GROUP 52B

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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FASTENER TIGHTENING SPECIFICATIONS

M15204000048USA0000010000

ITEM	SPECIFICATION
Air bag module(s) and clock spring	
Paddle shift mounting bolt	7.0 ± 3.0 N·m (62 ± 27 in-lb)
Steering wheel nut	44 ± 11 N·m (33 ± 8 ft-lb)
Clock spring screw	0.69 ± 0.15 N·m (6 ± 1 in-lb)
Passenger's (front) air bag module mounting bolt	5.0 ± 1.0 N·m (44 ± 9 in-lb)
Torx screw	9.5 ± 2.5 N·m (84 ± 22 in-lb)
Curtain air bag module	
Curtain air bag module mounting bolt	7.0 ± 3.0 N·m (62 ± 27 in-lb)
Front impact sensor	
Front impact sensor bolt	12 ± 1 N·m (102 ± 13 in-lb)
Seat belts with pre-tensioner	
Lap pre-tensioner mounting bolt	43 ± 8 N·m (32 ± 6 ft-lb)
Seat belt lower anchor bolt	43 ± 8 N·m (32 ± 6 ft-lb)
Seat belt shoulder anchor bolt	43 ± 8 N·m (32 ± 6 ft-lb)
Seat belt with pre-tensioner mounting bolt	43 ± 8 N·m (32 ± 6 ft-lb)
Seat belt with pre-tensioner mounting screw	5.0 ±1.0 N·m (44 ± 9 in-lb)
Side impact sensor	
Side impact sensor nut (front)	12 ± 1 N·m (102 ± 13 in-lb)
Side impact sensor bolt (rear)	9.0 ± 1.0 N·m (80 ± 9 in-lb)
SRS control unit (SRS-ECU)	
SRS-ECU bolt	9.0 ± 1.0 N·m (80 ± 9 in-lb)

GENERAL INFORMATION

M15204000982USA0000010000

DANGER

The SRS-ECU adopts the rollover specification that the curtain airbag and seat belt pre-tensioner operate at the occurrence of rollover. Therefore, do not tilt the vehicle to the right and left with the IG ON or tilt the SRS-ECU to the right and left with the IG ON and the harness installed.

WARNING

Improper service could result in serious injury of the service personnel or the passenger.

The SRS is designed to supplement the front seat belts. It reduces injury to the driver(s) and the front passenger(s) by deploying air bag(s) in case of a frontal collision.

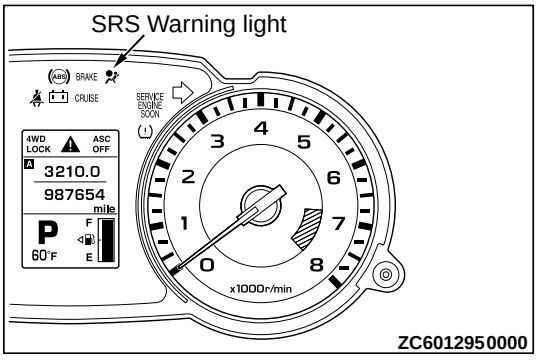
The SRS front air bags from an advanced air bag system together with sensors at the vehicle and sensors attached to front seats.

Side-airbag systems in the front seats are activated when side impacts exceed a criteria to protect the occupants' upper bodies.

The curtain airbag system operates together with the side-airbag to protect the heads of passengers in the front and second seats.

The seat belts with pre-tensioner work simultaneously with the SRS. The seat belt incorporating the pre-tensioner automatically winds the seat belt upon front impact to reduce forward shifting of the driver's and passenger's. The seat belt use status is used to control the activation and deactivation of the pre-tensioner.

The SRS consists of six air bag modules, SRS air bag control unit (SRS-ECU), two front impact sensors, four side impact sensors, SRS warning light, passenger's air bag OFF indicator light, passenger's seat belt warning light, clock spring, seat belt pre-tensioner, seat belt switch, seat slide sensor, weight sensor and occupant classification-ECU. Air bag modules are located in the center of the steering wheel and above the glove box. Side-airbags are located inside the front seatback 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). Each air bag consists of a folded air bag and an inflator unit. The SRS-ECU placed on the forefront of the floor monitors the system and has a front air bag safing G-sensor, front air bag analog G-sensor and a side-airbag safing G-sensor. The front impact sensor is assembled in the front end upper bar to monitor impact in case of front impact. The side impact sensors inside the center pillars and the rear quarter panel monitor the shock incurred by the sides of the vehicle. The SRS warning light on the combination meter 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. The seat slide sensor is installed at the seat adjuster section of the driver seat in order to detect the driver seat slide position. The weight sensor is installed underneath a rail of the passenger seat to detect the load on the seat. The passenger's air bag OFF indicator light is installed to the lower left of the center panel, and illuminates when the passenger seat airbag is inactive. The passenger's seat belt warning light is installed to the lower right of the center panel, and illuminates when the passenger is not wearing the seat belt. The seat belt switch detects whether the seat belt is used.
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.



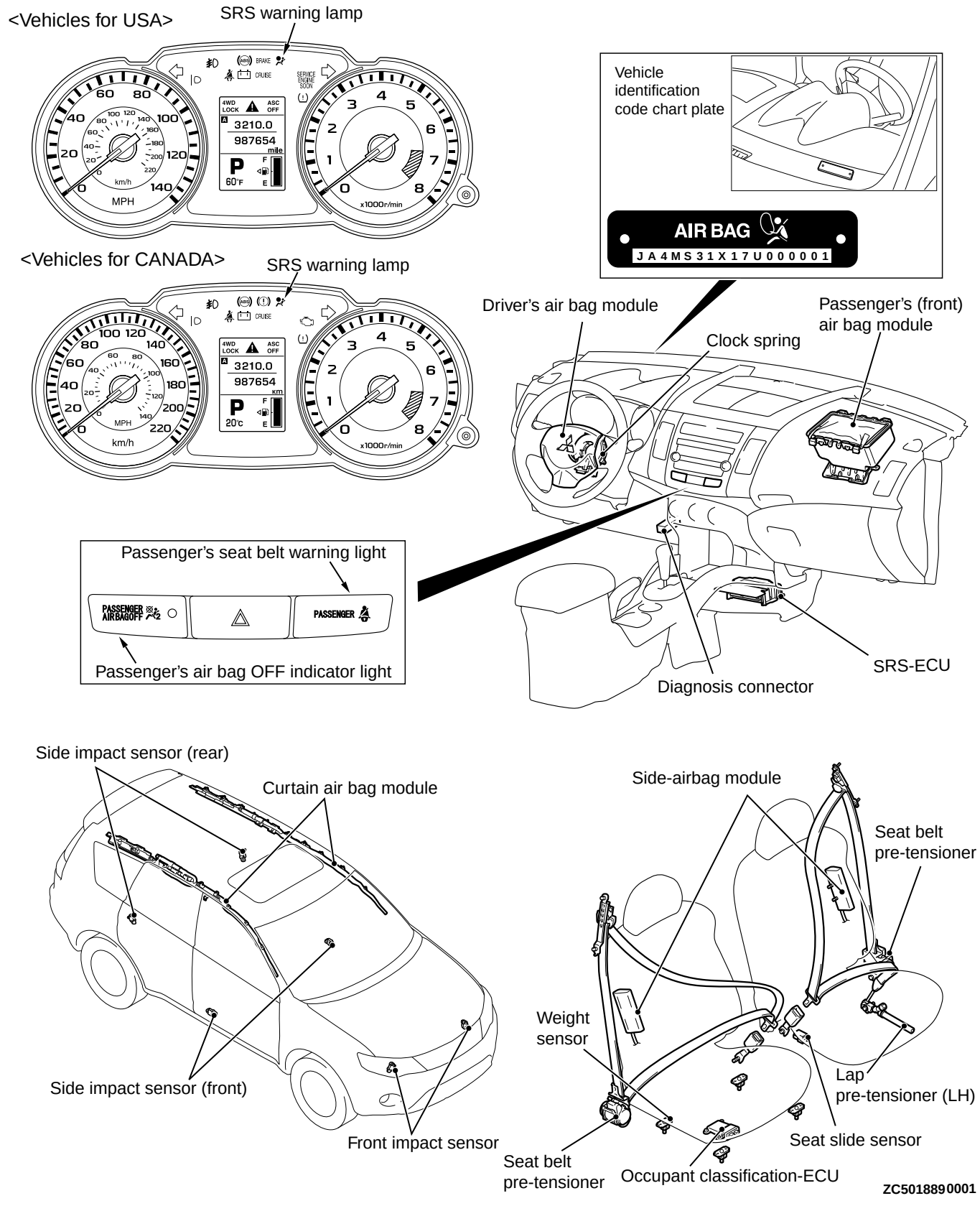
ON-BOARD DIAGNOSTIC/SRS WARNING LIGHT FUNCTION

The diagnosis unit monitors the SRS system and stores data concerning any detected faults in the system. When the ignition switch is in "ON" or "START" position, the SRS warning light should illuminate for about seven seconds and then turn "OFF." That indicates that the SRS system is in operational order. If the SRS warning light does any of the following, immediate inspection by an authorized dealer is needed:

1. The SRS warning light does not illuminate as described above.
2. The SRS warning light stays on for more than seven seconds.
3. The SRS warning light illuminates while driving.

If a vehicle's SRS warning light is in any of these three conditions, the SRS system must be inspected, diagnosed and serviced in accordance with this manual.

CONSTRUCTION DIAGRAM

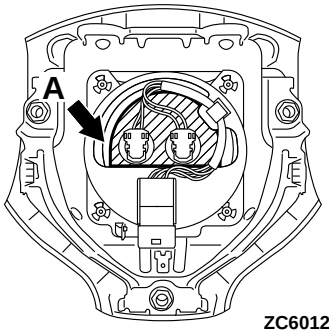


NOTE: This construction diagram shows the general view of the SRS components. For details, refer to "Schematic(P.52B-12), "Configuration Diagrams (P.52B-15), " and "Circuit Diagram(P.52B-16)".

WARNING/CAUTION LABELS

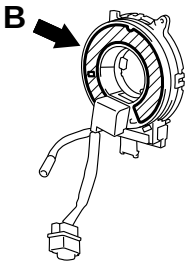
A number of caution labels related to the SRS are found in the vehicle, as shown in the following illustrations. Follow label instructions when servicing SRS. The label I is not to be removed except by owner. If the other labels are dirty or damaged, replace them.

Driver's air bag module

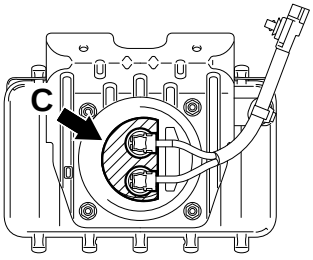


ZC601274

Clock spring

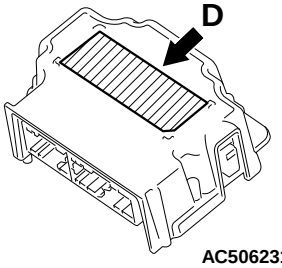


Passenger's (front) air bag module



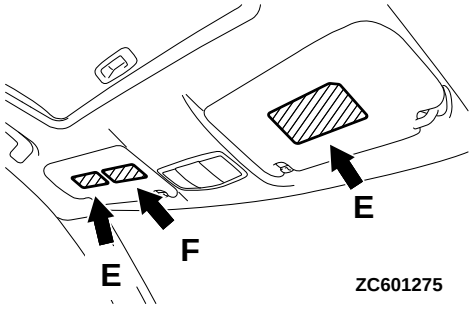
AC506239

SRS-ECU



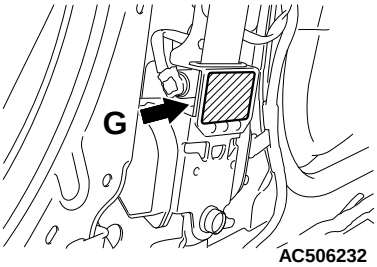
AC506231

Sunvisor



ZC601275

Seat belt with pre-tensioner (driver's and passenger's seat)



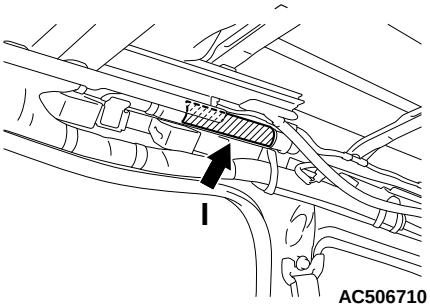
AC506232

Side-airbag module (driver's and passenger's seat)



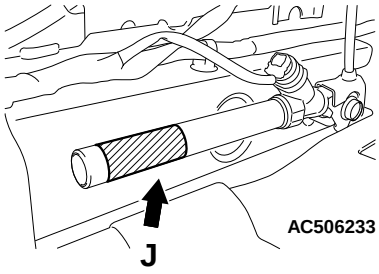
AC506241

Curtain air bag module (right and left)



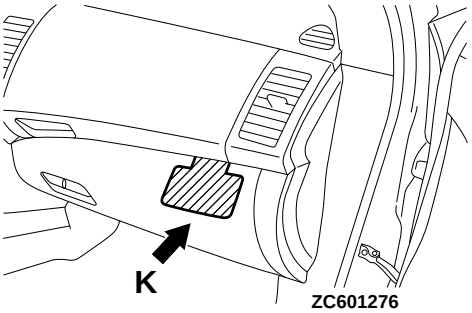
AC506710

Lap pre-tensioner (LH)



AC506233

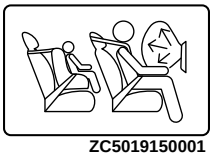
Glove box



ZC601276

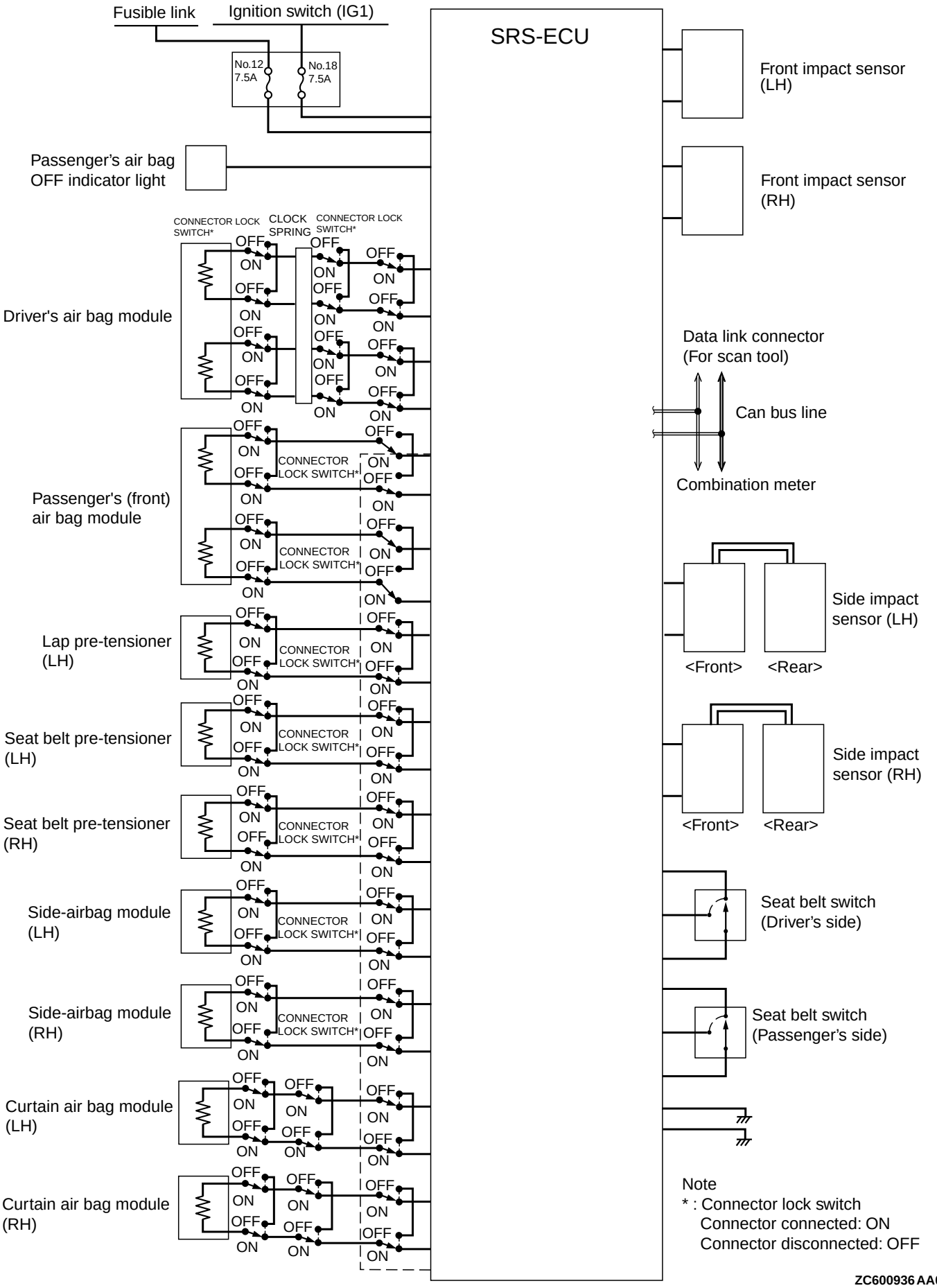
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Label contents	
A	DANGER FLAMMABLE EXPLOSIVE

Label contents	
	DO NOT DISASSEMBLE; HEAT; INCINERATE; APPLY ELECTRICITY; OR STORE AT HIGH TEMPERATURE (93°C or HIGHER). REFER TO WORKSHOP MANUAL FOR DETAILS.
B	CAUTION: SRS CLOCK SPRING PLEASE DO NOT TURN EXCEPT WHEN REQUIRED. THIS IS NOT A REPAIRABLE PART. IF DEFECTIVE, PLEASE REPLACE ENTIRE UNIT ACCORDING TO THE SERVICE MANUAL INSTRUCTIONS. ALIGNMENT OF MODULES IS NECESSARILY WHEN THEY ARE ADJUSTED AND/OR INSTALLED FOR THE ALIGNMENT PROCEDURES, FOLLOW THE SERVICE MANUAL INSTRUCTIONS.
C	WARNING FLAMMABLE/EXPLOSIVE SRS AIR BAG MODULE TO AVOID SERIOUS INJURY: ▪DO NOT REPAIR. DISASSEMBLE OR TAMPER. ▪AVOID CONTACT WITH FLAME OR ELECTRICITY. ▪DO NO DIAGNOSIS/USE NO TEST EQPT OR PROBES. ▪STORE BELOW 200°F (93°C). ▪BEFORE DOING ANY WORK INVOLVING MODULE, READ SERVICE MANUAL FOR IMPORTANT FURTHER DATA.
D	CAUTION: DO NOT DISASSEMBLE OR DROP. IF DEFECT REFER TO SERVICE MANUAL.
E <EXCEPT CANADA>  ZC5019150001	WARNING EVEN WITH ADVANCED AIR BAGS ▪Children can be killed or seriously injured by the air bag ▪The back seat is the safest place for children ▪Never put a rear-facing child seat in the front ▪Always use seat belts and child restraints ▪See owner's manual for more information about air bags
E <CANADA>  ZC5019180001	WARNING DEATH or SERIOUS INJURY can occur ▪Children 12 and under can be killed by the air bag. ▪The BACK SEAT is the SAFEST place for children. ▪NEVER put a rear-facing child seat in the front. ▪Sit as far back as possible from the air bag. ▪ALWAYS use SEAT BELTS and CHILD RESTRAINS.
F  ZC6008530001	WARNING: HIGHER ROLLOVER RISK Avoid Abrupt Maneuvers and Excessive Speed. Always Buckle up. See Owner's Manual For Further Information.

Label contents	
 ZC6008540001	
G, J	DANGER: BELT PRETENSIONER ・DO NOT DISASSEMBLE OR IMPACT ・REFER TO SERVICE MANUAL FOR INSTRUCTIONS, HANDLING, STORAGE AND DISPOSAL PROCEDURES
H	WARNING SRS AIR BAG MODULE FLAMMABLE/EXPLOSIVE TO AVOID SERIOUS INJURY: ・DO NOT REPAIR, DISASSEMBLE OR TAMPER. ・AVOID CONTACT WITH FLAME OR ELECTRICITY. ・DO NO DIAGNOSIS/USE NO TEST EQPT OR PROBES. ・STORE BELOW 200°F (93°C). ・BEFORE DOING ANY WORK INVOLVING MODULE, READ SERVICE MANUAL FOR IMPORTANT FURTHER DATA.
I	DANGER FLAMMABLE EXPLOSIVE SRS AIR BAG MODULE ・Do not disassemble or shock. ・Do not heat or incinerate. ・Do not contact with electricity or tester probes. ・Do not test or diagnose. ・Do not store in more than 200°F (93°C). ・Store the air bag cover is top. ・For information on handing, replacement, and disposal methods, refer to the service manual.
K <EXCEPT CANADA>	This Vehicle is Equipped with Advanced Air Bags Even with Advanced Air Bags Children can be killed or seriously injured by the air bag. The back seat is the safest place for children. Never put a rear-facing child seat in the front. Always use seat belts and child restraints. See owner’s manual for more information about air bags. Not to be removed except by owner.
K <CANADA>	WARNING MISE EN GARDE Children Can Be KILLED or INJURED by Passenger Air Bag The back seat is the safest place for children 12 and under. Make sure all children use seat belts or child seats. Not to be removed except by owner.

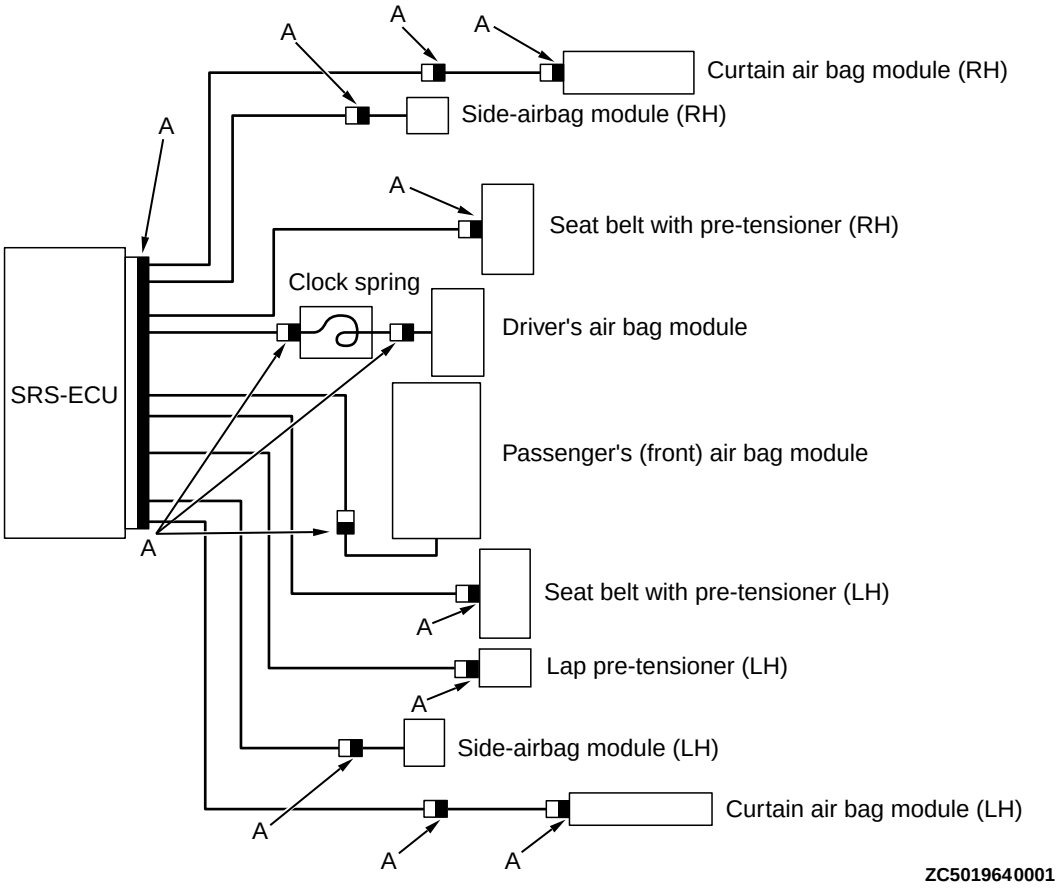
SCHEMATIC



Note
* : Connector lock switch
Connector connected: ON
Connector disconnected: OFF

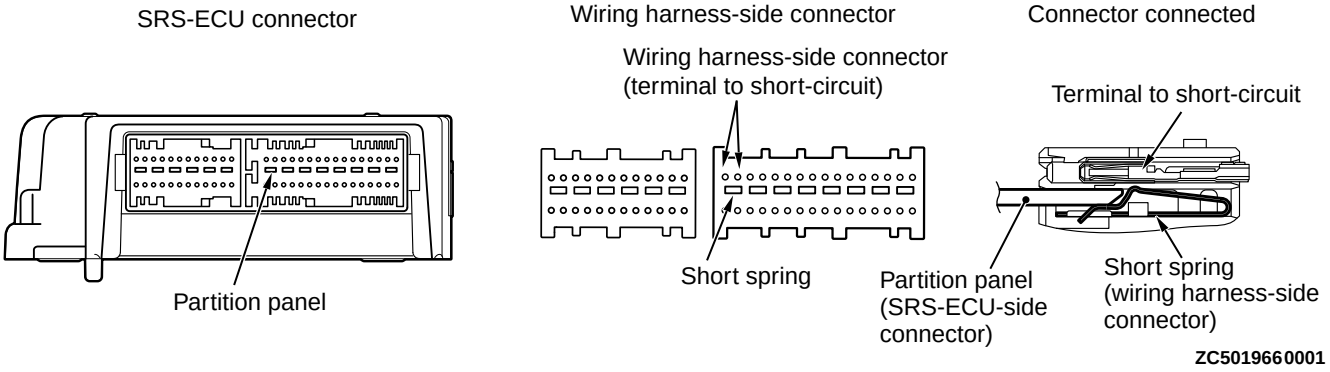
ZC600936 AA01

SRS AIR BAG SPECIAL CONNECTOR



To enhance the system reliability, a connector short circuiting mechanism is integrated in the SRS-ECU connector, air bag module connectors, clock spring connector, and pre-tensioner connectors (black connector "A" shown in the figure).

SQUIB CIRCUIT CONNECTOR LOCK SWITCH

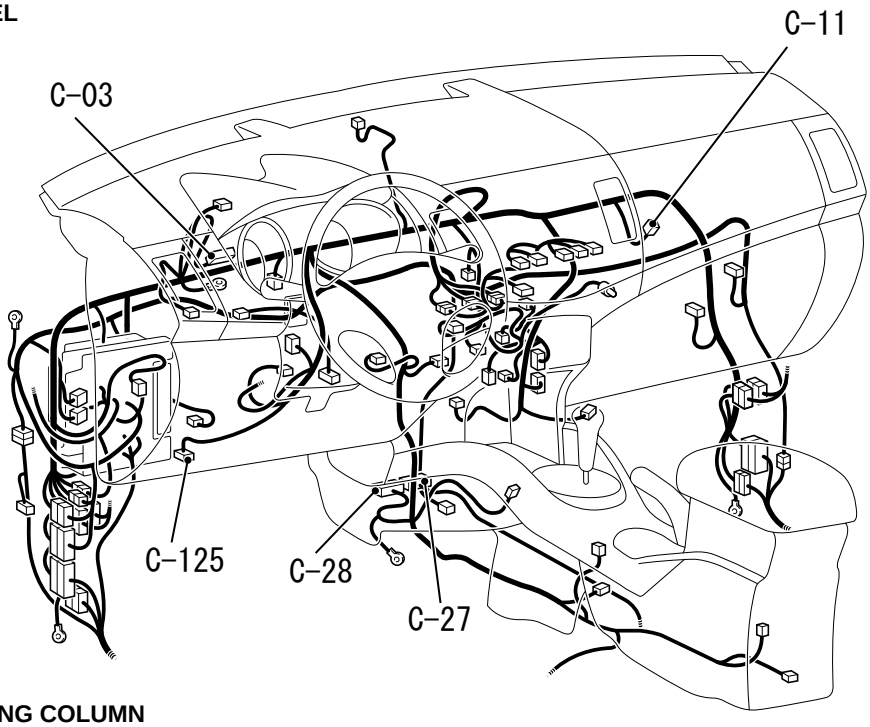


This mechanism prevents the improper deployment of air bag module because of the current application to the squib due to the static electricity when connectors

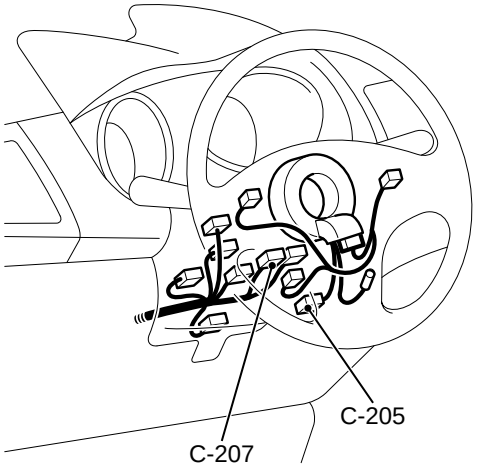
between SRS-ECU and air bag modules (squibs) are disconnected. When the connector is disconnected, the short spring short circuits the power supply side terminal and ground side terminal of squibs, and prevents the static electricity from generating the potential difference. This connector mechanism is adopted for the following connectors.

CONFIGURATION DIAGRAMS

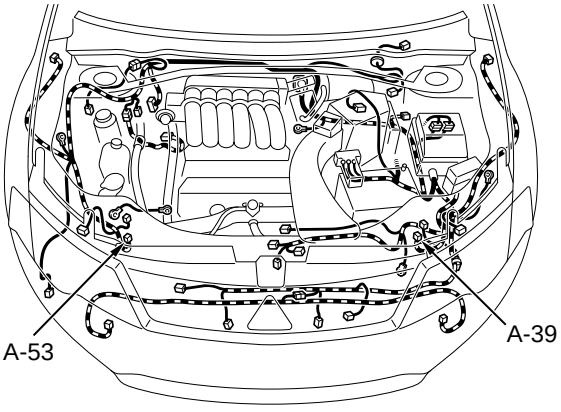
DASH PANEL



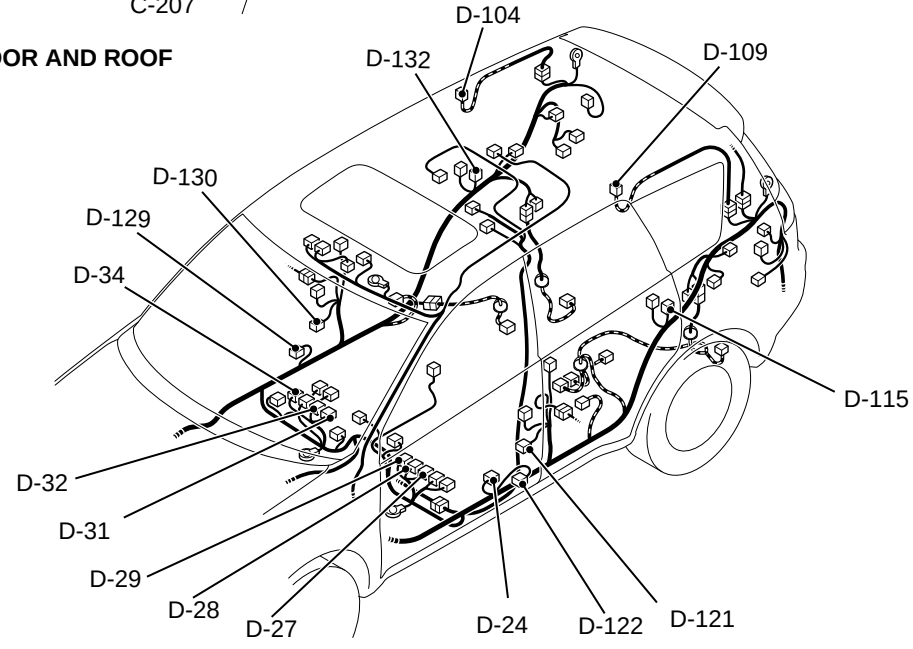
STEERING COLUMN



ENGINE ROOM



FLOOR AND ROOF



ZC6013300000

A-39 (Y)	Front impact sensor (LH)	D-31 (Y)	Side-airbag module (RH)
A-53 (Y)	Front impact sensor (RH)	D-32 (B)	Seat belt switch (Passeger's side)
C-03	Combination meter	D-34	Occupant classification-ECU
C-11 (Y)	Passenger's (Front) air bag module	D-104 (B)	Curtain air bag module (RH)
C-27 (Y)	SRS-ECU	D-109 (B)	Curtain air bag module (LH)
C-28 (Y)	SRS-ECU	D-115 (Y)	Side impact sensor (Rear: LH)
C-125 (B)	Date link connector	D-121 (B)	Seat belt pre-tensioner (LH)
C-205 (Y)	Driver's air bag module	D-122 (Y)	Side impact sensor (Front: LH)
C-207 (Y)	Clock spring	D-129 (Y)	Side impact sensor (Front: RH)
D-24 (B)	Lap pre-tensioner	D-130 (B)	Seat belt pre-tensioner (RH)
D-27 (GR)	Seat slide sensor	D-132 (Y)	Side impact sensor (Rear: RH)
D-28 (B)	Seat belt switch (Driver's side)		
D-29 (Y)	Side-airbag module (LH)		

CIRCUIT DIAGRAM

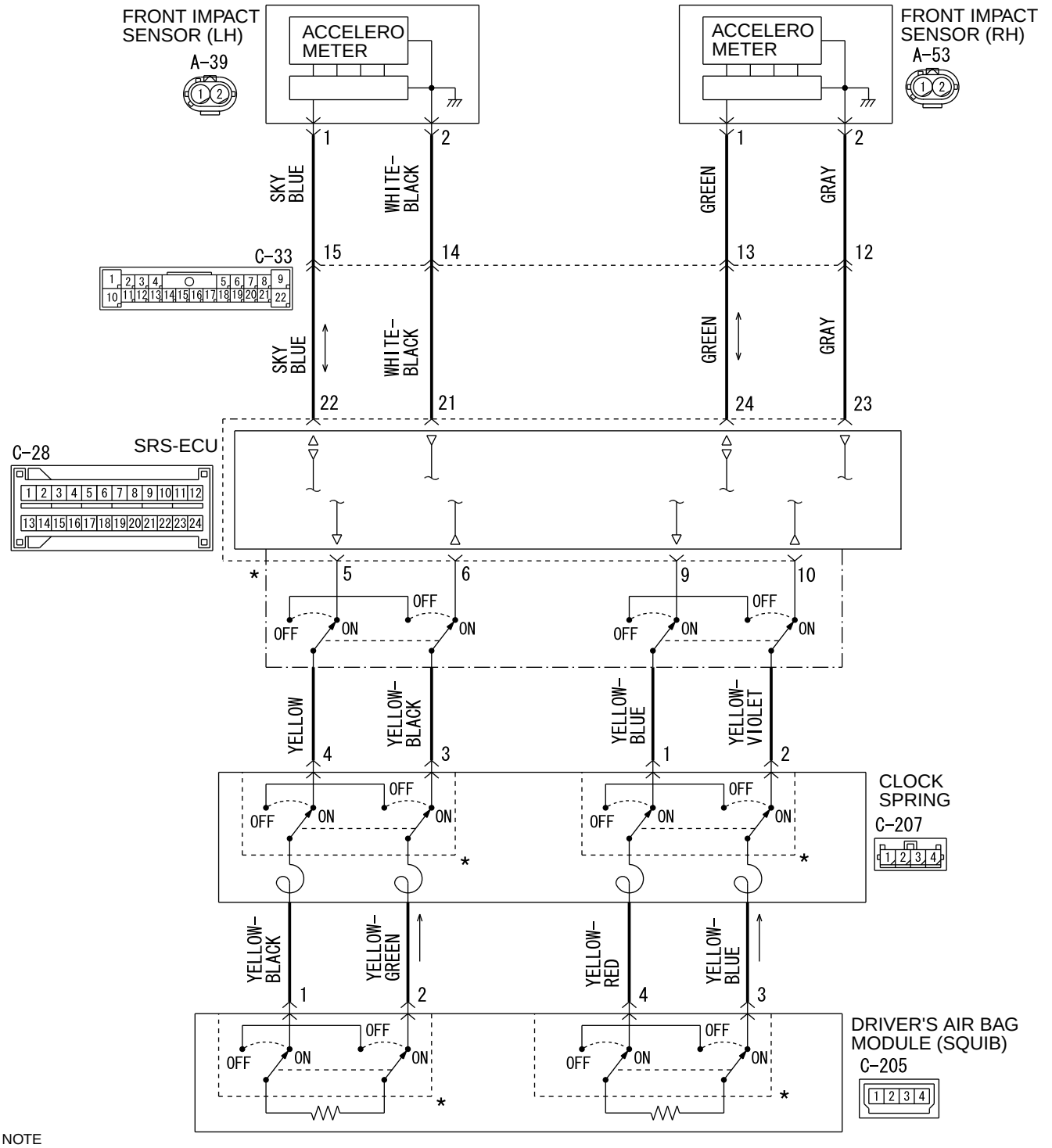
⚠ *WARNING*

- ***Do not repair, splice, or modify the SRS wiring (except for specific repairs to the instrument panel wiring harness and the floor wiring harness shown on P.52B-28): replace the wiring if necessary, after reading and following all precautions and procedures in this manual.***
- ***Do not use an analog ohmmeter to check the SRS wiring or components; use only the special tools (refer to P.52B-313) and a digital multi-meter (refer to P.52B-315).***

⚠ CAUTION

Improper services cause the system to be inoperative. Do not disassemble or tamper with the SRS components to prevent the serious injury.

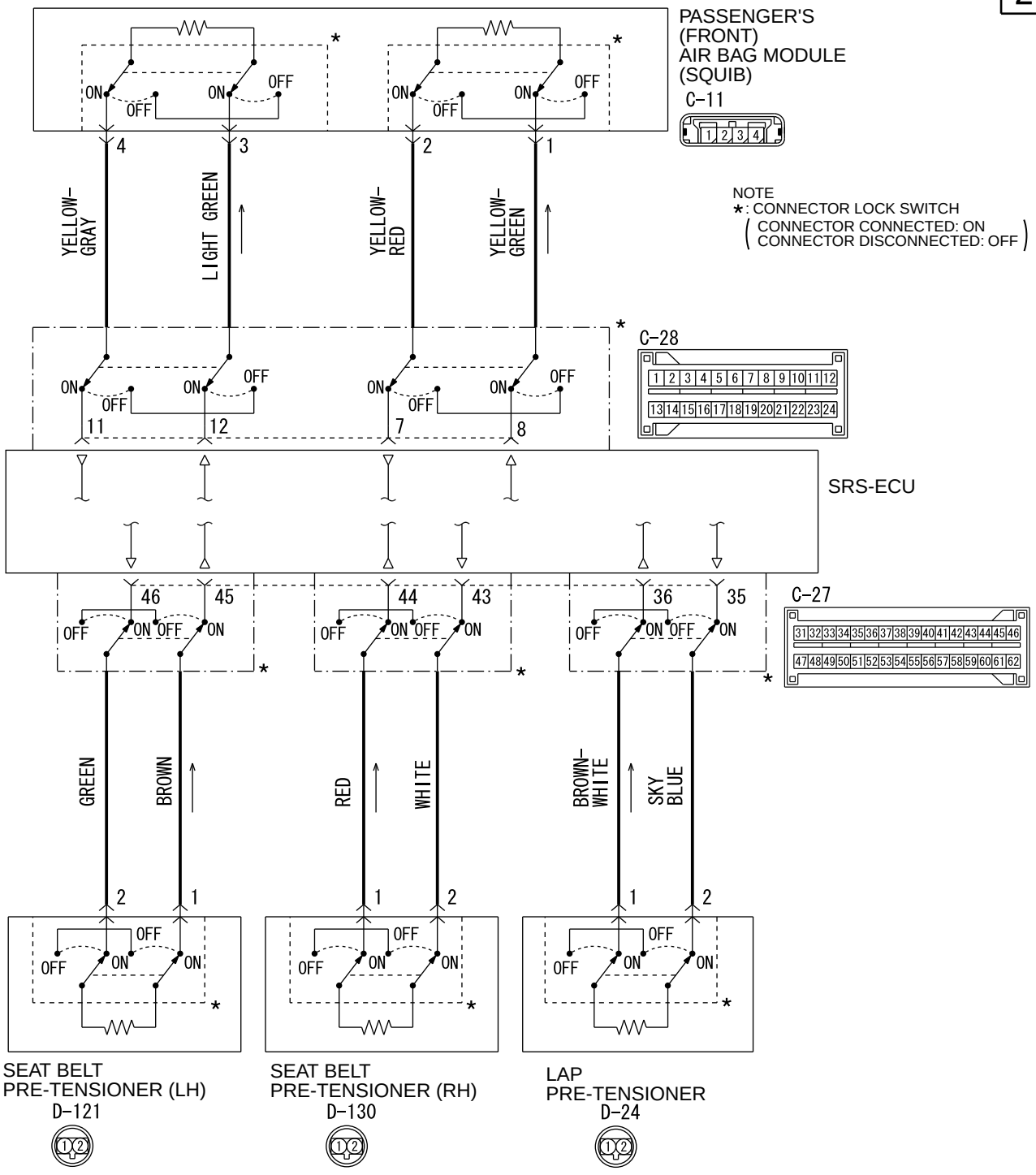
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NOTE
*: CONNECTOR LOCK SWITCH
(CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF)

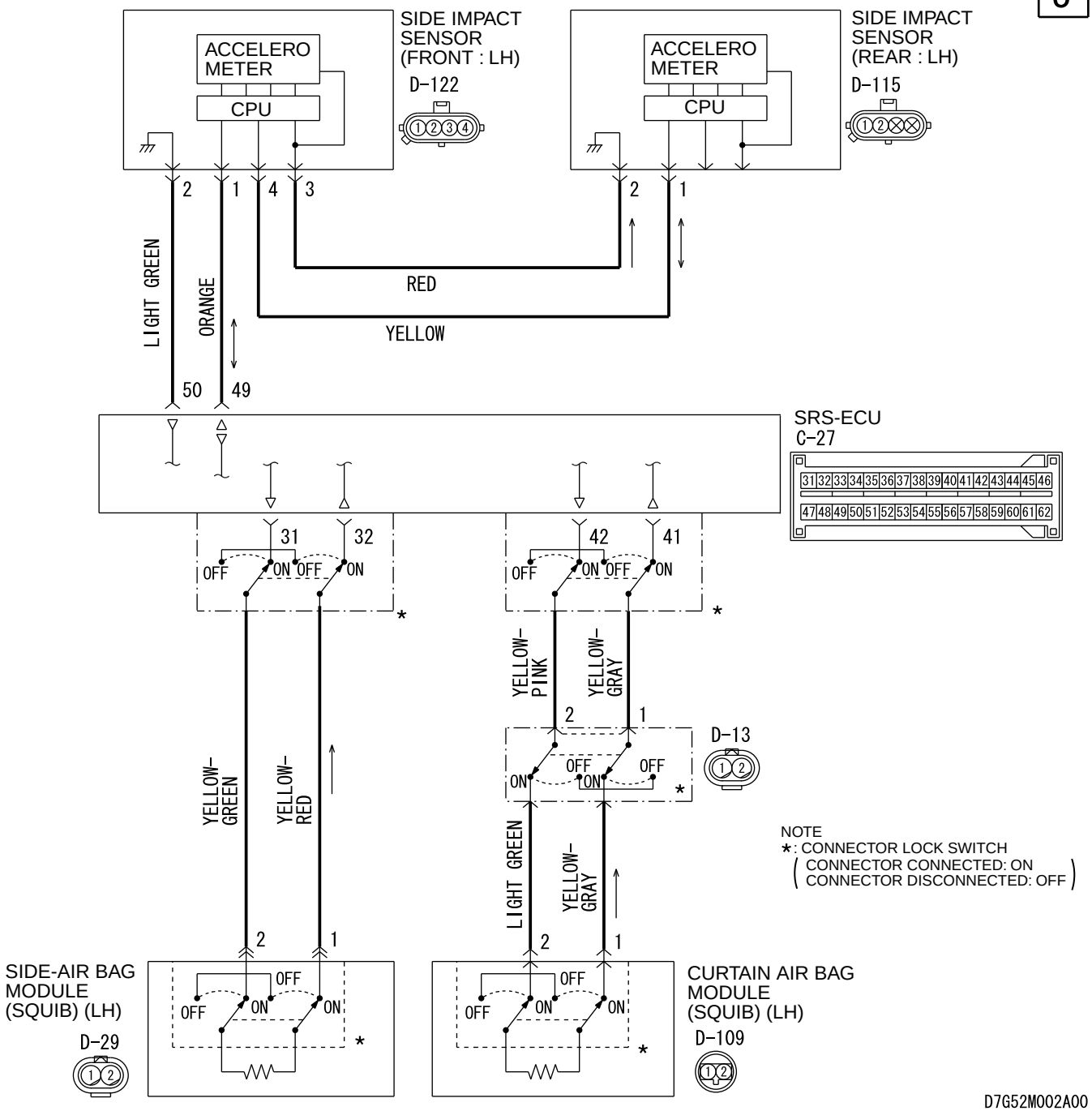
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D7G52M001A00

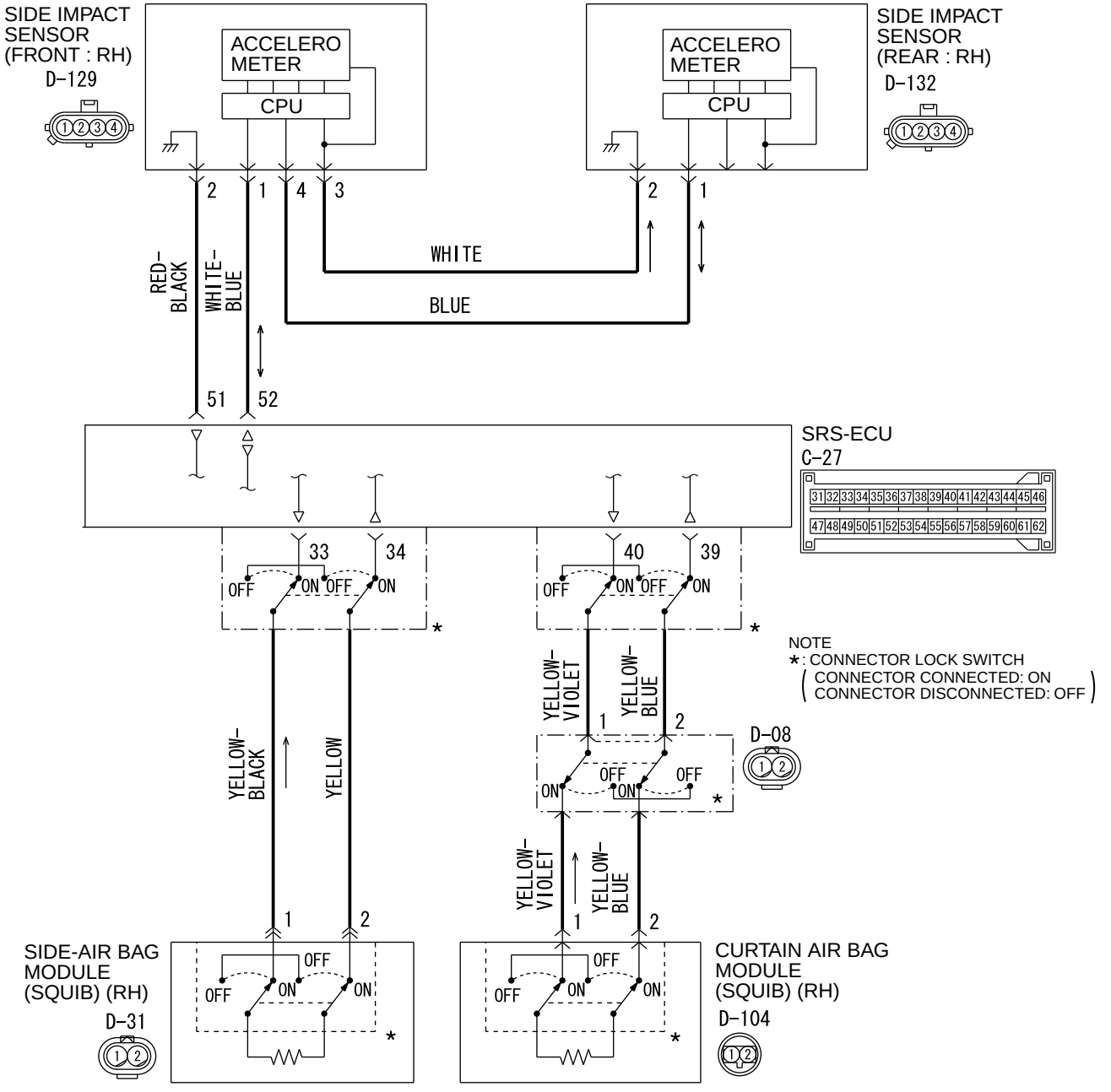
3



NOTE
*: CONNECTOR LOCK SWITCH
(CONNECTOR CONNECTED: ON
CONNECTOR DISCONNECTED: OFF)

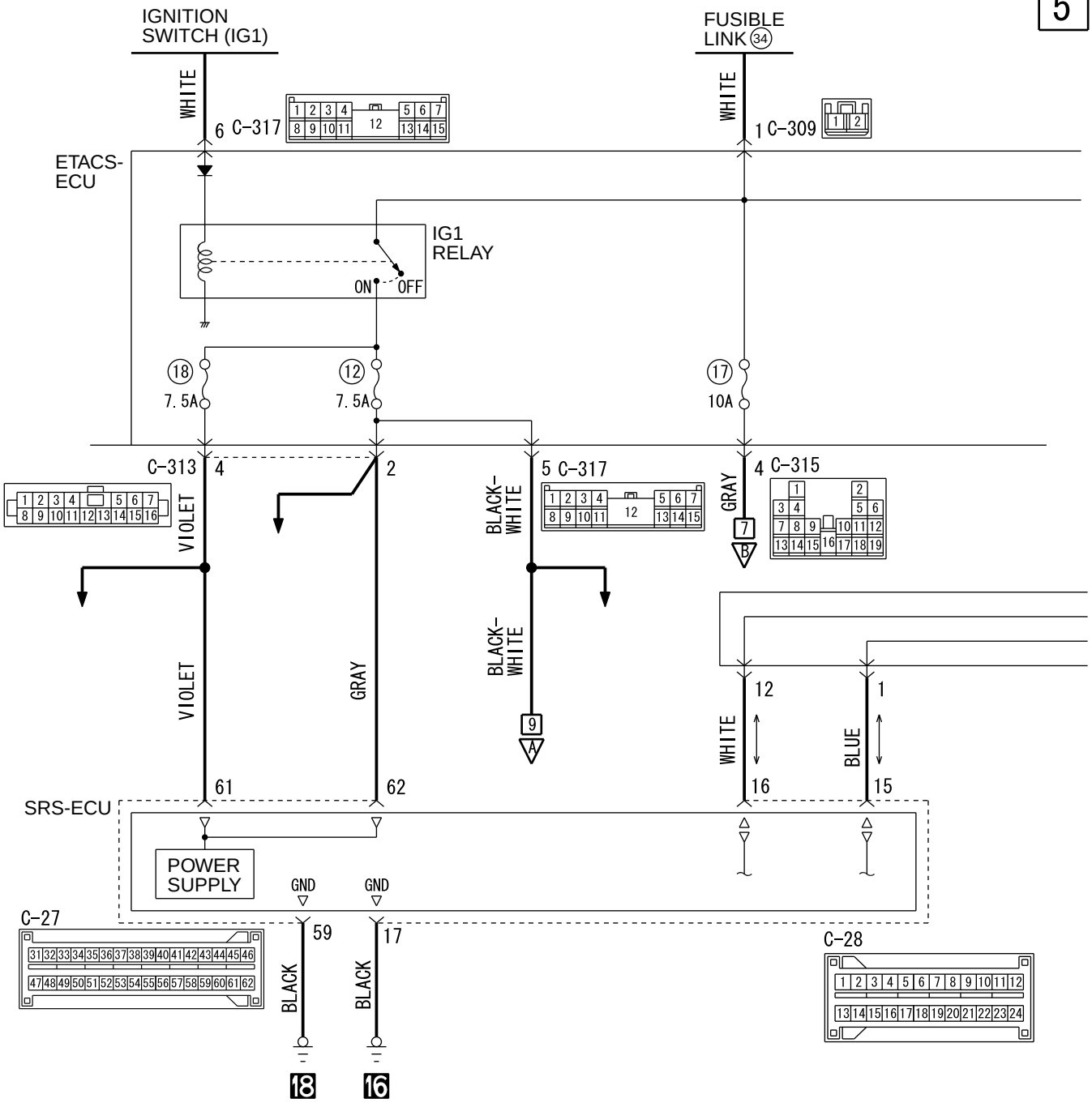
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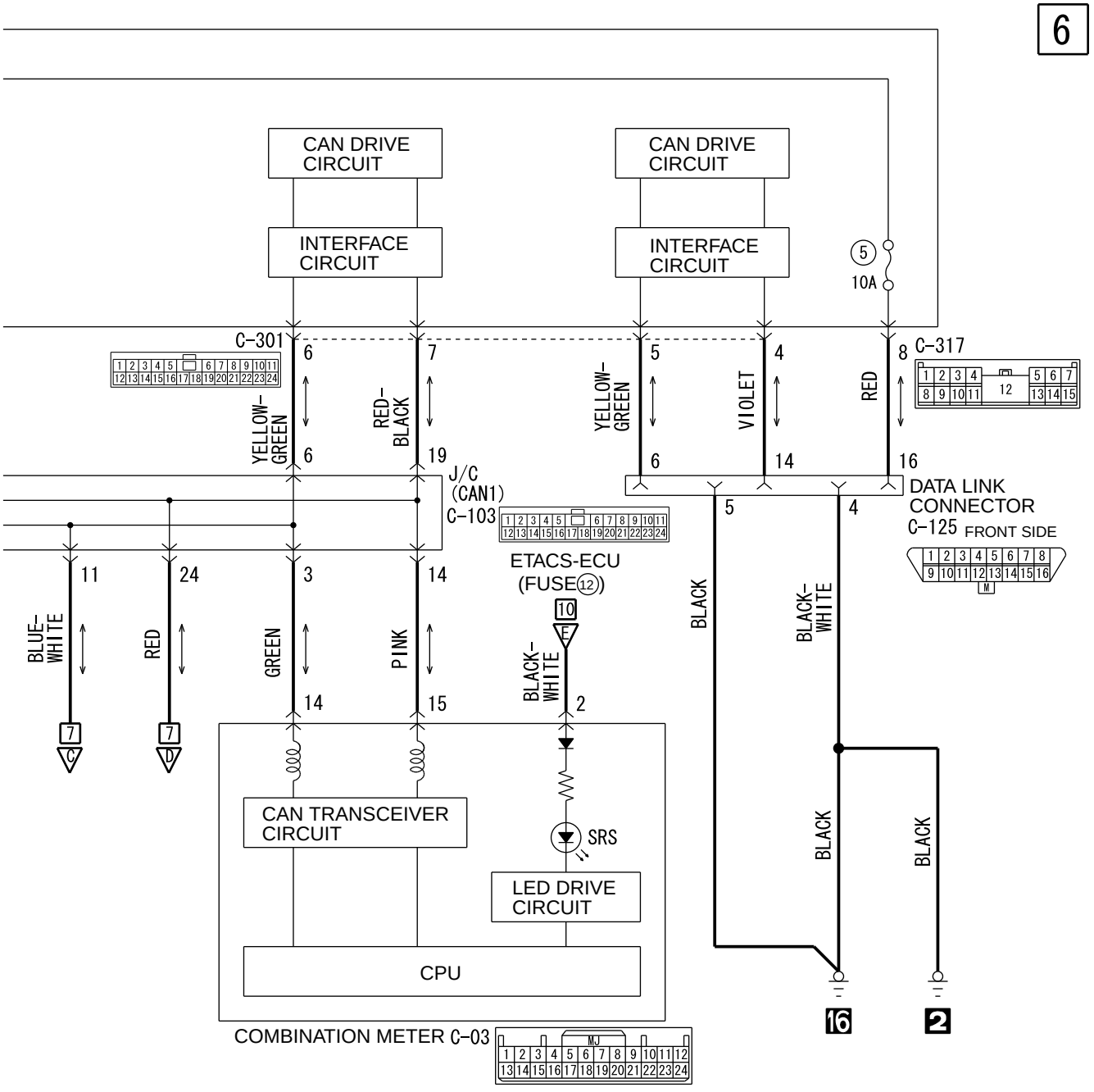


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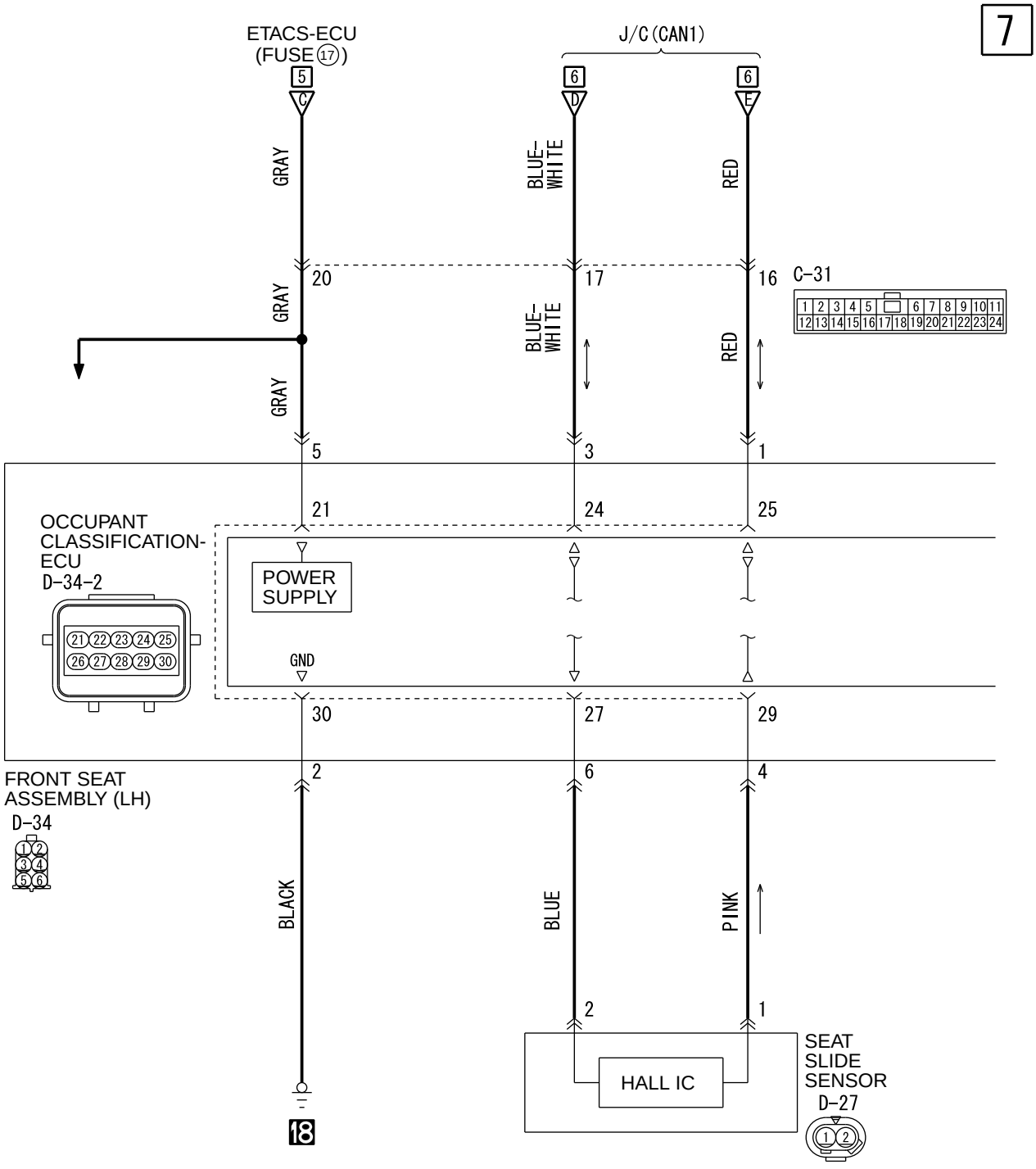


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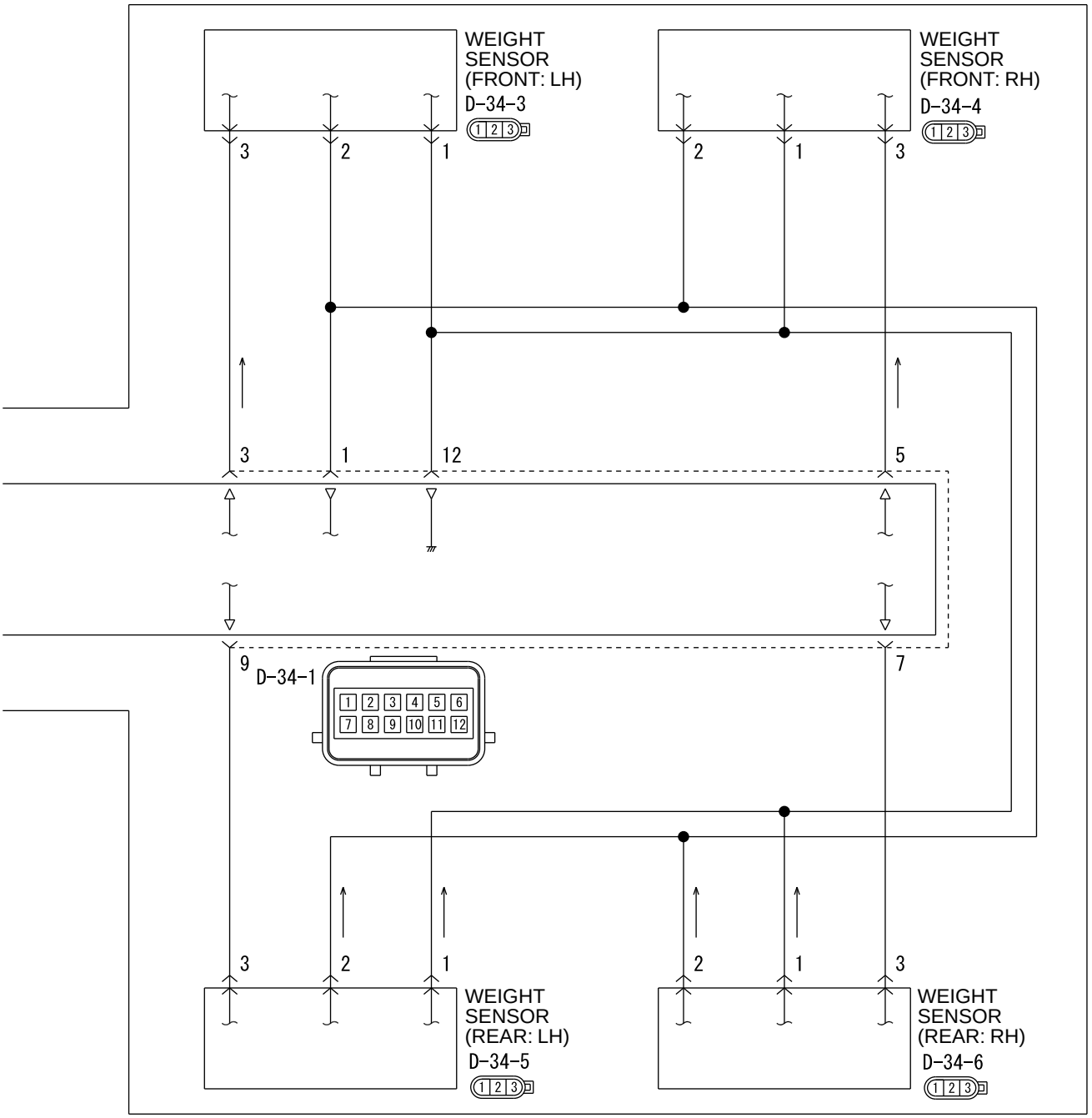
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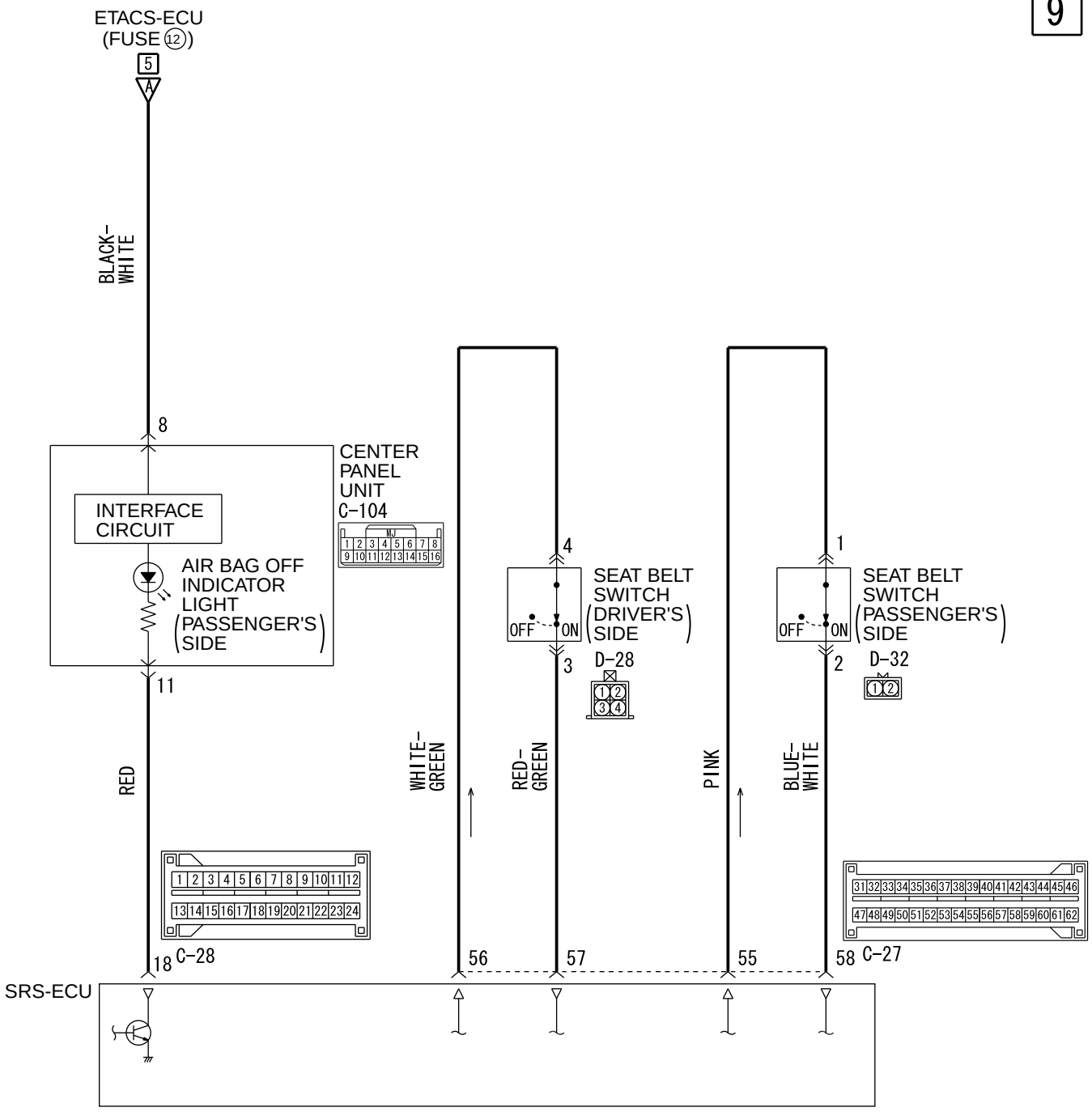
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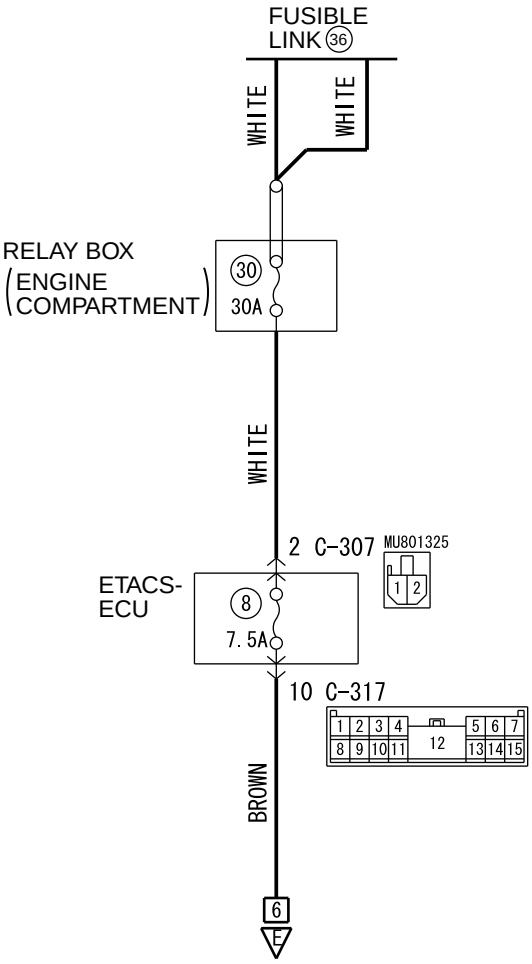
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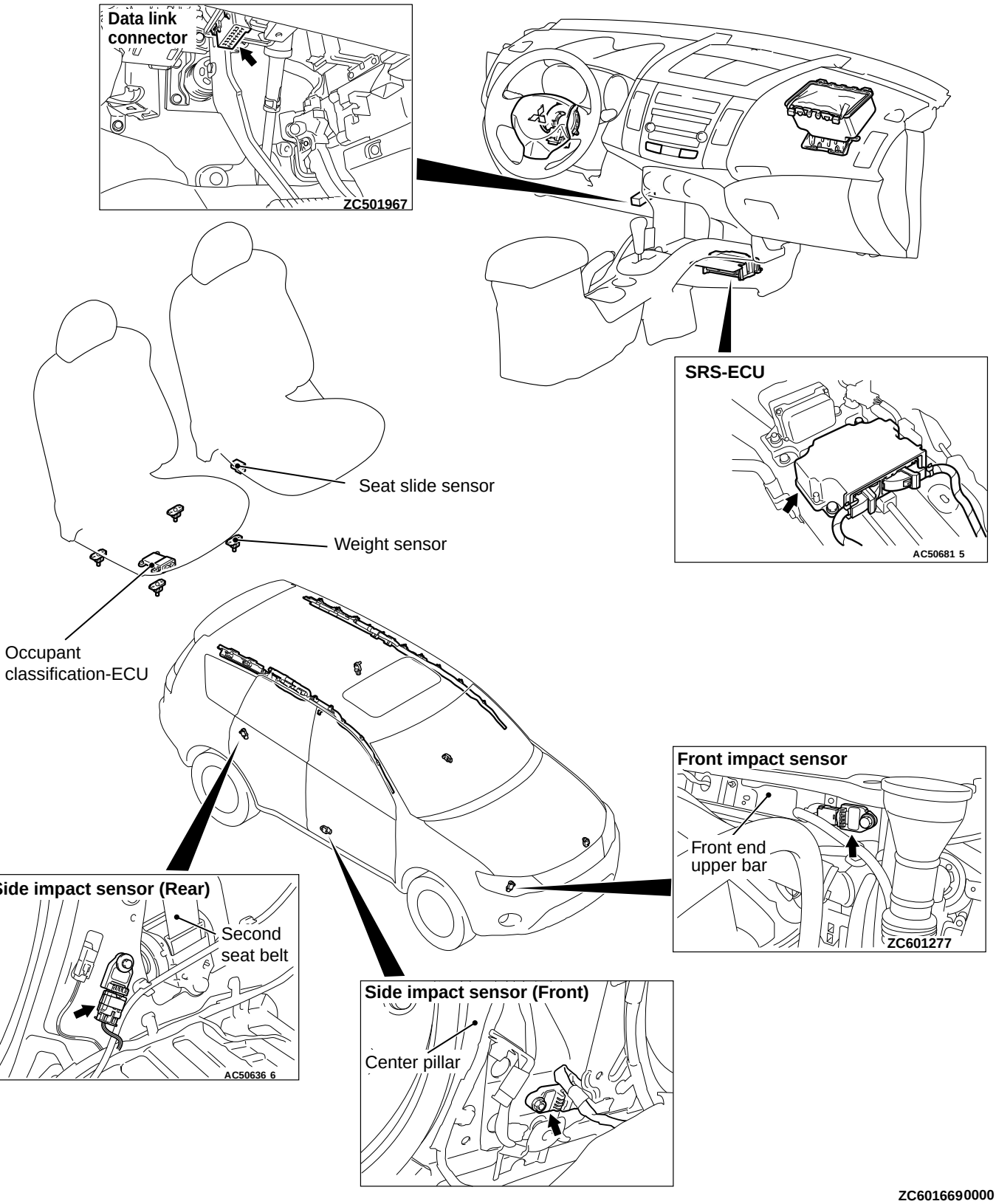
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10



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COMPONENT LOCATION



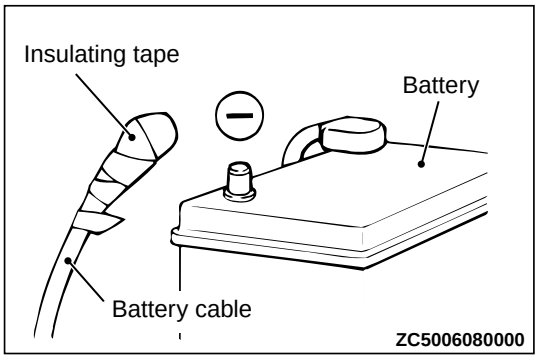
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NOTE: The illustration above shows the front impact sensor (RH) and the side impact sensor (RH). The position of the front impact sensor (LH) and the side impact sensor (LH) is symmetrical to this.

SERVICE PRECAUTIONS

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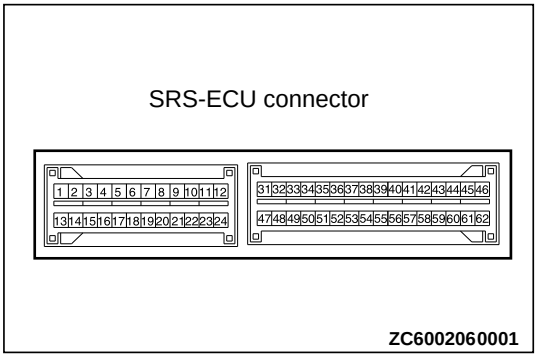
⚠ DANGER

- ***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.***
- 

  After disconnecting the battery cable, wait 60 seconds or more before proceeding with the following work. The SRS system is designed to retain enough voltage to deploy the air bag for a short time even after the battery has been disconnected, 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.
- ***The SRS-ECU adopts the rollover specification that the curtain airbag and seat belt pre-tensioner operate at the occurrence of rollover. Therefore, do not tilt the vehicle to the right and left with the IG ON or tilt the SRS-ECU to the right and left with the IG ON and the harness installed.***

⚠ WARNING

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Do not use any electrical test equipment on or near the SRS components, except those specified on P.52B-315.***
- ***Never Attempt to Repair the Following Components: SRS-ECU, Clock Spring, Air Bag Module, Front impact sensor, Side Impact Sensor, Seat Belt with Pre-tensioner, Seat slide sensor, Front seat assembly. If any of these components are diagnosed as faulty, they should only be replaced, in accordance with the INDIVIDUAL COMPONENT SERVICE procedures in this manual, starting on P.52B-321.***



Do not attempt to repair the wiring harness connectors of the SRS. If any of the connectors are diagnosed as faulty, replace the wiring harness. If the wires are diagnosed as faulty, replace or repair the wiring harness according to the following table.

SRS-ECU TERMINAL NO.	DESTINATION OF HARNESS	CORRECTIVE ACTION
1, 2	Front wiring harness → Instrument panel wiring harness → Front impact sensor (RH)	Correct or replace each wiring harness.
3, 4	Front wiring harness → Instrument panel wiring harness → Front wiring harness → Front impact sensor (LH)	Correct or replace each wiring harness.
7	Instrument panel wiring harness → Air bag OFF indicator light	Correct or replace the instrument panel wiring harness.
8, 59	Instrument panel wiring harness → Ground	Correct or replace the instrument panel wiring harness.
9, 10	Can line	Correct or replace can line.
13, 14	Instrument panel wiring harness → Air bag module (Front passenger's side) 2nd squib side	Correct or replace the instrument panel wiring harness.
15, 16	Instrument panel wiring harness → Clock spring → Air bag module (Driver's side) 2nd squib side	Correct or replace the instrument panel wiring harness. Replace the clock spring.
17, 18	Instrument panel wiring harness → Air bag module (Front passenger's side) 1st squib side	Correct or replace the instrument panel wiring harness.
19, 20	Instrument panel wiring harness → Clock spring → Air bag module (Driver's side) 1st squib side	Correct or replace the instrument panel wiring harness. Replace the clock spring.
31, 32	Floor wiring harness → Side-airbag module (LH)	Correct or replace the floor wiring harness.
33, 34	Floor wiring harness → Side-airbag module (RH)	Correct or replace the floor wiring harness.
35, 36	Floor wiring harness → Lap pre-tensioner	Correct or replace the floor wiring harness.

SRS-ECU TERMINAL NO.	DESTINATION OF HARNESS	CORRECTIVE ACTION
39, 40	Floor wiring harness → Curtain air bag wiring harness (RH) → Curtain air bag module (RH)	Correct or replace each wiring harness.
41, 42	Floor wiring harness → Curtain air bag wiring harness (LH) → Curtain air bag module (LH)	Correct or replace each wiring harness.
43, 44	Floor wiring harness → Seat belt pre-tensioner (RH)	Correct or replace the floor wiring harness.
45, 46	Floor wiring harness → Seat belt pre-tensioner (LH)	Correct or replace the floor wiring harness.
49, 50	Floor wiring harness → Side impact sensor (LH)	Correct or replace the floor wiring harness.
51, 52	Floor wiring harness → Side impact sensor (RH)	Correct or replace the floor wiring harness.
55, 58	Instrument panel wiring harness → Passenger's seat belt switch	Correct or replace the Instrument panel wiring harness.
56, 57	Instrument panel wiring harness → driver's seat belt switch	Correct or replace the Instrument panel wiring harness.
61	Instrument panel wiring harness → ETACS-ECU (fuse No.18)	Correct or replace instrument panel wiring harness.
62	Instrument panel wiring harness → ETACS-ECU (fuse No.12)	Correct or replace instrument panel wiring harness.

⚠ WARNING

- ***The SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the SRS-ECU, driver's and front passenger's air bag modules, clock spring, side-airbag modules, Curtain air bag modules, front and side impact sensor and seat belt pre-tensioner before drying or baking the vehicle after painting.***
  - ***SRS-ECU, air bag module, clock spring, impact sensor: 93° C (200° F) or more***
  - ***Seat belt with pre-tensioner 90°C (194° F) or more***
- ***After servicing the SRS system, check the warning light operation to make sure that the system functions properly. (Refer to P.52B-5).***
- ***Make certain that the ignition switch is in the "LOCK"(OFF) position when the scan tool is connected or disconnected.***

SRS AIR BAG DIAGNOSIS

INTRODUCTION TO DIAGNOSIS

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The SRS system is controlled by the SRS-ECU. The SRS-ECU judges how severe a collision is by detecting signals from the left and right front impact sensors and side impact sensors, front air bag analog G-sensor and front air bag safing G-sensor and side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the safing G-sensor is on, the SRS air bag will inflate. (The passenger's air bag may not inflate according to the occupant detection data from the occupant classification-ECU.) The SRS warning light in the combination meter alerts a malfunction of the SRS system. If the following symptoms occur even when the vehicle has not been in a collision, there may be a malfunction in the SRS system.

- The SRS warning light does not go off within approximately seven seconds after the ignition switch has been turned to the "ON" position.
- The SRS warning light does not illuminate when the ignition switch is turned to the "ON" position.

Refer to Post-collision Diagnosis when inspecting and servicing a vehicle that has been in a collision (Refer to P.52B-315).

TROUBLESHOOTING STRATEGY

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Use these steps to plan your diagnostic strategy. If you follow them carefully, you will be sure that you have exhausted all of the possible ways to find a SRS fault.

1. Gather information about the problem from the customer.
2. Verify that the condition described by the customer exists.
3. Check the vehicle for any SRS diagnostic trouble codes (SRS DTC).
4. If you cannot verify the condition but there are no SRS DTCs, the malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting - Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15.
5. If there is a SRS DTC, record the code number, then erase the code from vehicle memory using scan tool (M.U.T.-III Sub Assembly) MB991958.
6. Recreate the SRS DTC set conditions to see if the same SRS DTC will be set again.
   - If the same SRS DTC is set again, follow the Inspection Chart for the DTC and find the fault.
   - If you cannot get the same SRS DTC to be set again, the malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting - Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15.

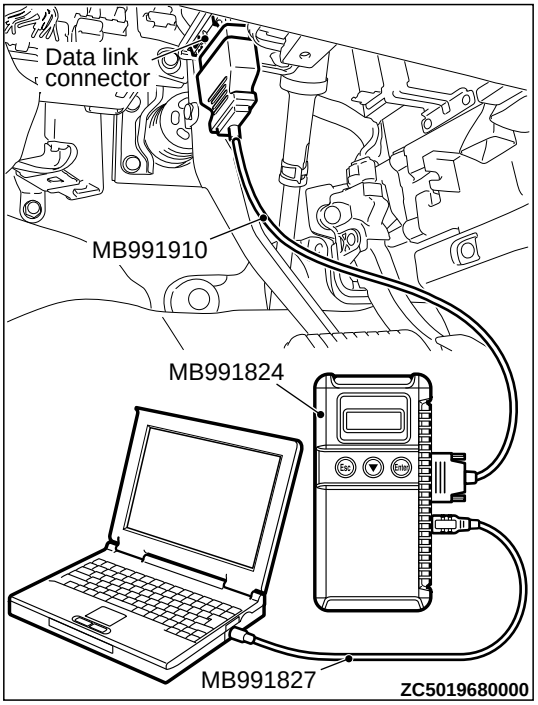
DIAGNOSTIC FUNCTION

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HOW TO CONNECT THE SCAN TOOL (M.U.T.-III)

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface(V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A



⚠ CAUTION

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

1. Ensure that the ignition switch is at the "LOCK" (OFF) position.
2. Start up the personal computer.
3. Connect special tool MB991827 to special tool MB991824 and the personal computer.
4. Connect special tool MB991910 to special tool MB991824.
5. Connect special tool MB991910 to the data link connector.
6. Turn the power switch of special tool MB991824 to the "ON" position.

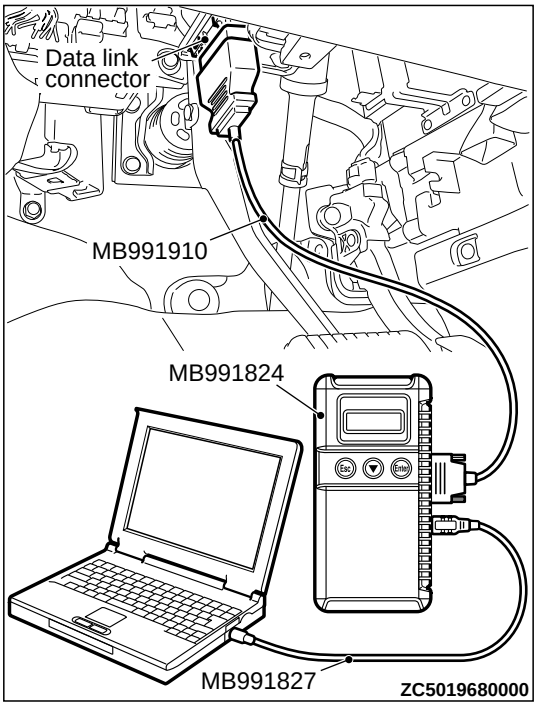
   NOTE: When special tool MB991824 is energized, special tool MB991824 indicator light will be illuminated in a green color.
7. Start the M.U.T.-III system on the personal computer.

NOTE: Disconnecting scan tool MB991958 is the reverse of the connecting sequence, making sure that the ignition switch is at the "LOCK" (OFF) position.

HOW TO READ AND ERASE DIAGNOSTIC TROUBLE CODES

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface(V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A



⚠ CAUTION

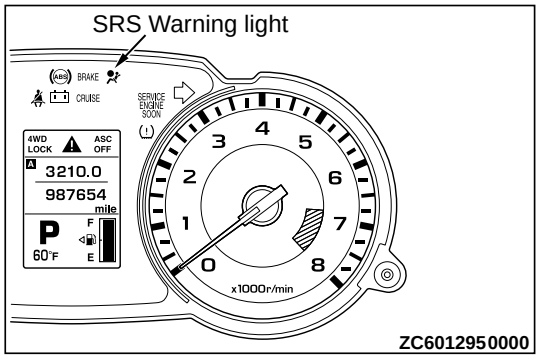
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

NOTE: If the battery voltage is low, diagnostic trouble codes will not be set. Check the battery if scan tool MB991958 does not display.

1. Connect scan tool MB991958 to the data link connector.
2. Turn the ignition switch to the "ON" position.
3. Select "System select" from the start-up screen.
4. Select "From 2006 MY" of "Model Year." When the "Vehicle Information" is displayed, check the contents.
5. Select "SRS-AIR BAG" from "System List," and press the "OK" button.

   NOTE: When the "Loading Option Setup" list is displayed, check the applicable item.
6. Select "Diagnostic Trouble Code."
7. If a DTC is set, it is shown.
8. Choose "Erase DTCs" to erase the DTC.

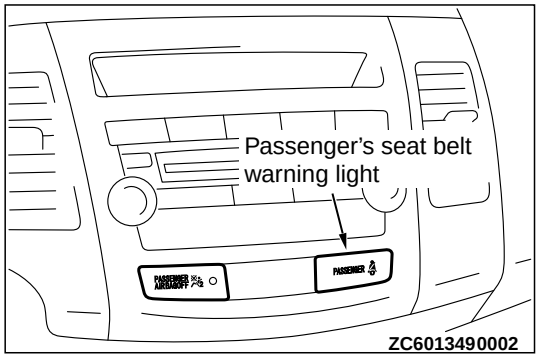
SRS WARNING LIGHT CHECK



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1. Check that the SRS warning light illuminates when the ignition switch is in the "ON" position.
2. Check that it illuminates for approximately seven seconds and then goes out.
3. If not, check for DTC.

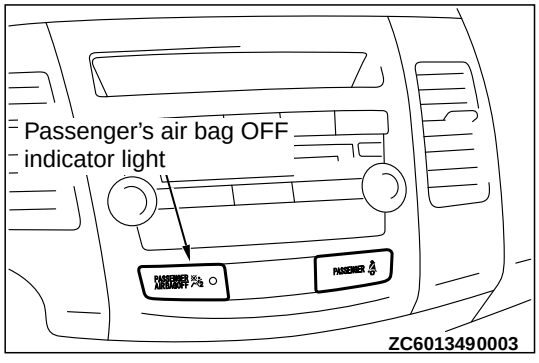
PASSENGER'S SEAT BELT WARNING LIGHT CHECK



M15204000985USA0000010000

When an adult on the front passenger's seat wears the seat belt with the ignition switch "ON," confirm that the passenger's seat belt warning light goes out..

PASSENGER'S AIR BAG OFF INDICATOR LIGHT CHECK



M15204000986USA0000010000

1. Check that the passenger's air bag OFF indicator light illuminates when the ignition switch is in the "ON" position.
2. Check that it illuminates for approximately seven seconds and then goes out.
3. If not, check for DTC.

DIAGNOSTIC TROUBLE CODE CHART

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⚠ CAUTION

During diagnosis, a DTC code associated with another system may be set when the ignition switch is turned on with connector(s) disconnected. After completing the repair, confirm all systems for DTC code(s). If DTC code (s) are set, erase them all.

Inspect according to the inspection chart that is appropriate for the DTC.

