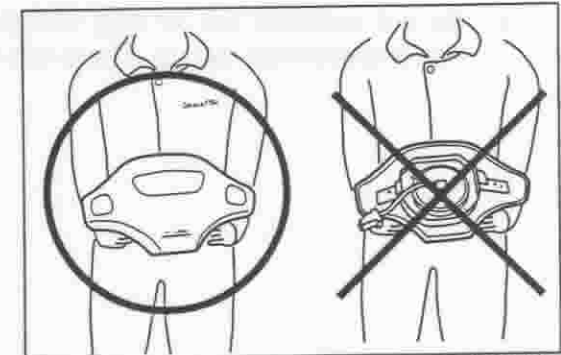
- Be sure to place the removed air bag pad assembly with the pad surface facing upward. The assembly with the pad surface facing downward is potentially hazardous. Failure to observe this warning may cause unexpected deployment of the air bag, resulting in scattered pad assembly.
- Furthermore, store the pad assembly and seat belt pretensioner device at a low place close to the ground level where no heat source (85°C or more) exists in close proximity, and store at a place where is not exposed to direct sun rays.
- If the air bag components or seat belt pretensioner device are dropped, be sure to dispose of the unit according to the disposal procedure. Be sure to mount a new unit to the vehicle.



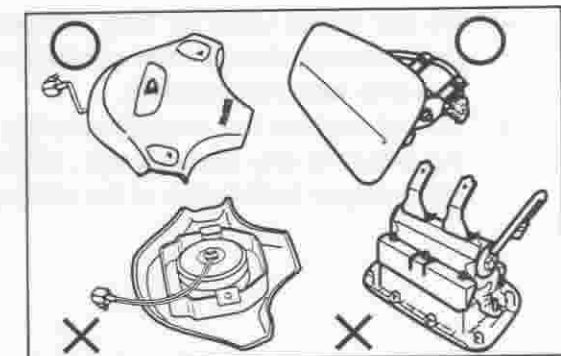
JBE00132-00095



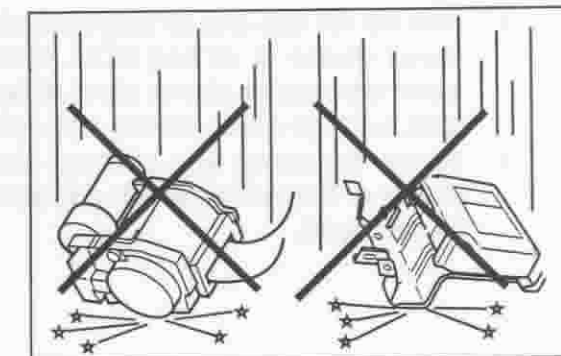
JBE00133-00096



JBE00134-00097

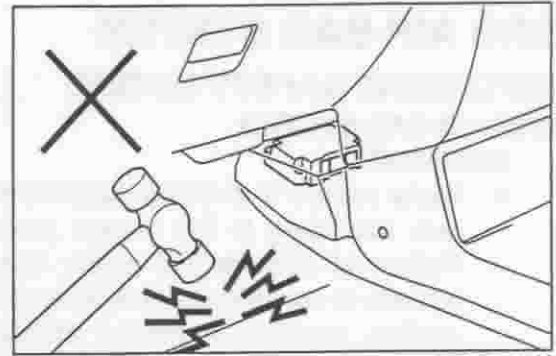


JBE00135-00098



JBE00136-00099

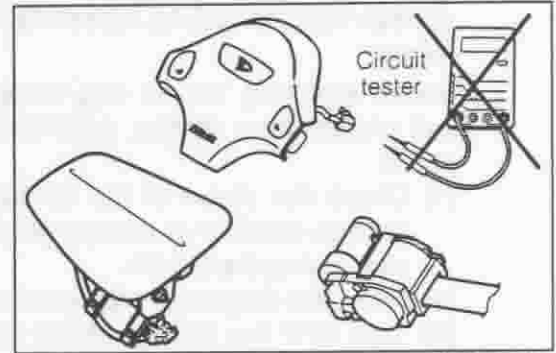
- During installation or replacement, do not bump the area near the air bag ECU, using an impact wrench, a hammer or the like. It may cause the sensor in the ECU to operate.



JEE00137-00100

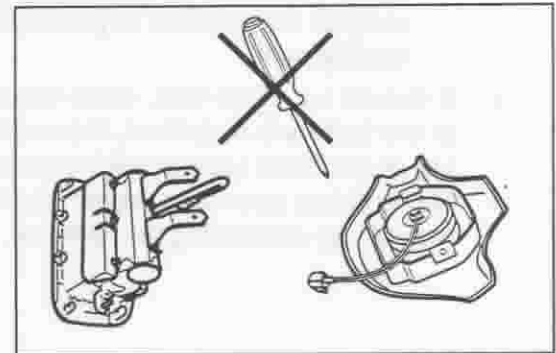
- To prevent the air bag or the pretensioner from deploying, do not measure the resistance of the inflator squib easily.

The squib of the air bag or seat belt pretensioner consists of a filament of about 2 ohms. Therefore, there is the possibility that a current which is big enough to cause deployment flows when ohmmeter is connected.



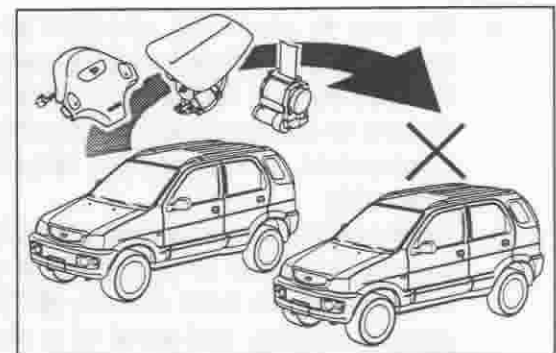
JEE00138-00101

- Do not overhaul the air bag components and the seat belt pretensioner device. There are no supply parts.



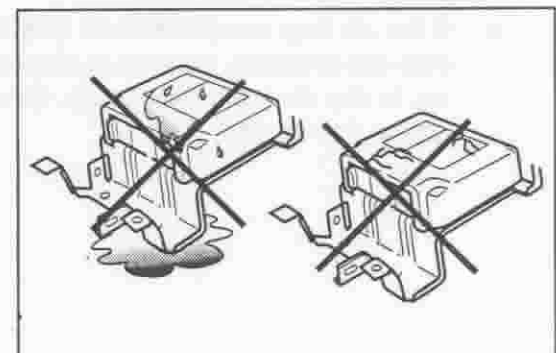
JEE00139-00102

- Do not install used air bag components and seat belt pretensioner device from another car. When repairing, use only new components.
- Do not replace the original steering wheel with a steering wheel of any other design, since it will make impossible proper installation of the air bag.



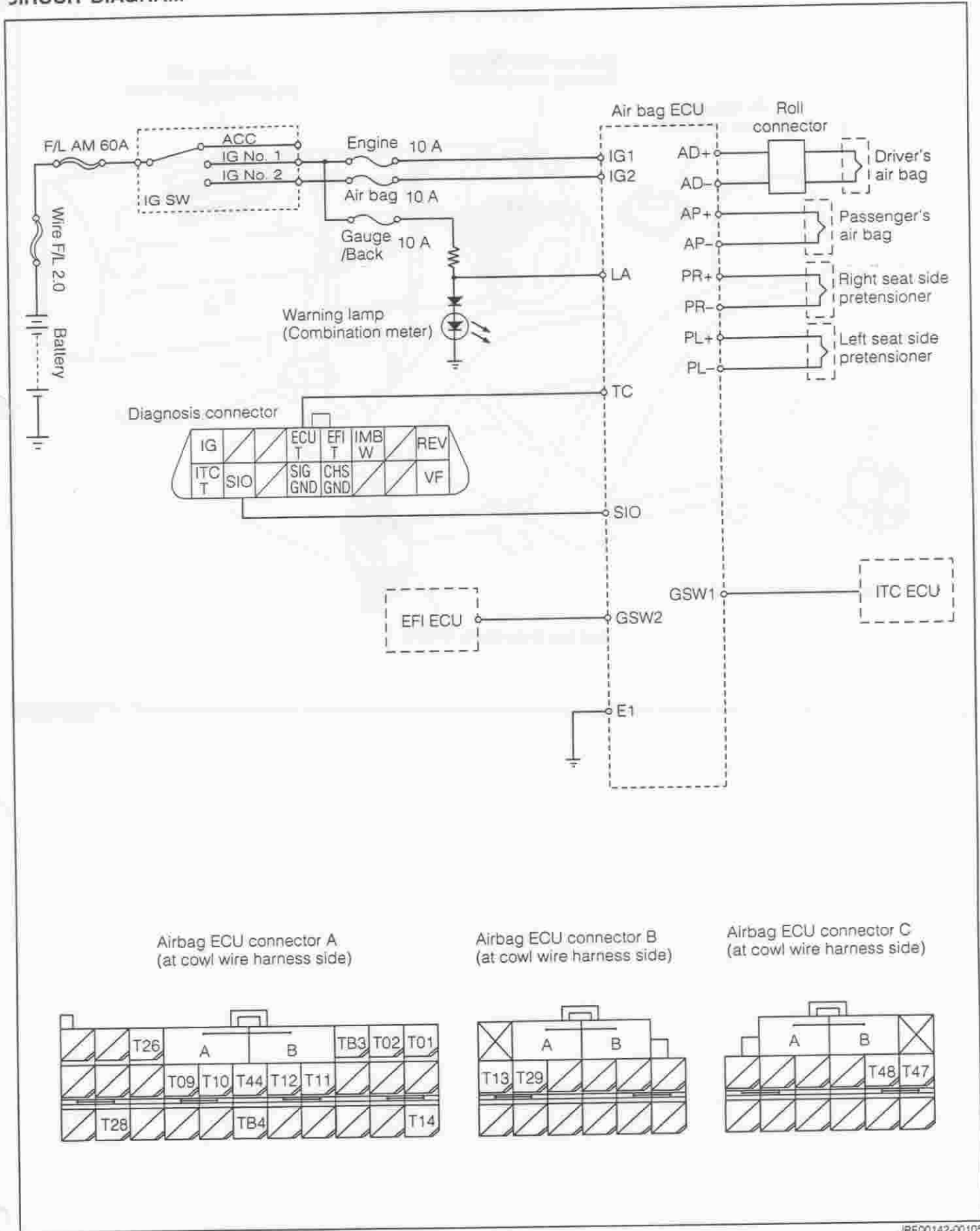
JEE00140-00103

- Also do not use any air bag assembly, seat belt pretensioner device or air bag ECU, which was subjected to water damage or shows signs of being improperly handled, such as dents, cracks and deformation.
- Before scrapping any air bag, seat belt pretensioner device or the vehicle which contains them, they have to be deployed.



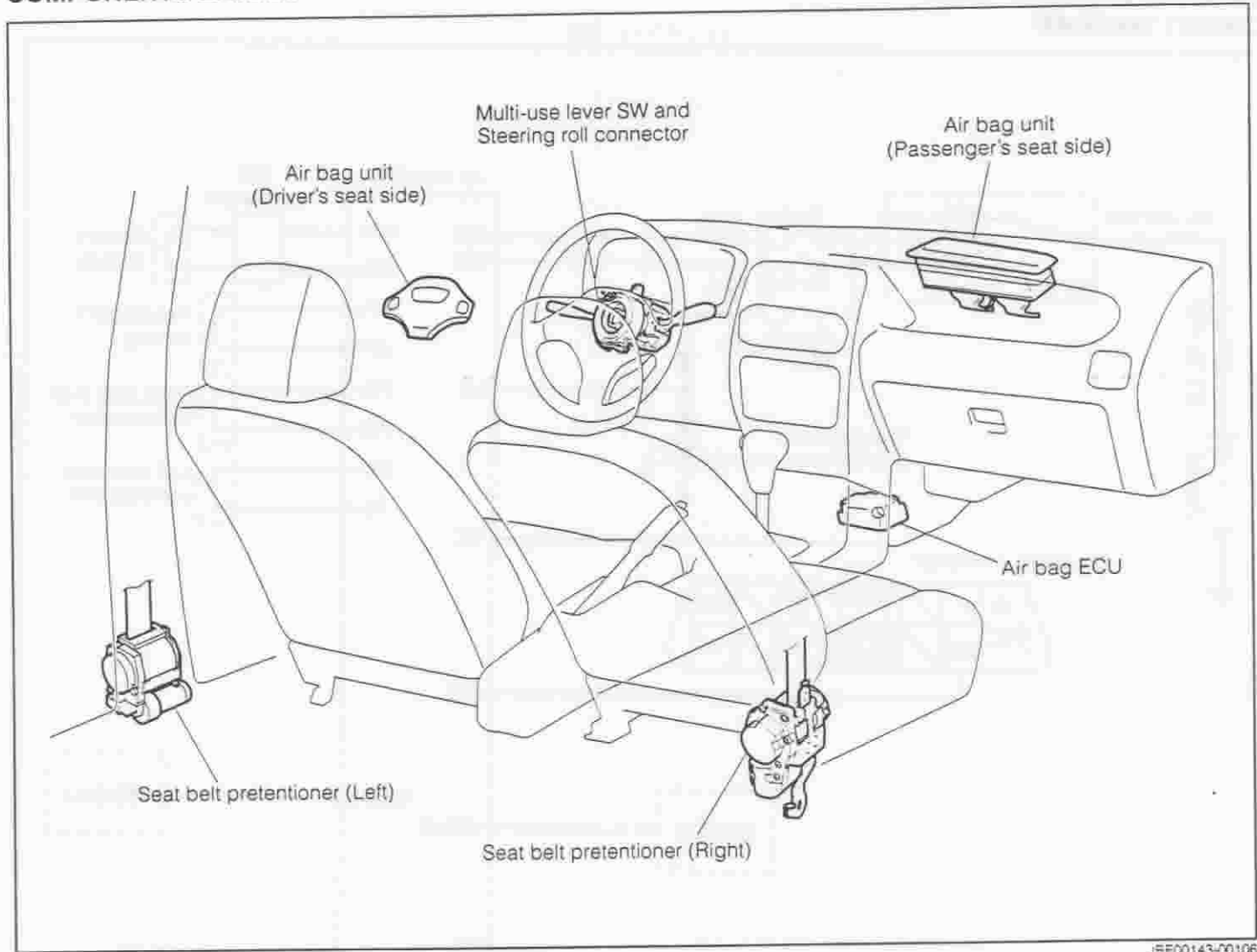
JEE00141-00104

SYSTEM DESCRIPTION
CIRCUIT DIAGRAM



JBE00142-00105

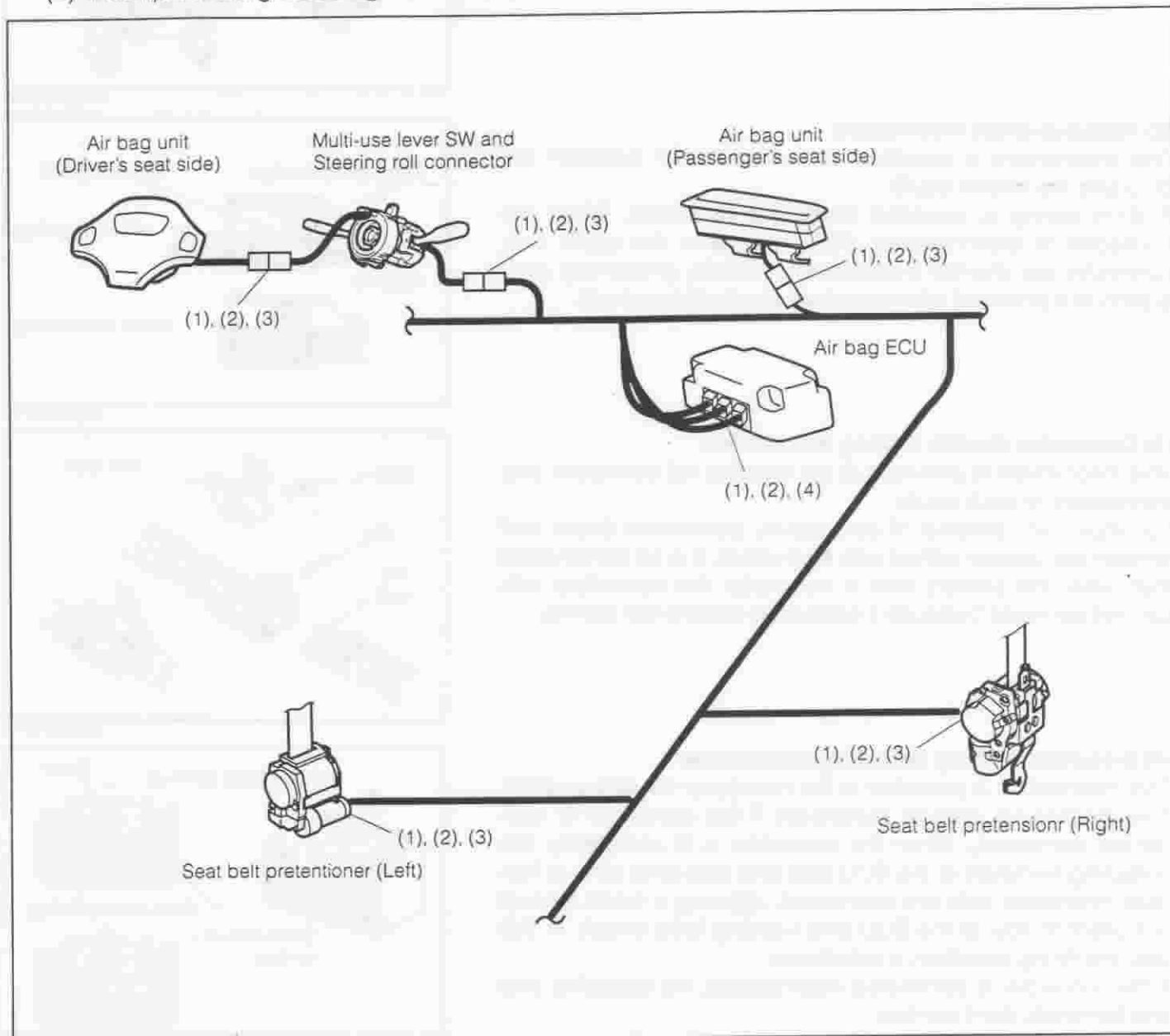
COMPONENTS LAYOUT



WIRING HARNESS CONNECTOR OF AIR BAG SYSTEM

All wire harnesses and connectors related to the side air bag system are colored yellow uniformly. The following sections have connectors with special functions.

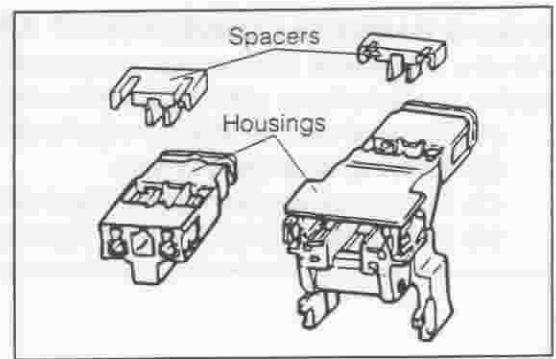
- (1) Terminal double locking mechanism
- (2) Terminal short mechanism
- (3) Connector double locking mechanism
- (4) Incomplete fitting detecting mechanism



JBE00144-00107

(1) Terminal double locking mechanism

This mechanism is provided with all connectors of this system. The connector is of a two-piece construction consisting of a terminal housing and a spacer. The terminal holding is double-locked by the lance in the housing (primary one) and the spacer (secondary one).

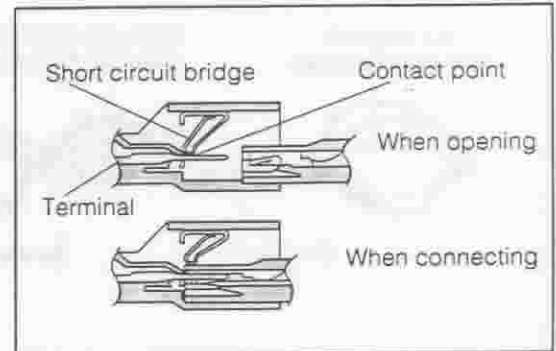


JBE00145-00108

(2) Terminal short mechanism

This mechanism is provided at the connector between the ECU and the inflator squib.

A short spring is provided inside the connector. When the connector is disconnected, the terminals in the squib side connector are shorted automatically, thereby preventing generation of a potential difference between both terminals.

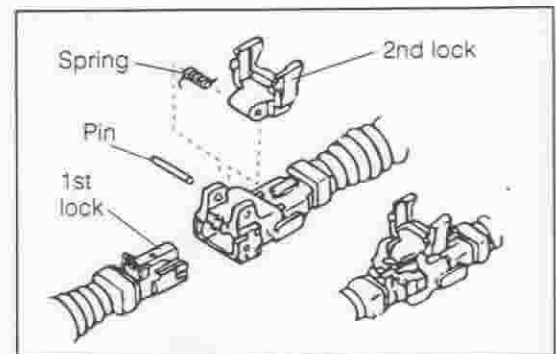


JBE00146-00109

(3) Connector double locking mechanism

This mechanism is provided at the steering roll connector and connectors to each squib.

For improved reliability of connection, connectors (male and female) are double locked with each other. It is so constructed that, when the primary lock is not made, the secondary lock can not be made because a protrusion hinders the locking.

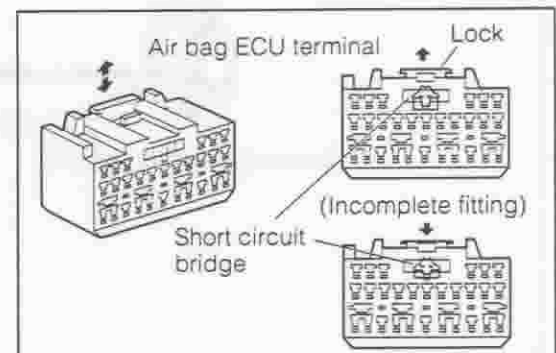


JBE00147-00110

(4) Incomplete fitting detecting mechanism

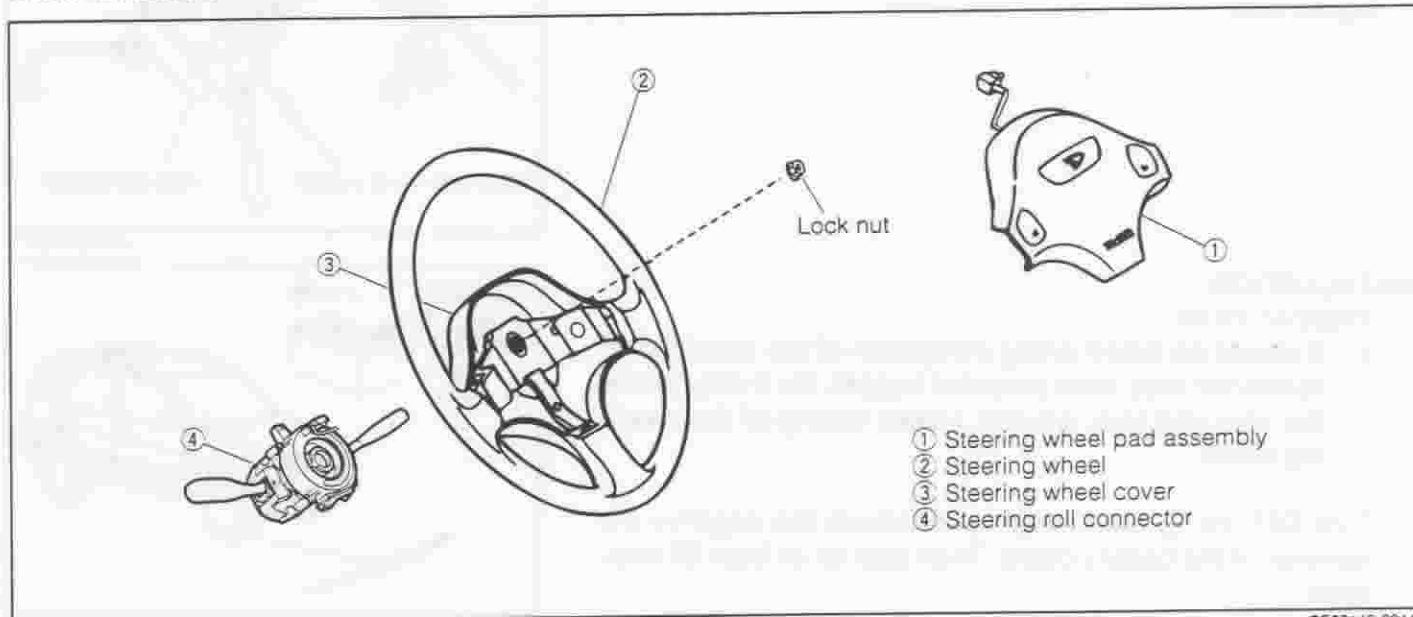
This mechanism is provided at the connector for air bag ECU. This mechanism detects electrically if the connector is connected completely. When the connector is fit completely, the detecting terminals at the ECU side and detecting pins at harness connector side are connected, allowing a small amount of current to flow to the ECU and warning lamp circuit. In this way, the fitting condition is monitored.

If the connector is connected incompletely, the detecting pins and terminals don't contact.



JBE00148-00111

STEERING WHEEL PAD (AIR BAG UNIT FOR THE DRIVER) & STEERING ROLL CONNECTOR COMPONENTS

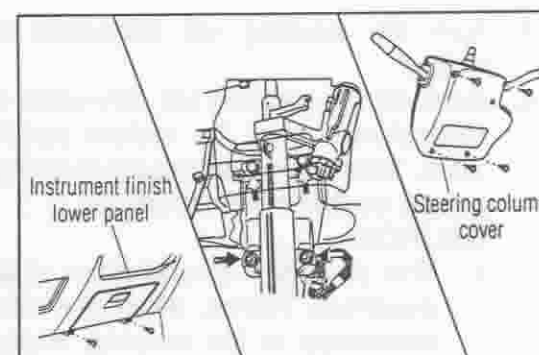
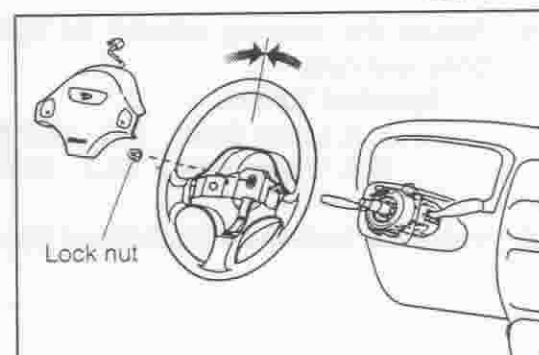
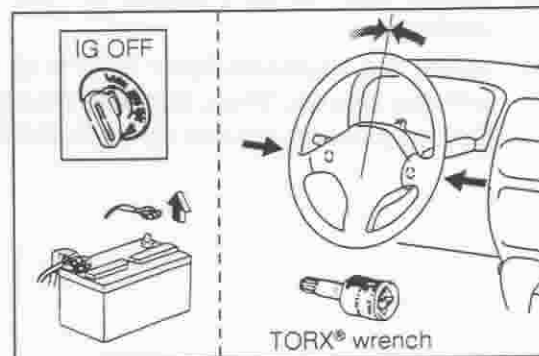


REMOVAL

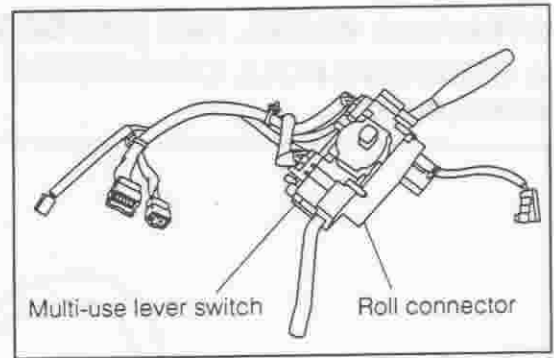
WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Set the steering wheel to a straight-ahead position.
3. Remove the attaching bolts (TORX®) at the right and left sides of the steering wheel cover side.
4. Separate the pad assembly and steering wheel.
5. Disconnect the connector for the air bag and connector for the horn provided at the reverse side of the pad assembly.
6. After each connector is disconnected, remove the pad assembly from the steering wheel.
7. Check the steering wheel to a straight-ahead position.
8. Remove the lock nut of the steering wheel.
9. Remove the steering wheel.
10. Remove the instrument finish lower panel and lower the steering column by temporarily loosening the attaching bolts and nuts.
11. Remove the steering column cover by the removing attaching screws.



