GROUP 52B

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS

Continued on next page

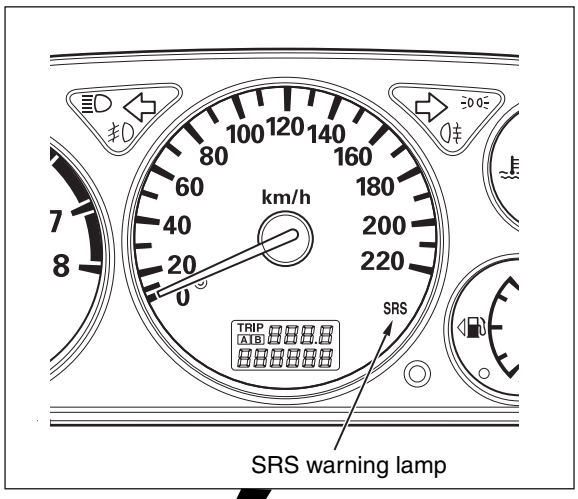
⚠ WARNING

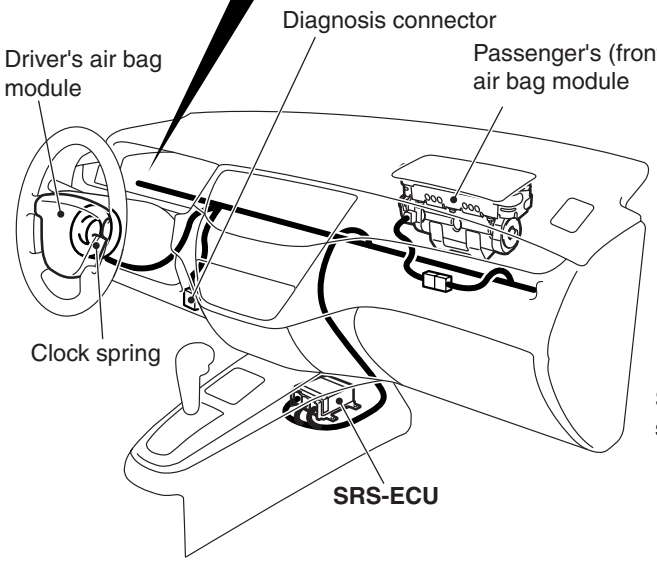
- ***Carefully read and observe the information in the SERVICE PRECAUTIONS prior to any service.***
- ***For information concerning diagnosis or maintenance, always observe the procedures in the SRS Diagnosis or the SRS Maintenance sections, respectively.***
- ***If any SRS components are removed or replaced in connection with any service procedures, be sure to follow the procedures in the INDIVIDUAL COMPONENT SERVICE section for the comportments involved.***
- ***If you have any questions about the SRS, please contact your local distributor.***

GENERAL INFORMATION

M1524000101131

The SRS (Supplemental Restraint System) air bag is a system that is effective with the seat belt fastened, and it is designed as a supplemental system of the seat belt. When an impact exceeds the threshold upon a frontal collision or a side collision, the air bag inflates to protect the passengers.
The SRS consist of six air bag modules, SRS air bag control unit (SRS-ECU), four side impact sensors, SRS warning lamp, clock spring and seat belt pre-tensioner. Front air bags are located in the centre of the steering wheel and above the glove box. Each air bag is made up of a folded air bag and an inflator unit. Side-airbags are located inside the front seat-back assemblies. The curtain air bag module consists of an air bag, an inflator, and the fixing gear relating to those parts, and is installed in the roof side sections (from the driver's and the passenger's front pillars to the rear pillars).The SRS-ECU under the front floor console monitors the system and has a front air bag safing G-sensor, front air bag analogue G-sensor and a side (curtain) air bag safing G-sensor. The side impact sensor is installed in the lower parts of the centre pillars and the inner rear quarter panels, and contains an analogue G-sensor and a microcomputer. The warning lamp on the instrument panel indicates the operational status of the SRS. The clock spring is installed in the steering column. The seat belt pre-tensioner is built into the driver's and passenger's front seat belt retractor.
Only authorized service personnel should do work on or around the SRS components. Those service personnel should read this manual carefully before starting any such work.





AC304412

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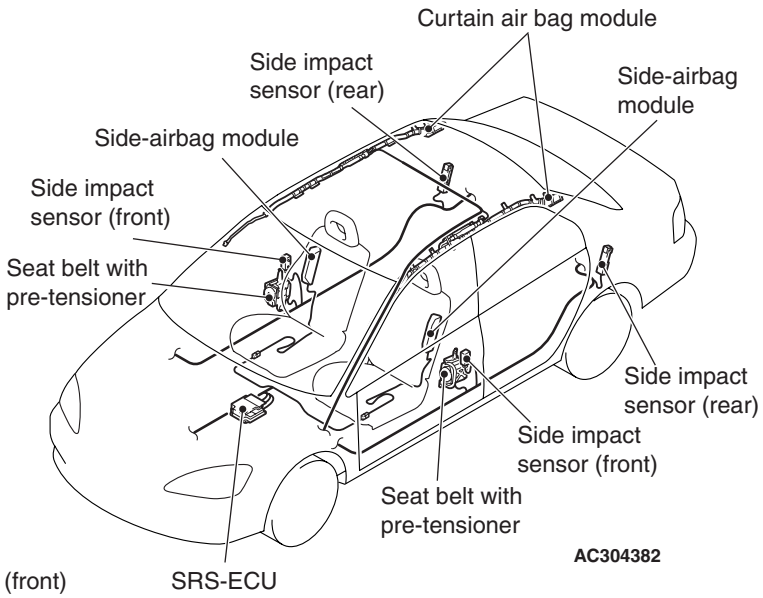

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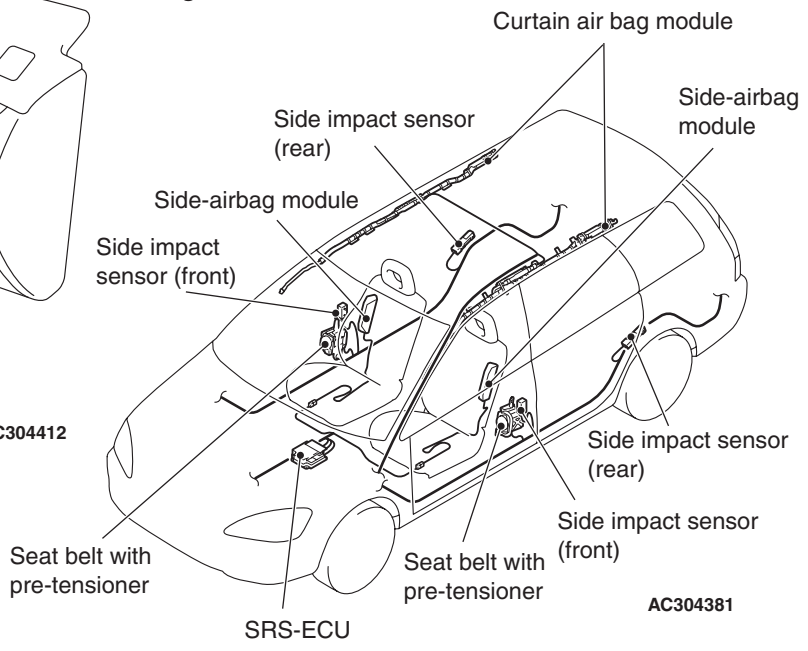

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SERVICE PRECAUTIONS

M1524000300392

⚠ DANGER

In order to avoid injury to yourself or others from accidental deployment of the air bag during servicing, read and carefully follow all the precautions and procedures described in this manual.

⚠ CAUTION

Do not use any electrical test equipment on or near SRS components, except those specified on P.52B-10.

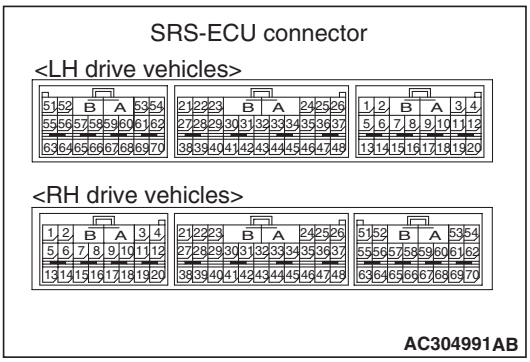
⚠ CAUTION

Never Attempt to Repair the Following Components:

1. **SRS air bag control unit (SRS-ECU)**
2. **Clock spring**
3. **Driver's and passenger's (front) air bag modules**
4. **Side-airbag module**
5. **Curtain air bag module**
6. **Side impact sensor**
7. **Seat belt with pre-tensioner**

NOTE: If any of these components are diagnosed as faulty, they should only be replaced, in accordance with the INDIVIDUAL COMPONENTS SERVICE procedures in this manual, starting at page P.52B-195.

⚠ CAUTION

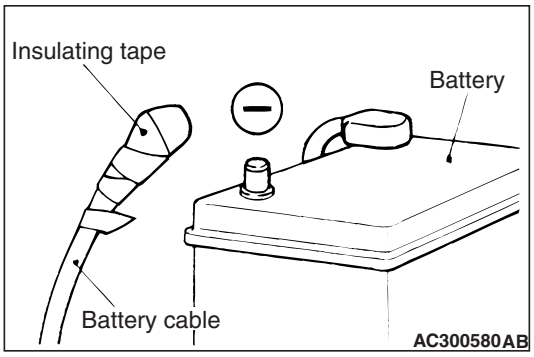


Do not attempt to repair the wiring harness connectors of the SRS. If a defective wiring harness is found, repair or replace it by referring to the table below.

SRS-ECU terminal No.	Destination of harness	Remedy
5, 6	Instrument panel wiring harness → Roof wiring harness → Curtain air bag module (LH)	Correct or replace each wiring harness.
7, 8 <LH drive vehicles>	Instrument panel wiring harness → Floor wiring harness (RH) → Seat belt pre-tensioner (RH)	Correct or replace each wiring harness.
7, 8 <RH drive vehicles>	Instrument panel wiring harness → Floor wiring harness (LH) → Seat belt pre-tensioner (LH)	Correct or replace each wiring harness.
9, 10	Instrument panel wiring harness → Side-airbag module (LH)	Correct or replace the instrument panel wiring harness.
15, 16	Instrument panel wiring harness → Floor wiring harness (LH) → Side impact sensor (rear) (LH)	Correct or replace the floor wiring harness.
19, 20	Instrument panel wiring harness → Floor wiring harness (LH) → Side impact sensor (front) (LH)	Correct or replace each wiring harness.
23	Instrument panel wiring harness → Junction block (fuse No.3)	Correct or replace the instrument panel wiring harness.
24	Instrument panel wiring harness → Junction block (fuse No.2)	Correct or replace the instrument panel wiring harness.
26	Instrument panel wiring harness → SRS warning lamp	Correct or replace the instrument panel wiring harness.
27, 28	Instrument panel wiring harness → Air bag module (Front passenger's side)	Correct or replace the instrument panel wiring harness.
36, 37	Instrument panel wiring harness → Clock spring → Air bag module (Driver's side)	Correct or replace instrument panel wiring harness. Replace the clock spring.
40	Instrument panel wiring harness→ Earth	Correct or replace the instrument panel wiring harness.
44	Instrument panel wiring harness → Diagnosis connector	Correct or replace the instrument panel wiring harness.
57, 58	Instrument panel wiring harness → Side-airbag module (RH)	Correct or replace the instrument panel wiring harness.
59, 60 <LH drive vehicles>	Instrument panel wiring harness → Floor wiring harness (LH) → Seat belt pre-tensioner (LH)	Correct or replace each wiring harness.
59, 60 <RH drive vehicles>	Instrument panel wiring harness → Floor wiring harness (RH) → Seat belt pre-tensioner (RH)	Correct or replace each wiring harness.

SRS-ECU terminal No.	Destination of harness	Remedy
61, 62	Instrument panel wiring harness → Roof wiring harness → Curtain air bag module (RH)	Correct or replace each wiring harness.
63, 64	Instrument panel wiring harness → Floor wiring harness (RH) → Side impact sensor (front) (RH)	Correct or replace the floor wiring harness.
67, 68	Instrument panel wiring harness → Floor wiring harness (RH) → Side impact sensor (rear) (RH)	Correct or replace each wiring harness.

⚠ ***DANGER***



After disconnecting the battery cable, wait 60 seconds or more before proceeding with the following work. In addition, insulate the negative battery terminal with a tape. The condenser inside the SRS-ECU is designed to retain enough voltage to deploy the air bag for a short time even after the battery has been disconnected, so serious injury may result from unintended air bag deployment if work is done on the SRS system immediately after the battery cables are disconnected.

⚠ CAUTION

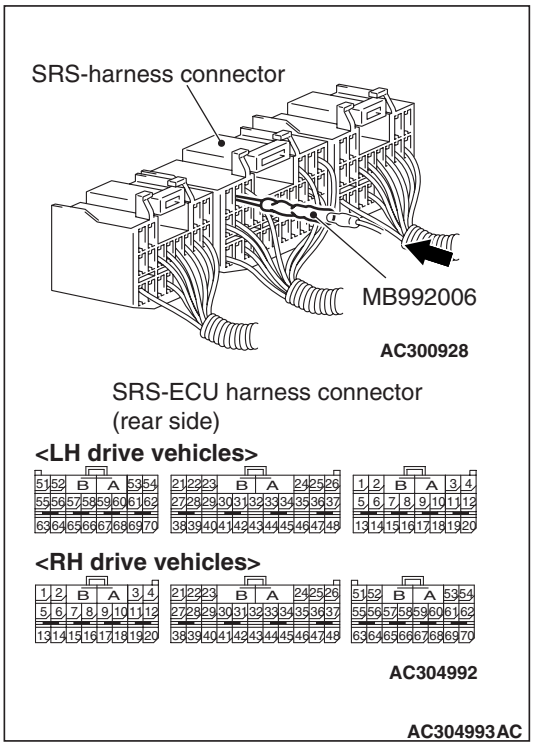
The SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the SRS-ECU, driver's and passenger's (front) air bag modules, clock spring, side-airbag modules, and seat belt pre-tensioner before drying or baking the vehicle after painting.

- **SRS-ECU, air bag modules, clock spring, impact sensors: 93° C or more**
- **Seat belt with pre-tensioner: 90° C or more**

⚠ CAUTION

Whenever you finish servicing the SRS, always erase the diagnosis code and check warning lamp operation to make sure that the system functions properly.

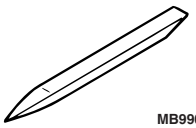
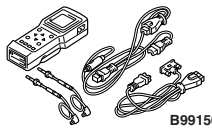
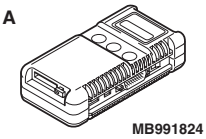
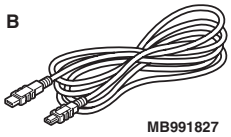
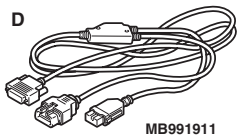
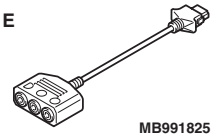
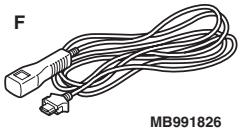
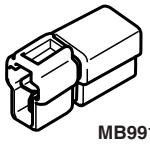
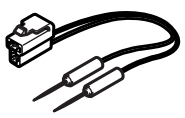
⚠ CAUTION

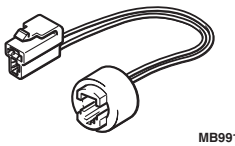
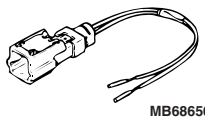
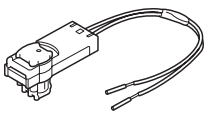
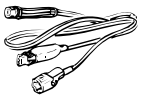
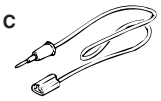


If checks are carried out by using the SRS-ECU harness connector, observe the following procedures: Insert the special tool extra fine probe (MB992006) into connector from harness side (rear side), and connect the tester to this probe. If any tool than special tool is used, damage to the harness and other components will result. Never insert the probe directly to the terminals from the front of the connector. The terminals are plated to increase their conductivity, so that if they are touched directly by the probe, the plating may break, which will cause drops in reliability.

SPECIAL TOOLS

M1524000700378

Tool	No.	Name	Use
 MB990784	MB990784	Ornament remover	Removal of cover.
 B991502	MB991502	M.U.T.-II sub assembly	• Reading and erasing diagnosis code • Reading trouble period • Reading erase times
A  MB991824 B  MB991827 C  DO NOT USE MB991910 D  MB991911 E  MB991825 F  MB991826 MB991955	MB991955 A: MB991824 B: MB991827 C: MB991910 D: MB991911 E: MB991825 F: MB991826	M.U.T.-III sub-assembly A: Vehicle communication interface (V. C. I.) B: M.U.T.-III USB cable C: M.U.T.-III main harness A (Vehicles with CAN communication system) D: M.U.T.-III main harness B (Vehicles without CAN communication system) E: M.U.T.-III measure adapter F: M.U.T.-III trigger harness	Checking diagnosis code **⚠ CAUTION** **M.U.T.-III main harness B (MB991911) should be used. M.U.T.-III main harness A should not be used for this vehicle.**
 MB991865	MB991865	Dummy resistor	SRS air bag and seat belt with pre-tensioner circuit check
 MB991866	MB991866	Resistor harness	SRS air bag circuit check

Tool	No.	Name	Use
 MB991884	MB991884	Resistor harness (For Pre-tensioner)	Seat belt with pre-tensioner and curtain air bag circuit check
 MB686560	MB686560	SRS air bag adapter harness	• Deployment of passenger's (front) air bag module and side-airbag module inside the vehicle • Deployment of passenger's (front) air bag module and side-airbag module outside the vehicle
 MB991885	MB991885	Pre-tensioner adapter harness	• Deployment of curtain air bag module and seat belt with pre-tensioner inside the vehicle • Deployment of curtain air bag module and seat belt with pre-tensioner outside the vehicle
A  B  C  D  MB991223AZ	MB991223 A: MB991219 B: MB991220 C: MB991221 D: MB991222	Harness set A: Check harness B: LED harness C: LED harness adapter D: Probe	Checking the continuity and measuring the voltage at the SRS-ECU harness connector
 MB992006	MB992006	Extra fine probe	Continuity check and voltage measurement at harness wire or connector

TEST EQUIPMENTS

M1524000800290

Tool	Name	Use
 AC300683	Digital multi-meter	Checking SRS electrical circuitry (Use multi-meter for which the maximum test current is 2 mA or less at minimum range of resistance measurement

TROUBLESHOOTING

DIAGNOSIS TROUBLESHOOTING FLOW

M1524003100621

Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5.

DIAGNOSIS FUNCTION

M1524003200491

DIAGNOSIS CODES CHECK

⚠ CAUTION

Turn off the ignition switch before connecting or disconnecting the M.U.T.-II/III.

Connect the M.U.T.-II/III to the diagnosis connector (16-pin) under the instrument under cover, then check diagnosis codes (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

ERASING DIAGNOSIS CODE

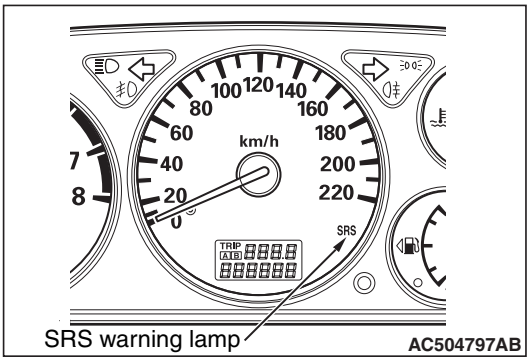
⚠ CAUTION

Turn off the ignition switch before connecting or disconnecting the M.U.T.-II/III.

Connect the M.U.T.-II/III to the diagnosis connector and erase the diagnosis code.

SRS WARNING LAMP CHECK

M1524004300628



1. Check that the SRS warning lamp comes on when the ignition switch is turned ON.
2. Check that the SRS warning lamp illuminates for about 7 seconds and then goes out.
3. If this is not the cause, check the diagnosis codes.

CHECK CHART FOR DIAGNOSIS CODES

M1524003301145

Inspect according to the inspection chart that is appropriate for the diagnosis code.

Code No.	Diagnosis item	Reference Page
3A*2	Curtain air bag module (squib) (RH) system (short-circuited between terminals of the squib circuit)	P.52B-15
3B*2	Curtain air bag module (squib) (RH) system (open-circuited in the squib circuit)	P.52B-21
3C	Curtain air bag squib module (RH) activating circuit short-circuited	P.52B-24
3D	Curtain air bag squib module (RH) activating circuit open-circuited	P.52B-24
3E	Curtain air bag module (squib) (RH) system (short-circuited to the power supply)	P.52B-26
3F	Curtain air bag module (squib) (RH) system (short-circuited to the earth)	P.52B-30
4A*2	Curtain air bag module (squib) (LH) system (short-circuited between terminals of the squib circuit)	P.52B-34
4B*2	Curtain air bag module (squib) (LH) system (open-circuited in the squib circuit)	P.52B-40
4C	Curtain air bag squib module (LH) activating circuit short-circuited	P.52B-24
4D	Curtain air bag squib module (LH) activating circuit open-circuited	P.52B-24
4E	Curtain air bag module (squib) (LH) system (short-circuited to the power supply)	P.52B-44
4F	Curtain air bag module (squib) (LH) system (short-circuited to the earth)	P.52B-47
5A*1	Side impact sensor (LH) (rear) voltage error	P.52B-50
5B	G-sensor of side impact sensor (LH) (rear) failure	P.52B-52
5C	Side impact sensor (LH) (rear) communication error	P.52B-53
5D	Side impact sensor (LH) (rear) communication impossible	P.52B-53
6A*1	Side impact sensor (RH) (rear) voltage error	P.52B-55
6B	G-sensor of side impact sensor (RH) (rear) failure	P.52B-52
6C	Side impact sensor (RH) (rear) communication error	P.52B-57
6D	Side impact sensor (RH) (rear) communication impossible	P.52B-57
14	Analog G-sensor malfunction	P.52B-24
15	Safing G-sensor (for frontal collision) short-circuited	P.52B-24
16	Safing G-sensor (for frontal collision) open-circuited	P.52B-24
17	Safing G-sensor (for side collision) malfunction	P.52B-24
21*2	Driver's air bag module (squib) system (short-circuited between terminals of the squib circuit)	P.52B-60
22*2	Driver's air bag module (squib) system (open-circuited in the squib circuit)	P.52B-65

Code No.	Diagnosis item		Reference Page
24*2	Passenger's (front) air bag module (squib) system (short-circuited between terminals of the squib circuit)		P.52B-69
25*2	Passenger's (front) air bag module (squib) system (open-circuited in the squib circuit)		P.52B-73
26*2	Driver's seat belt pre-tensioner (squib) system (short-circuited between terminals of the squib circuit)		P.52B-75
27*2	Driver's seat belt pre-tensioner (squib) system (open-circuited in the squib circuit)		P.52B-82
28*2	Passenger's (front) seat belt pre-tensioner (squib) system (short-circuit between terminals of the squib circuit)		P.52B-87
29*2	Passenger's (front) seat belt pre-tensioner (squib) system (open-circuited in the squib circuit)		P.52B-95
31	SRS-ECU capacitor circuit voltage too high		P.52B-24
32	SRS-ECU capacitor circuit voltage too low		P.52B-24
34*1	SRS-ECU connector lock out of order		P.52B-100
35	Ignition of the air bag completed		P.52B-102
39	Air bag deployed simultaneously		P.52B-102
41*1	Power supply voltage (IG1 (A) voltage) drops abnormally.		P.52B-103
42*1	Power supply voltage (IG1 (B) voltage) drops abnormally.		P.52B-108
43	SRS warning lamp circuit open-circuited	Lamp does not illuminate	P.52B-113
		Lamp does not switch off	P.52B-117
44	SRS warning lamp circuit malfunction		P.52B-120
45	SRS-ECU non-volatile memory (EEPROM) and A/D converter system		P.52B-24
46*1	Improper installation of SRS-ECU		P.52B-121
51	Driver's air bag squib activating circuit short-circuited		P.52B-24
52	Driver's air bag squib activating circuit open-circuited		P.52B-24
54	Passenger's (front) air bag squib activating circuit short-circuited		P.52B-24
55	Passenger's (front) air bag squib activating circuit open-circuited		P.52B-24
56	Driver’s seat belt pre-tensioner activating circuit short-circuited		P.52B-24
57	Driver’s seat belt pre-tensioner activating circuit open-circuited		P.52B-24
58	Passenger’s (front) seat belt pre-tensioner activating circuit short-circuited		P.52B-24
59	Passenger’s (front) seat belt pre-tensioner activating circuit open-circuited		P.52B-24
61	Driver's air bag module (squib) system (short-circuited to the power supply)		P.52B-122

Code No.	Diagnosis item	Reference Page
62	Driver's air bag module (squib) system (short-circuited to the earth)	P.52B-125
64	Passenger's (front) air bag module (squib) system (short-circuited to the power supply)	P.52B-128
65	Passenger's (front) air bag module (squib) system (short-circuited to the earth)	P.52B-130
66	Driver's seat belt pre-tensioner (squib) system (short-circuited to the power the supply)	P.52B-132
67	Driver's seat belt pre-tensioner (squib) system (short-circuited to the earth)	P.52B-137
68	Passenger's (front) seat belt pre-tensioner (squib) system (short-circuited to the power supply)	P.52B-142
69	Passenger's (front) seat belt pre-tensioner (squib) system (short-circuited to the earth)	P.52B-147
71*2	Side-airbag module (squib) (RH) system (short-circuited between terminals of the squib circuit)	P.52B-152
72*2	Side-airbag module (squib) (RH) system (open-circuited in the squib circuit)	P.52B-156
73	Side-airbag squib (RH) activating circuit short-circuited	P.52B-24
74	Side-airbag squib (RH) activating circuit open-circuited	P.52B-24
75	Side-airbag module (squib) (RH) system (short-circuited to the power supply)	P.52B-158
76	Side-airbag module (squib) (RH) system (short-circuited to the earth)	P.52B-160
79	Side impact sensor (LH) (front) communication error	P.52B-163
81*2	Side-airbag module (squib) (LH) system (short-circuited between terminals of the squib circuit)	P.52B-165
82*2	Side-airbag module (squib) (LH) system (open-circuited in the squib circuit)	P.52B-169
83	Side-airbag squib (LH) activating circuit short-circuited	P.52B-24
84	Side-airbag squib (LH) activating circuit open-circuited	P.52B-24
85	Side-airbag module (squib) (LH) system (short-circuited to the power supply)	P.52B-171
86	Side-airbag module (squib) (LH) system (short-circuited to the earth)	P.52B-174
89	Side impact sensor (RH) (front) communication error	P.52B-177
91*1	Side impact sensor (LH) (front) voltage error	P.52B-179
92	G-sensor of side impact sensor (LH) (front) failure	P.52B-181
93	Side impact sensor (LH) (front) communication impossible	P.52B-163
94*1	Side impact sensor (RH) (front) voltage error	P.52B-182
95	G-sensor of side impact sensor (RH) (front) failure	P.52B-181
96	Side impact sensor (RH) (front) communication impossible	P.52B-177

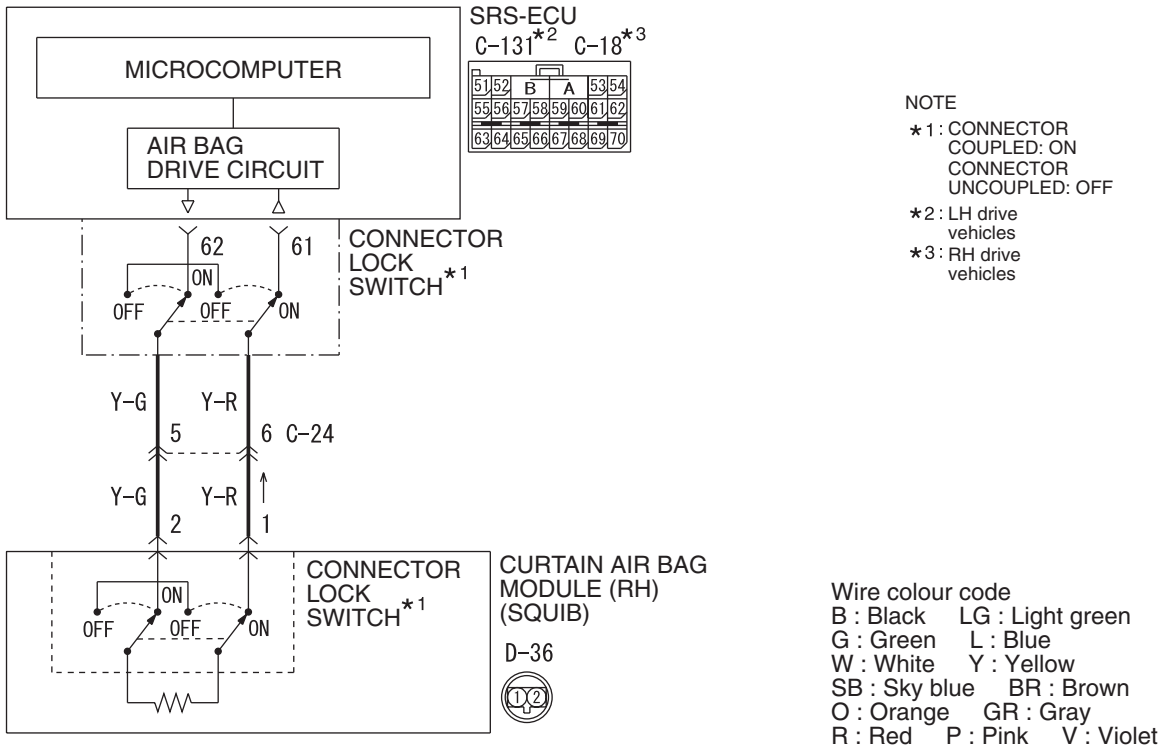
NOTE:

1. **1: If the vehicle condition returns to normal, the diagnosis code will be automatically erased, and the SRS warning lamp will return to normal.*
2. **2: However, if no diagnosis code resets, the SRS warning lamp will be switched off (The diagnosis code will be retained).*
3. *If the vehicle has a discharged battery, it will store the diagnosis code 41 or 42. When these diagnosis codes are read, check the battery.*

DIAGNOSTIC TROUBLE CODE PROCEDURES

Code No.3A: Curtain air bag module (squib) (RH) system (short-circuited between terminals of the squib circuit)

Curtain Air Bag Module (Squib) (RH) Circuit



W4J52E04AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors and the side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the curtain air bag module will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if one curtain air bag module squib (RH) wire shorted to the other. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

PROBABLE CAUSES

- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (squib) (RH) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the earth wire in the squib circuit when the connectors are disconnected). Therefore, if connector C-131 <LHD>, C-18 <RHD> or D-36 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-II/III diagnosis code

⚠ CAUTION

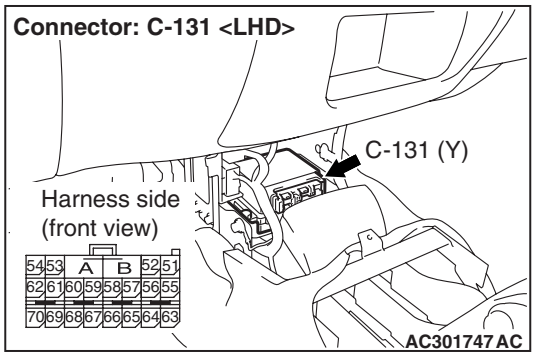
To prevent damage to M.U.T.-II/III, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

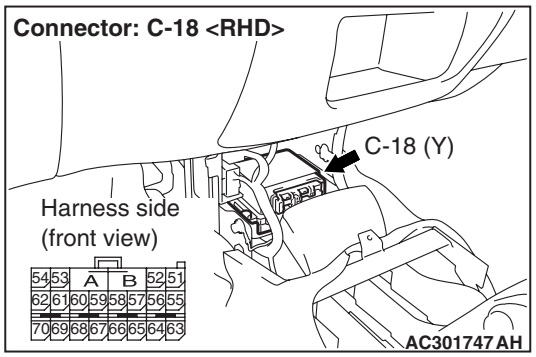
(1) Turn the ignition switch to the "ON" position.
(2) Check if the diagnosis code is set.
(3) Turn the ignition switch to the "LOOK" (OFF) position.

Q: Is diagnosis code 34 set?
YES : Go to Step 2.
NO : Go to Step 3.

STEP 2. Connector lock check: SRS-ECU connector C-131 <LHD> or C-18 <RHD> (M.U.T.-II/III diagnosis code)

(1) Disconnect the negative battery terminal.



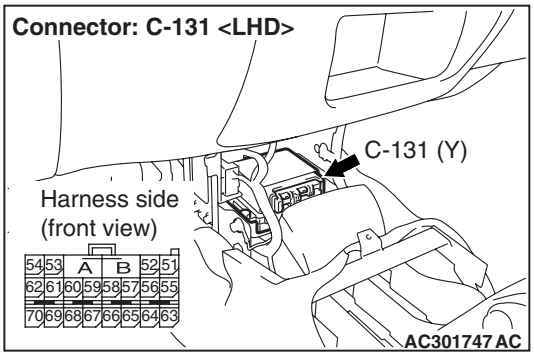


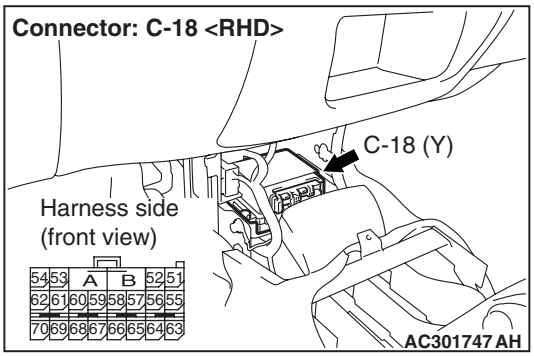
(2) Disconnect connectors C-131 <LHD> or C-18 <RHD>, and then reconnect them.
(3) Connector the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

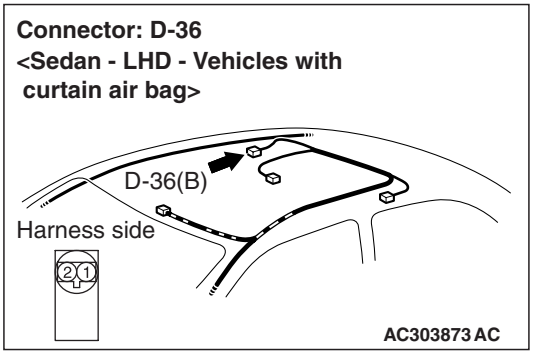
Q: Is diagnosis code 3A set?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 3A set as connector C-131 <LHD> or C-18 <RHD> was engaged improperly.

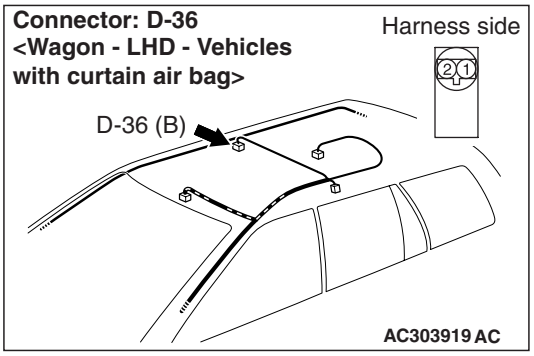
STEP 3. Connector lock check: SRS-ECU connector C-131 <LHD> or C-18 <RHD> and curtain air bag module connector D-36 (M.U.T.-II/III diagnosis code)

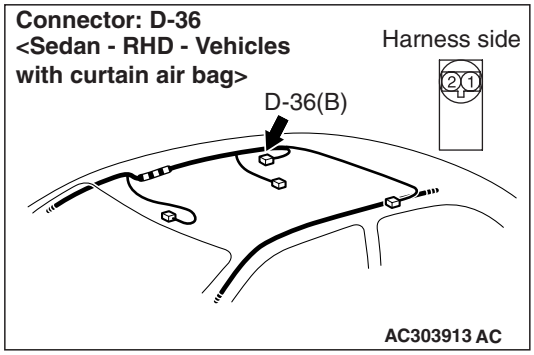
(1) Disconnect the negative battery terminal.

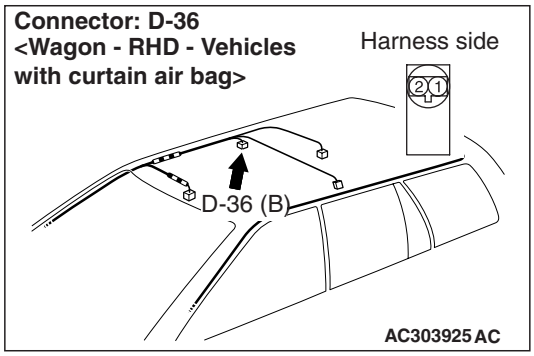


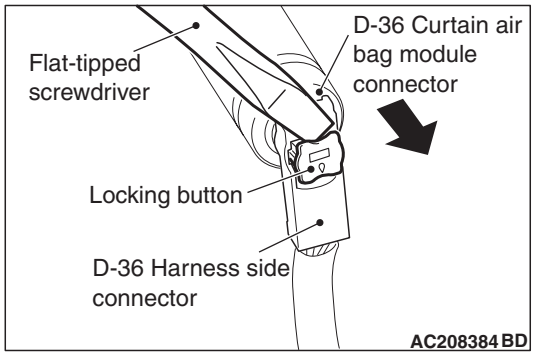












(2) Disconnect connectors C-131 <LHD> or C-18 <RHD> and D-36, and then reconnect them. For connector D-36, use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

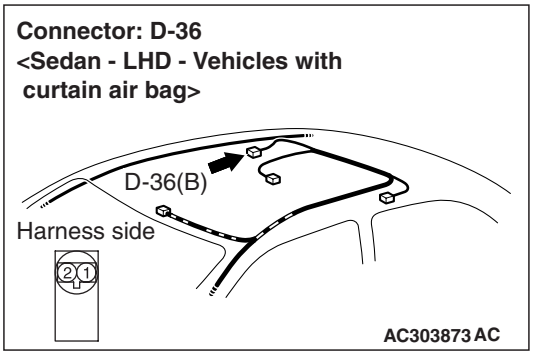
Q: Is diagnosis code 3A set?

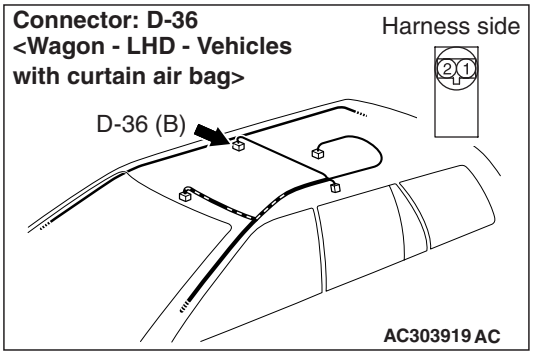
YES : Go to Step 4.

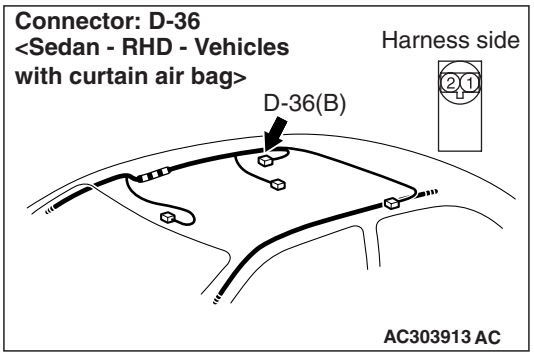
NO : The procedure is complete. It is assumed that diagnosis code 3A set as connector C-131 <LHD>, C-18 <RHD> or D-36 was engaged improperly.

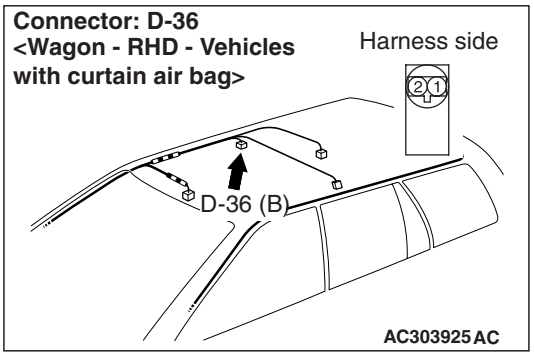
STEP 4. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

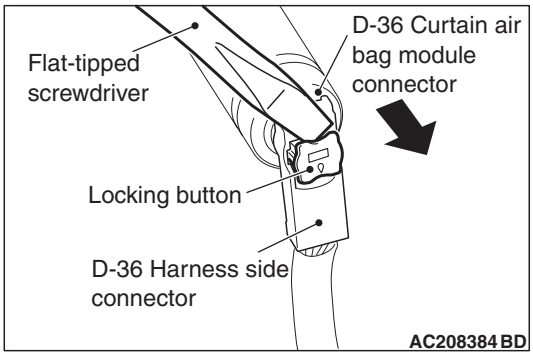
(1) Disconnect the negative battery terminal.



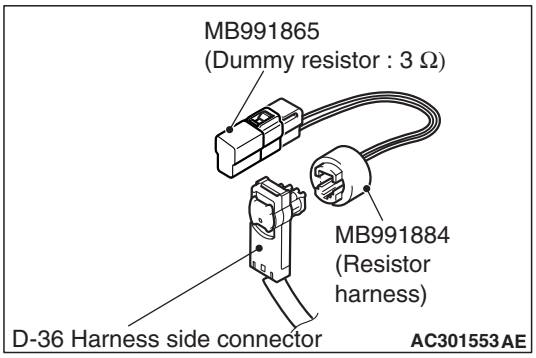








(2) Disconnect curtain air bag module connector D-36. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



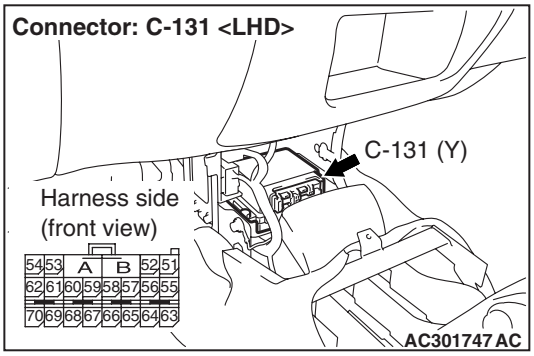
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

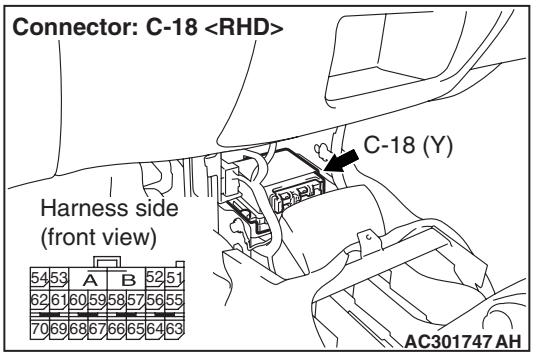
Q: Is diagnosis code 3A set?

YES : Go to Step 5.

NO : Replace the curtain air bag module (Refer to P.52B-207).

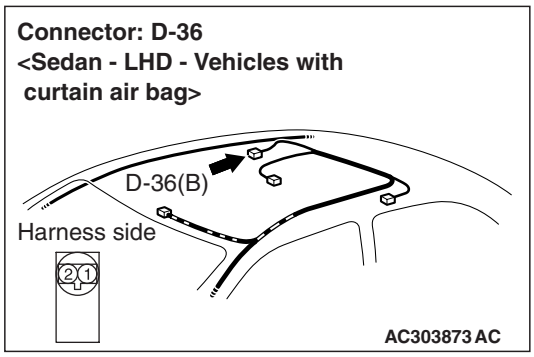
STEP 5. Resistance measurement at the SRS-ECU connector C-131 <LHD> or C-18 <RHD>.

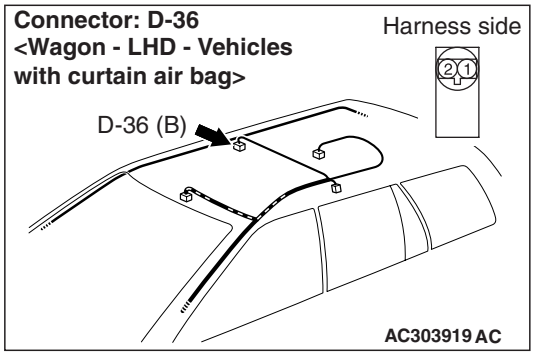


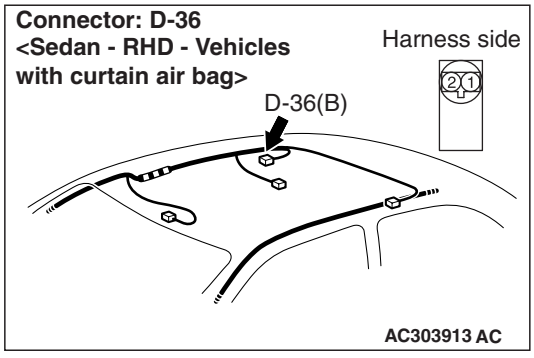


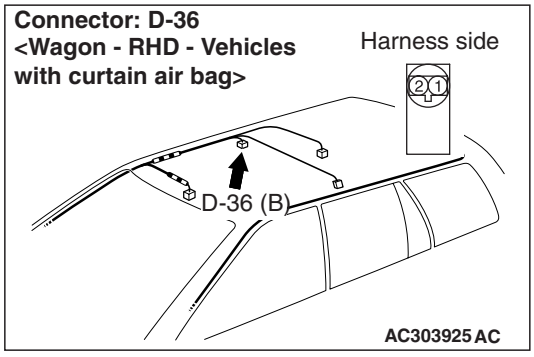
(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>.

⚠ ***DANGER***

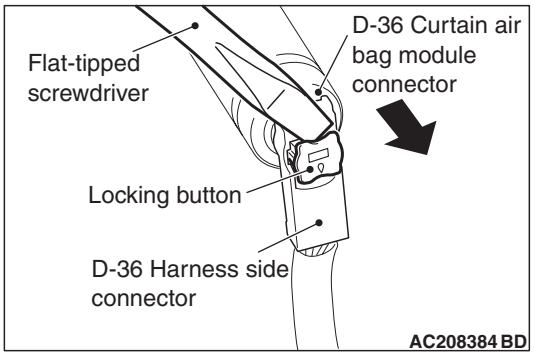






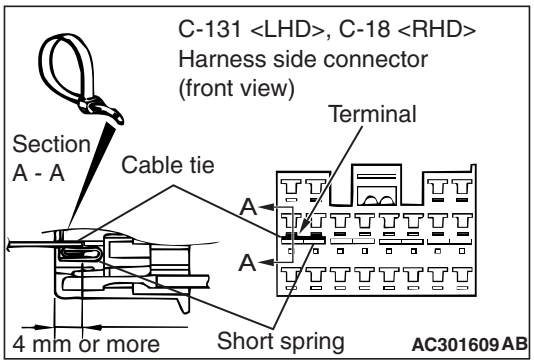


To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-36 to short the squib circuit.



(2) Disconnect curtain air bag module connector D-36. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

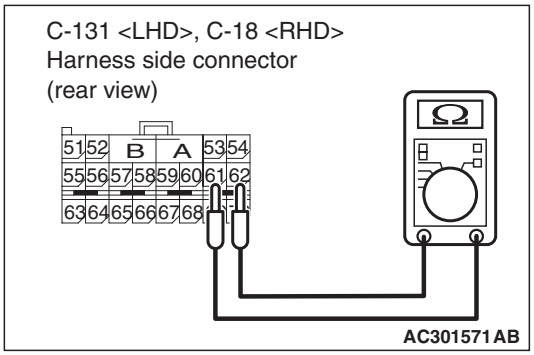
⚠ CAUTION



Insert an insulator such as a cable tie to a depth of 4mm or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm wide, 0.5 mm thick] between terminals 61, 62 and the short spring to release the short spring.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Resistance measurement between C-131 <LHD> or C-18 <RHD> harness side connector terminals 61 and 62.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wire between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.61and 62) and curtain air bag module connector D-36 (terminal No.1and 2).

STEP 6. Check whether the diagnosis code is reset.

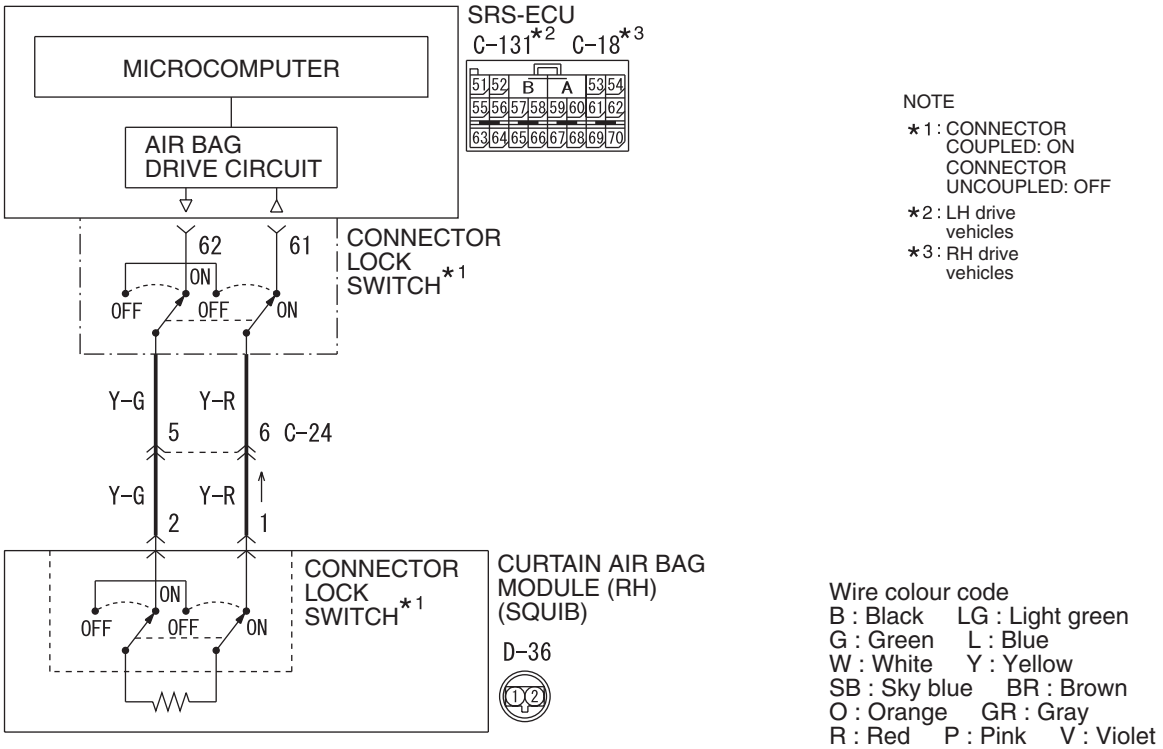
Q: Is diagnosis code 3A set?

YES : Replace the SRS-ECU. (Refer toP.52B-198).

NO : The procedure is complete. If no malfunctions are found in all steps, an intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.3B: Curtain air bag module (squib) (RH) system (open-circuited in the squib circuit)

Curtain Air Bag Module (Squib) (RH) Circuit



NOTE
*1: CONNECTOR COUPLED: ON CONNECTOR UNCOUPLED: OFF
*2: LH drive vehicles
*3: RH drive vehicles

Wire colour code
B : Black LG : Light green
G : Green L : Blue
W : White Y : Yellow
SB : Sky blue BR : Brown
O : Orange GR : Gray
R : Red P : Pink V : Violet

W4J52E04AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors and the side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the curtain air bag module will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if curtain air bag module squib <RH> wire(s) are open-circuited. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

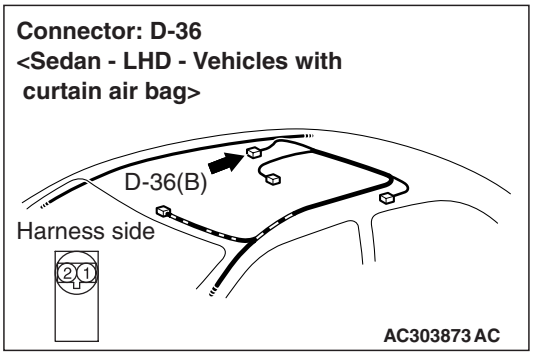
PROBABLE CAUSES

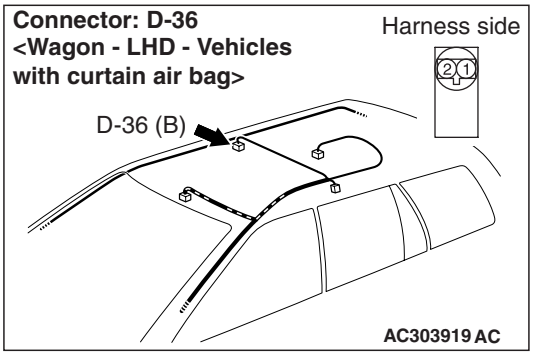
- Improper connector contact
- Open circuit in the curtain air bag module (squib) (RH) circuit
- Malfunction of the SRS-ECU

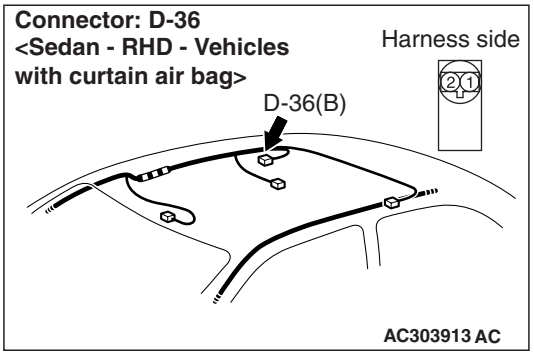
DIAGNOSIS PROCEDURE

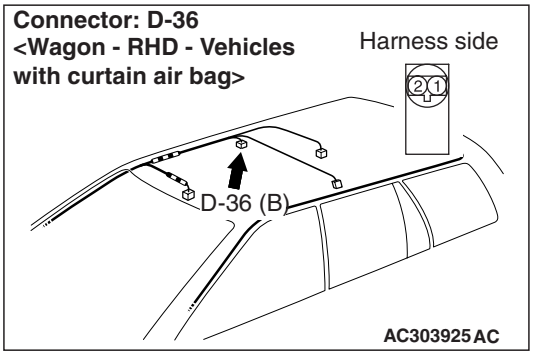
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

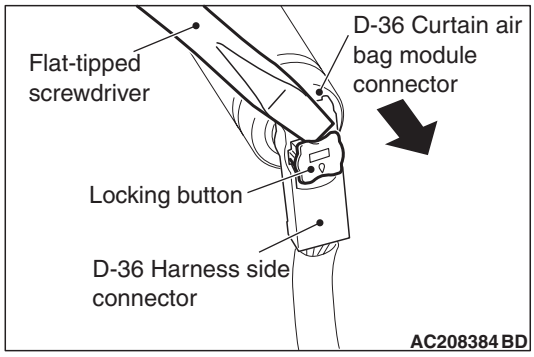
(1) Disconnect the negative battery terminal.



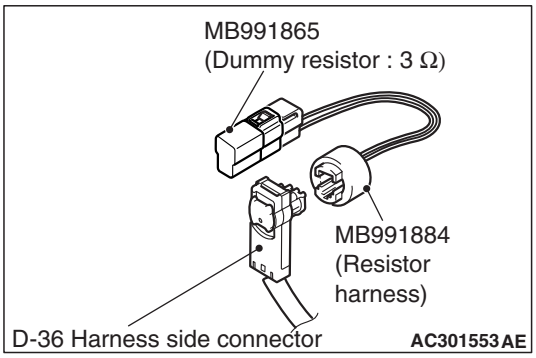








(2) Disconnect curtain air bag module connector D-36. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



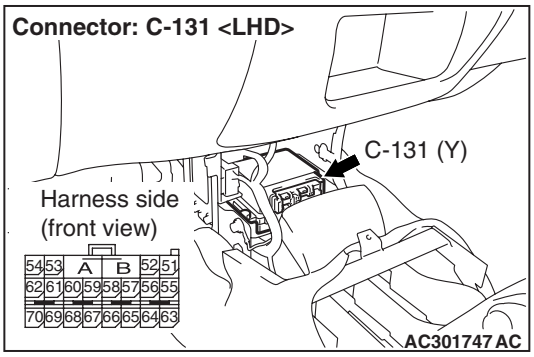
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

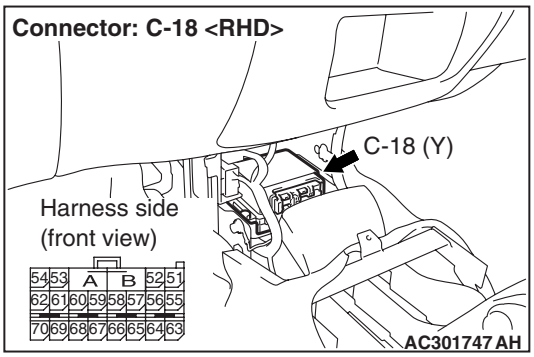
Q: Is diagnosis code 3B set?

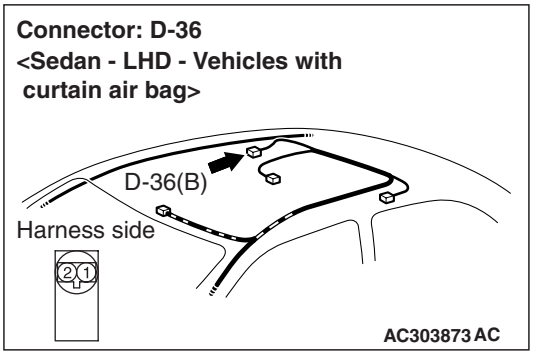
YES : Go to Step 2.

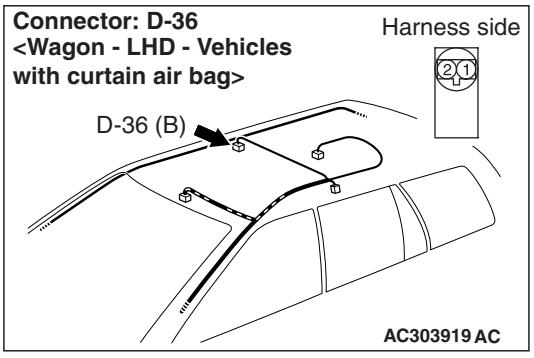
NO : Replace the curtain air bag module (Refer to P.52B-207).

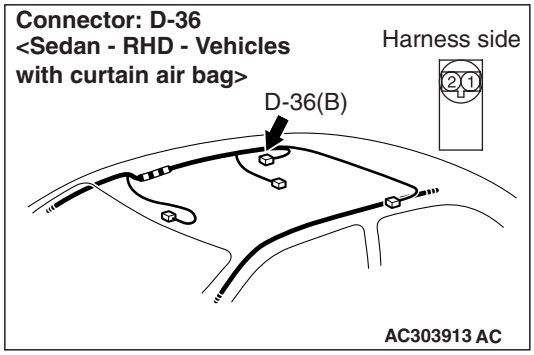
STEP 2. Resistance measurement between SRS-ECU connector C-131 <LHD>, C-18 <RHD> (terminal No.61 and 62) and the curtain air bag module D-36 (terminal No.1 and 2).

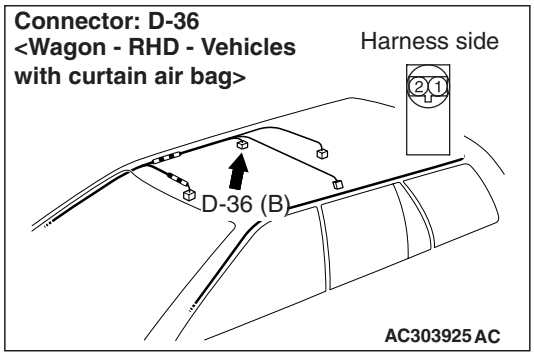


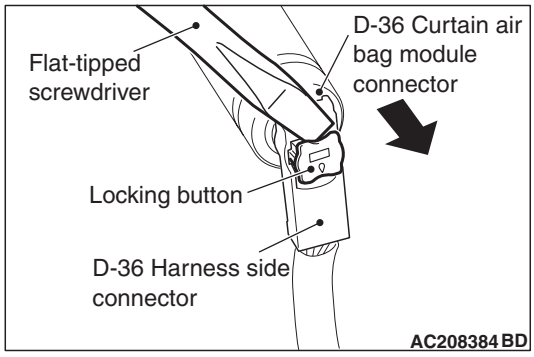




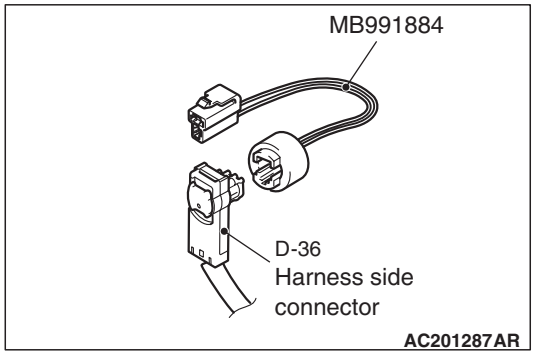






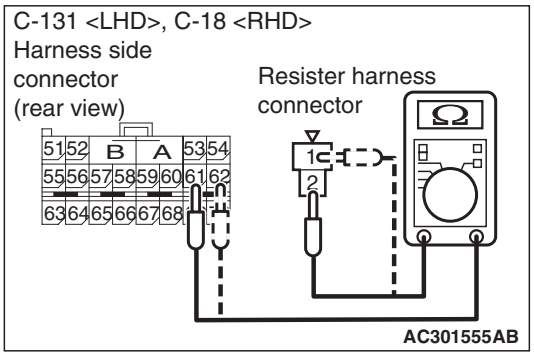


(1) Disconnect SRS-ECU connector C-131 <LHD>, C-18 <RHD> and curtain air bag module connector D-36, and measure at the wiring harness side. For connector D-36, use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



(2) Connect D-36 harness side connector to special tool resistor harness (MB991884).

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between the following terminals.
- SRS-ECU connector C-131 <LHD>, C-18 <RHD> terminal No.62 and special tool terminal No.1
- SRS-ECU connector C-131 <LHD>, C-18 <RHD> terminal No.61 and special tool terminal No.2

OK: Continuity (Less than 2 Ω)

Q: Are the check results normal?
YES : Go to Step 3.
NO : Repair the harness wire between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.61 and 62) and curtain air bag module connector D-36 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

Q: Is diagnosis code No.3B set?
YES : Replace the SRS-ECU (Refer to P.52B-198).
NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.3C: Curtain air bag squib (RH) activating circuit short-circuited
Code No.3D: Curtain air bag squib (RH) activating circuit open-circuited
Code No.4C: Curtain air bag squib (LH) activating circuit short-circuited
Code No.4D: Curtain air bag squib (LH) activating circuit open-circuited
Code No.14: Analog G-sensor malfunction
Code No.15: Safing G-sensor (for frontal collision) short-circuited
Code No.16: Safing G-sensor (for frontal collision) open-circuited
Code No.17: Safing G-sensor (for side collision) malfunction
Code No.31: SRS-ECU capacitor circuit voltage too high
Code No.32: SRS-ECU capacitor circuit voltage too low
Code No.45: SRS-ECU non-volatile memory (EEPROM) and A/D converter system
Code No.51: Driver's air bag squib activating circuit short-circuited
Code No.52: Driver's air bag squib activating circuit open-circuited
Code No.54: Passenger's (front) air bag squib activating circuit short-circuited
Code No.55: Passenger's (front) air bag squib activating circuit open-circuited
Code No.56: Driver's seat belt pre-tensioner activating circuit short-circuited
Code No.57: Driver's seat belt pre-tensioner activating circuit open-circuited
Code No.58: Passenger's (front) seat belt pre-tensioner activating circuit short-circuited
Code No.59: Passenger's (front) seat belt pre-tensioner activating circuit open-circuited
Code No.73: Side-airbag squib (RH) activating circuit short-circuited
Code No.74: Side-airbag squib (RH) activating circuit open-circuited
Code No.83: Side-airbag squib (LH) activating circuit short-circuited
Code No.84: Side-airbag squib (RH) activating circuit open-circuited

DIAGNOSIS CODE SET CONDITIONS

These diagnosis codes are set when a fault is detected in the SRS-ECU. The most likely causes for this code to be set are shown in the table below:

Code No.	Part/Circuit integral to SRS-ECU	Trouble causes
3C	Curtain air bag module (squib) (RH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
3D		• Open circuit in the squib ignition drive circuit
4C	Curtain air bag module (squib) (LH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
4D		• Open circuit in the squib ignition drive circuit
14	Analog G-sensor	• When the analog G-sensor is not operating • When the characteristics of the analog G-sensor are abnormal • When the output from the analog G-sensor is abnormal
15	Safing G-sensor (for frontal collision)	• Short circuit in the safing G-sensor
16		• Open circuit in the safing G-sensor
17	Safing G-sensor (for side collision)	• When the safing G-sensor is not operating • When the characteristics of the safing G-sensor are abnormal • When the output from the safing G-sensor is abnormal
31	Capacitor circuit	• Voltage at the capacitor terminal is higher than the specified value for five seconds or more
32		• Voltage at the capacitor terminal is lower than the specified value for five seconds or more (This is not detected if diagnosis code No.41 or 42 indicating battery positive voltage drop has been output).
45	Non-volatile memory (EEPROM) and A/D converter	• When the non-volatile memory (EEPROM) and A/D converter system are abnormal
51	Driver's air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
52		• Open circuit in the squib ignition drive circuit
54	Passenger's (front) air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
55		• Open circuit in the squib ignition drive circuit
56	Driver’s seat belt pre-tensioner (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
57		• Open circuit in the squib ignition drive circuit
58	Passenger’s (front) seat belt pre-tensioner (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
59		• Open circuit in the squib ignition drive circuit
73	Side-airbag module (RH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
74		• Open circuit in the squib ignition drive circuit
83	Side-airbag module (LH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
84		• Open circuit in the squib ignition drive circuit

PROBABLE CAUSE

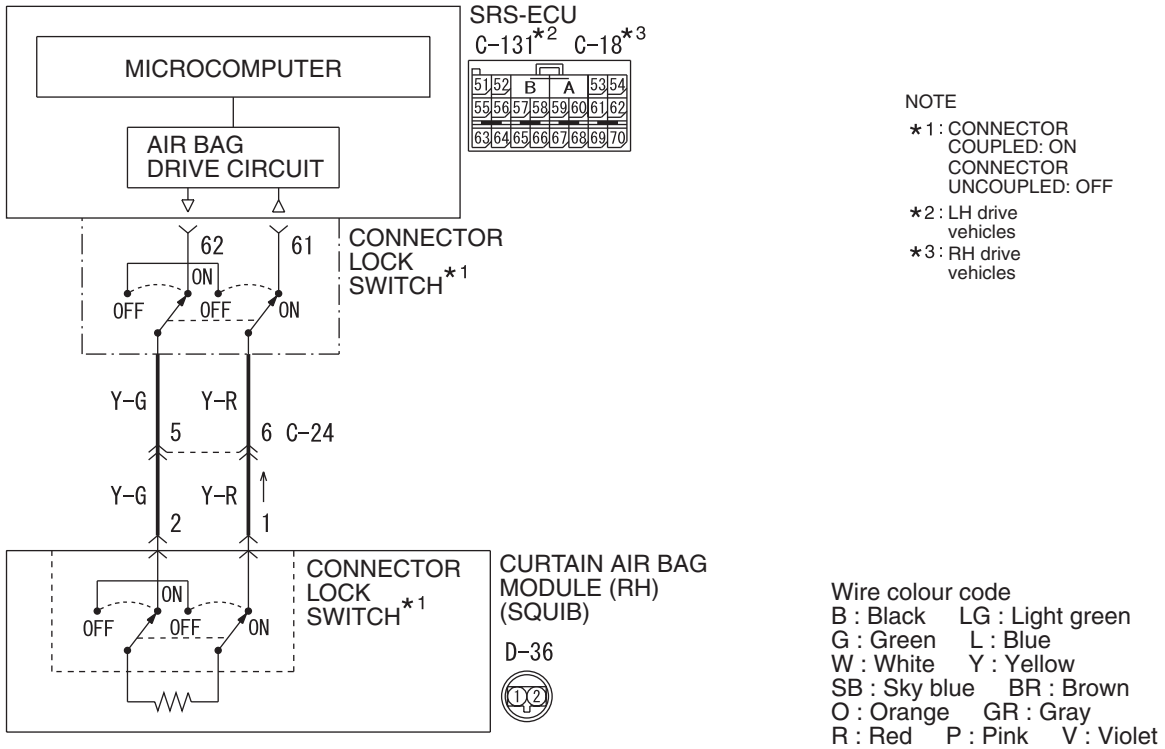
- Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE

Replace the SRS-ECU. (Refer to P.52B-198).

Code No.3E: Curtain air bag module (squib) (RH) system (short-circuited to the power supply)

Curtain Air Bag Module (Squib) (RH) Circuit



NOTE
*1: CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF
*2: LH drive vehicles
*3: RH drive vehicles

Wire colour code
B : Black LG : Light green
G : Green L : Blue
W : White Y : Yellow
SB : Sky blue BR : Brown
O : Orange GR : Gray
R : Red P : Pink V : Violet

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OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors and the side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the curtain air bag module will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the curtain air bag module squib (RH) wire(s) are short-circuited to the power supply.

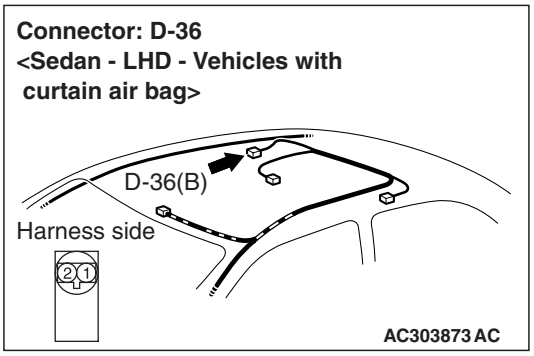
PROBABLE CAUSES

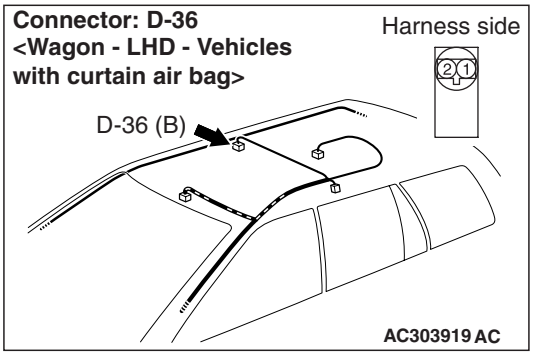
- Damaged wiring harnesses or connectors
- Short to the power supply in the curtain air bag module (squib) (RH) harness
- Malfunction of the SRS-ECU

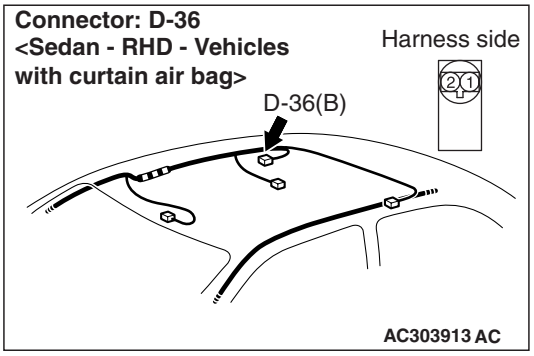
DIAGNOSIS PROCEDURE

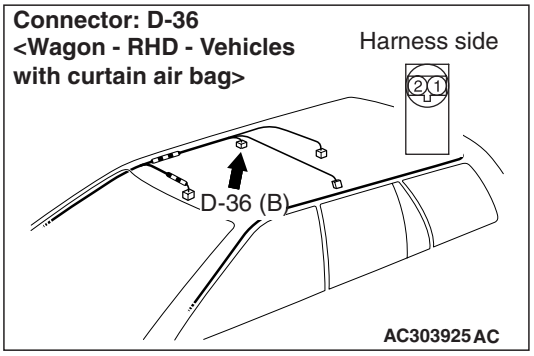
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

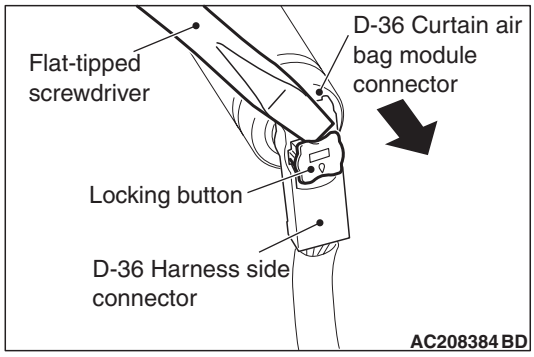
(1) Disconnect the negative battery terminal.



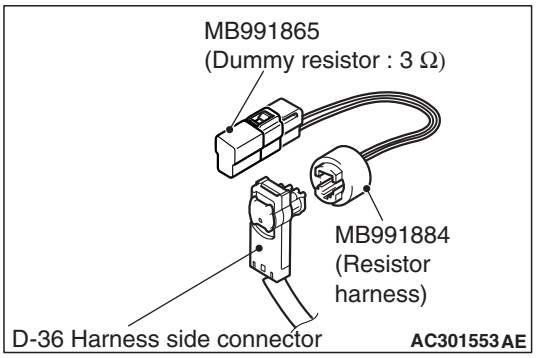








(2) Disconnect curtain air bag module connector D-36. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



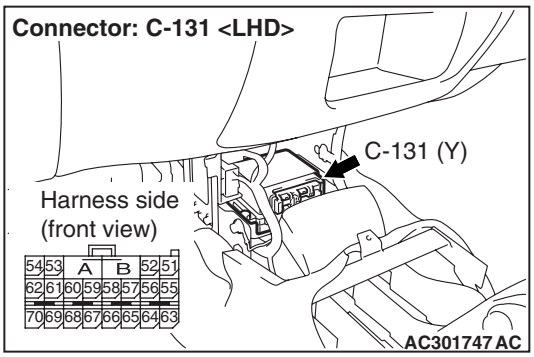
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and check the diagnosis code.

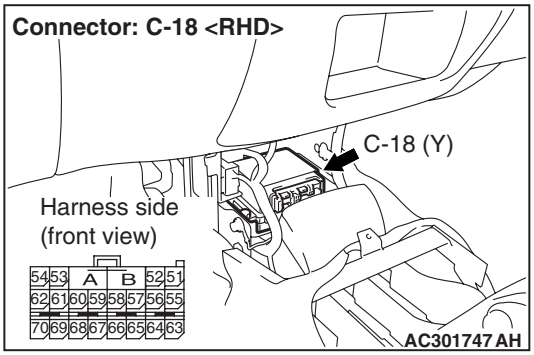
Q: Is diagnosis code 3E set?

YES : Go to Step 2.

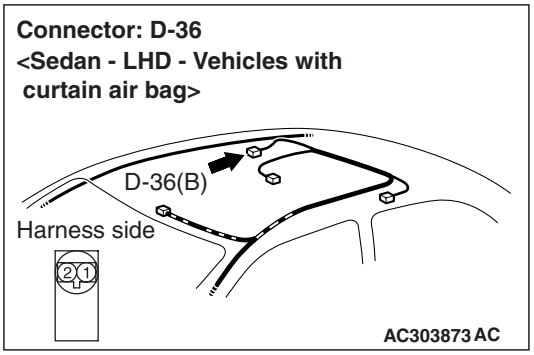
NO : Replace the curtain air bag module (Refer to P.52B-207).

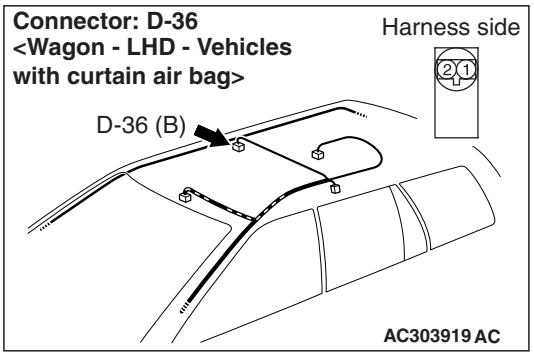
STEP 2. Voltage measurement at the SRS-ECU connector C-131 <LHD> or C-18 <RHD>

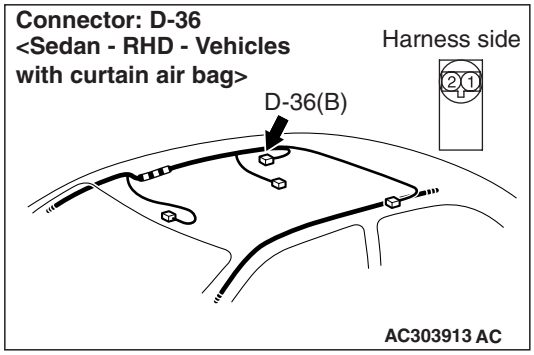


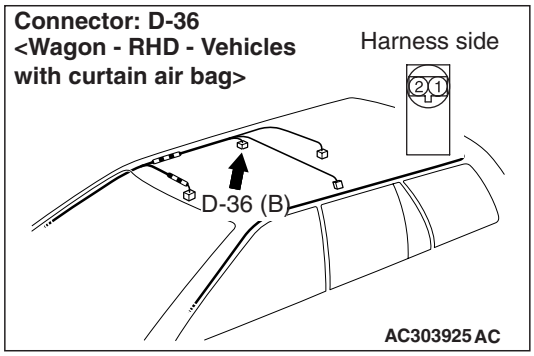


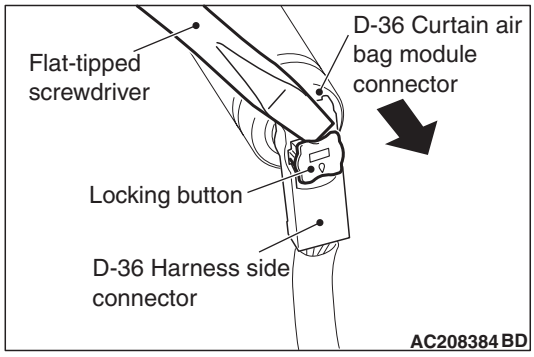
(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>.





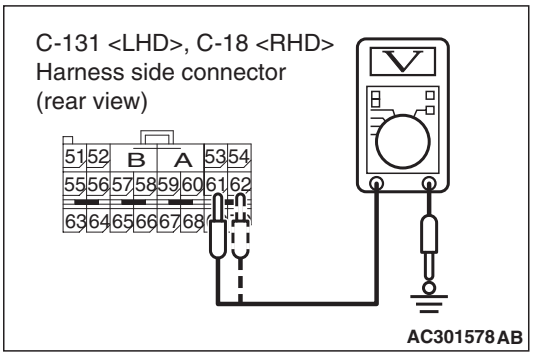






(2) Disconnect curtain air bag module connector D-36. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.
(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Voltage measurement between C-131 <LHD> or C-18 <RHD> harness side connector terminals 61, 62 and body earth.

OK: 0 V

Q: Is the measured voltage within the specified range?

YES : Go to Step 3.

NO : Repair the harness wire between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.61 and 62) and curtain air bag module connector D-36 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

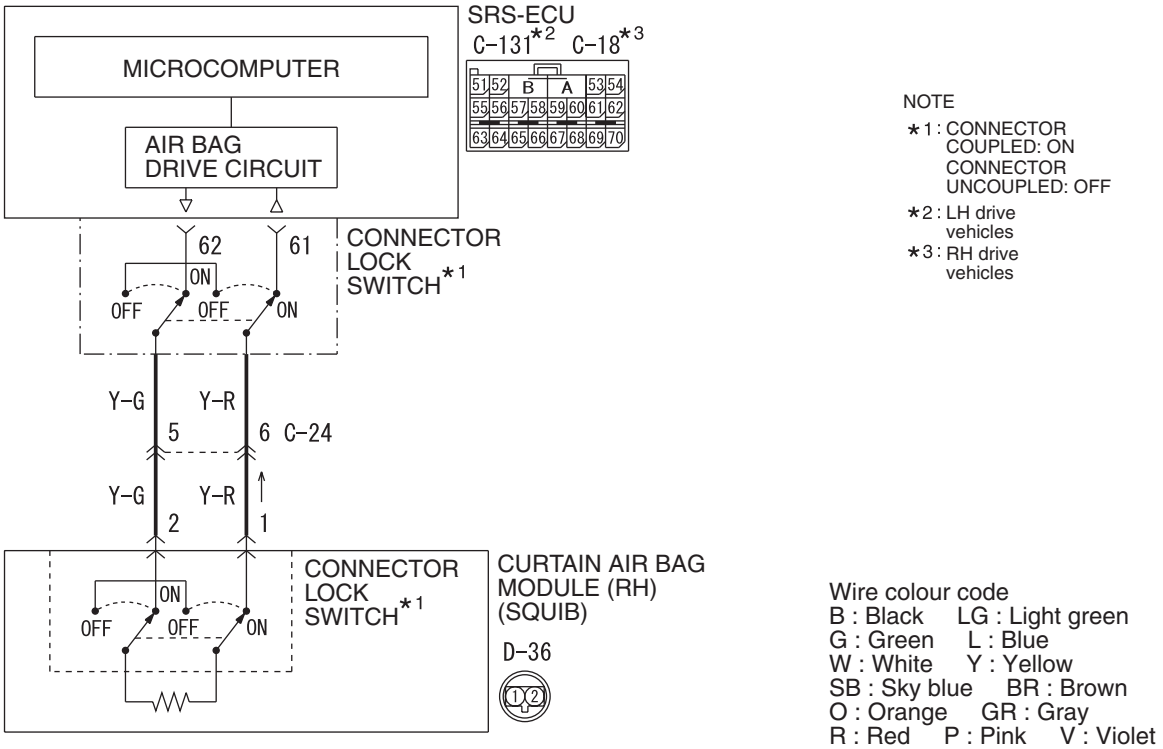
Q: Is diagnosis code 3E set?

YES : Replace the SRS-ECU (Refer to P.52B-27).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.3F: Curtain air bag module (squib) (RH) system (short-circuited to the earth)

Curtain Air Bag Module (Squib) (RH) Circuit



NOTE
*1: CONNECTOR COUPLED: ON CONNECTOR UNCOUPLED: OFF
*2: LH drive vehicles
*3: RH drive vehicles

Wire colour code
B : Black LG : Light green
G : Green L : Blue
W : White Y : Yellow
SB : Sky blue BR : Brown
O : Orange GR : Gray
R : Red P : Pink V : Violet

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OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors and the side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the curtain air bag module will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the curtain air bag module squib (RH) wire(s) are short-circuited to the earth.

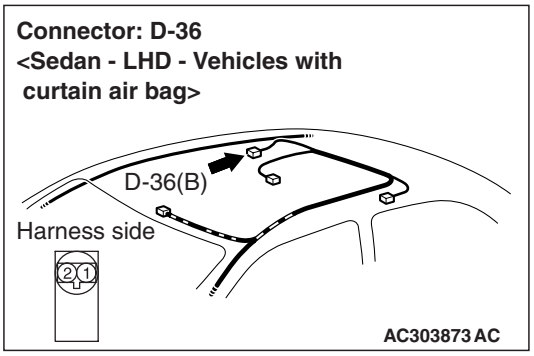
PROBABLE CAUSES

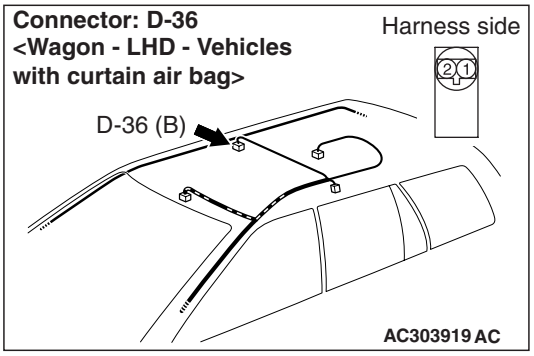
- Damaged wiring harnesses or connectors
- Short to the earth in the curtain air bag module (squib) (RH) harness
- Malfunction of the SRS-ECU

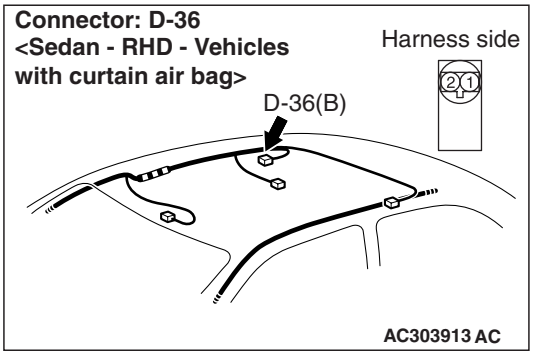
DIAGNOSIS PROCEDURE

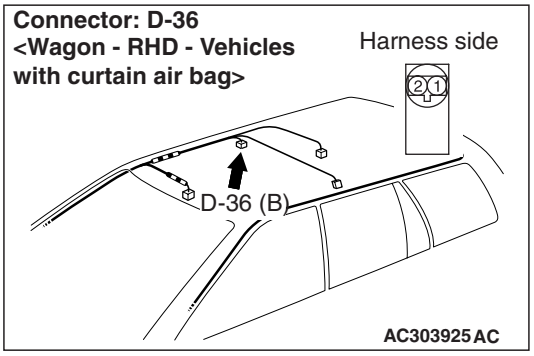
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

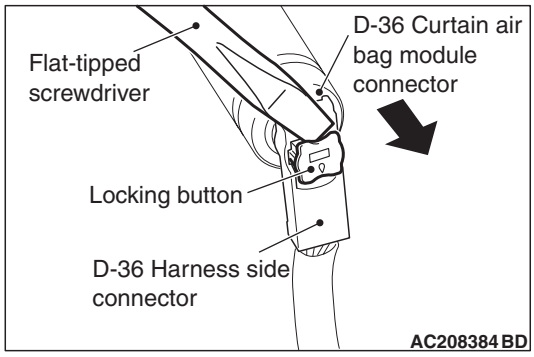
(1) Disconnect the negative battery terminal.



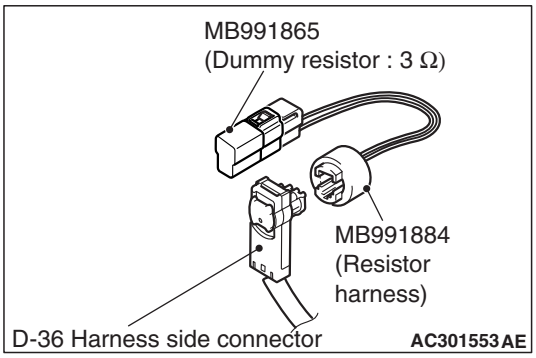








(2) Disconnect curtain air bag module connector D-36. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



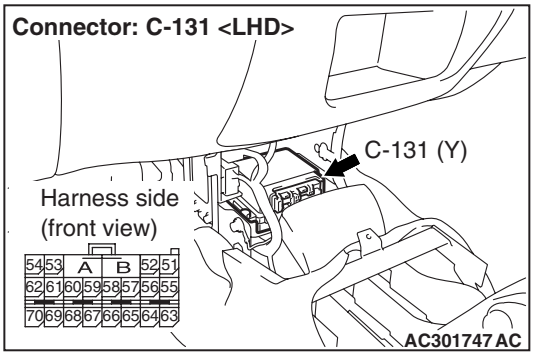
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and check the diagnosis code.

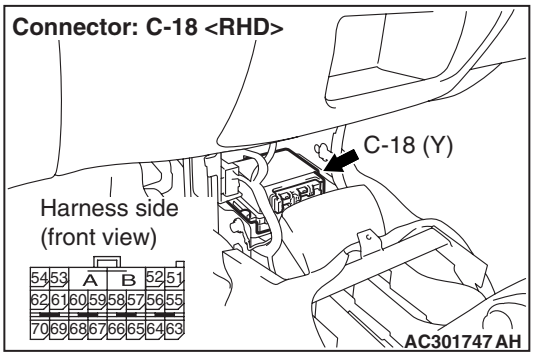
Q: Is diagnosis code 3F set?

YES : Go to Step 2.

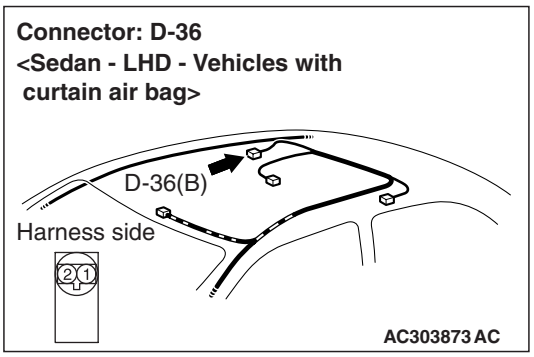
NO : Replace the curtain air bag module (Refer to P.52B-207).

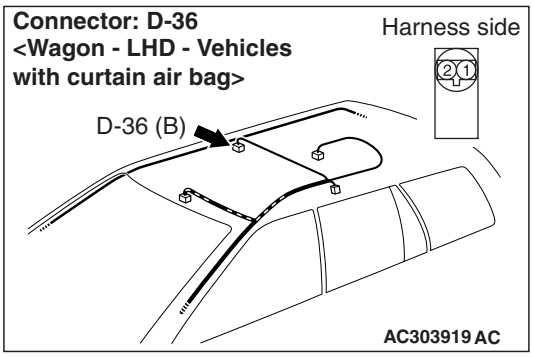
STEP 2. Resistance measurement at the SRS-ECU connector C-131 <LHD> or C-18 <RHD>.

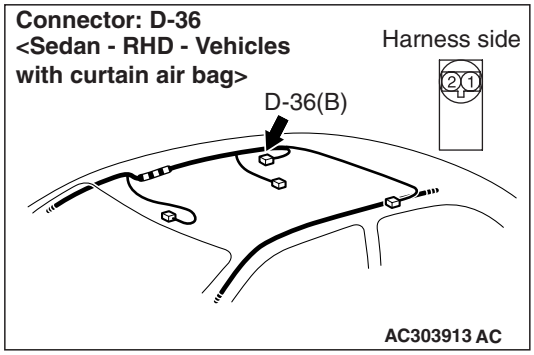


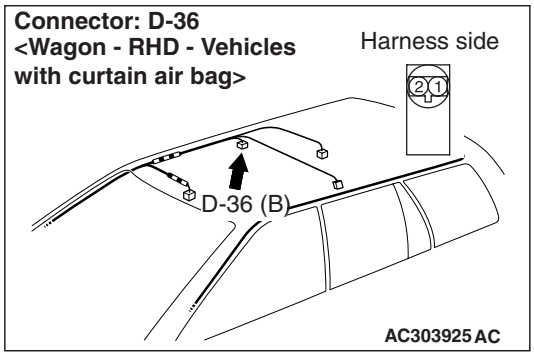


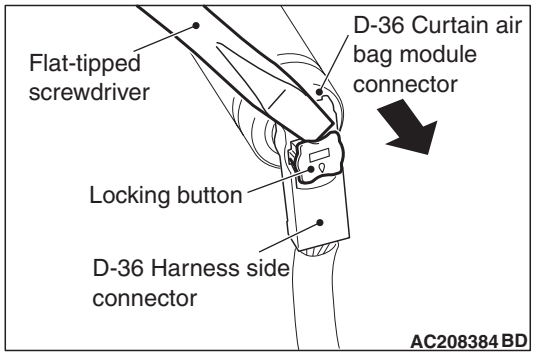
(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>





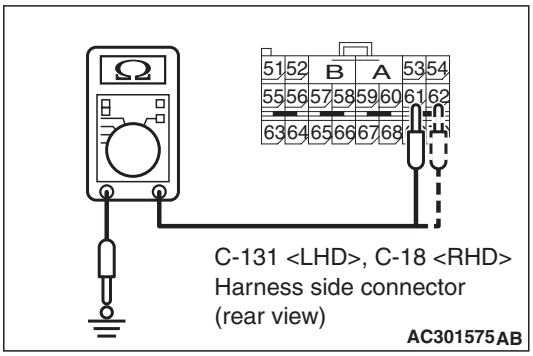






(2) Disconnect curtain air bag module connector D-36. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between C-131 <LHD> or C-18 <RHD> harness side connector terminals 61, 62 and body earth.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wire between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.61 and 62) and curtain air bag module connector D-36 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

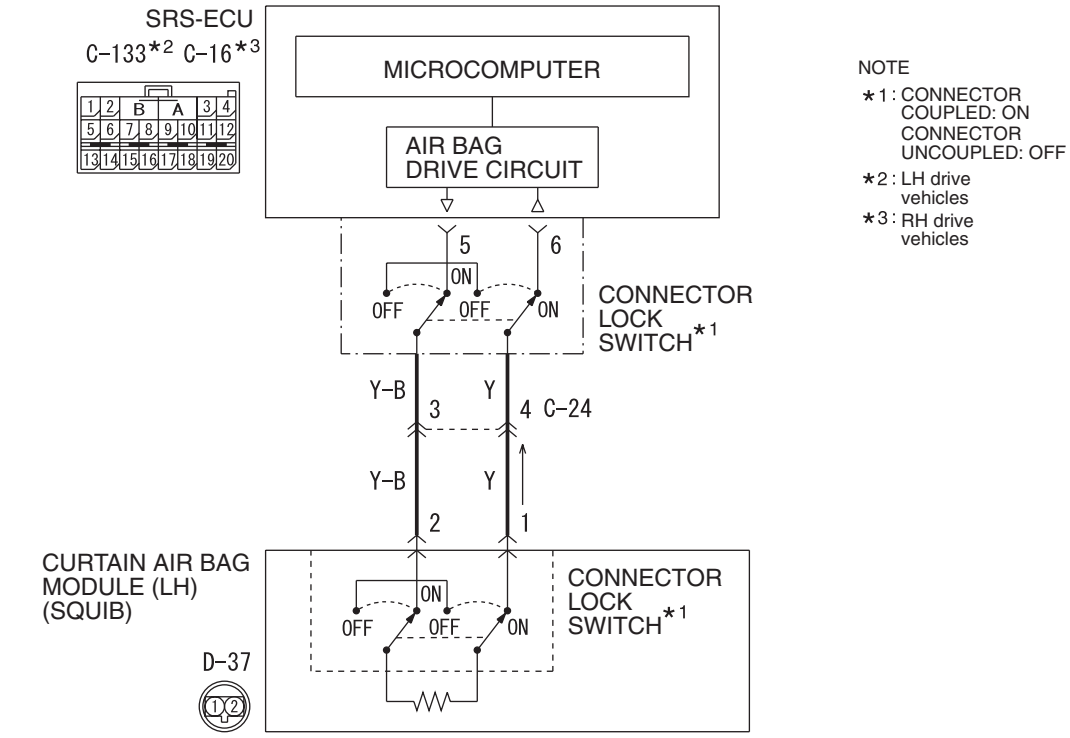
Q: Is diagnosis code 3F set?