Diagnostic trouble Code No.	Inspection item	Reference page
B1206	Passenger's air bag OFF indicator light (open circuit)	P.52B-38
B1207	Passenger's air bag OFF indicator light (short circuit between circuit terminal)	P.52B-42
B1B00	Driver's air bag module (1st squib) system (shorted to squib circuit ground)	P.52B-47
B1B01	Driver's air bag module (1st squib) system (shorted to squib circuit power supply)	P.52B-53
B1B02	Driver's air bag module (1st squib) system (squib circuit open)	P.52B-58
B1B03	Driver's air bag module (1st squib) system (short circuit between squib circuit terminals)	P.52B-64
B1B04	Driver's air bag module (2nd squib) system (shorted to squib circuit ground)	P.52B-47
B1B05	Driver's air bag module (2nd squib) system (shorted to squib circuit power supply)	P.52B-53
B1B06	Driver's air bag module (2nd squib) system (squib circuit open)	P.52B-58
B1B07	Driver's air bag module (2nd squib) system (short circuit between squib circuit terminals)	P.52B-64
B1B08	Passenger's (front) air bag module (1st squib) system (shorted to squib circuit ground)	P.52B-71
B1B09	Passenger's (front) air bag module (1st squib) system (shorted to squib circuit power supply)	P.52B-76
B1B0A	Passenger's (front) air bag module (1st squib) system (squib circuit open)	P.52B-82
B1B0B	Passenger's (front) air bag module (1st squib) system (short circuit between squib circuit terminals)	P.52B-86
B1B0C	Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit ground)	P.52B-71
B1B0D	Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit power supply)	P.52B-76
B1B0E	Passenger's (front) air bag module (2nd squib) system (squib circuit open)	P.52B-82
B1B0F	Passenger's (front) air bag module (2nd squib) system (short circuit between squib circuit terminals)	P.52B-86
B1B18	Curtain air bag module (LH) (squib) system (shorted to squib circuit ground)	P.52B-94
B1B19	Curtain air bag module (LH) (squib) system (shorted to squib circuit power supply)	P.52B-99
B1B1A	Curtain air bag module (LH) (squib) system (squib circuit open)	P.52B-104
B1B1B	Curtain air bag module (LH) (squib) system (short circuit between squib circuit terminals)	P.52B-109

Diagnostic trouble Code No.	Inspection item	Reference page
B1B20	Curtain air bag module (RH) (squib) system (shorted to squib circuit ground)	P.52B-115
B1B21	Curtain air bag module (RH) (squib) system (shorted to squib circuit power supply)	P.52B-120
B1B22	Curtain air bag module (RH) (squib) system (squib circuit open)	P.52B-125
B1B23	Curtain air bag module (RH) (squib) system (short circuit between squib circuit terminals)	P.52B-130
B1B50	Seat belt switch (LH) circuit (ground side) shorted	P.52B-135
B1B51	Seat belt switch (LH) circuit (power supply side) shorted	P.52B-135
B1B52	Seat belt switch (LH) circuit open	P.52B-135
B1B54	Seat belt switch (RH) circuit (ground side) shorted	P.52B-141
B1B55	Seat belt switch (RH) circuit (power supply side) shorted	P.52B-141
B1B56	Seat belt switch (RH) circuit open	P.52B-141
B1B70	Malfunction of G-sensor inside front impact sensor (LH)	P.52B-147
B1B71	Malfunction of G-sensor inside front impact sensor (RH)	P.52B-147
B1B72	Malfunction of G-sensor inside side impact sensor (front) (LH)	P.52B-149
B1B73	Malfunction of G-sensor inside side impact sensor (rear) (LH)	P.52B-151
B1B75	Malfunction of G-sensor inside side impact sensor (front) (RH)	P.52B-149
B1B76	Malfunction of G-sensor inside side impact sensor (rear) (RH)	P.52B-151
B1BA3	Driver's seat slide sensor malfunction (occupant classification-ECU)	P.52B-152
B1BA4	Passenger's seat slide sensor malfunction (occupant classification-ECU)	P.52B-152
B1BA5	SRS-ECU squib count mismatch	P.52B-154
B1BAA	Occupant classification-ECU configuration mismatch	P.52B-156
B1BC7	SRS-ECU (record data full) system	P.52B-157
B1BCF	Roll over sensor malfunction	P.52B-158
B1C27	Side-airbag module (LH) (squib) system (shorted to squib circuit ground)	P.52B-160
B1C28	Side-airbag module (LH) (squib) system (shorted to squib circuit power supply)	P.52B-165
B1C29	Side-airbag module (LH) (squib) system (squib circuit open)	P.52B-169
B1C2A	Side-airbag module (LH) (squib) system (short circuit between squib circuit terminals)	P.52B-173
B1C2B	Side-airbag module (RH) (squib) system (shorted to squib circuit ground)	P.52B-178

Diagnostic trouble Code No.	Inspection item	Reference page
B1C2C	Side-airbag module (RH) (squib) system (shorted to squib circuit power supply)	P.52B-182
B1C2D	Side-airbag module (RH) (squib) system (squib circuit open)	P.52B-186
B1C2E	Side-airbag module (RH) (squib) system (short circuit between squib circuit terminals)	P.52B-190
B1C33	Driver's lap pre-tensioner (squib) system (shorted to squib circuit ground)	P.52B-195
B1C34	Driver's lap pre-tensioner (squib) system (shorted to squib circuit power supply)	P.52B-200
B1C35	Driver's lap pre-tensioner (squib) system (squib circuit open)	P.52B-204
B1C36	Driver's lap pre-tensioner (squib) system (short circuit between squib circuit terminals)	P.52B-209
B1C38	Driver's pre-tensioner (squib) system (shorted to squib circuit ground)	P.52B-214
B1C39	Driver's pre-tensioner (squib) system (shorted to squib circuit power supply)	P.52B-219
B1C3A	Driver's pre-tensioner (squib) system (squib circuit open)	P.52B-223
B1C3B	Driver's pre-tensioner (squib) system (short circuit between squib circuit terminals)	P.52B-228
B1C47	Front passenger's pre-tensioner (squib) system (shorted to squib circuit ground)	P.52B-233
B1C48	Front passenger's pre-tensioner (squib) system (shorted to squib circuit power supply)	P.52B-238
B1C49	Front passenger's pre-tensioner (squib) system (squib circuit open)	P.52B-243
B1C4A	Front passenger's pre-tensioner (squib) system (short circuit between squib circuit terminals)	P.52B-248
B210D	Battery abnormal low voltage	P.52B-253
B212C	Open circuit to IG1 power supply (fuse No. 12 circuit)	P.52B-259
B212D	Open circuit to IG1 power supply (fuse No. 18 circuit)	P.52B-259
B2207	Occupant restraint controller internal 1	P.52B-158
B2208	Occupant restraint controller internal 2	P.52B-158
B2209	Occupant restraint controller internal 3	P.52B-158
B220A	Occupant restraint controller internal 4	P.52B-158
B220B	Occupant restraint controller firing stored energy	P.52B-158
B220C	Occupant restraint controller accelerometer 1	P.52B-158
B220D	Occupant restraint controller accelerometer 2	P.52B-158
B223D	OCM DTC present	P.52B-264
B2255	Occupant restraint controller roll-over feature disabled	P.52B-158
U0019	Bus off (CAN-B)	P.52B-265
U0141	ETACS CAN timeout	P.52B-266

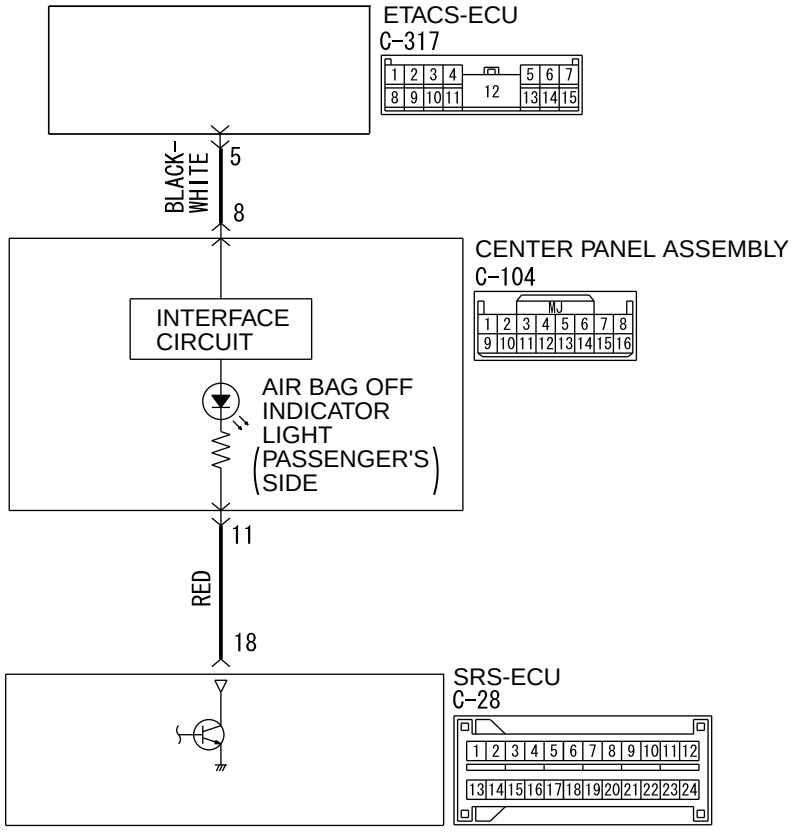
Diagnostic trouble Code No.	Inspection item	Reference page
U0154	Occupant Classification-ECU CAN timeout	P.52B-268
U0155	Combination meter CAN timeout	P.52B-270
U0164	A/C -ECU CAN timeout	P.52B-271
U0168	KOS -ECU or WCM CAN timeout	P.52B-272
U0170	Front impact sensor (LH) communication error	P.52B-274
U0171	Front impact sensor (RH) communication error	P.52B-278
U0172	Side impact sensor (front) (LH) communication error	P.52B-282
U0173	Side impact sensor (rear) (LH) communication error	P.52B-286
U0175	Side impact sensor (front) (RH) communication error	P.52B-290
U0176	Side impact sensor (rear) (RH) communication error	P.52B-294
U0184	Radio CAN timeout	P.52B-297
U0195	Satellite radio tuner CAN timeout	P.52B-299
U0197	Hands free telephone CAN timeout	P.52B-300
U0212	Steering wheel sensor CAN timeout	P.52B-301
U1414	Defective coding date	P.52B-303
U1415	Coding not completed/Data fail	P.52B-304

DIAGNOSTIC TROUBLE CODE PROCEDURES

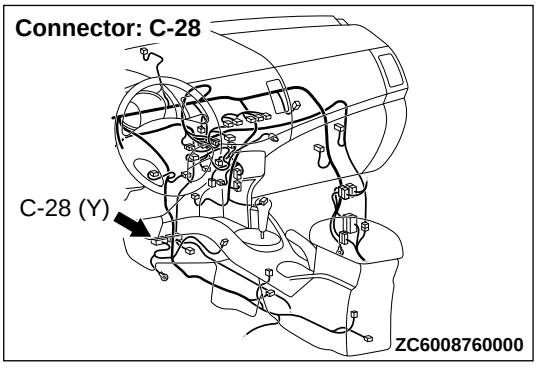
DTC B1206: Passenger's Air Bag OFF Indicator Light (Open Circuit)

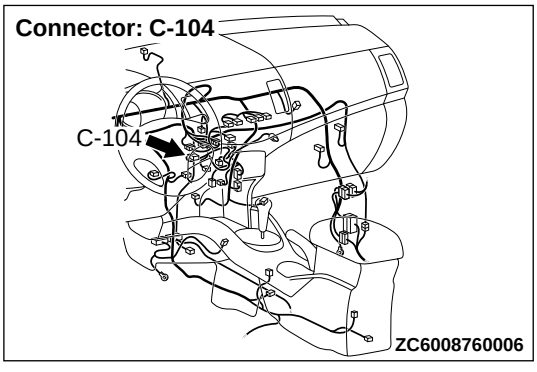
M15204000992USA0000010000

Air Bag OFF Indicator Light Drive Circuit



D7G52M023A00





⚠ CAUTION

If DTC B1206 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the ignition switch (IG1).

- The passenger's air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that SRS warning light "OFF" signal, thus causing the combination meter to illuminate the SRS warning light.
- The SRS warning light "OFF" signal is not sent to the combination meter in the cases below, either. Therefore, the combination meter will illuminate the SRS warning light.
  - The SRS-ECU connector is disconnected.
  - The SRS-ECU is not working normally due to a failure in its power supply lines.
  - The wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if an open circuit has occurred in the wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU.

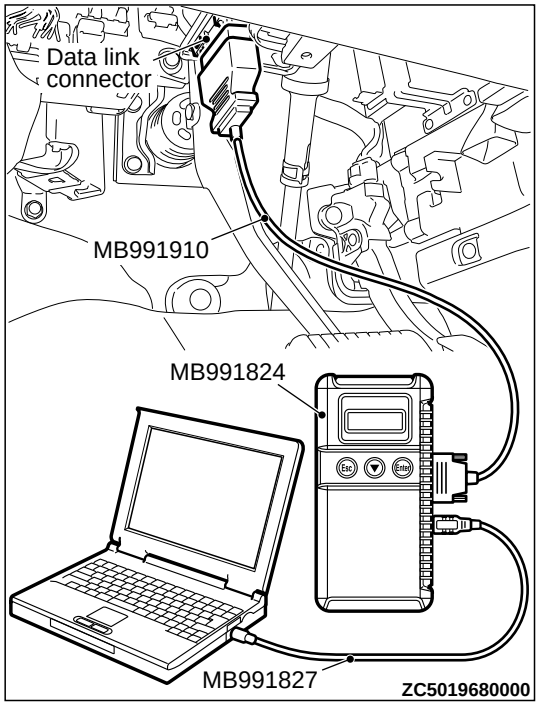
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger's air bag OFF indicator light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

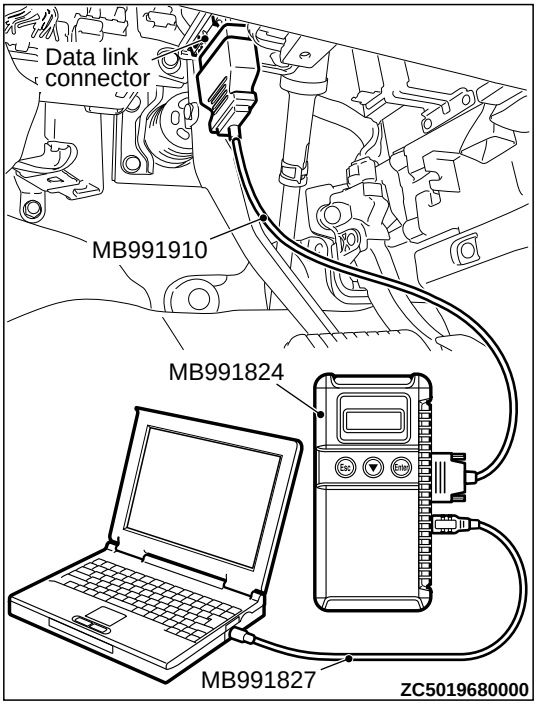
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

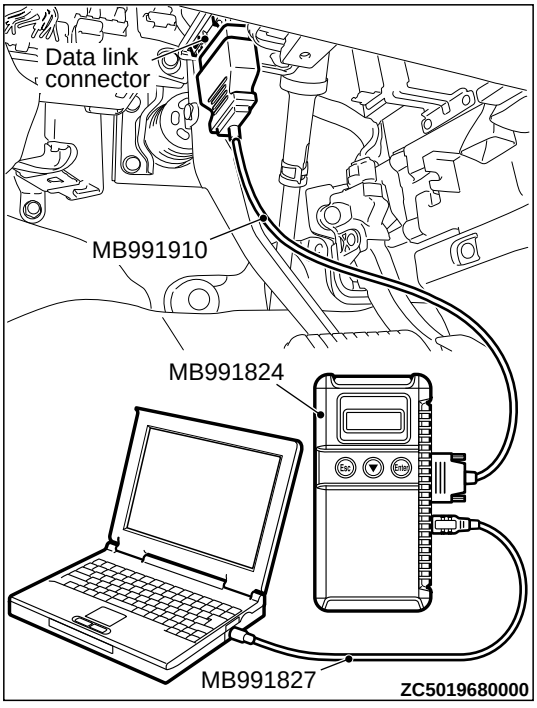
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

⚠ CAUTION

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

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

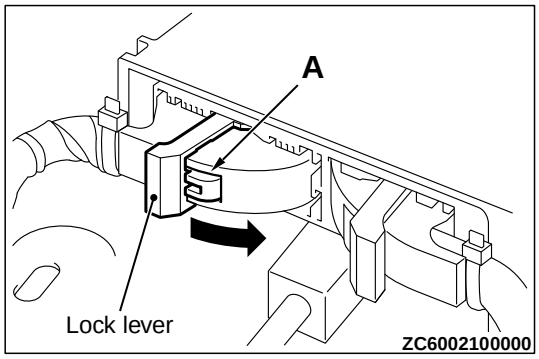
Q:Is DTC B1BAA, B2207, B2208, B2209, B220A, B220B, B220C, B220D or B2255 set?

YES: Carry out the troubleshooting of the occupant classification-ECU or the occupant classification sensor system. (Refer to B1BAA, B2207, B2208, B2209, B220A, B220B, B220C, B220D or B2255).

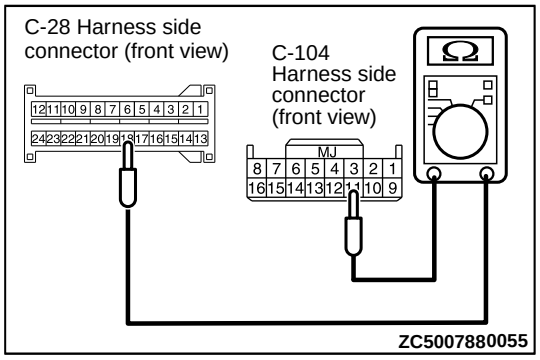
NO: Go to Step 4.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-28 (terminal No.18) and the center panel assembly connector C-104 (terminal No.11).

(1) Disconnect SRS-ECU connector C-28.



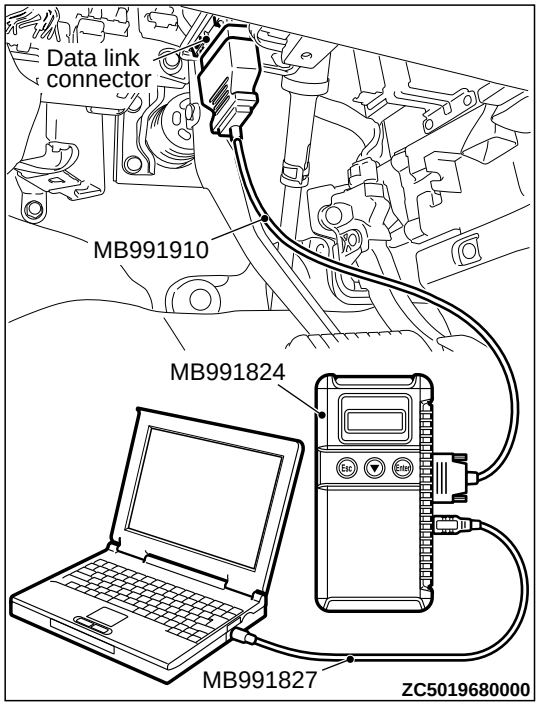
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.
(3) Disconnect the center panel assembly connector C-104.



(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-28 (terminal No.18) and the center panel assembly connector C-104 (terminal No.11)

Q:Does continuity exist?
YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1206 sets, replace the SRS-ECU. (Refer to P.52B-326.) Then go to Step 5.
NO: Repair the harness wires. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.



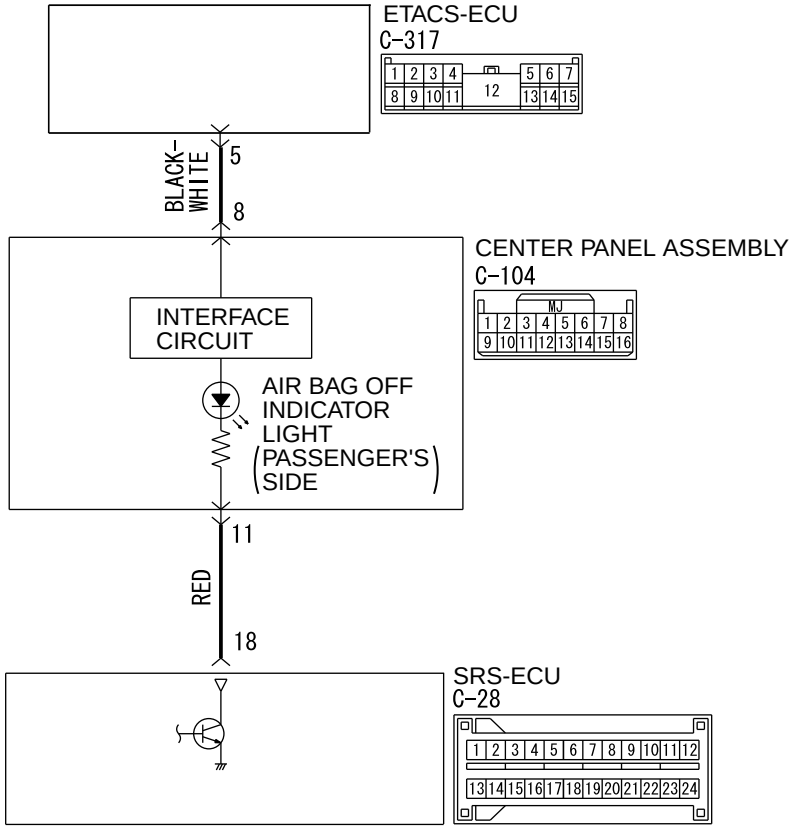
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1206 set?
YES: Return to Step 1.
NO: The procedure is complete.

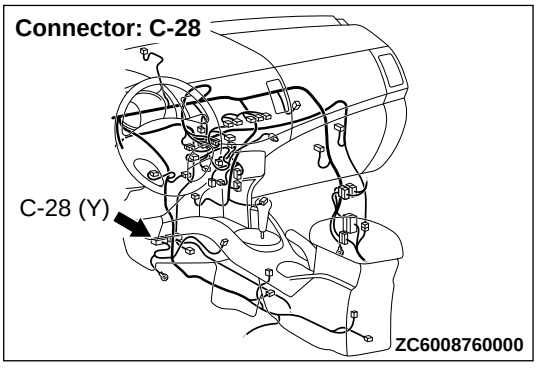
DTC B1207: Passenger's Air Bag OFF Indicator Light (Short Circuit between Circuit Terminal)

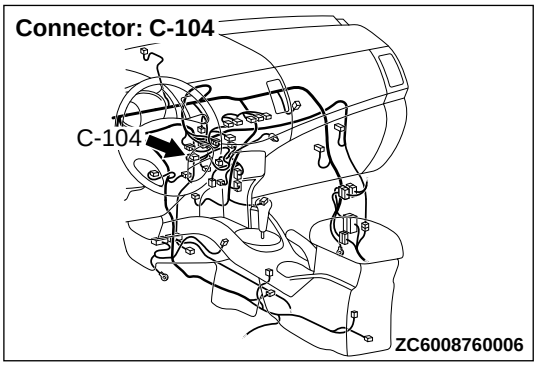
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Air Bag OFF Indicator Light Drive Circuit

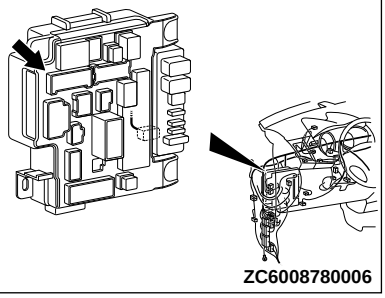


D7G52M023A00





Connector: C-317



⚠ CAUTION

If DTC B1207 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the ignition switch (IG1).
- The passenger's air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that SRS warning light "OFF" signal, thus causing the combination meter to illuminate the SRS warning light.
- The SRS warning light "OFF" signal is not sent to the combination meter in the cases below, either. Therefore, the combination meter will illuminate the SRS warning light.
  - The SRS-ECU connector is disconnected.
  - The SRS-ECU is not working normally due to a failure in its power supply lines.
  - The wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if the passenger's air bag OFF indicator light driving circuit is short to ground. If the vehicle condition returns to normal, DTC B1207 will be automatically erased, and the warning light will go out.

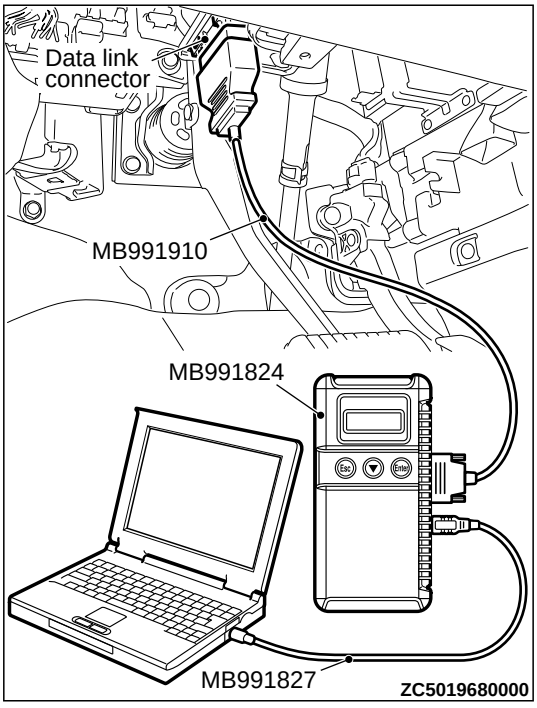
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger's air bag OFF indicator light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

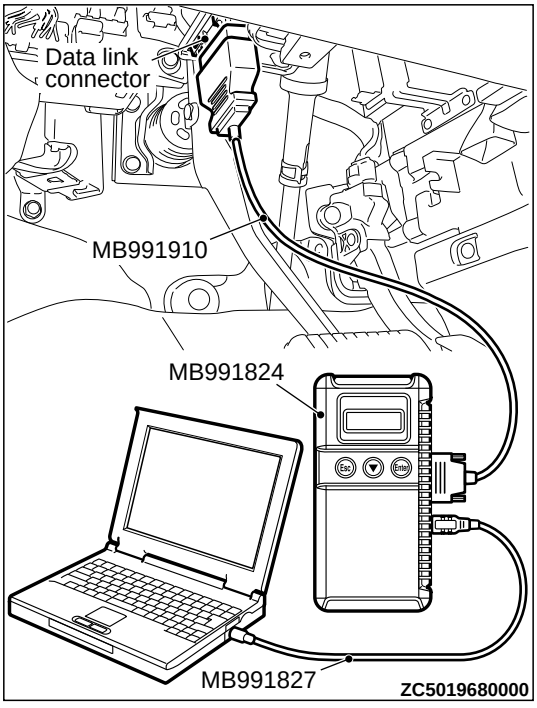
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).

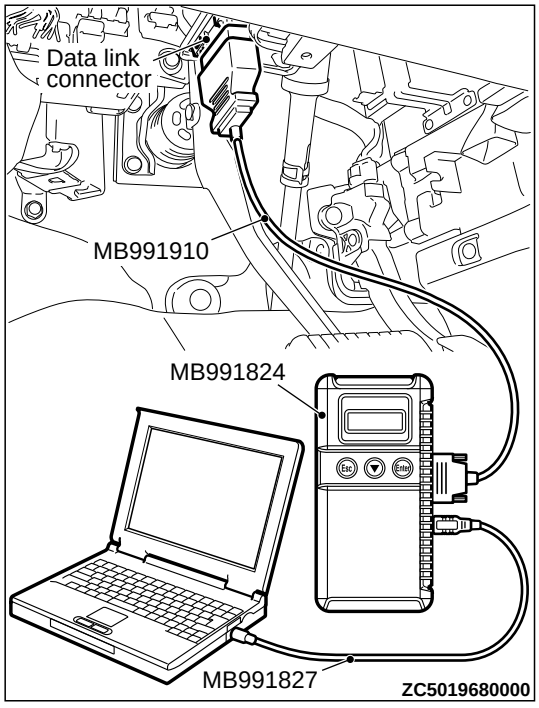


STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

⚠ CAUTION

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

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

Q:Is DTC B1BAA, B2207, B2208, B2209, B220A, B220B, B220C, B220D or B2255 set?

YES: Carry out the troubleshooting of the occupant classification-ECU or the occupant classification sensor system. (Refer toassembly B1BAA, B2207, B2208, B2209, B220A, B220B, B220C, B220D or B2255).

NO: Go to Step 4.

STEP 4. Check the center panel assembly connector C-104.

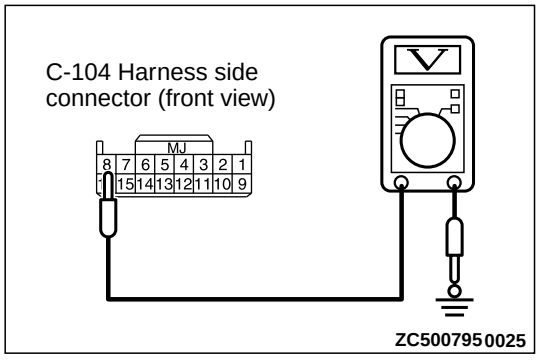
Q:Is the connector correctly engaged?

YES: Go to Step 5.

NO: Engage the connector correctly. Then go to Step 10.

STEP 5. Measure the voltage at center panel assembly connector C-104.

(1) Disconnect center panel assembly connector C-104.
(2) Measure the voltage between C-104 harness side connector terminal 8 and body ground.
Voltage should measure approximately 12 volt.



Q:Is the check result satisfactory?

YES: Go to Step 7.

NO: Go to Step 6.

STEP 6. Check the harness for short circuit between ETACS-ECU connector C-317 (terminal No.5) and center panel assembly connector C-104 (terminal No.8).

Q:Are the harness wires between center panel assembly connector C-104 (terminal No.8) and the ETACS-ECU connector C-317 (terminal No.5) in good condition?

YES: Go to Step 7.

NO: Repair the harness wires. Then go to Step 10.

STEP 7. Check SRS-ECU connector C-28.

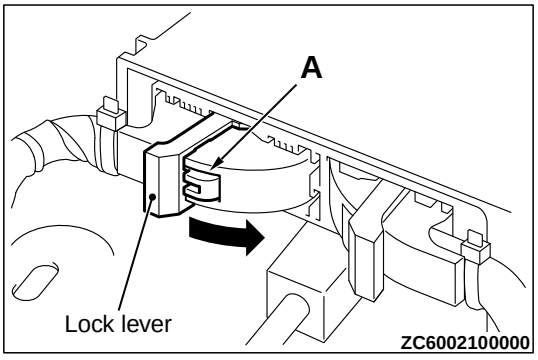
Q:Is the connector correctly engaged?

YES: Go to Step 8.
NO: Engage the connector correctly. Then go to Step 10.

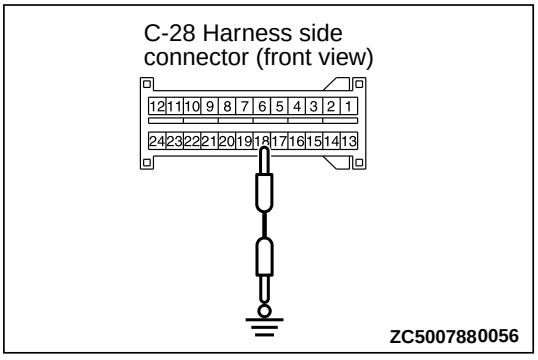
STEP 8. Check the harness for short circuit between center panel assembly connector C-104 (terminal No.11) and SRS-ECU connector C-28 (terminal No.18).

Q:Are the harness wires between SRS-ECU connector C-28 (terminal No.18) and the center panel assembly connector C-104 (terminal No.11) in good condition?
YES: Go to Step 9.
NO: Repair the harness wires. Then go to Step 10.

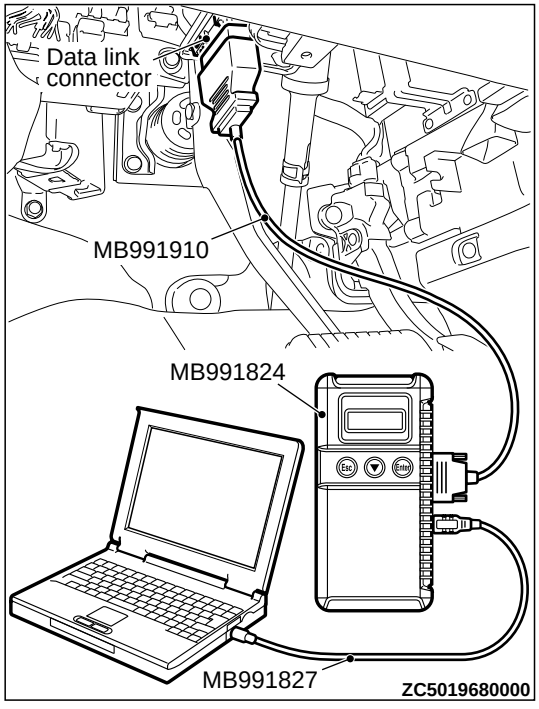
STEP 9. Check the center panel assembly.
(1) Disconnect the negative battery terminal.
(2) Disconnected the SRS-ECU connector C-28, and measure at the wiring harness side.
(3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.
(4) Connect the negative battery terminal.
(5) Turn the ignition switch to the "ON" position.



(6) Connect terminal No.18 to ground.



Q:Does the indicator light illuminate?
YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1207 set, replace the SRS-ECU. (Refer to P.52B-326). Go to Step 10.
NO: Replace the center panel assembly (Refer to GROUP 52A, Instrument Panel Assembly P.52A-2). Go to Step 10.



STEP 10. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1207 set?

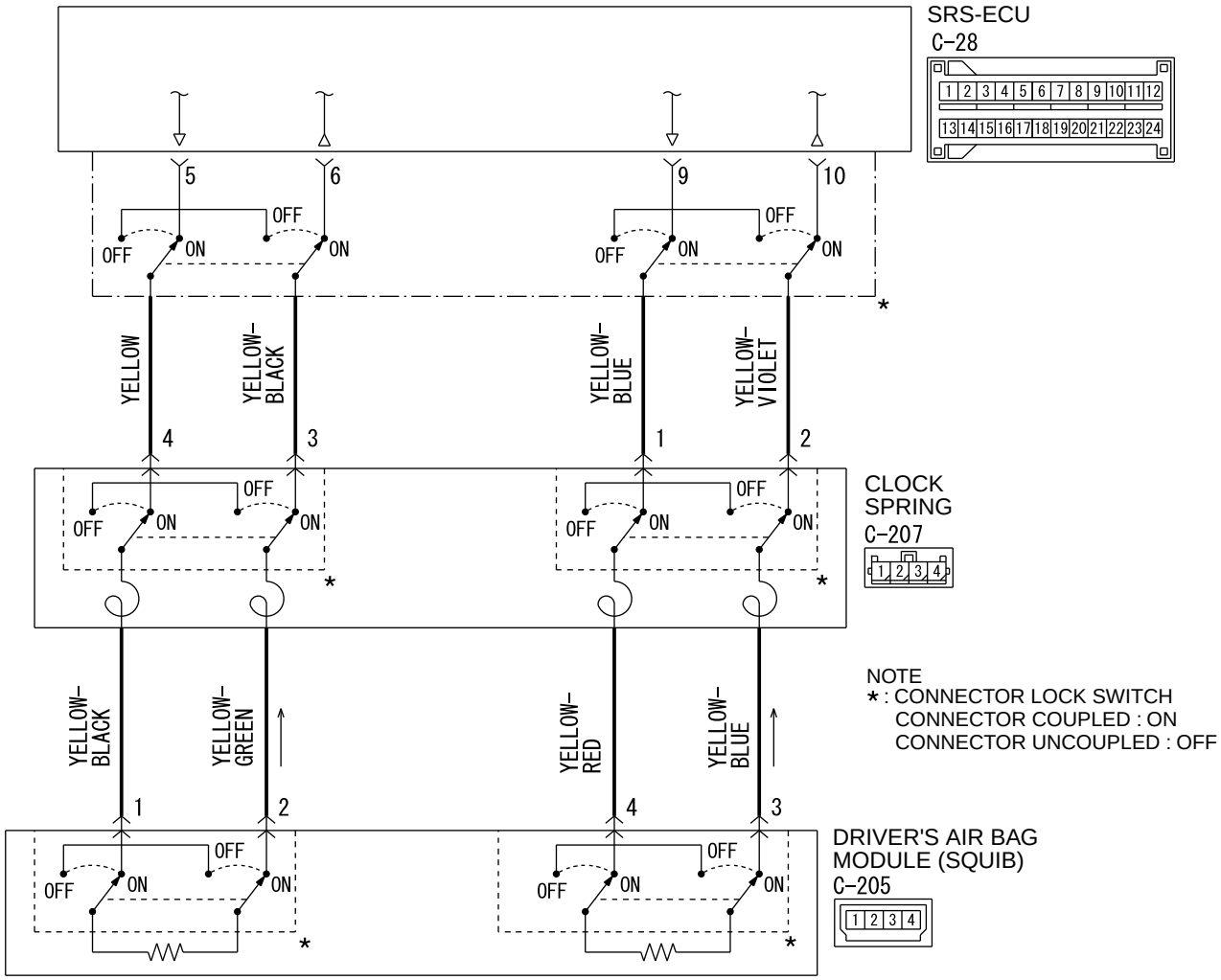
YES: Return to Step 1.
NO: The procedure is complete.

DTC B1B00: Driver's Air Bag Module (1st Squib) System (Shorted to Squib Circuit Ground)

DTC B1B04: Driver's Air Bag Module (2nd Squib) System (Shorted to Squib Circuit Ground)

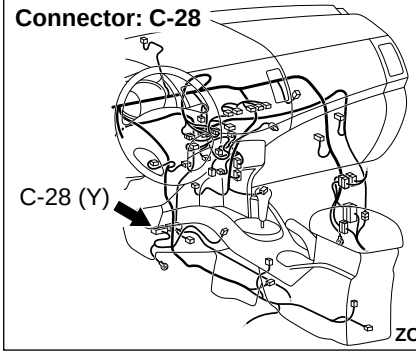
M15204000930USA0000010000

Driver's Air Bag Modle (Squib) Circuit



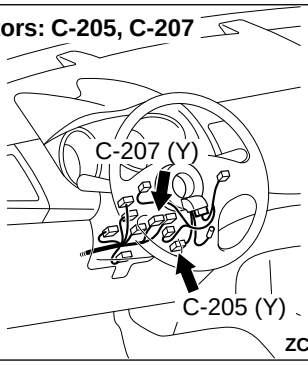
D7G52M009A00

Connector: C-28



ZC6008760000

Connectors: C-205, C-207



ZC6008770004

⚠ CAUTION

If DTC B1B00 <1st squib> or B1B04 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends 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 sent to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's air bag module (squib).

TROUBLESHOOTING HINTS

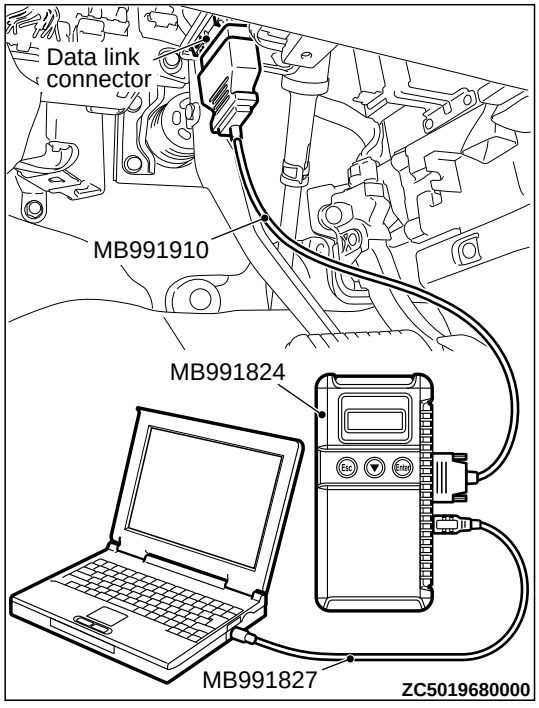
- Malfunction of the clock spring
- Damaged harness wires and connectors
- Short to the ground in the driver's air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



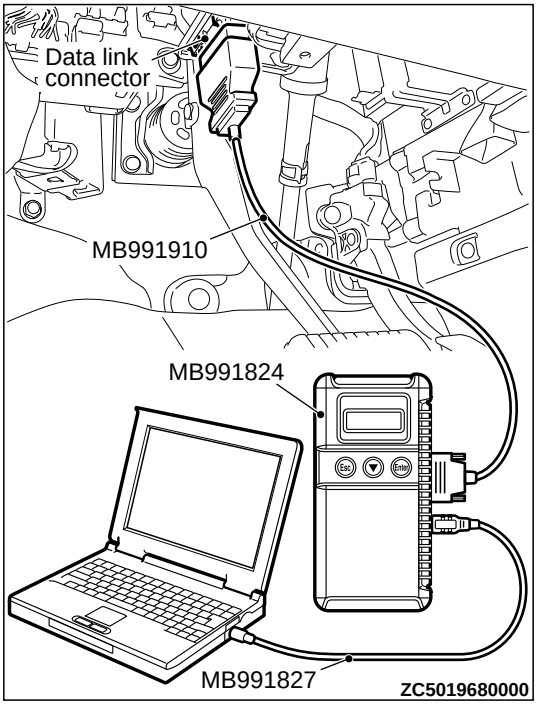
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

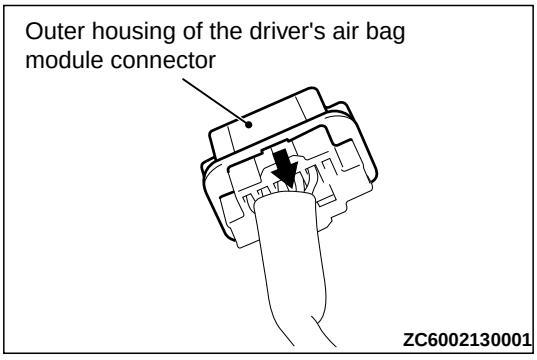
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

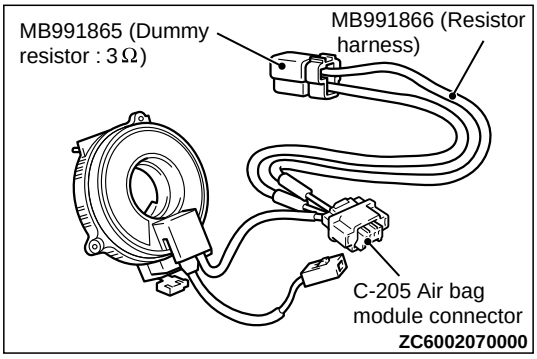
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the driver's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Slide the outer housing of the driver' s air bag module connector C-205 in the arrow direction shown, and disconnect the connector.



(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a 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-205 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION

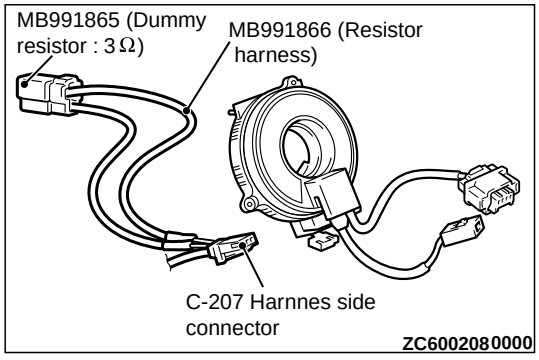
Always DTC B1B06 is set when checking DTC B1B00. This is because the second side terminal is isolated when checking it, DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B04 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?
YES: Go to Step 4.
NO: Replace the driver's air bag module (Refer to P. 52B-329). Then go to Step 7.

STEP 4. Check the clock spring. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-207.
(3) Connect special tool MB991865 to special tool 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-207 (terminal No. 3 and 4 <1st squib> or terminal No. 1 and 2 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION

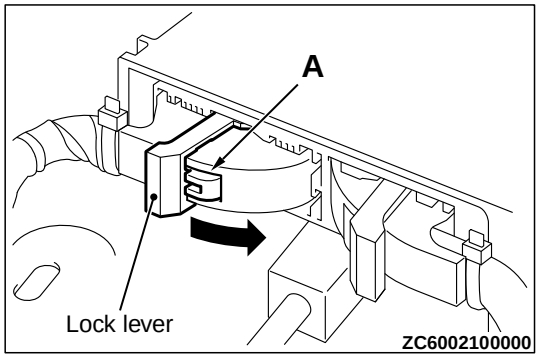
Always DTC B1B06 is set when checking DTC B1B00. This is because the second side terminal is isolated when checking it, DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B04 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?
YES: Go to Step 5.
NO: Replace the clock spring. (Refer to P.52B-329). Then go to Step 7.

STEP 5. Check the driver's air bag module circuit. Measure the resistance at the SRS-ECU connector C-28.

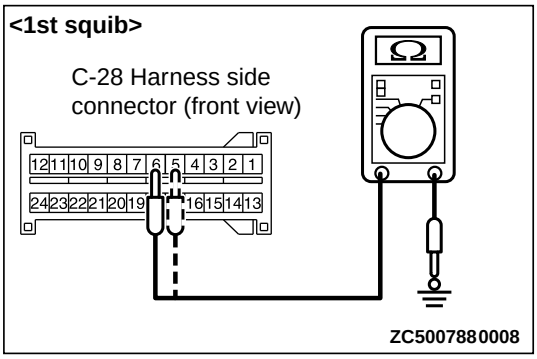
(1) Disconnect SRS-ECU connector C-28.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.

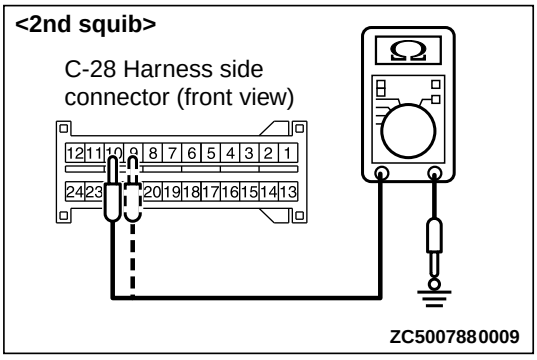


⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-207 to short the squib circuit.

(3) Disconnect the clock spring connector C-207.





(4) Check for continuity between C-28 harness side connector terminals 5 and 6 <1st squib> or 9 and 10 <2nd squib> and body ground.
It should be open circuit.

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B00 <1st squib> or B1B04 <2nd squib> sets, replace the SRS-ECU. (Refer to P. 52B-326). Then go to Step 6.

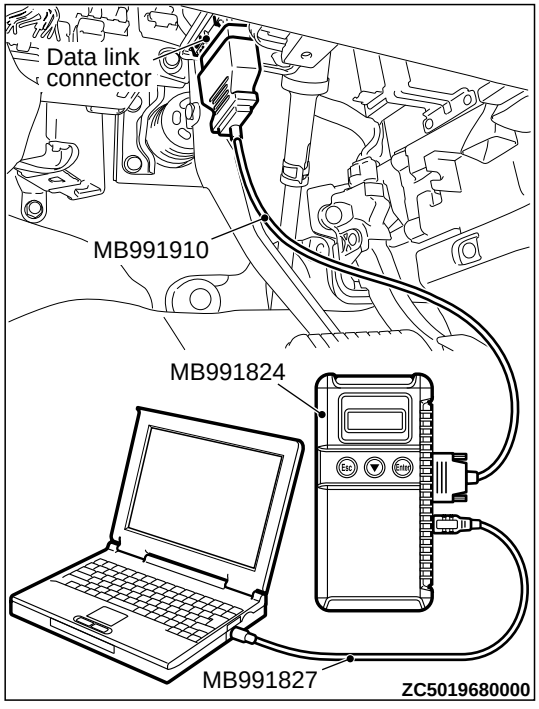
NO: Go to Step 7.

STEP 6. Check the harness for short circuit to ground between SRS-ECU connector C-28 (terminal No.5 and 6 <1st squib> or terminal No.9 and 10 <2nd squib>) and clock spring connector C-207 (terminal No.4 and 3 <1st squib> or terminal No. 1 and 2 <2nd squib>).

Q:Are the harness wires between SRS-ECU connector C-28 (terminal No.5 and 6 <1st squib> or terminal No.9 and 10 <2nd squib>) and clock spring connector C-207 (terminal No.4 and 3 <1st squib> or terminal No. 1 and 2 <2nd squib>) in good condition?

YES: Go to Step 7.

NO: Replace the harness wires between SRS-ECU connector C-28 and clock spring connector C-207. Then go to Step 7.



STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B00 <1st squib> or B1B04 <2nd squib> set?

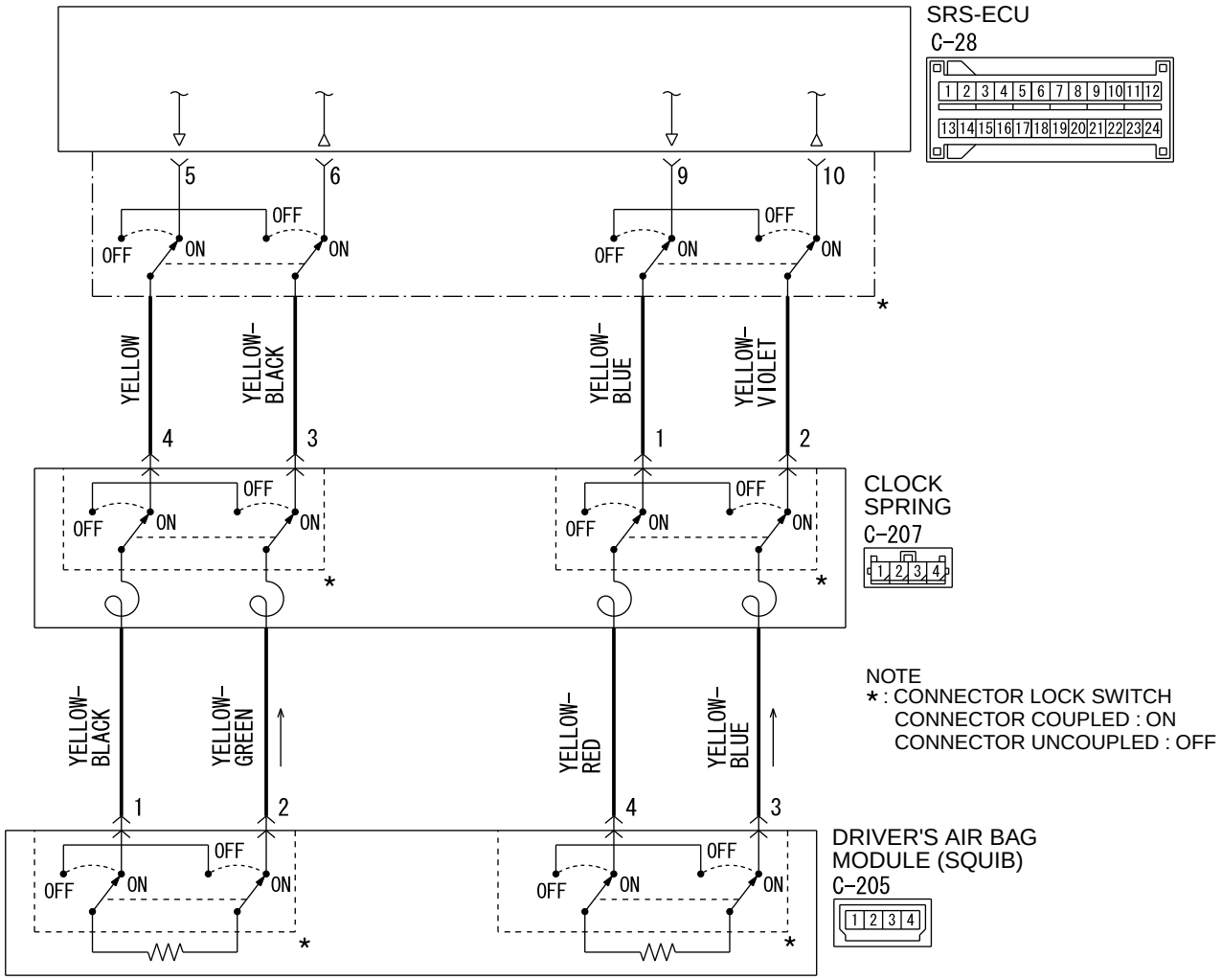
YES: Return to Step 1.
NO: The procedure is complete.

DTC B1B01: Driver's Air bag Module (1st squib) System (Shorted to Squib Circuit Power Supply)

DTC B1B05: Driver's Air bag Module (2nd squib) System (Shorted to Squib Circuit Power Supply

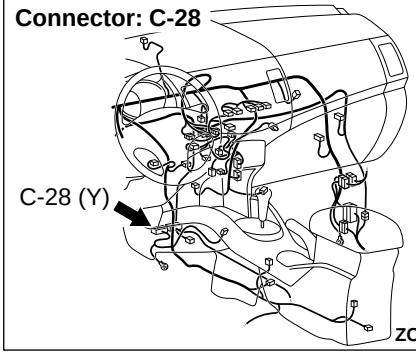
M15204000931USA0000010000

Driver's Air Bag Modle (Squib) Circuit



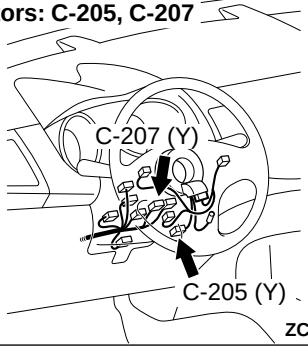
D7G52M009A00

Connector: C-28



ZC6008760000

Connectors: C-205, C-207



ZC6008770004

⚠ CAUTION

If DTC B1B01 <1st squib> or B1B05 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's air bag module (squib).

TROUBLESHOOTING HINTS

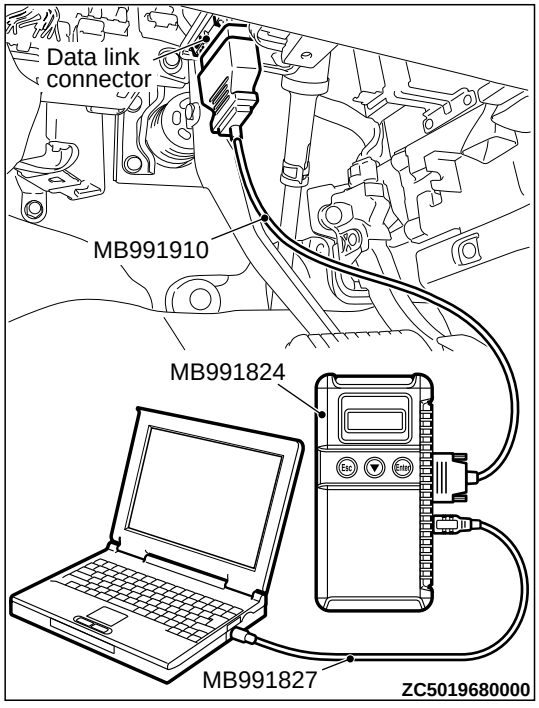
- Malfunction of the clock spring
- Damaged harness wires and connectors
- Short to the power supply in the driver's air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



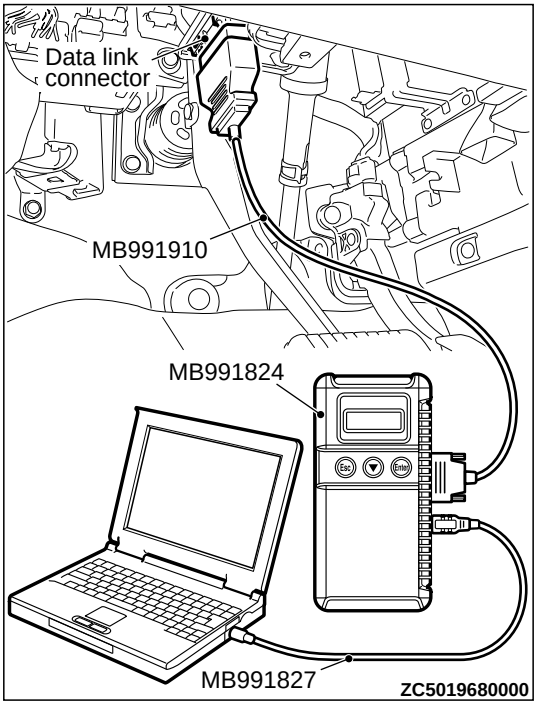
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

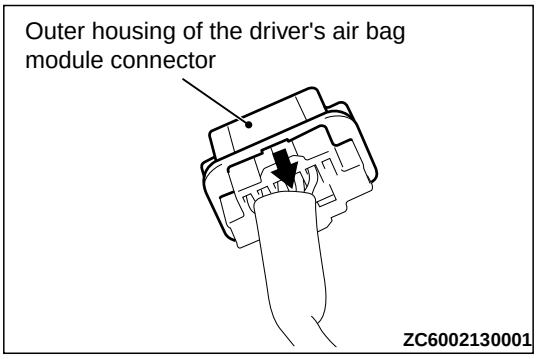
Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the driver's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Slide the outer housing of the driver's air bag module connector C-205 in the arrow direction shown, and disconnect the connector.
(3) Connect special tool MB991865 to special tool MB991866.



⚠ CAUTION

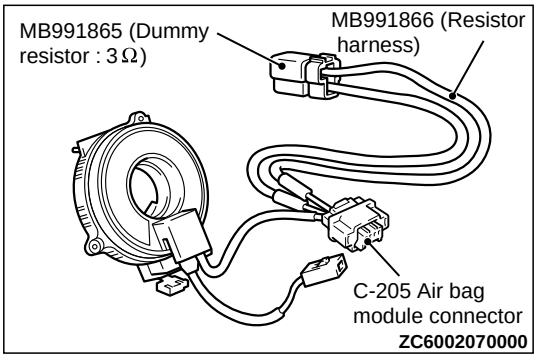
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring side air bag module connector C-205 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B06 is set when checking DTC B1B01. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B05 because the first side terminal is isolated.

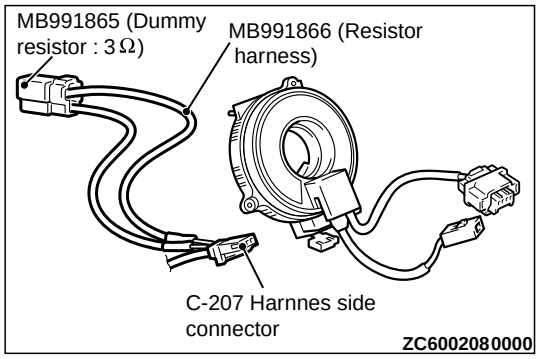
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.



Q:Is the checked DTC set?

YES: Go to Step 4.

NO: Replace the driver's air bag module. (Refer to P. 52B-329). Then go to Step 7.



STEP 4. Check the clock spring. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-207.
(3) Connect special tool MB991865 to special tool 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-207 (terminal No.3 and 4 <1st squib> or terminal No. 2 and 1 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B06 is set when checking DTC B1B01. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B05 because the first side terminal is isolated.

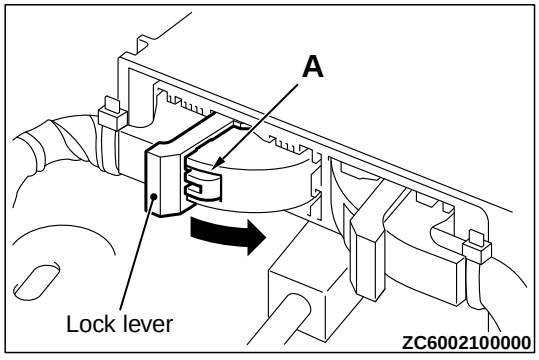
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?

YES: Go to Step 5.
NO: Replace the clock spring (Refer to P.52B-329). Then go to Step 7.

STEP 5. Check the driver's air bag module circuit. Measure the voltage at the SRS-ECU connector C-28.

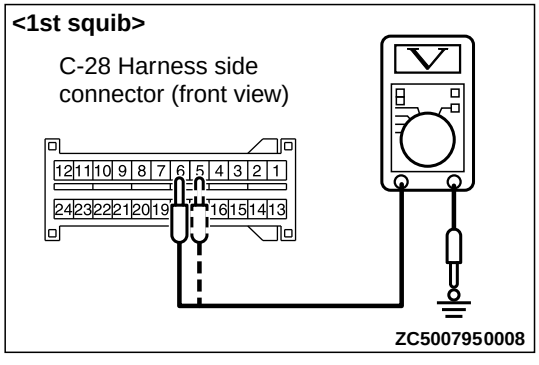
(1) Disconnect SRS-ECU connector C-28.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.



⚠ DANGER

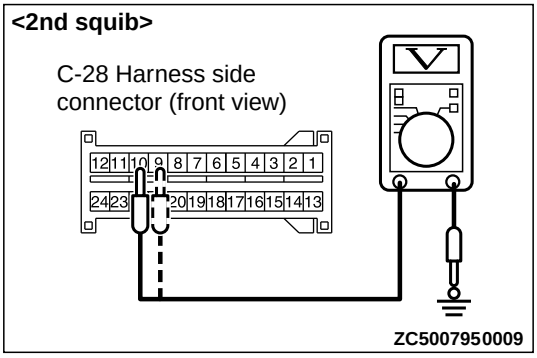
To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-207 to short the squib circuit.

(3) Disconnect the clock spring connector C-207.
(4) Turn the ignition switch to the "ON" position.
(5) Measure the voltage between C-28 harness side connector terminals 5 and 6 <1st squib> or 9 and 10 <2nd squib> and body ground.
Voltage should measure 0 volt.



Q:Is the measured voltage within the specified range?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B01 <1st squib> or B1B05 <2nd squib> sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 7.
NO: Go to Step 6.



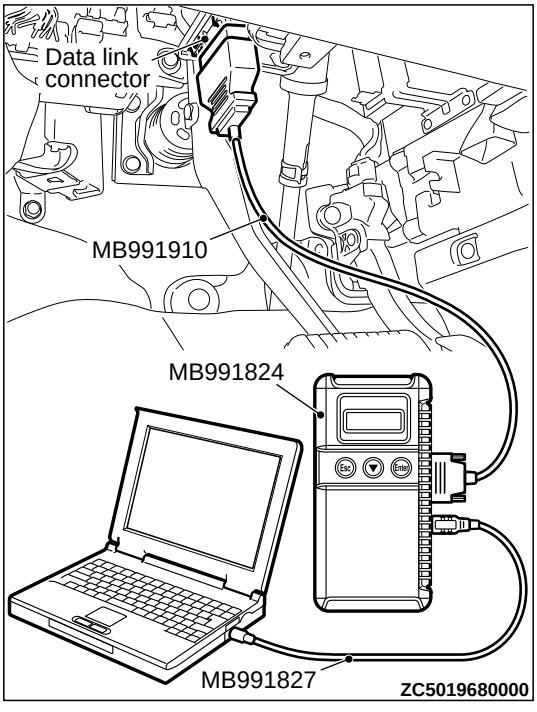
STEP 6. Check the harness for short circuit to power supply between SRS-ECU connector C-28 (terminal No.5 and 6 <1st squib> or terminal No.9 and 10 <2nd squib>) and clock spring connector C-207 (terminal No.4 and 3 <1st squib> or terminal No. 1 and 2 <2nd squib>).

Q:Are harness wires between the SRS-ECU connector C-28 (terminal No.5 and 6 <1st squib> or terminal No.9 and 10 <2nd squib>) and clock spring connector C-207 (terminal No.4 and 3 <1st squib> or terminal No. 1 and 2 <2nd squib>) in good condition?

YES: Go to Step 7.

NO: Replace the harness wires between SRS-ECU connector C-28 and clock spring connector C-207. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.



Check again if the DTC is set.

(1) Erase the DTC.

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

(3) Check if the DTC is set.

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

Q:Is DTC B1B01 <1st squib> or B1B05 <2nd squib> set?

YES: Return to Step 1.

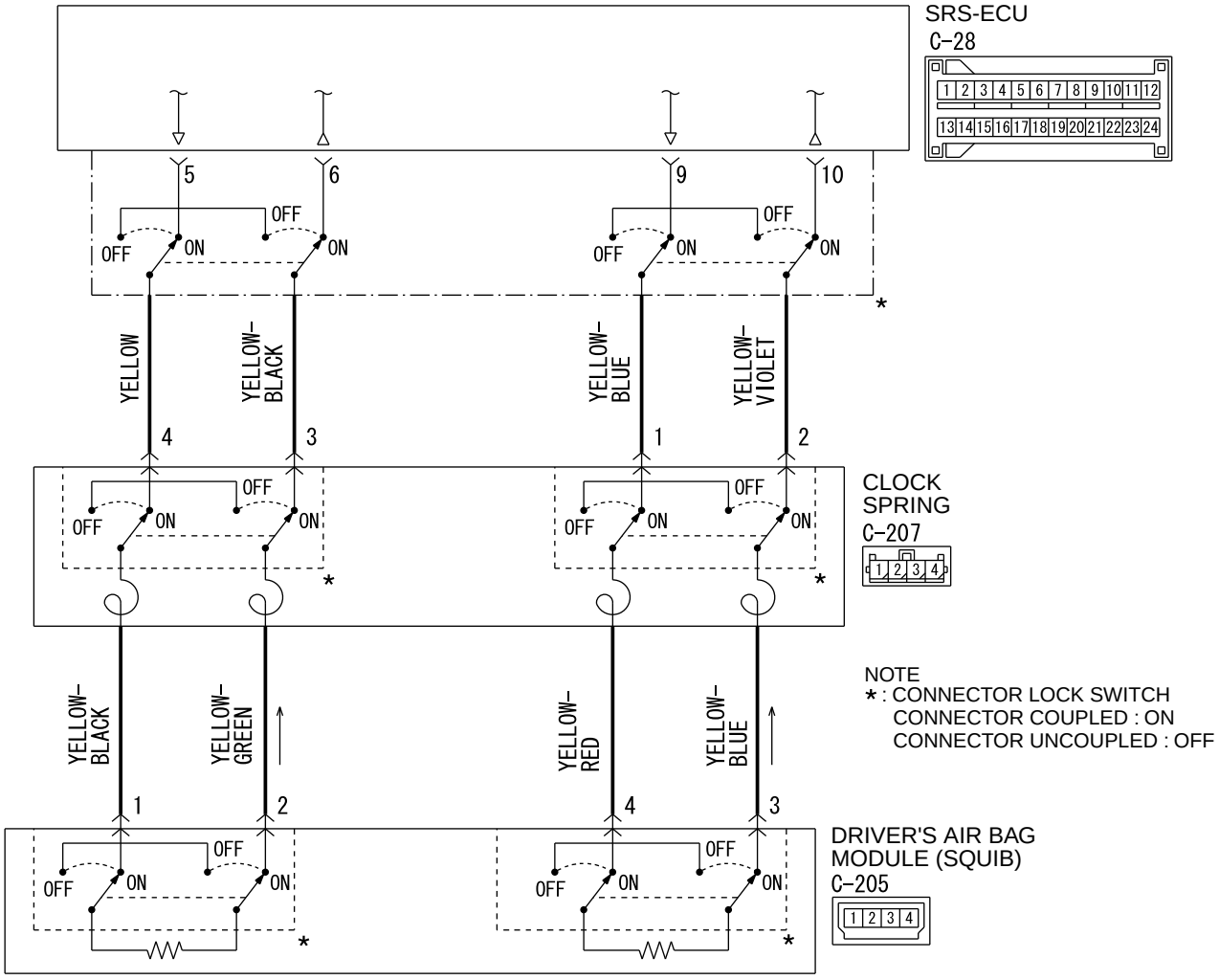
NO: The procedure is complete.

DTC B1B02: Driver's Air Bag Module (1st squib) System (Squib Circuit Open)

DTC B1B06: Driver's Air Bag Module (2nd squib) System (Squib Circuit Open)

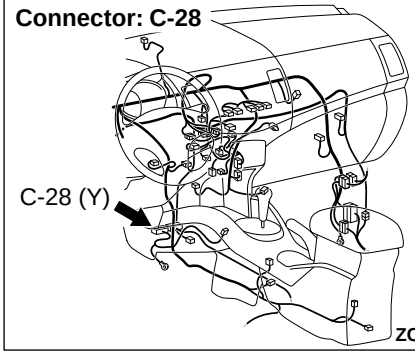
M15204000929USA0000010000

Driver's Air Bag Modle (Squib) Circuit



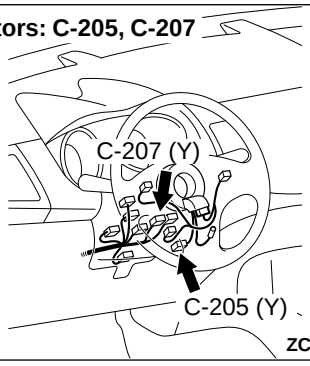
D7G52M009A00

Connector: C-28



ZC6008760000

Connectors: C-205, C-207



ZC6008770004

⚠ CAUTION

If DTCB1B02 <1st squib> or B1B06 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends 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.

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the driver's air bag module (squib). The most likely causes for this code to be set are the followings:
  - Open circuit in the driver's air bag module (squib) or harness
  - Open circuit in the clock spring
  - Malfunction of connector contact

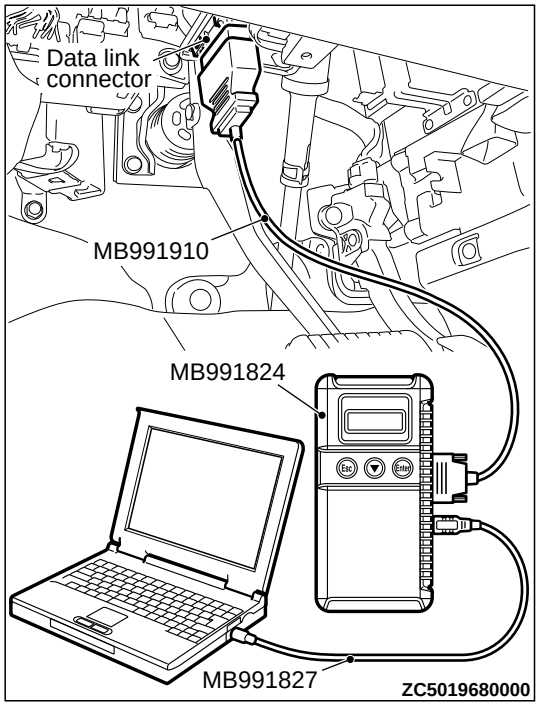
TROUBLESHOOTING HINTS

- 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

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

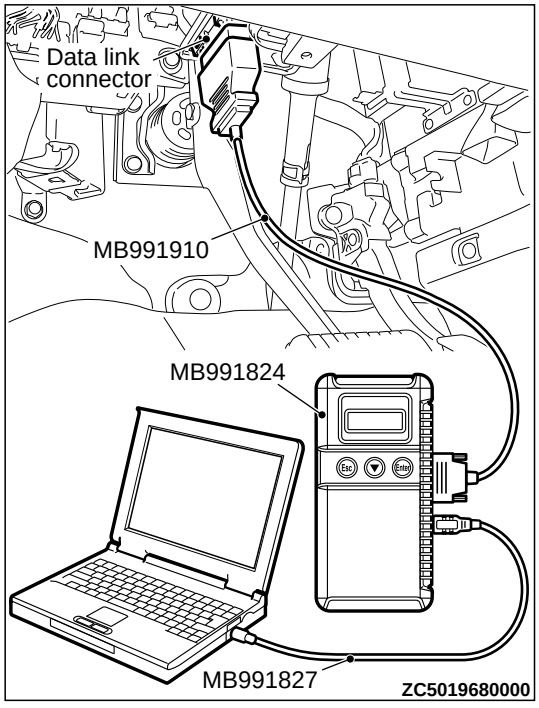
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

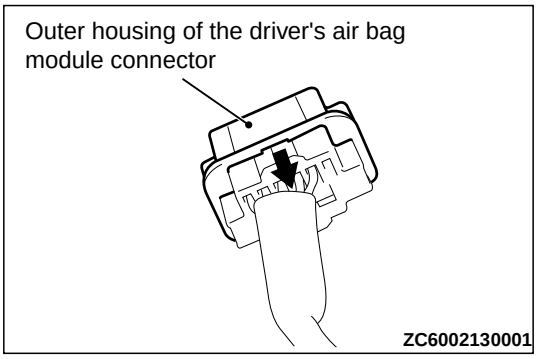
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

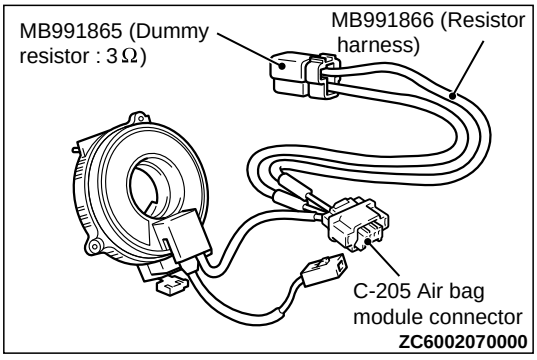
Q:Is the DTC set?

YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the driver's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Slide the outer housing of the driver' s air bag module connector C-205 in the arrow direction shown, and disconnect the connector.





(3) Connect special tool MB991865 to special tool 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 of driver's air bag module connector C-205 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B06 is set when checking DTC B1B02. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B06 because the first side terminal is isolated.

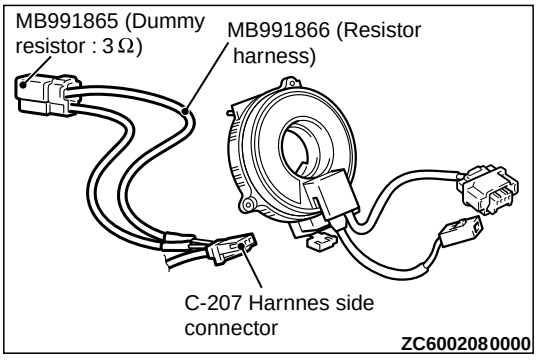
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?

YES: Go to Step 4.

NO: Replace the driver's air bag module. (Refer to P. 52B-329). Then go to Step 6.

STEP 4. Check the clock spring. (Using scan tool MB991958, read the diagnostic trouble code.)



(1) Disconnect the negative battery terminal.

(2) Disconnect the clock spring connector C-207.

(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert special tool MB991866 into harness side of clock spring connector C-207 (terminal No.3 and 4 <1st squib> or terminal No.1 and 2 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B06 is set when checking DTC B1B02. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B06 because the first side terminal is isolated.

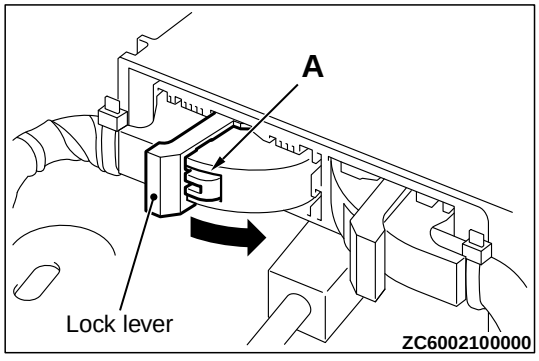
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

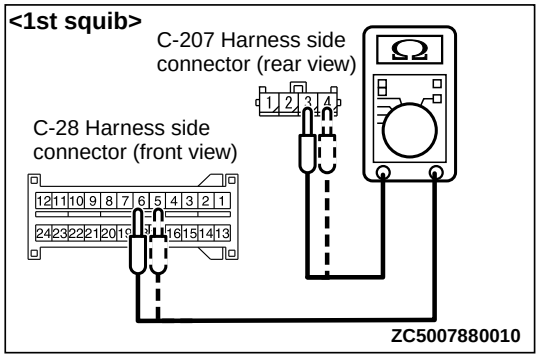
Q:Is the checked DTC set?

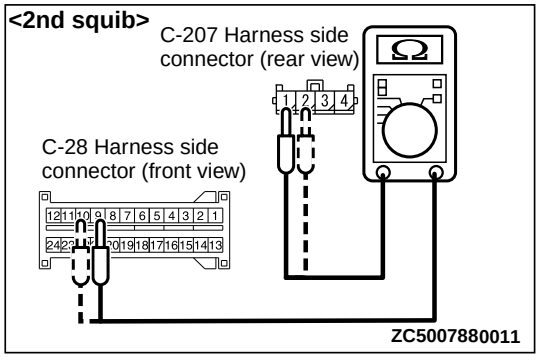
YES: Go to Step 5.

NO: Replace the clock spring. (Refer to P.52B-329). Then go to Step 6.

STEP 5. Check the harness between the SRS-ECU connector C-28 (terminal No.5 and 6 <1st squib> or terminal







No. 9 and 10 <2nd squib>) and the clock spring connector C-207 (terminal No.4 and 3 <1st squib> or terminal No. 2 and 1 <2nd squib>) for open circuit.

(1) Disconnect SRS-ECU connector C-28 and clock spring connector C-207.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-207 to short the squib circuit.

(3) Disconnect the clock spring connector C-207.

⚠ CAUTION

Do not insert a probe into the terminal from C-207 harness side connector front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between the following terminals. It should be less than 2 ohms.

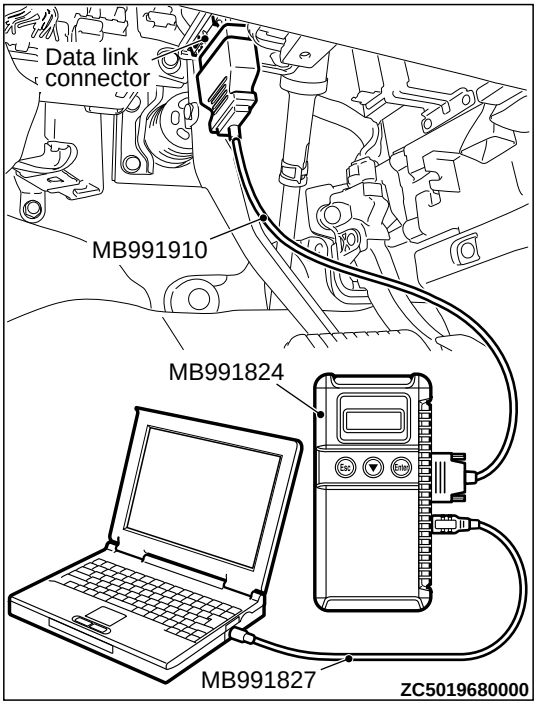
<1st squib>
- SRS-ECU connector C-28 (terminal No.5) and the clock spring connector C-207 (terminal No.4)
- SRS-ECU connector C-28 (terminal No.6) and the clock spring connector C-207 (terminal No.3)

<2nd squib>
- SRS-ECU connector C-28 (terminal No.9) and the clock spring connector C-207 (terminal No.1)
- SRS-ECU connector C-28 (terminal No.10) and the clock spring connector C-207 (terminal No.2)

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTCB1B02 <1st squib> or B1B06 <2nd squib> set, replace the SRS-ECU. (Refer to P. 52B-326). Then go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-28 and clock spring connector C-207. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTCB1B02 <1st squib> or B1B06 <2nd squib> set?

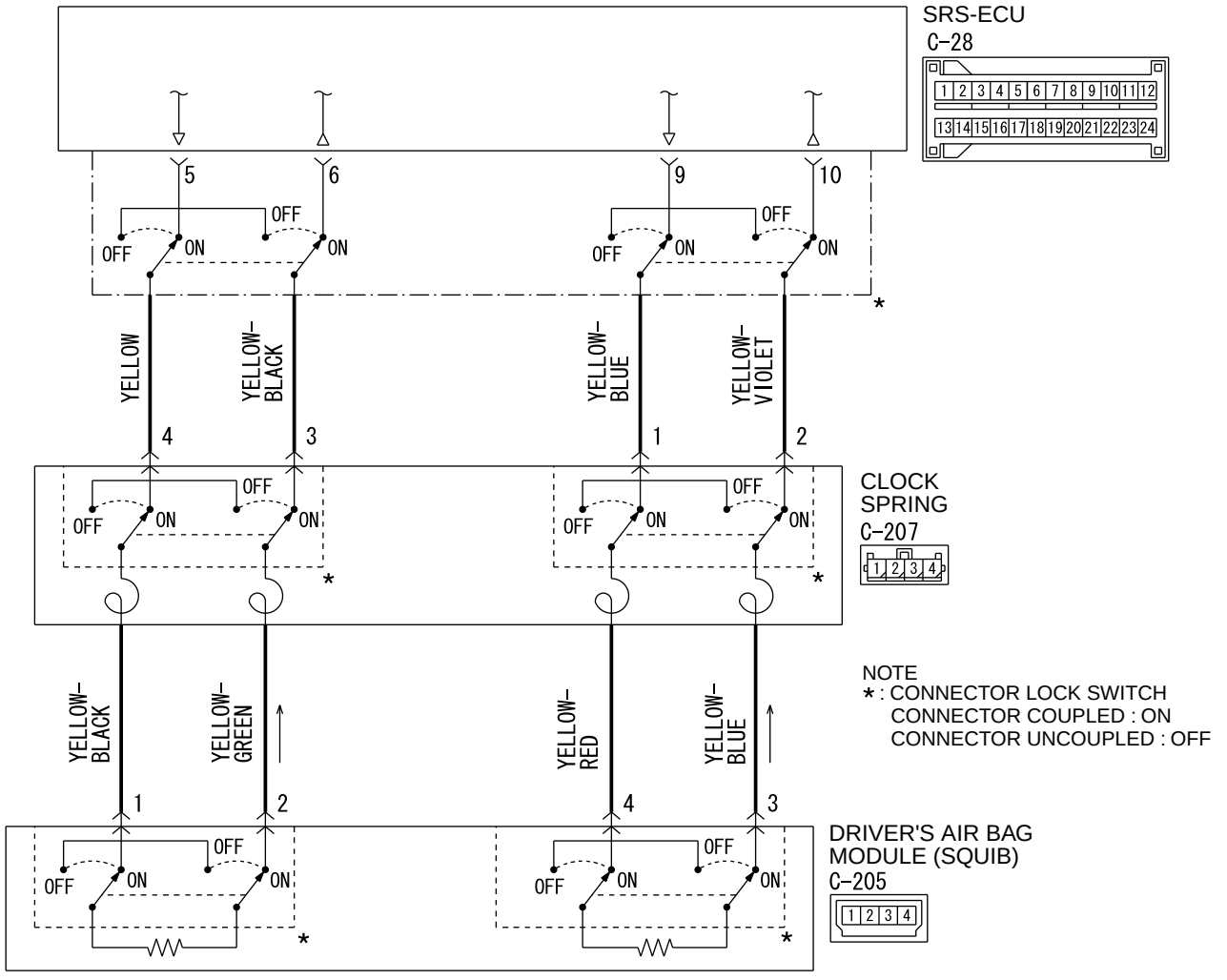
YES: Return to Step 1.
NO: The procedure is complete.

DTC B1B03: Driver's Air Bag Module (1st squib) System (Short Circuit Between Squib Circuit Terminals)

DTC B1B07: Driver's Air Bag Module (2nd squib) System (Short Circuit Between Squib Circuit Terminals)

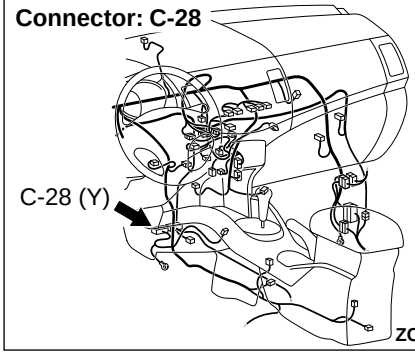
M15204000928USA0000010000

Driver's Air Bag Modle (Squib) Circuit



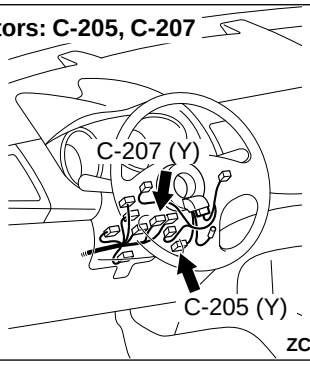
D7G52M009A00

Connector: C-28



ZC6008760000

Connectors: C-205, C-207



ZC6008770004

⚠ CAUTION

If DTC B1B03 <1st squib> or B1B07 <2nd squib> is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT 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 sends 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.

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the driver's air bag module (squib). The most likely causes for this code to be set are the followings:
  - Short circuit in driver's air bag module (squib) or harness
  - Short circuit in the clock spring

TROUBLESHOOTING HINTS

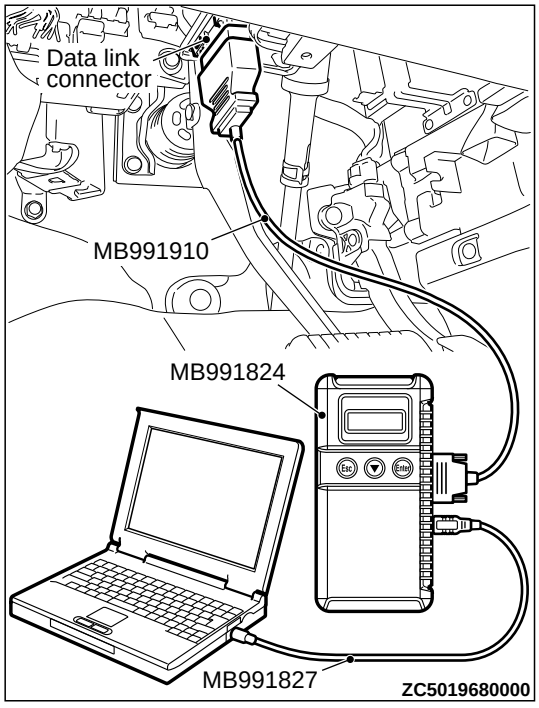
- Improper engaged connector or defective short spring*
- Short circuit in the clock spring
- Short circuit between the driver's air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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 ground wire in the squib circuit when the connectors are disconnected). (Refer to P.52B-5). Therefore, if connector C-28, C-205 or C-207 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

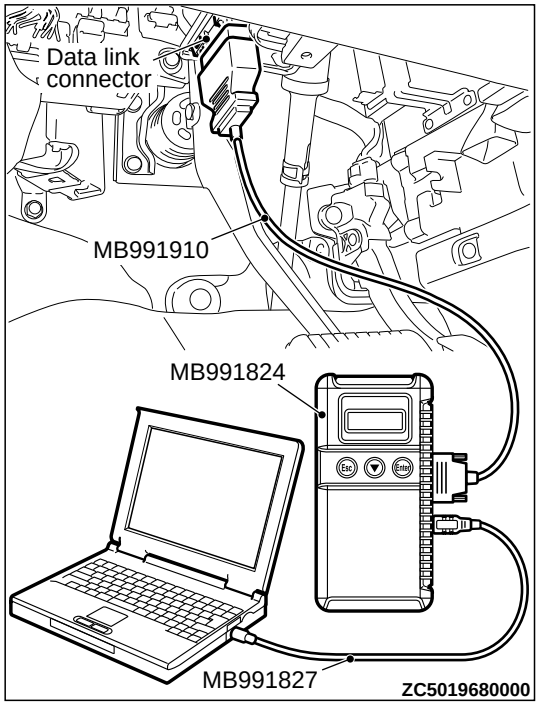
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

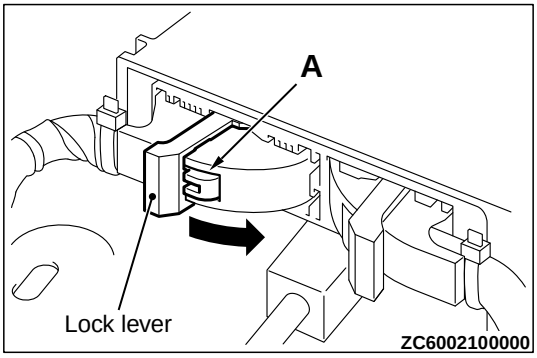
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

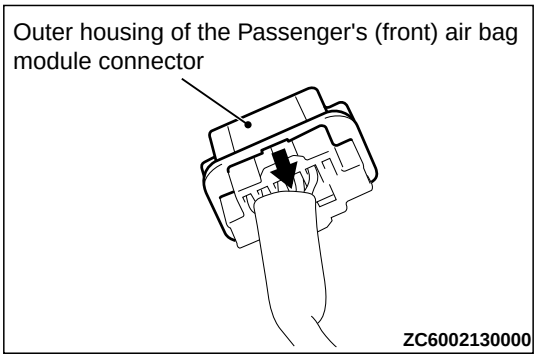
YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check SRS-ECU connector C-28, driver's air bag module connector C-205 and clock spring connector C-207. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-28, C-205 and C-207, and then reconnect them.



(3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.

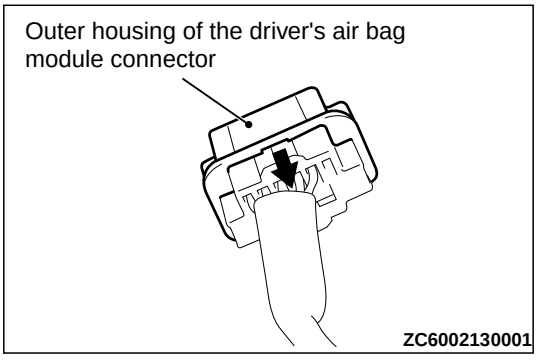


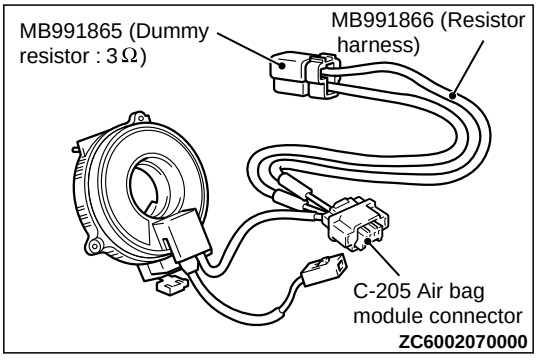
(4) Slide the outer housing of the clock spring side of passenger's (front) air bag module connector C-11 in the arrow direction shown, and disconnect the connector.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is DTC B1B03 <1st squib> or B1B07 <2nd squib> set?
YES: Go to Step 4.
NO: The procedure is complete. It is assumed that DTC B1B03 <1st squib> or B1B07 <2nd squib> set because connector C-28, C-205 or C-207 was engaged improperly.

STEP 4. Check the driver's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Slide the outer housing of the clock spring side of driver's air bag module connector C-205 in the arrow direction shown, and disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a 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 of driver's air bag module connector C-205 (terminal No.1 and 2 <1st squib> or No.3 and 4 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION

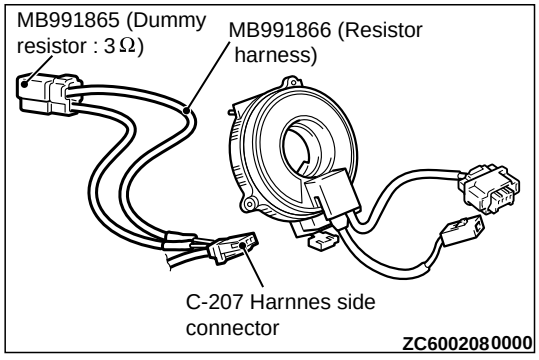
Always DTC B1B06 is set when checking DTC B1B03. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B07 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?
YES: Go to Step 5.
NO: Replace the driver's air bag module. (Refer to P. 52B-329). Then go to Step 8.

STEP 5. Check the clock spring. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-207.
(3) Connect special tool MB991865 to special tool MB991866.



⚠ CAUTION

Do not insert a probe into the terminal from C-207 harness side connector front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring harness side connector C-207 (terminal No.3 and 4 <1st squib> or No.1 and 2 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

⚠ CAUTION

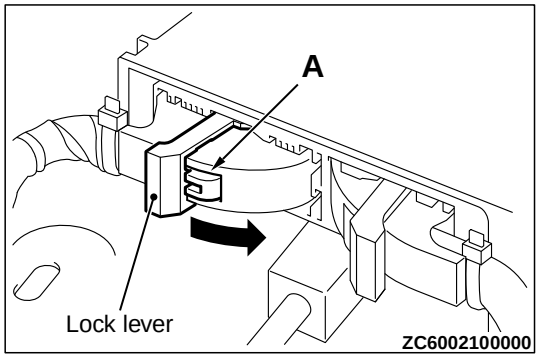
Always DTC B1B06 is set when checking DTC B1B03. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B07 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?
YES: Go to Step 6.
NO: Replace the clock spring. (Refer to P.52B-329). Then go to Step 8.

STEP 6. Check the driver's air bag module circuit. Measure the resistance at SRS-ECU connector C-28.

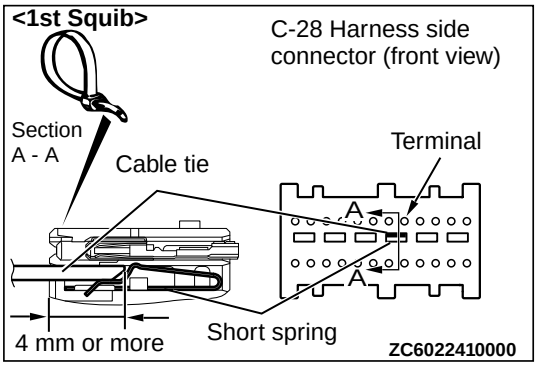
(1) Disconnect SRS-ECU connector C-28.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.

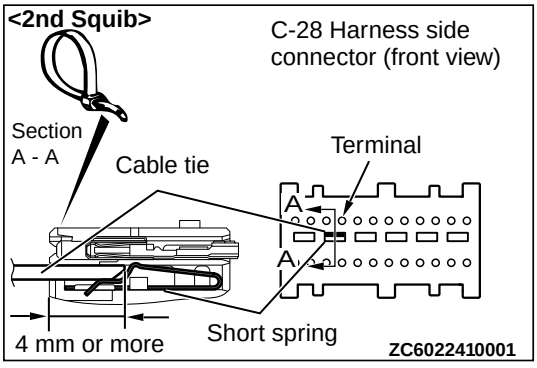


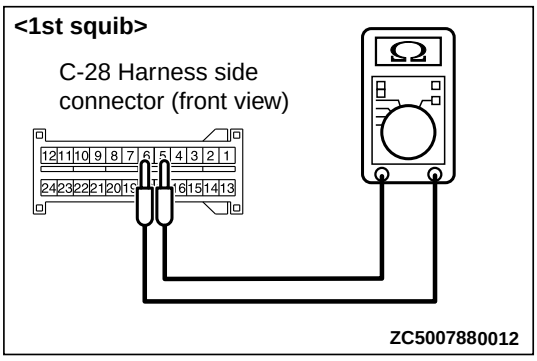
⚠ DANGER

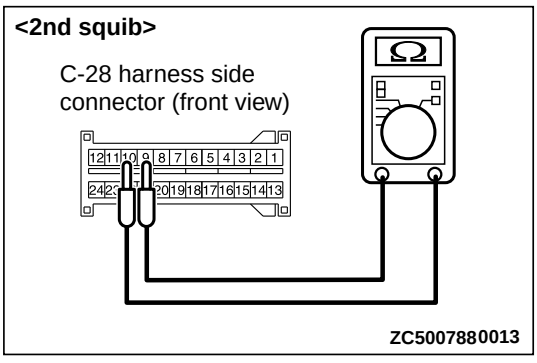
To prevent the air bag from deploying unintentionally, disconnect clock spring connector C-207 to short the squib circuit.