12. Disconnect the connectors and detach the wiring harness from the clamp.
13. Remove the multi-use lever switch by removing the attaching screws.

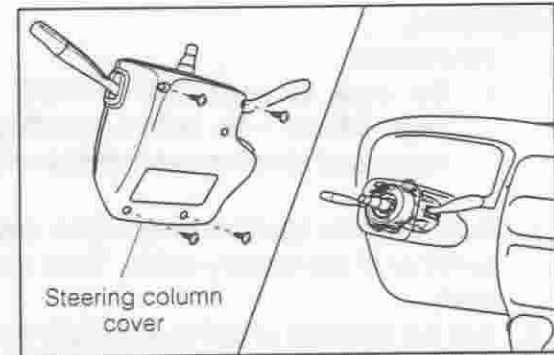
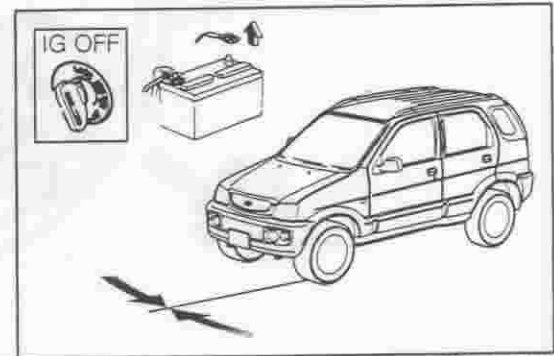


INSTALLATION

PRECAUTION:

- It should be noted wrong installation of the steering roll connector may pose potential hazard, for it may break the wire and also, prevent proper turning of the steering wheel.

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Ensure that the front wheels are set to the straight-ahead position.
3. Install the multi-use lever switch to the steering column with the screws. Then, connect the connectors.
4. Set the steering column cover to the steering column.



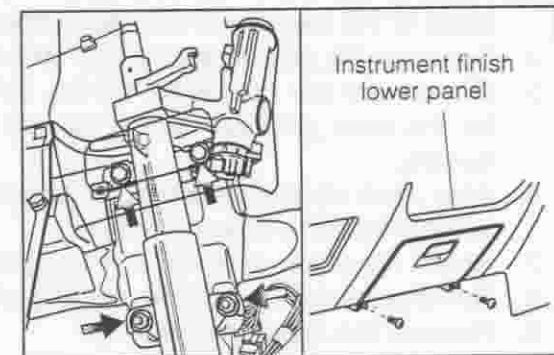
5. Secure the steering column by tightening the attaching bolts and nuts.

Specified Torque:

Nut, Lower Side: 9.8 - 15.7 N·m

Bolt, Upper Side: 14.7 - 21.6 N·m

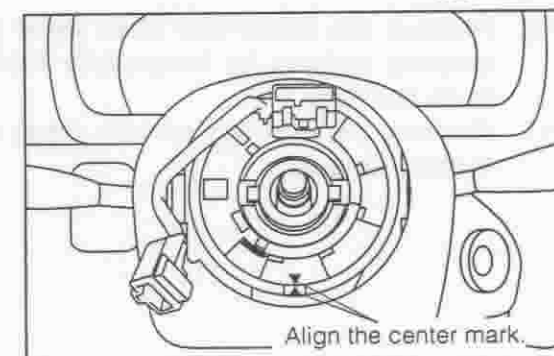
6. Install the instrument finish lower panel.



7. Turn the steering roll connector clockwise, until it is locked.
8. Back off the steering roll connector about 3.0 turns counterclockwise from the locked position. Align the center mark. Temporarily secure the steering roll connector, using a tape, so that it may not move.

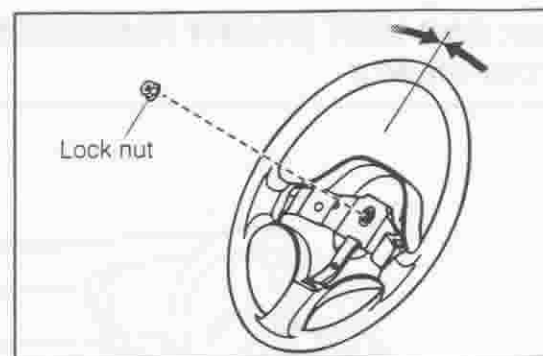
CAUTION:

- The steering roll connector makes five turns at the maximum. Hence, when the steering roll connector is connected to the steering wheel, be sure to set the steering roll connector to the midpoint of the rotation.



9. Install the steering wheel assembly to the steering shaft and tighten the lock nut.

Specified Torque: 34.3 - 53.9 N·m



JBE00158-00121

10. Install the pad assembly

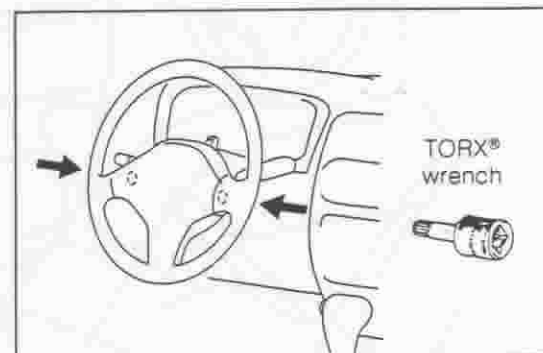
(1) Connect the connector for the air bag and connector for the horn.

(2) Secure the pad assembly to the steering wheel assembly with the TORX® bolt.

Specified Torque: 5.2 - 9.6 N·m

CAUTION:

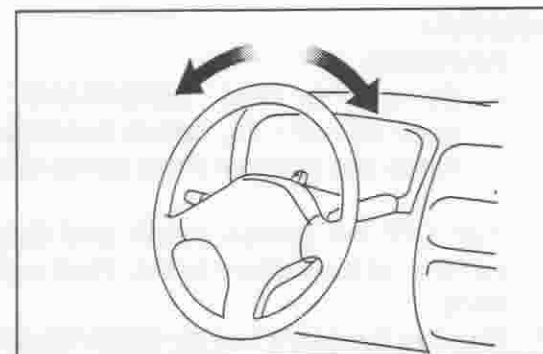
- Make sure that the yellow connector of the airbag circuit is connected securely. Furthermore, make certain to engage the double lock of the connector and set the connector to the connector holder, while sliding it. Utmost care must be exercised during the assembling so that the harness may not interfere with the flange of the steering or ride over it.



JBE00159-00122

CHECK AFTER INSTALLATION

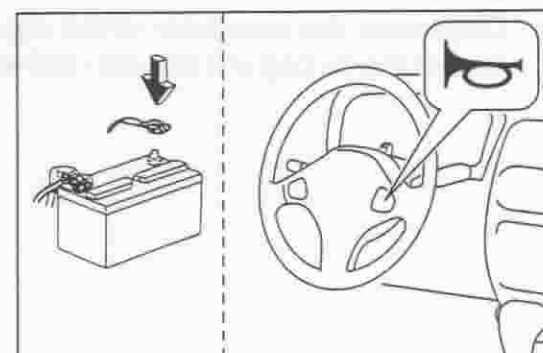
1. Turn the steering wheel to the right and left sides respectively, as far as it will go. Ensure that no malfunction exists.



JBE00160-00123

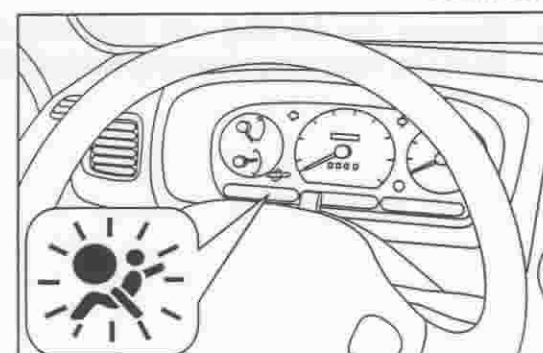
2. Connect the negative (-) terminal of the battery cable to the battery terminal.

3. Ensure that the horn will sound by pushing the horn button.



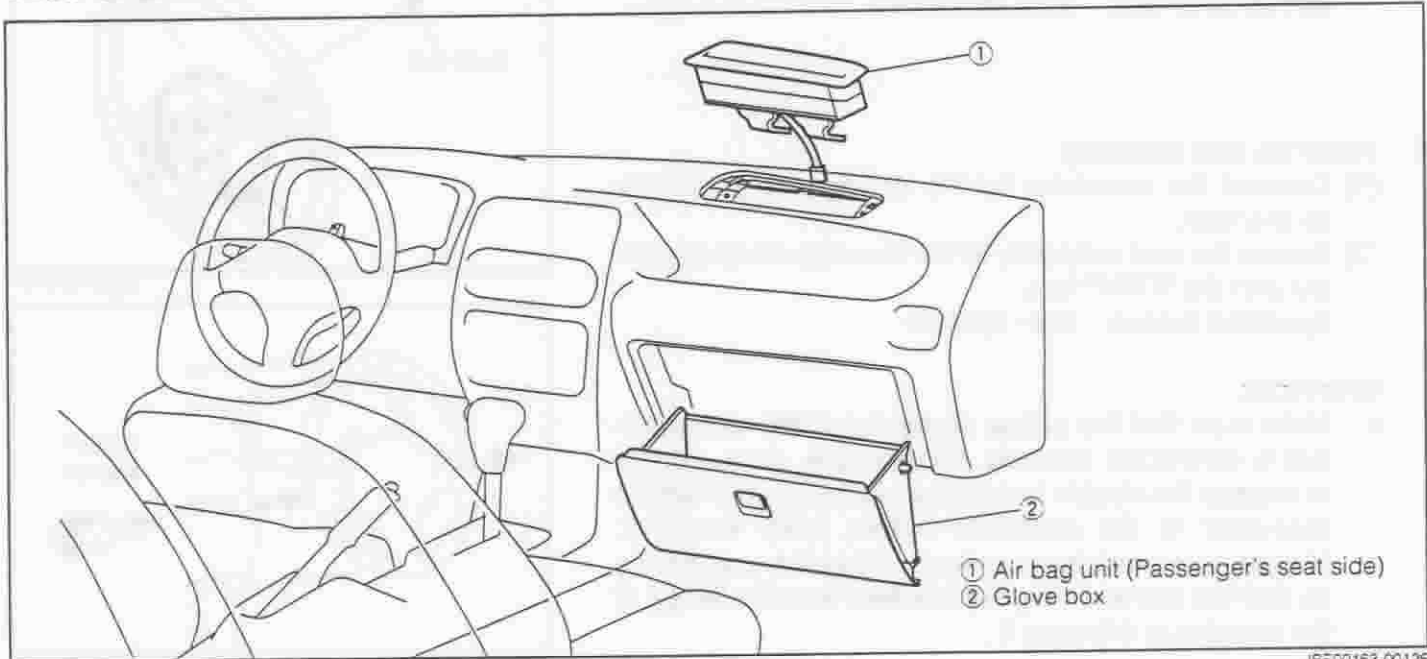
JBE00161-00124

4. Turn ON the ignition switch. Ensure that the air bag warning lamp illuminates for six seconds.



JBE00162-00125

AIR BAG UNIT (FRONT PASSENGER'S SEAT SIDE) COMPONENTS



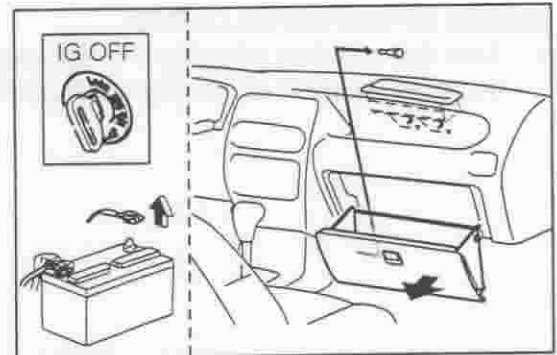
JBE00163-00126

REMOVAL

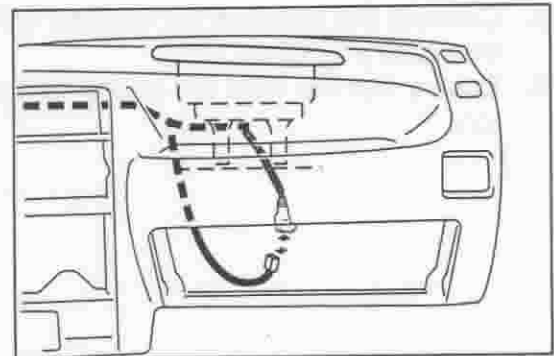
WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

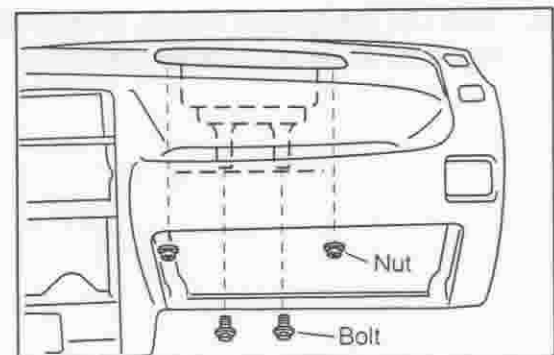
1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Remove the glove box by removing attaching clip.
3. Disconnect the connector which connects the wire harness of the air bag unit and the cowl wire.
4. Remove the air bag unit assembly from the instrument panel by removing attaching bolts and nuts.



JBE00164-00127



JBE00165-00128



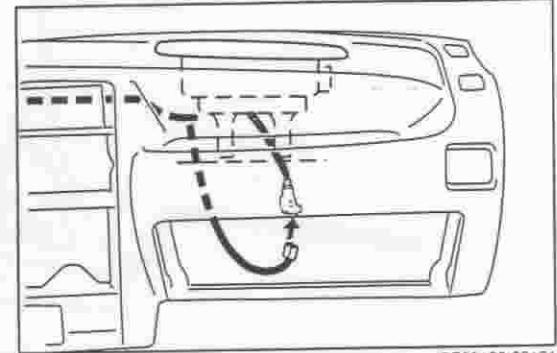
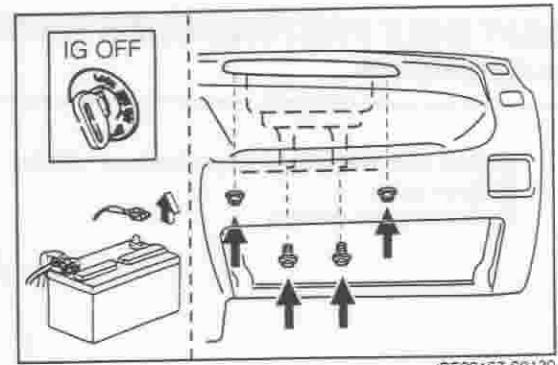
JBE00166-00129

INSTALLATION

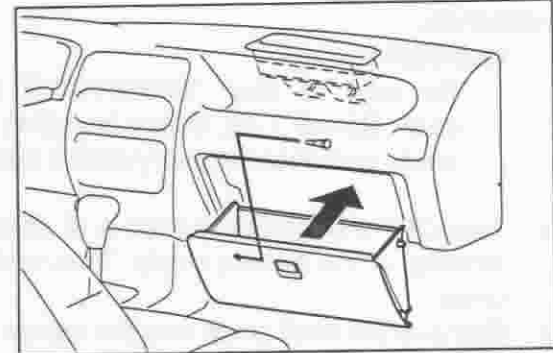
WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Install the air bag unit to the instrument panel and tighten the bolts and nuts.
 Specified Torque for the Bolt: 6.7 - 9.5 N·m
 Specified Torque for the Nut: 6.7 - 9.5 N·m
3. Connect the connector.

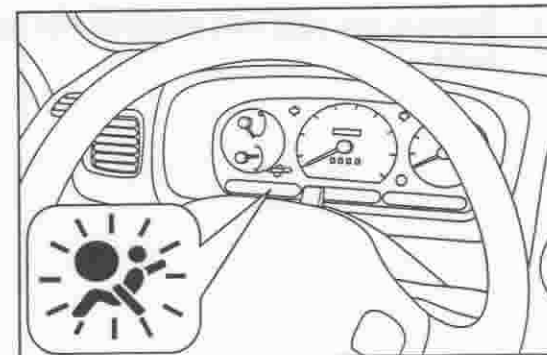
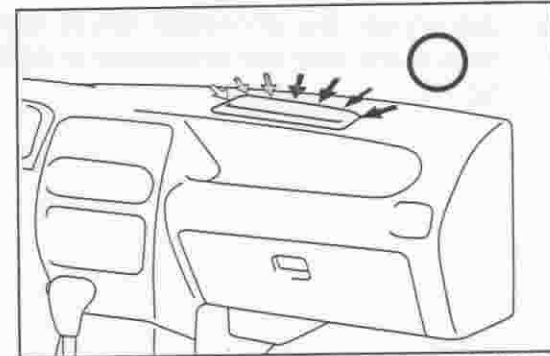


4. Install the glove box.

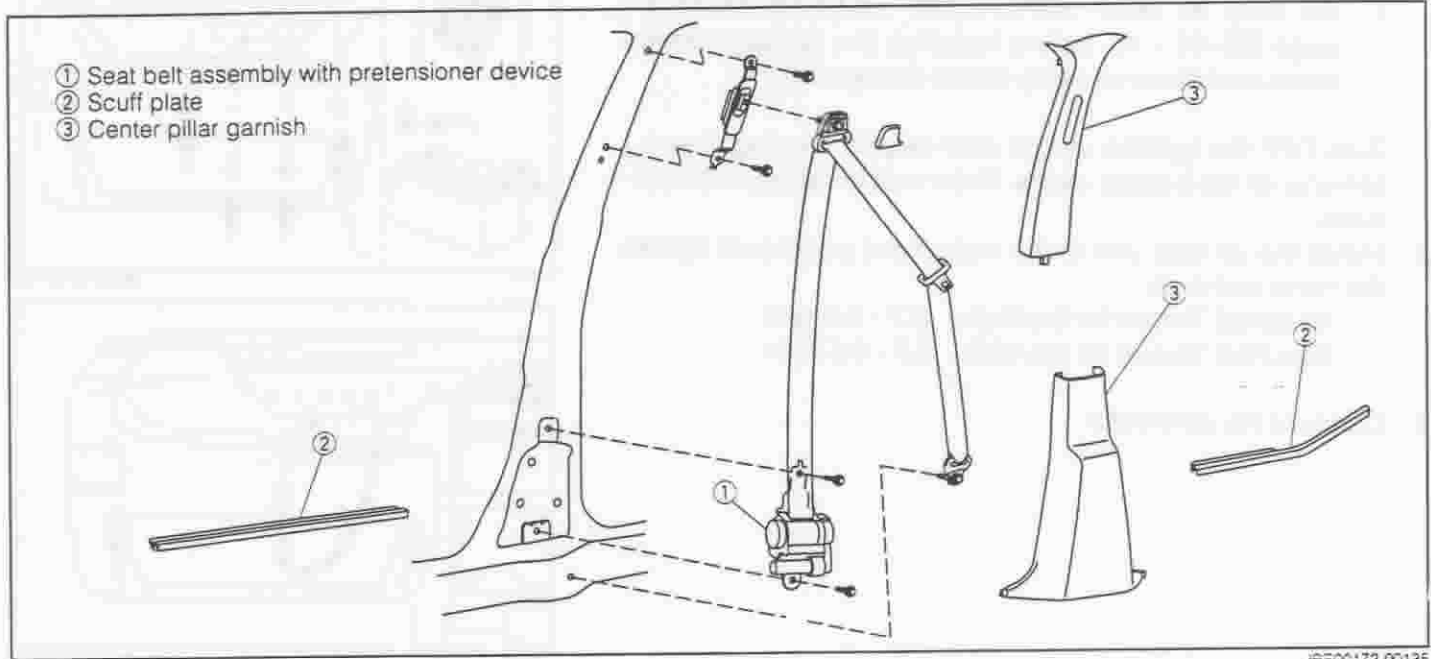


CHECK AFTER INSTALLATION

1. Ensure that the pad of the air bag unit fits properly to the instrument panel.
2. Connect the negative (-) terminal of the battery cable to the battery terminal.
3. Turn ON the ignition switch. Ensure that the air bag warning lamp illuminates for six seconds.



SEAT BELT PRETENSIONER DEVICE COMPONENTS

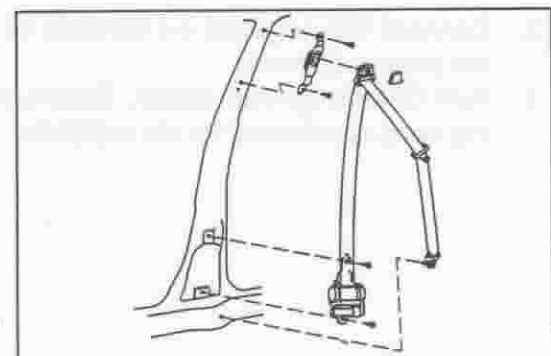
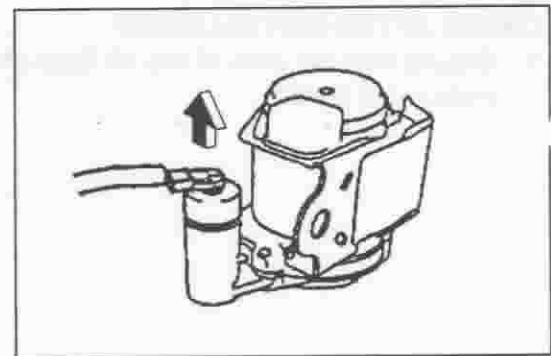
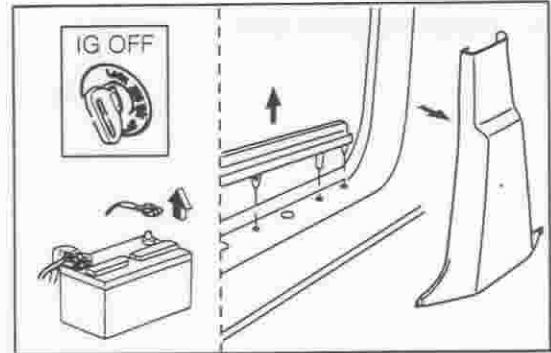


REMOVAL

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Remove the scuff plate and the center pillar garnish.
3. Disconnect the connector which connects the wire harness of the seat belt pretensioner device and the floor wire No. 1.
4. Remove the seat belt pretensioner by removing attaching bolts.



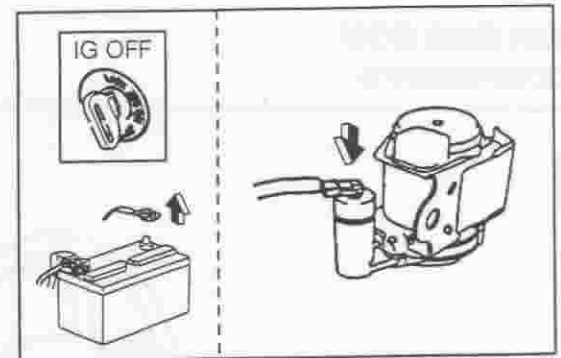
INSTALLATION**WARNING:**

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

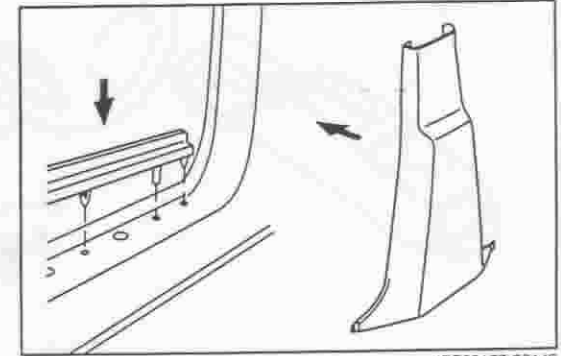
1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Install the seat belt pretensioner.
3. Connect the connector.
4. Install the center pillar garnish and the scuff plate.

NOTE:

- As regards the installation procedures of garnish and scuff plate, refer to BO section of the service manual.



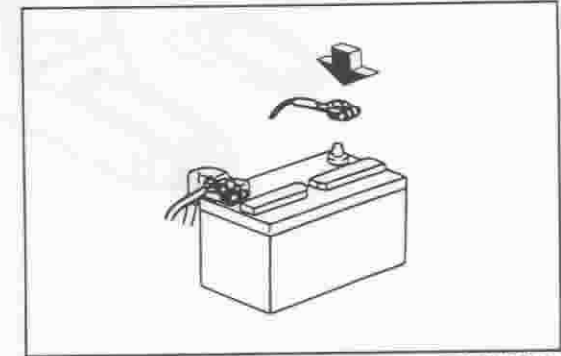
JBE00176-00139



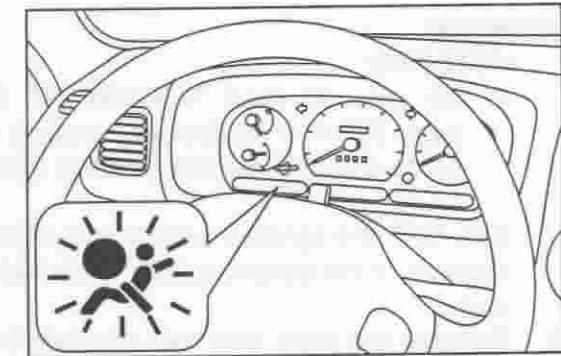
JBE00177-00140

CHECK AFTER INSTALLATION

1. Connect the negative (-) terminal of the battery cable to the battery terminal.
2. Turn ON the ignition switch. Ensure that the air bag warning lamp illuminates for six seconds.