YES : Replace the SRS-ECU (Refer toP.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.4A: Curtain air bag module (squib) (LH) system (short-circuited between terminals of the squib circuit)

Curtain Air Bag Module (Squib) (LH) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E05AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors and the side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the curtain air bag module will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if one curtain air bag module squib (LH) wire shorted to the other. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

PROBABLE CAUSES

- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (squib) (LH) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the earth wire in the squib circuit when the connectors are disconnected). Therefore, if connector C-133 <LHD>, C-16 <RHD> or D-37 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-II/III diagnosis code

⚠ CAUTION

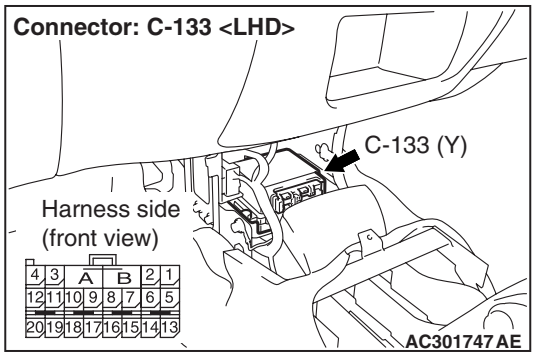
To prevent damage to M.U.T.-II/III, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

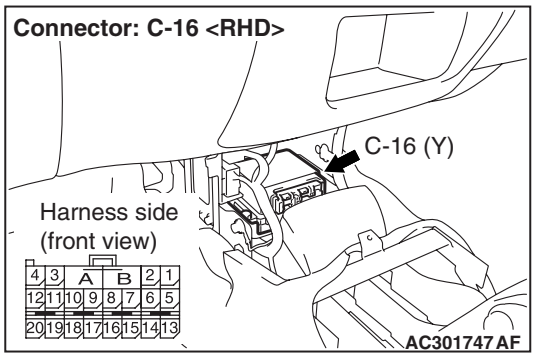
(1) Turn the ignition switch to the "ON" position.
(2) Check if the diagnosis code is set.
(3) Turn the ignition switch to the "LOOK" (OFF) position.

Q: Is diagnosis code 34 set?
YES : Go to Step 2.
NO : Go to Step 3.

STEP 2. Connector lock check: SRS-ECU connector C-133 <LHD> or C-16 <RHD> (M.U.T.-II/III diagnosis code)

(1) Disconnect the negative battery terminal.



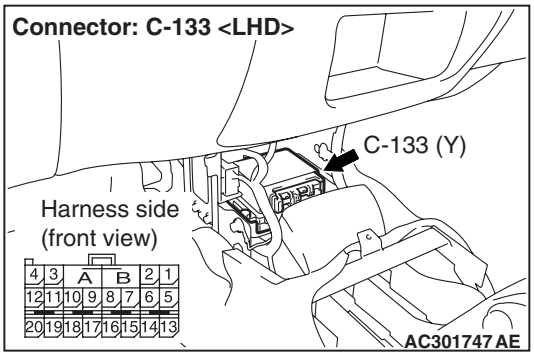


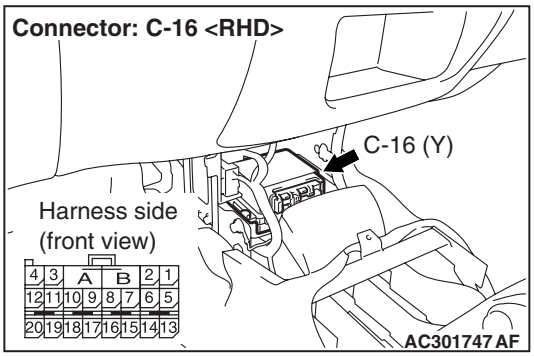
(2) Disconnect connectors C-133 <LHD> or C-16 <RHD>, and then reconnect them.
(3) Connector the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

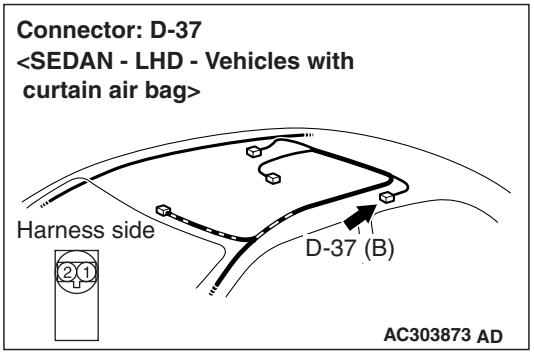
Q: Is diagnosis code 4A set?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 4A set as connector C-133 <LHD> or C-16 <RHD> was engaged improperly.

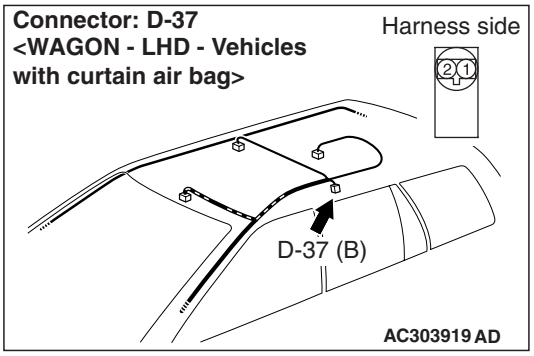
STEP 3. Connector lock check: SRS-ECU connector C-133 <LHD> or C-16 <RHD> and curtain air bag module connector D-37 (M.U.T.-II/III diagnosis code)

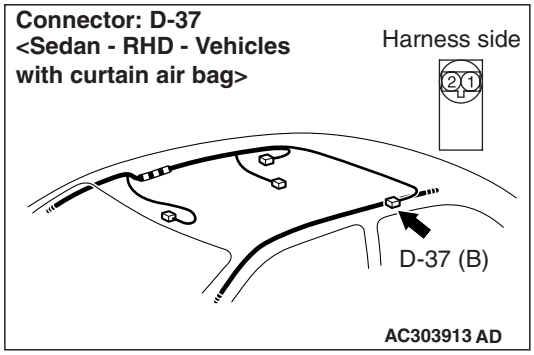
(1) Disconnect the negative battery terminal.

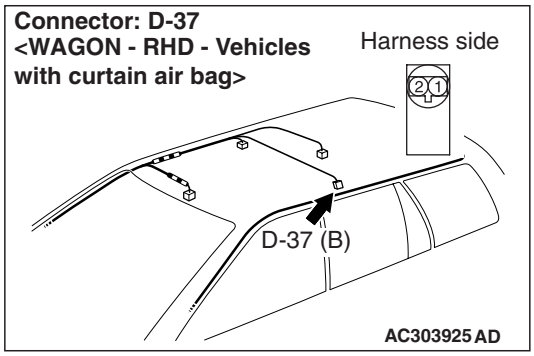


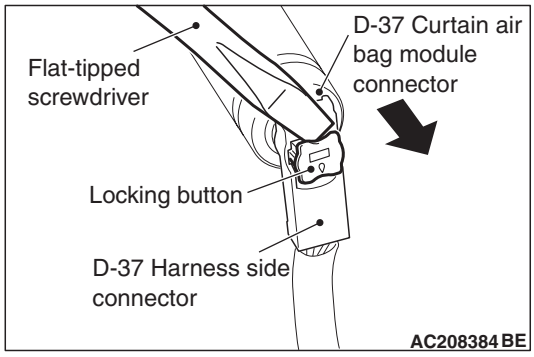










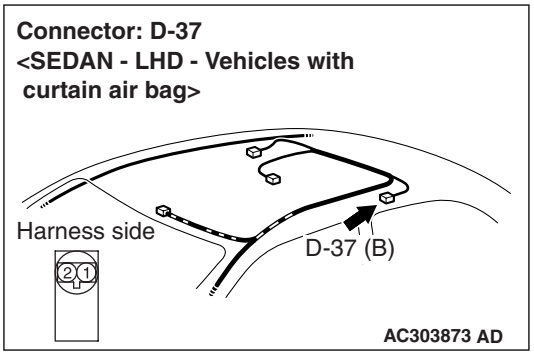


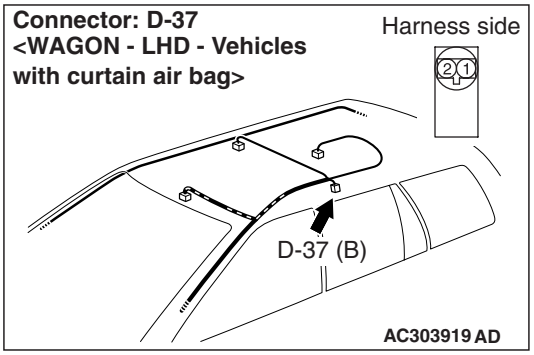
(2) Disconnect connectors C-133 <LHD> or C-16 <RHD> and D-37, and then reconnect them. For connector D-37, use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

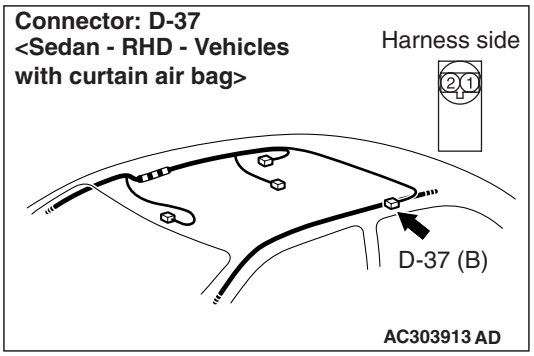
Q: Is diagnosis code 4A set?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 4A set as connector C-133 <LHD>, C-16 <RHD> or D-37 was engaged improperly.

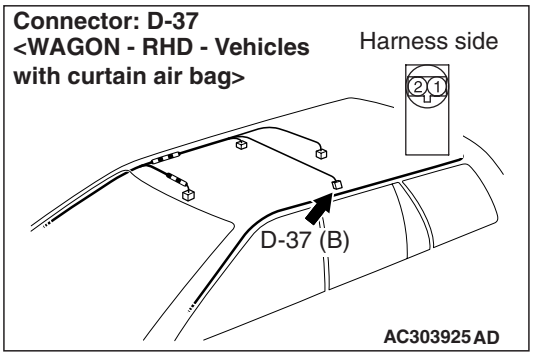
STEP 4. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

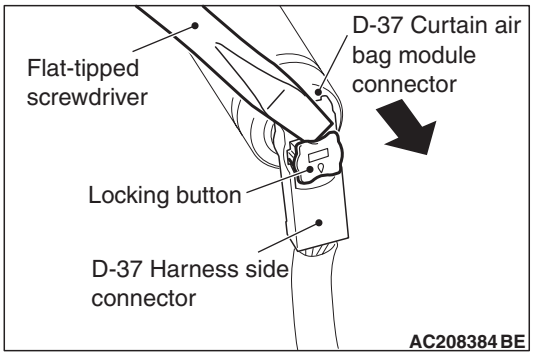
(1) Disconnect the negative battery terminal.



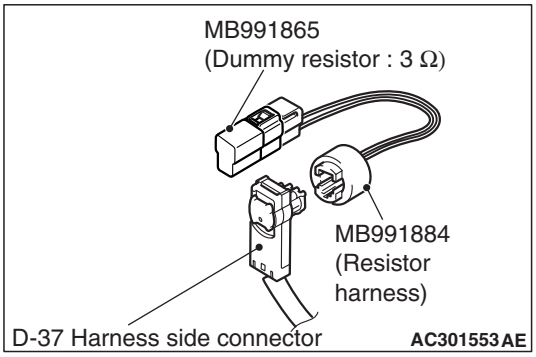








(2) Disconnect curtain air bag module connector D-37. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



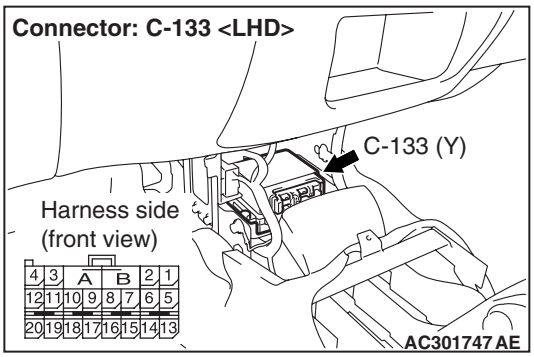
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-37 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

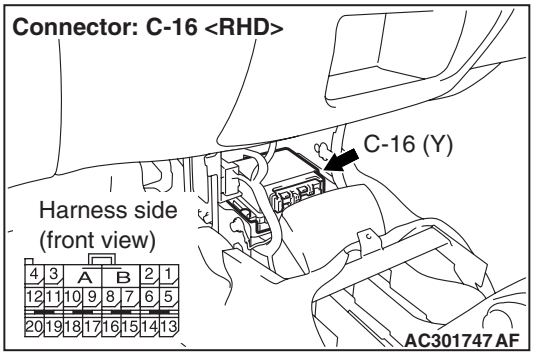
Q: Is diagnosis code 4A set?

YES : Go to Step 5.

NO : Replace the curtain air bag module (Refer to P.52B-207).

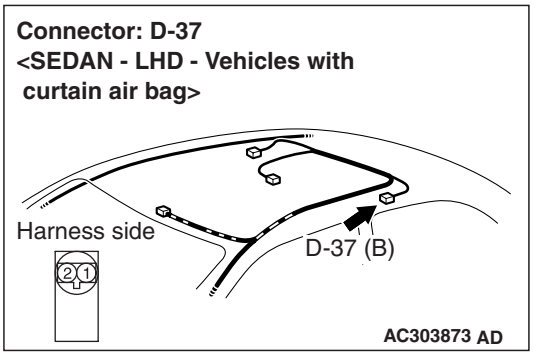
STEP 5. Resistance measurement at the SRS-ECU connector C-133 <LHD> or C-16 <RHD>

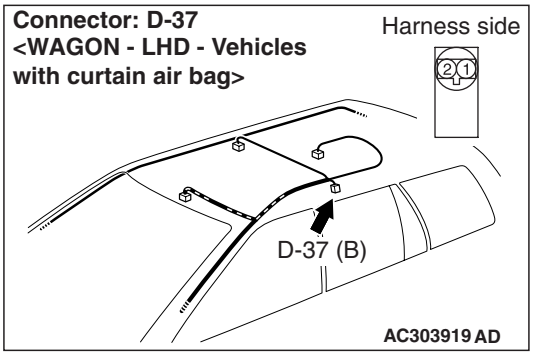


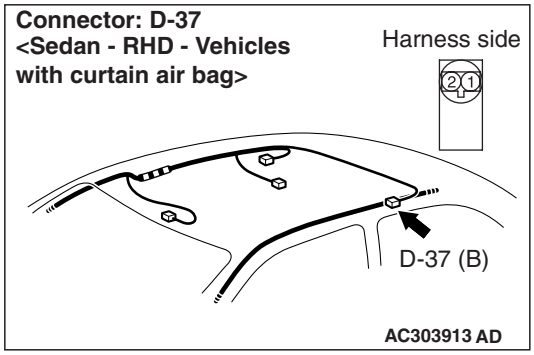


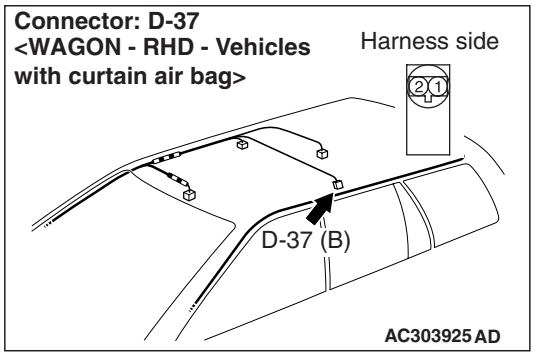
(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16 <RHD>.

⚠ ***DANGER***

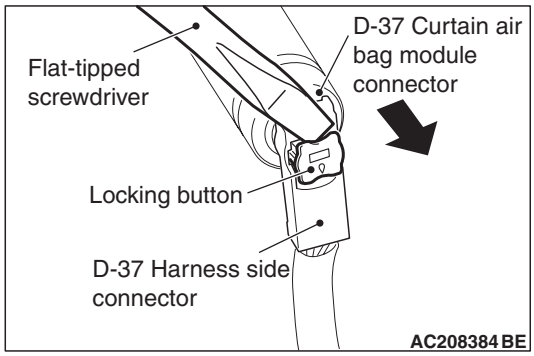






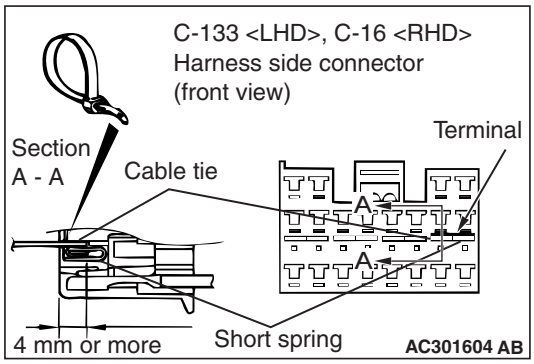


To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-37 to short the squib circuit.



(2) Disconnect curtain air bag module connector D-37. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

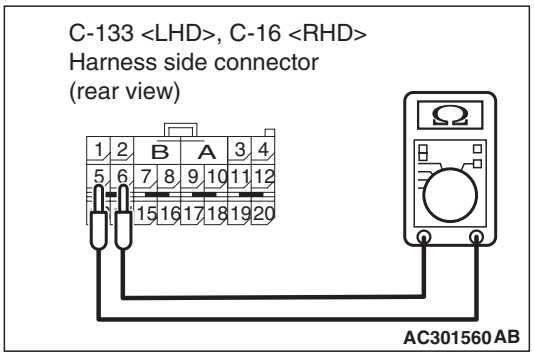
⚠ CAUTION



Insert an insulator such as a cable tie to a depth of 4mm or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm wide, 0.5 mm thick] between terminals 5, 6 and the short spring to release the short spring.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Resistance measurement between C-133 <LHD> or C-16 <RHD> harness side connector terminals 5 and 6.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wire between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.5 and 6) and curtain air bag module connector D-37 (terminal No.1 and 2).

STEP 6. Check whether the diagnosis code is reset.

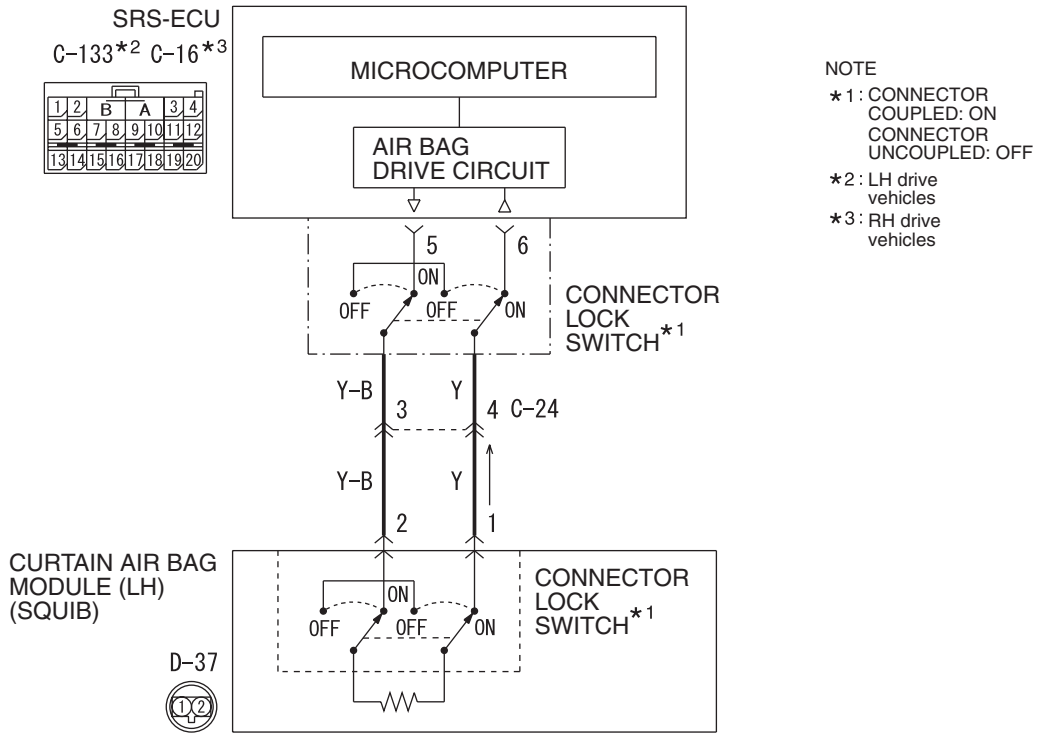
Q: Is diagnosis code 4A set?

YES : Replace the SRS-ECU. (Refer toP.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.4B: Curtain air bag module (squib) (LH) system (open-circuited in the squib circuit)

Curtain Air Bag Module (Squib) (LH) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E05AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors and the side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the curtain air bag module will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if curtain air bag module squib <LH> wire(s) are open-circuited. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

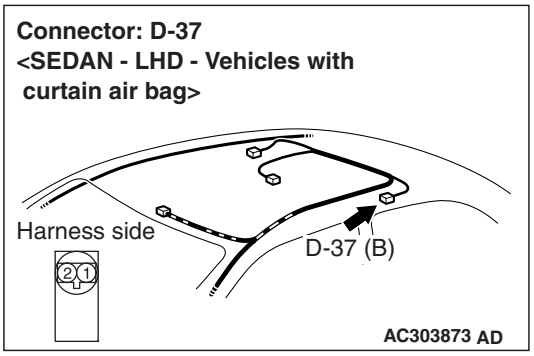
PROBABLE CAUSES

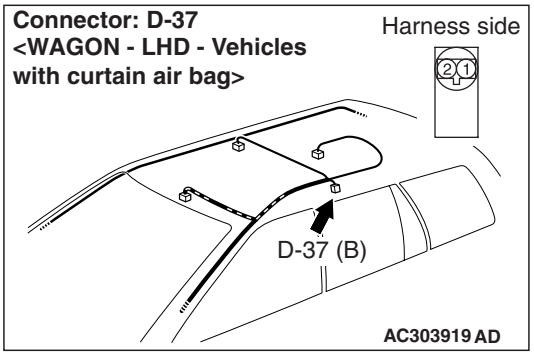
- Improper connector contact
- Open circuit in the curtain air bag module (squib) (LH) circuit
- Malfunction of the SRS-ECU

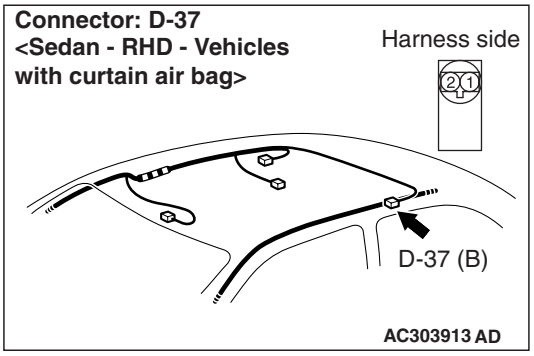
DIAGNOSIS PROCEDURE

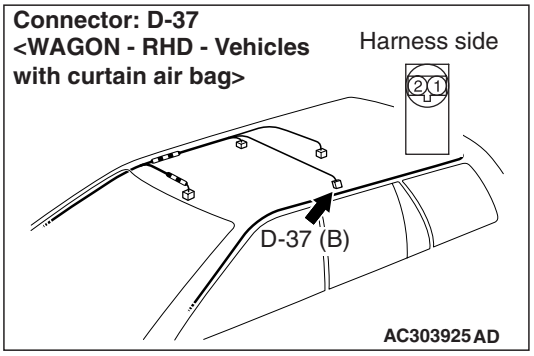
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

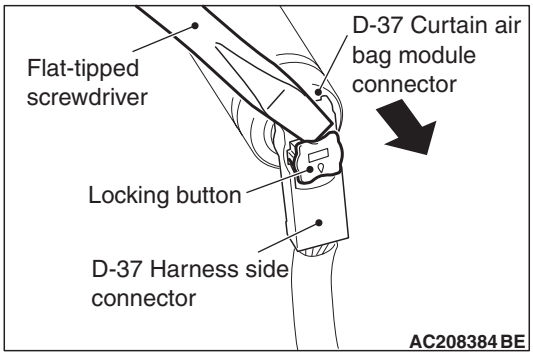
(1) Disconnect the negative battery terminal.



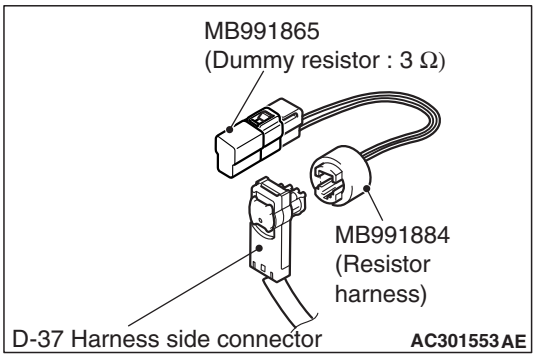








(2) Disconnect curtain air bag module connector D-37. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



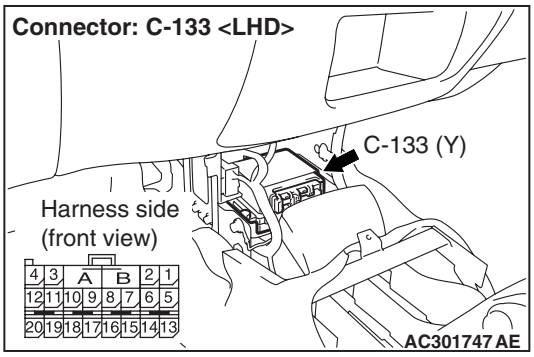
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-37 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

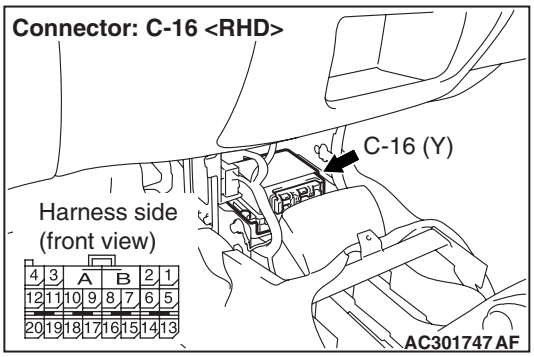
Q: Is diagnosis code 4B set?

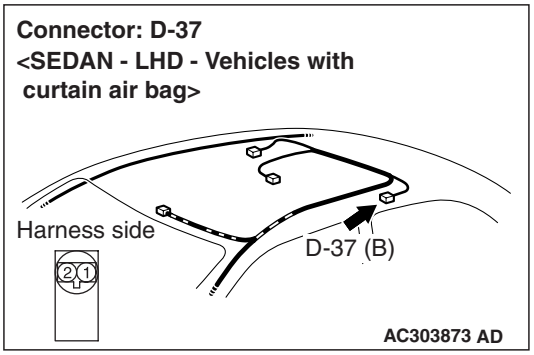
YES : Go to Step 2.

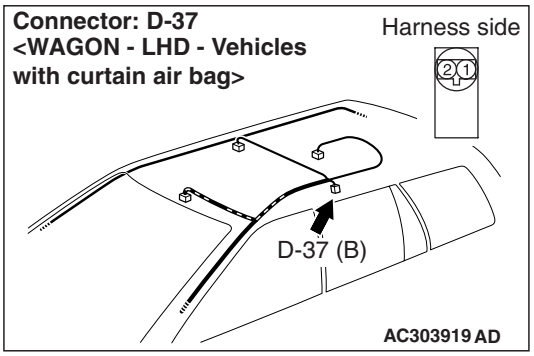
NO : Replace the curtain air bag module (Refer to P.52B-207).

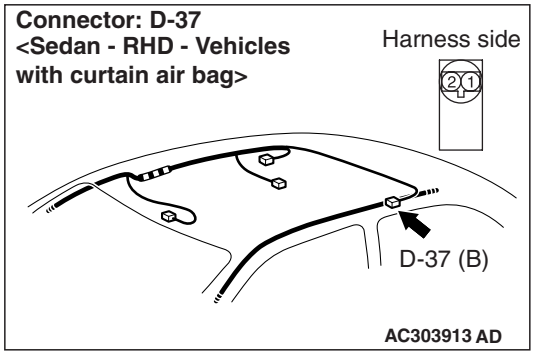
STEP 2. Resistance measurement between SRS-ECU connector C-133 <LHD>, C-16 <RHD> (terminal No.5 and 6) and the curtain air bag module D-37 (terminal No.1 and 2).

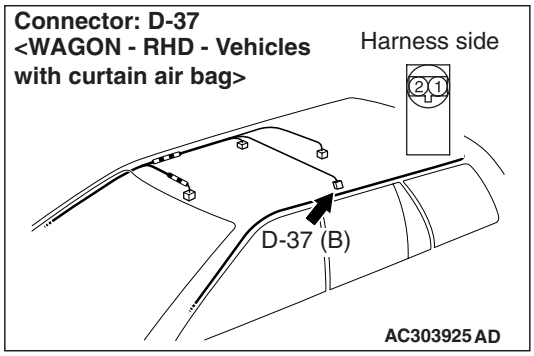


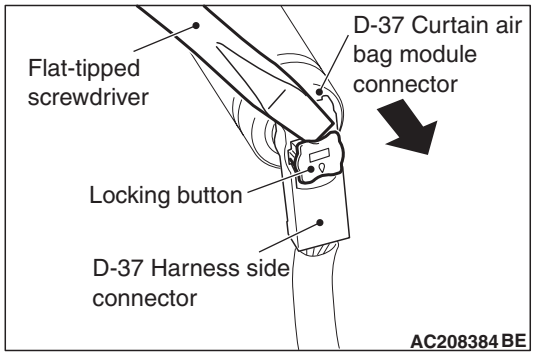




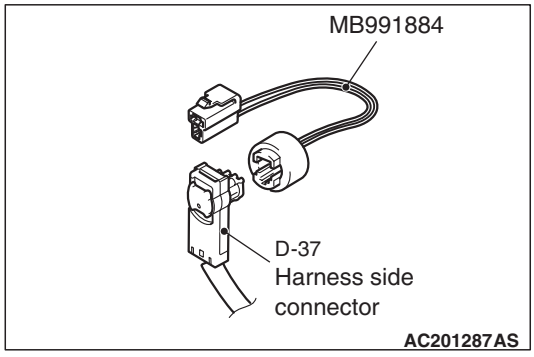






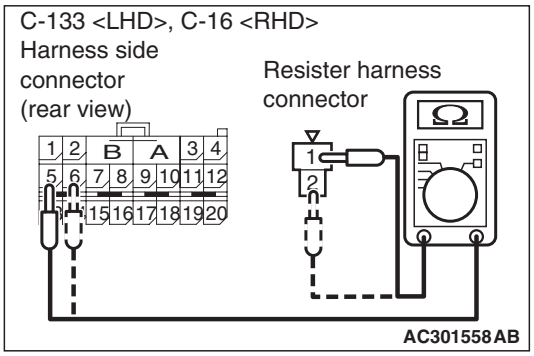


(1) Disconnect SRS-ECU connector C-133 <LHD>, C-16 <RHD> and curtain air bag module connector D-37, and measure at the wiring harness side. For connector D-37, use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



(2) Connect D-37 harness side connector to special tool resistor harness (MB991884).

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between the following terminals.
- SRS-ECU connector C-133 <LHD>, C-16 <RHD> terminal No.5 and special tool terminal No.1
- SRS-ECU connector C-133 <LHD>, C-16 <RHD> terminal No.6 and special tool terminal No.2

OK: Continuity (Less than 2 Ω)

Q: Are the check results normal?

YES : Go to Step 3.

NO : Repair the harness wire between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.5 and 6) and curtain air bag module connector D-37 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

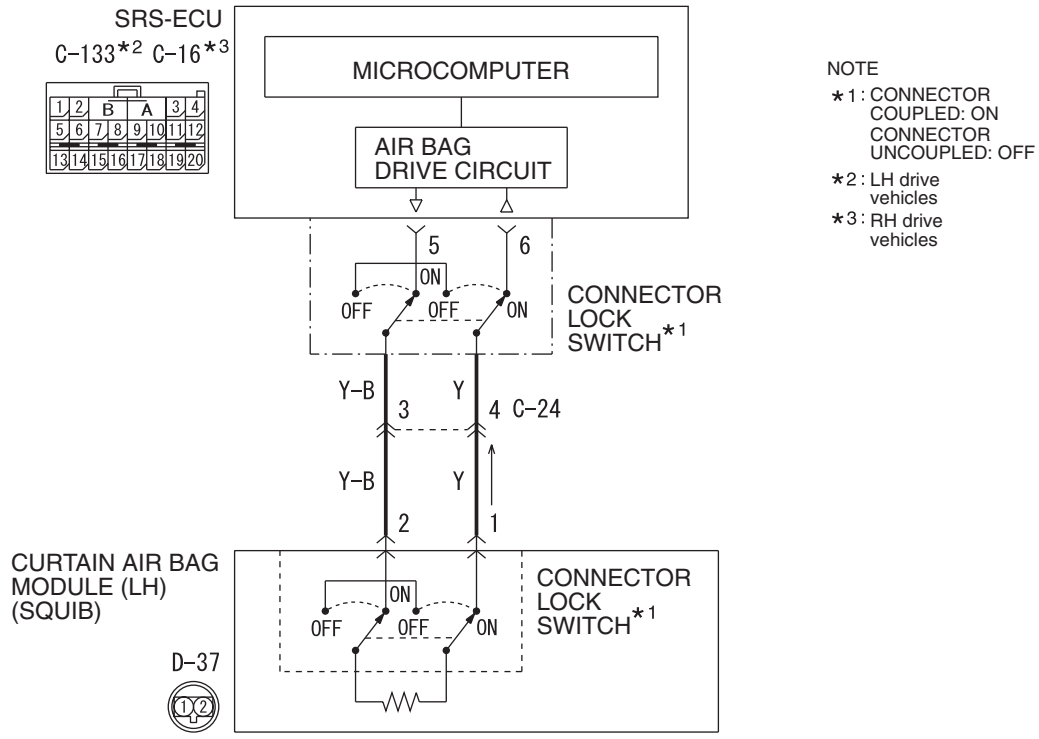
Q: Is diagnosis code No.4B set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.4E: Curtain air bag module (squib) (LH) system (short-circuited to the power supply)

Curtain Air Bag Module (Squib) (LH) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E05AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors and the side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the curtain air bag module will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the curtain air bag module squib (LH) wire(s) are short-circuited to the power supply.

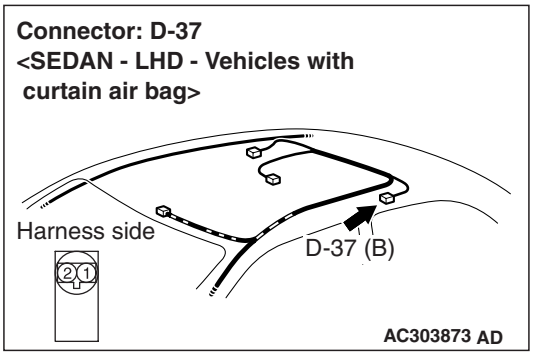
PROBABLE CAUSES

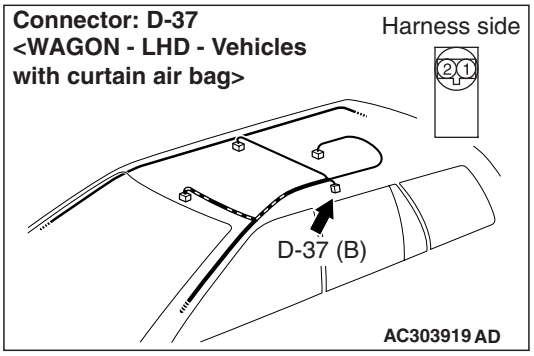
- Damaged wiring harnesses or connectors
- Short to the power supply in the curtain air bag module (squib) (LH) harness
- Malfunction of the SRS-ECU

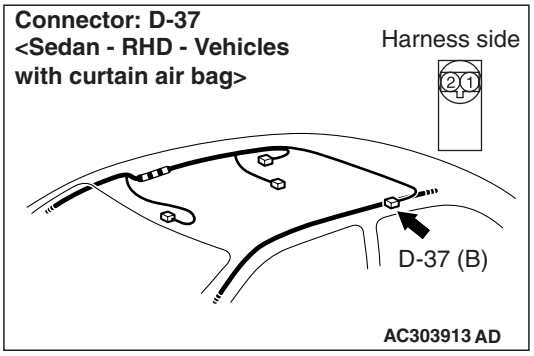
DIAGNOSIS PROCEDURE

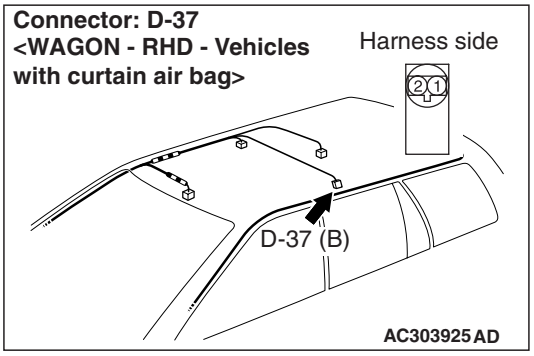
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

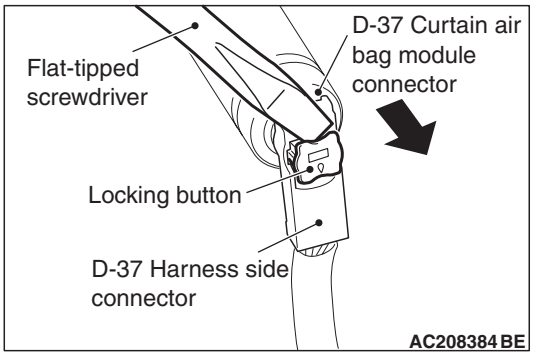
(1) Disconnect the negative battery terminal.



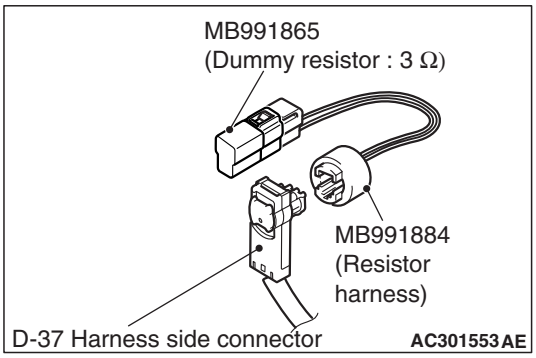








(2) Disconnect curtain air bag module connector D-37. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-37 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and check the diagnosis code.

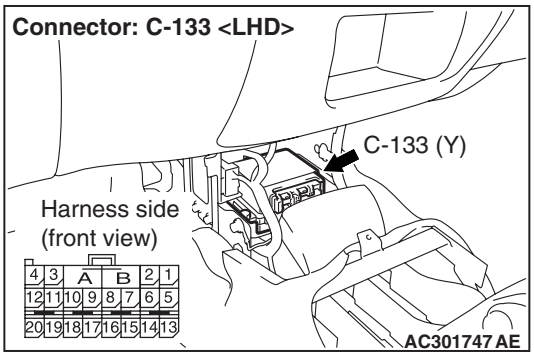
Q: Is diagnosis code 4E set?

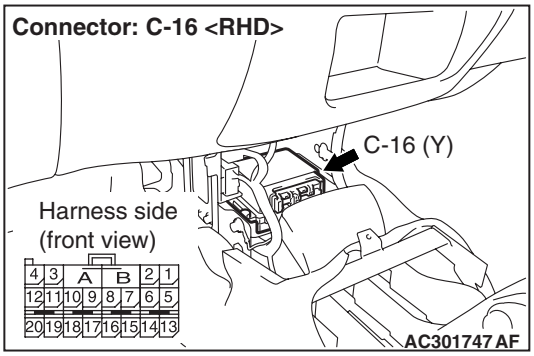
YES : Go to Step 2.

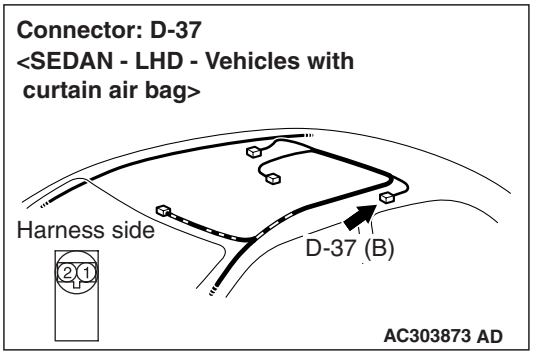
NO : Replace the curtain air bag module (Refer to P.52B-207).

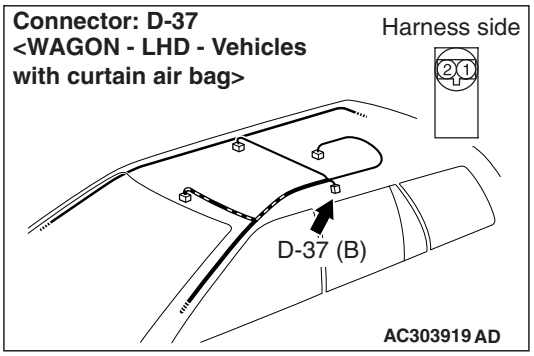
STEP 2. Voltage measurement at the SRS-ECU connector C-133 <LHD> or C-16 <RHD>.

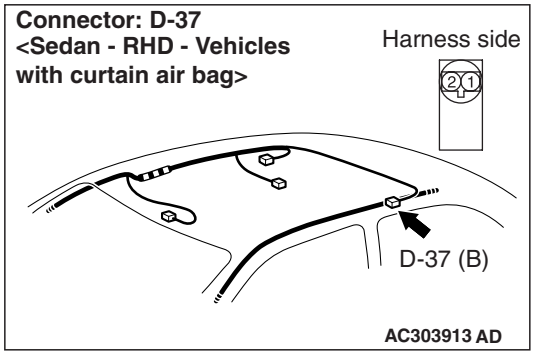
(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16 <RHD>.

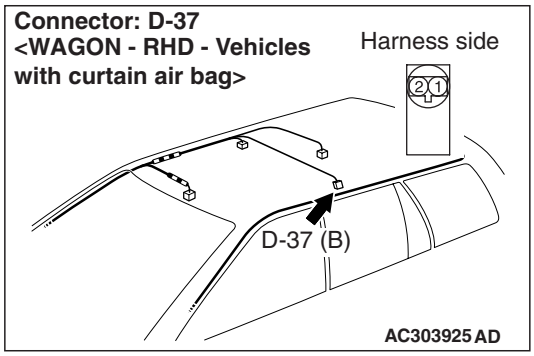


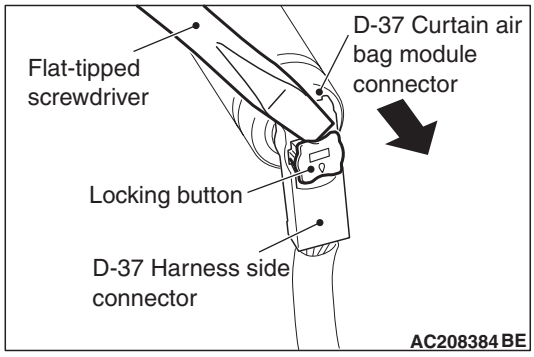








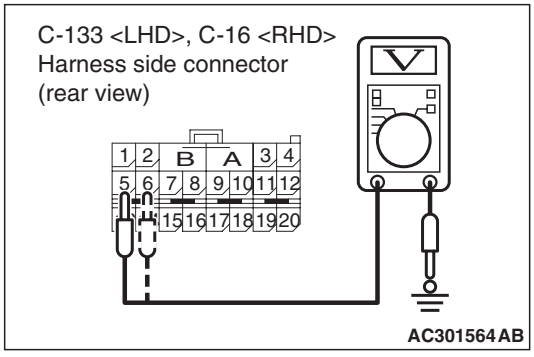




(2) Disconnect curtain air bag module connector D-37. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Voltage measurement between C-133 <LHD> or C-16 <RHD> harness side connector terminals 5, 6 and body earth.

OK: 0 V

Q: Is the measured voltage within the specified range?

YES : Go to Step 3.

NO : Repair the harness wire between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.5 and 6) and curtain air bag module connector D-37 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

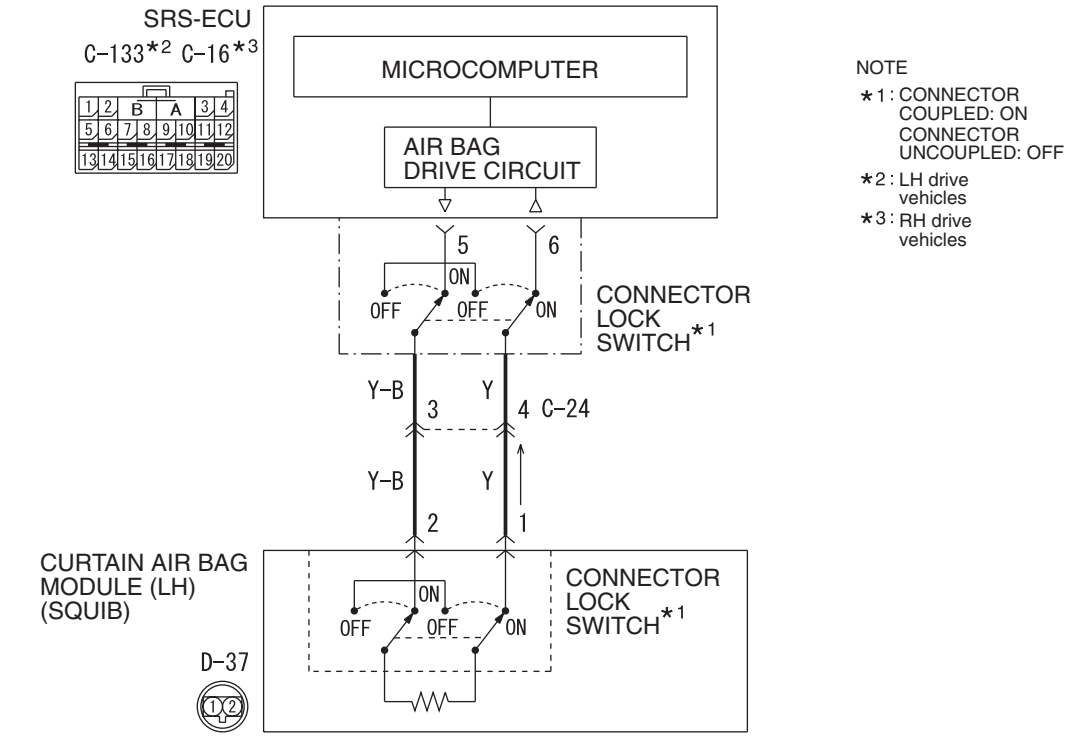
Q: Is diagnosis code 4E set?

YES : Replace the SRS-ECU (Refer toP.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.4F: Curtain air bag module (squib) (LH) system (short-circuited to the earth)

Curtain Air Bag Module (Squib) (LH) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E05AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors and the side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the curtain air bag module will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the curtain air bag module squib (LH) wire(s) are short-circuited to the earth.

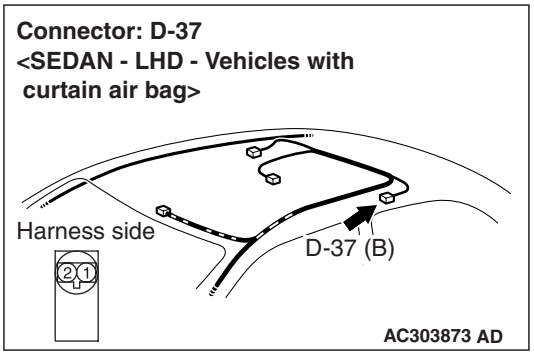
PROBABLE CAUSES

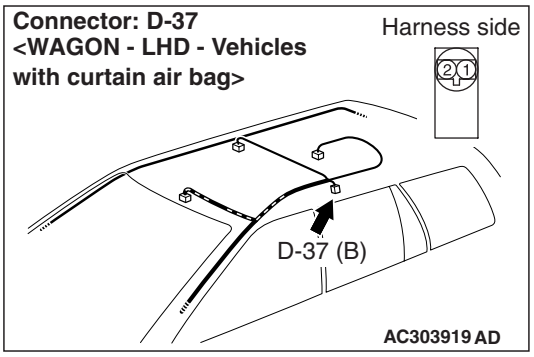
- Damaged wiring harnesses or connectors
- Short to the earth in the curtain air bag module (squib) (LH) harness
- Malfunction of the SRS-ECU

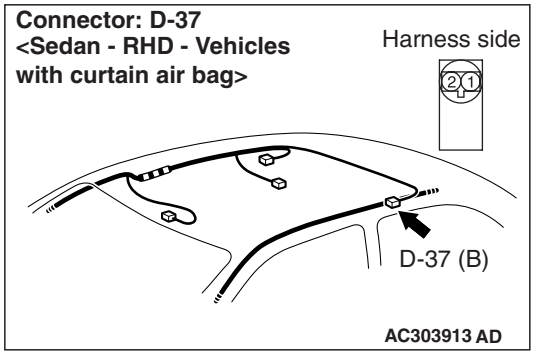
DIAGNOSIS PROCEDURE

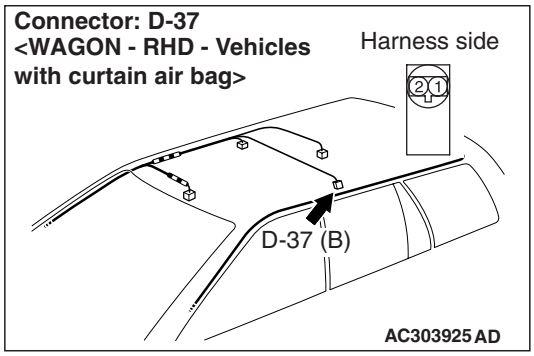
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

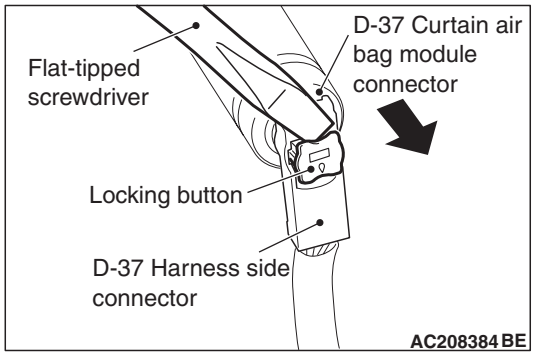
(1) Disconnect the negative battery terminal.



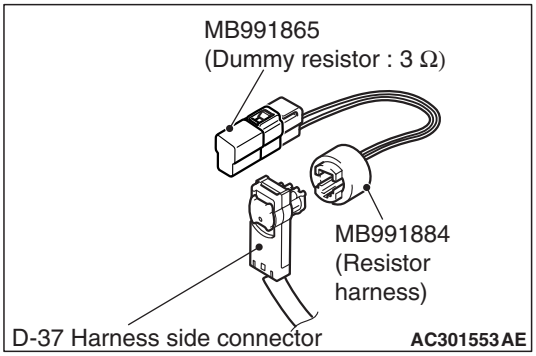








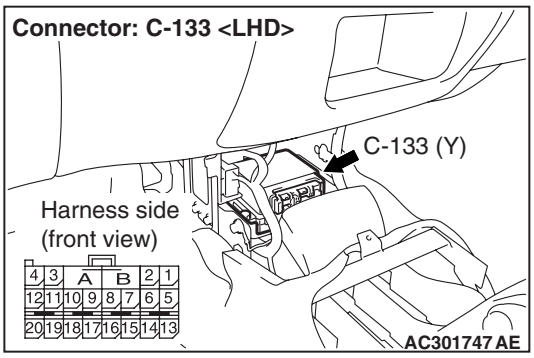
(2) Disconnect curtain air bag module connector D-37. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

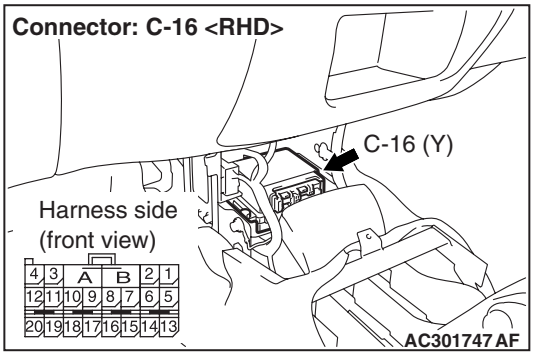


(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-37 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and check the diagnosis code.

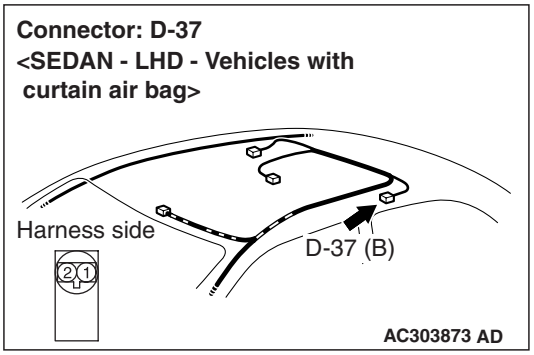
Q: Is diagnosis code 4F set?
YES : Go to Step 2.
NO : Replace the curtain air bag module (Refer to P.52B-207).

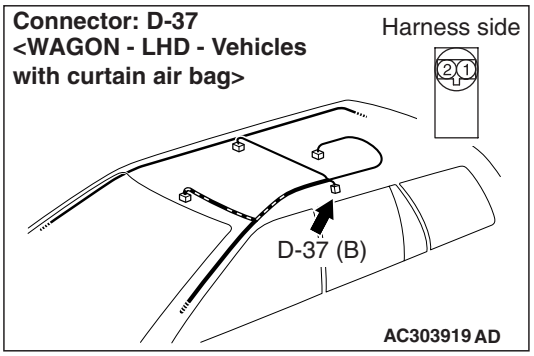
STEP 2. Resistance measurement at the SRS-ECU connector C-133 <LHD> or C-16 <RHD>

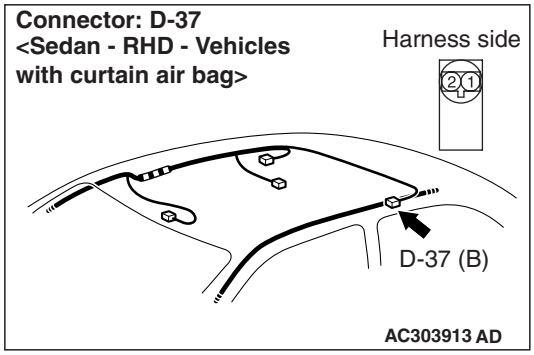


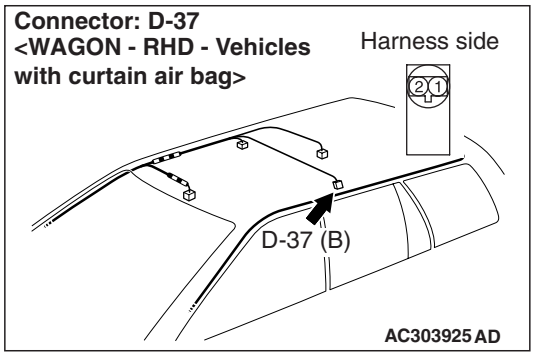


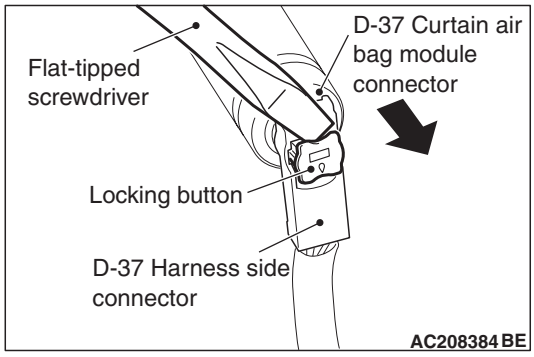
(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16 <RHD>





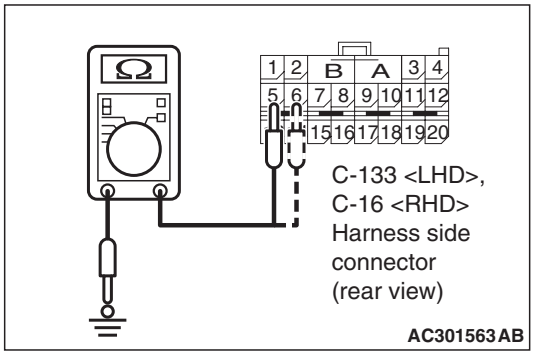






(2) Disconnect curtain air bag module connector D-37. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between C-133 <LHD> or C-16 <RHD> harness side connector terminals 5, 6 and body earth.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wire between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.5 and 6) and curtain air bag module connector D-37 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

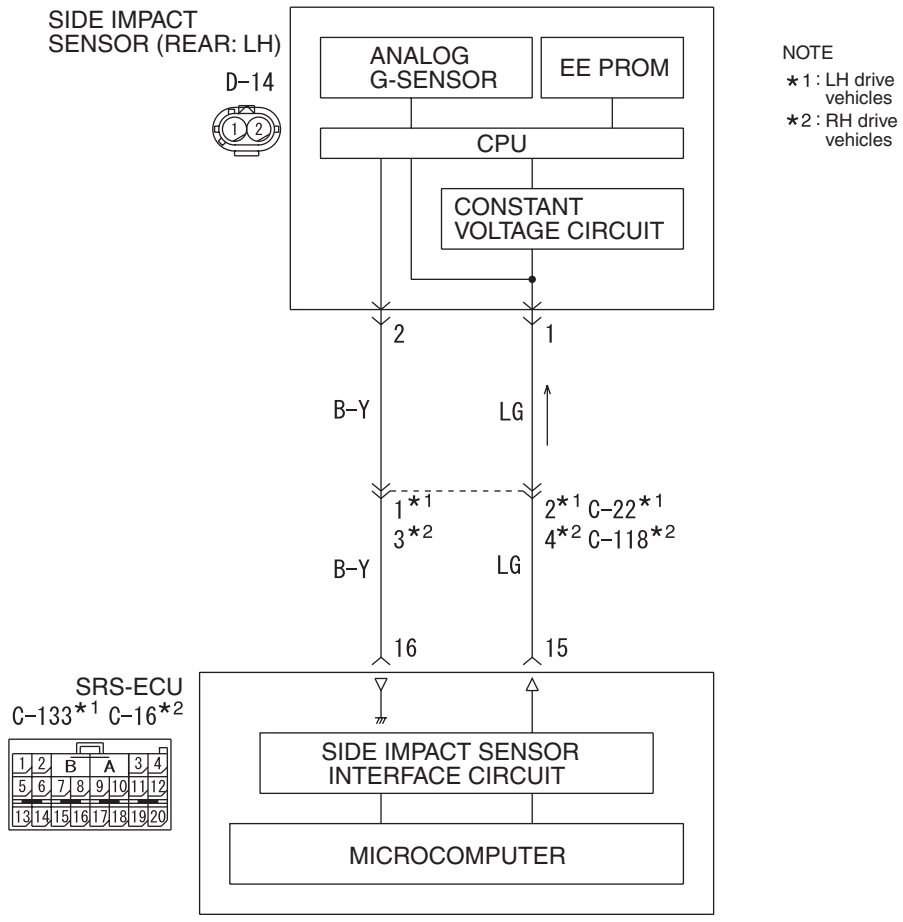
Q: Is diagnosis code 4F set?

YES : Replace the SRS-ECU (Refer toP.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.5A: Side impact sensor (LH) (rear) voltage error

Side Impact Sensor (LH) (Rear) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E02AA
AC504705AB

OPERATION

The side impact sensor (rear) includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the side-airbags and curtain air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags and curtain air bags. Besides that, the CPU diagnoses the internal components of the side impact sensor (rear). If a malfunction occurs, it requests the SRS-ECU to set a diagnosis code.

DIAGNOSIS CODE SET CONDITIONS

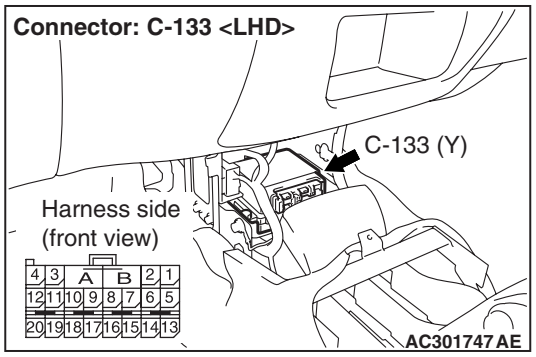
This diagnosis code will set when the power supply voltage to the side impact sensor (LH) (rear) remains less than a predetermined value for 5 seconds. However, if the system returns to normal condition, code number 5A will be erased automatically and the SRS warning lamp will go out.

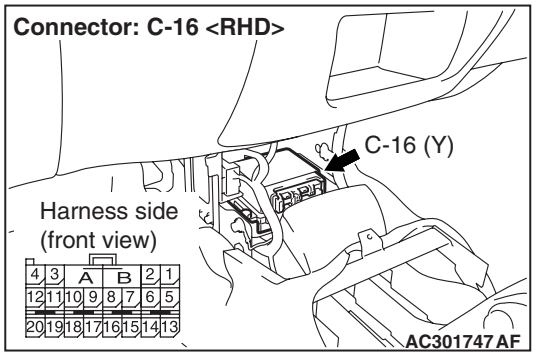
PROBABLE CAUSES

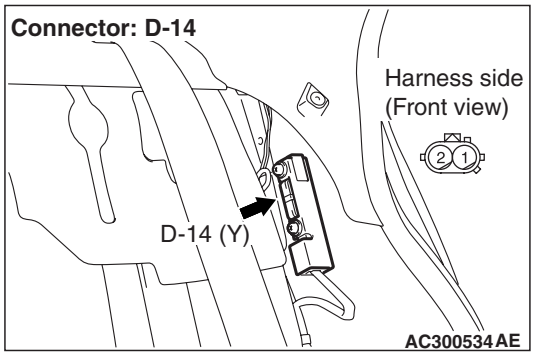
- Damaged wiring harness or connectors
- Malfunction of the side impact sensor (LH) (rear)
- Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE

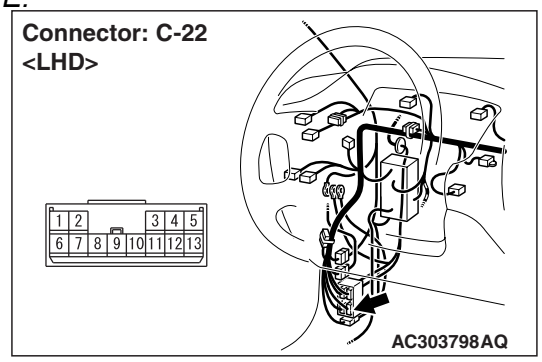
STEP 1. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.15 and 16) and side impact sensor (LH) (rear) connector D-14 (terminal No.1 and 2).

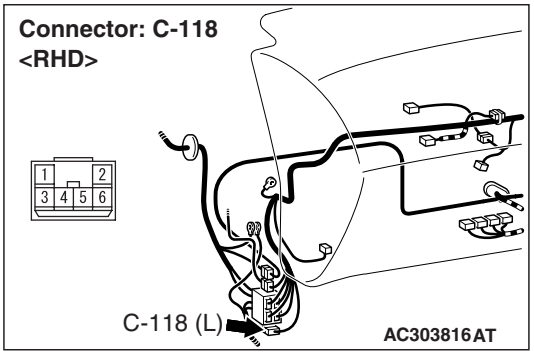






NOTE:





After inspecting intermediate connector C-22 <LHD> or C-118 <RHD> inspect the wiring harness. If the intermediate connector C-22 <LHD> or C-118 <RHD> is damaged, repair or replace it.

Q: Is the check result normal?
YES : Go to Step 3.
NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.15 and 16) and side impact sensor (LH) (rear) connector D-14 (terminal No.1 and 2).

STEP 2. Check the side impact sensor (LH) (rear) (M.U.T.-II/III diagnosis code).
(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (LH) (rear) with the side impact sensor (RH) (rear).
(3) Connect the negative battery terminal.
(4) Erase diagnosis code from memory, and check the diagnosis code.

Q: Is diagnosis code 5A set?
YES : Replace the SRS-ECU (Refer to P.52B-198).
NO : Replace the side impact sensor (LH) (rear) with a new one (Refer to P.52B-212). Go to Step 3.

STEP 3. Check whether the diagnosis code is reset.

Q: Is diagnosis code 5A set?
YES : Replace the SRS-ECU (Refer toP.52B-198).
NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.5B: G-sensor of side impact sensor (LH) (rear) failure
Code No.6B: G-sensor of side impact sensor (RH) (rear) failure

DIAGNOSIS CODE SET CONDITIONS

These diagnosis codes are set if the followings are detected from the analog G-sensor inside the side impact sensor (rear) output.

- Analog G-sensor inside the side impact sensor (rear) is not operating.
- Analog G-sensor inside the side impact sensor (rear) characteristics are abnormal.
- Analog G-sensor inside the side impact sensor (rear) output is abnormal.

PROBABLE CAUSE

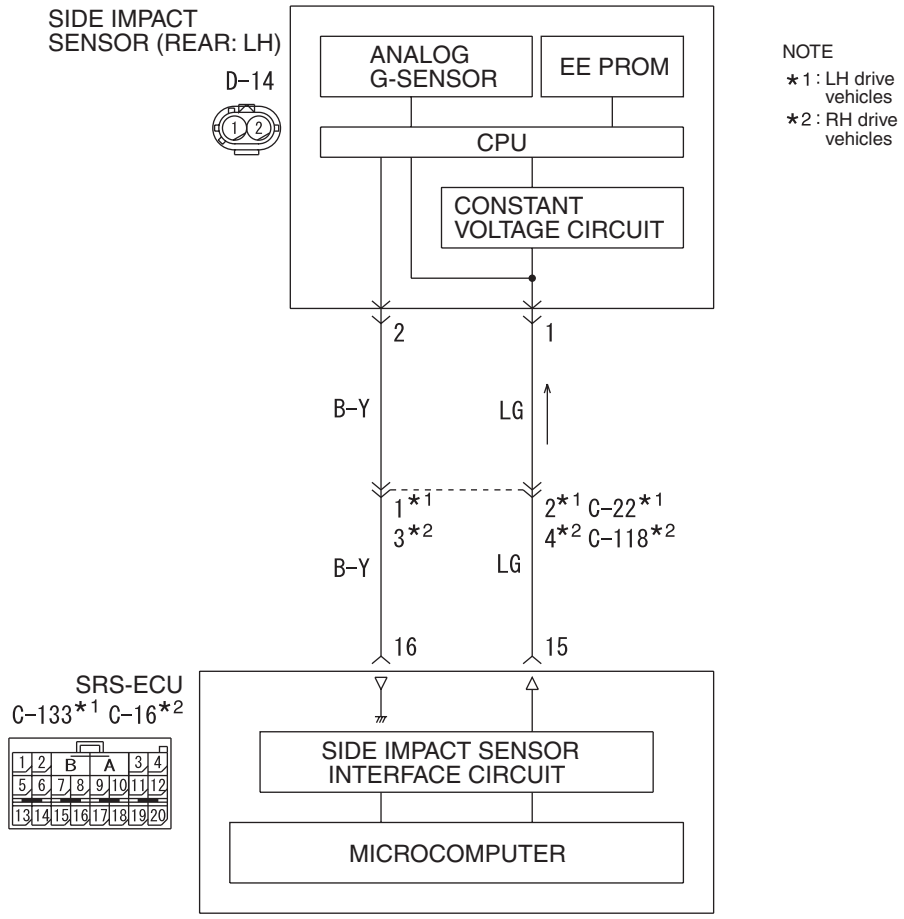
Malfunction of side impact sensor (LH) (rear) (for diagnosis code 5B) and side impact sensor (RH) (rear) (for diagnosis code 6B)

DIAGNOSIS PROCEDURE

Replace side impact sensor (LH) (rear) (for diagnosis code 5B) and side impact sensor (RH) (rear) (for diagnosis code 6B) (Refer to P.52B-212).

Code No.5C: Side impact sensor (LH) (rear) communication error
Code No.5D: Side impact sensor (LH) (rear) communication impossible

Side Impact Sensor (LH) (Rear) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E02AA
AC504705AB

OPERATION
The side impact sensor (rear) includes an analogue G-sensor and CPU, etc. The CPU monitors the analogue G-sensor output signal. If the CPU judges that the side-airbags and curtain air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags and curtain air bags. Besides that, the CPU diagnoses the internal components of the side impact sensor (rear). If a malfunction occurs, it requests the SRS-ECU to set a diagnosis code.

DIAGNOSIS CODE SET CONDITIONS
These diagnosis codes are set if communication between the side impact sensor (LH) (rear) and the SRS-ECU is not possible or communication is faulty.

PROBABLE CAUSES
- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (LH) (rear)
- Malfunction of the SRS-ECU

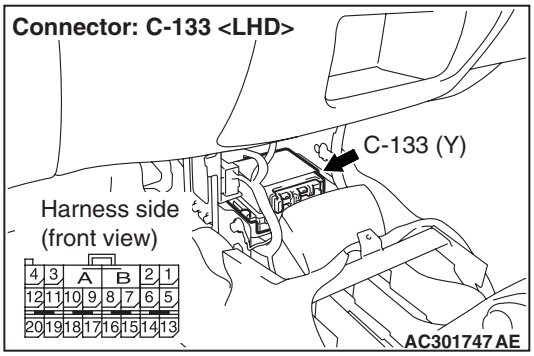
DIAGNOSIS PROCEDURE

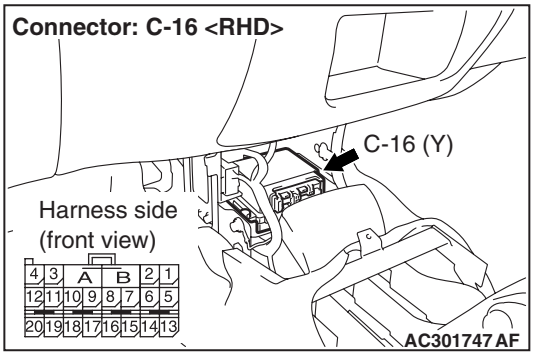
STEP 1. Check the side impact sensor (LH) (rear) (M.U.T.-II/III diagnosis code).

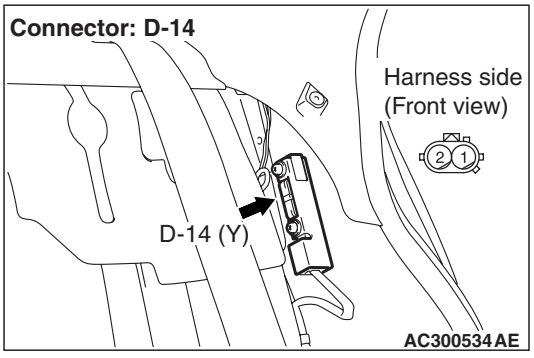
(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (LH) (rear) with the side impact sensor (RH) (rear).
(3) Connect the negative battery terminal.
(4) Erase diagnosis code memory, and check the diagnosis code.

Q: Is diagnosis code 6C or 6D set?
YES : Replace the side impact sensor (LH) (rear) with a new one (Refer to P.52B-212).
NO : Go to Step 2.

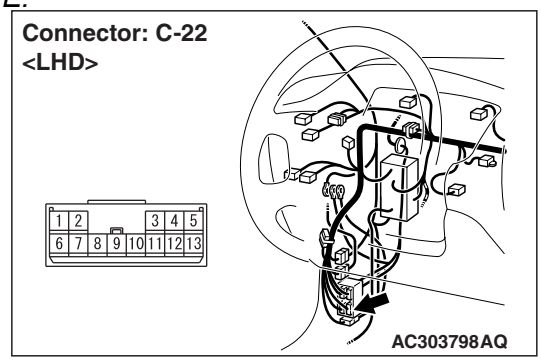
STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.15 and 16) and side impact sensor (LH) (rear) connector D-14 (terminal No.1 and 2).

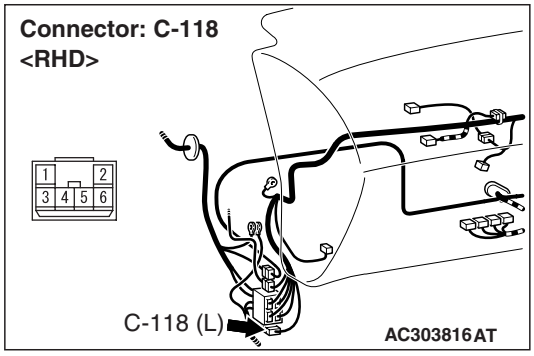






NOTE:





After inspecting intermediate connector C-22 <LHD> or C-118 <RHD> inspect the wiring harness. If the intermediate connector C-22 <LHD> or C-118 <RHD> is damaged, repair or replace it.

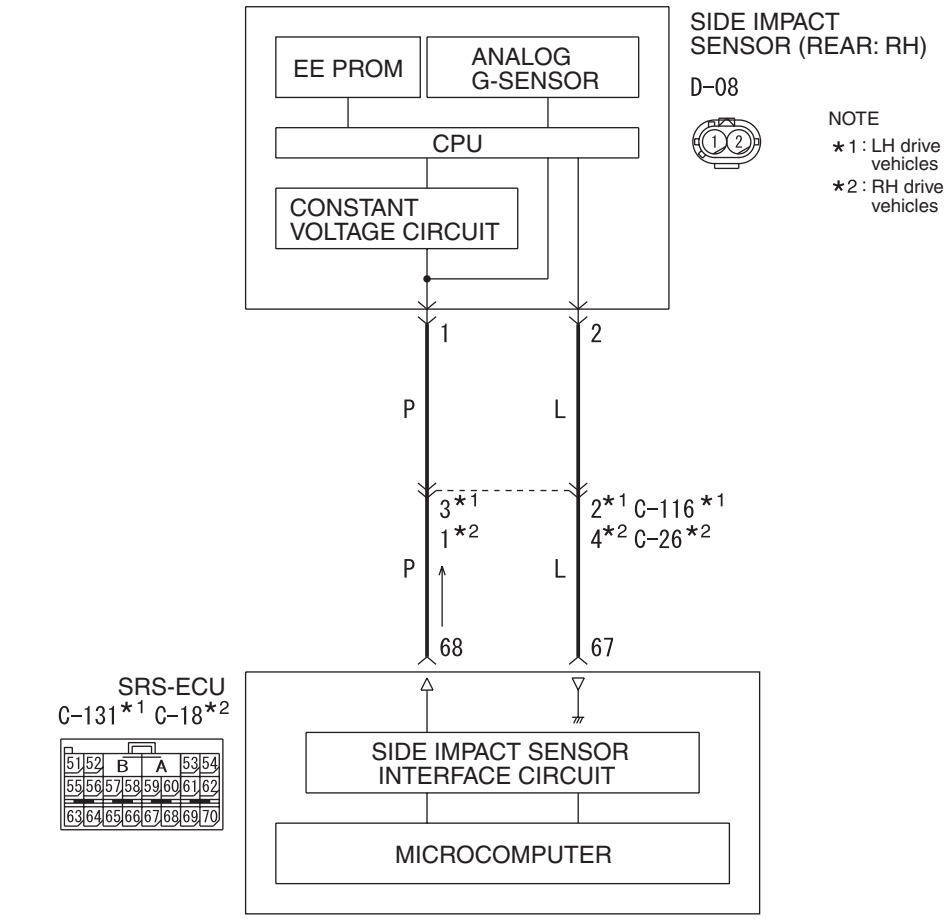
Q: Is the check result normal?
YES : Go to Step 3.
NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.15 and 16) and side impact sensor (LH) (rear) connector D-14 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

Q: Is diagnosis code 5C or 5D set?
YES : Replace the SRS-ECU (Refer to P.52B-198).
NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.6A: Side impact sensor (RH) (rear) voltage error

Side Impact Sensor (RH) (Rear) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E03AA
AC504708 AB

OPERATION

The side impact sensor (rear) includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the side-airbags and curtain air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags and curtain air bags. Besides that, the CPU diagnoses the internal components of the side impact sensor (rear). If a malfunction occurs, it requests the SRS-ECU to set a diagnosis code.

DIAGNOSIS CODE SET CONDITIONS

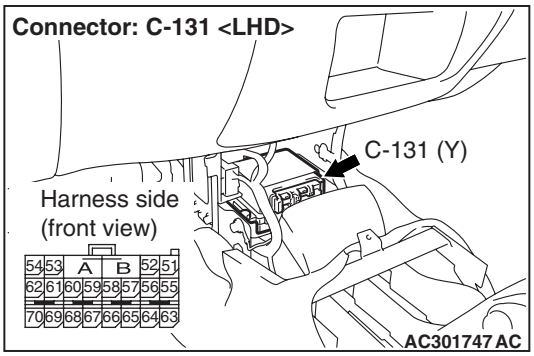
This diagnosis code is set if the power supply voltage of the side impact sensor (RH) (rear) drops below the rated value for a continuous period of 5 seconds or more. However, if the system returns to normal condition, code number 6A will be erased automatically and the SRS warning lamp will go out.

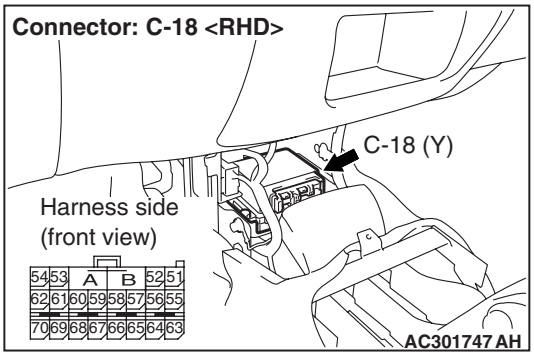
PROBABLE CAUSES

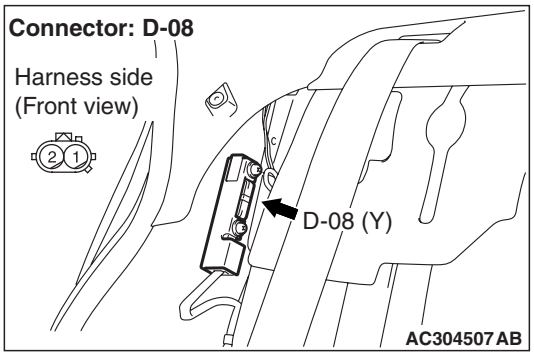
- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (RH) (rear)
- Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE

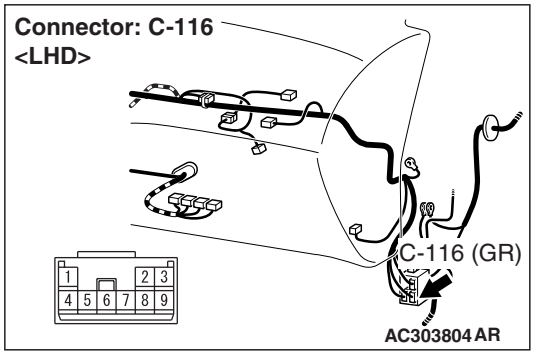
STEP 1. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.67 and 68) and side impact sensor (RH) (rear) connector D-08 (terminal No.1 and 2).

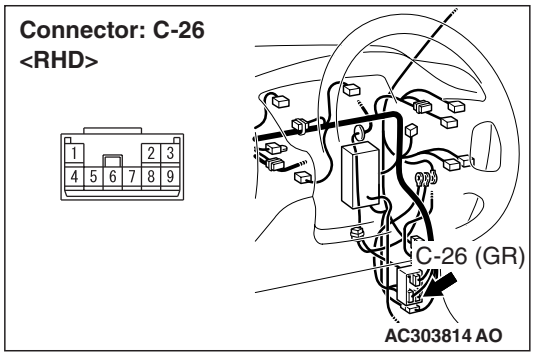






NOTE:





After inspecting intermediate connector C-116 <LHD> or C-26 <RHD> inspect the wiring harness. If the intermediate connector C-116 <LHD> or C-26 <RHD> is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.67 and 68) and side impact sensor (RH) (rear) connector D-08 (terminal No.1 and 2) in good condition?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.67 and 68) and side impact sensor (RH) (rear) connector D-08 (terminal No.1 and 2).

STEP 2. Check the side impact sensor (RH) (rear) (MUT-II/III diagnosis code).

(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (RH (rear)) with the side impact sensor (LH) (rear).
(3) Connect the negative battery terminal.
(4) Erase diagnosis code from memory, and check the diagnosis code.

Q: Is diagnosis code 6A set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : Replace the side impact sensor (RH) (rear) with a new one (Refer to P.52B-212). Go to Step 3.

STEP 3. Check whether the diagnosis code is reset.

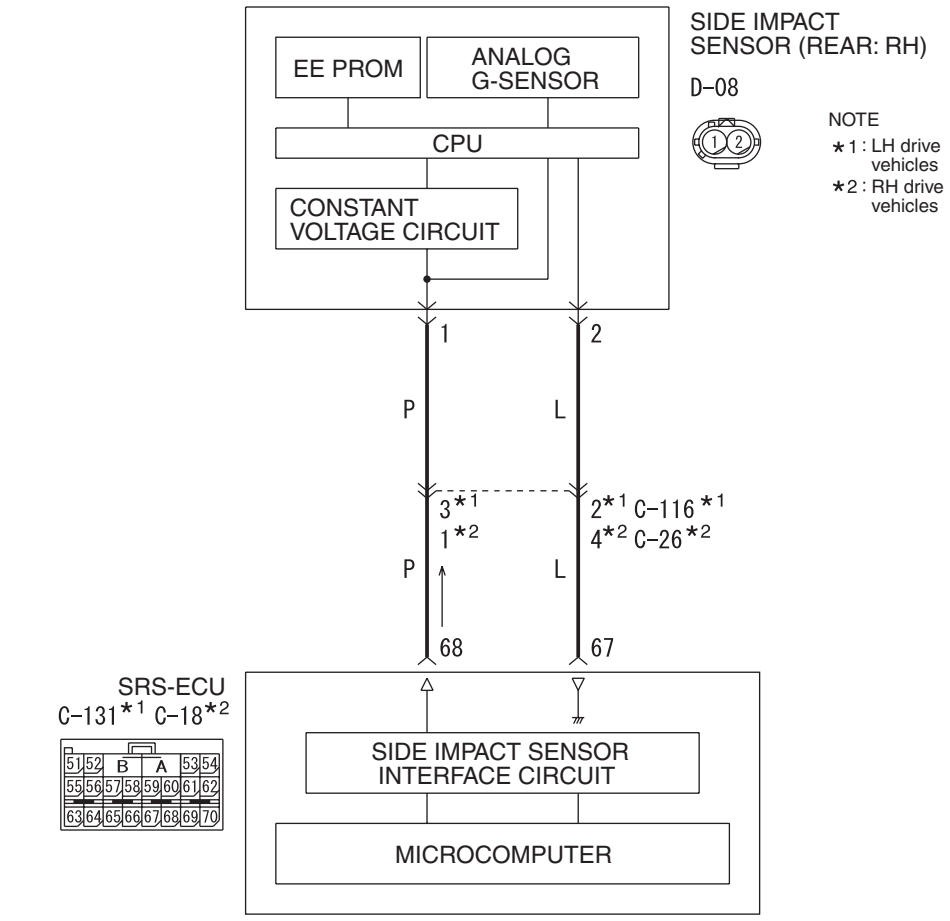
Q: Is diagnosis code 6A set?

YES : Replace the SRS-ECU (Refer toP.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.6C: Side impact sensor (RH) (rear) communication error
Code No.6D: Side impact sensor (RH) (rear) communication impossible

Side Impact Sensor (RH) (Rear) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

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AC504708 AB

OPERATION

The side impact sensor (rear) includes an analogue G-sensor and CPU, etc. The CPU monitors the analogue G-sensor output signal. If the CPU judges that the side-airbags and curtain air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags and curtain air bags. Besides that, the CPU diagnoses the internal components of the side impact sensor (rear). If a malfunction occurs, it requests the SRS-ECU to set a diagnosis code.

DIAGNOSIS CODE SET CONDITIONS

These diagnosis codes are set if communication between the side impact sensor (RH) (rear) and the SRS-ECU is not possible or faulty.

PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (RH) (rear)
- Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE

STEP 1. Check the rear side impact sensor (RH) (rear) (M.U.T.-II/III diagnosis code).

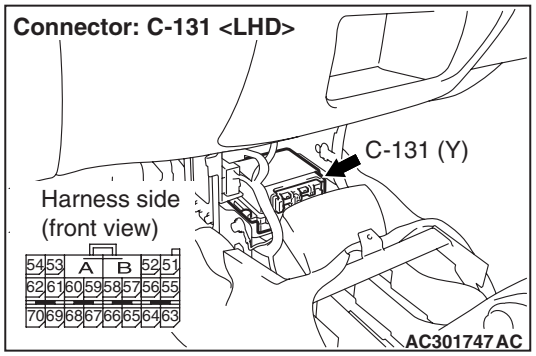
(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (RH) (rear) with the rear side impact sensor (LH) (rear).
(3) Connect the negative battery terminal.
(4) Erase diagnosis code memory, and check the diagnosis code.

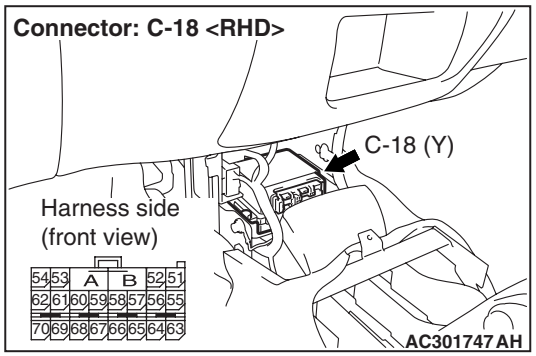
Q: Is diagnosis code 5C or 5D out put?

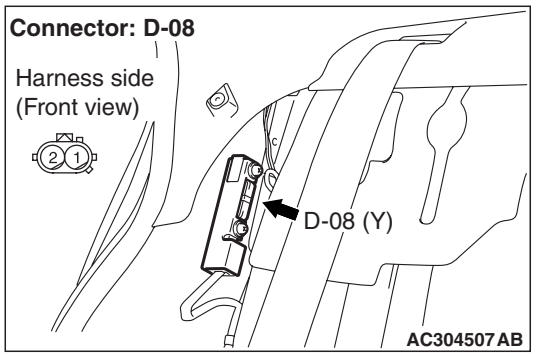
YES : Replace the side impact sensor (RH) (rear) with a new one (Refer to P.52B-212).

NO : Go to Step 2.

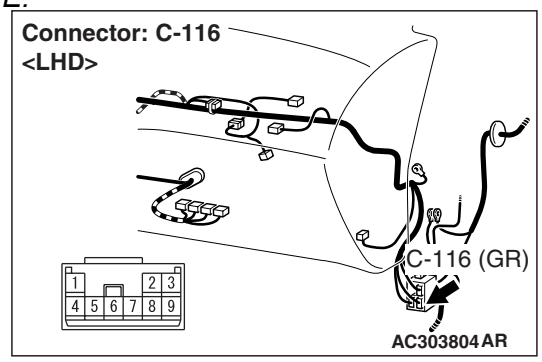
STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.67 and 68) and side impact sensor (RH) (rear) connector D-08 (terminal No.1 and 2).

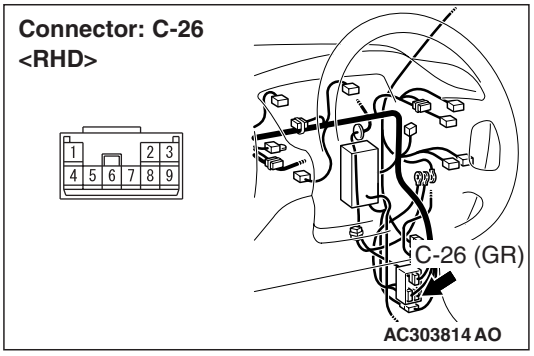






NOTE:





After inspecting intermediate connector C-116 <LHD> or C-26 <RHD> inspect the wiring harness. If the intermediate connector C-116 <LHD> or C-26 <RHD> is damaged, repair or replace it.

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.67 and 68) and side impact sensor (RH) (rear) connector D-08 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

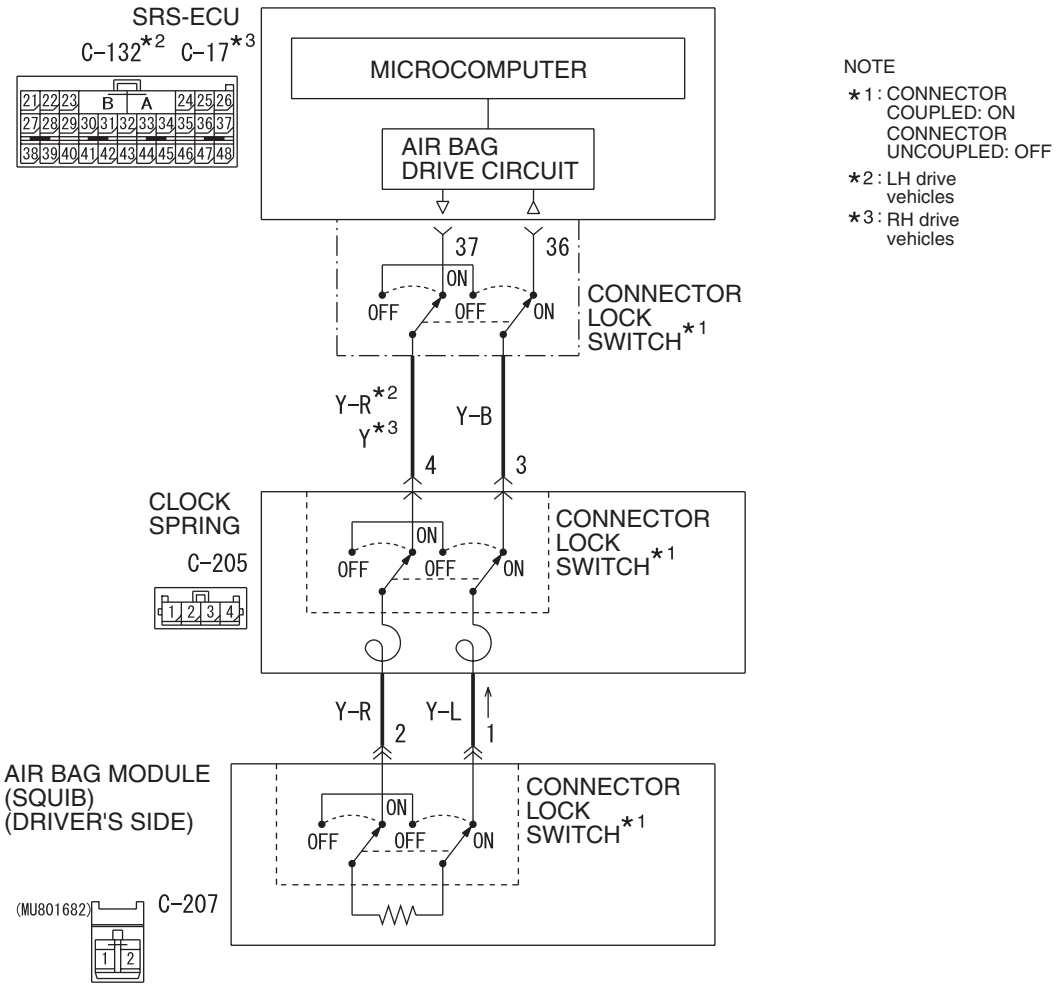
Q: Is diagnosis code 6C or 6D set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.21: Driver's air bag module (squib) system (short-circuited between terminals of the squib circuit)

Driver's Air Bag Module (Squib) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

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OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if one driver's air bag squib wire shorted to the other. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

PROBABLE CAUSES

- Improper engaged connector or defective short spring*
- Short circuit in the clock spring
- Short circuit between the driver's air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the earth wire in the squib circuit when the connectors are disconnected). Therefore, if connector C-132 <LHD>, C-17 <RHD>, C-205 or C-207 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-II/III diagnosis code

⚠ CAUTION

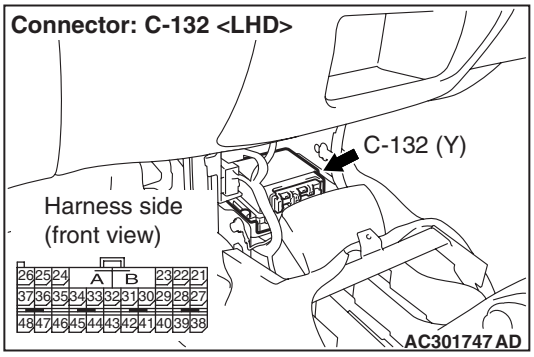
To prevent damage to M.U.T.-II/III, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

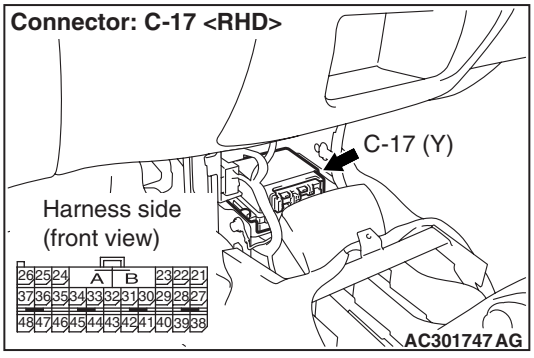
(1) Turn the ignition switch to the "ON" position.
(2) Check if the diagnosis code is set.
(3) Turn the ignition switch to the "LOOK" (OFF) position.