(3) Disconnect clock spring connector C-207.









⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 5, 6 <1st squib> or 9, 10 <2nd squib> and the short spring to release the short spring.

(5) Check for continuity between C-28 harness side connector terminals 5 and 6 <1st squib> or 9 and 10 <2nd squib>. It should be open circuit.

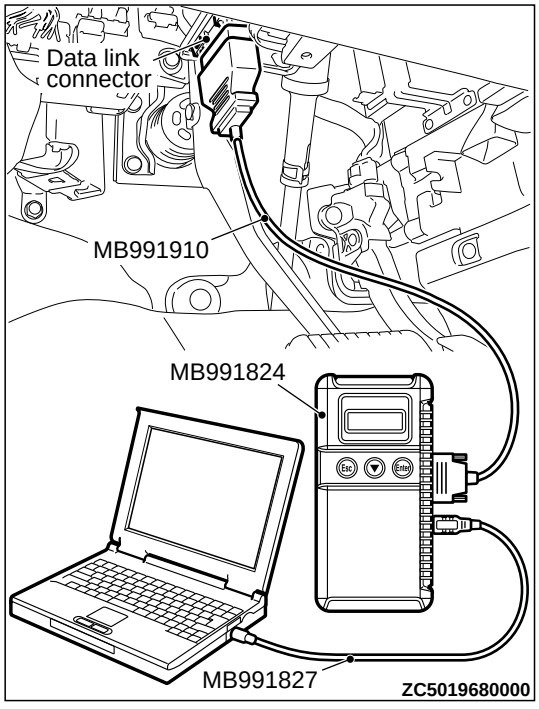
Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B03 <1st squib> or B1B07 <2nd squib> set, replace the SRS-ECU. (Refer to P. 52B-326). Then go to Step 8.

NO: Go to Step 7.

STEP 7. Check the harness for short circuit between SRS-ECU connector C-28 (terminal No.5 and 6 <1st squib> or No. 9 and 10 <2nd squib>) and clock spring connector C-207 (terminal No.4 and 3 <1st squib> or No.1 and 2 <2nd squib>).

Q:Are harness wires between SRS-ECU connector C-28 (terminal No.5 and 6 <1st squib> or No.9 and 10 <2nd squib>) and clock spring connector C-207 (terminal No.4 and 3 <1st squib> or No.1 and 2 <2nd squib>) in good condition?



YES: Go to Step 8.
NO: Replace the harness wires between SRS-ECU connector C-28 and clock spring connector C-207. Then go to Step 8.

STEP 8. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

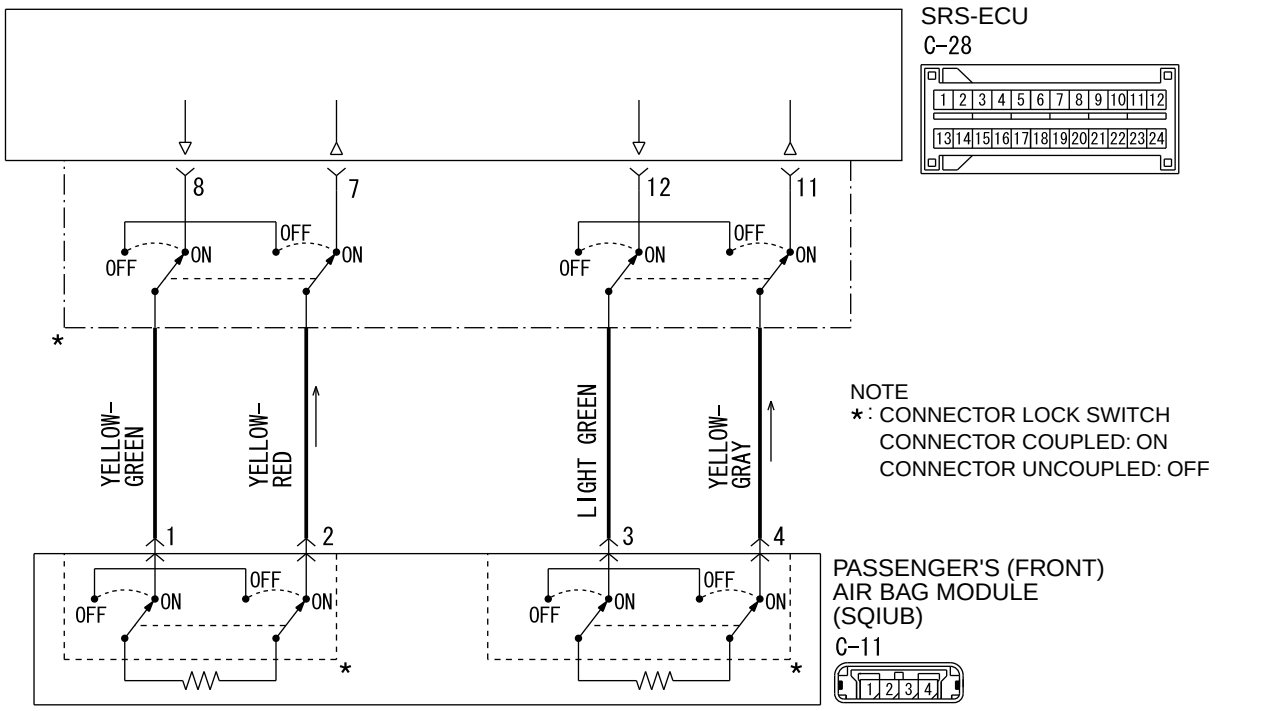
Q:Is DTC B1B03 <1st squib> or B1B07 <2nd squib> set?
YES: Return to Step 1.
NO: The procedure is complete.

DTC B1B08: Passenger's (Front) Air Bag Module (1st squib) System (Shorted to Squib Circuit Ground)

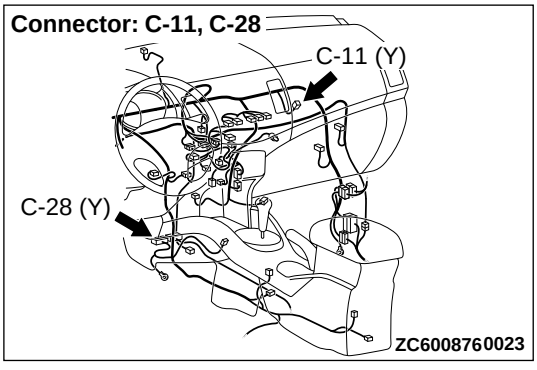
DTC B1B0C: Passenger's (Front) Air Bag Module (2nd squib) System (Shorted to Squib Circuit Ground)

M15204000934USA0000010000

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



D7G52M010A00



⚠ CAUTION

If DTC B1B08 <1st squib> or B1B0C <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

TROUBLESHOOTING HINTS

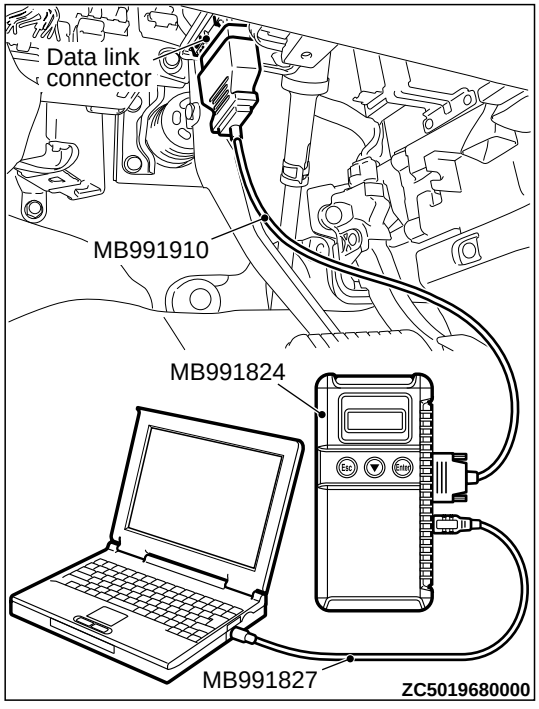
- Damaged harness wires and connectors
- Short to the ground in the passenger's (front) air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



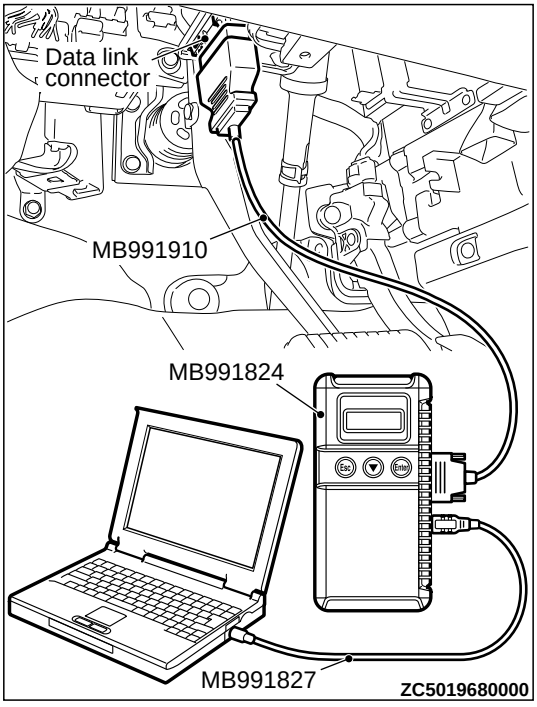
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

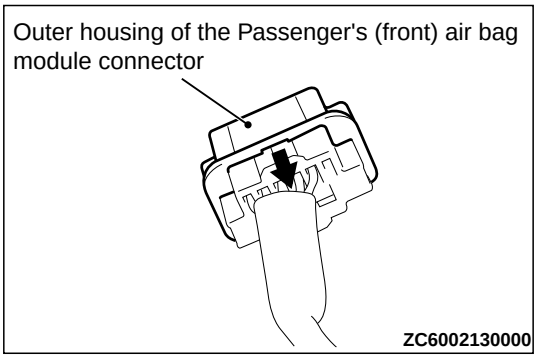
Q:Is the DTC set?

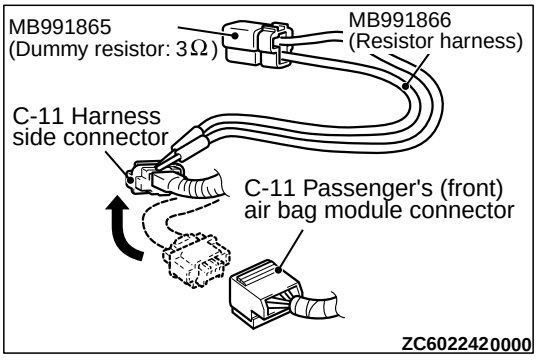
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the passenger's (front) air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the passenger's (front) air bag module connector C-11.
(3) Slide the outer housing of the clock spring side of passenger's (front) air bag module connector C-11 in the arrow direction shown, and disconnect the connector.





(4) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(5) Insert special tool MB991866 into the harness side connector C-11 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(6) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B0E is set when checking DTC B1B08. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0C because the first side terminal is isolated.

(7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?

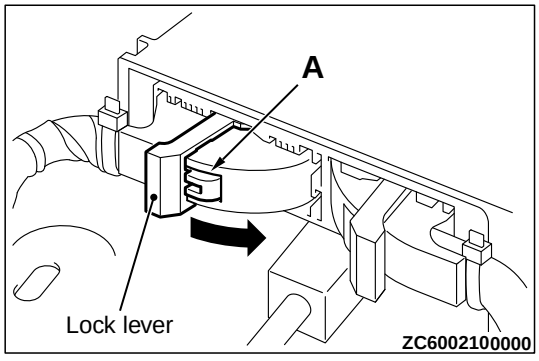
YES: Go to Step 4.

NO: Replace the passenger's (front) air bag module. (Refer to P.52B-329). Then go to Step 6.

STEP 4. Check the passenger's (front) air bag module circuit. Measure the resistance at the SRS-ECU connector C-28.

(1) Disconnect SRS-ECU connector C-28.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.



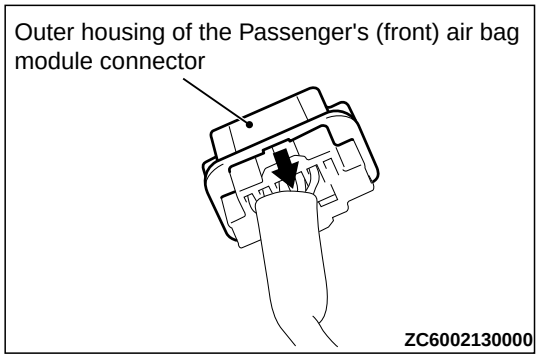
⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-11 to short the squib circuit.

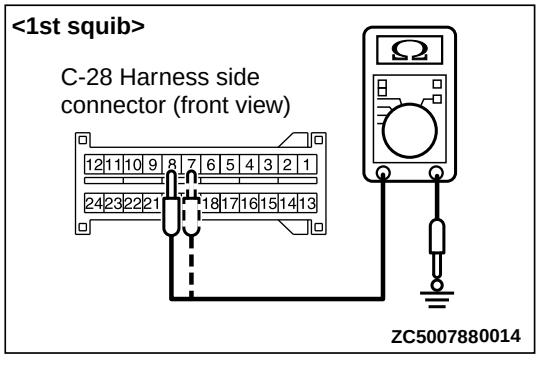
(3) Unclip the passenger's (front) air bag module connector C-11.

(4) Disconnect the passenger's (front) air bag module connector C-11.

(5) Slide the outer housing of the clock spring side of passenger's (front) air bag module connector C-11 in the arrow direction shown, and disconnect the connector.



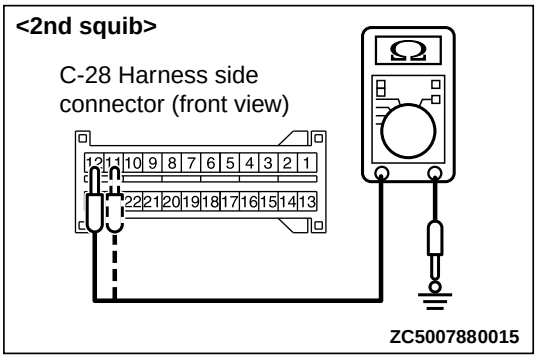
(6) Check for continuity between C-28 harness side connector terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>, and body ground.
It should be an open circuit.



Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B08 <1st squib> B1B0C <2nd squib> sets, replace the SRS-ECU. (Refer to P. 52B-326). Then go to Step 6.

NO: Go to Step 5.

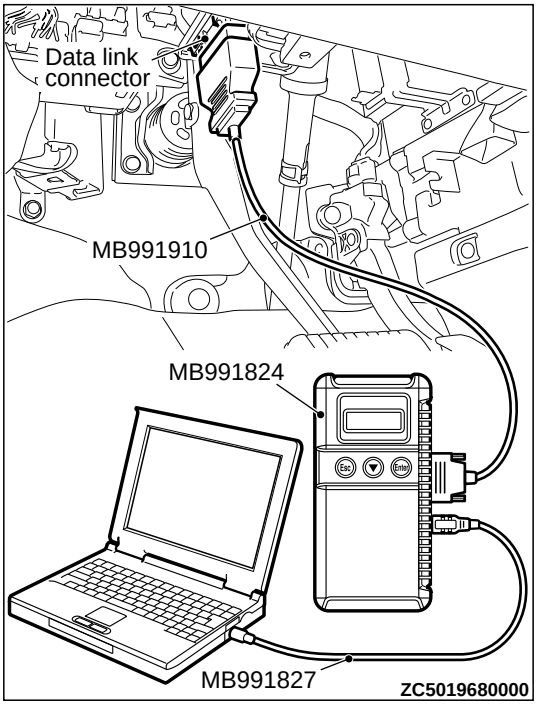


STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-28 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-11 (terminal No.2 and 1 <1st squib> or terminal No.4 and 3 <2nd squib>).

Q:Are the harness wires between SRS-ECU connector C-28 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-11 (terminal No.2 and 1 <1st squib> or terminal No.4 and 3 <2nd squib>) in good condition?

YES: Go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-28 and passenger's (front) air bag module connector C-11. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B08 <1st squib> B1B0C <2nd squib> set?

YES: Return to Step 1.

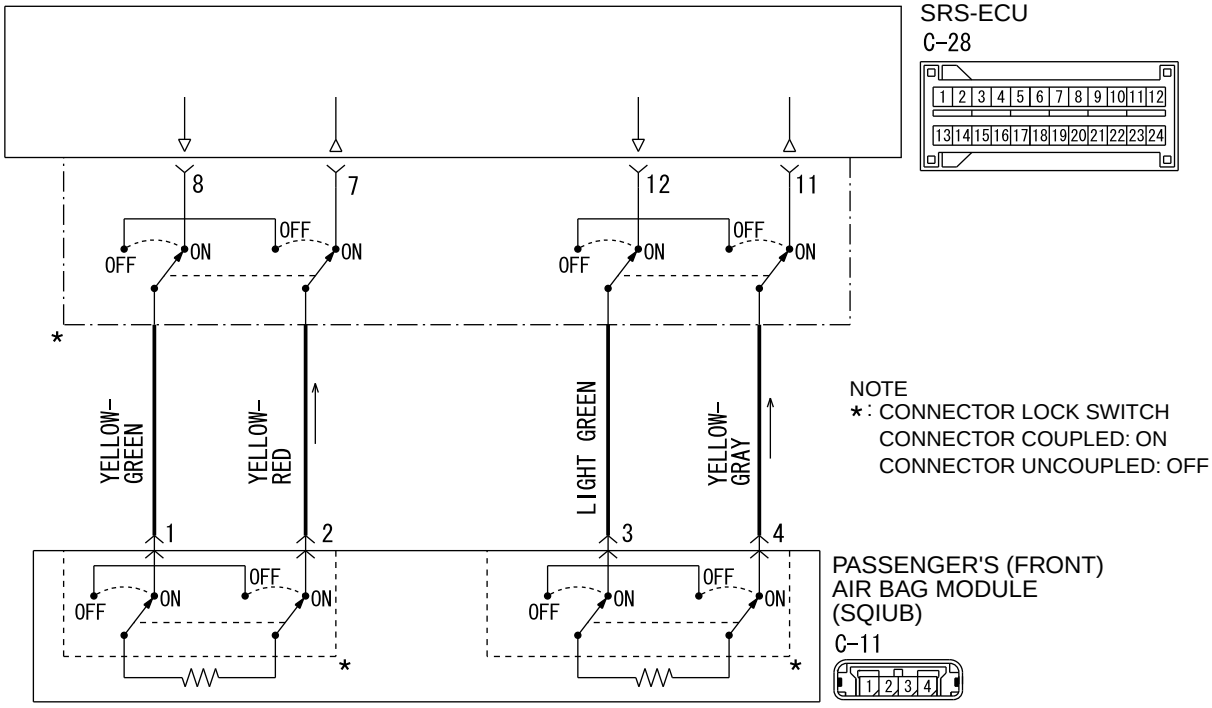
NO: The procedure is complete.

DTC B1B09: Passenger's (Front) Air Bag Module (<1st squib>) System (Shorted to Squib Circuit Power Supply)

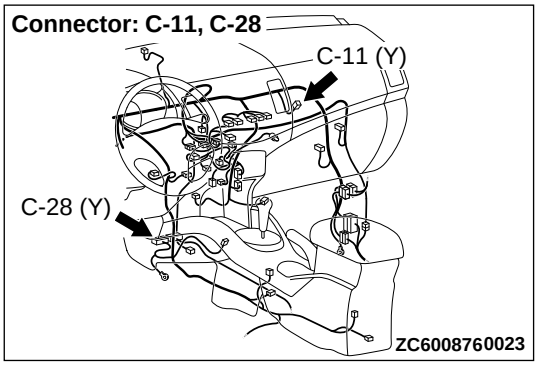
DTC B1B0D: Passenger's (Front) Air Bag Module (<2nd squib>) System (Shorted to Squib Circuit Power Supply

M15204000935USA0000010000

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



D7G52M010A00



⚠ CAUTION

If DTC B1B09 <1st squib> or B1B0D <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

TROUBLESHOOTING HINTS

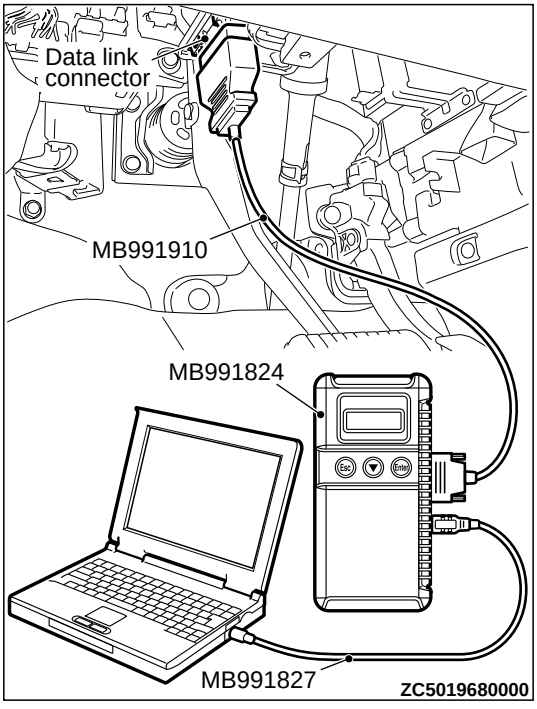
- Damaged harness wires and connectors
- Short to the power supply in the passenger's (front) air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



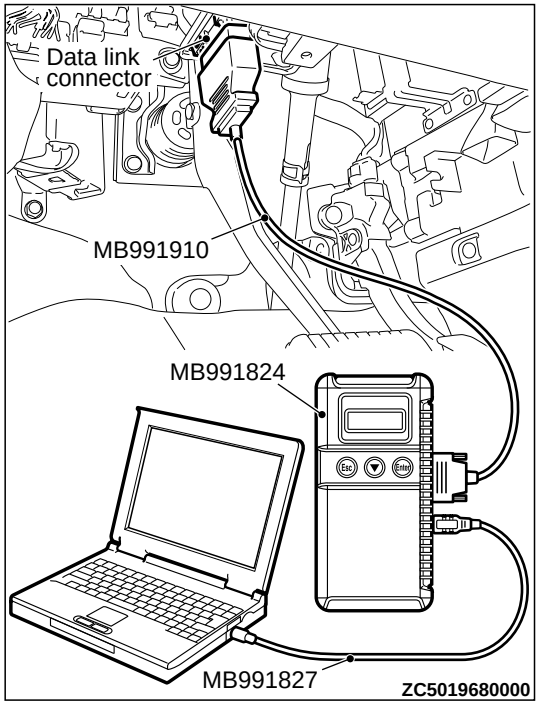
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

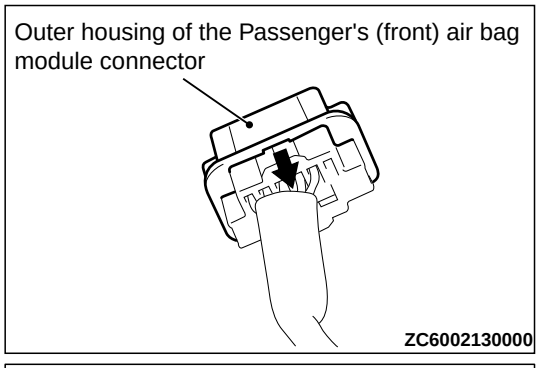
Q:Is the DTC set?

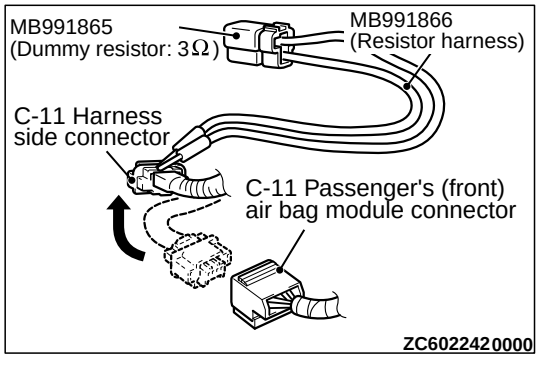
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the passenger's (front) air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the passenger's (front) air bag module connector C-11.
(3) Slide the outer housing of the clock spring side of passenger's (front) air bag module connector C-11 in the arrow direction shown, and disconnect the connector.





(4) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(5) Insert special tool MB991866 into the harness side connector C-11 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(6) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B0E is set when checking DTC B1B09. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0D because the first side terminal is isolated.

(7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?

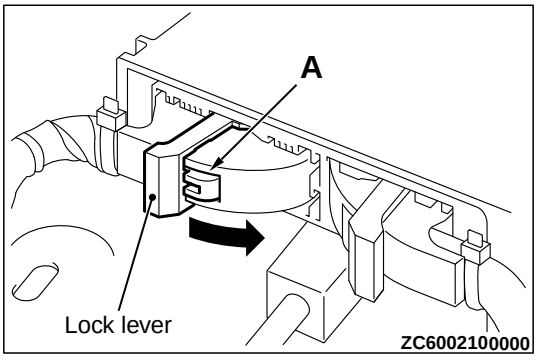
YES: Go to Step 4.

NO: Replace the passenger's (front) air bag module. (Refer to P.52B-329). Then go to Step 6.

STEP 4. Check the passenger's (front) air bag module circuit. Measure the voltage at the SRS-ECU connector C-28.

(1) Disconnect SRS-ECU connector C-28.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.

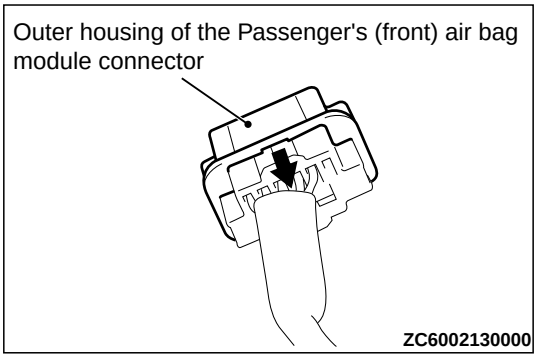


⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-11 to short the squib circuit.

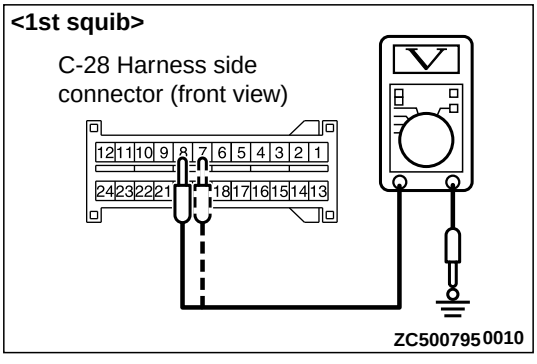
(3) Disconnect the passenger's (front) air bag module connector C-11.

(4) Slide the outer housing of the clock spring side of passenger's (front) air bag module connector C-11 in the arrow direction shown, and disconnect the connector.



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

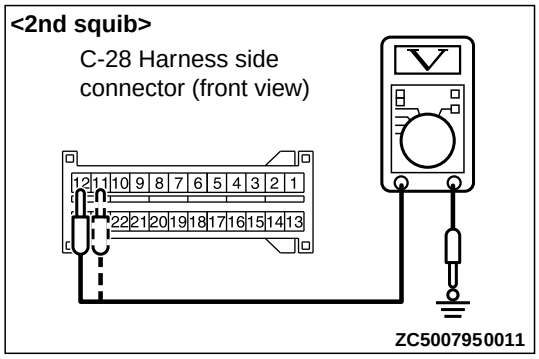
(6) Measure the voltage between C-28 harness side connector terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib> and body ground.
Voltage should measure 0 volt.



Q:Is the measured voltage within the specified range?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B09 <1st squib> B1B0D <2nd squib> sets, replace the SRS-ECU. (Refer to P. 52B-326. Then go to Step 6.

NO: Go to Step 5.

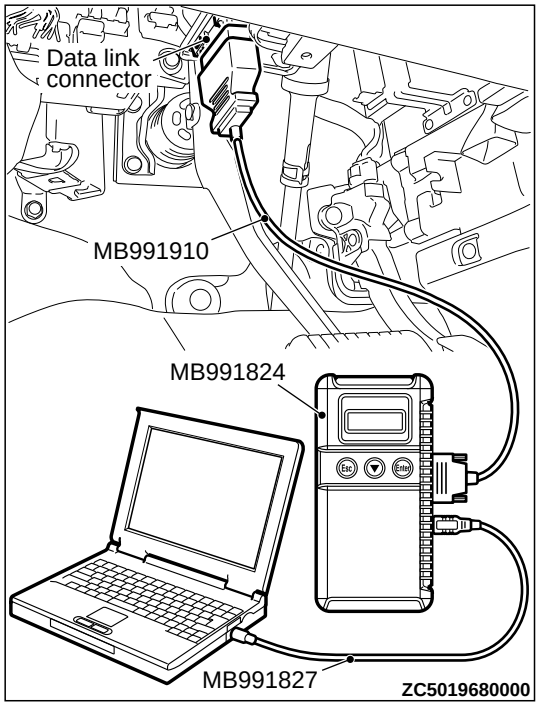


STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-28 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-11 (terminal No.2 and 1 <1st squib> terminal No.4 and 3 <2nd squib>).

Q:Are the harness wires between SRS-ECU connector C-28 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-11 (terminal No.2 and 1 <1st squib> terminal No.4 and 3 <2nd squib>) in good condition?

YES: Go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-28 and passenger's (front) air bag module connector C-11. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B09 <1st squib> B1B0D <2nd squib> set?

YES: Return to Step 1.

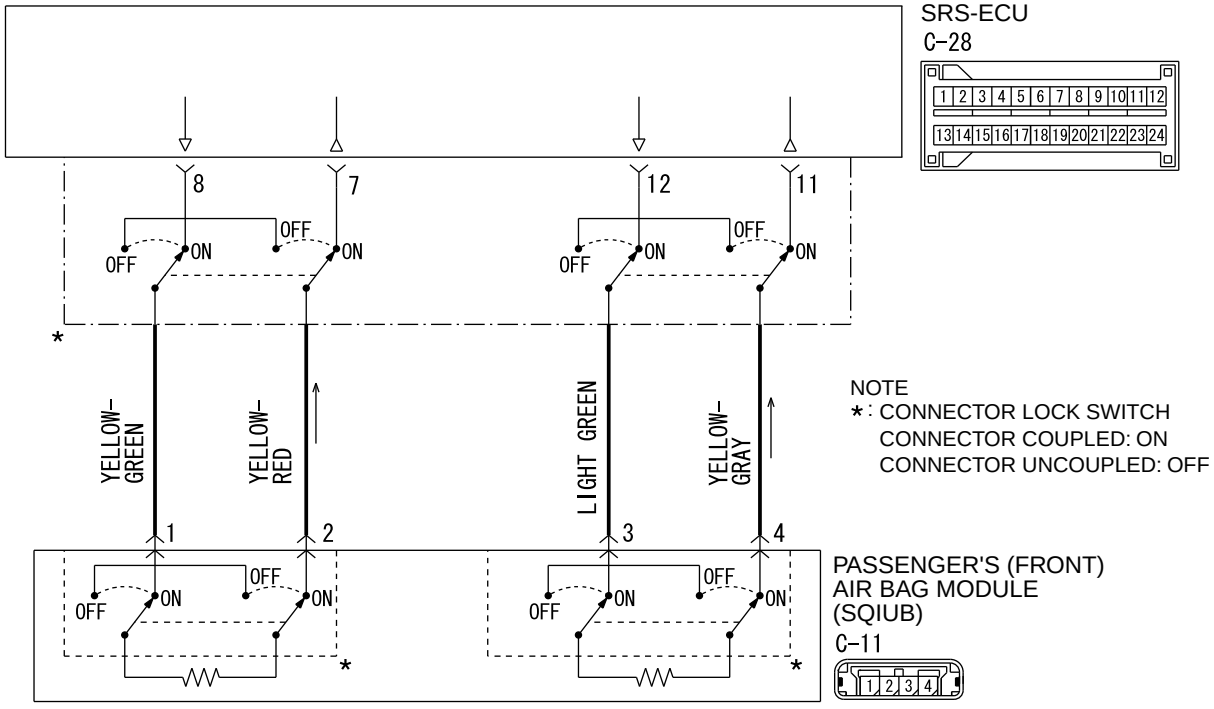
NO: The procedure is complete.

DTC B1B0A: Passenger's (Front) Air Bag Module (1st squib) System (Squib Circuit Open)

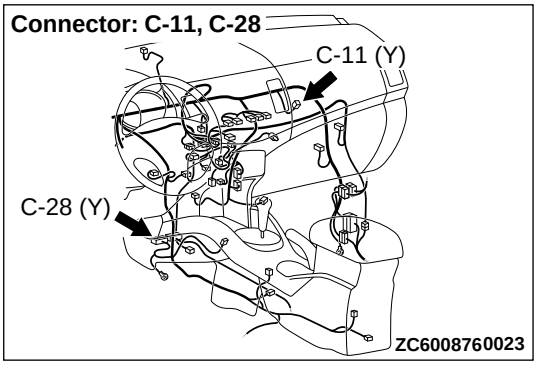
DTC B1B0E: Passenger's (Front) Air Bag Module (2nd squib) System (Squib Circuit Open)

M15204000933USA0000010000

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



D7G52M010A00



⚠ CAUTION

If DTC B1B0A <1st squib> or B1B0E <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

TROUBLESHOOTING HINTS

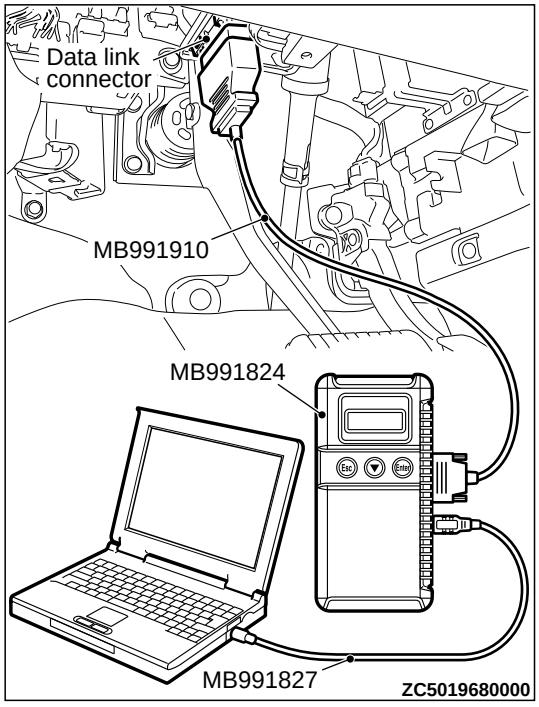
- Open circuit in the passenger's (front) air bag module (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991817: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



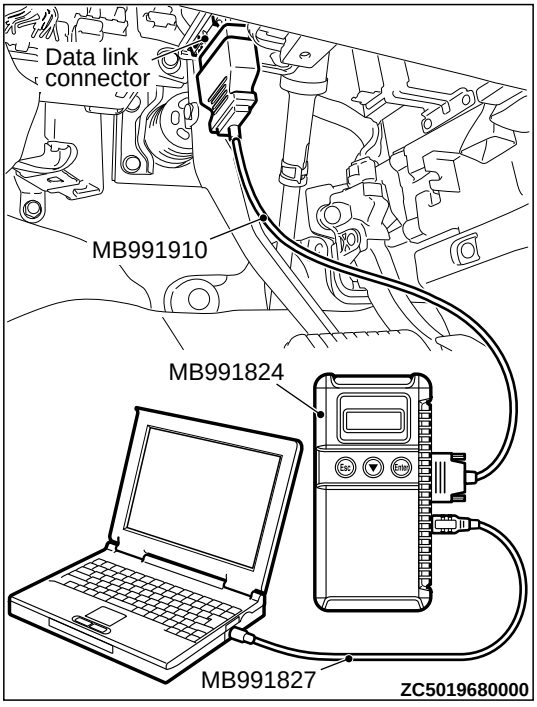
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

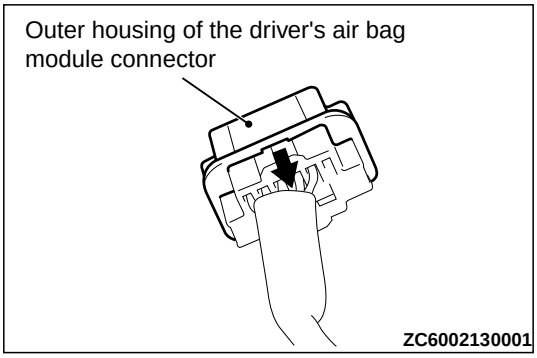
Q:Is the DTC set?

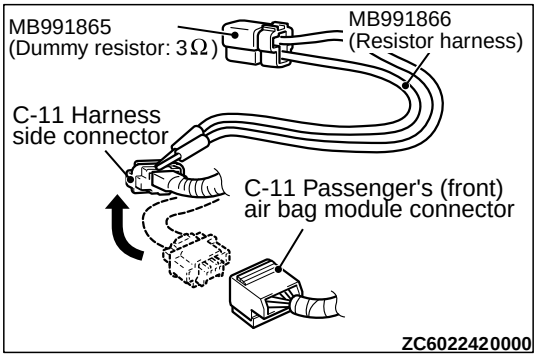
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the passenger's air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the passenger's (front) air bag module connector C-11.
(3) Slide the outer housing of the clock spring side of passenger's (front) air bag module connector C-11 in the arrow direction shown, and disconnect the connector.





(4) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(5) Insert special tool MB991866 into the harness side connector C-11 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(6) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B0E is set when checking DTC B1B0A. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0E because the first side terminal is isolated.

(7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?

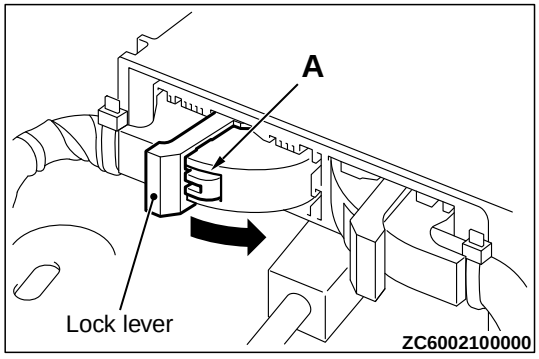
YES: Go to Step 4.

NO: Replace the passenger's air bag module. (Refer to P. 52B-329). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-28 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and the passenger's air bag module connector C-11 (terminal No.2 and 1 <1st squib> or terminal No.4 and 3 <2nd squib>).

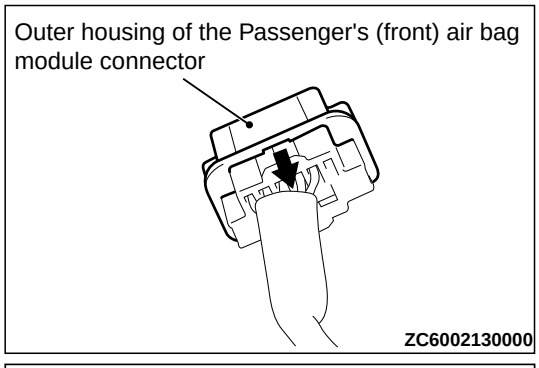
(1) Disconnect SRS-ECU connector C-28.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.



(3) Unclip passenger's (front) air bag module connector C-11.

(4) Disconnect the passenger's (front) air bag module connector C-11.

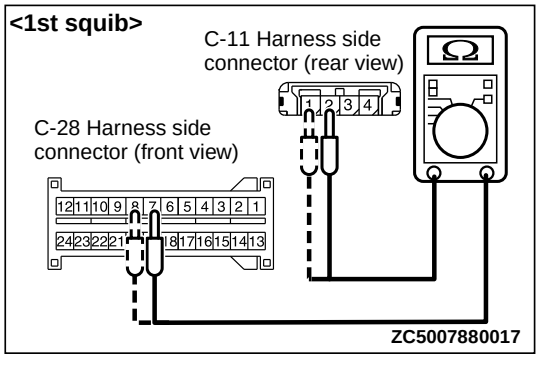


(5) Slide the outer housing of the clock spring side of passenger's (front) air bag module connector C-11 in the arrow direction shown, and disconnect the connector.

⚠ CAUTION

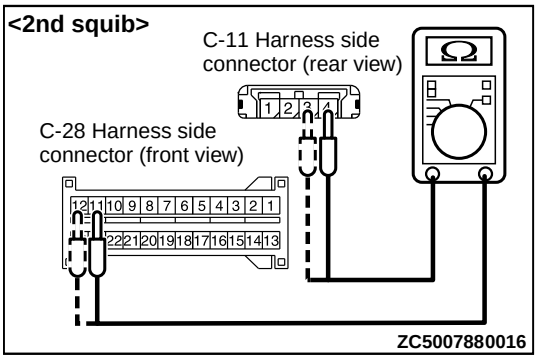
Do not insert a probe into the terminal from C-11 harness side connector front side directly as the connector contact pressure may be weakened.

(6) Check for continuity between the following terminals. It should be less than 2 ohms.



<1st squib>

- SRS-ECU connector C-28 (terminal No.7) and the passenger's (front) air bag module connector C-11 (terminal No.2)



- SRS-ECU connector C-28 (terminal No.8) and the passenger's (front) air bag module connector C-11 (terminal No.1)

<2nd squib>
- SRS-ECU connector C-28 (terminal No.11) and the passenger's (front) air bag module connector C-11 (terminal No.4)
- SRS-ECU connector C-28 (terminal No.12) and the passenger's (front) air bag module connector C-11 (terminal No.3)

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B0A <1st squib> or B1B0E <2nd squib> set, replace the SRS-ECU. (Refer to P. 52B-326). Then go to Step 5.

NO: Replace the harness wires between SRS-ECU connector C-28 and passenger's (front) air bag module connector C-11. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

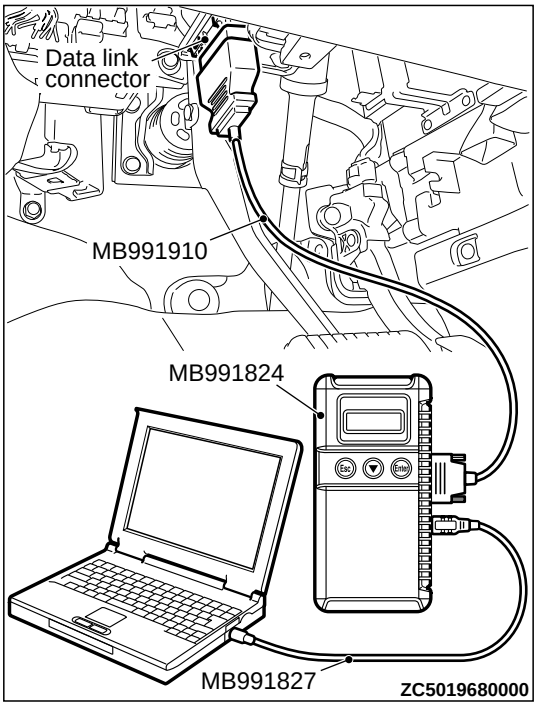
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B0A <1st squib> or B1B0E <2nd squib> set?

YES: Return to Step 1.

NO: The procedure is complete.

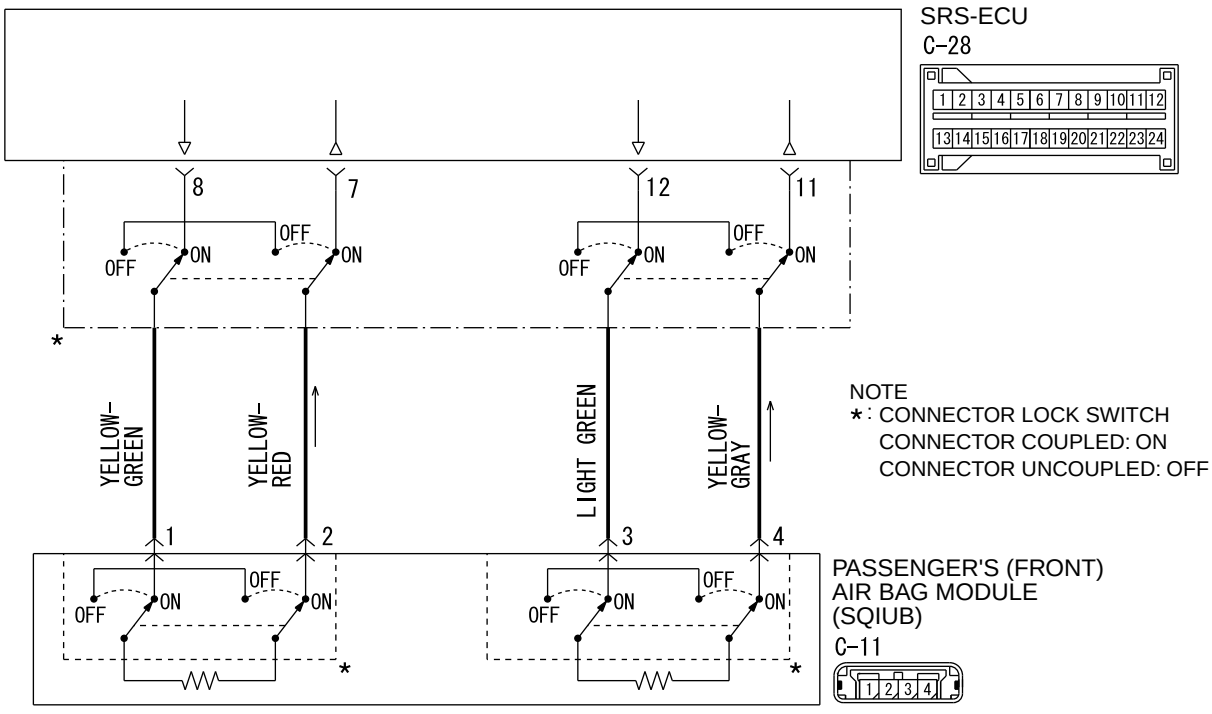


DTC B1B0B: Passenger's (Front) Air Bag Module (1st squib) System (Short Circuit Between Squib Circuit Terminals)

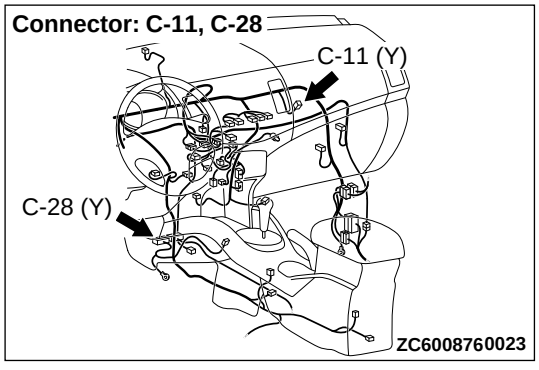
DTC B1B0F: Passenger's (Front) Air Bag Module (2nd squib) System (Short Circuit Between Squib Circuit Terminals)

M15204000932USA0000010000

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



D7G52M010A00



⚠ CAUTION

If DTC B1B0B <1st squib> or B1B0F <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's side air bag module (squib).

TROUBLESHOOTING HINTS

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

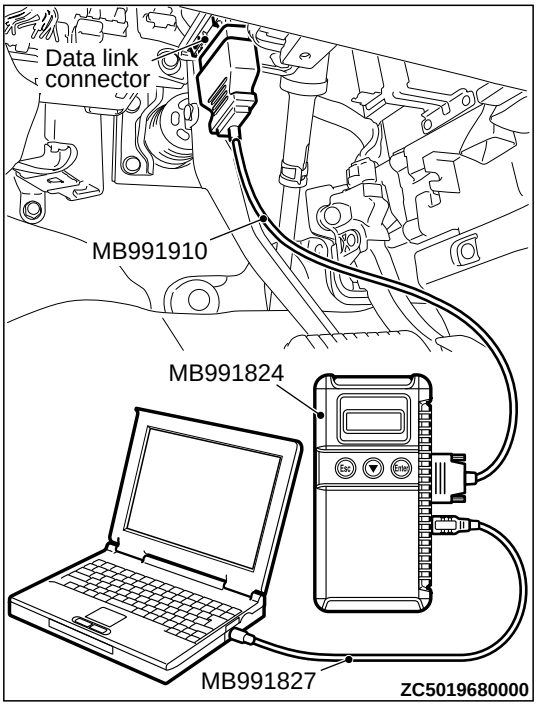
- Malfunction of the SRS-ECU

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 ground wire in the squib circuit when the connectors are disconnected). (Refer to P.52B-5). Therefore, if connector C-11 or C-28 is damaged or improperly engaged, the short spring may not be released when the connector is connected.

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



⚠ CAUTION

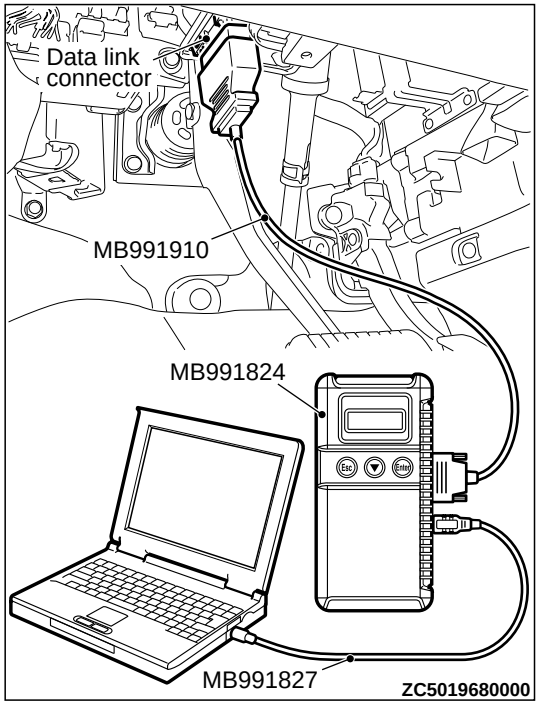
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.

NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

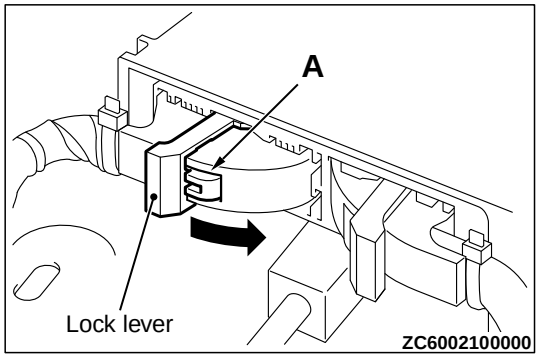
Q:Is the DTC set?

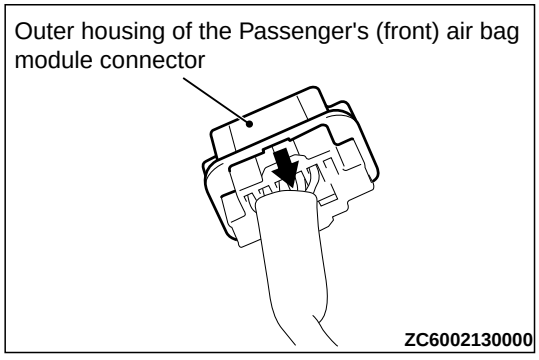
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check SRS-ECU connector C-28 and passenger's (front) air bag module connector C-11. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-28 and C-11 then reconnect them.
(3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.





(4) Slide the outer housing of the clock spring side of passenger's (front) air bag module connector C-11 in the arrow direction shown, and disconnect the connector.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

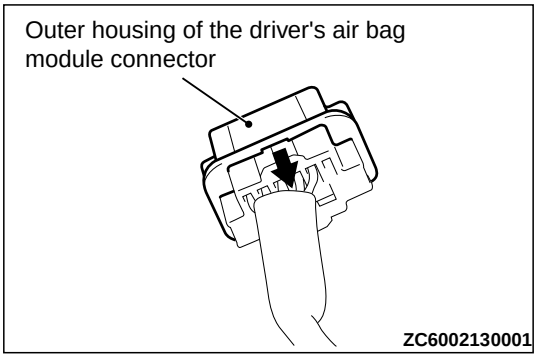
Q:Is DTC B1B0B <1st squib> or B1B0F <2nd squib> set?

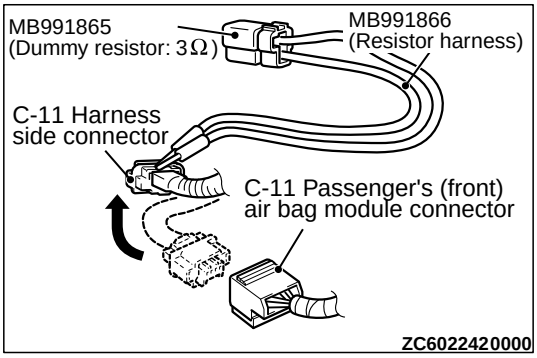
YES: Go to Step 4.

NO: The procedure is complete. It is assumed that DTC B1B0B <1st squib> or B1B0F <2nd squib> set as connector C-28 or C-11 was engaged improperly.

STEP 4. Check the passenger's (front) air bag module. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the passenger's (front) air bag module connector C-11.
(3) Slide the outer housing of the clock spring side of passenger's (front) air bag module connector C-11 in the arrow direction shown, and disconnect the connector.





(4) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(5) Insert special tool MB991866 into the harness side connector C-11 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(6) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B0E is set when checking DTC B1B0B. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0F because the first side terminal is isolated.

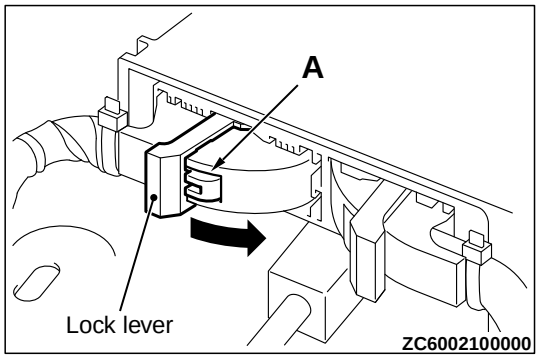
(7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is the checked DTC set?

YES: Go to Step 5.
NO: Replace the passenger's air bag module (Refer to P. 52B-329). Then go to Step 7.

STEP 5. Check the passenger's (front) air bag module circuit at SRS-ECU connector C-28.

(1) Disconnect SRS-ECU connector C-28.



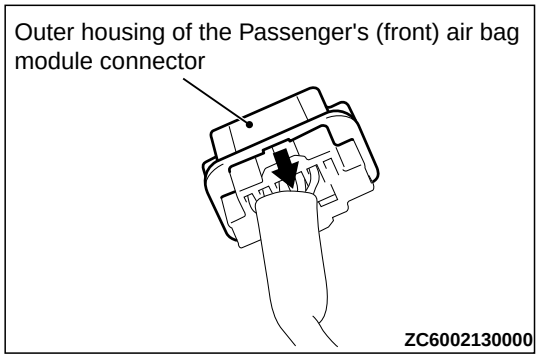
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-28 SRS-ECU connector.

DANGER

To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-11 to short the squib circuit.

(3) Disconnect the passenger's (front) air bag module connector C-11.

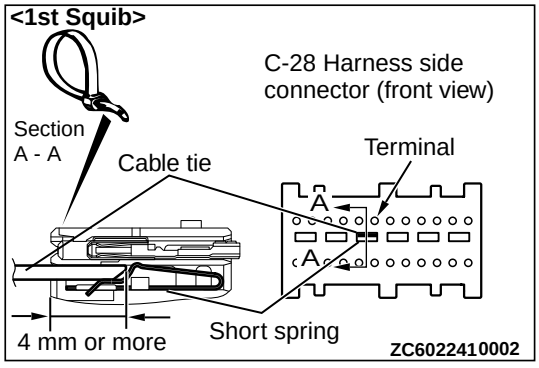
(4) Slide the outer housing of the clock spring side of driver's air bag module connector C-11 in the arrow direction shown, and disconnect the connector.

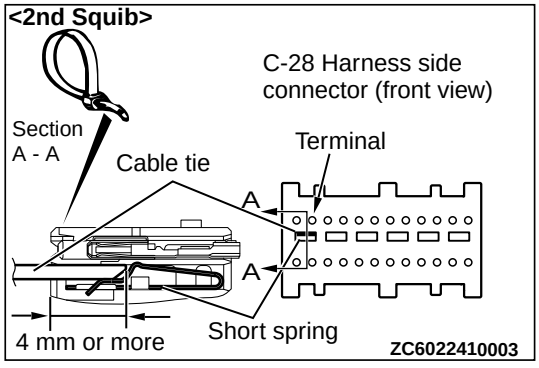


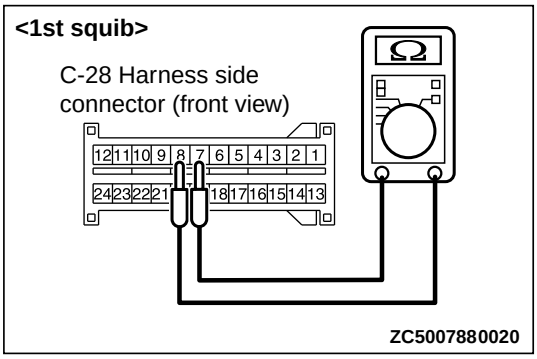
CAUTION

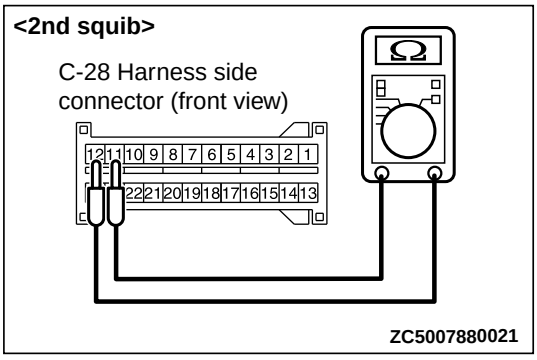
Insert an insulator such as a cable tie to a depth of 4 mm (0.16 inch) or more, otherwise the short spring will not be released.

(5) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>, and the short spring to release the short spring.









(6) Check for continuity between C-28 harness side connector terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>. It should be open circuit.

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B0B <1st squib> or B1B0F <2nd squib> set, replace the SRS-ECU. (Refer to P. 52B-326). Then go to Step 7.

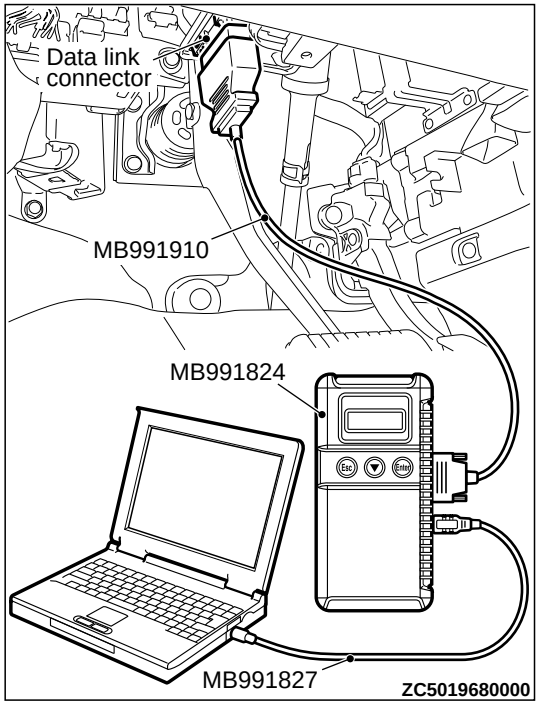
NO: Go to Step 6.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-28 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-11 (terminal No.2 and 1 <1st squib> terminal No.4 and 3 <2nd squib>).

Q:Are harness wires between SRS-ECU connector C-28 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-11 (terminal No.2 and 1 <1st squib> terminal No.4 and 3 <2nd squib>) in good condition?

YES: Go to Step 7.

NO: Replace the harness wires between SRS-ECU connector C-28 and passenger's (front) air bag module connector C-11. Then go to Step 7.



STEP 7. Check for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

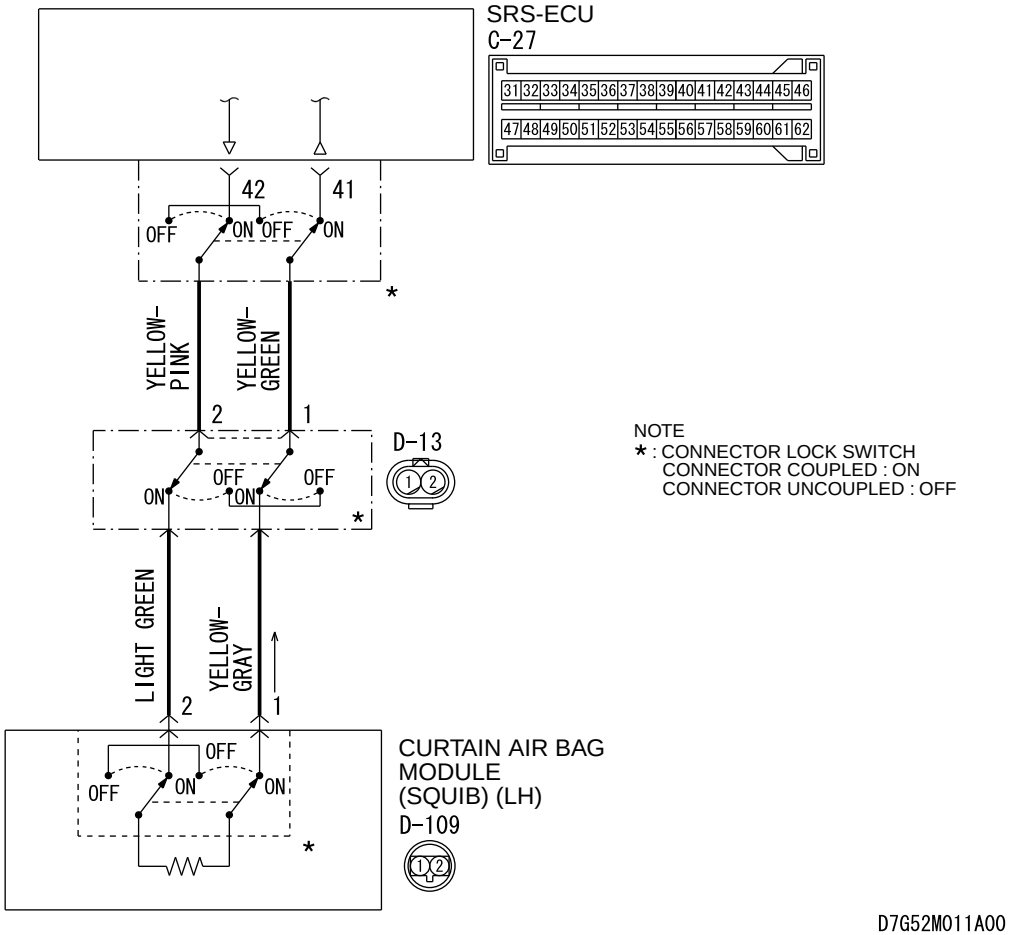
Q:Is DTC B1B0B <1st squib> or B1B0F <2nd squib> set?

YES: Return to Step 1.
NO: The procedure is complete.

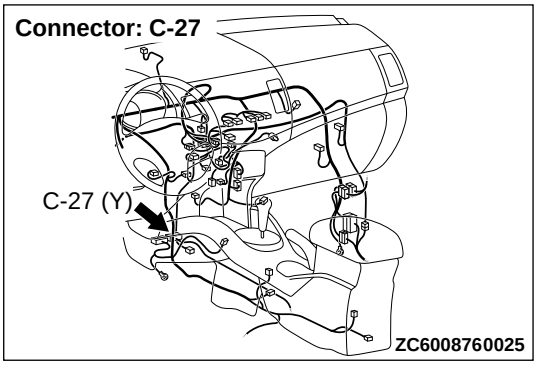
DTC B1B18: Curtain Air Bag Module (LH) (Squib) System (Shorted to Squib Circuit Ground)

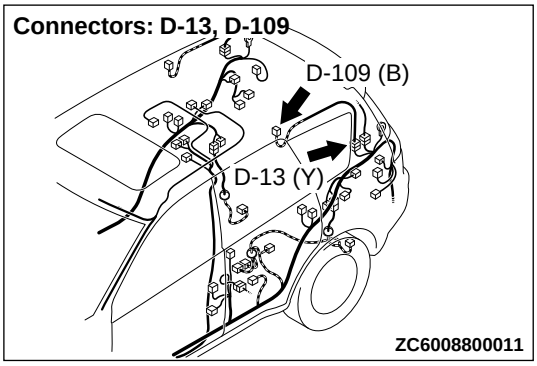
M15204000965USA0000010000

Curtain Air Bag Module (Squib) (LH) Circuit



D7G52M011A00





⚠ CAUTION

If DTC B1B18 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and at the quarter panel inner. If the impact is over a predetermined level, the SRS-ECU sends 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 curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

TROUBLESHOOTING HITS

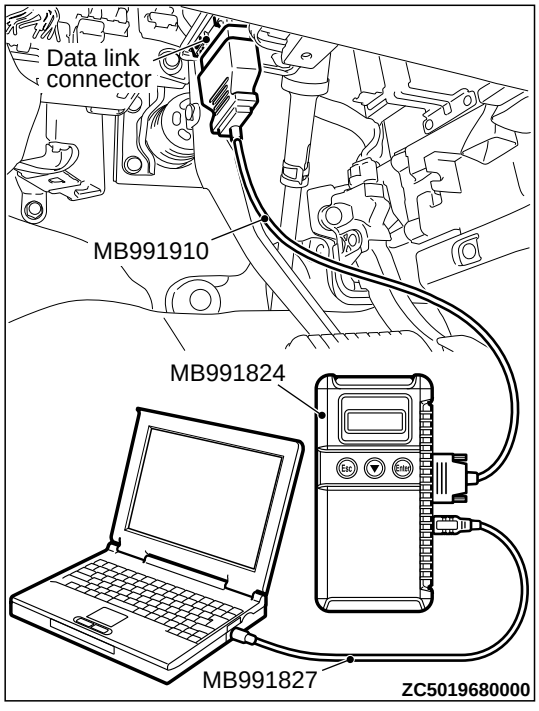
- Damaged wiring harnesses or connectors
- Short to the ground in the curtain air bag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



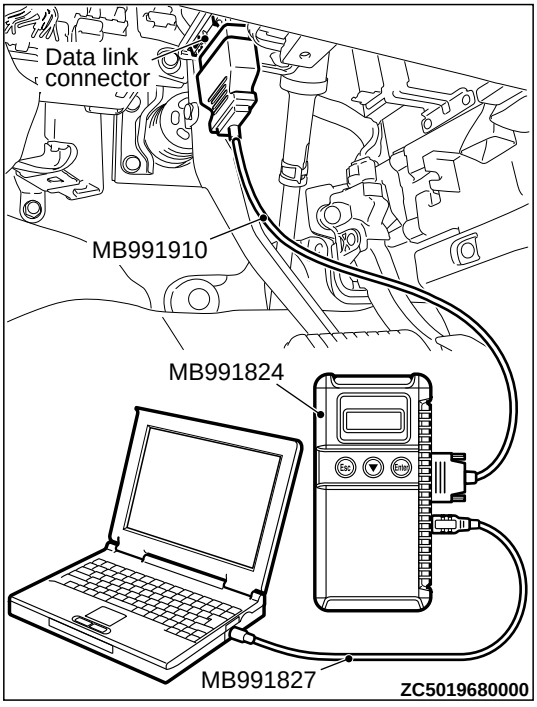
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

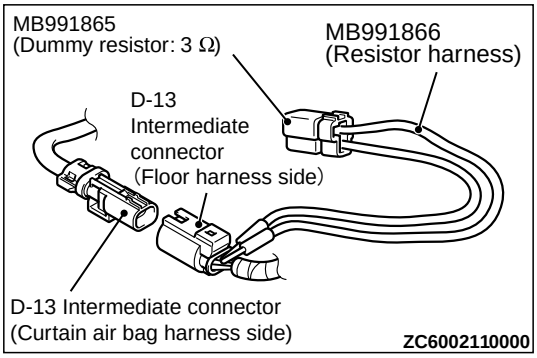
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).



STEP 3. Check by dummy resistor connection. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-13 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

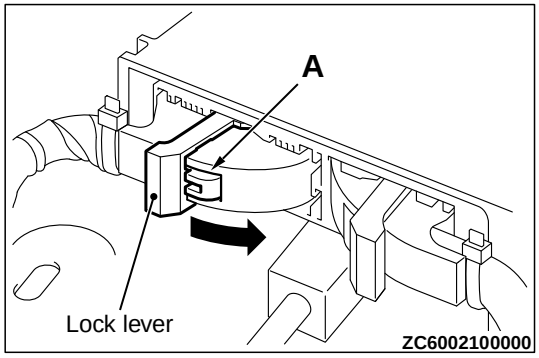
Q:Is DTC B1B18 set?

YES: Go to Step 4.

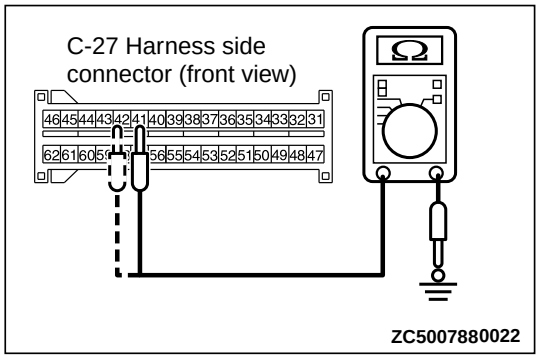
NO: Go to Step 5.

STEP 4. Resistance measurement at the C-27 SRS-ECU connector.

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.
(3) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).



(4) Check for continuity between C-27 wiring harness side connector terminal No. 41, 42 and body ground.
It should be open circuit.

Q:Is the check result normal?
YES: Repair the wiring harness.
NO: Go to Step 5.

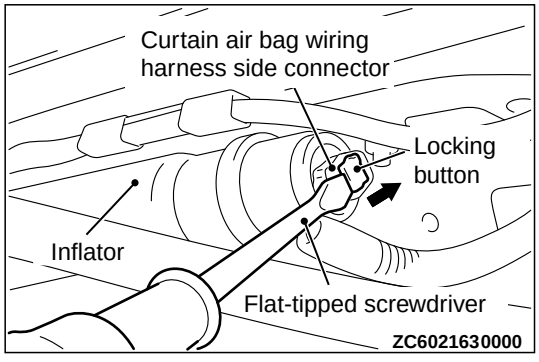
STEP 5. Resistance measurement at the D-13 intermediate connector.

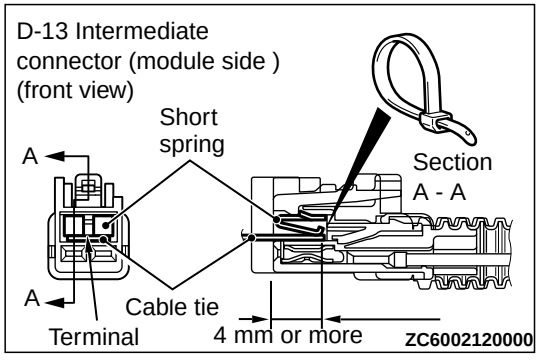
(1) Disconnect the negative battery terminal.

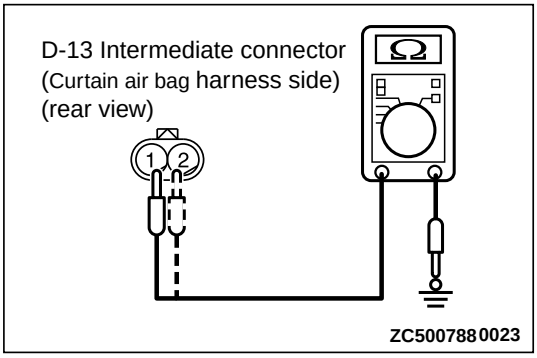
DANGER

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-109 to short the squib circuit.

(2) Disconnect curtain air bag module (LH) D-109. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).
(4) Because the short spring is installed to the D-13 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.







⚠ CAUTION

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

(5) Check for continuity between the D-13 intermediate connector (module side) terminal No. 1, 2 and the body ground.
It should be open circuit.

Q:Does continuity exist?

YES: Repair the wiring harness.

NO: Replace the curtain air bag module (squib) (Refer to P.52B-341).

STEP 6. Recheck for diagnostic trouble code.

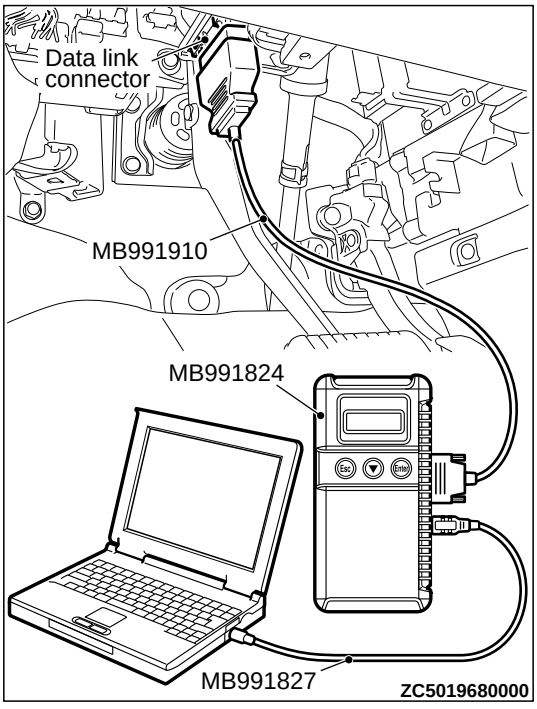
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B18 set?

YES: Replace SRS-ECU. (Refer to P.52B-326.)

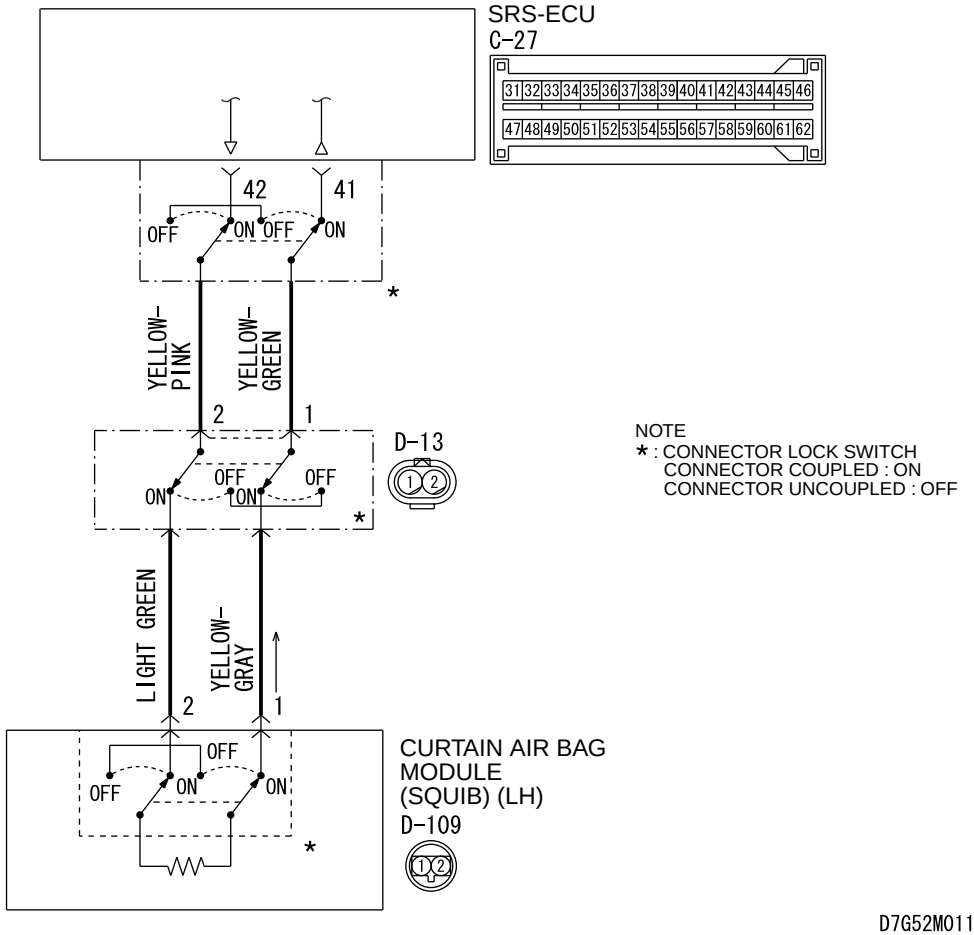
NO: Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunction P.00-15).



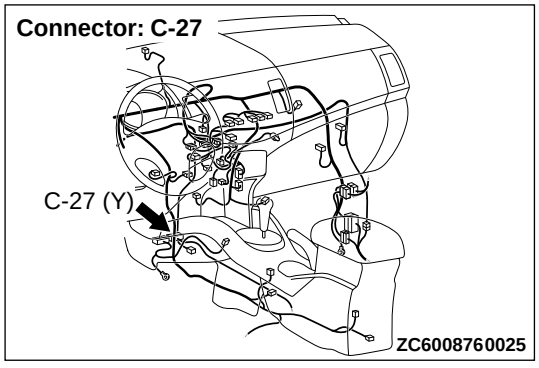
DTC B1B19: Curtain Air bag Module (LH) (Squib) System (Shorted to Squib Circuit Power Supply)

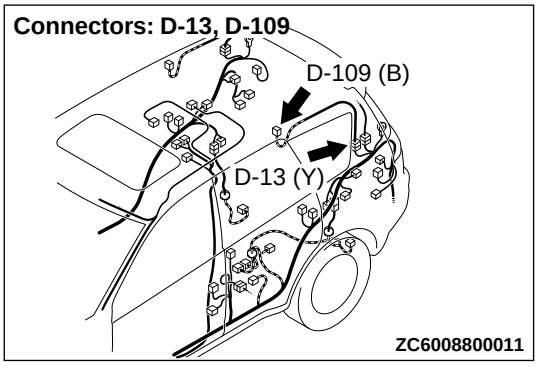
M15204000966USA0000010000

Curtain Air Bag Module (Squib) (LH) Circuit



D7G52M011A00





⚠ CAUTION

If DTC B1B19 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and at the quarter panel inner. If the impact is over a predetermined level, the SRS-ECU sends 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 curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

TROUBLESHOOTING HITS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

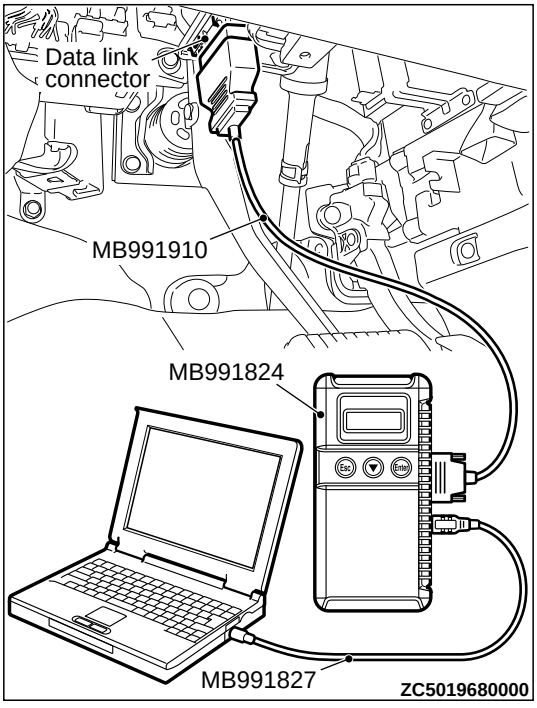
⚠ CAUTION

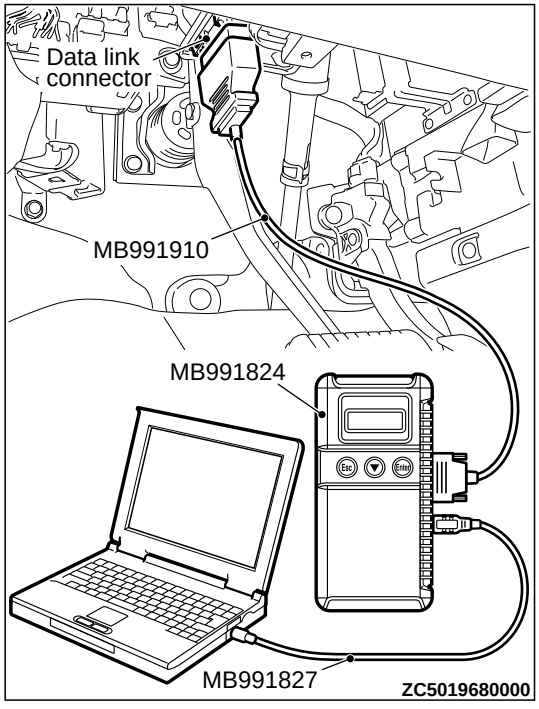
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).





STEP 2. Recheck for diagnostic trouble code.

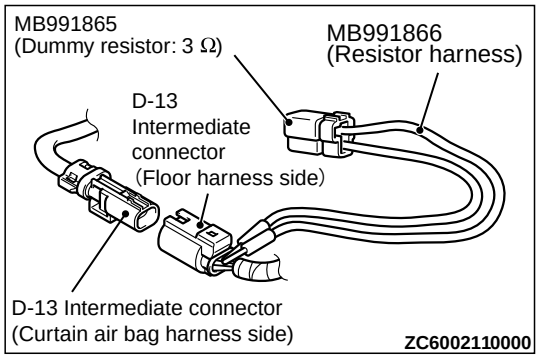
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).



STEP 3. Check by dummy resistor connection. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-13 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

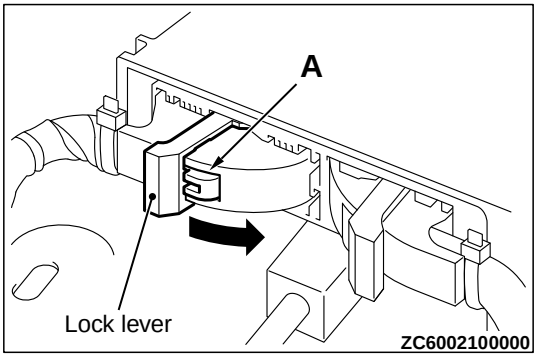
Q:Is DTC B1B19 set?

YES: Go to Step 4.

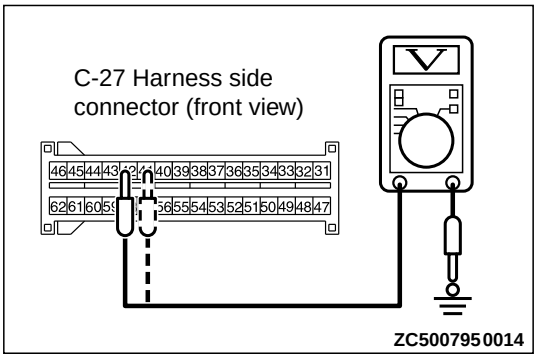
NO: Go to Step 5.

STEP 4. Voltage measurement at the C-27 SRS-ECU connector.

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.
(3) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).
(4) Connect the negative battery terminal.
(5) Ignition switch: ON



(6) Measure the voltage between the C-27 wiring harness side connector terminal No. 41, 42 and body ground.
Voltage should measure 0 volt

Q:Is the measured 0 volt?
YES: Go to Step 6.
NO: Repair the wiring harness.

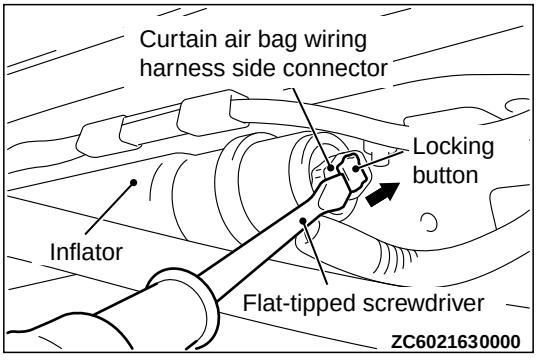
STEP 5. Voltage measurement at the D-13 intermediate connector.

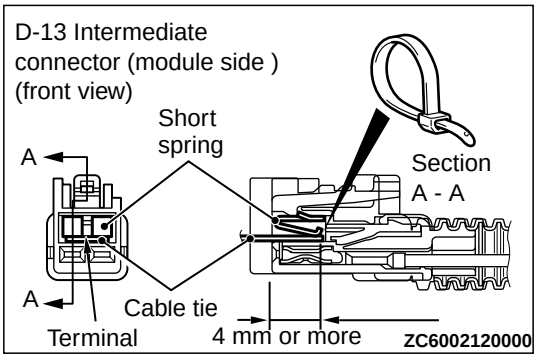
(1) Disconnect the negative battery terminal.

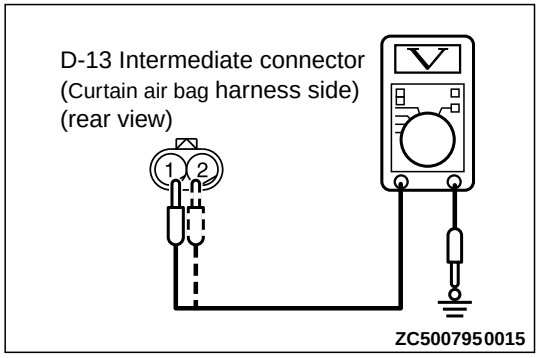
DANGER

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-109 to short the squib circuit.

(2) Disconnect curtain air bag module (LH) D-109. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).
(4) Because the short spring is installed to the D-13 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Ignition switch: ON







⚠ CAUTION

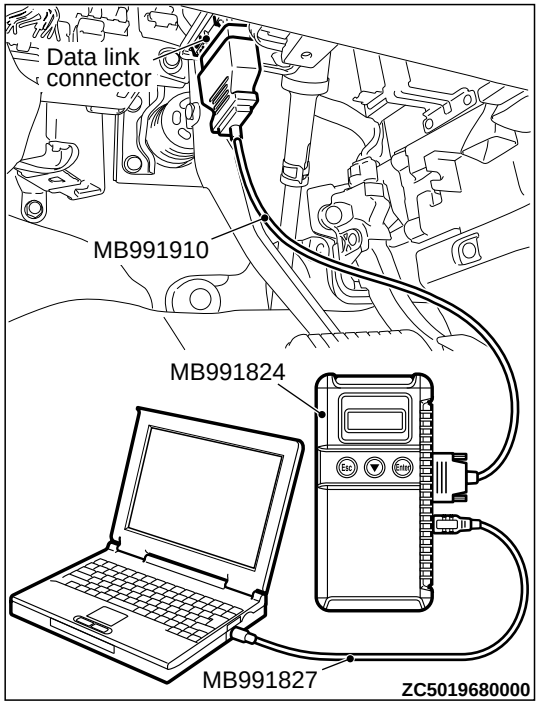
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(7) Check for continuity between the D-13 intermediate connector (curtain air bag harness side) terminal No. 1, 2 and the body ground.
Voltage should measure 0 volt.

Q:Is the measured voltage 0 volt?

YES: Replace the curtain air bag module (squib) (Refer to P.52B-341).

NO: Repair the wiring harness.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B19 set?

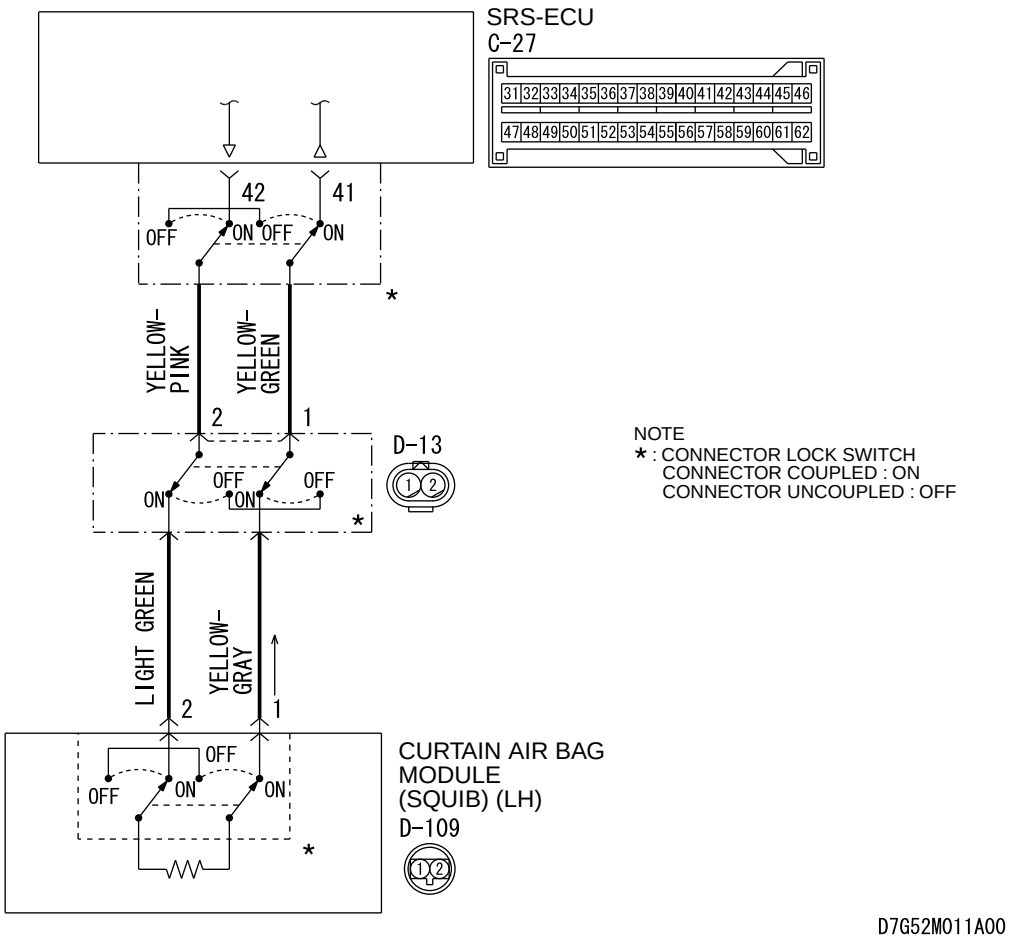
YES: Replace SRS-ECU. (Refer to P.52B-326.)

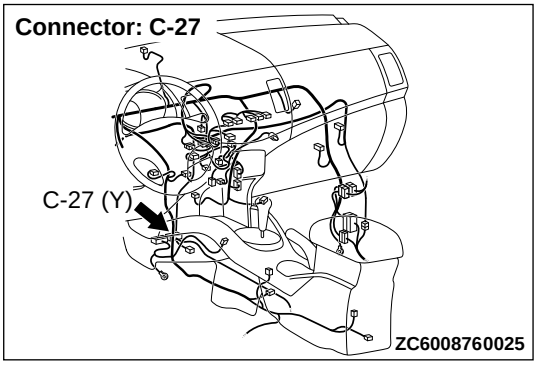
NO: Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunction P.00-15).