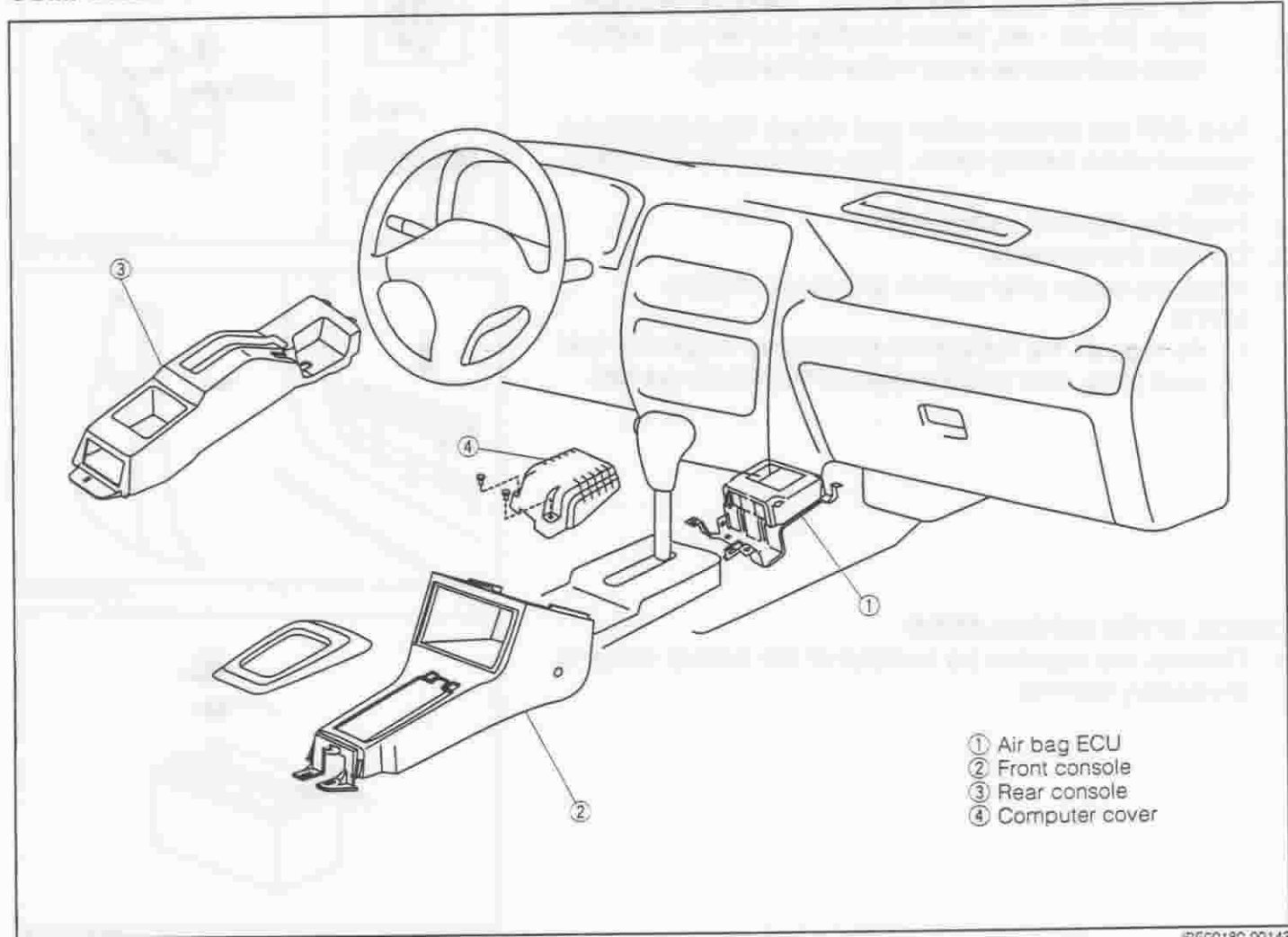


JBE00178-00141



JBE00179-00142

AIR BAG ECU COMPONENTS



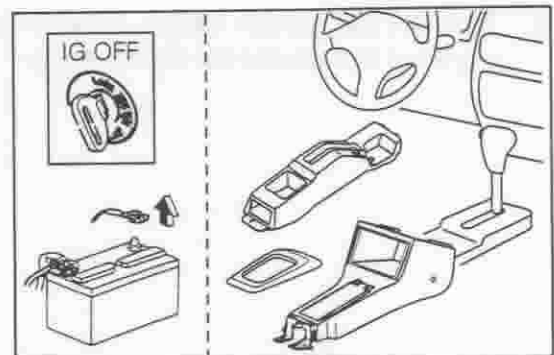
JBEC0180-00143

REMOVAL

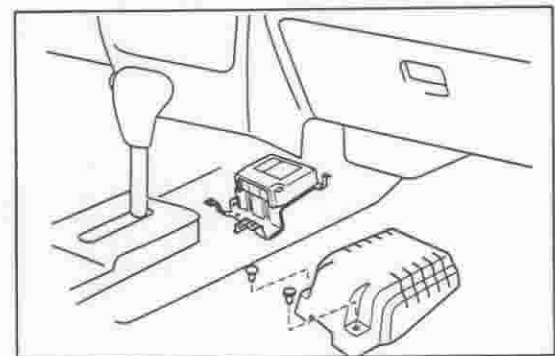
WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Remove the front and rear console box by removing attaching screws.
3. Remove the computer cover.



JBEC0181-00144

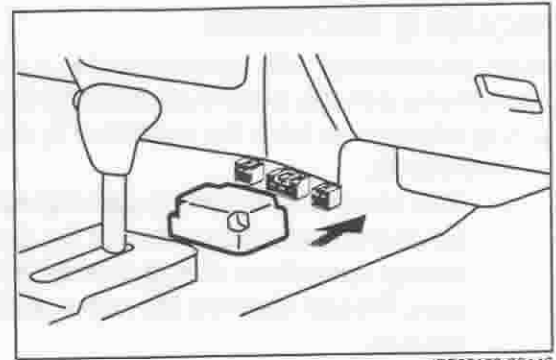


JBEC0182-00145

4. Disconnect the connector from the air bag ECU.
5. Remove the air bag ECU by removing attaching bolts.

NOTE:

- Before removing the ECU, ensure that the connector is disconnected in advance.



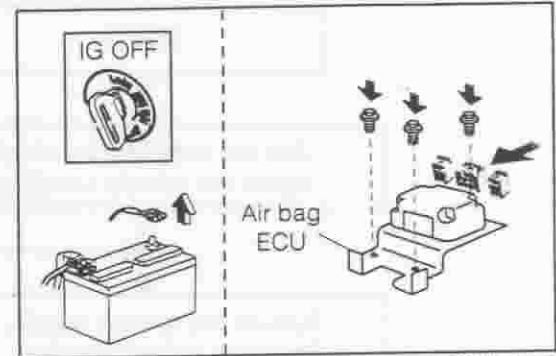
JBE00183-00146

INSTALLATION

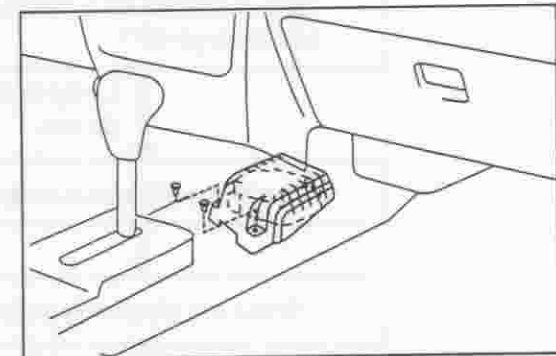
WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Install the air bag ECU.
3. Connect the connector.
4. Install the computer cover.

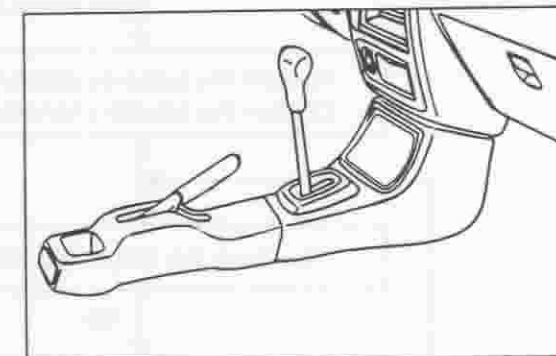


JBE00184-00147



JBE00185-00148

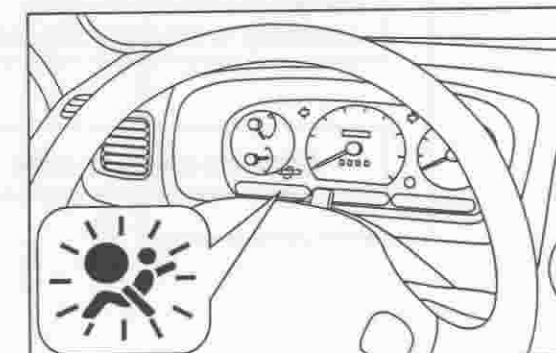
5. Install the console panel.



JBE00186-00149

CHECK AFTER INSTALLATION

1. Connect the negative (-) terminal of the battery cable to the battery terminal.
2. Turn ON the ignition switch. Ensure that the air bag warning lamp illuminates for six seconds.



JBE00187-00150

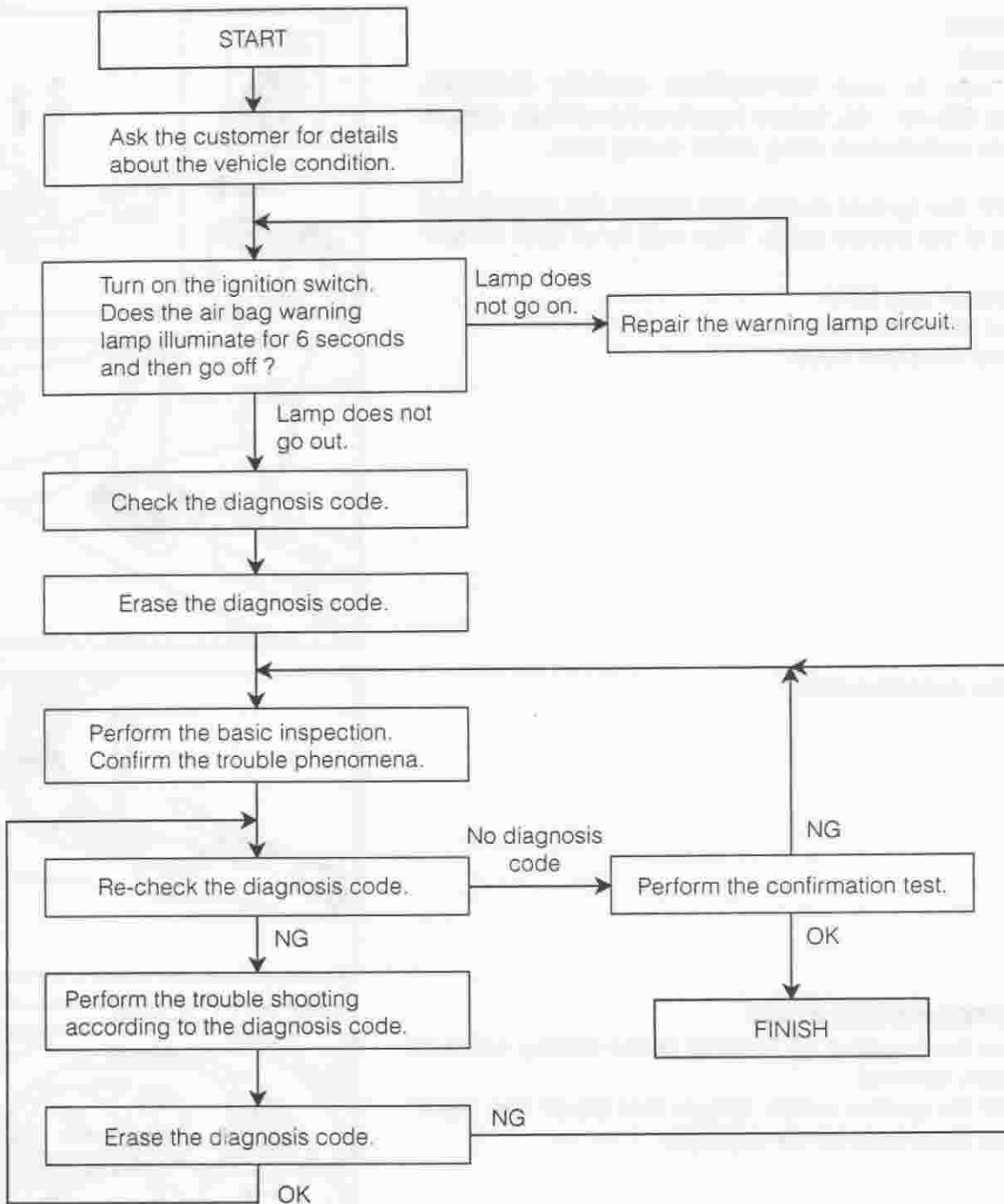
TROUBLE SHOOTING

When proceeding with operations for a malfunctioning vehicle, it is imperative to confirm the malfunction phenomena actually before pinpointing the causes. In order to reproduce the malfunction phenomena, collecting information from the customer is of great importance.

WARNING:

- The aforesaid describes general notes. In the air bag system, there are some cases where the malfunction phenomena can not be reproduced due to the characteristics of the system. Therefore, any wrong operations during checks and repairs may cause the air bag to function accidentally and deploy. Please observe the notes and perform the operations according to the instructions given in the manual.

JBE00188-00000



JBE00189-00000

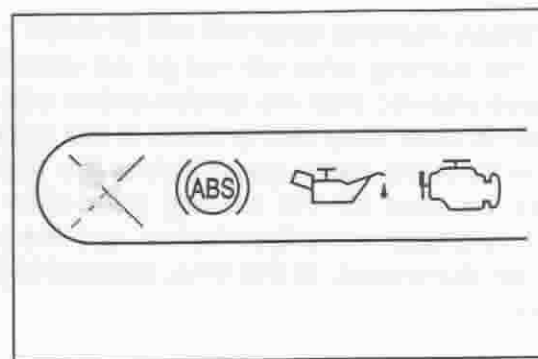
ABNORMAL ILLUMINATION OF WARNING LAMP**<When warning lamp will not go on:>**

If the warning lamp will not go on when the ignition switch is turned on, check the following items.

1. Battery for defects or insufficient charge
2. Battery cable for poor connection
3. ECU IG fuse for open wire (at junction block)
4. Warning lamp LED for being burnt out
5. Wire harness between air bag warning lamp and air bag ECU for abnormality

NOTE:

- When the gauge fuse has blown, other warning lamps will not go on.
- If the cowl harness has open wire between the gauge fuse and the combination meter, other warning lamps also will not go on.



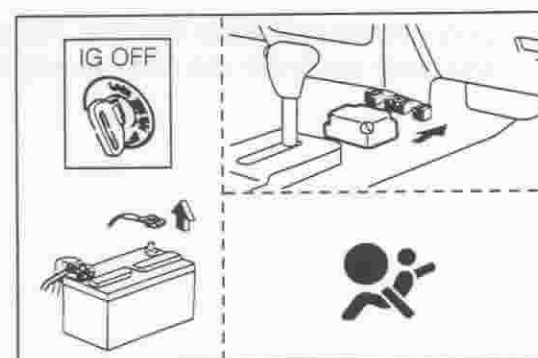
JBE00190-00151

Check of wire harness

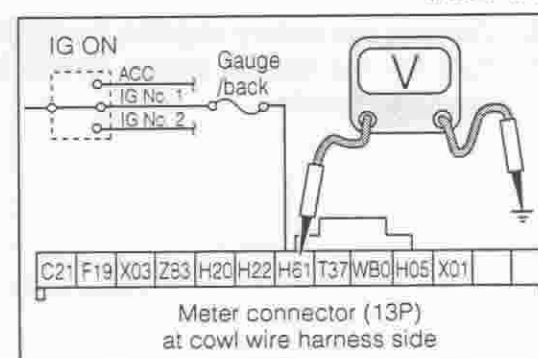
1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Remove the front and rear console box.
3. Remove the computer cover.
4. Disconnect the connector from the air bag ECU.
5. Connect the battery negative (-) cable.
6. Turn ON the ignition switch. Check to see if the warning lamp goes on.

NOTE:

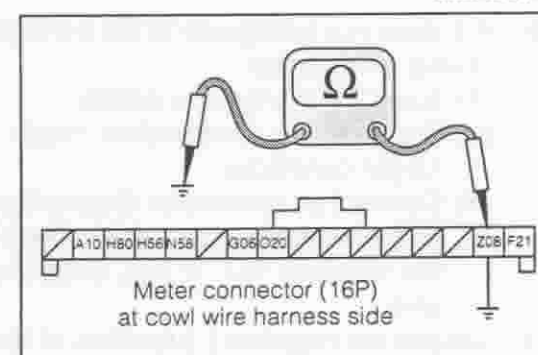
- When there is open wire between the warning lamp circuit inside the combination meter and the air bag ECU, the warning lamp goes on.
7. If the warning lamp will not go on in the condition 6, perform the following procedures.
 - (1) Remove the combination meter and disconnect the 13-pin connector.
 - (2) Connect a voltmeter. Ensure that the battery voltage exists between the terminal H61 at the cowl wire harness connector side and the body earth. If not, check and replace the cowl wire.
 - (3) Disconnect the 16-pin connector.
 - (4) Connect an ohmmeter. Ensure that continuity exists between the terminal Z08 at the cowl wire harness connector side and body earth. If no continuity exists, check and replace the cowl wire.
 8. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable.



JBE00191-00152



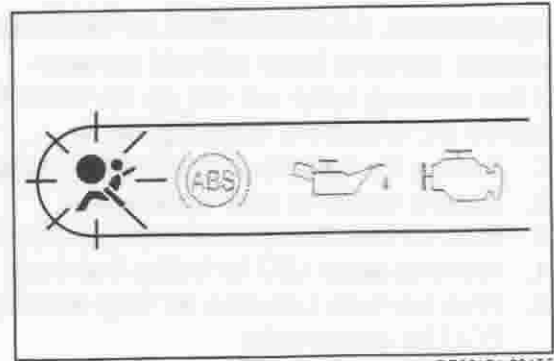
JBE00192-00153



JBE00193-00154

<When warning lamp will not go out:>

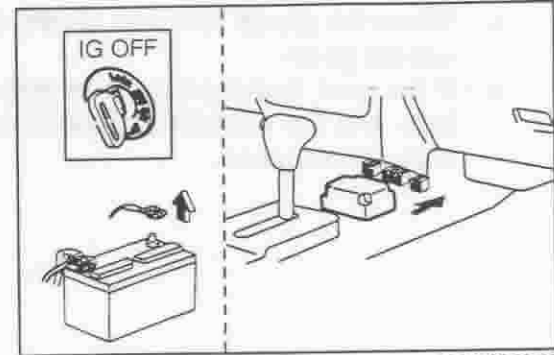
If the warning lamp will not go out even if about six seconds have elapsed after the ignition switch was turned on, malfunction is most likely taking place in the system. However, as for the following items given below, the malfunction codes can not be read by the reading procedure for the malfunction code already described before, and the warning lamp will remain illuminated. At this time, proceed to the following inspection.



JBE00194-00155

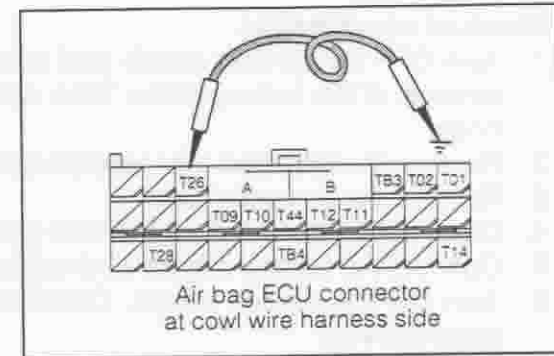
Check of wire harness

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Remove the front and rear console box by removing attaching screws.
3. Remove the computer cover.
4. Disconnect the connector from the air bag ECU.



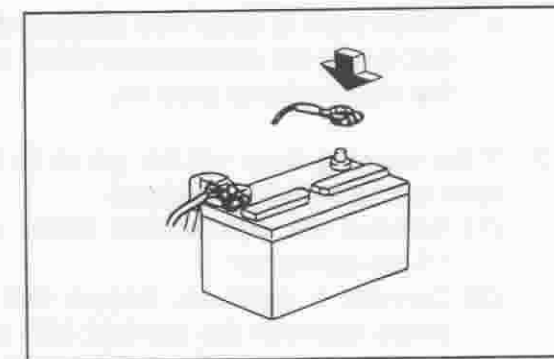
JBE00195-00156

5. Connect the connector terminal T26 at the cowl wire side and body earth with the jump wire to short them.



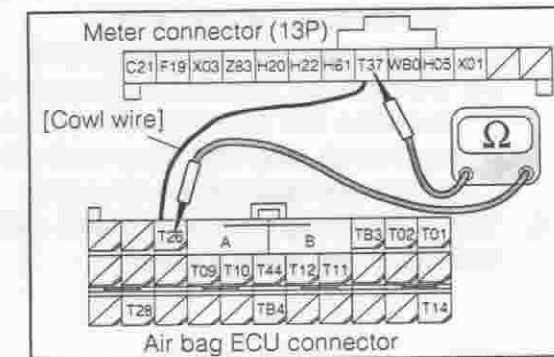
JBE00196-00157

6. Connect the battery negative (-) cable.
7. Turn ON the ignition switch. Check to see if the warning lamp extinguishes.



JBE00197-00158

8. If it does not extinguish in the condition 7, perform the following procedures.
 - (1) Turn OFF the ignition switch.
 - (2) Remove the combination meter and disconnect the 13-pin connector.
 - (3) Connect an ohmmeter. Ensure that the continuity exists at the cowl wire harness between the terminal T26 and the terminal T37. If not, check and replace the cowl wire.
9. Detach the negative (-) terminal of the battery cable.



JBE00198-00159

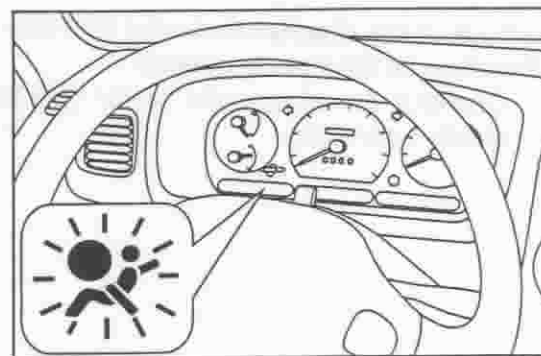
DIAGNOSIS CHECK**Method using check lamp****<Confirmation procedure for diagnosis codes>**

1. Turn ON the ignition switch.
2. If the air bag warning lamp goes on for six seconds and goes out afterward, the system is functioning properly.

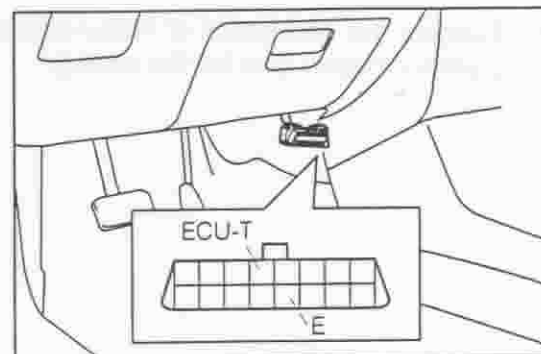
NOTE:

- If the lamp will not go on at this time, refer to page BE-61.

3. If the warning lamp keeps illuminated for more than six seconds, it means a certain system malfunctioning is being detected. Proceed to the following operations.
4. Connect the test terminal (ECU-T) and the earth terminal (E) with a jump wire.
5. Confirm the diagnosis code by reading the number of flashing of the combination lamp.



JBE00199-00163



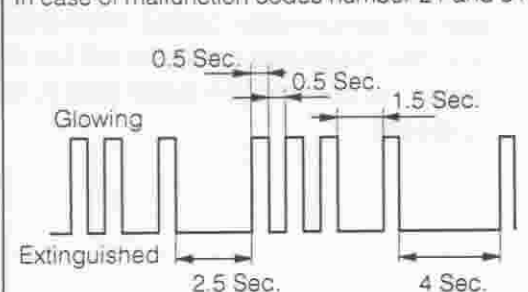
JBE00200-00163

<Reading of diagnosis codes>

When two or more malfunction codes are outputted, the codes are indicated in the sequence of the code numbers, starting from a smaller number, with a four-second distinguished period interposed between codes.

After a lapse of four seconds, the malfunction codes are indicated by the repetition of a 0.5-second glowing period and a 0.5-second extinguished period. If the code is a two-digit number, the 1.5-second extinguished period is interposed between the units digit and the tens digit.

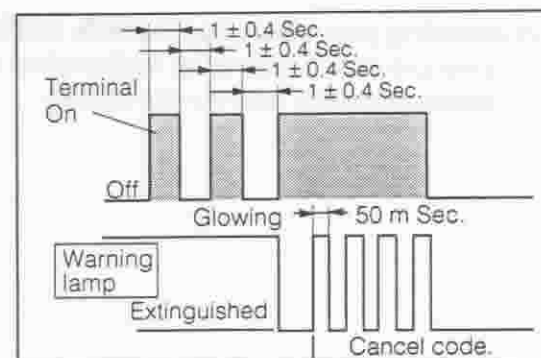
In case of malfunction codes number 21 and 31



JBE00201-00162

<Canceling procedure for records of diagnosis codes>

1. The diagnosis codes can be canceled by connecting repeatedly the test terminal (ECU-T) with the earth terminal (E) at the intervals shown in the figure.