Q: Is diagnosis code 34 set?
YES : Go to Step 2.
NO : Go to Step 3.

STEP 2. Connector lock check: SRS-ECU connector C-132 <LHD> or C-17 <RHD> (M.U.T.-II/III diagnosis code)

(1) Disconnect the negative battery terminal.



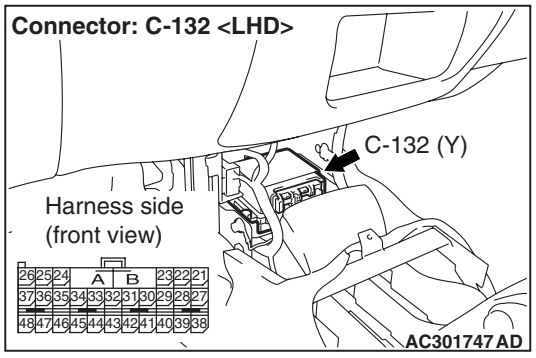


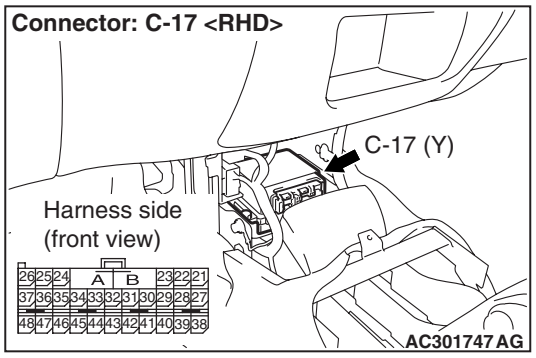
(2) Disconnect connectors C-132 <LHD> or C-17 <RHD> and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

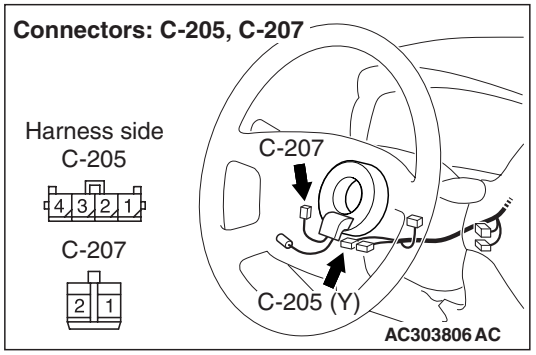
Q: Is diagnosis code 21 set?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 21 set as connector C-132 <LHD> or C-17 <RHD> was engaged improperly.

STEP 3. Connector lock check: SRS-ECU connector C-132 <LHD> or C-17 <RHD>, clock spring connector C-205 and driver's air bag module connector C-207 (M.U.T.-II/III diagnosis code)

(1) Disconnect the negative battery terminal.







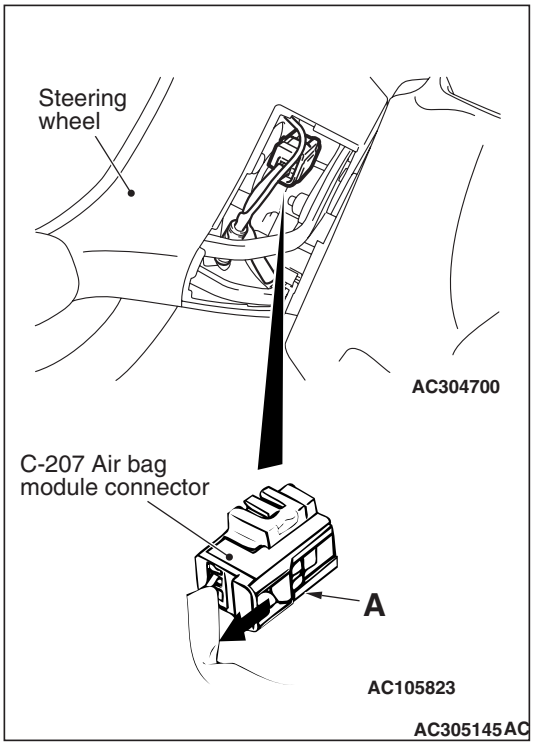
(2) Disconnect connectors C-132 <LHD>, C-17 <RHD>, C-205 and C-207, and then reconnect them.
(3) Connect the negative battery terminal.

(4) Erase the diagnosis code memory, and check the diagnosis code.

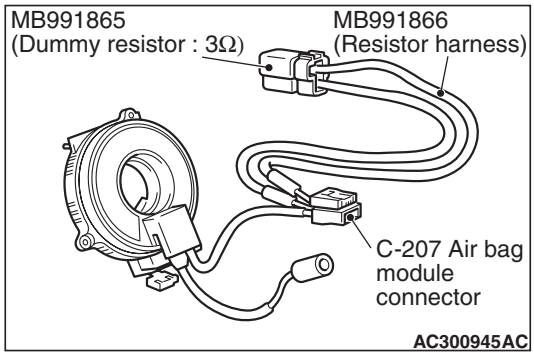
Q: Is diagnosis code 21 set?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 21 set as connector C-132 <LHD>, C-17 <RHD>, C-205 or C-207 was engaged improperly.

STEP 4. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) By sliding the A section (in the figure) of air bag module connector C-207 in the arrow direction, disconnect the connector.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

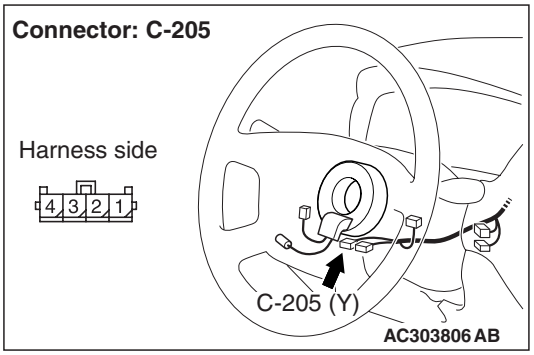
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

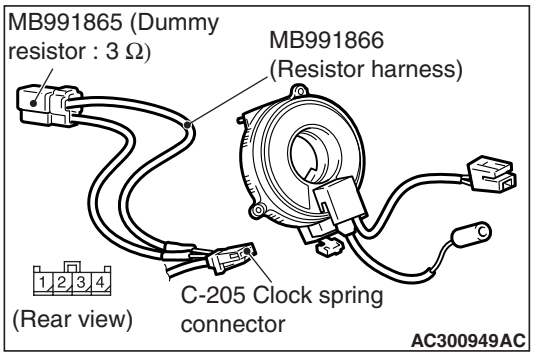
(4) Insert special tool (MB991866) into clock spring side air bag module connector C-207 by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

Q: Is diagnosis code 21 set?
YES : Go to Step 5.
NO : Replace the driver's air bag module (Refer to P.52B-199).

STEP 5. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.





(2) Disconnect the clock spring connector C-205.
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

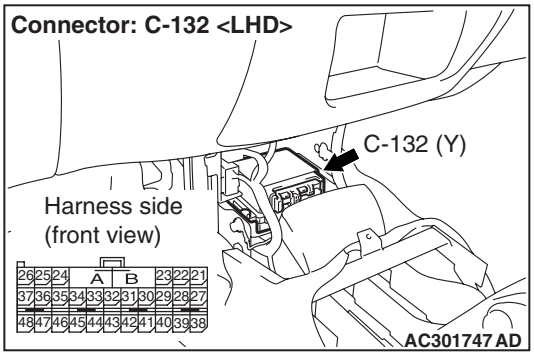
(4) Insert special tool (MB991866) into clock spring harness side connector C-205 (terminal No.3 and 4) by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

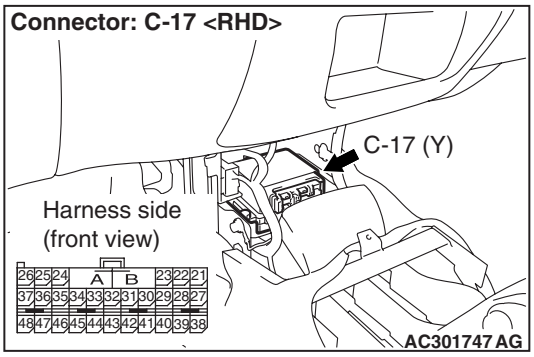
Q: Is diagnosis code 21 set?

YES : Go to Step 6.

NO : Replace the clock spring (Refer to P.52B-199).

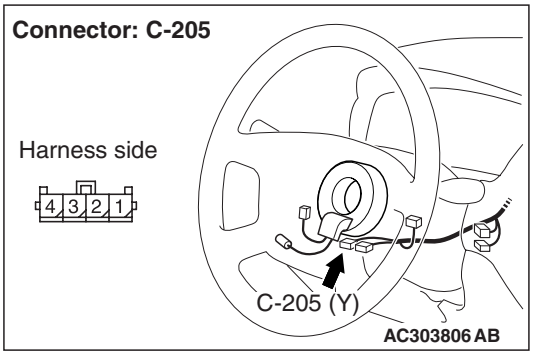
STEP 6. Resistance measurement at the SRS-ECU connector C-132 <LHD> or C-17 <RHD>.





(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>.

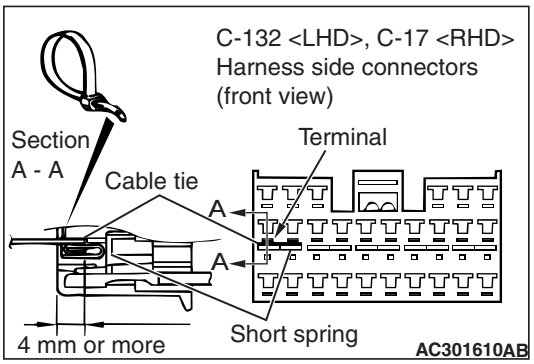
⚠ ***DANGER***



To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-205 to short the squib circuit.

(2) Disconnect the clock spring connector C-205.

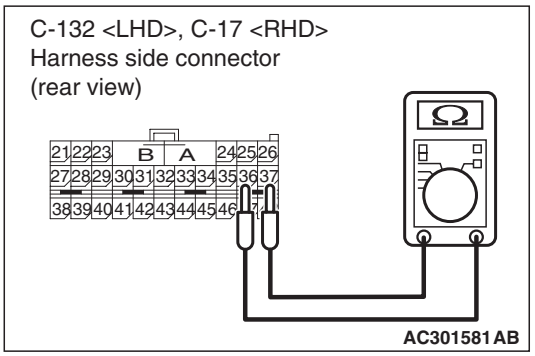
⚠ **CAUTION**



Insert an insulator such as a cable tie to a depth of 4 mm or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm wide, 0.5 mm thick] between terminals 36, 37 and the short spring to release the short spring.

⚠ **CAUTION**



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Resistance measurement between C-132 <LHD> or C-17 <RHD> harness side connector terminals 36 and 37.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.36 and 37) and clock spring connector C-205 (terminal No.3 and 4).

STEP 7. Check whether the diagnosis code is reset.

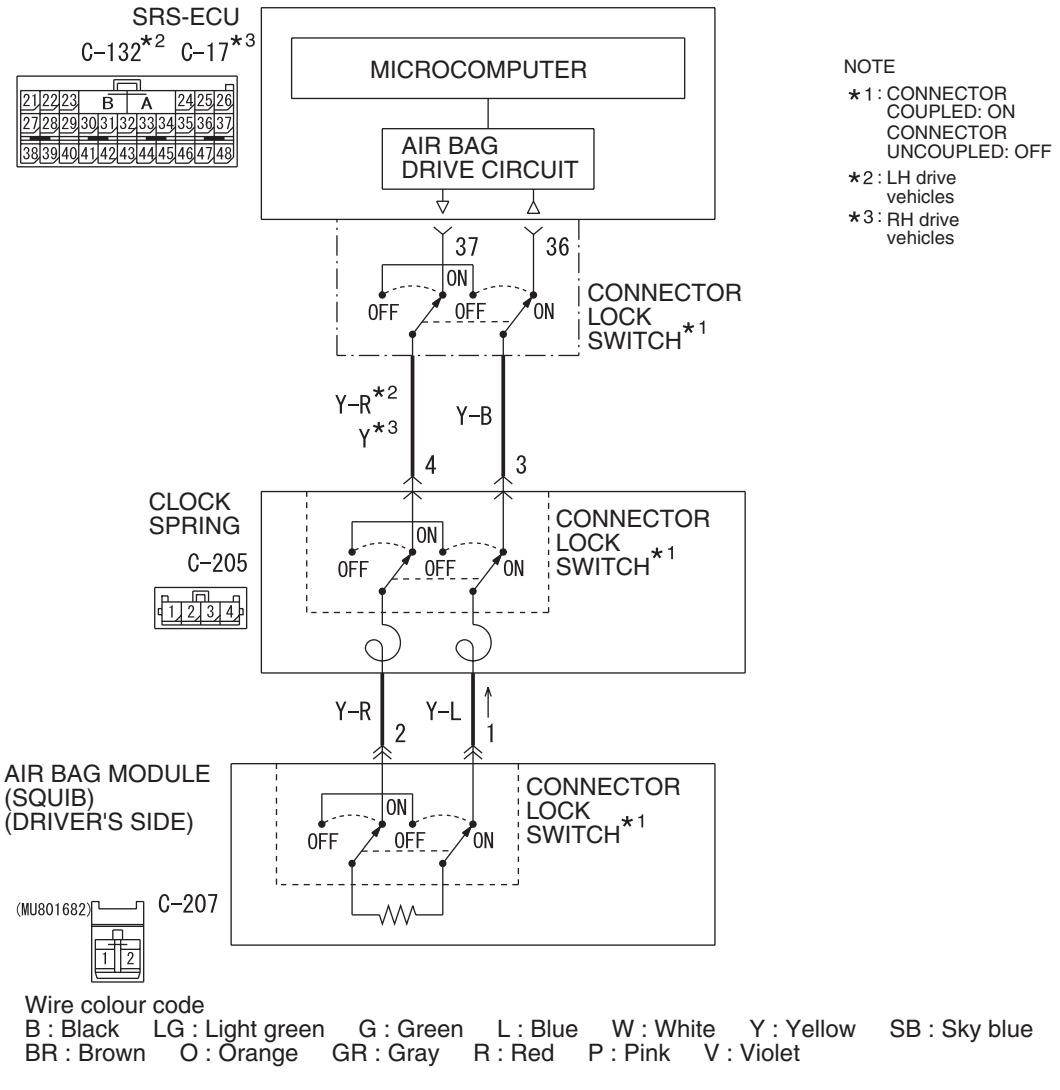
Q: Is diagnosis code 21 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.22: Driver's air bag module (squib) system (open-circuited in the squib circuit)

Driver's Air Bag Module (Squib) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E06AA

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if driver's air bag squib wire(s) are open-circuited. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

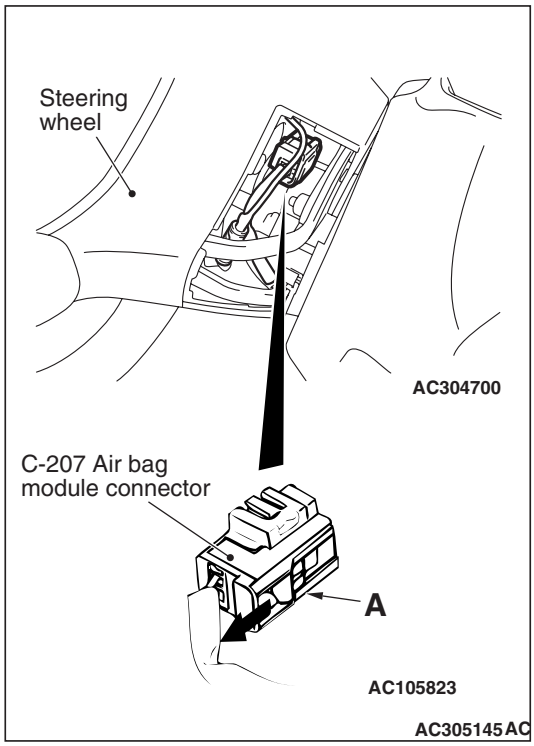
PROBABLE CAUSES

- Open circuit in the clock spring
- Open circuit due to improper neutral position of the clock spring
- Open circuit in the driver's air bag module (squib) circuit
- Disengaged driver's air bag module (squib) connector
- Improper connector contact
- Malfunction of the SRS-ECU

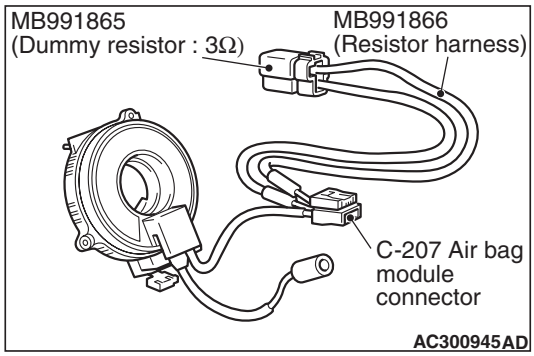
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) By sliding the A section (in the figure) of air bag module connector C-207 in the arrow direction, disconnect the connector.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

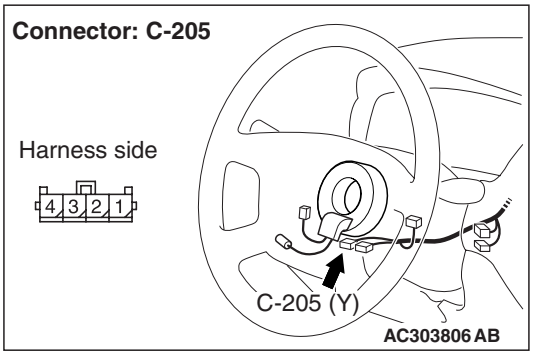
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Insert special tool (MB991866) into clock spring side air bag module connector C-207 by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

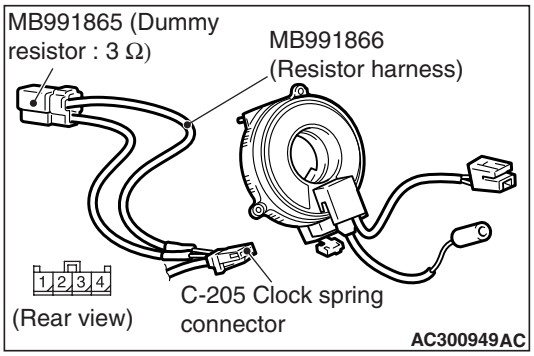
Q: Is diagnosis code 22 set?
YES : Go to Step 2.
NO : Replace the driver's air bag module (Refer to P.52B-199).

STEP 2. Check the clock spring (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the clock spring connector C-205.



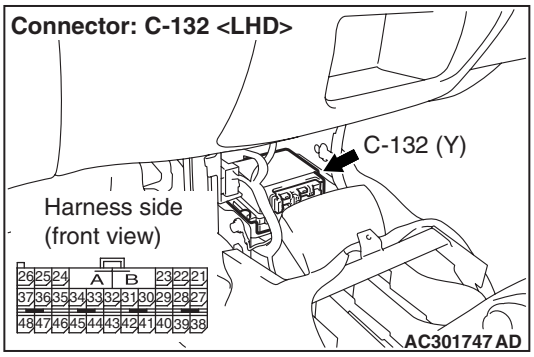
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

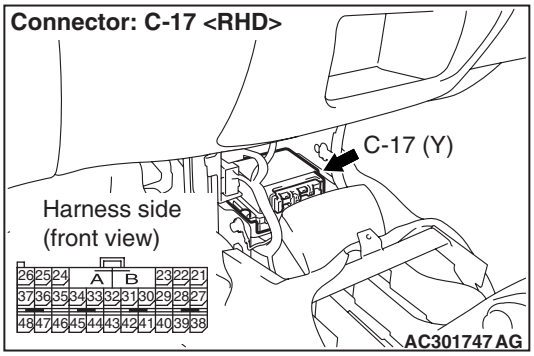
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

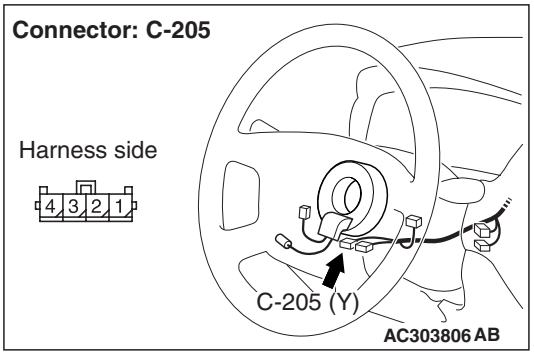
(4) Insert special tool (MB991866) into clock spring harness side connector C-205 (terminal No.3 and 4) by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

Q: Is diagnosis code 22 set?
YES : Go to Step 3.
NO : Replace the clock spring (Refer to P.52B-199).

STEP 3. Resistance measurement between the SRS-ECU connector C-132 <LHD>, C-17 <RHD> (terminal No.36 and 37) and the clock spring connector C-205 (terminal No.3 and 4)

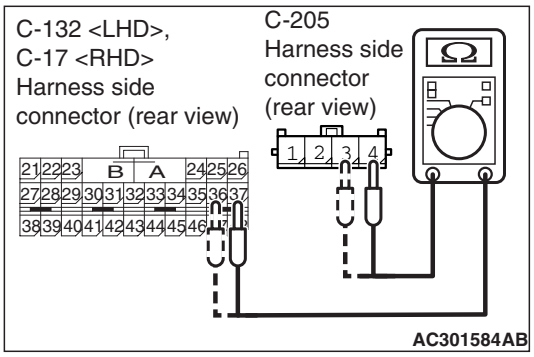






(1) Disconnect SRS-ECU connector C-132 <LHD>, C-17 <RHD> and clock spring connector C-205.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Resistance measurement between the following terminals.
- SRS-ECU connector C-132 <LHD>, C-17 <RHD> terminal No.36 and the clock spring connector C-205 terminal No.3
- SRS-ECU connector C-132 <LHD>, C-17 <RHD> terminal No.37 and the clock spring connector C-205 terminal No.4

OK: Continuity (Less than 2 Ω)

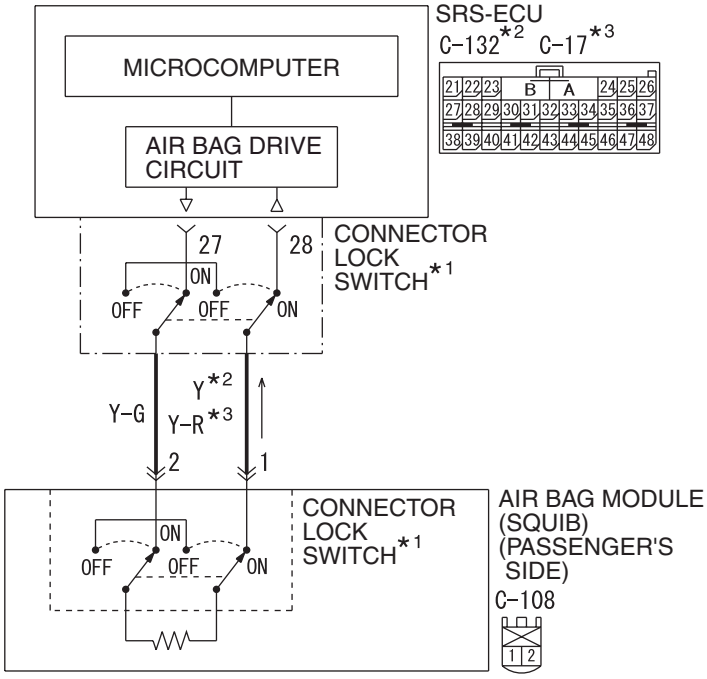
Q: Are the check results normal?
YES : Go to Step 4.
NO : Repair the harness wires between SRS-ECU connector C-132 <LHD>, C-17 <RHD> (terminal No.36 and 37) and clock spring connector C-205 (terminal No.3 and 4).

STEP 4. Check whether the diagnosis code is reset.

Q: Is diagnosis code 22 set?
YES : Replace the SRS-ECU (Refer to P.52B-198).
NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.24: Passenger's (front) air bag module (squib) system (short-circuited between terminals of the squib circuit)

Passenger's (Front) Air Bag Module (Squib) Circuit



NOTE
*1 : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF
*2 : LH drive vehicles
*3 : RH drive vehicles

Wire colour code
B : Black LG : Light green
G : Green L : Blue
W : White Y : Yellow
SB : Sky blue BR : Brown
O : Orange GR : Gray
R : Red P : Pink V : Violet

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AC504727AB

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if one passenger's (front) air bag squib wire shorted to the other. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

PROBABLE CAUSES

- Improper engaged connector or defective short spring*
- Short circuit between the passenger's (front) air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the earth wire in the squib circuit when the connectors are disconnected).Therefore, if connector C-132 <LHD>, C-17 <RHD> or C-108 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-II/III diagnosis code

⚠ CAUTION

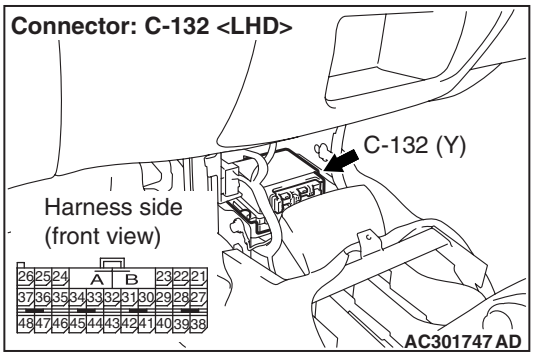
To prevent damage to M.U.T.-II/III, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

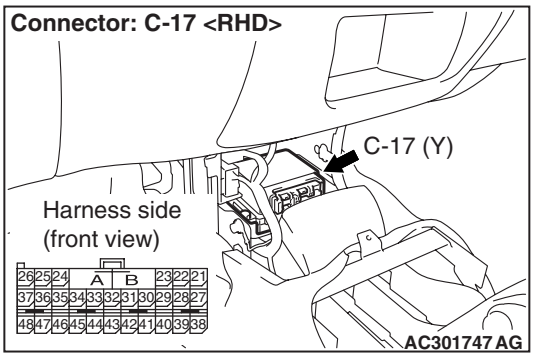
(1) Turn the ignition switch to the "ON" position.
(2) Check if the diagnosis code is set.
(3) Turn the ignition switch to the "LOOK" (OFF) position.

Q: Is diagnosis code 34 set?
YES : Go to Step 2.
NO : Go to Step 3.

STEP 2. Connector lock check: SRS-ECU connector C-132 <LHD> or C-17 <RHD> (M.U.T.-II/III diagnosis code)

(1) Disconnect the negative battery terminal.





(2) Disconnect the connectors C-132 <LHD> or C-17 <RHD> and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

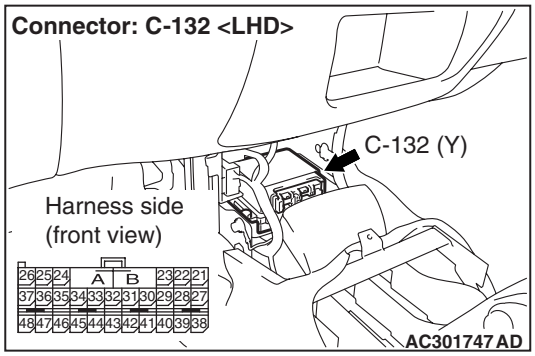
Q: Is diagnosis code 24 set?

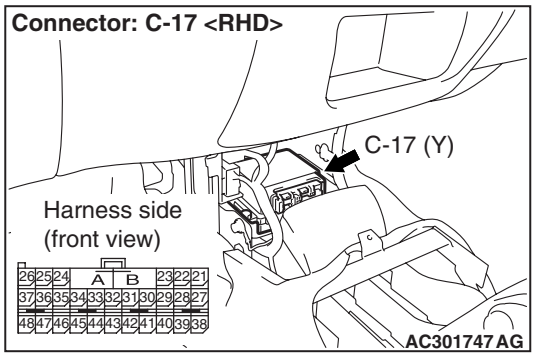
YES : Go to Step 4.

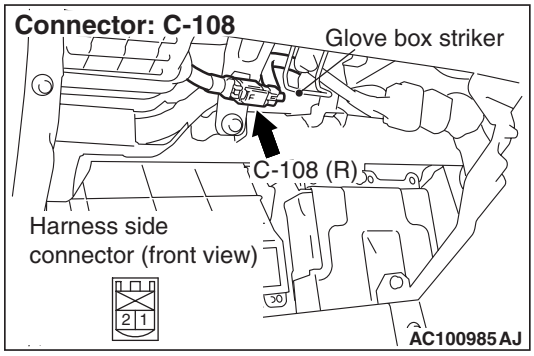
NO : The procedure is complete. It is assumed that diagnosis code 24 set as connector C-132 <LHD> or C-17 <RHD> was engaged improperly.

STEP 3. Connector lock check: SRS-ECU connector C-132 <LHD> or C-17 <RHD> and passenger's (front) air bag module connector C-108. (M.U.T.-II/III diagnosis code)

(1) Disconnect the negative battery terminal.







(2) Disconnect connectors C-132 <LHD> or C-17 <RHD> and C-108, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

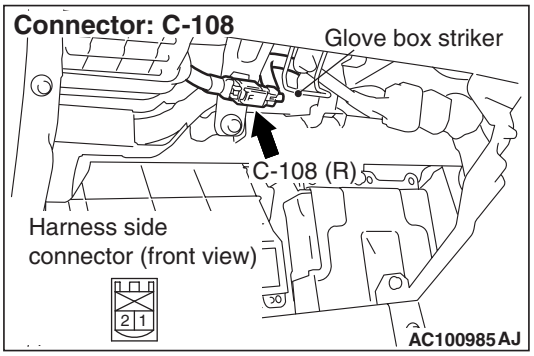
Q: Is diagnosis code 24 set?

YES : Go to Step 4.

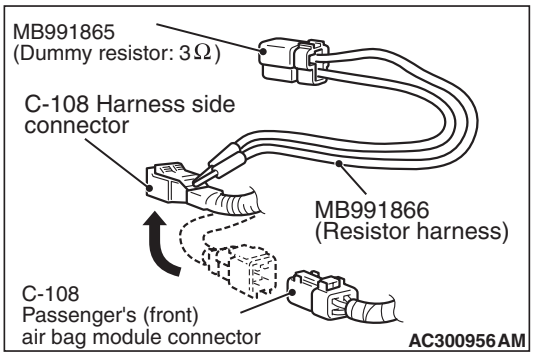
NO : The procedure is complete. It is assumed that diagnosis code 24 set as connector C-132 <LHD>, C-17 <RHD> or C-108 was engaged improperly.

STEP 4. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect passenger's (front) air bag module connector C-108.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

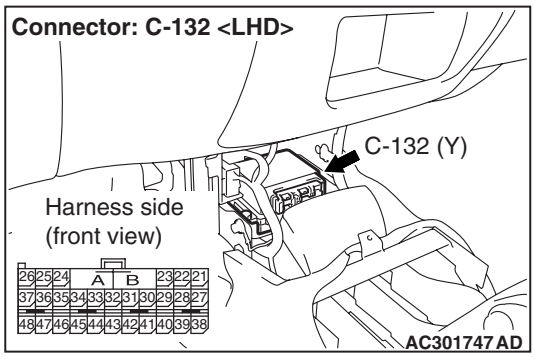
⚠ CAUTION

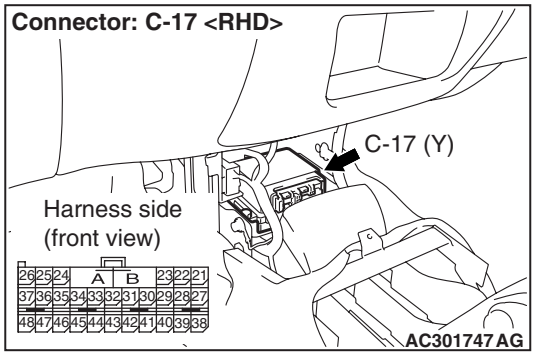
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Disconnect the passenger's (front) air bag module connector C-108 and insert special tool (MB991866) into the harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

Q: Is diagnosis code 24 set?
YES : Go to Step 5.
NO : Replace the passenger's (front) air bag module (Refer to P.52B-199).

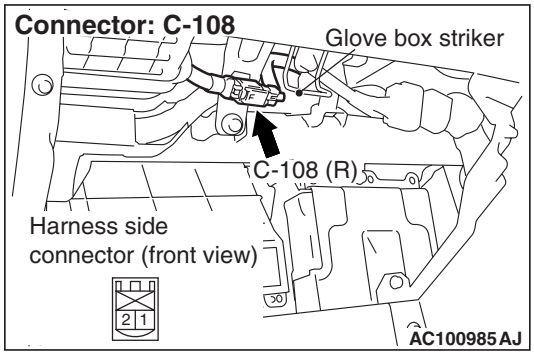
STEP 5. Resistance measurement at SRS-ECU connector C-132 <LHD> or C-17 <RHD>.





(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>.

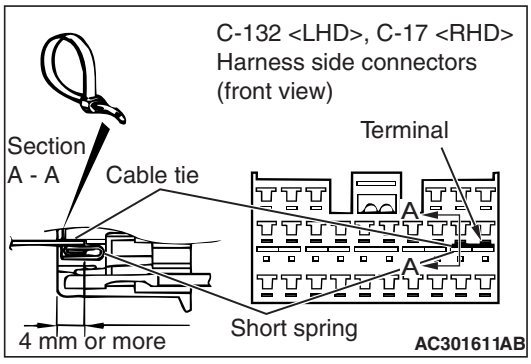
⚠ *DANGER*



To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-108 to short the squib circuit.

(2) Disconnect the passenger's (front) air bag module connector C-108.

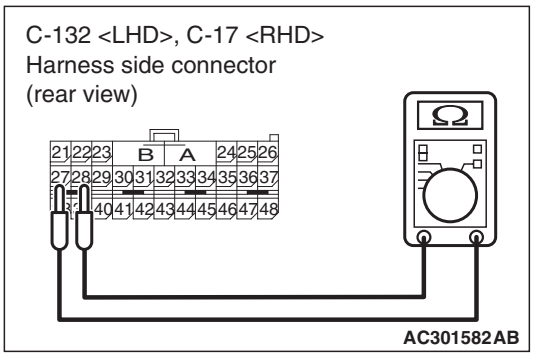
⚠ CAUTION



Insert an insulator such as a cable tie to a depth of 4 mm or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm wide, 0.5 mm thick] between terminals 27, 28 and the short spring to release the short spring.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Resistance measurement between C-132 <LHD> or C-17 <RHD> harness side connector terminals 27 and 28.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 6 .

NO : Repair the harness wires between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.27 and 28) and passenger's (front) air bag module connector C-108 (terminal No.2 and 1).

STEP 6. Check whether the diagnosis code is reset.

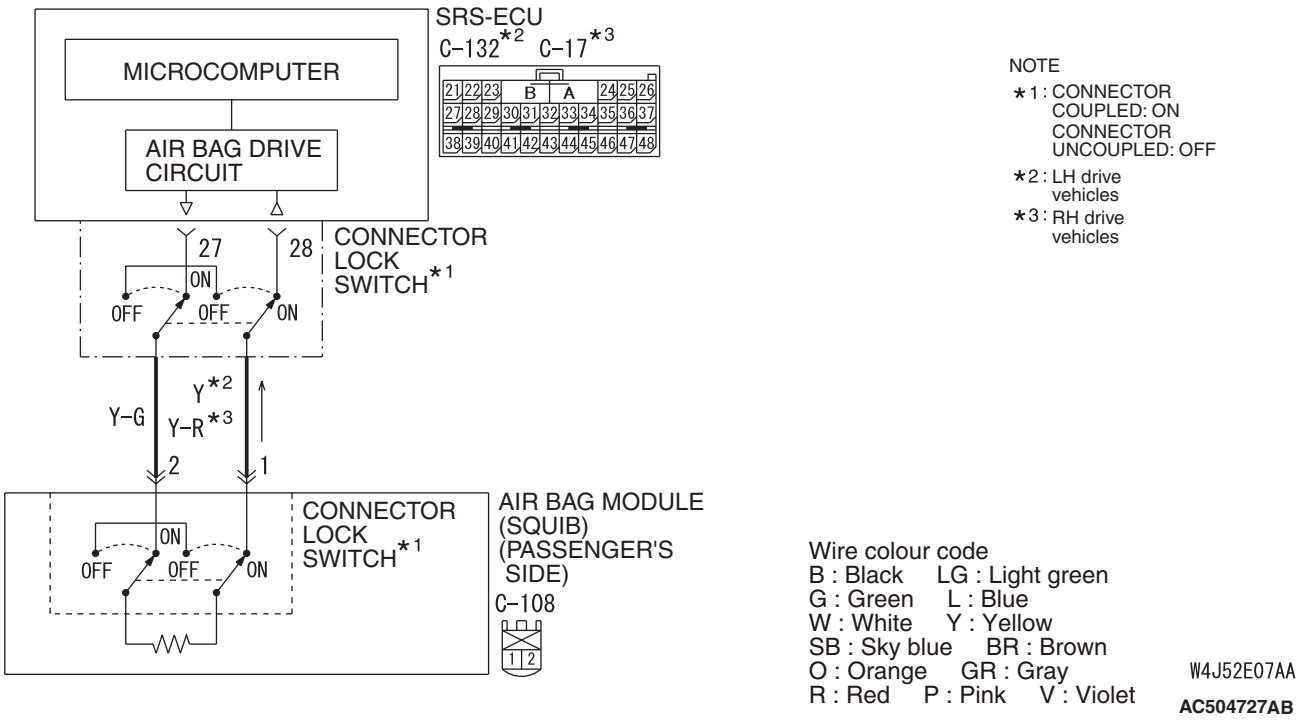
Q: Is diagnosis code 24 set?

YES : Replace the SRS-ECU (Refer toP.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.25: Passenger's (front) air bag module (squib) system (open-circuited in the squib circuit)

Passenger's (Front) Air Bag Module (Squib) Circuit



OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if passenger's (front) air bag squib wire(s) are open-circuited. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

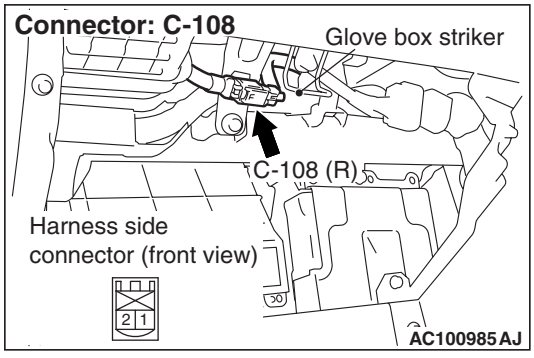
PROBABLE CAUSES

- Open circuit in the passenger's (front) air bag module (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

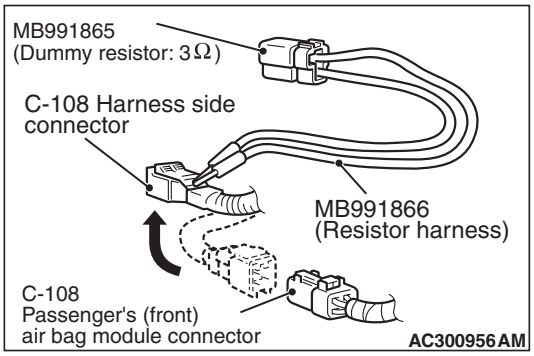
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect passenger's (front) air bag module connector C-108.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

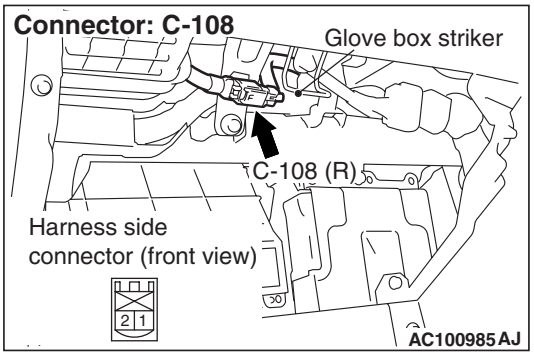
(4) Disconnect the passenger's (front) air bag module connector C-108, and insert special tool (MB991866) into the harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

Q: Is diagnosis code 25 set?

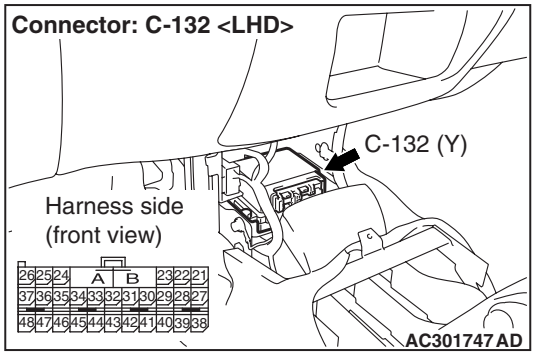
YES : Go to Step 2.

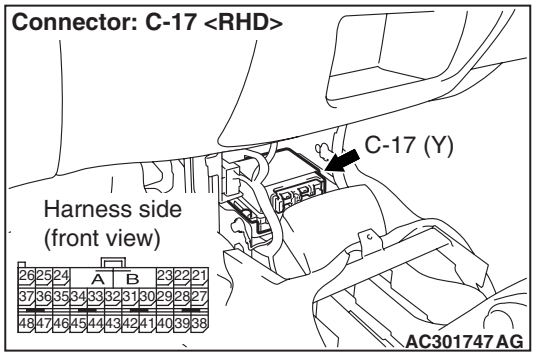
NO : Replace the passenger's (front) air bag module (Refer to P.52B-199).

STEP 2. Resistance measurement between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.27 and 28) and the passenger's (front) air bag module connector C-108 (terminal No.1 and 2).



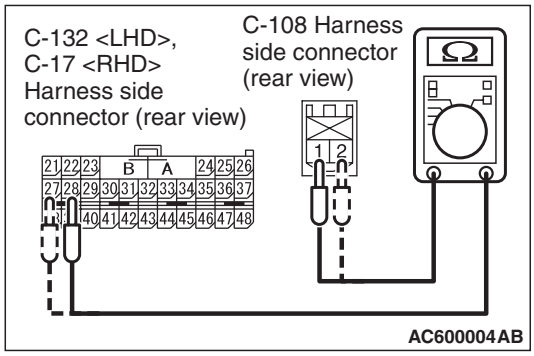
(1) Disconnect passenger's (front) air bag module connector C-108.





(2) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between the following terminals.
- SRS-ECU connector C-132 <LHD> or C-17 <RHD> terminal No.28 and the passenger's (front) air bag module connector C-108 terminal No.1
- SRS-ECU connector C-132 <LHD> or C-17 <RHD> terminal No.27 and the passenger's (front) air bag module connector C-108 terminal No.2

OK: Continuity (Less than 2 Ω)

Q: Are the check results normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.27 and 28) and passenger's (front) air bag module connector C-108 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

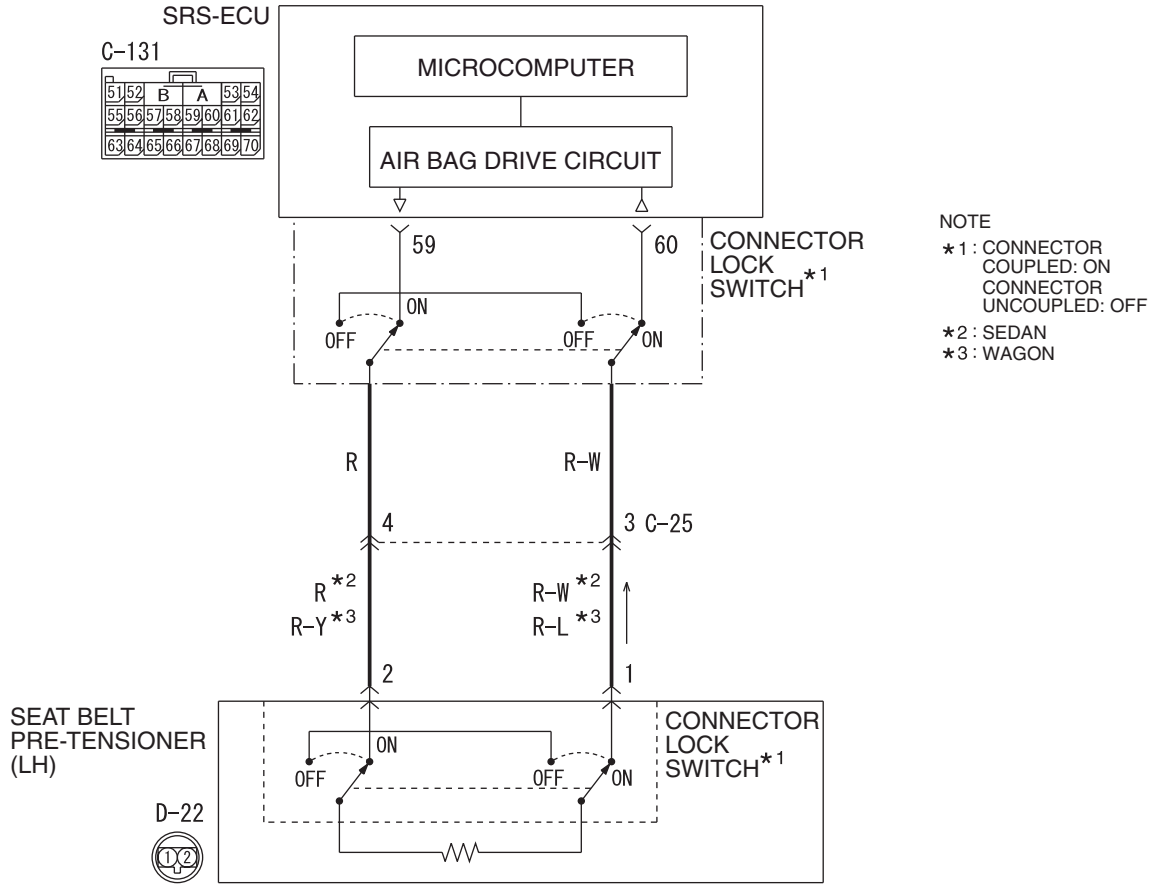
Q: Is diagnosis code 25 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.26: Driver's seat belt pre-tensioner (squib) system (short-circuited between terminals of the squib circuit)

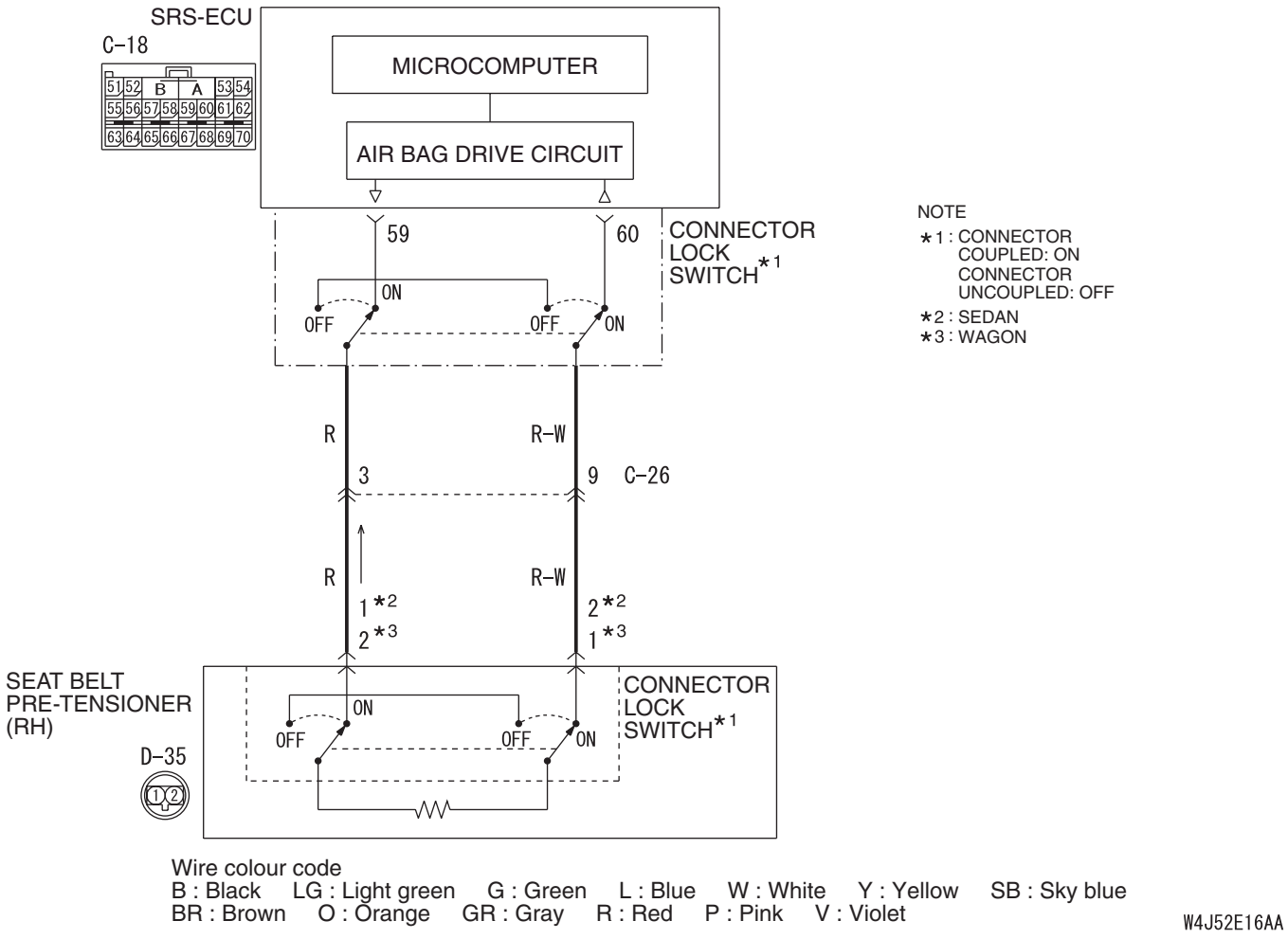
Driver's Seat Belt Pre-Tensioner (Squib) (LHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E09AA

Driver's Seat Belt Pre-Tensioner (Squib) (RHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E16AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the seat belt pre-tensioner will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if one driver's seat belt pre-tensioner squib wire shorted to the other. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

PROBABLE CAUSES

- Improper engaged connector or defective short spring*
- Short circuit between the driver's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the earth wire in the squib circuit when the connectors are disconnected). Therefore, if connector C-131 <LHD>, D-22 <LHD>, C-18 <RHD> or D-35 <RHD> is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-II/III diagnosis code

⚠ CAUTION

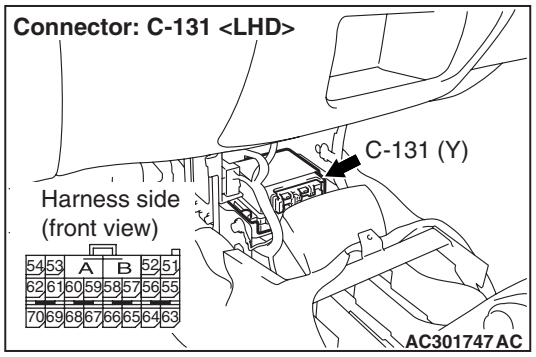
To prevent damage to M.U.T.-II/III, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

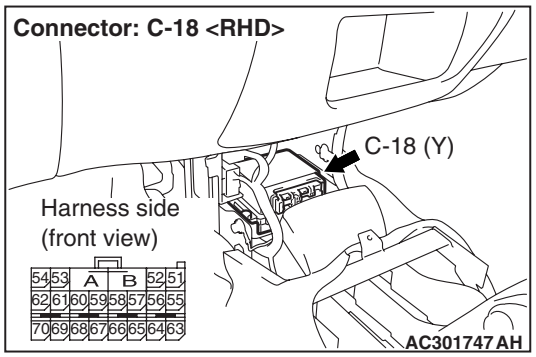
(1) Turn the ignition switch to the "ON" position.
(2) Check if the diagnosis code is set.
(3) Turn the ignition switch to the "LOOK" (OFF) position.

Q: Is diagnosis code 34 set?
YES : Go to Step 2.
NO : Go to Step 3.

STEP 2. Connector lock check: SRS-ECU connector C-131 <LHD> or C-18 <RHD (M.U.T.-II/III diagnosis code)

(1) Disconnect the negative battery terminal.



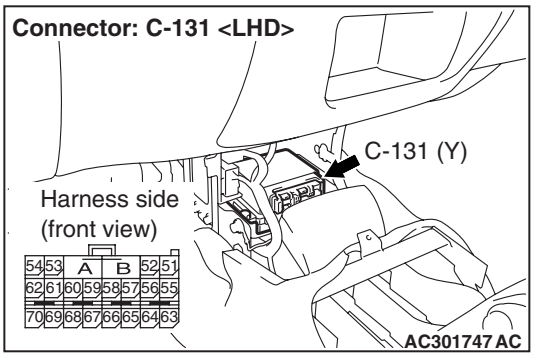


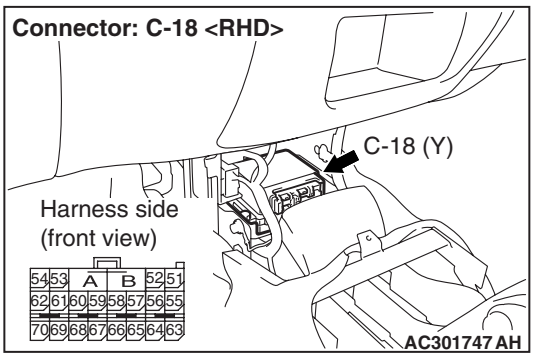
(2) Disconnect the connectors C-131 <LHD> or C-18 <RHD> and then reconnect them.
(3) Connector the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

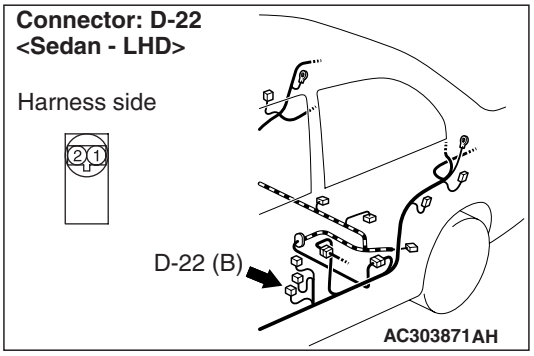
Q: Is diagnosis code 26 set?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 26 set as connector C-131 <LHD> or C-18 <RHD> was engaged improperly.

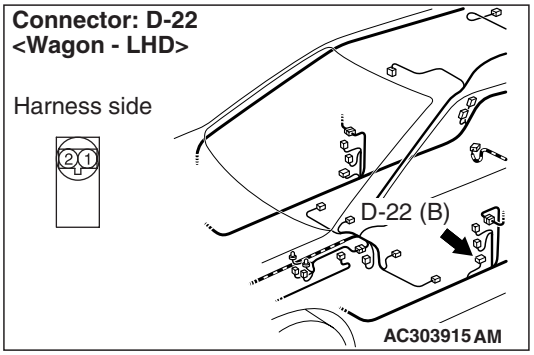
STEP 3. Connector lock check: SRS-ECU connector C-131 <LHD> or C-18 <RHD> and driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD> (M.U.T.-II/III diagnosis code)

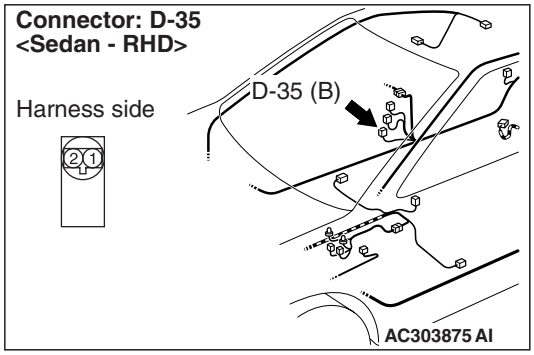
(1) Disconnect the negative battery terminal.

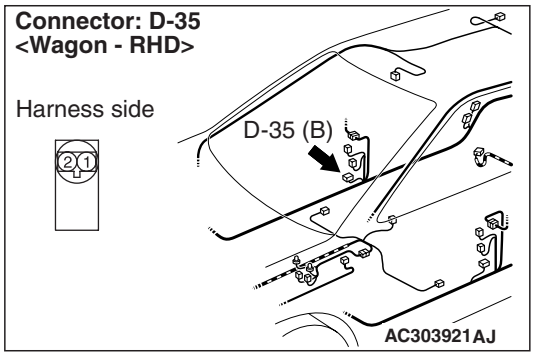


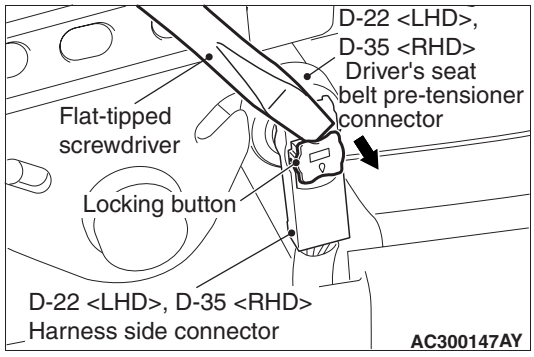












(2) Disconnect connectors C-131 <LHD>, D-22 <LHD>, C-18 <RHD> or D-35 <RHD>, and then reconnect them. For connector D-22 <LHD> or D-35 <RHD>, use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

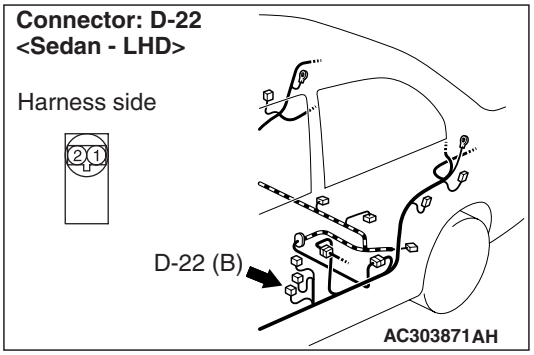
Q: Is diagnosis code 26 set?

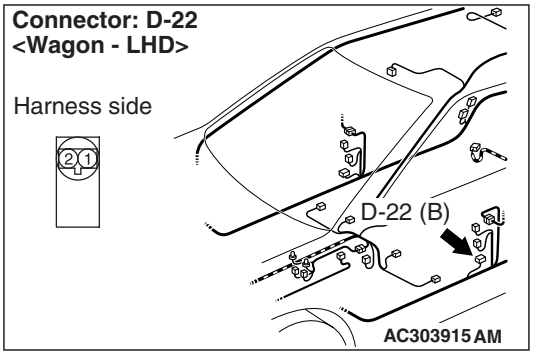
YES : Go to Step 4.

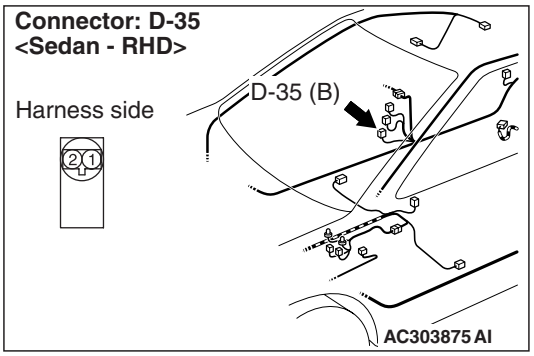
NO : The procedure is complete. It is assumed that diagnosis code 26 set as connector C-131 <LHD>, D-22 <LHD>, C-18 <RHD> or D-35 <RHD> was engaged improperly.

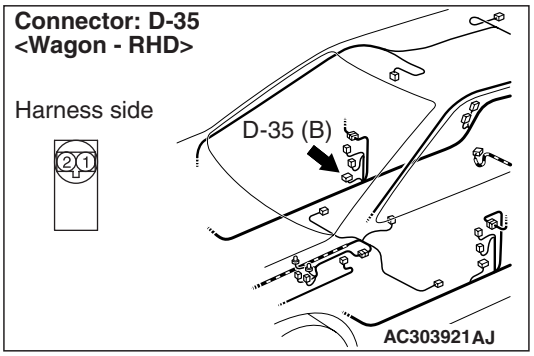
STEP 4. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

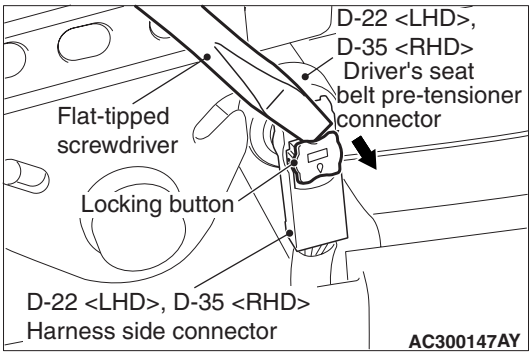
(1) Disconnect the negative battery terminal.



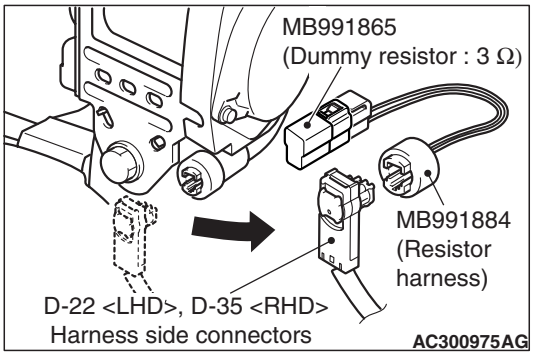








(2) Disconnect driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



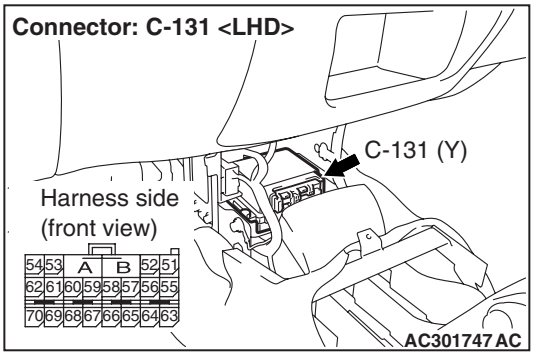
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-22 <LHD> or D-35 <RHD> harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

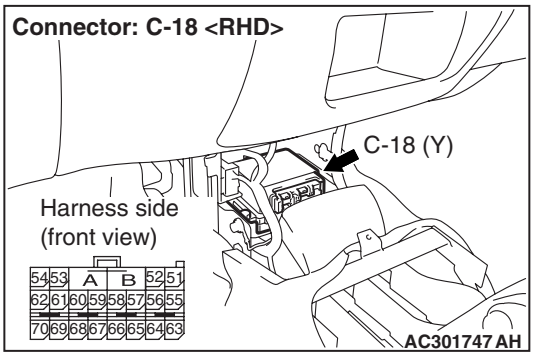
Q: Is diagnosis code 26 set?

YES : Go to Step 5.

NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-215).

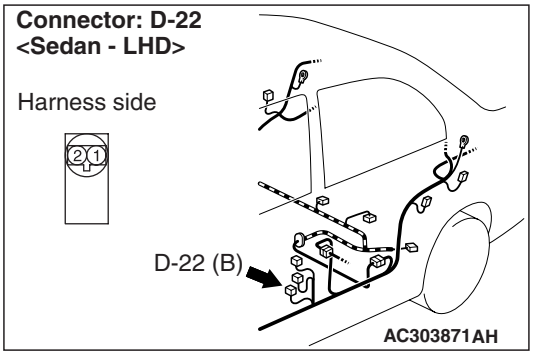
STEP 5. Resistance measurement at the SRS-ECU connector C-131 <LHD> or C-18 <RHD>.

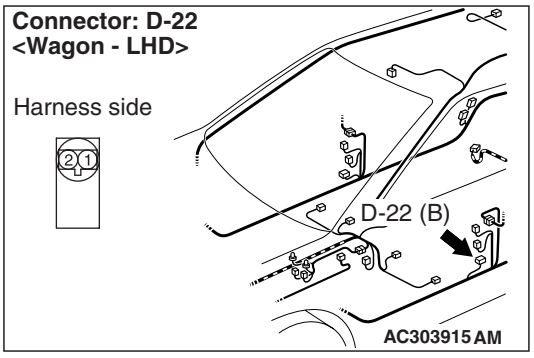


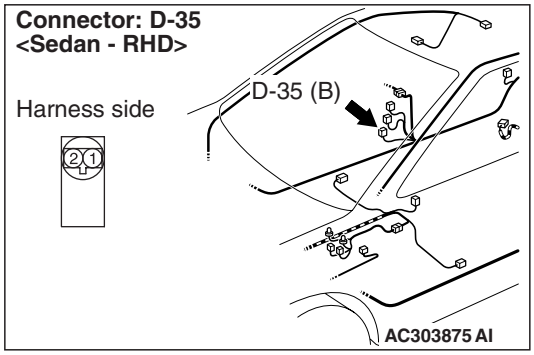


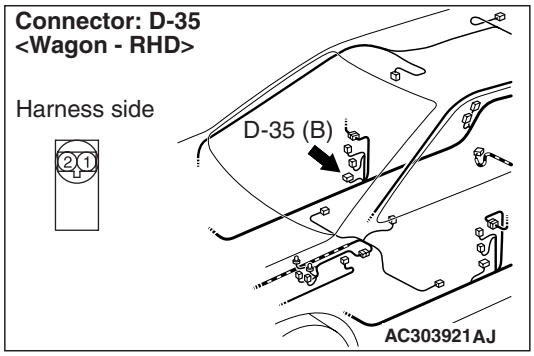
(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>.

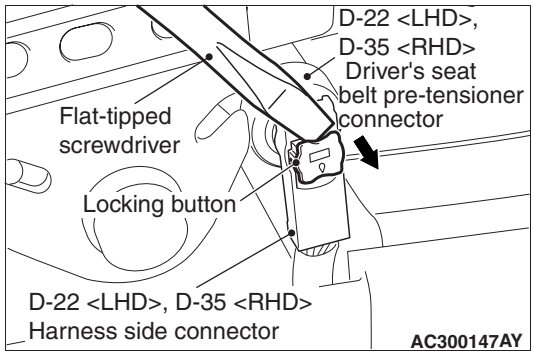
⚠ *DANGER*







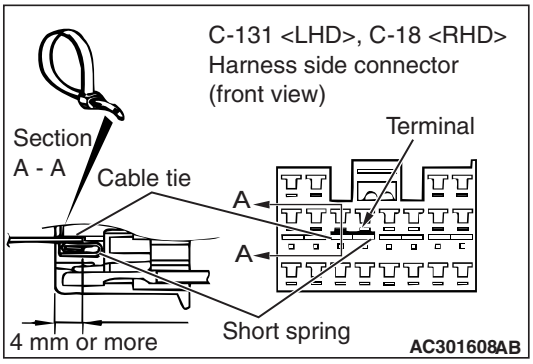




To prevent the air bag from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD> to short the squib circuit.

(2) Disconnect driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

⚠ CAUTION

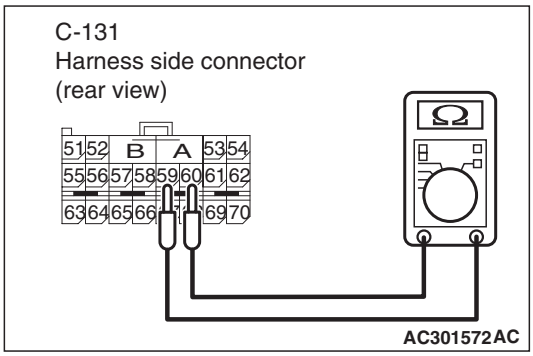


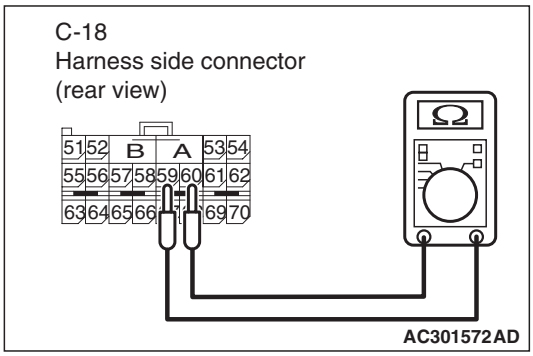
Insert an insulator such as a cable tie to a depth of 4mm or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm wide, 0.5 mm thick] between terminals 59, 60 and the short spring to release the short spring.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.





(4) Resistance measurement between C-131 <LHD> or C-18 <RHD> harness side connector terminals 59 and 60.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.59 and 60) and driver's seat belt pre-tensioner connector D-22 <LHD>, D-35 <RHD> (terminal No.1 and 2).

STEP 6. Check whether the diagnosis code is reset.

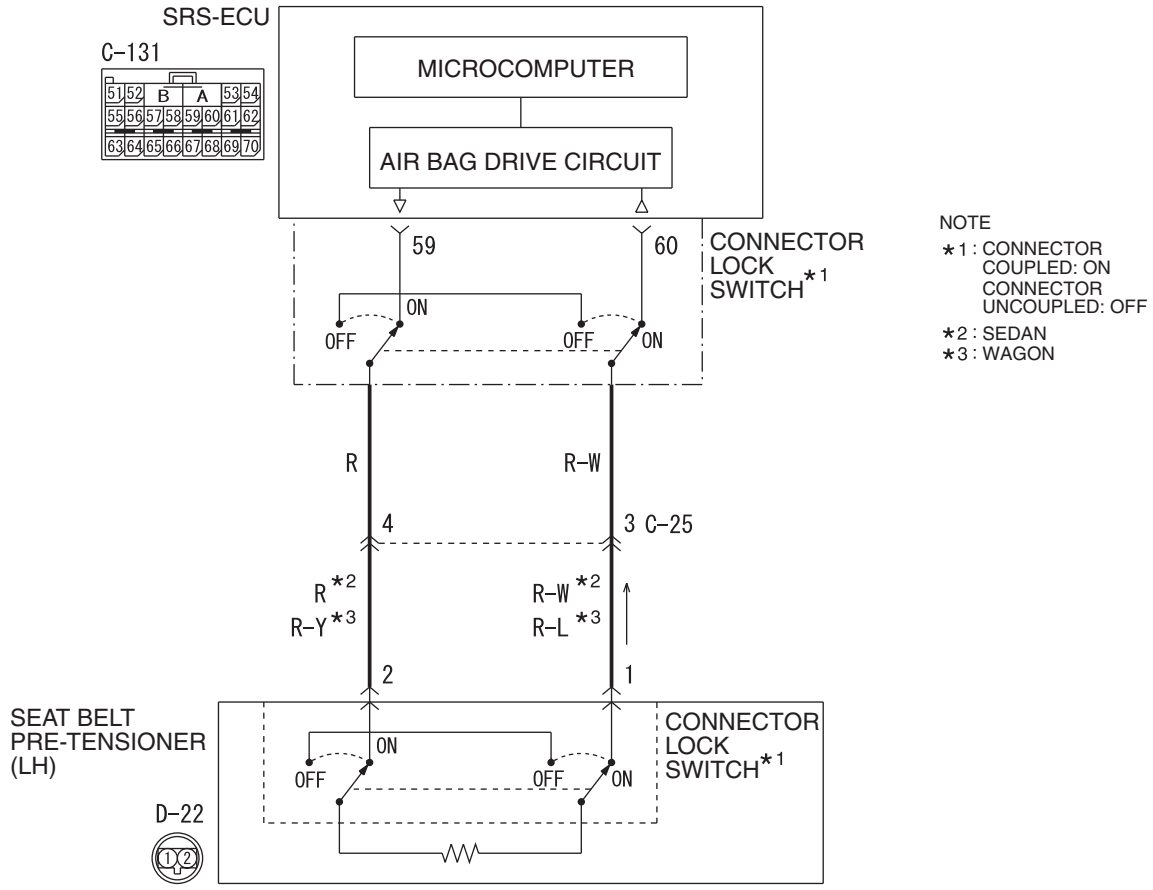
Q: Is diagnosis code 26 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.27: Driver's seat belt pre-tensioner (squib) system (open-circuited in the squib circuit)

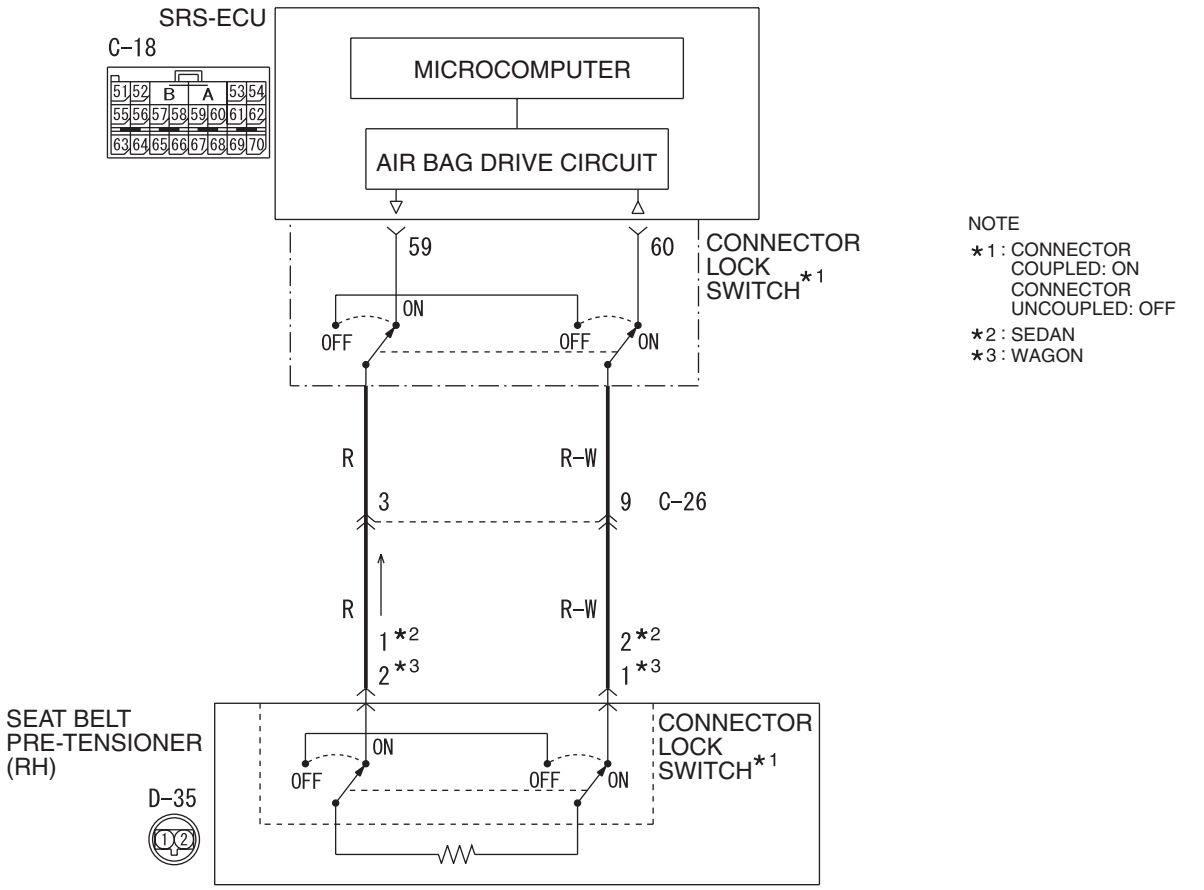
Driver's Seat Belt Pre-Tensioner (Squib) (LHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E09AA

Driver's Seat Belt Pre-Tensioner (Squib) (RHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E16AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the seat belt pre-tensioner will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if driver's seat belt pre-tensioner squib wire(s) are open-circuited. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

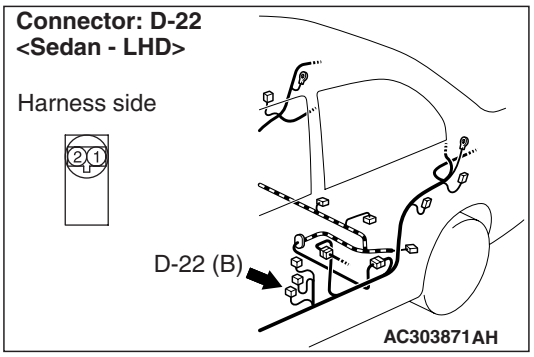
PROBABLE CAUSES

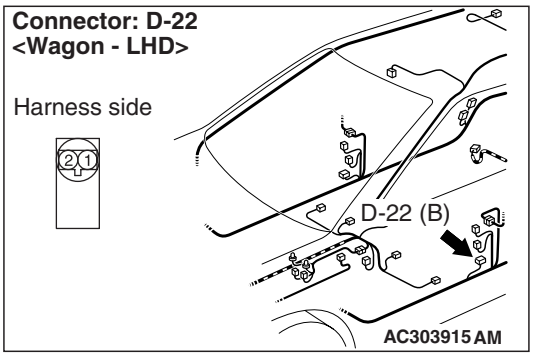
- Improper connector contact
- Open circuit in the driver's seat belt pre-tensioner (squib) circuit
- Malfunction of the SRS-ECU

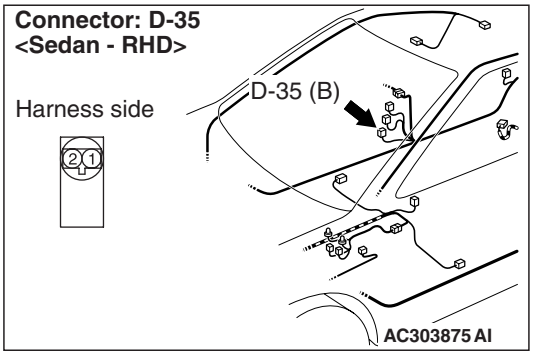
DIAGNOSIS PROCEDURE

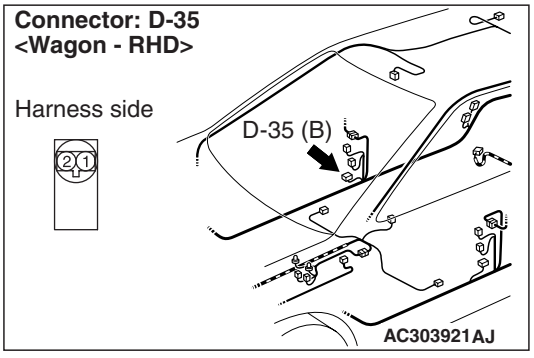
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

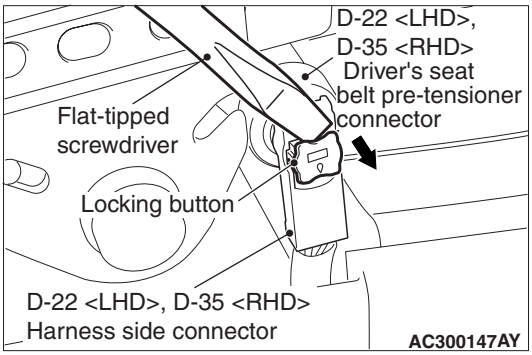
(1) Disconnect the negative battery terminal.



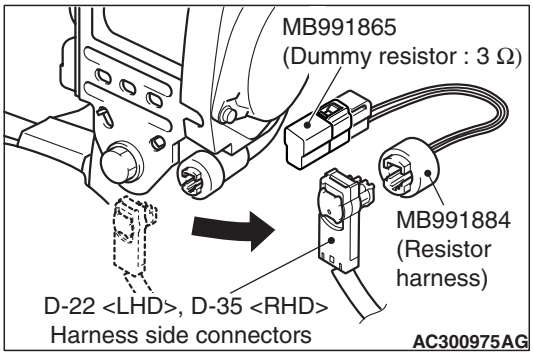








(2) Disconnect driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



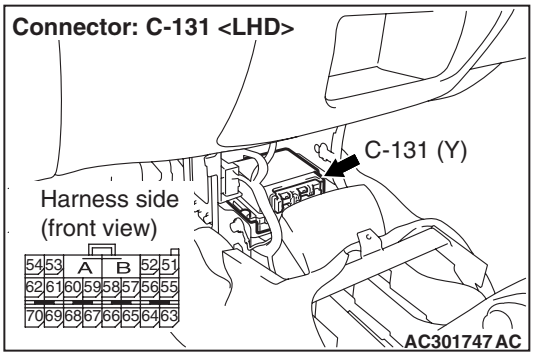
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-22 <LHD> or D-35 <RHD> harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

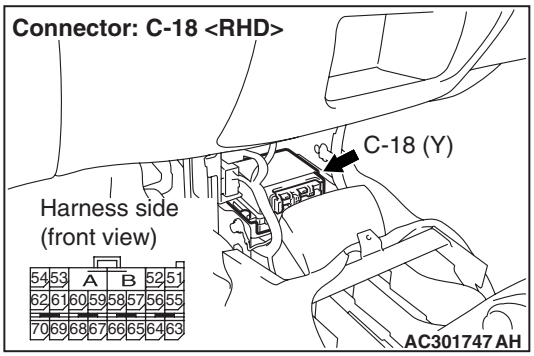
Q: Is diagnosis code 27 set?

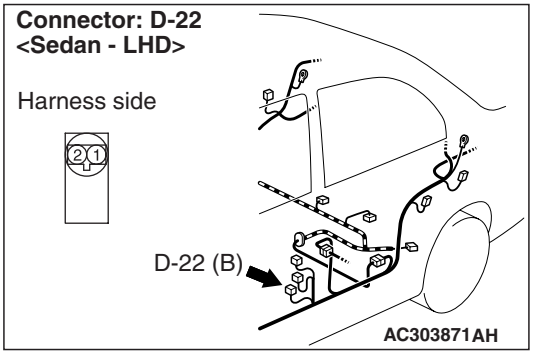
YES : Go to Step 2.

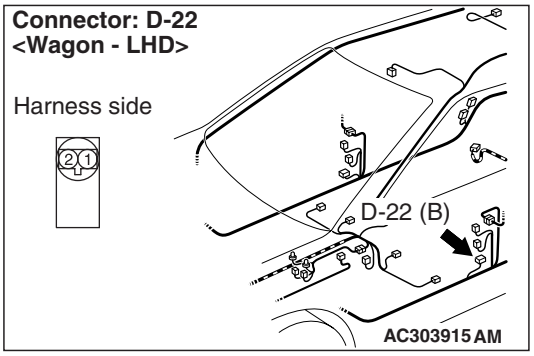
NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-215).

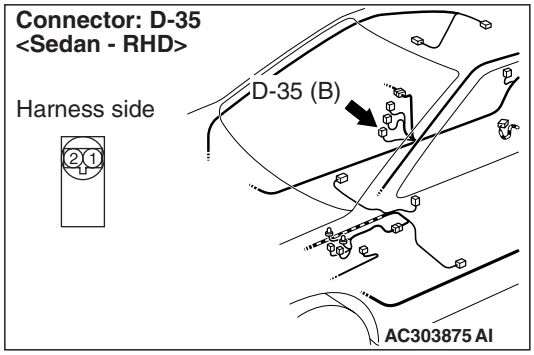
STEP 2. Resistance measurement between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.59 and 60) and the driver's seat belt pre-tensioner D-22 <LHD> or D-35 <RHD> (terminal No.1 and 2).

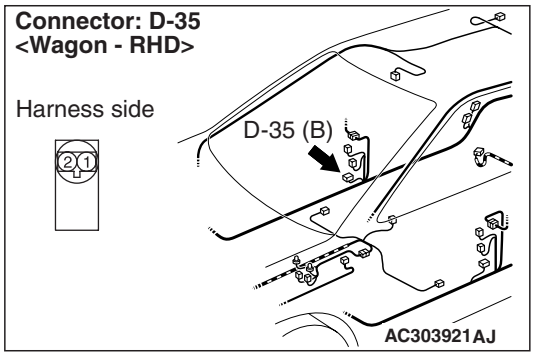


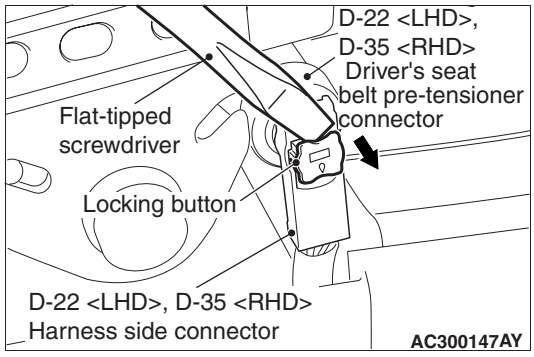




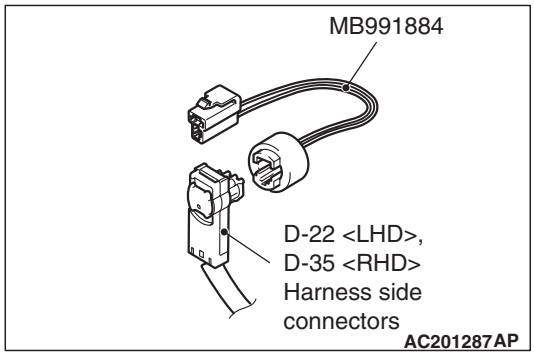




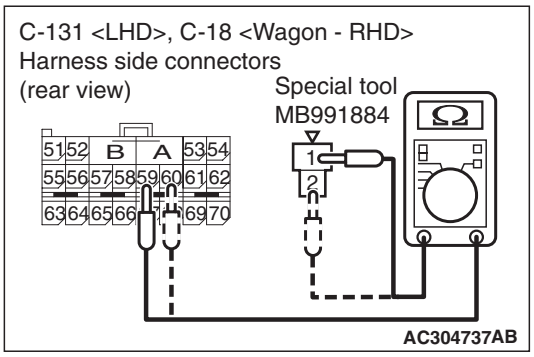


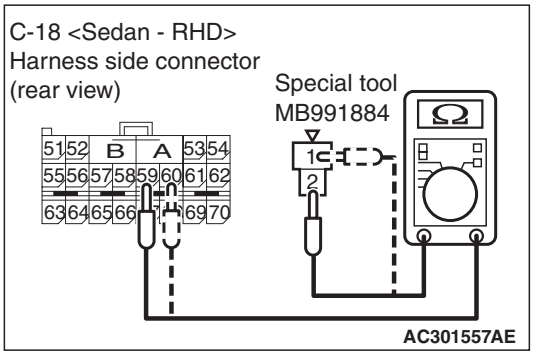


(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD> and driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD>, and measure at the wiring harness side. For connector D-22 <LHD> or D-35 <RHD>, use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



(2) Connect D-22 <LHD> or D-35 <RHD> harness side connector to special tool resistor harness (MB991884).





⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between the following terminals.
- SRS-ECU connector C-131 <LHD> or C-18 <Wagon - RHD> terminal No.59 and special tool terminal No.1
- SRS-ECU connector C-131 <LHD> or C-18 <Wagon - RHD> terminal No.60 and special tool terminal No.2
- SRS-ECU connector C-18 <Sedan - RHD> terminal No.59 and special tool terminal No.2
- SRS-ECU connector C-18 <Sedan - RHD> terminal No.60 and special tool terminal No.1

OK: Continuity (Less than 2 Ω)

Q: Are the check results normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.59 and 60) and driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD> (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

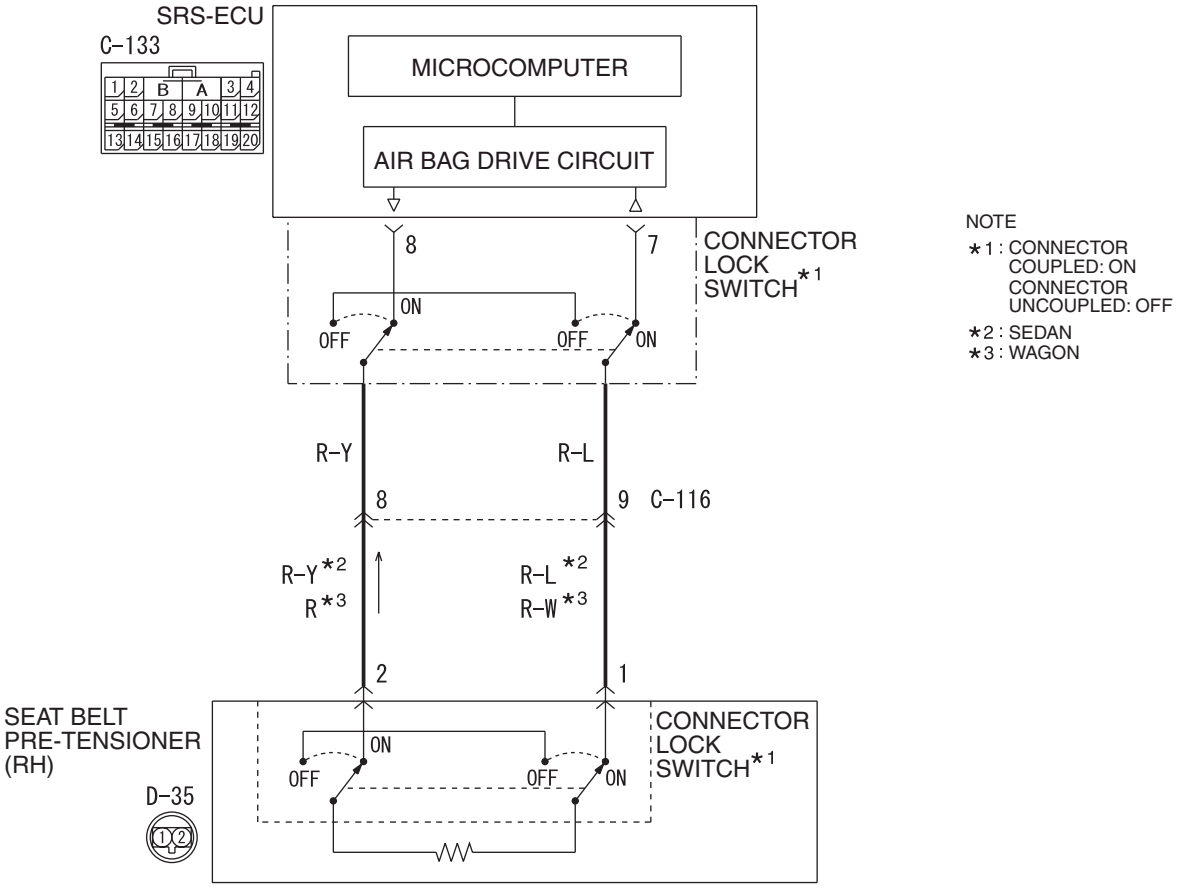
Q: Is diagnosis code No.27 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.28: Passenger's (front) seat belt pre-tensioner (squib) system (short-circuit between terminals of the squib circuit)

Passenger's (Front) Seat Belt Pre-tensioner (Squib) (LHD)



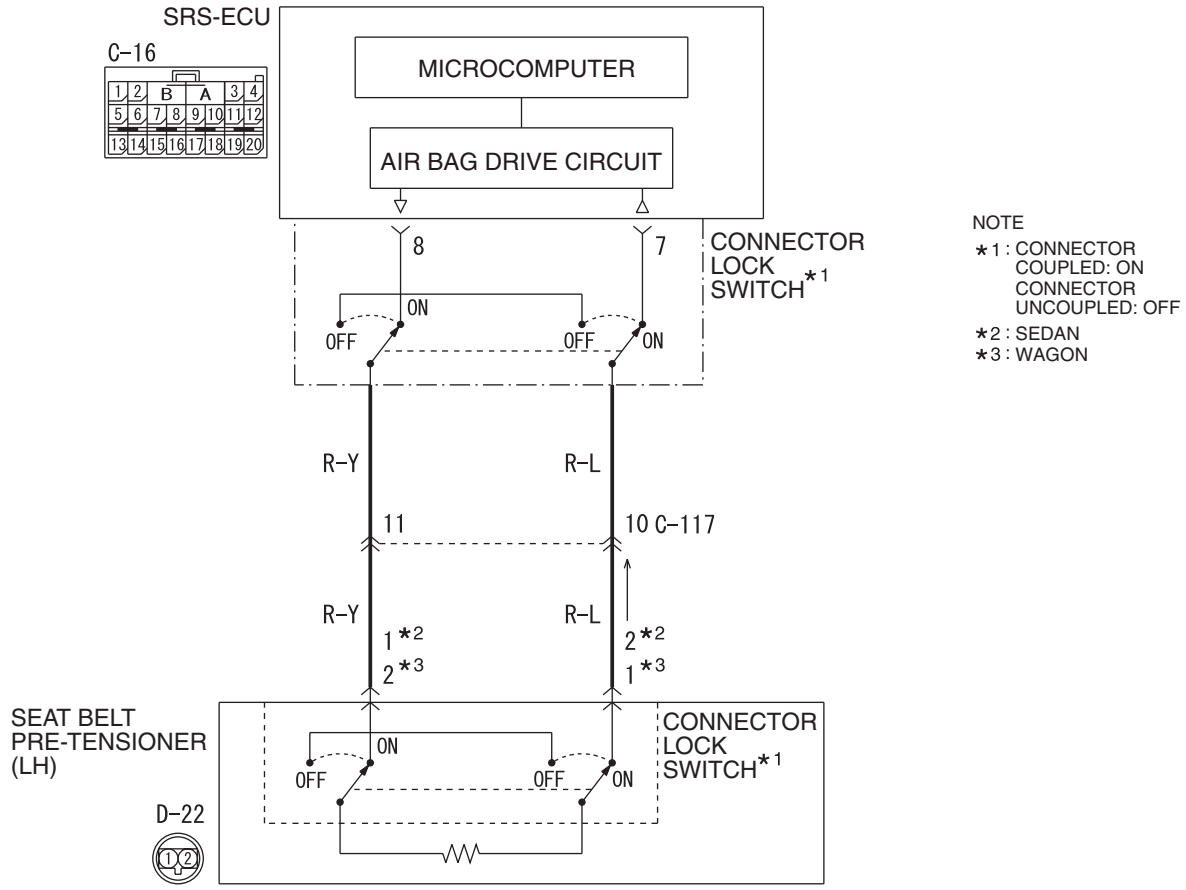
NOTE
*1 : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF
*2 : SEDAN
*3 : WAGON

Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E08AA

AC504732 AB

Passenger's (Front) Seat Belt Pre-tensioner (Squib) (RHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E15AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the seat belt pre-tensioner will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if one passenger's (front) seat belt pre-tensioner squib wire shorted to the other. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

PROBABLE CAUSES

- Improper engaged connector or defective short spring*
- Short circuit between the passenger's (front) seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the earth wire in the squib circuit when the connectors are disconnected). Therefore, if connector C-133 <LHD>, D-35 <LHD>, C-16 <RHD> or D-22<RHD> is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-II/III diagnosis code

⚠ CAUTION

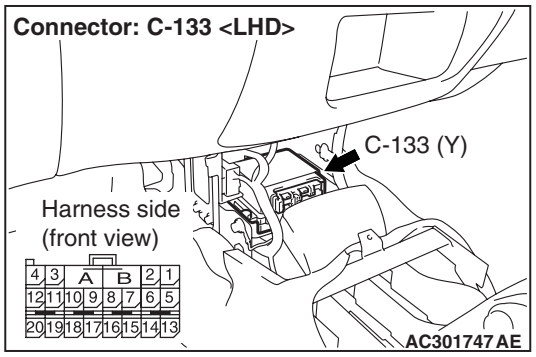
To prevent damage to M.U.T.-II/III, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

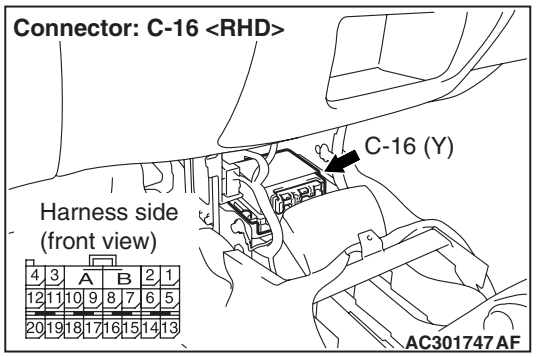
(1) Turn the ignition switch to the "ON" position.
(2) Check if the diagnosis code is set.
(3) Turn the ignition switch to the "LOOK" (OFF) position.