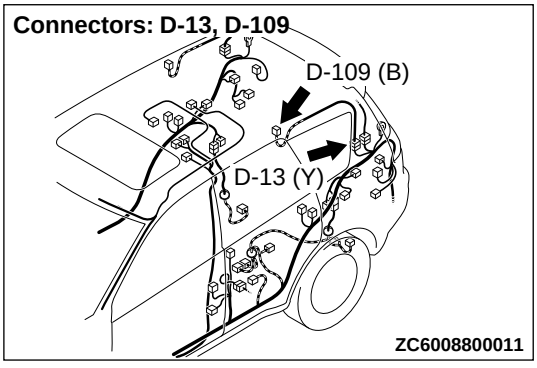
DTC B1B1A: Curtain Air Bag Module (LH) (Squib) System (Squib Circuit Open)

M15204000964USA0000010000

Curtain Air Bag Module (Squib) (LH) Circuit







⚠ CAUTION

If DTC B1B1A is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and at the quarter panel inner. If the impact is over a predetermined level, the SRS-ECU sends 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 curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

TROUBLESHOOTING HITS

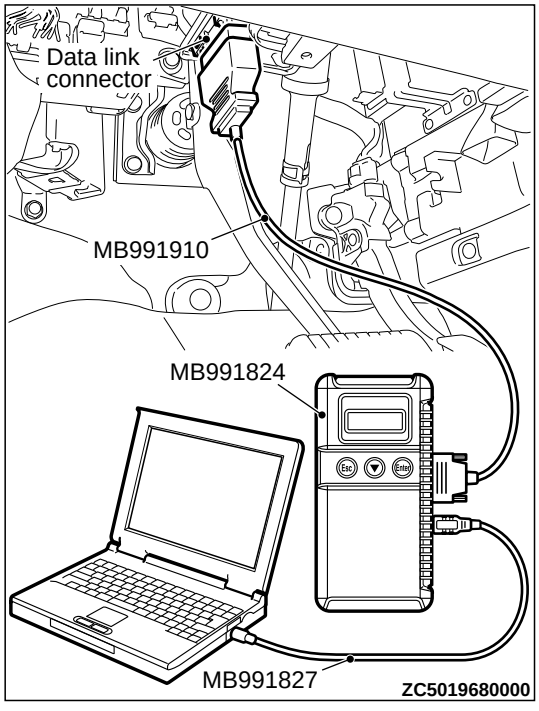
- Open circuit in the curtain air bag module (LH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



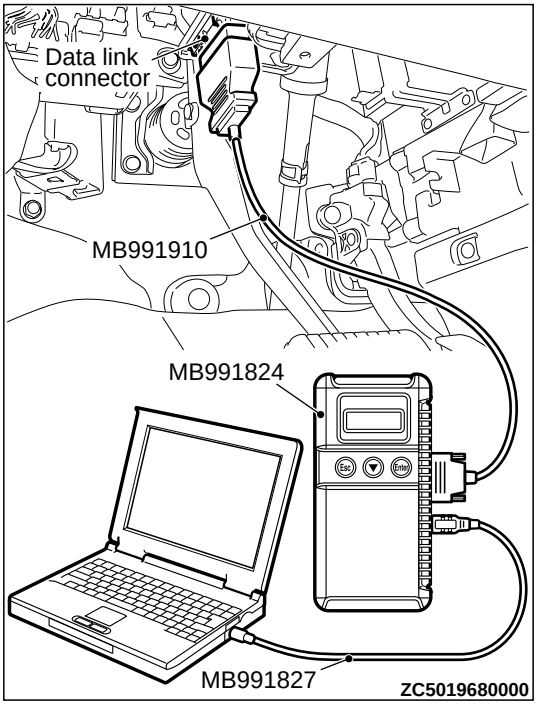
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

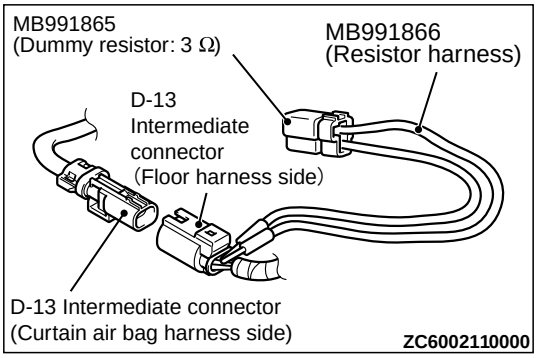
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).



STEP 3. Check by dummy resistor connection. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-13 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

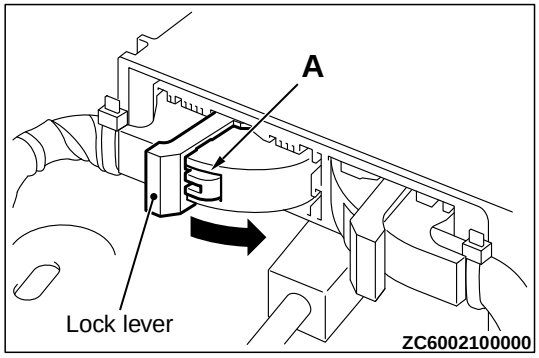
Q:Is DTC B1B1A set?

YES: Go to Step 4.

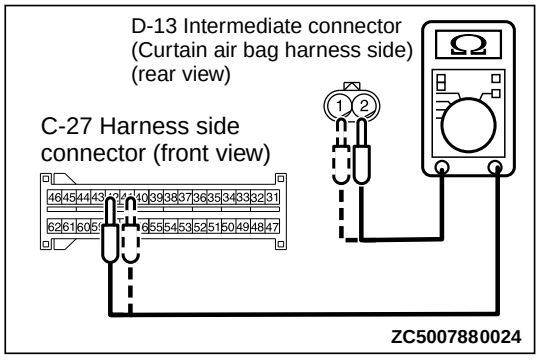
NO: Go to Step 5.

STEP 4. Resistance measurement at the C-27 SRS-ECU connector and the D-13 intermediate connector.

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.
(3) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).



⚠ CAUTION

Do not insert a probe into the terminal from D-13 intermediate connector front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-27 (terminal No.41) and the intermediate connector D-13 (terminal No.1)
- SRS-ECU connector C-27 (terminal No.42) and the intermediate connector D-13 (terminal No.2)

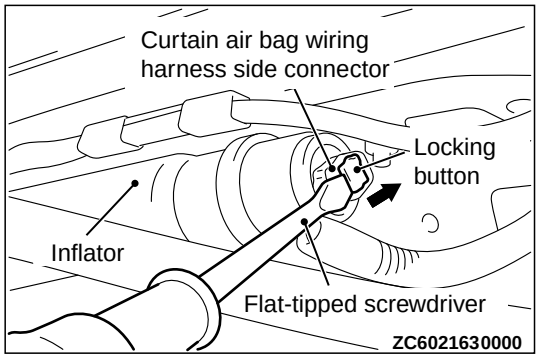
Q:Does continuity exist?

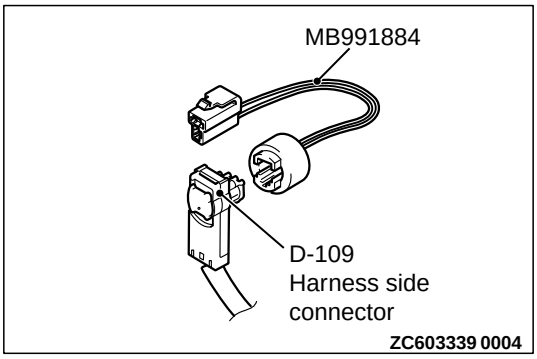
YES: Go to Step 6.

NO: Repair the wiring harness between the C-27 harness side connector terminal No. 41, 42 and the D-13 intermediate connector (floor harness side) terminal No. 1, 2.

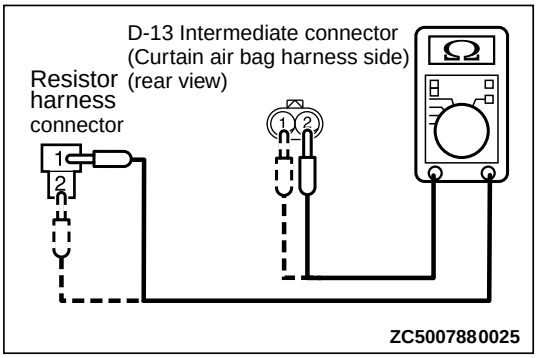
STEP 5. Resistance measurement at the D-13 intermediate connector terminal No. 1, 2 and the D-109 curtain air bag module harness side connector terminal No. 1, 2.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Disconnect curtain air bag module (LH) D-109. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





(4) Connect special tool MB991884 to the removed D-109 harness side connector.



⚠ CAUTION

Do not insert a probe into the terminal from D-13 intermediate connector front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.
- Intermediate connector D-13 (terminal No.1) and resistor harness connector terminal No.2)
- Intermediate connector D-13 (terminal No.2) and resistor harness connector terminal No.1)

Q:Is the check result normal?

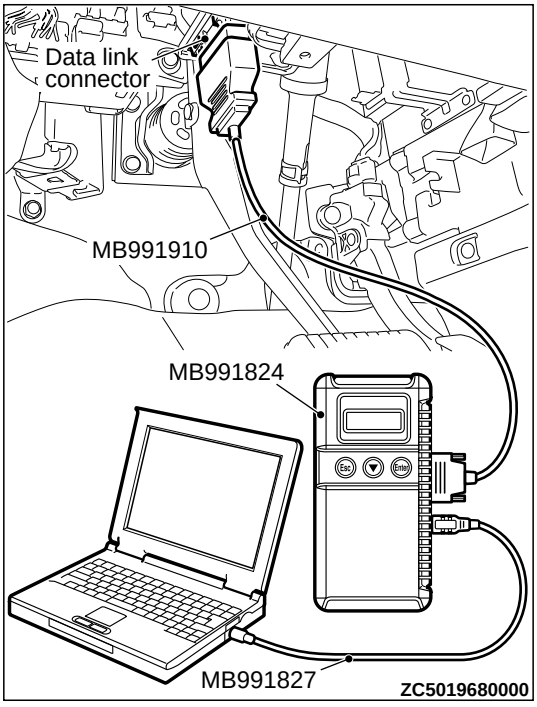
YES: Replace the curtain air bag module (squib) (Refer to P.52B-341).

NO: Repair the wiring harness.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.



Q:Is DTC B1B1A set?

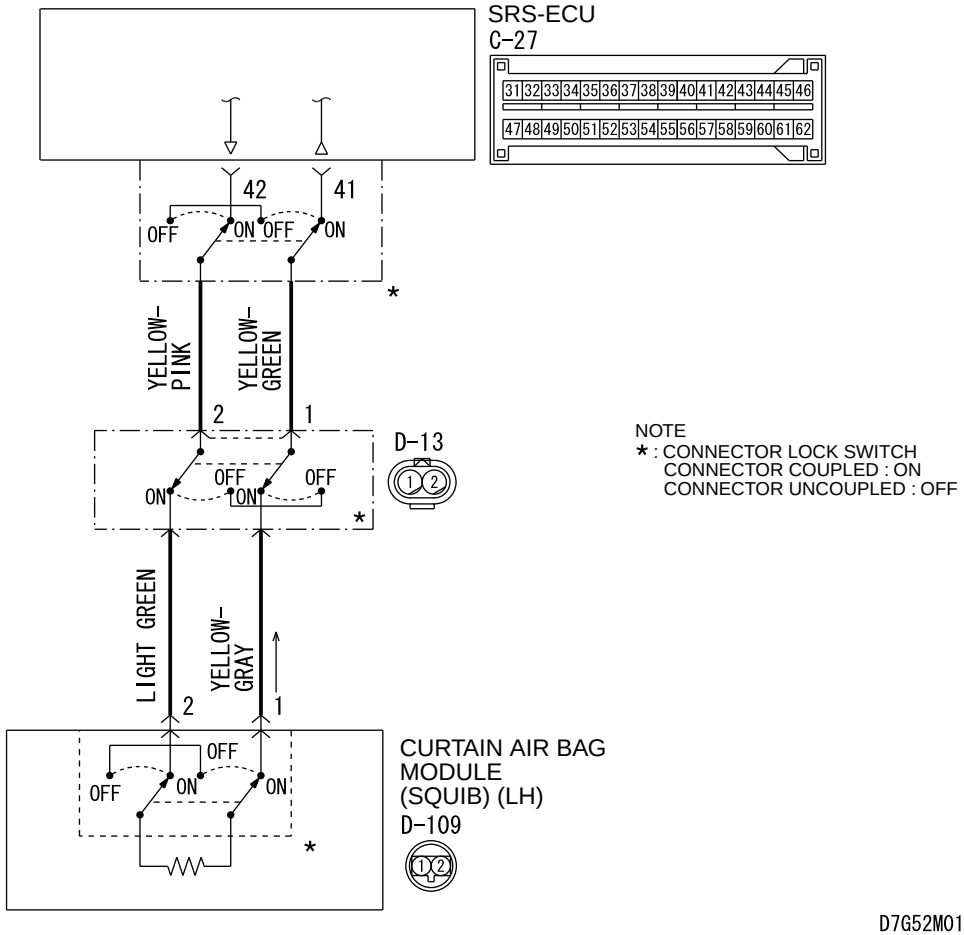
YES: Replace SRS-ECU. (Refer to P.52B-326.)

NO: Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunction P.00-15).

DTC B1B1B: Curtain Air Bag Module (LH) (Squib) System (Short Circuit between Squib Circuit Terminals)

M15204000963USA0000010000

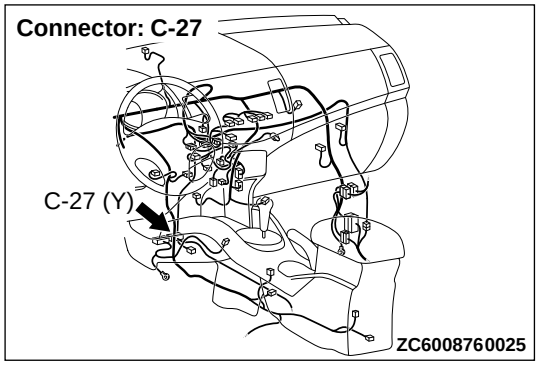
Curtain Air Bag Module (Squib) (LH) Circuit



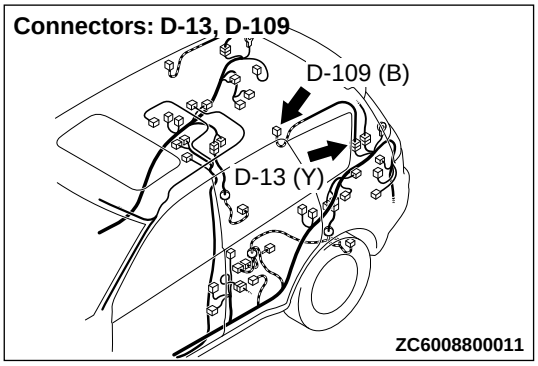
NOTE
* : CONNECTOR LOCK SWITCH
CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

D7G52M011A00

Connector: C-27



Connectors: D-13, D-109



⚠ CAUTION

If DTC B1B1B is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and at the quarter panel inner. If the impact is over a predetermined level, the SRS-ECU sends 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 curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

TROUBLESHOOTING HITS

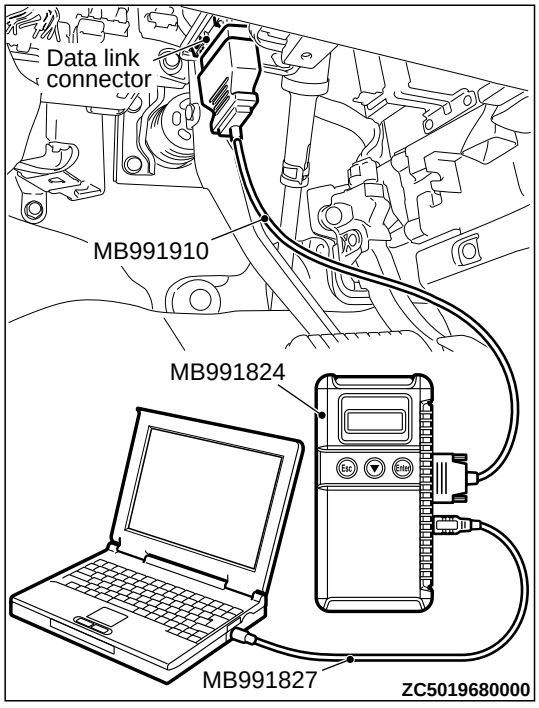
- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (LH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

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 ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-31). Therefore, if connector C-27, D-13 or D-109 is damaged or improperly engaged, the short spring may not be released when the connector is connected.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

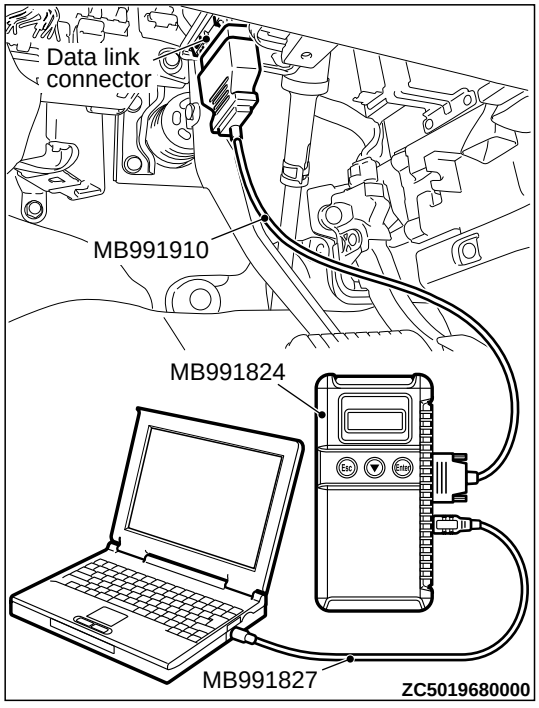
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

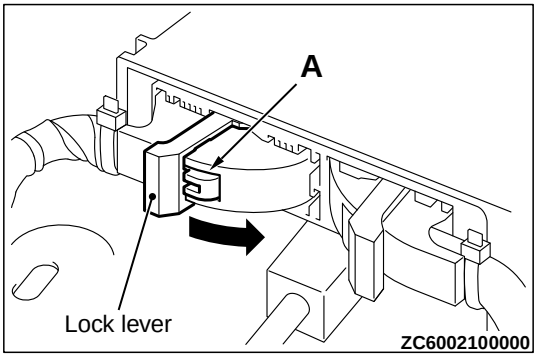
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

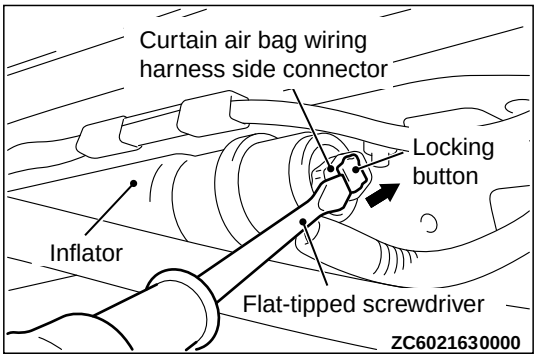
YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).

STEP 3. Check SRS-ECU connector C-27, curtain air bag module (LH) connector D-109 and intermediate connector D-13. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.

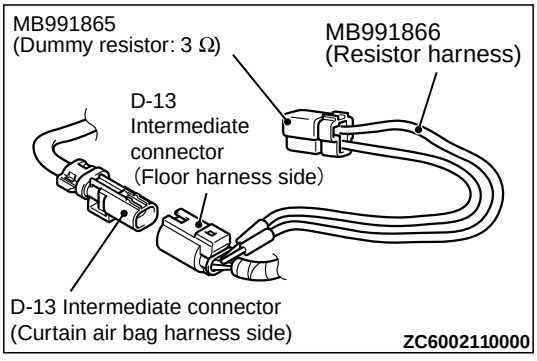


(3) After disconnecting the D-13 and D-109 harness side connectors, connect the connectors again. For the D-109 connector disconnection, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it to ward you in two stages, and then disconnect the connector.

Q:Is DTC B1B1B set?
YES: Go to Step 4.
NO: Connector repair

STEP 4. Check by dummy resistor connection. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.



⚠ CAUTION

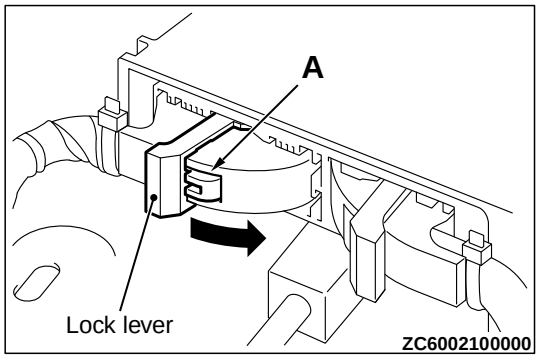
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-13 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.

Q:Is DTC B1B1B set?
YES: Go to Step 5.
NO: Go to Step 6.

STEP 5. Resistance measurement at the C-27 SRS-ECU connector.

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.

DANGER

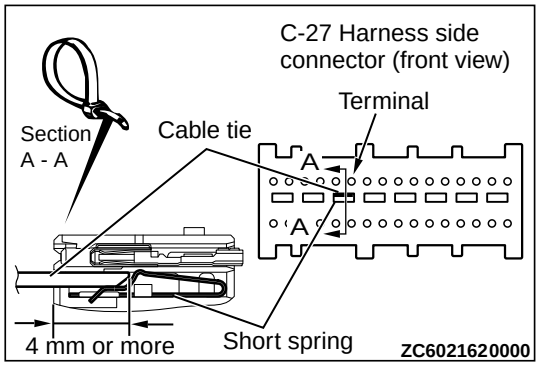
To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-13 to short the squib circuit.

(3) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).

CAUTION

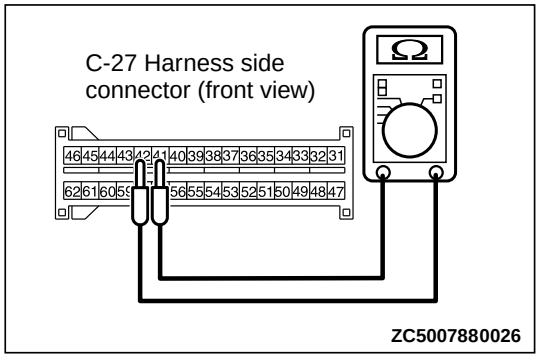
The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 41, 42 and the short spring to release the short spring.



(5) Check for continuity between the C-27 wiring harness side connector terminal No. 41 and No. 42.
It should be open circuit.

Q:Does continuity exist?
YES: Repair the wiring harness.
NO: Go to Step 7.



STEP 6. Short circuit check between the D-109 curtain air bag module harness side connector and the D-13 intermediate harness.

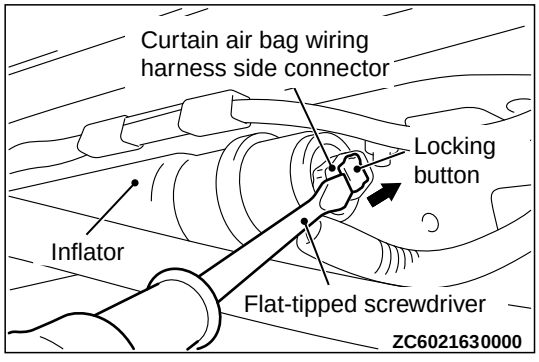
(1) Disconnect the negative battery terminal.

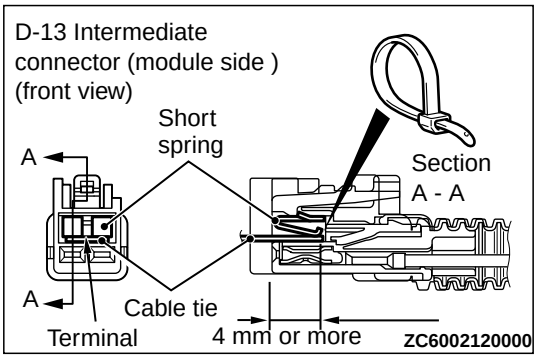
DANGER

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-109 to short the squib circuit.

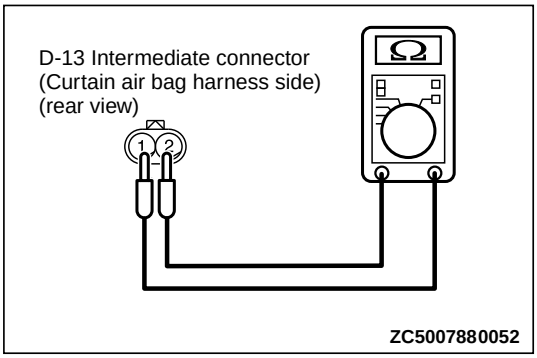
(2) Disconnect curtain air bag module (LH) D-109. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

(3) Disconnect the D-13 intermediate connector (connection between curtain air bag harness and floor harness).





(4) Because the short spring is installed to the D-13 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



⚠ CAUTION

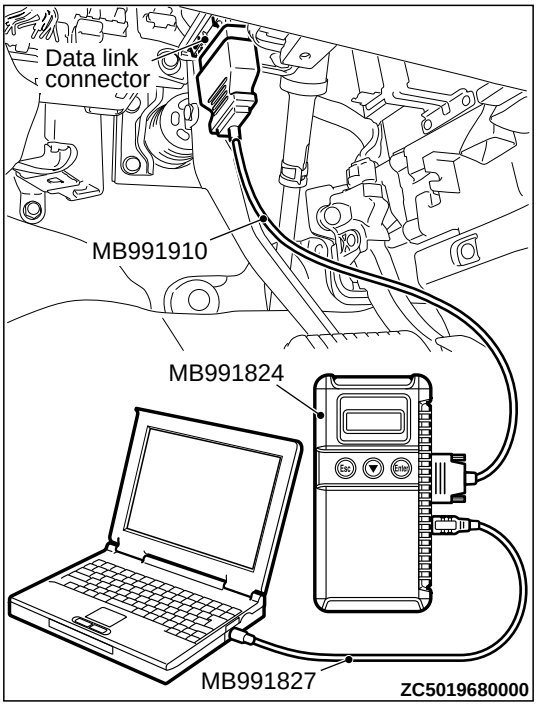
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the D-13 intermediate connector (curtain air bag harness side) terminal No. 1, 2 and the body ground.
It should be open circuit.

Q:Does continuity exist?

YES: Repair the wiring harness.

NO: Replace the curtain air bag module (LH) (Refer to P. 52B-341). Then go to Step 7.



STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B1B set?

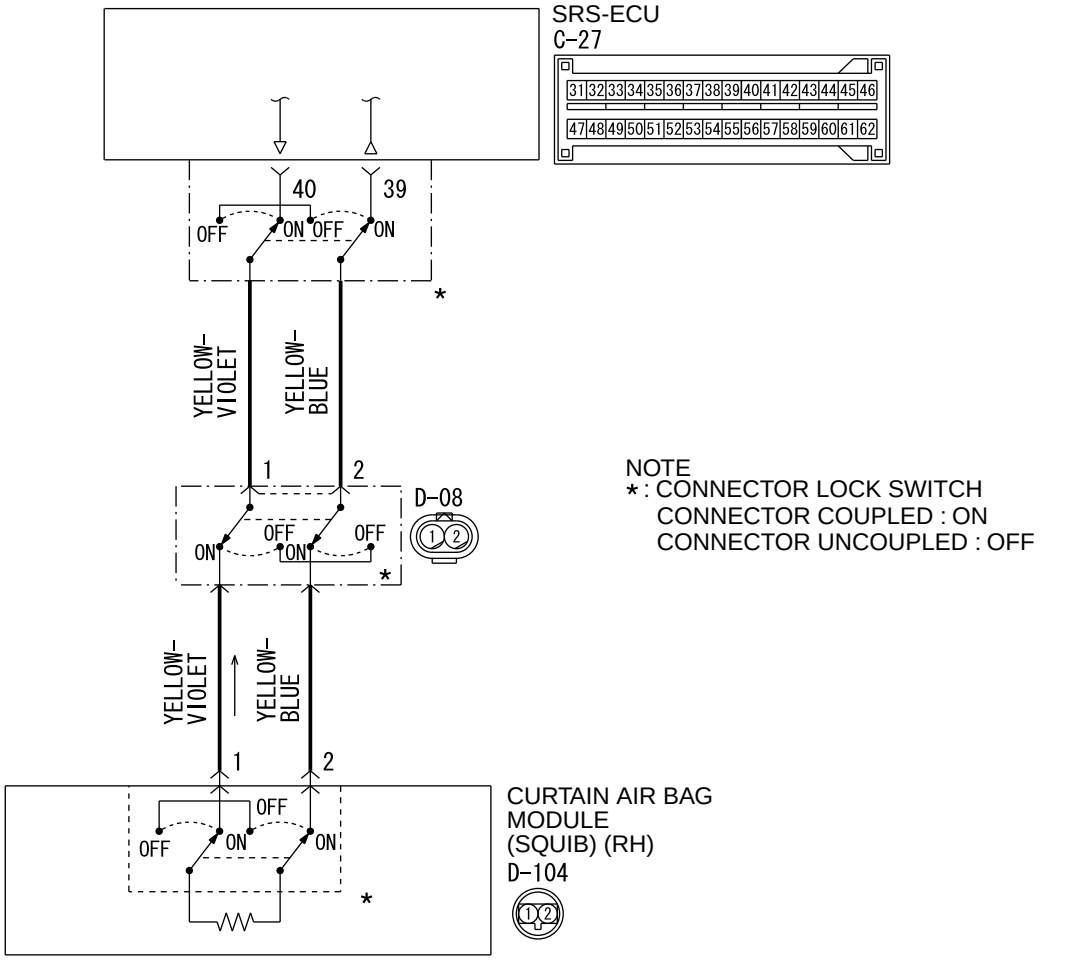
YES: Replace SRS-ECU. (Refer to P.52B-326.)

NO: Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunction P.00-15).

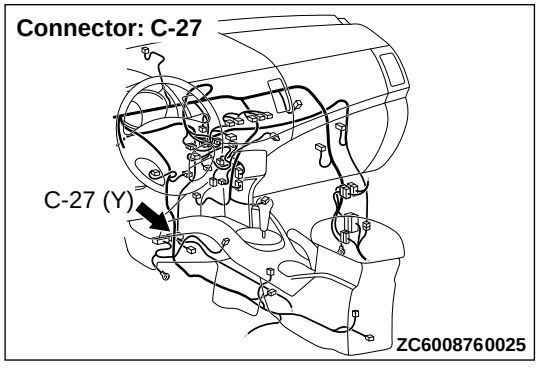
DTC B1B20: Curtain Air Bag Module (RH) (Squib) System (Shorted to Squib Circuit Ground)

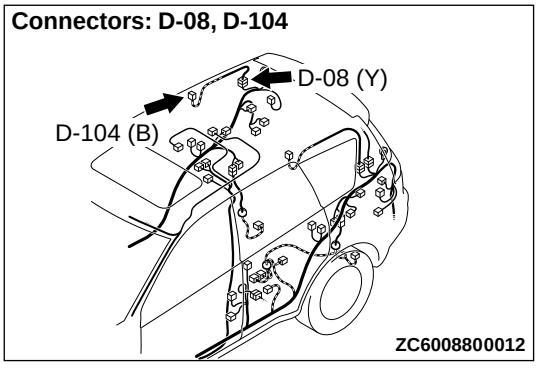
M15204000960USA0000010000

Curtain Air Bag Module (Squib) (RH) Circuit



D7G52M012A00





⚠ CAUTION

If DTC B1B20 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and at the quarter panel inner. If the impact is over a predetermined level, the SRS-ECU sends 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 curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

TROUBLESHOOTING HITS

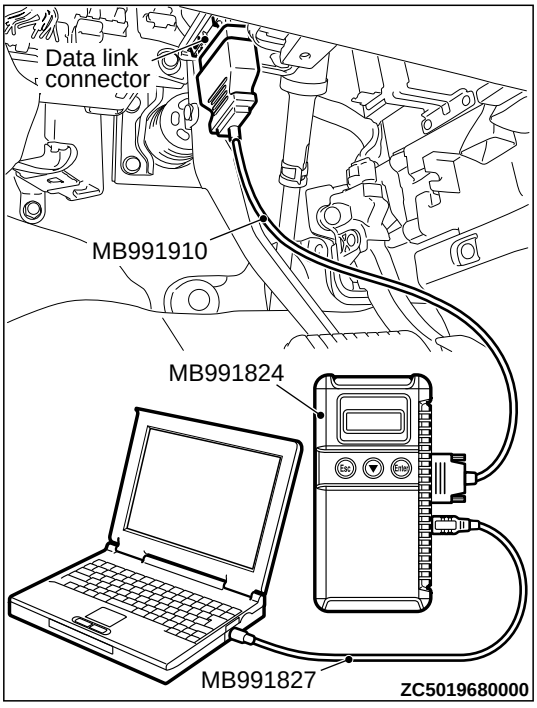
- Damaged wiring harnesses or connectors
- Short to the ground in the curtain air bag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



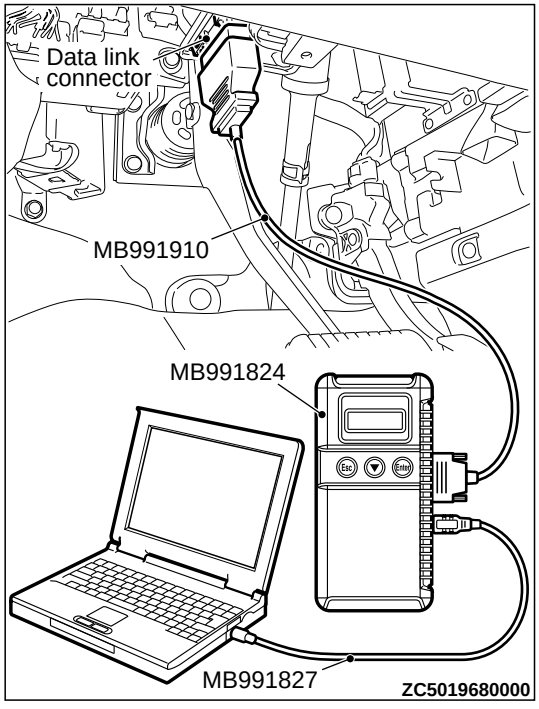
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

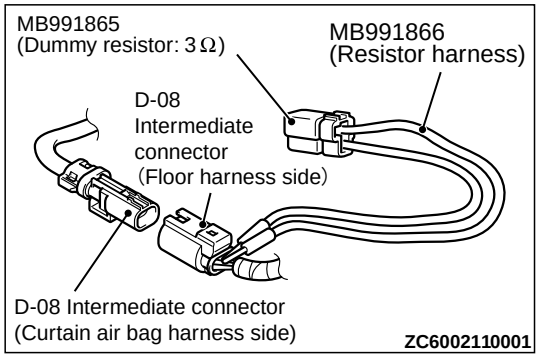
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).



STEP 3. Check by dummy resistor connection. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-08 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

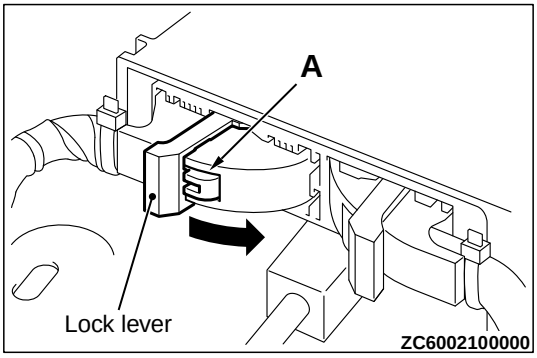
Q:Is DTC B1B20 set?

YES: Go to Step 4.

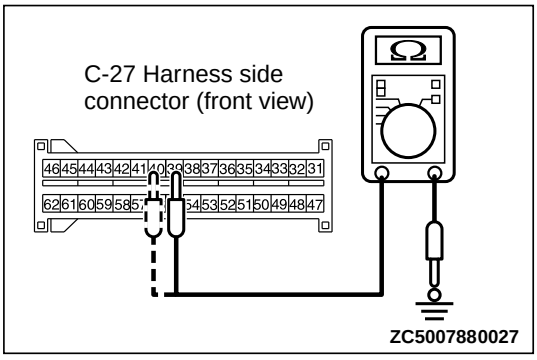
NO: Go to Step 5.

STEP 4. Resistance measurement at the C-27 SRS-ECU connector

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.
(3) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).



(4) Check for continuity between C-27 wiring harness side connector terminal No. 39, 40 and body ground.
It should be open circuit.

Q:Is the check result normal?
YES: Repair the wiring harness.
NO: Go to Step 5.

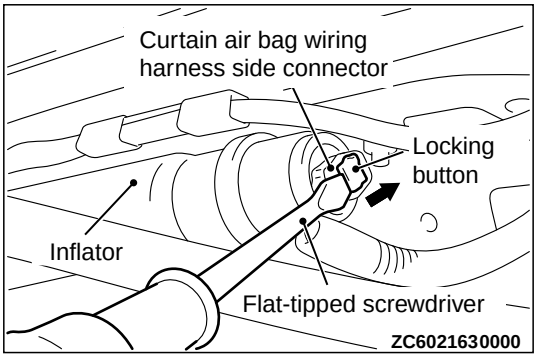
STEP 5. Resistance measurement at the D-08 intermediate connector.

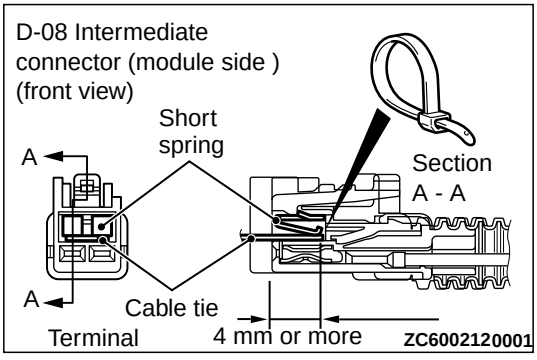
(1) Disconnect the negative battery terminal.

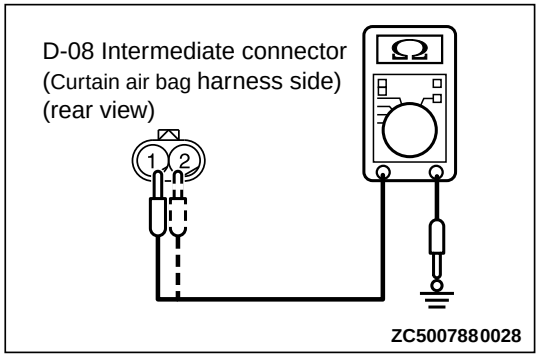
DANGER

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-104 to short the squib circuit.

(2) Disconnect curtain air bag module (RH) D-104. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).
(4) Because the short spring is installed to the D-08 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.







⚠ CAUTION

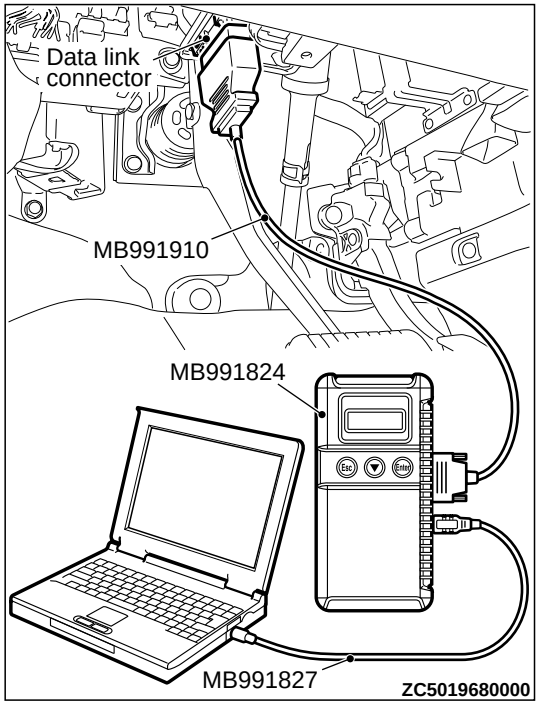
Do not insert a probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(5) Check for continuity between the D-08 intermediate connector (module side) terminal No. 1, 2 and the body ground.
It should be open circuit.

Q:Does continuity exist?

YES: Repair the wiring harness.

NO: Replace the curtain air bag module (squib) (Refer to P.52B-341).



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B20 set?

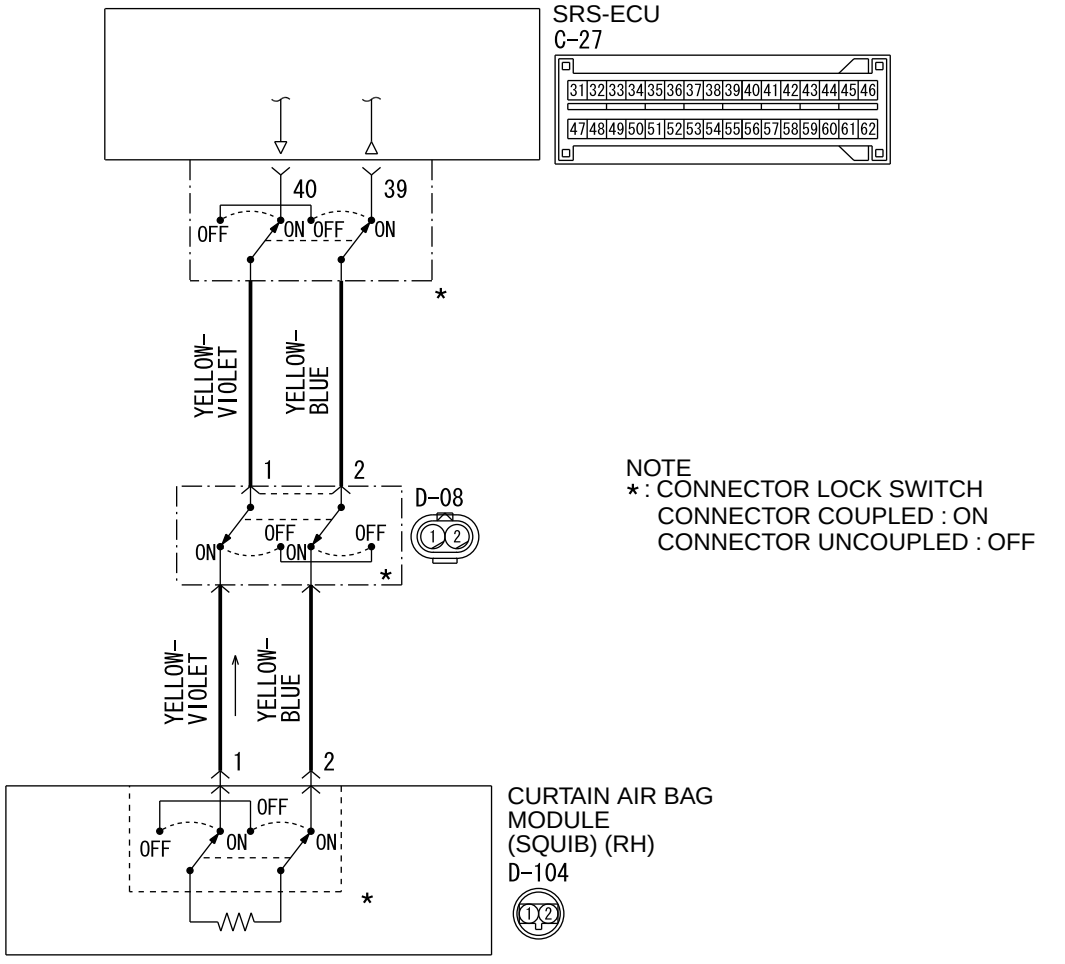
YES: Replace SRS-ECU. (Refer to P.52B-326.)

NO: Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunction P.00-15).

DTC B1B21: Curtain Air Bag Module (RH) (Squib) System (Shorted to Squib Circuit Power Supply)

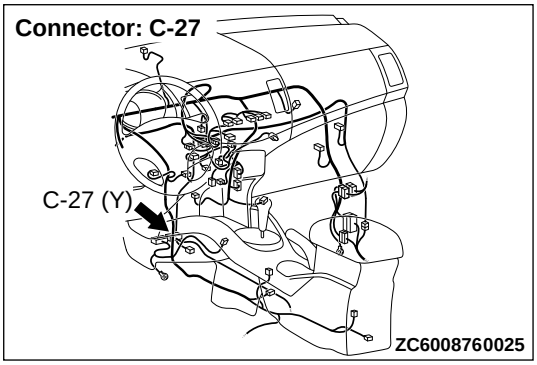
M15204000961USA0000010000

Curtain Air Bag Module (Squib) (RH) Circuit

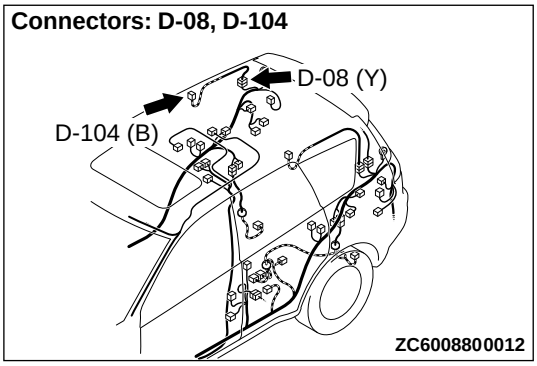


D7G52M012A00

Connector: C-27



Connectors: D-08, D-104



⚠ CAUTION

If DTC B1B21 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and at the quarter panel inner. If the impact is over a predetermined level, the SRS-ECU sends 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 curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

TROUBLESHOOTING HITS

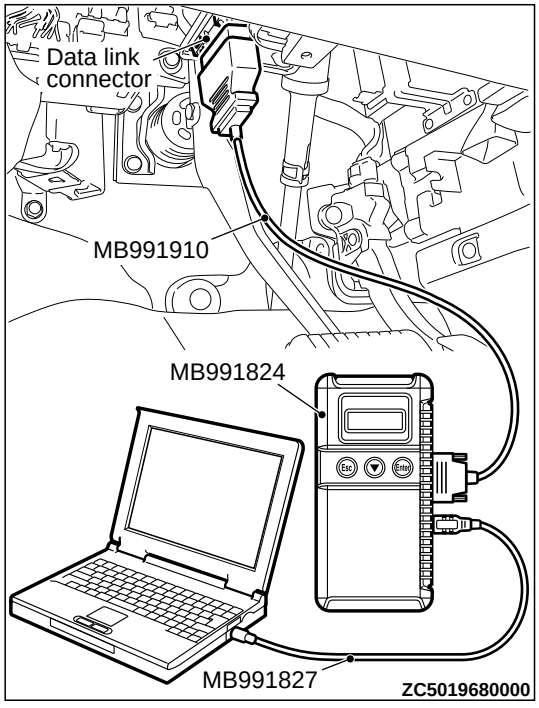
- Damaged wiring harnesses or connectors
- Short to the power supply in the curtain air bag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



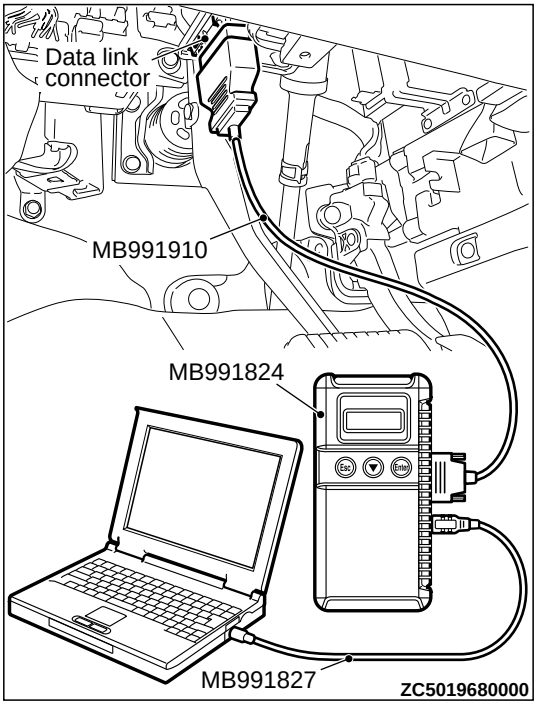
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

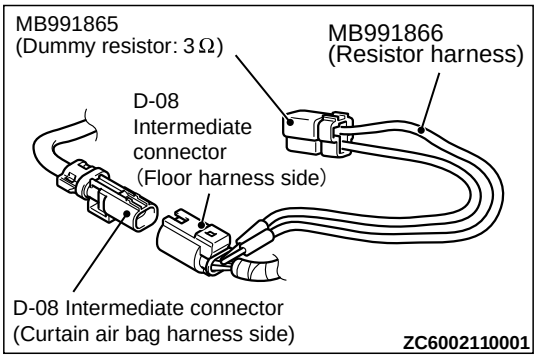
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).



STEP 3. Check by dummy resistor connection. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-08 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

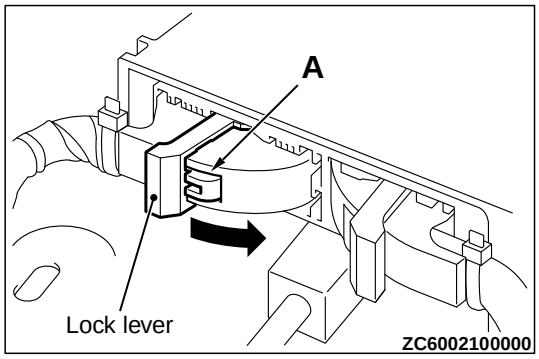
Q:Is DTC B1B21 set?

YES: Go to Step 4.

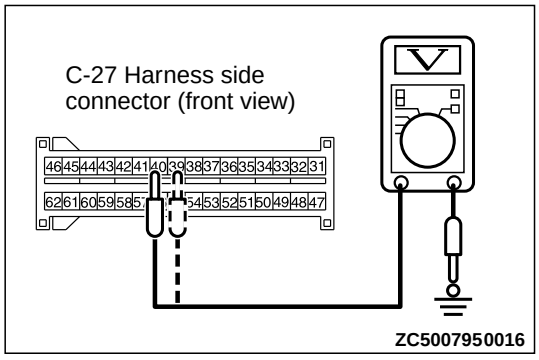
NO: Go to Step 5.

STEP 4. Voltage measurement at the C-27 SRS-ECU connector.

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.
(3) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).
(4) Connect the negative battery terminal.
(5) Ignition switch: ON



(6) Measure the voltage between the C-27 wiring harness side connector terminal No. 39, 40 and body ground.
Voltage should measure 0 volt

Q:Is the measured 0 volt?
YES: Go to Step 6.
NO: Repair the wiring harness.

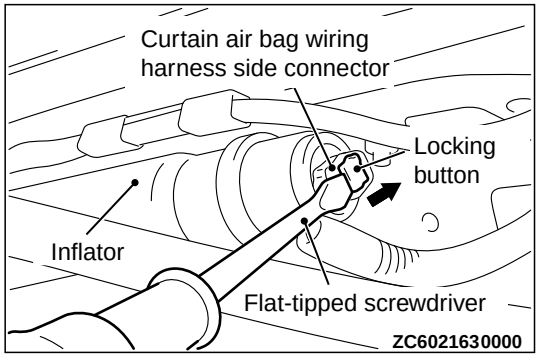
STEP 5. Voltage measurement at the D-08 intermediate connector.

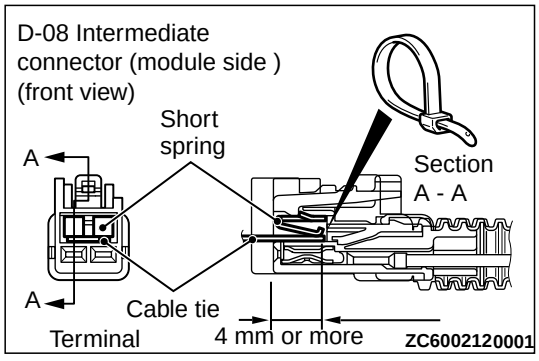
(1) Disconnect the negative battery terminal.

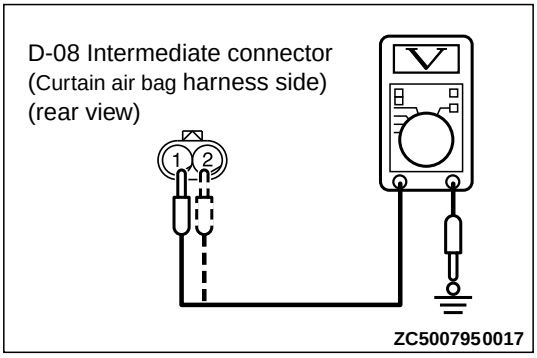
DANGER

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-104 to short the squib circuit.

(2) Disconnect curtain air bag module (RH) D-104. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).
(4) Because the short spring is installed to the D-08 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.
(5) Connect the negative battery terminal.
(6) Ignition switch: ON







⚠ CAUTION

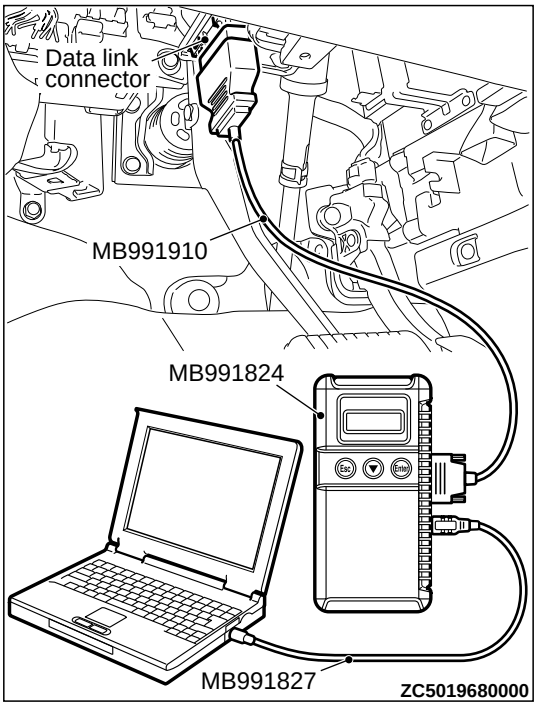
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(7) Check for continuity between the D-08 intermediate connector (curtain air bag harness side) terminal No. 1, 2 and the body ground.
Voltage should measure 0 volt.

Q:Is the measured voltage 0 volt?

YES: Replace the curtain air bag module (squib) (Refer to P.52B-341).

NO: Repair the wiring harness.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B21 set?

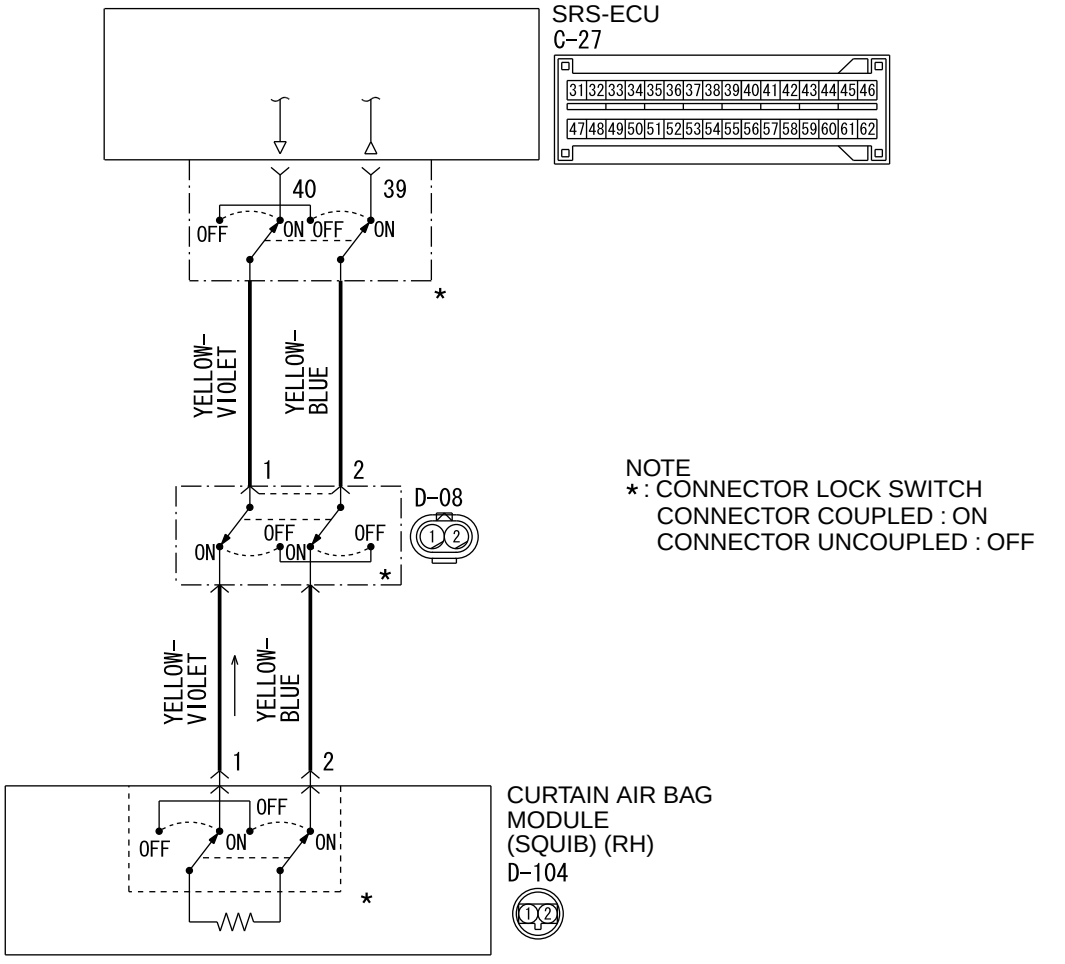
YES: Replace SRS-ECU. (Refer to P.52B-326.)

NO: Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunction P.00-15).

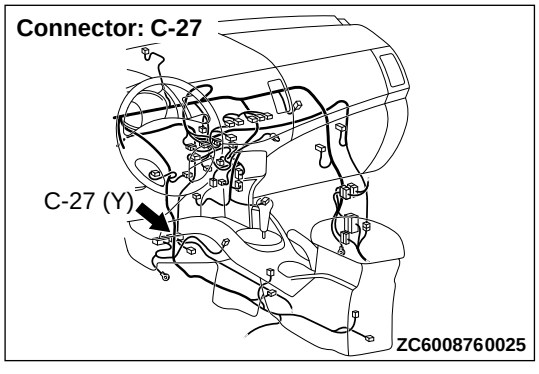
DTC B1B22: Curtain Air Bag Module (RH) (Squib) System (Squib Circuit Open)

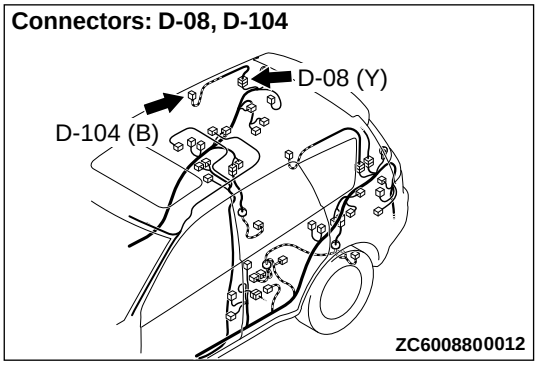
M15204000959USA0000010000

Curtain Air Bag Module (Squib) (RH) Circuit



D7G52M012A00





⚠ CAUTION

If DTC B1B22 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and at the quarter panel inner. If the impact is over a predetermined level, the SRS-ECU sends 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 curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

TROUBLESHOOTING HITS

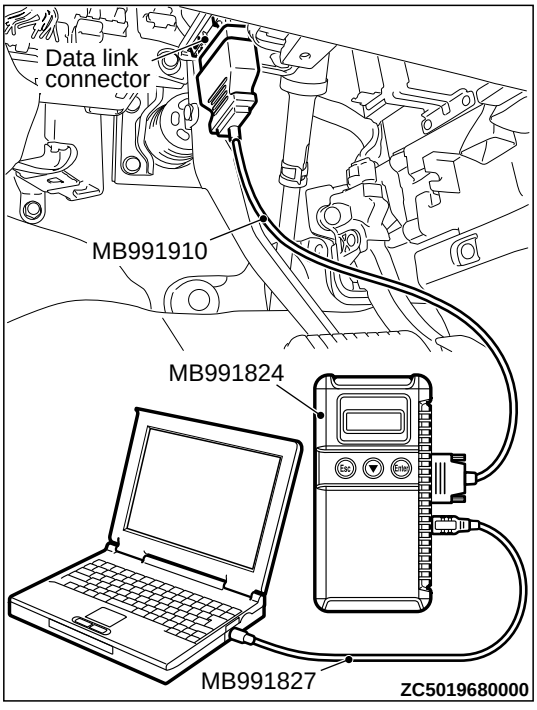
- Open circuit in the curtain air bag module (RH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



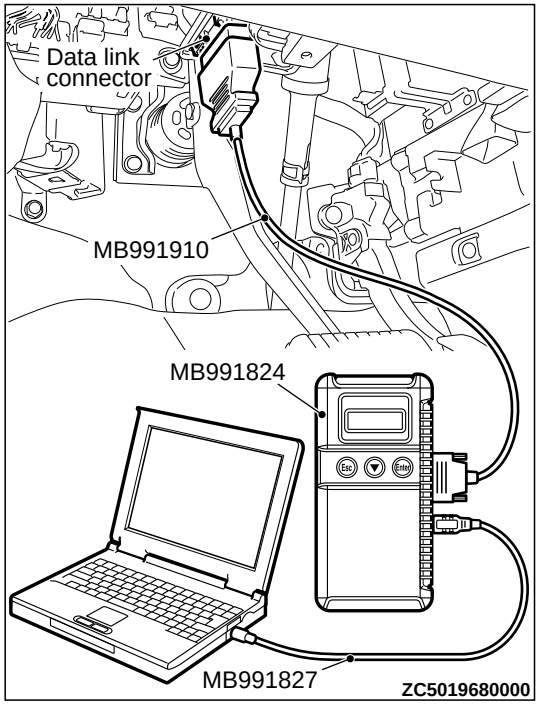
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

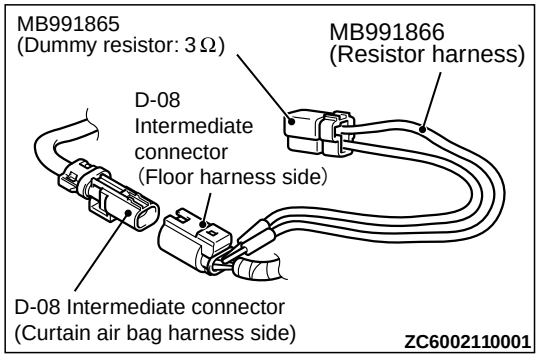
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).



STEP 3. Check by dummy resistor connection. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-08 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

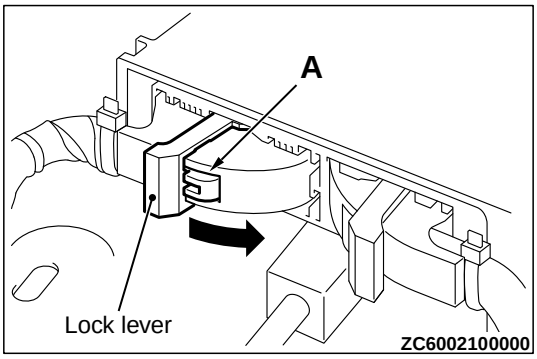
Q:Is DTC B1B22 set?

YES: Go to Step 4.

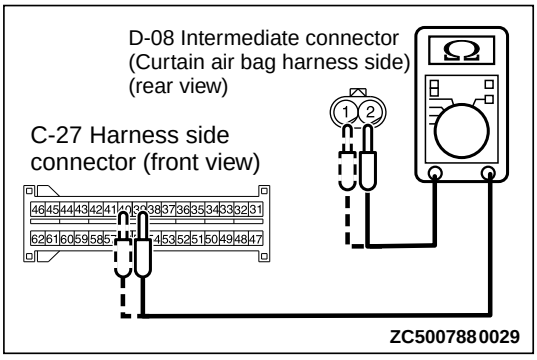
NO: Go to Step 5.

STEP 4. Resistance measurement at the C-27 SRS-ECU connector and the D-08 intermediate connector.

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.
(3) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).



⚠ CAUTION

Do not insert a probe into the terminal from D-08 intermediate connector front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-27 (terminal No.39) and the intermediate connector D-08 (terminal No.2)
- SRS-ECU connector C-27 (terminal No.40) and the intermediate connector D-08 (terminal No.1)

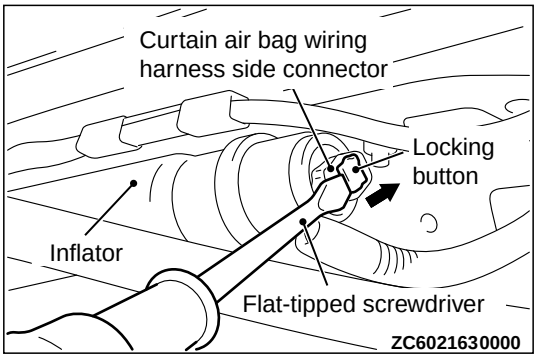
Q:Does continuity exist?

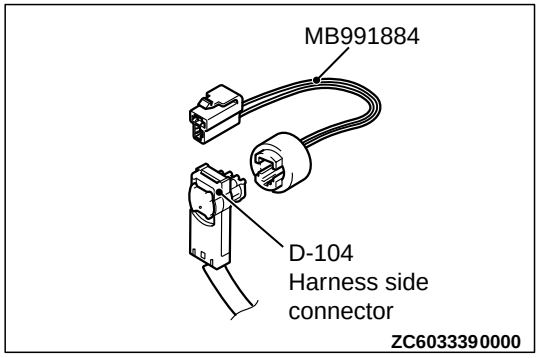
YES: Go to Step 6.

NO: Repair the wiring harness between the C-27 harness side connector terminal No. 39, 40 and the D-08 intermediate connector (floor harness side) terminal No. 2, 1.

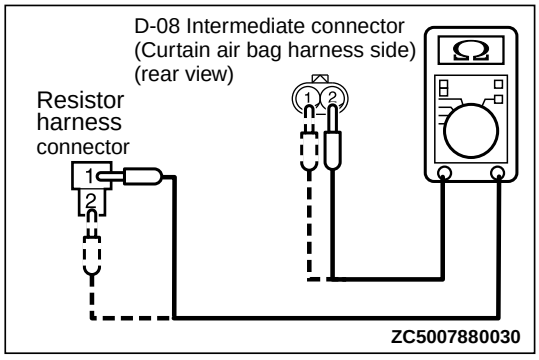
STEP 5. Resistance measurement at the D-08 intermediate connector terminal No. 1, 2 and the D-104 curtain air bag module harness side connector terminal No. 1, 2.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Disconnect curtain air bag module (RH) D-104. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





(4) Connect special tool MB991884 to the removed D-104 harness side connector.



⚠ CAUTION

Do not insert a probe into the terminal from D-08 intermediate connector front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals.
It should be less than 2 ohms.
- Intermediate connector D-08 (terminal No.1) and resistor harness connector terminal No.2)
- Intermediate connector D-08 (terminal No.2) and resistor harness connector terminal No.1)

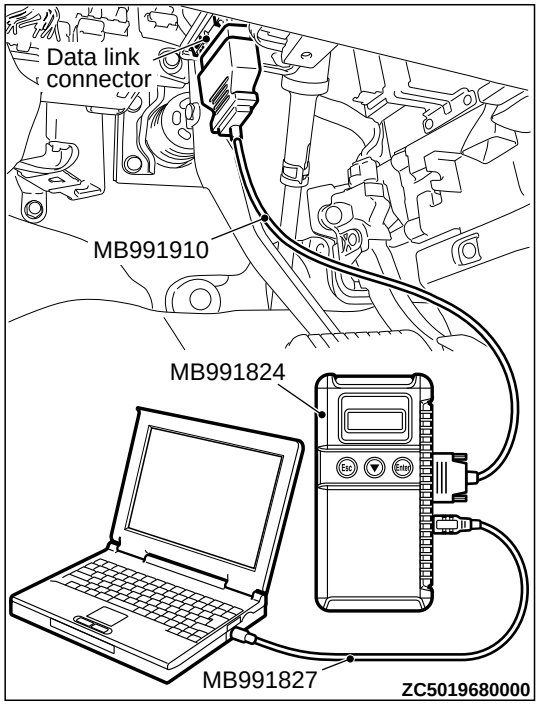
Q:Is the check result normal?

YES: Replace the curtain air bag module (squib) (Refer to P.52B-341).

NO: Repair the wiring harness.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.



Q:Is DTC B1B22 set?

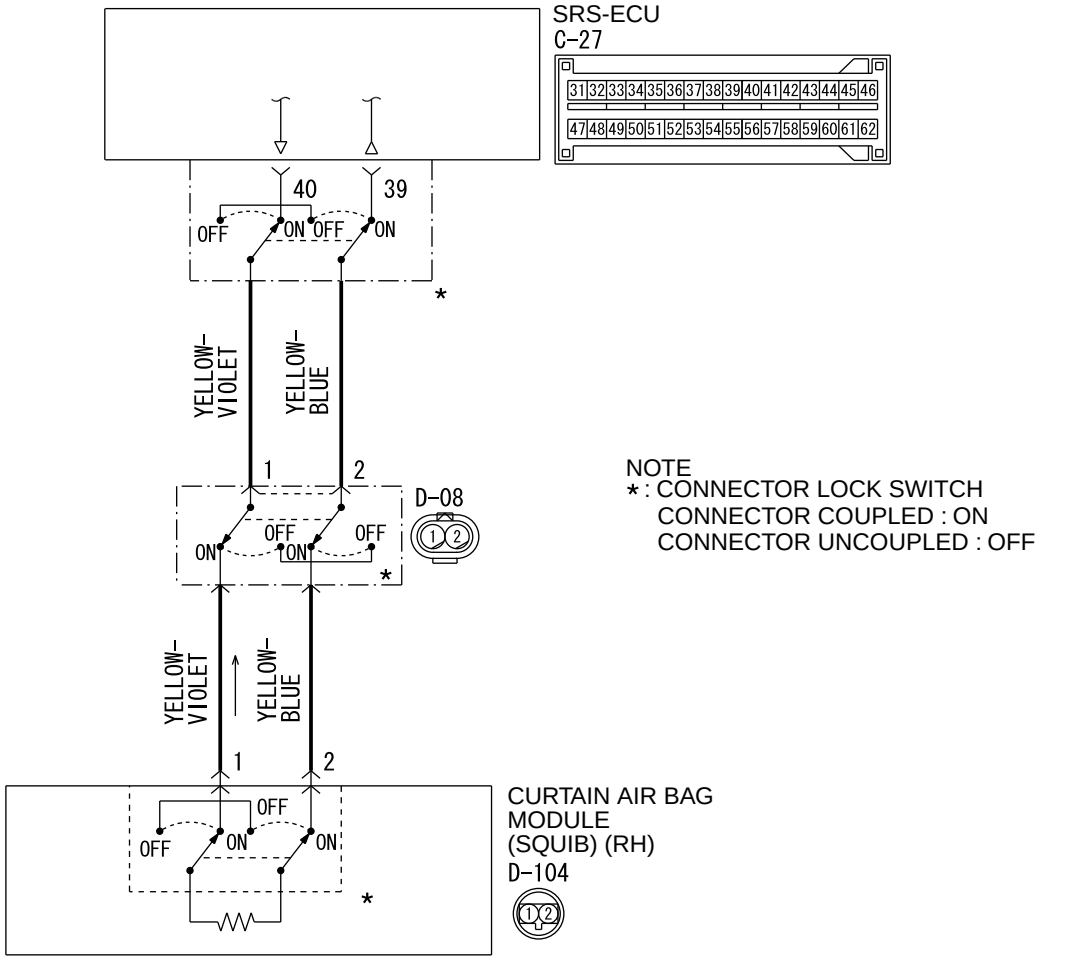
YES: Replace SRS-ECU. (Refer to P.52B-326.)

NO: Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunction P.00-15).

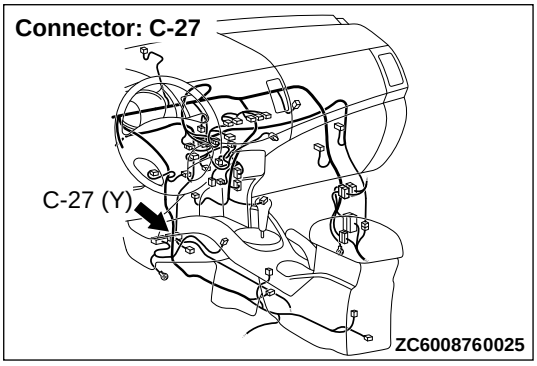
DTC B1B23: Curtain Air Bag Module (RH) (Squib) System (Short Circuit between Squib Circuit Terminals)

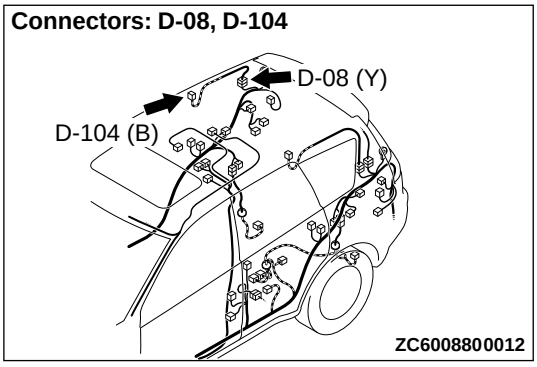
M15204000958USA0000010000

Curtain Air Bag Module (Squib) (RH) Circuit



D7G52M012A00





⚠ CAUTION

If DTC B1B23 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar and at the quarter panel inner. If the impact is over a predetermined level, the SRS-ECU sends 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 curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

TROUBLESHOOTING HITS

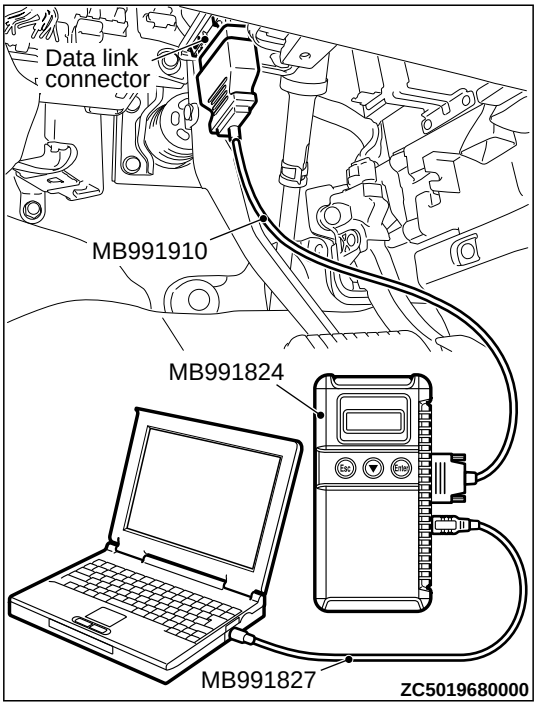
- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (RH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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 ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-31). Therefore, if connector C-27, D-08 or D-104 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

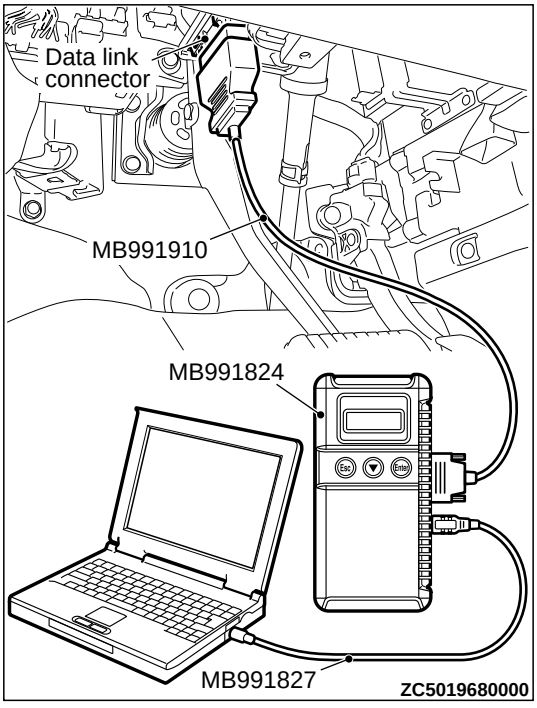
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

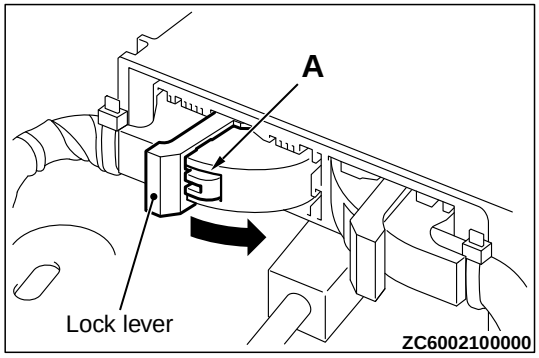
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

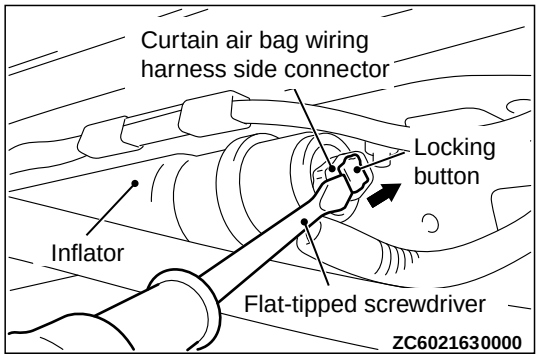
YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).

STEP 3. Check SRS-ECU connector C-27, curtain air bag module (RH) connector D-104 and intermediate connector D-08. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.

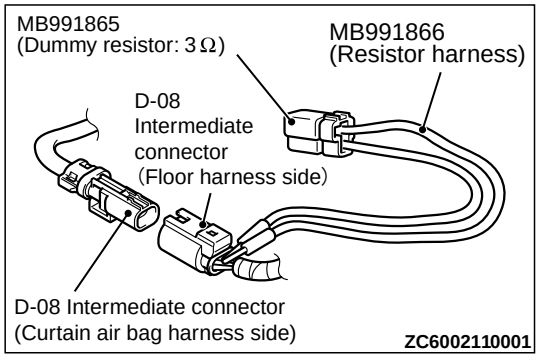


(3) After disconnecting the D-08 and D-104 harness side connectors, connect the connectors again. For the D-104 connector disconnection, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it to ward you in two stages, and then disconnect the connector.

Q:Is DTC B1B23 set?
YES: Go to Step 4.
NO: Connector repair

STEP 4. Check by dummy resistor connection. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.



⚠ CAUTION

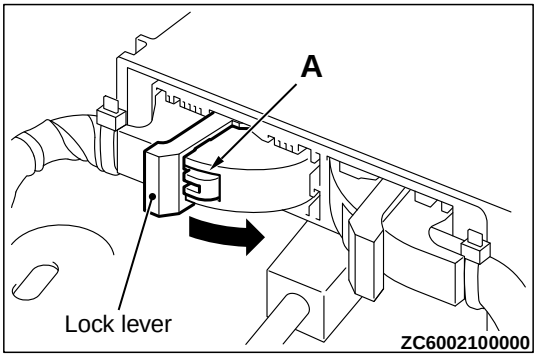
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-08 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.

Q:Is DTC B1B23 set?
YES: Go to Step 5.
NO: Go to Step 6.

STEP 5. Resistance measurement at the C-27 SRS-ECU connector.

(1) Disconnect the negative battery terminal.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.

DANGER

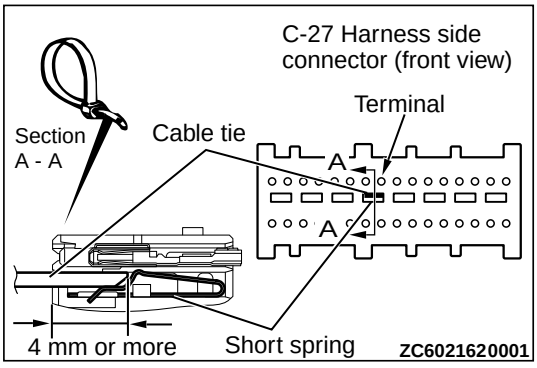
To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-08 to short the squib circuit.

(3) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).

CAUTION

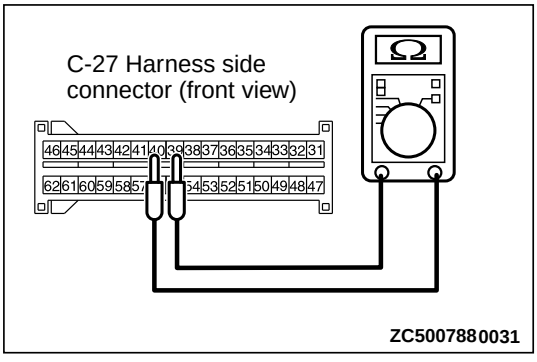
The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 39, 40 and the short spring to release the short spring.



(5) Check for continuity between the C-27 wiring harness side connector terminal No. 39 and No. 40.
It should be open circuit.

Q:Does continuity exist?
YES: Repair the wiring harness.
NO: Go to Step 7.



STEP 6. Short circuit check between the D-104 curtain air bag module harness side connector and the D-08 intermediate harness.

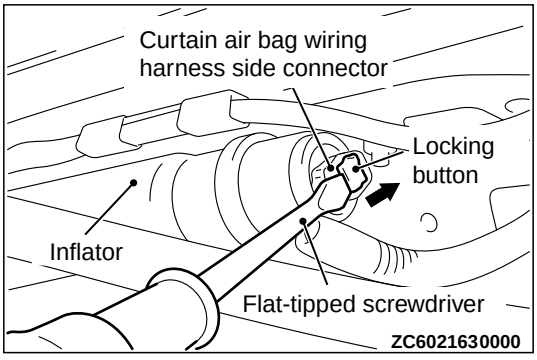
(1) Disconnect the negative battery terminal.

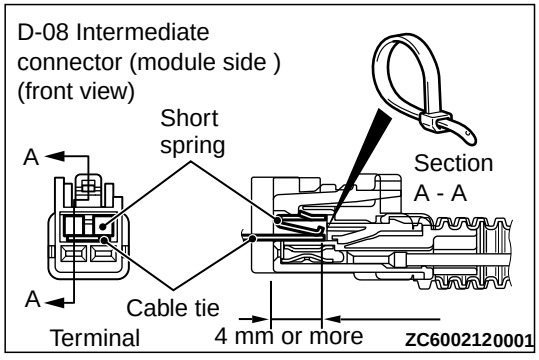
DANGER

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector D-104 to short the squib circuit.

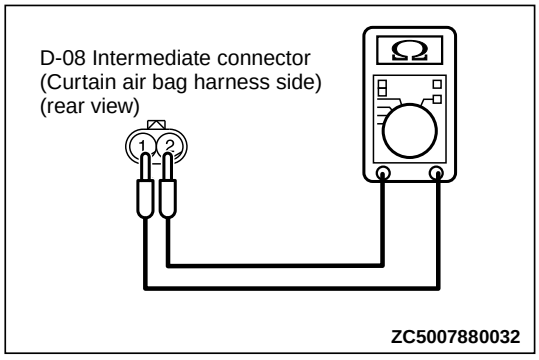
(2) Disconnect curtain air bag module (RH) D-104. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

(3) Disconnect the D-08 intermediate connector (connection between curtain air bag harness and floor harness).





(4) Because the short spring is installed to the D-08 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



⚠ CAUTION

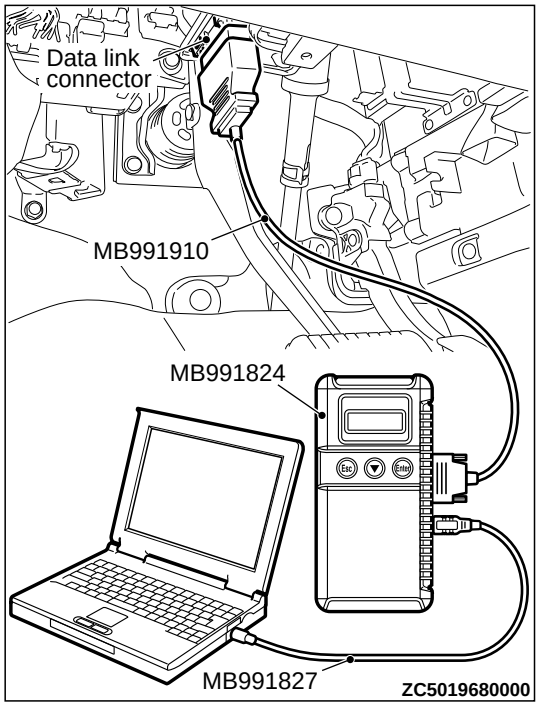
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the D-08 intermediate connector (curtain air bag harness side) terminal No. 1, 2 and the body ground.
It should be open circuit.

Q:Does continuity exist?

YES: Repair the wiring harness.

NO: Replace the curtain air bag module (RH) (Refer to P. 52B-341). Then go to Step 7.



STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B23 set?

YES: Replace SRS-ECU. (Refer to P.52B-326.)

NO: Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunction P.00-15).

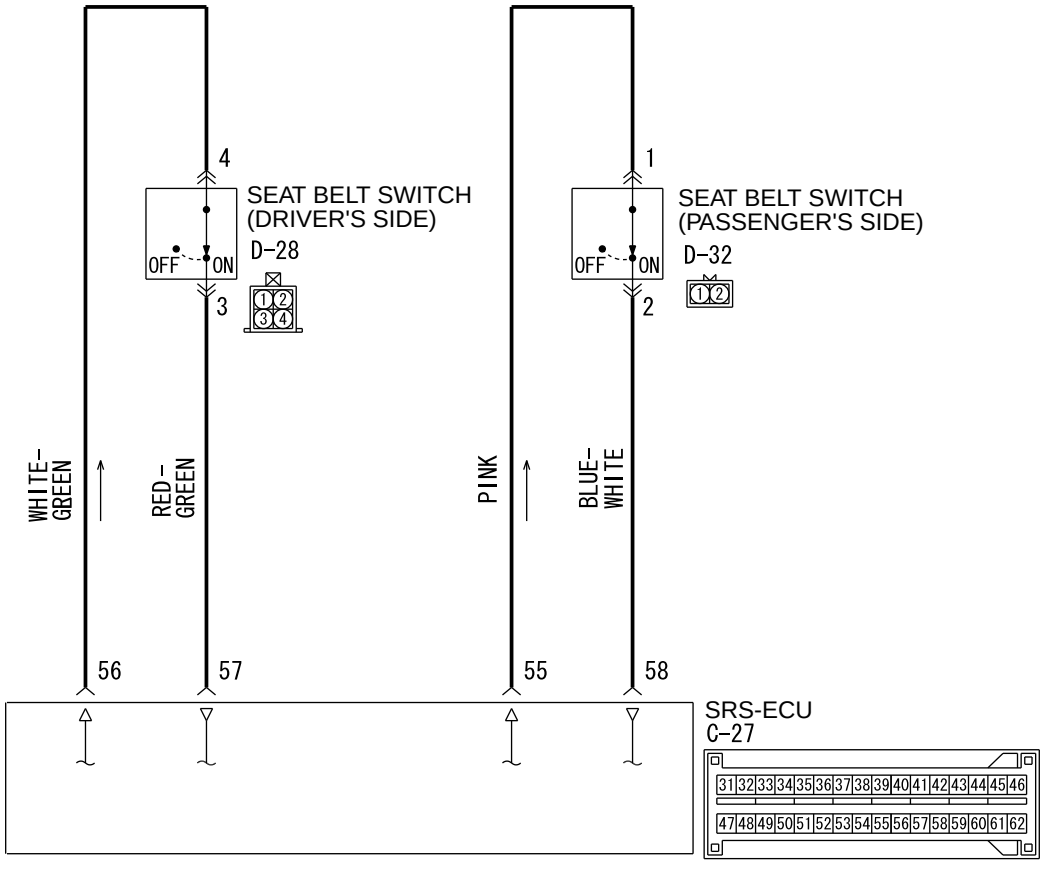
DTC B1B50: Seat Belt Switch (LH) Circuit (Ground Side) Shorted

DTC B1B51: Seat Belt Switch (LH) Circuit (Power Supply Side) Shorted

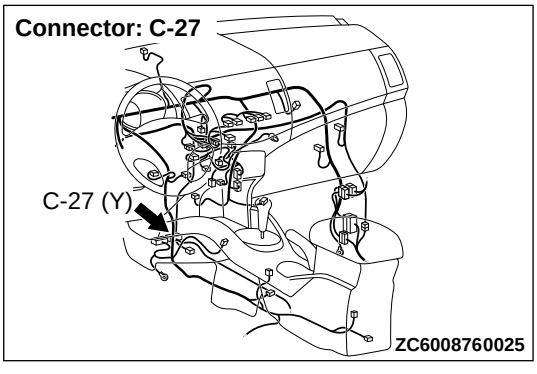
DTC B1B52: Seat Belt Switch (LH) Circuit Open

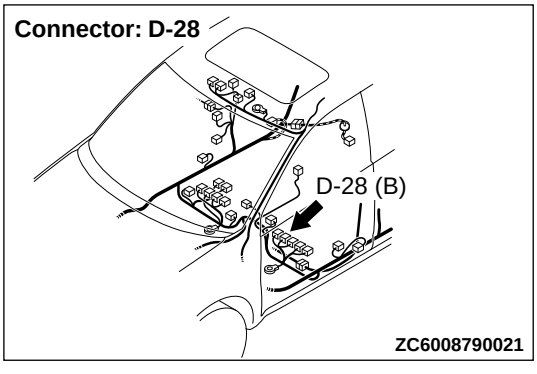
M15204000994USA0000010000

Seat belt Switch Circuit



D7G52M024A00





⚠ CAUTION

If DTC B1B50, B1B51 or B1B52 are set in the SRS-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The SRS-ECU determines whether the seat belt is fastened or not according to the connection location of the seat belt switch in the seat buckle.

DTC SET CONDITIONS

DTC is set when the resistance between input terminals of the seat belt switch in the SRS-ECU is without the standard value.