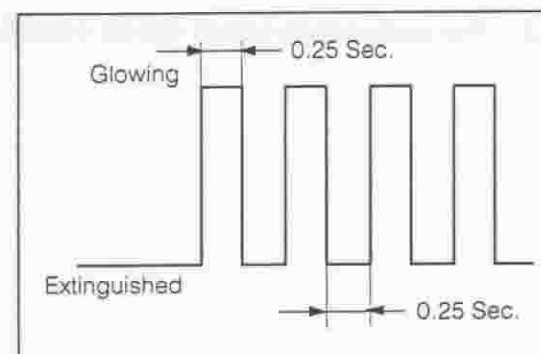


JBE00202-00163

2. When the malfunction has been remedied and the system has resumed, the normal code shown in the figure is indicated.

NOTE:

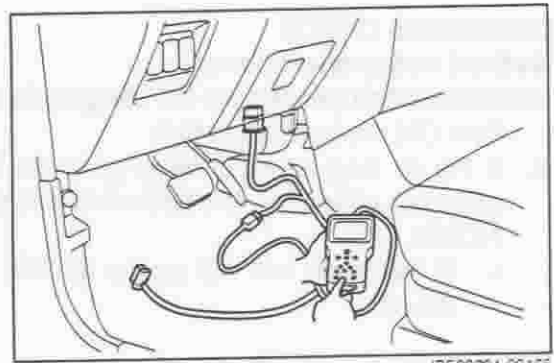
- The cancellation procedure for the malfunction record can not be applied to the cancellation of the record of the malfunction for the ECU internal circuit. (Diagnosis code numbers 31)



JBE00203-00164

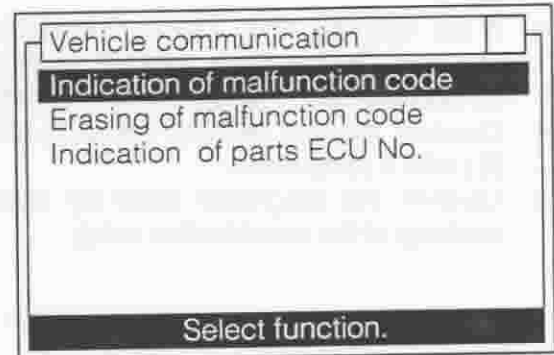
Method using diagnostic tester (DS-21)**<Reading of diagnosis codes>**

1. Connect the diagnostic tester (DS-21) to the diagnosis check connector.



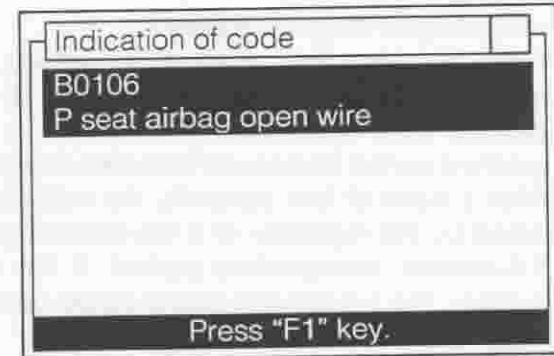
JBE00204-00165

2. Execute the "Indication of malfunction code" of the vehicle communication item for the airbag.



JBE00205-00166

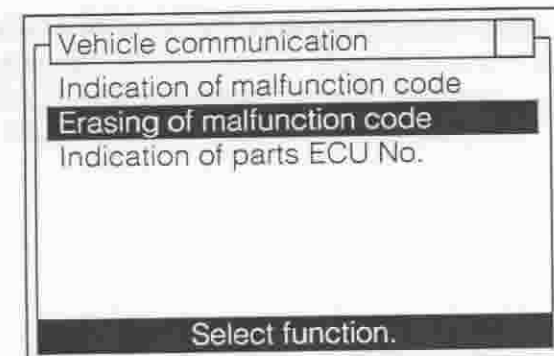
3. In cases where any malfunction code is present, the number of abnormality codes memorized in the airbag ECU and the diagnosis contents will be indicated. When no malfunction code exists, a message "Not found" appears.



JBE00206-00167

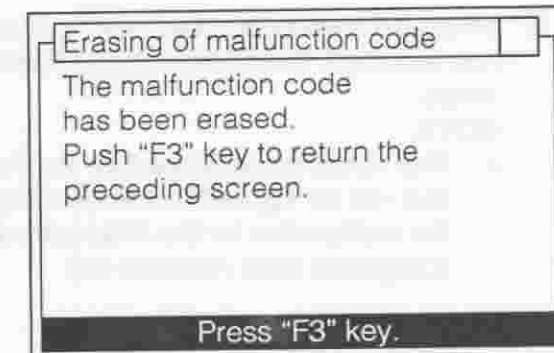
<Canceling procedure for records of diagnosis codes>

1. Execute the "Erasing of malfunction code" of the vehicle communication item for the airbag.



JBE00207-00168

2. The malfunction codes will be erased.



JBE00208-00169

LIST OF MALFUNCTION CODES

Diagnosis code DS-21	Diagnosis code Warning lamp	Diagnosis items	Refer to page
B0102	11	Earth short of squib system of airbag at driver's seat	BE-66
B0103	12	Power supply short of squib system of airbag at driver's seat	BE-67
B0100	13	Shorted between wires of squib system of airbag at driver's seat	BE-69
B0101	14	Open wire of squib system of air bag at driver's seat	BE-68
B0119	29	Abnormality of open wire of IG1	BE-70
B0120		Abnormality of open wire of IG2	BE-70
B1100	31	Airbag ECU faulty	BE-84
B0107	51	Earth short of squib system of airbag at passenger seat	BE-72
B0108	52	Power supply short of squib system of airbag at passenger seat	BE-73
B0105	53	Shorted between wires of squib system of airbag at passenger seat	BE-75
B0106	54	Open wire of squib system of airbag at passenger seat	BE-74
B0132	61	Earth short of squib system of right pretensioner	BE-76
B0133	62	Power supply short of squib system of right pretensioner	BE-77
B0130	63	Shorted between wires of squib system of right pretensioner	BE-78
B0131	64	Open wire of squib system of right pretensioner	BE-79
B0137	71	Earth short of squib system of left pretensioner	BE-80
B0138	72	Power supply short of squib system of left pretensioner	BE-81
B0135	73	Shorted between wires of squib system of left pretensioner	BE-82
B0136	74	Open wire of squib system of left pretensioner	BE-83
B1310	91	Airbag already deployed (Deployed due to G input in collision)	BE-84
B1311	92	Airbag already deployed (Deployed by disposal tool)	BE-84
B1312	93	Fuel cut signal already outputted	BE-84
B1300	21	Battery voltage dropped	BE-70
B1301	22	Open wire of IG1, voltage dropped	BE-70
B1302	23	Open wire of IG2, voltage dropped	BE-70
B1303	24	W/L faulty	BE-71
B1304	25	Abnormal number of squibs	BE-85
B1305	26	Abnormal output line of fuel cut sensor	BE-85
B1306	26	Abnormal output line of door lock releasing sensor	BE-86

CAUTION:

- After carrying out the trouble shooting according to diagnosis codes, cancel the diagnosis codes by following the code canceling method described at page BE-63.
- Even though the malfunction has been remedied, the code is not canceled automatically.

JBEC0209-00000

DS-21 on screen	Check lamp indication
DTC No. B0102	Code No. 11

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

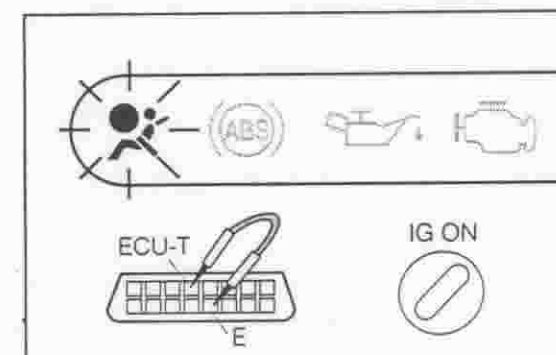
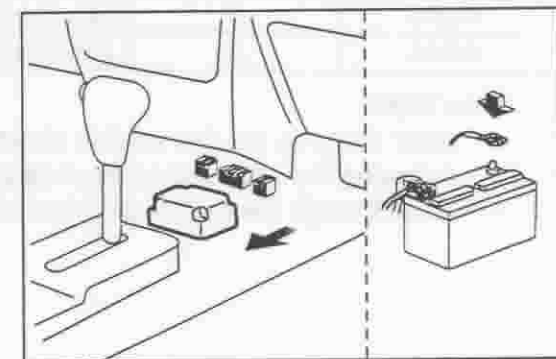
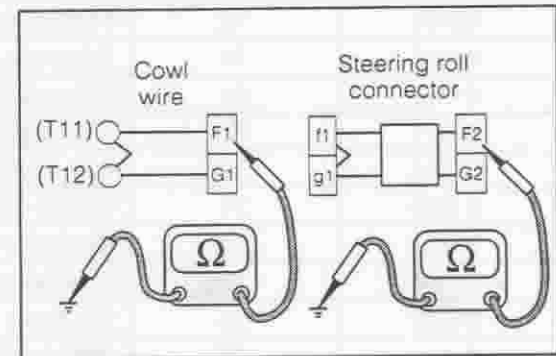
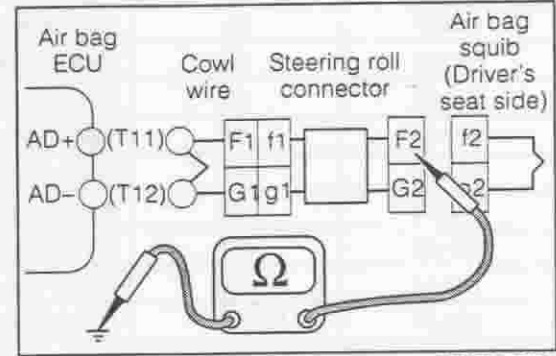
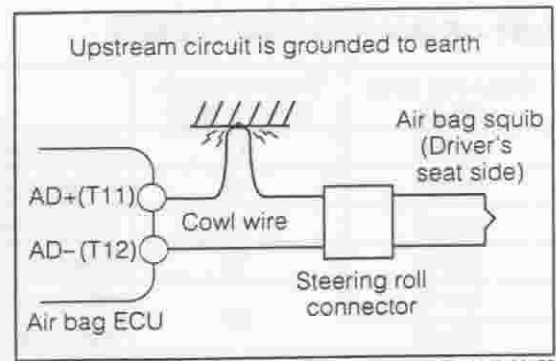
NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Remove the steering pad assembly (air bag unit) from the steering wheel.
4. Disconnect the pad assembly connector from the roll connector.
5. Ensure that the no continuity exists between the roll connector terminal and the body earth.
 - Between Terminal F2 and Body Earth:
No continuity exists.
 - Between Terminal G2 and Body Earth:
No continuity exists.
6. If the terminal is shorted with the body earth, it is necessary to know whether the faulty point is attributable to the inside of the roll connector. To this end, disconnect the coupling connector of the roll connector and the wire cowl. Then, perform check with a circuit tester. If a short circuit is found, replace the faulty part with a new one.
7. Connect the connector at the vehicle wire harness side and the air bag ECU connector.
8. Connect the battery negative (-) cable.
9. Turn ON the ignition switch and take a reading of the diagnosis code.

10. After the inspection and installation, cancel the diagnosis code and confirm that the code 11 is not outputted any more.



DS-21 on screen	Check lamp indication
DTC No. B0103	Code No. 12

WARNING:

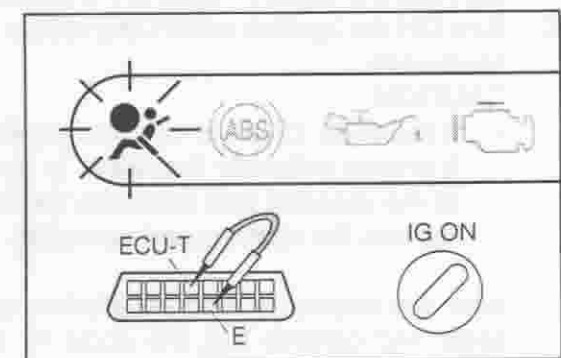
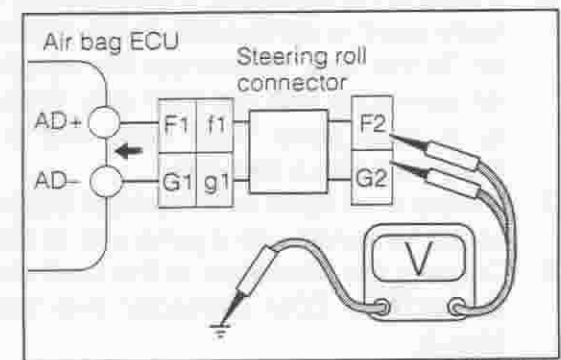
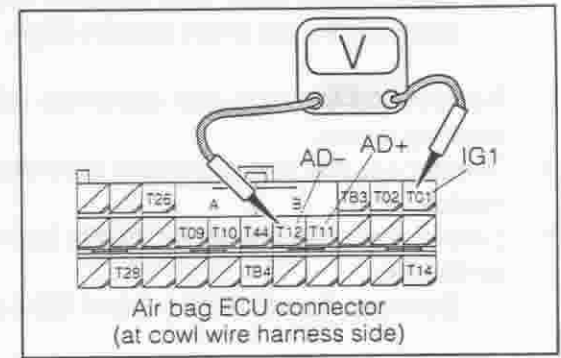
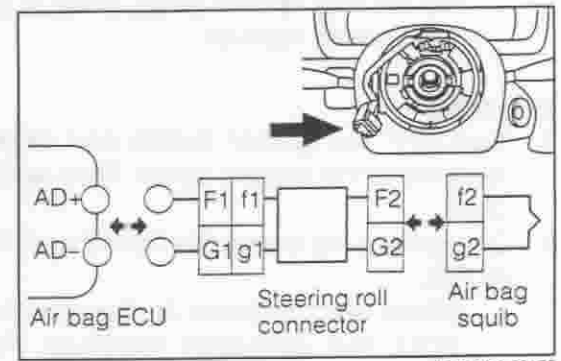
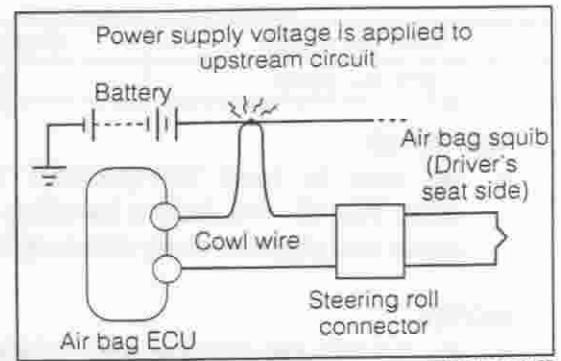
- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.
- When this code is indicated, the air bag system may operate as soon as the safing sensor at the ECU is turned on. Hence, if this code is indicated, immediately turn off the ignition key switch and proceed to the following steps.

Explosion-preventive measure

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Remove the steering pad assembly (air bag unit) from the steering wheel.
4. Disconnect the pad assembly connector from the roll connector.

Inspection

1. Connect the battery negative (-) cable.
2. Connect the voltmeter to the vehicle wire harness side terminals. Then, turn on the ignition switch.
 - Between Terminal T11 (AD+) and T01 (IG1):
No voltage exists.
 - Between Terminal T12 (AD-) and T01 (IG1):
No voltage exists.
3. Turn OFF the ignition switch.
4. Connect the connector at the vehicle wire harness side and the air bag ECU connector.
5. Connect the voltmeter between the roll connector terminal and body earth.
6. Turn ON the ignition switch. Ensure that no voltage exists between the terminal and body earth.
 - Between Terminal F2 and Body Earth:
No voltage exists.
 - Between Terminal G2 and Body Earth:
No voltage exists.
7. After the inspection and installation, cancel the diagnosis code and confirm that the code 12 is not outputted any more.



DS-21 on screen	Check lamp indication
DTC No. B0101	Code No. 14

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.

NOTE:

- When the connector is disconnected from the air bag ECU, the connector terminals T11 (AD+) and T12 (AD-) at the cowl wire harness side are shorted automatically by the short circuit bridge.

3. Remove the steering pad assembly (air bag unit) from the steering wheel.
4. Disconnect the pad assembly connector from the roll connector.
5. Ensure that the continuity exists between the respective terminals.

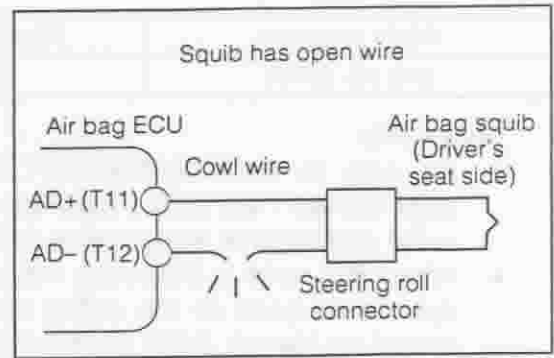
Between Terminal F2 (+) and G2 (-): Continuity exists.

6. If there is no continuity, it is necessary to know whether the faulty point is attributable to the inside of the roll connector. To this end, disconnect the coupling connector of the roll connector and the cowl wire. Then, check the continuity of each parts. If an open wire is found, replace the faulty part with a new one.
7. If there is no open wire, connect both ends of the roll connector terminals with a jump wire to short them.
8. Connect the connector at the cowl wire harness side and the air bag ECU connector that were disconnected at Step 2.
9. Connect the battery negative (-) cable.
10. Turn ON the ignition switch and take a reading of the diagnosis code.

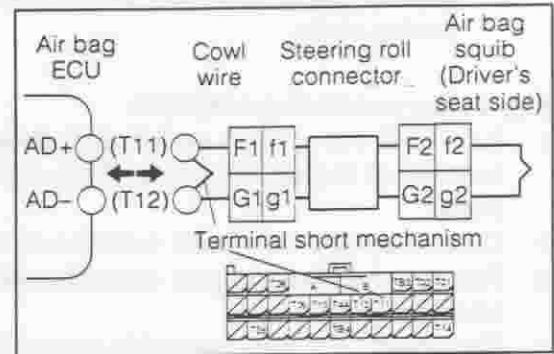
CAUTION:

- If the code 13 (short circuit of squib circuit) is indicated, it proves indirectly that there is open wire in the squib of the steering pad assembly (air bag unit). Therefore, replace the steering pad assembly.

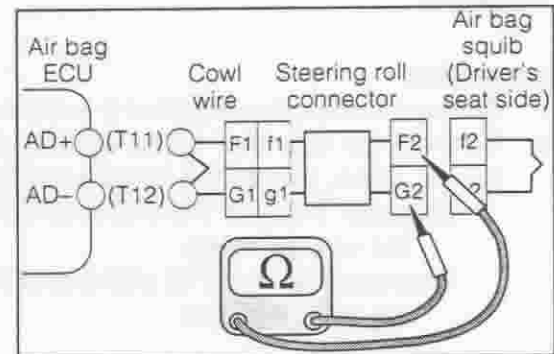
11. After the inspection and installation, cancel the diagnosis code and confirm that the code 13 and 14 are not outputted any more.



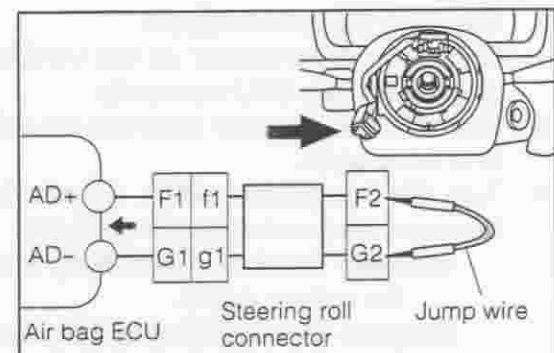
JBE00220-00180



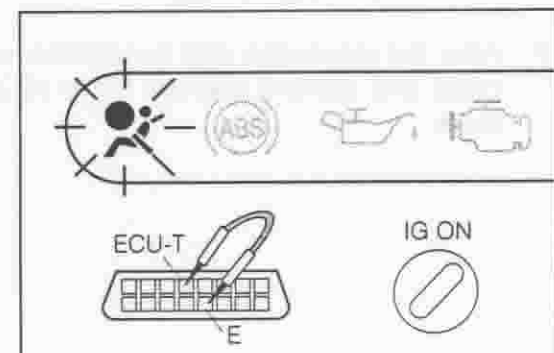
JBE00221-00181



JBE00222-00182



JBE00223-00183



JBE00224-00184

DS-21 on screen	Check lamp indication
DTC No. B0100	Code No. 13

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Remove the steering pad assembly (air bag unit) from the steering wheel.
3. Disconnect the pad assembly connector from the roll connector.
4. Remove the computer cover. Disconnect the connector at the vehicle wire harness side from the air bag ECU.
5. Using a wooden or plastic piece, raise the short circuit bridge at the sections T11 (AD+) and T12 (AD-) of the connector at the vehicle wire harness side which was removed from the ECU. In this way, disconnect the shorted contact points.

6. Connect the ohmmeter to the roll connector terminal. Check to see if any short circuit exists from the air bag ECU to the roll connector via the wire harness.

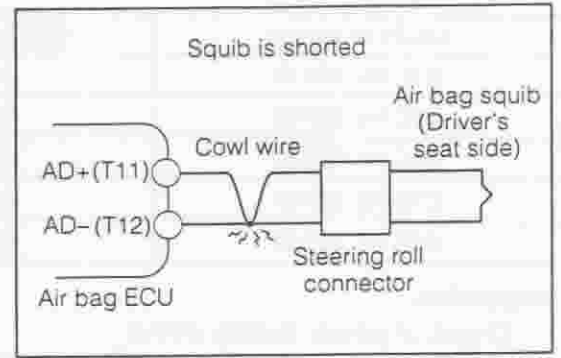
Between Terminal F2 and G2: No continuity exists.

7. If the wiring harness is shorted, it is necessary to know whether the faulty point is attributable to the inside of the roll connector. To this end, disconnect the coupling connector of the roll connector and the wire cowl. Then, perform check with the ohmmeter. If a short circuit is found, replace the faulty part with a new one.

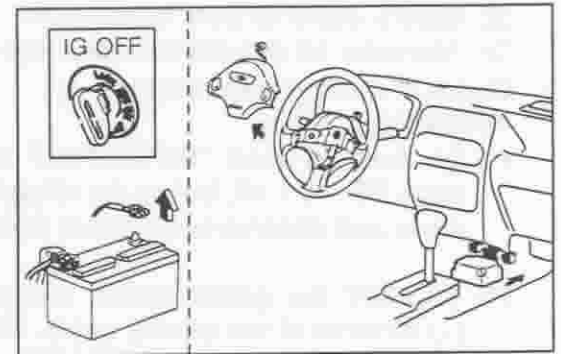
NOTE:

- At this time, turn the steering wheel in a right-and-left direction and ensure that there is no change in the indication of the circuit tester.

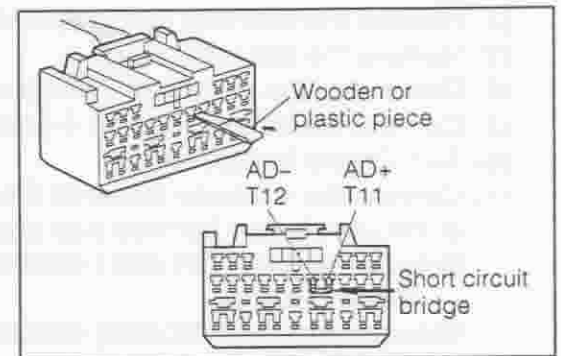
8. After the inspection and installation, cancel the diagnosis code and confirm that the code 13 is not outputted any more.



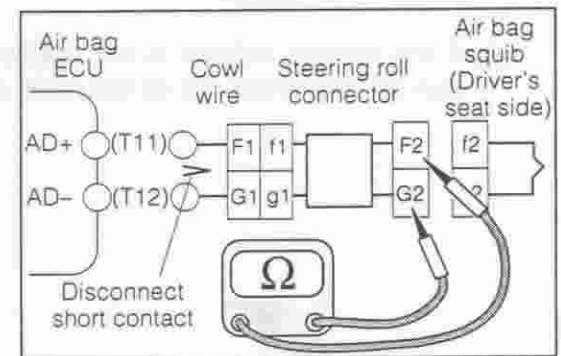
JBE00225-00185



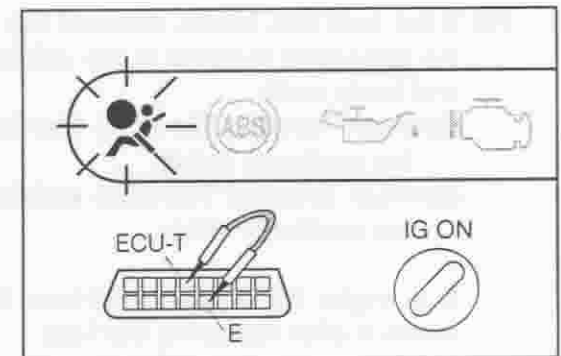
JBE00226-00186



JBE00227-00187



JBE00228-00188



JBE00229-00189

DS-21 on screen	Check lamp indication
DTC No. B0119	Code No. 29
DTC No. B0120	Code No. 29
DTC No. B0130	Code No. 21
DTC No. B0131	Code No. 22
DTC No. B0132	Code No. 23

Inspection

1. Check of power supply circuit
 - (1) Battery for defects or insufficient charge
 - (2) Battery cable for poor connection
 - (3) Alternator for defects or insufficient charge
2. Check of wire harness and fuse

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

- (1) Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.

- (2) Remove the front and rear console box.

- (3) Remove the computer cover.

- (4) Disconnect the connector from the air bag ECU.

- (5) Connect the battery negative (-) cable.

- (6) Turn ON the ignition switch.

- (7) Connect the voltmeter between the connector terminal at the vehicle wire harness side and body earth.

Between Terminal T01 (IG1) and Body Earth:

Battery voltage

Between Terminal T02 (IG2) and Body Earth:

Battery voltage

- (8) If the battery voltage is not applied to each terminal, pull off and check the air bag fuse and engine fuse.

- (9) If the fuse has blown, connect the ohmmeter between the connector terminal at the vehicle wire harness side and body earth.

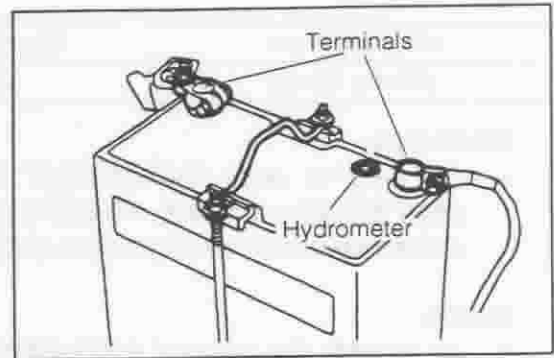
Between Terminal T01 (IG1) and Body Earth:

No continuity exists.

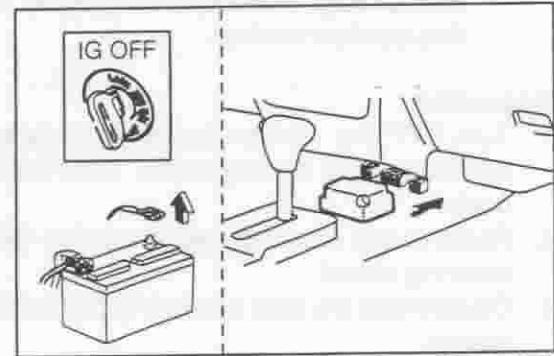
Between Terminal T02 (IG2) and Body Earth:

No continuity exists.

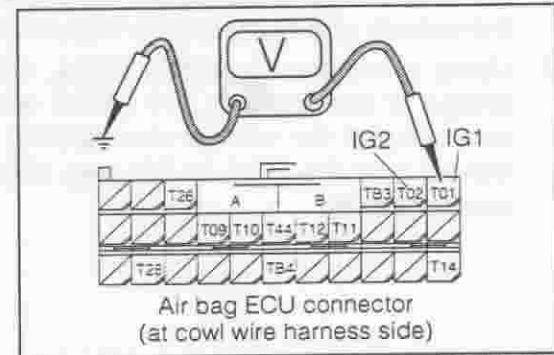
If it might be shorted, replace the harness. If not, recheck after replacing the fuse.