Q: Is diagnosis code 34 set?
YES : Go to Step 2.
NO : Go to Step 3.

STEP 2. Connector lock check: SRS-ECU connector C-133 <LHD> or C-16 <RHD> (M.U.T.-II/III diagnosis code)

(1) Disconnect the negative battery terminal.



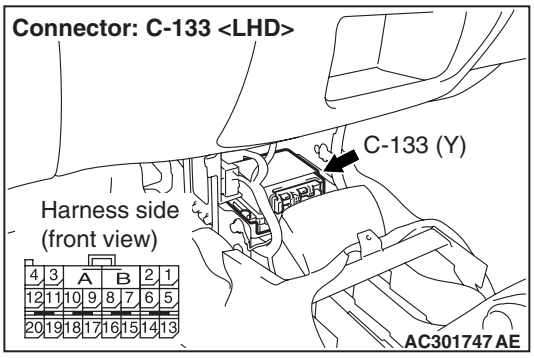


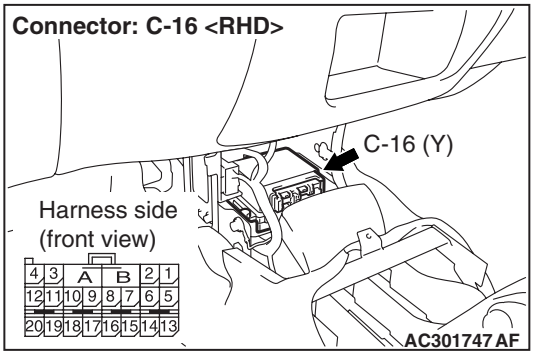
(2) Disconnect the connectors C-133 <LHD> or C-16 <RHD> and then reconnect them.
(3) Connector the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

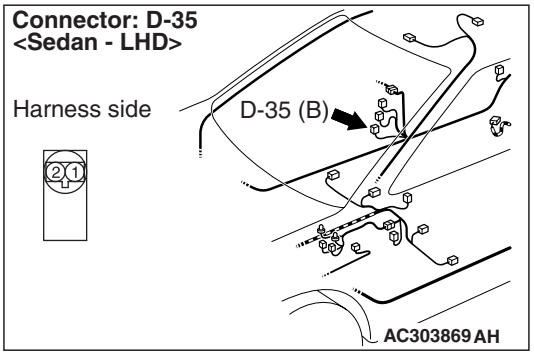
Q: Is diagnosis code 28 set?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 28 set as connector C-133 <LHD>, C-16 <RHD>, D-35 <LHD> or D-22 <RHD> was engaged improperly.

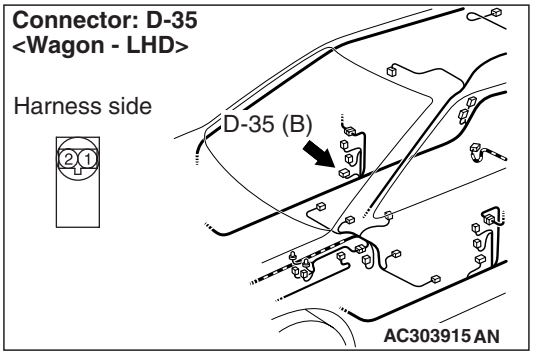
STEP 3. Connector lock check: SRS-ECU connector C-133 <LHD> or C-16<RHD> and passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD> (M.U.T.-II/III diagnosis code)

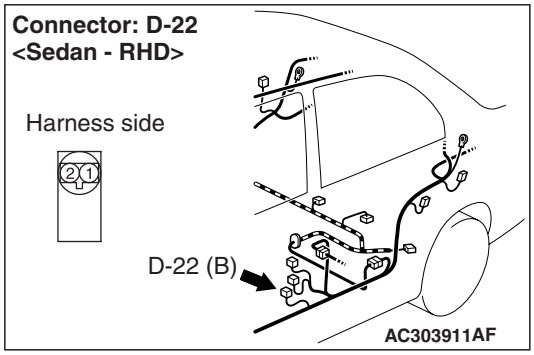
(1) Disconnect the negative battery terminal.

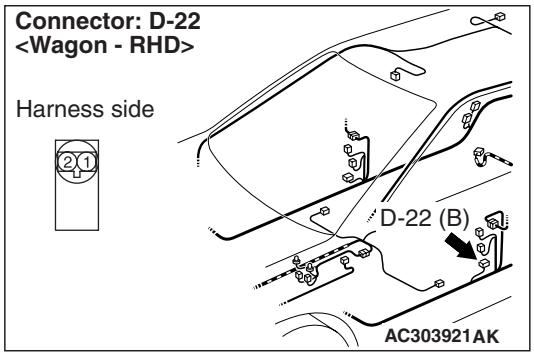


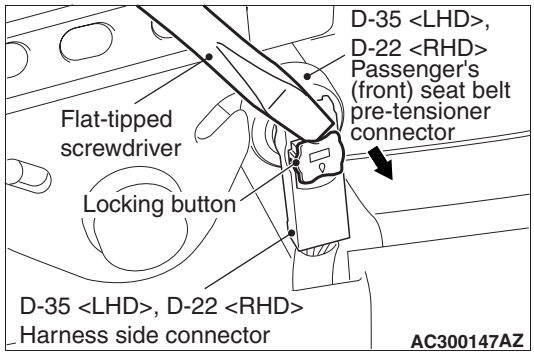












(2) Disconnect connectors C-133 <LHD> or C-16 <RHD> and D-35 <LHD> or D-22 <RHD>, and then reconnect them. For connector D-35 <LHD> or D-22 <RHD>, use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

(3) Connector the negative battery terminal.

(4) Erase the diagnosis code memory, and check the diagnosis code.

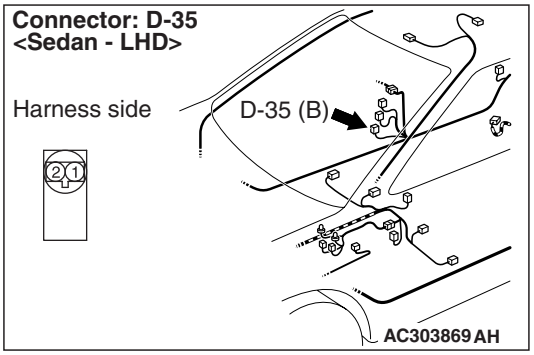
Q: Is diagnosis code 28 set?

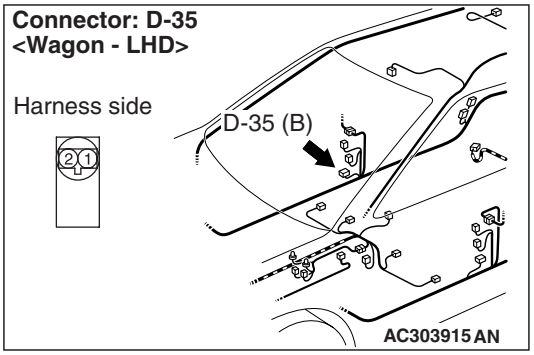
YES : Go to Step 4.

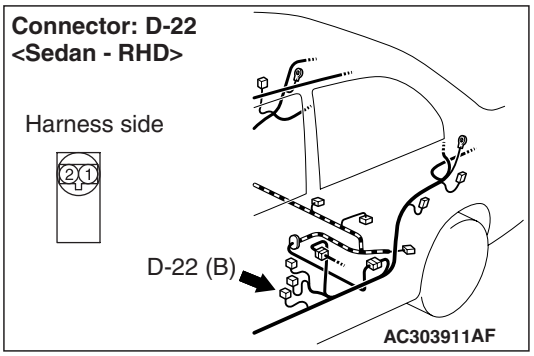
NO : The procedure is complete. It is assumed that diagnosis code 28 set as connector C-133 <LHD>, C-16 <RHD>, D-35 <LHD> or D-22 <RHD> was engaged improperly.

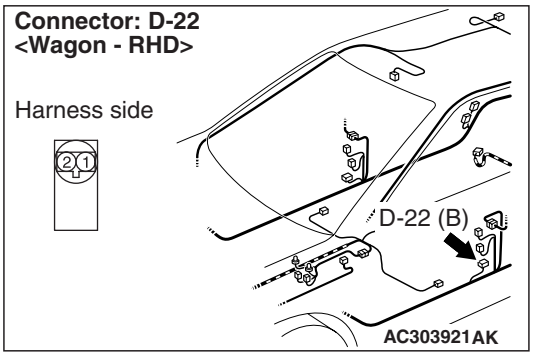
STEP 4. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

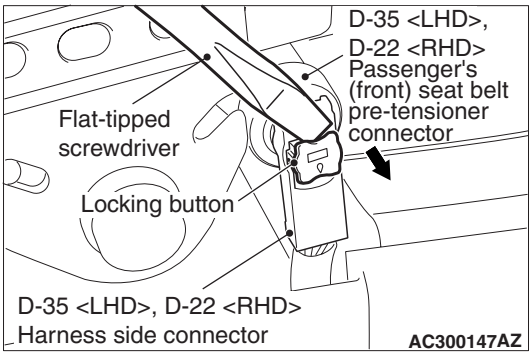
(1) Disconnect the negative battery terminal.



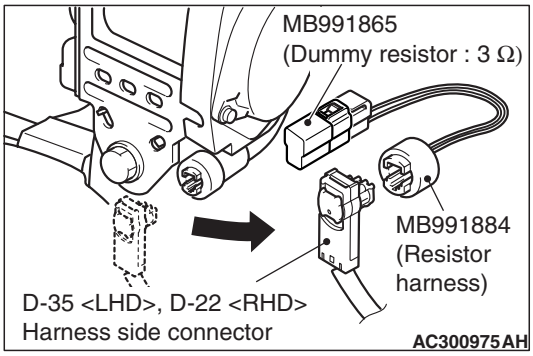








(2) Disconnect passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



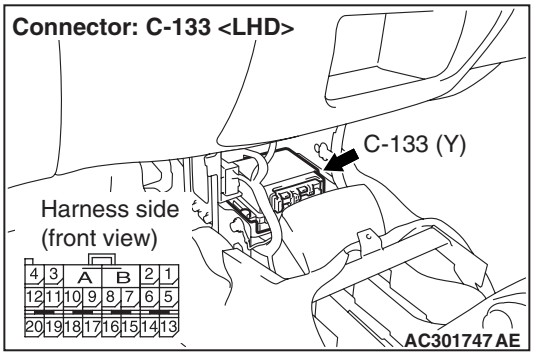
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-35 <LHD> or D-22 <RHD> harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

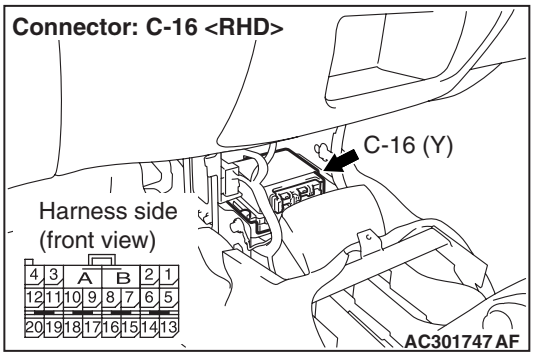
Q: Is diagnosis code 28 set?

YES : Go to Step 5.

NO : Replace the passenger's (front) seat belt with pre-tensioner (Refer to P.52B-215). Then go to Step 6.

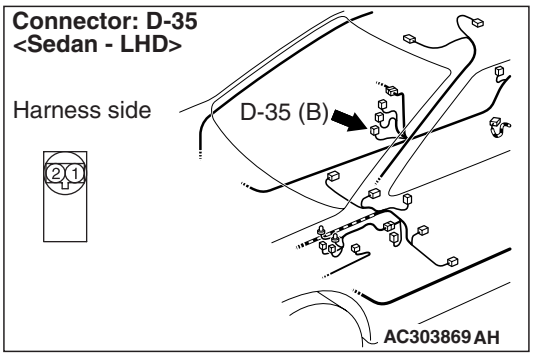
STEP 5. Resistance measurement at the SRS-ECU connector C-133 <LHD> or C-16 <RHD>.

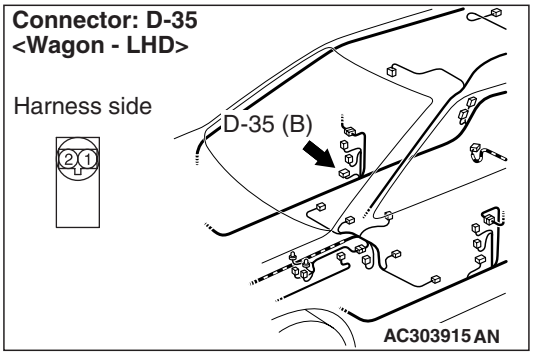


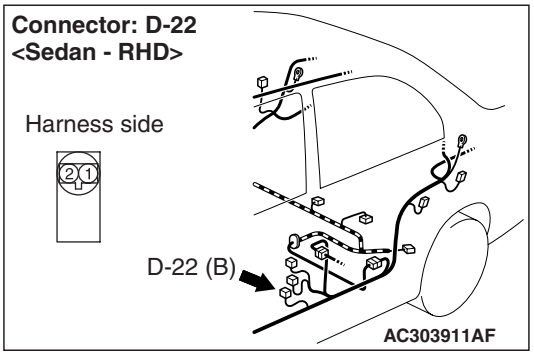


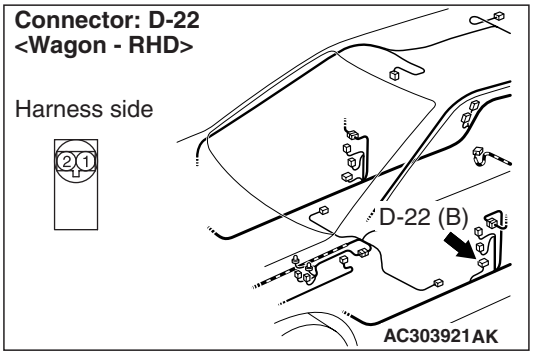
(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16 <RHD>.

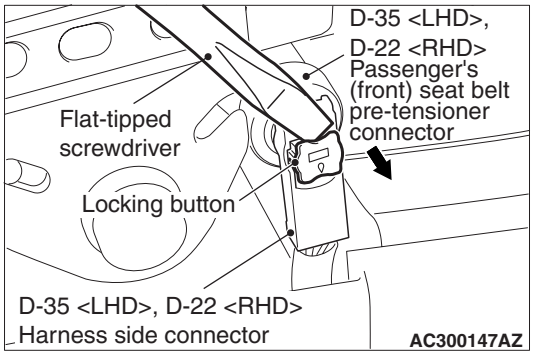
⚠ ***DANGER***







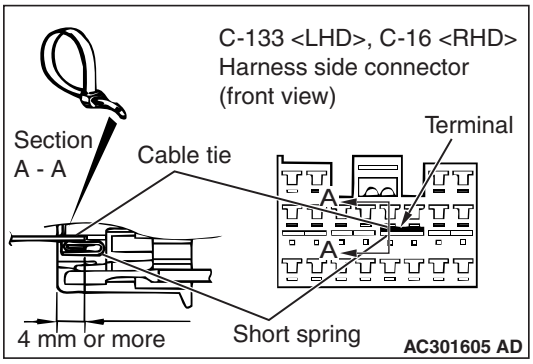




To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD> to short the squib circuit.

(2) Disconnect passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

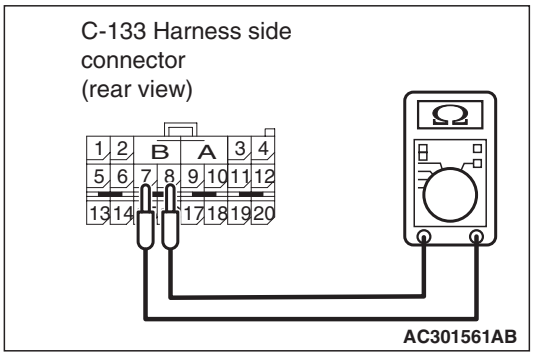
⚠ **CAUTION**

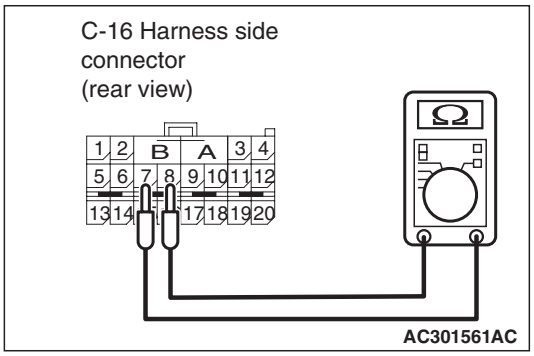


Insert an insulator such as a cable tie to a depth of 4 mm or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm wide, 0.5 mm thick] between terminals 7, 8 and the short spring to release the short spring.

⚠ CAUTION





Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Resistance measurement between C-133 <LHD> or C-16 <RHD> harness side connector terminals 7and 8.

OK: Open circuit.

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.7 and 8) and passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD> (terminal No.1 and 2).

STEP 6. Check whether the diagnosis code is reset.

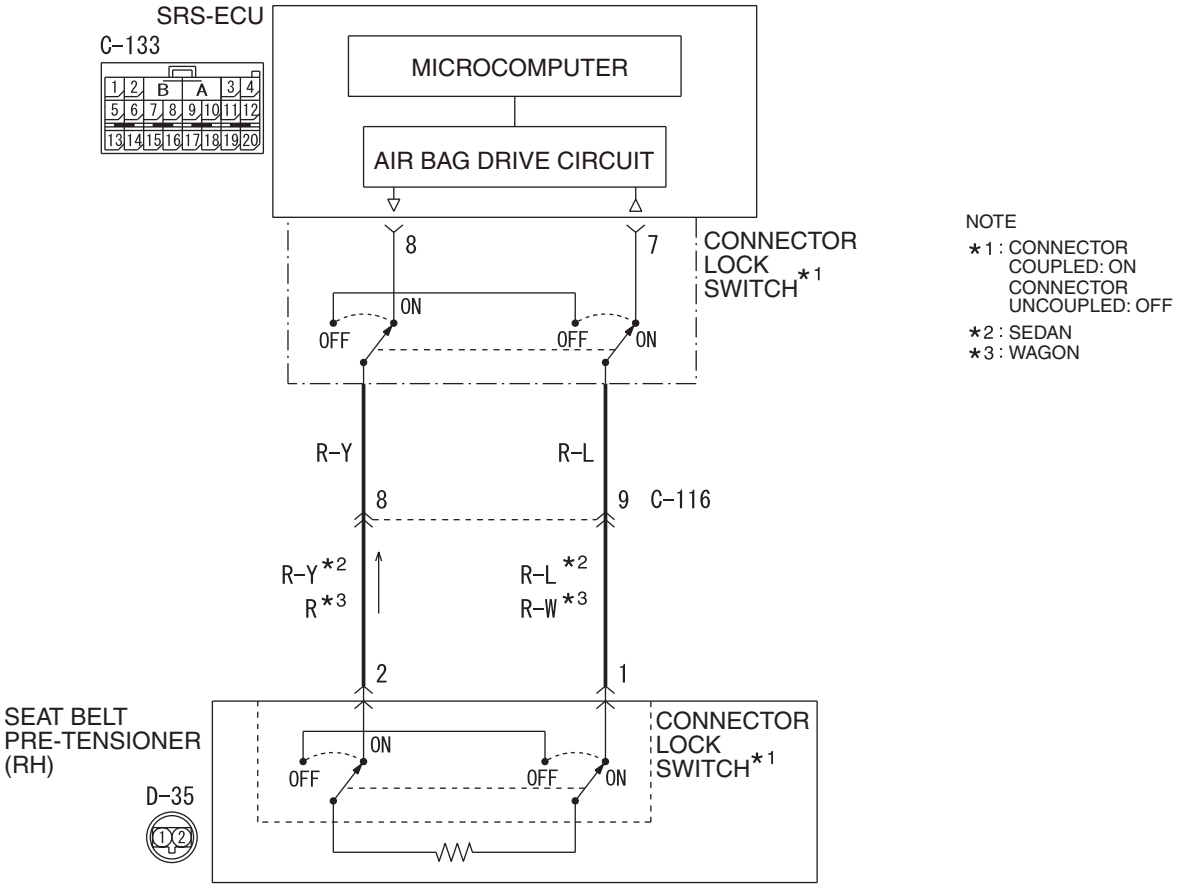
Q: Is diagnosis code 28 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.29: Passenger's (front) seat belt pre-tensioner (squib) system (open-circuited in the squib circuit)

Passenger's (Front) Seat Belt Pre-tensioner (Squib) (LHD)



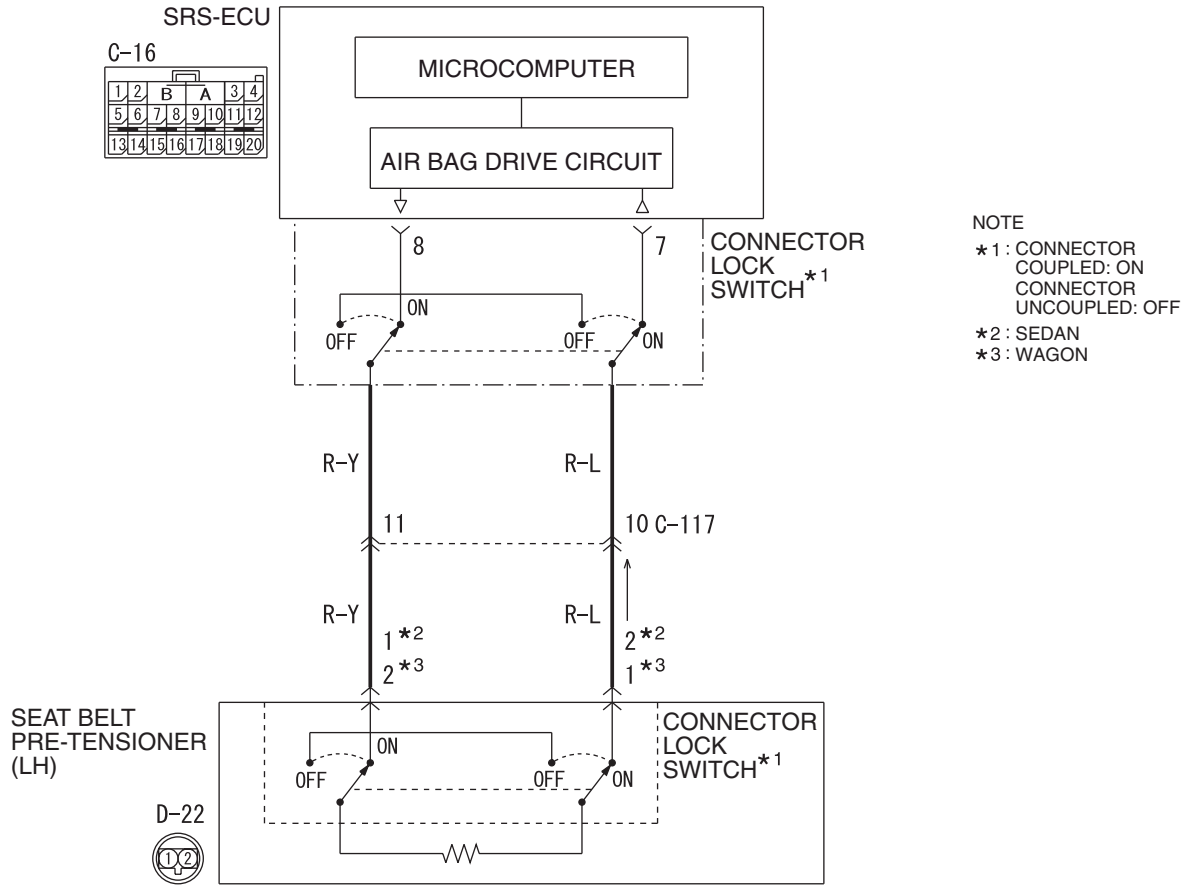
NOTE
*1 : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF
*2 : SEDAN
*3 : WAGON

Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E08AA

AC504732 AB

Passenger's (Front) Seat Belt Pre-tensioner (Squib) (RHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E15AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the seat belt pre-tensioner will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the passenger's (front) seat belt pre-tensioner squib wire(s) are open-circuited. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

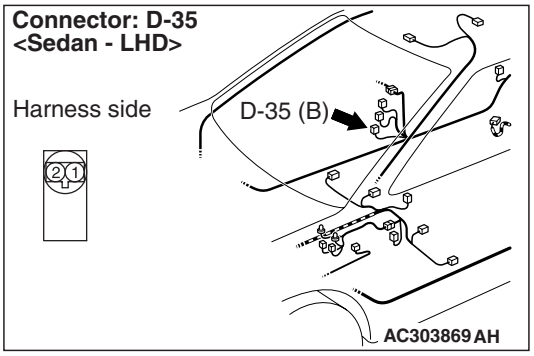
PROBABLE CAUSES

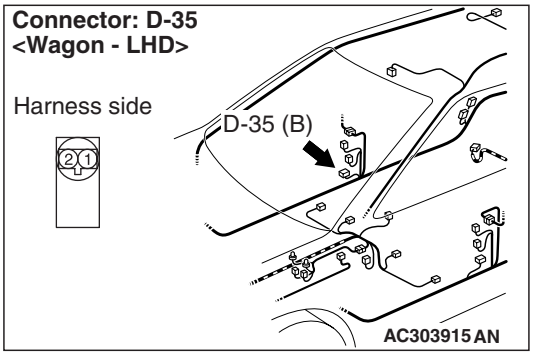
- Open circuit in the passenger's (front) seat belt pre-tensioner (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

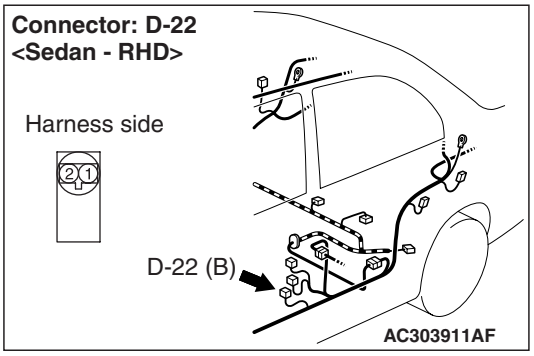
DIAGNOSIS PROCEDURE

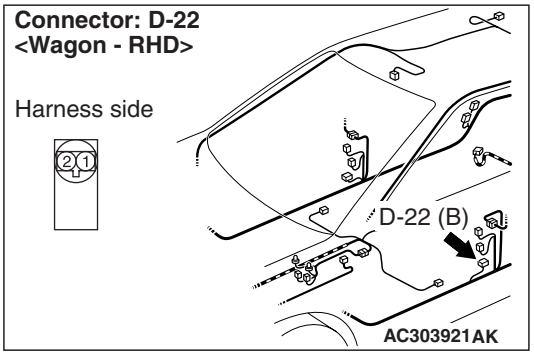
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

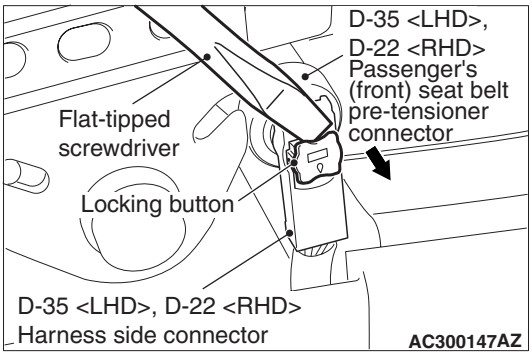
(1) Disconnect the negative battery terminal.



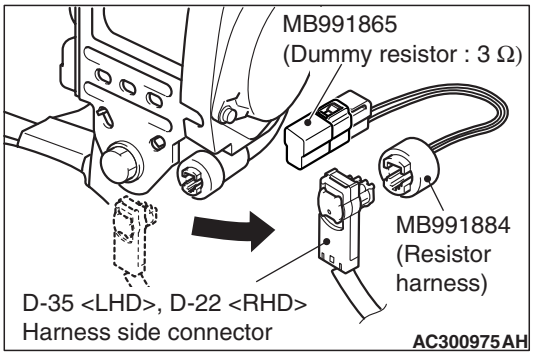








(2) Disconnect passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



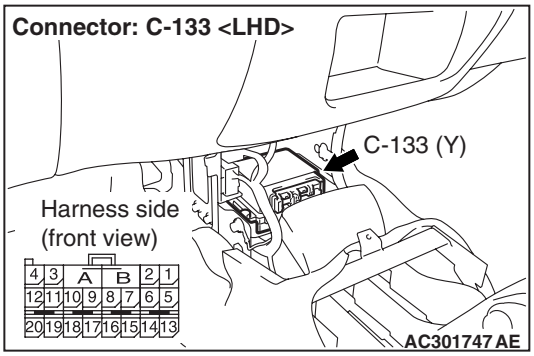
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-35 <LHD> or D-22 <RHD> harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

Q: Is diagnosis code 29 set?

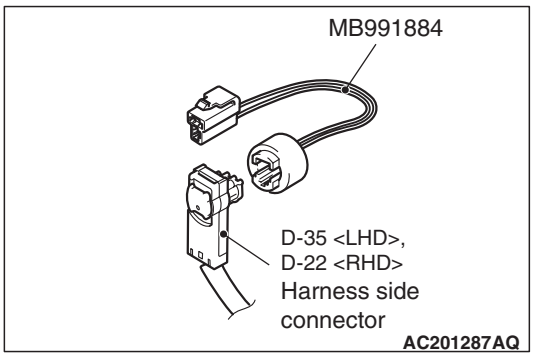
YES : Go to Step 2.

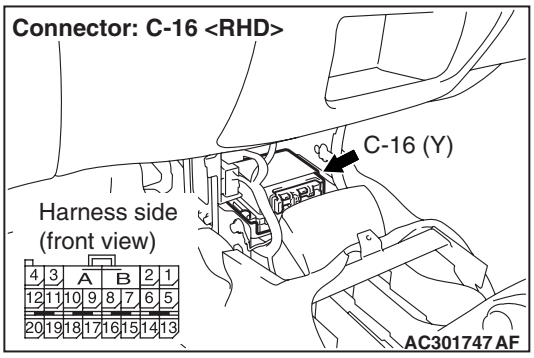
NO : Replace the passenger's (front) seat belt with pre-tensioner (Refer to P.52B-215).

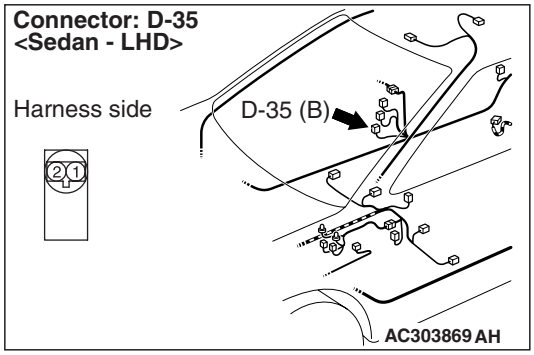
STEP 2. Resistance measurement between SRS-ECU connector C-133 <LHD> or C-16<RHD> (terminal No.7 and 8) and the passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD> (terminal No.1 and 2).

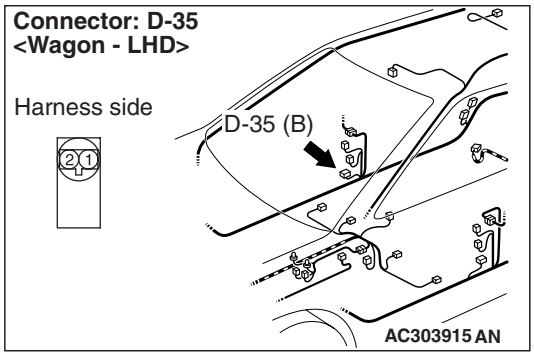


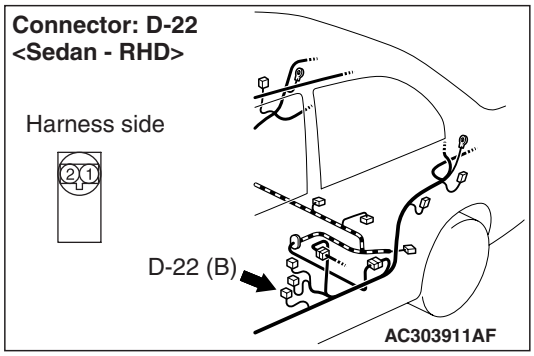
(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16<RHD> and passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD>. For connector D-35 <LHD> or D-22 <RHD>, use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

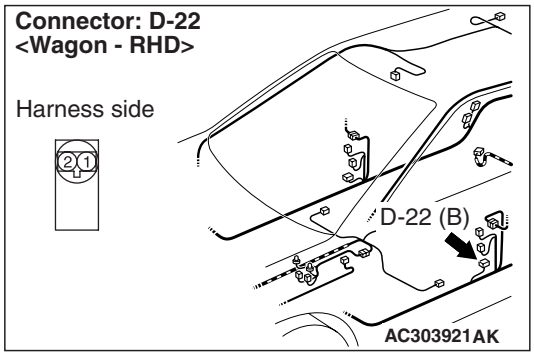


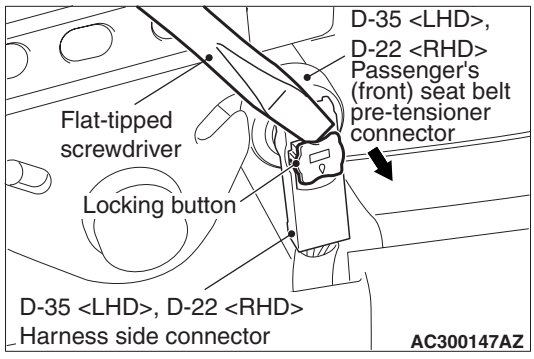








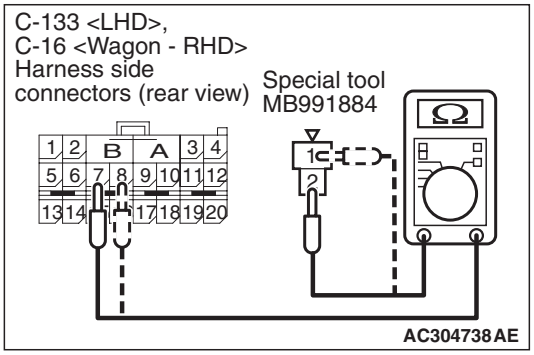


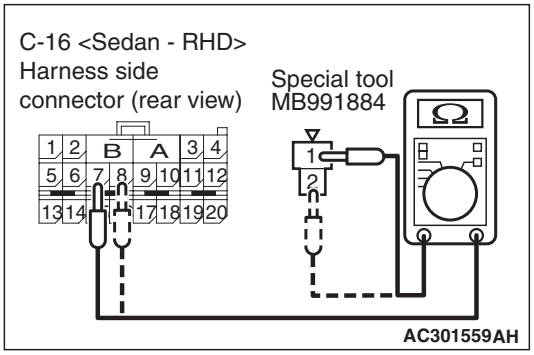


(2) Connect D-35 <LHD> or D-22 <RHD> harness side connector to special tool resistor harness (MB991884).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.





(3) Resistance measurement between the following terminals.
- SRS-ECU connector C-133 <LHD> or C-16 <Wagon - RHD> terminal No.8 and the special tool terminal No.1
- SRS-ECU connector C-133 <LHD> or C-16 <Wagon - RHD> terminal No.7 and the special tool terminal No.2
- SRS-ECU connector C-16 <Sedan - RHD> terminal No.7 and special tool terminal No.1
- SRS-ECU connector C-16 <Sedan - RHD> terminal No.8 and special tool terminal No.2

OK: Continuity (Less than 2 Ω)

Q: Are the check results normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16<RHD> (terminal No.7 and 8) passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD> (terminal No.1 and 2).

STEP 3.Check whether the diagnosis code is reset.

Q: Is diagnosis code 29 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.34: SRS-ECU connector lock out of order

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if a poor connection at the SRS-ECU is detected. However, if the vehicle condition returns to normal, diagnosis code number 34 will be automatically erased, and the SRS warning lamp will go out.

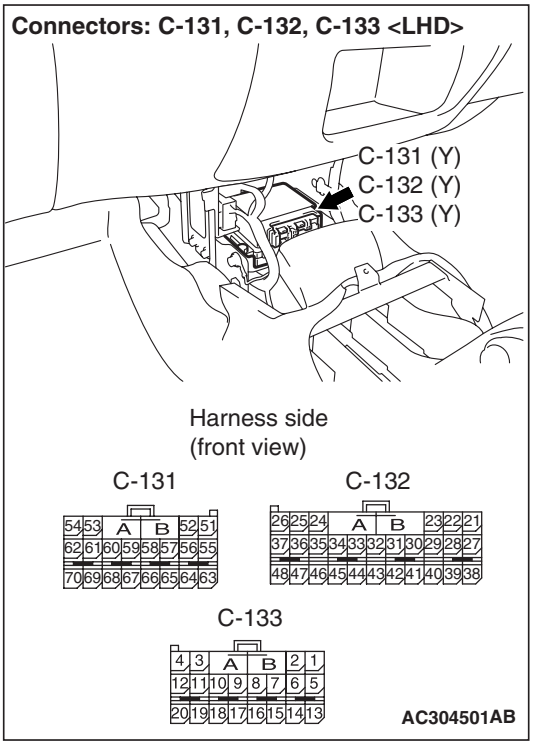
PROBABLE CAUSES

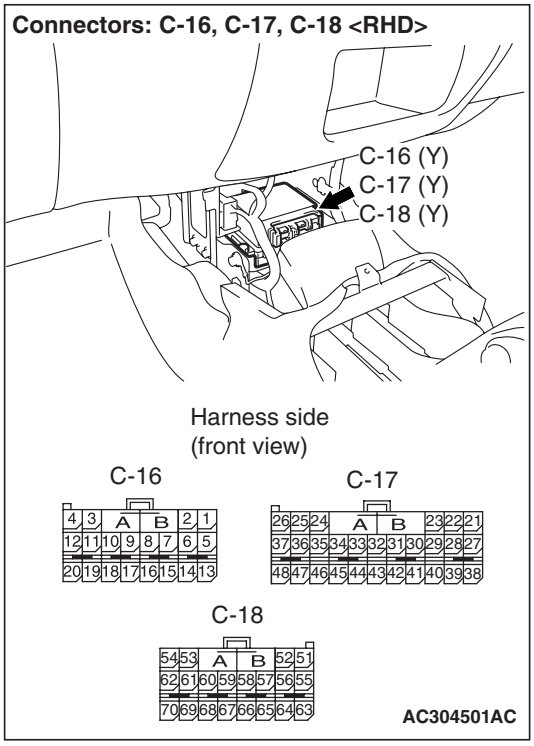
- Damaged connectors
- Malfunction of the SRS-ECU

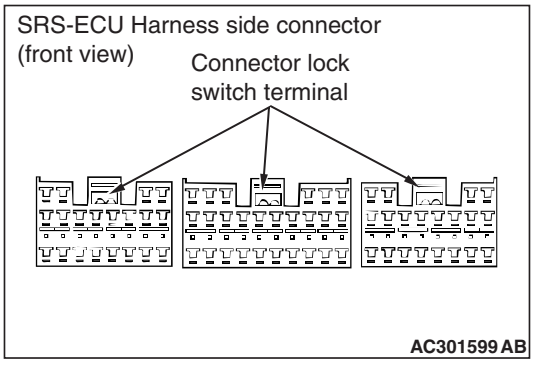
DIAGNOSIS PROCEDURE

STEP 1. Connector lock check: SRS-ECU connector C-131 <LHD>, C-132 <LHD>, C-133 <LHD>, C-16 <RHD>, C-17 <RHD> and C-18 <RHD> (M.U.T.-II/III diagnosis code)

(1) Disconnect the negative battery terminal.







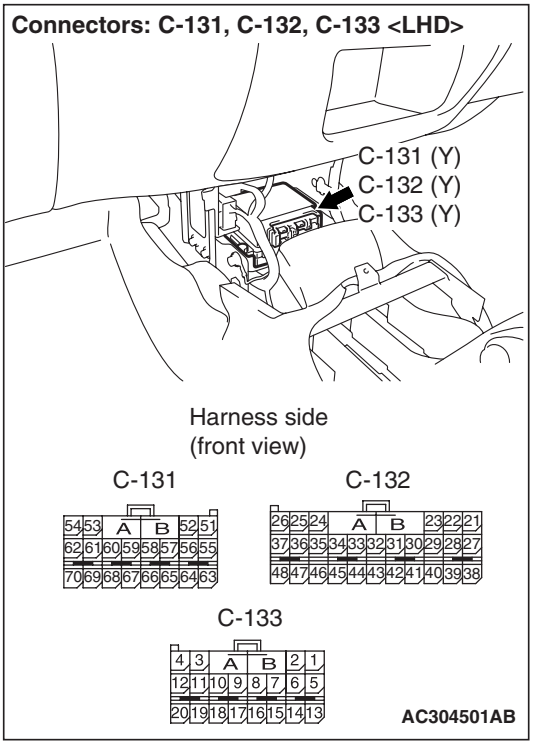
(2) Disconnect SRS-ECU connectors C-131 <LHD>, 132 <LHD>, 133 <LHD>, C-16 <RHD>, C-17 <RHD> and C-18 <RHD>, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase diagnosis code memory, and then check the diagnosis code.

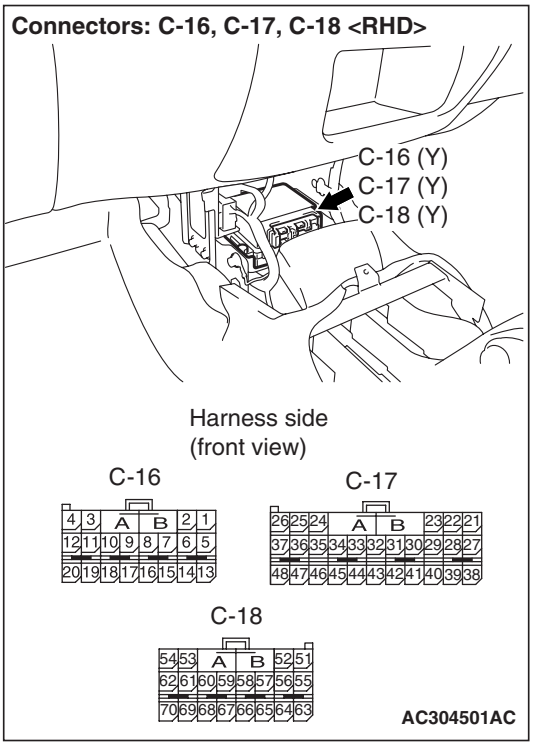
Q: Is diagnosis code 34 set?

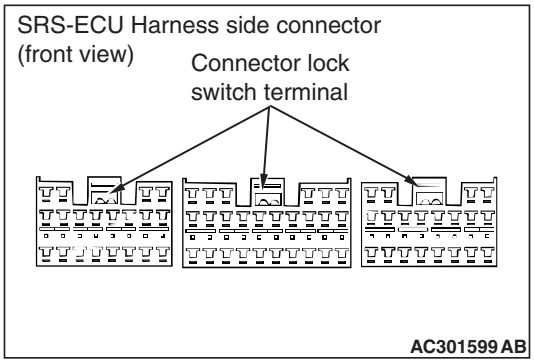
YES : Go to Step 2.

NO : The procedure is complete. It is assumed that diagnosis code 34 set as connector C-131 <LHD>, 132 <LHD>, 133 <LHD>, C-16 <RHD>, C-17 <RHD> or C-18 <RHD> was engaged improperly.

STEP 2. Connector lock check: SRS-ECU connector C-131 <LHD>, 132 <LHD>, 133 <LHD>, C-16 <RHD>, C-17 <RHD> and C-18 <RHD>







(1) Disconnect SRS-ECU connectors C-131 <LHD>, 132 <LHD>, 133 <LHD>, C-16 <RHD>, C-17 <RHD> and C-18 <RHD>.
(2) Check the connector lock switch terminal inside the harness side connector for improper contact or deformation.

Q: Are the SRS-ECU connector C-131 <LHD>, 132 <LHD>, 133 <LHD>, C-16 <RHD>, C-17 <RHD> and C-18 <RHD> in good condition?
YES : Go to Step 3.
NO : Repair the SRS-ECU connector C-131 <LHD>, 132 <LHD>, 133 <LHD>, C-16 <RHD>, C-17 <RHD> or C-18 <RHD>.

STEP 3. Check whether the diagnosis code is reset.

Q: Is diagnosis code 34 set?
YES : Replace the SRS-ECU (Refer toP.52B-198).
NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.35: Ignition of the air bag completed

DIAGNOSIS CODE SET CONDITIONS
This diagnosis code is set after the air bag has deployed. If this diagnosis code is set before the air bag has deployed, the cause is probably a malfunction inside the SRS-ECU.

PROBABLE CAUSE
Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE
Replace the SRS-ECU. (Refer to P.52B-198).

Code No. 39 Air bags Deployed Simultaneously

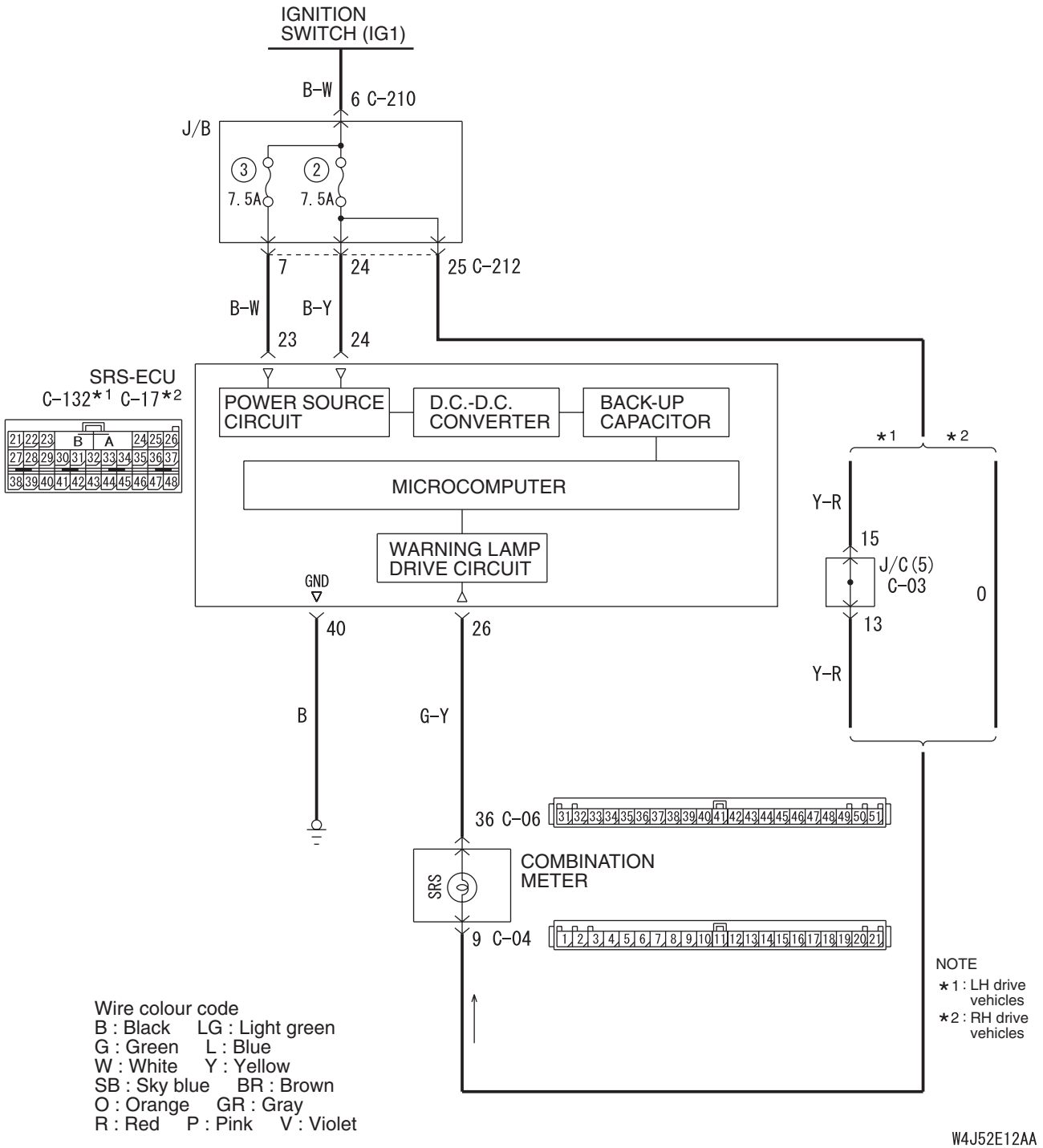
DIAGNOSIS CODE SET CONDITIONS
This diagnosis code is set when the air bags have deployed simultaneously. If this diagnosis code is set before the air bags have deployed, an internal failure may have occurred in the SRS-ECU.

PROBABLE CAUSE
Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE
Replace the SRS-ECU. (Refer to P.52B-198).

Code No.41: Power supply voltage (IG1 (A) voltage) drops abnormally.

IG1 Power Supply Circuit System



OPERATION

- The SRS-ECU is powered from the ignition switch (IG1).
- The SRS-ECU power is supplied from two circuits. Even if one circuit is shut off, the air bag can inflate.

DIAGNOSIS CODE SET CONDITIONS

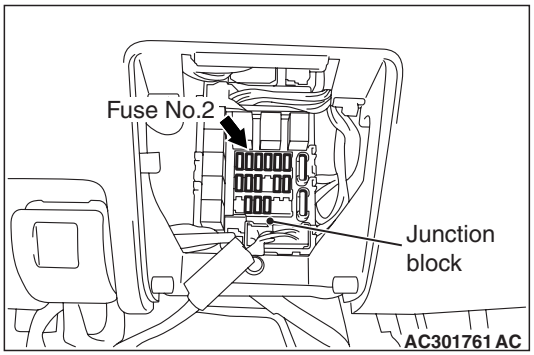
This diagnosis code is set if the voltage between the IG1 terminals (fuse No.2 circuit) and earth is lower than a predetermined value for a continuous period of 5 second or more. However, if the system returns to normal condition, code number 41 will be erased automatically and the SRS warning lamp will go out.

PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE

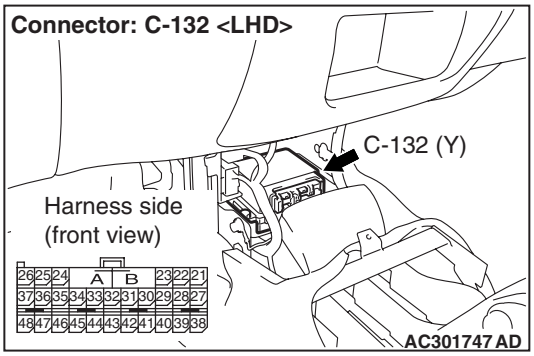
STEP 1. Check junction block fuse number 2.

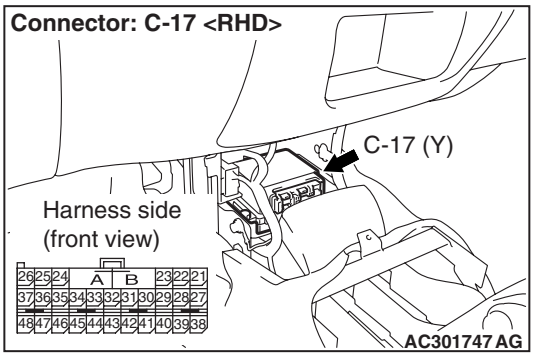


Q: Is the fuse burned out?
YES : Go to Step 4.
NO : Go to Step 2.

STEP 2. Voltage measurement at the SRS-ECU connector C-132 <LHD> or C-17 <RHD.

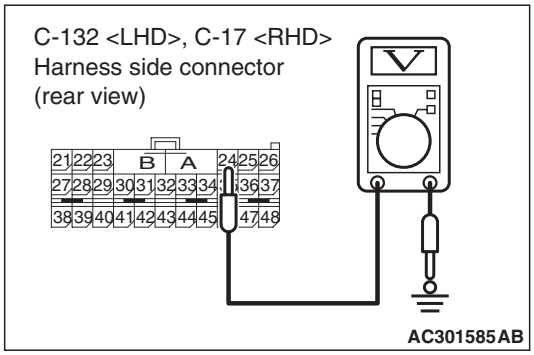
(1) Disconnect the negative battery terminal.





(2) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.

⚠ CAUTION



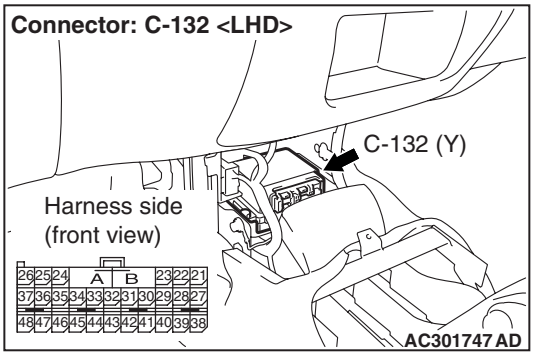
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

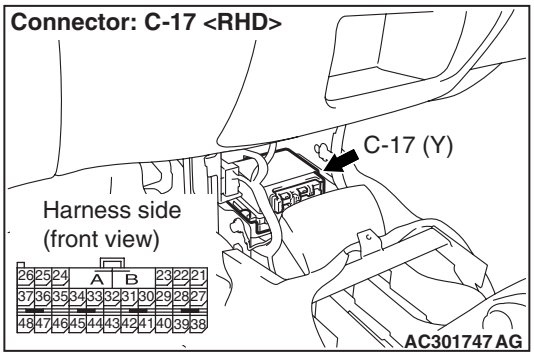
(5) Voltage measurement between C-132 <LHD> or C-17 <RHD> harness side connector terminal 24 and body earth.

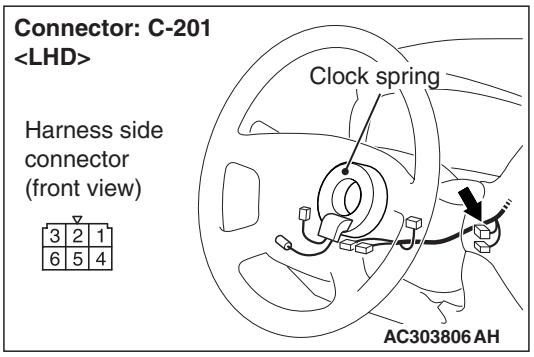
OK: 9 V or more.

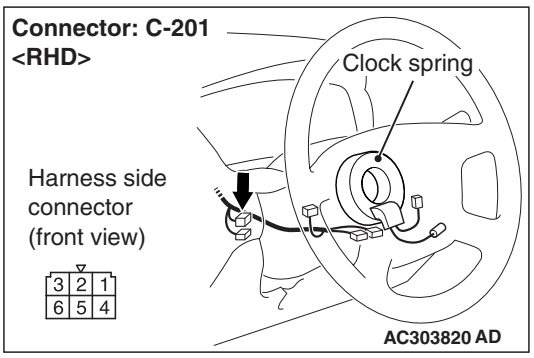
Q: Is the check result normal?
YES : Go to Step 8.
NO : Go to Step 3.

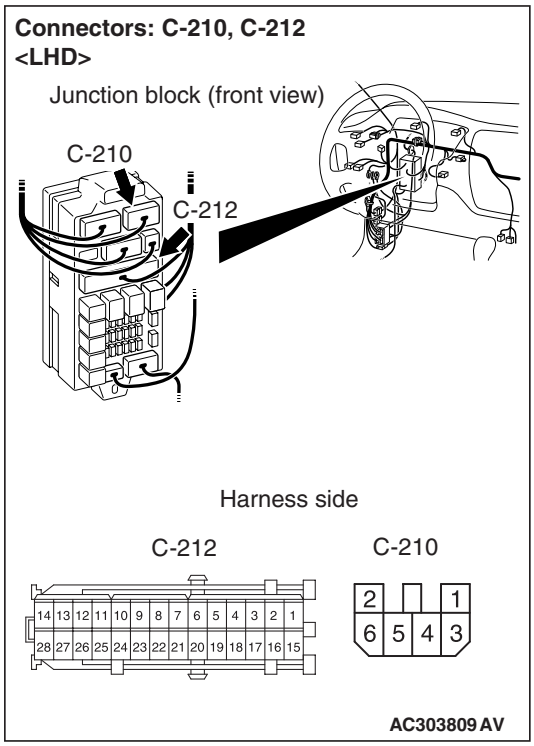
STEP 3. Check the connectors between SRS-ECU connector C-132 <LHD> or C-17 <RHD> and ignition switch connector C-201.

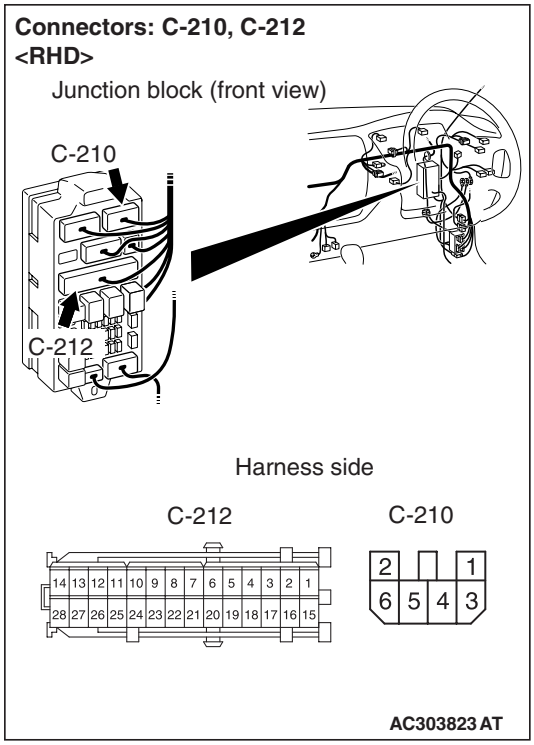












Q: Is the check result normal?

YES : Check the harness wires for open circuit between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.24) and ignition switch connector C-201 (terminal No.2), and repair if necessary.

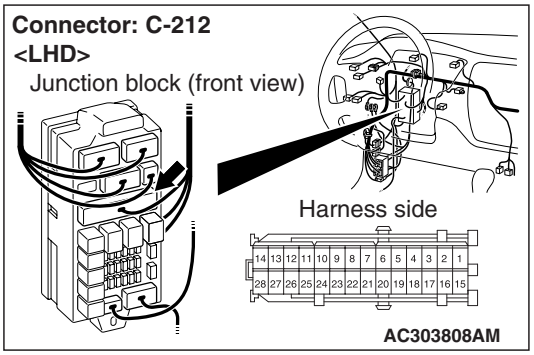
NO : Repair the defective connector.

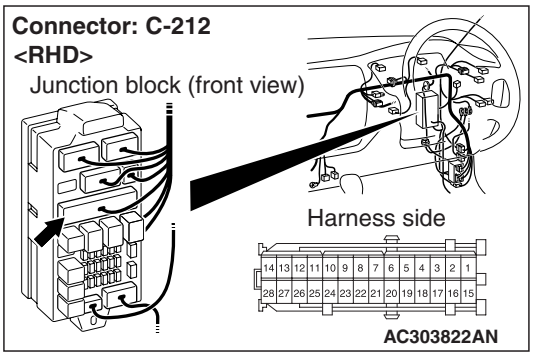
STEP 4. Check a burned-out fuse.

(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the ignition switch to the "LOCK" (OFF) position.
(3) Check the fuse.

Q: Is the fuse in good condition?
YES : This diagnosis is complete.
NO : Go to Step 5.

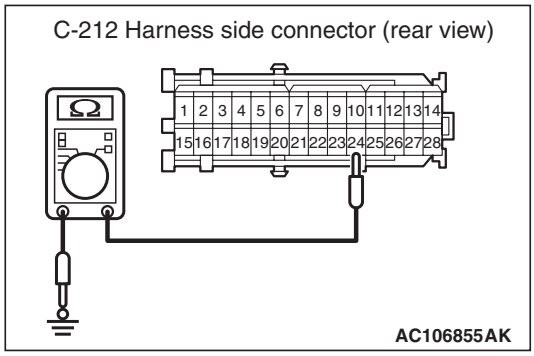
STEP 5. Resistance measurement at the junction block connector C-212.





(1) Disconnect junction block connector C-212, and measure at the wiring harness side.

⚠ CAUTION



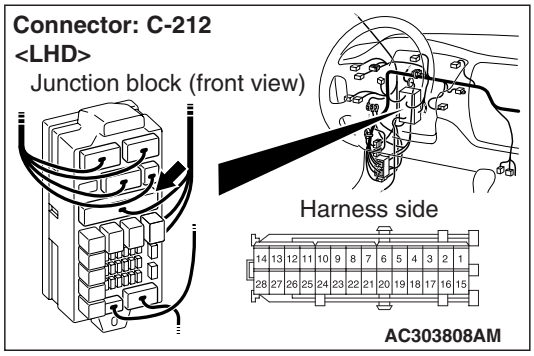
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

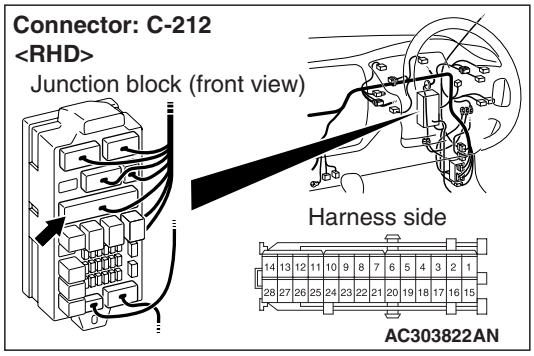
(2) Resistance measurement between terminal 24 and body earth.

OK: Open circuit

Q: Is the check result normal?
YES : Go to Step 6.
NO : Go to Step 7.

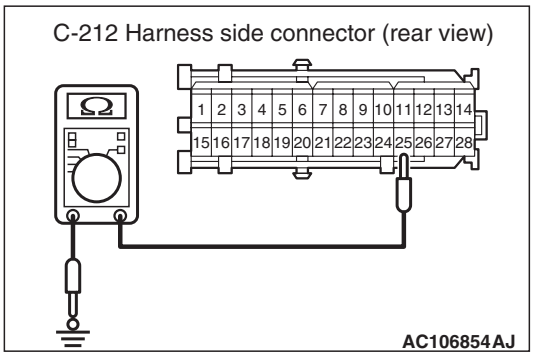
STEP 6. Resistance measurement at junction block connector C-212.





(1) Disconnect junction block connector C-212, and measure at the wiring harness side.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Resistance measurement between terminal 25 and body earth.

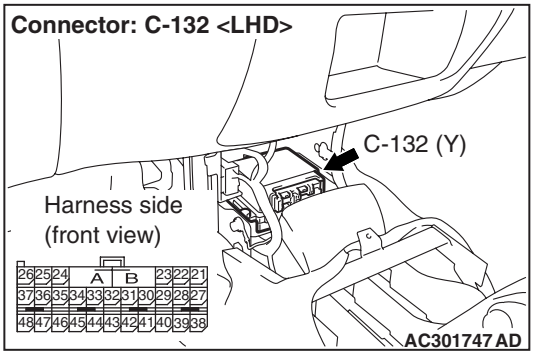
OK: Open circuit

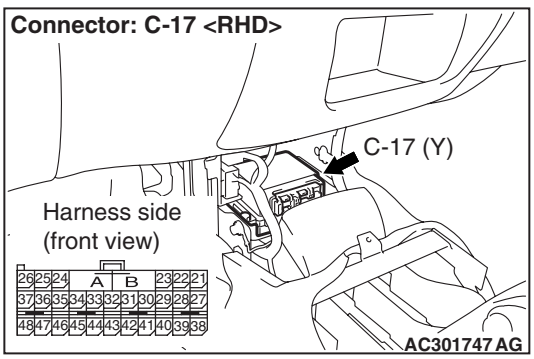
Q: Is the check result normal?

YES : Check the other circuit, which flows through fuse number 2.

NO : Check the harness wire for short circuit between junction block connector C-212 (terminal No.25) and combination meter connector C-04 (terminal No.9), and repair if necessary.

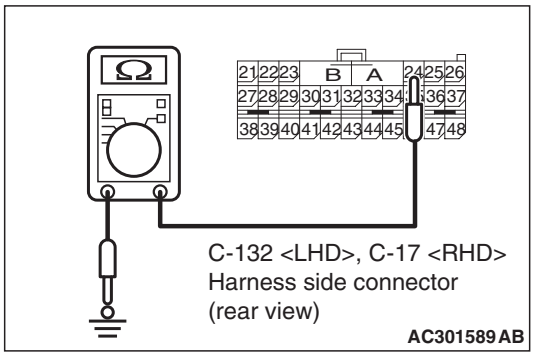
STEP 7. Resistance measurement at the SRS-ECU connector C-132 <LHD> or C-17 <RHD>.





(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>, and measure at the wiring harness side.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Resistance measurement between terminal 24 and body earth.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 8.

NO : Check the harness wire for short circuit between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.24) and junction block connector C-212 (terminal No.24), and repair if necessary.

STEP 8. Check whether the diagnosis code is reset.

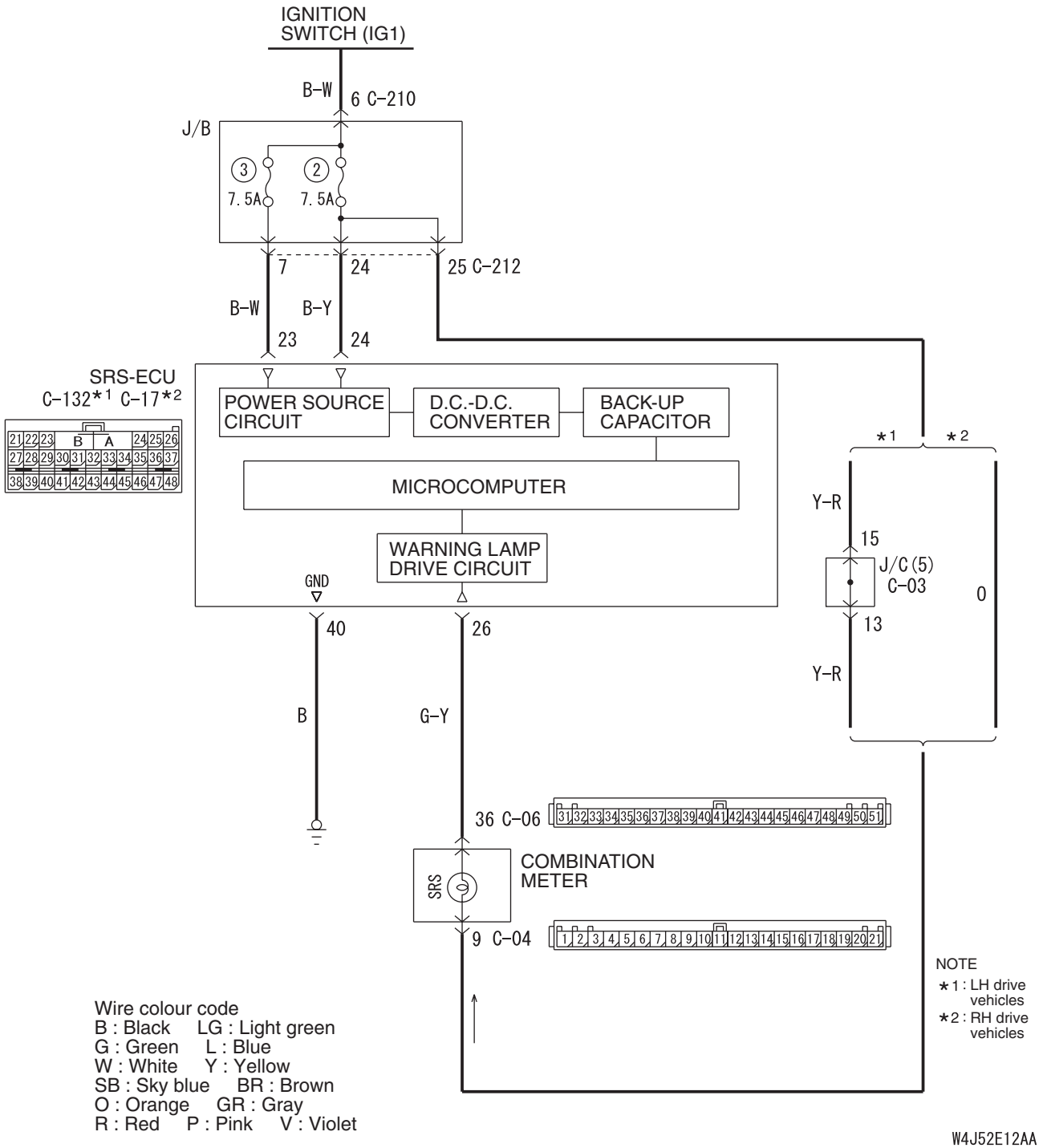
Q: Is diagnosis code 41 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.42: Power supply voltage (IG1 (B) voltage) drops abnormally.

IG1 Power Supply Circuit System



OPERATION

- The SRS-ECU is powered from the ignition switch (IG1).
- The SRS-ECU power is supplied from two circuits. Even if one circuit is shut off, the air bag can inflate.

DIAGNOSIS CODE SET CONDITIONS

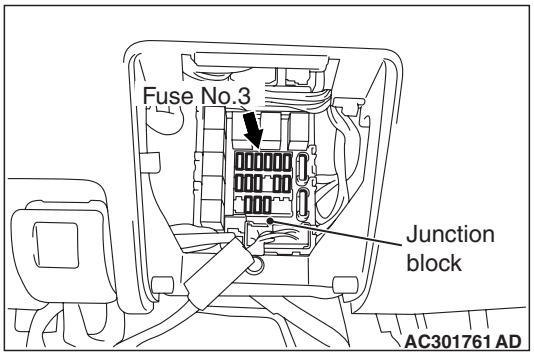
This diagnosis code is set if the voltage between the IG1 terminals (fuse No.3 circuit) and earth is lower than a predetermined value for a continuous period of 5 second or more. However, if the system returns to normal condition, code number 42 will be erased automatically and the SRS warning lamp will go out.

PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE

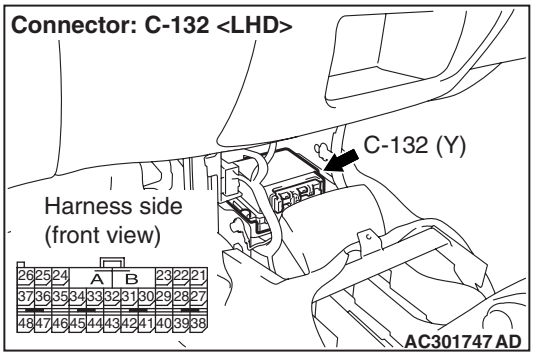
STEP 1. Check junction block fuse number 3.

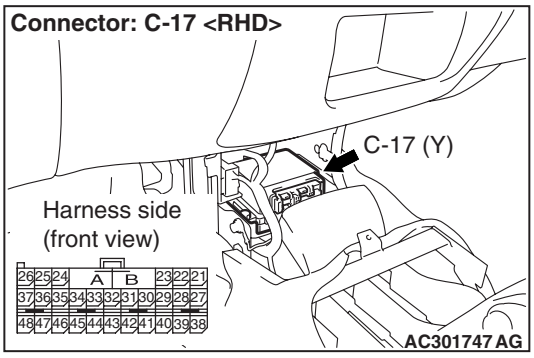


Q: Is the fuse burned out?
YES : Go to Step 4.
NO : Go to Step 2.

STEP 2. Voltage measurement at SRS-ECU connector C-132 <LHD> or C-17 <RHD>.

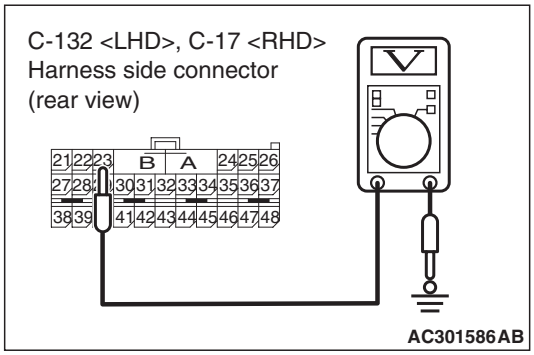
(1) Disconnect the negative battery terminal.





(2) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.

⚠ CAUTION



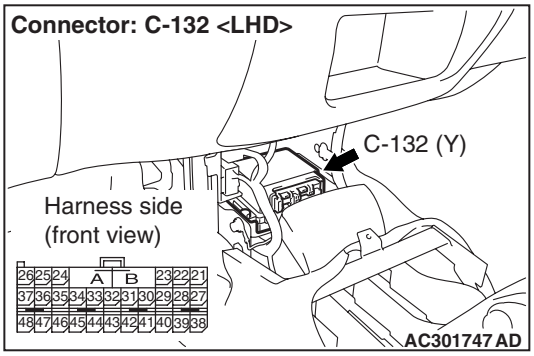
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

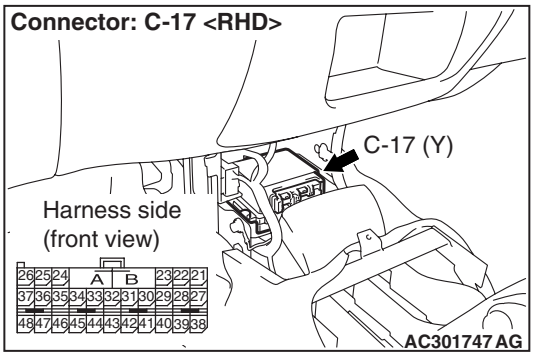
(5) Voltage measurement between C-132 <LHD> or C-17 <RHD> harness side connector terminal 23 and body earth.

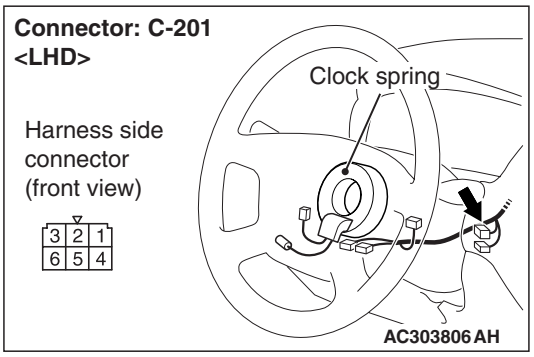
OK: 9 V or more

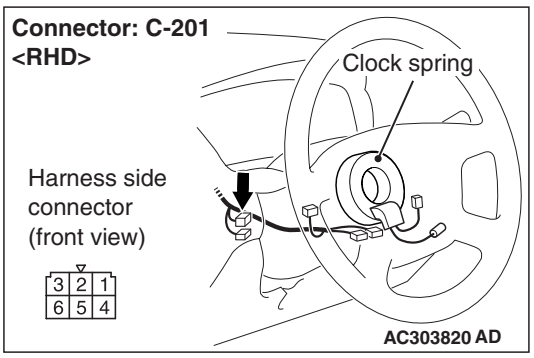
Q: Is the check result normal?
YES : Go to Step 7.
NO : Go to Step 3.

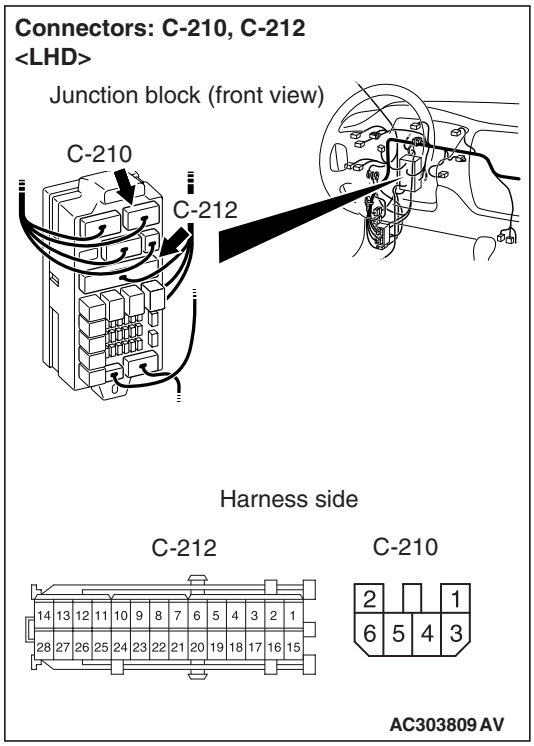
STEP 3. Check the connectors between SRS-ECU connector C-132 <LHD> or C-17 <RHD> and ignition switch connector C-201.

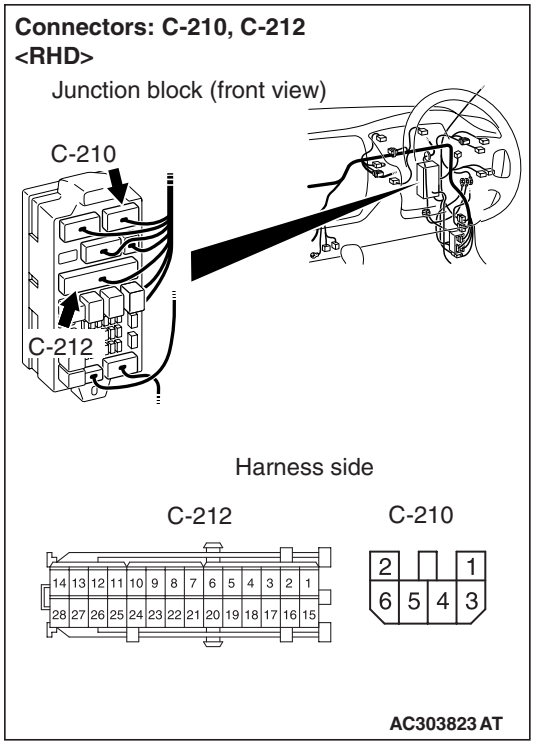












Q: Is the check result normal?

YES : Check the harness wires for open or short circuit between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.23) and ignition switch connector C-201 (terminal No.2), and repair if necessary.

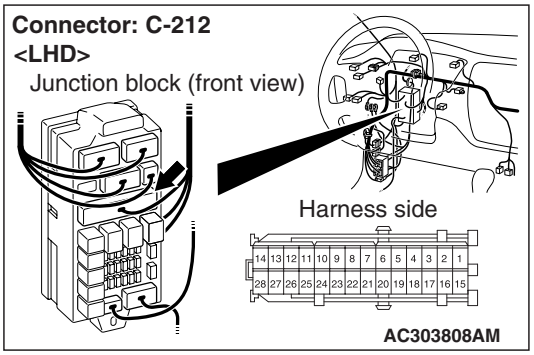
NO : Repair the defective connector.

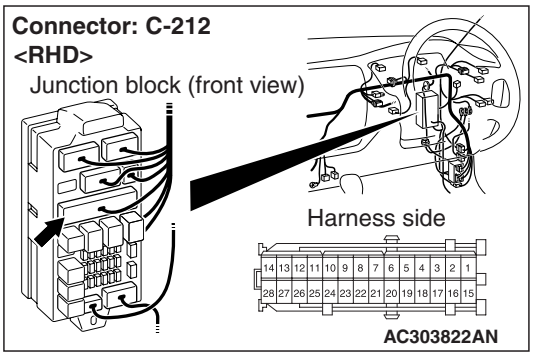
STEP 4. Check a burned-out fuse.

(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the ignition switch to the "LOCK" (OFF) position.
(3) Check the fuse.

Q: Is the fuse in good condition?
YES : Go to Step 7.
NO : Go to Step 5.

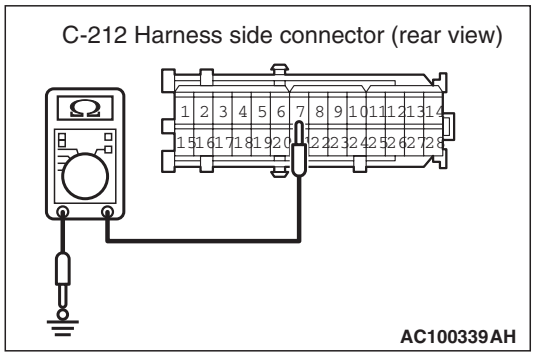
STEP 5. Resistance measurement at the junction block connector C-212.





(1) Disconnect junction block connector C-212, and measure at the wiring harness side.

⚠ CAUTION



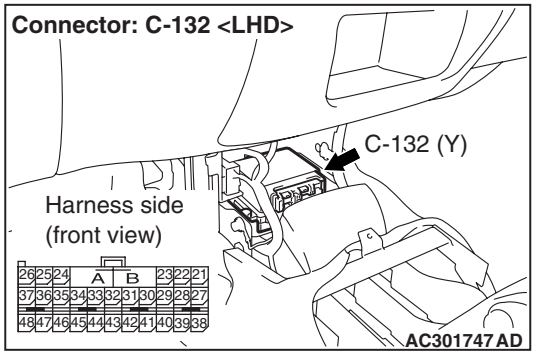
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

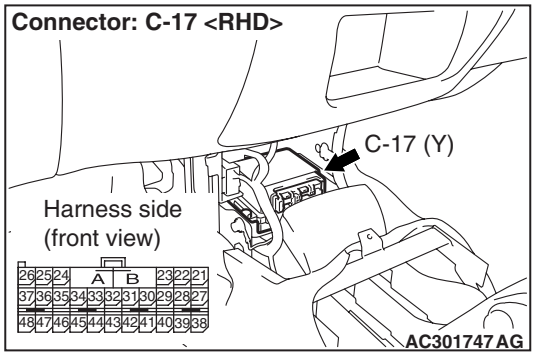
(2) Resistance measurement between terminal 7 and body earth.

OK: Open circuit

Q: Is the check result normal?
YES : Check the other circuit, which flows through fuse number 3.
NO : Go to Step 6.

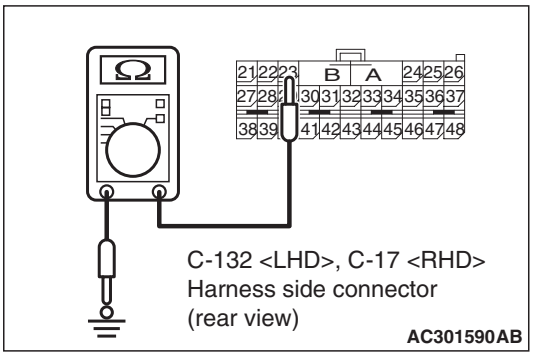
STEP 6. Resistance measurement at the SRS-ECU connector C-132 <LHD> or C-17 <RHD>.





(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>, and measure at the wiring harness side.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Resistance measurement between terminal 23 and body earth.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 7.

NO : Check the harness wire for short circuit between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.23) and junction block connector C-212 (terminal No.7), and repair if necessary.

STEP 7. Check whether the diagnosis code is reset.

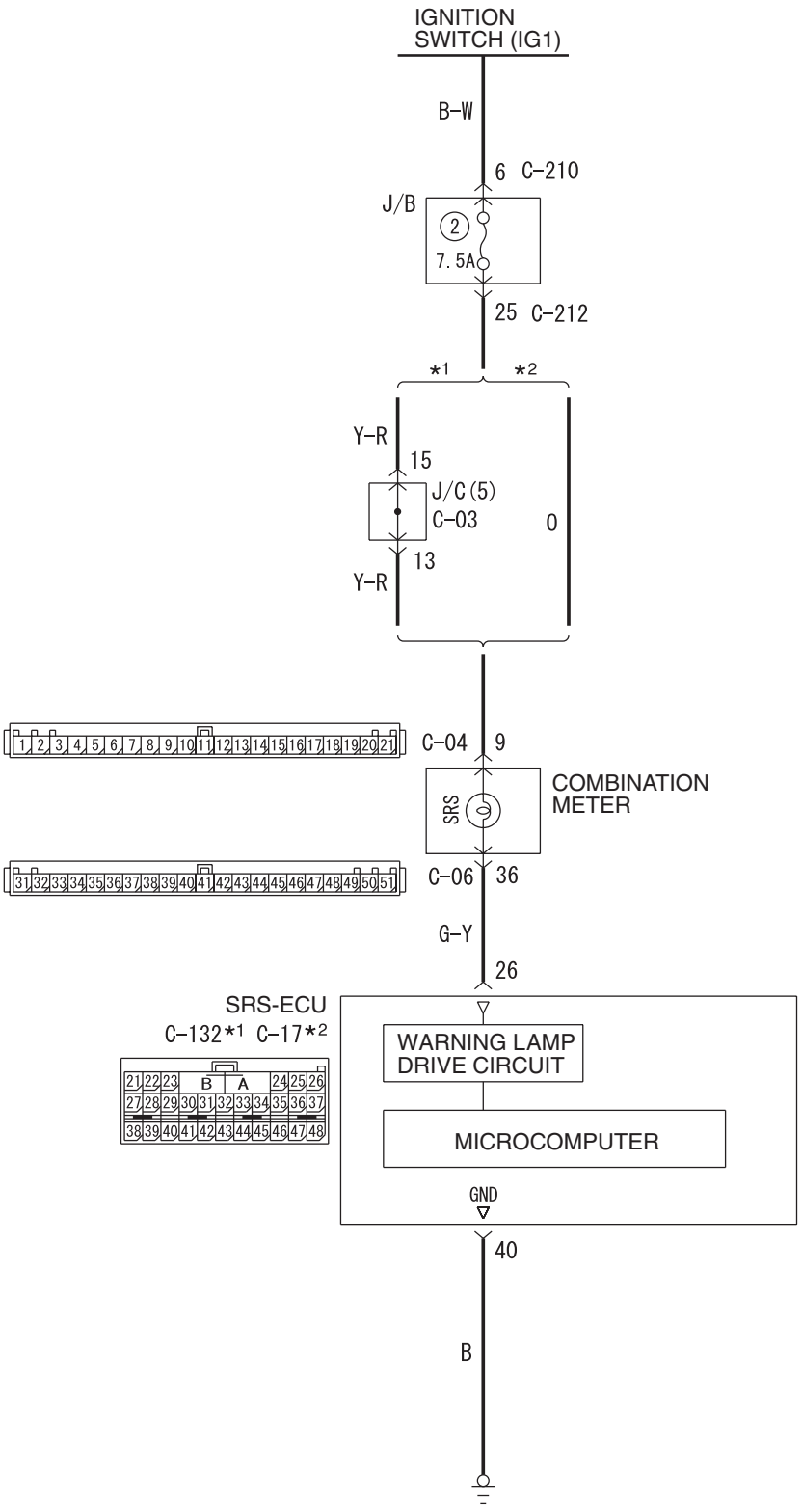
Q: Is diagnosis code 42 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.43: SRS warning lamp circuit open-circuited (Lamp does not Illuminate.)

SRS Warning Lamp Drive Circuit



NOTE
*1 : LH drive vehicles
*2 : RH drive vehicles

Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E13AA

OPERATION

- Power for the SRS warning lamp is supplied from the ignition switch (IG1) circuit.
- The SRS warning lamp illuminates when the ignition switch is turned to the "ON" position and goes out after approximately 7 seconds if there is not a malfunction in the SRS system.

DIAGNOSIS CODE SET CONDITIONS

- This diagnosis code is set when an open circuit is detected for a continuous period of 5 seconds while the SRS-ECU is monitoring the SRS warning lamp and the lamp is OFF. (transistor OFF)

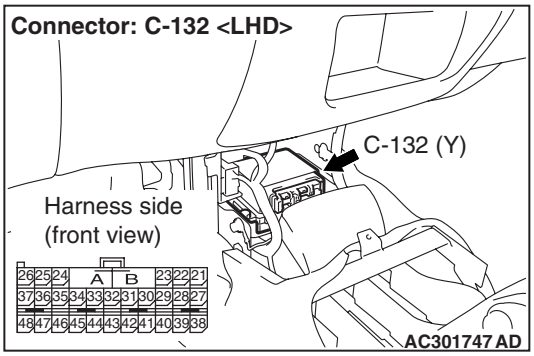
PROBABLE CAUSES

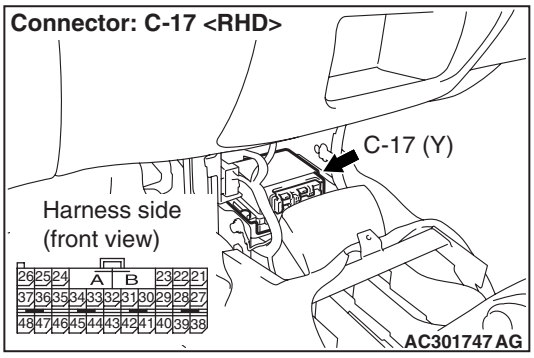
- Damaged wiring harnesses of connectors
- Blown bulb
- Malfunction of the SRS-ECU
- Malfunction of the combination meter

DIAGNOSIS PROCEDURE

STEP 1. Check the SRS warning lamp.

(1) Disconnect the negative battery terminal.

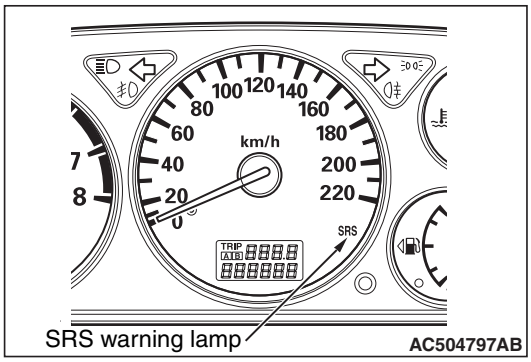




(2) Disconnected the SRS-ECU connector C-132 <LHD> or C-17 <RHD>.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.

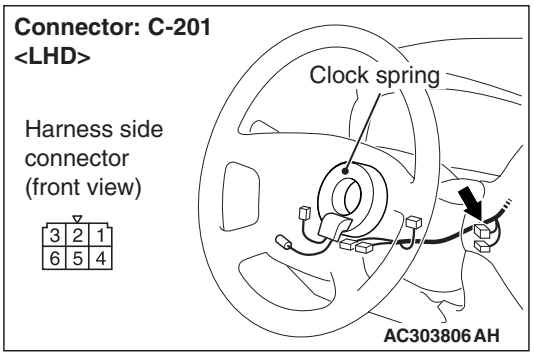
Q: Does the warning lamp illuminate?
YES : Go to Step 4.
NO : Go to Step 2.

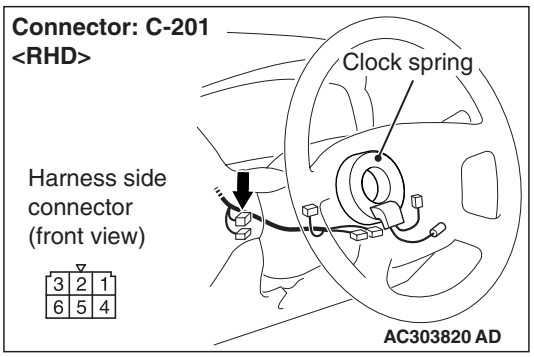
STEP 2. Check the SRS warning lamp bulb.

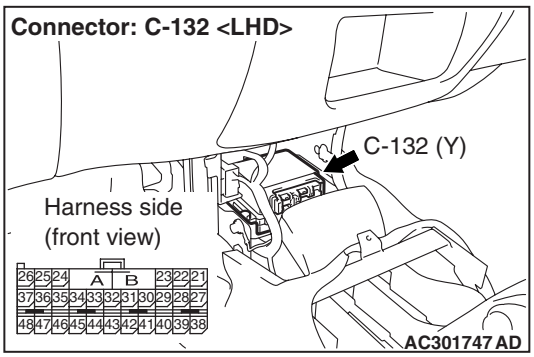


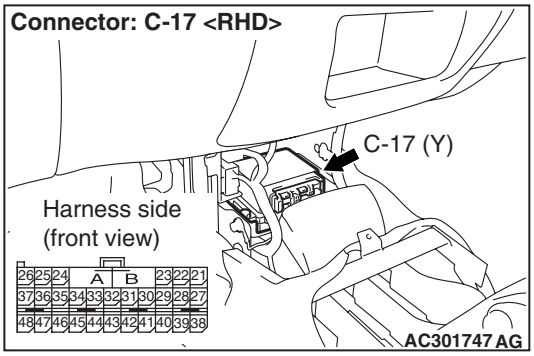
Q: Has the SRS warning lamp bulb blown?
YES : Replace the SRS warning lamp bulb.
NO : Go to Step 3.

STEP 3. Check the harness for open circuit between ignition switch connector C-201 (terminal No.2) and SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.26).