TROUBLESHOOTING HINTS

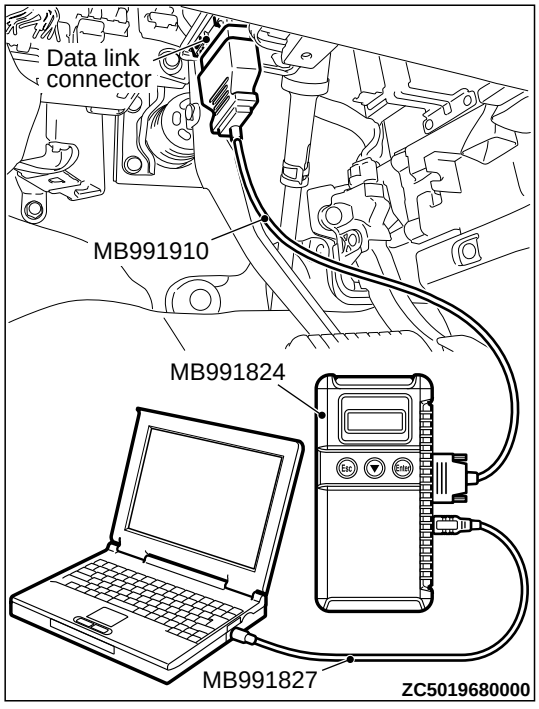
- Malfunction of the seat belt switch
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991222: Probe
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



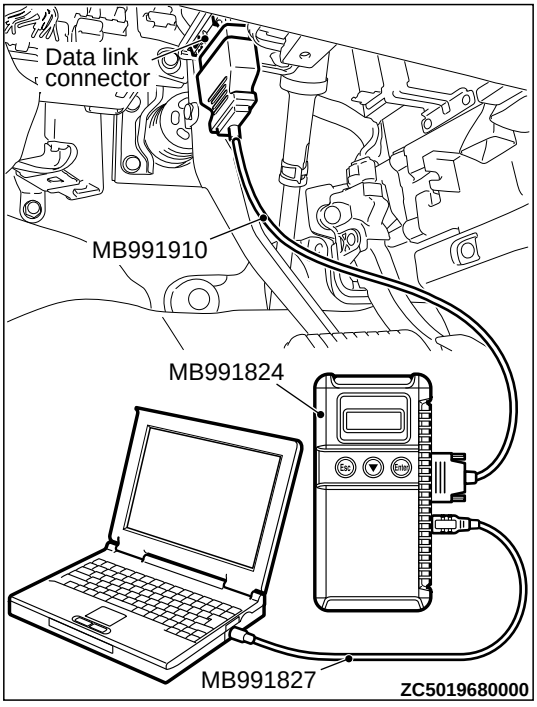
CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to the "ON" position.
(4) Diagnose the CAN bus line.
(5) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 3.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

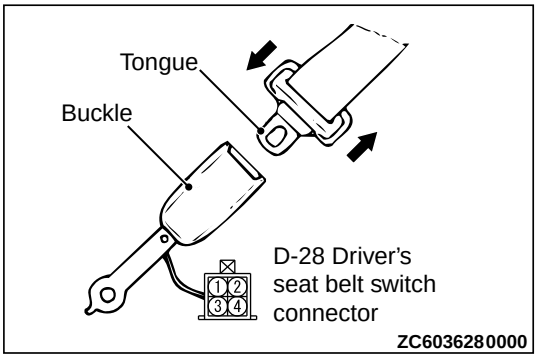
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

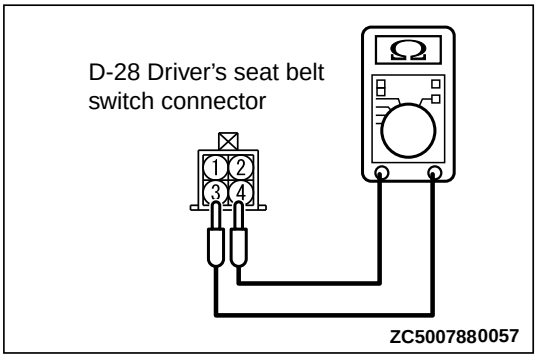
YES: Go to Step 3.

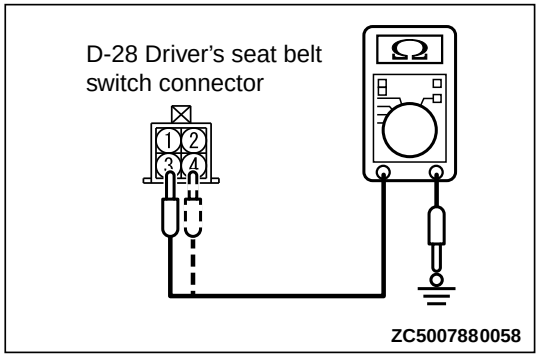
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the driver's seat belt switch.

Disconnect driver's seat belt switch connector D-28. Then check continuity between the switch terminals.



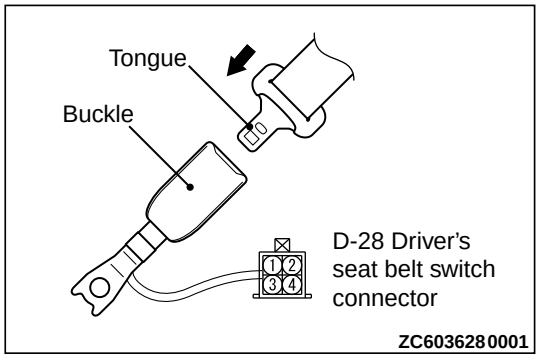


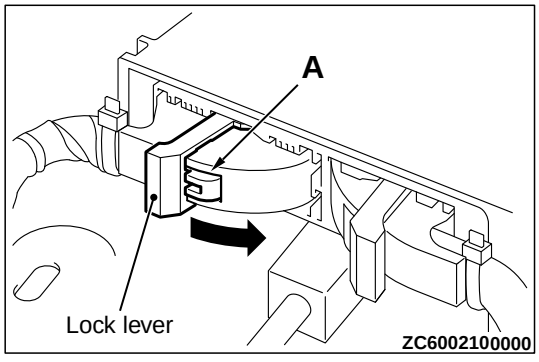
Item	Tester connection	Specified condition
Fastened seat belt	3 - Ground	No continuity
	4 - Ground	No continuity
	3 - 4	Continuity (Less than 2 Ω)
Unfastened seat belt	3 - Ground	No continuity
	4 - Ground	No continuity
	3 - 4	No continuity

Q:Is driver's seat belt switch in good condition?
YES: Go to Step 4.
NO: Replace inner seat belt. (Refer to GROUP 52A, Front Seat Belt P.52A-22.)

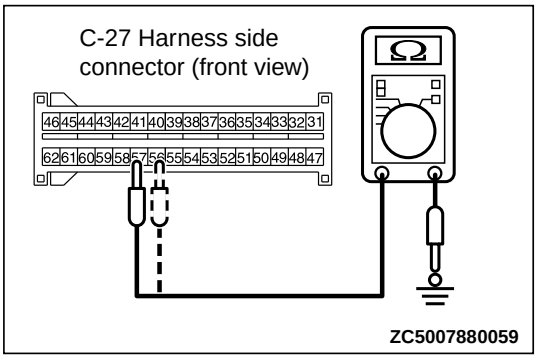
STEP 4. Check the driver's seat belt switch circuit D-28. Measure the resistance at SRS-ECU connector C-27.

(1) Disconnect driver's seat belt switch connector D-28.
(2) Install the driver's seat belt to the driver's seat belt switch.
(3) Disconnect SRS-ECU connector C-27 and measure at the harness side.

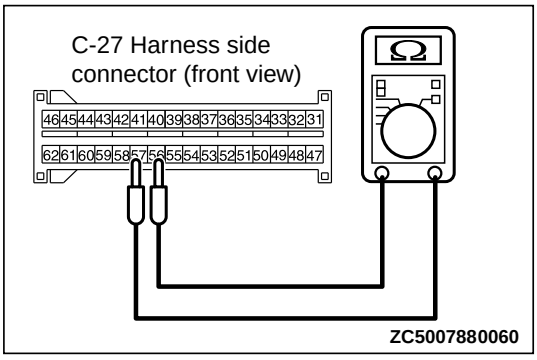




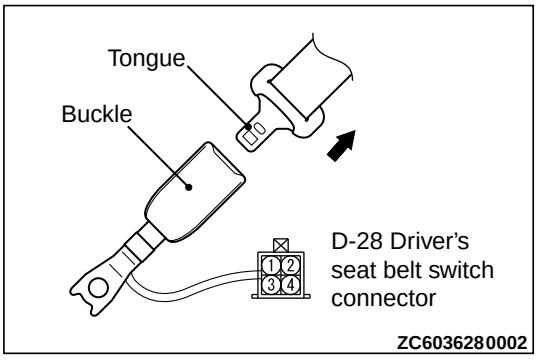
(4) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.



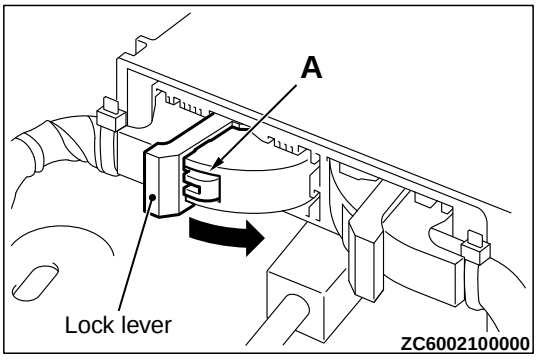
(5) Measure the resistance between terminal 56, 57 and body ground.
It should be an open circuit



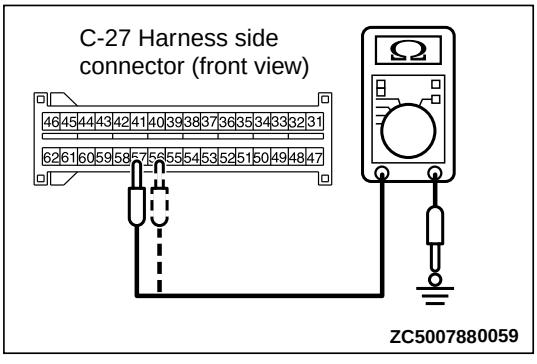
(6) Measure the resistance between terminal 56 and terminal 57.
Resistance should be less than 2 ohms



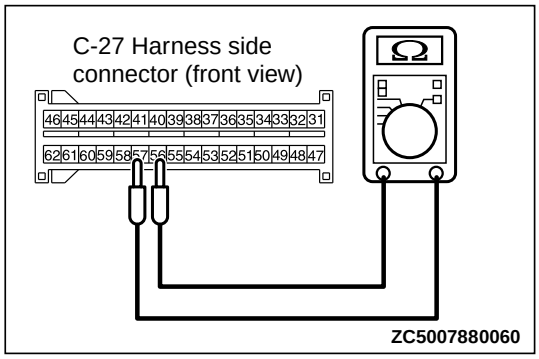
(7) Remove the driver's seat belt from the driver's seat belt switch.
(8) Disconnect SRS-ECU connector C-27 and measure at the harness side.



(9) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.



(10) Measure the resistance between terminal 56, 57 and body ground.
It should be an open circuit

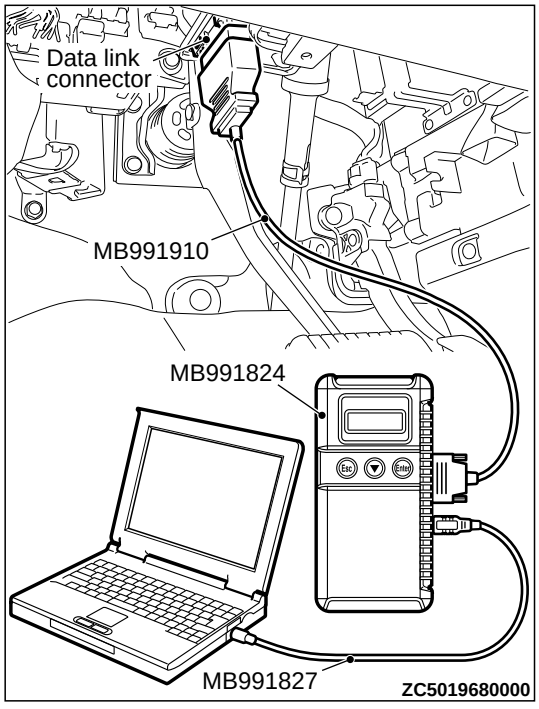


(11) Measure the resistance between terminal 3 and terminal 4. It should be an open circuit

Q:Does the resistance meet the value above?
YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B50, B1B51or B1B52 are set, replace the SRS-ECU. (Refer to P.52B-326.) Then go to Step 6.
NO: Go to Step 5.

STEP 5. Check the harness wires between SRS-ECU connector C-27 (terminal No.56 and 57) and driver's seat belt switch connector D-28 (terminal No.3 and 4).

Q:Are harness wires between SRS-ECU connector C-27 (terminal No.56 and 57) and driver's seat belt switch connector D-28 (terminal No.3 and 4) in good condition?
YES: Go to Step 6.
NO: Replace the harness wires between SRS-ECU connector C-27 and driver's seat belt switch connector D-28. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

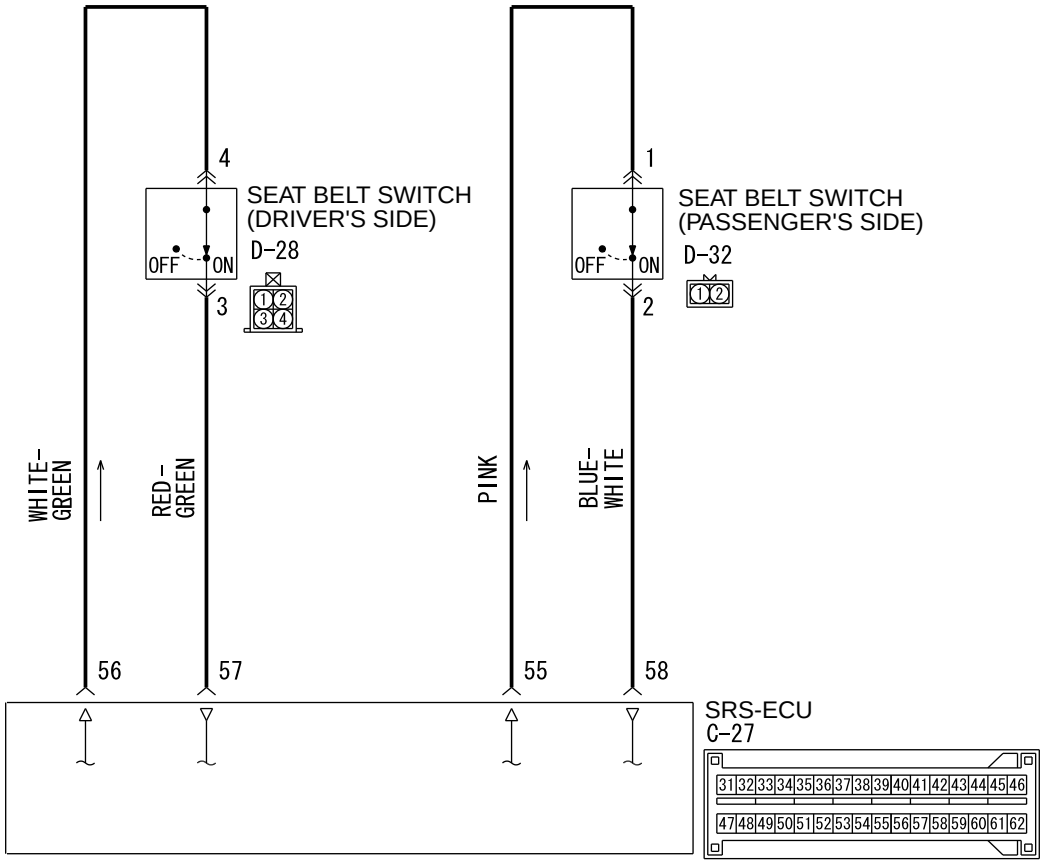
Q:Is DTC B1B50, B1B51 or B1B52 set?
YES: Return to Step 1.
NO: The procedure is complete.

DTC B1B54: Seat Belt Switch (RH) Circuit (Ground Side) Shorted
DTC B1B55: Seat Belt Switch (RH) Circuit (Power Supply Side) Shorted

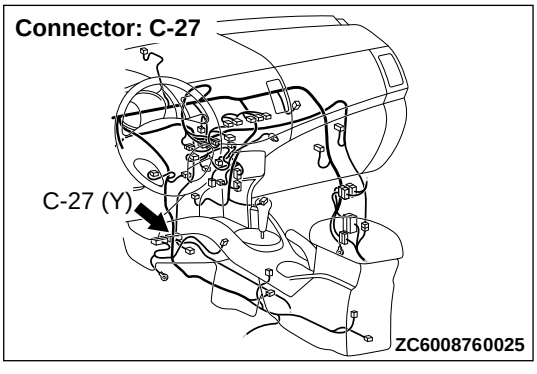
DTC B1B56: Seat Belt Switch (RH) Circuit Open

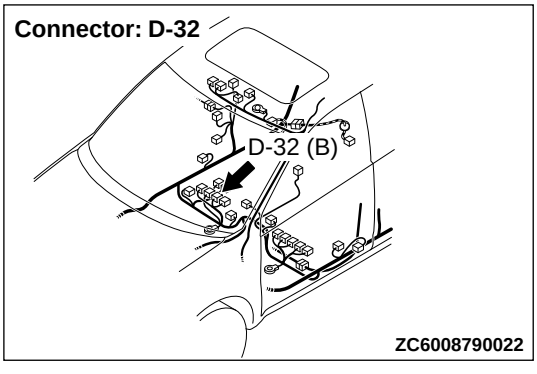
M15204000997USA0000010000

Seat belt Switch Circuit



D7G52M024A00





⚠ CAUTION

If DTC B1B54, B1B55 or B1B56 are set in the SRS-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The SRS-ECU determines whether the seat belt is fastened or not according to the connection location of the seat belt switch in the seat buckle.

DTC SET CONDITIONS

DTC is set when the resistance between input terminals of the seat belt switch in the SRS-ECU is without the standard value.

TROUBLESHOOTING HINTS

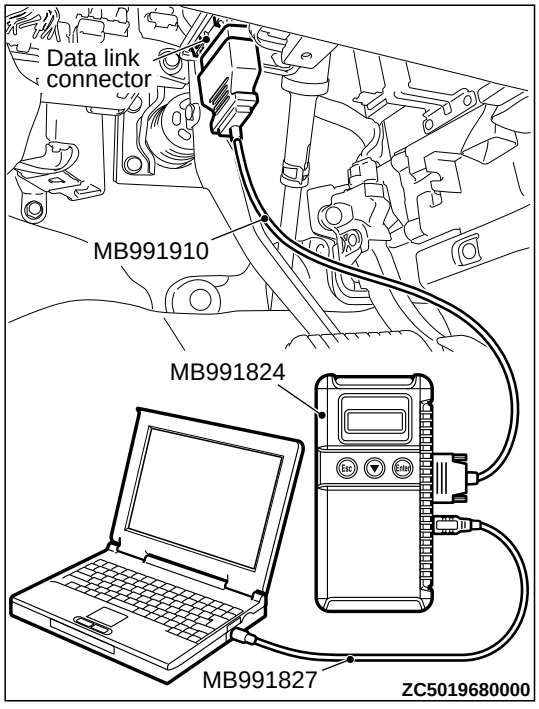
- Malfunction of the seat belt switch
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991222: Probe
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



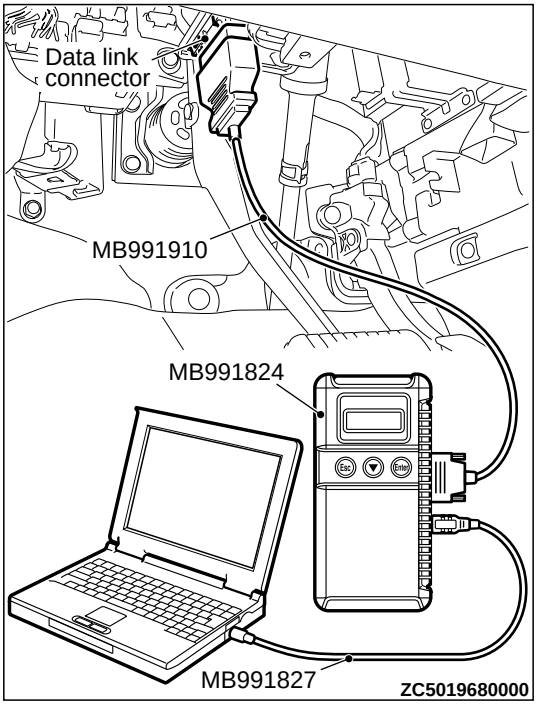
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to the "ON" position.
(4) Diagnose the CAN bus line.
(5) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 3.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

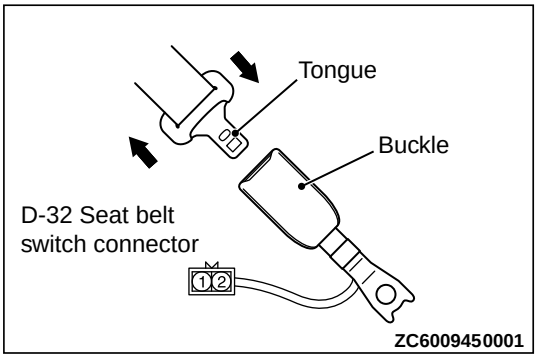
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

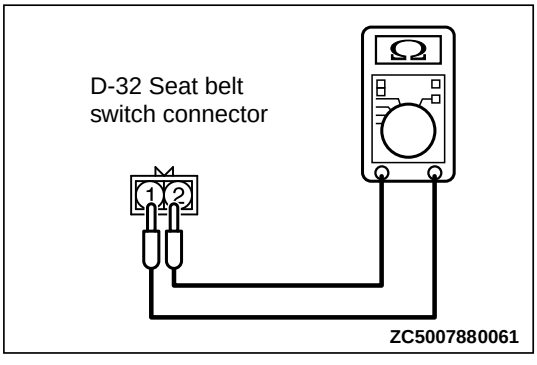
YES: Go to Step 3.

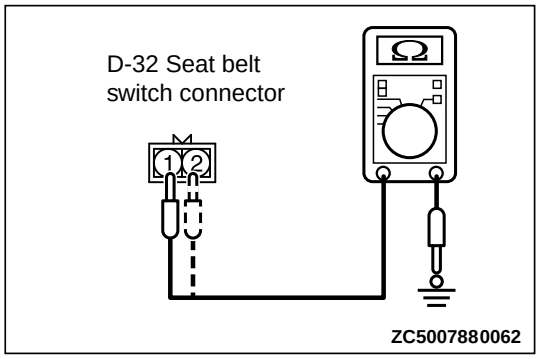
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the passenger's seat belt switch.

Disconnect passenger's seat belt switch connector D-32. Then check continuity between the switch terminals.



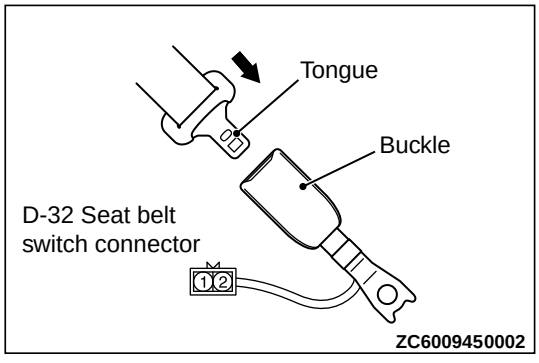


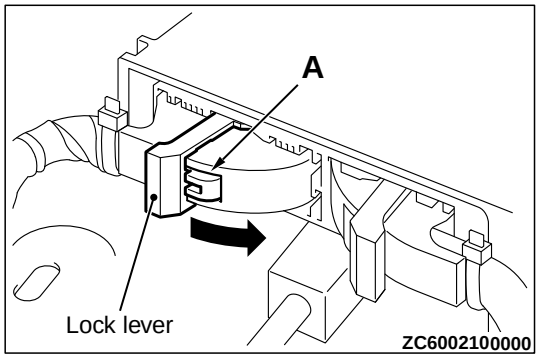
Item	Tester connection	Specified condition
Fastened seat belt	1 - Ground	No continuity
	2 - Ground	No continuity
	1 - 2	Continuity (Less than 2 Ω)
Unfastened seat belt	1 - Ground	No continuity
	2 - Ground	No continuity
	1 - 2	No continuity

Q:Is passenger's seat belt switch in good condition?
YES: Go to Step 4.
NO: Replace inner seat belt. (Refer to GROUP 52A, Front Seat Belt P.52A-22.)

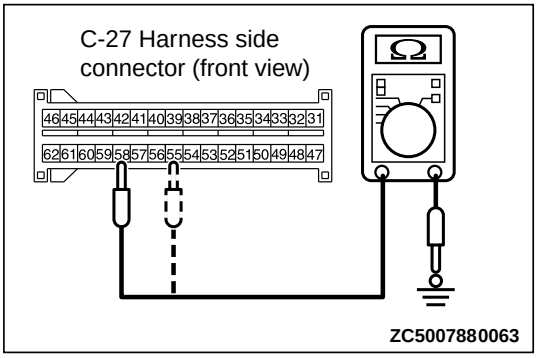
STEP 4. Check the passenger's seat belt switch circuit D-32. Measure the resistance at SRS-ECU connector C-27.

(1) Disconnect passenger's seat belt switch connector D-32.
(2) Install the passenger's seat belt to the passenger's seat belt switch.
(3) Disconnect SRS-ECU connector C-27 and measure at the harness side.

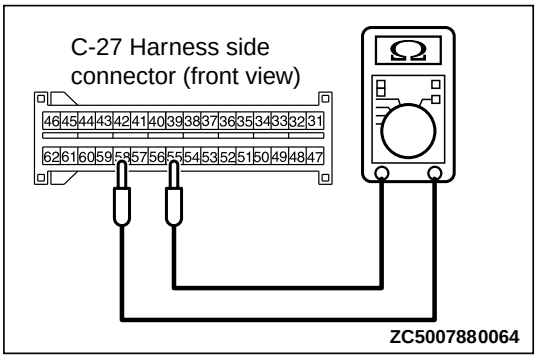




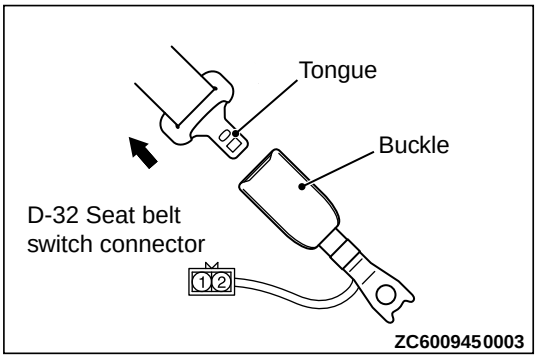
(4) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.



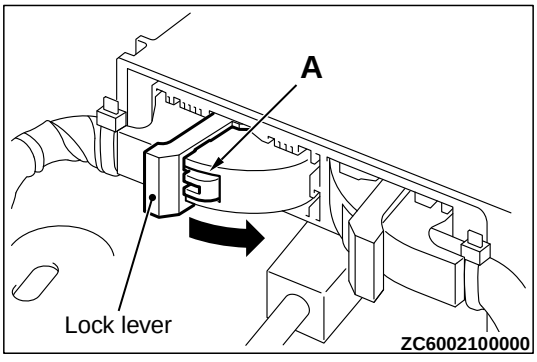
(5) Measure the resistance between terminal 55, 58 and body ground.
It should be an open circuit.



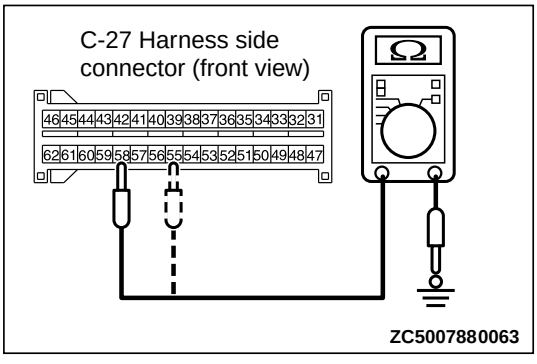
(6) Measure the resistance between terminal 55 and terminal 58.
Resistance should be less than 2 ohms.



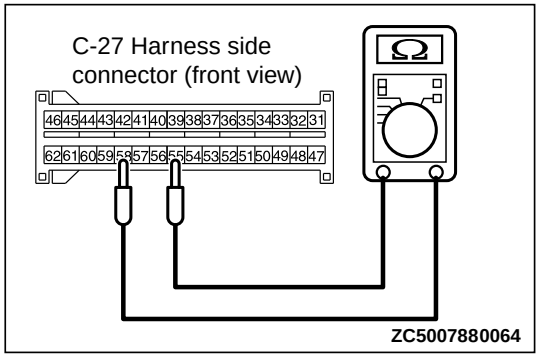
(7) Remove the passenger's seat belt from the passenger's seat belt switch.
(8) Disconnect SRS-ECU connector C-27 and measure at the harness side.



(9) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.



(10) Measure the resistance between terminal 55, 58 and body ground.
It should be an open circuit.

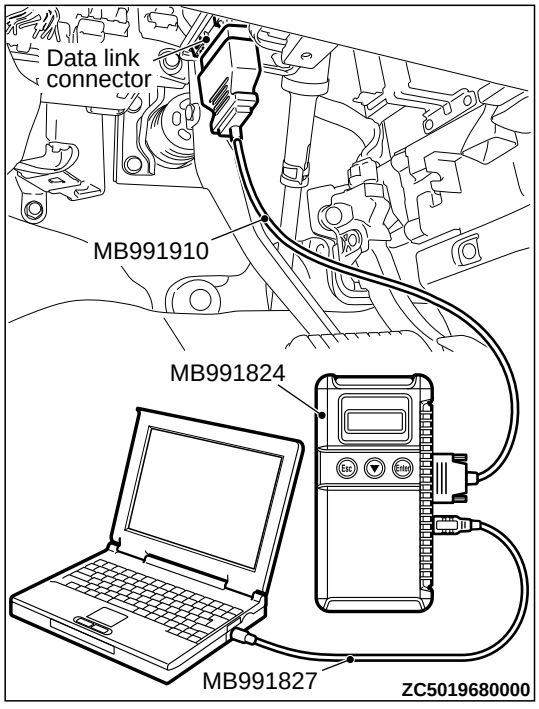


(11) Measure the resistance between terminal 55 and terminal 58.
It should be an open circuit.

Q:Does the resistance meet the value above?
YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B50, B1B51or B1B52 are set, replace the SRS-ECU. (Refer to P.52B-326.) Then go to Step 6.
NO: Go to Step 5.

STEP 5. Check the harness wires between SRS-ECU connector C-27 (terminal No.55 and 58) and passenger's seat belt switch connector D-32 (terminal No.1 and 2).

Q:Are harness wires between SRS-ECU connector C-27 (terminal No.55 and 58) and passenger's seat belt switch connector D-32 (terminal No.1 and 2) in good condition?
YES: Go to Step 6.
NO: Replace the harness wires between SRS-ECU connector C-27 and passenger's seat belt switch connector D-32. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1B54, B1B55 or B1B56 set?
YES: Return to Step 1.
NO: The procedure is complete.

DTC B1B70: Malfunction of G-sensor inside Front Impact Sensor (LH)
DTC B1B71: Malfunction of G-sensor inside Front Impact Sensor (RH)

M15204000948USA0000010000

⚠ CAUTION
If DTC B1B70 or B1B71 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTCs are set if the following conditions are detected from the analog G-sensor inside the front impact sensor output:

- Analog G-sensor is not operating.
- Analog G-sensor characteristics are abnormal.
- Analog G-sensor output is abnormal.

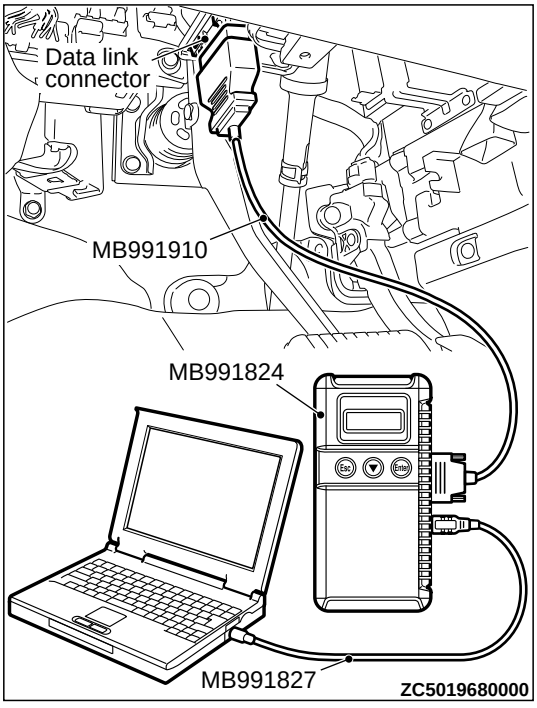
TROUBLESHOOTING HINTS

Malfunction of front impact sensor (LH) (for DTC B1B70) and front impact sensor (RH) (for DTC B1B71)

DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

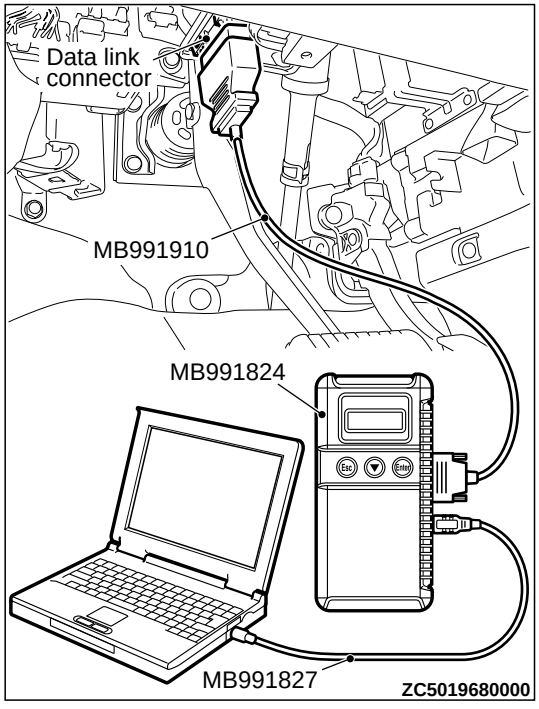
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?
YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).

STEP 3. Check the front impact sensor. (Using scan tool MB991958, read the diagnostic trouble code.)
Replace the front impact sensor (RH) or front impact sensor (LH) with a new one. (Refer to P.52B-324).
Check the diagnostic trouble code.

Q:Is either DTC B1B70 or B1B71 set?
YES: Replace the SRS-ECU (Refer to P.52B-326).
NO: The procedure is complete.

DTC B1B72: Malfunction of G-sensor Inside Side Impact Sensor (Front) (LH)
DTC B1B75: Malfunction of G-sensor Inside Side Impact Sensor (Front) (RH)

M15204000953USA0000010000

⚠ CAUTION
If the diagnostic trouble code B1B72 or B1B75 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS
These DTCs are set if the following conditions are detected from the analog G-sensor inside the side impact sensor output:

- Analog G-sensor is not operating.
- Analog G-sensor characteristics are abnormal.
- Analog G-sensor output is abnormal.

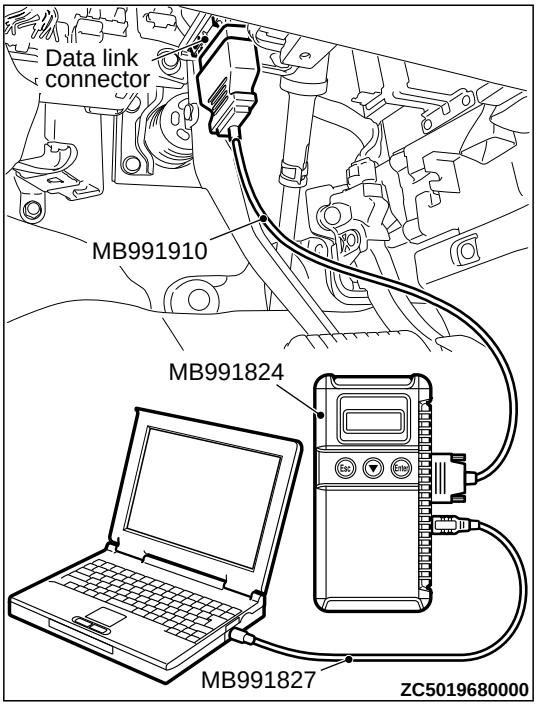
TROUBLESHOOTING HINTS
Malfunction of side impact sensor (front) (LH) (for DTC B1B72) and side impact sensor (front) (RH) (for DTC B1B75)

DIAGNOSTIC PROCEDURE

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)

- MB991827: M.U.T.-III USB Cable
- MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



⚠ CAUTION

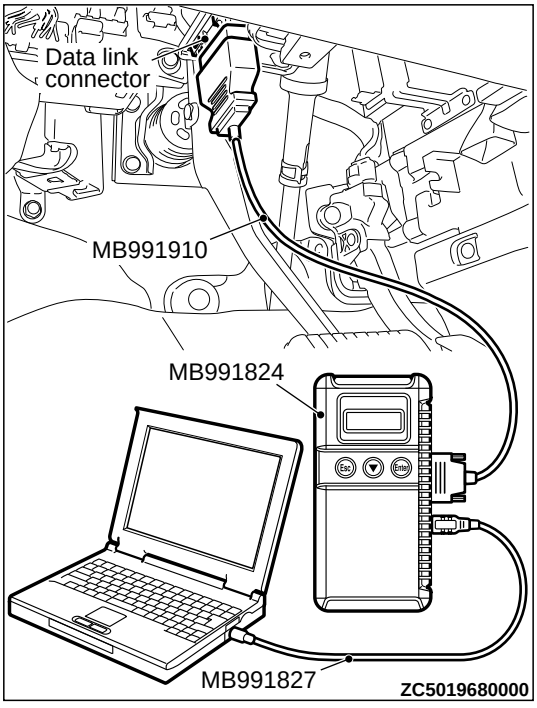
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Recheck for diagnostic trouble code.



Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points - How to Cope with Intermittent Malfunctions P.00-15).

STEP 3. Check the side impact sensor. (Using scan tool MB991958, read the diagnostic trouble code.)

Replace the side impact sensor (front) (RH) or side impact sensor (front) (LH) with a new one. (Refer to P.52B-338).
Check the diagnostic trouble code.

Q:Is either DTC B1B72 or B1B75 set?
YES: Replace the SRS-ECU (Refer to P.52B-326).
NO: The procedure is complete.

DTC B1B73: Malfunction of G-sensor Inside Side Impact Sensor (Rear) (LH)
DTC B1B76: Malfunction of G-sensor Inside Side Impact Sensor (Rear) (RH)

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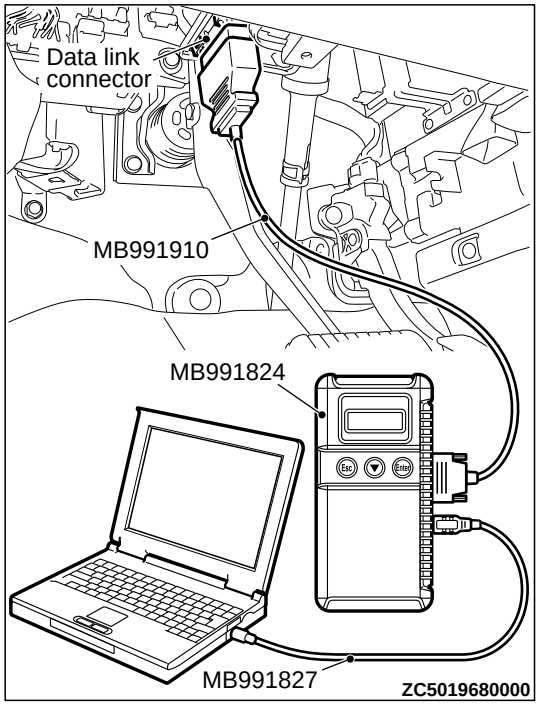
⚠ CAUTION
If DTC B1B73 or B1B76 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS
These DTCs are set if the following conditions are detected from the analog G-sensor inside the side impact sensor output:
- Analog G-sensor is not operating.
- Analog G-sensor characteristics are abnormal.
- Analog G-sensor output is abnormal.

TROUBLESHOOTING HINTS
Malfunction of side impact sensor (rear) (LH) (for DTC B1B73) and impact sensor (rear) (RH) (for DTC B1B76)

DIAGNOSIS

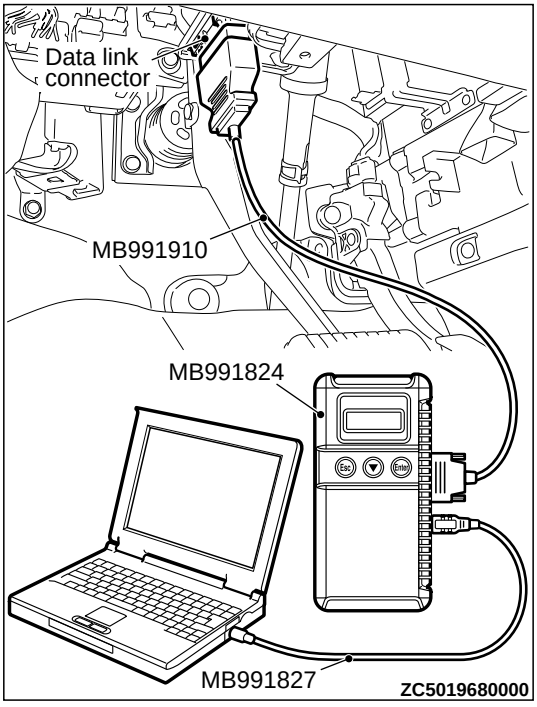
Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.
(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?
YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?
YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the side impact sensor. (Using scan tool MB991958, read the diagnostic trouble code.)
Replace the side impact sensor (rear) (RH) or side impact sensor (rear) (LH) with a new one. (Refer to P.52B-338).
Check the diagnostic trouble code.

Q:Is either DTC B1B73 or B1B76 set?
YES: Replace the SRS-ECU (Refer to P.52B-326).
NO: The procedure is complete.

DTC B1BA3: Driver's Seat Slide Sensor Malfunction (Occupant Classification-ECU)
DTC B1BA4: Passenger's Seat Slide Sensor Malfunction (Occupant Classification-ECU)

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⚠ CAUTION
If DTC B1BA3 or B1BA4 is set in the Occupant classification-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS
These DTCs are set if communication between the occupant classification-ECU and the seat slide sensor is not possible or communication is faulty.

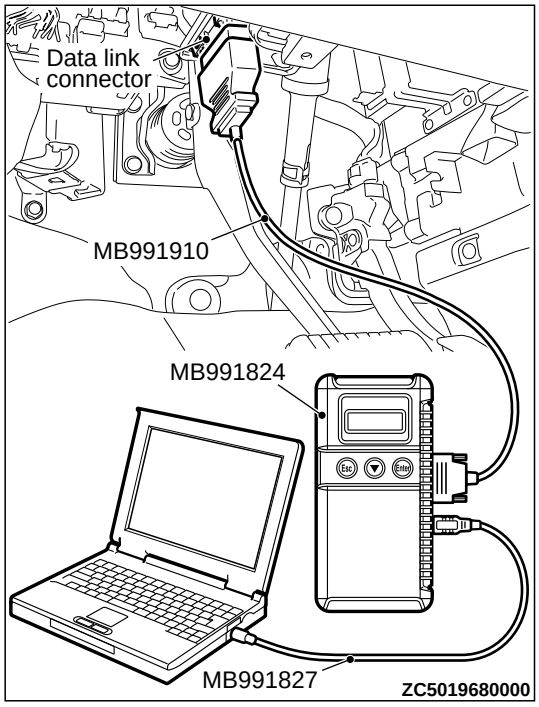
TROUBLESHOOTING HINTS
- Malfunction of the seat slide sensor
- Malfunction of occupant classification-ECU

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)

- MB991827: M.U.T.-III USB Cable
- MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



⚠ CAUTION

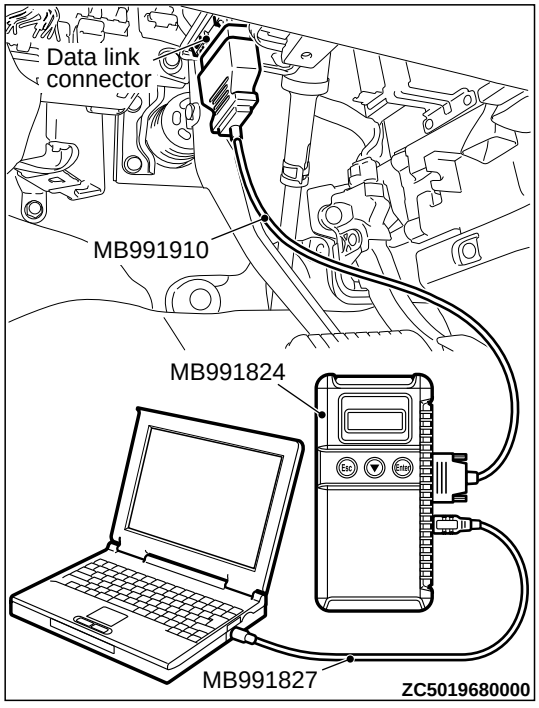
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.00-15."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).

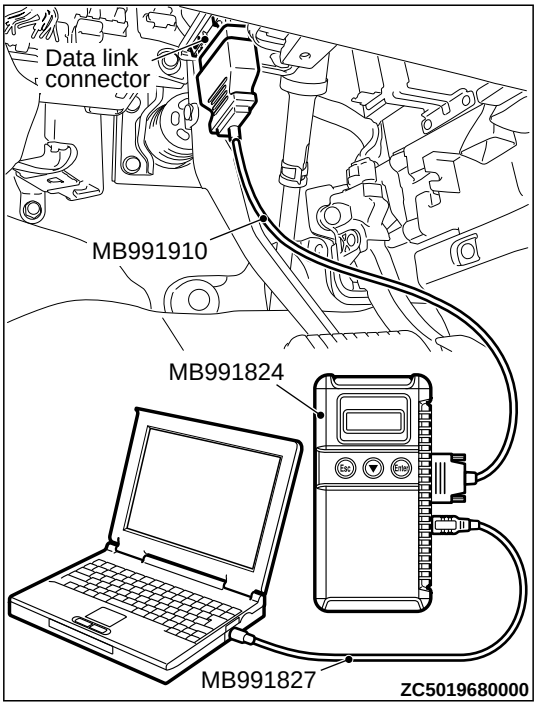
STEP 2. Recheck for diagnostic trouble code.



Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

⚠ CAUTION

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

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

Q:Is DTC B1BAA, B2207, B2208, B2209, B220A, B220B, B220C, B220D or B2255 set?

YES: Carry out the troubleshooting of the occupant classification-ECU or the occupant classification sensor system P.52B-33.

NO: Replace the seat side sensor (Refer to P.52B-349).

DTC B1BA5: SRS-ECU squib count mismatch

M15204000969USA0000010000

⚠ CAUTION

If DTC B1BA5 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

SRS-ECU monitors the resistance value of each squib circuit on the vehicle. If any of the resistance values is outside the normal range, SRS-ECU sets the DTC.

DTC SET CONDITIONS

- If an SRS-ECU different from the unit compatible to vehicle is accidentally installed, this DTC will be set. (If SRS-ECU for the vehicles with side-airbag is installed to the vehicles without side-airbag. However, the DTC is not set in the reverse case.)
- If an open circuit occurs to the squib circuit, this DTC will be set.

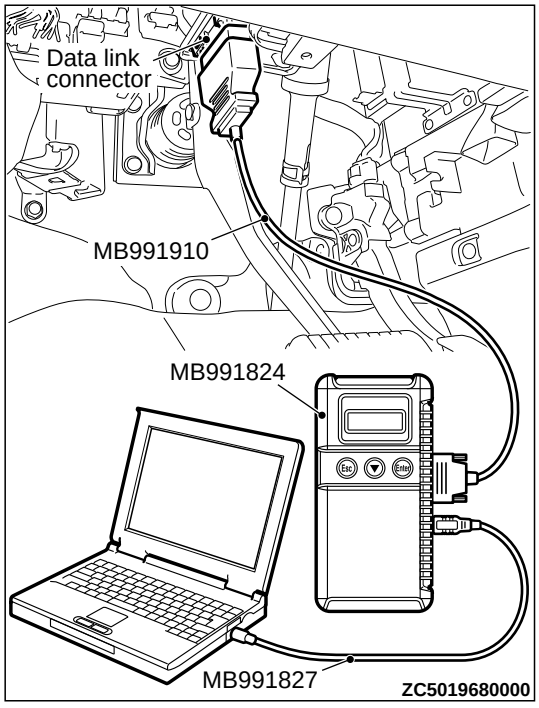
TROUBLESHOOTING HINTS

- SRS-ECU incorrect installation
- Squib specification mismatch

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

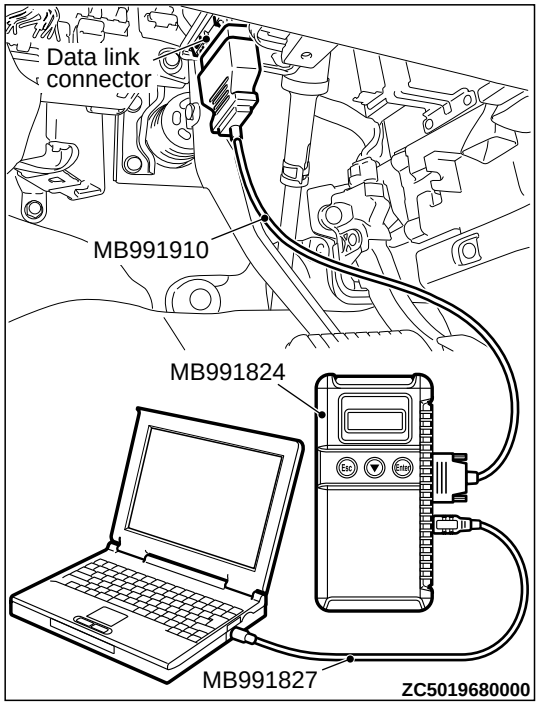
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Check the open circuit for each squib circuit.
NO: Go to Step 3

STEP 3. Recheck for diagnostic trouble code

Q:Is DTC B1BA5 set?

YES: Replace the SRS-ECU (Refer to P.52B-326).
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

DTC B1BAA: Occupant Classification-ECU Configuration Mismatch

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⚠ CAUTION

- **If the DTC B1BAA is set, diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the information data and coding data on occupant classification-ECU do not suit. The SRS-ECU sets the DTC B1BAA

TROUBLESHOOTING HINTS

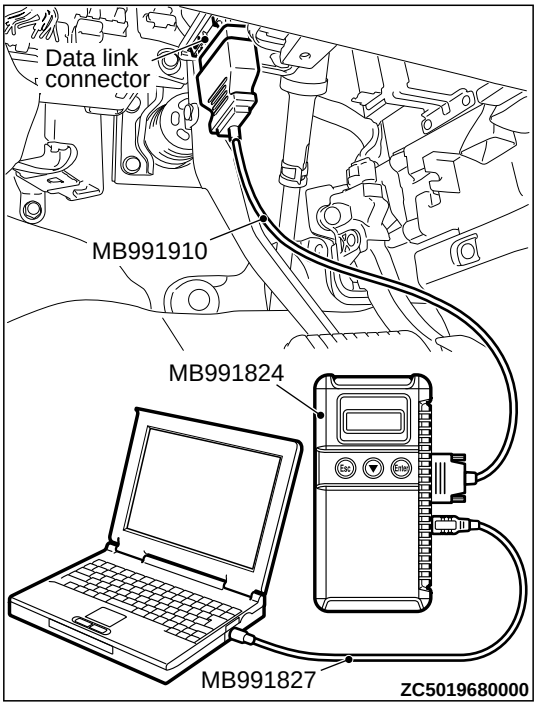
- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line



⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code

Check if DTC is set to the ETACS-ECU.

Q:Is the DTC set?

YES: Troubleshoot the ETACS-ECU (Refer to GROUP 54Ad, Diagnosis P.54Ad-8).
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?
YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-15).

DTC B1BC7: SRS-ECU (Record Data Full) System

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⚠ CAUTION
If the diagnostic trouble code B1BC7 is set to SRS-ECU, always diagnose the CAN main bus line.

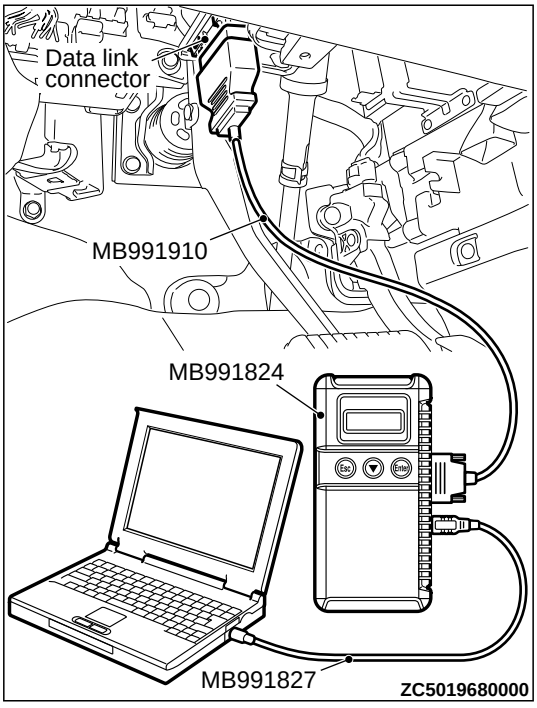
CIRCUIT OPERATION
If SRS-ECU determines that a collision has occurred, it sends the ignition current to deploy the air bag. It stores the deployment status. If this DTC is set, SRS-ECU determines that the air bag has been deployed.

DTC SET CONDITIONS
This DTC is set after the air bag deployment. If this DTC is set before the air bag is deployed, an internal failure may have occurred in SRS-ECU.

TROUBLESHOOTING HINTS
Malfunction of SRS-ECU

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

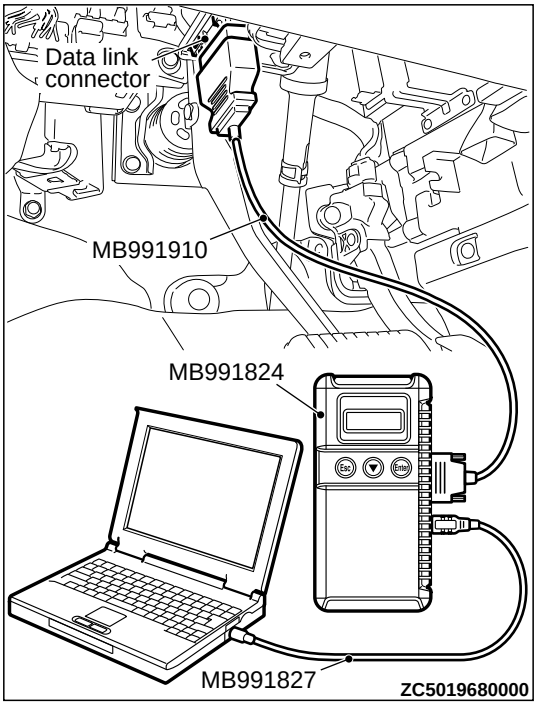
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Replace the SRS-ECU (Refer to P.52B-326).
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

DTC below

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DTC B1BCF: Roll Over Sensor Malfunction
DTC B2207: Occupant Restraint Controller Internal 1
DTC B2208: Occupant Restraint Controller Internal 2

DTC B2209: Occupant Restraint Controller Internal 3
DTC B220A: Occupant Restraint Controller Internal 4
DTC B220B: Occupant Restraint Controller Internal Firing Stored Energy
DTC B220C: Occupant Restraint Controller Accelerometer 1
DTC B220D: Occupant Restraint Controller Accelerometer 2
DTC B2255: Occupant Restraint Controller Roll-over Feature Disabled

⚠ CAUTION

If DTCs are set in the SRS-ECU, always diagnose the CAN main bus line.

TROUBLE JUDGMENT

The above DTC is set if an abnormality is detected in the circuit inside the SRS-ECU.

TROUBLESHOOTING HINTS

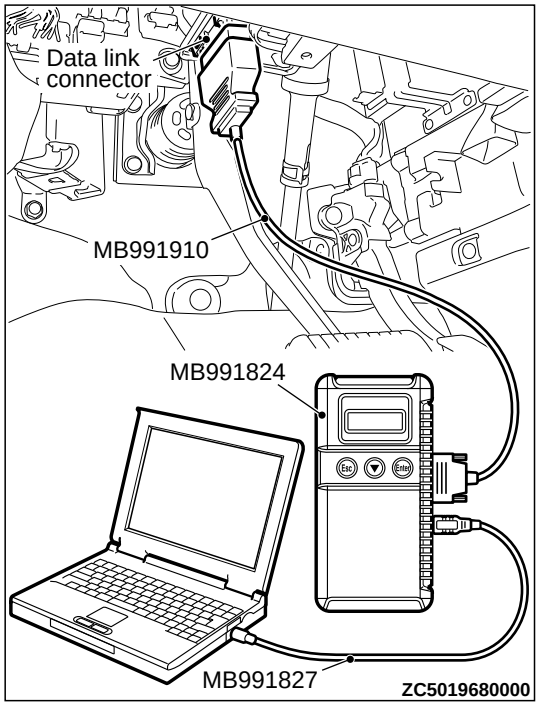
Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line



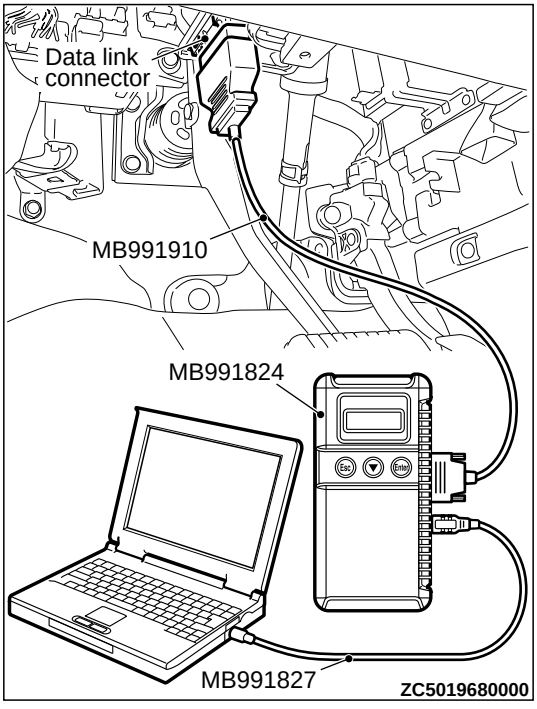
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

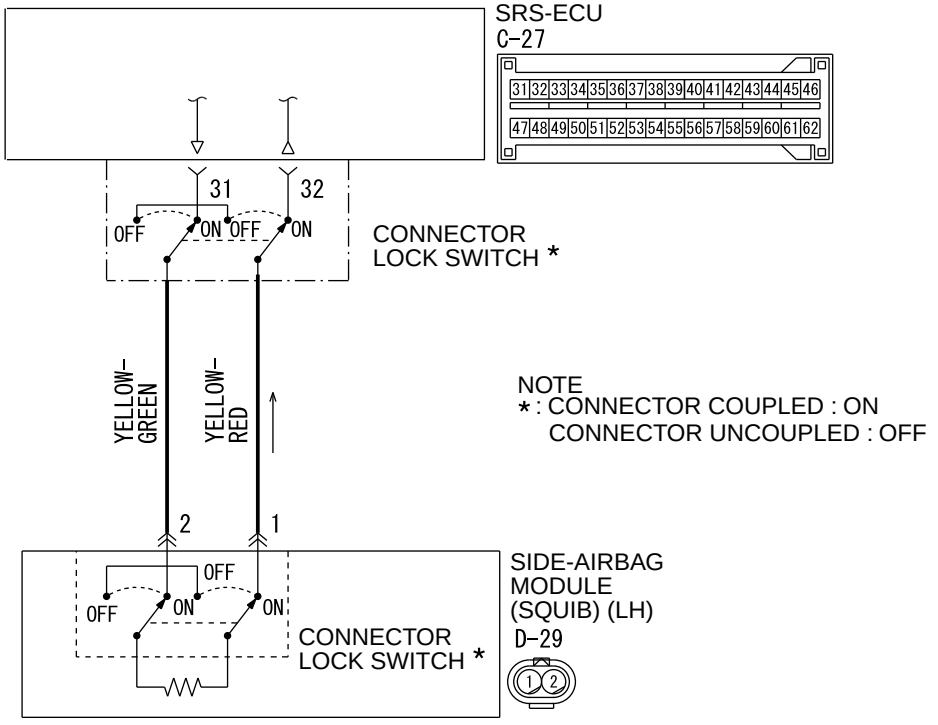
Q:Is the DTCs set?

YES: Replace the SRS-ECU (Refer to P.52B-326).
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

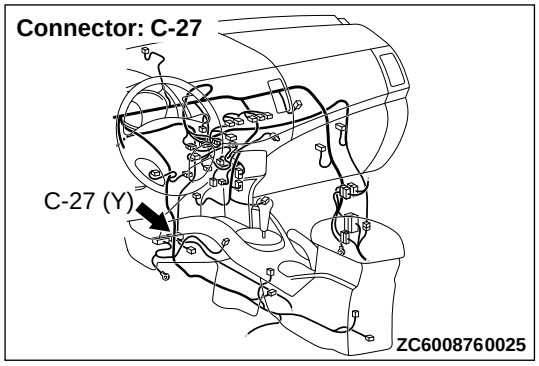
DTC B1C27 Side-airbag Module (LH) (Squib) System (Shorted to Squib Circuit Ground)

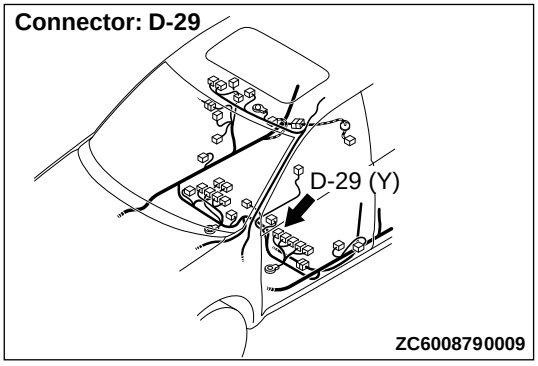
M15204000956USA0000010000

Side-airbag Module (Squib) (LH) Circuit



D7G52M013A00





⚠ CAUTION

If DTC B1C27 is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

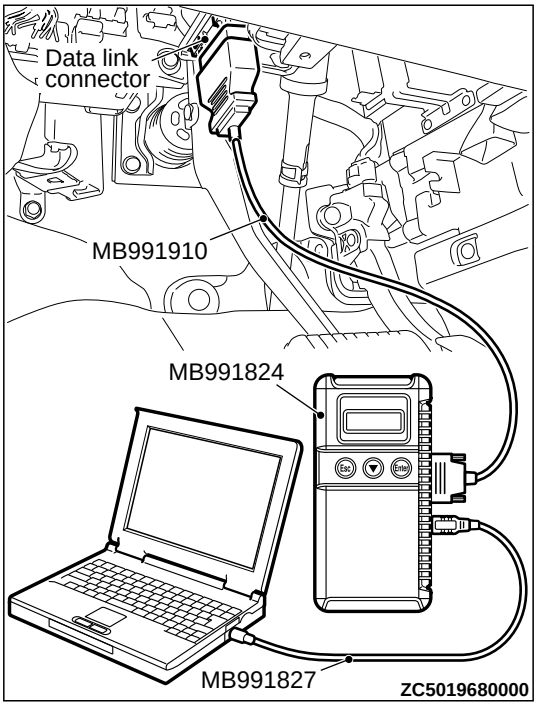
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to ground in the left hand side-airbag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

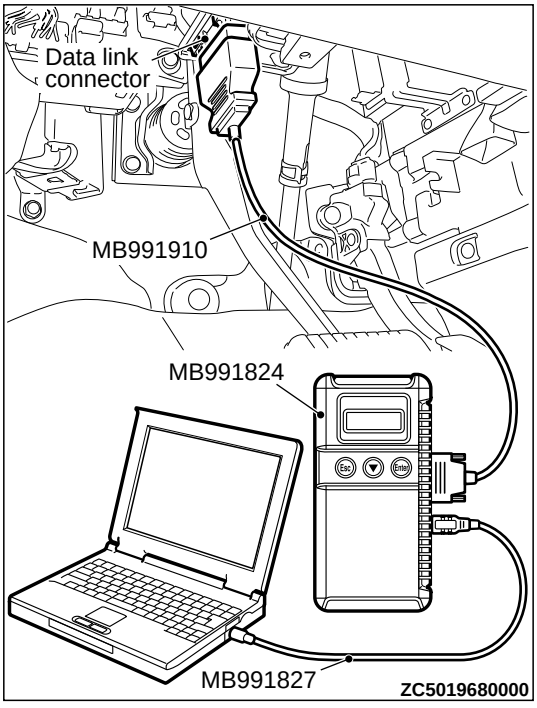
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the check result satisfactory?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

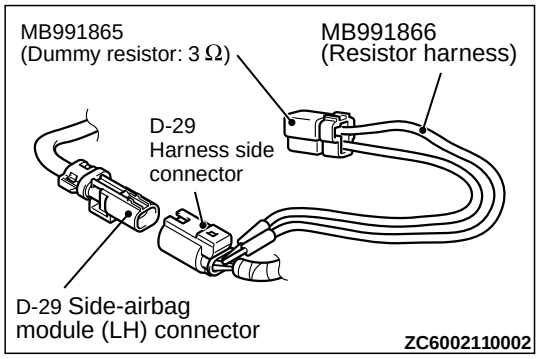
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the side-airbag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-29.



(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

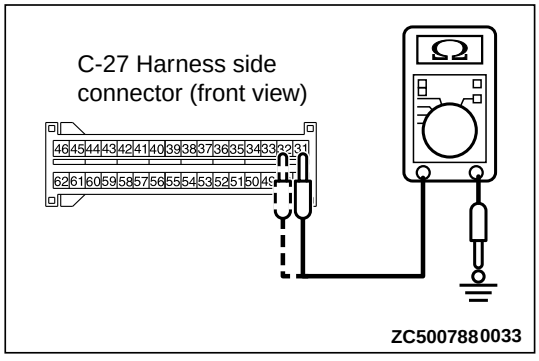
(4) Insert special tool MB991866 into the D-29 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is DTC B1C27 set?

YES: Go to Step 4.
NO: Replace the seatback frame of the front seat (LH). Then go to Step 6.

STEP 4. Check the side-airbag module (LH) circuit. Measure the resistance at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.
(2) Disconnect side-airbag module (LH) connector D-29.



⚠ 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-27 harness side connector terminals 31, 32 and body ground.
It should be an open circuit.

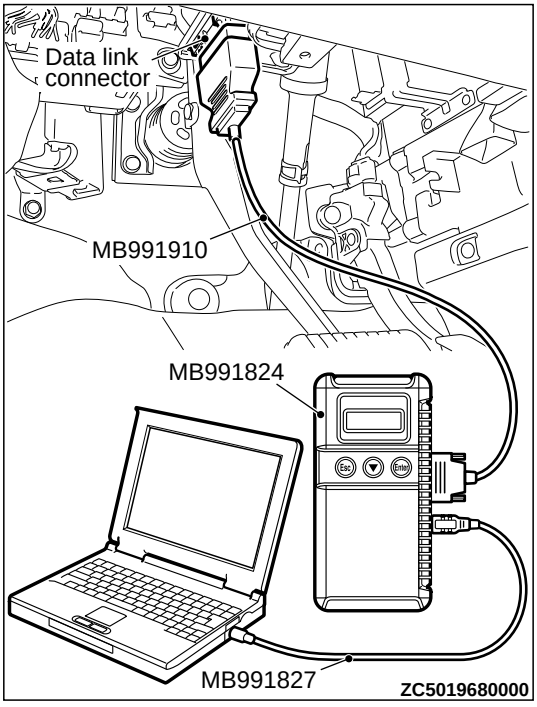
Q:Does continuity exist?

YES: Go to Step 5.
NO: Erase the diagnostic trouble code from memory, and check the diagnostic trouble code. If DTC B1C27 sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 6.

STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-27 (terminal No.31 and 32) and side-airbag module (LH) connector D-29 (terminal No.2 and 1).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.31 and 32) and side-airbag module (LH) connector D-29 (terminal No.2 and 1) in good condition?

YES: Go to Step 6.
NO: Replace the harness wires between SRS-ECU connector C-27 and side-airbag module (LH) connector D-29. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

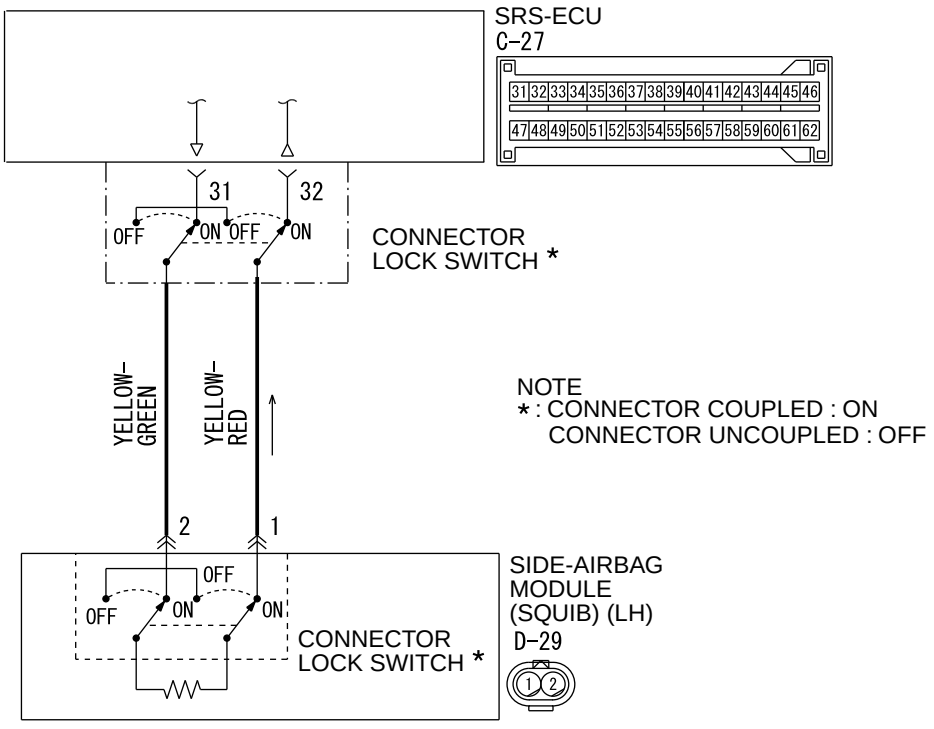
Q:Is DTC B1C27 set?

YES: Return to Step 1.
NO: The procedure is complete.

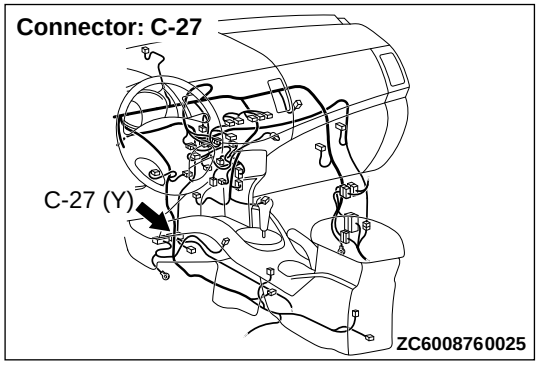
DTC B1C28 Side-airbag Module (LH) (Squib) System (Shorted to Squib Circuit Power Supply)

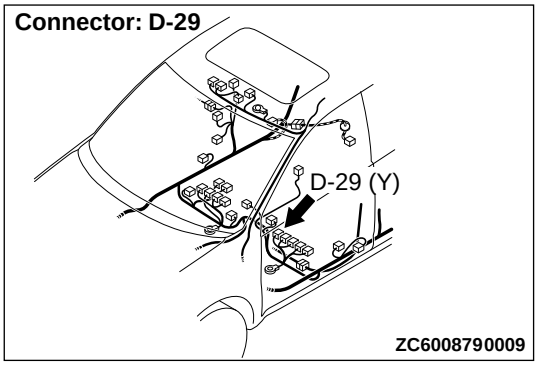
M15204000957USA0000010000

Side-airbag Module (Squib) (LH) Circuit



D7G52M013A00





⚠ CAUTION

If DTC B1C28 is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

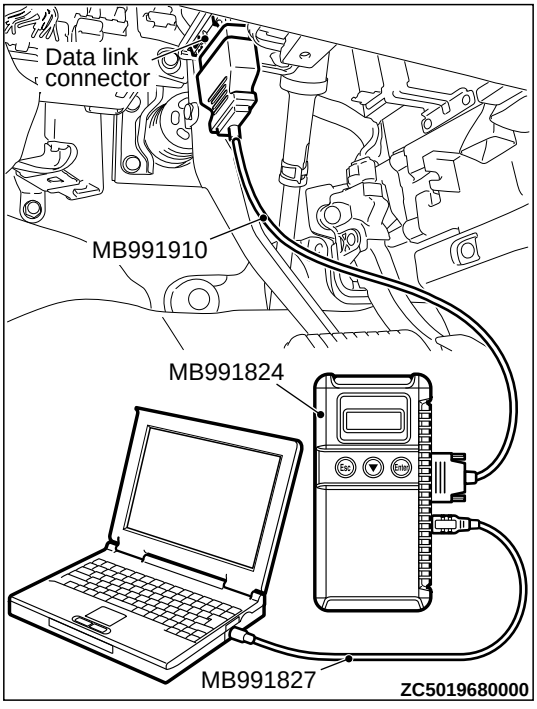
- Damaged wiring harnesses or connectors
- Short to the power supply in the side-airbag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



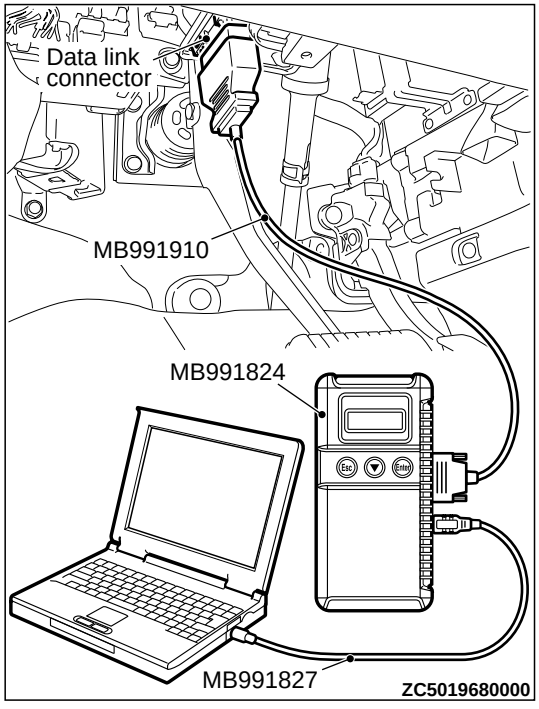
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the check result satisfactory?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

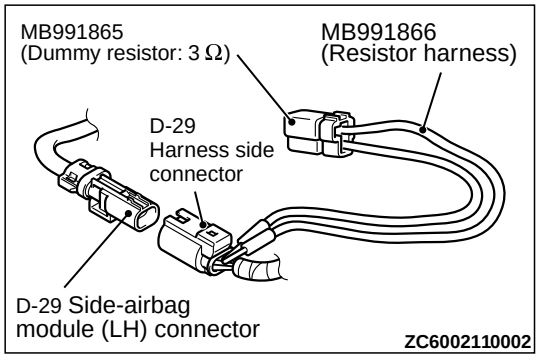
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the side-airbag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-29.
(3) Connect special tool MB991865 to special tool 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-29 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is DTC B1C28 set?

YES: Go to Step 4.

NO: Replace the seatback frame of the front seat (LH). Then go to Step 6.

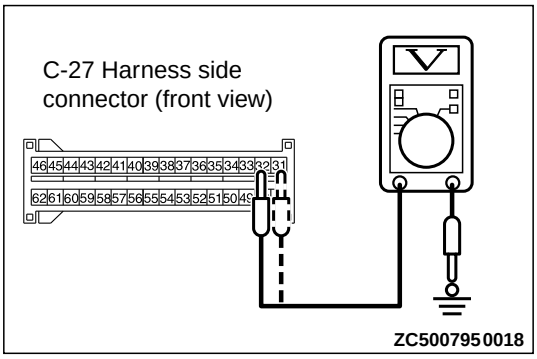
STEP 4. Check the side-airbag module (LH) circuit. Measure the voltage at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-29 to short the squib circuit.

(2) Disconnect left hand side-airbag module (LH) connector D-29.
(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) Measure the voltage between C-27 harness side connector terminals 31, 32 and body ground.
Voltage should measure 0 volt.

Q:Is the measured voltage 0 volt?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C28 sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 6.

NO: Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-27 (terminal No.31 and 32 and side-airbag module (LH) connector D-29 (terminal No.2 and 1).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.31 and 32) and side-airbag module (LH) connector D-29 (terminal No.2 and 1) in good condition?

YES: Go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-27 and side-airbag module (LH) connector D-29. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

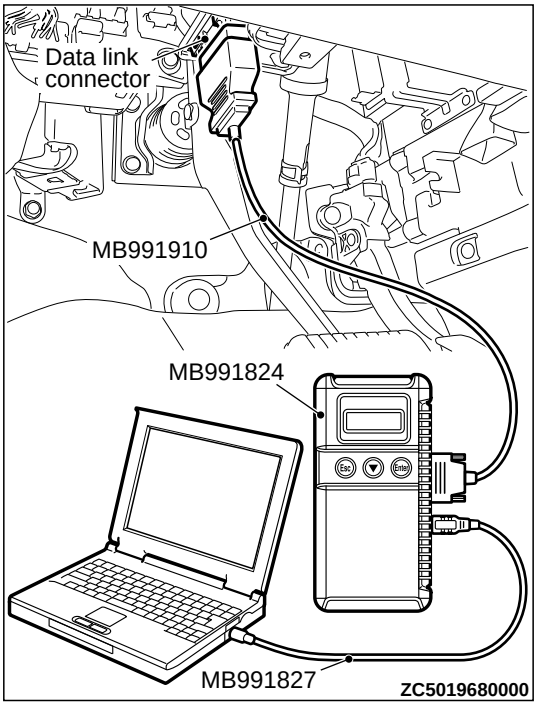
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C28 set?

YES: Return to Step 1.

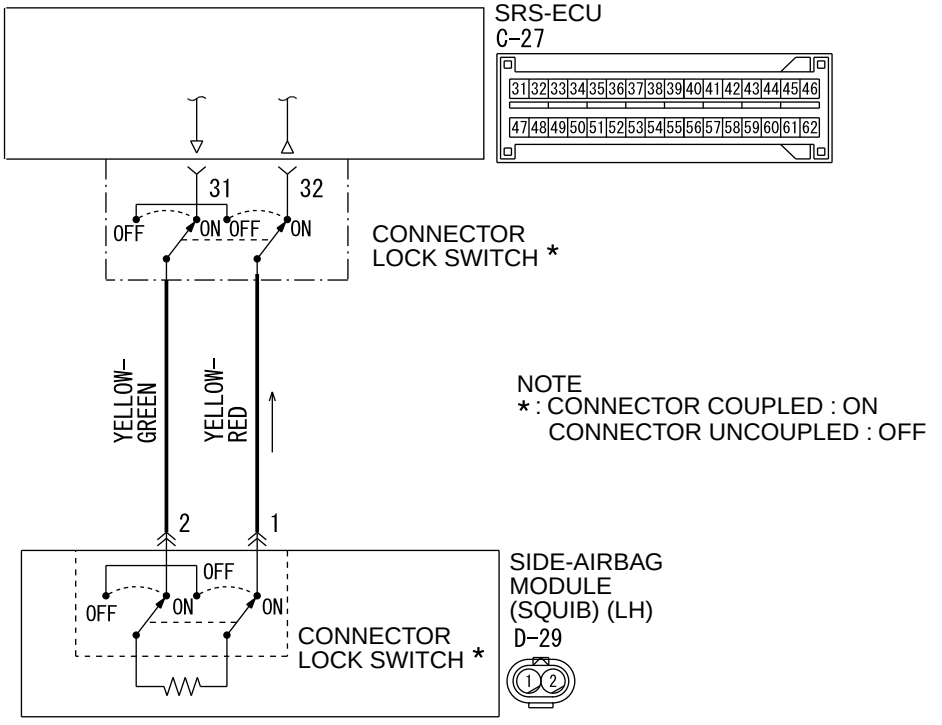
NO: The procedure is complete.



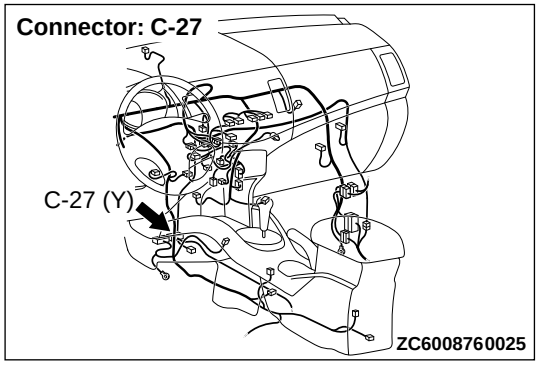
DTC B1C29 Side-airbag Module (LH) (Squib) System (Squib Circuit Open)

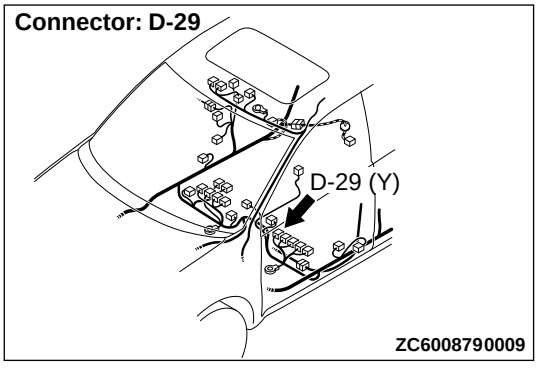
M15204000955USA0000010000

Side-airbag Module (Squib) (LH) Circuit



D7G52M013A00





⚠ CAUTION

If DTC B1C29 is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

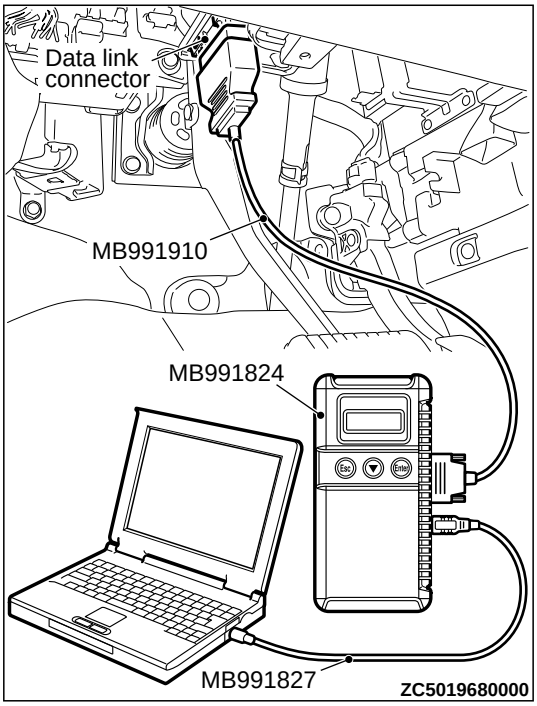
- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

- Open circuit in the side-airbag module (squib) (LH) circuit
- Improper connector contact
- Malfunction of the SRS-ECU



DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

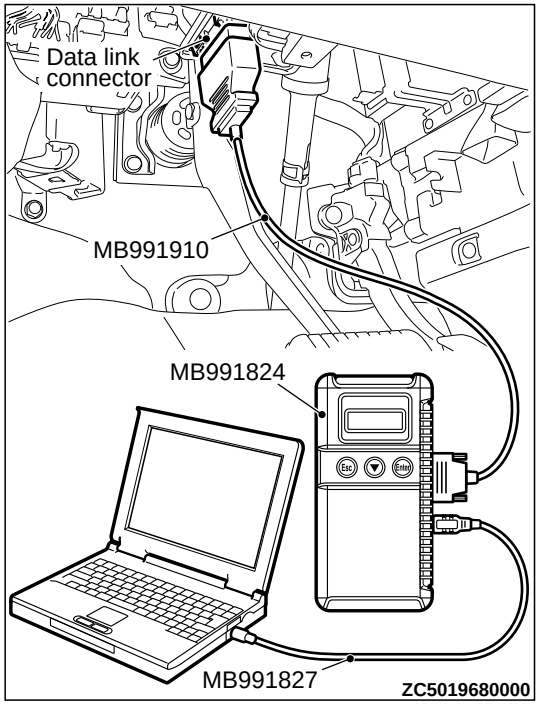
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the check result satisfactory?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

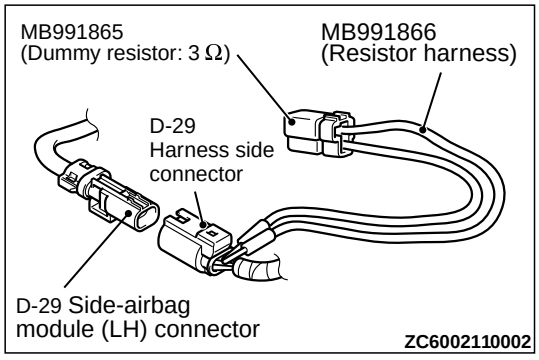
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the side-airbag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-29.
(3) Connect special tool MB991865 to special tool 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-29 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

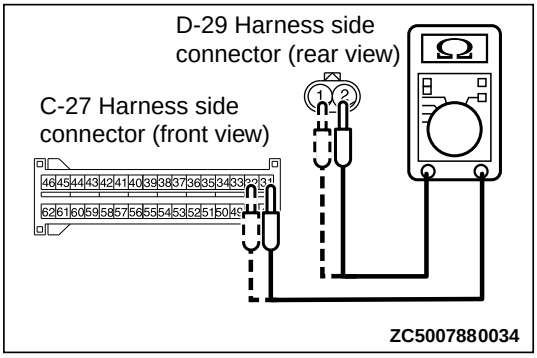
Q:Is DTC B1C29 set?

YES: Go to Step 4.

NO: Replace the seatback frame of the front seat (LH). Then go to Step 5.

STEP 4. Check the harness for open circuit between the SRS-ECU connector C-27 (terminal No.31 and 32) and the side-airbag module (LH) connector D-29 (terminal No.2 and 1).

(1) Disconnect SRS-ECU connector C-27.
(2) Disconnect side-airbag module (LH) connector D-29.



⚠ 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 the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-27 (terminal No.31) and the side-airbag module (LH) connector D-29 (terminal No.2)
- SRS-ECU connector C-27 (terminal No.32) and the side-airbag module (LH) connector D-29 (terminal No.1)

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C29 sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 5.

NO: Replace the harness wires between SRS-ECU connector C-27 and side-airbag module (LH) connector D-29. Then go to Step 5.

STEP 5.Recheck for diagnostic trouble code.

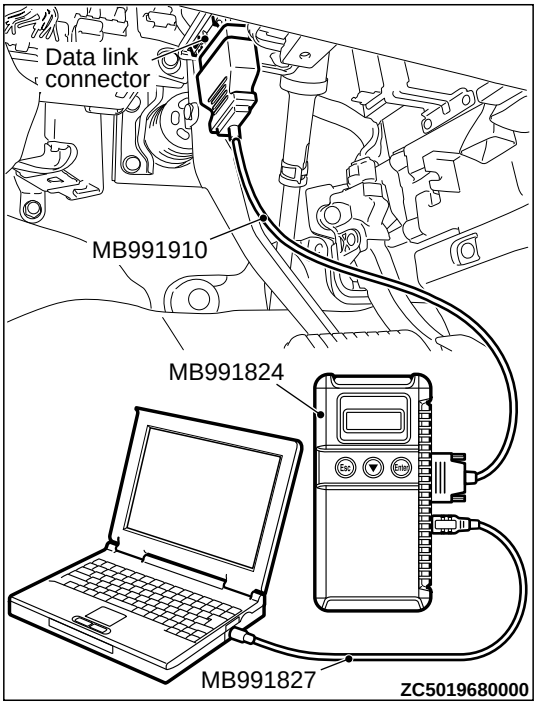
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C29 set?

YES: Return to Step 1.

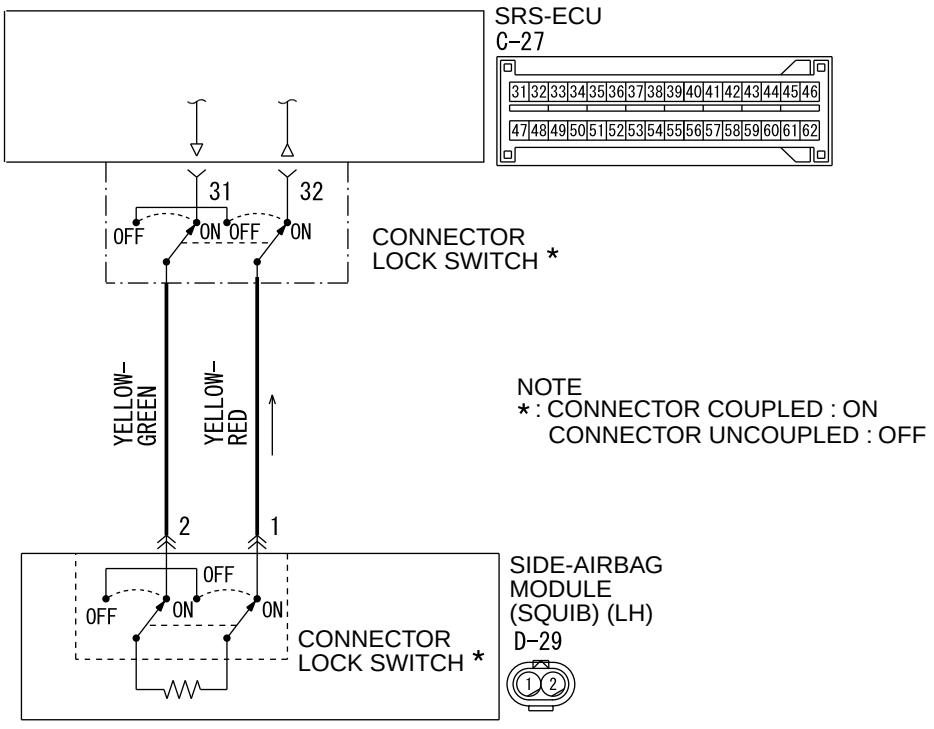
NO: The procedure is complete.