JBE00230-00190

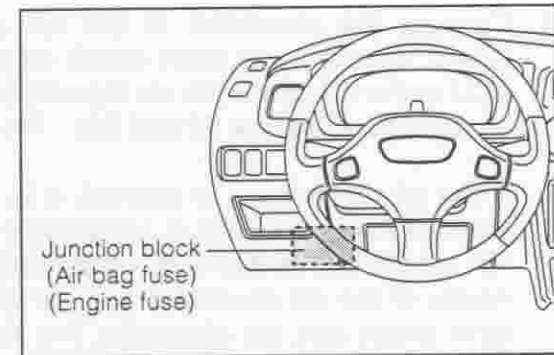


JBE00231-00191



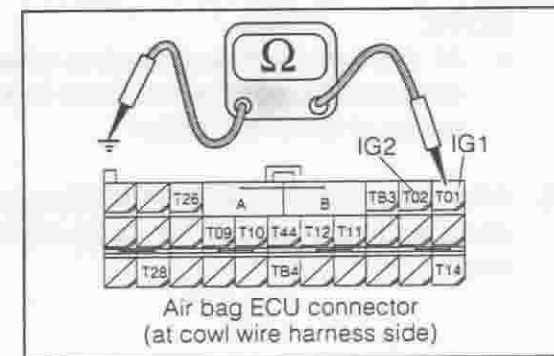
Air bag ECU connector (at cowl wire harness side)

JBE00232-00192



Junction block (Air bag fuse) (Engine fuse)

JBE00233-00193



Air bag ECU connector (at cowl wire harness side)

JBE00234-00194

(10) If the fuse has not blown, connect the ohmmeter between the connector terminal at the vehicle wire harness side and the fuse terminal.

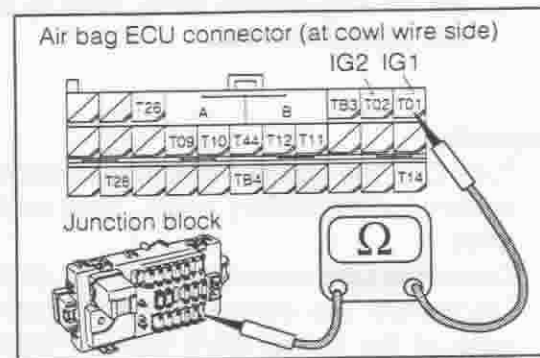
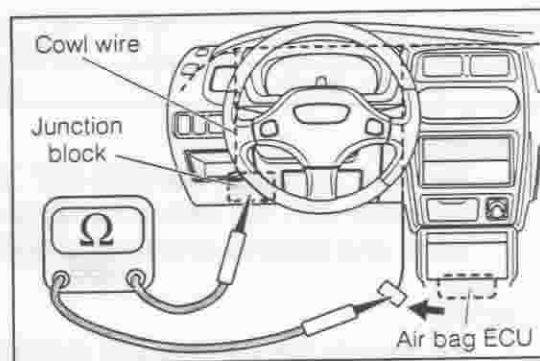
Between Terminal T01 (IG1) and Engine Fuse Terminal (at Junction Block):

Continuity exists.

Between Terminal T02 (IG2) and Air Bag Fuse Terminal (at Junction Block):

Continuity exists.

(11) If it might have open wire, replace the harness. If not, recheck the battery and power supply circuit.

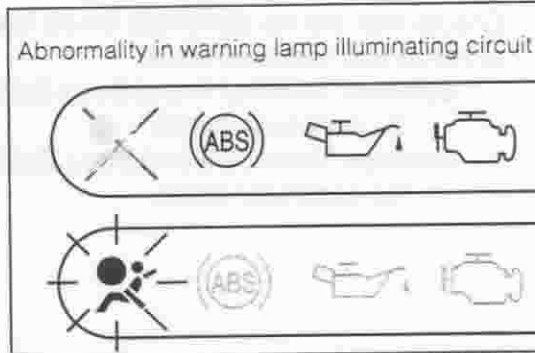


DS-21 on screen	Check lamp indication
DTC No. B1303	Code No. 24

Possible cause for malfunction: Abnormality in warning lamp illuminating circuit

NOTE:

- When this code is memorized, it indicates that open wire has taken place in the warning lamp circuit even though it occurred temporarily. However, if this code is now indicated, it means the circuit (wire harnesses, connectors, etc.) has been remedied to the normal condition.

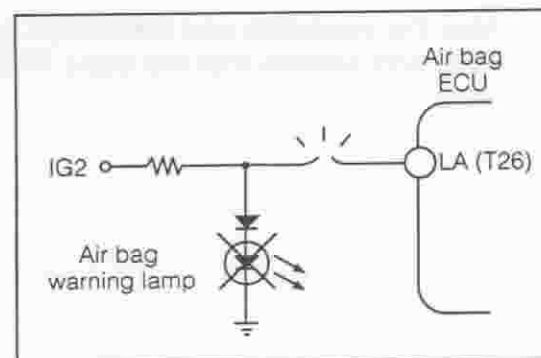


Inspection

As regards the inspection procedures for the warning lamp illuminating circuit, refer to page BE-9 of this service manual.

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.



DS-21 on screen	Check lamp indication
DTC No. B0107	Code No. 51

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Disconnect the connector which connects the wire harness of the passenger's side air bag unit and the cowl wire.
4. Ensure that the no continuity exists between the cowl wire terminal and the body earth.

Between Terminal H and Body Earth:

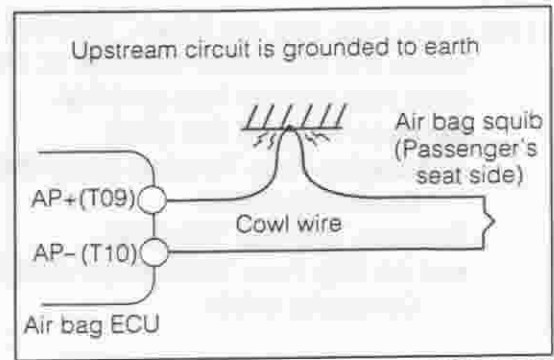
No continuity exists.

Between Terminal J and Body Earth:

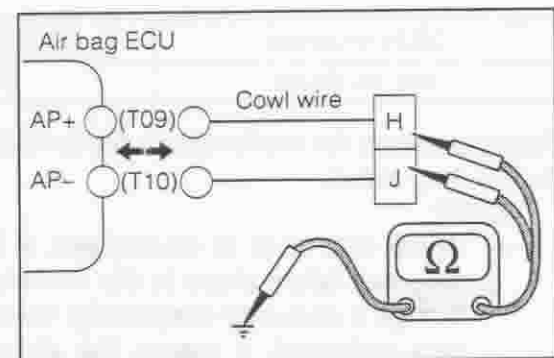
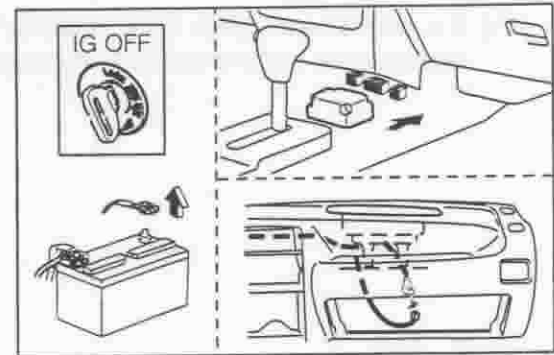
No continuity exists.

5. Connect the connector at the vehicle wire harness side and the air bag ECU connector.
6. Connect the battery negative (-) cable.
7. Turn ON the ignition switch and take a reading of the diagnosis code.

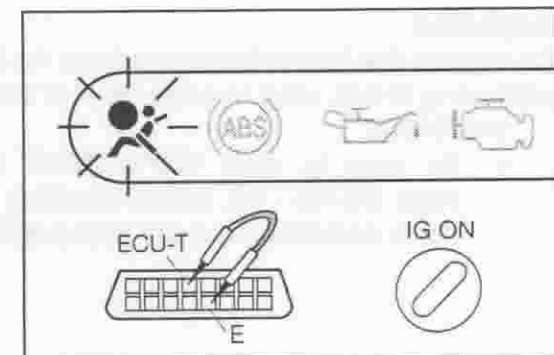
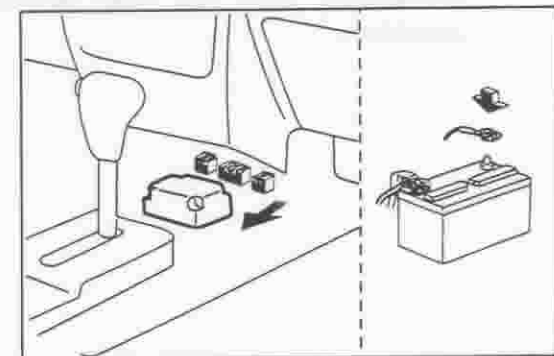
8. After the inspection and installation, cancel the diagnosis code and confirm that the code 51 is not outputted any more.



JBE00239-00199



JBE00241-00201



JBE00243-00203

DS-21 on screen	Check lamp indication
DTC No. B0108	Code No. 52

WARNING:

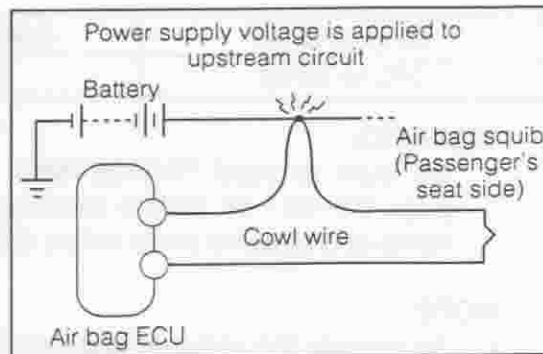
- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.
- When this code is indicated, the air bag system may operate as soon as the safing sensor at the ECU is turned on. Hence, if this code is indicated, immediately turn off the ignition key switch and proceed to the following steps.

Explosion-preventive measure

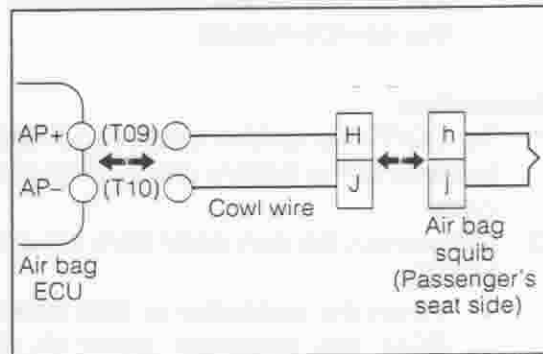
1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Disconnect the connector which connects the wire harness of the passenger's side air bag unit and the cowl wire.

Inspection

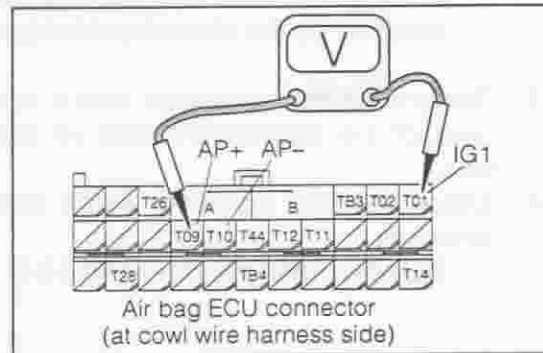
1. Connect the battery negative (-) cable.
2. Connect the voltmeter to the vehicle wire harness side terminals. Then, turn on the ignition switch.
 - Between Terminal T09 (AP+) and T01 (IG1):
No voltage exists.
 - Between Terminal T10 (AP-) and T01 (IG1):
No voltage exists.
3. Turn OFF the ignition switch.
4. Connect the connector at the vehicle wire harness side and the air bag ECU connector.
5. Connect the voltmeter between the cowl wire terminal and body earth.
6. Turn ON the ignition switch. Ensure that no voltage exists between the terminal and body earth.
 - Between Terminal H and Body Earth:
No voltage exists.
 - Between Terminal J and Body Earth:
No voltage exists.
7. After the inspection and installation, cancel the diagnosis code and confirm that the code 52 is not outputted any more.



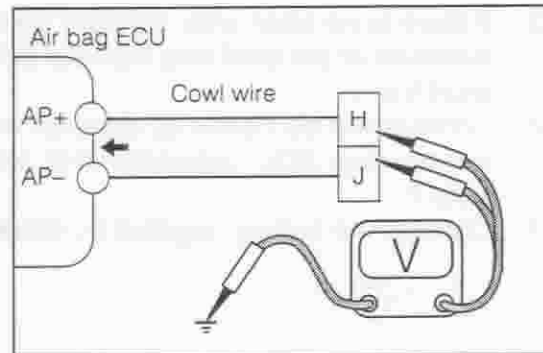
JBE00244-00204



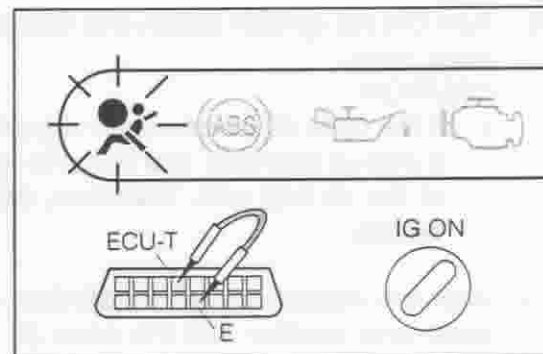
JBE00245-00205



JBE00246-00206



JBE00247-00207



JBE00248-00208

DS-21 on screen	Check lamp indication
DTC No. B0106	Code No. 54

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.

NOTE:

- When the connector is disconnected from the air bag ECU, the connector terminals AP+ (T09) and AP- (T10) at the cowl wire harness side are shorted automatically by the short circuit bridge.

3. Disconnect the connector which connects the wire harness of the passenger's side air bag unit and the cowl wire.
4. Ensure that the continuity exists between the respective terminals.

Between Terminal H (+) and J (-): Continuity exists.

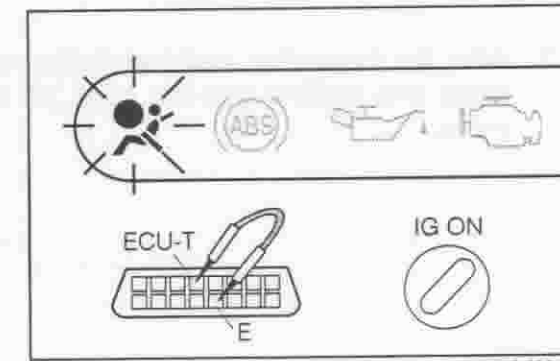
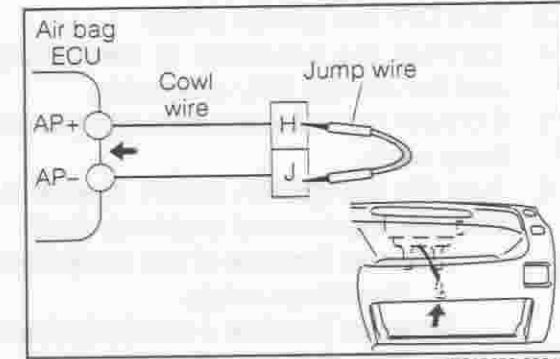
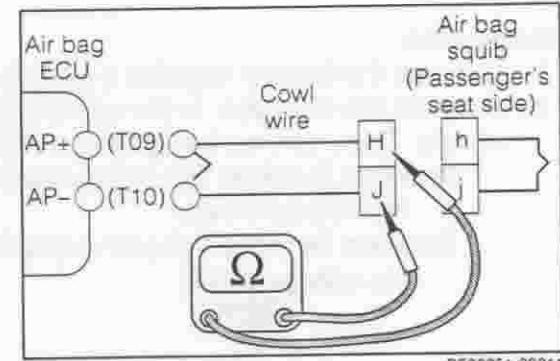
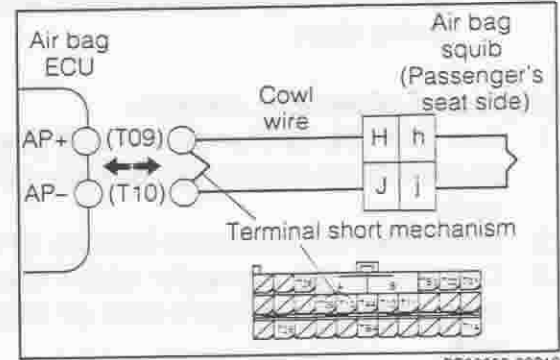
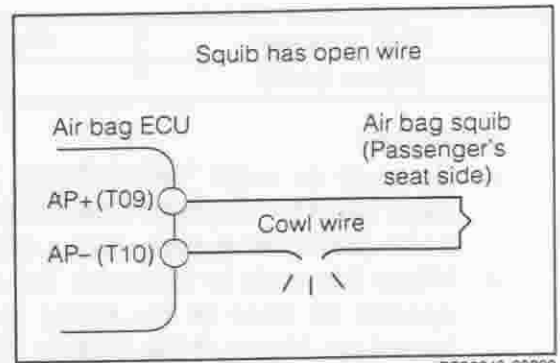
5. If there is no open wire, connect both ends of the air bag terminals at the cowl wire harness side with a jump wire to short them.
6. Connect the connector at the cowl wire harness side and the air bag ECU connector that were disconnected at Step 2.
7. Connect the battery negative (-) cable.

8. Turn ON the ignition switch and take a reading of the diagnosis code.

CAUTION:

- If the code 53 (short circuit of squib circuit) is indicated, it proves indirectly that there is open wire in the squib of the air bag unit. Therefore, replace the air bag assembly.

9. After the inspection and installation, cancel the diagnosis code and confirm that the code 53 and 54 are not outputted any more.



DS-21 on screen	Check lamp indication
DTC No. B0105	Code No. 53

WARNING:

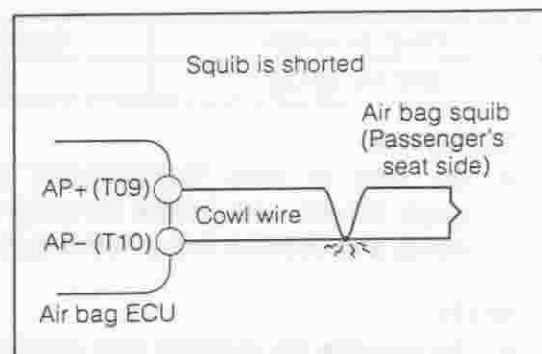
- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

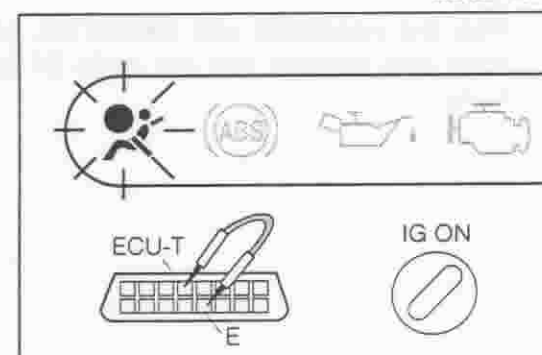
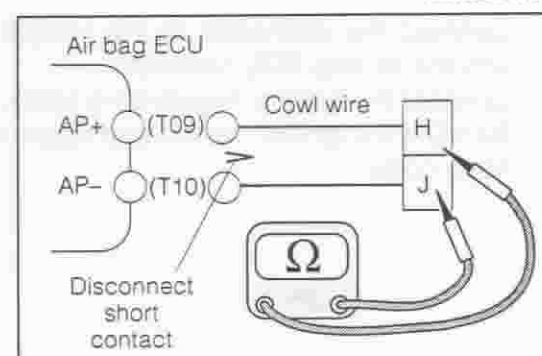
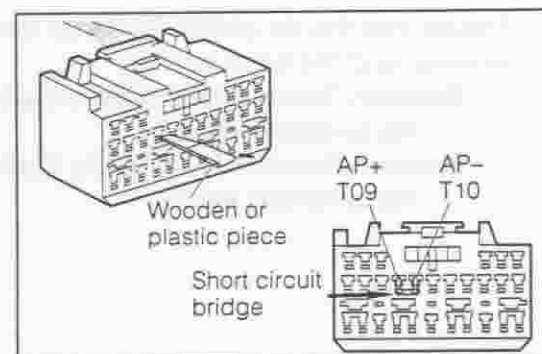
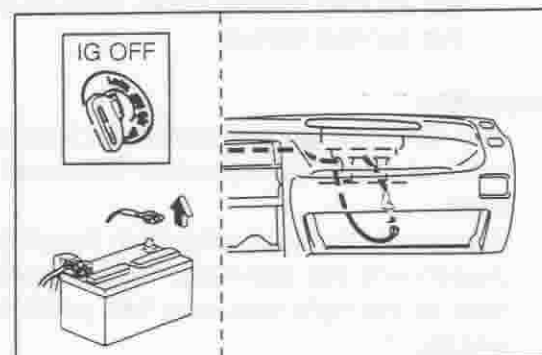
- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector which connects the wire harness of the passenger's side air bag unit and the cowl wire.
3. Remove the computer cover. Disconnect the connector at the vehicle wire harness side from the air bag ECU.
4. Using a wooden or plastic piece, raise the short circuit bridge at the sections T09 (AP+) and T10 (AP-) of the connector at the vehicle wire harness side which was removed from the ECU. In this way, disconnect the shorted contact points.
5. Connect the ohmmeter to the cowl wire terminal. Check to see if any short circuit exists from the air bag ECU to the passenger's side air bag unit via the wire harness.
Between Terminal H and J: No continuity exists.
6. After the inspection and installation, cancel the diagnosis code and confirm that the code 53 is not outputted any more.



JBE00254-00214



DS-21 on screen	Check lamp indication
DTC No. B0132	Code No. 61

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

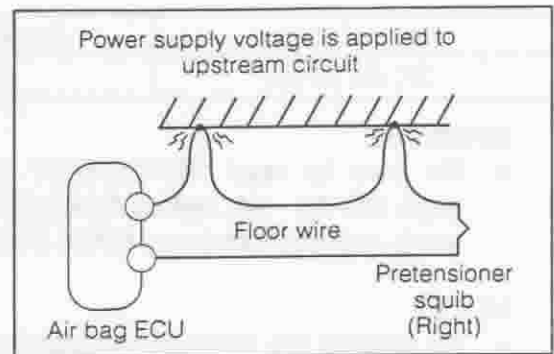
NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

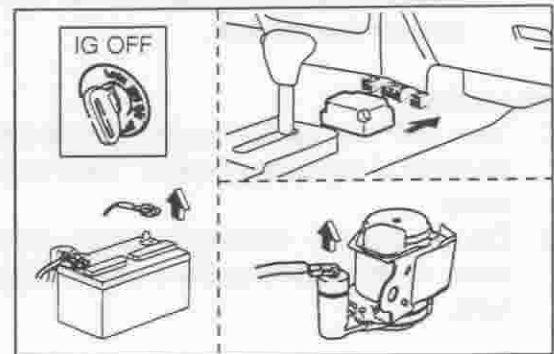
Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Disconnect the connector which connects the wire harness of the right side seat belt pretensioner and the floor wire No. 1.
4. Ensure that the no continuity exists between the floor wire terminal and the body earth.
 - Between Terminal M and Body Earth:
No continuity exists.
 - Between Terminal N and Body Earth:
No continuity exists.
5. Connect the connector at the vehicle wire harness side and the air bag ECU connector.
6. Connect the battery negative (-) cable.
7. Turn ON the ignition switch and take a reading of the diagnosis code.

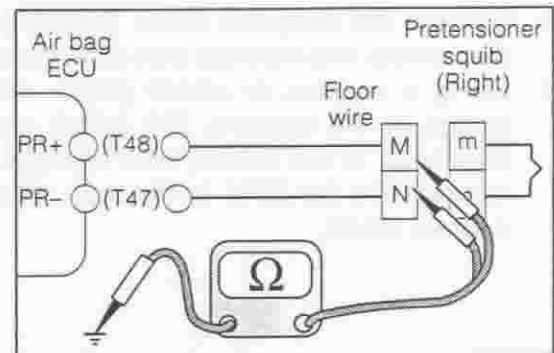
8. After the inspection and installation, cancel the diagnosis code and confirm that the code 61 is not outputted any more.



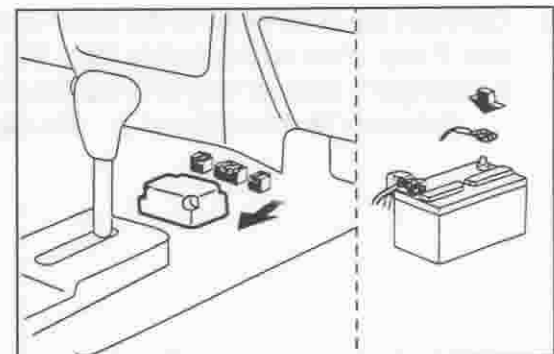
JBE00259-00219



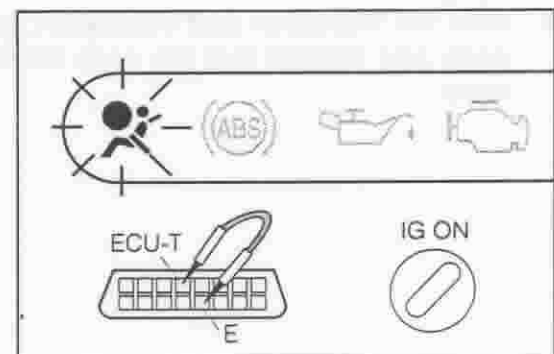
JBE00260-00220



JBE00261-00221



JBE00262-00222



JBE00263-00223

DS-21 on screen	Check lamp indication
DTC No. B0133	Code No. 62

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.
- When this code is indicated, the seat belt pretensioner may operate as soon as the safing sensor at the ECU is turned on. Hence, if this code is indicated, immediately turn off the ignition key switch and proceed to the following steps.