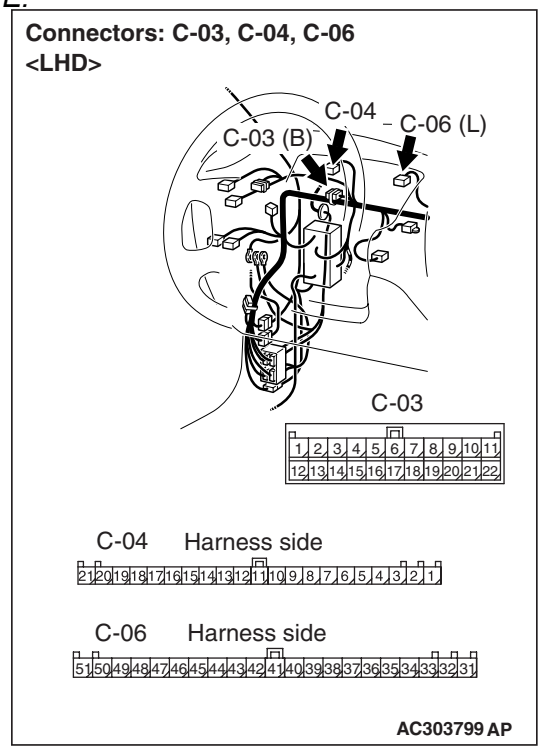


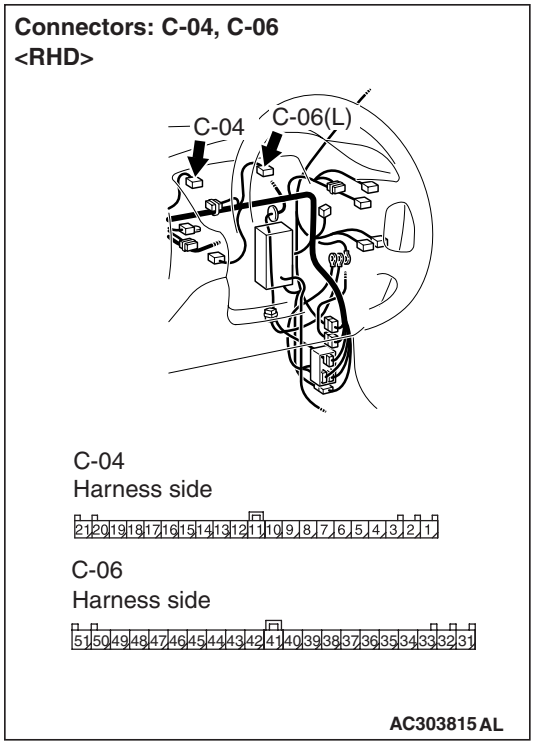






NOTE:





After inspecting intermediate connectors C-04, C-06, C-03 <LHD> or C-04, C-06 <RHD> inspect the wiring harness. If intermediate connectors C-04, C-06, C-03 <LHD> or C-04, C-06 <RHD> are damaged, repair or replace them.

Q: Is the check result normal?

YES : Replace the combination meter (Refer to GROUP 54A, Combination Meters Assembly P.54A-67). Then go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.26) and the ignition switch connector C-201 (terminal No.2).

STEP 4. Check whether the diagnosis code is reset.

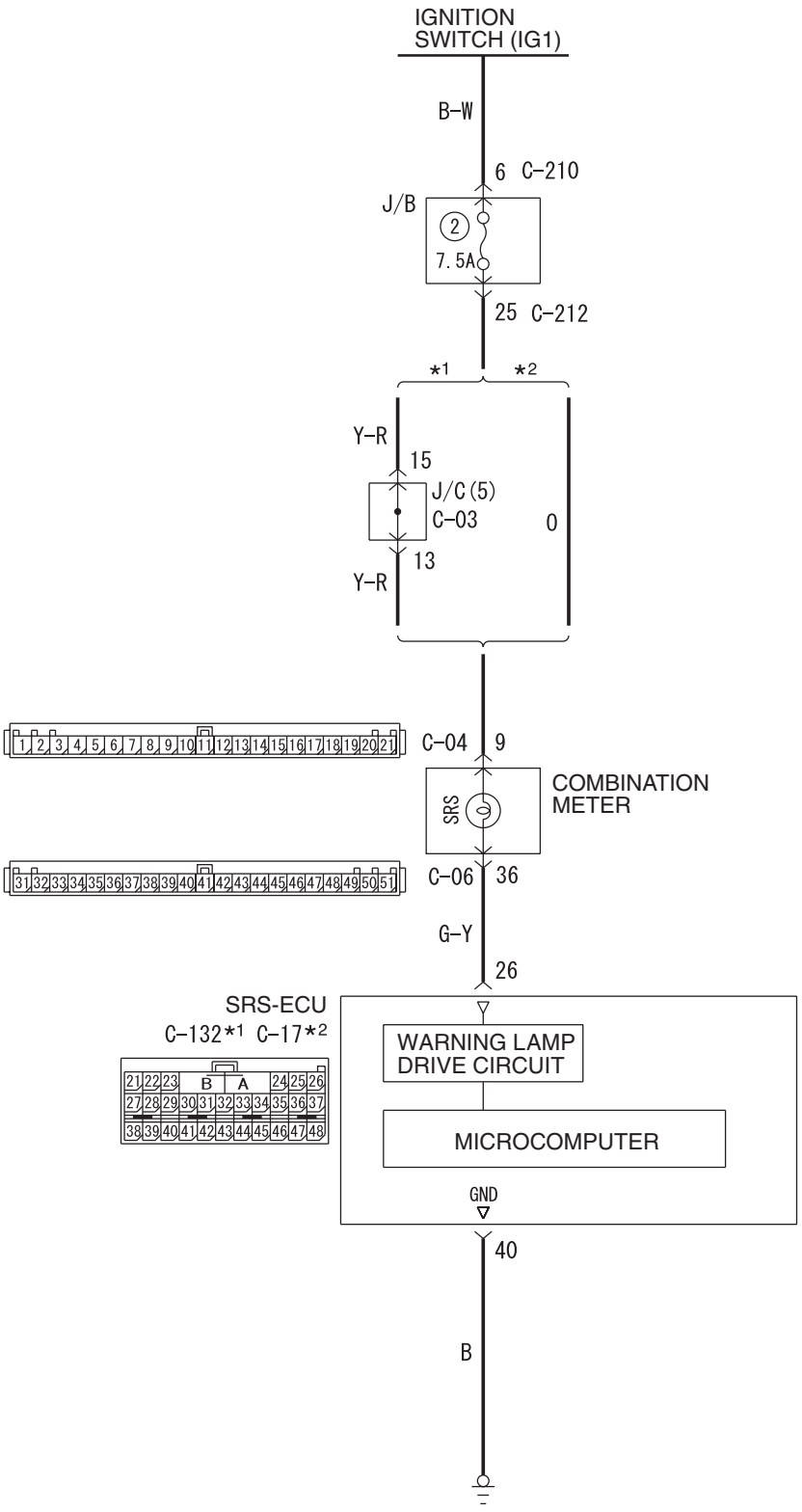
Q: Is diagnosis code 43 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service PointsP.00-5).

Code No.43: SRS warning lamp circuit open-circuited (Lamp does not Switch Off.)

SRS Warning Lamp Drive Circuit



NOTE
*1 : LH drive vehicles
*2 : RH drive vehicles

Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E13AA

OPERATION

- Power for the SRS warning lamp is supplied from the ignition switch (IG1) circuit.
- The SRS warning lamp illuminates when the ignition switch is turned to the "ON" position and goes out after approximately 7 seconds if there is not a malfunction in the SRS system.

DIAGNOSIS CODE SET CONDITIONS

- This diagnosis code is set when a short to earth occurs in the harness between the SRS warning lamp and SRS-ECU while SRS-ECU is monitoring the lamp and the lamp is ON.

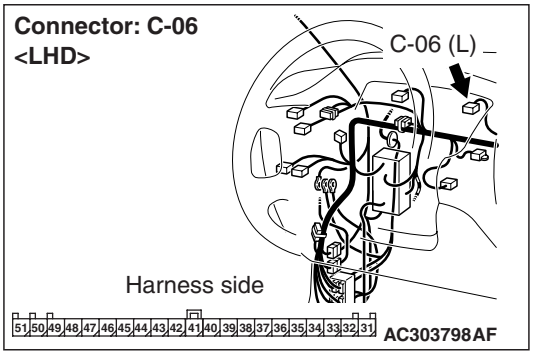
PROBABLE CAUSES

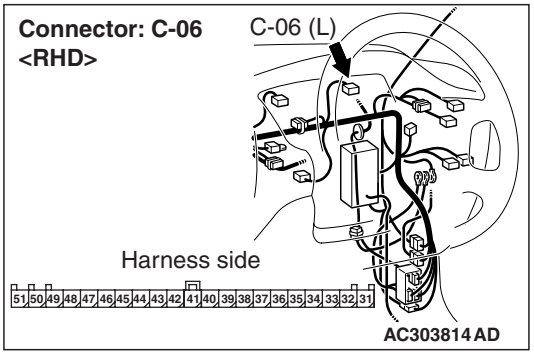
- Damaged wiring harnesses of connectors
- Malfunction of the SRS-ECU
- Malfunction of the combination meter

DIAGNOSIS PROCEDURE

STEP 1. Check the SRS warning light.

(1) Disconnect the negative battery cable.

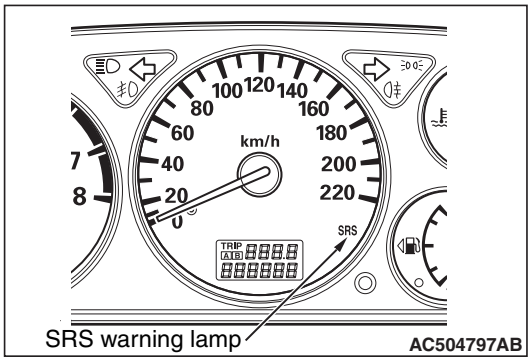




(2) Disconnect the combination meter connector C-06.

(3) Connect the negative battery cable.

(4) Turn the ignition switch to the "ON" position.

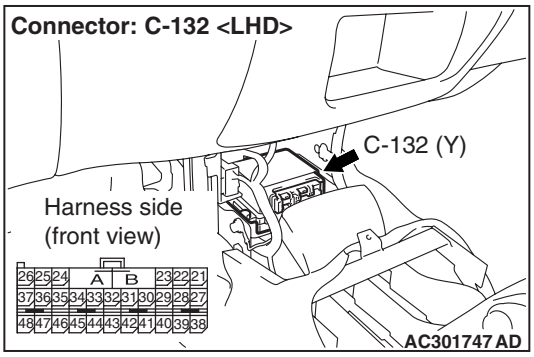


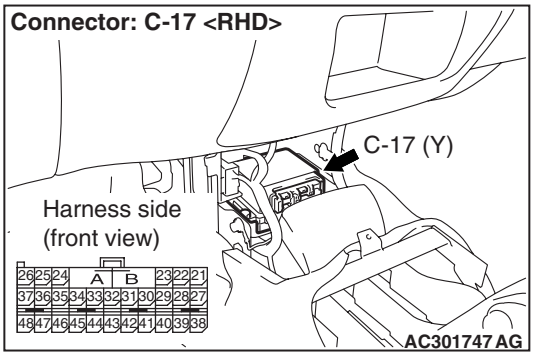
Q: Does the SRS warning light go out?

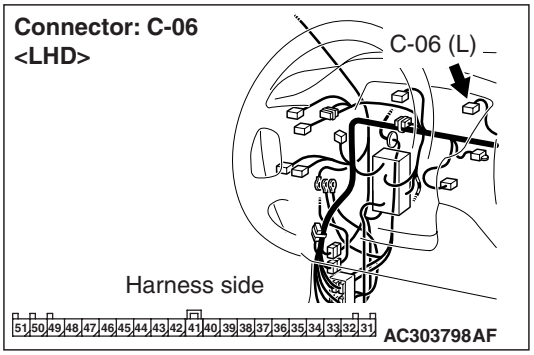
YES : Go to Step 2.

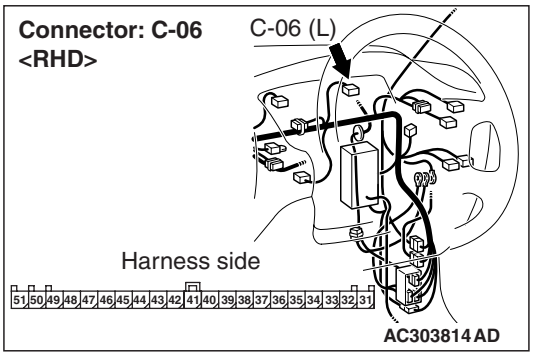
NO : Replace the combination meter (Refer to GROUP 54A, Combination Meters Assembly P.54A-67).

STEP 2. Check the harness for short circuit to earth between SRS-ECU connector C-132 <LHD> or C-17 <LHD> (terminal No.26) and combination meter connector C-06 (terminal No.36).









Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wire between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.26) and combination meter connector C-06 (terminal No.36).

STEP 3. Check whether the diagnosis code is reset.

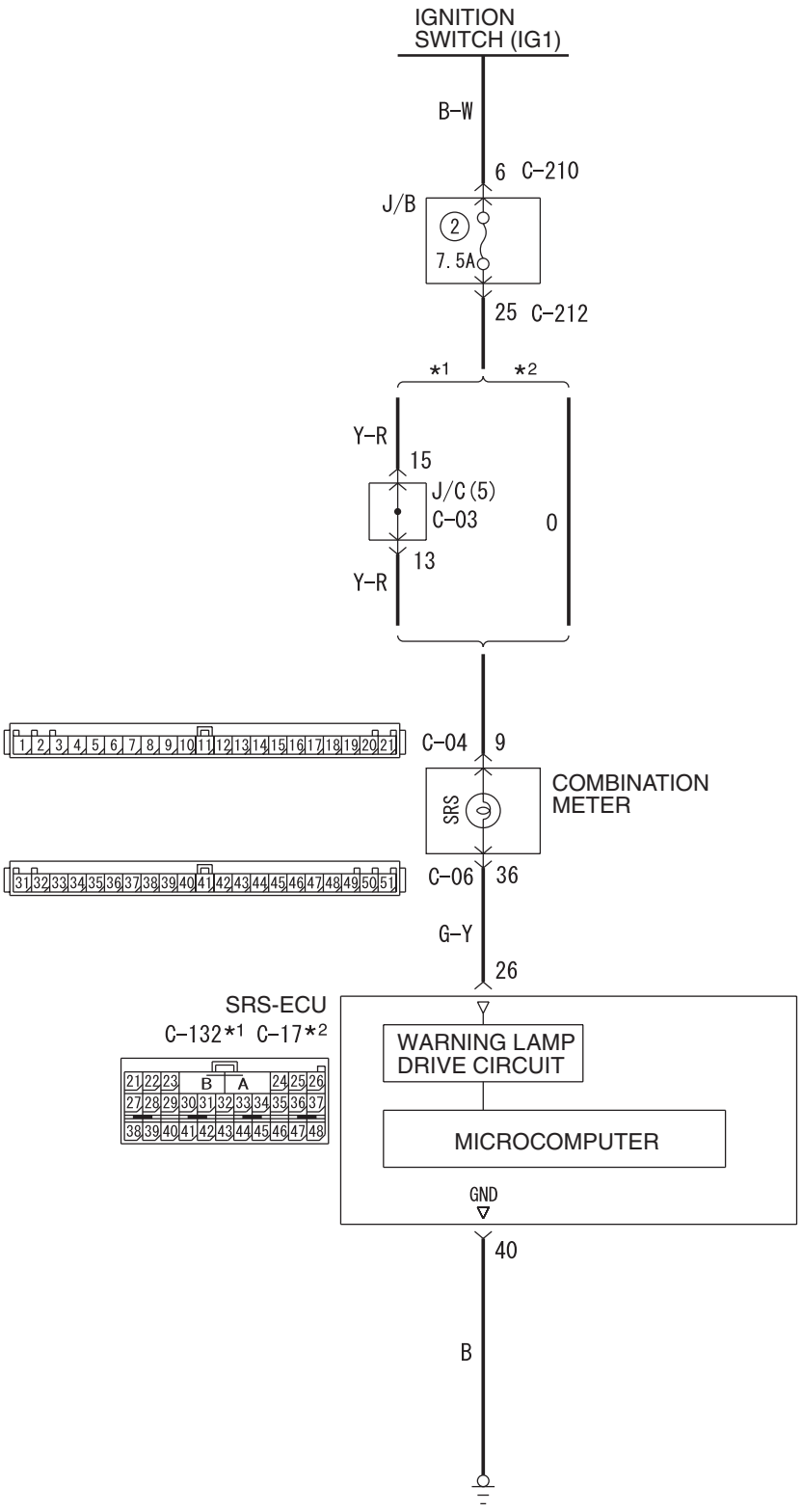
Q: Is diagnosis code 43 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.44: SRS warning lamp circuit malfunction

SRS Warning Lamp Drive Circuit



NOTE
*1 : LH drive vehicles
*2 : RH drive vehicles

Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E13AA

OPERATION

- Power for the SRS warning lamp is supplied from the ignition switch (IG1).
- The SRS warning lamp illuminates when the ignition switch is turned to the "ON" position and goes out after approximately 7 seconds if there is not a malfunction in the SRS system.

DIAGNOSIS CODE SET CONDITIONS

- This diagnosis code is output under one of the following cases while the SRS-ECU is monitoring the warning lamp drive circuit:
  - When a short circuit occurs in the warning lamp drive circuit.
  - When a malfunction is detected in the output transistor inside the SRS-ECU.

PROBABLE CAUSES

- Damaged wiring harnesses of connectors
- Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE

Check the SRS warning lamp drive circuit system. Refer to P.52B-113, P.52B-117.

Code No. 46 Improper installation of SRS-ECU

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set when an SRS-ECU designed only for the driver's air bag, is installed on vehicle, which has both driver's and passenger's (front) air bags. However, if the system returns to normal condition, code number 46 will be erased automatically and the SRS warning lamp will go out.

PROBABLE CAUSES

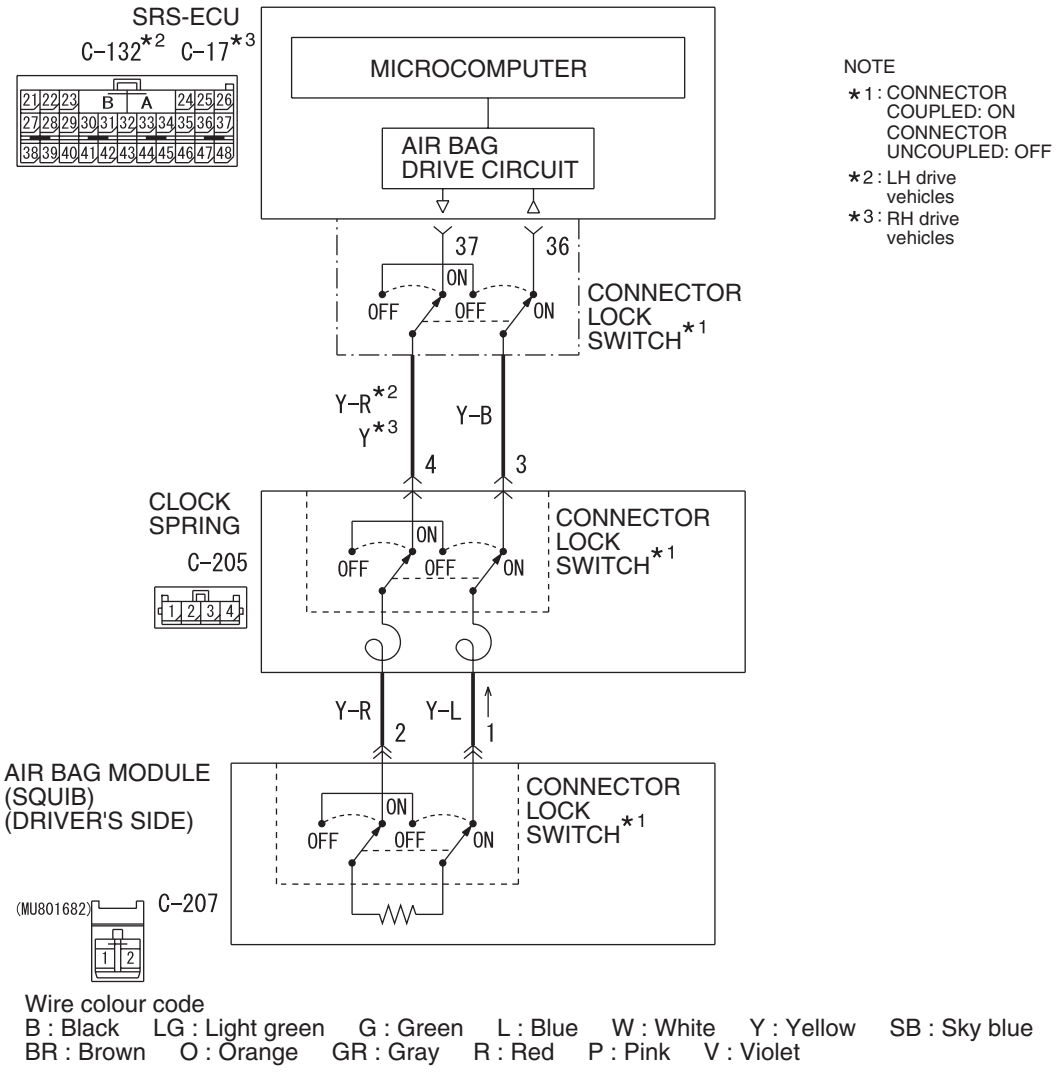
Incorrect SRS-ECU

DIAGNOSIS PROCEDURE

Replace the SRS-ECU to a proper one for equipment (Refer to P.52B-198).

Code No.61: Driver's air bag module (squib) system (short-circuited to the power supply)

Driver's Air Bag Module (Squib) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E06AA

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the driver’s air bag squib wire(s) are short-circuited to the power supply.

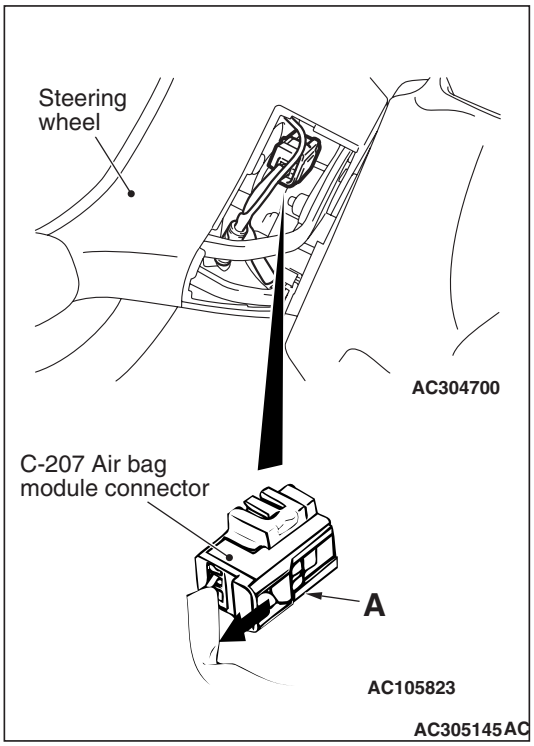
PROBABLE CAUSES

- Malfunction of the clock spring
- Damaged harness wires and connectors
- Short to the power supply in the driver's air bag module (squib) harness
- Malfunction of the SRS-ECU

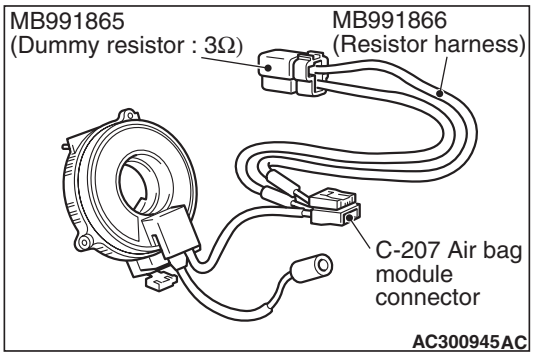
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) By sliding the A section (in the figure) of air bag module connector C-207 in arrow direction, disconnect the connector.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Insert special tool (MB991866) into clock spring side air bag module connector C-207 by backprobing.

(5) Connect the negative battery terminal.

(6) Erase the diagnosis code memory, and check the diagnosis code.

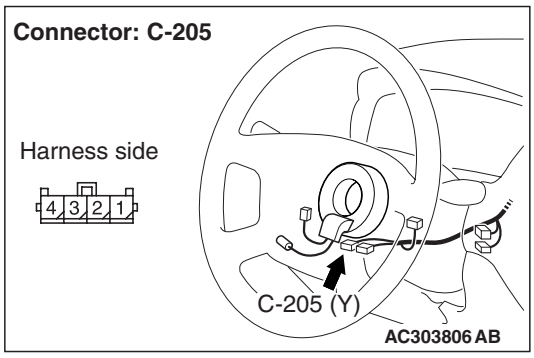
Q: Is diagnosis code 61 set?

YES : Go to Step 2.

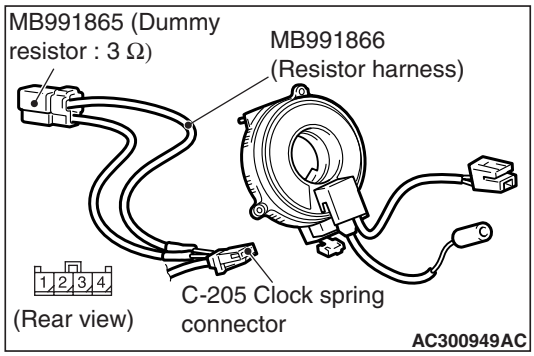
NO : Replace the driver's air bag module (Refer to P.52B-199).

STEP 2. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the clock spring connector C-205.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Insert special tool (MB991866) into clock spring harness side connector C-205 (terminal No.3 and 4) by backprobing.

(5) Connect the negative battery terminal.

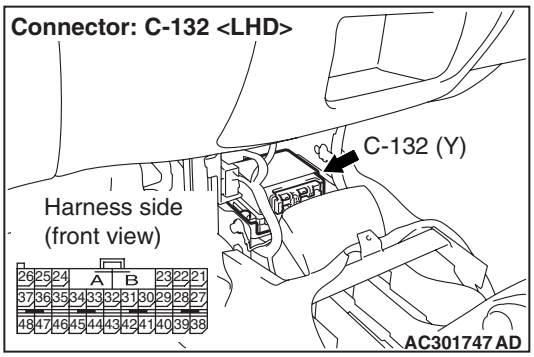
(6) Erase the diagnosis code memory, and check the diagnosis code.

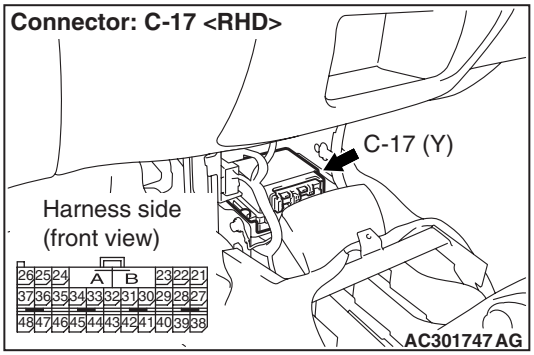
Q: Is diagnosis code 61 set?

YES : Go to Step 3.

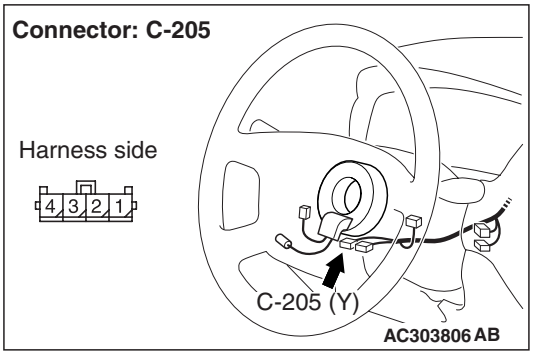
NO : Replace the clock spring (Refer to P.52B-199).

STEP 3. Voltage measurement at the SRS-ECU connector C-132 <LHD> or C-17 <RHD>.





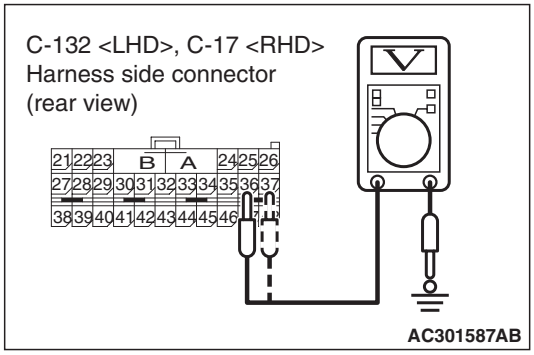
(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>.



(2) Disconnect the clock spring connector C-205.

(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Voltage measurement between C-132 <LHD> or C-17 <RHD> harness side connector terminals 36, 37 and body earth.

OK: 0 V

Q: Is the check result normal?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.36 and 37) and clock spring connector C-205 (terminal No.3 and 4).

STEP 4. Check whether the diagnosis code is reset.

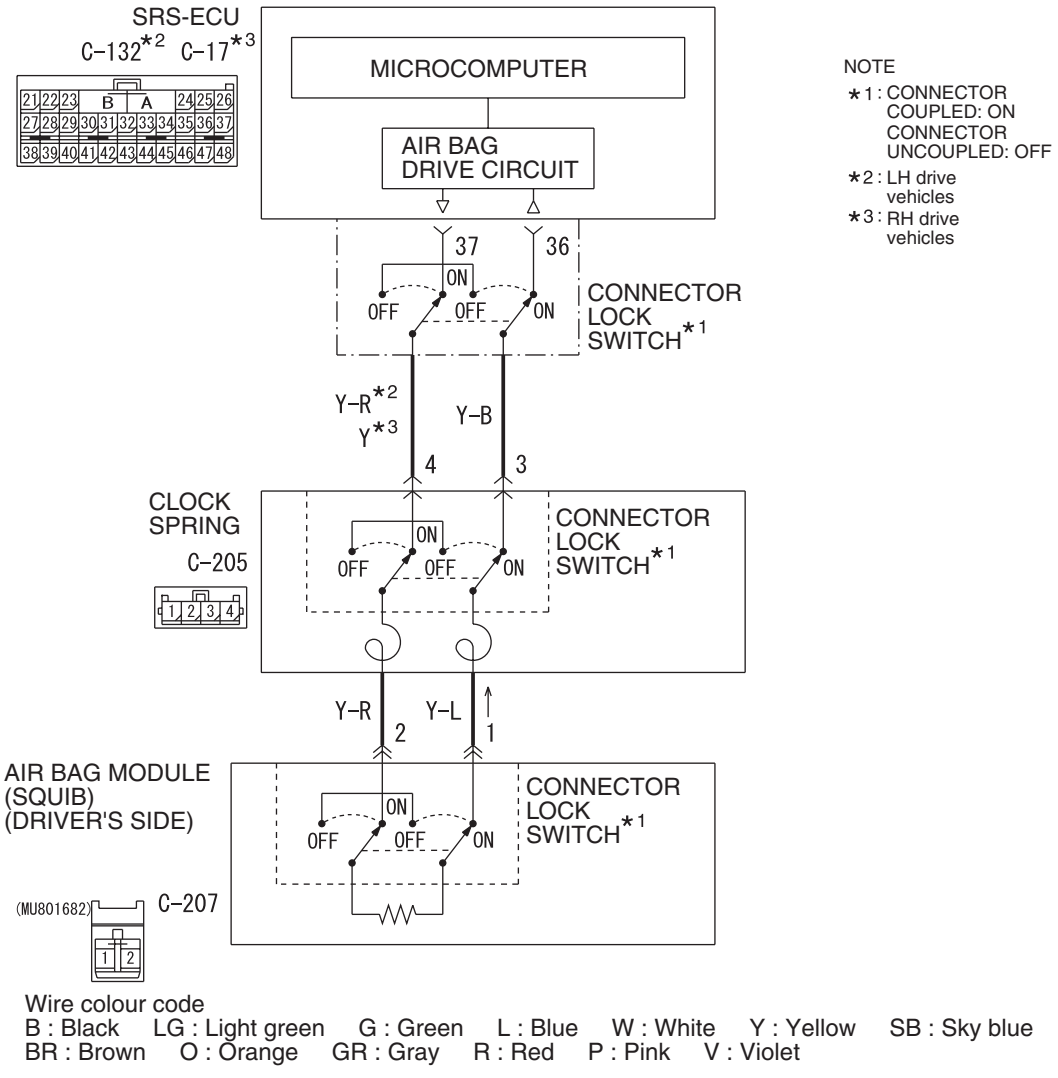
Q: Is diagnosis code 61 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.62: Driver's air bag module (squib) system (short-circuited to the earth)

Driver's Air Bag Module (Squib) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E06AA

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the driver's air bag squib wire(s) are short-circuited to the earth.

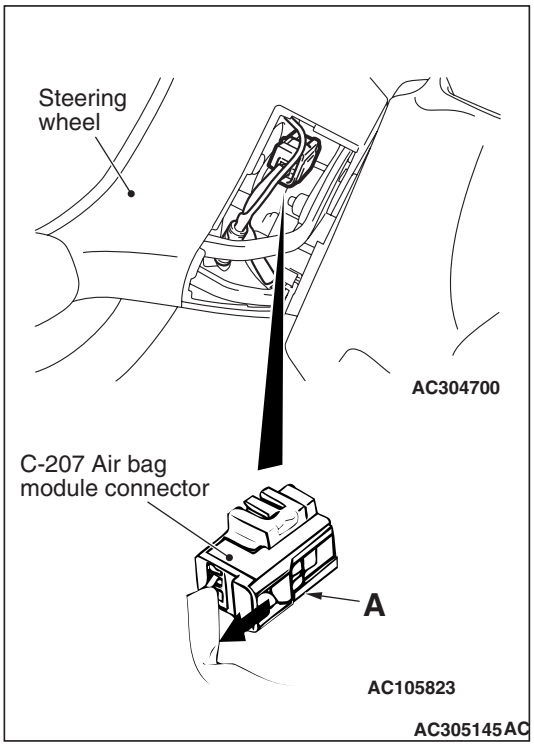
PROBABLE CAUSES

- Malfunction of the clock spring
- Damaged harness wires and connectors
- Short to the earth in the driver's air bag module (squib) harness
- Malfunction of the SRS-ECU

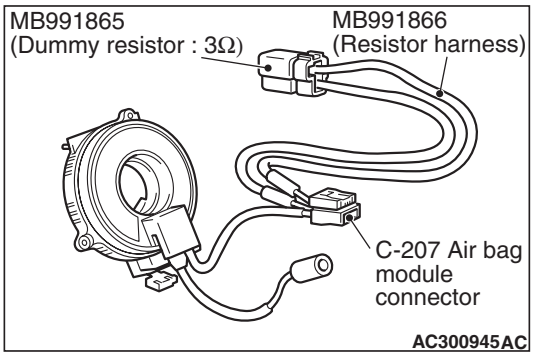
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) By sliding the A section (in the figure) of air bag module connector C-207 in arrow direction, disconnect the connector.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Insert special tool (MB991866) into clock spring side air bag module connector C-207 by backprobing.

(5) Connect the negative battery terminal.

(6) Erase the diagnosis code memory, and check the diagnosis code.

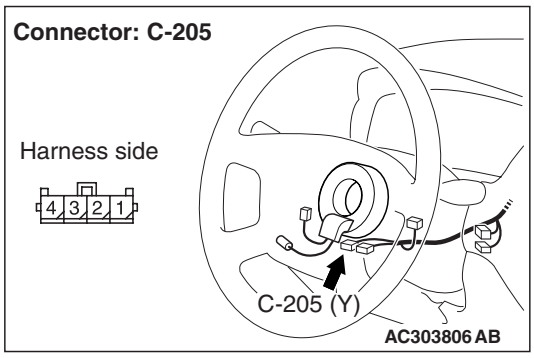
Q: Is diagnosis code 62 set?

YES : Go to Step 2.

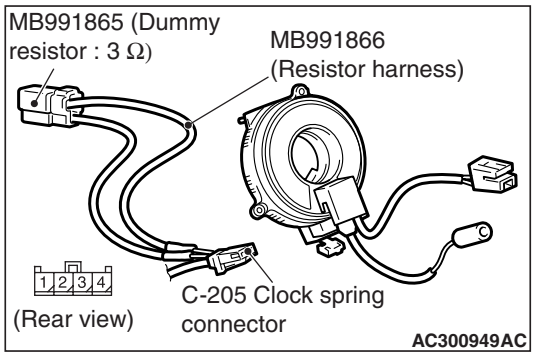
NO : Replace the driver's air bag module (Refer to P.52B-199).

STEP 2. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the clock spring connector C-205.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Insert special tool (MB991866) into clock spring harness side connector C-205 (terminal No.3 and 4) by backprobing.

(5) Connect the negative battery terminal.

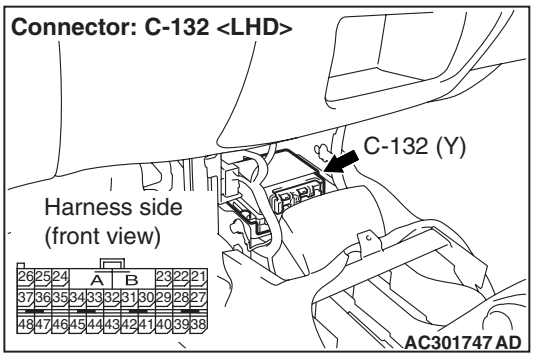
(6) Erase the diagnosis code memory, and check the diagnosis code.

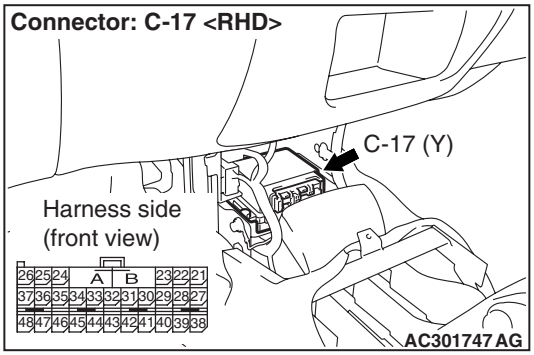
Q: Is diagnosis code 62 set?

YES : Go to Step 3.

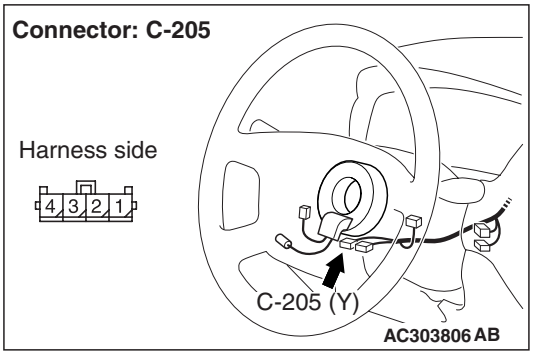
NO : Replace the clock spring (Refer to P.52B-199).

STEP 3. Resistance measurement at the SRS-ECU connector C-132 <LHD> or C-17<RHD>.



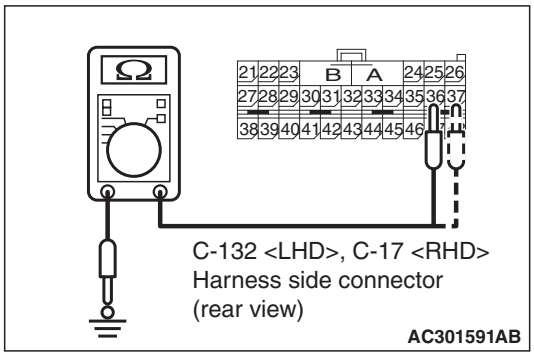


(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17<RHD>.



(2) Disconnect the clock spring connector C-205.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Check for continuity between C-132 <LHD> or C-17<RHD> harness side connector terminals 36, 37 and body earth.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-132 <LHD> or C-17<RHD> (terminal No.36 and 37) and clock spring connector C-205 (terminal No.3 and 4).

STEP 4. Check whether the diagnosis code is reset.

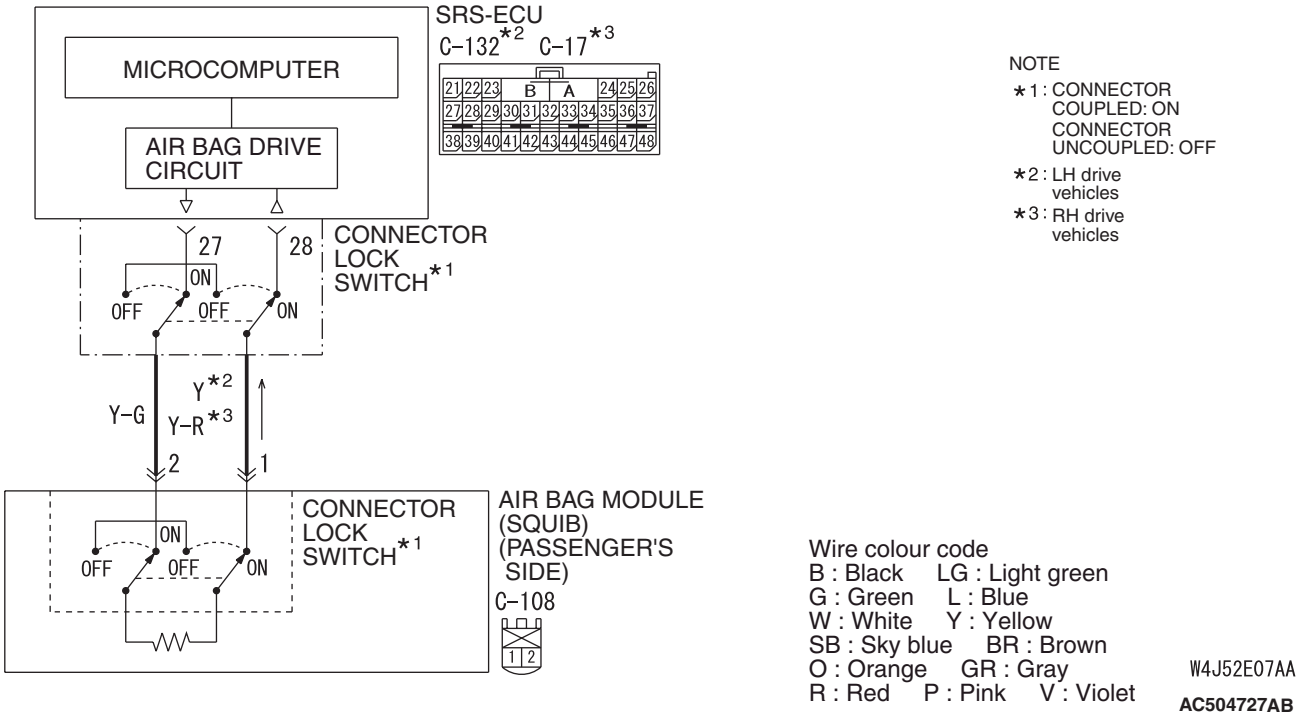
Q: Is diagnosis code 62 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.64: Passenger's (front) air bag module (squib) system (short-circuited to the power supply)

Passenger's (Front) Air Bag Module (Squib) Circuit



OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the passenger's (front) air bag squib wire(s) are short-circuited to the power supply.

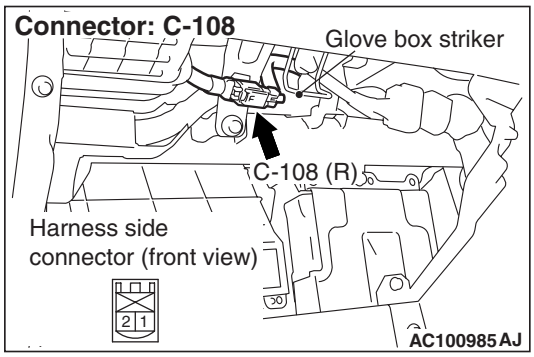
PROBABLE CAUSES

- Damaged harness wires and connectors
- Short to the power supply in the passenger's (front) air bag module (squib) harness
- Malfunction of the SRS-ECU connector C-108.

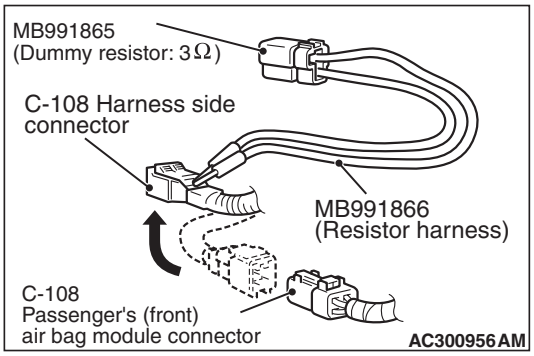
DIAGNOSIS PROCEDURE

STEP1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect passenger's (front) air bag module



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

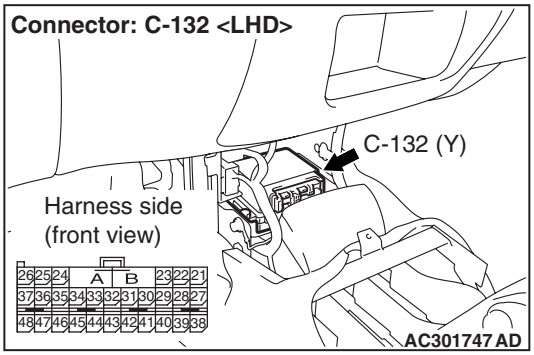
(4) Disconnect the passenger's (front) air bag module connector C-108, and insert special tool (MB991866) into the harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

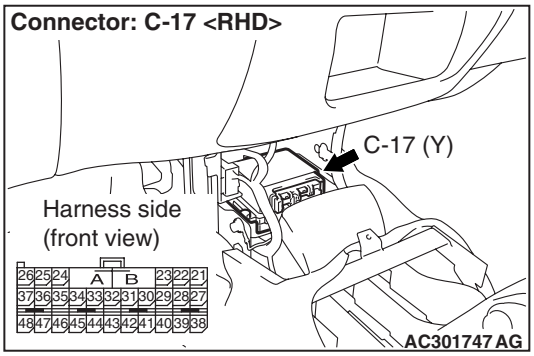
Q: Is diagnosis code 64 set?

YES : Go to Step 2.

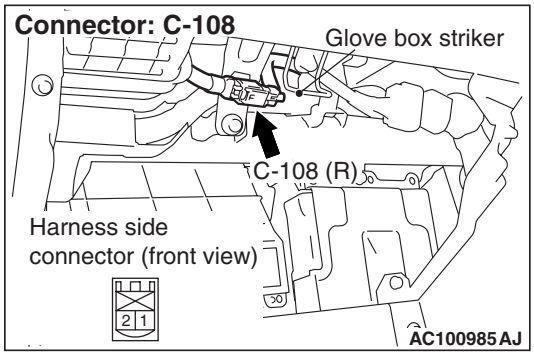
NO : Replace the passenger's (front) air bag module (Refer to P.52B-199).

STEP 2. Voltage measurement at the SRS-ECU connector C-132 <LHD> or C-17 <RHD>.



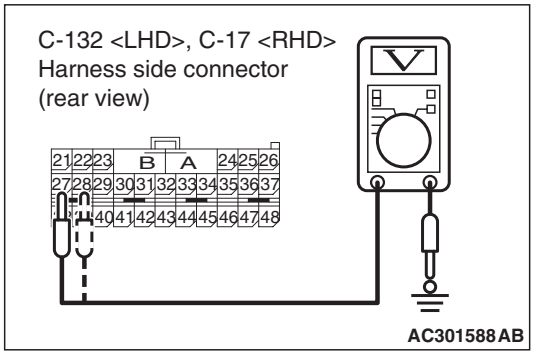


(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>.



(2) Disconnect the passenger's (front) air bag module connector C-108.
(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Voltage measurement between C-132 <LHD> or C-17 <RHD> harness side connector terminals 27, 28 and body earth.

OK: 0 V

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.27 and 28) and passenger's (front) air bag module connector C-108 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

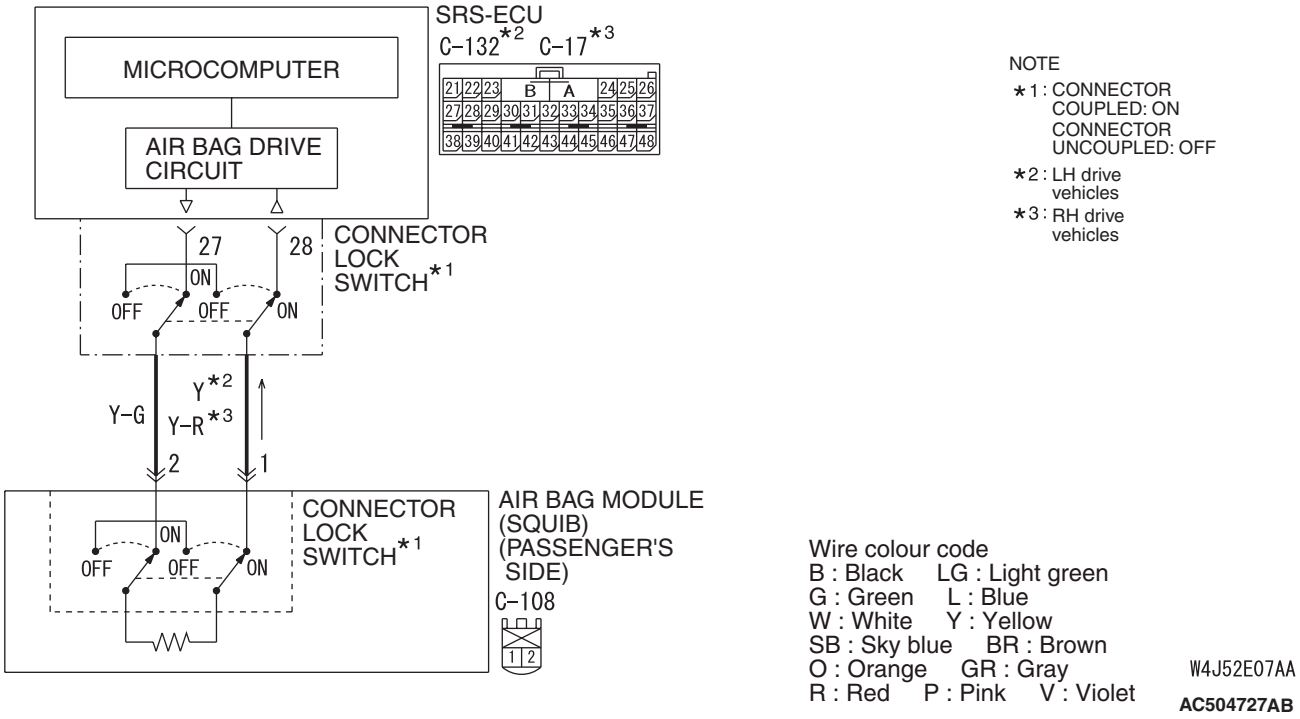
Q: Is diagnosis code 64 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.65: Passenger's (front) air bag module (squib) system (short-circuited to the earth)

Passenger's (Front) Air Bag Module (Squib) Circuit



OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the passenger's (front) air bag squib wire(s) are short-circuited to the earth.

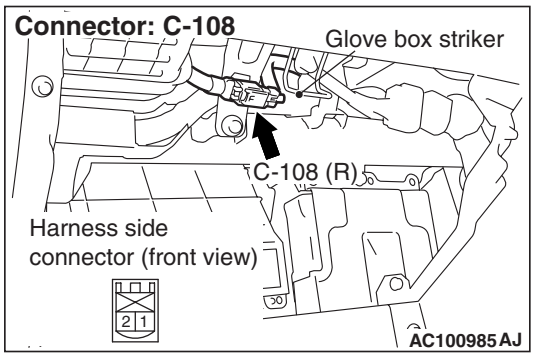
PROBABLE CAUSES

- Damaged harness wires and connectors
- Short to the earth in the passenger's (front) air bag module (squib) harness
- Malfunction of the SRS-ECU

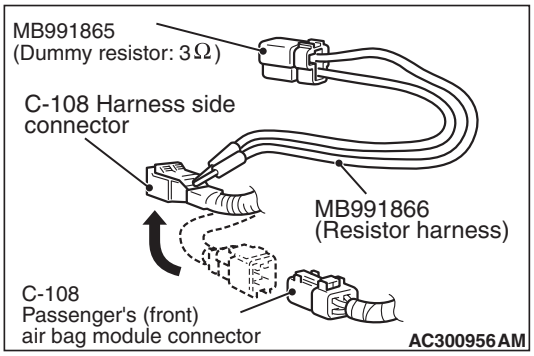
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect passenger's (front) air bag module connector C-108.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

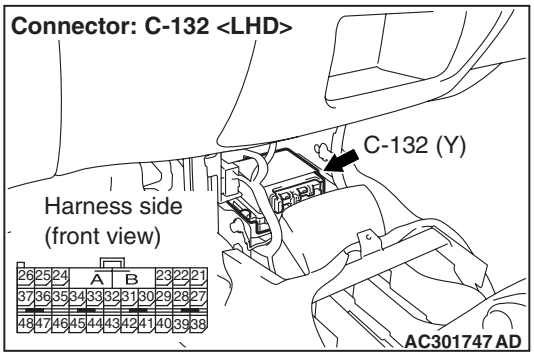
⚠ CAUTION

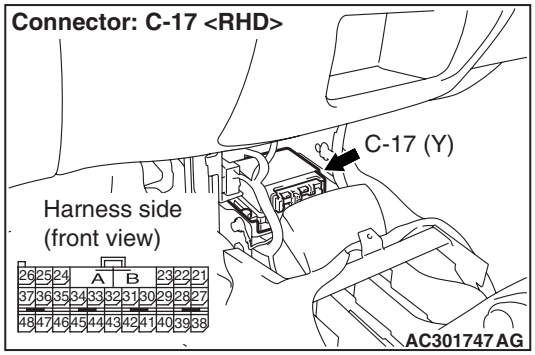
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Disconnect the passenger's (front) air bag module connector C-108, and insert special tool (MB991866) into the harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

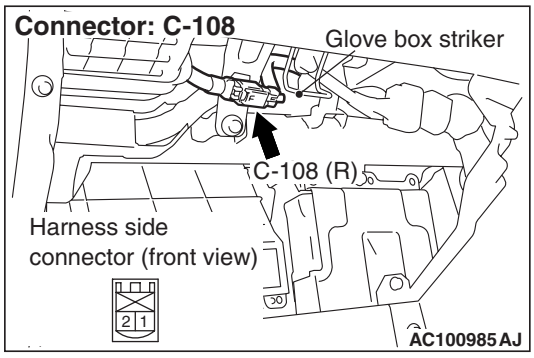
Q: Is diagnosis code 65 set?
YES : Go to Step 2.
NO : Replace the passenger's (front) air bag module (Refer to P.52B-199).

STEP 2. Resistance measurement at the SRS-ECU connector C-132 <LHD> or C-17 <RHD>.



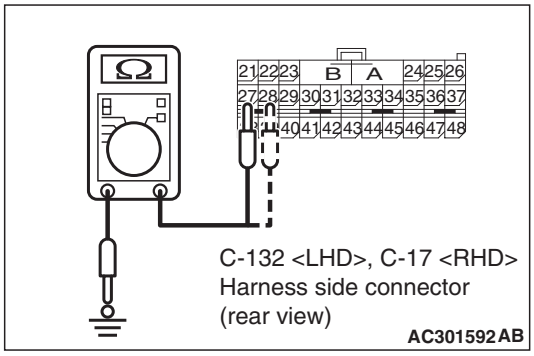


(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD>.



(2) Disconnect passenger's (front) air bag module connector C-108.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between C-132 <LHD> or C-17 <RHD> harness side connector terminals 27, 28 and body earth.

OK: Open circuit

Q: Is the check result normal?
YES : Go to Step 3.
NO : Repair the harness wires between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.27 and 28) and passenger's (front) air bag module connector C-108 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

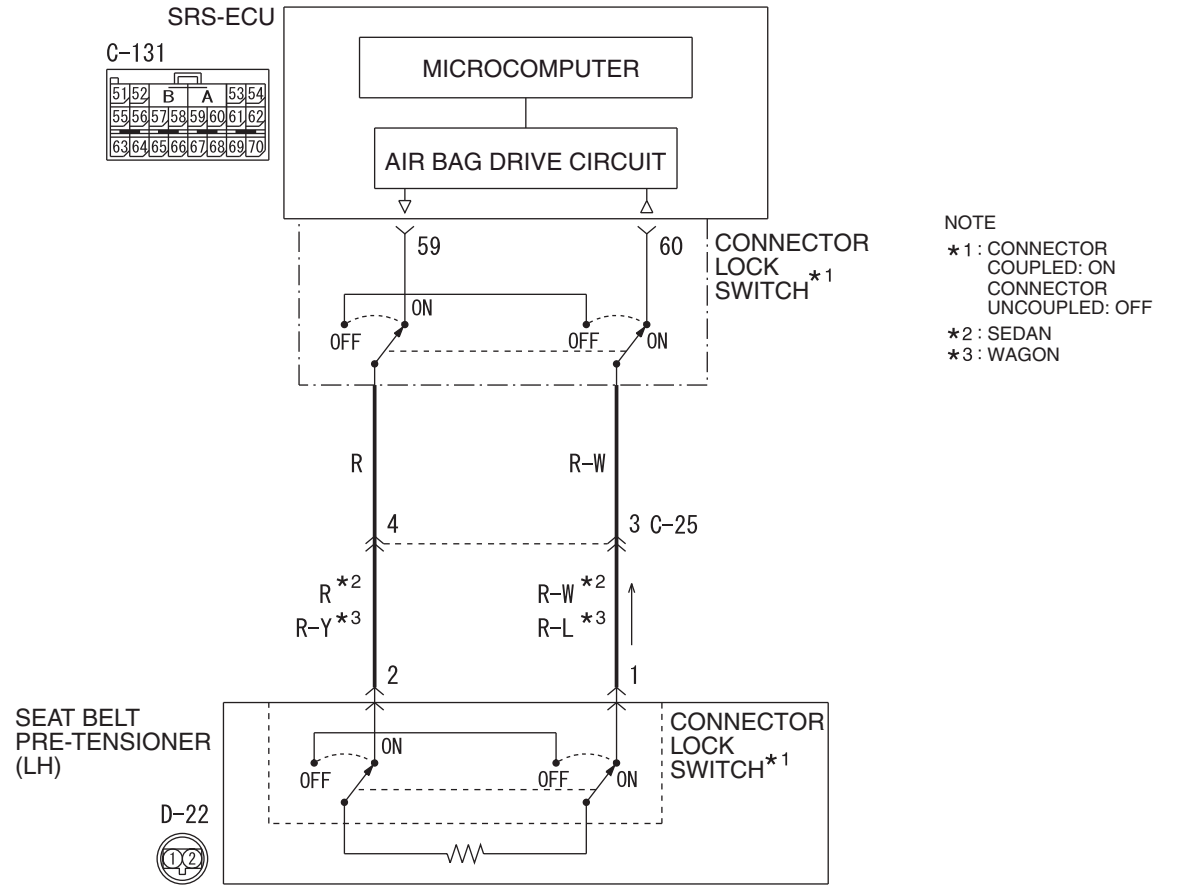
Q: Is diagnosis code 65 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.66: Driver's seat belt pre-tensioner (squib) system (short-circuited to the power supply)

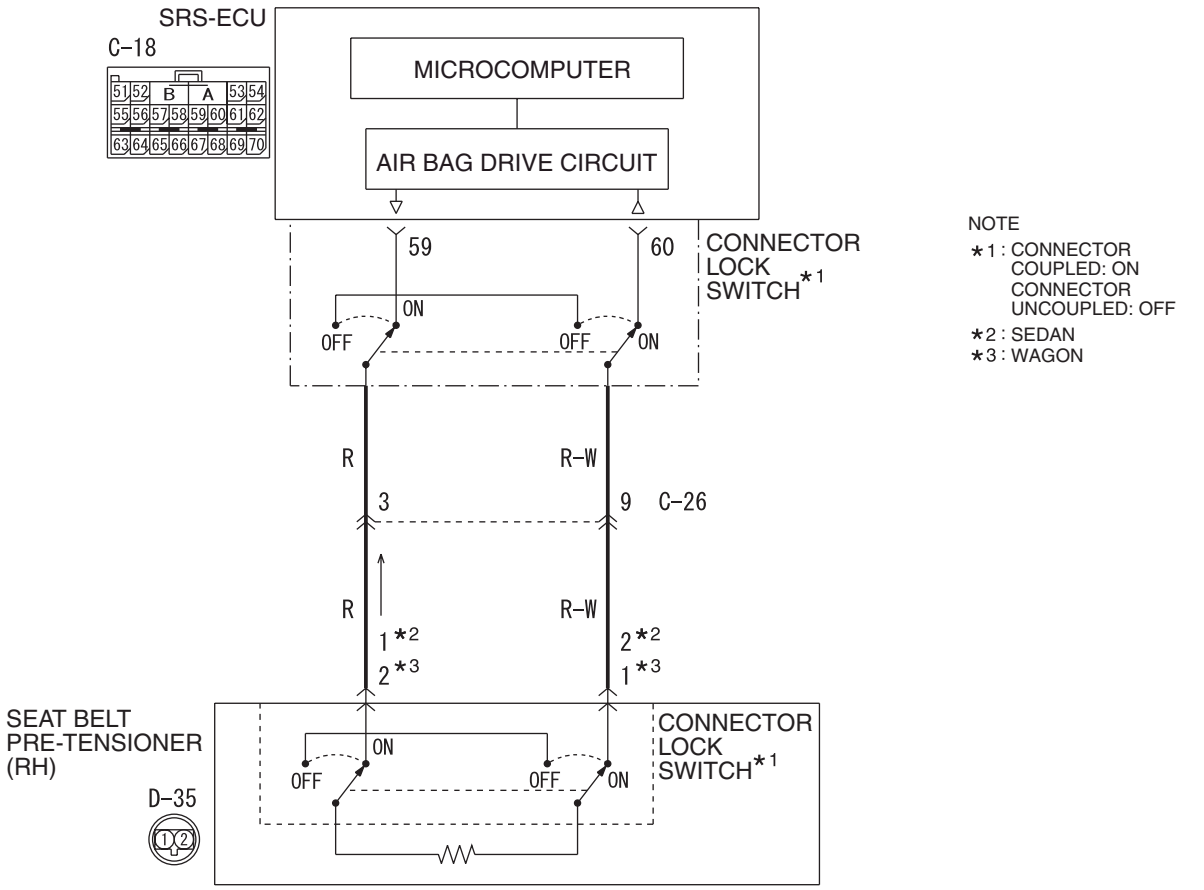
Driver's Seat Belt Pre-Tensioner (Squib) (LHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E09AA

Driver's Seat Belt Pre-Tensioner (Squib) (RHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E16AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the seat belt pre-tensioner will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the driver's seat belt pre-tensioner wire(s) are short-circuited to the power supply.

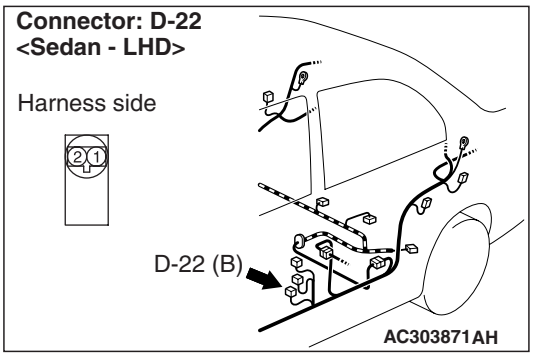
PROBABLE CAUSES

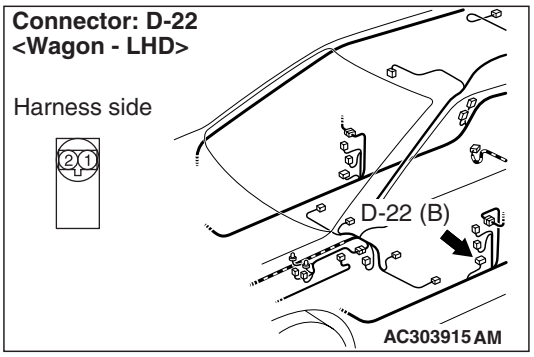
- Damaged wiring harnesses or connectors
- Short to the power supply in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

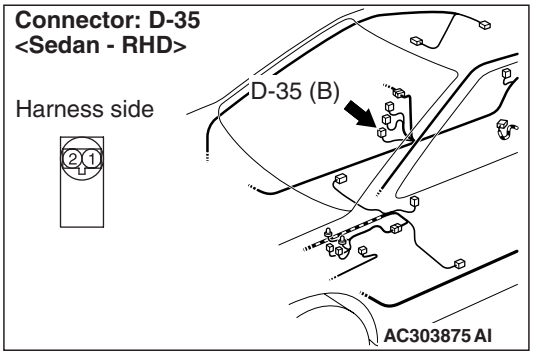
DIAGNOSIS PROCEDURE

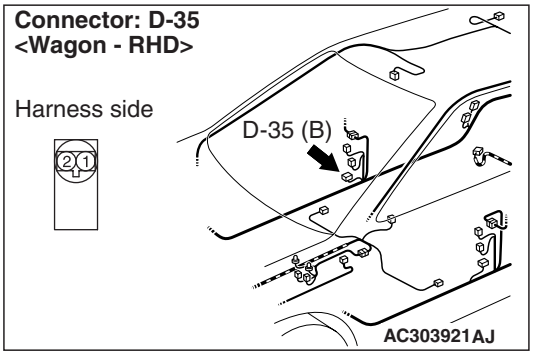
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

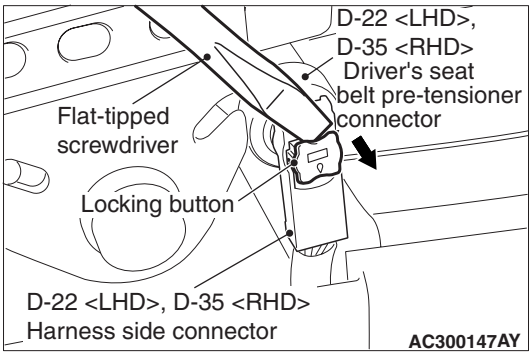
(1) Disconnect the negative battery terminal.



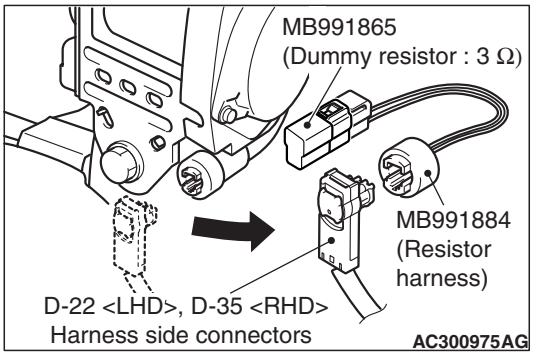








(2) Disconnect driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



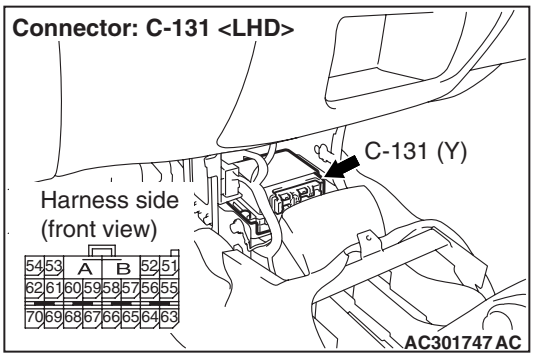
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-22 <LHD> or D-35 <RHD> harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and check the diagnosis code.

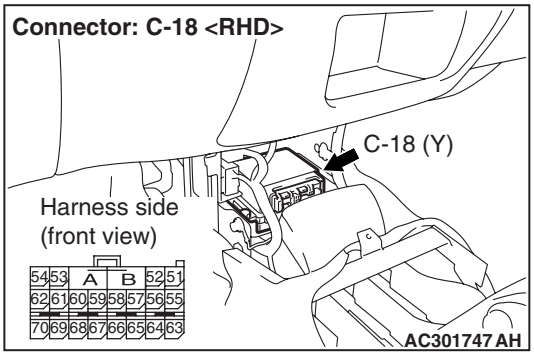
Q: Is diagnosis code 66 set?

YES : Go to Step 2.

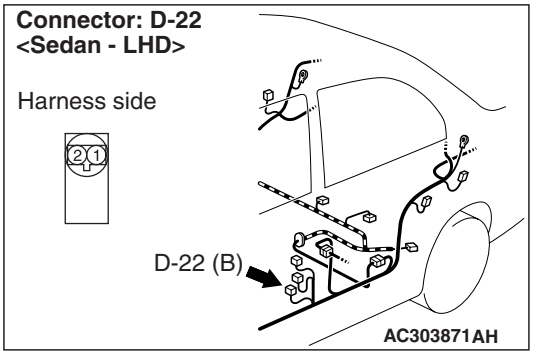
NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-215).

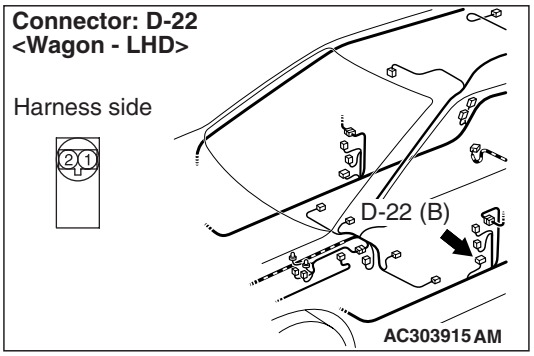
STEP 2. Voltage measurement at the SRS-ECU connector C-131 <LHD> or C-18 <RHD>.

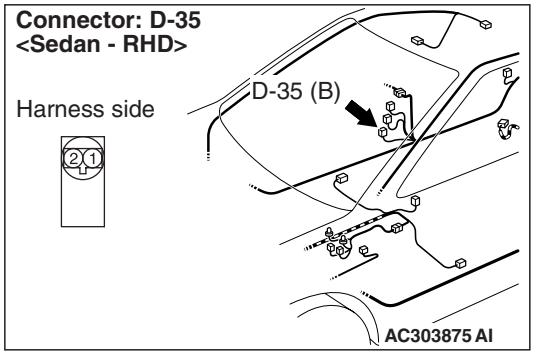


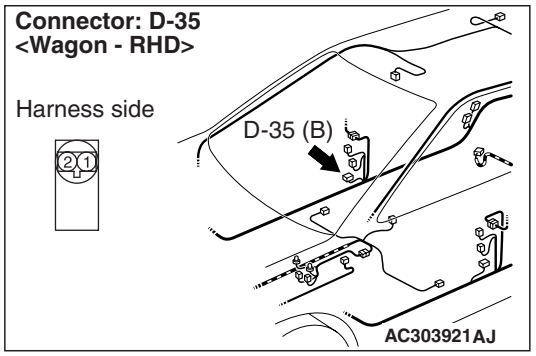


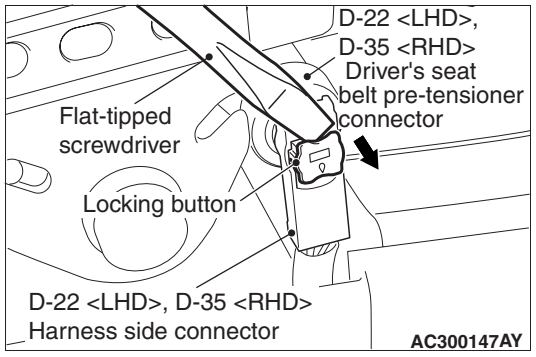
(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>.







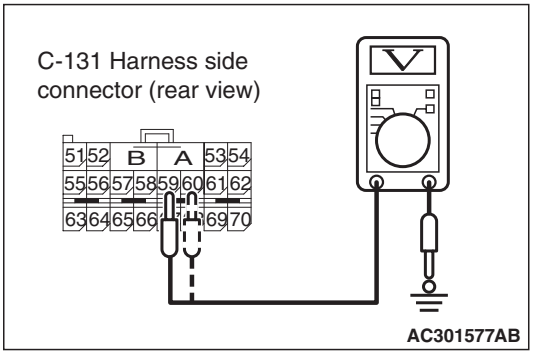


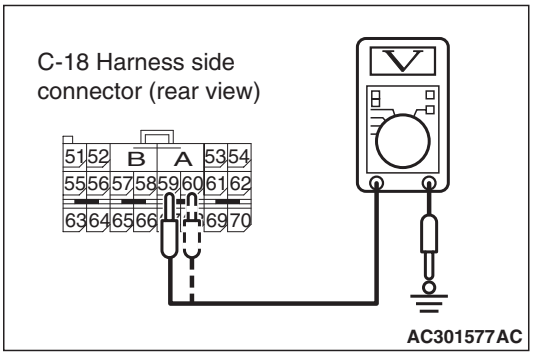


(2) Disconnect driver's seat belt pre-tensioner connector C-22 <LHD> or C-35 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION





Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Voltage measurement between C-131 <LHD> or C-18 <RHD> harness side connector terminals 59, 60 and body earth.

OK: 0 V

Q: Is the measured voltage within the specified range?

YES : Go to Step 3.

NO : Repair the harness wire between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.59 and 60) and driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD> (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

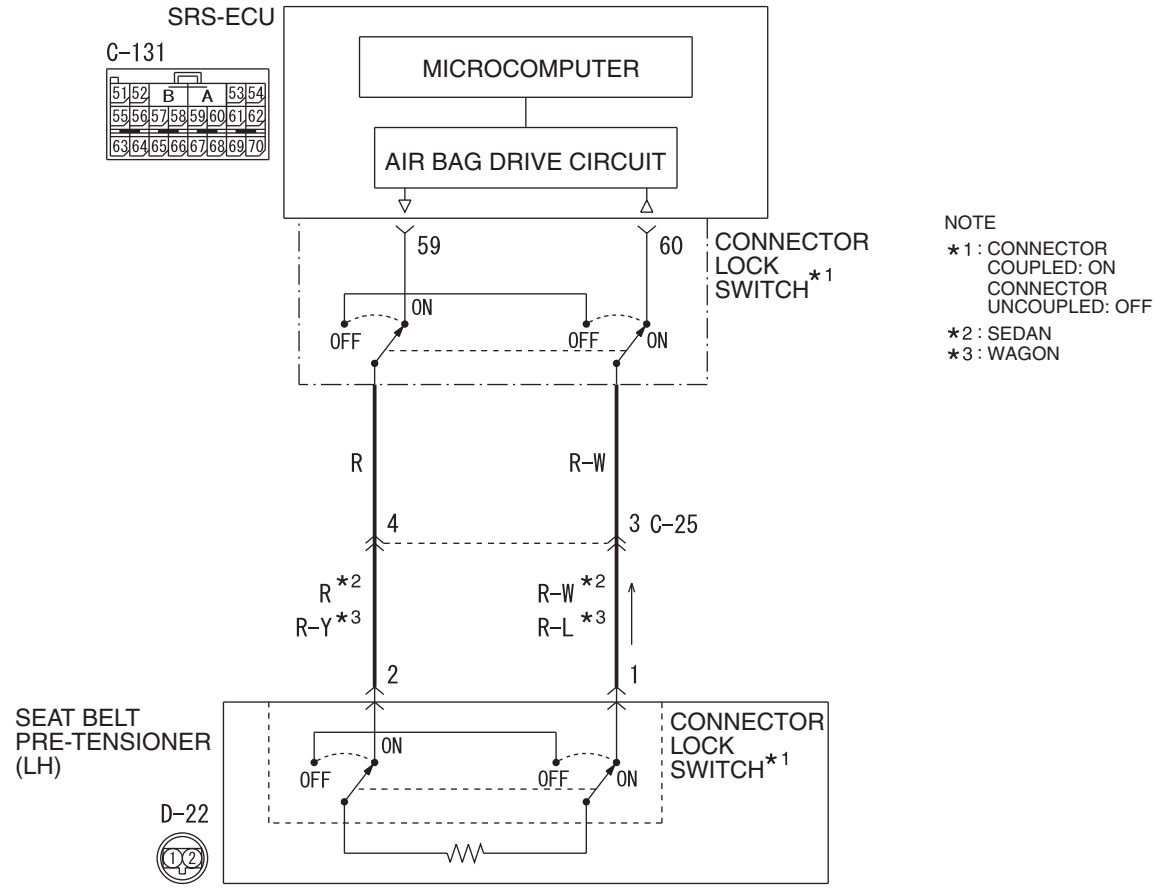
Q: Is diagnosis code 66 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.67: Driver's seat belt pre-tensioner (squib) system (short-circuited to the earth)

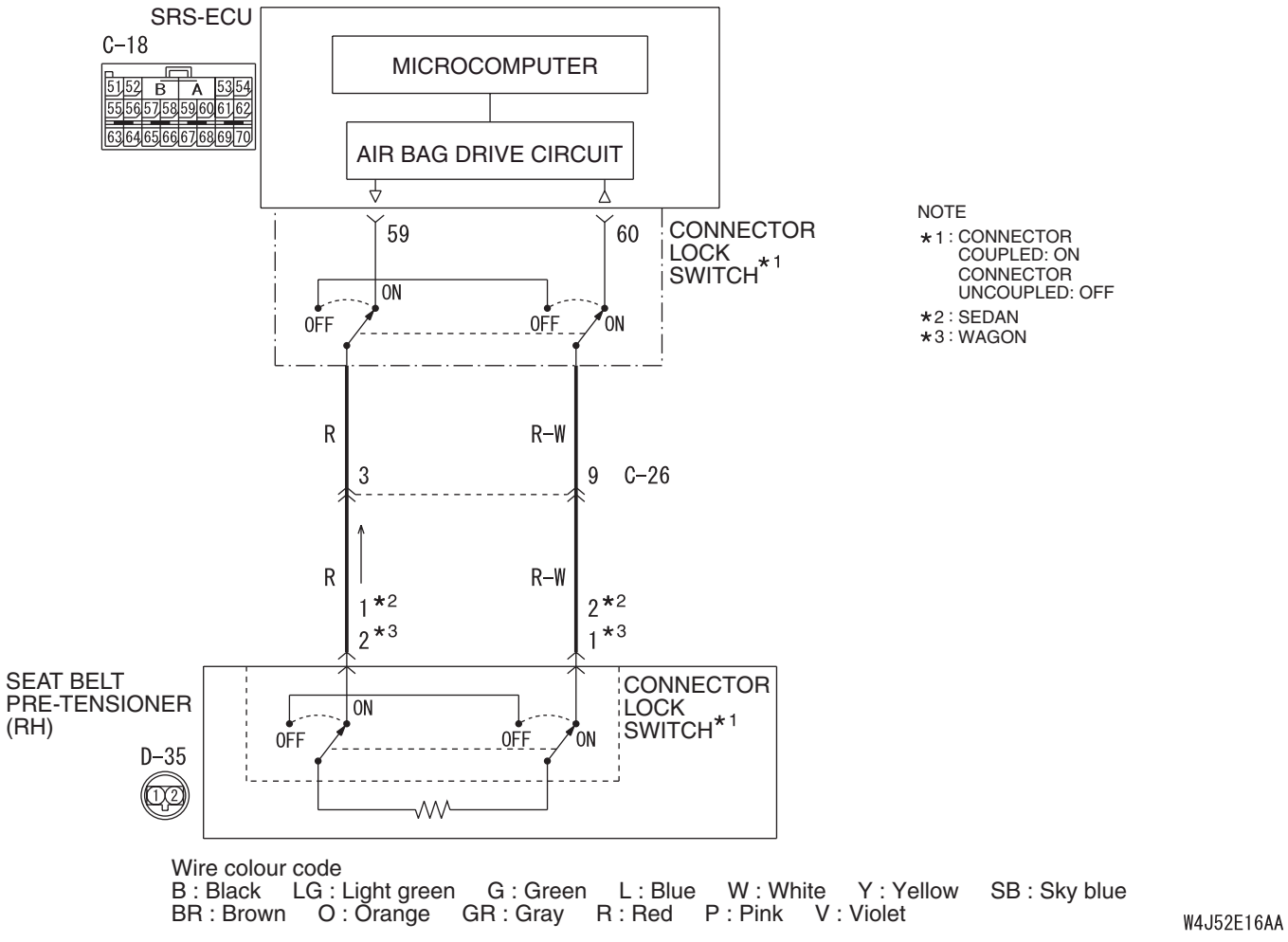
Driver's Seat Belt Pre-Tensioner (Squib) (LHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E09AA

Driver's Seat Belt Pre-Tensioner (Squib) (RHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E16AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the seat belt pre-tensioner will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the driver's seat belt pre-tensioner wire(s) are short-circuited to the earth.

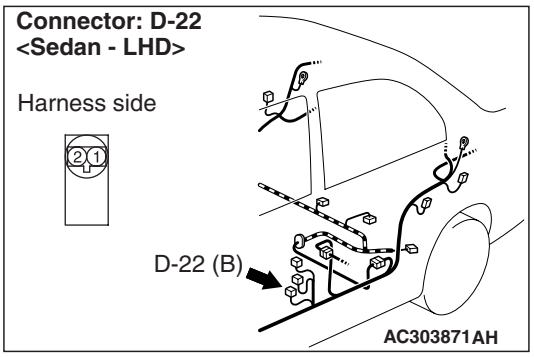
PROBABLE CAUSES

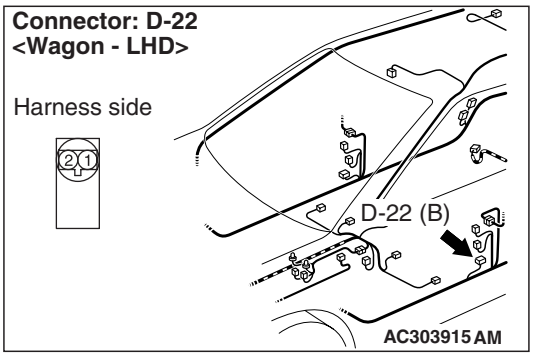
- Damaged wiring harnesses or connectors
- Short to the earth in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

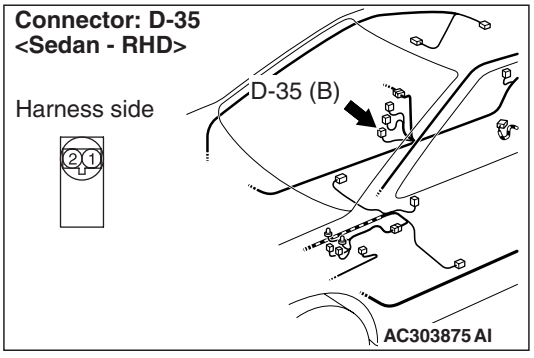
DIAGNOSIS PROCEDURE

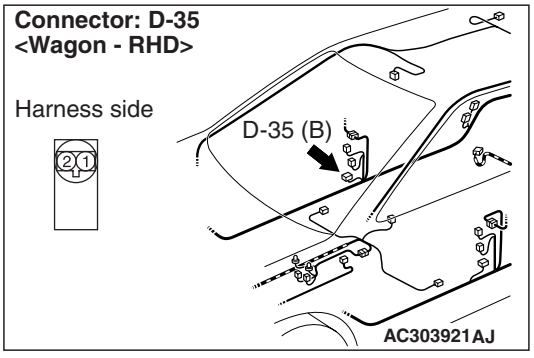
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

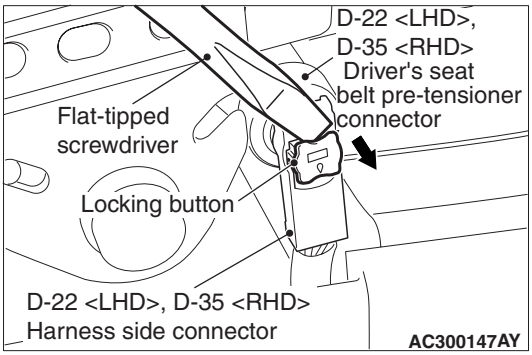
(1) Disconnect the negative battery terminal.



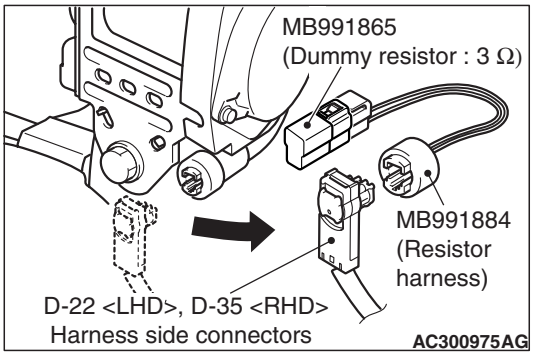








(2) Disconnect driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



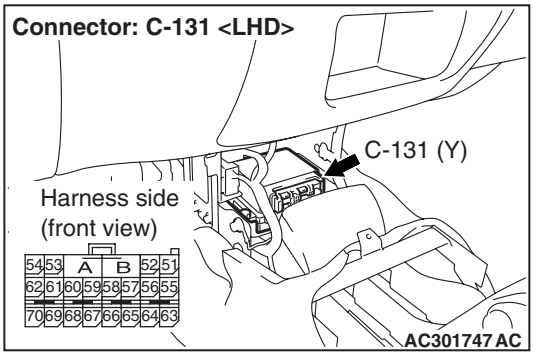
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-22 <LHD> or D-35 <RHD> harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and check the diagnosis code.

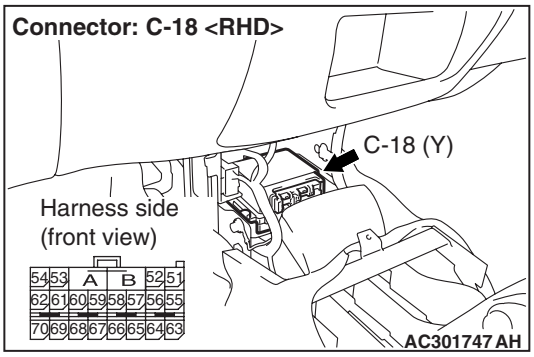
Q: Is diagnosis code 67 set?

YES : Go to Step 2.

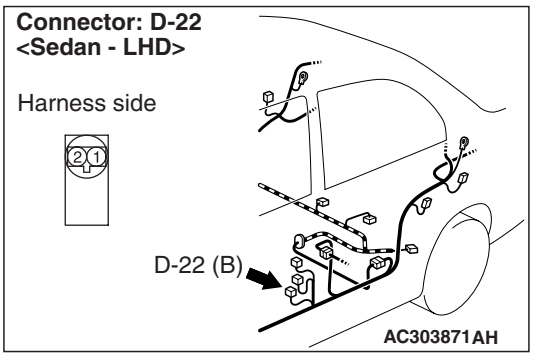
NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-215).

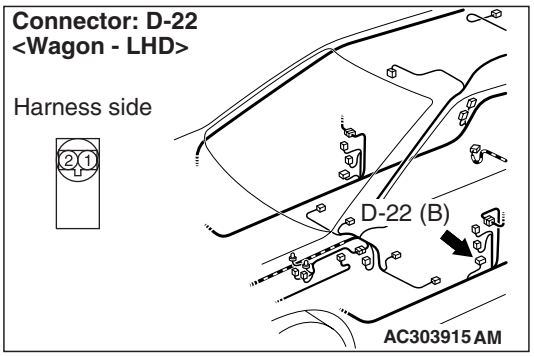
STEP 2. Resistance measurement at the SRS-ECU connector C-131 <LHD> or C-18 <RHD>.

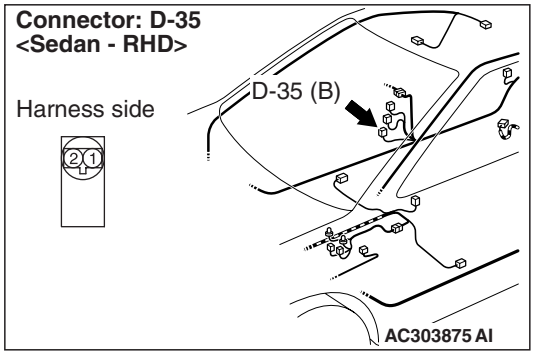


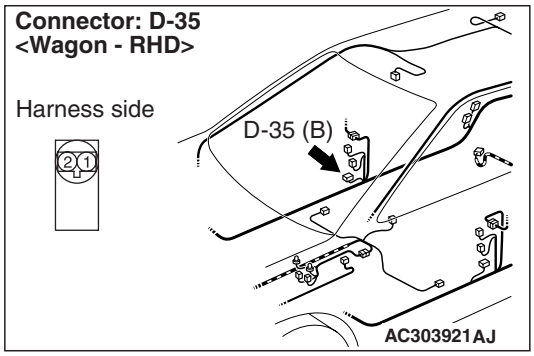


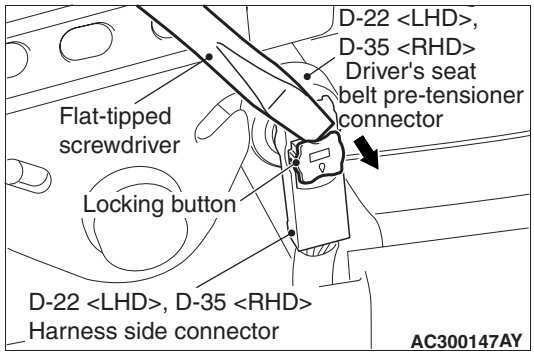
(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>.





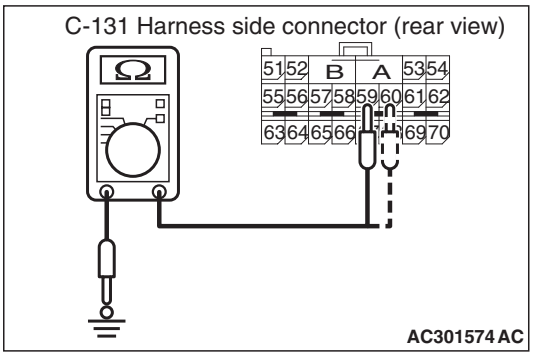


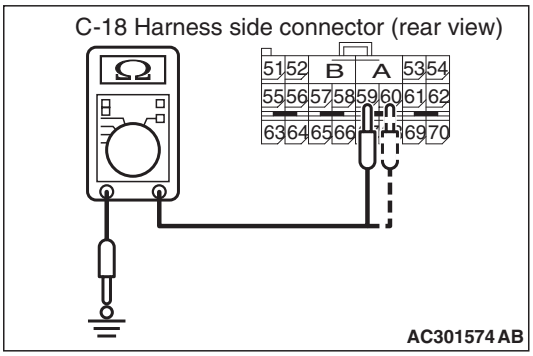




(2) Disconnect driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

⚠ CAUTION





Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between C-131 <LHD> or C-18 <RHD> harness side connector terminals 59, 60 and body earth.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.59 and 60) and driver's seat belt pre-tensioner connector D-22 <LHD> or D-35 <RHD> (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

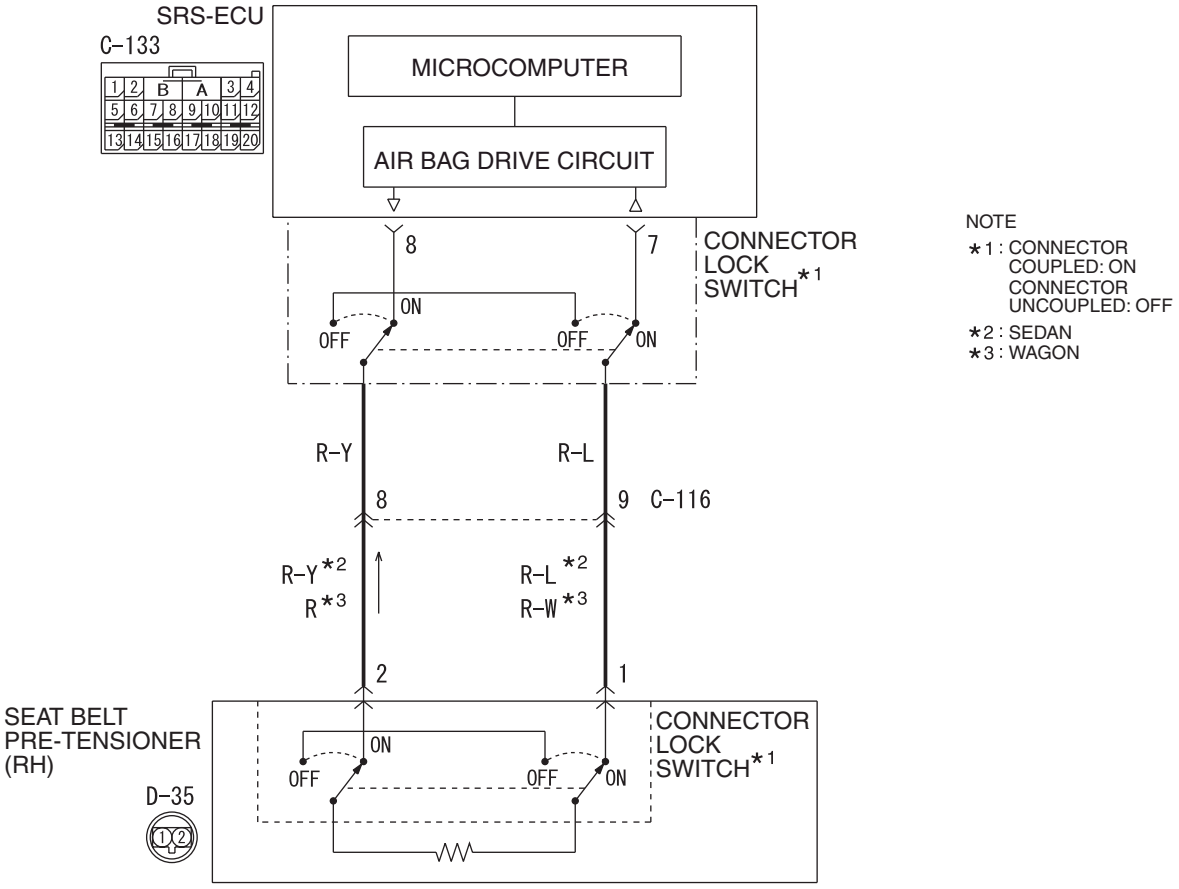
Q: Is diagnosis code 67 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.68: Passenger's (front) seat belt pre-tensioner (squib) system (short-circuited to the power supply)

Passenger's (Front) Seat Belt Pre-tensioner (Squib) (LHD)



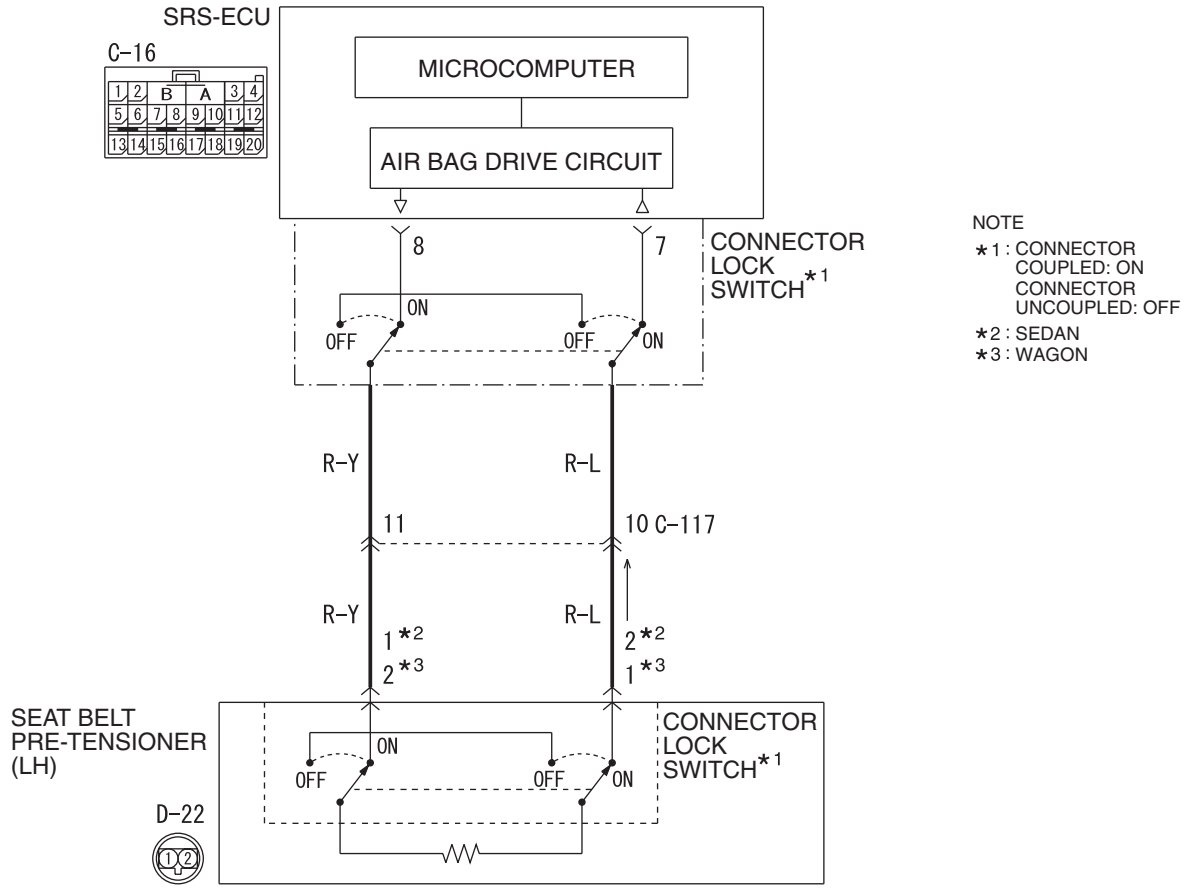
NOTE
*1 : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF
*2 : SEDAN
*3 : WAGON

Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E08AA

AC504732 AB

Passenger's (Front) Seat Belt Pre-tensioner (Squib) (RHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E15AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the seat belt pre-tensioner will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if passenger's (front) seat belt pre-tensioner wire(s) are short-circuited to the power supply.