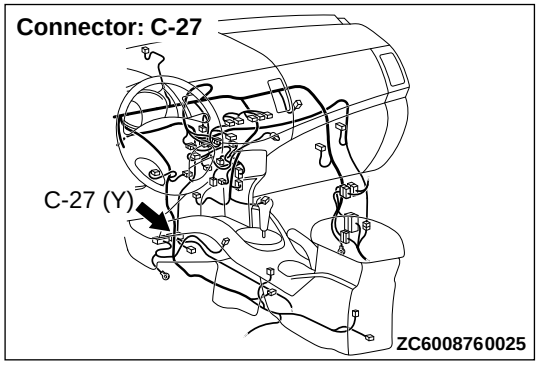
DTC B1C2A Side-airbag Module (LH) (Squib) System (Short Circuit between Squib Circuit Terminals)

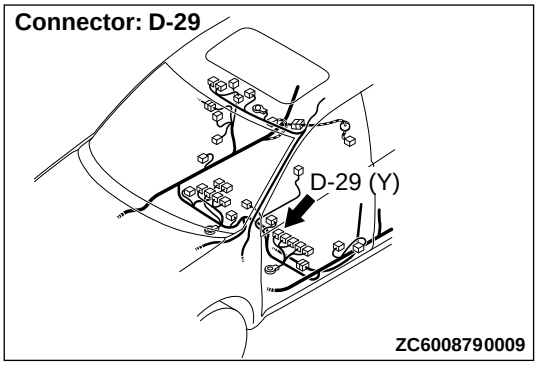
M15204000954USA0000010000

Side-airbag Module (Squib) (LH) Circuit



D7G52M013A00





⚠ CAUTION

If DTC B1C2A is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

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

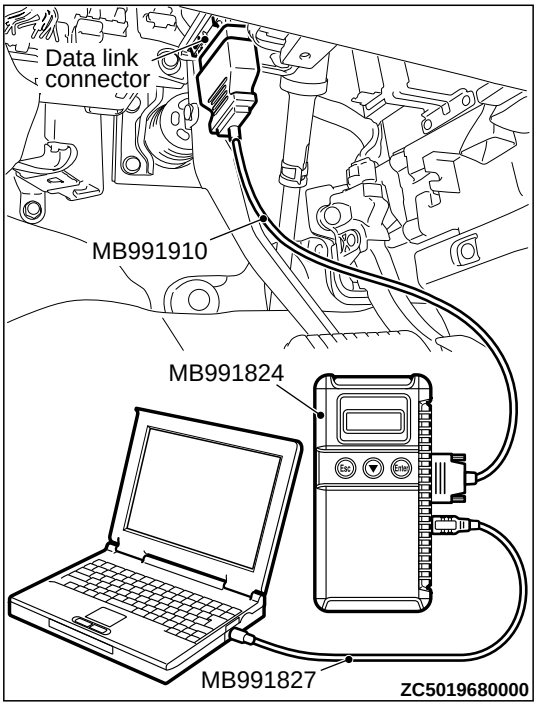
*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected). (Refer to P.52B-5). Therefore, if connector C-27 or D-29 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



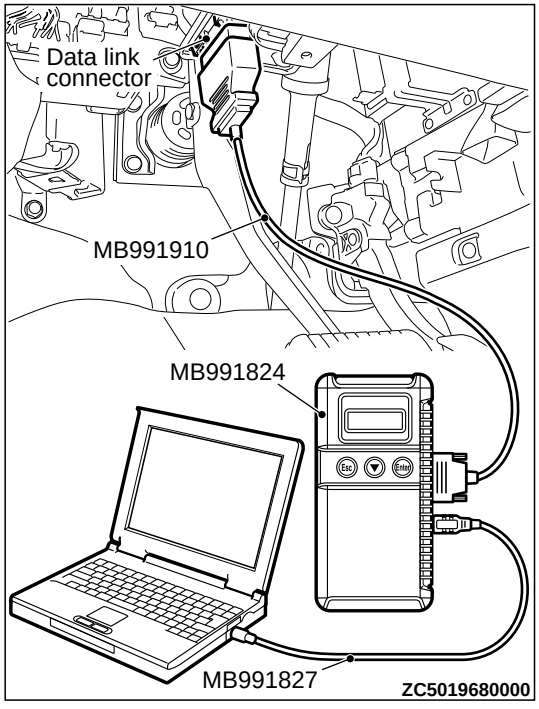
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to "ON" position.
(4) Diagnose the CAN bus line.

Q:Is the check result satisfactory?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check SRS-ECU connector C-27 and side-airbag module (LH) connector D-29. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-27 and D-29, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

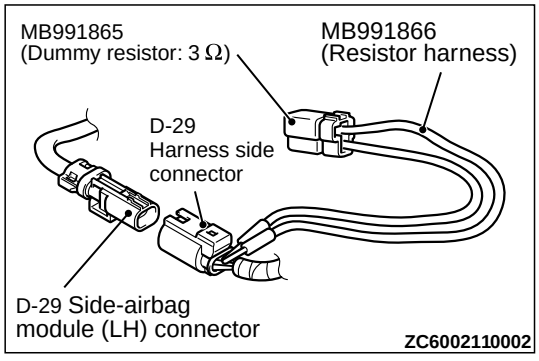
Q:Is DTC B1C2A out put?

YES: Go to Step 4.

NO: The procedure is complete. It is assumed that DTC B1C2A set because connector C-27 or D-29 was engaged improperly.

STEP 4. Check the side-airbag module (LH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-29.
(3) Connect special tool MB991865 to special tool 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-29 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is DTC B1C2A set?
YES: Go to Step 5.
NO: Replace the seatback frame of the front seat (LH). Then go to Step 7.

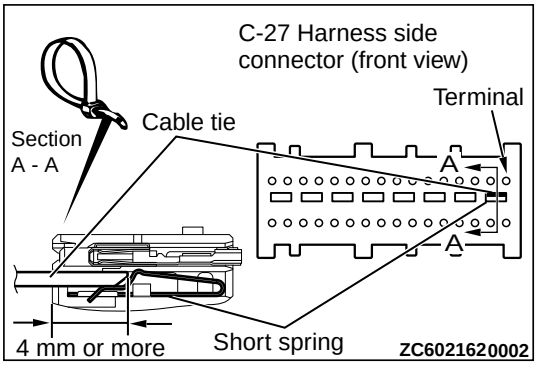
STEP 5. Check the side-airbag module (LH) circuit. Measure the resistance at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-29 to short the squib circuit.

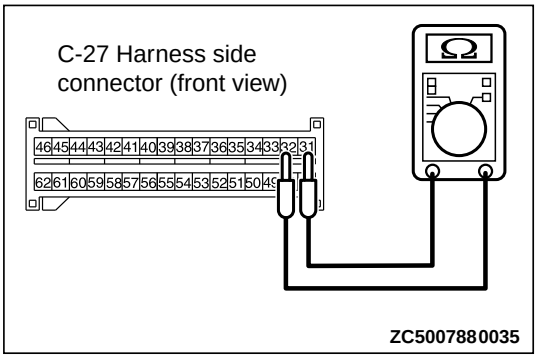
(2) Disconnect left hand side-airbag module (LH) connector D-29.



⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 31, 32 and the short spring to release the short spring.



⚠ CAUTION

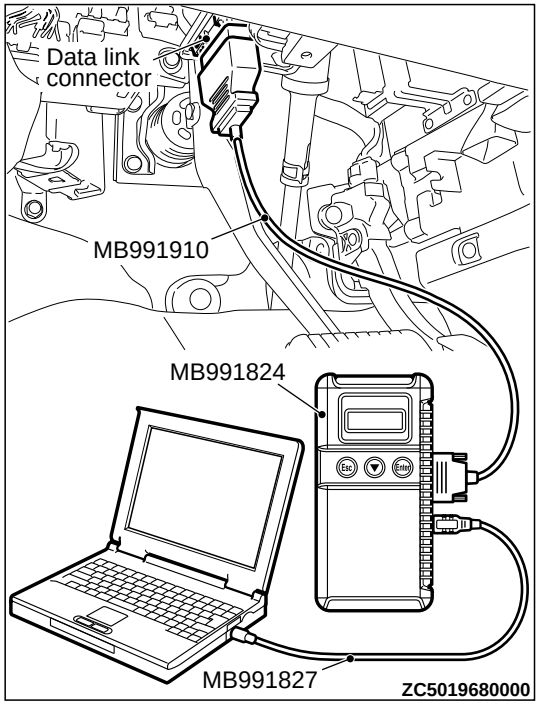
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between C-27 harness side connector terminals 31 and 32.
It should be an open circuit.

Q:Is the circuit normal?
YES: Go to Step 6.
NO: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2A sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 7.

STEP 6. Check the harness wires for short circuit between SRS-ECU connector C-27 (terminal No.31 and 32) and side-airbag module (LH) connector D-29 (terminal No.2 and 1).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.31 and 32) and side-airbag module (LH) connector D-29 (terminal No.2 and 1) in good condition?
YES: Go to Step 7.
NO: Replace the harness wires between SRS-ECU connector C-27 and side-airbag module (LH) connector D-29. Then go to Step 7.



STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

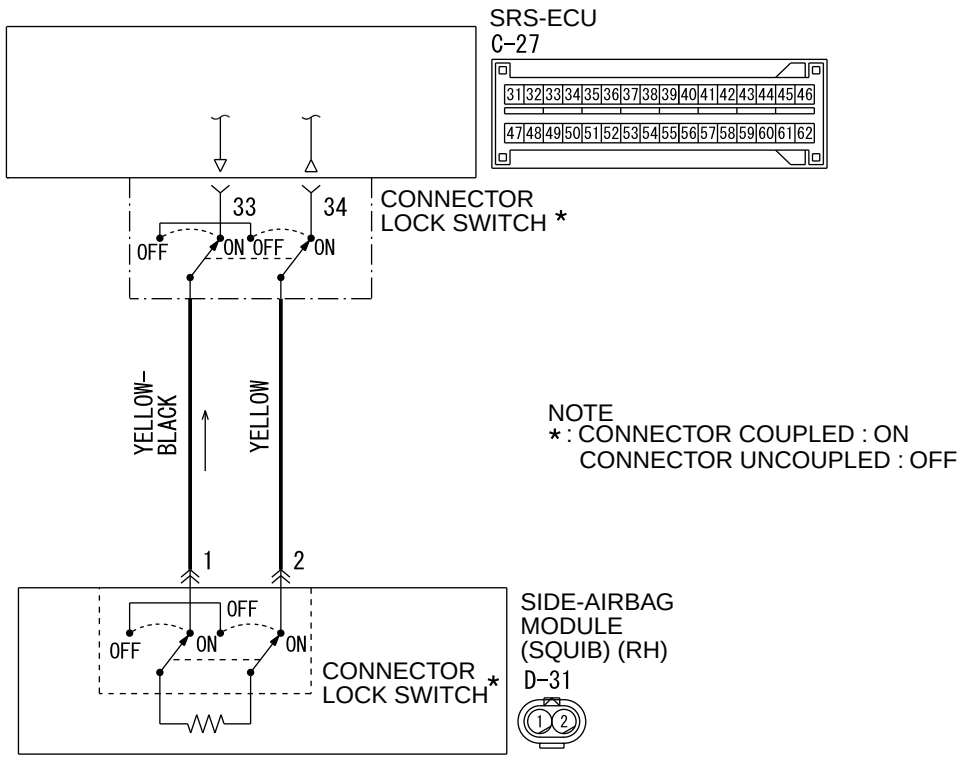
Q:Is DTC B1C2A set?

YES: Return to Step 1.
NO: The procedure is complete.

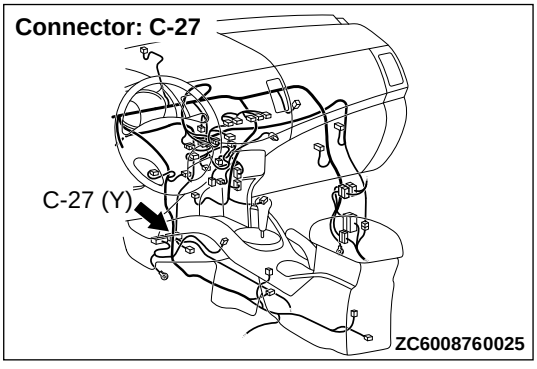
DTC B1C2B Side-airbag Module (RH) (Squib) System (Shorted to Squib Circuit Ground)

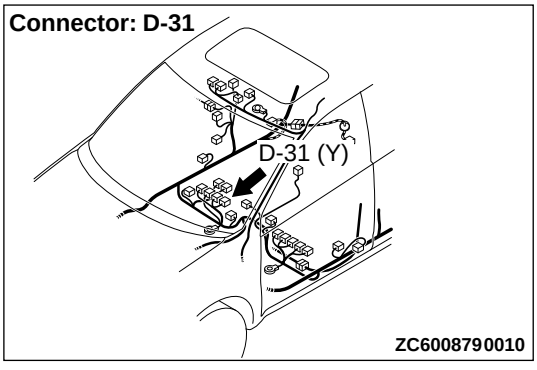
M15204000951USA0000010000

Side-airbag Module (Squib) (RH) Circuit



D7G52M014A00





⚠ CAUTION

If DTC B1C2B is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

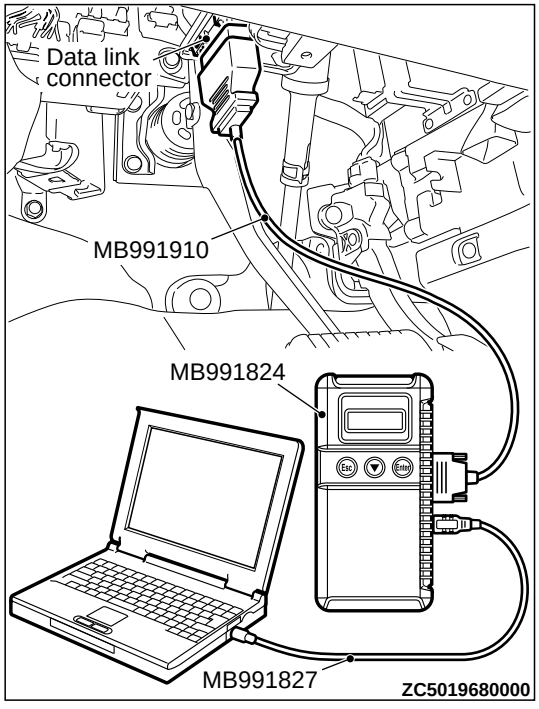
- Damaged wiring harnesses or connectors
- Short to ground in the side-airbag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



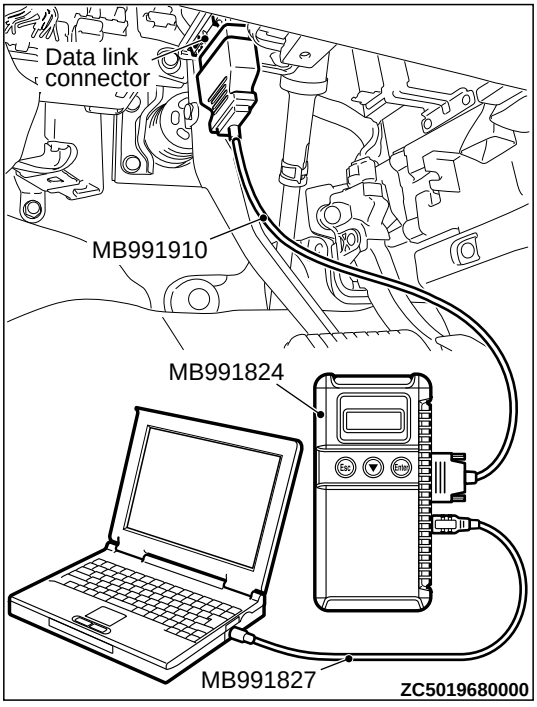
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the check result satisfactory?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

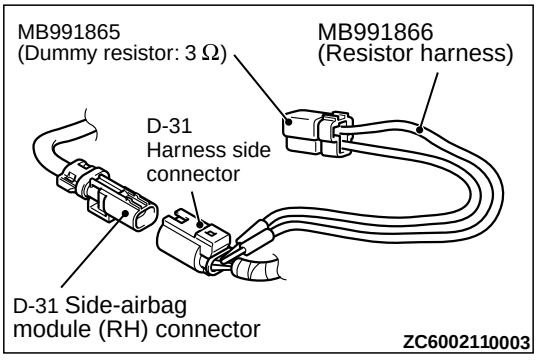
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the side-airbag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-31.
(3) Connect special tool MB991865 to special tool 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-31 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is DTC B1C2B set?

YES: Go to Step 4.

NO: Replace the seatback frame of the front seat (RH). Then go to Step 6.

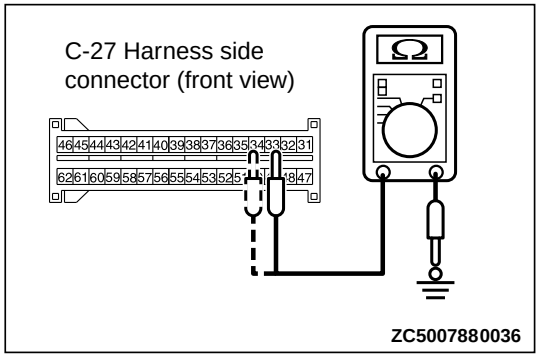
STEP 4. Check the side-airbag module (RH) circuit. Measure the resistance at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-31 to short the squib circuit.

(2) Disconnect side-airbag module (RH) connector D-31.



⚠ 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-27 harness side connector terminals 33, 34 and body ground.
It should be an open circuit.

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2B sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 6.

NO: Go to Step 5.

STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-27 (terminal No.33 and 34) and side-airbag module (RH) connector D-31 (terminal No. 1 and 2).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.33 and 34) and side-airbag module (RH) connector D-31 (terminal No.1 and 2) in good condition?

YES: Go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-27 and side-airbag module (RH) connector D-31. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

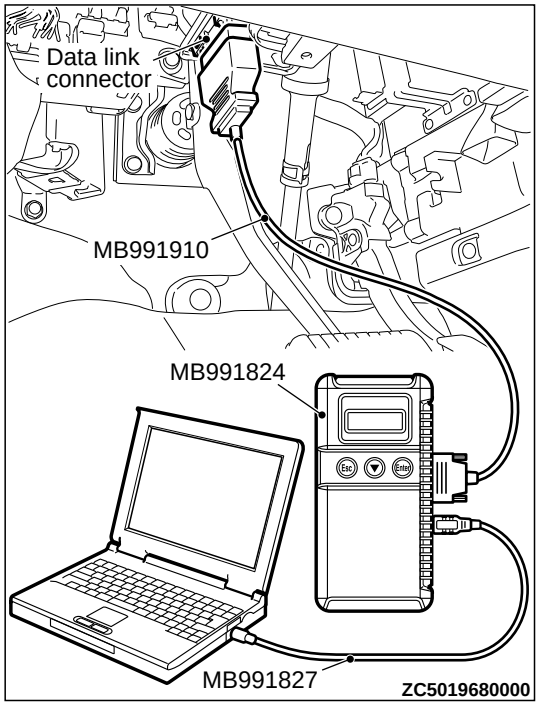
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C2B set?

YES: Return to Step 1.

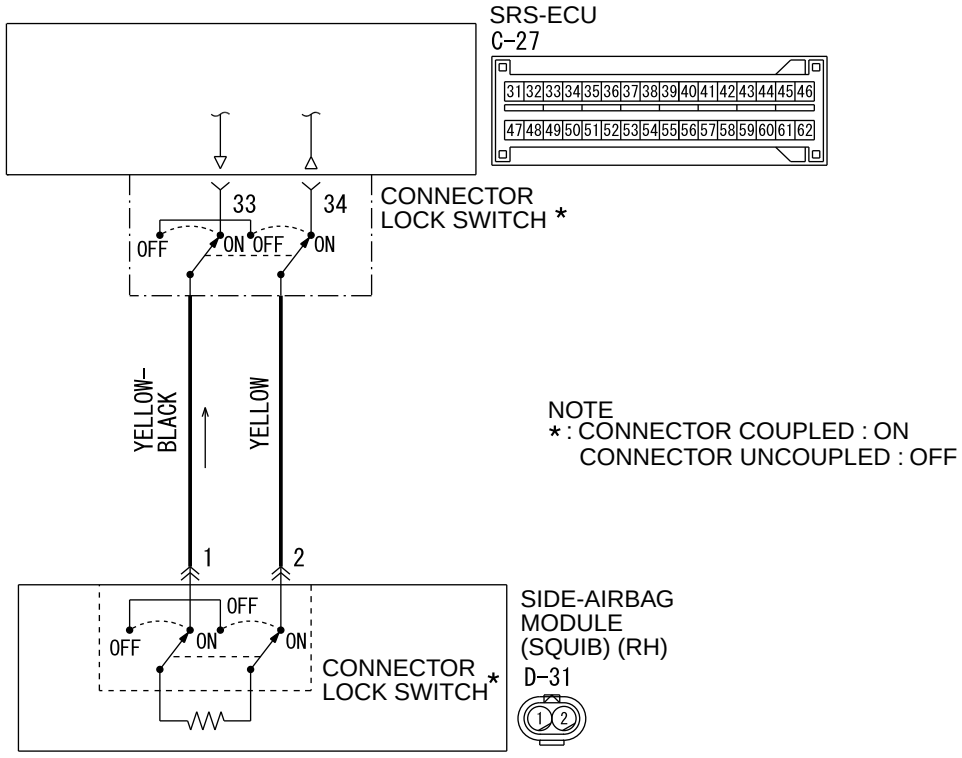
NO: The procedure is complete.



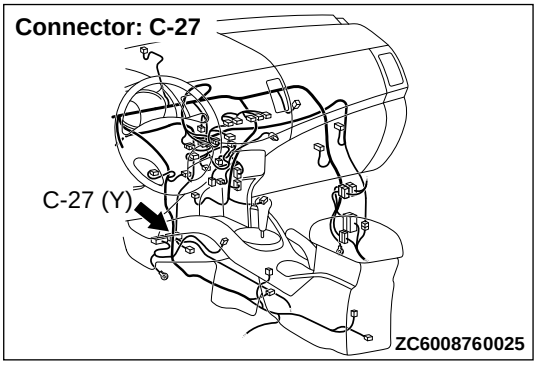
DTC B1C2C Side-airbag Module (RH) (Squib) System (Shorted to Squib Circuit Power Supply)

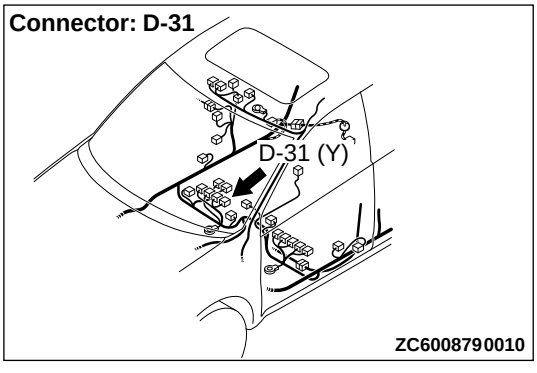
M15204000952USA0000010000

Side-airbag Module (Squib) (RH) Circuit



D7G52M014A00





⚠ CAUTION

If DTC B1C2C is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

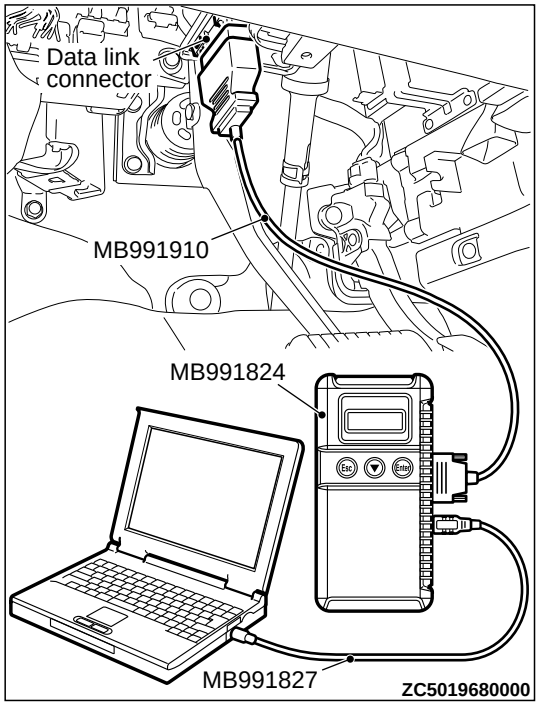
⚠ CAUTION

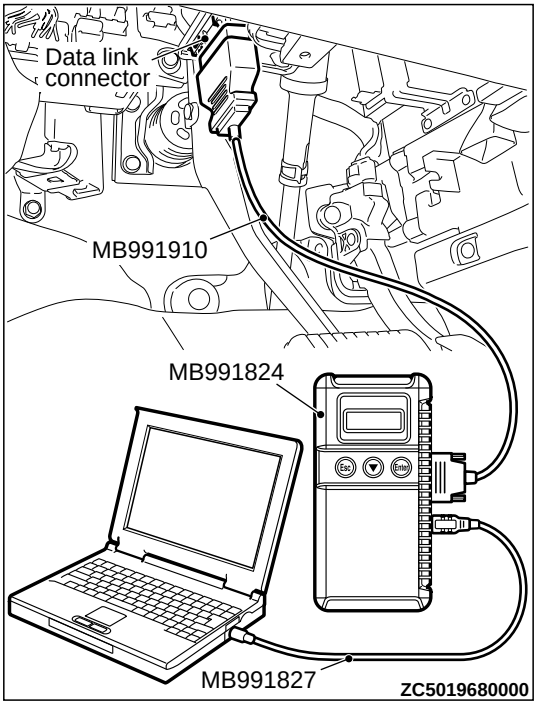
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the check result satisfactory?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).





STEP 2. Recheck for diagnostic trouble code.

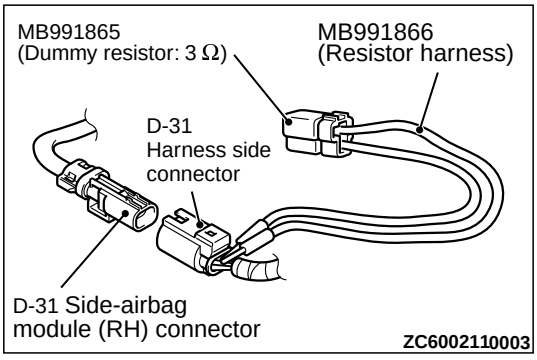
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the side-airbag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-31.
(3) Connect special tool MB991865 to special tool 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-31 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is DTC B1C2C set?

YES: Go to Step 4.

NO: Replace the seatback frame of the front seat (RH). Then go to Step 5.

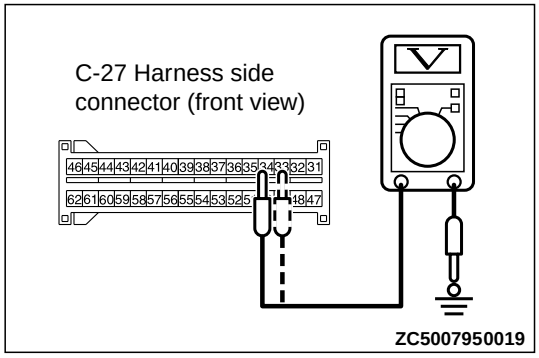
STEP 4. Check the side-airbag module (RH) circuit. Measure the voltage at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-31 to short the squib circuit.

(2) Disconnect side-airbag module (RH) connector D-31.
(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) Measure the voltage between C-27 harness side connector terminals 33 and 34 and body ground.
Voltage should measure 0 volt.

Q:Is the measured voltage within the specified range?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2C sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 6.

NO: Go to Step 5.

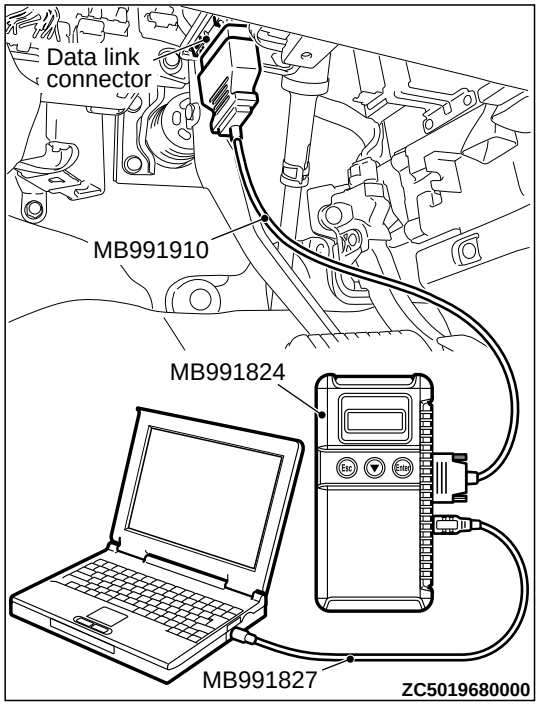
STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-27 (terminal No.33 and 34) and side-airbag module (RH) connector D-31 (terminal No.1 and 2).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.33 and 34) and side-airbag module (RH) connector D-31 (terminal No.1 and 2) in good condition?

YES: Go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-27 and side-airbag module (RH) connector D-31. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.



Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C2C set?

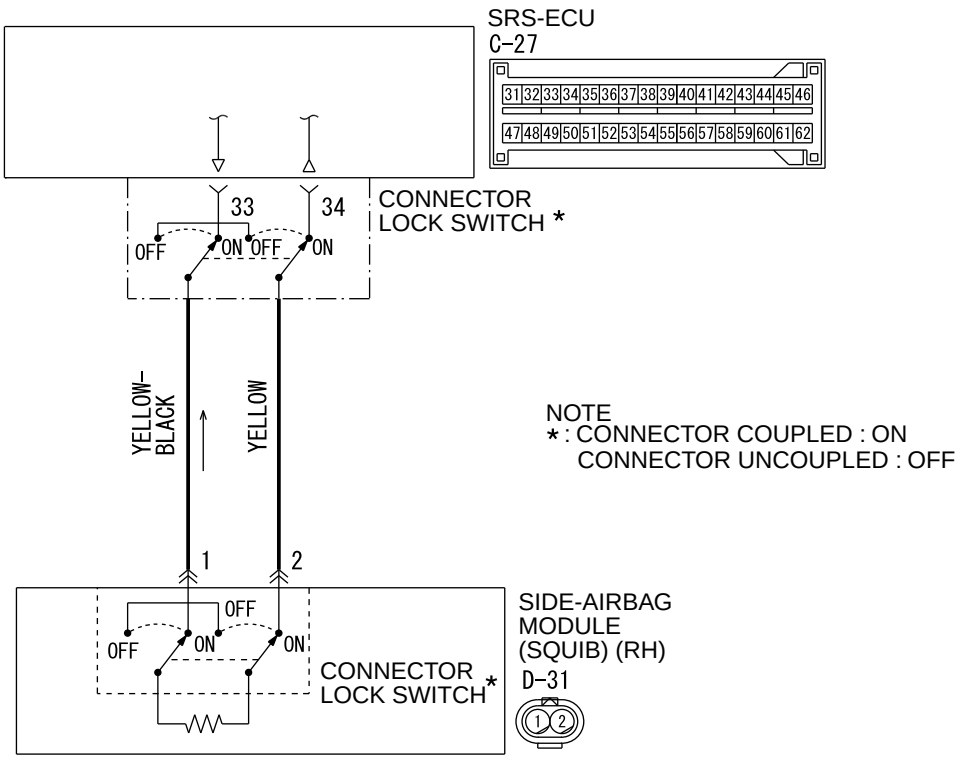
YES: Return to Step 1.

NO: The procedure is complete.

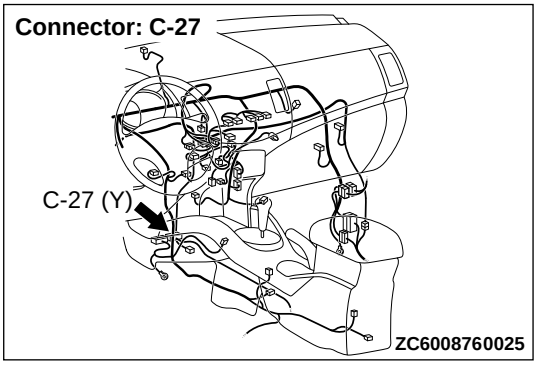
DTC B1C2D Side-airbag Module (RH) (Squib) System (Squib Circuit Open)

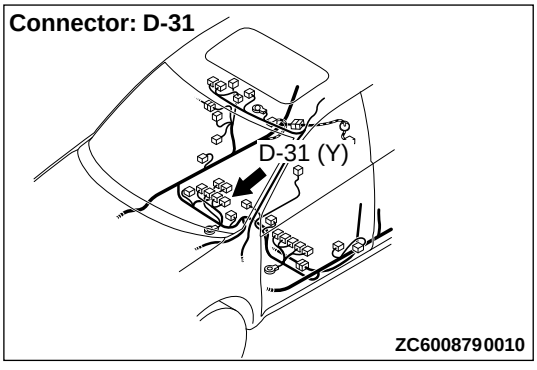
M15204000950USA0000010000

Side-airbag Module (Squib) (RH) Circuit



D7G52M014A00





⚠ CAUTION

If DTC B1C2D is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

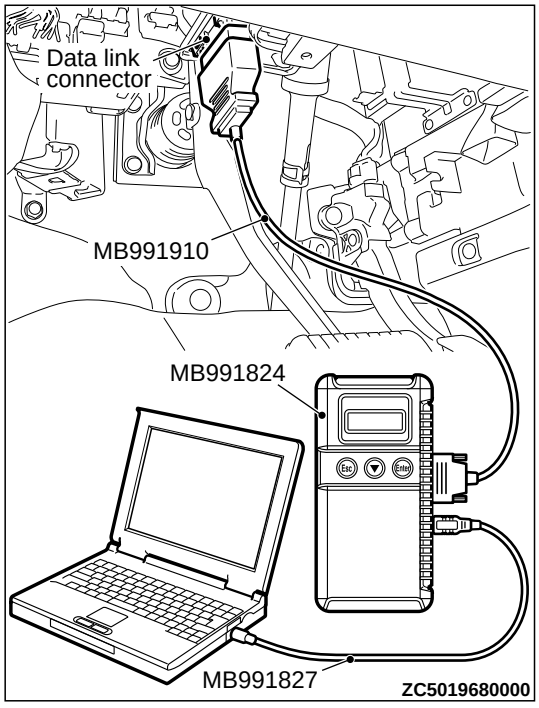
- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

- Open circuit in the side-airbag module (RH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU



DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

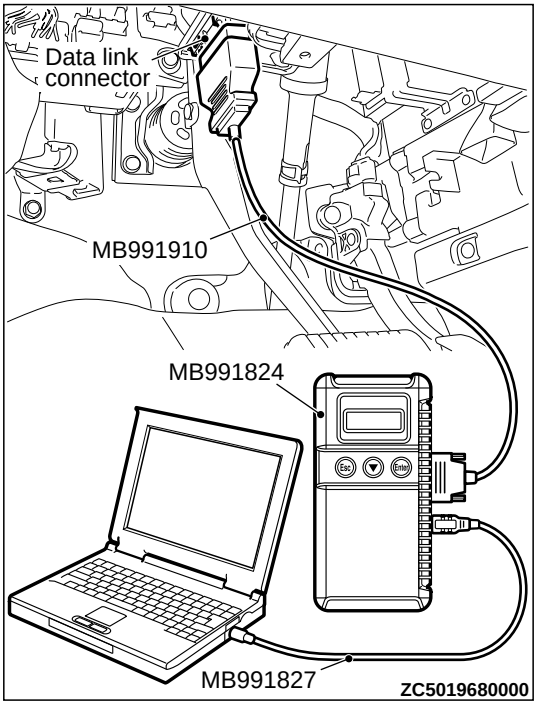
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the check result satisfactory?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

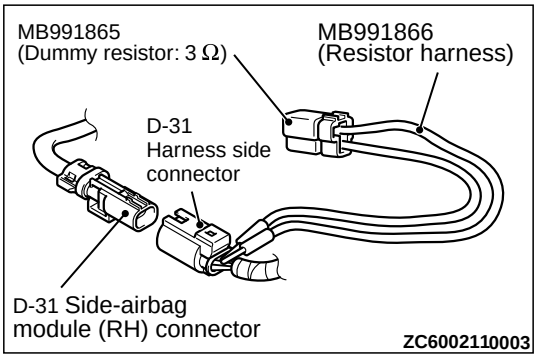
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the side-airbag module (RH). (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-31.
(3) Connect special tool MB991865 to special tool 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-31 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

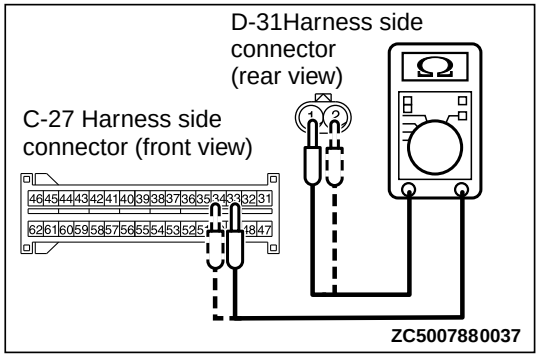
Q:Is DTC B1C2D set?

YES: Go to Step 4.

NO: Replace the seatback frame of the front seat (RH). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-27 (terminal No.33 and 34) and the side-airbag module (RH) connector D-31 (terminal No.1 and 2).

(1) Disconnect SRS-ECU connector C-27 and side-airbag module (RH) connector D-31.



⚠ CAUTION

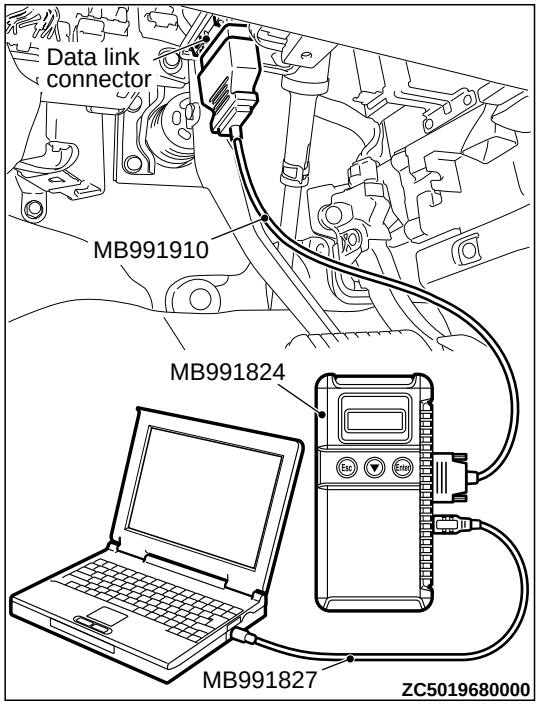
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(2) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-27 (terminal No.33) and the side-airbag module (RH) connector D-31 (terminal No.1)
- SRS-ECU connector C-27 (terminal No.34) and the side-airbag module (RH) connector D-31 (terminal No.2)

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2D sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 5.

NO: Replace the harness wires between SRS-ECU connector C-27 and side-airbag module (RH) connector D-31. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C2D set?

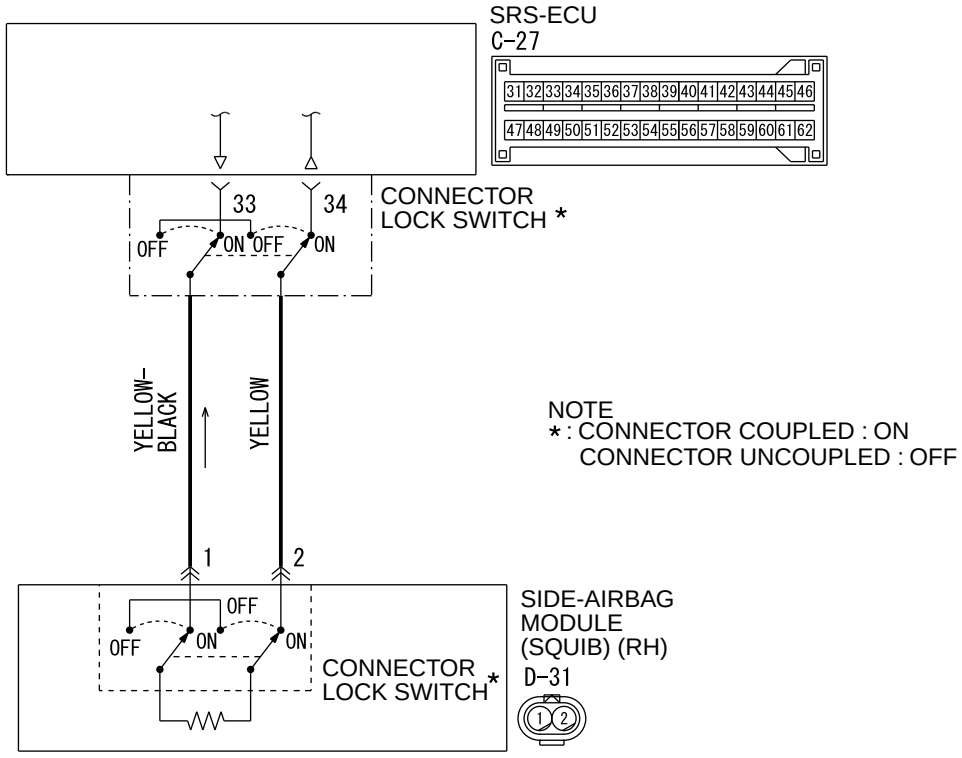
YES: Return to Step 1.

NO: The procedure is complete.

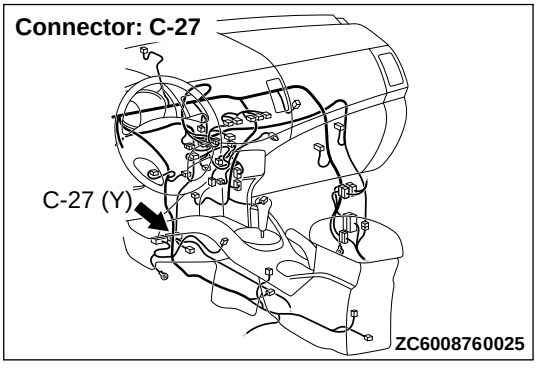
DTC B1C2E Side-airbag Module (RH) (Squib) System (Short Circuit between Squib Circuit Terminals)

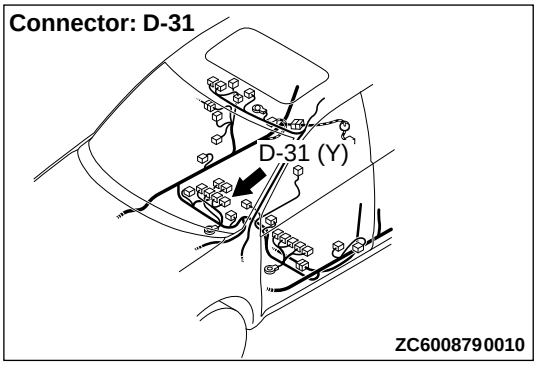
M15204000949USA0000010000

Side-airbag Module (Squib) (RH) Circuit



D7G52M014A00





⚠ CAUTION

If DTC B1C2E is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends 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.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

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

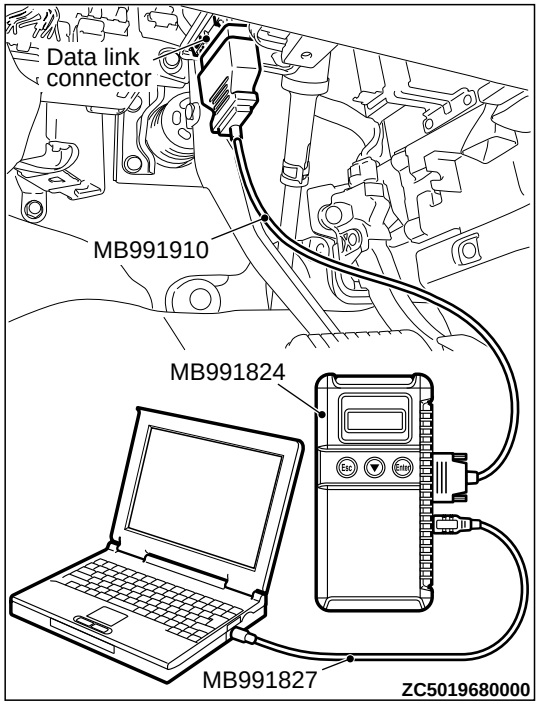
*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected). (Refer to P.52B-5). Therefore, if connector C-27 or D-31 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991934, diagnose the CAN bus line.



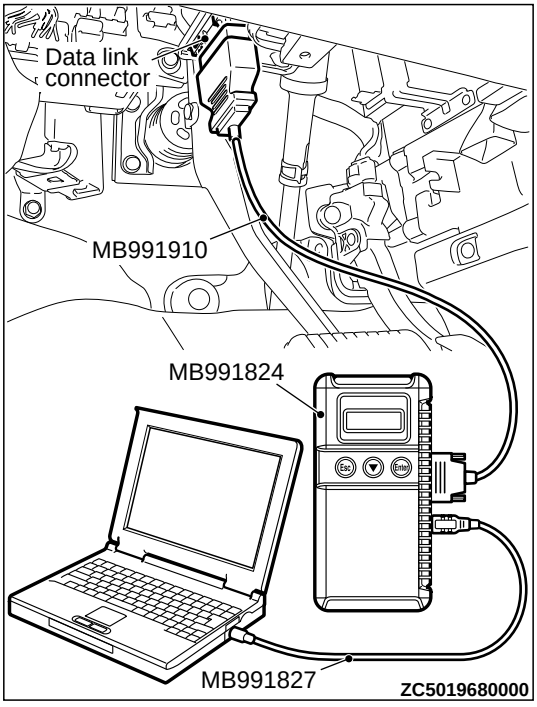
⚠ CAUTION

To prevent damage to scan tool MB991934, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991934.

(1) Connect scan tool MB991934. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the check result satisfactory?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check SRS-ECU connector C-27 and side-airbag module (RH) connector D-31. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-27 and D-31, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is DTC B1C2E out put?

YES: Go to Step 4.

NO: The procedure is complete. It is assumed that DTC B1C2E set because connector C-27 or D-31 was engaged improperly.

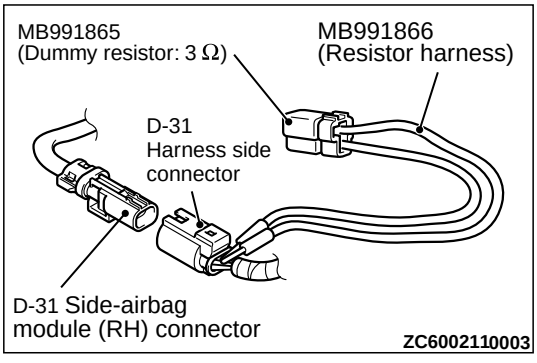
STEP 4. Check the side-airbag module (RH). (Using scan tool MB991934, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-31.
(3) Connect special tool MB991865 to special tool 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-31 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

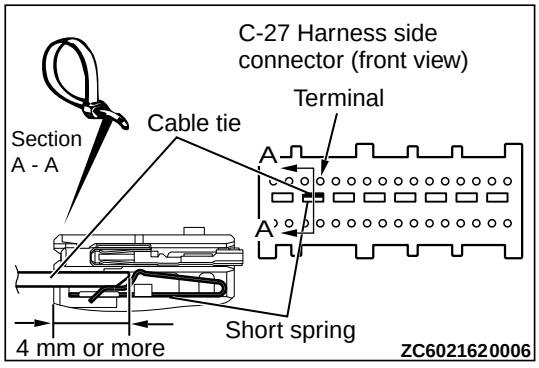


Q:Is DTC B1C2E set?
YES: Go to Step 5.
NO: Replace the seatback frame of the front seat (RH). Then go to Step 7.

STEP 5. Check the side-airbag module (RH) circuit. Measure the resistance at the SRS-ECU connector C-27.
(1) Disconnect SRS-ECU connector C-27.

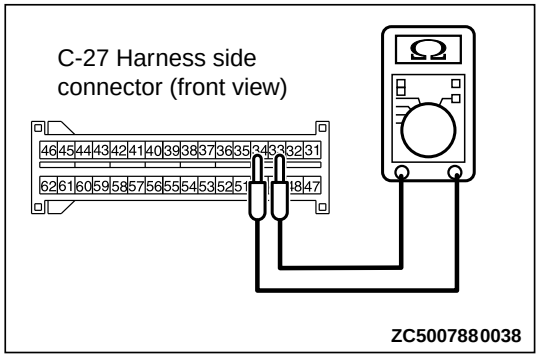
DANGER

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-31 to short the squib circuit.
(2) Disconnect side-airbag module connector D-31.



CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.
(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 33, 34 and the short spring to release the short spring.
(4) Measure at the wiring harness side.



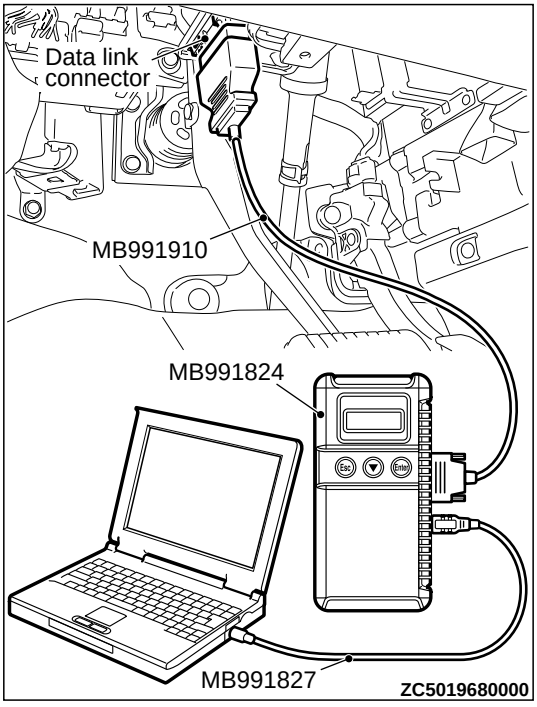
CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.
(5) Check for continuity between C-27 harness side connector terminals 33 and 34.
It should be open circuit.

Q:Does continuity exist?
YES: Go to Step 6.
NO: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2E sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 7.

STEP 6. Check the harness wires for short circuit between SRS-ECU connector C-27 (terminal No.33 and 34) and side-airbag module (RH) connector D-31 (terminal No.1 and 2).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.33 and 34) and side-airbag module (RH) connector D-31 (terminal No.1 and 2) in good condition?
YES: Go to Step 7.
NO: Repair the harness wires between SRS-ECU connector C-27 and side-airbag module (RH) connector D-31. Then go to Step 7.



STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

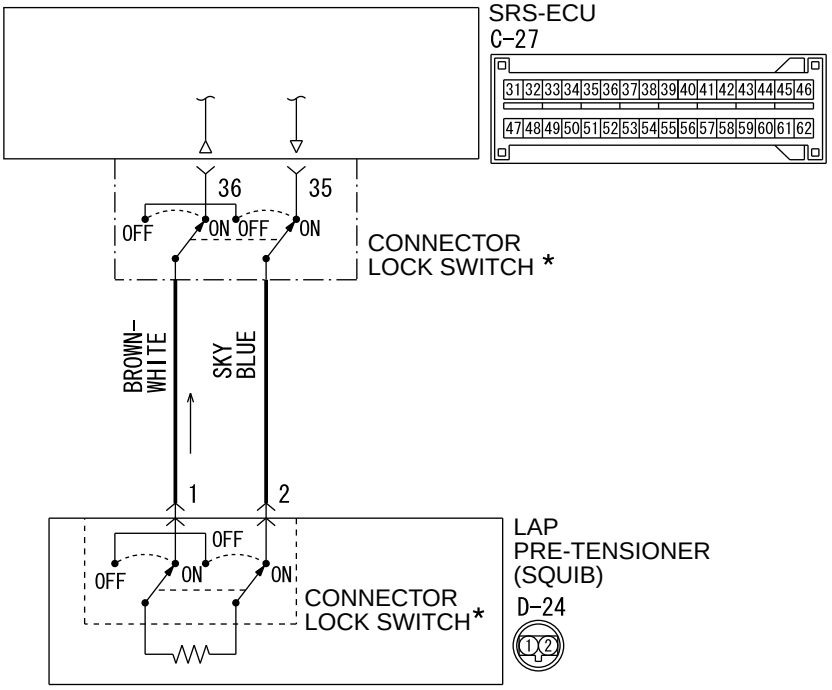
Q:Is DTC B1C2E set?

YES: Return to Step 1.
NO: The procedure is complete.

DTC B1C33: Driver's Lap Pre-tensioner (Squib) System (Shorted to Squib Circuit Ground)

M15204000946USA0000010000

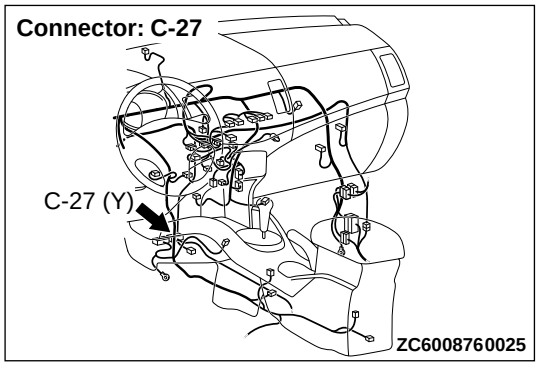
Lap Pre-Tensioner (LH) (Squib) Circuit



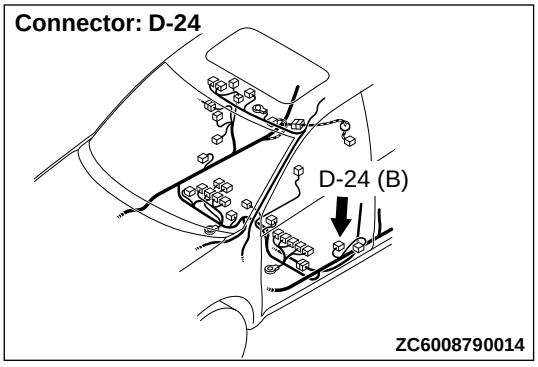
NOTE
*: CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

D7G52M015A00

Connector: C-27



Connector: D-24



⚠ CAUTION

If DTC B1C33 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the lap pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the lap pre-tensioner (squib).

- Short to the ground in the lap pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

TROUBLESHOOTING HITS

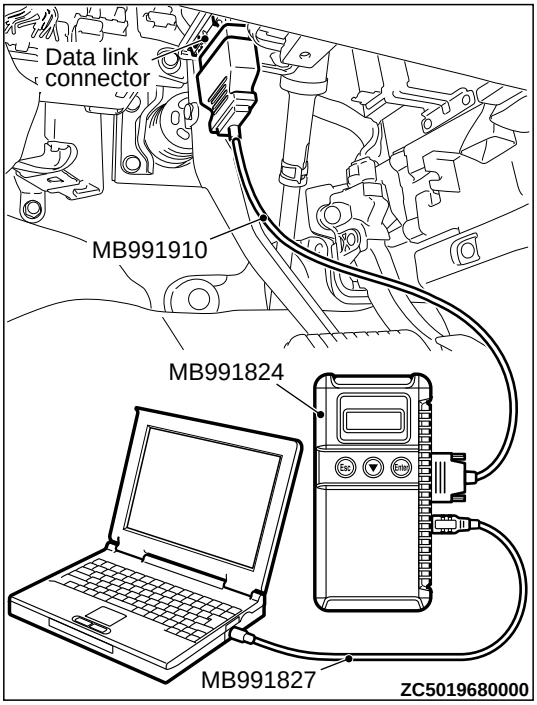
- Damaged wiring harnesses or connectors

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



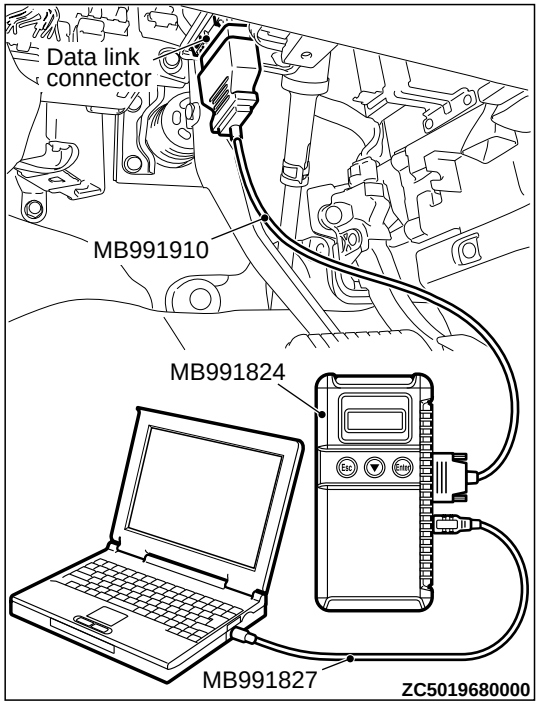
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

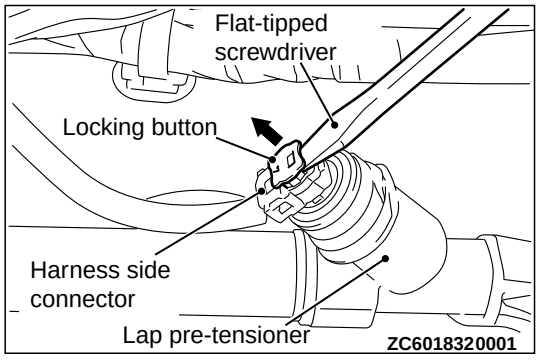
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

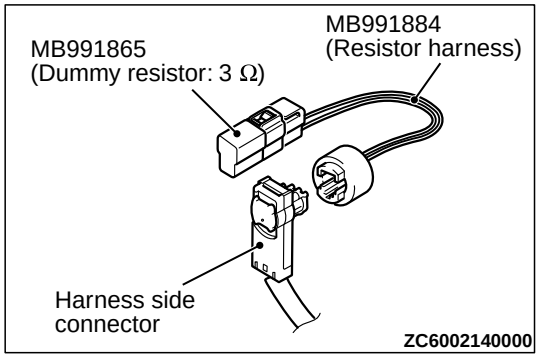
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the lap pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect lap pre-tensioner connector D-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-24 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

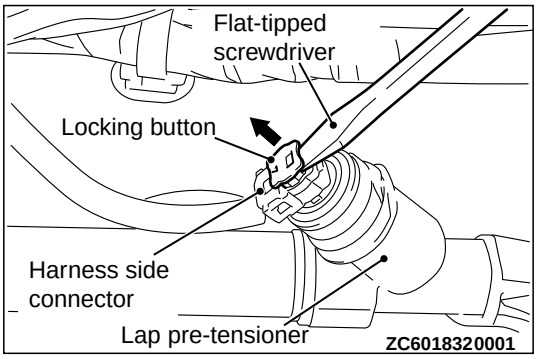
Q:Is DTC B1C33 set?

YES: Go to Step 4.

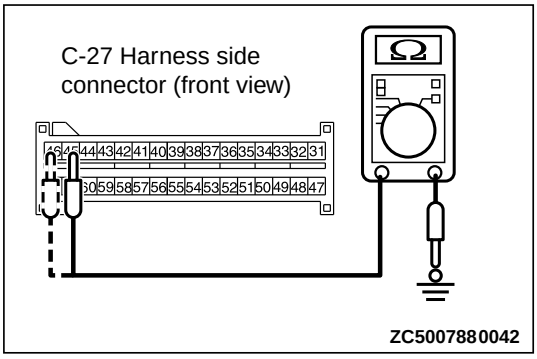
NO: Replace the driver's seat belt pre-tensioner. Refer to P.52B-345. Then go to Step 6.

STEP 4. Check the lap pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.



(2) Disconnect lap pre-tensioner connector D-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, 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) Check for continuity between C-27 harness side connector terminals 35, 36 and body ground.
It should be an open circuit.

Q:Does continuity exist?

YES: Go to Step 5.

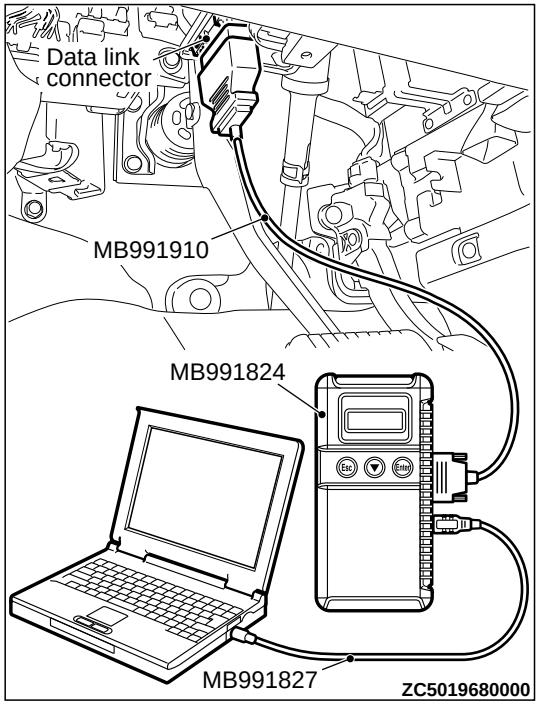
NO: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C33 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 6.

STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-27 (terminal No.35 and 36) and lap pre-tensioner connector D-24 (terminal No.2 and 1).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.35 and 36) and lap pre-tensioner connector D-24 (terminal No.2 and 1) in good condition?

YES: Go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-27 and lap pre-tensioner connector D-24. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

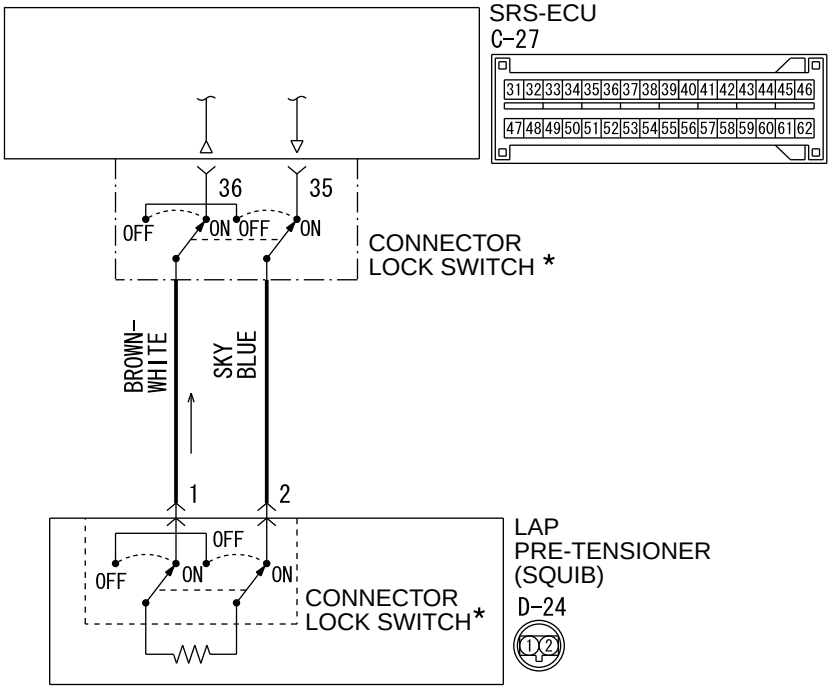
Q:Is DTC B1C33 set?

YES: Return to Step 1.
NO: The procedure is complete.

DTC B1C34: Driver's Lap Pre-tensioner (Squib) System (Shorted to Squib Circuit Power Supply)

M15204000947USA0000010000

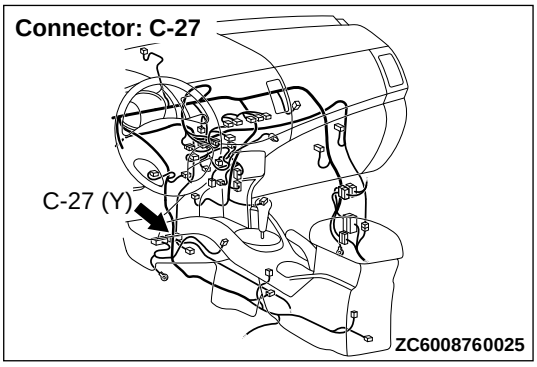
Lap Pre-Tensioner (LH) (Squib) Circuit



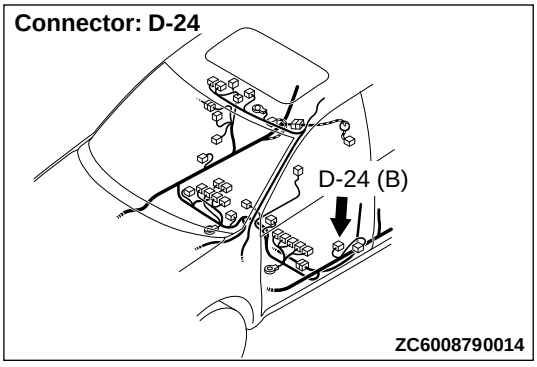
NOTE
*: CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

D7G52M015A00

Connector: C-27



Connector: D-24



⚠ CAUTION

If DTC B1C34 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the lap pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the lap pre-tensioner (squib).

TROUBLESHOOTING HITS

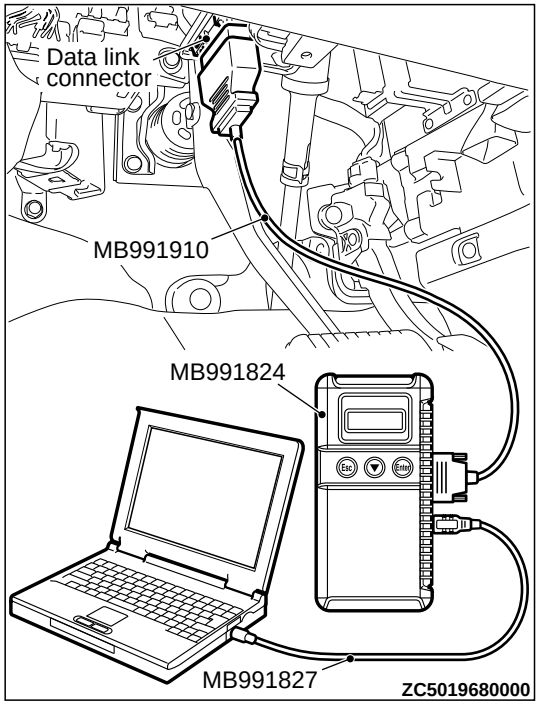
- Damaged wiring harnesses or connectors
- Short to power supply in the lap pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



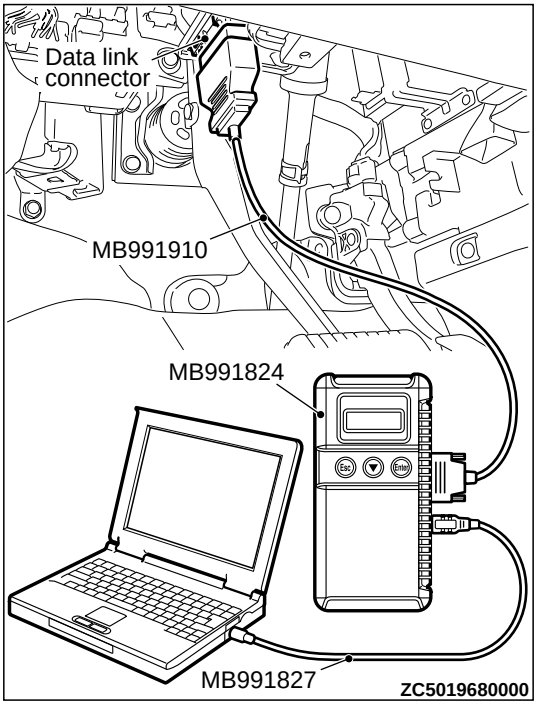
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



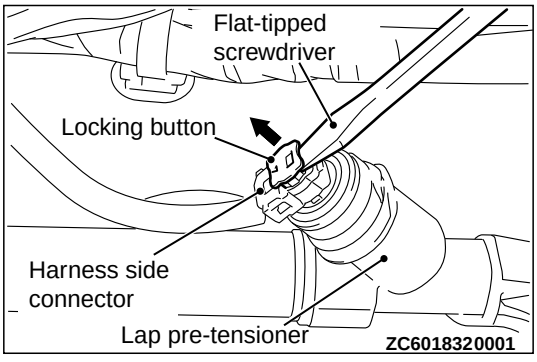
STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

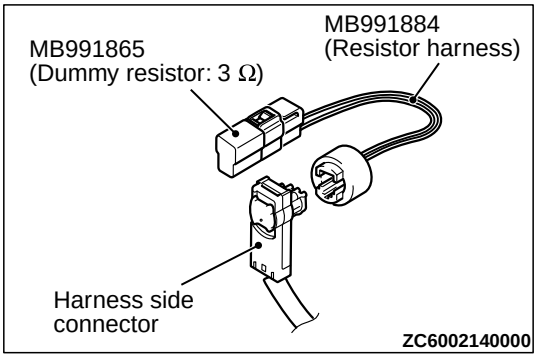
Q:Is the DTC set?

YES: Go to Step 3.
NO: Go to Step 6.



STEP 3. Check the lap pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect lap pre-tensioner connector D-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



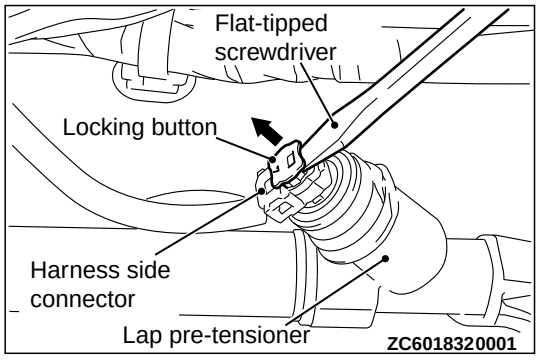
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-24 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is DTC B1C34 set?

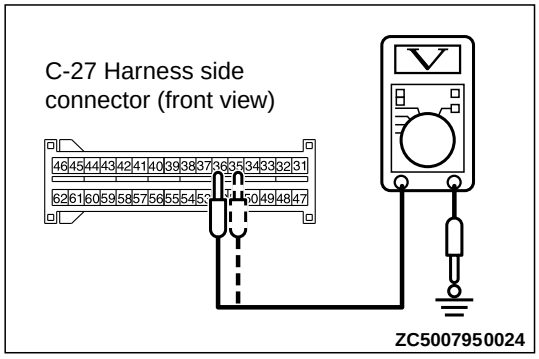
YES: Go to Step 4.
NO: Replace the driver's seat belt with pre-tensioner. (Refer to P.52B-345). Then go to Step 6.

STEP 4. Check the lap pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.



(2) Disconnect lap pre-tensioner connector D-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, 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) Measure the voltage between C-27 harness side connector terminals 35, 36 and body ground.
Voltage should measure 0 volt.

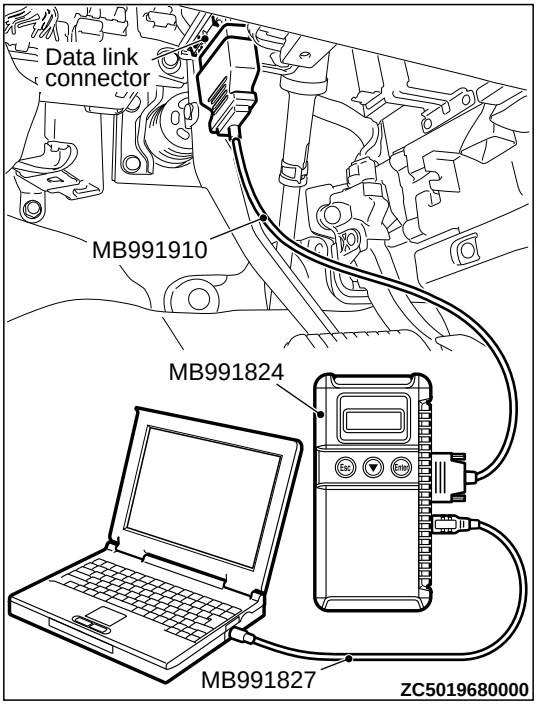
Q:Is the measured voltage 0 volt?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C34 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 6.
NO: Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-27 (terminal No.35 and 36) and lap pre-tensioner connector D-24 (terminal No. 2 and 1).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.35 and 36) and lap pre-tensioner connector D-24 (terminal No.2 and 1) in good condition?

YES: Go to Step 6.
NO: Replace the harness wires between SRS-ECU connector C-27 and lap pre-tensioner connector D-24. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

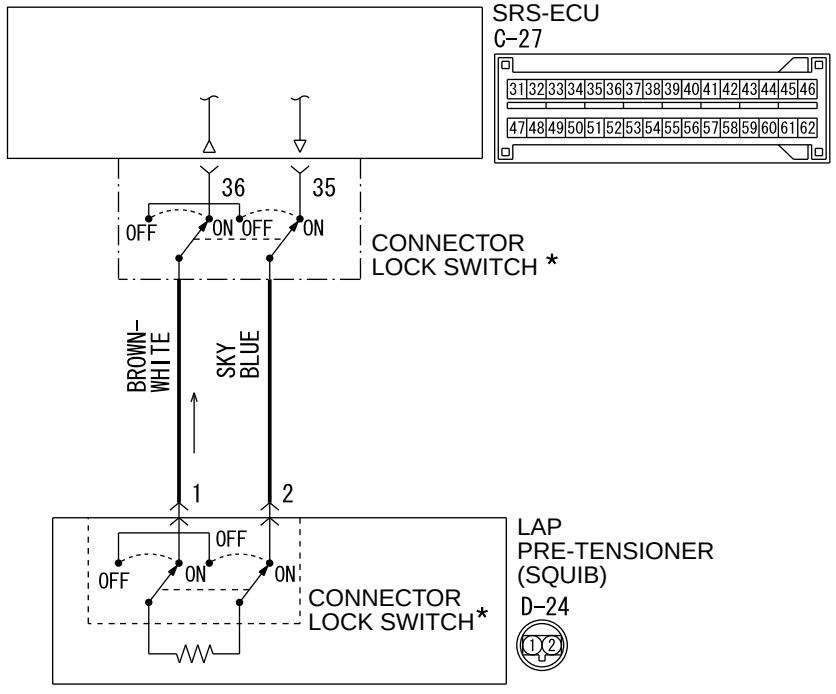
Q:Is DTC B1C34 set?

YES: Return to Step 1.
NO: The procedure is complete.

DTC B1C35: Driver's Lap Pre-tensioner (Squib) System (Squib Circuit Open)

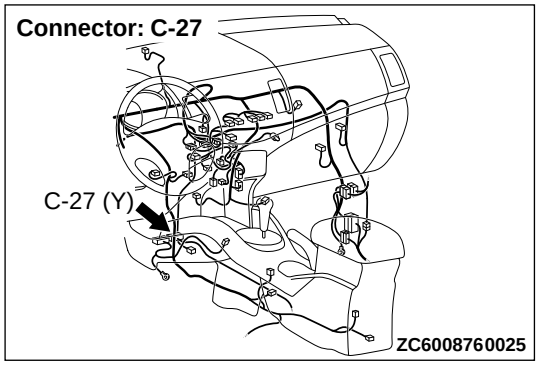
M15204000945USA0000010000

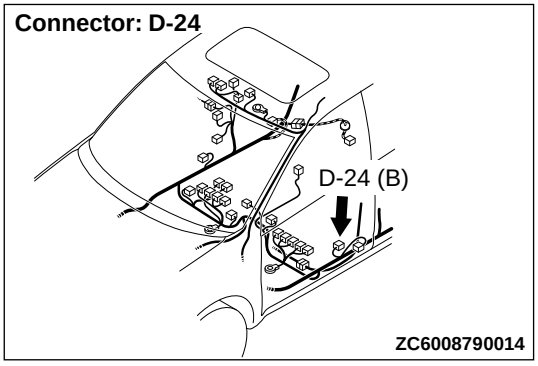
Lap Pre-Tensioner (LH) (Squib) Circuit



NOTE
*: CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

D7G52M015A00





⚠ CAUTION

If DTC B1C35 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the lap pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the lap pre-tensioner (squib).

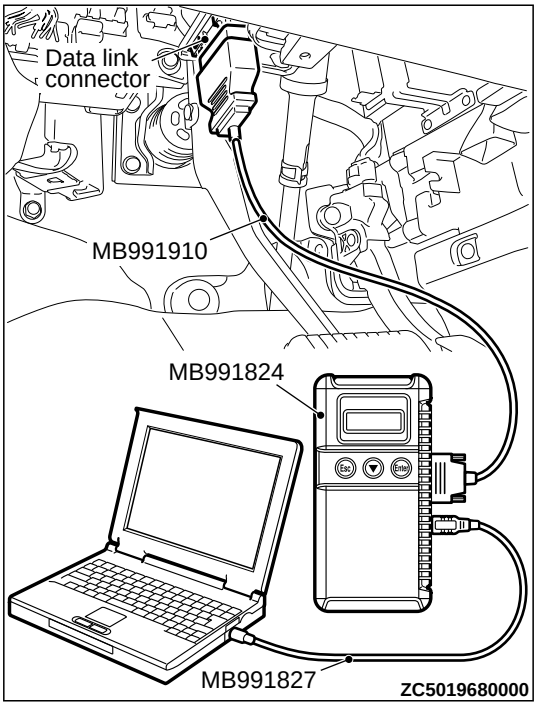
TROUBLESHOOTING HITS

- Improper connector contact
- Open circuit in the lap pre-tensioner (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

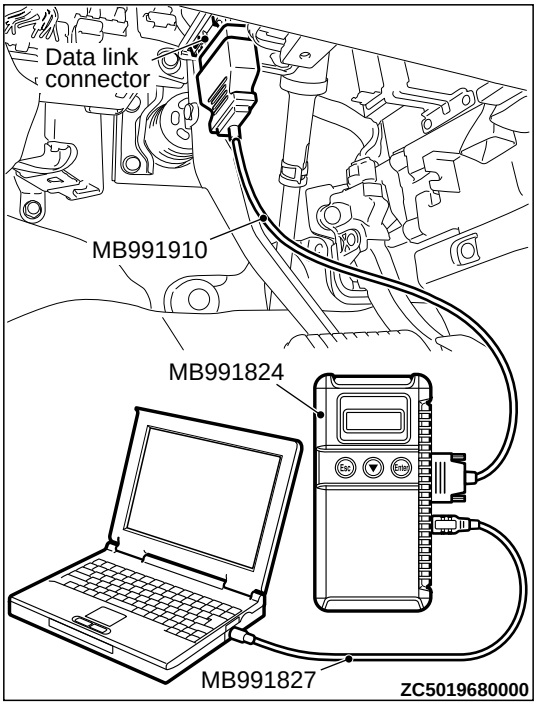
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

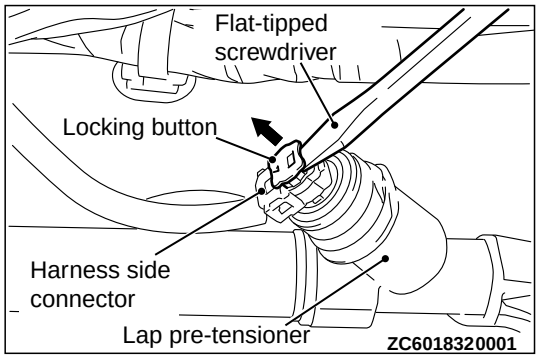
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

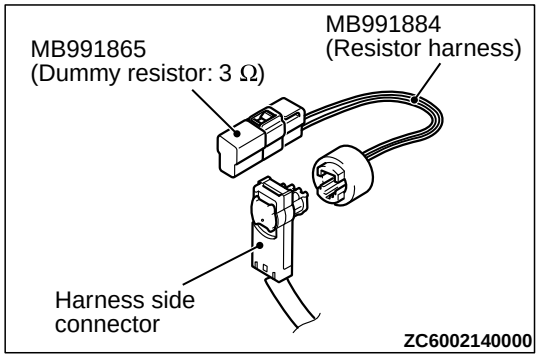
YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the lap pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.



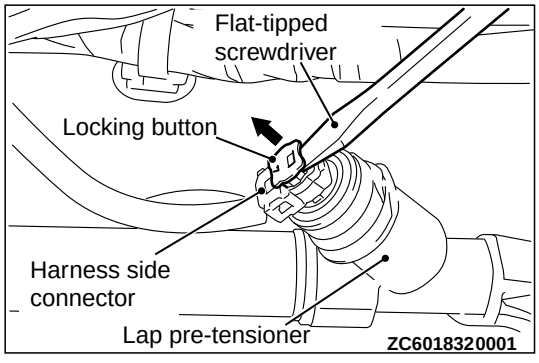
(2) Disconnect lap pre-tensioner connector D-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



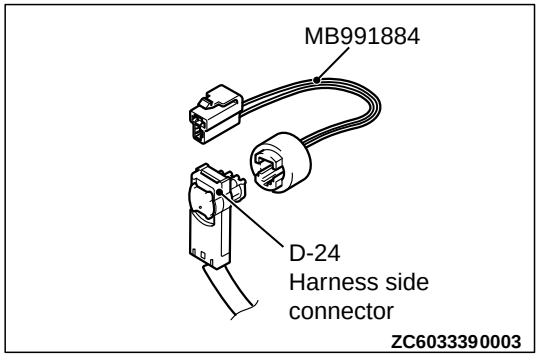
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-24 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q:Is DTC B1C35 set?
YES: Go to Step 4.
NO: Replace the driver's seat belt with pre-tensioner (Refer to P.52B-345). Then go to Step 5.

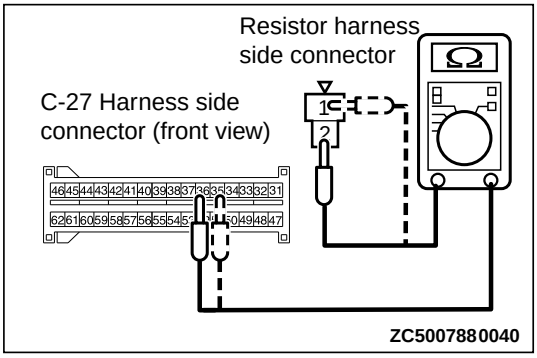
STEP 4. Check the harness for open circuit between SRS-ECU connector C-27 (terminal No.35 and 36) and the lap pre-tensioner D-24 (terminal No.2 and 1).



(1) Disconnect SRS-ECU connector C-27 and lap pre-tensioner connector D-24, and measure at the wiring harness side. For connector D-24, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(2) Connect D-24 harness side connector to special tool 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) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-27 (terminal No.35) and the special tool (terminal No.1)
- SRS-ECU connector C-27 (terminal No.36) and the special tool (terminal No.2)

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and recheck if any DTC set. If DTC B1C35 set, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 5.

NO: Replace harness wires between SRS-ECU connector C-27 and lap pre-tensioner connector D-24. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

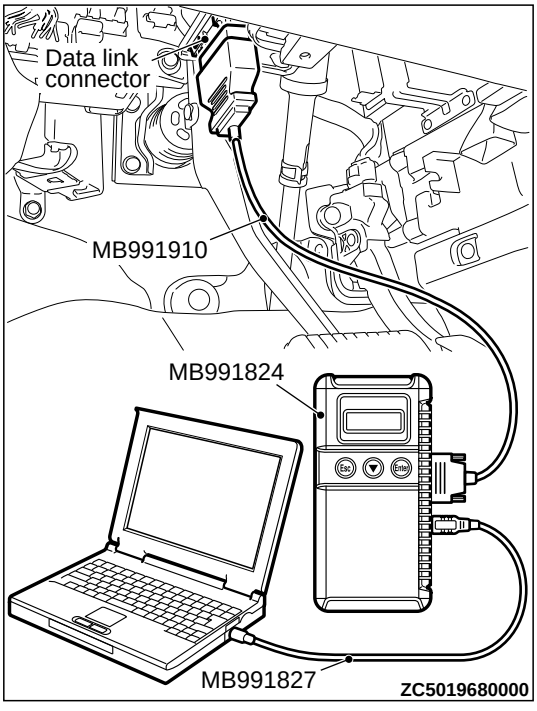
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C35 set?

YES: Return to Step 1.

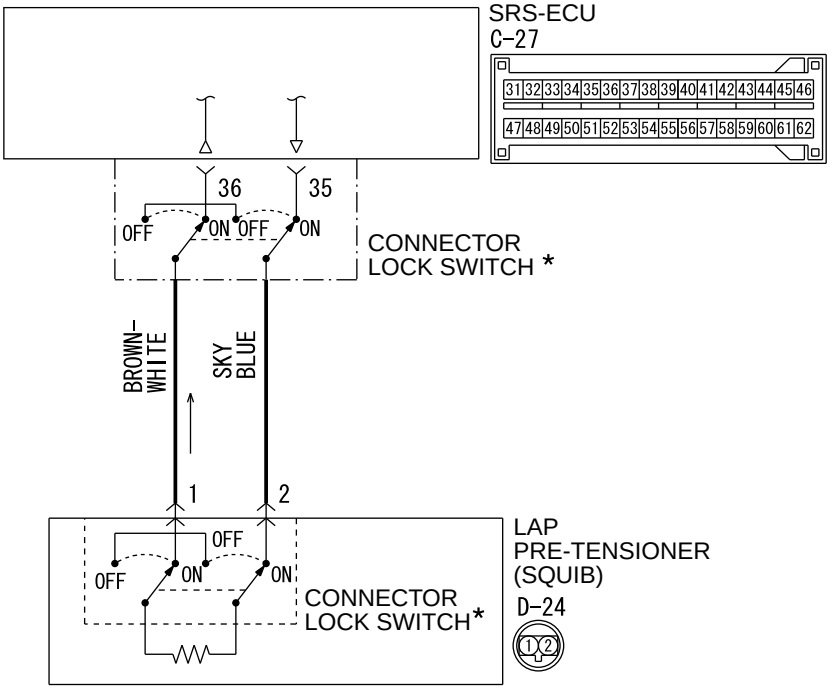
NO: The procedure is complete.



DTC B1C36: Driver's Lap Pre-tensioner (Squib) System (Short Circuit between Squib Circuit Terminals)

M15204000944USA0000010000

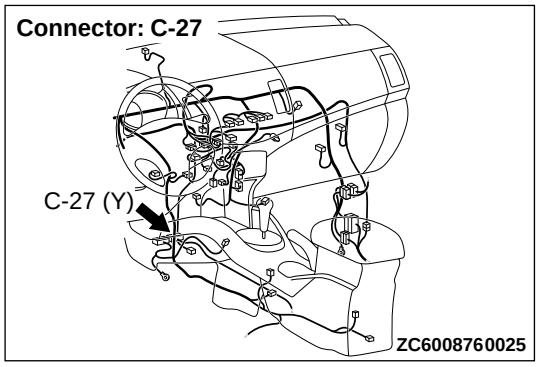
Lap Pre-Tensioner (LH) (Squib) Circuit



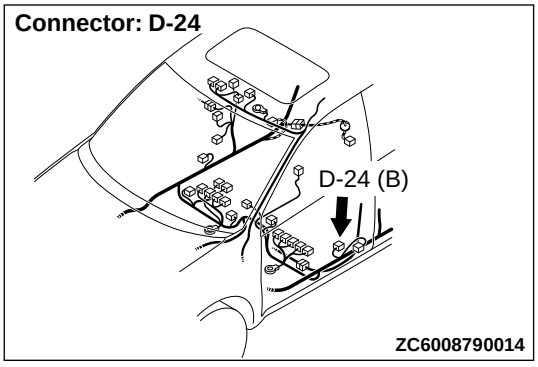
NOTE
*: CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

D7G52M015A00

Connector: C-27



Connector: D-24



⚠ CAUTION

If DTC B1C36 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the lap pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the lap pre-tensioner (squib).

TROUBLESHOOTING HITS

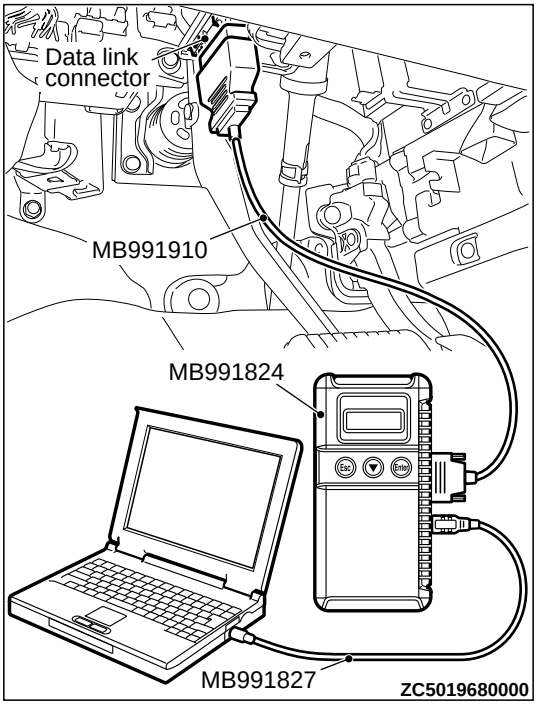
- Improper engaged connector or defective short spring*
- Short circuit between the lap pre-tensioner (squib) circuit terminals
- Damaged connector(s)

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the lap pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-5). Therefore, if connector C-27 or D-24 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

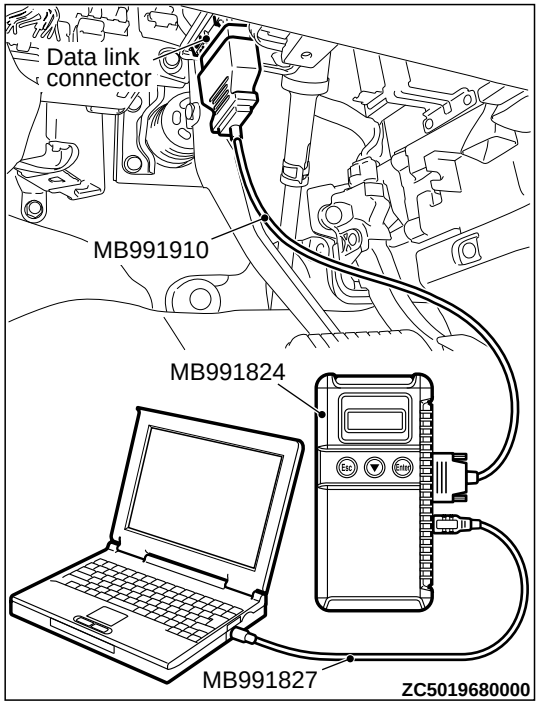
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

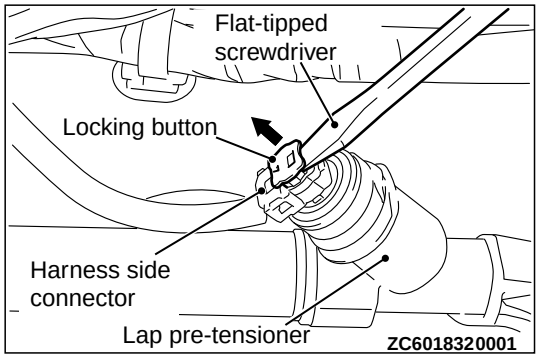
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check SRS-ECU connector C-27 and lap pre-tensioner connector D-24. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-27 and D-24, and then reconnect them. For connector D-24, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

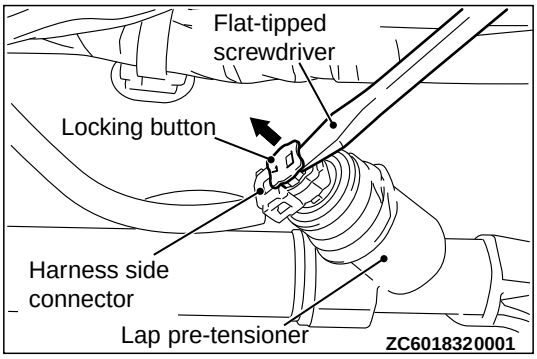
Q:Is DTC B1C36 set?

YES: Go to Step 4.

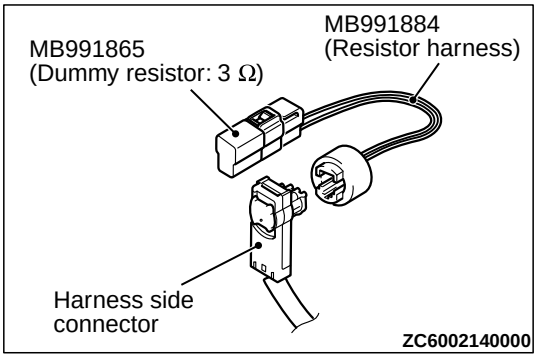
NO: The procedure is complete. It is assumed that DTC B1C36 set because connector C-27 or D-24 was engaged improperly.

STEP 4. Check the lap pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.



(2) Disconnect lap pre-tensioner connector D-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

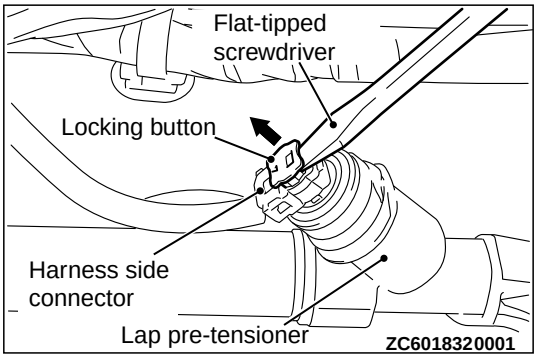


(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-24 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q:Is DTC B1C36 set?
YES: Go to Step 5.
NO: Replace the driver's seat belt with pre-tensioner. (Refer to P.52B-345). Then go to Step 7.