Explosion-preventive measure

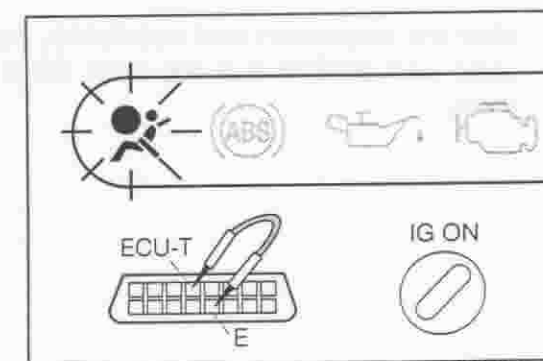
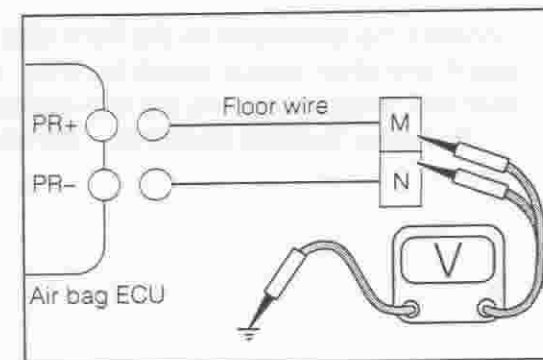
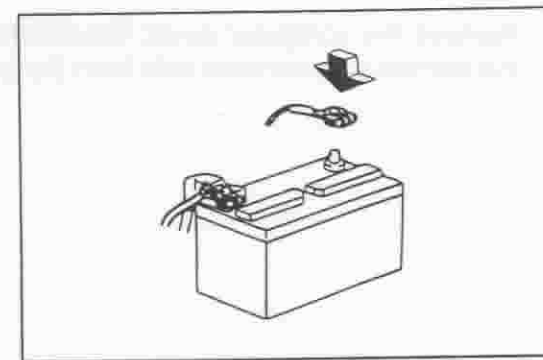
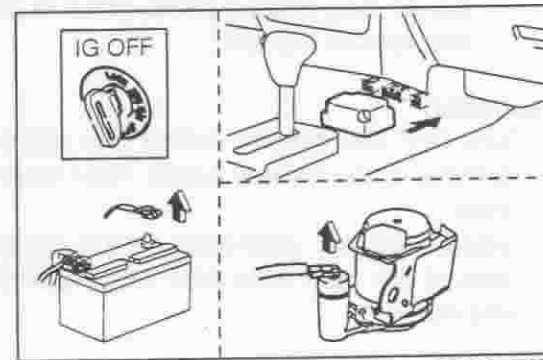
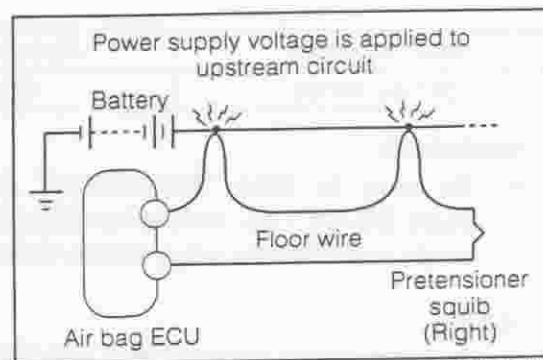
1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Disconnect the connector which connects the wire harness of the right side seat belt pretensioner and the floor wire No. 1.

Inspection

1. Connect the battery negative (-) cable.

2. Turn ON the ignition switch. Ensure that no voltage exists between the terminal and body earth.
 - Between Terminal M and Body Earth:
No voltage exists.
 - Between Terminal N and Body Earth:
No voltage exists.

3. After the inspection and installation, cancel the diagnosis code and confirm that the code 62 is not outputted any more.



DS-21 on screen	Check lamp indication
DTC No. B0130	Code No. 63

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

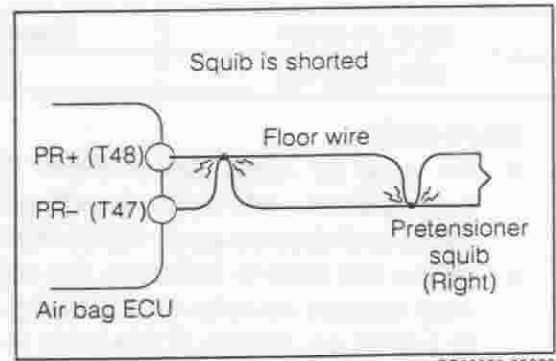
1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector which connects the wire harness of the right side seat belt pretensioner and the floor wire No. 1.
3. Remove the computer cover. Disconnect the connector at the vehicle wire harness side from the air bag ECU.



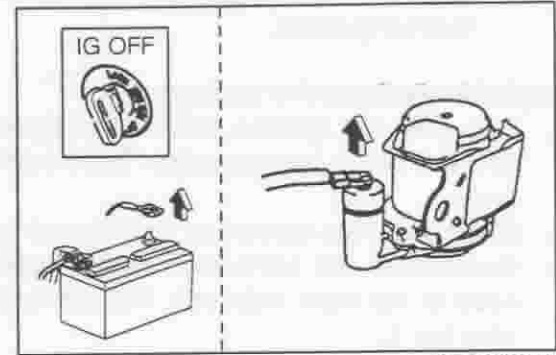
4. Connect the ohmmeter to the floor wire terminal. Check to see if any short circuit exists from the air bag ECU to the seat belt pretensioner via the wire harness.
Between Terminal M and N: No continuity exists.



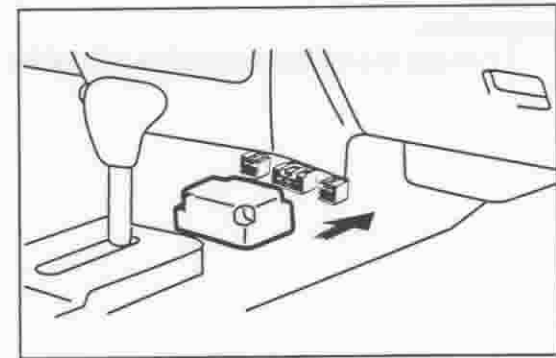
5. After the inspection and installation, cancel the diagnosis code and confirm that the code 63 is not outputted any more.



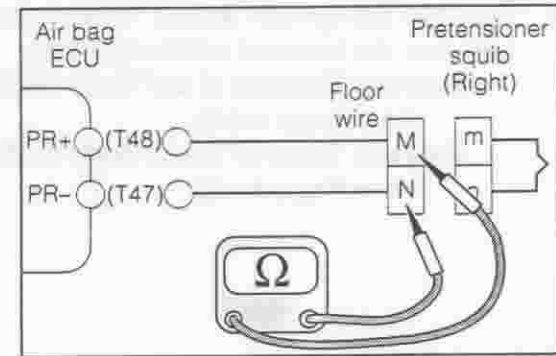
JBE00269-00229



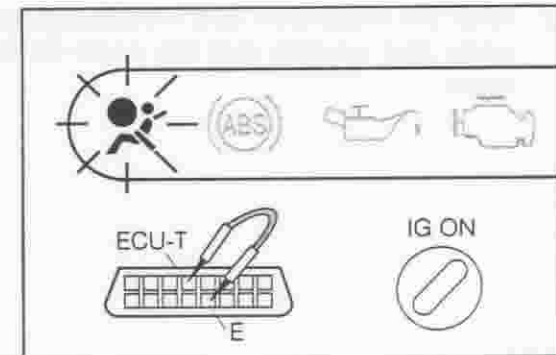
JBE00270-00230



JBE00271-00231



JBE00272-00232



JBE00273-00233

DS-21 on screen	Check lamp indication
DTC No. B0131	Code No. 64

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

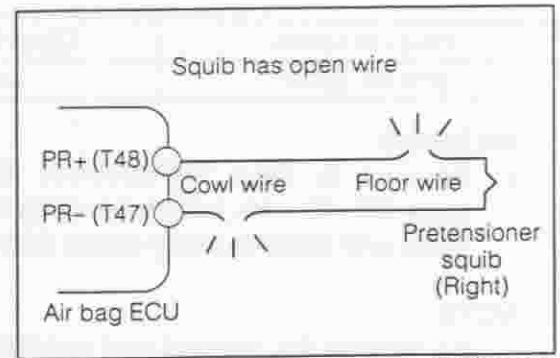
Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Disconnect the connector which connects the wire harness of the right side seat belt pretensioner and the floor wire No. 1.
4. Ensure that the continuity exists between the respective terminals.
 - Between Terminal T48 (PR+) and M (+): Continuity exists.
 - Between Terminal T47 (PR-) and N (-): Continuity exists.
5. If there is no open wire, connect both ends of the pretensioner terminals at the floor wire side with a jump wire to short them.
6. Connect the connector at the cowl wire harness side and the air bag ECU connector that were disconnected at Step 2.
7. Connect the battery negative (-) cable.

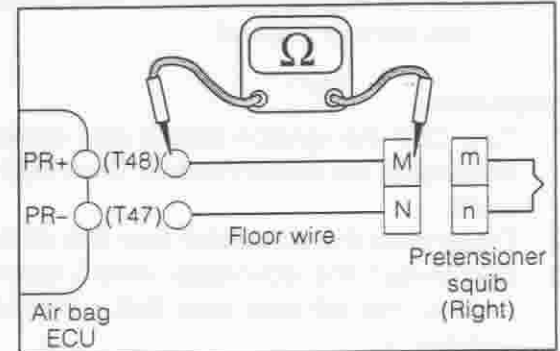
8. Turn ON the ignition switch and take a reading of the diagnosis code.

CAUTION:

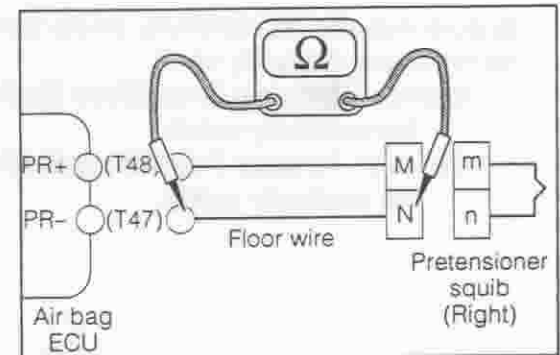
- If the code 63 (short circuit of squib circuit) is indicated, it proves indirectly that there is open wire in the squib of the seat belt pretensioner. Therefore, replace the seat belt assembly.
9. After the inspection and installation, cancel the diagnosis code and confirm that the code 64 and 63 are not outputted any more.



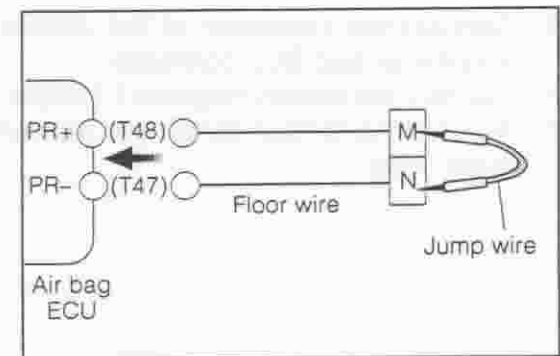
JBE00274-00234



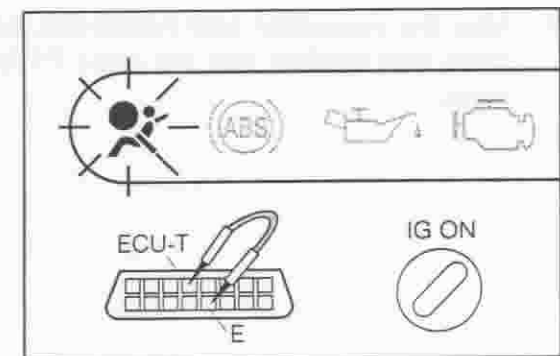
JBE00275-00235



JBE00276-00236



JBE00277-00237



JBE00278-00238

DS-21 on screen	Check lamp indication
DTC No. B0137	Code No. 71

WARNING:

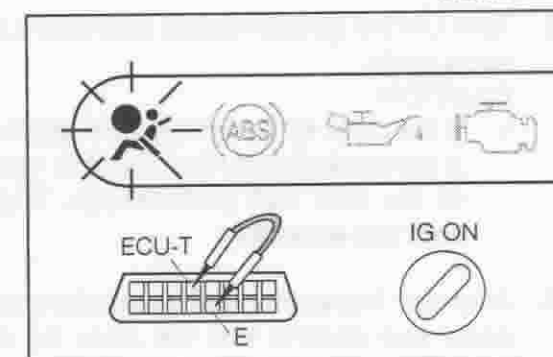
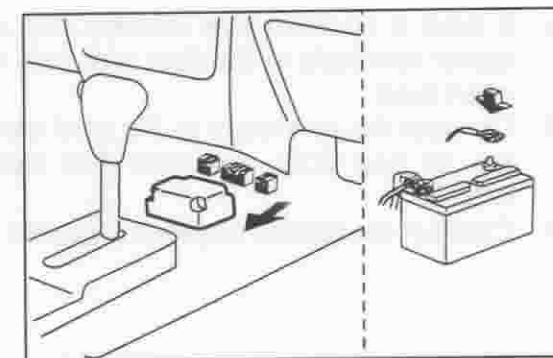
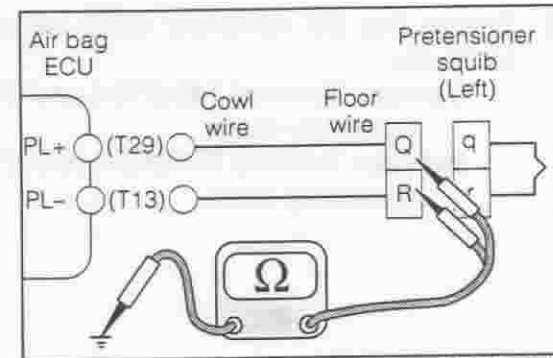
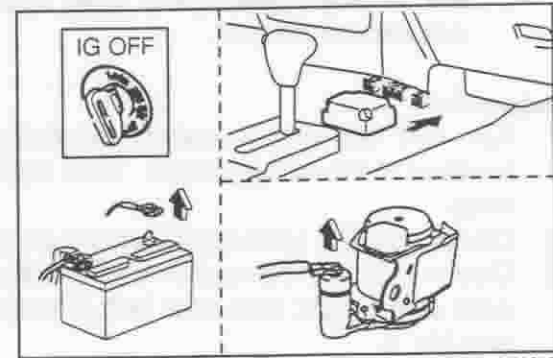
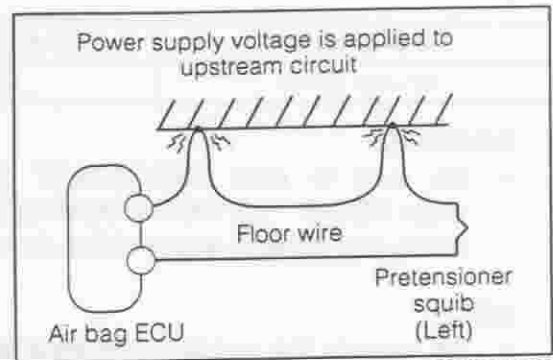
- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Disconnect the connector which connects the wire harness of the left side seat belt pretensioner and the floor wire No. 1.
4. Ensure that the no continuity exists between the floor wire terminal and the body earth.
 - Between Terminal Q and Body Earth:
No continuity exists.
 - Between Terminal R and Body Earth:
No continuity exists.
5. Connect the connector at the vehicle wire harness side and the air bag ECU connector.
6. Connect the battery negative (-) cable.
7. Turn ON the ignition switch and take a reading of the diagnosis code.
8. After the inspection and installation, cancel the diagnosis code and confirm that the code 71 is not outputted any more.



DS-21 on screen	Check lamp indication
DTC No. B0138	Code No. 72

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.
- When this code is indicated, the seat belt pretensioner may operate as soon as the safing sensor at the ECU is turned on. Hence, if this code is indicated, immediately turn off the ignition key switch and proceed to the following steps.

Explosion-preventive measure

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Disconnect the connector which connects the wire harness of the left side seat belt pretensioner and the floor wire No. 1.

Inspection

1. Connect the battery negative (-) cable.

2. Turn ON the ignition switch. Ensure that no voltage exists between the terminal and body earth.

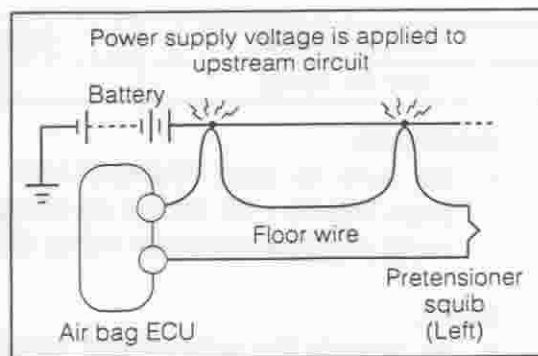
Between Terminal Q and Body Earth:

No voltage exists.

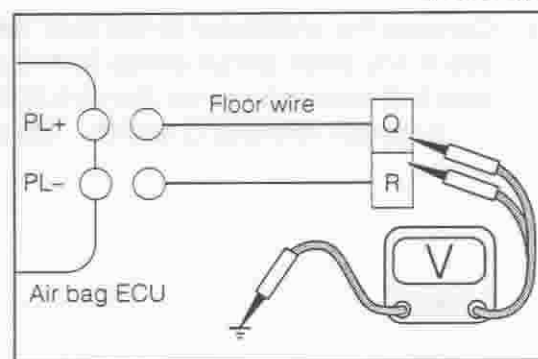
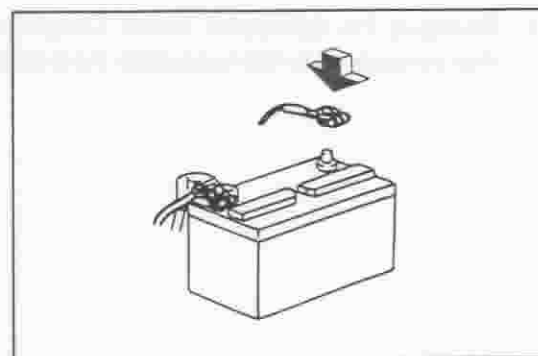
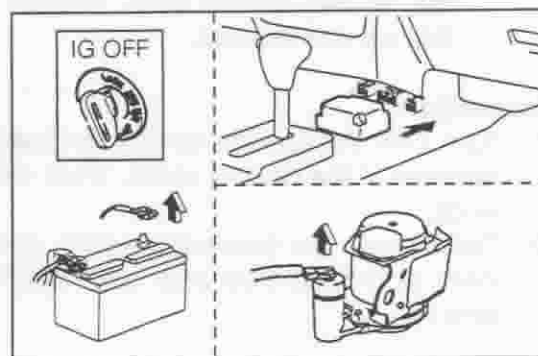
Between Terminal R and Body Earth:

No voltage exists.

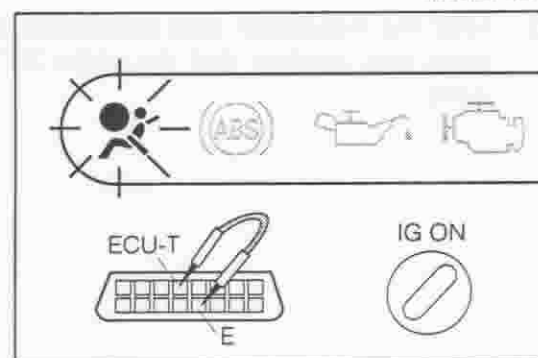
3. After the inspection and installation, cancel the diagnosis code and confirm that the code 72 is not outputted any more.



JBE00284-00244



JBE00287-00247



DS-21 on screen	Check lamp indication
DTC No. B0135	Code No. 73

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

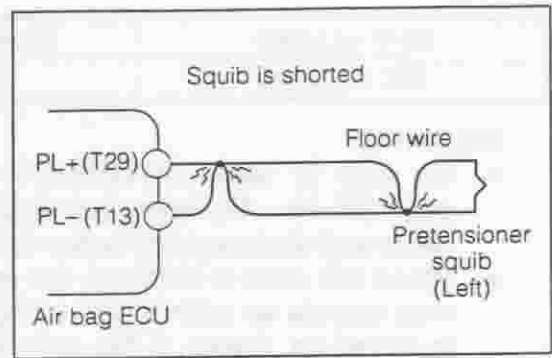
1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector which connects the wire harness of the left side seat belt pretensioner and the floor wire No. 1.
3. Remove the computer cover. Disconnect the connector at the vehicle wire harness side from the air bag ECU.



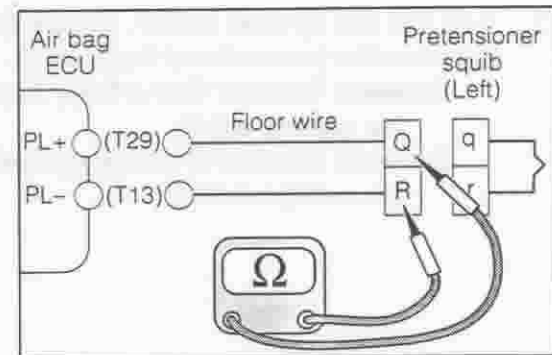
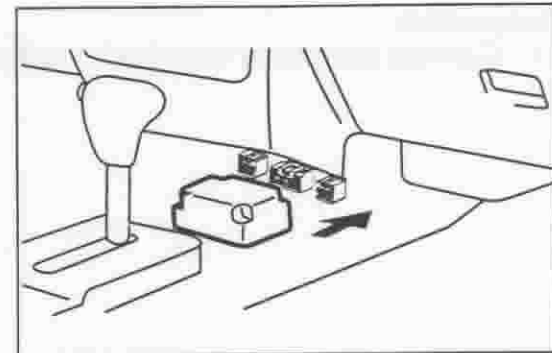
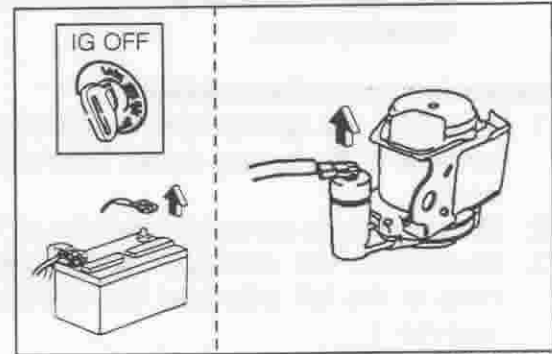
4. Connect the ohmmeter to the floor wire terminal. Check to see if any short circuit exists from the air bag ECU to the seat belt pretensioner via the wire harness.
Between Terminal Q and R: No continuity exists.



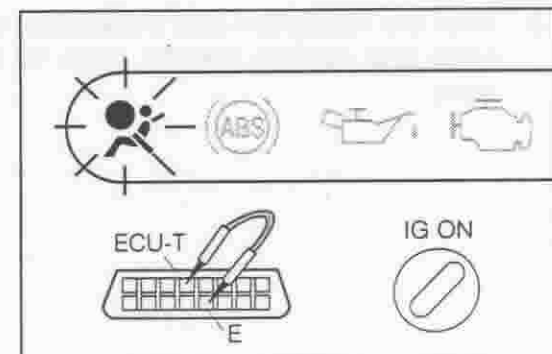
5. After the inspection and installation, cancel the diagnosis code and confirm that the code 73 is not outputted any more.



JBE00289-00249



JBE00292-00252



DS-21 on screen	Check lamp indication
DTC No. B0136	Code No. 74

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.

NOTE:

- As regards the removal and installation procedures for the air bag related parts, refer to page BE-51 - 59 of this service manual.

Inspection

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Disconnect the connector from the air bag ECU.
3. Disconnect the connector which connects the wire harness of the left side seat belt pretensioner and the floor wire No. 1.

4. Ensure that the continuity exists between the respective terminals.

Between Terminal T29 (PL+) and Q (+):

Continuity exists.

Between Terminal T13 (PL-) and R (-):

Continuity exists.

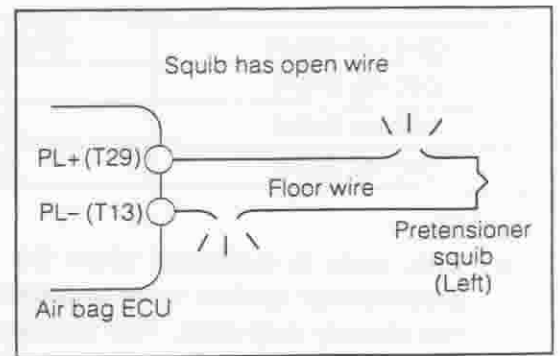
5. If there is no open wire, connect both ends of the pretensioner terminals at the floor wire side with a jump wire to short them.
6. Connect the connector at the cowl wire harness side and the air bag ECU connector that were disconnected at Step 2.
7. Connect the battery negative (-) cable.

8. Turn ON the ignition switch and take a reading of the diagnosis code.

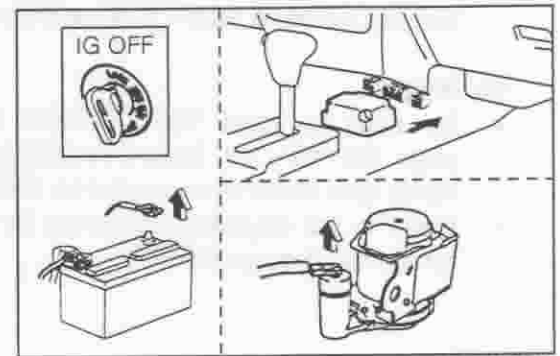
CAUTION:

- If the code 73 (short circuit of squib circuit) is indicated, it proves indirectly that there is open wire in the squib of the seat belt pretensioner. Therefore, replace the seat belt assembly.

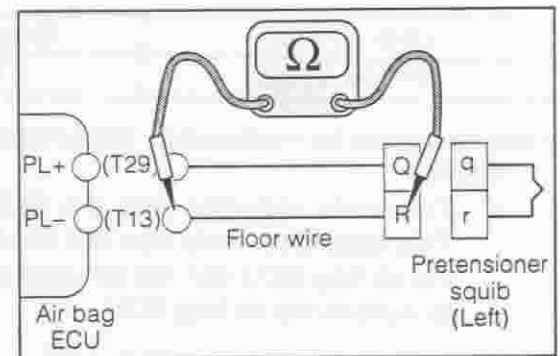
9. After the inspection and installation, cancel the diagnosis code and confirm that the code 74 and 73 are not outputted any more.



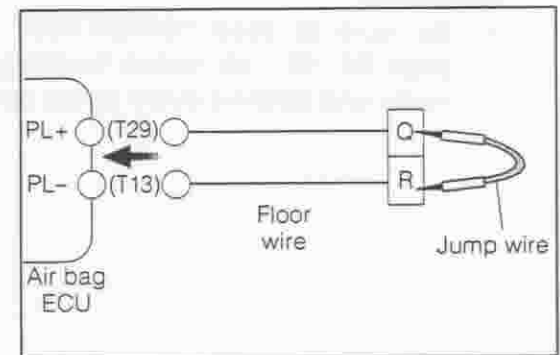
JBE00294-00254



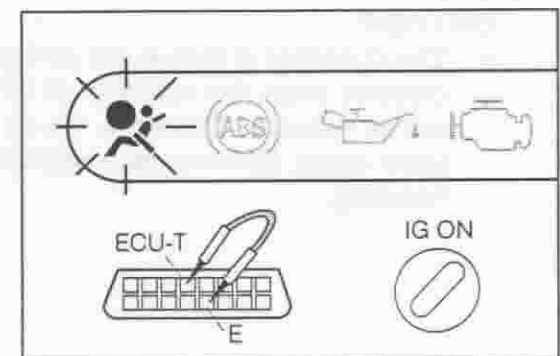
JBE00295-00255



JBE00296-00256



JBE00297-00257



JBE00298-00258

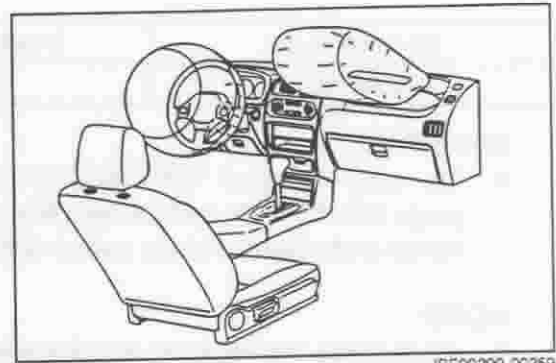
DS-21 on screen	Check lamp indication
DTC No. B1310	Code No. 91
DTC No. B1311	Code No. 92
DTC No. B1312	Code No. 93

NOTE:

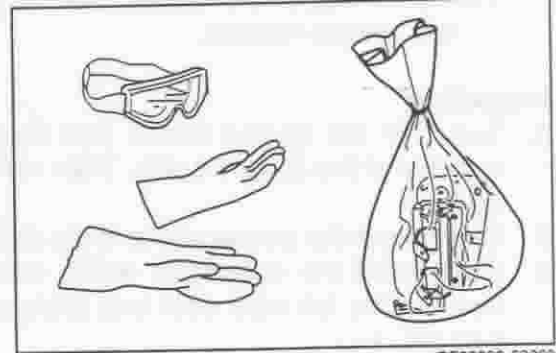
- This code is outputted when the airbag system and pretensioner system were operated. Then fuel cut signal already outputted. This diagnosis code can not be canceled and the airbag, pretensioner and airbag ECU can not be used again. It is necessary to replace them.