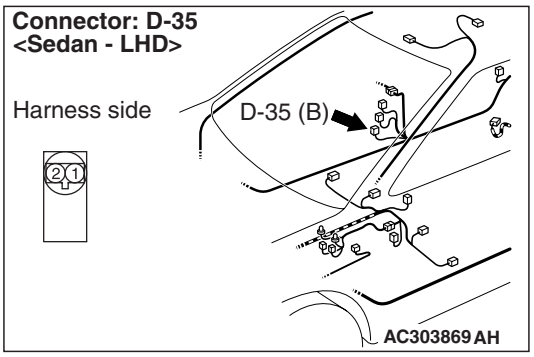
PROBABLE CAUSES

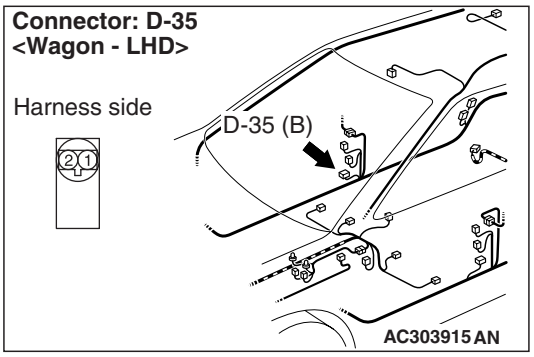
- Damaged wiring harnesses or connectors
- Short to the power supply in the passenger's (front) seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

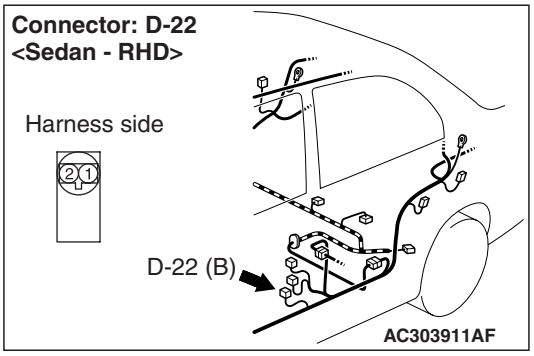
DIAGNOSIS PROCEDURE

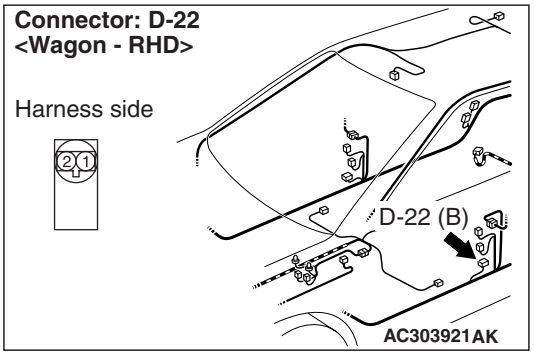
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

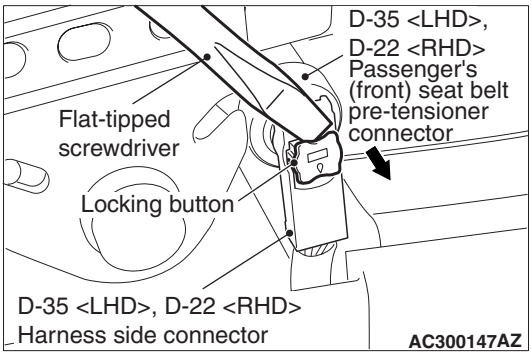
(1) Disconnect the negative battery terminal.



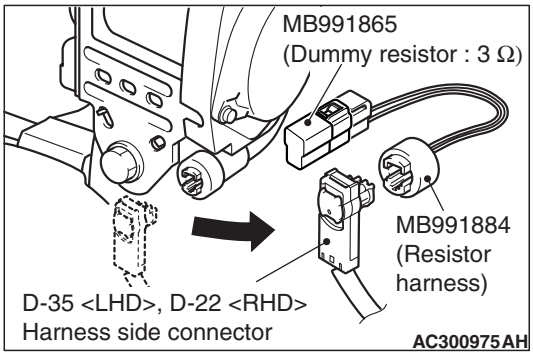








(2) Disconnect passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



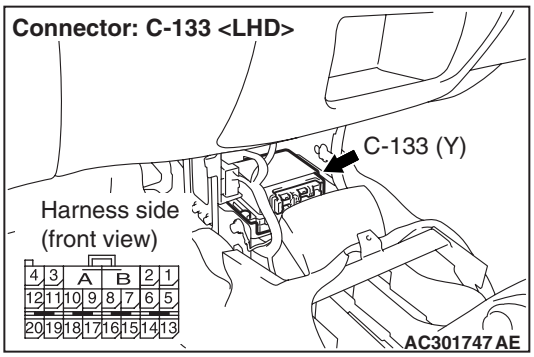
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-35 <LHD> or D-22 <RHD> harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

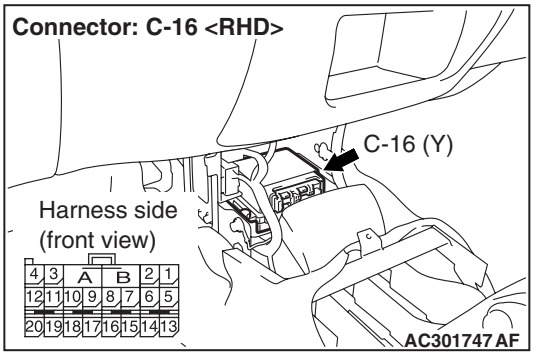
Q: Is diagnosis code 68 set?

YES : Go to Step 2.

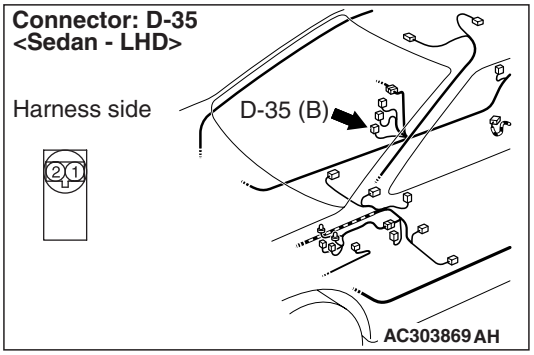
NO : Replace the passenger's (front) seat belt with pre-tensioner (Refer to P.52B-215).

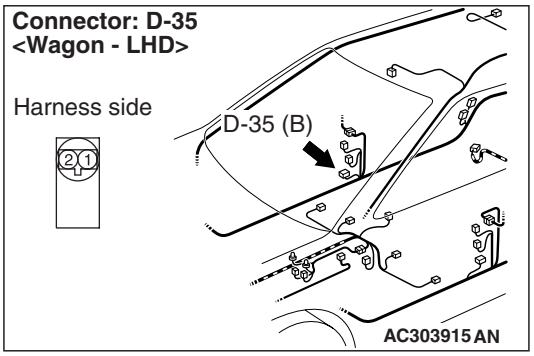
STEP 2. Voltage measurement at the SRS-ECU connector C-133 <LHD> or C-16 <RHD>.

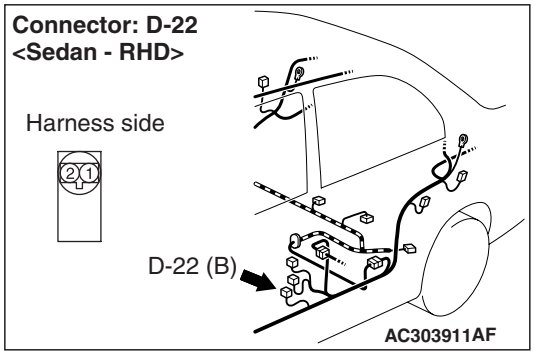


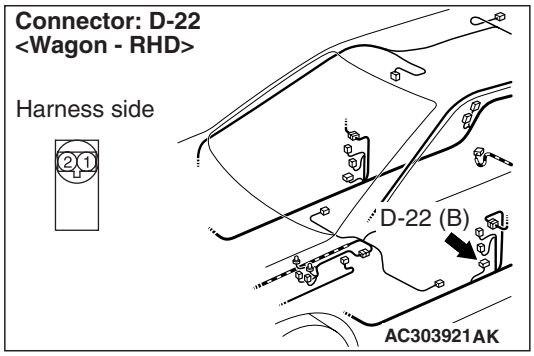


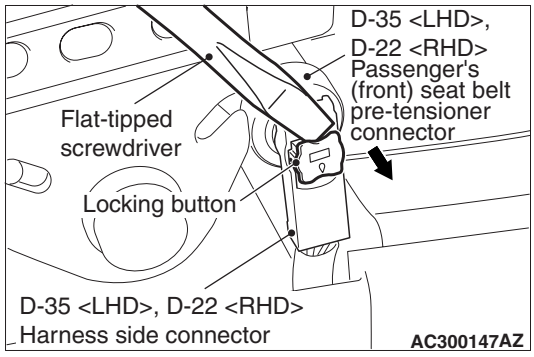
(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16 <RHD>.





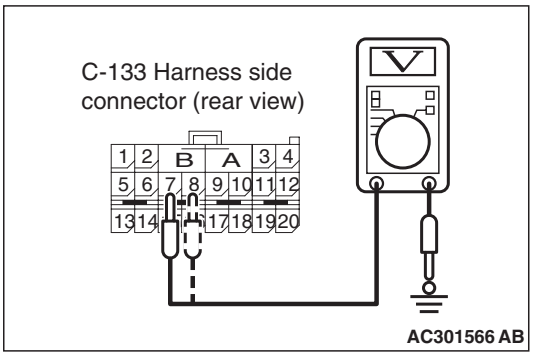


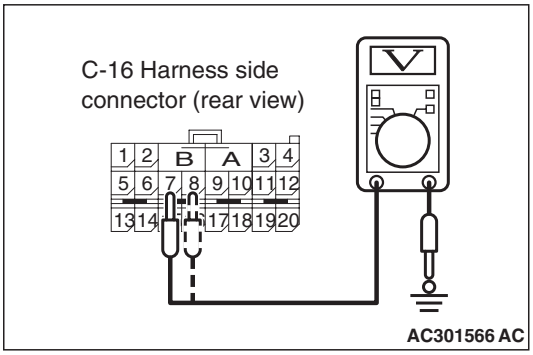




(2) Disconnect passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.
(3) Turn the ignition switch to the "ON" position,

⚠ CAUTION





Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Voltage measurement between C-133 <LHD> or C-16 <RHD> harness side connector terminals 7, 8 and body earth.

OK: 0 V

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.7 and 8) and passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD> (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

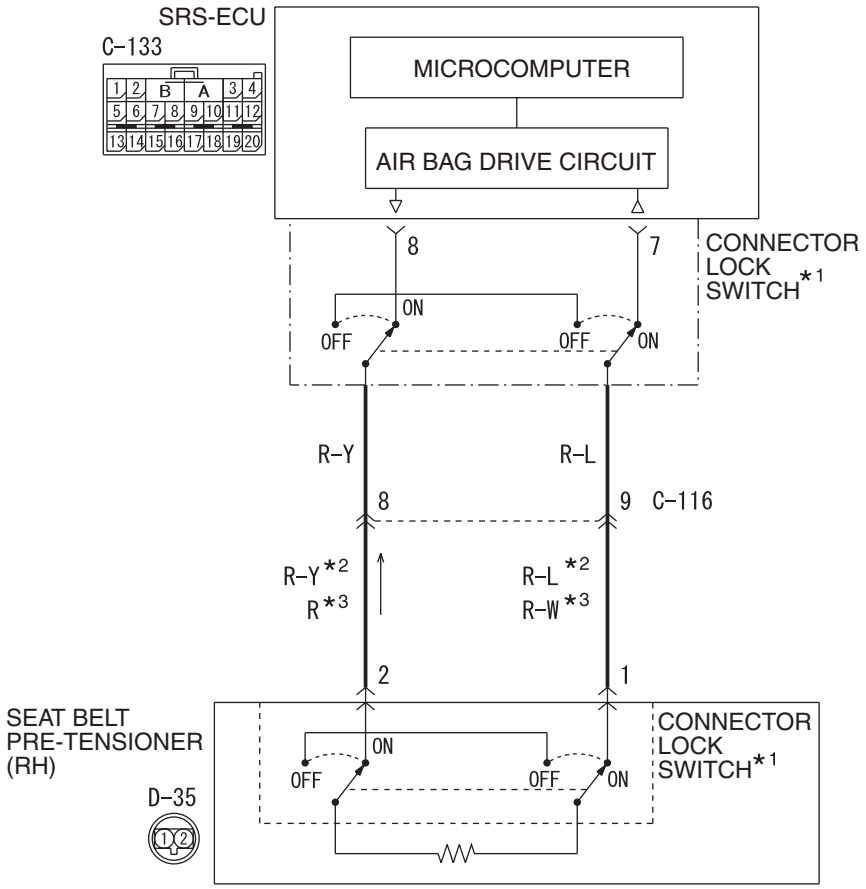
Q: Is diagnosis code 68 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.69: Passenger's (front) seat belt pre-tensioner (squib) system (short-circuited to the earth)

Passenger's (Front) Seat Belt Pre-tensioner (Squib) (LHD)



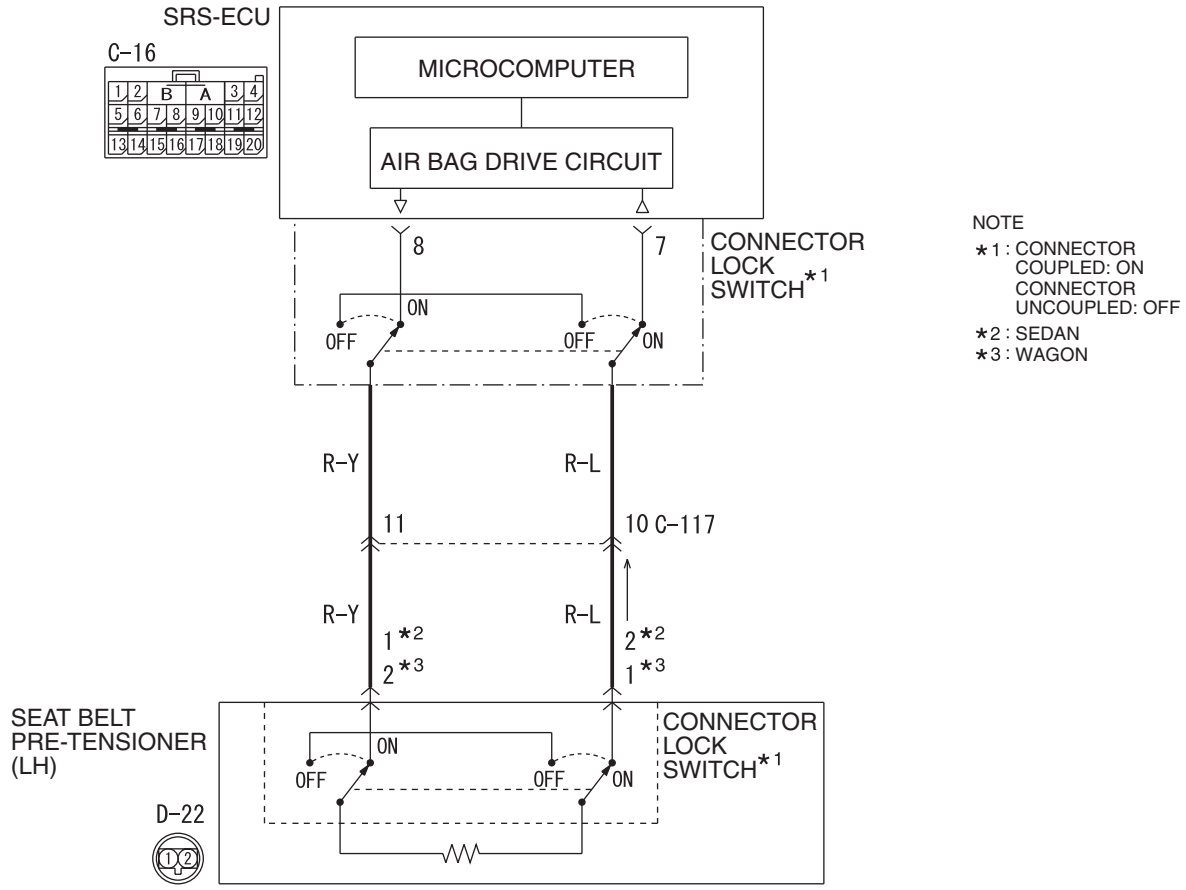
NOTE
*1 : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF
*2 : SEDAN
*3 : WAGON

Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E08AA

AC504732 AB

Passenger's (Front) Seat Belt Pre-tensioner (Squib) (RHD)



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E15AA

OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analogue G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the seat belt pre-tensioner will deploy.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if passenger's (front) seat belt pre-tensioner wire(s) are short-circuited to the earth.

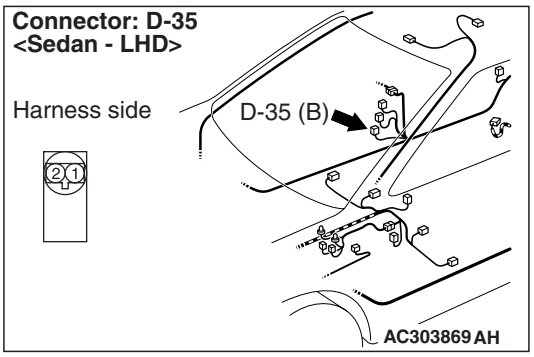
PROBABLE CAUSES

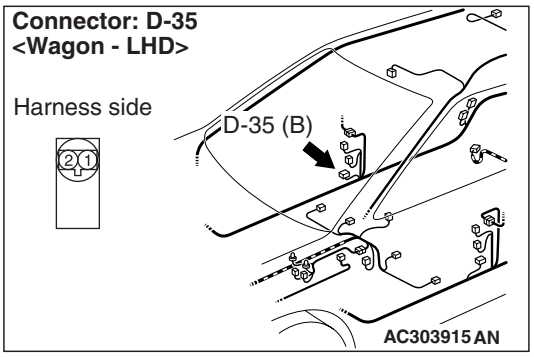
- Damaged wiring harnesses or connectors
- Short to the earth in the passenger's (front) seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

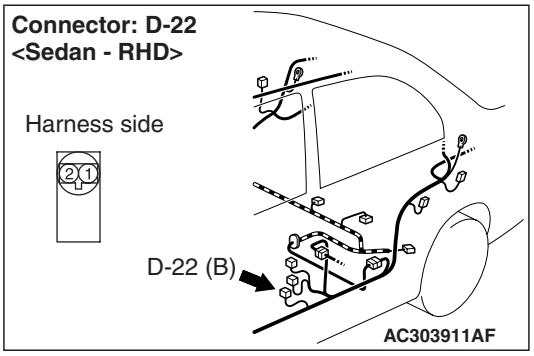
DIAGNOSIS PROCEDURE

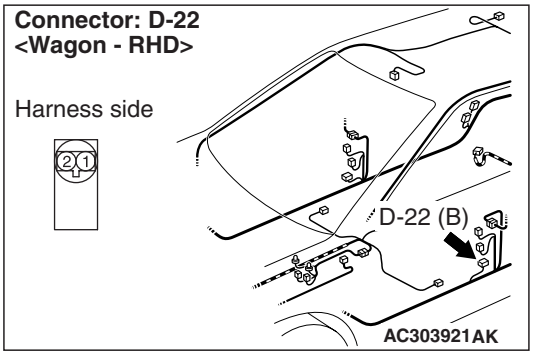
STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

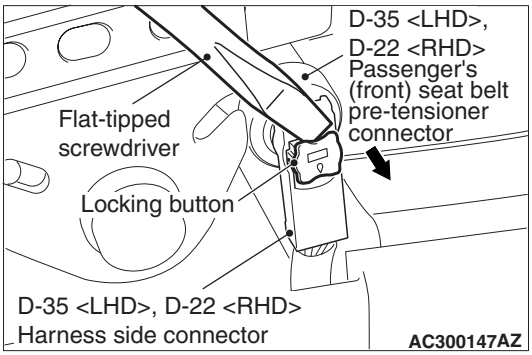
(1) Disconnect the negative battery terminal.



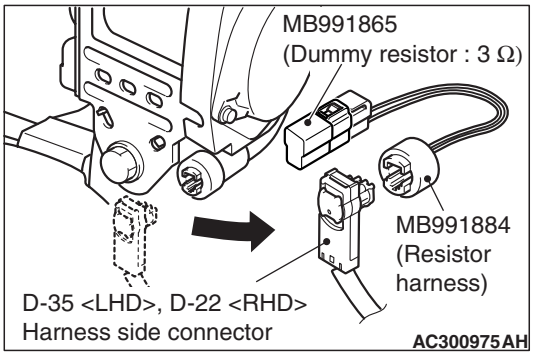








(2) Disconnect passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.



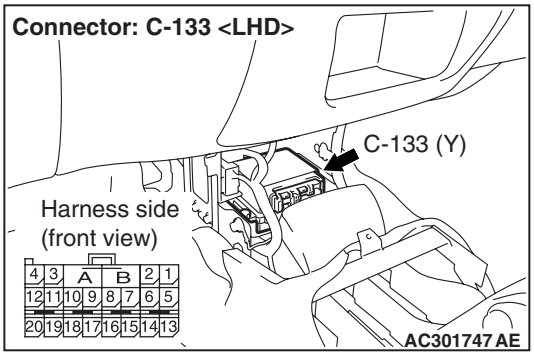
(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991884).
(4) Connect special tool (MB991884) to the D-35 <LHD> or D-22 <RHD> harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

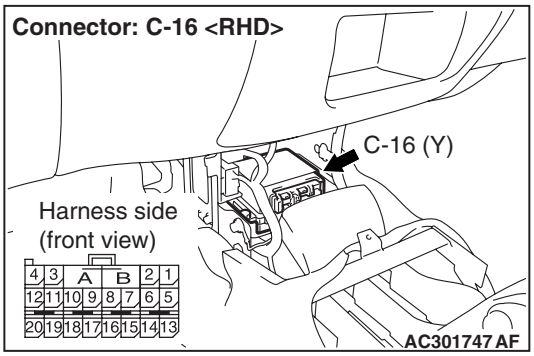
Q: Is diagnosis code 69 set?

YES : Go to Step 2.

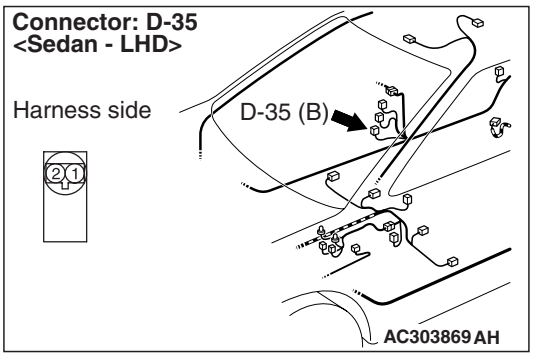
NO : Replace the passenger's (front) seat belt with pre-tensioner (Refer to P.52B-215).

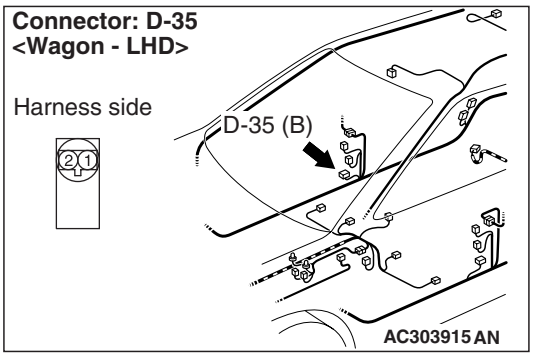
STEP 2. Resistance measurement at the SRS-ECU connector C-133 <LHD> or C-16 <RHD>.

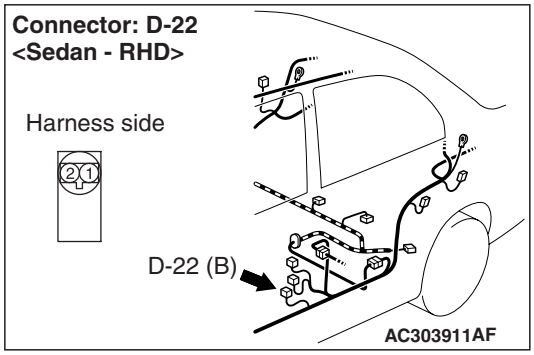


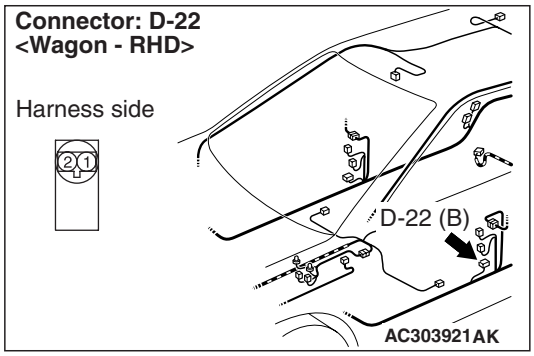


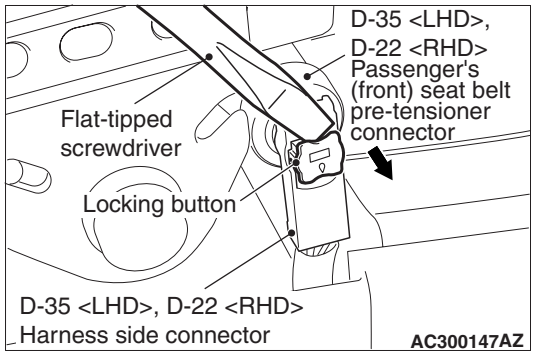
(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16 <RHD>.





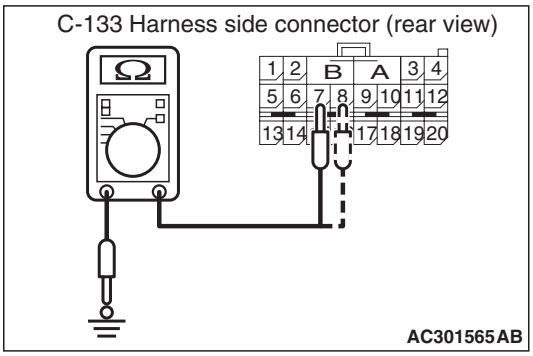


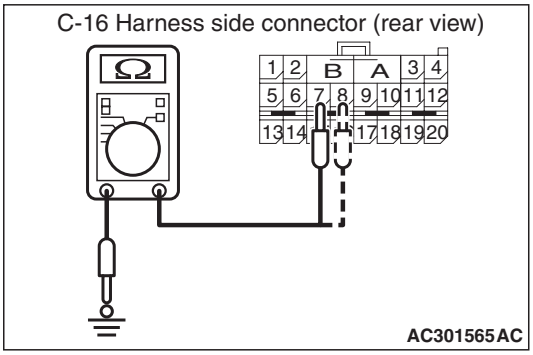




(2) Disconnect passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD>. Use a flat-tipped screwdriver to pull out the locking button at the harness side connector, and then disconnect the connector.

⚠ CAUTION





Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between C-133 <LHD> or C-16 <RHD> harness side connector terminals 7, 8 and body earth.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.7 and 8) and passenger's (front) seat belt pre-tensioner connector D-35 <LHD> or D-22 <RHD> (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

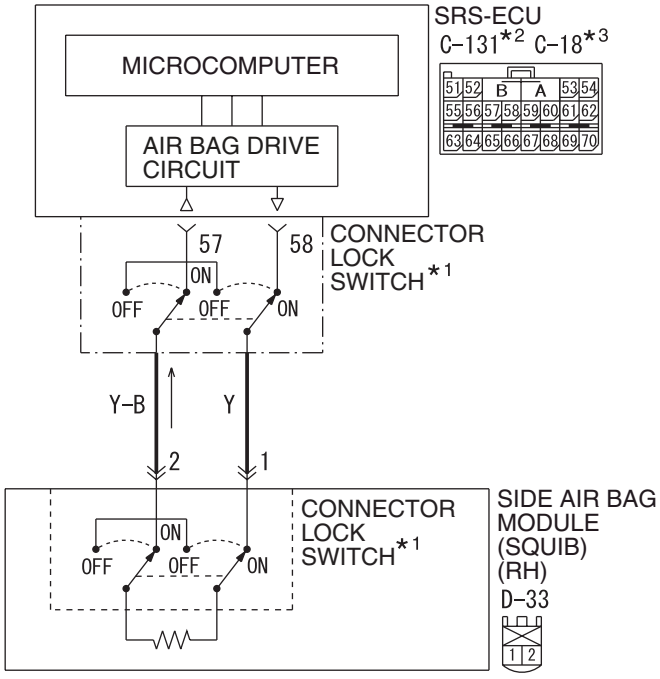
Q: Is diagnosis code 69 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.71: Side-airbag module (squib) (RH) system (short-circuited between terminals of the squib circuit)

Side Air Bag Module (RH) (Squib) Circuit



NOTE
*1 : CONNECTOR COUPLED: ON CONNECTOR UNCOUPLED: OFF
*2 : LH drive vehicles
*3 : RH drive vehicles

Wire colour code
B : Black LG : Light green
G : Green L : Blue
W : White Y : Yellow
SB : Sky blue BR : Brown
O : Orange GR : Gray
R : Red P : Pink V : Violet

W4J52E11AA

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if one side-airbag squib (RH) wire shorted to the other. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

PROBABLE CAUSES

- Improper engaged connector or defective short spring*
- Short between the side-airbag module (squib) (RH) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the earth wire in the squib circuit when the connectors are disconnected). Therefore, if connector C-131 <LHD>, C-18 <RHD> or D-33 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-II/III diagnosis code

⚠ CAUTION

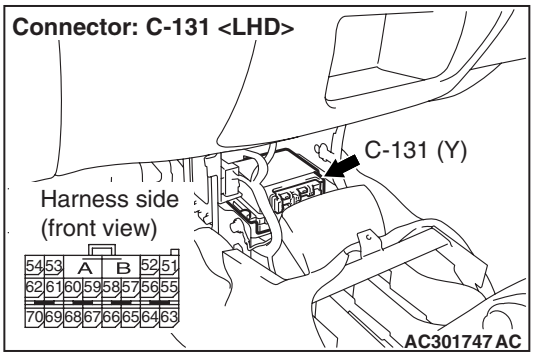
To prevent damage to M.U.T.-II/III, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

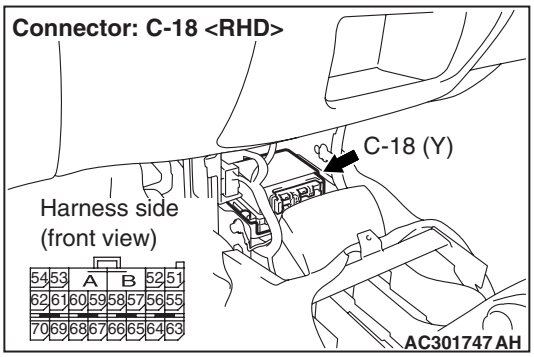
(1) Turn the ignition switch to the "ON" position.
(2) Check if the diagnosis code is set.
(3) Turn the ignition switch to the "LOOK" (OFF) position.

Q: Is diagnosis code 34 set?
YES : Go to Step 2.
NO : Go to Step 3.

STEP 2. Connector lock check: SRS-ECU connector C-131 <LHD> or C-18 <RHD> (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



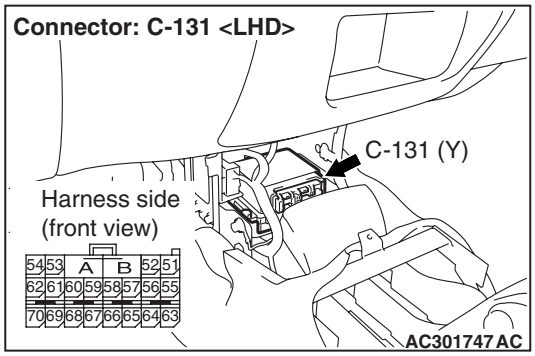


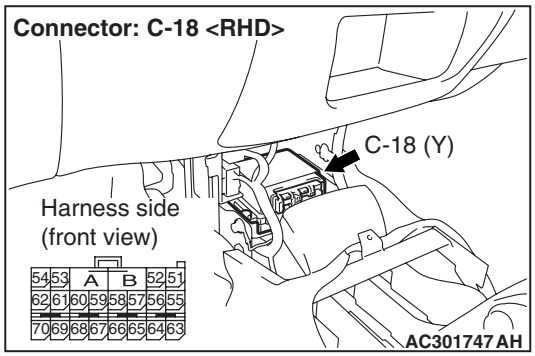
(2) Disconnect connectors C-131 <LHD> or C-18 <RHD> and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

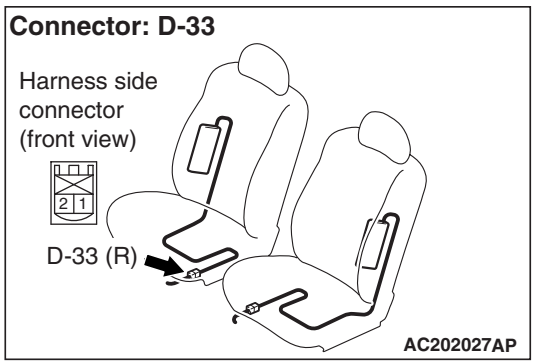
Q: Is diagnosis code 71 out put?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 71 set as connector C-131 <LHD> or C-18 <RHD> was engaged improperly.

STEP 3. Connector lock check: SRS-ECU connector C-131 <LHD> or C-18 <RHD> and side-airbag module (RH) connector D-33 (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.





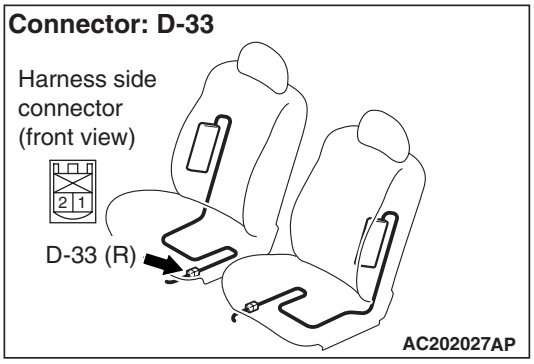


(2) Disconnect connectors C-131 <LHD> or C-18 <RHD> and D-33 and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

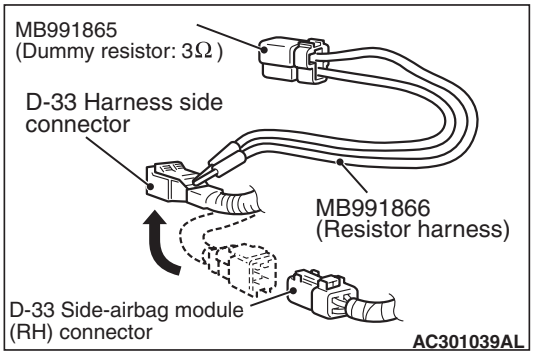
Q: Is diagnosis code 71 out put?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 71 set as connector C-131 <LHD> or C-18 <RHD> or D-33 was engaged improperly.

STEP 4. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the side-airbag module (RH) connector D-33.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Insert special tool (MB991866) into the D-33 harness side connector by backprobing.

(5) Connect the negative battery terminal.

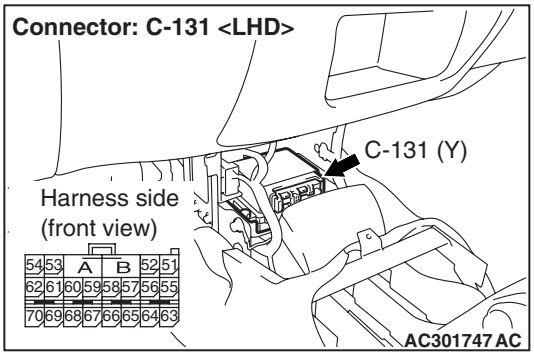
(6) Erase the diagnosis code memory, and check the diagnosis code.

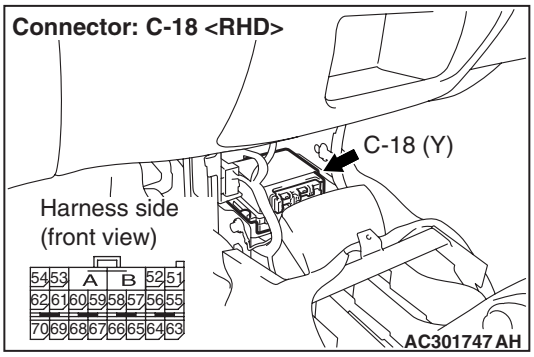
Q: Is diagnosis code 71 set?

YES : Go to Step 5.

NO : Replace the seatback assembly of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-27).

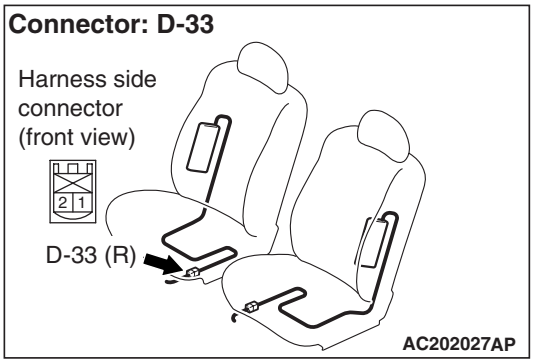
STEP 5. Resistance measurement at the SRS-ECU connector C-131 <LHD> or C-18 <RHD>.





(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>.

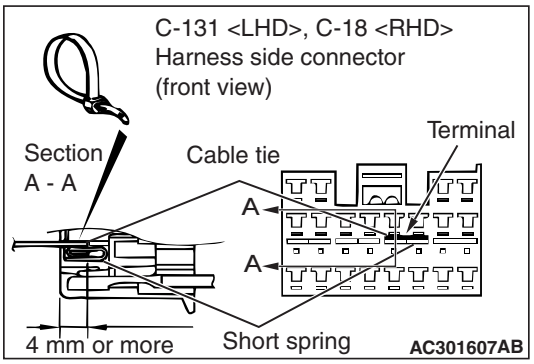
⚠ *DANGER*



To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-33 to short the squib circuit.

(2) Disconnect side-airbag module connector D-33.

⚠ CAUTION

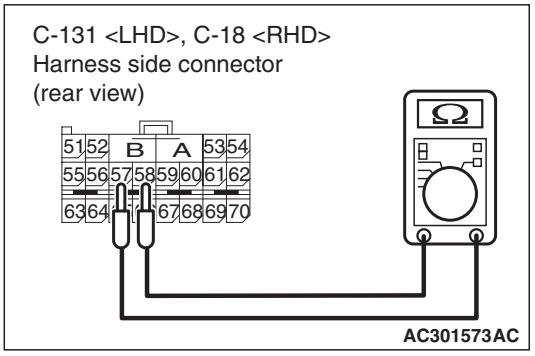


Insert an insulator such as a cable tie to a depth of 4mm or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm wide, 0.5 mm thick] between terminals 57, 58 and the short spring to release the short spring.

(4) Measure at the wiring harness side.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(5) Resistance measurement between C-131 <LHD> or C-18 <RHD> harness side connector terminals 57 and 58.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.57 and 58) and side-airbag module (RH) connector D-33 (terminal No.1 and 2).

STEP 6. Check whether the diagnosis code is reset.

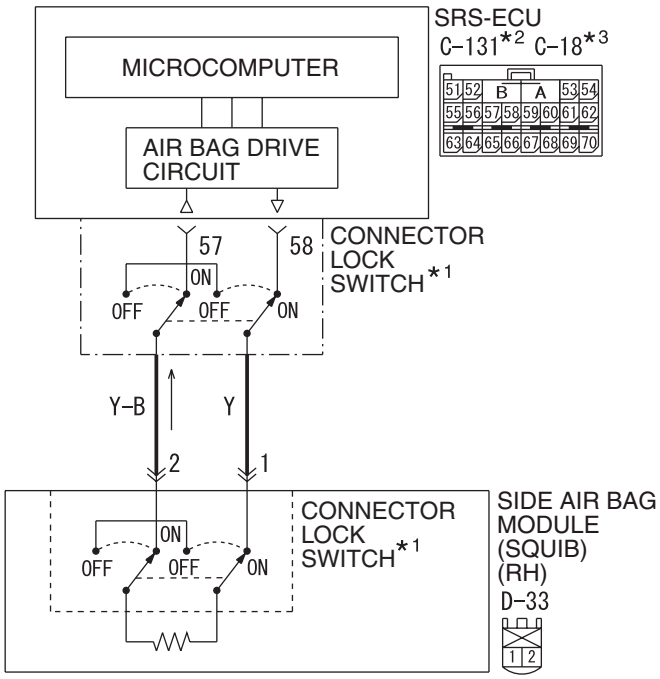
Q: Is diagnosis code 71 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.72: Side-airbag module (squib) (RH) system (open-circuited in the squib circuit)

Side Air Bag Module (RH) (Squib) Circuit



NOTE
*1 : CONNECTOR COUPLED: ON CONNECTOR UNCOUPLED: OFF
*2 : LH drive vehicles
*3 : RH drive vehicles

Wire colour code
B : Black LG : Light green
G : Green L : Blue
W : White Y : Yellow
SB : Sky blue BR : Brown
O : Orange GR : Gray
R : Red P : Pink V : Violet

W4J52E11AA

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the side-airbag squib (RH) wire(s) are open-circuited. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

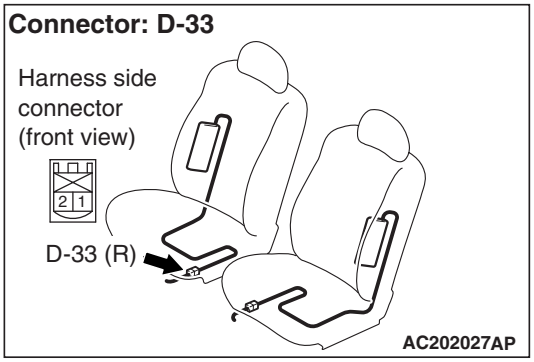
PROBABLE CAUSES

- Open circuit in the side-airbag module (squib) (RH) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

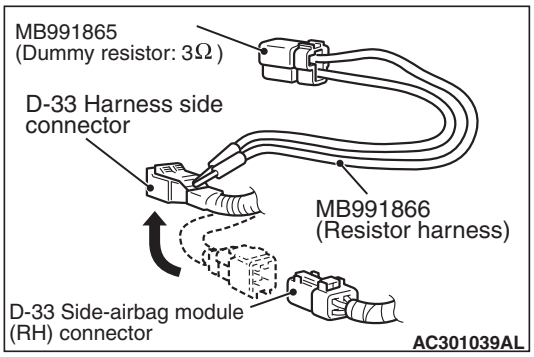
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the side-airbag module (RH) connector D-33.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

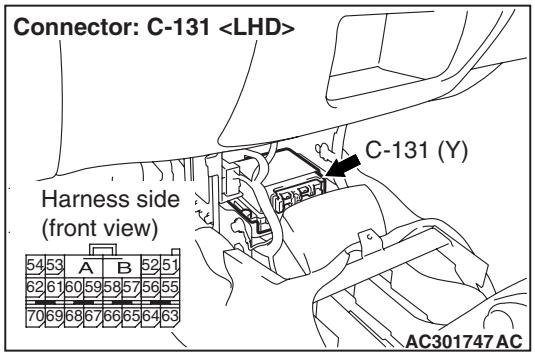
(4) Insert special tool (MB991866) into the D-33 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

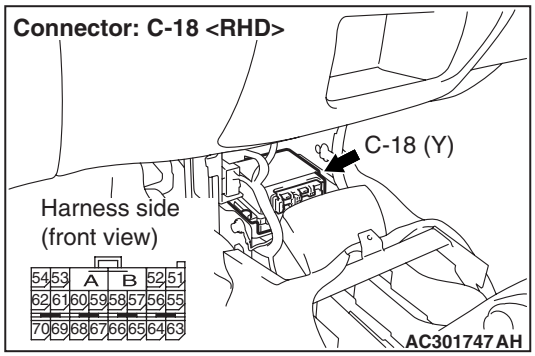
Q: Is diagnosis code 72 set?

YES : Go to Step 2.

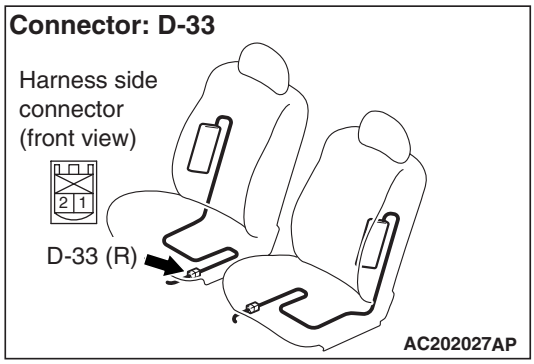
NO : Replace the seatback assembly of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-27).

STEP 2. Resistance measurement between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.57 and 58) and the side-airbag module (RH) connector D-33 (terminal No.1 and 2).



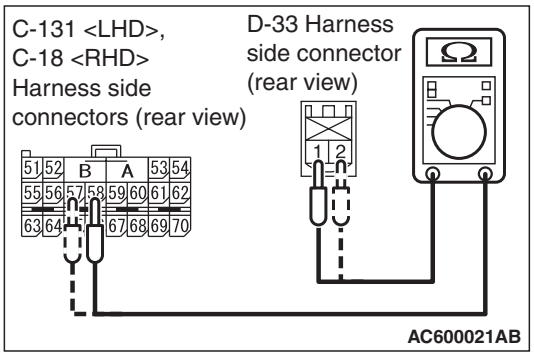


(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>.



(2) Disconnect side-airbag module (RH) connector D-33.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between the following terminals.
- SRS-ECU connector C-131 <LHD> or C-18 <RHD> terminal No.57 and the side-airbag module (RH) connector D-33 terminal No.2
- SRS-ECU connector C-131 <LHD> or C-18 <RHD> terminal No.58 and the side-airbag module (RH) connector D-33 terminal No.1

OK: Continuity (Less than 2 Ω)

Q: Are the check results normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.57 and 58) and side-airbag module (RH) connector D-33 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

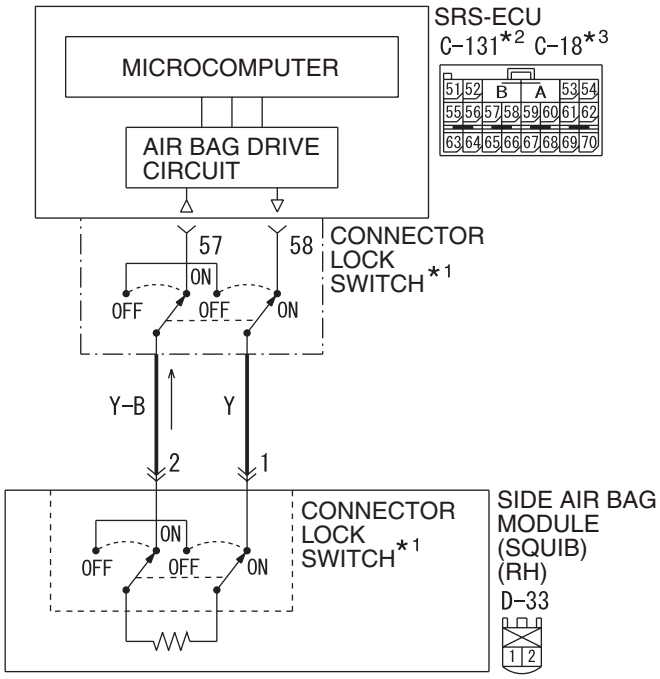
Q: Is diagnosis code 72 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.75: Side-airbag module (squib) (RH) system (short-circuited to the power supply)

Side Air Bag Module (RH) (Squib) Circuit



NOTE
*1 : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF
*2 : LH drive vehicles
*3 : RH drive vehicles

Wire colour code
B : Black LG : Light green
G : Green L : Blue
W : White Y : Yellow
SB : Sky blue BR : Brown
O : Orange GR : Gray
R : Red P : Pink V : Violet

W4J52E11AA

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the side-airbag squib (RH) wire(s) are short-circuited to the power supply.

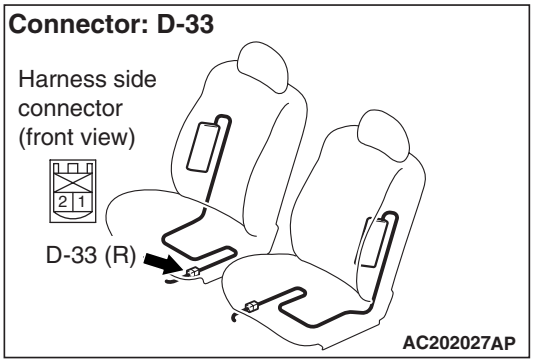
PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Short to the power supply in the side-airbag module (squib) (RH) harness
- Malfunction of the SRS-ECU

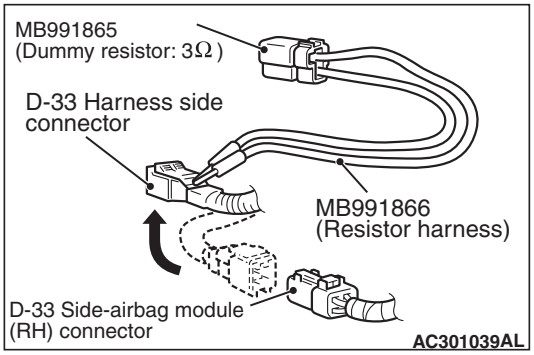
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the side-airbag module (RH) connector D-33.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

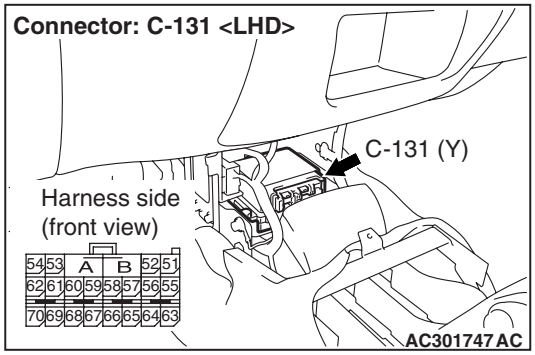
(4) Insert special tool (MB991866) into the D-33 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

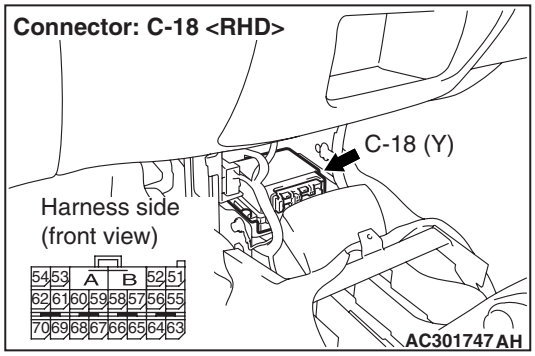
Q: Is diagnosis code 75 set?

YES : Go to Step 2.

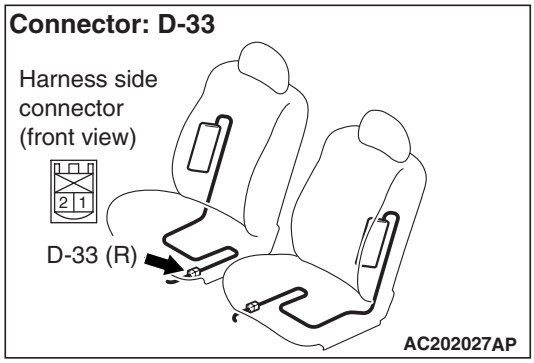
NO : Replace the seatback assembly of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-27).

STEP 2. Voltage measurement at the SRS-ECU connector C-131 <LHD> or C-18 <RHD>.





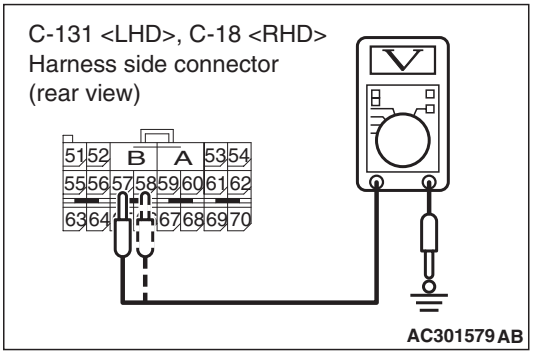
(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>.



(2) Disconnect side-airbag module (RH) connector D-33.

(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Voltage measurement between C-131 <LHD> or C-18 <RHD> harness side connector terminals 57, 58 and body earth.

OK: 0 V

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.57 and 58) and side-airbag module (RH) connector D-33 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

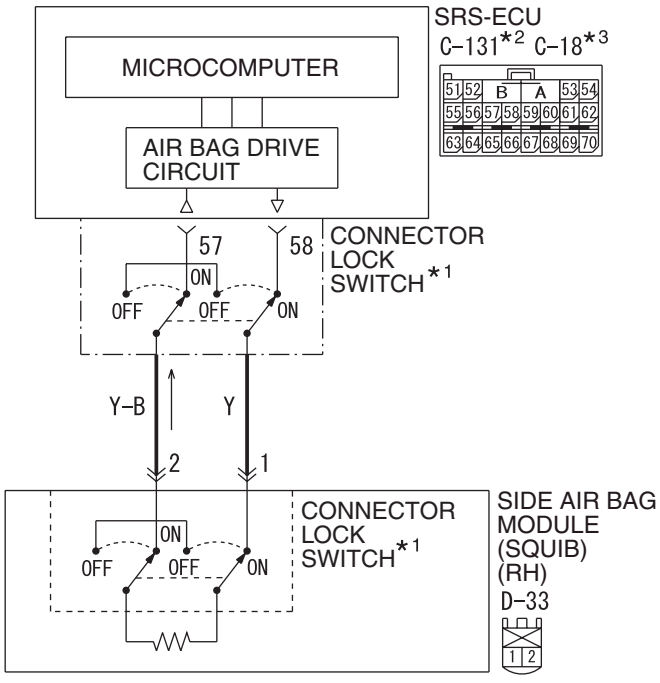
Q: Is diagnosis code 75 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.76: Side-airbag module (squib) (RH) system (short-circuited to the earth)

Side Air Bag Module (RH) (Squib) Circuit



NOTE
*1 : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF
*2 : LH drive vehicles
*3 : RH drive vehicles

Wire colour code
B : Black LG : Light green
G : Green L : Blue
W : White Y : Yellow
SB : Sky blue BR : Brown
O : Orange GR : Gray
R : Red P : Pink V : Violet

W4J52E11AA

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the side-airbag squib (RH) wire(s) are short-circuited to the earth.

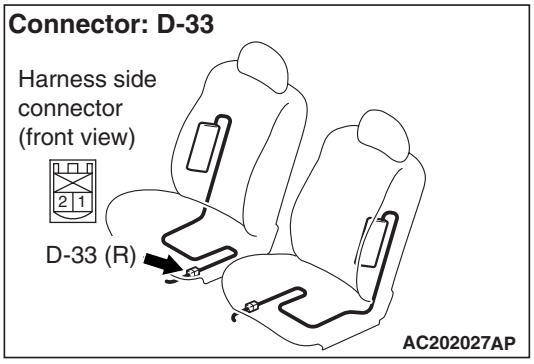
PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Short to earth in the side-airbag module (squib) (RH) harness
- Malfunction of the SRS-ECU

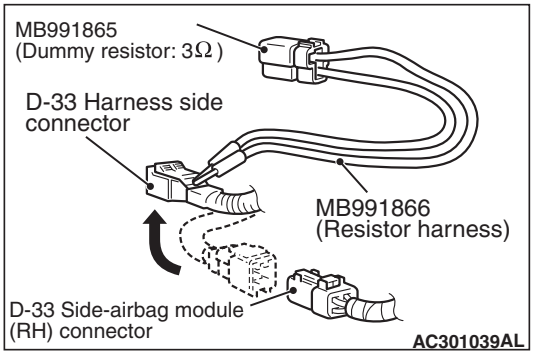
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the side-airbag module (RH) connector D-33.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

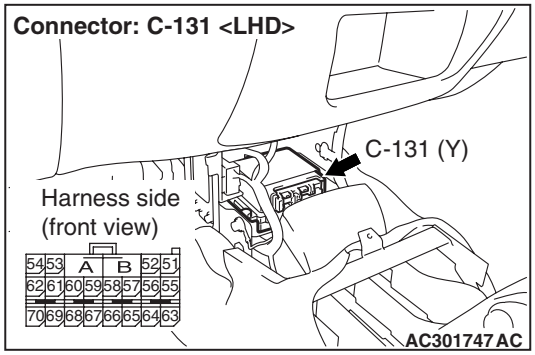
(4) Insert special tool (MB991866) into the D-33 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

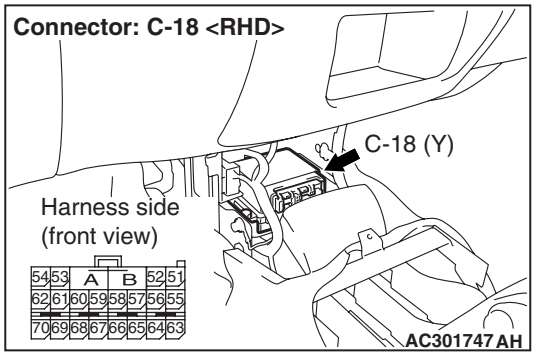
Q: Is diagnosis code 76 set?

YES : Go to Step 2.

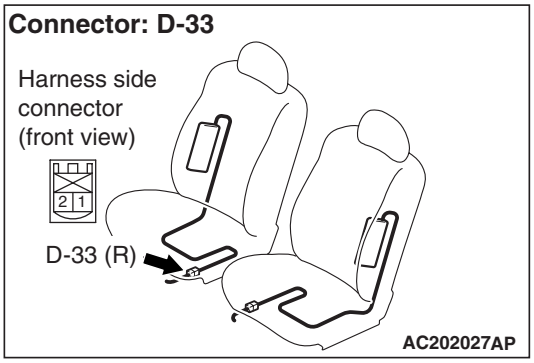
NO : Replace the seatback assembly of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-27).

STEP 2. Resistance measurement at the SRS-ECU connector C-131 <LHD> or C-18 <RHD>.



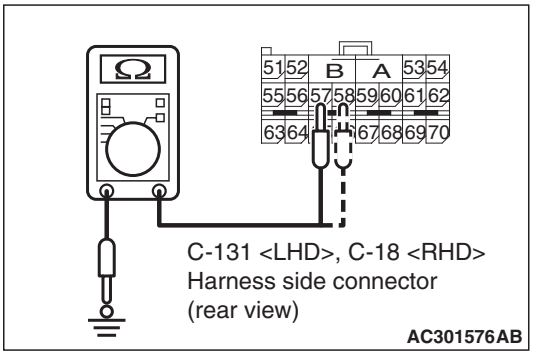


(1) Disconnect SRS-ECU connector C-131 <LHD> or C-18 <RHD>.



(2) Disconnect side-airbag module (RH) connector D-33.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between C-131 <LHD> or C-18 <RHD> harness side connector terminals 57, 58 and body earth.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.57 and 58) and side-airbag module (RH) connector D-33 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

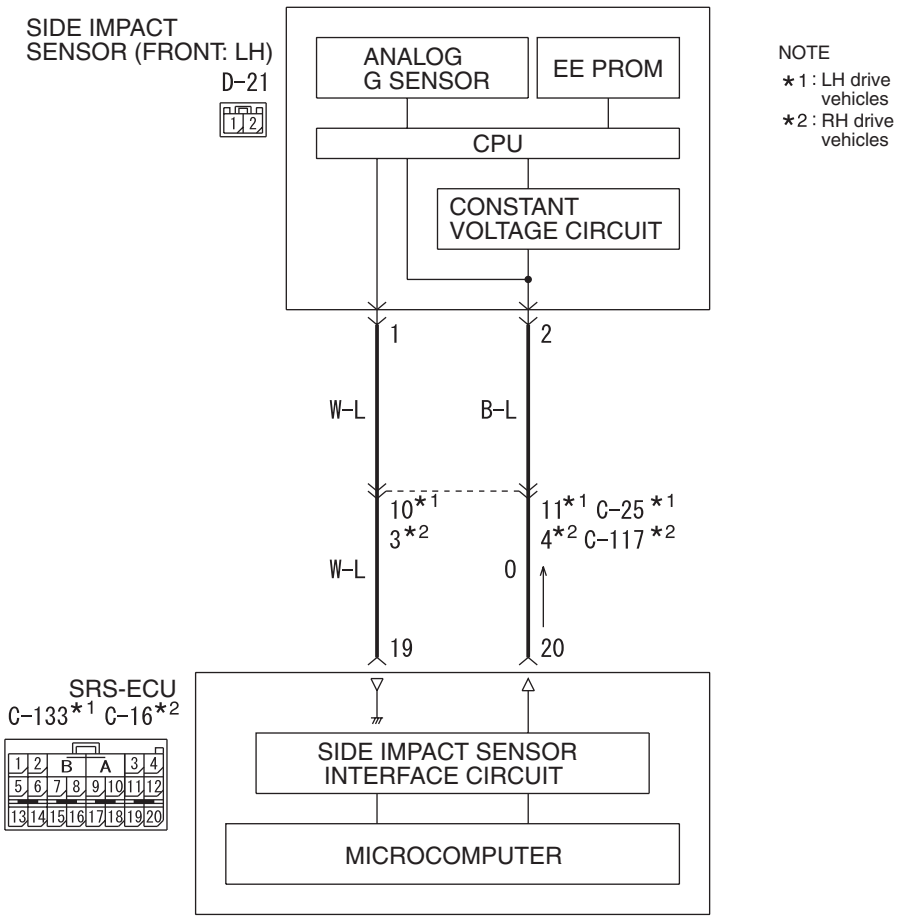
Q: Is diagnosis code 76 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.79: Side impact sensor (LH) (front) communication error
Code No.93: Side impact sensor (LH) (front) communication impossible

Side Impact Sensor (LH) (front) Power Supply Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E00AA

OPERATION

The side impact sensor (front) includes an analogue G-sensor and CPU, etc. The CPU monitors the analogue G-sensor output signal. If the CPU judges that the side-airbags and curtain air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags and curtain air bags. Besides that, the CPU diagnoses the internal components of the side impact sensor (front). If a malfunction occurs, it requests the SRS-ECU to set a diagnosis code.

DIAGNOSIS CODE SET CONDITIONS

These diagnosis codes are set if communication between the side impact sensor (LH) (front) and the SRS-ECU is not possible or communication is faulty.

PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (LH) (front)
- Malfunction of the SRS-ECU

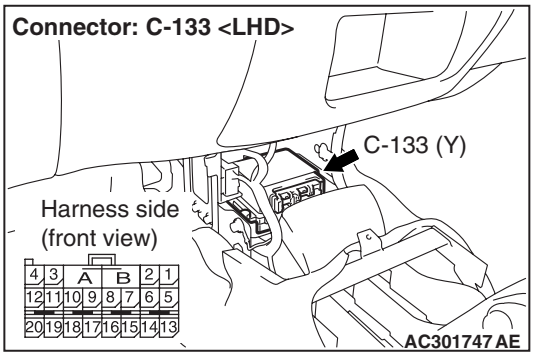
DIAGNOSIS PROCEDURE

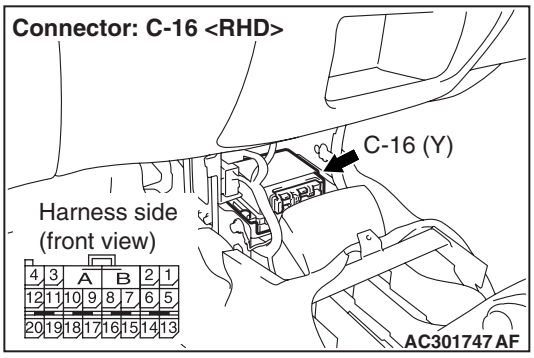
STEP 1. Check the side impact sensor (LH) (front) (M.U.T.-II/III diagnosis code).

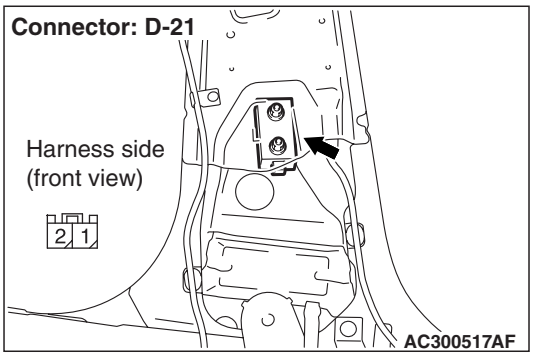
(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (LH) (front) with the side impact sensor (RH) (front).
(3) Connect the negative battery terminal.
(4) Erase diagnosis code memory, and check the diagnosis code.

Q: Is diagnosis code 89 or 96 set?
YES : Replace the side impact sensor (LH) (front) with a new one (Refer to P.52B-212).
NO : Go to Step 2.

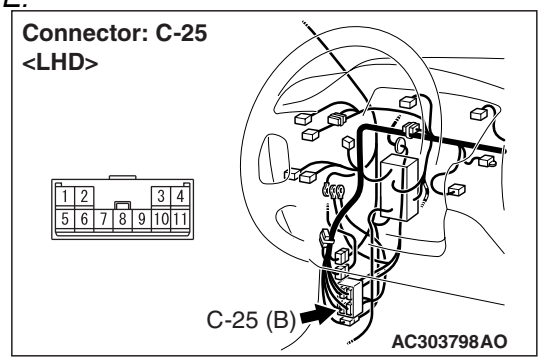
STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.19 and 20) and side impact sensor (LH) (front) connector D-21 (terminal No.1 and 2).

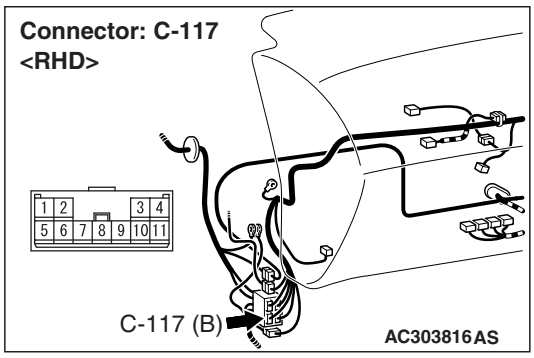






NOTE:





After inspecting intermediate connector C-25 <LHD> or C-117 <RHD> inspect the wiring harness. If the intermediate connector C-25 <LHD> or C-117 <RHD> is damaged, repair or replace it.

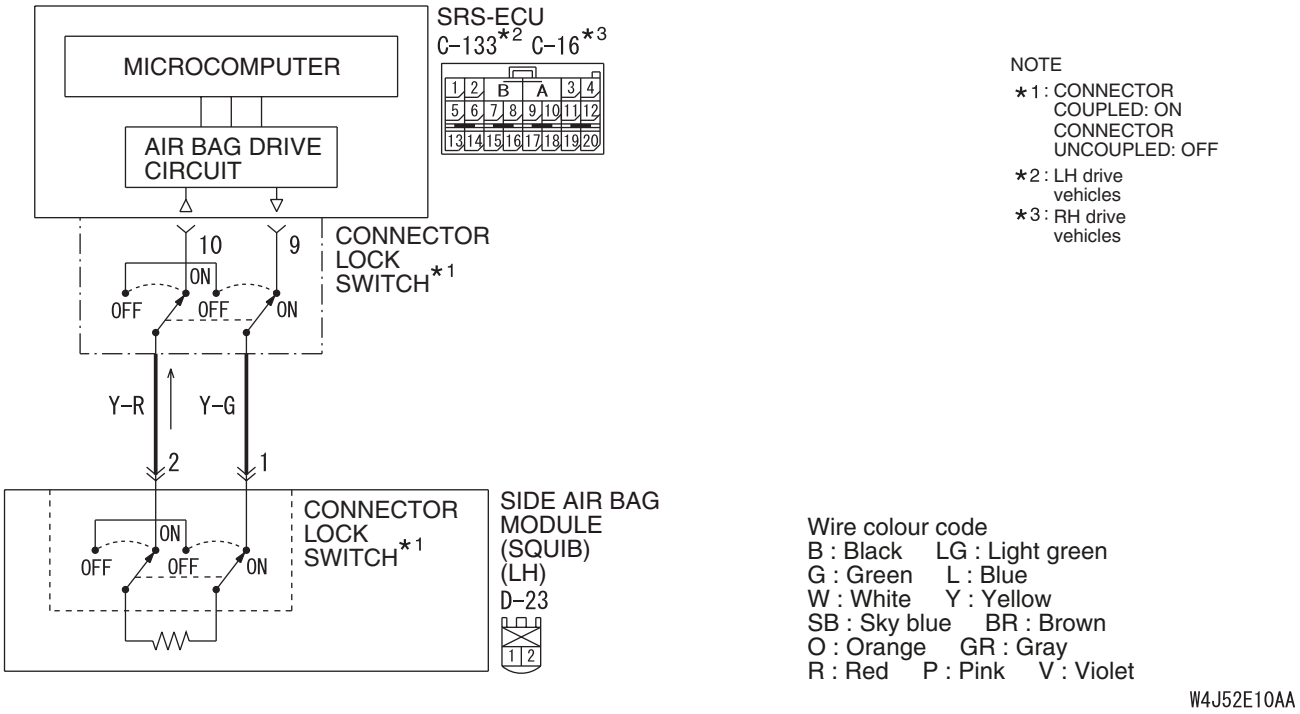
Q: Is the check result normal?
YES : Go to Step 3.
NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.19 and 20) and side impact sensor (LH) connector D-21 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

Q: Is diagnosis code 79 or 93 set?
YES : Replace the SRS-ECU (Refer to P.52B-198).
NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.81: Side-airbag module (squib) (LH) system (short-circuited between terminals of the squib circuit)

Side Air Bag Module (LH) (Squib) Circuit



OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if one side-airbag squib (LH) wire shorted to the other. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

PROBABLE CAUSES

- Improper engaged connector or defective short spring*
- Short circuit between the side-airbag module (squib) (LH) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the earth wire in the squib circuit when the connectors are disconnected). (Refer to P.52B-3). Therefore, if connector C-133 <LHD>, C-16 <RHD> or D-23 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS PROCEDURE

STEP 1. M.U.T.-II/III diagnosis code

⚠ CAUTION

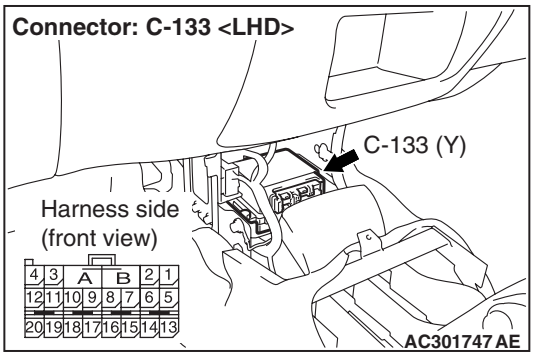
To prevent damage to M.U.T.-II/III, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

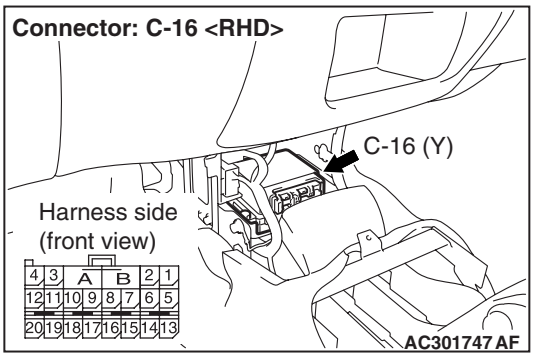
(1) Turn the ignition switch to the "ON" position.
(2) Check if the diagnosis code is set.
(3) Turn the ignition switch to the "LOOK" (OFF) position.

Q: Is diagnosis code 34 set?
YES : Go to Step 2.
NO : Go to Step 3.

STEP 2. Connector lock check: SRS-ECU connector C-133 <LHD> or C-16 <RHD> (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



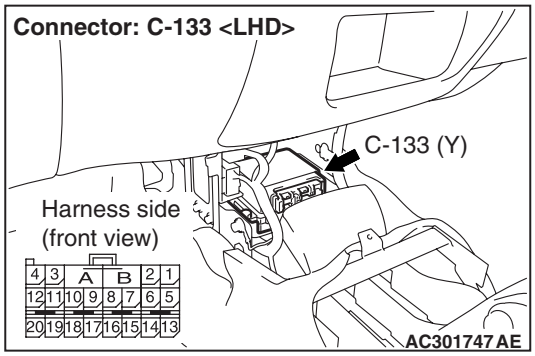


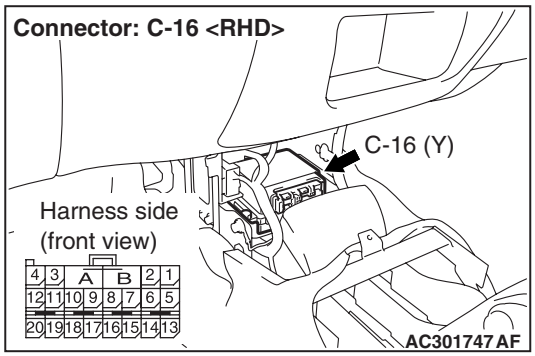
(2) Disconnect connectors C-133 <LHD> or C-16 <RHD> and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

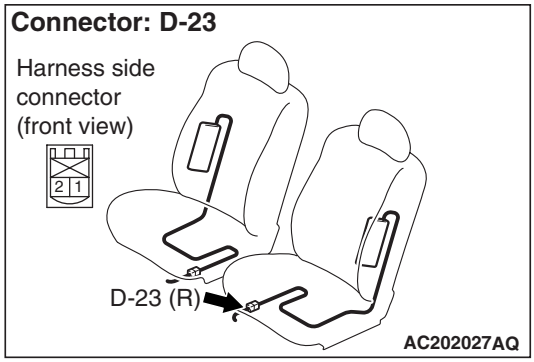
Q: Is diagnosis code 81 out put?
YES : Go to Step 3.
NO : The procedure is complete. It is assumed that diagnosis code 81 set as connector C-133 <LHD> or C-16 <RHD> was engaged improperly.

STEP 3. Connector lock check: SRS-ECU connector C-133 <LHD>, C-16 <RHD> and side-airbag module (LH) connector D-23 (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.





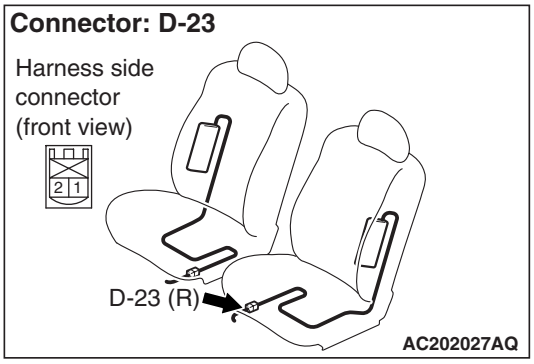


(2) Disconnect connectors C-133 <LHD>, C-16 <RHD> and D-23 and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnosis code memory, and check the diagnosis code.

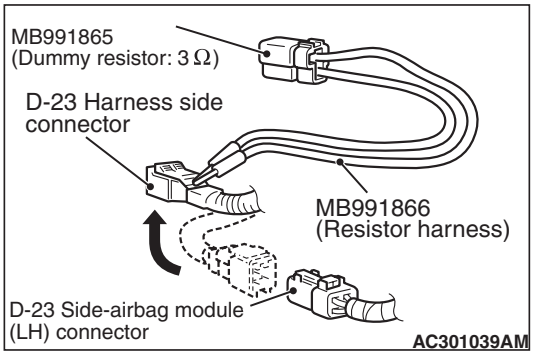
Q: Is diagnosis code 81 out put?
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that diagnosis code 81 set as connector C-133 <LHD>, C-16 <RHD> or D-23 was engaged improperly.

STEP 4. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the side-airbag module (LH) connector D-23.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

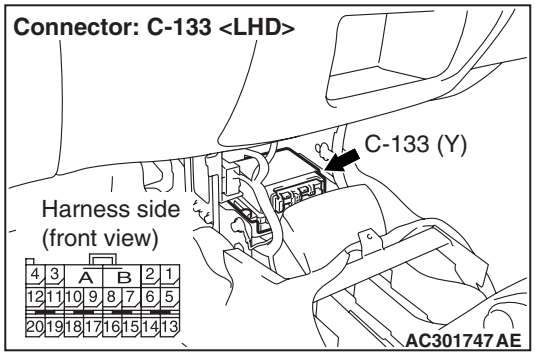
(4) Insert special tool (MB991866) into the D-23 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and check the diagnosis code.

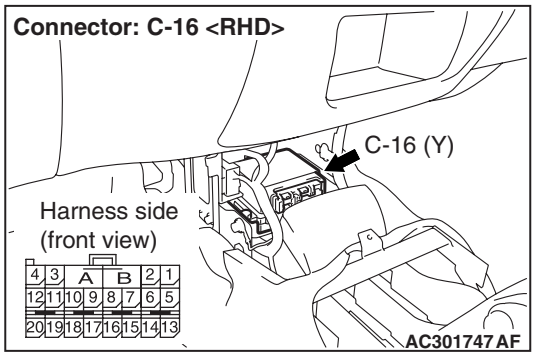
Q: Is diagnosis code 81 set?

YES : Go to Step 5.

NO : Replace the seatback assembly of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-27).

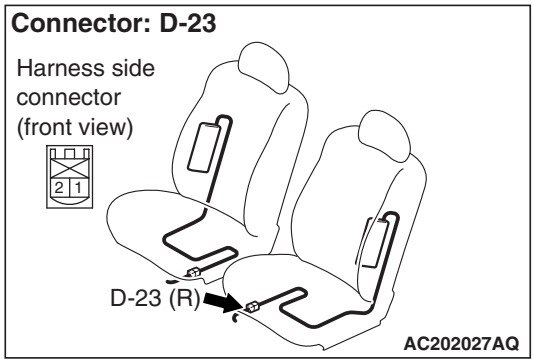
STEP 5. Resistance measurement at the SRS-ECU connector C-133 <LHD> or C-16 <RHD>.





(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16 <RHD>.

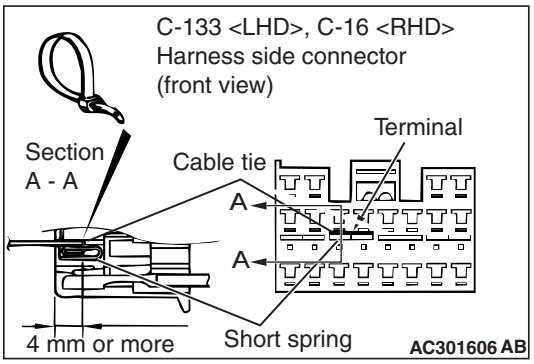
⚠ DANGER



To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-23 to short the squib circuit.

(2) Disconnect left hand side-airbag module (LH) connector D-23.

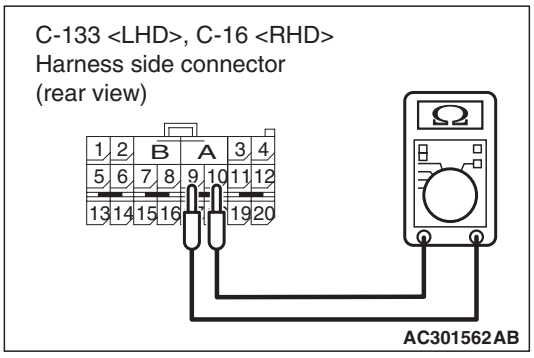
⚠ CAUTION



Insert an insulator such as a cable tie to a depth of 4mm or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm wide, 0.5 mm thick] between terminals 9, 10 and the short spring to release the short spring.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Check for continuity between C-133 <LHD>, or C-16 <RHD> harness side connector terminals 9 and 10.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2).

STEP 6. Check whether the diagnosis code is reset.

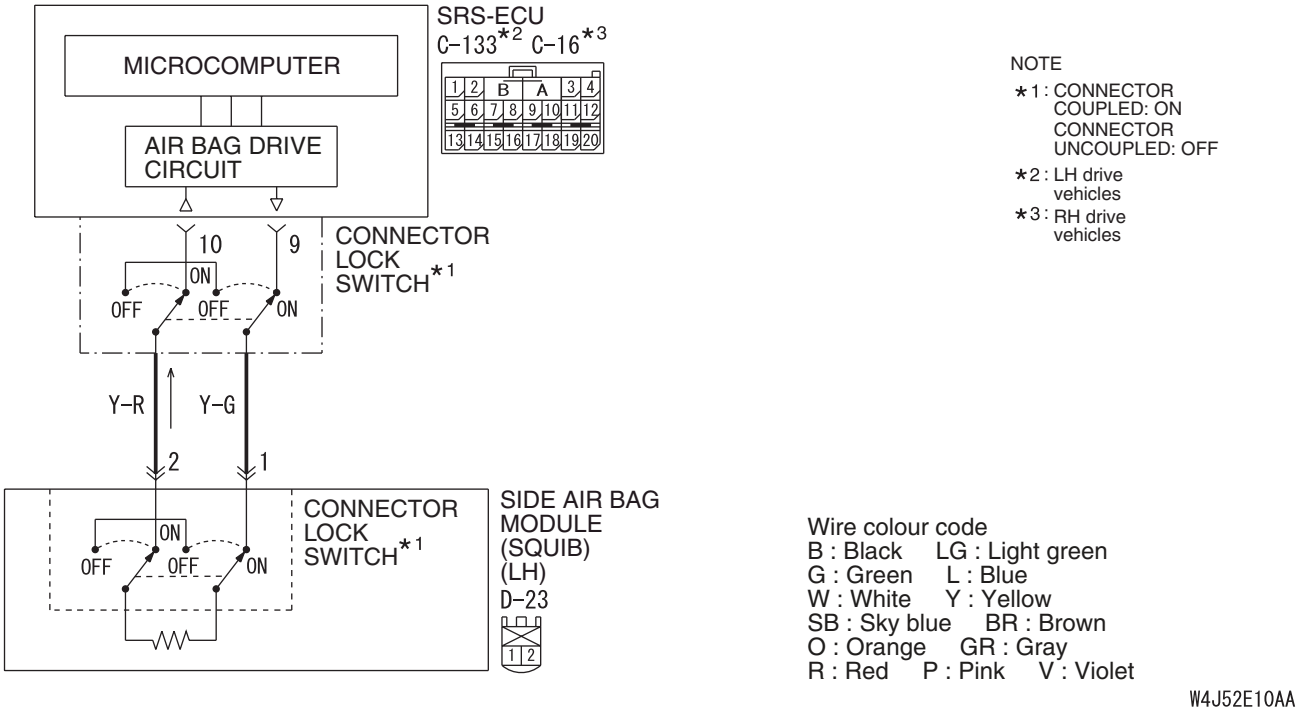
Q: Is diagnosis code 81 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.82: Side-airbag module (squib) (LH) system (open-circuited in the squib circuit)

Side Air Bag Module (LH) (Squib) Circuit



OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the side-airbag squib (LH) wire(s) are open-circuited. However, if no diagnosis code resets, the SRS warning lamp will be switched off (diagnosis code will be retained).

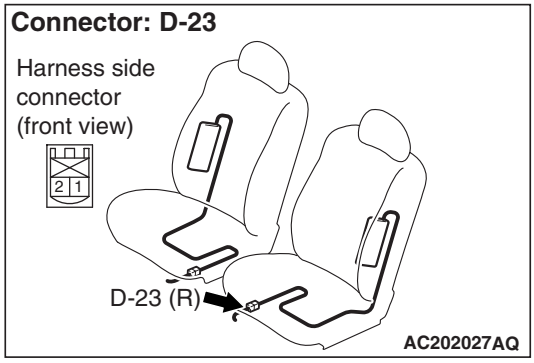
PROBABLE CAUSES

- Open circuit in the side-airbag module (squib) (LH) circuit
- Improper connector contact
- Malfunction of the SRS-ECU connector D-23.

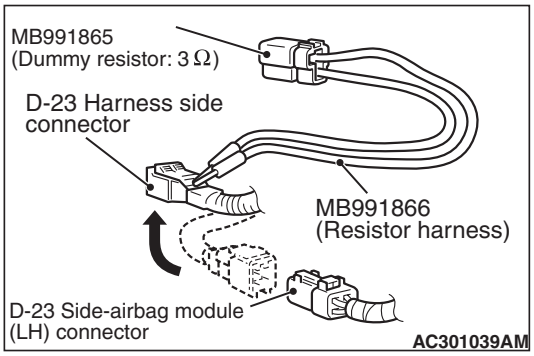
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the side-airbag module (LH)



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

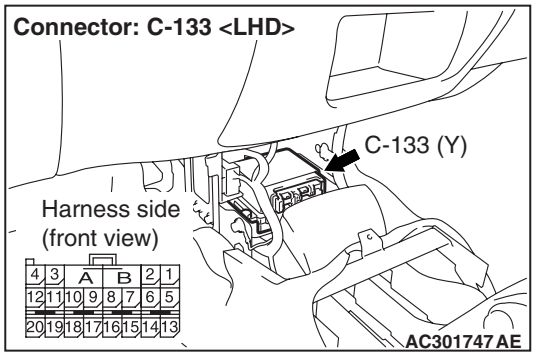
(4) Insert special tool (MB991866) into the D-23 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase diagnosis code memory, and then check the diagnosis code.

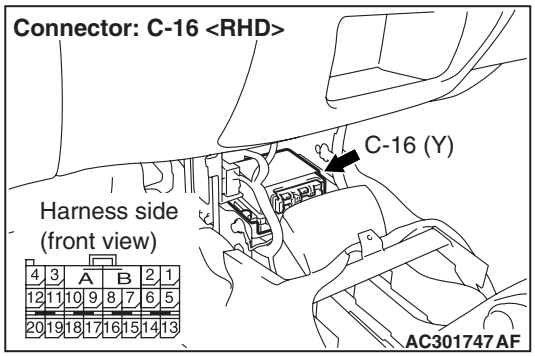
Q: Is diagnosis code 82 set?

YES : Go to Step 2.

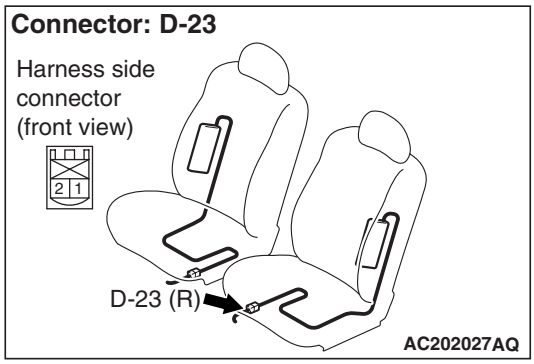
NO : Replace the seatback assembly of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-27).

STEP 2. Resistance measurement between the SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.9 and 10) and the side-airbag module (LH) connector D-23 (terminal No.1 and 2).



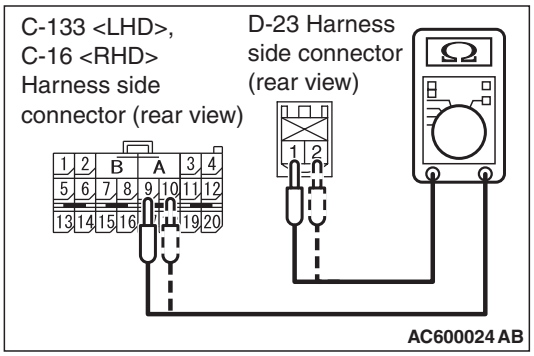


(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16 <RHD>.



(2) Disconnect side-airbag module (LH) connector D-23.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Resistance measurement between the following terminals.
- SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.9) and the side-airbag module (LH) connector D-23 (terminal No.1)
- SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.10) and the side-airbag module (LH) connector D-23 (terminal No.2)

OK: Continuity (Less than 2 Ω)

Q: Are the check results normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

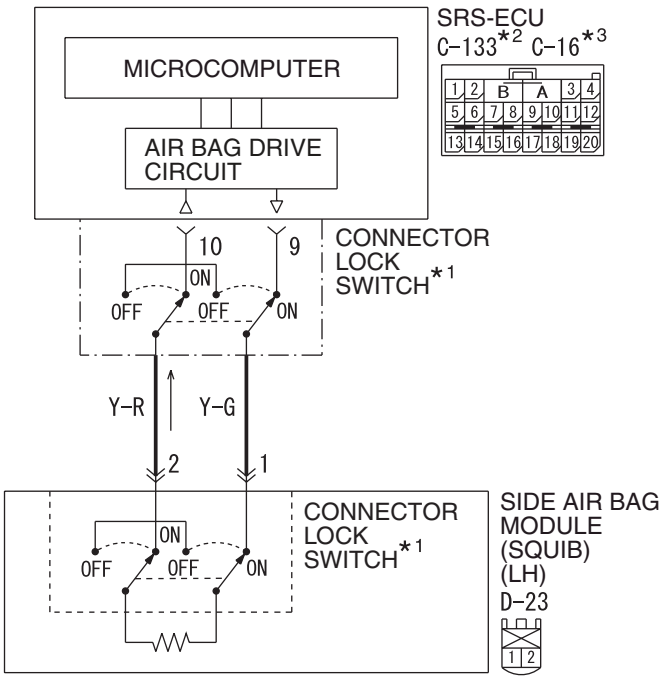
Q: Is diagnosis code 82 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.85: Side-airbag module (squib) (LH) system (short-circuited to the power supply)

Side Air Bag Module (LH) (Squib) Circuit



NOTE
*1: CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF
*2: LH drive vehicles
*3: RH drive vehicles

Wire colour code
B : Black LG : Light green
G : Green L : Blue
W : White Y : Yellow
SB : Sky blue BR : Brown
O : Orange GR : Gray
R : Red P : Pink V : Violet

W4J52E10AA

OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the side-airbag squib (LH) wire(s) are short-circuited to the power supply.