STEP 5. Check the lap pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-27.

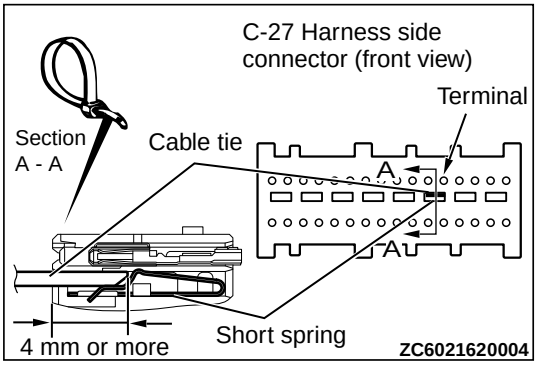
(1) Disconnect SRS-ECU connector C-27.



DANGER

To prevent the lap pre-tensioner from deploying unintentionally, disconnect the lap pre-tensioner connector D-24 to short the squib circuit.

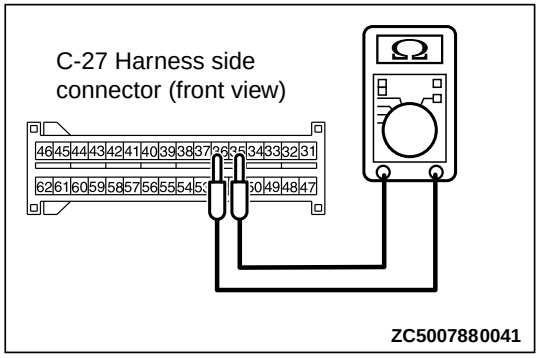
(2) Disconnect lap pre-tensioner connector D-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 35, 36 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-27 harness side connector terminals 35 and 36.
It should be an open circuit.

Q:Does continuity exist?

YES: Go to Step 6.

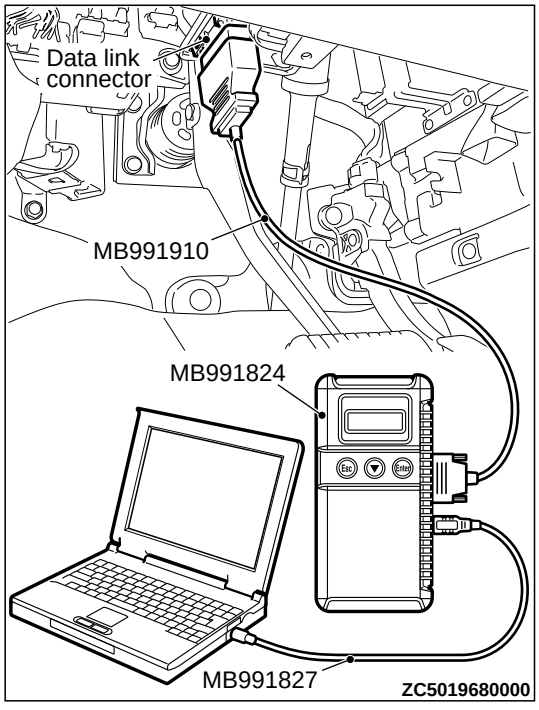
NO: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C36 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 7.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-27 (terminal No.35 and 36) and lap pre-tensioner connector D-24 (terminal No.2 and 1).

Q:Are harness wires between SRS-ECU connector C-27 (terminal No.35 and 36) and lap pre-tensioner connector D-24 (terminal No.2 and 1) in good condition?

YES: Go to Step 7.

NO: Replace the harness wires between SRS-ECU connector C-27 and lap pre-tensioner connector D-24. Then go to Step 7.



STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C36 set?

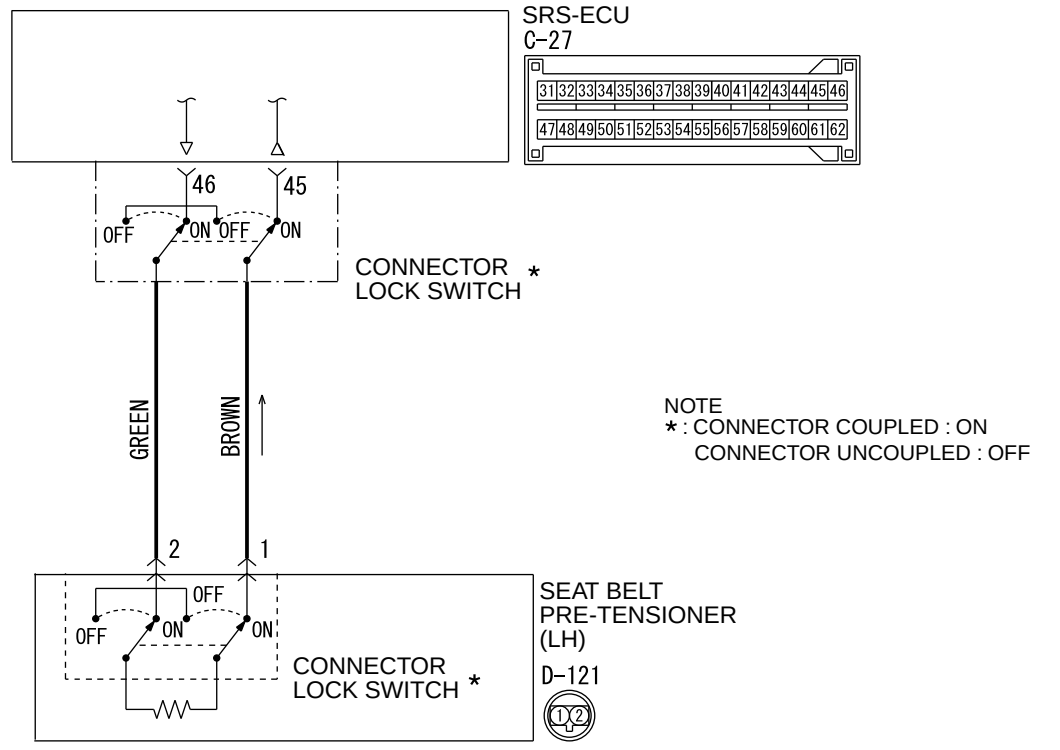
YES: Return to Step 1.

NO: The procedure is complete.

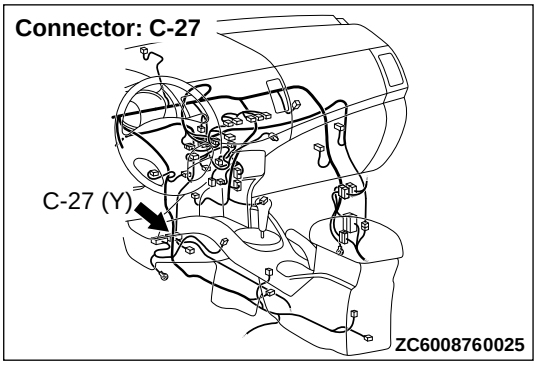
DTC B1C38 Driver's pre-tensioner (squib) system (shorted to squib circuit Ground)

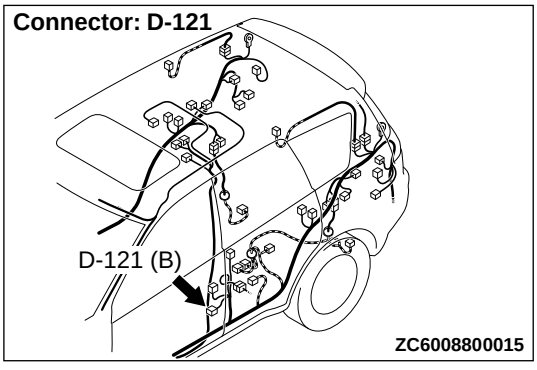
M15204000938USA0000010000

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



D7G52M016A00





⚠ CAUTION

If DTC B1C38 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

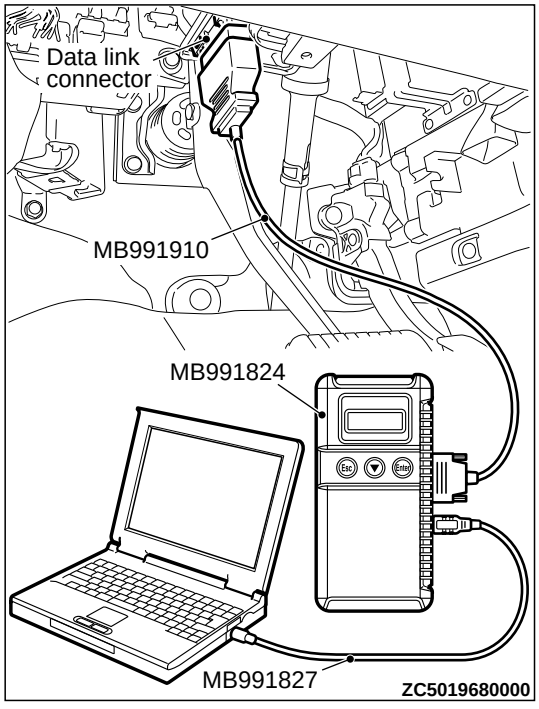
- Damaged wiring harnesses or connectors
- Short to the ground in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



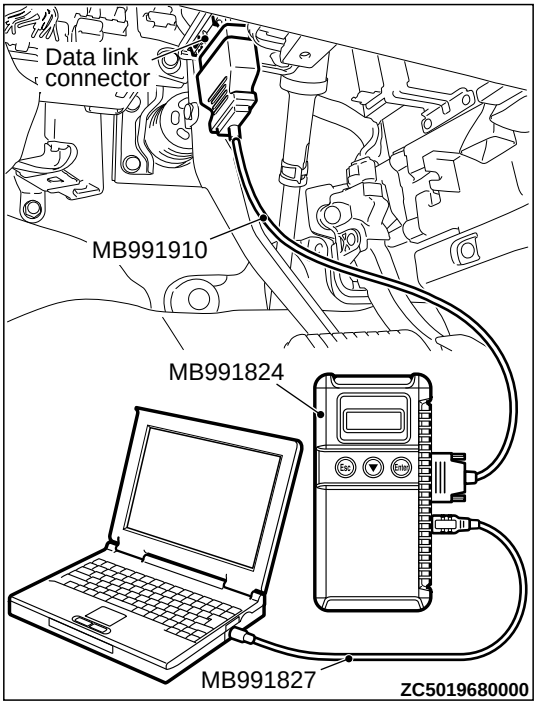
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

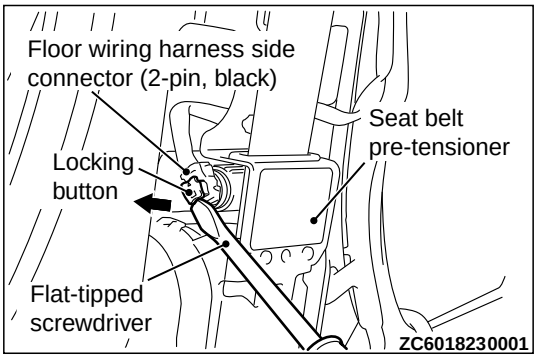
Q:Is the DTC set?

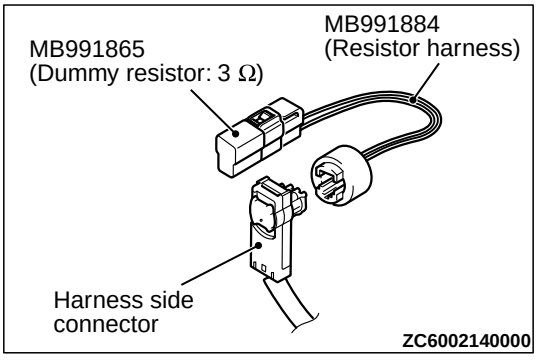
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect driver's seat belt pre-tensioner connector D-121. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-121 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

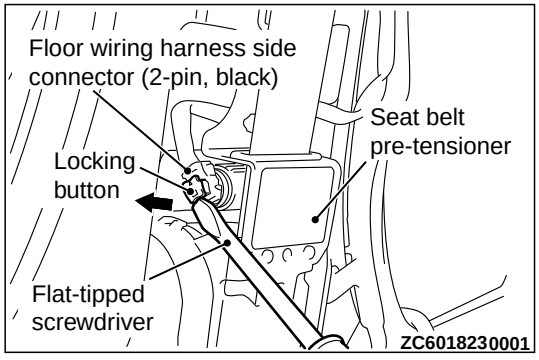
Q:Is DTC B1C38 set?

YES: Go to Step 4.

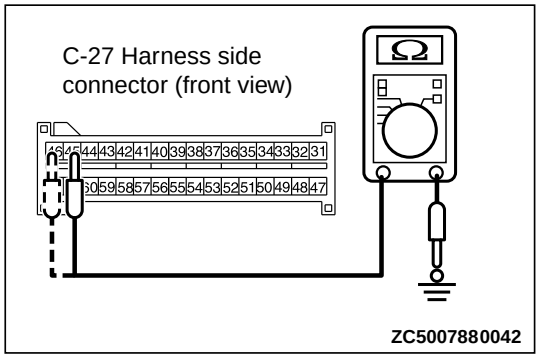
NO: Replace the driver's seat belt with pre-tensioner. Refer to P.52B-345. Then go to Step 6.

STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.



(2) Disconnect driver's seat belt pre-tensioner connector D-121. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, 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) Check for continuity between C-27 harness side connector terminals 45, 46 and body ground.
It should be an open circuit.

Q:Does continuity exist?

YES: Go to Step 5.

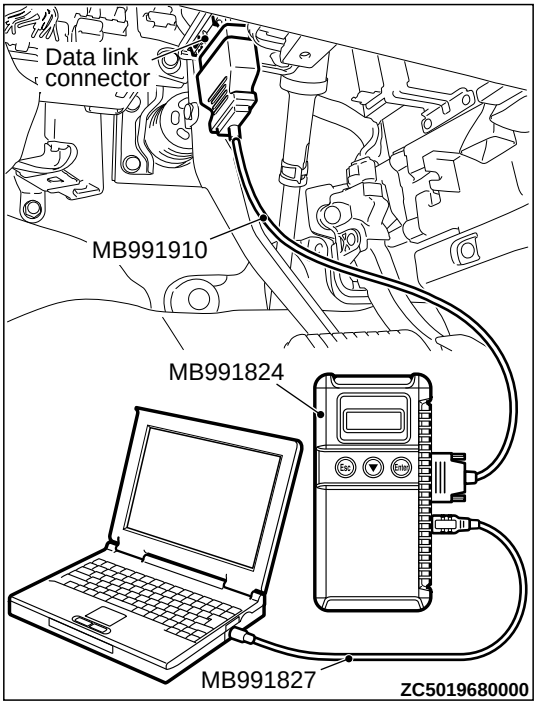
NO: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C38 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 6.

STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-27 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-121 (terminal No.1 and 2).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-121 (terminal No.1 and 2) in good condition?

YES: Go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-27 and driver's seat belt pre-tensioner connector D-121. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

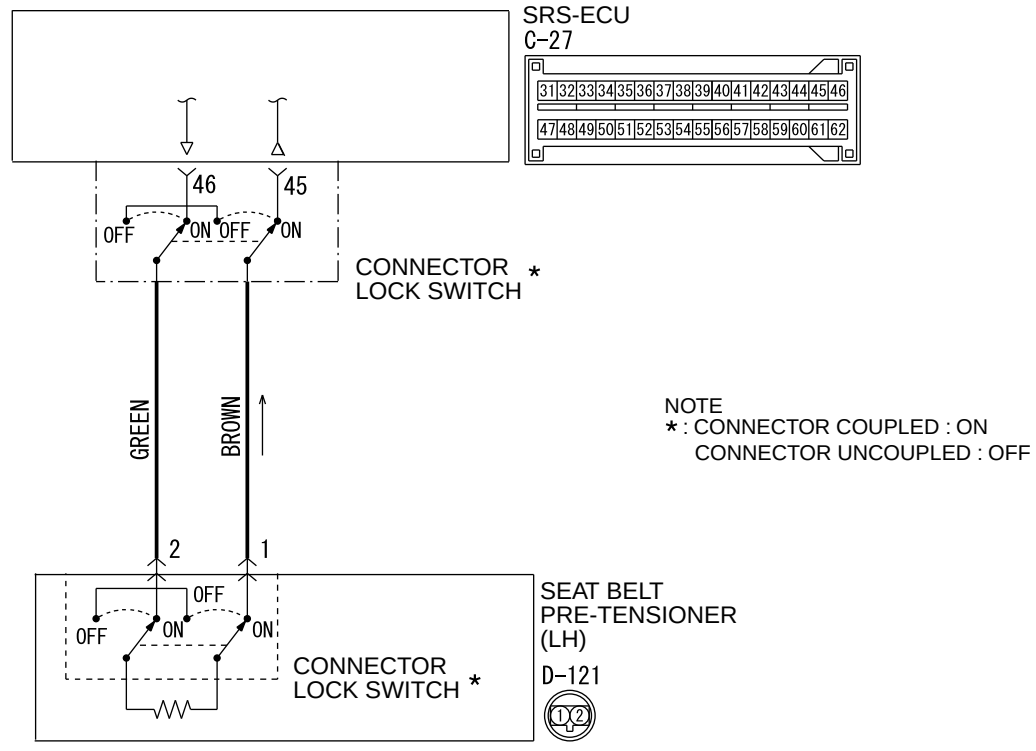
Q:Is DTC B1C38 set?

YES: Return to Step 1.
NO: The procedure is complete.

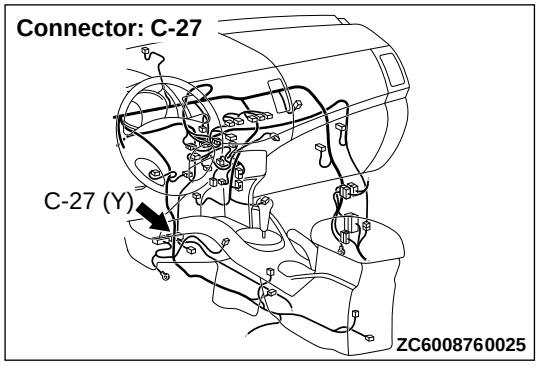
DTC B1C39: Driver's Pre-tensioner (Squib) System (Shorted to Squib Circuit Power Supply)

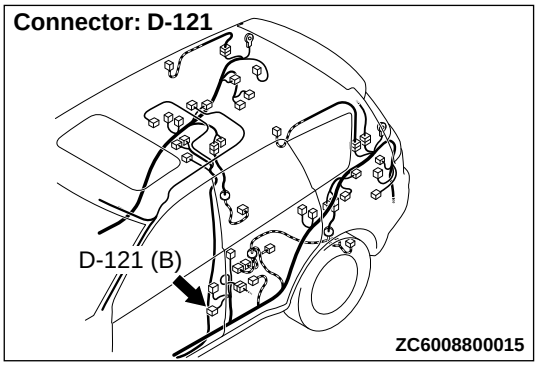
M15204000939USA0000010000

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



D7G52M016A00





⚠ CAUTION

If DTC B1C39 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

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

TROUBLESHOOTING HITS

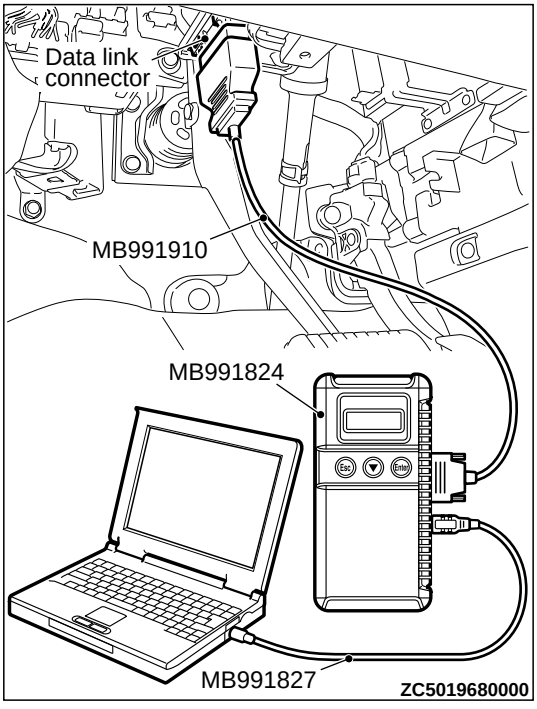
- Damaged wiring harnesses or connectors

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



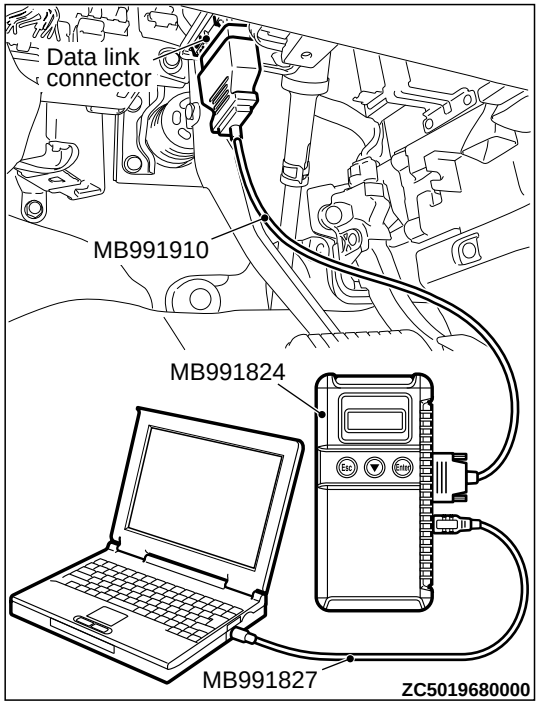
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

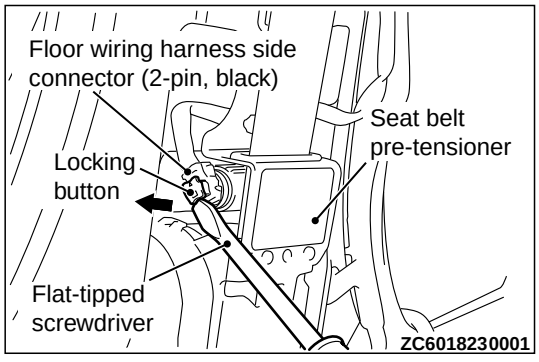
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

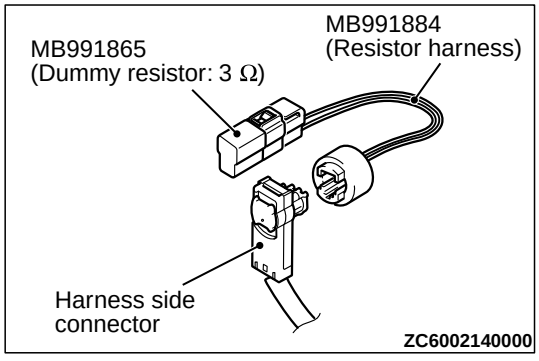
Q:Is the DTC set?

YES: Go to Step 3.
NO: Go to Step 6.

STEP 3. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect driver's seat belt pre-tensioner connector D-121. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





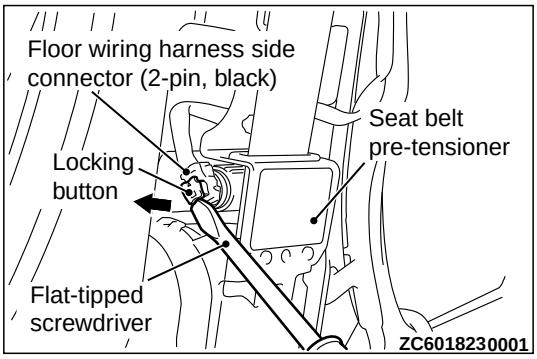
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-121 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q:Is DTC B1C39 set?

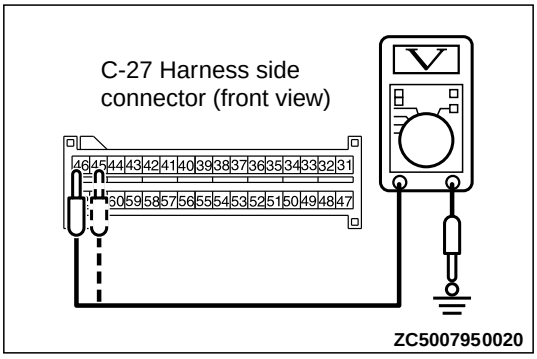
YES: Go to Step 4.
NO: Replace the driver's seat belt with pre-tensioner. (Refer to P.52B-345). Then go to Step 6.

STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.



(2) Disconnect driver's seat belt pre-tensioner connector D-121. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Turn the ignition switch to the "ON" position.



⚠ CAUTION

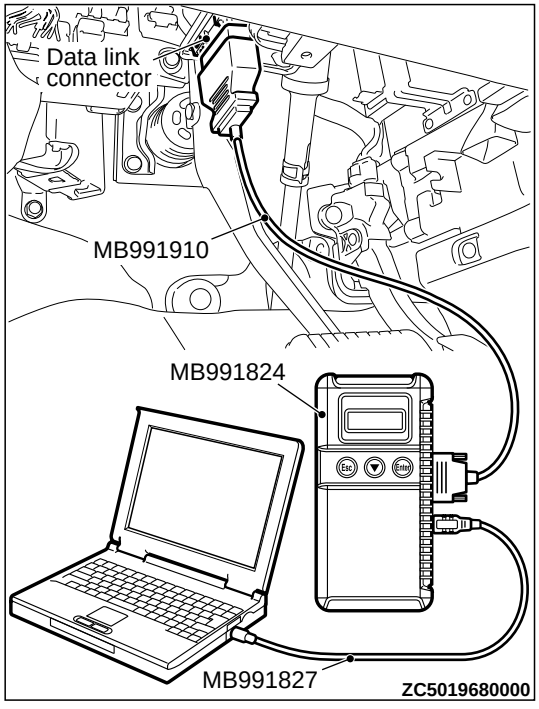
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Measure the voltage between C-27 harness side connector terminals 45, 46 and body ground.
Voltage should measure 0 volt.

Q:Is the measured voltage 0 volt?
YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C39 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 6.
NO: Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-27 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-121 (terminal No.1 and 2).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.45 and 46). and driver's seat belt pre-tensioner connector D-121 (terminal No.1 and 2) in good condition?
YES: Go to Step 6.
NO: Replace the harness wires between SRS-ECU connector C-27 and driver's seat belt pre-tensioner connector D-121. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

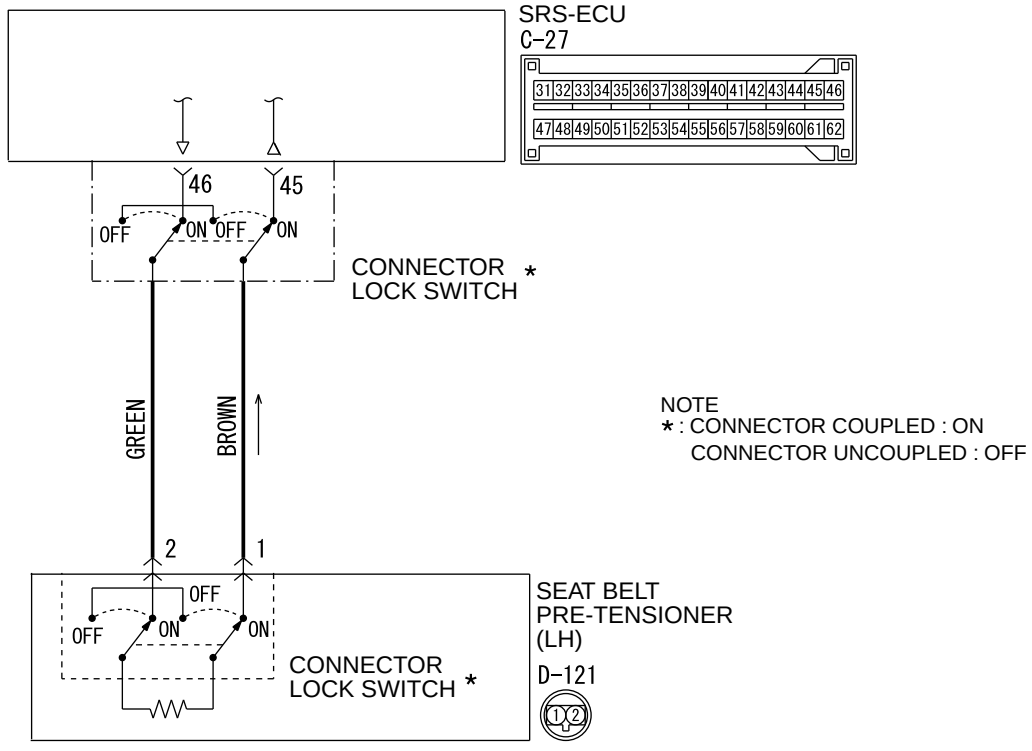
Q:Is DTC B1C39 set?

YES: Return to Step 1.
NO: The procedure is complete.

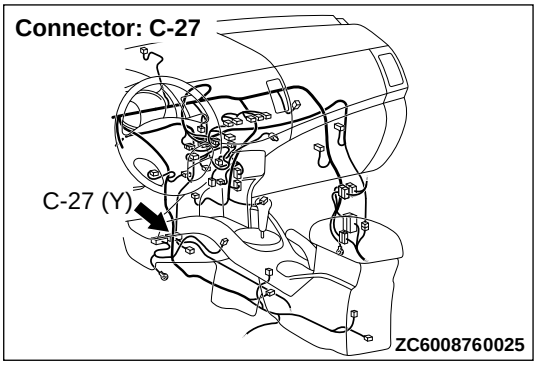
DTC B1C3A: Driver's Pre-tensioner (Squib) System (Squib Circuit Open)

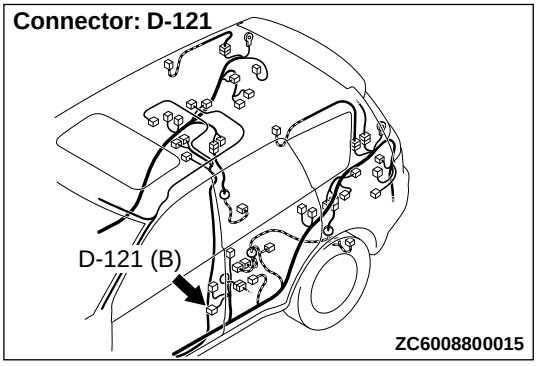
M15204000937USA0000010000

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



D7G52M016A00





⚠ CAUTION

If DTC B1C3A is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

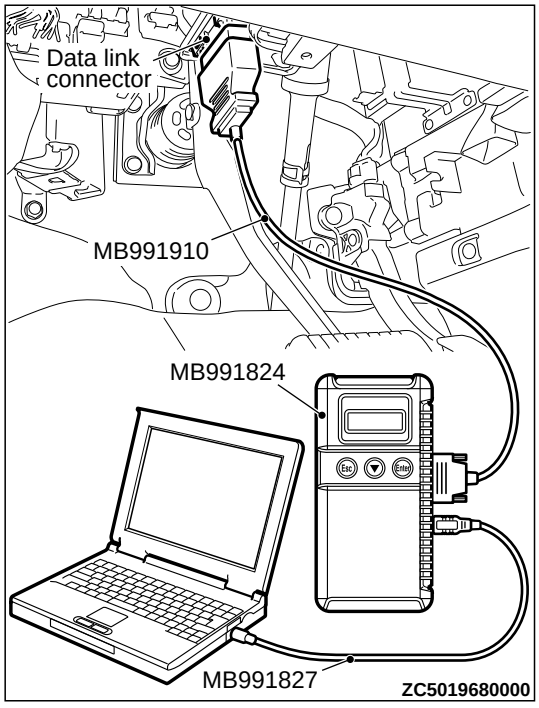
TROUBLESHOOTING HITS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

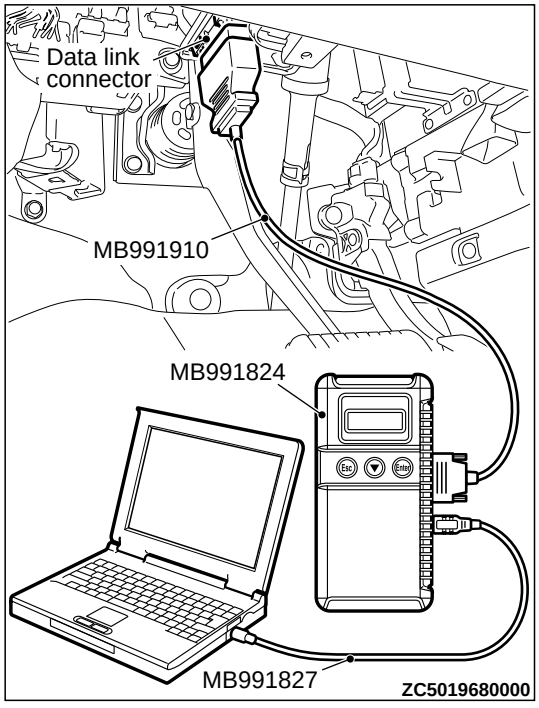
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

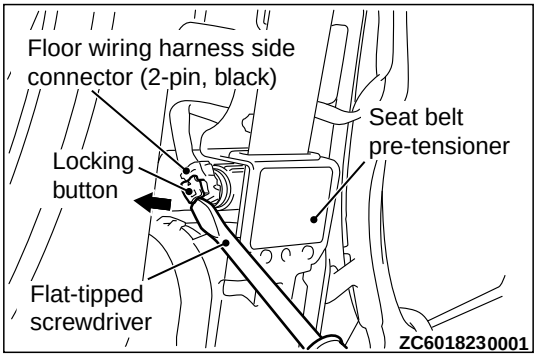
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

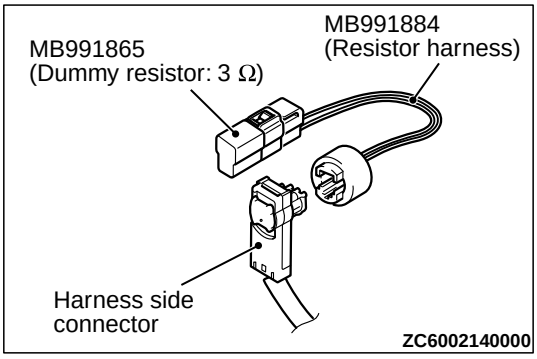
YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.



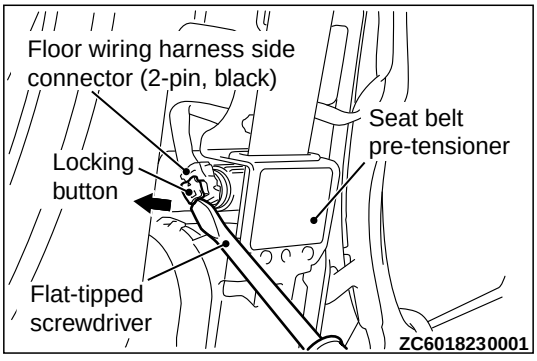
(2) Disconnect driver's seat belt pre-tensioner connector D-121. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



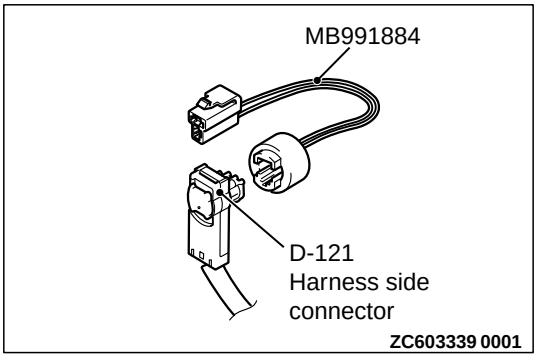
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-121 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q:Is DTC B1C3A set?
YES: Go to Step 4.
NO: Replace the driver's seat belt with pre-tensioner (Refer to P.52B-345). Then go to Step 5.

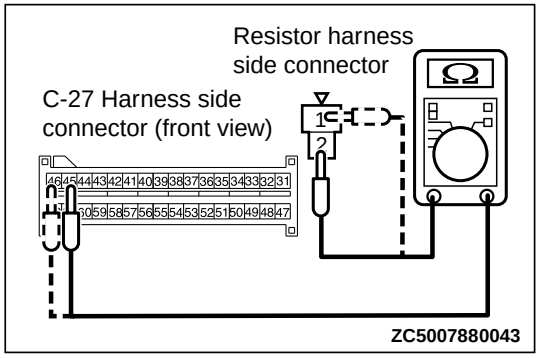
STEP 4. Check the harness for open circuit between SRS-ECU connector C-27 (terminal No.45 and 46) and the driver's seat belt pre-tensioner D-121 (terminal No.1 and 2).



(1) Disconnect SRS-ECU connector C-27 and driver's seat belt pre-tensioner connector D-121, and measure at the wiring harness side. For connector D-121, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(2) Connect D-121 harness side connector to special tool MB991884.



⚠ CAUTION

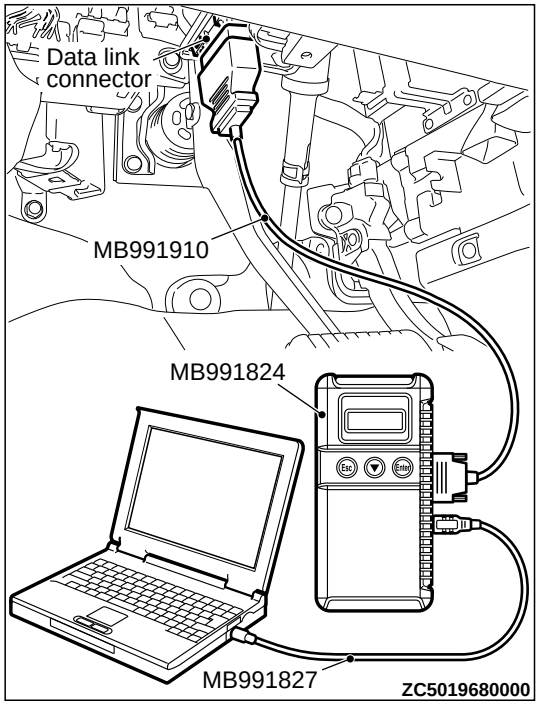
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-27 (terminal No.45) and the special tool (terminal No.2)
- SRS-ECU connector C-27 (terminal No.46) and the special tool (terminal No.1)

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and recheck if any DTC set. If DTC B1C3A set, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 5.

NO: Replace harness wires between SRS-ECU connector C-27 and driver's seat belt pre-tensioner connector D-121. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C3A set?

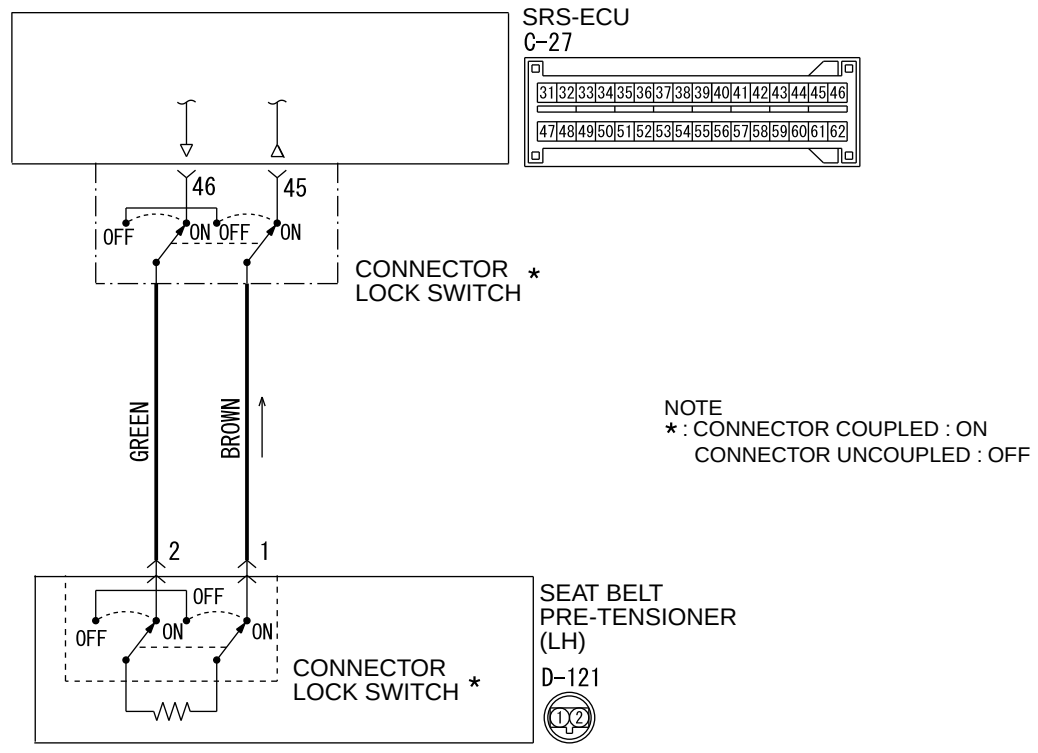
YES: Return to Step 1.

NO: The procedure is complete.

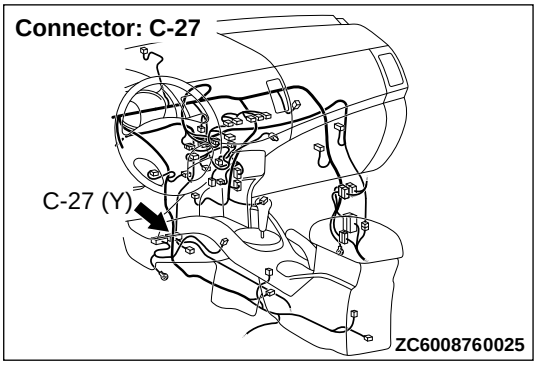
DTC B1C3B: Driver's Pre-tensioner (Squib) System (Short Circuit between Squib Circuit Terminals)

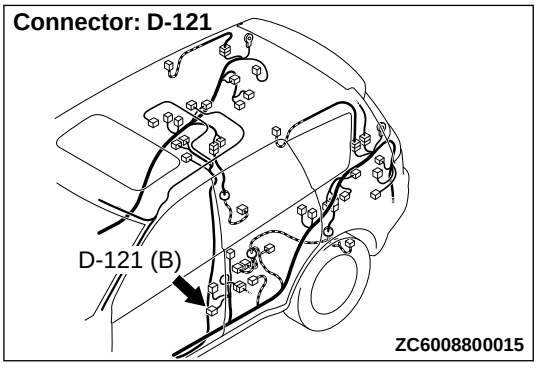
M15204000936USA0000010000

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



D7G52M016A00





⚠ CAUTION

If DTC B1C3B is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's side seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- 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

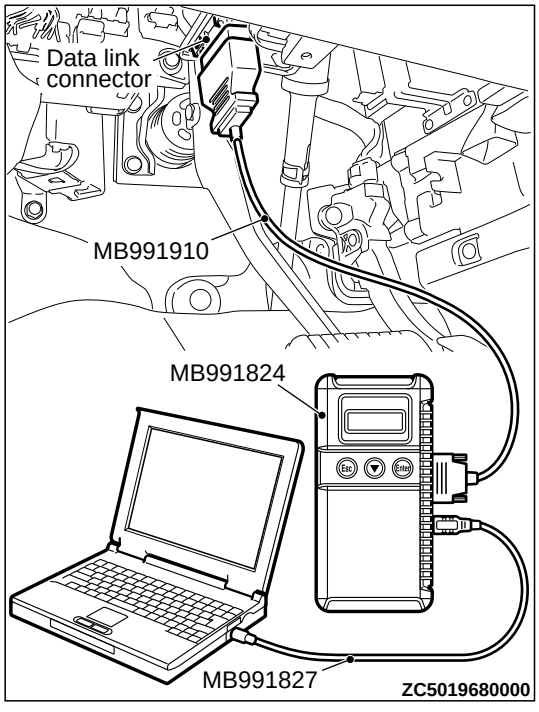
*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-5). Therefore, if connector C-27 or D-121 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



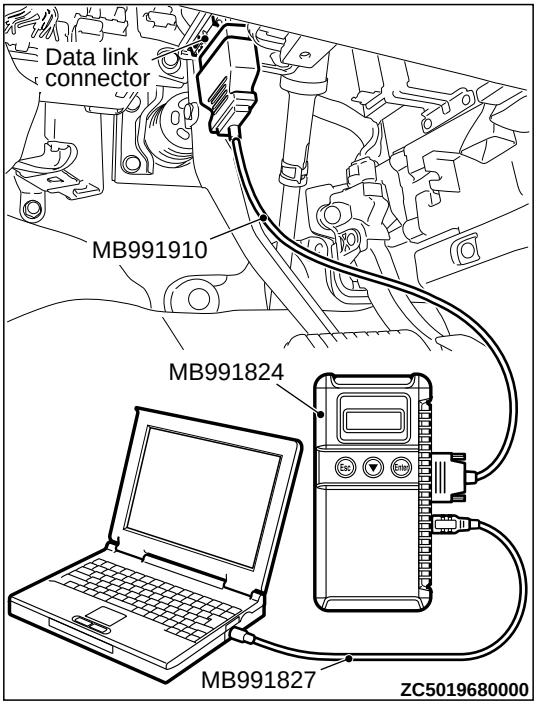
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

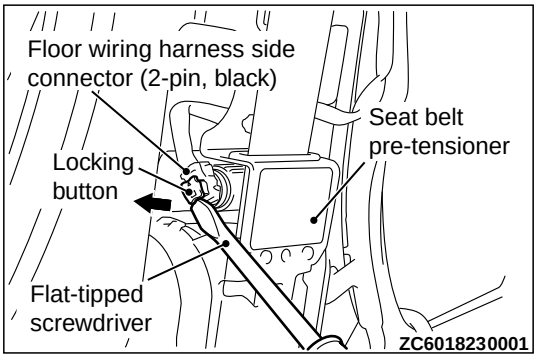
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check SRS-ECU connector C-27 and driver's seat belt pre-tensioner connector D-121. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-27 and D-121, and then reconnect them. For connector D-121, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

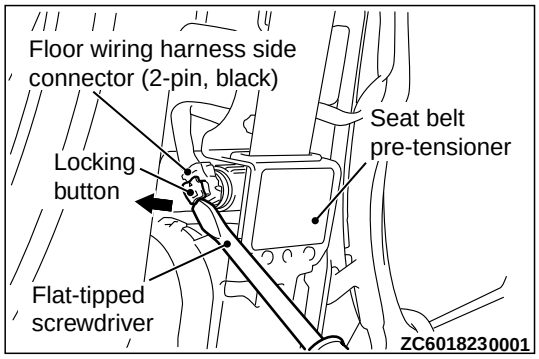
Q:Is DTC B1C3B set?

YES: Go to Step 4.

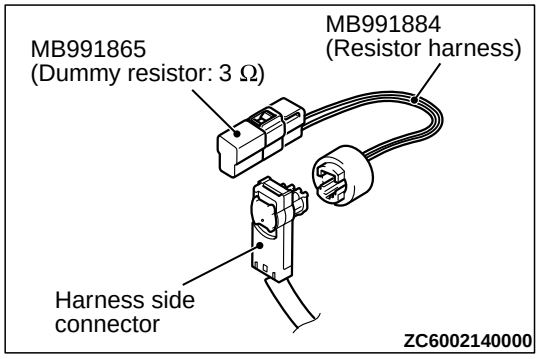
NO: The procedure is complete. It is assumed that DTC B1C3B set because connector C-27 or D-121 was engaged improperly.

STEP 4. Check the driver's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.



(2) Disconnect driver's seat belt pre-tensioner connector D-121. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-121 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

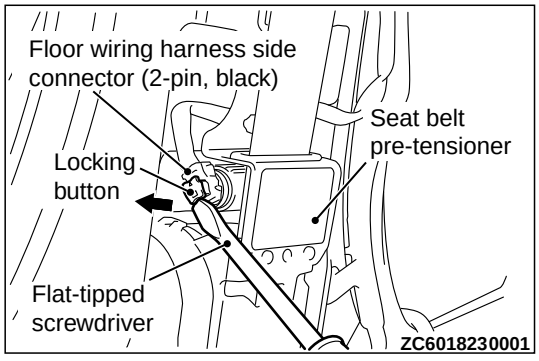
Q:Is DTC B1C3B set?
YES: Go to Step 5.
NO: Replace the driver's seat with belt pre-tensioner. (Refer to P.52B-345). Then go to Step 7.

STEP 5. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-27.

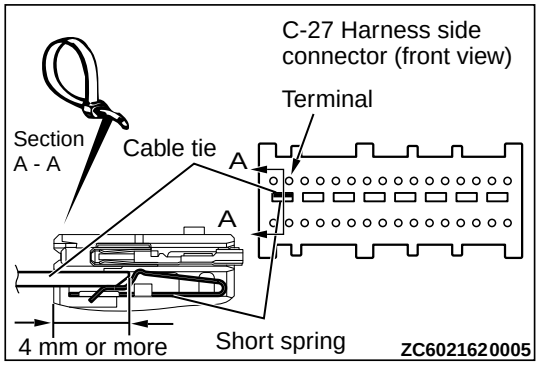
(1) Disconnect SRS-ECU connector C-27.

⚠ DANGER

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-121 to short the squib circuit.



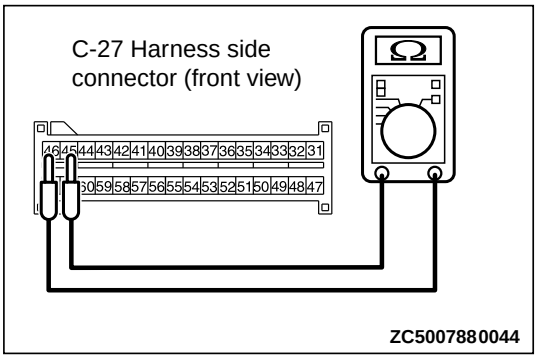
(2) Disconnect driver's seat belt pre-tensioner connector D-121. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 45, 46 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-27 harness side connector terminals 45 and 46.
It should be an open circuit.

Q:Does continuity exist?

YES: Go to Step 6.

NO: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C3B sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 7.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-27 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-121 (terminal No.1 and 2).

Q:Are harness wires between SRS-ECU connector C-27 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-121 (terminal No.1 and 2) in good condition?

YES: Go to Step 7.

NO: Replace the harness wires between SRS-ECU connector C-27 and driver's seat belt pre-tensioner connector D-121. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

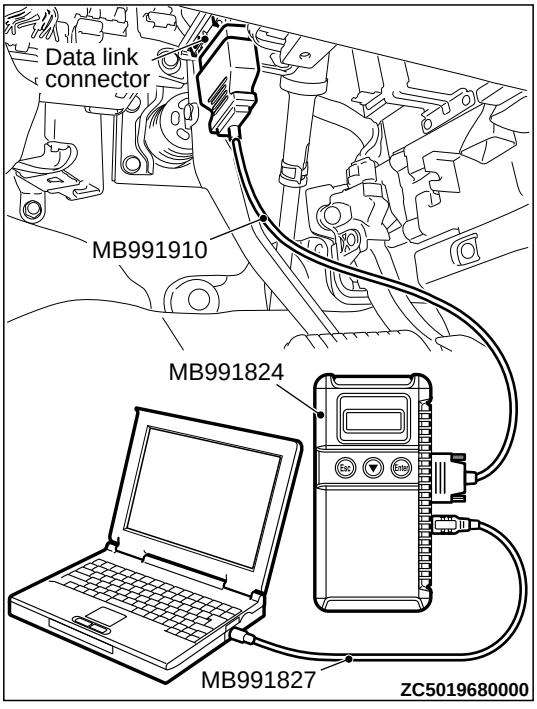
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C3B set?

YES: Return to Step 1.

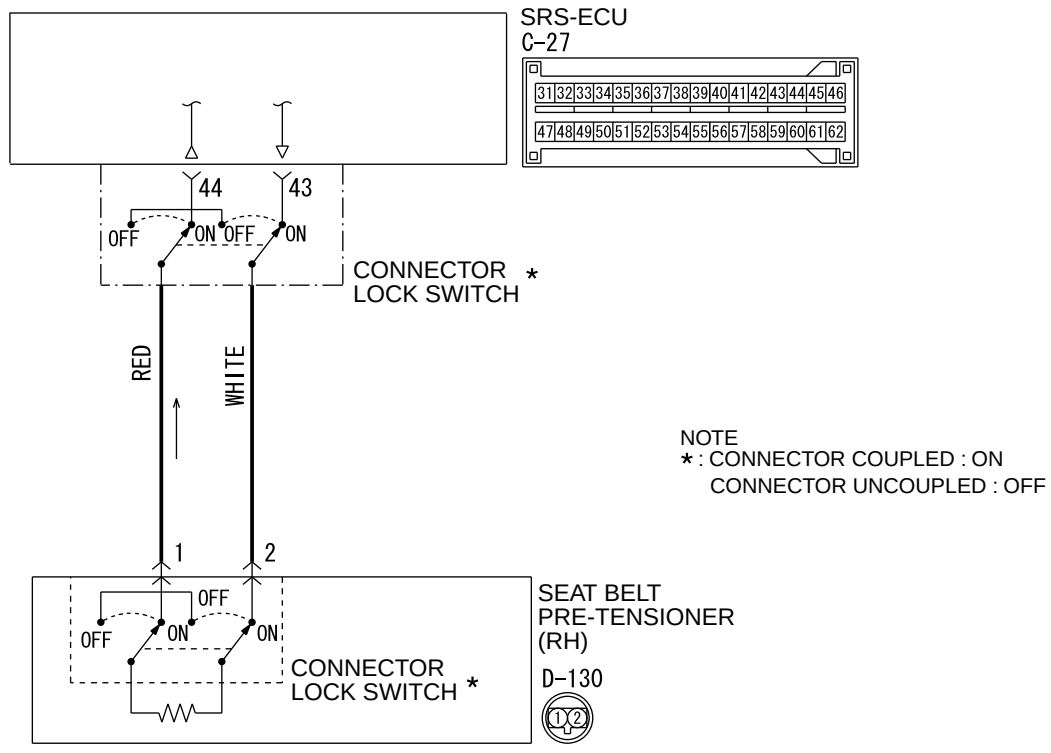
NO: The procedure is complete.



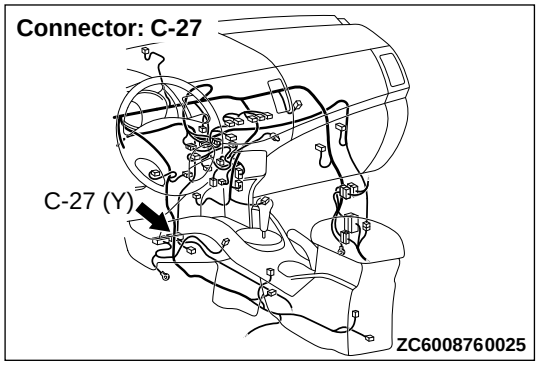
DTC B1C47: Front Passenger's Pre-tensioner (Squib) System (Shorted to Squib Sircuit Ground)

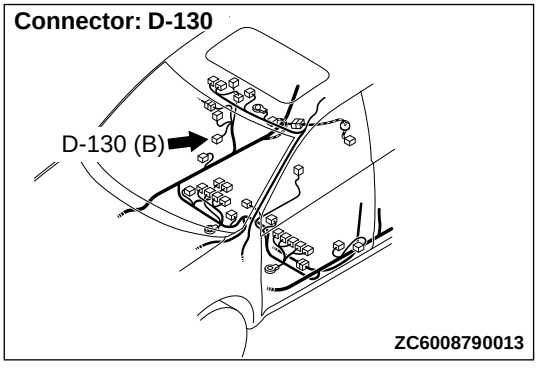
M15204000942USA0000010000

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



D7G52M017A00





⚠ CAUTION

If DTC B1C47 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

- Short to the ground in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

TROUBLESHOOTING HITS

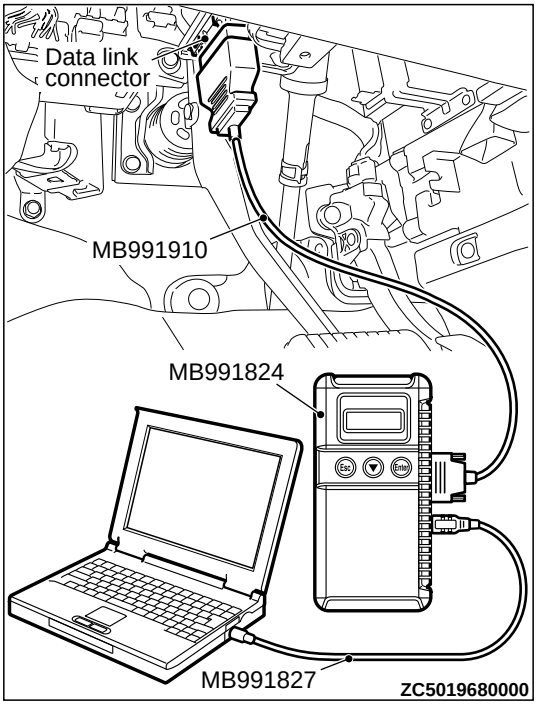
- Damaged wiring harnesses or connectors

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



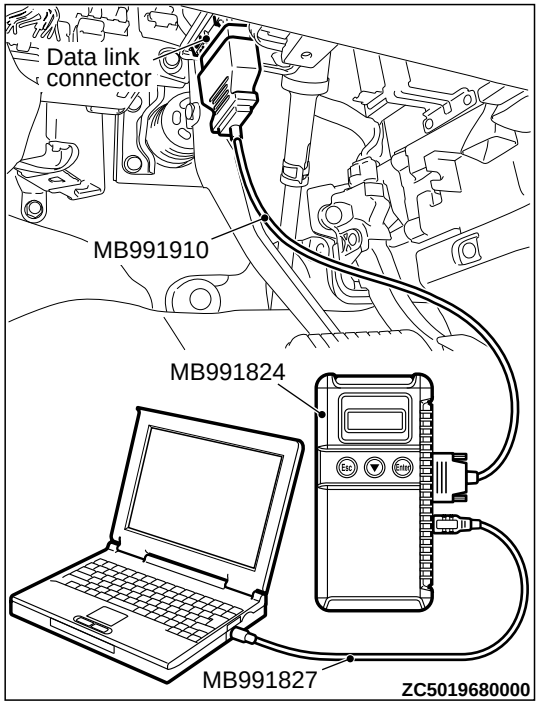
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

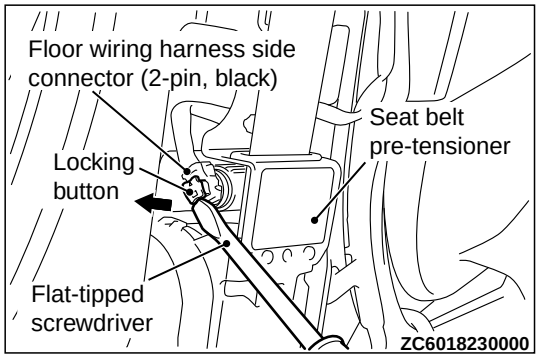
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

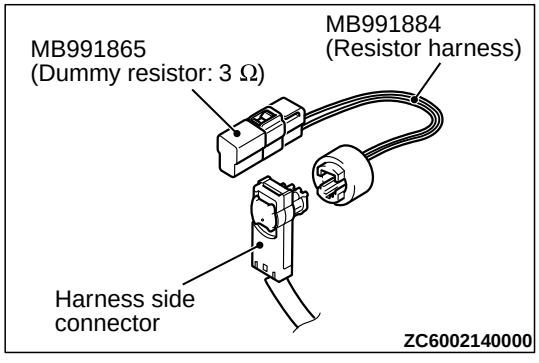
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-130. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-130 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

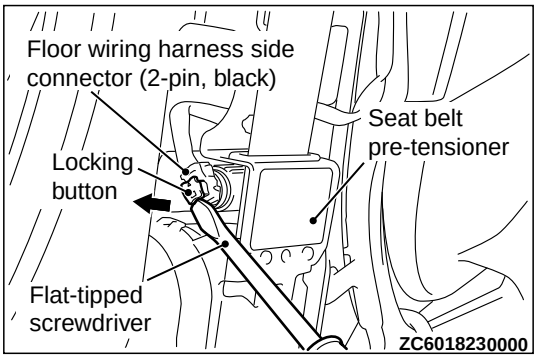
Q:Is DTC B1C47 set?

YES: Go to Step 4.

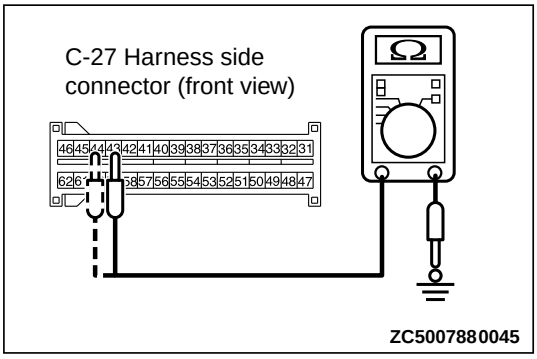
NO: Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-345). Then go to Step 6.

STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.



(2) Disconnect passenger's seat belt pre-tensioner connector D-130. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, 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) Check for continuity between C-27 harness side connector terminals 43, 44 and body ground.
It should be an open circuit.

Q:Does continuity exist?

YES: Go to Step 5.

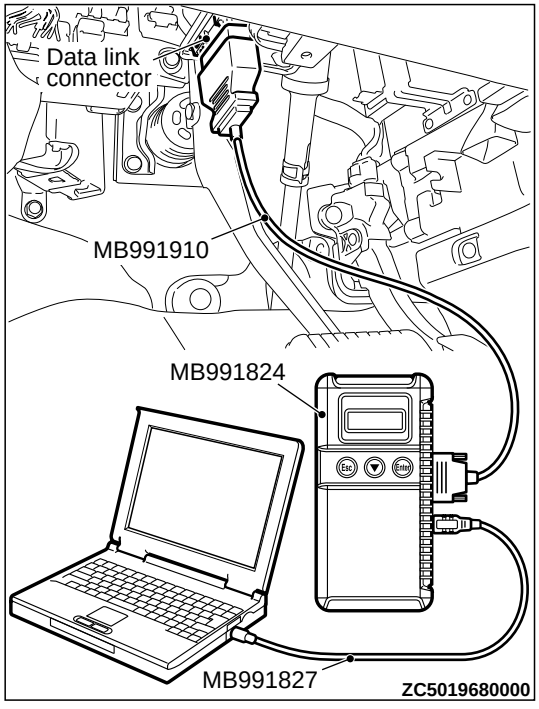
NO: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C47 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 6.

STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-27 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-130 (terminal No.2 and 1).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-130 (terminal No.2 and 1) in good condition?

YES: Go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-27 and passenger's seat belt pre-tensioner connector D-130. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

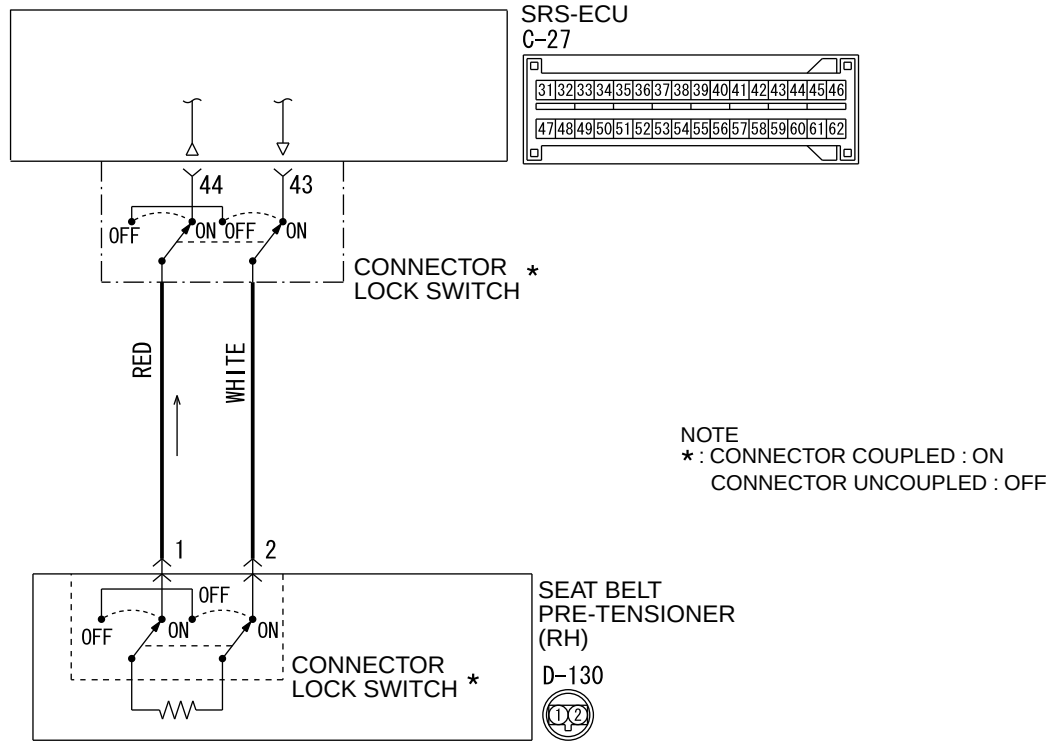
Q:Is DTC B1C47 set?

YES: Return to Step 1.
NO: The procedure is complete.

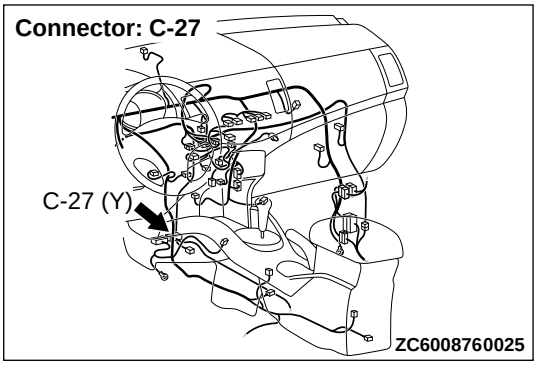
DTC B1C48: Front Passenger's Pre-tensioner (Squib) System (Shorted to Squib Circuit Power Supply)

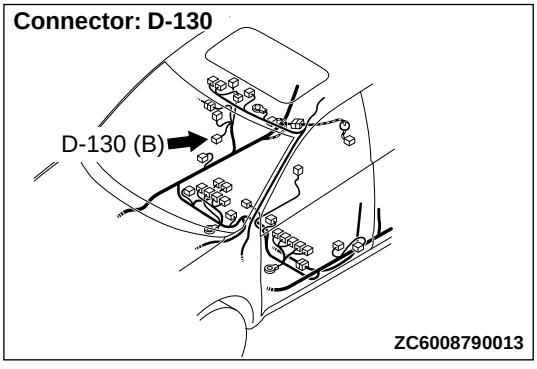
M15204000943USA0000010000

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



D7G52M017A00





⚠ CAUTION

If DTC B1C48 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

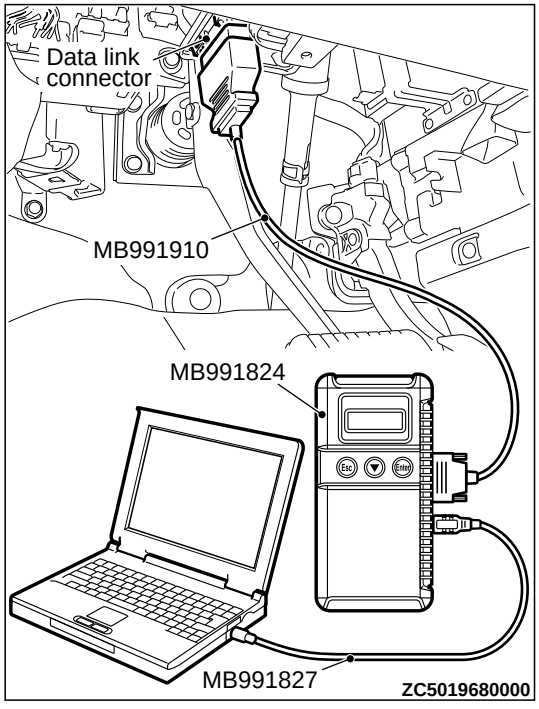
- Damaged wiring harnesses or connectors
- Short to the power supply in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



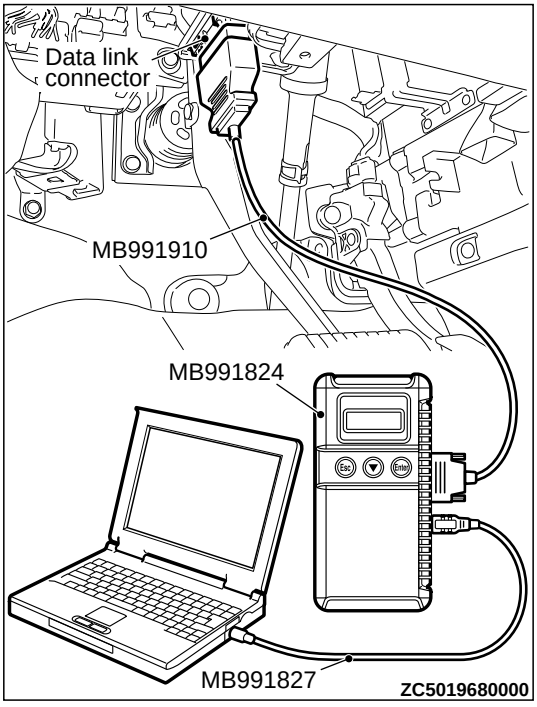
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

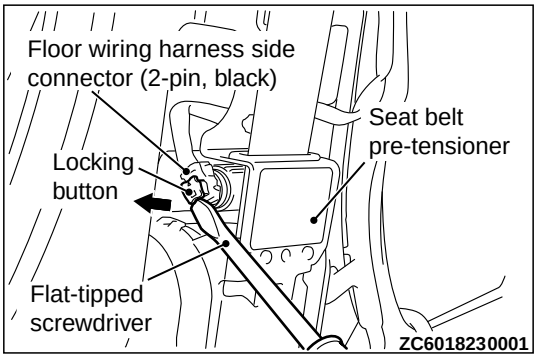
Q:Is the DTC set?

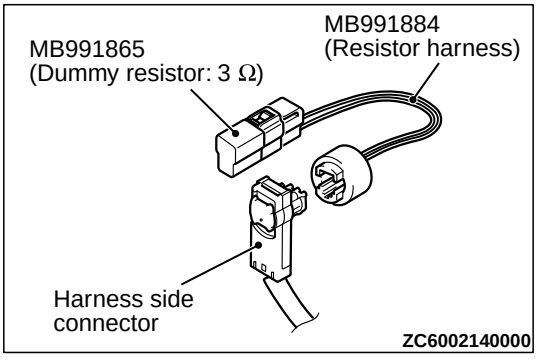
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-130. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-130 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

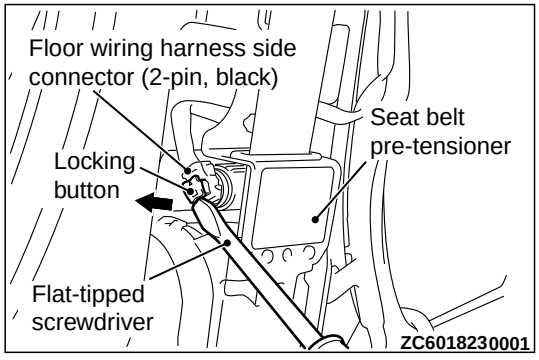
Q:Is DTC B1C48 set?

YES: Go to Step 4.

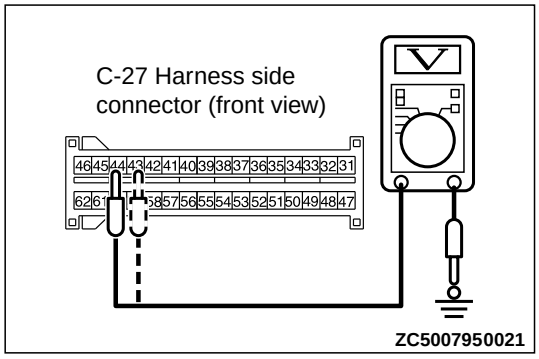
NO: Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-345). Then go to Step 6.

STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27.



(2) Disconnect passenger's seat belt pre-tensioner connector D-130. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, 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) Measure the voltage between C-27 harness side connector terminals 43, 44 and body ground.
Voltage should measure 0 volt.

Q:Is the measured voltage 0 volt?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C48 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 6.

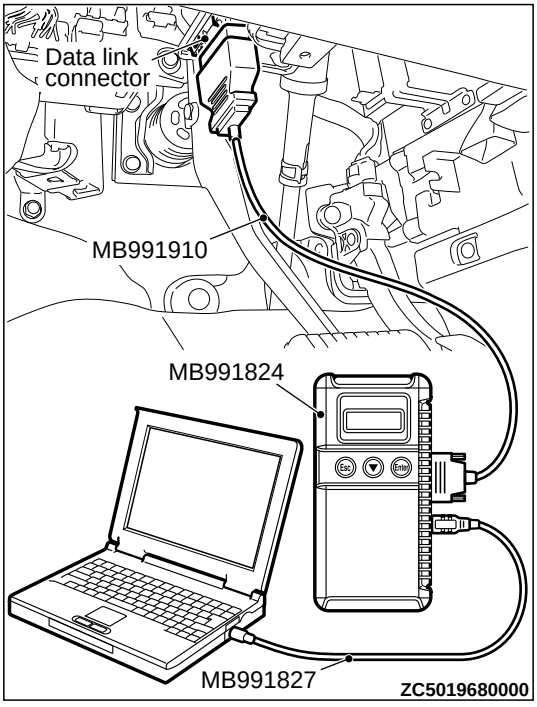
NO: Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-27 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-130 (terminal No.2 and 1).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-130 (terminal No.2 and 1) in good condition?

YES: Go to Step 6.

NO: Replace the harness wires between SRS-ECU connector C-27 and passenger's seat belt pre-tensioner connector D-130. Then go to Step 6.



STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

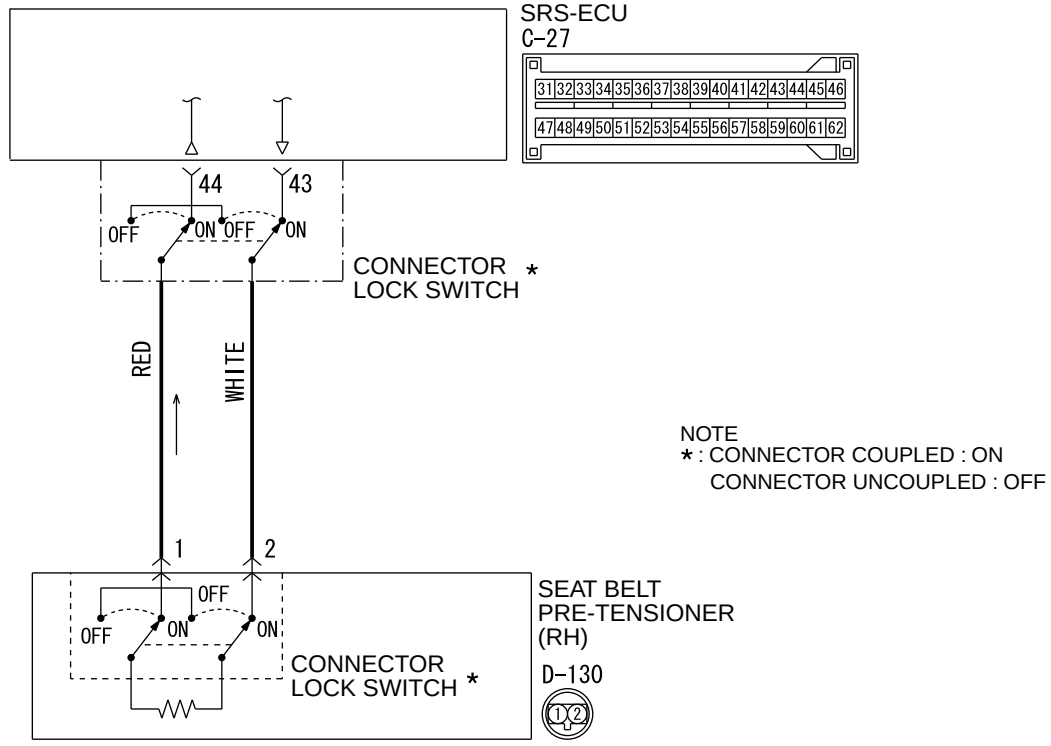
Q:Is DTC B1C48 set?

YES: Return to Step 1.
NO: The procedure is complete.

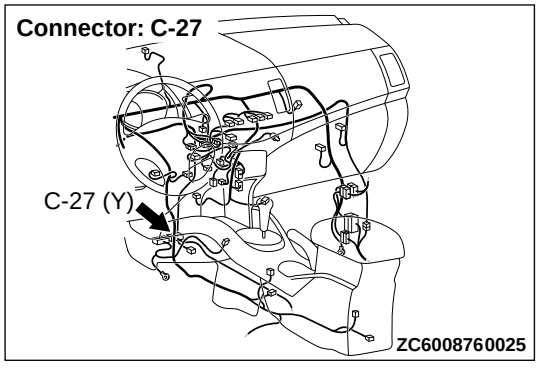
DTC B1C49: Front Passenger's Pre-tensioner (Squib) System (Squib Circuit Open)

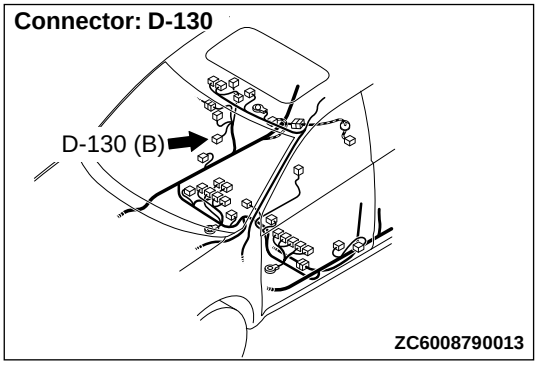
M15204000941USA0000010000

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



D7G52M017A00





⚠ CAUTION

If DTC B1C49 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

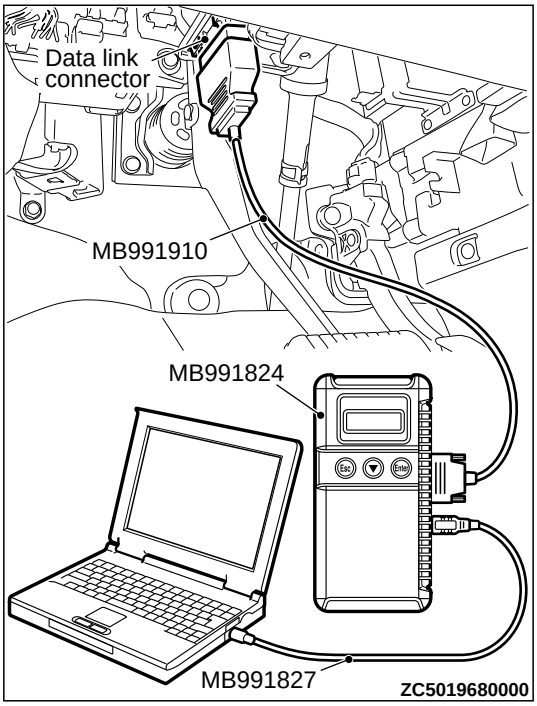
⚠ CAUTION

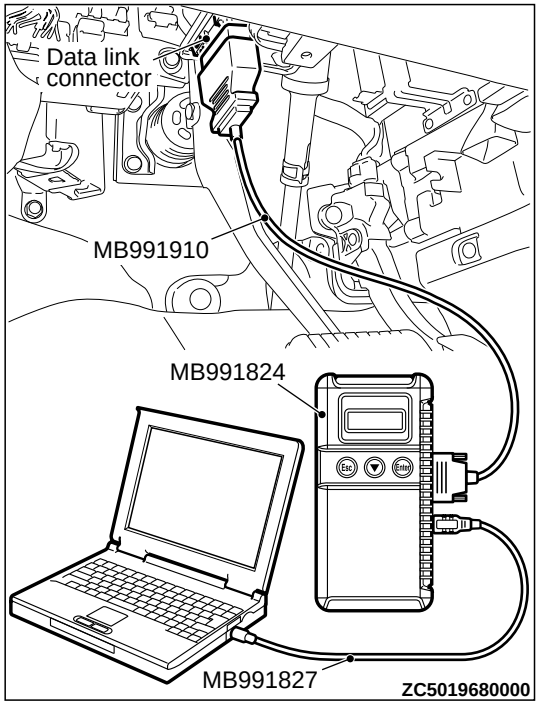
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).





STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

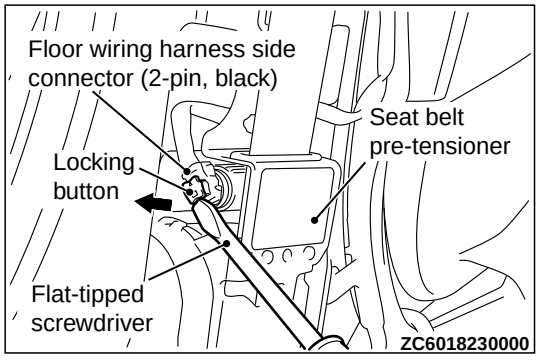
Q:Is the DTC set?

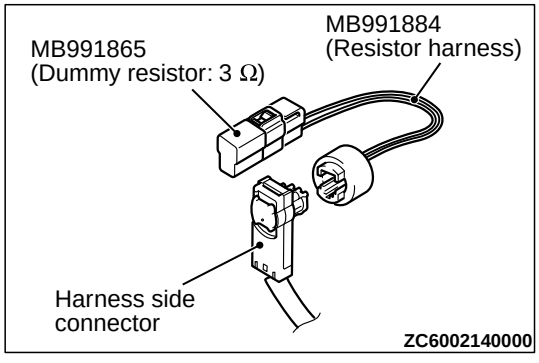
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-130. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





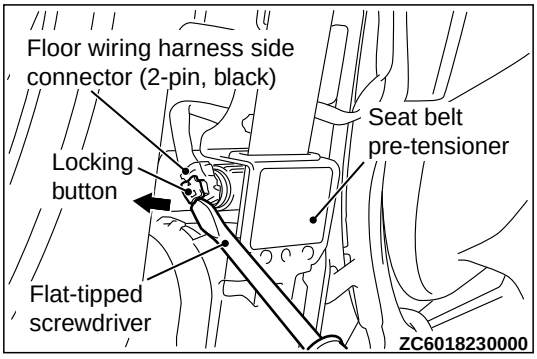
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-130 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q:Is DTC B1C49 set?

YES: Go to Step 4.

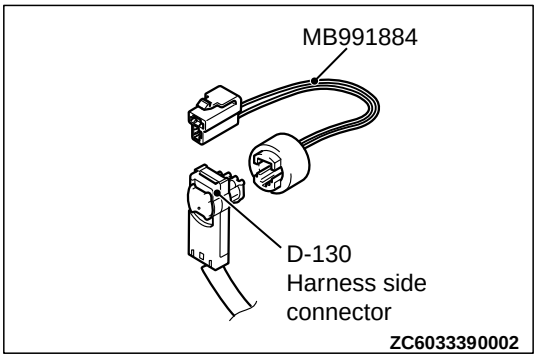
NO: Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-345). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-27 (terminal No.43 and 44) and the

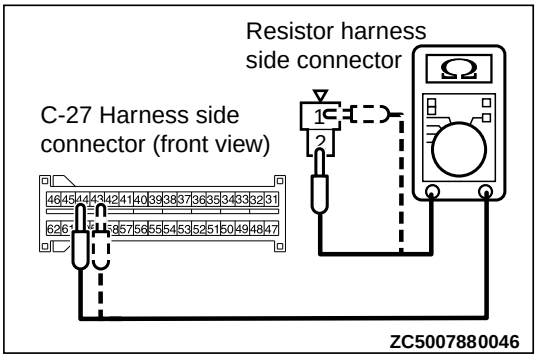


passenger's seat belt pre-tensioner connector D-130 (terminal No.2 and 1).

(1) Disconnect SRS-ECU connector C-27 and passenger's seat belt pre-tensioner connector D-130. For connector D-130, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(2) Connect D-130 harness side connector to special tool MB991884.



⚠ CAUTION

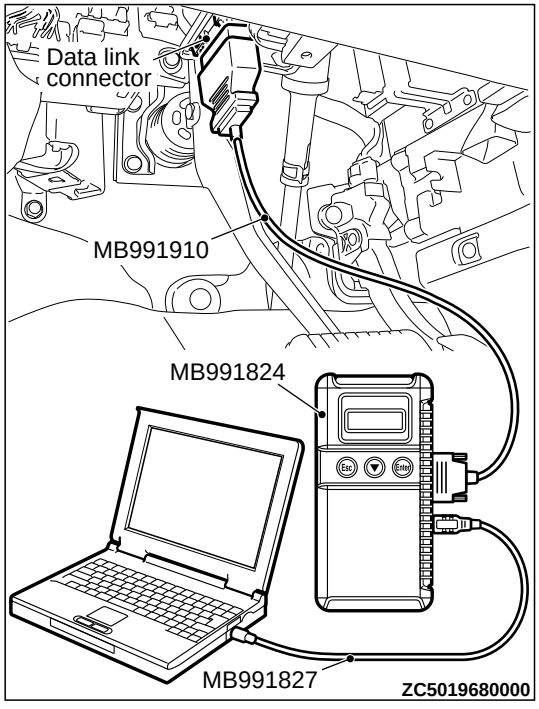
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-27 (terminal No.43) and the special tool (terminal No.1)
- SRS-ECU connector C-27 (terminal No.44) and the special tool (terminal No.2)

Q:Does continuity exist?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C49 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 5.

NO: Replace the harness wires between SRS-ECU connector C-27 passenger's seat belt pre-tensioner connector D-130. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

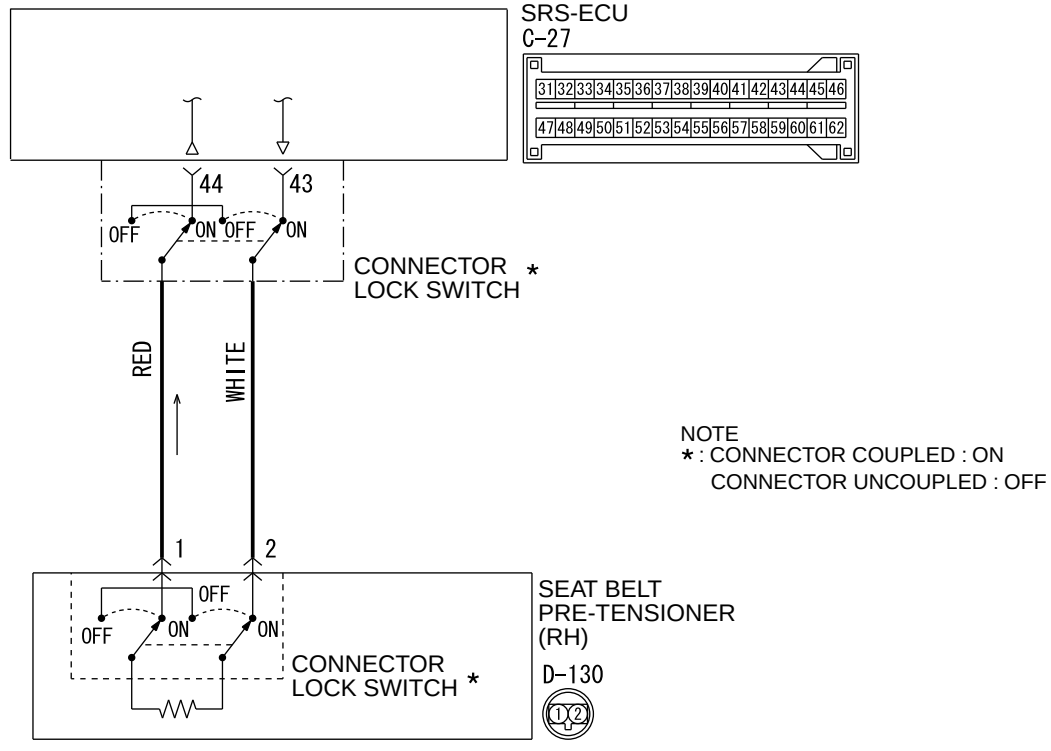
Q:Is DTC B1C49 set?

YES: Return to Step 1.
NO: The procedure is complete.

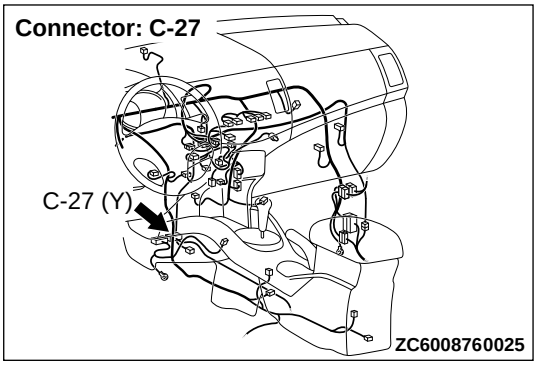
DTC B1C4A: Front Passenger's Pre-tensioner (Squib) System (Short Circuit Between Squib Circuit Terminals)

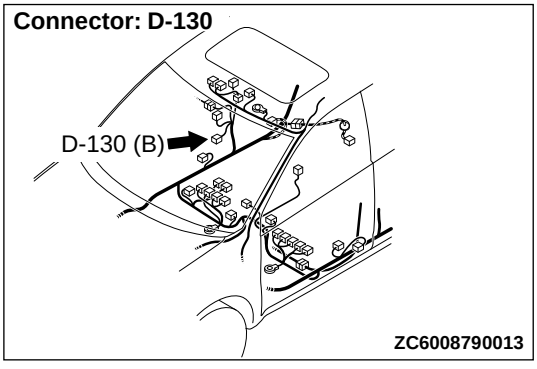
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Seat Belt Pre-Tensioner (RH) (Squib) Circuit



D7G52M017A00





⚠ CAUTION

If DTC B1C4A is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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 sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

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

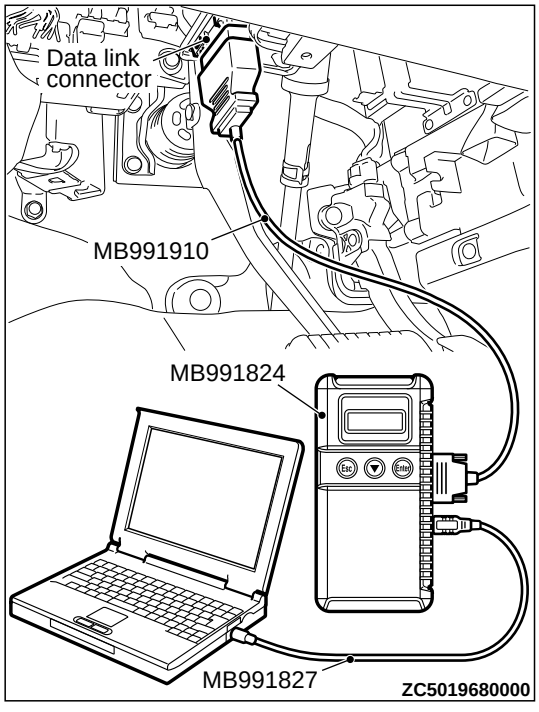
*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-5). Therefore, if connector C-27 or D-130 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



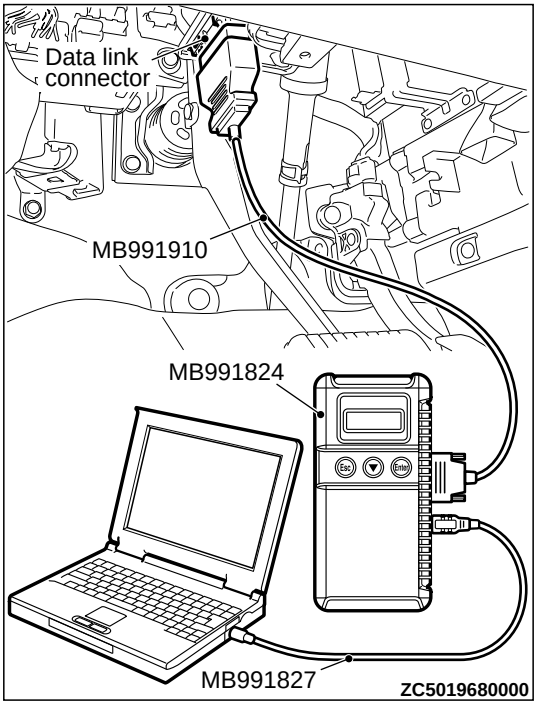
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

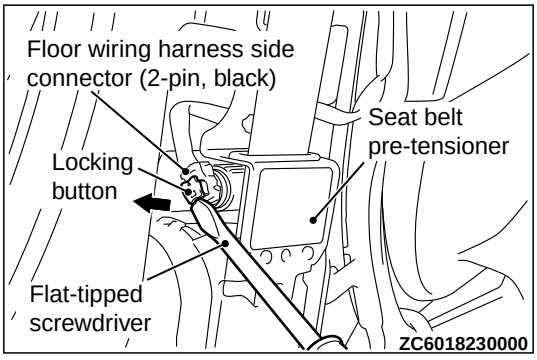
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 3. Check SRS-ECU connector C-27 and passenger's seat belt pre-tensioner connector D-130. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-27 and D-130, and then reconnect them. For connector D-130, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

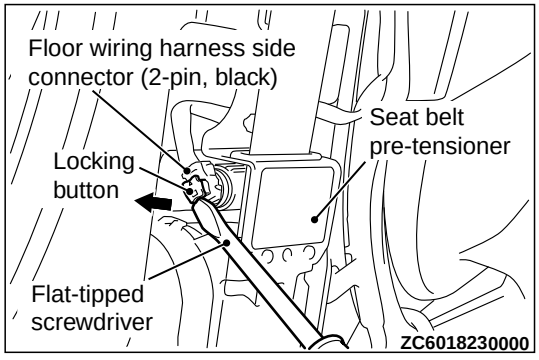
Q:Is DTC B1C4A set?