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the airbag components and observe every notice during work.
- Refer to the disposal procedure for the airbag and pretensioner at page BE-87.



JBE00299-00259



JBE00300-00260

DS-21 on screen	Check lamp indication
DTC No. B1100	Code No. 31

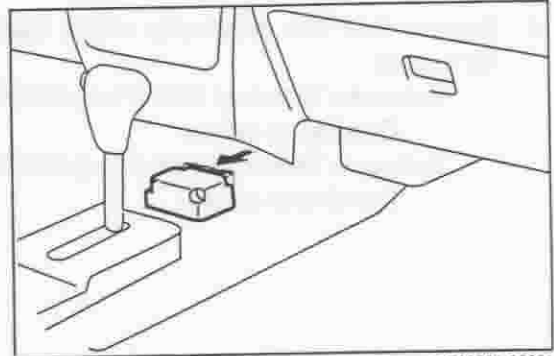
Possible cause for malfunction: Malfunction of ECU

NOTE:

- This code indicates that the ECU is malfunctioning. This diagnosis code can not be canceled. Therefore, the air bag ECU can not be used again. It is necessary to replace the air bag ECU.

WARNING:

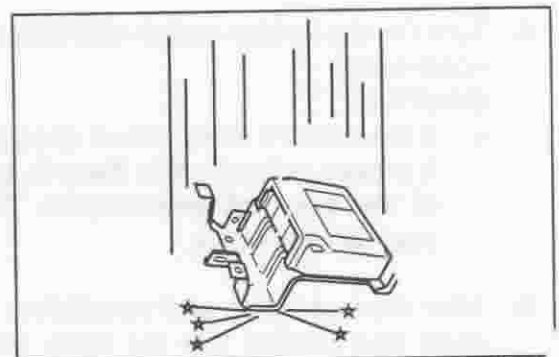
- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the air bag components and observe every notice during work.



JBE00301-00261

CAUTION:

- The G sensor is built in the air bag ECU. If the ECU is dropped once, the reliability of CPU and G sensor can not be assured. Therefore, the air bag ECU can not be used again. Extreme care must be exercised as to its handling.



JBE00302-00262

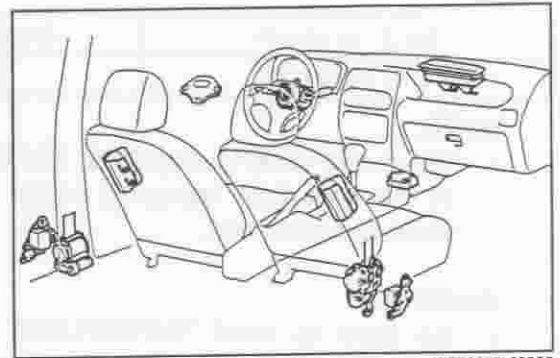
DS-21 on screen	Check lamp indication
DTC No. B1304	Code No. 25

NOTE:

- When this code is outputted, it indicates that a squib having a valve greater than the specified value is connected. Hence, confirm the squid valve of the airbag circuit according to the vehicle specifications.

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the airbag components and observe every notice during work.

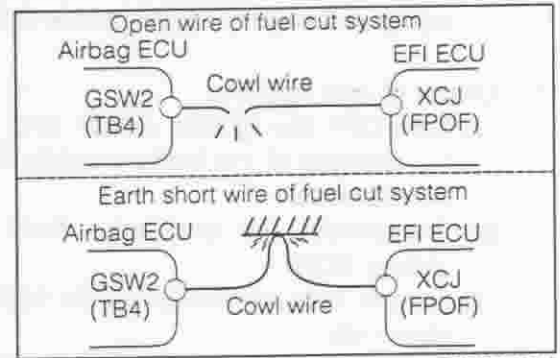


JBE00356-00309

DS-21 on screen	Check lamp indication
DTC No. B1305	Code No. 26

NOTE:

- When this code is outputted, it indicates that open wire in the fuel cut signal output line or GND short has occurred.



JBE00357-00310

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the airbag components and observe every notice during work.

10. Check of wire harness

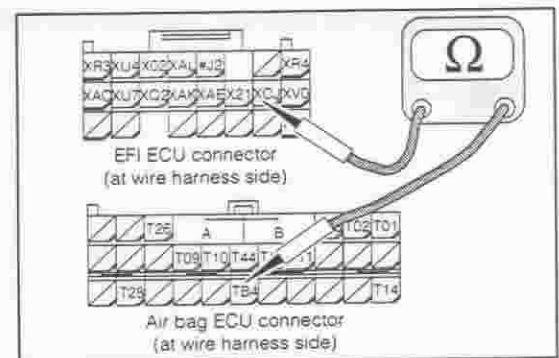
- Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
- Disconnect the connector from the EFI ECU and airbag ECU.
- Ensure that continuity exists between the respective terminals.

Between Terminal GSW2 (TB4) and XCJ (FPOF):
Continuity exists.

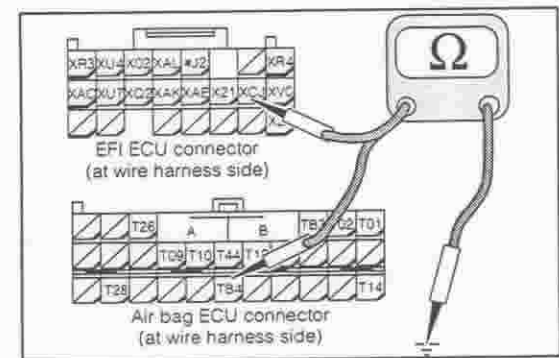
If it might be open, replace the harness.

- Ensure that no continuity exists between the cowl wire terminal and the body earth.
Between Terminal XCJ (FPOF) and Body Earth:
No Continuity exists.
Between Terminal GSW2 (TB4) and Body Earth:
No Continuity exists.

If it might be shorted, replace the harness.



JBE00358-00311



JBE00359-00312

DS-21 on screen	Check lamp indication
DTC No. B1306	Code No. 26

NOTE:

- When this code is outputted, it indicates that open wire in the door lock releasing signal output line or GND short has occurred.

WARNING:

- Be sure to read "IMPORTANT SAFETY NOTICE", page BE-45 - 46, before handling the airbag components and observe every notice during work.

11. Check of wire harness

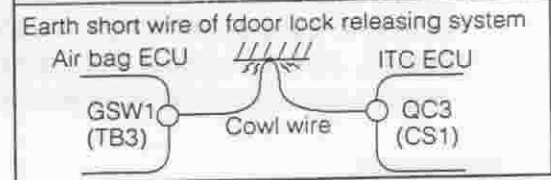
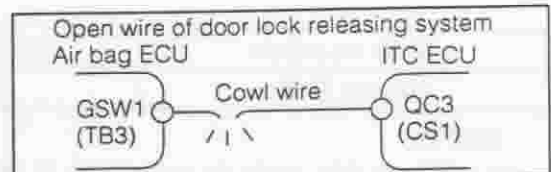
- Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
- Disconnect the connector from the ITC ECU and airbag ECU.
- Ensure that continuity exists between the respective terminals.

Between Terminal GSW1 (TB3) and QC3 (CS1):
Continuity exists.

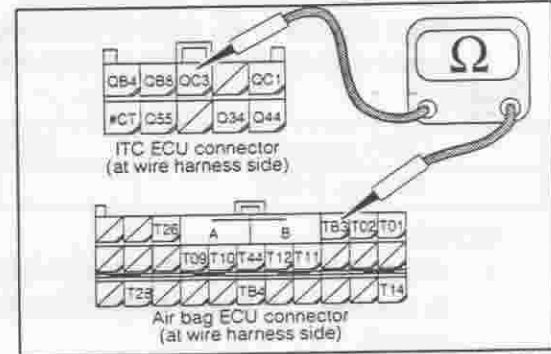
If it might be open, replace the wire harness.

- Ensure that no continuity exists between the cowl wire terminal and the body earth.
Between Terminal GSW1 (TB3) and Body Earth:
No Continuity exists.
Between Terminal QC3 (CS1) and Body Earth:
No Continuity exists.

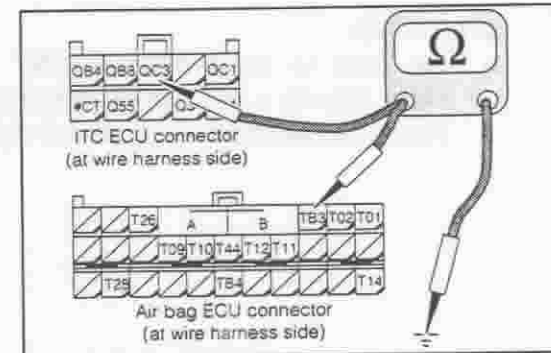
If it might be shorted, replace the wire harness.



JBE00360-00313



JBE00361-00314



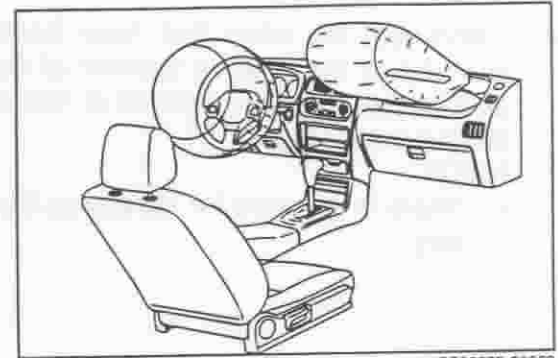
JBE00362-00315

DISPOSAL PROCEDURE FOR AIR BAG AND PRETENSIONER

DISPOSAL OF VEHICLES WITH AIR BAG SYSTEM

WARNING:

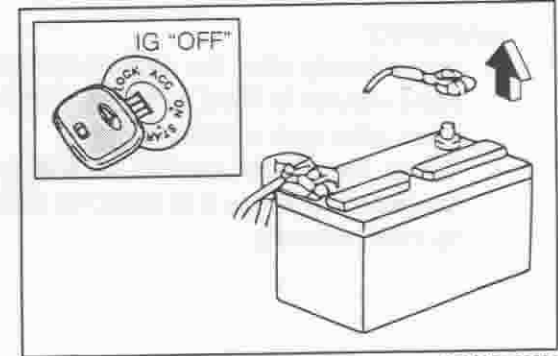
- When disposing the vehicles with the air bag system, deploy the air bag while it is mounted on the vehicle. As for the pretensioner, also operate the squib before disposing the vehicle.



JBE00303-00263

<Disposal procedure for air bag in driver's seat>

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Prepare a 12-V battery for automotive use.
3. Remove the computer cover. Disconnect the connector at the vehicle wire harness side from the air bag ECU connector.



JBE00304-00264

4. Raise or remove the short circuit bridge at the terminals T11 (AD+) and T12 (AD-) of the disconnected connector, by using an appropriate tool.
5. Prepare two wires for automotive use, each of which measures more than six meters long.

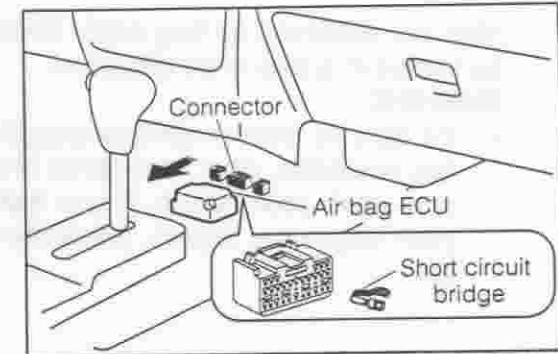
WARNING:

- Connect the end of one wire with the end of the other wire so that they may be shorted.

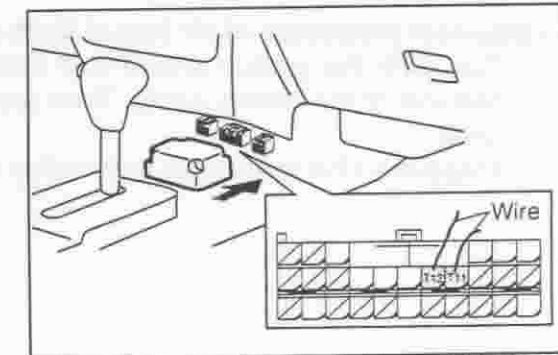
6. Connect the wires prepared in Step (5) above to the connector terminals T11 (AD+) and T12 (AD-).

WARNING:

- This connecting operation to the connector should be performed by one person, not by a joint work of plural operators, so as to avoid mistakes.
- During this operation, there is the possibility that the air bag may be deployed accidentally. Therefore, be sure to give a warning to other persons so that they may get out of the vehicle or may be kept away from the area five meters from the vehicle.



JBE00305-00265



JBE00306-00266

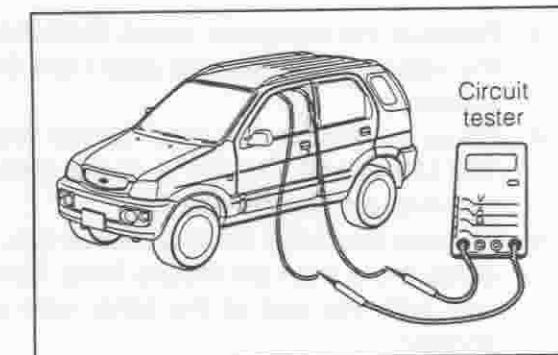
7. The shorted section of the wires should be kept five meters or more away from the vehicle, as shown in the figure.

CAUTION:

- Be sure to give a warning to other persons about a big noise that will be emitted at the time of the air bag deployment.
- The window glass should be closed in advance.

NOTE:

- Concerning the description of open wire of the squib page BE-68, 74, 79 or 83, be sure to temporarily measure a resistance wires as right figure.

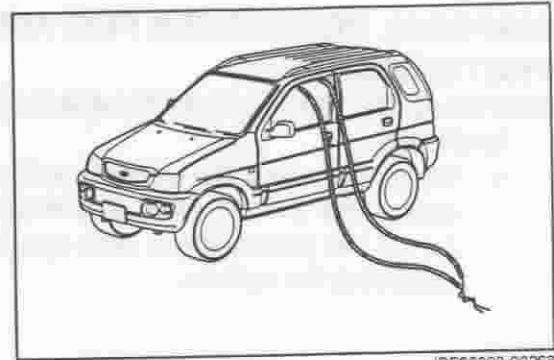


JBE00307-00267

8. Disconnect the wires that have been shorted. Connect one wire to the positive terminal of the battery; the other wire to the negative terminal of the battery, thereby deploying the air bag.

NOTE:

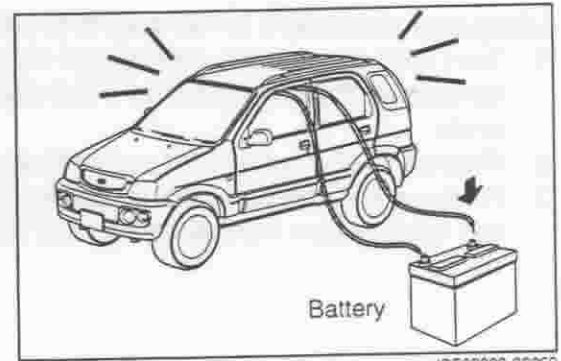
- There is no need for identifying the polarity of the battery.



JBE00308-00268

WARNING:

- Immediately after the deployment of the air bag, the vehicle interior is filled with gas. Therefore, start the operation after gas is diffused.
- Since the metal section of the gas generator is extremely hot, leave it at least for thirty minutes to allow it to cool naturally.

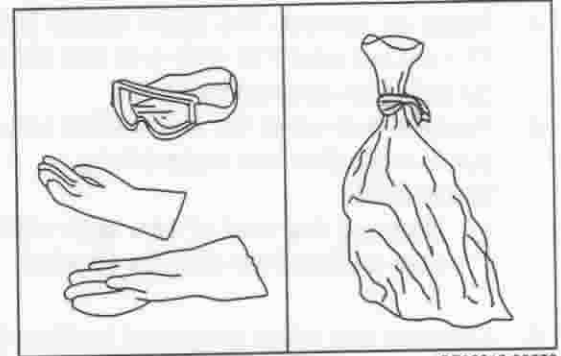


JBE00309-00269

9. After the deployed air bag cools down completely, it shall be sealed in a bag to be disposed.

WARNING:

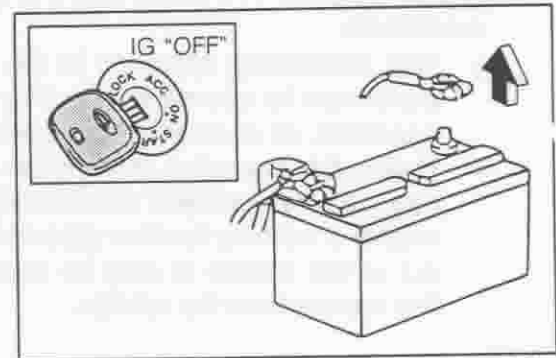
- Be sure to wear protective goggles and gloves during this operation. After completion of the operation, gargle and wash your hands. If you feel any abnormality in your respiratory organs, follow the instruction of a doctor.



JBE00310-00270

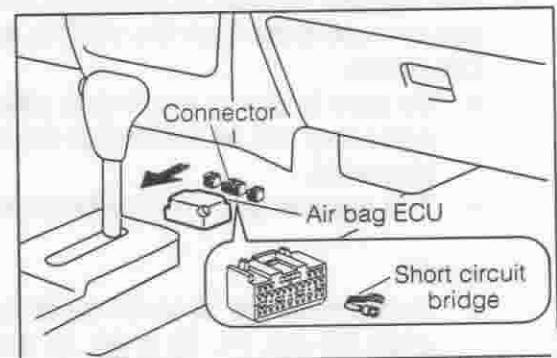
<Disposal procedure of air bag at front passenger seat>

1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
2. Prepare a 12-V battery for automotive use.



JBE00311-00271

3. Remove the computer cover. Disconnect the connector at the vehicle wire harness side from the air bag ECU connector.
4. Raise or remove the short circuit bridge at the terminals T09 (AP+) and T10 (AP-) of the disconnected connector, by using an appropriate tool.
5. Prepare two wires for automotive use, each of which measures more than six meters long. Connect the end of one wire with the end of the other wire so that they may be shorted.

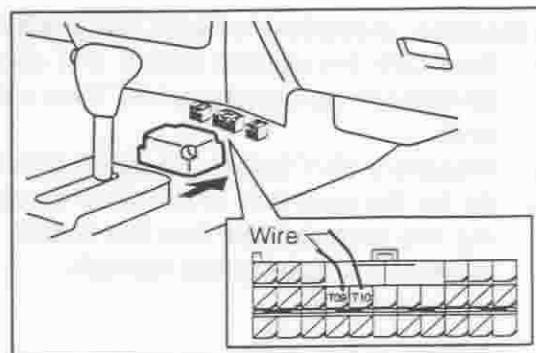


JBE00312-00272

6. Connect the wires prepared in Step (5) above to the connector terminals T09 (AP+) and T10 (AP-).

WARNING:

- This connecting operation to the connector should be performed by one person, not by a joint work of plural operators, so as to avoid mistakes.
- During this operation, there is the possibility that the air bag may be deployed accidentally. Therefore, be sure to give a warning to other persons so that they may get out of the vehicle or may be kept away from the area five meters from the vehicle.

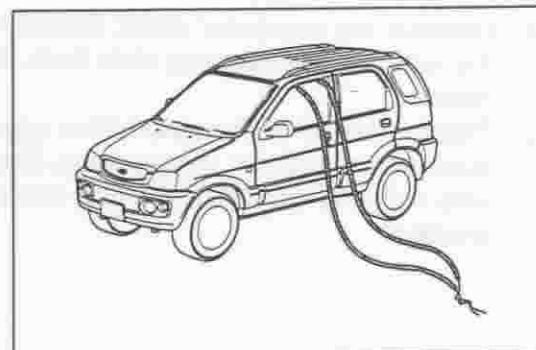


JBE00313-00273

7. The shorted section of the wires should be kept five meters or more away from the vehicle, as shown in the figure.

CAUTION:

- Be sure to give a warning to other persons about a big noise that will be emitted at the time of the air bag deployment.
- The window glass should be closed in advance.

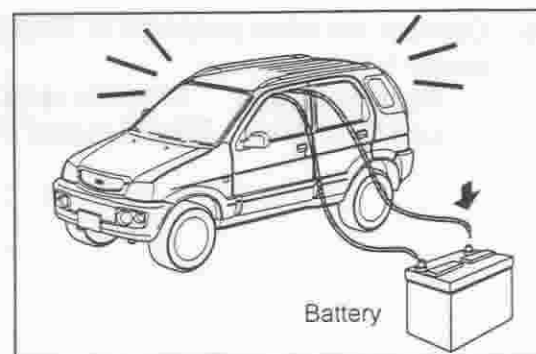


JBE00314-00274

8. Disconnect the wires that have been shorted. Connect one wire to the positive terminal of the battery; the other wire to the negative terminal of the battery, thereby deploying the air bag.

NOTE:

- There is no need for identifying the polarity of the battery.



JBE00315-00275

WARNING:

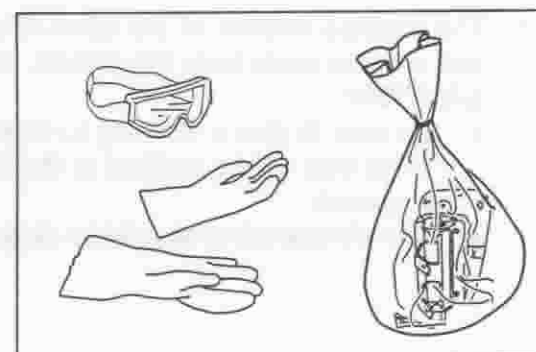
- Immediately after the deployment of the air bag, the vehicle interior is filled with gas. Therefore, start the operation after gas is diffused.
- Since the metal section of the gas generator is extremely hot, leave it at least for thirty minutes to allow it to cool naturally.

JBE00316-00000

9. After the deployed air bag cools down completely, it shall be sealed in a bag to be disposed.

WARNING:

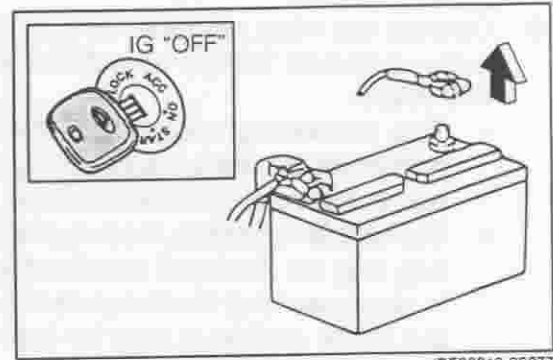
- Be sure to wear protective goggles and gloves during this operation. After completion of the operation, gargle and wash your hands. If you feel any abnormality in your respiratory organs, follow the instruction of a doctor.



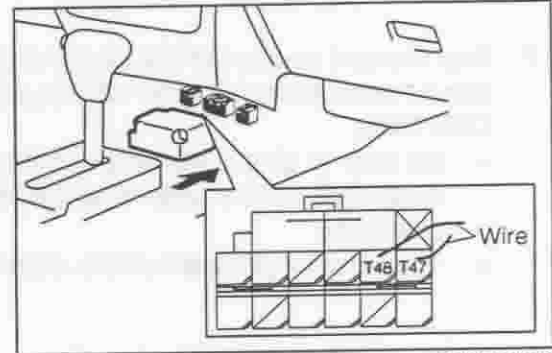
JBE00317-00276

<Disposal procedure of seat belt pretensioner>

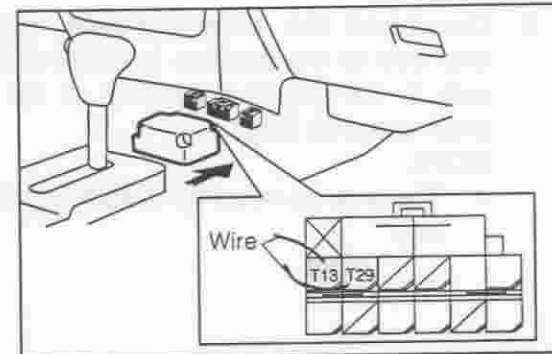
1. Turn OFF the ignition switch and detach the negative (-) terminal of the battery cable. Then wait for at least 90 seconds.
 2. Prepare a 12-V battery for automotive use.
 3. As for the seat belt in the driver's seat, fasten it by inserting the tongue plate into the buckle in the same way as the seat belt is fastened normally.
-
4. Remove the computer cover. Disconnect the connector at the vehicle wire harness side from the air bag ECU connector.
 5. Prepare two wires for automotive use, each of which measures more than six meters long. Connect the end of one wire with the end of the other wire so that they may be shorted.
-
6. Connect the wires prepared in Step (5) above to the connector terminals.
 Right Seat Side: T48 (PR+) and T47 (PR-)
 Left Seat Side: T29 (PL+) and T13 (PL-)



JBE00318-00277



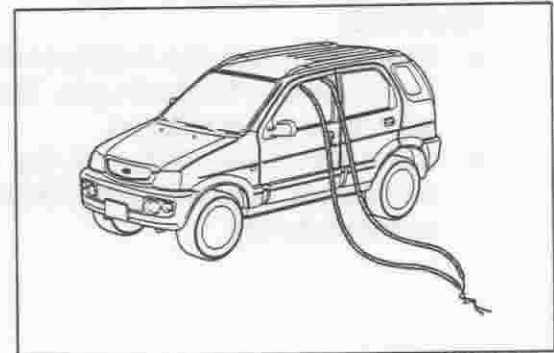
JBE00319-00278



JBE00320-00279

WARNING:

- This connecting operation to the connector should be performed by one person, not by a joint work of plural operators, so as to avoid mistakes.
- During this operation, there is the possibility that the air bag may be deployed accidentally. Therefore, be sure to give a warning to other persons so that they may get out of the vehicle or may be kept away from the area five meters from the vehicle.