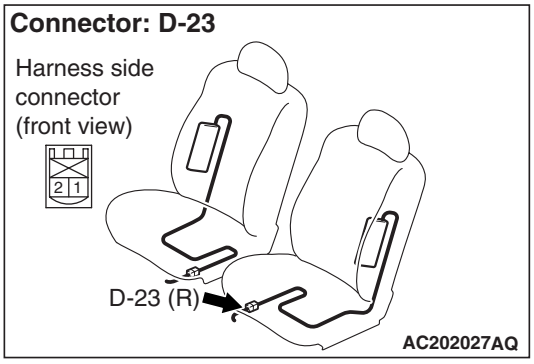
PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Short to the power supply in the side-airbag module (squib) (LH) harness
- Malfunction of the SRS-ECU

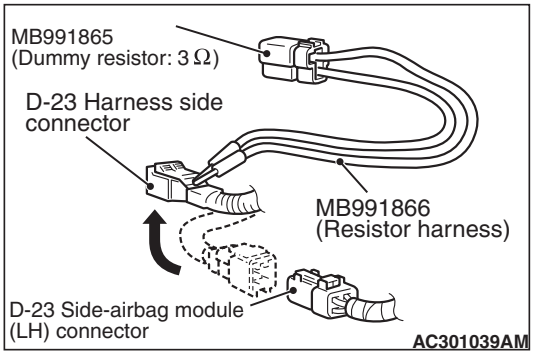
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the side-airbag module (LH) connector D-23.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

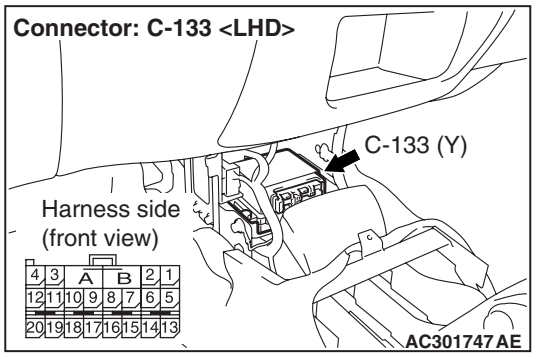
(4) Insert special tool (MB991866) into the D-23 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

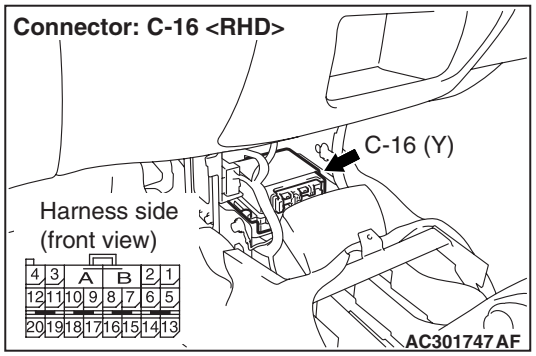
Q: Is diagnosis code 85 set?

YES : Go to Step 2.

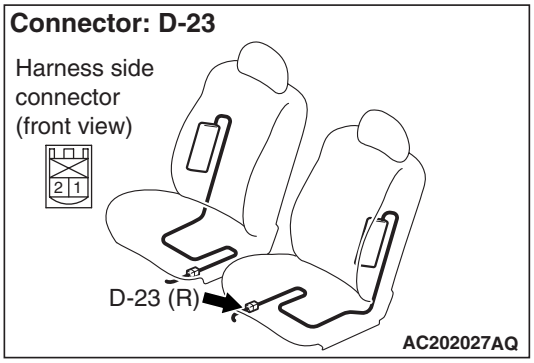
NO : Replace the seatback assembly of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-27).

STEP 2. Voltage measurement at the SRS-ECU connector C-133 <LHD> or C-16 <RHD>.



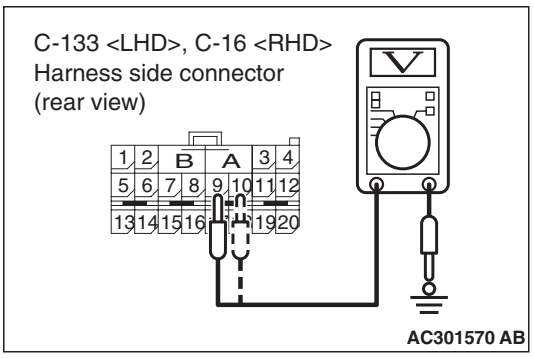


(1) Disconnect SRS-ECU connector C-133 <LHD> or C-16 <RHD>.



(2) Disconnect left hand side-airbag module (LH) connector D-23.
(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Voltage measurement between C-133 <LHD> or C-16 <RHD> harness side connector terminals 9, 10 and body earth.

OK: 0 V

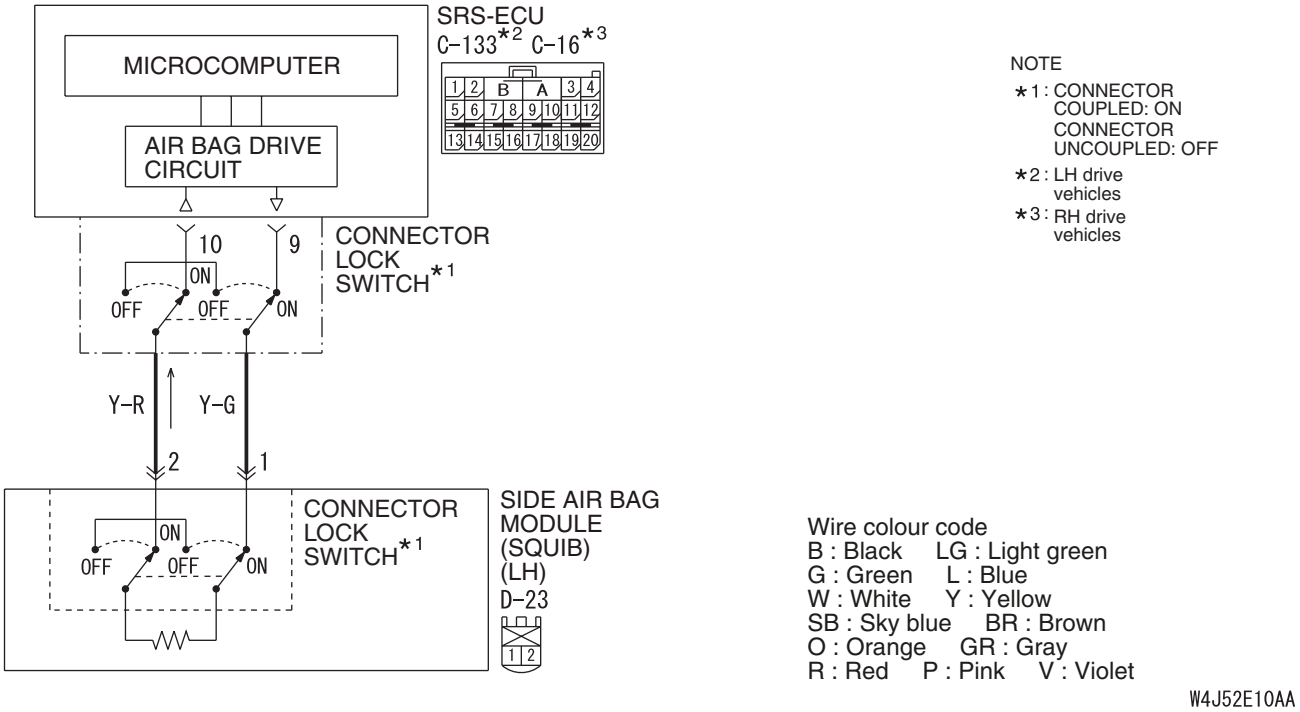
Q: Is the check result normal?
YES : Go to Step 3.
NO : Repair the harness wires between SRS-ECU connector C-133 <LHD>, or C-16 <RHD> (terminal No.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

Q: Is diagnosis code 85 set?
YES : Replace the SRS-ECU (Refer to P.52B-198).
NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.86: Side-airbag module (squib) (LH) system (short-circuited to the earth)

Side Air Bag Module (LH) (Squib) Circuit



OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DIAGNOSIS CODE SET CONDITIONS

This diagnosis code is set if the side-airbag squib (LH) wire(s) are short-circuited to the earth.

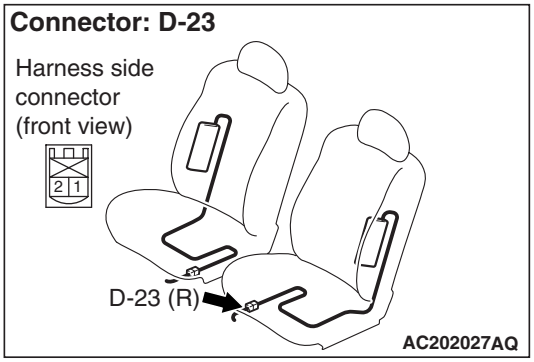
PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Short to earth in the left hand side-airbag module (squib) (LH) harness
- Malfunction of the SRS-ECU

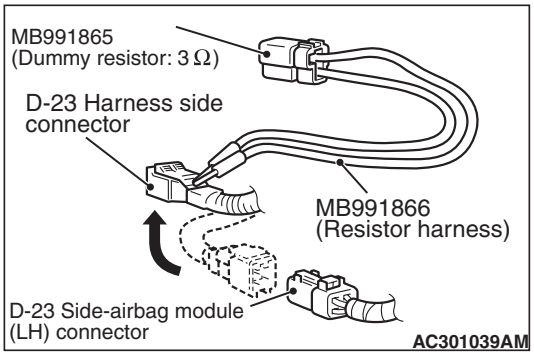
DIAGNOSIS PROCEDURE

STEP 1. Check the diagnosis code by connecting a dummy resistor (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.



(2) Disconnect the side-airbag module (LH) connector D-23.



(3) Connect special tool dummy resistor (MB991865) to special tool resistor harness (MB991866).

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

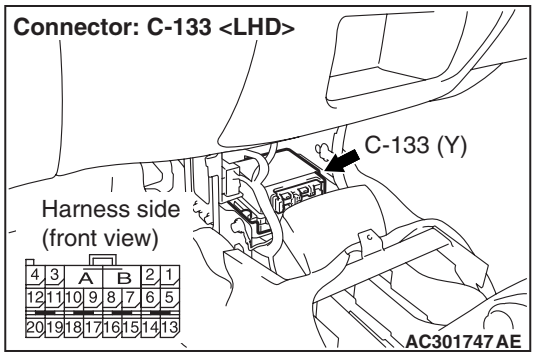
(4) Insert special tool (MB991866) into the D-23 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis code memory, and check the diagnosis code.

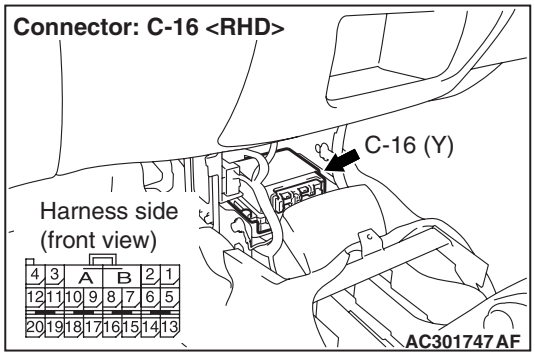
Q: Is diagnosis code 86 set?

YES : Go to Step 2.

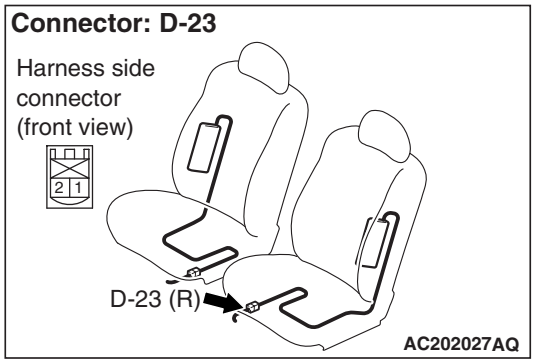
NO : Replace the seatback assembly of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-27).

STEP 2. Resistance measurement at the SRS-ECU connector C-133 <LHD> or C-16 <RHD>.



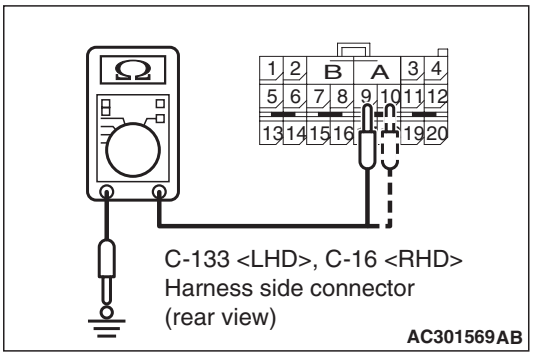


(1) Disconnect SRS-ECU connector C-133 <LHD>, or C-16 <RHD>.



(2) Disconnect side-airbag module (RH) connector D-23.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Check for continuity between C-133 <LHD>, or C-16 <RHD> harness side connector terminals 9, 10 and body earth.

OK: Open circuit

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-133 <LHD>, or C-16 <RHD> (terminal No.9 and 10) and side-airbag module (LH) connector D-23 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

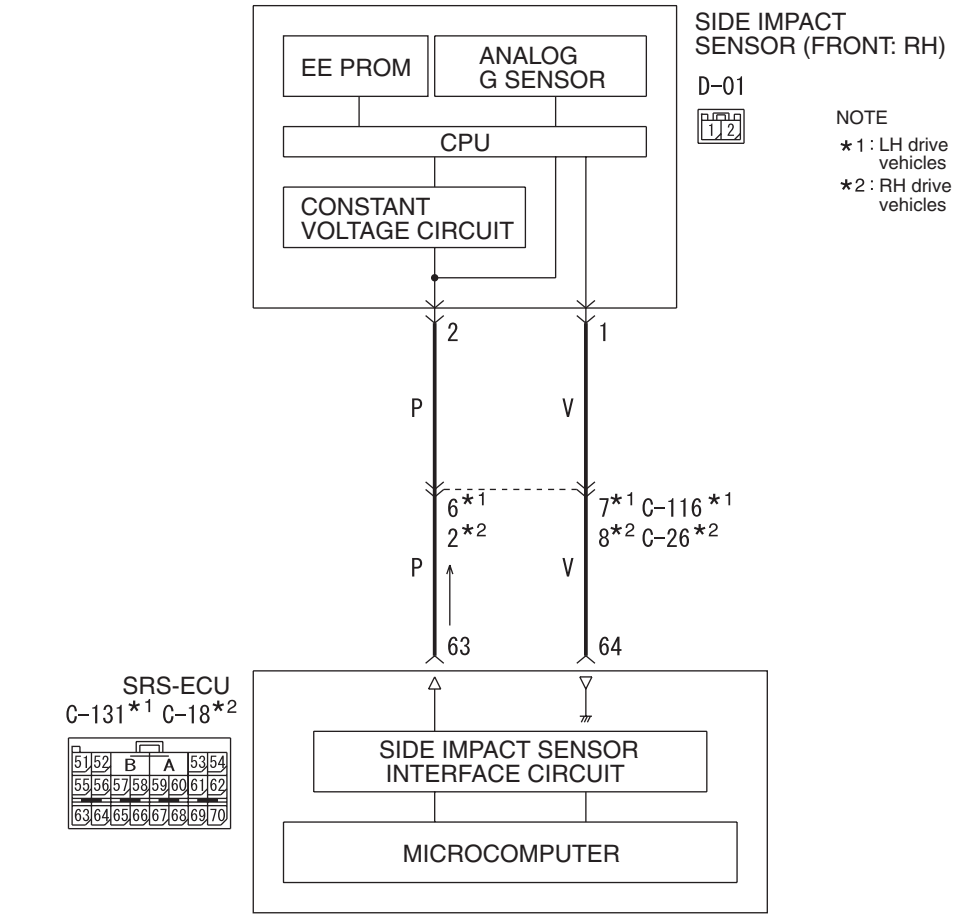
Q: Is diagnosis code 86 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.89: Side impact sensor (RH) (front) communication error
Code No.96: Side impact sensor (RH) (front) communication impossible

Side Impact Sensor (RH) (front) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E01AA

OPERATION

The side impact sensor (front) includes an analog G-sensor and CPU, etc. The CPU monitors the analog G-sensor output signal. If the CPU judges that the side-airbags and curtain air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags and curtain air bags. Besides that, the CPU diagnoses the internal components of the side impact sensor (front). If a malfunction occurs, it requests the SRS-ECU to set a diagnosis code.

DIAGNOSIS CODE SET CONDITIONS

These diagnosis codes are set if communication between the side impact sensor (RH) (front) and the SRS-ECU is not possible or faulty.

PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (RH) (front)
- Malfunction of the SRS-ECU

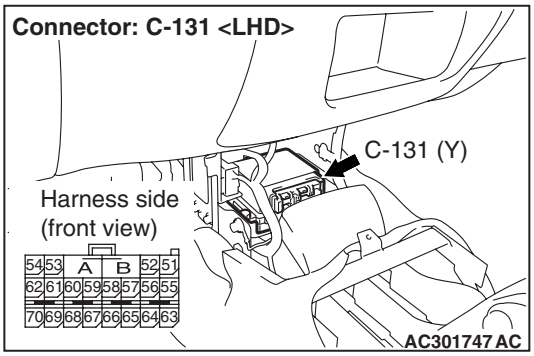
DIAGNOSIS PROCEDURE

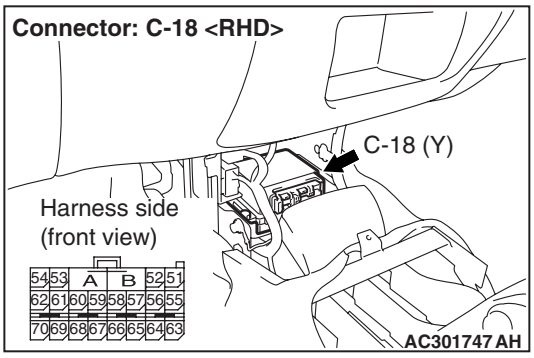
STEP 1. Check the side impact sensor (RH) (front) (M.U.T.-II/III diagnosis code).

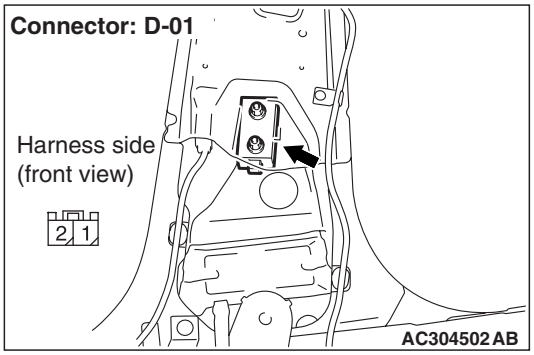
(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (RH) (front) with the side impact sensor (LH) (front).
(3) Connect the negative battery terminal.
(4) Erase diagnosis code memory, and check the diagnosis code.

Q: Is diagnosis code 79 or 93 out put?
YES : Replace the side impact sensor (RH) (front) with a new one (Refer to P.52B-212).
NO : Go to Step 2.

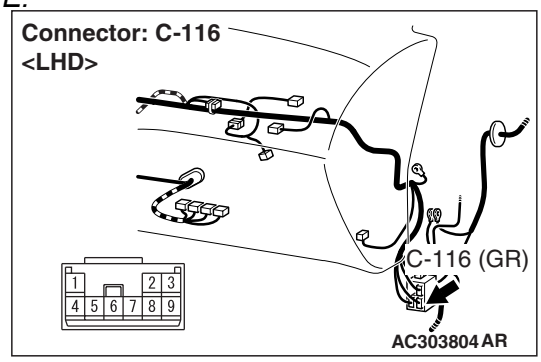
STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.63 and 64) and side impact sensor (RH) (front) connector D-01 (terminal No.1 and 2).

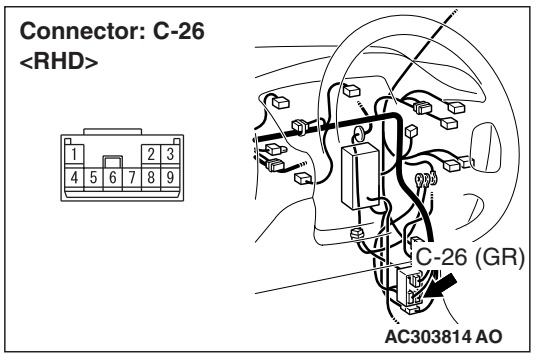






NOTE:





After inspecting intermediate connector C-116 <LHD> or C-26 <RHD> inspect the wiring harness. If the intermediate connector C-116 <LHD> or C-26 <RHD> is damaged, repair or replace it.

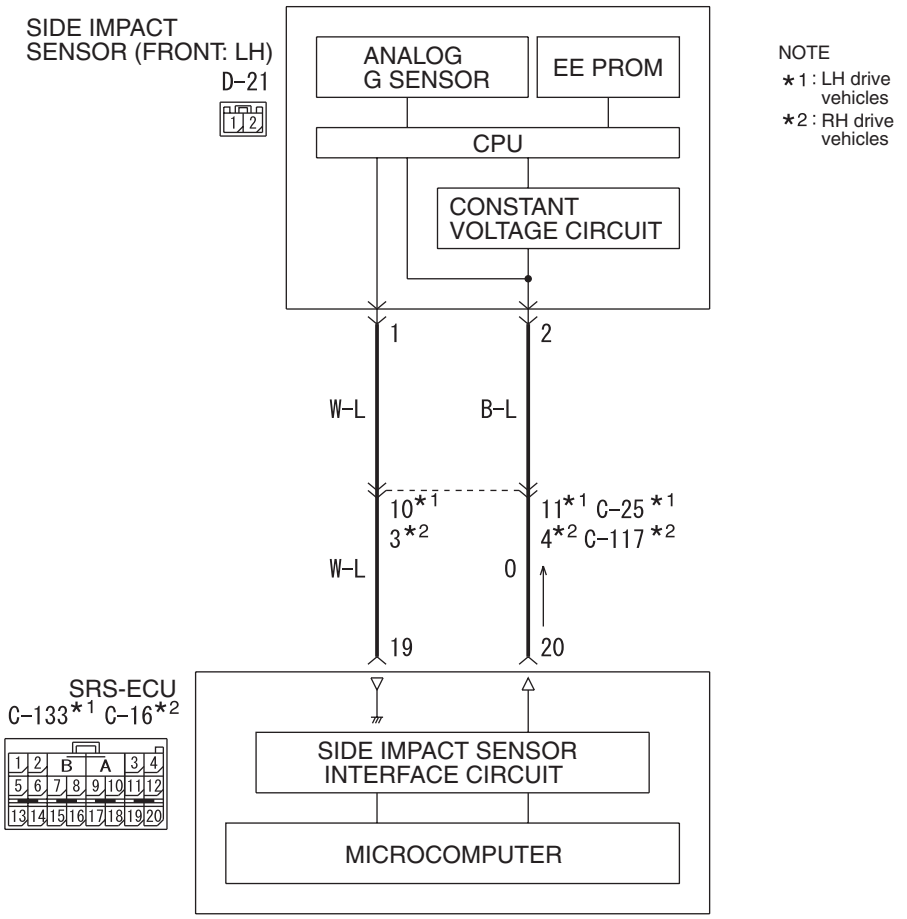
Q: Is the check result normal?
YES : Go to Step 3.
NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.63 and 64) and side impact sensor (RH) connector D-01 (terminal No.1 and 2).

STEP 3. Check whether the diagnosis code is reset.

Q: Is diagnosis code 89 or 96 set?
YES : Replace the SRS-ECU (Refer to P.52B-198).
NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.91: Side impact sensor (LH) (front) voltage error

Side Impact Sensor (LH) (front) Power Supply Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E00AA

OPERATION

The side impact sensor (front) includes an analogue G-sensor and CPU, etc. The CPU monitors the analogue G-sensor output signal. If the CPU judges that the side-airbags and curtain air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags and curtain air bags. Besides that, the CPU diagnoses the internal components of the side impact sensor (front). If a malfunction occurs, it requests the SRS-ECU to set a diagnosis code.

DIAGNOSIS CODE SET CONDITIONS

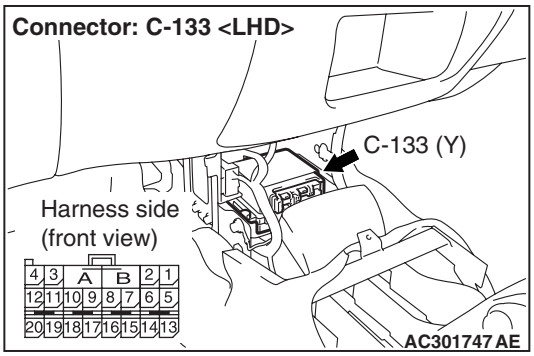
This diagnosis code will set when the power supply voltage to the side impact sensor (LH) (front) remains less than a predetermined value for 5 seconds. However, if the system returns to normal condition, code number 91 will be erased automatically and the SRS warning lamp will go out.

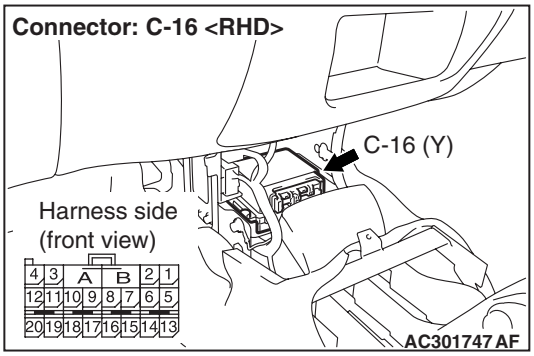
PROBABLE CAUSES

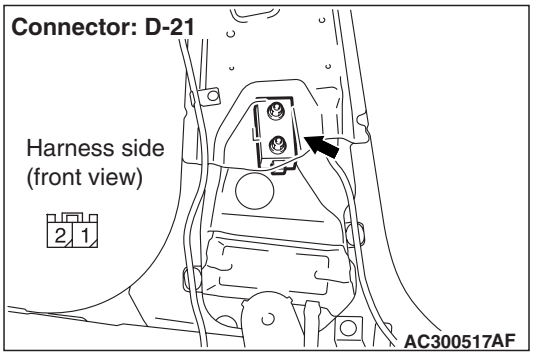
- Damaged wiring harness or connectors
- Malfunction of the side impact sensor (LH) (front)
- Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE

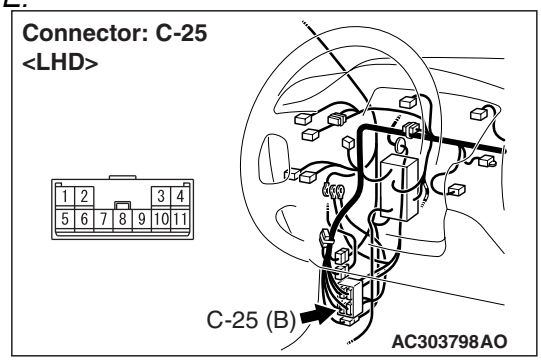
STEP 1. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.19 and 20) and side impact sensor (LH) (front) connector D-21 (terminal No.1 and 2).

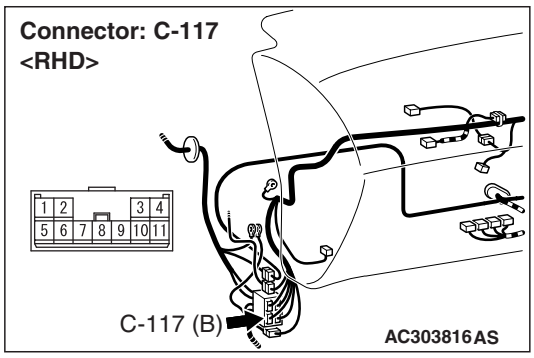






NOTE:





After inspecting intermediate connector C-25 <LHD> or C-117 <RHD> inspect the wiring harness. If the intermediate connector C-25 <LHD> or C-117 <RHD> is damaged, repair or replace it.

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-133 <LHD> or C-16 <RHD> (terminal No.19 and 20) and side impact sensor (LH) (front) connector D-21 (terminal No.1 and 2).

STEP 2. Check the side impact sensor (LH) (front) (M.U.T.-II/III diagnosis code).

(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (LH) (front) with the side impact sensor (RH) (front).
(3) Connect the negative battery terminal.
(4) Erase diagnosis code from memory, and check the diagnosis code.

Q: Is diagnosis code 91 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : Replace the side impact sensor (LH) (front) with a new one (Refer to P.52B-212). Go to Step 3.

STEP 3. Check whether the diagnosis code is reset.

Q: Is diagnosis code 91 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

Code No.92: G-sensor of side impact sensor (LH) (front) failure
Code No.95: G-sensor of side impact sensor (RH) (front) failure

DIAGNOSIS CODE SET CONDITIONS

These diagnosis codes are set if the followings are detected from the analog G-sensor inside the side impact sensor (front) output.

- Analog G-sensor inside the side impact sensor (front) is not operating.
- Analog G-sensor inside the side impact sensor (front) characteristics are abnormal.
- Analog G-sensor inside the side impact sensor (front) output is abnormal.

PROBABLE CAUSE

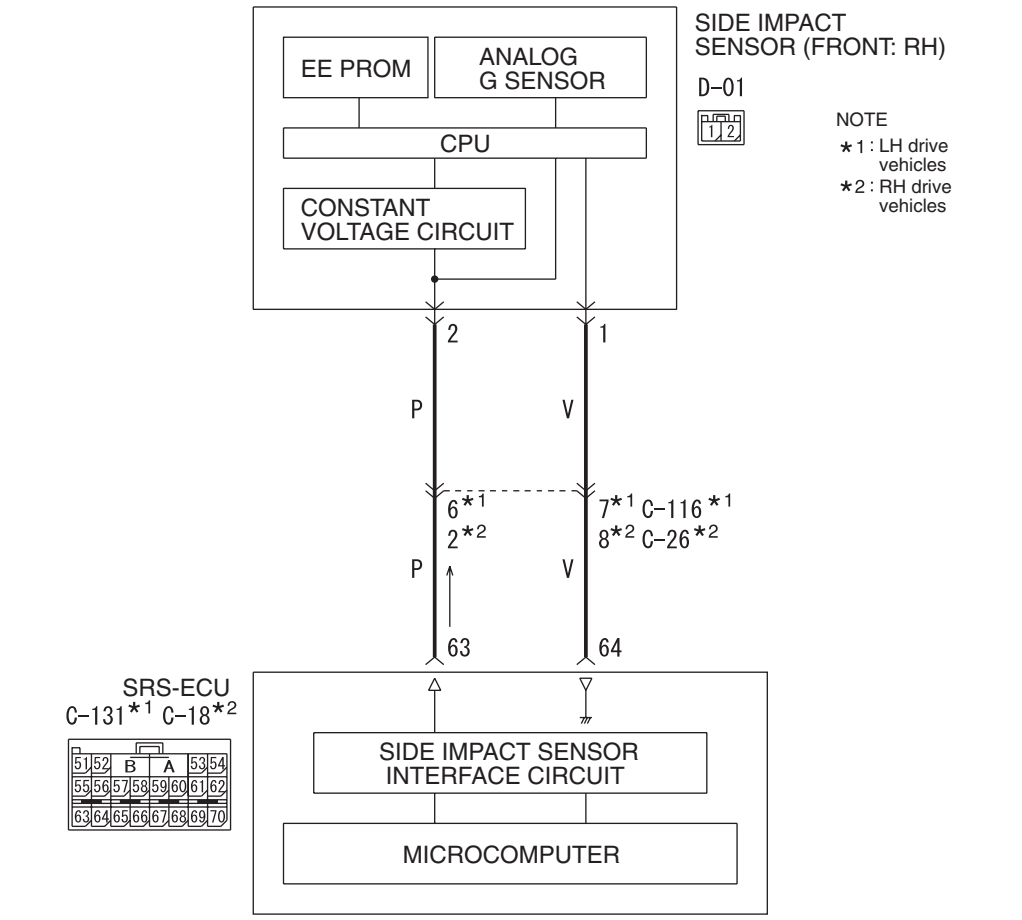
Malfunction of side impact sensor (LH) (front) (for diagnosis code 92) and side impact sensor (RH) (front) (for diagnosis code 95)

DIAGNOSIS PROCEDURE

Replace side impact sensor (LH) (front) (for diagnosis code 92) and side impact sensor (RH) (front) (for diagnosis code 95) (Refer to P.52B-212).

Code No.94: Side impact sensor (RH) (front) voltage error

Side Impact Sensor (RH) (front) Circuit



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W4J52E01AA

OPERATION

The side impact sensor (front) includes an analogue G-sensor and CPU, etc. The CPU monitors the analogue G-sensor output signal. If the CPU judges that the side-airbags and curtain air bags should be deployed, it sends a fire signal to the SRS-ECU to deploy the side-airbags and curtain air bags. Besides that, the CPU diagnoses the internal components of the side impact sensor (front). If a malfunction occurs, it requests the SRS-ECU to set a diagnosis code.

DIAGNOSIS CODE SET CONDITIONS

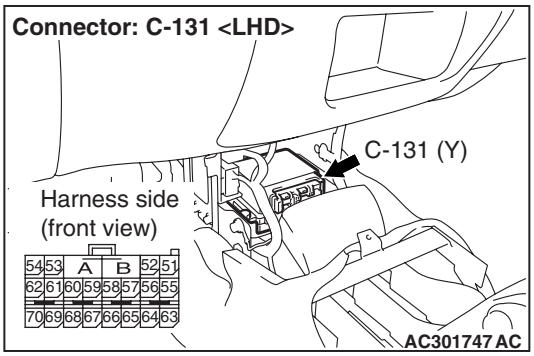
This diagnosis code is set if the power supply voltage of the side impact sensor (RH) (front) drops below the rated value for a continuous period of 5 seconds or more. However, if the system returns to normal condition, code number 94 will be erased automatically and the SRS warning lamp will go out.

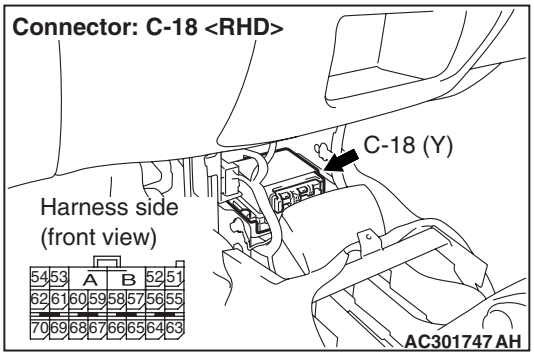
PROBABLE CAUSES

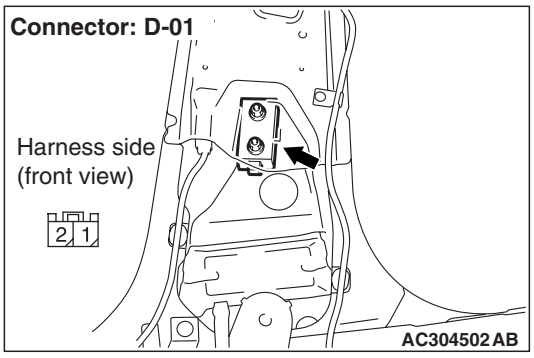
- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (RH) (front)
- Malfunction of the SRS-ECU

DIAGNOSIS PROCEDURE

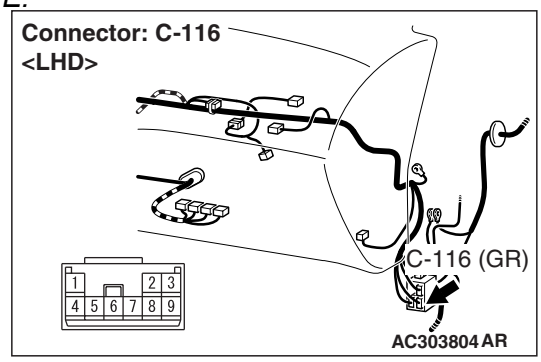
STEP 1. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.63 and 64) and side impact sensor (RH) (front) connector D-01 (terminal No.1 and 2).

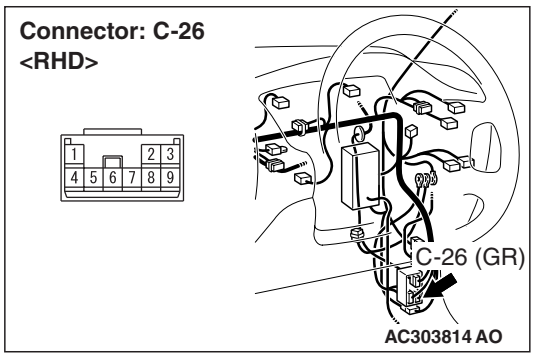






NOTE:





After inspecting intermediate connector C-116 <LHD> or C-26 <RHD> inspect the wiring harness. If the intermediate connector C-116 <LHD> or C-26 <RHD> is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.63 and 64) and side impact sensor (RH) (front) connector D-01 (terminal No.1 and 2) in good condition?

YES : Go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-131 <LHD> or C-18 <RHD> (terminal No.63 and 64) and side impact sensor (RH) (front) connector D-01 (terminal No.1 and 2).

STEP 2. Check the side impact sensor (RH) (front) (MUT-II/III diagnosis code).

(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (RH) (front) with the side impact sensor (LH) (front).
(3) Connect the negative battery terminal.
(4) Erase diagnosis code from memory, and check the diagnosis code.

Q: Is diagnosis code 94 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : Replace the side impact sensor (LH) (front) with a new one (Refer to P.52B-212). Go to Step 3.

STEP 3. Check whether the diagnosis code is reset.

Q: Is diagnosis code 94 set?

YES : Replace the SRS-ECU (Refer to P.52B-198).

NO : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

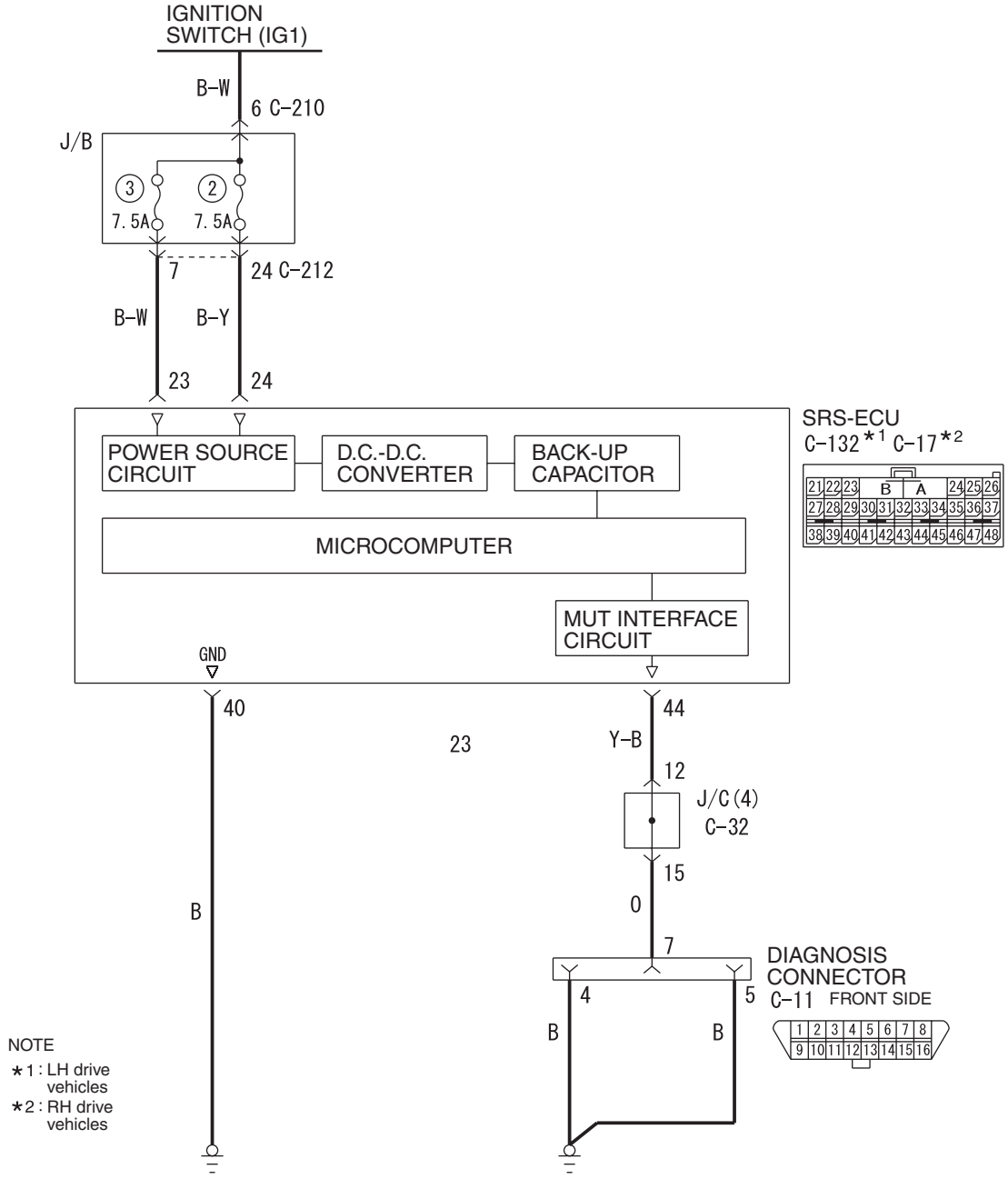
CHECK CHART FOR TROUBLE SYMPTOMS

M1524003400730

Trouble	Inspection procedure No.	Reference page
Communication with M.U.T.-II MB991502 or M.U.T.-III MB991955 is not possible (Communication with all systems is not possible).	–	GROUP 13A, Troubleshooting P.13A-237 GROUP 13B, Troubleshooting P.13B-193
Communication with M.U.T.-II MB991502 or M.U.T.-III MB991955 is not possible (Communication is not possible with SRS).	1	P.52B-185
When the ignition switch is turned to the "ON" position (engine stopped), the SRS warning lamp does not illuminate.	Refer to diagnosis code No.43.	P.52B-113
After the ignition switch is turned to the "ON" position, the SRS warning lamp does not go off within approximately 7 seconds.	Refer to diagnosis code No.43.	P.52B-117

SYMPTOM PROCEDURES

INSPECTION PROCEDURE 1: Communication with M.U.T.-II MB991502 or M.U.T.-III MB991955 is not possible (Communication is not possible with SRS).



Wire colour code
B : Black LG : Light green G : Green L : Blue W : White Y : Yellow SB : Sky blue
BR : Brown O : Orange GR : Gray R : Red P : Pink V : Violet

W5J52E000A

AC504781AB

OPERATION

- The SRS-ECU is powered from the ignition switch (IG1).
- The SRS-ECU power is supplied from two circuits. Even if one circuit is shut off, the air bag can inflate.
- The SRS system diagnosis can be done by connecting M.U.T.-II MB991502 or M.U.T.-III MB991955 to the diagnosis connector.

COMMENTS ON TROUBLE SYMPTOM

If communication is not possible with the SRS only, the cause is probably an open circuit in the diagnosis output circuit of the SRS or in the power circuit (including earth circuit).

PROBABLE CAUSES

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Incorrect M.U.T.-II ROM pack

DIAGNOSIS PROCEDURE

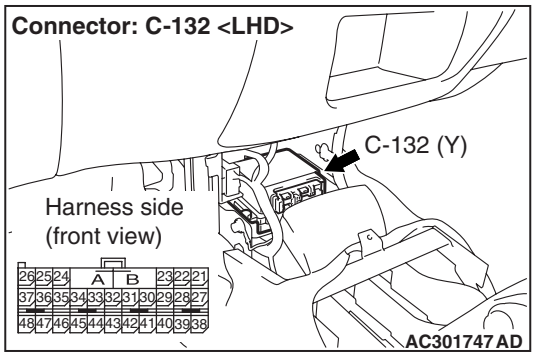
STEP 1. Check that the M.U.T.-II/III can communicate with the other systems.

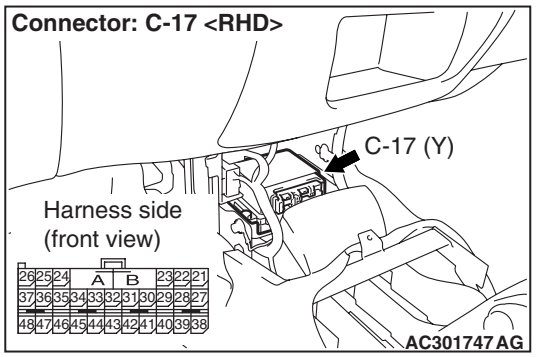
Q: Can the M.U.T.-II/III communicate with the other systems?

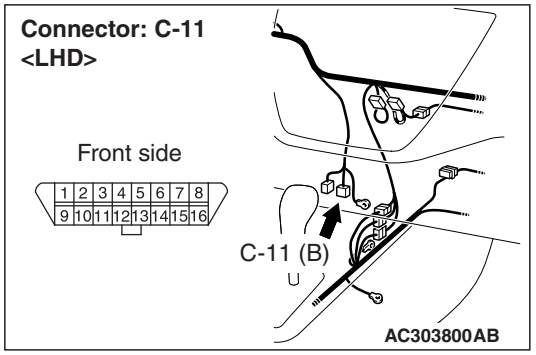
YES : Go to Step 2.

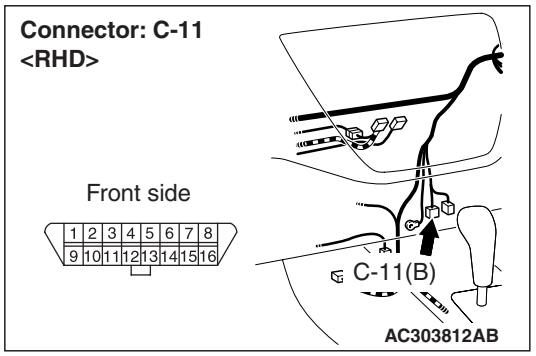
NO : Refer to GROUP 13A, Troubleshooting P.13A-237 or GROUP 13B, Troubleshooting P.13B-193.

STEP 2. Resistance measurement between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.44) and diagnosis connector C-11 (terminal No.7).



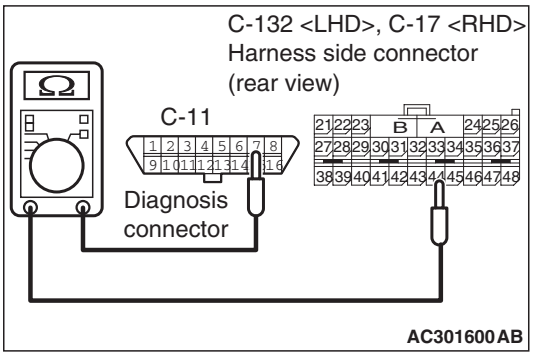






(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD> and diagnosis connector C-11, and measure at the wiring harness side.

⚠ CAUTION



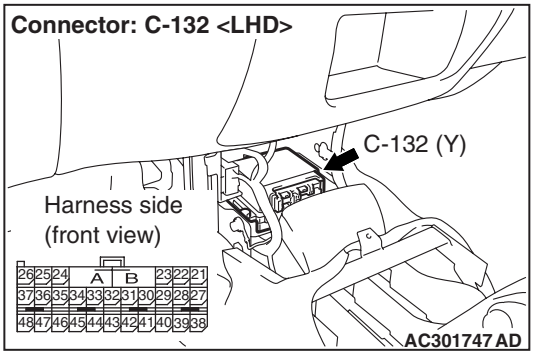
Do not insert a test probe into the terminal from of the SRS-ECU connector C-132 <LHD> or C-17 <RHD> its front side directly as the connector contact pressure may be weakened.

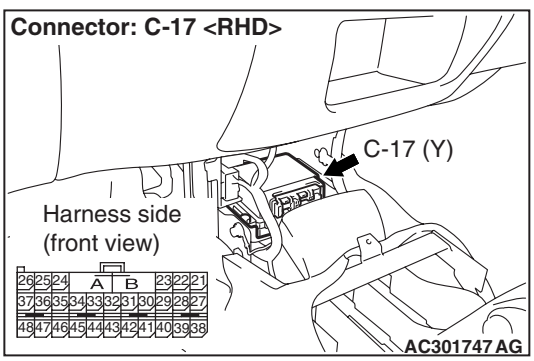
(2) Resistance measurement between the following terminals.
- SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.44) and diagnosis connector C-11 (terminal No.7)

OK: Continuity (Less than 2 Ω)

Q: Is the check result normal?
YES : Go to Step 3.
NO : Go to Step 5.

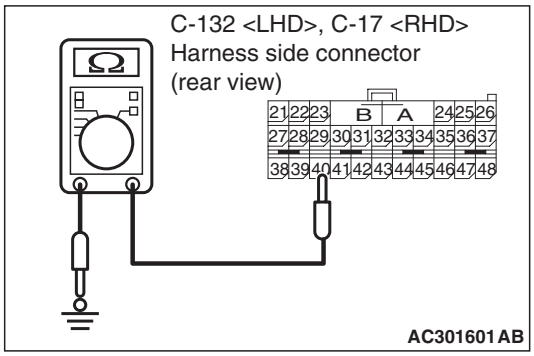
STEP 3. Resistance measurement the earth circuit to the SRS-ECU connector C-132 <LHD> or C-17 <RHD>.





(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD> and measure at the wiring harness side.

⚠ CAUTION



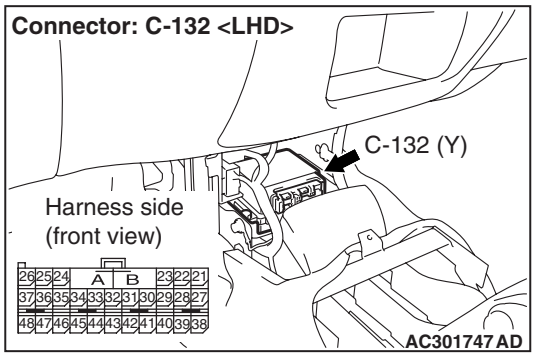
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

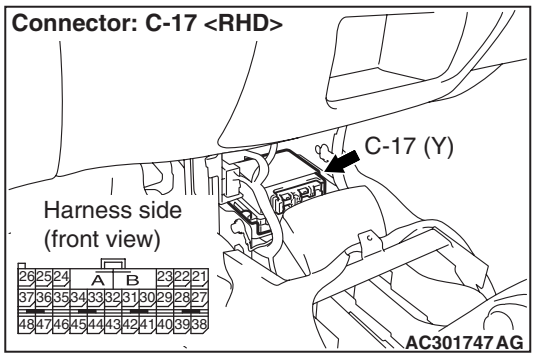
(2) Check for continuity between terminal 40 and body earth.

OK: Continuity (Less than 2 Ω)

Q: Is the check result normal?
YES : Go to Step 4.
NO : Check the harness wire for open circuit between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.40) and earth, and repair if necessary.

STEP 4. Voltage measurement the power supply circuit to the SRS-ECU connector C-132 <LHD> or C-17 <RHD>.

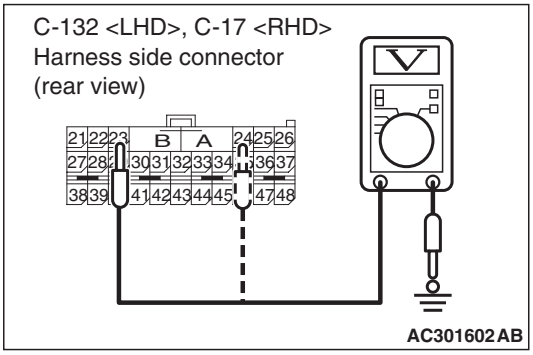




(1) Disconnect SRS-ECU connector C-132 <LHD> or C-17 <RHD> and measure at the wiring harness side.
(2) Connect the negative battery terminal.

(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION



Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Voltage measurement between terminals 23, 24 and body earth.

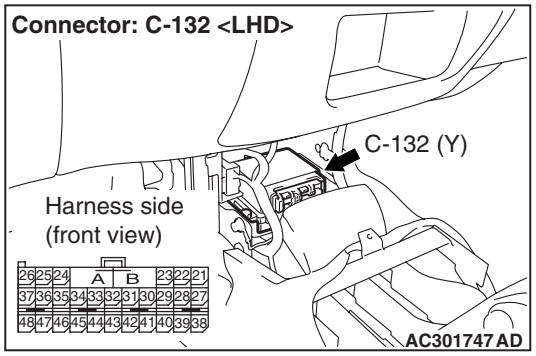
OK: 9 V or more

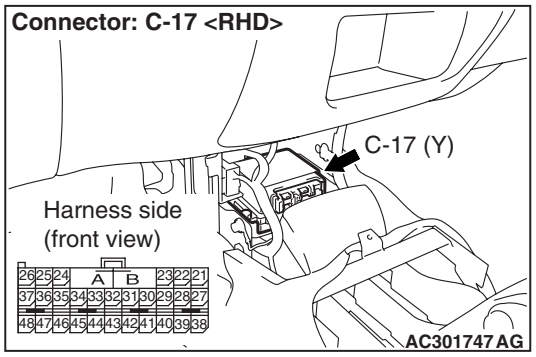
Q: Is the check result normal?

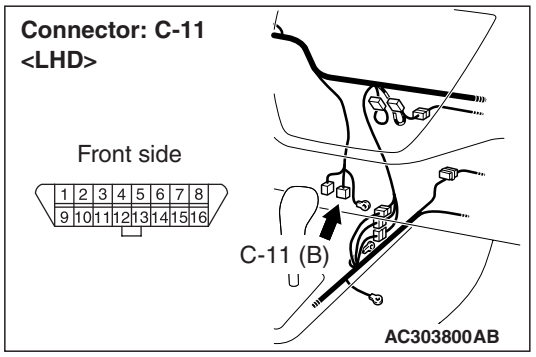
YES : Go to Step 7.

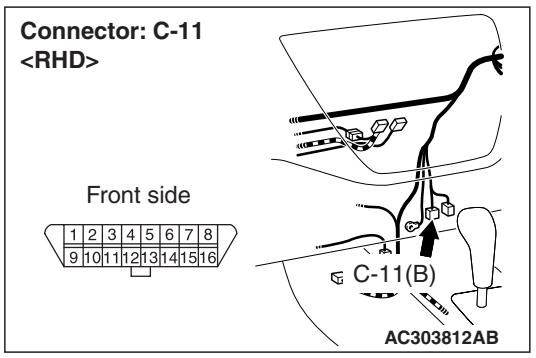
NO : Go to Step 6.

STEP 5. Check the harness wires between SRS-ECU connector C-132 <LHD> or C-17 <RHD> and diagnosis connector C-11.

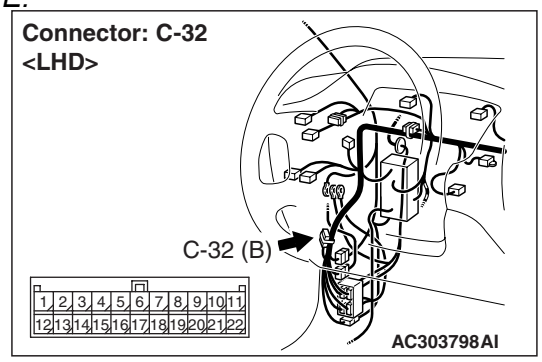


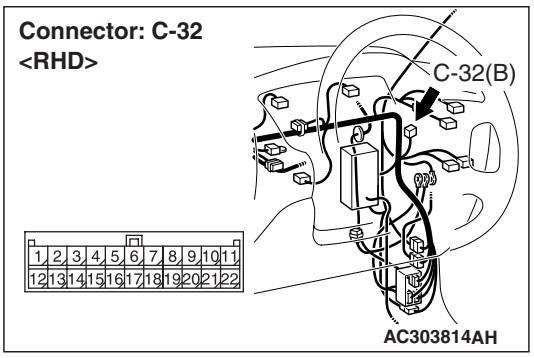






NOTE:





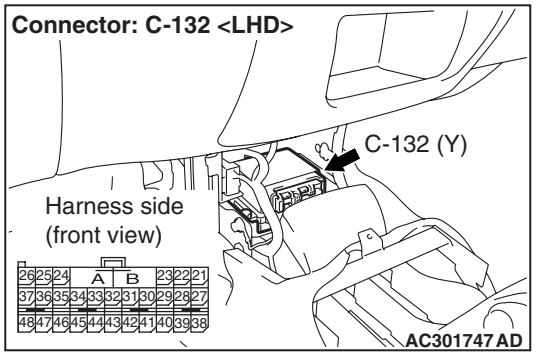
Prior to the wiring harness inspection, check junction block connector C-32, and repair if necessary.

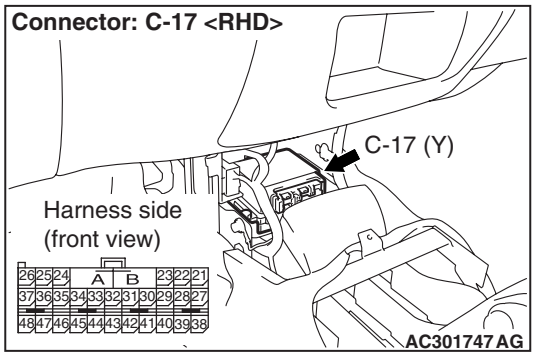
Q: Is the check result normal?

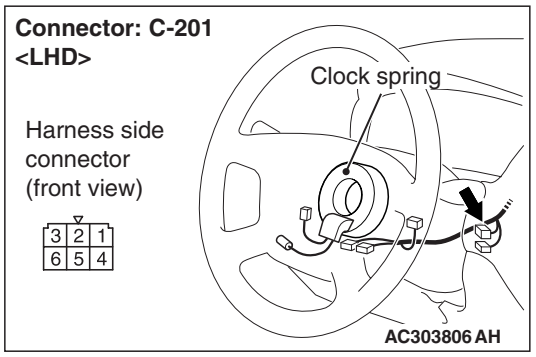
YES : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

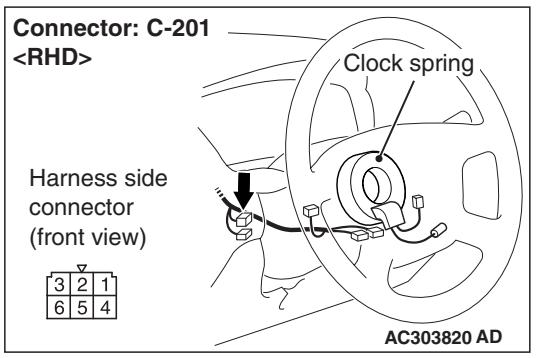
NO : Check the harness wires for open or short circuit between SRS-ECU connector C-132 <LHD> or C-17 <RHD> (terminal No.44) and diagnosis connector C-11 (terminal No.7) and repair if necessary.

STEP 6. Check the connectors between SRS-ECU connector C-132 <LHD> or C-17 <RHD> and ignition switch connector C-201.

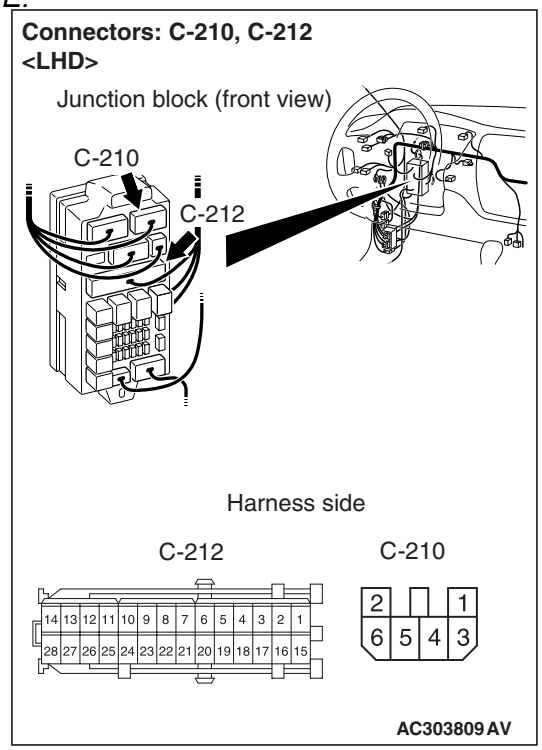


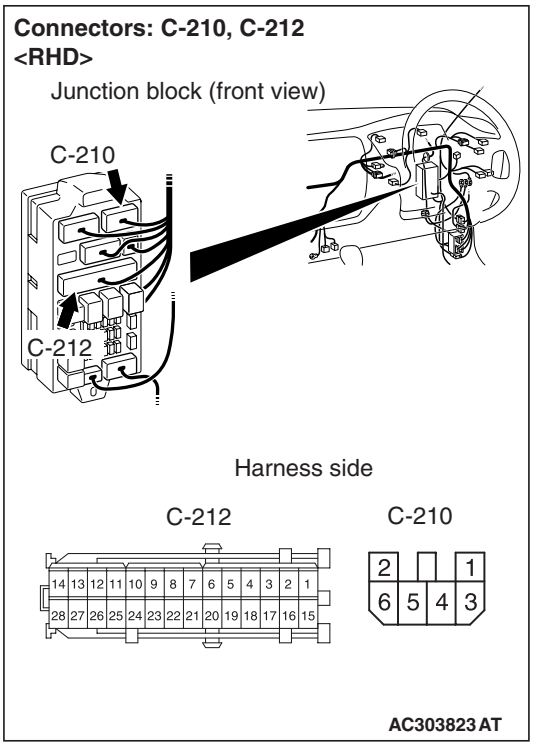






NOTE:





Prior to the wiring harness inspection, check junction block connectors C-210 and C-212, and repair if necessary.

Q: Is the check result normal?

YES : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

NO : Check the harness wires for open or short circuit between SRS-ECU connector C-132 <LHD> or C-17 <RHD> and ignition switch connector C-201, and repair if necessary.

STEP 7. Retest the system.

Q: Does the M.U.T.-II/III communicate normally with the SRS system?

YES : An intermittent malfunction is suspected (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).

NO : Replace the SRS-ECU (Refer to P.52B-198).

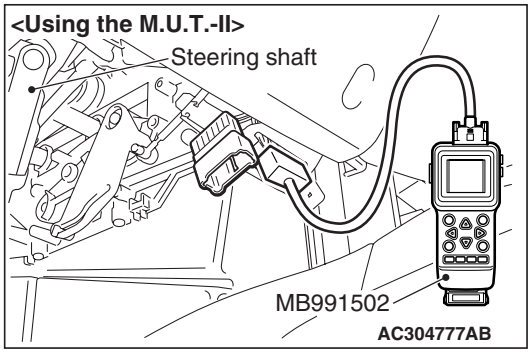
POST-COLLISION DIAGNOSIS

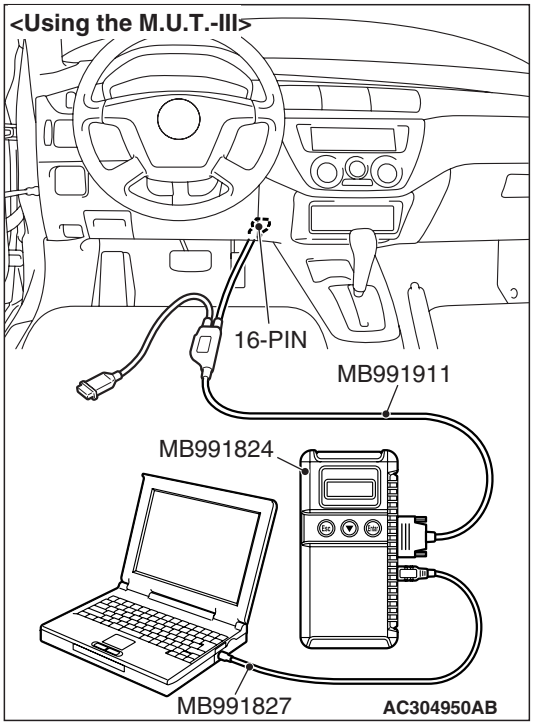
M1524001101297

Whether or not the air bags have deployed, check and service the vehicle after collision as follows:

SRS-ECU MEMORY CHECK

⚠ CAUTION





Refer to that the ignition switch is "LOCK" (OFF) when connecting or disconnecting M.U.T.-II/III.

1. Connect the M.U.T.-II/III to the diagnosis connector (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points P.00-5).
2. Read (and write down) all displayed diagnosis codes (Refer to P.52B-12).

   NOTE: If battery power supply has been shut down by the collision, the M.U.T.-II/III cannot communicate with the SRS-ECU. Check and, repair if necessary, the instrument panel wiring harness before the next job.
3. Use the M.U.T.-II/III to read the data list (how long trouble(s) have continued and how often memory have been erased).

Data list

No	Data List Item	Applicability
92	Number indicating how often the memory is cleared	Maximum time to be stored: 250 times
93	How long a problem has lasted (How long it takes from the occurrence of the problem till the first air bag squib igniting signal)	Maximum time to be stored: 9,999 minutes (approximately 7 days)
94	How long a problem has lasted (How long it takes from the first air bag squib igniting signal till now).	

4. Erase the diagnosis codes and after waiting 5 seconds or more read (and write down) all displayed diagnosis codes.

REPAIR PROCEDURE

WHEN FRONT AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones.
   - SRS-ECU (Refer to P.52B-198).
   - Front air bag modules (Refer to P.52B-199).
   - Clock spring (Refer to P.52B-199).
   - Seat belt with pre-tensioner (Refer to P.52B-215).
   - Instrument panel (Refer to GROUP 52A, Instrument Panel Assembly <LH drive vehicles P.52A-3>, <RH drive vehicles P.52A-3>).
2. Check the following parts and replace if there are any malfunctions.
   - Clock spring (Refer to P.52B-199).
   - Steering wheel, steering column and shaft assembly
     (1) Check the wiring harness (built into the steering wheel) and connectors for damage, and terminals for deformation.
     (2) Install the air bag module to check fit or alignment with the steering wheel.
     (3) Check the steering wheel for noise, binds or difficult operation and excessive free play.
     (4) Check the steering column shaft shock absorbing mechanism (Refer to GROUP 37, On-Vehicle Service P.37-15).
3. Check the harness for binding, connectors for damage, poor connections, and terminals for deformation (Refer to P.52B-3).

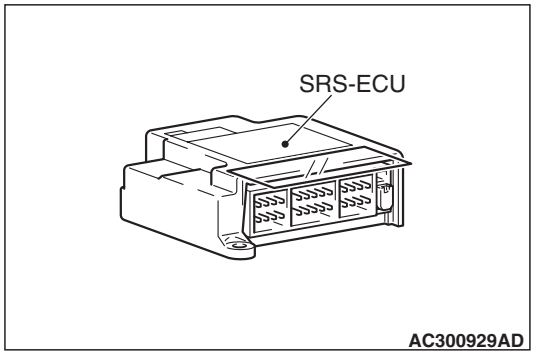
WHEN SIDE AND CURTAIN AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones.
   - SRS-ECU (Refer to P.52B-198).
   - Side impact sensors (Refer to P.52B-212).
   - Curtain air bag modules (Refer to P.52B-207).
   - Front seatback assembly (Refer to GROUP 52A, Front Seat Assembly P.52A-27).
2. Check the harness for binding, connectors for damage, poor connections, and terminals for deformation (Refer to P.52B-3).

WHEN AIR BAGS DO NOT DEPLOY IN LOW-SPEED COLLISION.

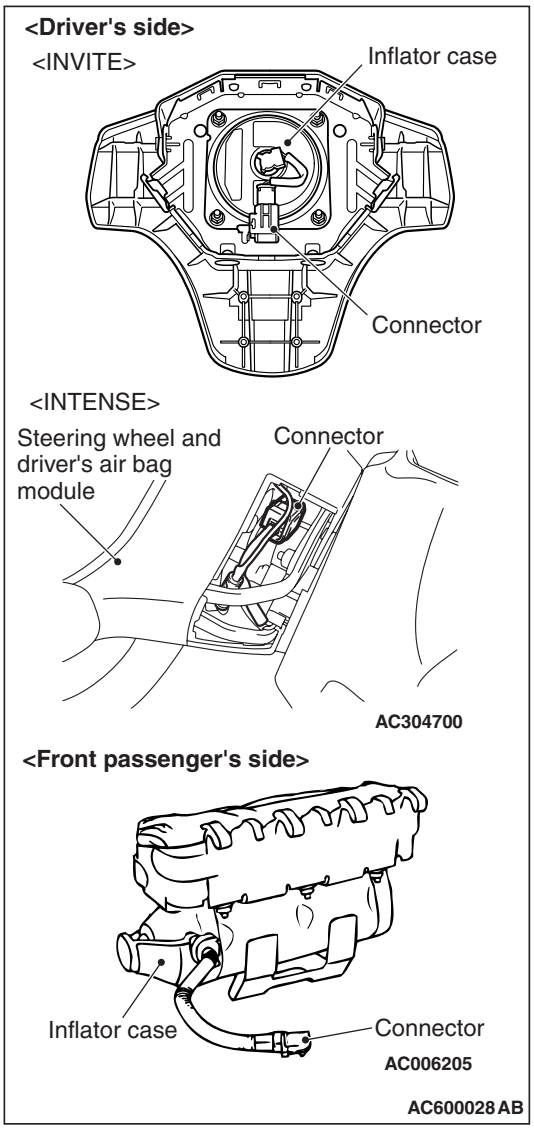
Check the SRS components. If visible damage such as dents, cracks, or deformation are found on the SRS components, replace them with new ones. Concerning parts removed for inspection, replacement with new parts and cautions in working, refer to P.52B-195

SRS-ECU



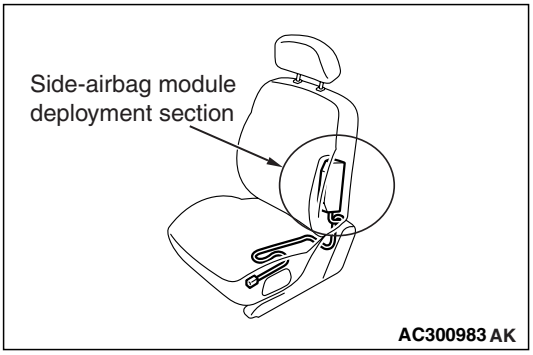
1. Check the SRS-ECU case and brackets for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the SRS-ECU and bracket for installation condition.

AIR BAG MODULES



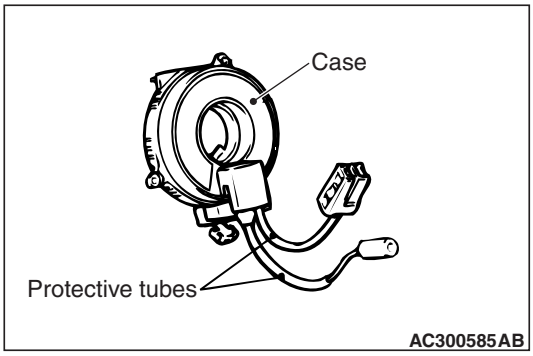
1. Check the pad cover for dents, cracks or deformation.
2. Check the connector for damage, terminals deformities, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformities.
4. Check the air bag modules for proper installation.

FRONT SEATBACK ASSEMBLY (SIDE-AIRBAG MODULE)



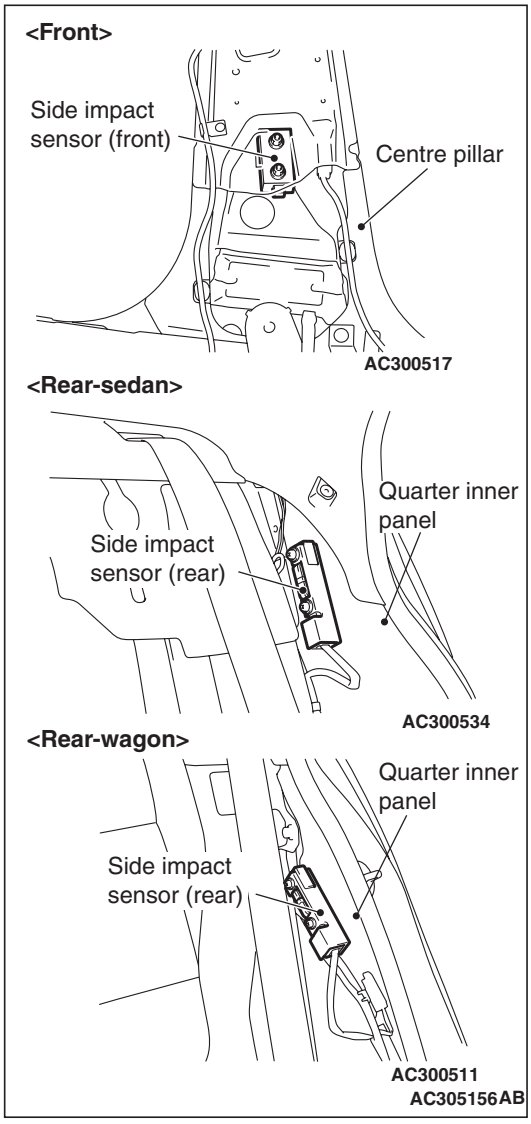
1. Check the side-airbag module deployment section in the seat for dents and deformation.
2. Check the connectors for damage, the terminals for deformation, and the harness for binds.

CLOCK SPRING



1. Check the clock spring connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.

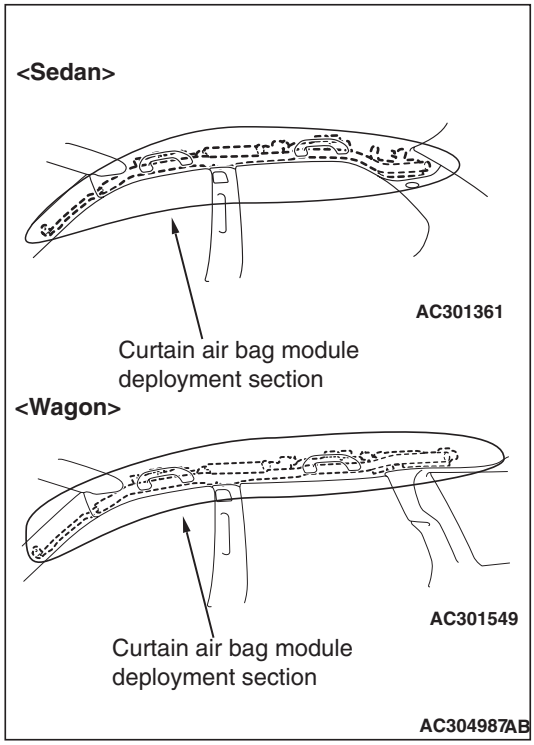
SIDE IMPACT SENSOR



1. Check the centre pillar for deformation or rust.
2. Check the side impact sensors for dents, cracks, deformation and rust.
3. Check the connector for damage and the terminals for deformation.

   NOTE: The figures show side impact sensors (RH). The side impact sensors (LH) is symmetrical with the side impact sensors (RH).

CURTAIN AIR BAG MODULES



1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the air bag for breakage.
4. Check the connector for damage, the terminal for deformation and the harness for binding.

STEERING WHEEL, STEERING COLUMN AND SHAFT ASSEMBLY

1. Check the wiring harness (built into the steering wheel) and the connectors for damage, and the terminals for deformation.
2. Install the air bag module to check fit or alignment with the steering wheel.
3. Check the steering wheel for noise, binding or difficult operation and excessive free play.
4. Check the steering column shaft shock absorbing mechanism (Refer to GROUP 37, On-vehicle Service P.37-15).

SEAT BELT WITH PRE-TENSIONER

1. Check the seat belt for damage or deformation.
2. Check the seat belt with pre-tensioner for cracks or deformation.
3. Check that the unit is installed correctly to the vehicle body.

HARNESS CONNECTOR (INSTRUMENT PANEL WIRING HARNESS AND FLOOR WIRING HARNESS, ROOF WIRING HARNESS)

Check harnesses for binding, connectors for damage and terminals for deformation (Refer to P.52B-3).

INDIVIDUAL COMPONENT SERVICE

M1524002900345

⚠ ***WARNING***

- ***If heat damage may occur during paint work, remove the SRS-ECU, the air bag modules, the clock spring, front seats, side impact sensors and the seat belt with pre-tensioner.***
  - ***SRS-ECU, air bag modules, clock spring, front seats and side impact sensors: 93°C or more***
  - ***Seat belt with pre-tensioner: 90°C or more***
- ***If the SRS components are removed for the purpose of check, sheet metal repair, painting, etc., they should be stored in a clean, dry place until they are reinstalled.***

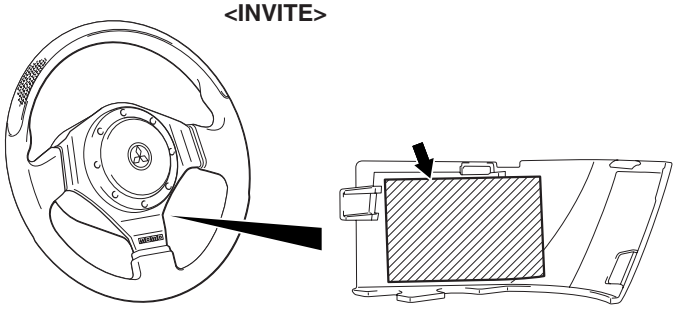
If the SRS components are to be removed or replaced as a result of maintenance, troubleshooting etc., follow the service procedures that follow. (SRS-ECU; refer to P.52B-198, Front air bag modules and clock spring; refer to P.52B-199, Side and curtain air bag modules; refer to P.52B-207, Side impact sensors; refer to P.52B-212, Seat belt with pre-tensioner; refer to P.52B-215).

WARNING/CAUTION LABELS

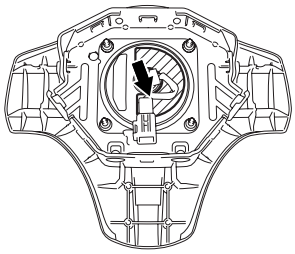
M1524003000679

Caution labels on the SRS are attached in the vehicle as shown. Follow label instructions when servicing the SRS. If the label(s) are dirty or damaged, replace with new one(s).

Steering wheel
<INVITE>

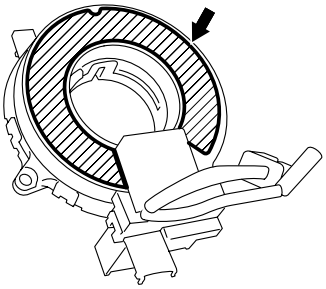


Driver's air bag module
<INTENSE>

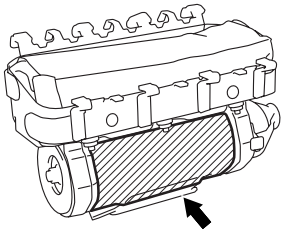


AC206616

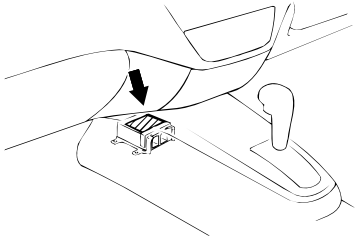
Clock spring



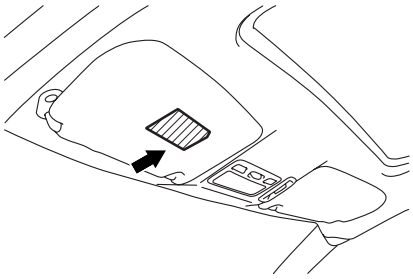
Passenger's (front) air bag module



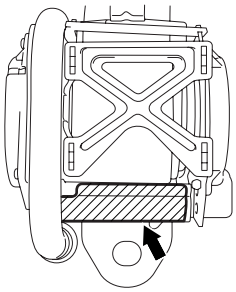
SRS-ECU



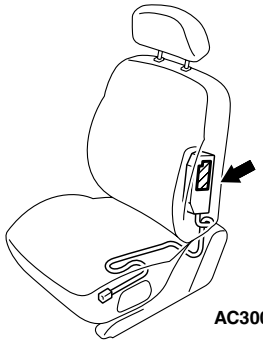
Sunvisor *



Seat belt with pre-tensioner (driver's and passenger's seat)

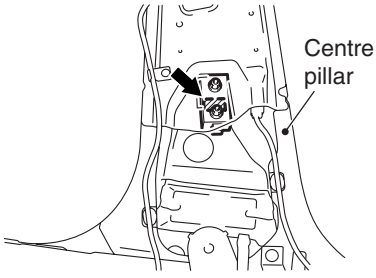


Side-airbag modules (driver's and front passenger's seat)



AC300984

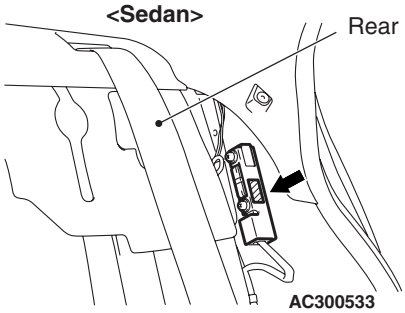
Side impact sensors (front) (left and right)



AC300505

Side impact sensors (rear) (left and right)

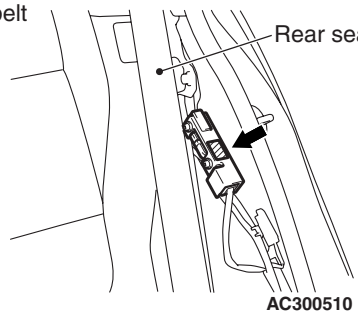
<Sedan>



AC300533

Side impact sensor (rear) (left and right)

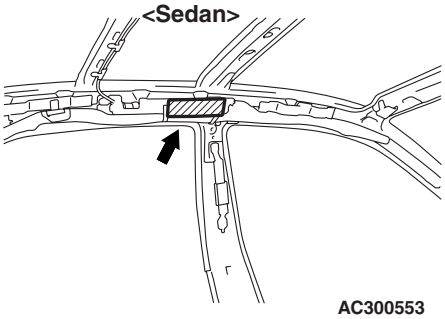
<Wagon>



AC300510

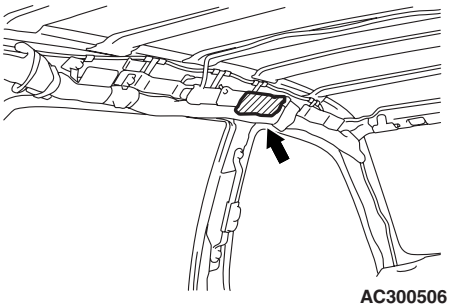
AC600030 AC

Curtain air bag modules (left and right)
<Sedan>



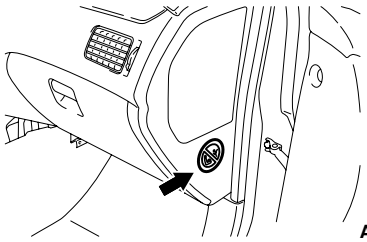
AC300553

Curtain air bag modules (left and right)
<Wagon>



AC300506

Instrument panel



AC304678

AC600031AC

SRS CONTROL UNIT (SRS-ECU)

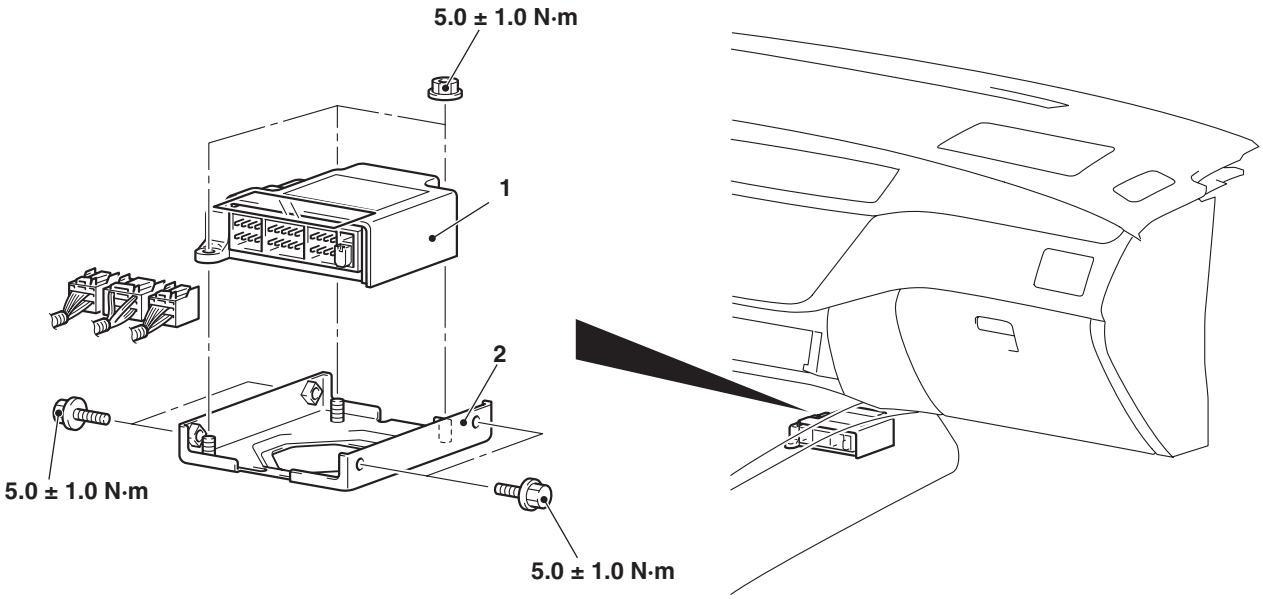
REMOVAL AND INSTALLATION

M1524002100930

⚠ ***WARNING***

- ***Disconnect the negative battery terminal and wait for 60 seconds or more before starting work. Furthermore, the disconnected battery terminal should be covered with tape to insulate it.***
- ***Never attempt to disassemble or repair the SRS-ECU. If faulty, replace it.***
- ***Do not drop or subject the SRS-ECU to impact or vibration. If denting, cracking, deformation, or rust are discovered in the SRS-ECU, replace it with a new SRS-ECU. Discard the old one.***
- ***Do not expose the SRS-ECU to temperatures over 93° C.***
- ***After deployment of an air bag, replace the SRS-ECU with a new one.***
- ***Never use an ohmmeter on or near the SRS-ECU, and use only the special test equipment described on P.52B-10.***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.
- Disconnect the Negative Battery Terminal.



AC304872AB

Removal steps
- Front floor console (Refer to GROUP 52A, Front floor console assembly P.52A-8.)
- Rear heater duct (Refer to GROUP 55, Ventilators P.55A-98.)

1. SRS-ECU
2. SRS-ECU bracket

Installation steps

2. SRS-ECU bracket

>>A<< 1. SRS-ECU
- Rear heater duct (Refer to GROUP 55, Ventilators P.55A-98.)
- Front floor console (Refer to GROUP 52A, Front floor console assembly P.52A-8.)
- Negative battery cable connection

>>B<<
- Post-installation inspection

INSTALLATION SERVICE POINTS

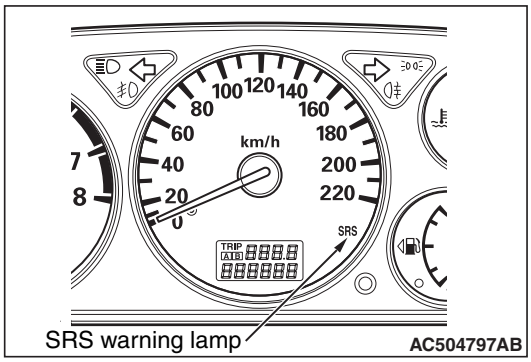
>>A<< SRS-ECU INSTALLATION

⚠ ***WARNING***

The SRS may not activate if SRS-ECU is not installed properly.

>>B<< POST-INSTALLATION INSPECTION

1. Connect the negative battery cable.
2. Turn the ignition switch to "ON" position.



3. Does the SRS warning lamp illuminate for about 7 seconds and then goes out?
4. If no, refer to troubleshooting (Refer to P.52B-12).

INSPECTION

M1524002200324

⚠ ***WARNING***

If any problems are found, replace the SRS-ECU.

- Check the SRS-ECU and brackets for dents, cracks or deformation.
- Check the SRS-ECU connector for damage, and the terminals for deformation.

NOTE: For the checks other than the items above, refer to "Troubleshooting" (Refer to P.52B-12).

DRIVER'S AND PASSENGER'S (FRONT) AIR BAG MODULE(S) AND CLOCK SPRING

REMOVAL AND INSTALLATION

M1524014500429

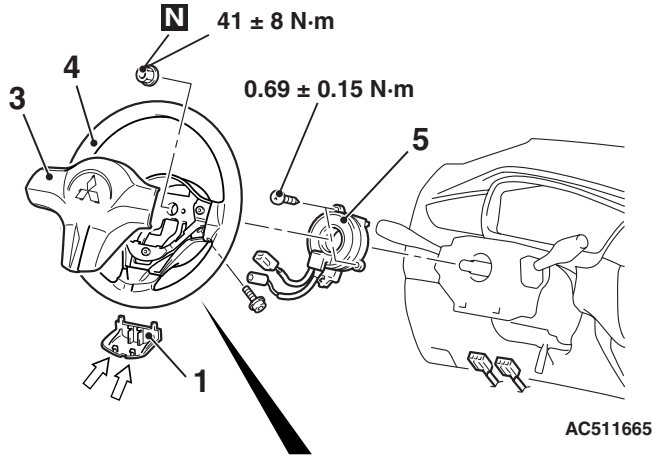
⚠ ***WARNING***

- ***Disconnect the negative battery terminal and wait for 60 seconds or more before starting work. Furthermore, the disconnected battery terminal should be covered with tape to insulate it.***
- ***Never attempt to disassemble or repair the air bag modules or clock spring. If faulty, replace it.***
- ***Do not drop the air bag modules or clock spring or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***The air bag modules should be stored on a flat surface is facing upward. Do not place anything on top of it.***
- ***Do not expose the air bag modules to temperatures over 93°C.***
- ***After deployment of an air bag, replace the clock spring with a new one.***
- ***Wear gloves and safety glasses when handling air bags that have already deployed.***
- ***An undeployed air bag module should only be disposed of in accordance with the procedures (Refer to P.52B-218).***

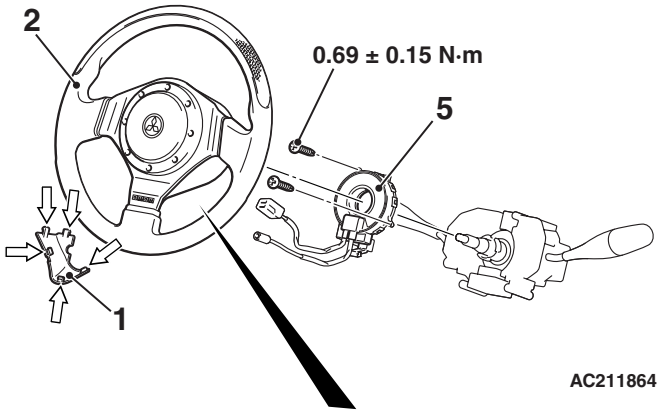
<DRIVER'S AIR BAG MODULE AND CLOCK SPRING>

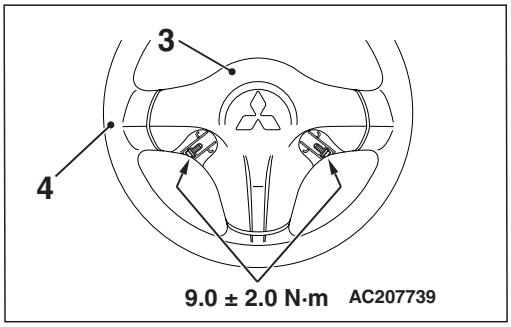
Pre-removal Operation
- Disconnect the Negative Battery Terminal.

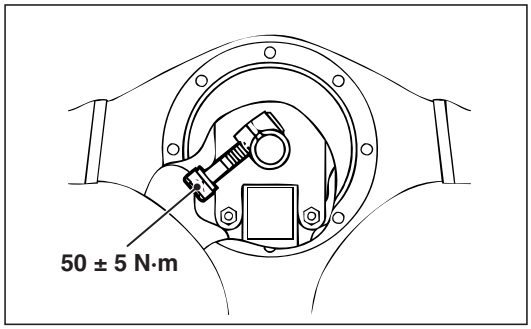
<INVITE>

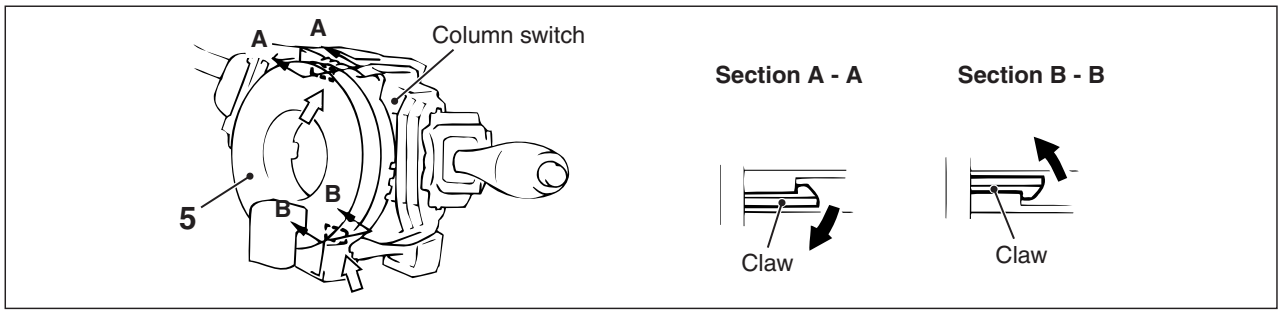


<INTENSE>









Note
⇦: Claw positions

AC600034AB

Driver's air bag module removal steps

<<A>> 1. Cover
<<B>> • Driver's air bag module connector
<<C>> 2. Steering wheel and driver's air bag module assembly <INTENSE>
<<D>> 3. Driver's air bag module <INVITE>
<<E>> 4. Steering wheel <INVITE>

Clock spring removal steps

<<A>> 1. Cover
<<B>> • Driver's air bag module connector
<<C>> 2. Steering wheel and driver's air bag module assembly <INTENSE>
<<D>> 3. Driver's air bag module <INVITE>
<<E>> 4. Steering wheel <INVITE>

Clock spring removal steps

- Lower column cover (Refer to GROUP 37, Steering shaft P.37-20.)

<<F>> 5. Clock spring

Driver's air bag module installation steps

>>A<< • Pre-installation inspection
4. Steering wheel <INVITE>
3. Driver's air bag module <INVITE>
>>C<< 2. Steering wheel and driver's air bag module assembly <INTENSE>
1. Cover
- Negative battery cable connection
>>D<< • Post-installation inspection

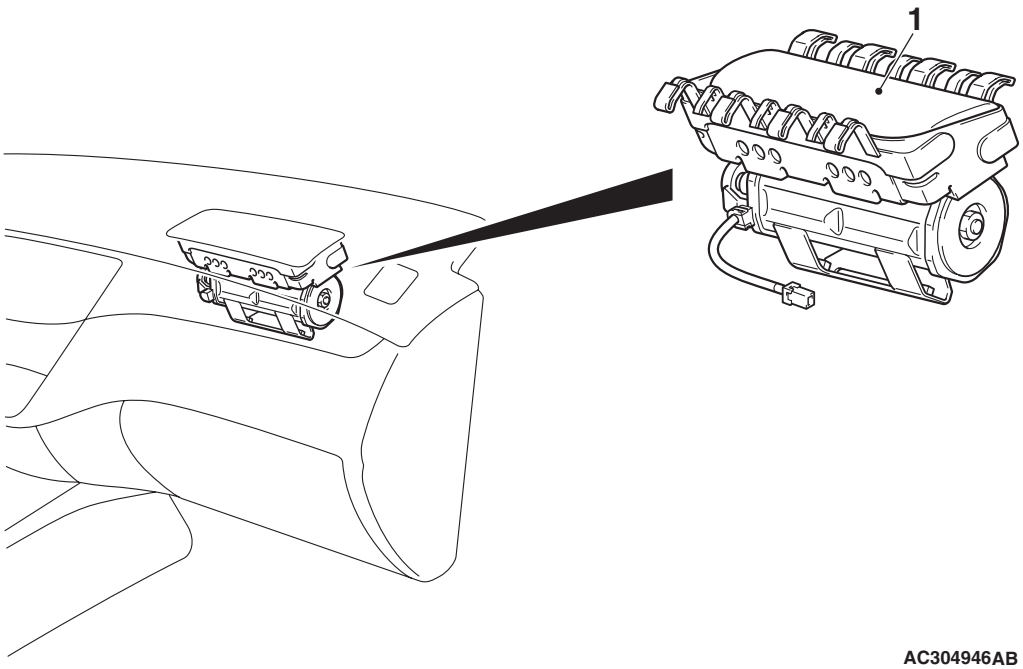
Clock spring installation steps

>>A<< • Pre-installation inspection
>>B<< 5. Clock spring
• Lower column cover (Refer to GROUP 37, Steering shaft P.37-20.)
>>C<< 4. Steering wheel <INVITE>
>>C<< 3. Driver's air bag module <INVITE>
>>C<< 2. Steering wheel and driver's air bag module assembly <INTENSE>
1. Cover
• Negative battery cable connection
>>D<< • Post-installation inspection

Clock spring installation steps

<PASSENGER'S (FRONT) AIR BAG MODULE>

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.
- Disconnect the Negative Battery Terminal.



AC304946AB

Removal steps

• Instrument panel (Refer to GROUP 52A, Instrument panel P.52A-3.)
<<G>> 1. Passenger's (front) air bag module

Installation steps

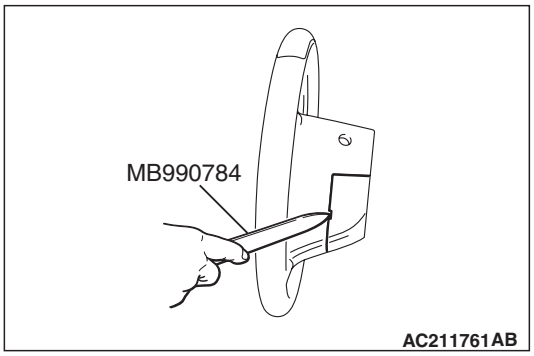
>>A<< • Pre-installation inspection
1. Passenger's (front) air bag module

Installation steps (Continued)

• Instrument panel (Refer to GROUP 52A, Instrument panel P.52A-3.)
• Negative battery cable connection
>>D<< • Post-installation inspection

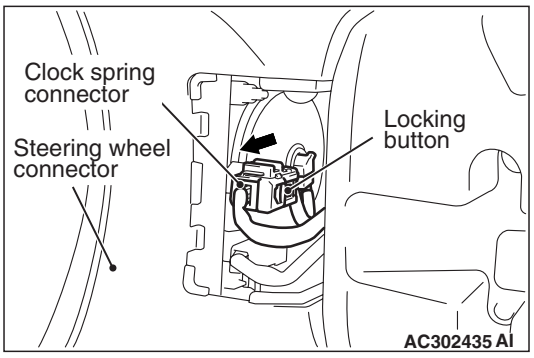
REMOVAL SERVICE POINTS

<<A>>COVER REMOVAL



Insert the special tool ornament remover (MB990784) as shown in the illustration to remove the cover.

<<B>> DRIVER'S AIR BAG MODULE CONNECTOR DISCONNECTION

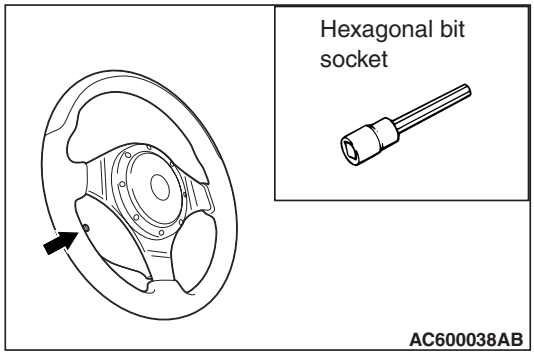


Disconnect the clock spring connector while compressing its locking button and sliding it to the direction of an arrow.

<<C>> STEERING WHEEL AND DRIVER'S AIR BAG MODULE ASSEMBLY REMOVAL <INTENSE>

⚠ WARNING

- ***The steering wheel and driver's air bag module must not be measured with such equipment as an ohmmeter, nor disassembled.***
- ***The removed steering wheel and driver's air bag module should be stored in a clean, dry place with the deployment surface facing up.***



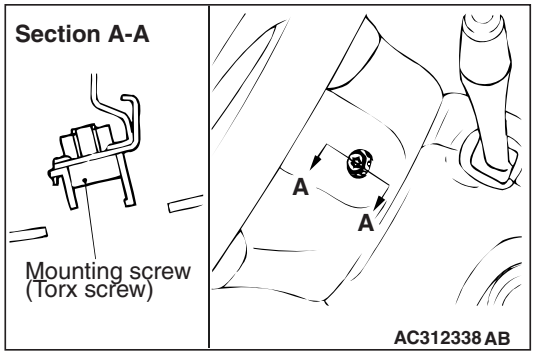
Insert the hexagonal bit socket into the arrow section in the figure. Completely loosen the bolt, and then remove the steering wheel air bag module assembly.

NOTE: Use a hexagonal bit socket or a hexagonal wrench having an effective length of 75 mm or more in the hexagonal section and the diameter of 8 mm or more.

<<D>> DRIVER'S AIR BAG MODULE REMOVAL <INVITE>

⚠ WARNING

- ***The air bag module must not be measured with such equipment as an ohmmeter, nor disassembled.***
- ***The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.***

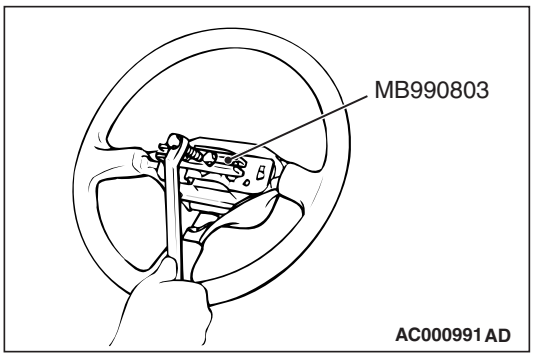


Remove the bag module mounting screws (Torx screws) at the sides of the steering wheel.

NOTE: Do not remove the screws from the holders.

<<E>> STEERING WHEEL REMOVAL <INTENSE>

1. Position the steering wheel in the straight-ahead position.



2. Use special tool steering wheel puller (MB990803) to remove the steering wheel.

<<F>> CLOCK SPRING REMOVAL

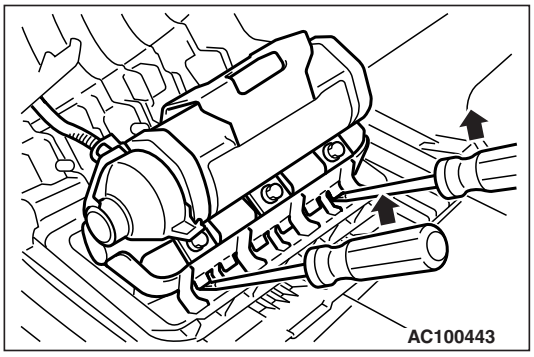
⚠ ***WARNING***

The removed clock spring should be stored in a clean, dry place.

<<G>> PASSENGER'S (FRONT) AIR BAG MODULE REMOVAL

⚠ ***WARNING***

- ***When the air bag module is removed, do not damage the engagement of the pawls.***
- ***The removed air bag module should be stored in a clean, dry place with facing the deployment surface facing up.***



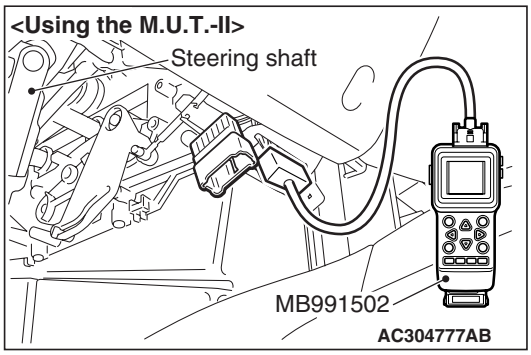
Insert the screwdriver (–) into the position specified in the figure and lift the screwdriver upward to release the pawls engaged, and then remove the air bag module.

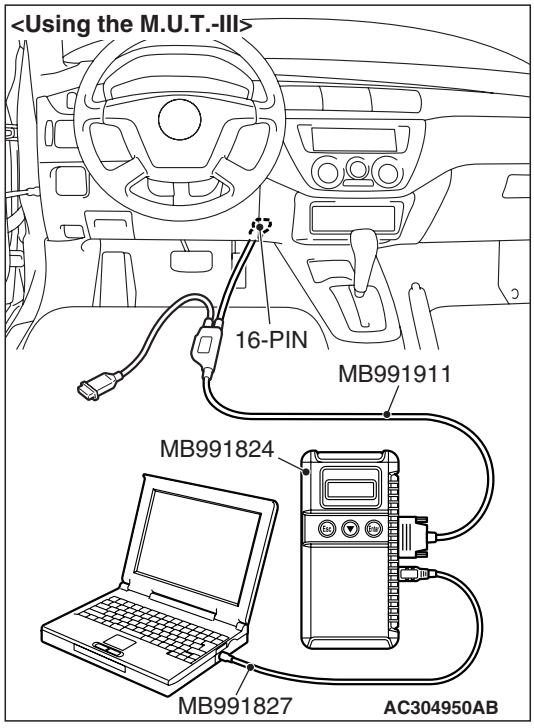
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

1. When installing the new air bag modules and clock spring, refer to "INSPECTION" (P.52B-205).
2. Connect the negative battery cable.

⚠ **CAUTION**





To prevent damage to M.U.T.-II/III, always turn the ignition, switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

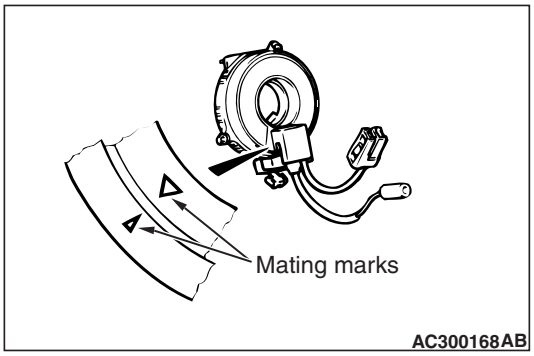
3. Connect M.U.T.-II/III to the diagnosis connector.
4. Turn the ignition switch to the "ON" position.
5. Check diagnosis codes using M.U.T.-II/III to ensure entire SRS operates properly.

   Confirm that the diagnosis codes other than 21 and 24 are not set.
6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative battery cable and tape the terminal to prevent accidental connection and air bags deployment.

>>B<< CLOCK SPRING INSTALLATION

⚠ ***WARNING***

Ensure that the clock spring's mating marks are properly aligned. If not, the steering wheel may not rotate completely during a turn, or the flat cable in the clock spring could be damaged, This would prevent normal SRS operation and possibly cause serious injury to the driver.



1. Align the mating marks of the clock spring.

   <Mating Mark Alignment>

   Turn the clock spring clockwise fully. Then turn it back approximately 3 3/4 turns anti-clockwise to align the mating marks.
2. Turn the front wheels to the straight-ahead position. Then install the clock spring to the column switch.

>>C<< STEERING WHEEL <INVITE>/DRIVER'S AIR BAG MODULE <INVITE>/STEERING WHEEL AND DRIVER'S AIR BAG MODULE ASSEMBLY <INTENSE> INSTALLATION

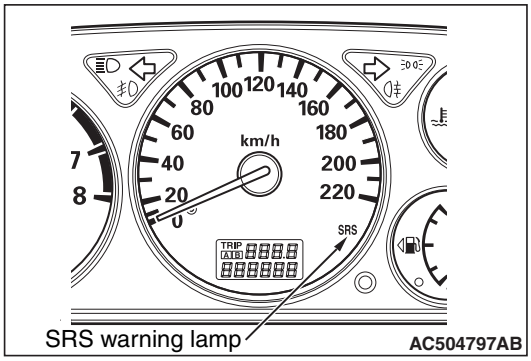
⚠ **CAUTION**

When installing the steering wheel, and driver's air bag module ensure that the harness of the clock spring does not become caught or tangled.

1. Before installing the steering wheel, and driver's air bag module turn the vehicle's front wheels to the straight-ahead position and align the mating marks of the clock spring.
2. After securing the steering wheel, turn the steering wheel all the way in both directions to confirm that the steering wheel rotation is normal.

>>D<< POST-INSTALLATION INSPECTION

1. Reconnect the negative battery cable.
2. Turn the ignition switch to "ON" position.



3. Does the SRS warning lamp illuminate for about 7 seconds and then goes out.
4. If yes, the SRS system is functioning properly. If no, refer to P.52B-11.

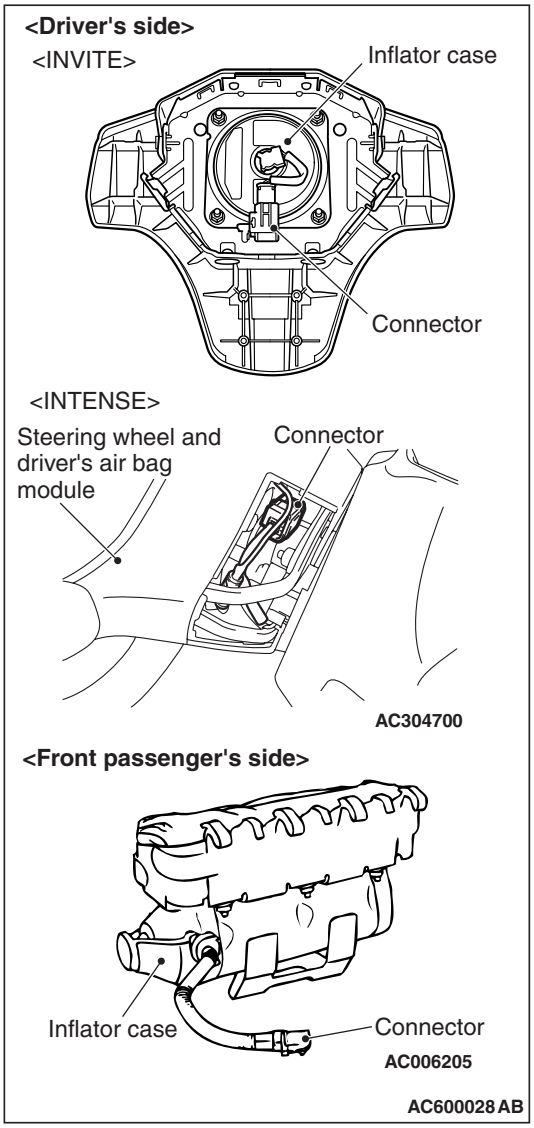
INSPECTION

M1524014600277

AIR BAG MODULE CHECK

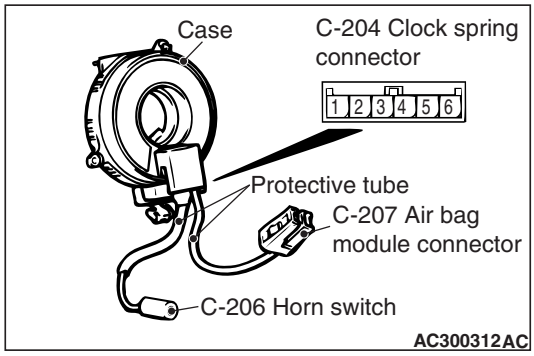
⚠ WARNING

- ***If any component damage is found during the following inspection, replace the air bag module(s) with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-218).***
- ***Never attempt to measure the circuit resistance of he air bag module (squib) even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag module(s) deployment will result in serious personal injury.***



1. Check the pad cover for dents, cracks or deformation.
2. Check the connectors for damage, the terminals for deformation, and the harness for binds.
3. Check the air bag inflator case for dents, cracks or deformation.
4. Install the air bag module (driver's side) to the steering wheel and check fit and alignment with the wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember and check fit and alignment.

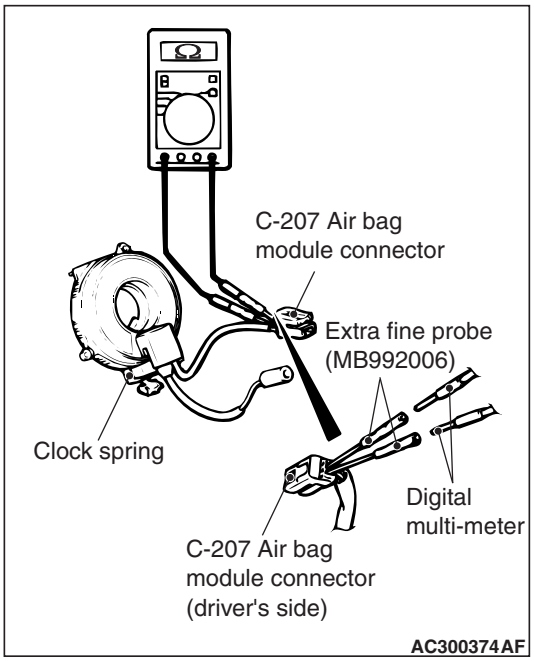
CLOCK SPRING CHECK



If any malfunction is found in the following inspections, replace the clock spring with a new one.

1. Check the connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.
3. Check to see that there is a charge (continuity) between the C-204 clock spring connector terminal 1 and C-206 horn switch.

⚠ CAUTION



Do not directly insert a probe, etc. into the terminal from the front of the connector.

4. Insert the special tool extra fine probe (MB992006) from behind the C-207 air bag module connector (driver's side).
5. As shown in the Figure, connect the circuit tester to the special tool extra fine probe (MB992006) and check to see that there is a charge between the terminals.

SIDE AND CURTAIN AIR BAG MODULE(S)

REMOVAL AND INSTALLATION

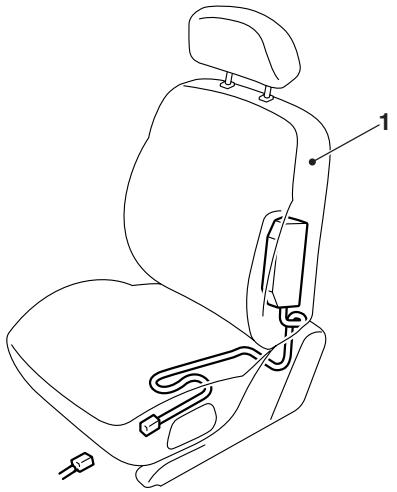
M1524014800215

⚠ ***WARNING***

- ***Disconnect the negative battery terminal and wait for 60 seconds or more before starting work. Furthermore, the disconnected battery terminal should be covered with tape to insulate it.***
- ***Never attempt to disassemble or repair the side and curtain air bag modules. If faulty replace it.***
- ***Do not drop the side and curtain air bag modules or allow contact with water, grease or oil. Replace if a dent, crack, deformation or rust are present.***
- ***The side and curtain air bag modules should be stored on a flat surface is facing upward. Do not place anything on top of it.***
- ***Do not expose the side and curtain air bag modules to temperatures over 93 °C.***
- ***When the side and curtain air bags have been deployed, replace the front seatback assembly and curtain air bag modules with new ones.***
- ***Wear gloves and safety glasses when handling the side and curtain air bags that have already deployed.***
- ***An undeployed the side and curtain air bag module should only be disposed of in accordance with the procedures (Refer to P.52B-218).***

<SIDE-AIRBAG MODULE>

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.
- Disconnect the Negative Battery Terminal.



AC301340AB

Side-airbag module removal steps

<<A>> 1. Front seat assembly

Side-airbag module installation steps

>>A<< • Pre-installation inspection

1. Front seat assembly

Side-airbag module installation steps (Continued)

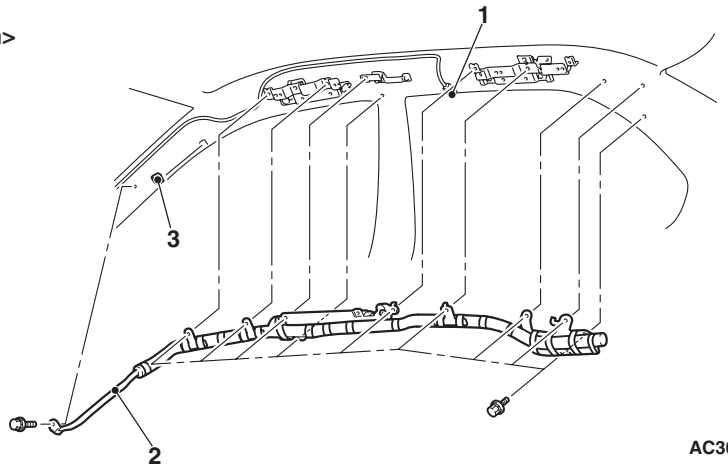
• Negative battery cable connection

>>C<< • Post-installation inspection

<CURTAIN AIR BAG MODULE>

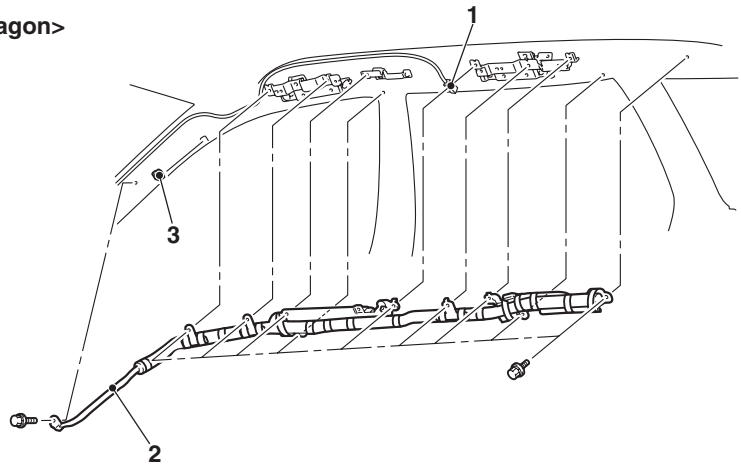
Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.
- Disconnect the Negative Battery Terminal.

<Sedan>



AC300918

<Wagon>



AC300919

AC304918AB

Curtain air bag module removal steps
- Headlining (Refer to GROUP 52A, Headlining P.52A-23.)

<<B>>
1. Connector
2. Curtain air bag module
3. Strap guide bracket

Curtain air bag module installation steps

>>A<<
- Pre-installation inspection

3. Strap guide bracket

>>B<<
2. Curtain air bag module
1. Connector
- Headlining (Refer to GROUP 52A, Headlining P.52A-23.)
- Negative battery cable connection

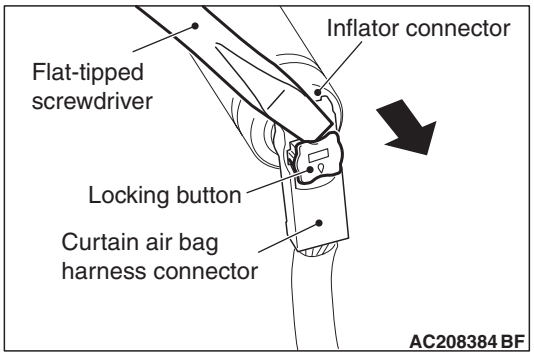
>>C<<
- Post-installation inspection

REMOVAL SERVICE POINTS

<<A>> FRONT SEAT ASSEMBLY REMOVAL

Refer to GROUP 52A, Front seat assembly P.52A-27.

<<B>> CONNECTOR REMOVAL



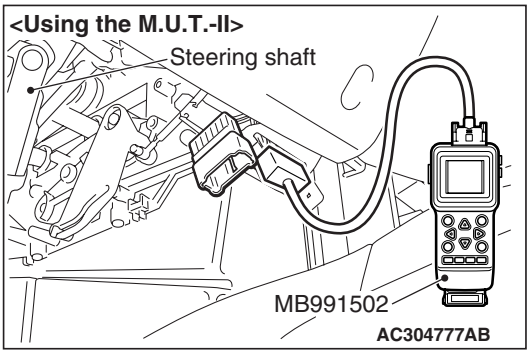
Use a flat-tipped screwdriver to pull out forward and unlock the locking button of the curtain air bag harness-side connector.

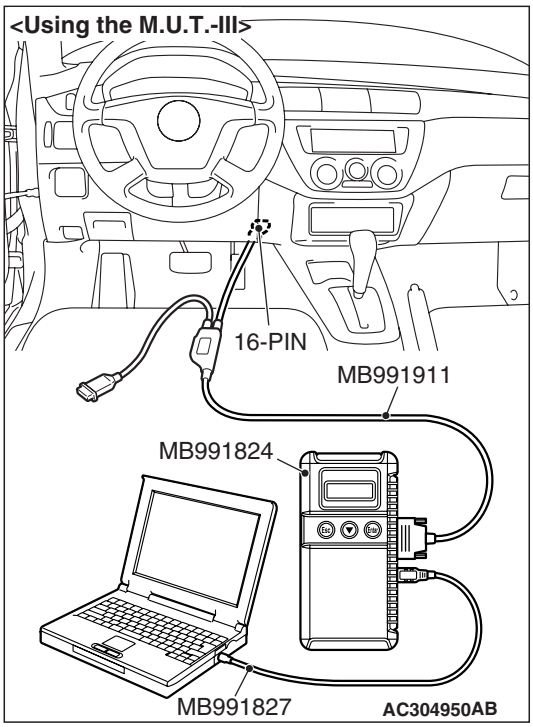
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

1. When installing the new air bag modules, refer to “INSPECTION” (P.52B-210).
2. Connect the negative battery cable.

⚠ CAUTION





To prevent damage to M.U.T.-II/III, always turn the ignition, switch to the “LOCK” (OFF) position before connecting or disconnecting M.U.T.-II/III.

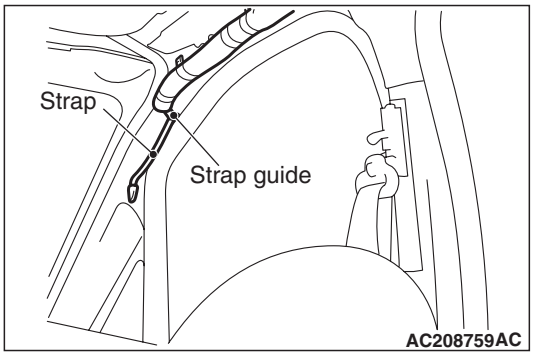
3. Connect M.U.T.-II/III to the diagnosis connector.
4. Turn the ignition switch to the “ON” position.
5. Check diagnosis codes using M.U.T.-II/III to ensure entire SRS operates properly.

   Confirm that the diagnosis codes other than 71, 81, 3A and 4A are not set.
6. Turn the ignition switch to the "LOCK" (OFF) position.
7. Disconnect the negative battery cable and tape the terminal to prevent accidental connection and air bags deployment.

>>B<< CURTAIN AIR BAG MODULE INSTALLATION

⚠ CAUTION

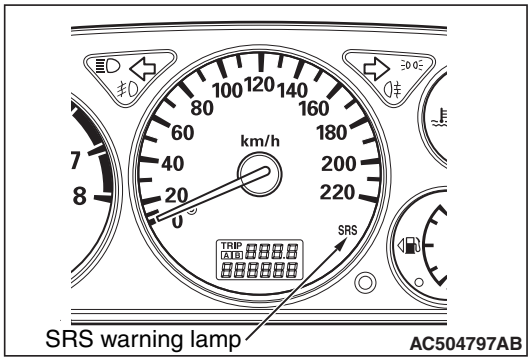
- **Take care not to contort the curtain air bag when installing it.**
- **Take care that the surrounding components do not trap the air bag.**
- **Take care that the front pillar trim clips or other do not trap the strap.**



Hang the strap on the strap guide.

>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative battery cable.
2. Turn the ignition switch to “ON” position.



3. Does the SRS warning lamp illuminate for about 7 seconds and then goes out?
4. If yes, the SRS system is functioning properly. If no, refer to P.52B-11.

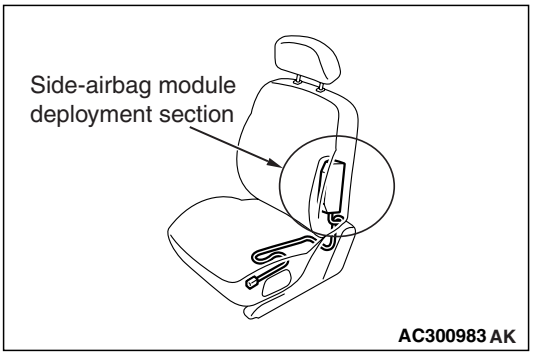
INSPECTION

M1524014900137

FRONT SEATBACK ASSEMBLY WITH SIDE-AIRBAG MODULE CHECK

⚠ WARNING

- ***If any improper part is found during the following inspection, replace the front seatback assembly with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-218).***
- ***Never attempt to measure the circuit resistance of the air bag module (squib) even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result in serious personal injury.***

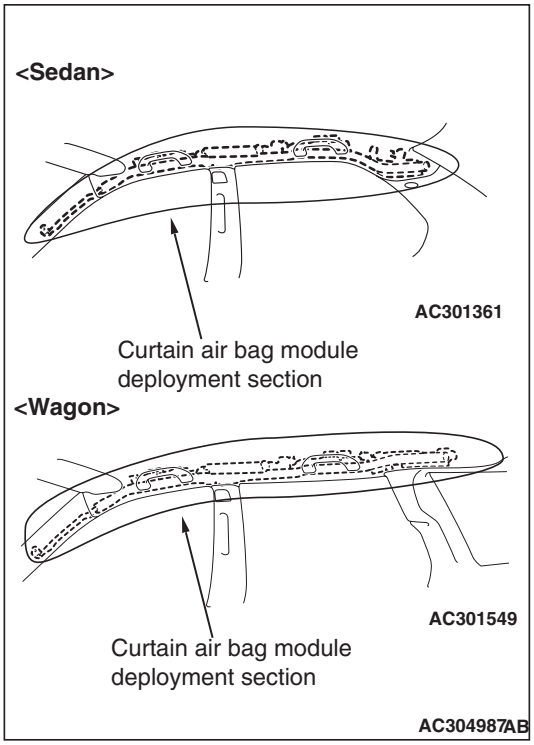


1. Check the side-airbag module deployment section for dents or deformation.
2. Check connector for damage, terminals for deformation, and harness for binds.

CURTAIN AIR BAG MODULE CHECK

⚠ ***WARNING***

- ***If any improper part is found during the following inspection, replace the curtain air bag module (squib) assembly with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-218).***
- ***Never attempt to measure the circuit resistance of the air bag module (squib) even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result in serious personal injury.***



1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the air bag for breakage.
4. Check the connector for damage, the terminal for deformation and the harness for binding.

SIDE IMPACT SENSOR

REMOVAL AND INSTALLATION

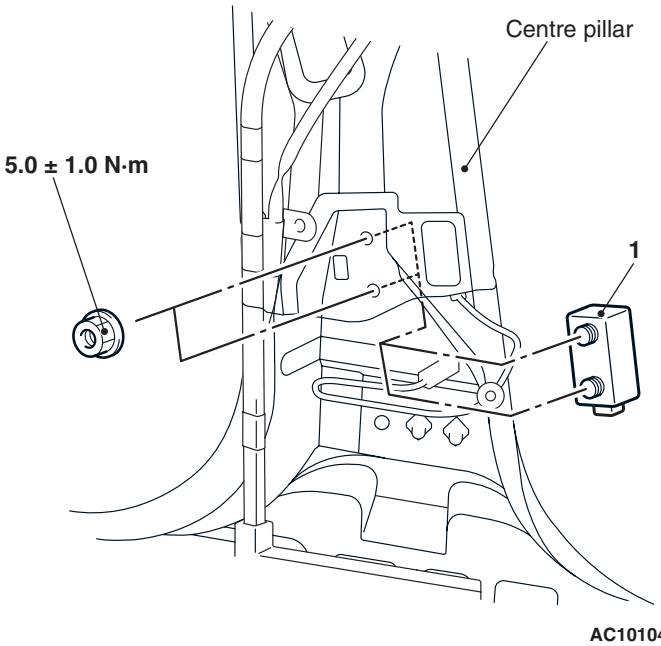
M1524004600759

⚠ ***WARNING***

- ***Disconnect the negative battery terminal and wait for 60 seconds or more before starting work. Furthermore, the disconnected battery terminal should be covered with tape to insulate it.***
- ***Never attempt to disassemble or repair the side impact sensors. If faulty, replace it.***
- ***Do not drop or subject the side impact sensors to impact or vibration. If denting, cracking, deformation, or rust are discovered in the side impact sensors, replace it with a new front impact sensor. Discard the old one.***
- ***After deployment of an air bag, replace the side impact sensors with a new one.***
- ***Never use an ohmmeter on or near the side impact sensors, and use only the special test equipment described on P.52B-10.***

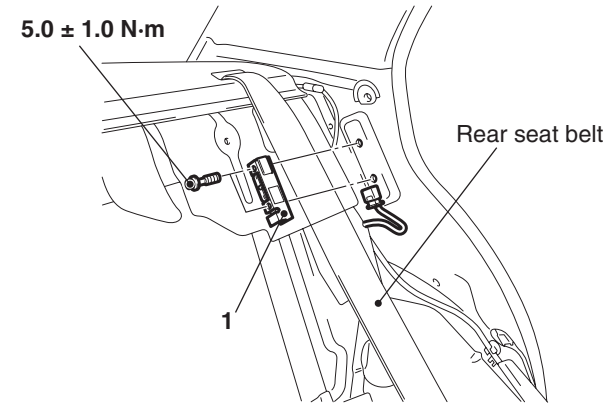
Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.
- Disconnect the Negative Battery Terminal.

<Front>



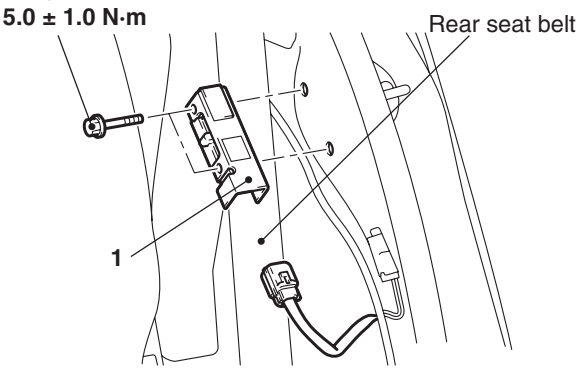
AC101041

<Rear - sedan>



AC300615

<Rear - wagon>



AC300614

AC304931AB

Side impact sensor (front) removal steps
- Centre pillar trim lower (Refer to GROUP 52A, Trims P.52A-13.)
- Seat belt with pre-tensioner (Refer to GROUP 52A, Front seat belt P.52A-36.)

1. Side impact sensor (front)

Side impact sensor (front) installation steps

>>A<<
- Pre-installation inspection

>>B<<
1. Side impact sensor (front)
- Seat belt with pre-tensioner (Refer to GROUP 52A, Front seat belt P.52A-36.)
- Centre pillar trim lower (Refer to GROUP 52A, Trims P.52A-13.)
- Negative battery cable connector

>>C<<
- Post-installation inspection

Side impact sensor (rear) removal steps
- Rear seat cushion (Refer to GROUP 52A, Rear seat P.52A-30.)

1. Side impact sensor (rear)

Side impact sensor (rear) installation steps

>>A<<
- Pre-installation inspection

>>B<<
1. Side impact sensor (rear)
- Rear seat cushion (Refer to GROUP 52A, Rear seat P.52A-30.)
- Negative battery cable connector

>>C<<
- Post-installation inspection

NOTE: The figure shows the side impact sensor (LH).

INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

Even new side impact sensor requires inspection before installation (Refer to the previous item "INSPECTION" P.52B-214).

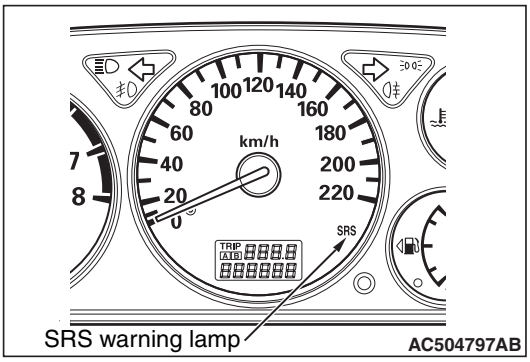
>>B<< SIDE IMPACT SENSOR INSTALLATION

⚠ WARNING

The side impact sensor, unless properly installed, does not operate properly, thereby resulting in serious injury or death of the vehicle's occupants.

>>C<< POST-INSTALLATION INSPECTION

1. Connect the negative battery cable.
2. Turn the ignition key to "ON" position.



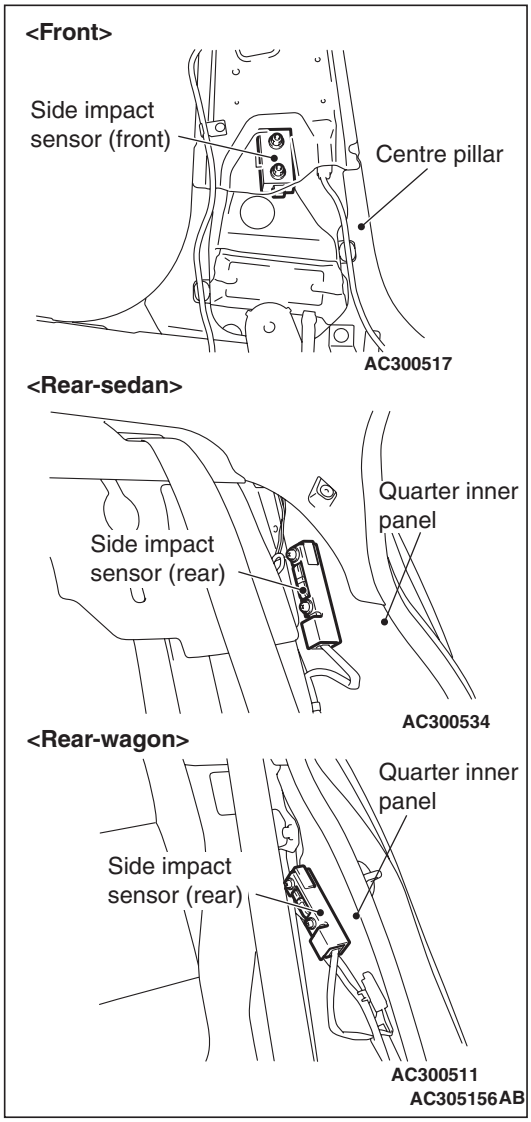
3. Does the SRS warning lamp illuminate for about 7 seconds, and then goes out?
4. If no, refer to troubleshooting (Refer to P.52B-12).

INSPECTION

M1524004700604

⚠ ***WARNING***

If any problems, replace the sensor.



1. Check the side impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminal for deformation.
3. Check the centre pillar and the quarter inner panel for deformation or corrosion.

NOTE: For the checks other than the items above, refer to Troubleshooting (Refer to P.52B-12) .

SEAT BELTS WITH PRE-TENSIONER

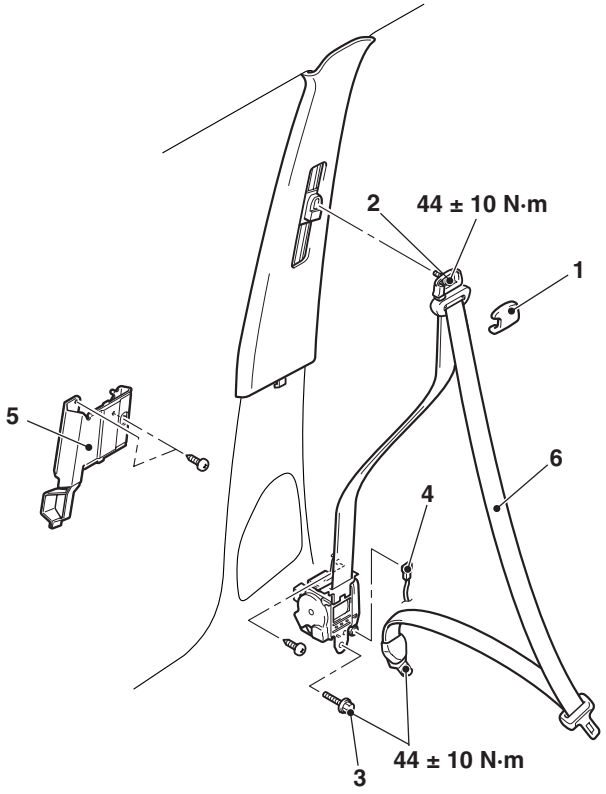
REMOVAL AND INSTALLATION

M1524004100828

⚠ WARNING

- ***Disconnect the negative battery terminal and wait for 60 seconds or more before starting work. Furthermore, the disconnected battery terminal should be covered with tape to insulate it.***
- ***Be extremely careful when handling the seat belt with pre-tensioner. Do not subject it to shocks, drop it, bring it close to strong magnets or allow contact with water, grease or oil. Always replace it with a new part if any dents, cracks or deformation is found.***
- ***Do not place anything on top of the seat belt pre-tensioner.***
- ***Do not expose the seat belt pre-tensioner to temperatures over 90°C.***
- ***After operating the seat belt pre-tensioner, replace the seat belt with pre-tensioner with a new part.***
- ***Wear gloves and safety goggles when handling a seat belt pre-tensioner that have already operated.***
- ***If disposing of a seat belt with pre-tensioner which has not yet been operated, its seat belt pre-tensioner should be operated first before disposal (Refer to P.52B-218).***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.
- Disconnect the Negative Battery Terminal.



AC101710AC

Removal steps

1. Sash guide cover
2. Seat belt shoulder anchor bolt
3. Seat belt lower anchor bolt
- Centre pillar trim, lower (Refer to GROUP 52A, Trims P.52A-13.)

<<A>> 4. Seat belt pre-tensioner connector connection

5. Bracket
6. Seat belt with pre-tensioner

Installation steps

>>A<< - Pre-installation inspection

6. Seat belt with pre-tensioner
5. Bracket

>>B<< 4. Seat belt pre-tensioner connector connection

- Centre pillar trim, lower (Refer to GROUP 52A, Trims P.52A-13.)

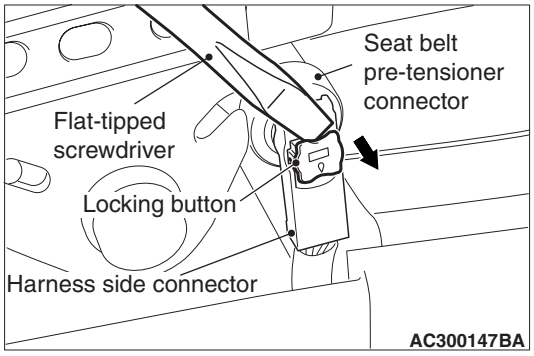
3. Seat belt lower anchor bolt
2. Seat belt shoulder anchor bolt
1. Sash guide cover
- Negative battery cable connection

>>C<< - Post-installation inspection

NOTE: The figure shows the seat belt with pre-tensioner (RH).

REMOVAL SERVICE POINTS

<<A>>SEAT BELT PRE-TENSIONER CONNECTOR DISCONNECTION



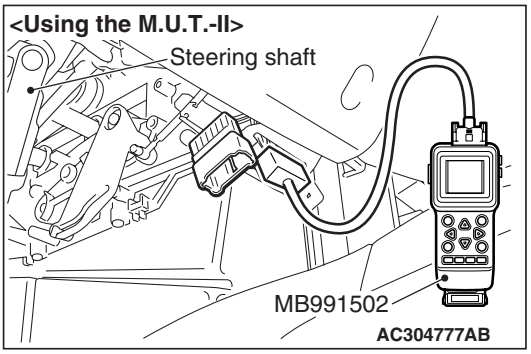
1. Use a flat-tipped screwdriver to pull out forward and unlock the locking button of the harness-side connector.
2. Disconnect the seat belt pre-tensioner connector.

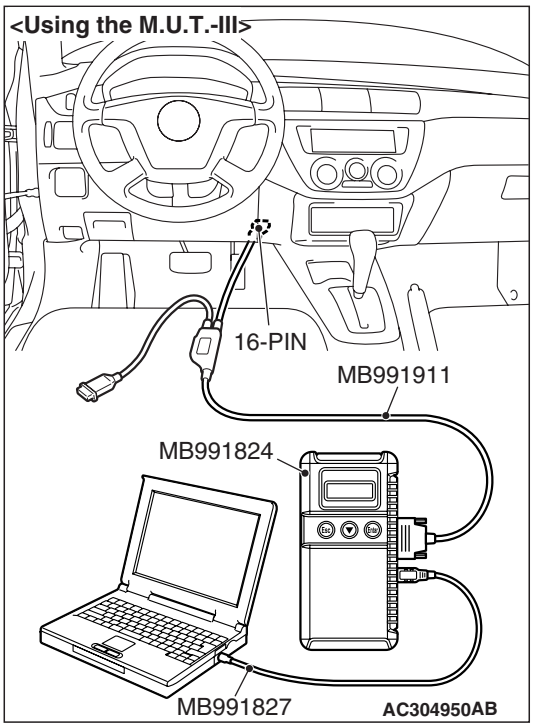
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

1. Even new seat belt with pre-tensioner require inspection before installation.
2. Connect the negative battery cable.

⚠ CAUTION





To prevent damage to M.U.T.-II/III, always turn the ignition, switch to the "LOCK" (OFF) position before connecting or disconnecting M.U.T.-II/III.

3. Connect M.U.T.-II/III to the diagnosis connector.
4. Turn the ignition switch to the ON position.
5. Check diagnosis codes using M.U.T.-II/III to ensure entire SRS operates properly.

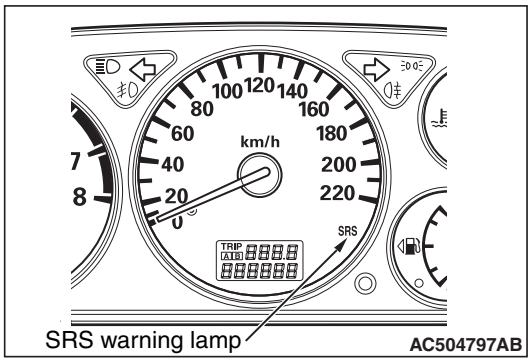
   Confirm that the diagnosis codes other than 26 and 28 are not set.
6. Turn the ignition switch to "LOCK" (OFF) position.
7. Disconnect the negative battery cable and insulate with tape.

>>B<< SEAT BELT PRE-TENSIONER CONNECTOR CONNECTION

Connect the seat belt pre-tensioner connector then securely lock the locking button of the harness-side connector.

>>C<< POST-INSTALLATION INSPECTION

1. Connect the negative battery cable.
2. Turn the ignition switch to "ON" position.



3. Does the SRS warning lamp illuminate for about 7 seconds and then goes out?
4. If no, refer to troubleshooting (Refer to P.52B-12).

INSPECTION

M1524004200245

⚠ WARNING

- ***If any component damage is found during the following inspection, replace the seat belt with pre-tensioner with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-218).***
- ***Never attempt to measure the circuit resistance of the seat belt pre-tensioner even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental seat belt pre-tensioner operation will result in serious personal injury.***

1. Check the seat belt pre-tensioner deployment section for dents and deformation.
2. Check the harness and connector for damage and the terminals for deformation.

AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES

M1524001201175

Before disposing of an air bag or a vehicle equipped with an air bag, follow the procedures below to deploy the air bag.

UNDEPLOYED AIR BAG MODULE DISPOSAL

⚠ WARNING

- ***If the vehicle is to be scrapped or otherwise disposed of, deploy the air bags and operate the seat belt pre-tensioner inside the vehicle. If the vehicle will continue to be used and only the air bag modules and seat belt pre-tensioner are to be disposed of, deploy the air bags and operate the seat belt pre-tensioner outside the vehicle.***
- ***Since a large amount of smoke is produced when the air bag is deployed and the seat belt pre-tensioner is operated, avoid residential areas whenever possible.***
- ***Since there is loud noise when the air bags are deployed and when the seat belt pre-tensioner are operated, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.***
- ***Suitable ear protection should be worn by personnel performing these procedures or by people in the immediate area.***

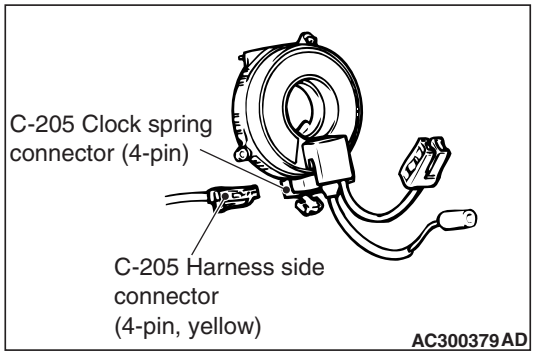
DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <DRIVER'S AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

⚠ DANGER

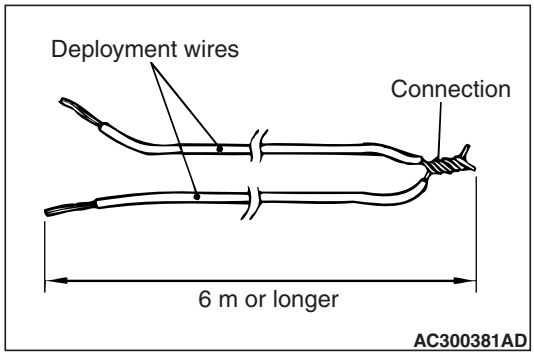
Wait at least 60 seconds after the disconnection of the battery cable before any further job (Refer to P.52B-5).

2. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the column cover lower (Refer to GROUP 37, Steering shaft P.37-20).

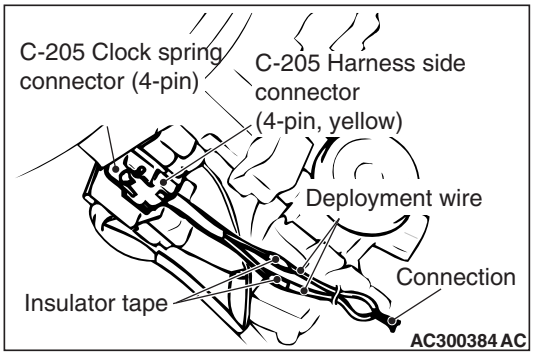


4. Remove the connection between the C-205 clock spring connector (4-pin) and the harness side connector (4-pin, yellow).

   NOTE: Once disconnected from the instrument panel wiring harness, both electrodes of the clock spring connector short automatically. This prevents the driver's air bag from accidental deployment caused by static, etc.



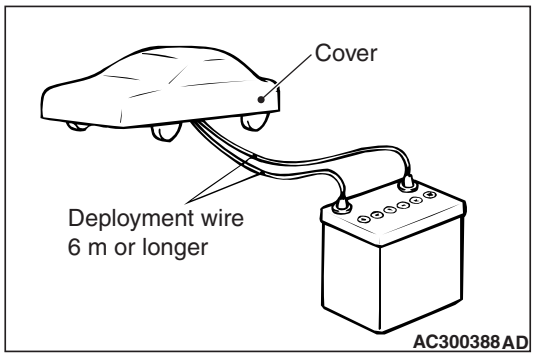
5. Obtain two suitable wires, which are 6 meters or longer, as deployment wires. Then connect the wires at one end to short.
6. Touch the vehicle's body with bare hands to discharge static in you.



7. Cut with a pliers, etc. the instrument panel wiring harness shown in the figure of the instructions, while the C-205 clock spring connector is disconnected.

   NOTE: The disconnection location should be sufficiently away from the C-205 harness side connector with consideration to the expansion harness connection location upon disconnections.
8. Connect the deployment wires on the two instrument panel wiring harnesses disconnected, cover the connection areas with insulator tape and then pull out the deployment wires outside the vehicle.
9. Connect the C-205 harness side connector connected with an expansion harness to the C-205 clock spring connector.

⚠ WARNING



If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

10. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact your distributor.***

11. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
12. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233).

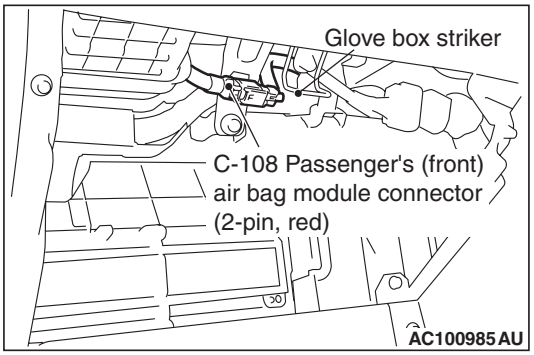
DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <PASSENGER'S (FRONT) AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

⚠ DANGER

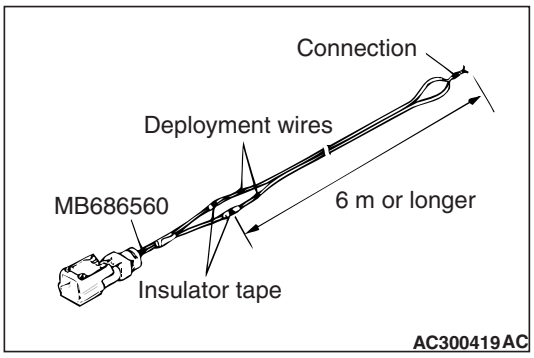
Wait at least 60 seconds after the disconnection of the battery cable before any further job (Refer to P.52B-5).

2. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the glove box (Refer to GROUP 52A, Instrument Panel P.52A-3).

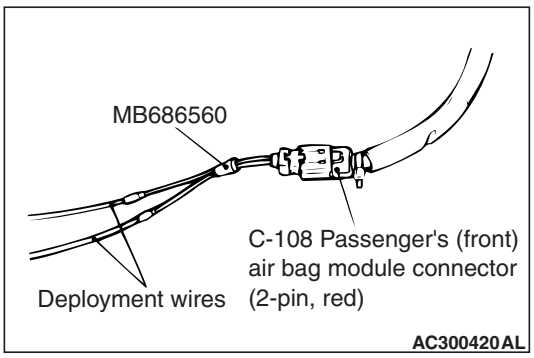


4. Remove the connection between the C-108 passenger's (front) air bag module connector (2-pin, red) and the harness side connector (2-pin, red).

   NOTE: Once disconnected from the instrument panel wiring harness, both electrodes of the passenger's (front) air bag module short automatically. This prevents the passenger's (front) air bag from accidental deployment caused by static, etc.

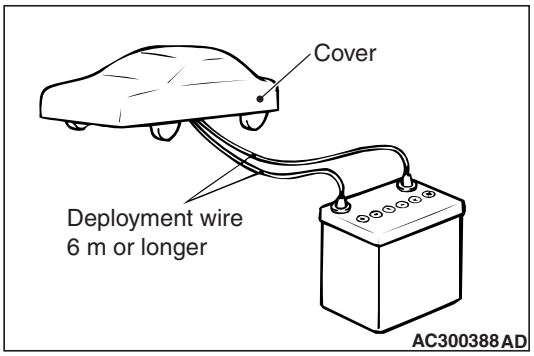


5. Connect deployment wires longer than 6 m to each SRS air bag adapter harness (MB686560) and insulate the connections with insulator tape. Also, connect the deployment wires in the other ends to short, thereby preventing the passenger's (front) air bag from accidental deployment caused by static etc.



6. Connect the C-108 passenger's (front) air bag module connector (2-pin, red) to special tool SRS air bag adapter harness (MB686560) and move the deployment wires out of the vehicle.

⚠ WARNING



If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact your distributor.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SIDE-AIRBAG MODULE>

1. Move the vehicle to an isolated spot.

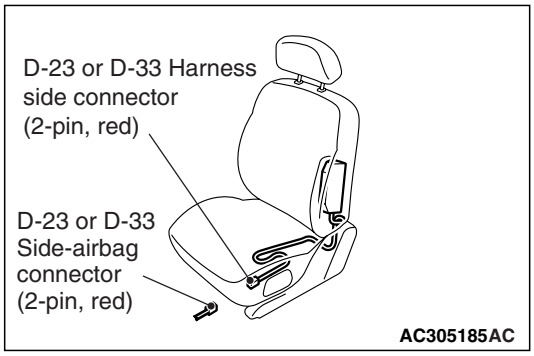
⚠ WARNING

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-5).

2. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.

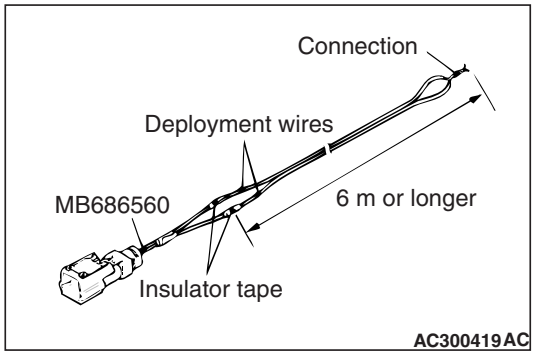
⚠ WARNING

The side-airbag modules for both the driver's side and passenger's side should be deployed.

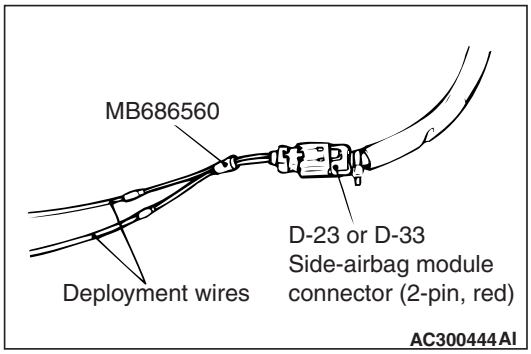


3. Remove the connection between the D-23 or D-33 side-airbag module connector (2-pin, red) and the harness side connector (2-pin, red).

   NOTE: Once disconnected from the instrument panel wiring harness, both electrode of the side-airbag module connector short automatically. This prevents the side-airbag from accidental deployment caused by static etc.

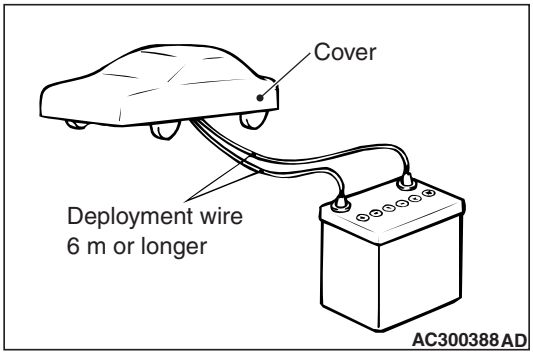


4. Connect deployment wires longer than 6 m to each SRS air bag adapter harness (MB686560) and insulate the connections with insulator tape. Also, connect the deployment wires in the other ends to short, thereby preventing the side-airbag from accidental deployment caused by static etc.



5. Connect the D-23 or D-33 side-airbag module connector (2-pin, red) to SRS air bag adapter harness (MB686560) and move the deployment wire out of the vehicle.

⚠ WARNING



If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

6. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact your distributor.***

7. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
8. After deployment, dispose of the front seatback assembly (air bag module) according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <CURTAIN AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

⚠ WARNING

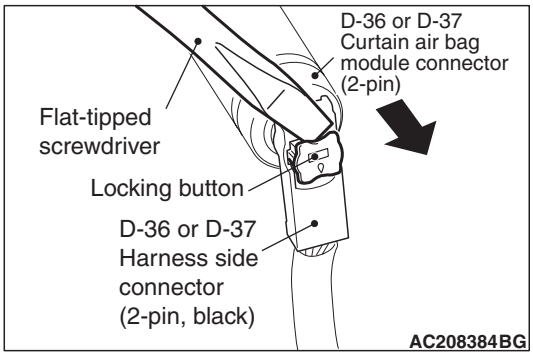
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-5).

2. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ WARNING

The curtain air bag modules for both the right side and left side should be deployed.

3. Remove the headlining (Refer to GROUP 52A, Headlining P.52A-23).

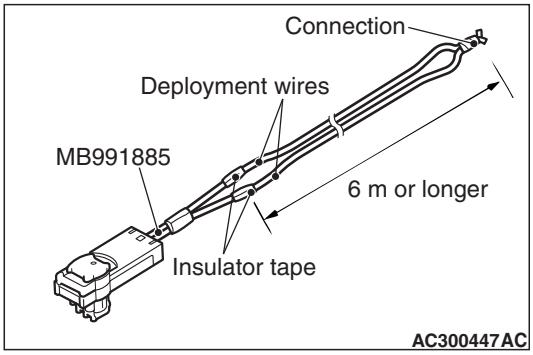


4. Execute the following steps to disconnect the connection between D-36 or D-37 curtain air bag module connector (2-pin) and harness side connector (2-pin, black).

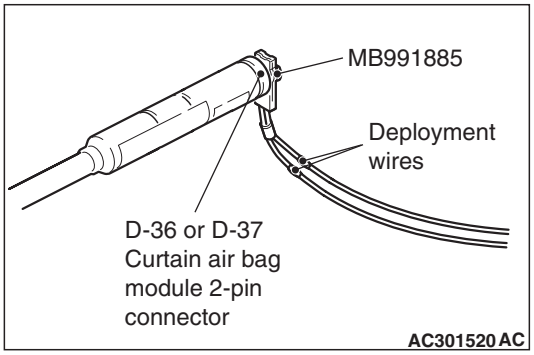
   NOTE: Once disconnected from the roof wiring harness, both electrode of the curtain air bag module connector short automatically. This prevents the curtain air bag module from accidental deployment caused by static etc.

   (1) Use a flat-tipped screwdriver to pull out forward and unlock the locking button of the harness-side connector (2-pin, black).

   (2) Disconnect the D-36 or D-37 harness side connector.

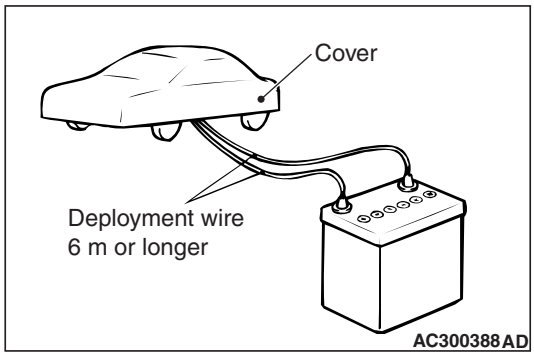


5. Connect deployment wires longer than 6 m to each special tool SRS air bag adapter harness (MB991885) and insulate the connections with insulator tape. Also, connect the deployment wires in the other ends to short, thereby preventing the curtain air bag from accidental deployment caused by static etc.



6. Connect the D-36 or D-37 curtain air bag module 2-pin connector (black) to special tool SRS air bag adapter harness (MB991885) and move the deployment harness out of the vehicle.

⚠ WARNING



If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact your distributor.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the curtain air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233).

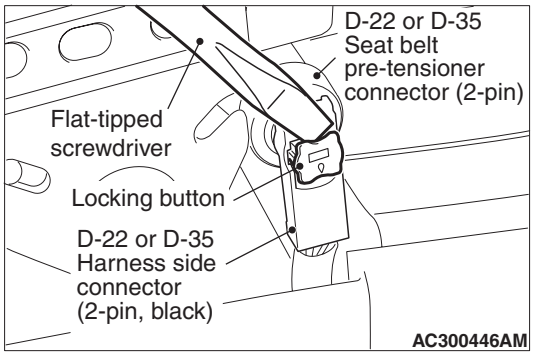
DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SEAT BELT PRE-TENSIONER>

1. Move the vehicle to an isolated spot.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-5).

2. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the centre pillar lower trim (Refer to GROUP 52A, Trim P.52A-13).

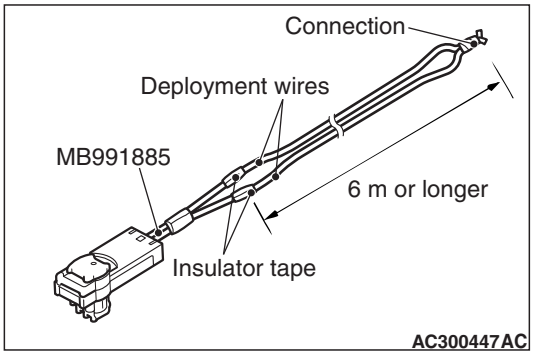


4. Execute the following steps to disconnect the connection between D-22 or D-35 seat belt pre-tensioner connector (2-pin) and harness side connector (2-pin, black).

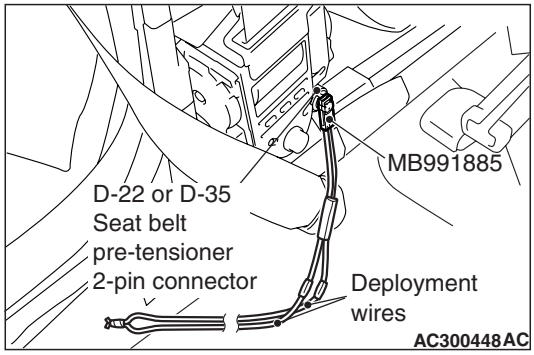
   NOTE: Once disconnected from the roof wiring harness, both electrode of the seat belt pre-tensioner connector short automatically. This prevents the seat belt pre-tensioner from accidental deployment caused by static etc.

   (1) Use a flat-tipped screwdriver to pull out forward and unlock the locking button of the harness-side connector (2-pin, black).

   (2) Disconnect the D-22 or D-35 harness side connector.

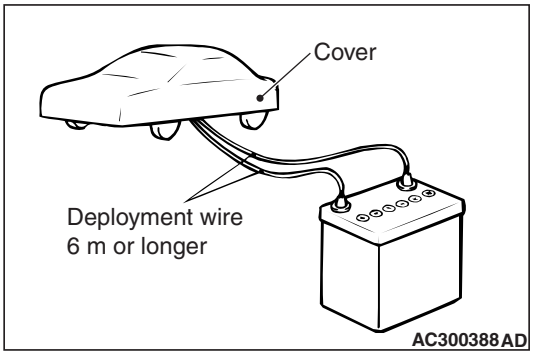


5. Connect deployment wires longer than 6 m to each special tool SRS air bag adapter harness (MB991885) and insulate the connections with insulator tape. Also, connect the deployment wires in the other ends to short, thereby preventing the seat belt pre-tensioner from accidental deployment caused by static etc.



6. Connect the D-22 or D-35 seat belt pre-tensioner 2-pin connector (black) to special tool SRS air bag adapter harness (MB991885) and move the deployment harness out of the vehicle.

⚠ *WARNING*



If the glass is scratched, seat belt pre-tensioner operation could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ ***WARNING***

- ***Before operating the seat belt pre-tensioner in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the operation, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although no poisonous, do not inhale gas from the seat belt pre-tensioner operation. See Deployed Air Bag and Operated Seat Belt pre-tensioner Disposal (Refer to P.52B-233) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner. Contact your distributor.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each the, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operating the seat belt pre-tensioner.
9. After operation, dispose of the seat belt pre-tensioner according to the Deployed Air Bag Module operated seat belt pre-tensioner Disposal (Refer to P.52B-233).

DEPLOYMENT OUTSIDE THE VEHICLE <DRIVER'S AIR BAG MODULE>

⚠ ***WARNING***

- ***This should be carried out in a wide, flat area at least 6 m away from obstacles and other people.***
- ***Do not deploy outside if wind is high. Even in a soft wind, ignite to windward of the air bag modules.***

⚠ ***DANGER***

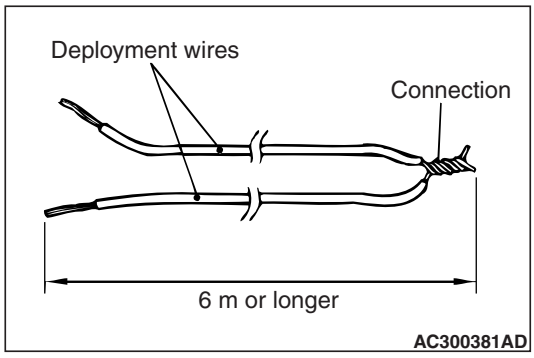
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-5).

1. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.

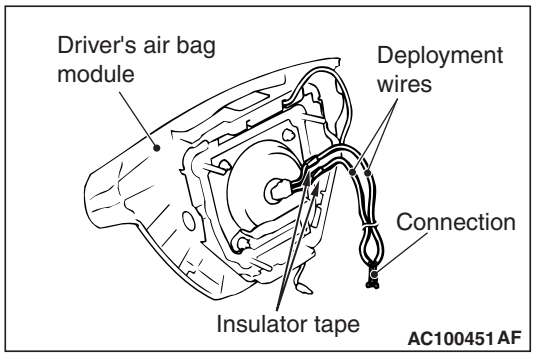
⚠ ***WARNING***

Once disconnected, both electrodes of the driver's air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on flat place with deployment surface facing up. Also, do not put anything on it.

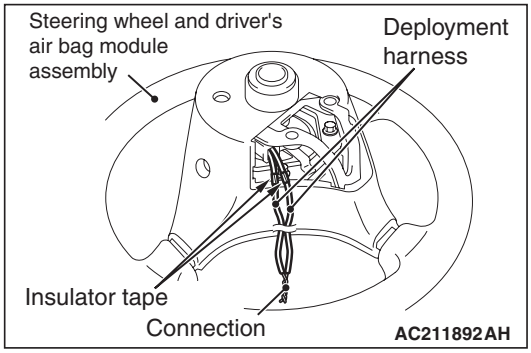
2. Remove the driver's air bag module from the vehicle (Refer to P.52B-199).



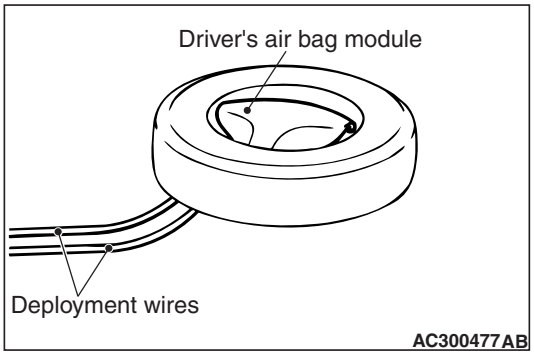
3. Obtain two suitable wires, which are 6 meters or longer, as deployment wires. Then connect the wires at one end to short.
4. Touch the vehicle's body with bare hands to discharge static in you.



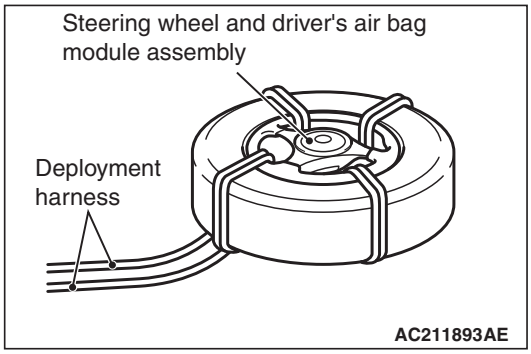
5. Using pliers, cut the driver's air bag module connector from the harnesses. Connect the deployment wires to each harness that has been cut and insulate the connections with insulator tape. <INVITE>



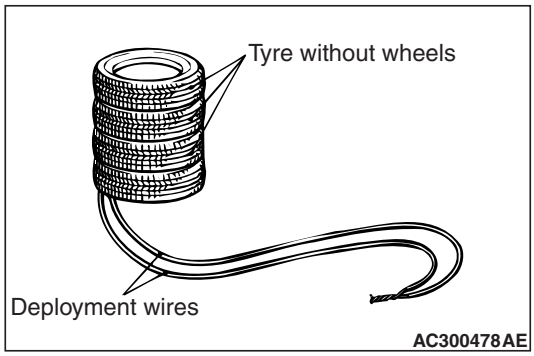
6. Release the secured connector of the steering wheel and driver's air bag module assembly to cut off the connector from the harness with a nipper and etc. Connect deployment harnesses to each of two separated harnesses and cover the area with insulator tape. <INTENSE>



7. Install a nut to the bolt behind the driver's air bag module and tie thick wire there for securing. <INVITE>
8. Route the deployment wires connected to the driver's air bag module beneath an old tyre and wheel assembly. Then, using the wire tied to the bolt, secure the driver's air bag module to the tyre and wheel assembly with the deployment surface facing up. <INVITE>



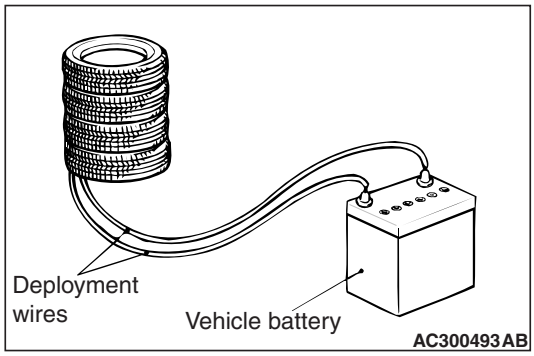
9. Use a rope to tie the steering wheel and driver's air bag module assembly to secure old tyres with wheels. <INTENSE>
10. Route the deployment harness connected to driver's air bag module beneath old tyres with wheels. Then, secure the steering wheel-driver's air bag module assembly with the deployment surface facing up. <INTENSE>



11. Place three old tyres without wheels on the tyre secured with the driver's air bag module.

⚠ *WARNING*

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module. Contact your distributor.***



12. At a location as far away from the driver's air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them, to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.

13. Discard the deployed driver's air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233).

DEPLOYMENT OUTSIDE THE VEHICLE <PASSENGER'S (FRONT) AIR BAG MODULE>

⚠ WARNING

- ***This should be carried out in a wide, flat area at least 6 m away from obstacles and other people.***
- ***Do not deploy outside if wind is high. Even in a soft wind, ignite to windward of the air bag modules.***

⚠ DANGER

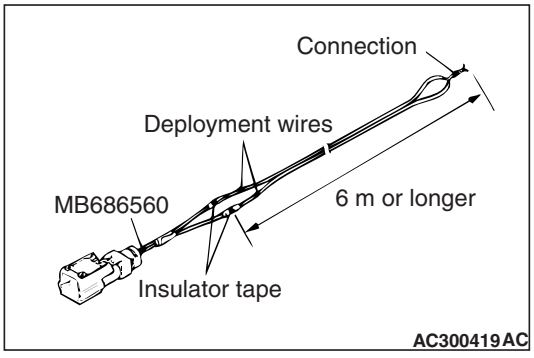
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-5).

1. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.

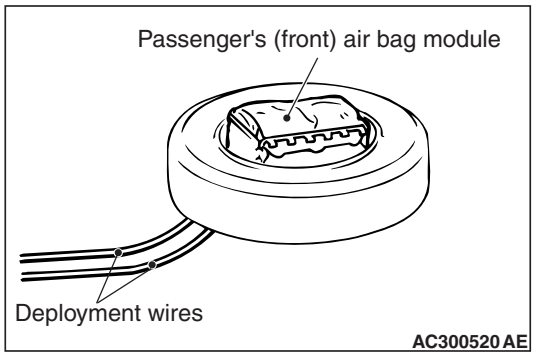
⚠ WARNING

Once disconnected, both electrodes of the passenger's (front) air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on flat place with deployment surface facing up. Also, do not put anything on it.

2. Remove the passenger's (front) air bag module from the vehicle (Refer to P.52B-199).



3. Connect deployment wires longer than 6 m to each SRS air bag adapter harness (MB686560) and insulate the connections with insulator tape. Also, connect the deployment wires in the other ends to short, thereby preventing the passenger's (front) air bag from accidental deployment caused by static etc.

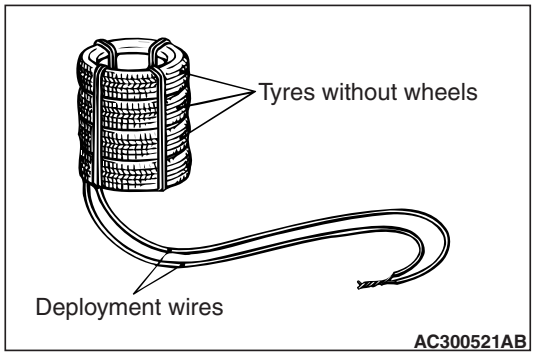


4. Connect the deployment wires to SRS air bag adapter harness (MB686560), pass it beneath the tyre and wheel assembly, and connect it to the passenger's (front) air bag module.

⚠ CAUTION

- **The adapter harness below the wheel should be loose. If it is too tight, the reaction when the air bag deploys could damage the adapter harness.**
- **During deployment, the connector of SRS air bag adapter harness (MB686560) must not be between the tyres.**

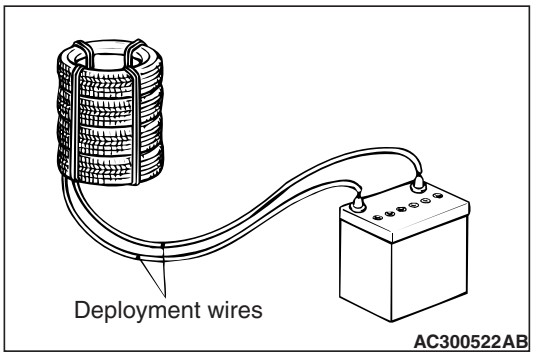
5. Pass the thick wire through the passenger's (front) air bag module mounting hole, and then secure the air bag module to an old tyre with a wheel in it so that the pad on the module is facing upwards.



6. Place three old tyres without wheels on top of the tyre secured to the air bag module, and secure all tyres together with ropes (four locations).

⚠ ***WARNING***

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module. Contact your distributor.***



7. At a location as far away from the passenger's (front) air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them, to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
8. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233).

DEPLOYMENT OUTSIDE VEHICLE <SIDE-AIRBAG MODULE>

⚠ ***WARNING***

- ***This should be carried out in a wide, flat area at least 6 m away from obstacles and other people.***
- ***Do not deploy outside if wind is high. Even in a soft wind, ignite to windward of the air bag modules.***

⚠ ***DANGER***

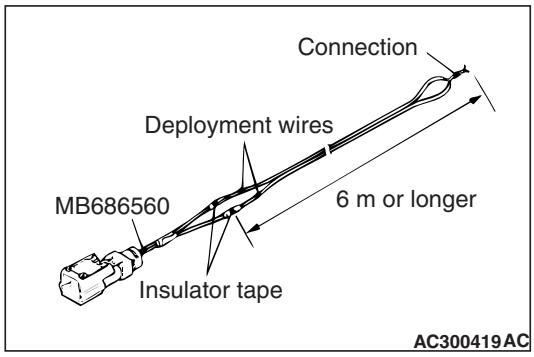
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-5).

1. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.

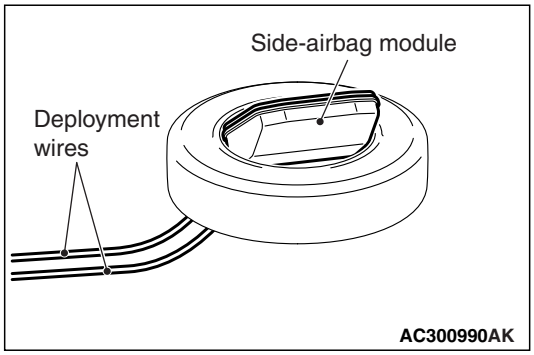
⚠ ***WARNING***

Once disconnected, both electrodes of the side-airbag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the side-airbag module on flat place with deployment surface facing up. Also, do not put anything on it.

2. Remove the front seatback assembly with side-airbag module from the vehicle (Refer to P.52B-207).
3. After reassembling the front seatback assembly incorporated in the side-airbag, remove the side-airbag module from the front seatback frame.



4. Connect deployment wires longer than 6 m to each SRS air bag adapter harness (MB686560) and insulate the connections with insulator tape. Also, connect the deployment wires in the other ends to short, thereby preventing the side-airbag from accidental deployment caused by static etc.

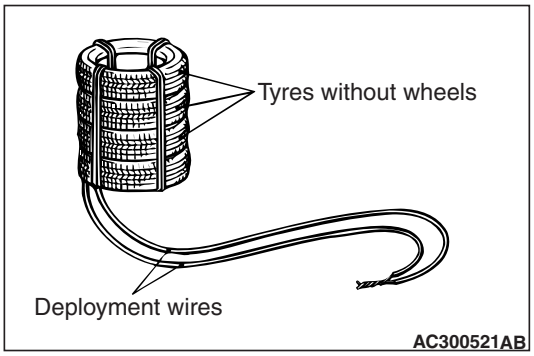


5. Pass the SRS air bag adapter harness (MB686560) connected with deployment wires beneath an old tyre and wheel assembly, and connect it to the side-airbag module connector.

⚠ CAUTION

- **The adapter harness below the wheel should be loose. If it is too tight, the reaction when the air bag deploys could damage the adapter harness.**
- **During deployment, the connector of SRS air bag adapter harness (MB686560) must not be between the tyres.**

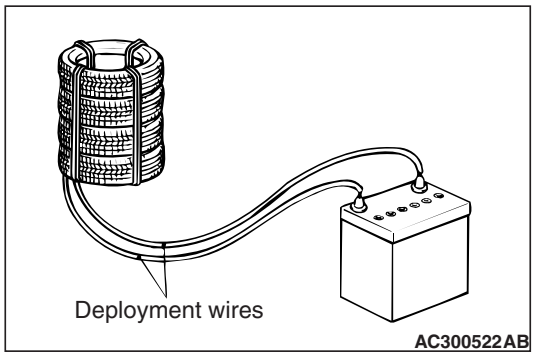
6. Connect the thick wire to the side-airbag module installation bolt with a used nut, and place the side-airbag module on an old tyre and wheel assembly so that its deployment side is facing upward.



7. Place three old tyres without wheels on top of the tyre secured to the air bag module, and secure all tyres together with ropes (four locations).

⚠ WARNING

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module. Contact your distributor.***



8. At a location as far away from the side-airbag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. Discard the deployed side-airbag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233).

DEPLOYMENT OUTSIDE VEHICLE <CURTAIN AIR BAG MODULE>

⚠ WARNING

- ***This should be carried out in a wide, flat area at least 6 m away from obstacles and other people.***
- ***Do not deploy outside if wind is high. Even in a soft wind, ignite to windward of the air bag modules.***

⚠ DANGER

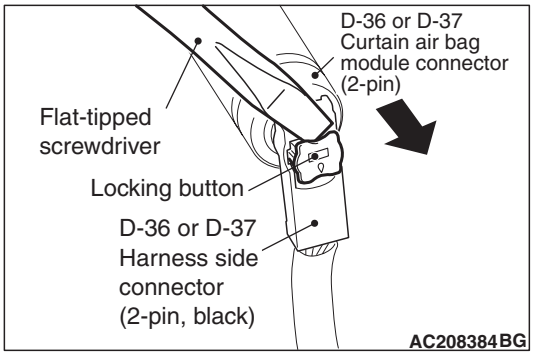
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-5).

1. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.

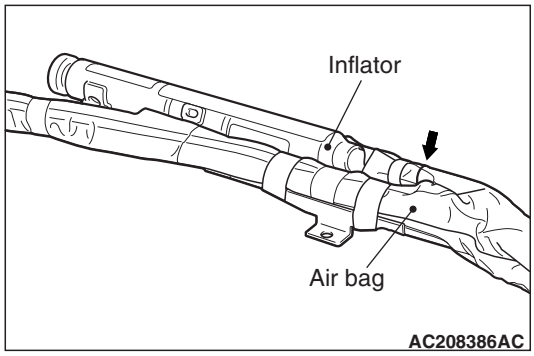
⚠ WARNING

Once disconnected, both electrodes of the curtain air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the curtain air bag module on flat place with deployment surface facing up. Also, do not put anything on it.

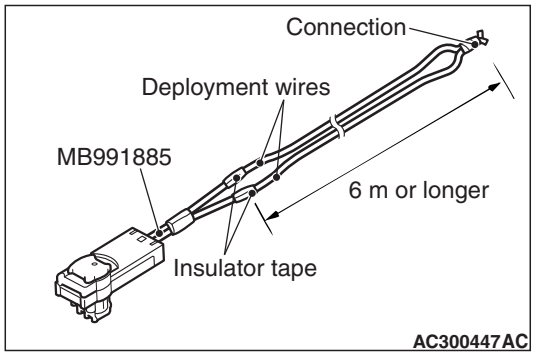
2. Remove the headlining (Refer to GROUP 52A, Headlining P.52A-23).



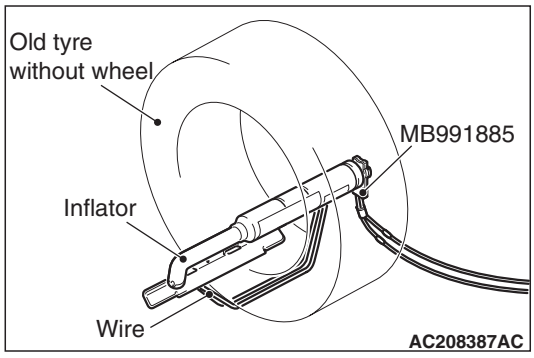
3. Use a flat-tipped screwdriver to unlock the locking button of the harness-side connector (2-pin, black) by with drawing it toward you in two stages.
4. Disconnect the D-36 or D-37 harness side connector.



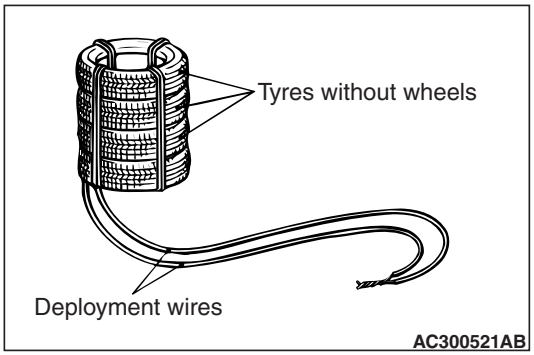
5. Cut the inflator and the air bag with a cutter.



6. Connect deployment wires longer than 6 m to each special tool SRS air bag adapter harness (MB991885) and insulate the connections with insulator tape. Also, connect the deployment wires in the other ends to short, thereby preventing the curtain air bag from accidental deployment caused by static etc.



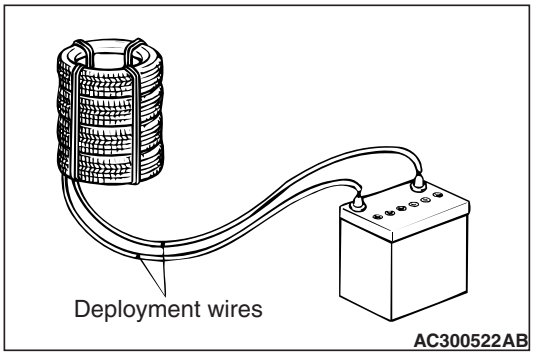
7. Feed a thick wire through the bracket of the inflator, and connect it to an old tyre with a wheel.
8. Connect the SRS air bag adapter harness (MB991885) to the inflator connector.



9. Place three old tyres without wheels on top of the tyre secured to the curtain air bag module, and secure all tyres together with ropes (four locations).

⚠ WARNING

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module. Contact your distributor.***



10. At a location as far away from the curtain air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
11. Discard the deployed inflator as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-233).

DEPLOYMENT OUTSIDE THE VEHICLE <SEAT BELT PRE-TENSIONER>

⚠ WARNING

- ***This should be carried out in a wide, flat area at least 6 m away from obstacles and other people.***
- ***Do not deploy outside if wind is high. Even in a soft wind, ignite to windward of the air bag modules.***

⚠ DANGER

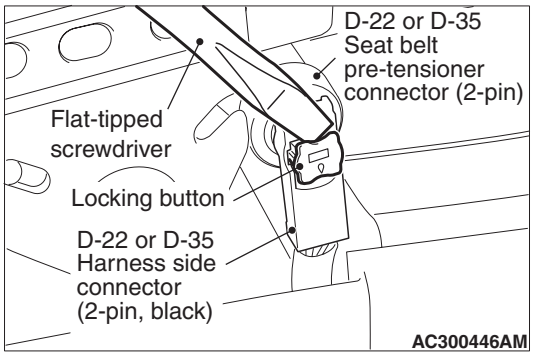
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-5).

1. Disconnect the negative and positive battery cables from the battery terminals, and then remove the battery from the vehicle.

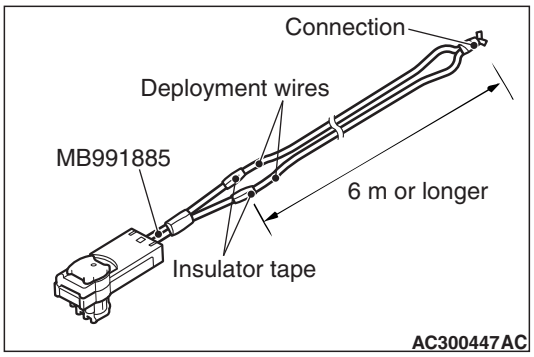
⚠ WARNING

Store the operated seat belt pre-tensioner the correct way up with its operation surface upper most on a flat surface. Do not place anything on top of them.

2. Remove the seat belt pre-tensioner from the vehicle (Refer to P.52B-215).



3. Use a flat-tipped screwdriver to unlock the locking button of the harness-side connector (2-pin, black) by with drawing it toward you in two stages.
4. Disconnect the D-22 or D-35 harness side connector.

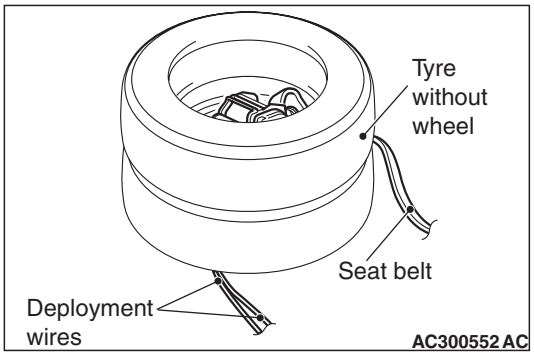


5. Connect deployment wires longer than 6 m to each special tool SRS air bag adapter harness (MB991885) and insulate the connections with insulator tape. Also, connect the deployment wires in the other ends to short, thereby preventing the seat belt pre-tensioner from accidental deployment caused by static etc.
6. Connect the special tool SRS air bag adapter harness (MB991885), which the deployment wires is attached to, to the seat belt pre-tensioner connector.

⚠ CAUTION

The adapter harness below the wheel should be loose. If it is too tight, the reaction when the seat belt pre-tensioner operates could damage the adapter harness.

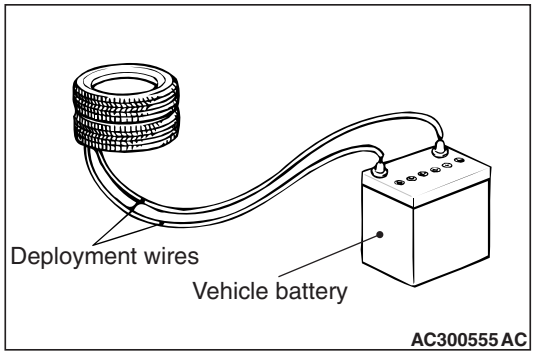
7. Pass the thick wires through the hole on the seat belt pre-tensioner bracket and secure them to the front (raised part) of the wheel on two place.



8. Pull the seat belt out the outside of the tyre, and then place one tyre without a wheel inside on top of the existing tyre.

⚠ WARNING

- ***Before operation, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the operation, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from seat belt pre-tensioner operation. See Deployed Air Bag Module and Operated Seat Belt pre-tensioner Disposal (Refer to P.52B-233) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner. Contact your distributor.***



9. At a location as far away from the seat belt as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operated seat belt pre-tensioner.
10. Discard the operated seat belt pre-tensioner as specified in Deployed Air Bag Module and Seat Belt pre-tensioner Disposal (Refer to P.52B-233).

DEPLOYED AIR BAG MODULE AND OPERATED SEAT BELT PRE-TENSIONER DISPOSAL

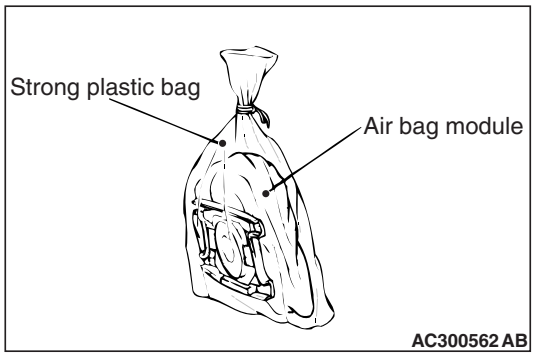
After deployment and operation, the air bag module and seat belt pre-tensioner should be disposed of in the same manner as any other scrap parts, adhering to local laws and/or legislation. Observe the following precautions during air bag or seat belt pre-tensioner disposal:

1. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it cool before attempting to handle it.
2. Do not put water or oil on the air bag after deployment or on the seat belt pre-tensioner after operation.

⚠ WARNING

If after following these precautions, any material does get into the eyes or on the skin, immediately rinse the affected area with a large amount of clean water. If any irritation develops, seek medical attention.

3. There may be material on the deployed air bag module or the operated seat belt pre-tensioner, that could irritate the eye and/or skin. Wear gloves and safety glasses when handling a deployed air bag module or the operated seat belt pre-tensioner.



4. Tightly seal the air bag module and seat belt pre-tensioner in a strong plastic bag for disposal.
5. Be sure to always wash your hands after completing this operation.

NOTES