JBE00321-00280

7. The shorted section of the wires should be kept five meters or more away from the vehicle, as shown in the figure.

CAUTION:

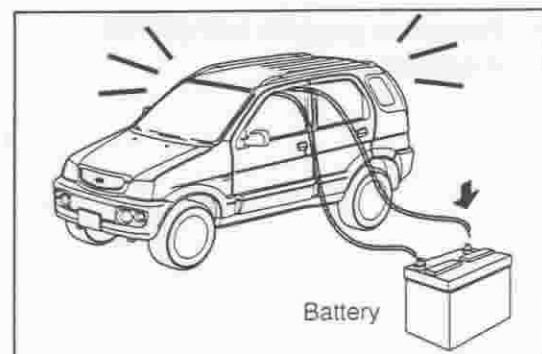
- Be sure to give a warning to other persons about a big noise that will be emitted at the time of the air bag deployment.
- The window glass should be closed in advance.

JBE00322-00000

8. Disconnect the wires that have been shorted. Connect one wire to the positive terminal of the battery; the other wire to the negative terminal of the battery, thereby deploying the air bag.

NOTE:

- There is no need for identifying the polarity of the battery.



JBE00323-00281

WARNING:

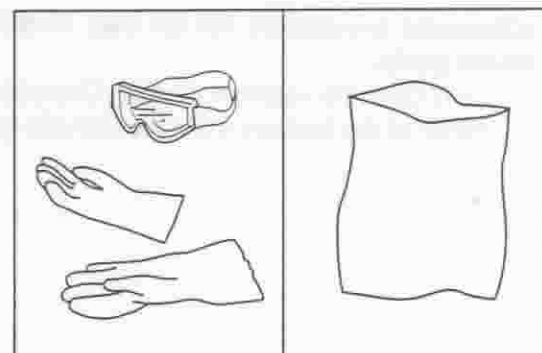
- Immediately after the deployment of the air bag, the vehicle interior is filled with gas. Therefore, start the operation after gas is diffused.
- Since the metal section of the gas generator is extremely hot, leave it at least for thirty minutes to allow it to cool naturally.

JBE00324-00000

9. After the operated seat belt pretensioner cools down completely, it shall be sealed in a bag to be disposed.

WARNING:

- Be sure to wear protective goggles and gloves during this operation. After completion of the operation, gargle and wash your hands. If you feel any abnormality in your respiratory organs, follow the instruction of a doctor.



JBE00325-00282

DISPOSAL OF AIR BAG AND SEAT BELT PRETENSIONER**CAUTION:**

- It is the best to dispose the air bag and seat belt pretensioner when they are installed in the vehicle. However, if it is unavoidable to perform the pre-treatment for disposal for the unit itself, follow the procedure given below.

NOTE:

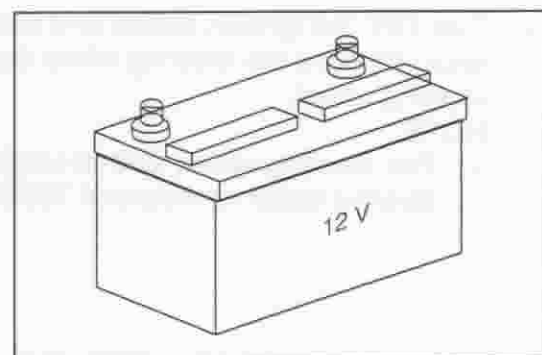
- Items to be prepared.

1. 12-V battery for automotive use
2. Two wires for automotive use, each measuring at least 10 meters long.

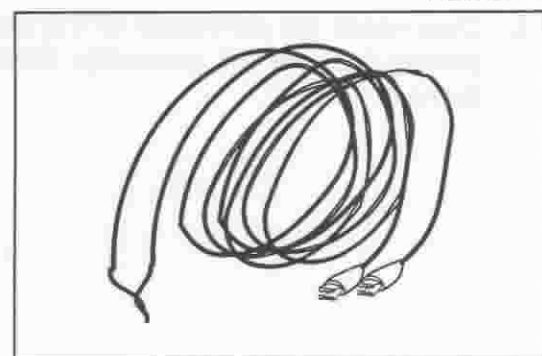
An alligator clip is connected to each end of these wires.

WARNING:

- Connect the end of one wire with the end of the other wire so that they may be shorted.
- No switch shall be installed to these wires so as to prevent accidents.

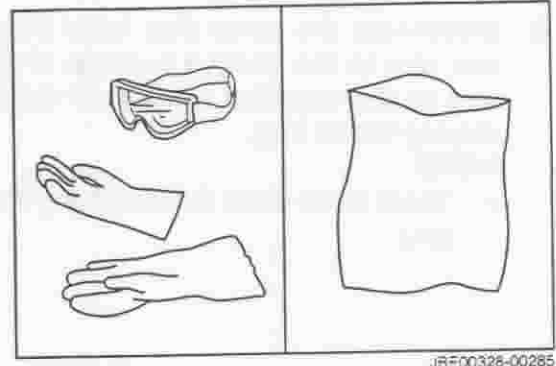


JBE00326-00283



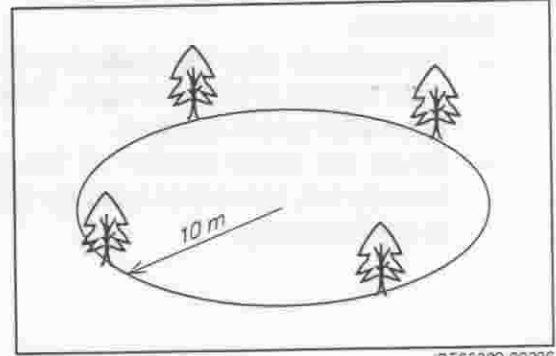
JBE00327-00284

3. Protective goggles and gloves
4. A bag for disposal



JBEO0326-00285

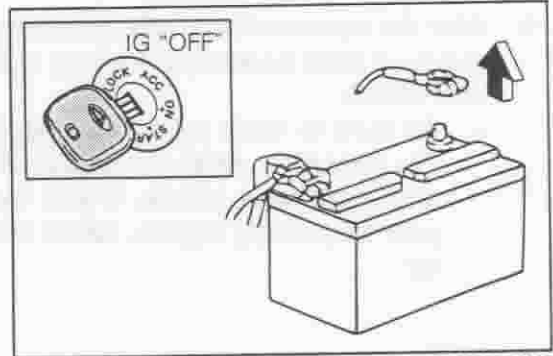
5. A spacious place whose radius is at least 10 meters
- CAUTION:**
- Do not perform the pre-treatment for disposal for the air bag and seat belt pretensioner on a windy or rainy day.



JBEO0329-00286

<Disposal procedure for air bag in driver's seat (steering wheel pad)>

1. Turn OFF the ignition switch. Disconnect the negative terminal of the battery from the vehicle cable terminal.

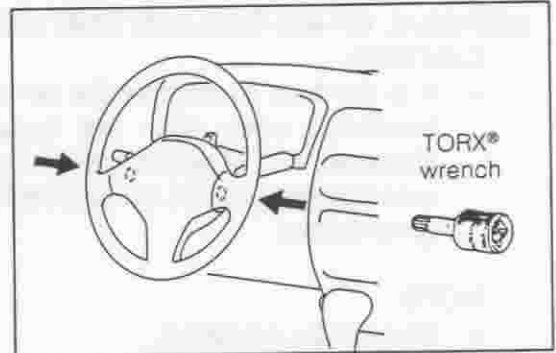


JBEO0330-00287

2. Turn OFF the ignition switch and wait for at least 90 seconds. Remove the steering wheel pad assembly from the steering wheel.

NOTE:

- The steering wheel pad assembly is installed to the steering wheel by means of TORX® bolts.



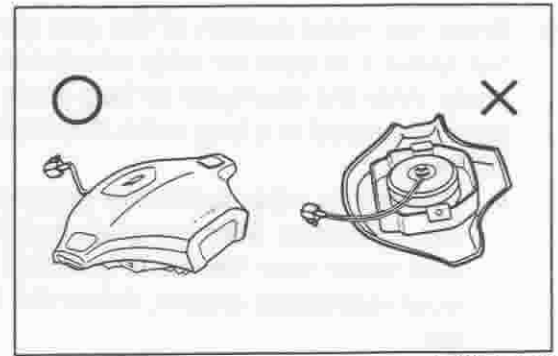
JBEO0331-00288

3. Disconnect the connector of the steering wheel pad assembly from the roll connector. Disconnect the connector for horn.

JBEO0332-00000

WARNING:

- When storing the steering pad assembly temporarily, be sure to place it with the pad surface facing upward on a flat place which is not exposed to direct sun rays. Also the storing place shall be away from water and rain.

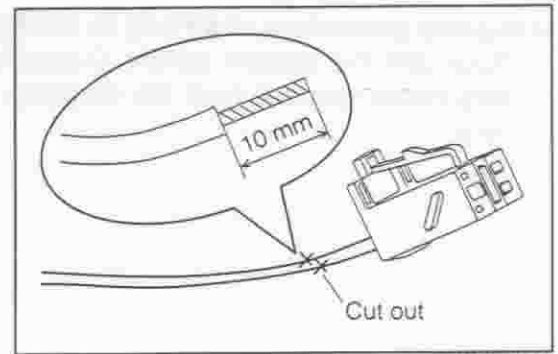


JBE00333-00289

- Cut the wires at the squib connector of the steering pad assembly. Remove the covering of each end of the two cut wires about 10 mm.

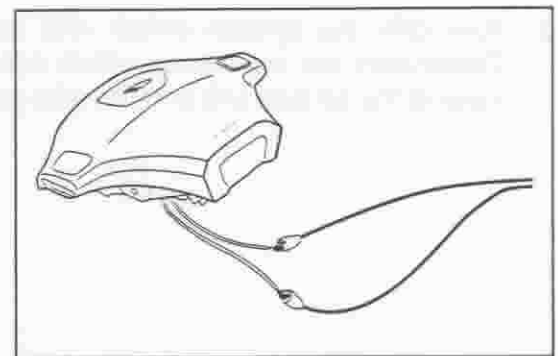
WARNING:

- Connect the sections each other whose wire coverings have been removed so that they may be shorted.



JBE00334-00290

- Place the steering pad assembly at the center of the prepared place. At this time, the pad surface should face upward.
- Disconnect the shorted squib wires of the steering pad assembly. Connect the alligator clip attached to the end of the prepared 10 m-long wire to each squib wire.

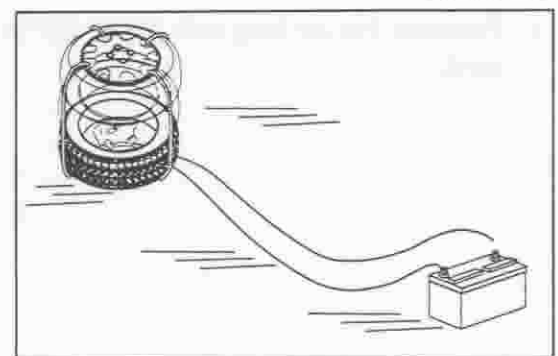


JBE00335-00291

- Place the prepared 12-V battery for automotive use at a corner of the place. Bring nearby the shorted ends of the wires which are extended from the steering pad assembly.

WARNING:

- Be sure to give a warning to other persons about a big noise that will be emitted at the time of the air bag deployment.



JBE00336-00292

- Disconnect the wire ends that have been shorted. Connect one wire to the positive terminal of the battery; the other wire to the negative terminal of the battery, thereby deploying the air bag.

NOTE:

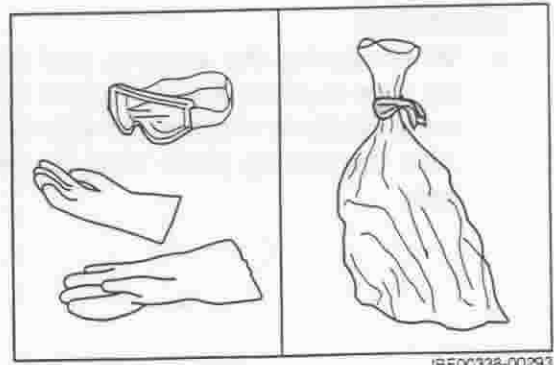
- There is no need for identifying the polarity of the battery.

JBE00337-00000

9. Since the metal section of the gas generator is extremely hot, leave it at least for thirty minutes to allow it to cool naturally. After the deployed air bag cools down completely, it shall be sealed in a bag to be disposed.

WARNING:

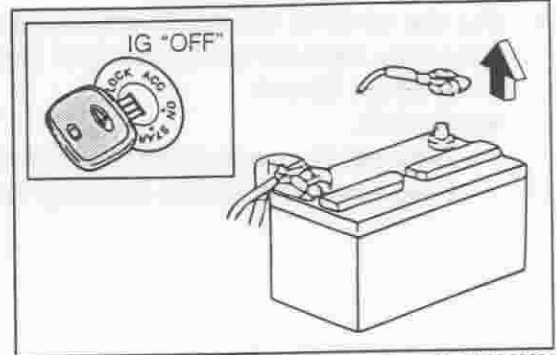
- Be sure to wear protective goggles and gloves during this operation. After completion of the operation, gargle and wash your hands. If you feel any abnormality in your respiratory organs, follow the instruction of a doctor.



JBE00338-00293

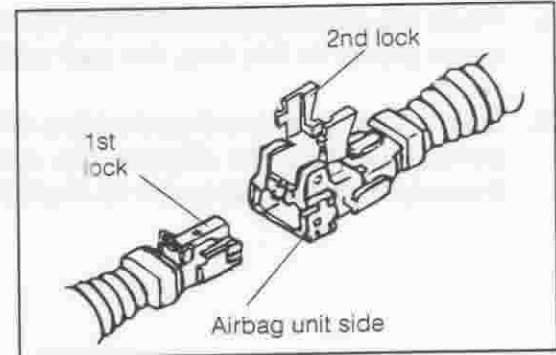
<Disposal procedure of air bag in front passenger seat>

1. Turn OFF the ignition switch. Disconnect the vehicle battery cable terminal from the negative terminal of the battery.



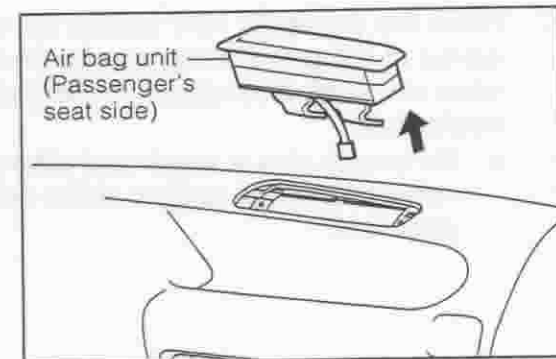
JBE00339-00294

2. Turn OFF the ignition switch and wait for 90 seconds. Disconnect the connector which connects the wire harness of the air bag unit and the wire cowl.



JBE00340-00295

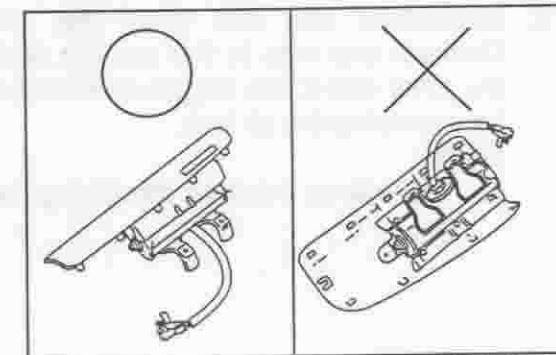
3. Remove the air bag unit assembly in the front passenger seat.



JBE00341-00296

WARNING:

- When storing the air bag unit assembly in the front passenger seat temporarily, be sure to place it with the pad surface facing upward on a flat place which is not exposed to direct sun rays. Also the storing place shall be away from water and rain.

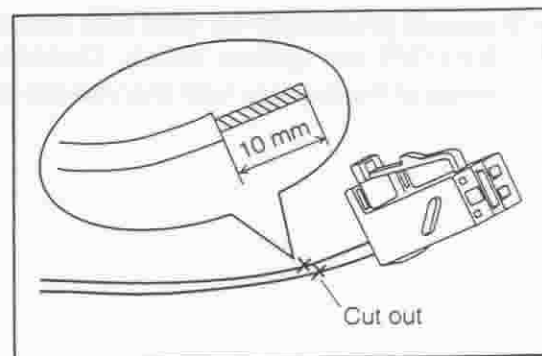


JBE00342-00297

4. Cut the wires at the squib connector of the air bag unit assembly. Remove the covering of the ends of the two cut wires about 10 mm.

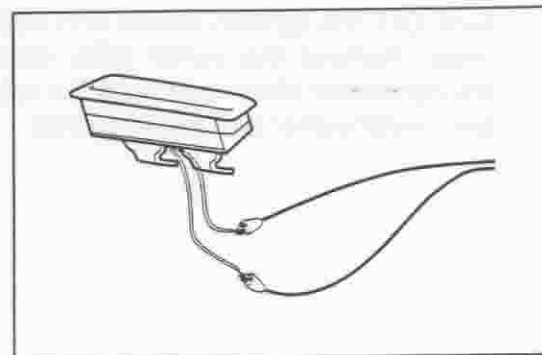
WARNING:

- Connect the sections each other whose wire coverings have been removed so that they may be shorted.



JBE00343-00298

5. Place the air bag unit assembly at the center of the prepared place. At this time, the pad surface should face upward.
6. Disconnect the shorted squib wires of the air bag unit assembly. Connect the alligator clip attached to the end of the prepared 10 m-long wire to each squib wire.

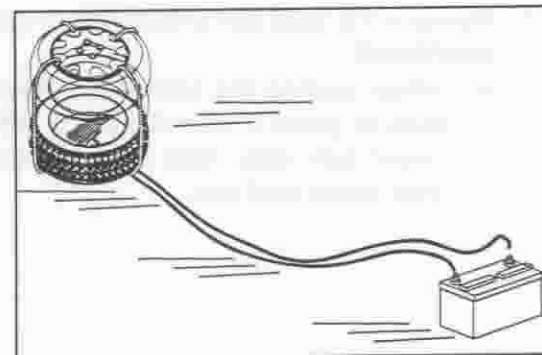


JBE00344-00299

7. Place the prepared 12-V battery for automotive use at a corner of the place. Bring nearby the shorted ends of the wires which are extended from the air bag unit assembly.

WARNING:

- The pad assembly should be secured by piled up tires, as shown in the figure.
- Be sure to give a warning to other persons about a big noise that will be emitted at the time of the air bag deployment.



JBE00345-00300

8. Disconnect the wire ends that have been shorted. Connect one wire to the positive terminal of the battery; the other wire to the negative terminal of the battery, thereby deploying the air bag.

NOTE:

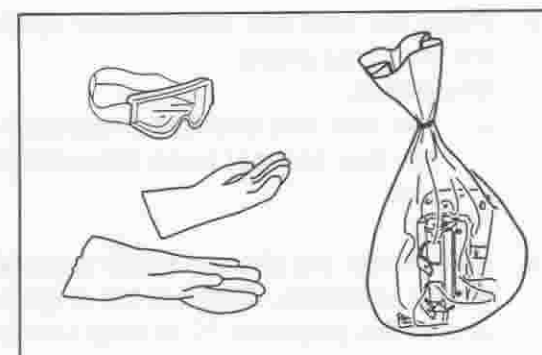
- There is no need for identifying the polarity of the battery.

JBE00346-00000

9. Since the metal section of the gas generator is extremely hot, leave it at least for thirty minutes to allow it to cool naturally. After the deployed air bag cools down completely, it shall be sealed in a bag to be disposed.

WARNING:

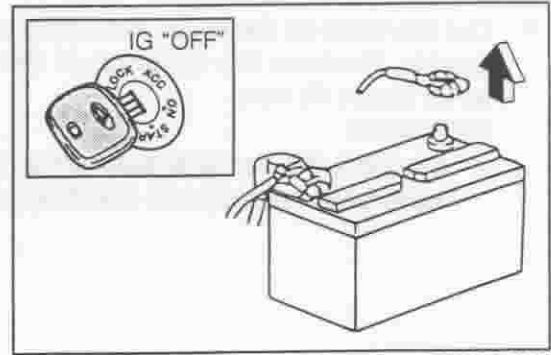
- Be sure to wear protective goggles and gloves during this operation. After completion of the operation, gargle and wash your hands. If you feel any abnormality in your respiratory organs, follow the instruction of a doctor.



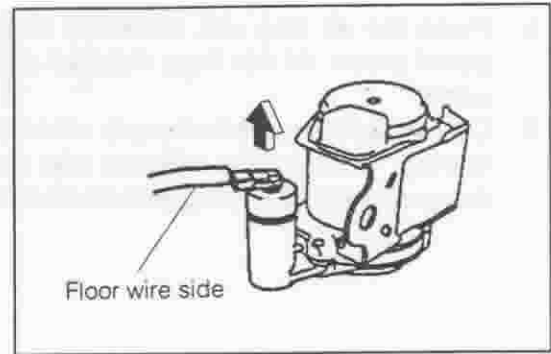
JBE00347-00301

<Disposal procedure for seat belt pretensioner>

1. Turn OFF the ignition switch. Disconnect the negative terminal of the battery from the vehicle cable terminal.



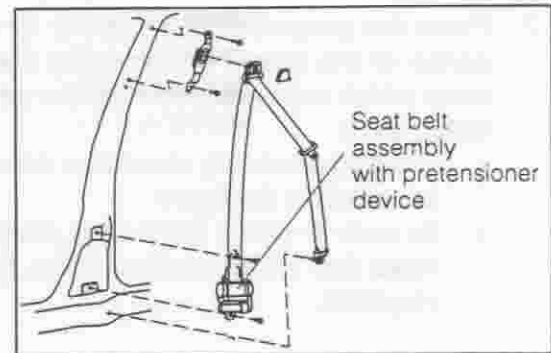
2. Turn OFF the ignition switch and wait at least for 90 seconds. Remove the center pillar lower cover. Disconnect the connector which connects the wire harness of the seat belt pretensioner and the wire cowl.



3. Remove the seat belt pretensioner assembly.

WARNING:

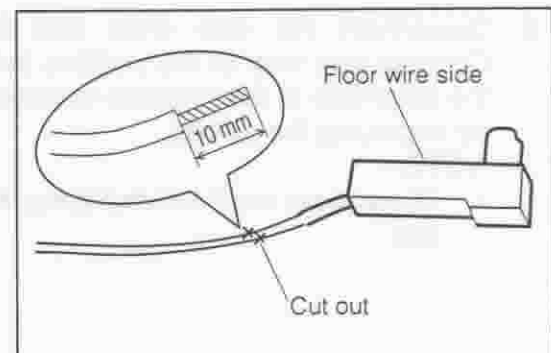
- When storing the seat belt pretensioner assembly, be sure to place it on a flat place which is not exposed to direct sun rays. Also the storing place shall be away from water and rain.



4. Cut the wires at the squib connector of the seat belt pretensioner assembly. Remove the covering of the ends of the two cut wires about 10 mm.

WARNING:

- Connect the sections each other whose wire coverings have been removed so that they may be shorted.

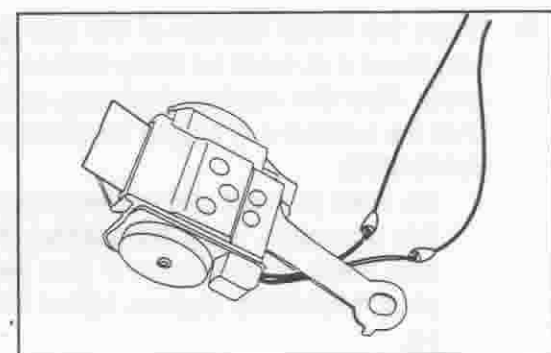


5. Place the seat belt pretensioner assembly at the center of the prepared place.

WARNING:

- The seat belt should be retracted in advance. The portion that has not been retracted should be cut by scissors.

6. Disconnect the shorted squib wires of the seat belt pretensioner assembly. Connect the alligator clip attached to the end of the prepared 10 m-long wire to each squib wire.



cured by pre-clip wires, as shown in Figure 1.

- Be sure to give a warning to other persons about a big noise that will be emitted at the time of the air bag deployment.



JBE00353-00307

8. Disconnect the wire ends that have been shorted. Connect one wire to the positive terminal of the battery; the other wire to the negative terminal of the battery, thereby operating the seat belt pretensioner assembly.

NOTE:

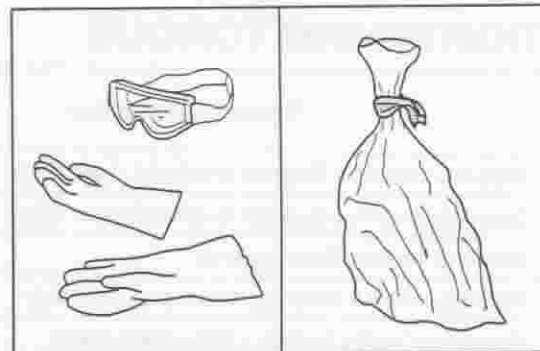
- There is no need for identifying the polarity of the battery.

JBE00354-00000

9. After the operation of the seat belt pretensioner, the metal section of the gas generator is extremely hot. Therefore, leave it at least for thirty minutes to allow it to cool naturally. After it cools down completely, it shall be sealed in a bag to be disposed.



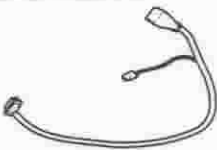

WARNING:

- Be sure to wear protective goggles and gloves during this operation. After completion of the operation, gargle and wash your hands. If you feel any abnormality in your respiratory organs, follow the instruction of a doctor.



JBE00355-00308

SSTs (Special service tool)

Shape	Part No.	Part name	Use
	09870-00025-000	Quick joint remover	To remove the quick joint for air conditioner piping (High pressure side)
	09991-87403-000	Diagnosis check wire	To short the terminal T
	09991-87404-000	Engine control system inspection wire	Additional use for reading the diagnosis code
	09991-97201-000	Diagnosis check wire	To read the immobilizer diagnosis codes for checking ECU input/output signals (LED type)

JBE00363-00316

TIGHTENING TORQUE

Tightening component	Tightening torque		Remarks
	N·m	kgf·m	
Steering column × Support bracket (Lower side)	9.8 - 15.7	1 - 1.6	Nut
Steering column × Support bracket (Upper side)	14.7 - 21.6	1.5 - 2.2	Bolt
Steering wheel × Steering shaft	27.5 - 41.2	2.8 - 4.2	
Steering wheel × Steering wheel pad assembly	5.2 - 9.5	0.53 - 0.97	TORX® bolt
Passenger's side air bag × Instrument panel	6.7 - 9.5	0.68 - 0.97	Bolt
Passenger's side air bag × Instrument panel	6.7 - 9.5	0.68 - 0.97	Nut
Seatbelt pretensioner × Center pillar	28.4 - 53.0	2.9 - 5.4	Bolt
Seatbelt pretensioner × Center pillar	1.5 - 3.5	0.15 - 0.36	Screw

JBE00364-00000