YES: Go to Step 4.

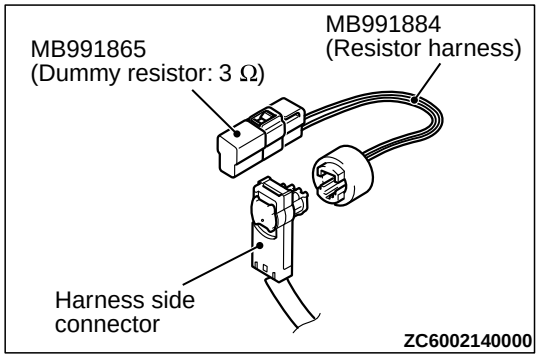
NO: The procedure is complete. It is assumed that DTC B1C4A set because connector C-27 or D-130 was engaged improperly.

STEP 4. Check the passenger's seat belt pre-tensioner. (Using scan tool MB991958, read the diagnostic trouble code.)

(1) Disconnect the negative battery terminal.



(2) Disconnect passenger's seat belt pre-tensioner connector D-130. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

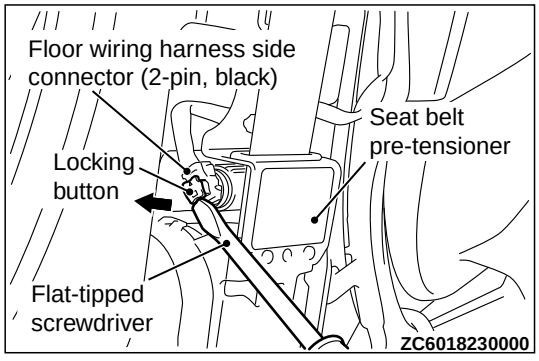


(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-130 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q:Is DTC B1C4A set?
YES: Go to Step 5.
NO: Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-345). Then go to Step 7.

STEP 5. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-27.

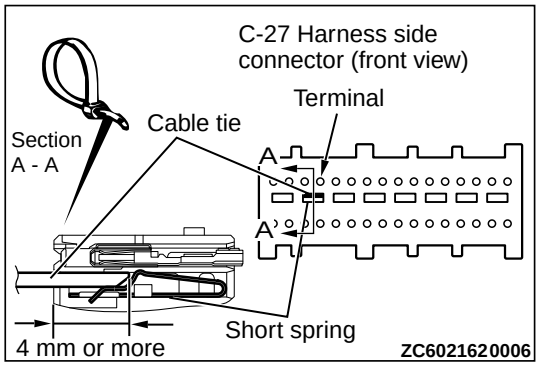
(1) Disconnect SRS-ECU connector C-27.



⚠ DANGER

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-130 to short the squib circuit.

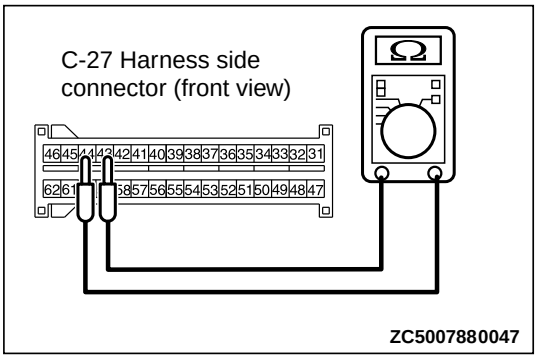
(2) Disconnect passenger's seat belt pre-tensioner connector D-130. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 43, 44 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-27 harness side connector terminals 43 and 44.
It should be an open circuit.

Q:Does continuity exist?

YES: Go to Step 6.

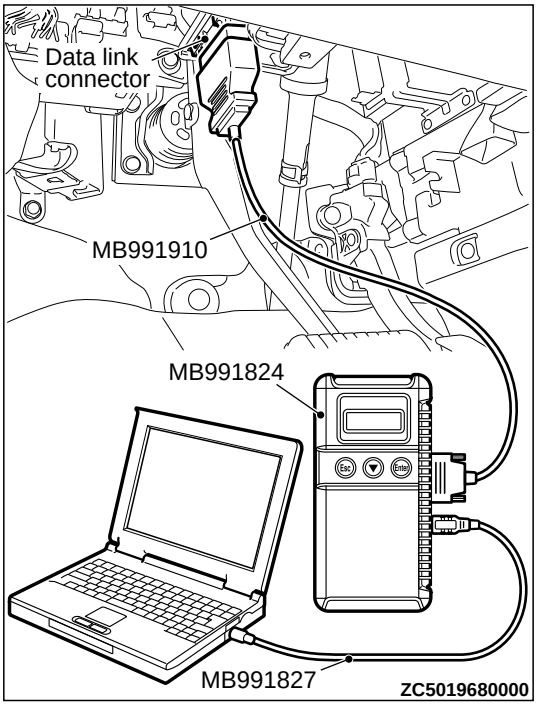
NO: Erase the diagnostic trouble code memory, and check diagnostic trouble code. If DTC B1C4A set, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 7.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-27 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-130 (terminal No.2 and 1).

Q:Are harness wires between SRS-ECU connector C-27 (terminal No.43 and 44) connector and passenger's seat belt pre-tensioner connector D-130 (terminal No.2 and 1) in good condition?

YES: Go to Step 7.

NO: Replace the harness wires between SRS-ECU connector C-27 and passenger's seat belt pre-tensioner connector D-130. Then go to Step 7.



STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B1C4A set?

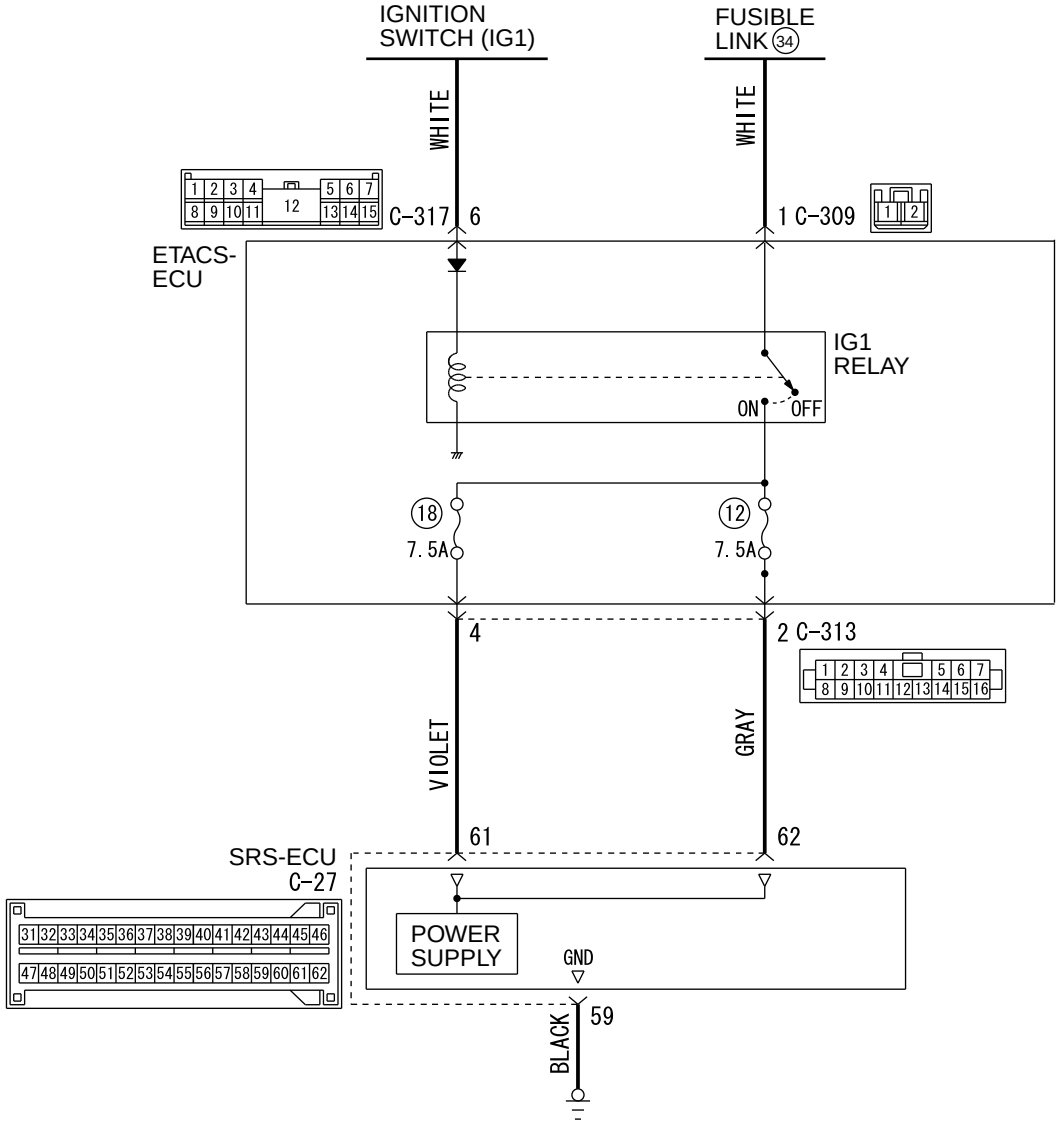
YES: Return to Step 1.

NO: The procedure is complete.

DTC B210D: Battery Abnormal Low Voltage

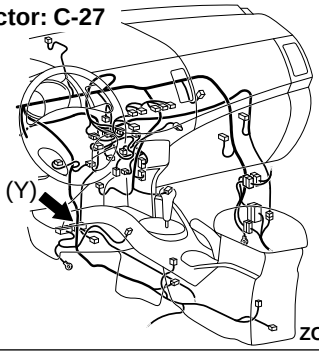
M15204000970USA0000010000

IG1 Power Supply Circuit



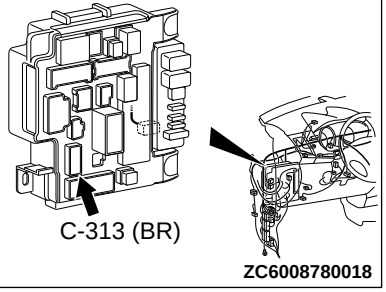
D7G52M025A00

Connector: C-27



ZC6008760025

Connector: C-313



ZC6008780018

⚠ CAUTION

If the diagnostic trouble code B210D is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT 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.

DTC SET CONDITIONS

This DTC is set if the voltage between the IG1 terminals (fuse No.12 circuit or fuse No.18 circuit) and ground is lower than a predetermined value for a continuous period of five second or more.

TROUBLESHOOTING HINTS

- Battery voltage drop
- Open circuit to power supply circuit
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

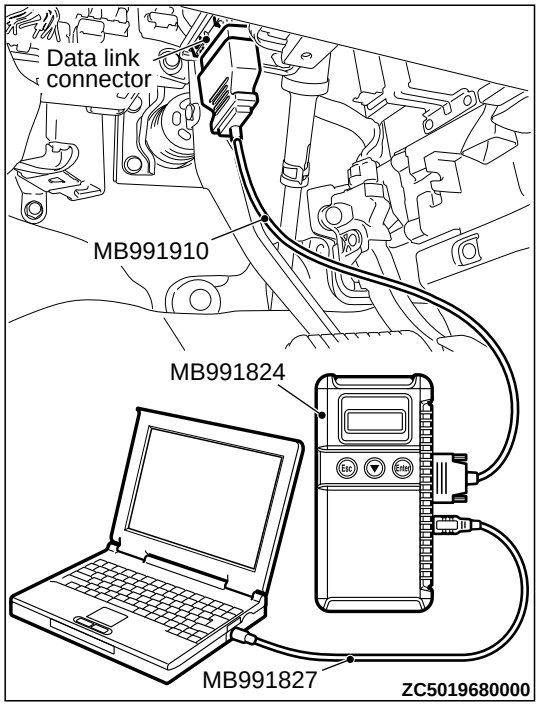
STEP 1. Battery voltage check

Check the battery voltage.

Q:Is the check result normal?

YES: Go to Step 2.

NO: Charge or replace the battery.



STEP 2. Using scan tool MB991958, diagnose the CAN bus line.

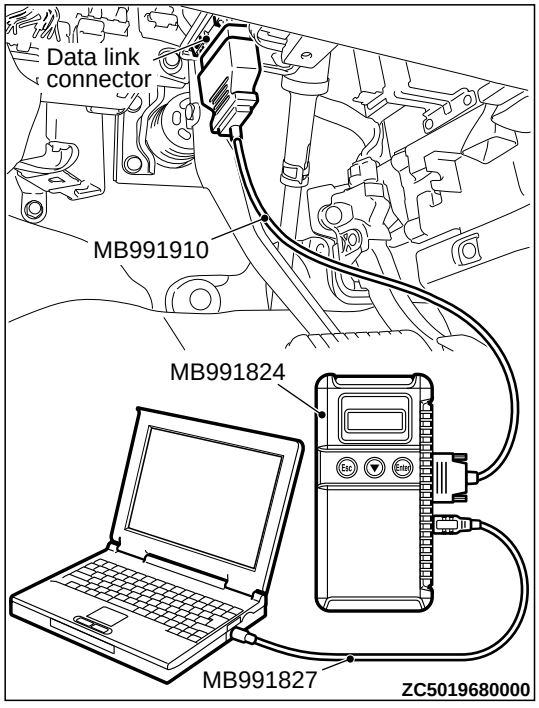
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 3.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 3. Using scan tool MB991958, diagnose the ETACS.

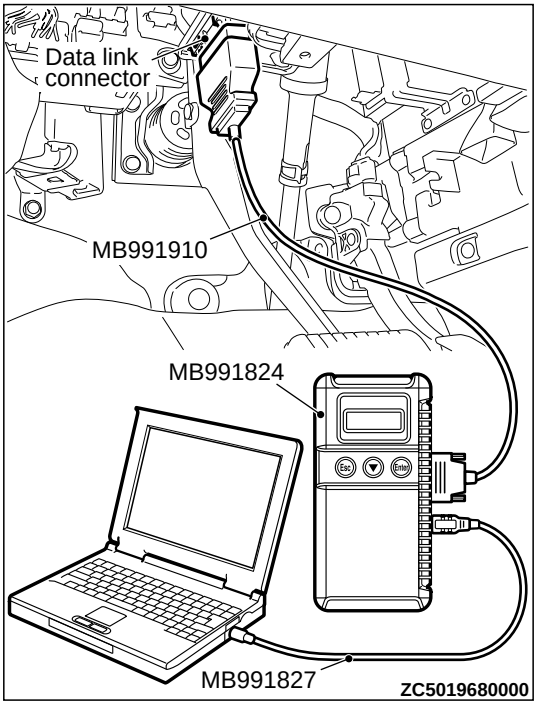
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Diagnose the ETACS, (Refer to GROUP 54Ad, ETACS, Diagnosis P.54Ad-8.
NO: Go to Step 4.



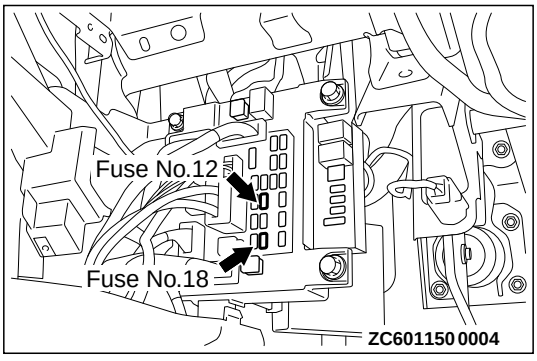
STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

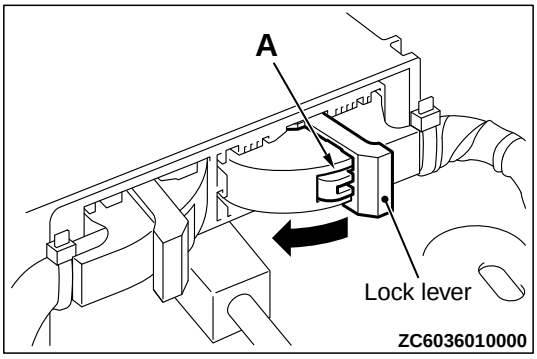
YES: Go to Step 5.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).



STEP 5. Check ETAS-ECU fuse number 12 or 18.

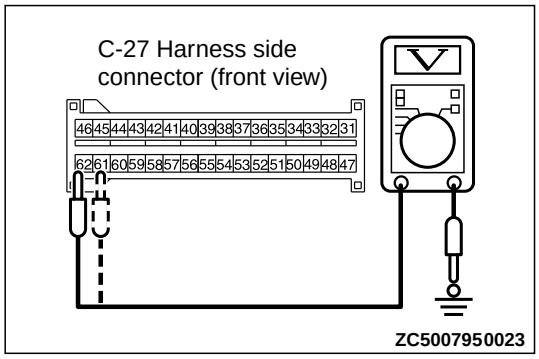
Q:Is the fuse burned out?

YES: Go to Step 8.
NO: Go to Step 6.



STEP 6. Check the power supply circuit for open circuit. Measure the voltage at SRS-ECU connector C-27.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-27.
(3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.
(4) Connect the negative battery terminal.
(5) 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.

(6) Measure the voltage between C-27 harness side connector terminal No. 61 or 62 body ground.
Voltage should measure 9 volts or more.

Q:Is the measured voltage within the specified range?

YES: Erase the data link connector memory, and check the diagnostic trouble code. If DTC B210D set, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 12.

NO: Go to Step 7.

STEP 7. Check the harness for open circuit between SRS-ECU connector C-27 (terminal No. 61 or 62) and the ETACS-ECU connector C-313 (terminal No.4 or 2).

Q:Is the harness wire between SRS-ECU connector C-27 (terminal No.61 or 62) and the ETACS-ECU connector C-313 (terminal No.4 or 2) in good condition?

YES: Go to Step 12.

NO: Replace the harness wire between SRS-ECU connector C-27 and the ETACS-ECU connector C-313. Then go to Step 12.

STEP 8. 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.

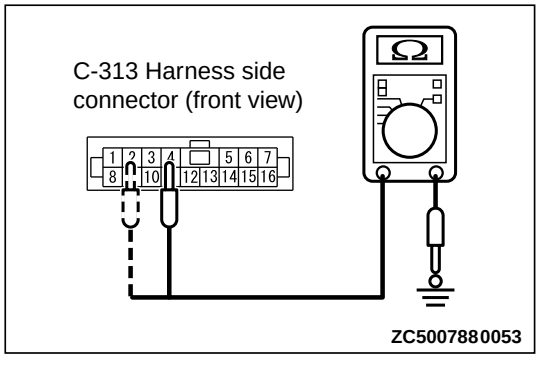
Q:Is the fuse in good condition?

YES: Go to Step 12.

NO: It is possible that the circuit using fuse No.12 or 18 is shorted, go to Step 9.

STEP 9. Check the SRS-ECU power supply circuit for short circuit to ground. Measure the resistance at the ETACS-ECU connector C-313.

(1) Disconnect ETACS-ECU connector C-313, 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 No. 2 or 4 and body ground.
It should be an open circuit.

Q:Does continuity exist?

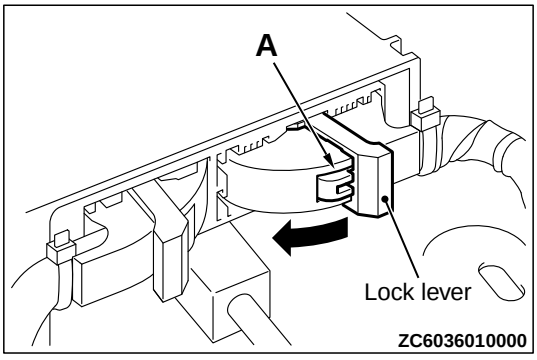
YES: Check the other circuit, which flows through fuse No.12 or 18. Then go to Step 12.

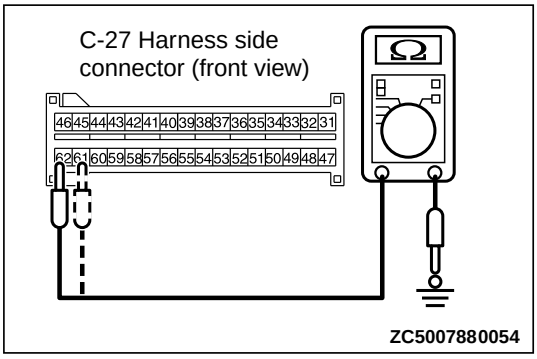
NO: Go to Step 10.

STEP 10. Check the power supply circuit for short circuit to ground. Measure the resistance at the SRS-ECU connector C-27.

(1) Disconnect SRS-ECU connector C-27, and measure at the wiring harness side.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU 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) Check for continuity between terminal No.61 or 62 and body ground.
It should be an open circuit.

Q:Does continuity exist?

YES: Go to Step 11.

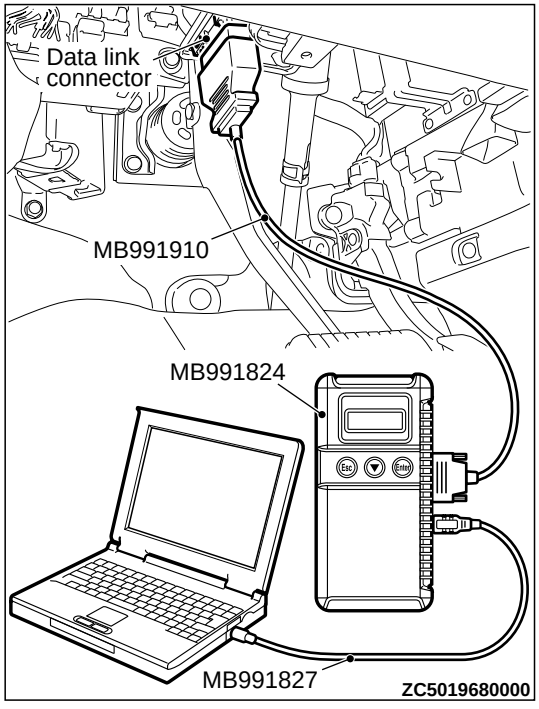
NO: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B210D sets, replace the SRS-ECU. (Refer to P.52B-326). Then go to Step 12.

STEP 11. Check the harness for short circuit to ground between SRS-ECU connector C-27 (terminal No.61 or 62) and ETACS-ECU connector C-313 (terminal No.4 or 2).

Q:Is the harness wire between SRS-ECU connector C-27 (terminal No.61 or 62) and ETACS-ECU connector C-313 (terminal No.4 or 2) in good condition?

YES: Go to Step 12.

NO: Replace the harness wire between SRS-ECU connector C-27 and ETACS-ECU connector C-313. Then go to Step 12.



STEP 12. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B210D set?

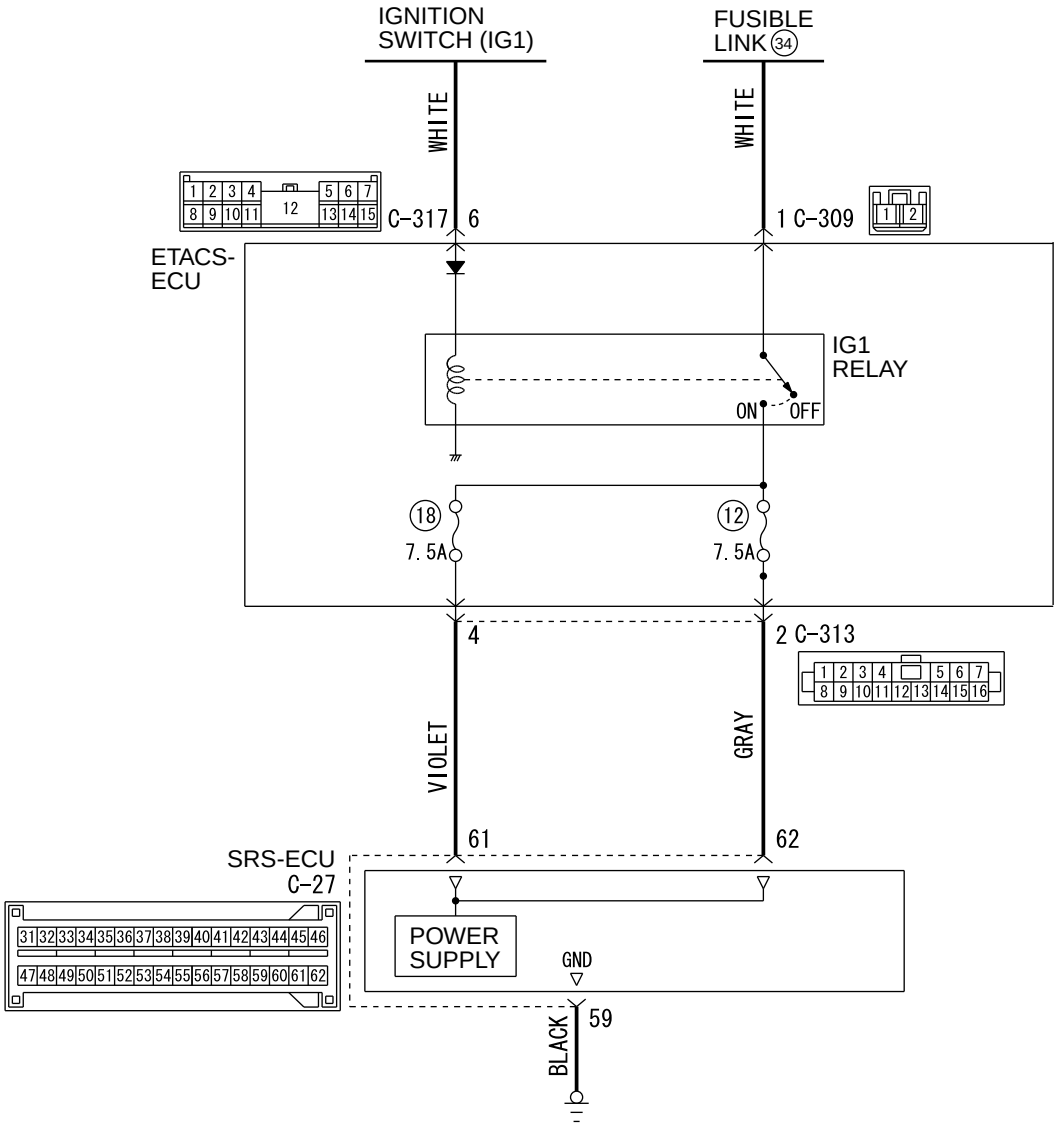
YES: Return to Step 1.
NO: The procedure is complete.

DTC B212C: Open Circuit to IG1 Power Supply (Fuse No.12 Circuit)

DTC B212D: Open Circuit to IG1 Power Supply (Fuse No.18 Circuit)

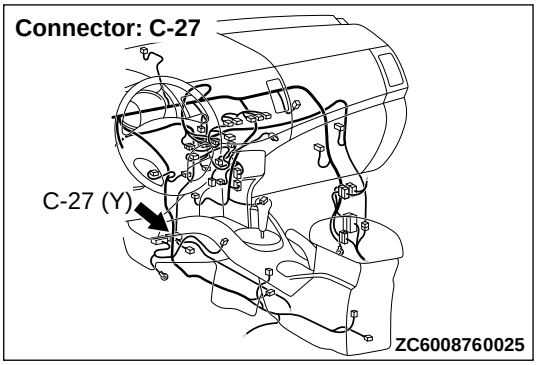
M15204000967USA0000010000

IG1 Power Supply Circuit

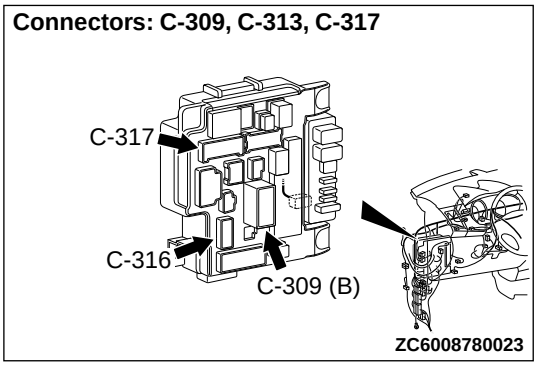


D7G52M025A00

Connector: C-27



Connectors: C-309, C-313, C-317



⚠ CAUTION

If DTC B212C (Fuse No.12) or B212D (Fuse No.18) is set in the SRS-ECU, always diagnose the CAN main bus lines.

CIRCUIT 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.

DTC SET CONDITIONS

This DTC is set if the voltage between the IG1 terminals (fuse No.12 circuit or fuse No.18 circuit) and ground is lower than a predetermined value for a continuous period of five second or more.

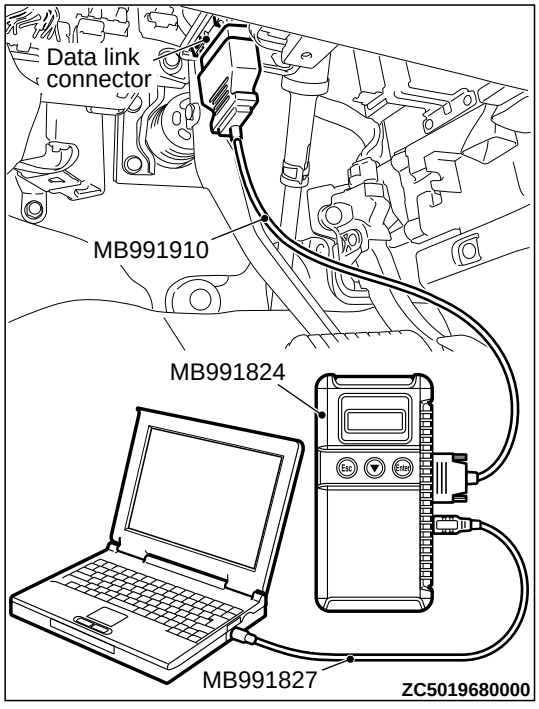
TROUBLESHOOTING HINTS

- Open circuit to power supply circuit
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

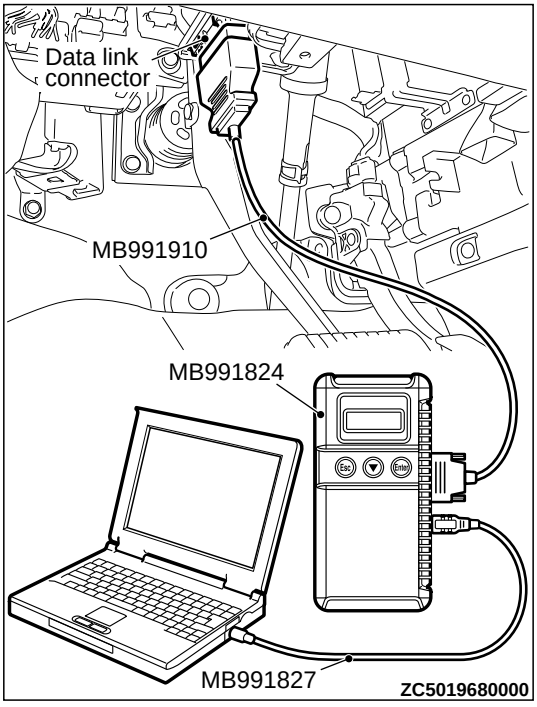
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Using scan tool MB991958, diagnose the ETACS.

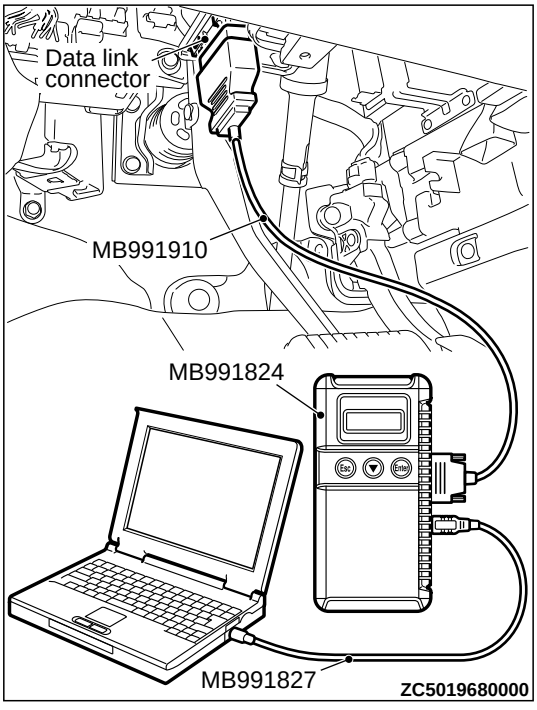
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Diagnose the ETACS, (Refer to GROUP 54Ad, ETACS, Diagnosis P.54Ad-8.
NO: Go to Step 3).



STEP 3. Recheck for diagnostic trouble code.

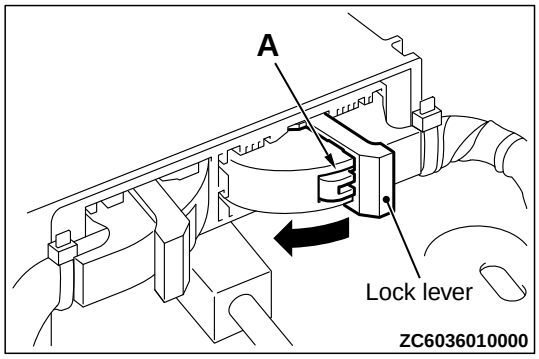
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

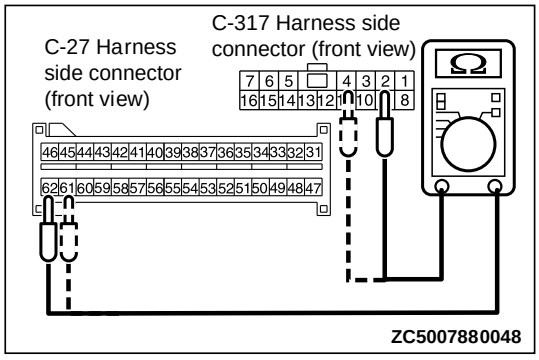
YES: Go to Step 4.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 4. Check the harness for open circuit between SRS-ECU connector C-27 (terminal No.61 and 62) and the ETACS-ECU connector C-313 (terminal No.4 and 2).

(1) Disconnect SRS-ECU connector C-27.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connector.
(3) Disconnect the ETACS-ECU connector C-313.



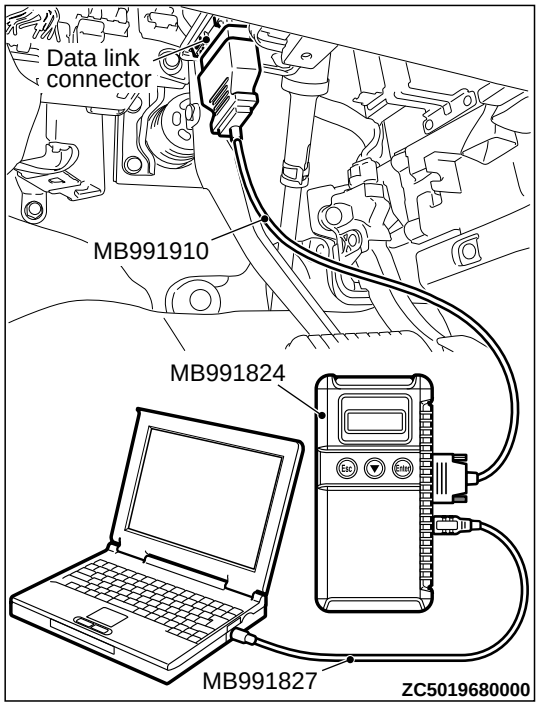
(4) Check for continuity between the following terminals. It should be less than 2 ohms.

<Fuse No. 12>
- SRS-ECU connector C-27 (terminal No.62) and the ETACS-ECU connector C-313 (terminal No.2)

<Fuse No. 18>
- SRS-ECU connector C-27 (terminal No.61) and the ETACS-ECU connector C-313 (terminal No.4)

Q:Does continuity exist?
YES: Go to Step 5.
NO: Replace the harness wire between SRS-ECU connector C-27 and the ETACS-ECU connector C-313.

STEP 5. Recheck for diagnostic trouble code.



Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC B212C <Fuse No.12 circuit> or B212D <Fuse No. 18 circuit> set?
YES: Return to Step 1.
NO: The procedure is complete.

DTC B223D: OCM DTC Present

M15204001002USA0000010000

⚠ CAUTION

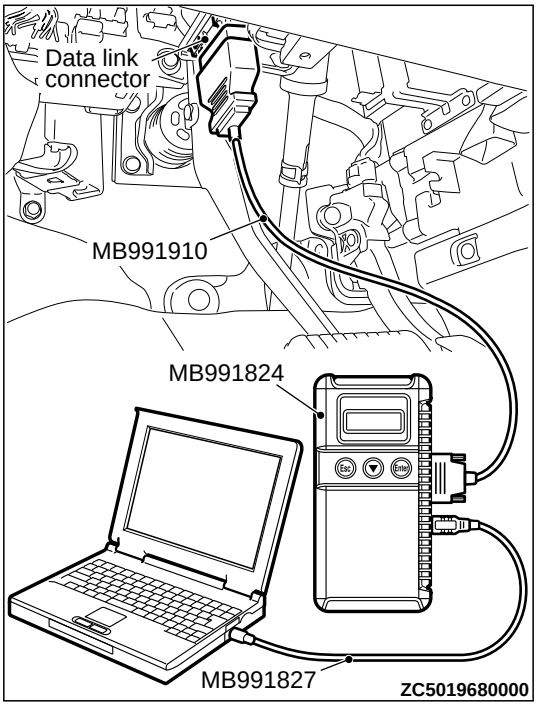
If DTC B223D is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITION

It is set if a DTC occurs in the occupant classification-ECU.

TROUBLESHOOTING HINTS

- Malfunction of the SRS-ECU



DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

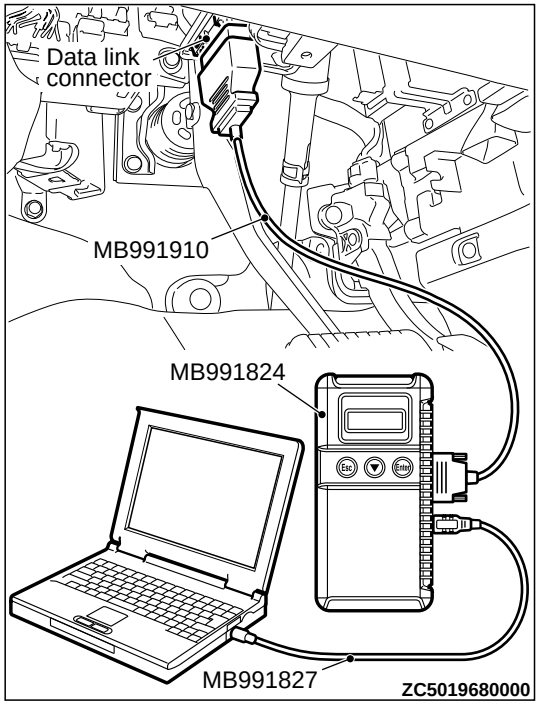
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC B223D set?
YES: Check the occupant classification-ECU. If no abnormality is found, replace the SRS-ECU. (Refer to P. 52B-326).
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

DTC U0019: Bus Off (CAN-B)

M15204000971USA0000010000

⚠ CAUTION
- **If the DTC U0019 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

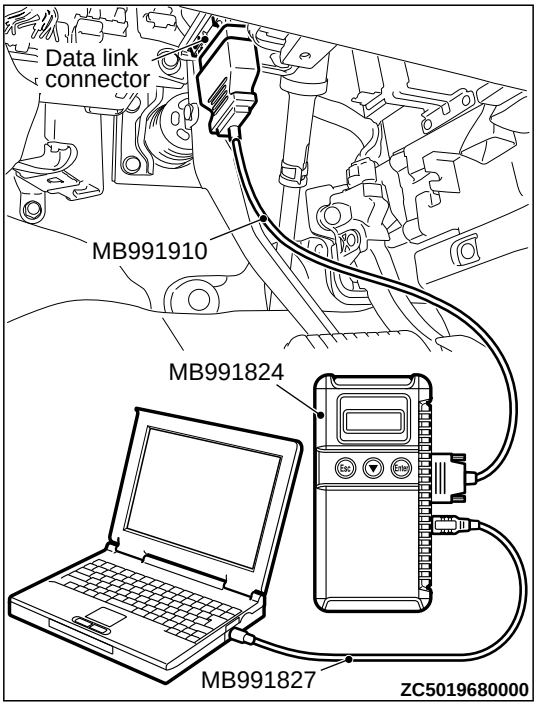
DIAGNOSTIC FUNCTION
If the CAN-B circuit malfunction occurs, the SRS-ECU sets the DTC U0019.

JUDGMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
The CAN bus line may be defective

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: The trouble can be an intermittent malfunction (Refer to GROUP 00 - How to use Troubleshooting/inspection Service Points - How to Cope with Intermittent Malfunction P.00-3).

STEP 2. Using scan tool MB991958, diagnose the CAN bus line.

(1) Turn the ignition switch to the "ON" position.
(2) Diagnose the CAN bus line.
(3) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-15).
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

DTC U0141: ETACS CAN Timeout

M15204001003USA0000010000

⚠ CAUTION

- **If the DTC U0141 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the signal from ETACS-ECU cannot be received, the SRS-ECU sets the DTC U0141.

JUDGMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

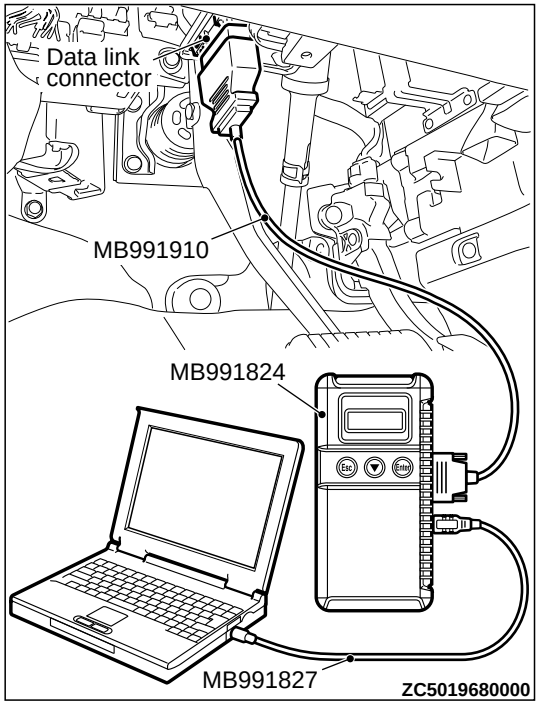
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line



⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code

Check again if the DTC is set to the ETACS-ECU.

Q:Is the DTC set?

YES: Diagnose the ETACS-ECU (Refer to GROUP 54Ad, Diagnosis P.54Ad-8).
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00,

How to use Troubleshooting/inspection Service Points P.00-15).

DTC U0154: Occupant Classification-ECU CAN Timeout

M15204001004USA0000010000

⚠ CAUTION

- **If the DTC U0154 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

When the signals from occupant classification-ECU cannot be received, the SRS-ECU sets the DTC U0154.

JUDGMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

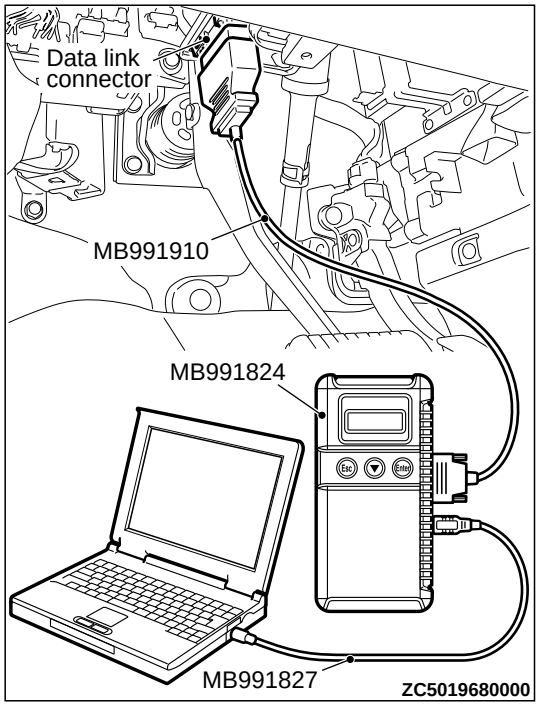
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The occupant classification-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the SRS-ECU diagnostic trouble code.

Check if the DTC is set to the SRS.

Q:Is the DTC B1BAA, B2207, B2208, B2209, B220A, B220B, B220C, B220D or B2255 set?

YES: Carry out troubleshooting of the occupant classification-ECU or the occupant classification sensor system. (Refer to P.52B-33.)
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-15).

DTC U0155: Combination Meter CAN Timeout

M15204001005USA0000010000

⚠ CAUTION

- **If the DTC U0155 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

TROUBLE JUDGMENT

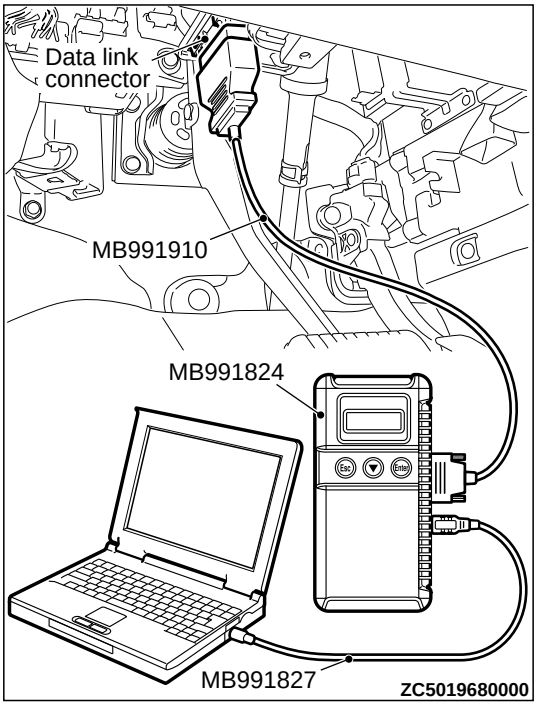
If the signal from combination meter cannot be received, the SRS-ECU sets the DTC U0155.

JUDGMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The combination meter may be defective
- The SRS-ECU may be defective



DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the combination meter diagnostic trouble code
Check if DTC is set to the combination meter.

Q:Is the DTC set?
YES: Diagnose the combination meter (Refer to GROUP 54Ab, Diagnosis P.54Ab-7).
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?
YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-15).

DTC U0164: A/C-ECU CAN Timeout

M15204001006USA0000010000

⚠ CAUTION
- **If the DTC U0164 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

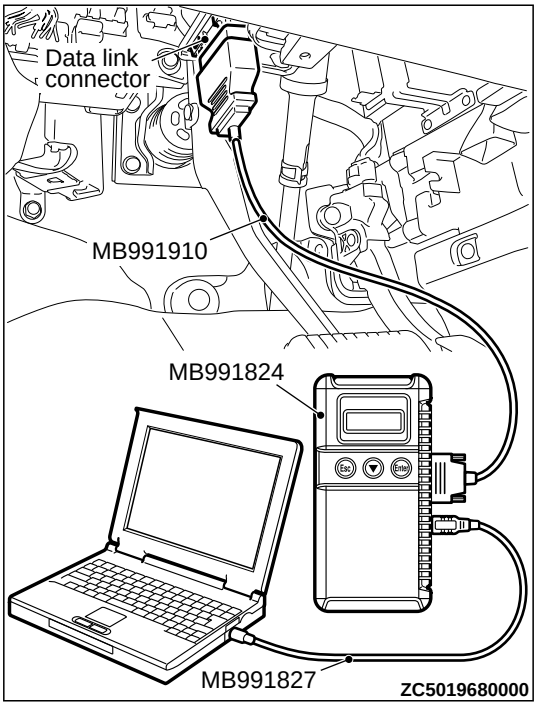
DIAGNOSTIC FUNCTION
If the signal from A/C-ECU cannot be received, the SRS-ECU sets the DTC U0164.

JUDGMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective
- The A/C-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the A/C diagnostic trouble code

Check if DTC is set to the A/C-ECU.

Q:Is the DTC set?

YES: Troubleshoot the A/C (Refer to GROUP 55B, Auto A/C Diagnosis P.55B-7).
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-15).

DTC U0168: KOS-ECU or WCM CAN Timeout

M15204001015USA0000010000

⚠ CAUTION

- **If DTC U0168 is set, be sure to diagnose the CAN bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION
If the signal from KOS-ECU or WCM cannot be received, the SRS-ECU sets the DTC U0168.

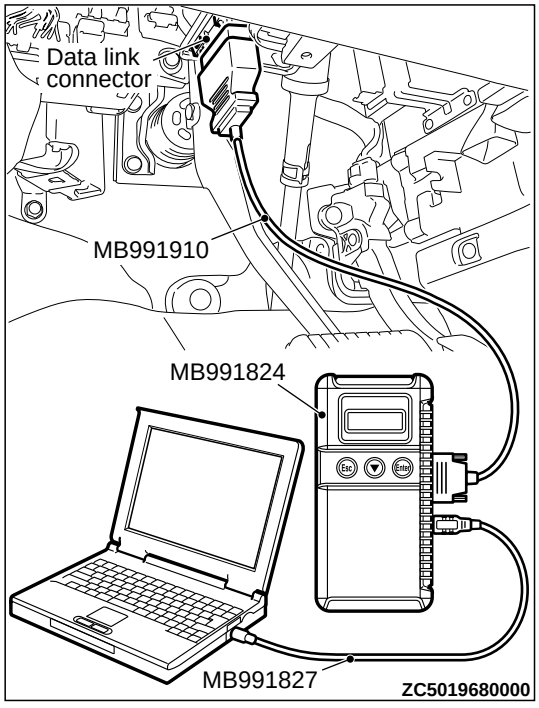
JUDGMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
- Malfunction of CAN bus line may be defective.
- Malfunction of the KOS-ECU may be defective.
- Malfunction of the WCM may be defective.
- Malfunction of SRS-ECU may be defective.

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line



⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.54Ab-5."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?
YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the KOS-ECU or WCM diagnostic trouble code
Check again if the DTC is set to the KOS-ECU or WCM.

Q:Is the DTC set?
YES: Troubleshoot the KOS or WCM (Refer to GROUP 42B, Troubleshooting P.42B-18<KOS> or 42C, Troubleshooting P.42C-11<WCM>).
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

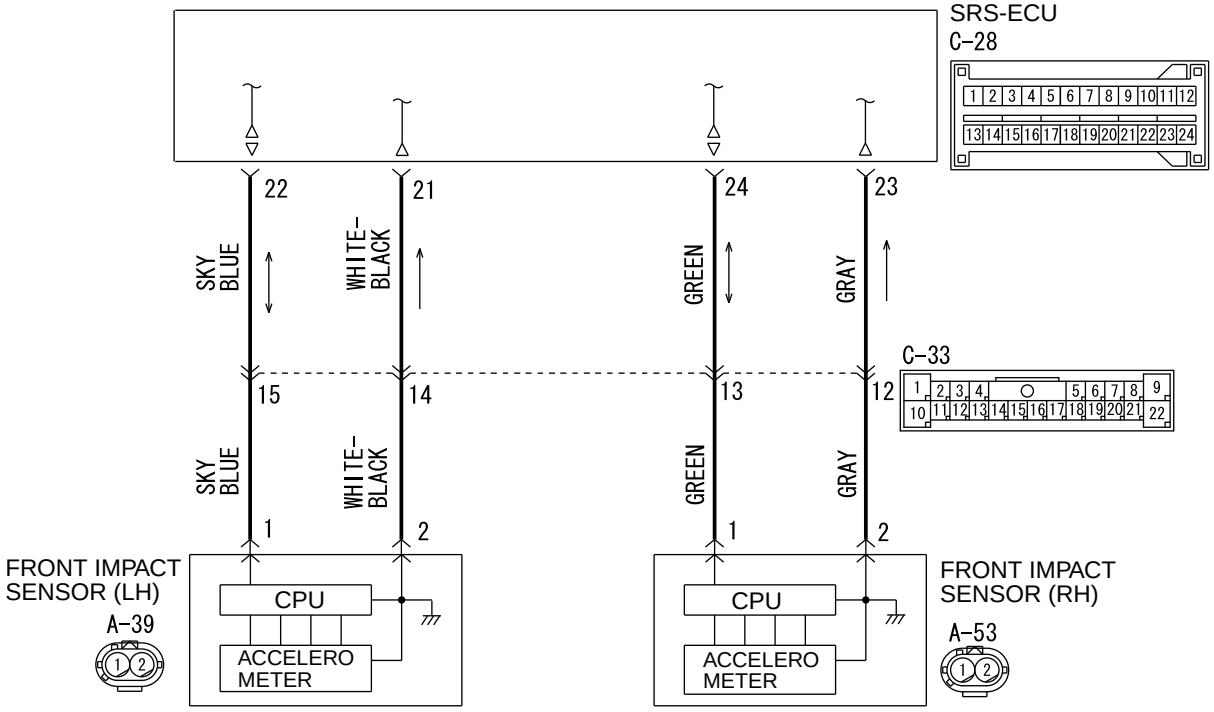
YES: Replace the SRS-ECU.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P. 00-15).

DTC U0170: Front Impact Sensor (LH) Communication Error

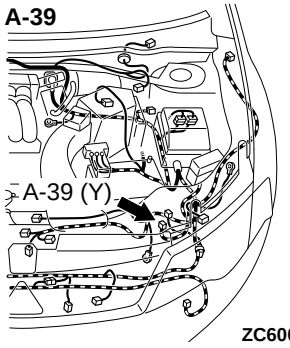
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Front Impact Sensor Circuit

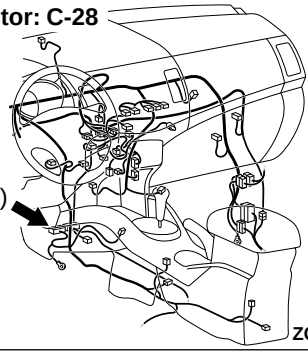


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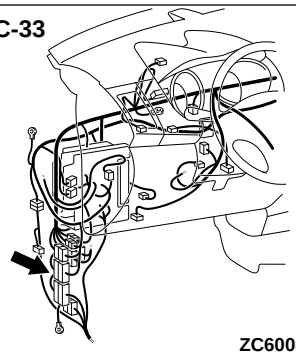
Connector: A-39



Connector: C-28



Connector: C-33



⚠ CAUTION

If DTC U0170 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the front impact sensor sends the coded acceleration data to SRS-ECU. Based on the acceleration data, SRS-ECU determines the necessity of driver's and front passenger's air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

These DTCs are set if communication between the front impact sensor (LH) and the SRS-ECU is not possible or faulty.

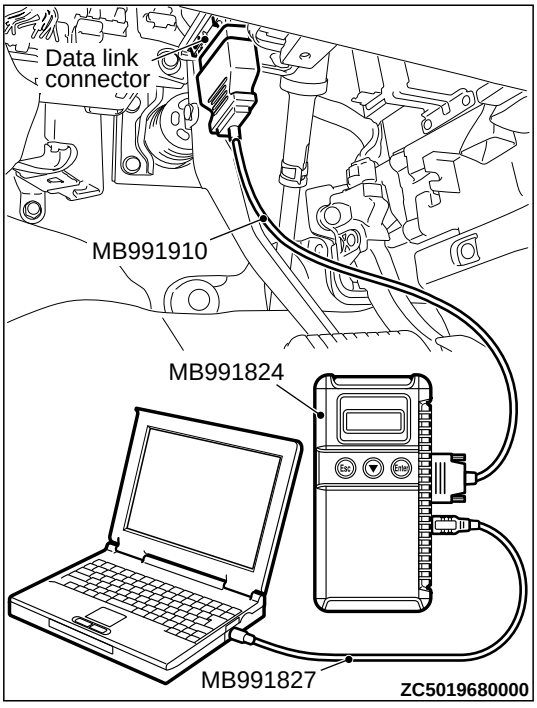
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the front impact sensor (LH)
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

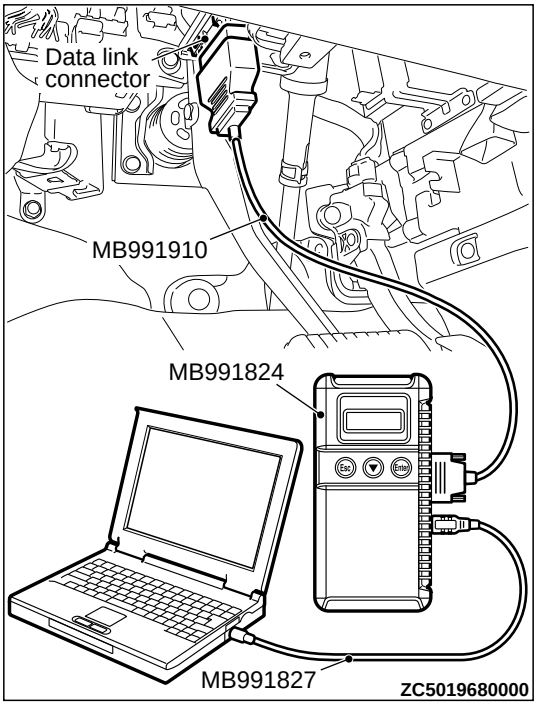
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

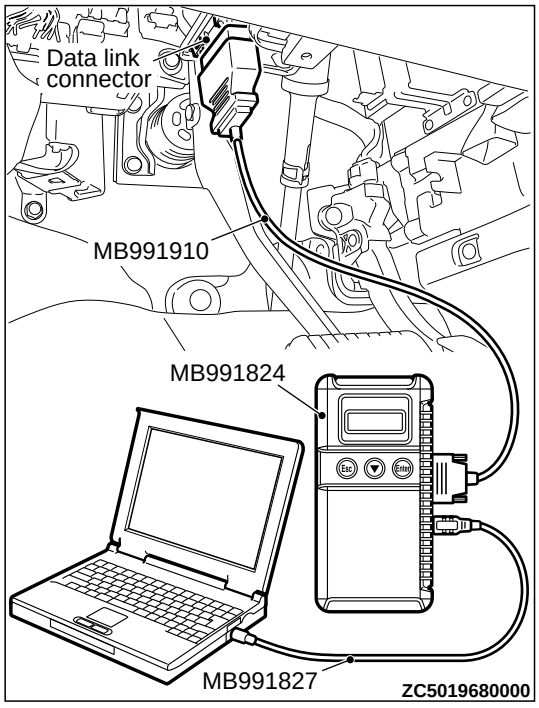
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check for any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

Check the front impact sensor (LH).
(1) Disconnect the negative battery terminal.
(2) Replace the front impact sensor (LH) with the front impact sensor (RH).
(3) Connect the negative battery terminal.



(4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

Q:Is DTC U0170 set?

YES: Replace the front impact sensor (LH) with a new one. (Refer to P.52B-324). Go to Step 5.

NO: Go to Step 4.

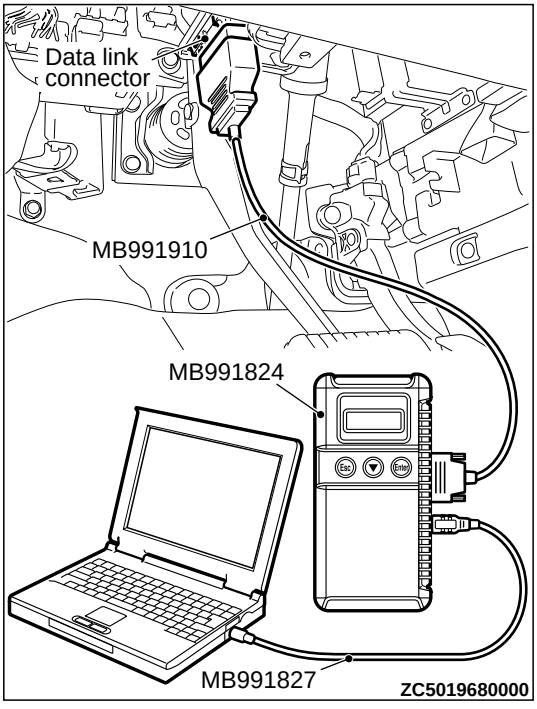
STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-28 (terminal No.21 and 22) and front impact sensor (LH) connector A-39 (terminal No.2 and 1).

NOTE: After inspecting intermediate connector C-33 inspect the wiring harness. If the intermediate connector C-33 is damaged, repair or replace it.

Q:Are the harness wires between SRS-ECU connector C-28 (terminal No.21 and 22) and front impact sensor (LH) connector A-39 (terminal No.2 and 1) in good condition?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0170 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 5.

NO: Replace the harness wires between SRS-ECU connector C-28 and front impact sensor (LH) connector A-39. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

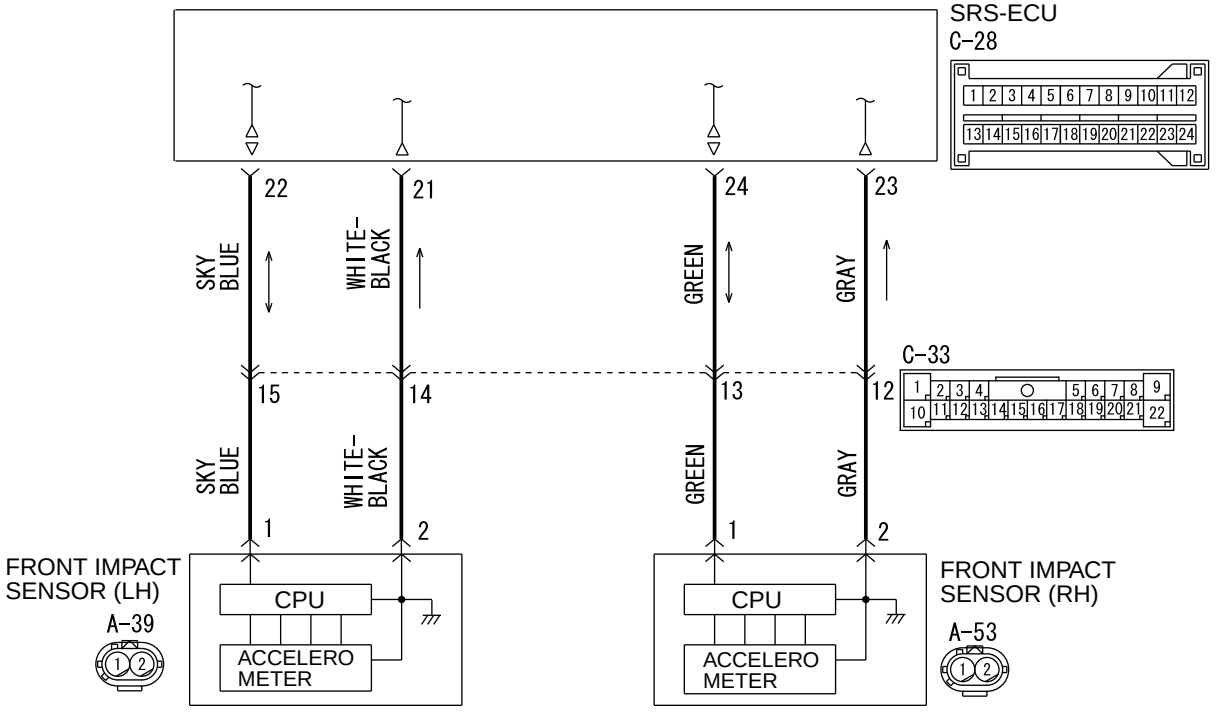
Q:Is DTC U0170 set?

YES: Return to Step 1.
NO: The procedure is complete.

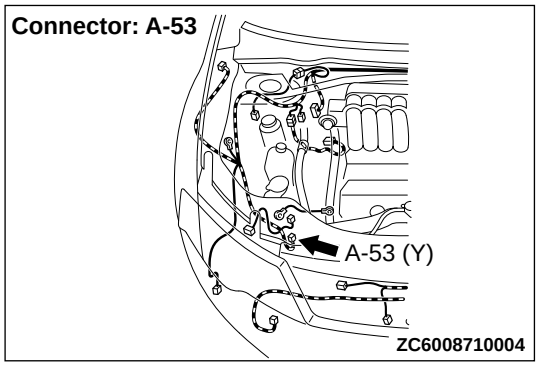
DTC U0171: Front Impact Sensor (RH) Communication Error

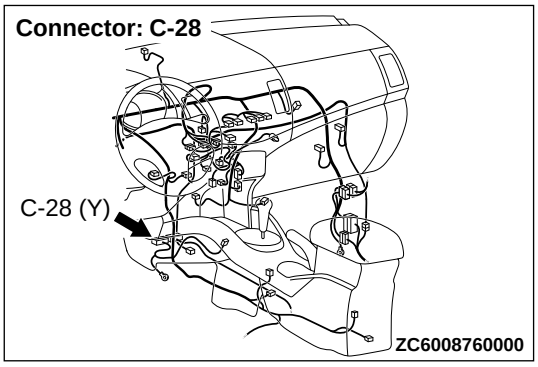
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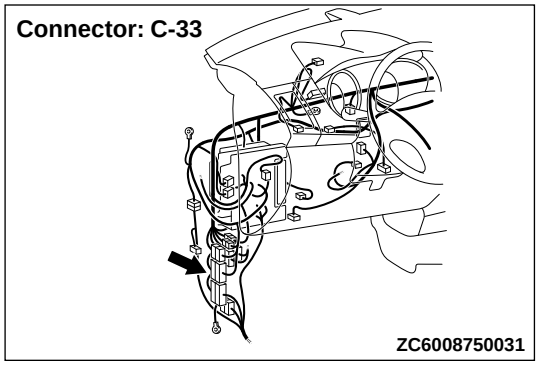
Front Impact Sensor Circuit



D7G52M018A00







⚠ CAUTION

If DTC U0171 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the front impact sensor sends the coded acceleration data to SRS-ECU. Based on the acceleration data, SRS-ECU determines the necessity of driver's and front passenger's air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

These DTCs are set if communication between the front impact sensor (RH) and the SRS-ECU is not possible or faulty.

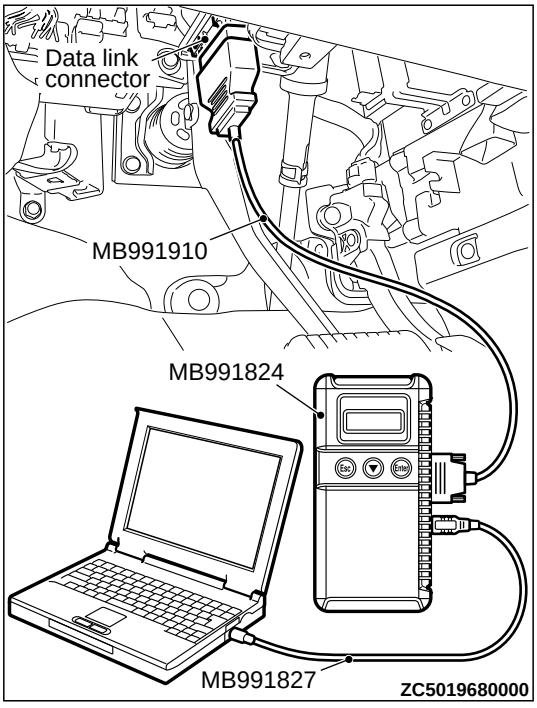
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

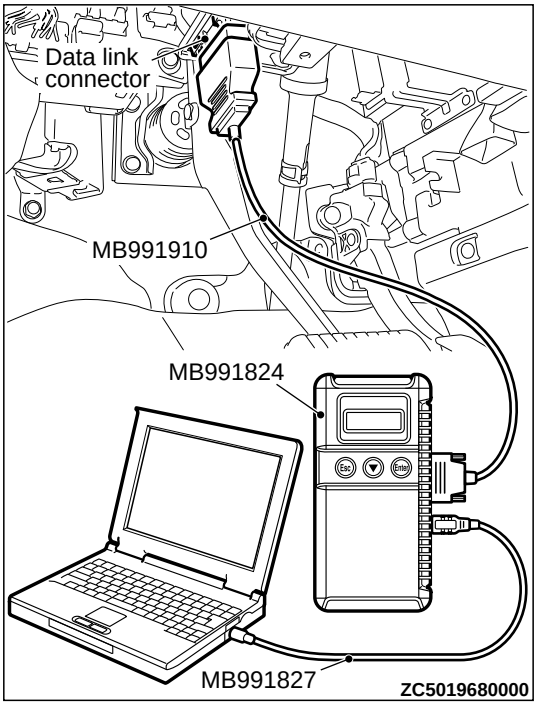
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Go to Step 3.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check for any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

Check the front impact sensor (RH).
(1) Disconnect the negative battery terminal.
(2) Replace the front impact sensor (RH) with the front impact sensor (LH).
(3) Connect the negative battery terminal.

(4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

Q:Is DTC U0171 set?

YES: Replace the front impact sensor (RH) with a new one. (Refer to P.52B-324). Go to Step 5.

NO: Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-28 (terminal No.23 and 24) and front impact sensor (RH) connector A-53 (terminal No.2 and 1).

NOTE: After inspecting intermediate connector C-33 inspect the wiring harness. If the intermediate connector C-33 is damaged, repair or replace it.

Q:Are the harness wires between SRS-ECU connector C-28 (terminal No.23 and 24) and front impact sensor (RH) connector A-53 (terminal No.2 and 1 in good condition?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0171 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 5.

NO: Replace the harness wires between SRS-ECU connector C-28 and front impact sensor (RH) connector A-53. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.

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

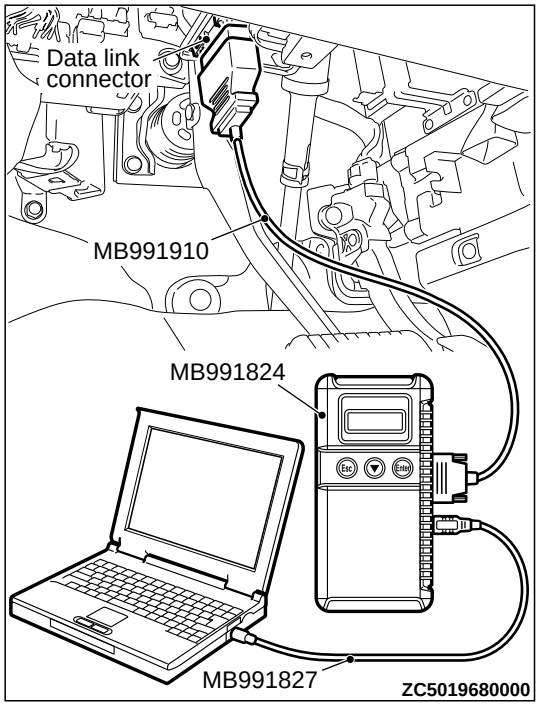
(3) Check if the DTC is set.

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

Q:Is DTC U0171 set?

YES: Return to Step 1.

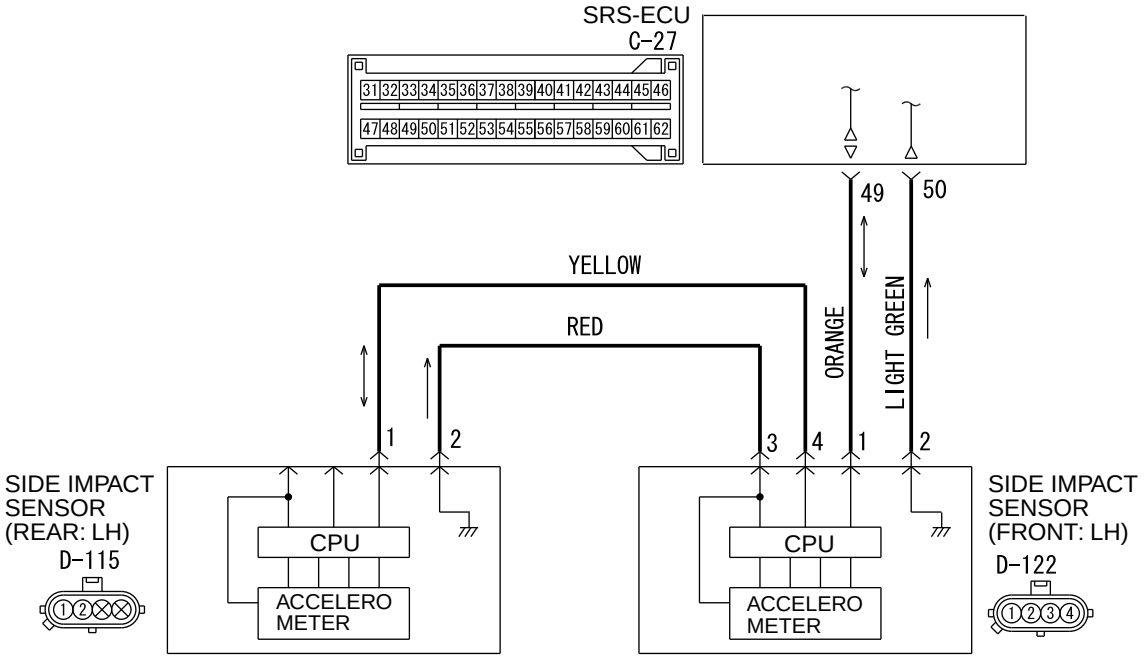
NO: The procedure is complete.



DTC U0172: Side Impact Sensor (Front) (LH) Communication Error

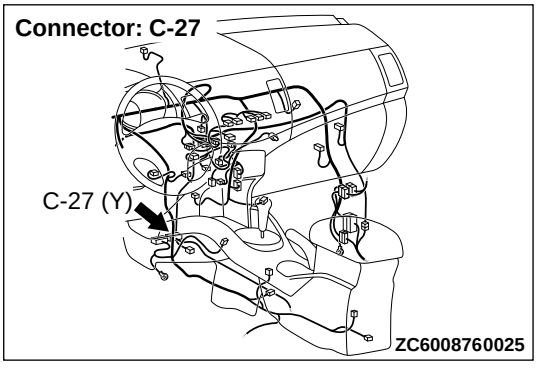
M15204000976USA0000010000

Side Impact Sensor (Front, Rear) (LH) Circuit



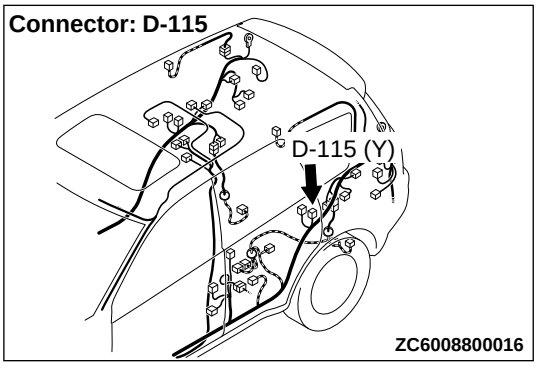
D7G52M019A00

Connector: C-27



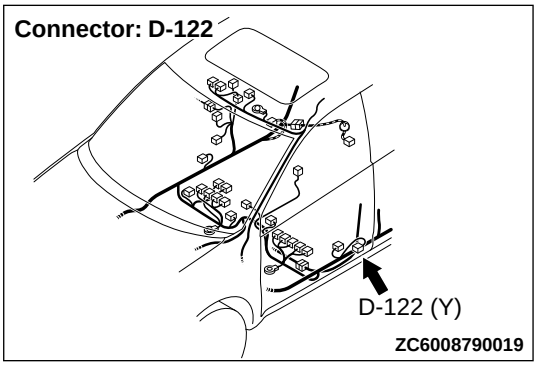
ZC6008760025

Connector: D-115



ZC6008800016

Connector: D-122



ZC6008790019

⚠ CAUTION

If DTC U0172 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the side impact sensor sends the coded acceleration data to SRS-ECU. Based on the acceleration data, SRS-ECU determines the necessity of side-airbag and curtain air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

These DTCs are set if communication between the side impact sensor (front) (LH) and the SRS-ECU is not possible or faulty.

TROUBLESHOOTING HINTS

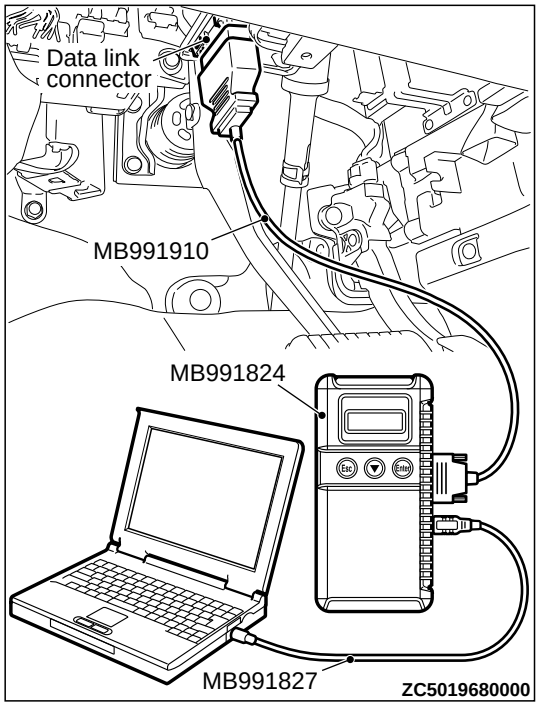
- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (front) (LH)
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



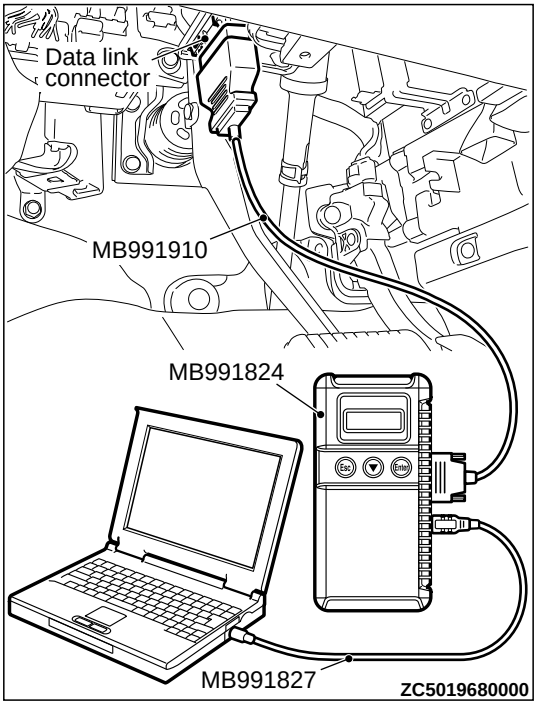
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

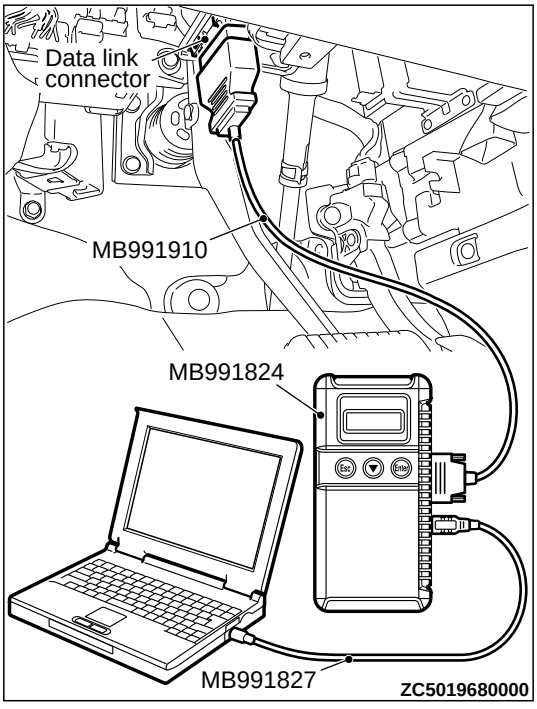
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check for any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

Check the side impact sensor (front) (LH).

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



Q:Is DTC U0172 set?

YES: Replace the side impact sensor (front) (LH) with a new one. (Refer to P.52B-338). Go to Step 5.

NO: Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-27 (terminal No.49

and 50) and side impact sensor (front) (LH) connector D-122 (terminal No.1 and 2).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.49 and 50) and side impact sensor (front) (LH) connector D-122 (terminal No.1 and 2) in good condition?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0172 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 5.

NO: Replace the harness wires between SRS-ECU connector C-27 and side impact sensor (front) (LH) connector D-122. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

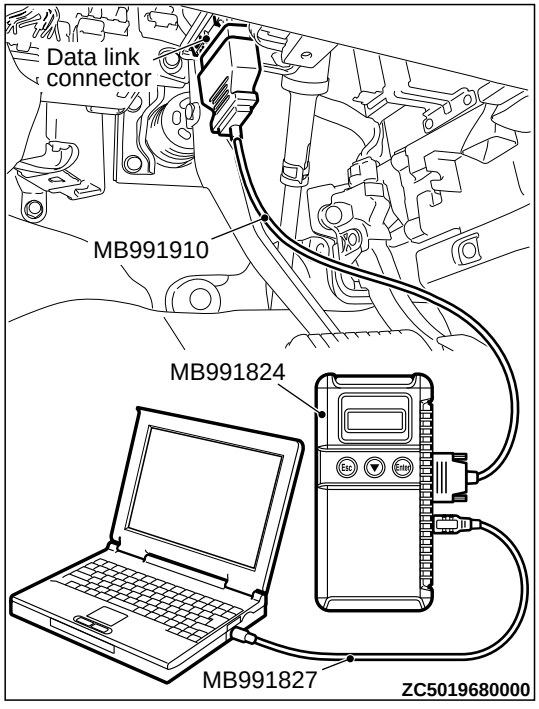
Check again if the DTC is set.

(1) Erase the DTC.

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

(3) Check if the DTC is set.

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



Q:Is DTC U0172 set?

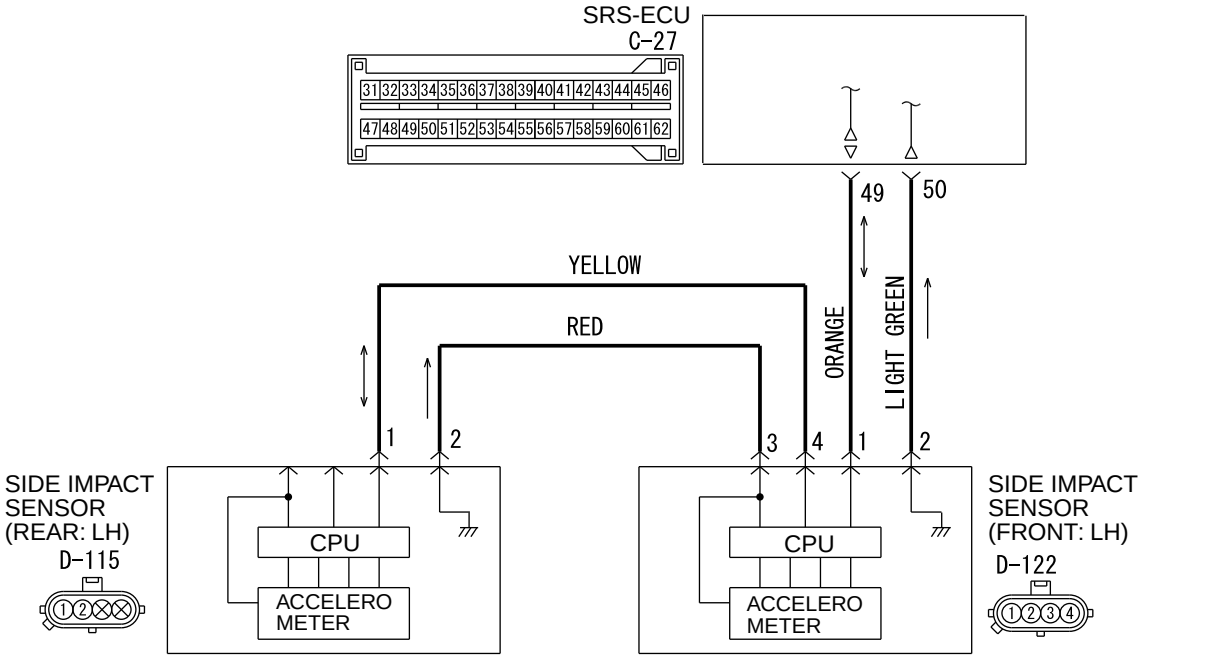
YES: Return to Step 1.

NO: The procedure is complete.

DTC U0173: Side Impact Sensor (Rear) (LH) Communication Error

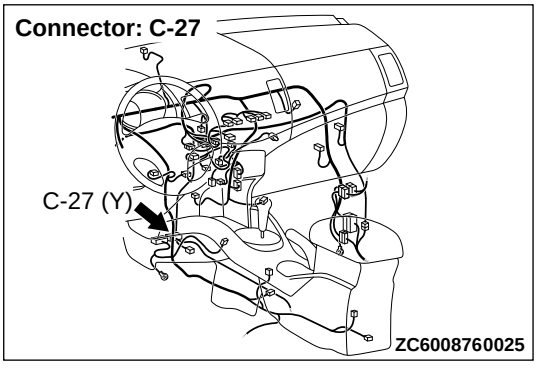
M15204000977USA0000010000

Side Impact Sensor (Front, Rear) (LH) Circuit



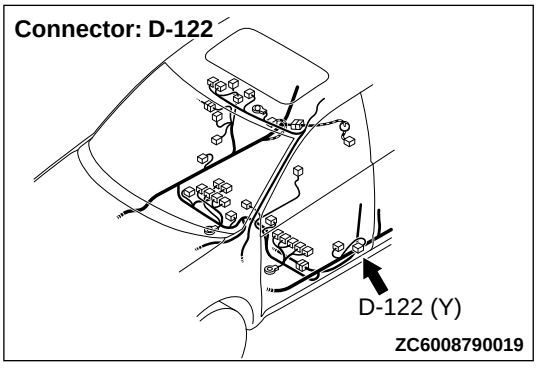
D7G52M019A00

Connector: C-27



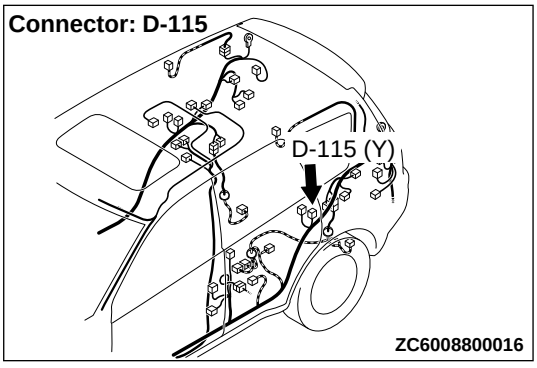
ZC6008760025

Connector: D-122



ZC6008790019

Connector: D-115



ZC6008800016

⚠ CAUTION

If DTC U0173 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the side impact sensor (rear) sends the coded acceleration data to SRS-ECU via side impact sensor (front). Based on the acceleration data, SRS-ECU determines the necessity of curtain air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

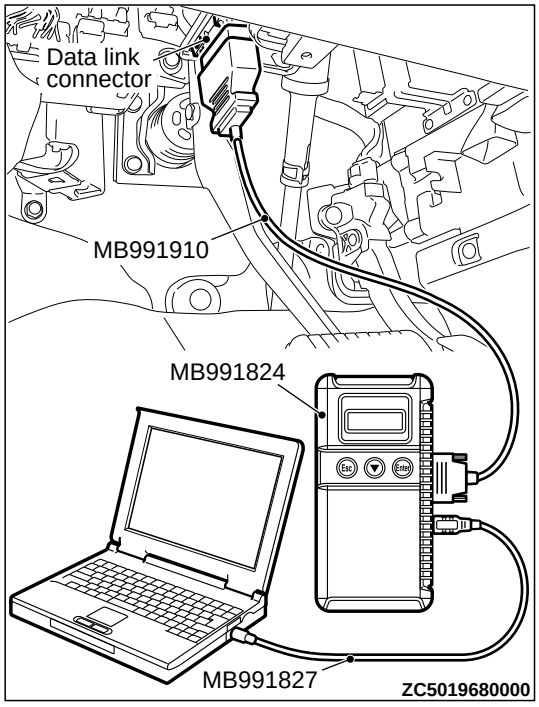
- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (rear) (LH)
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



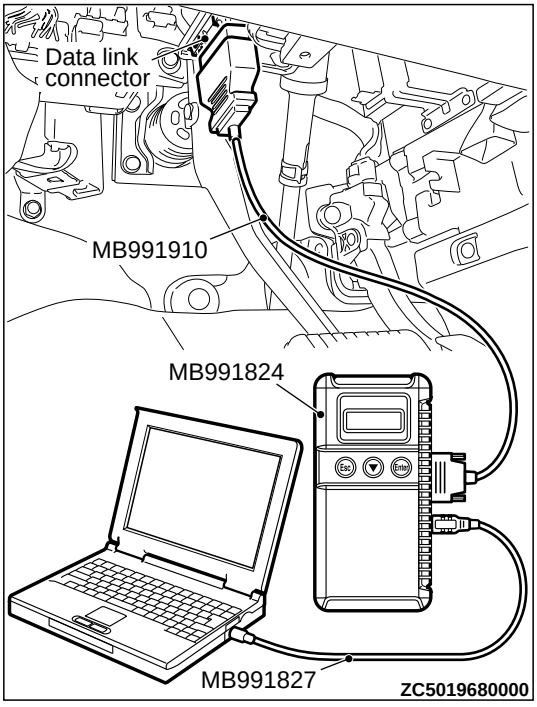
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

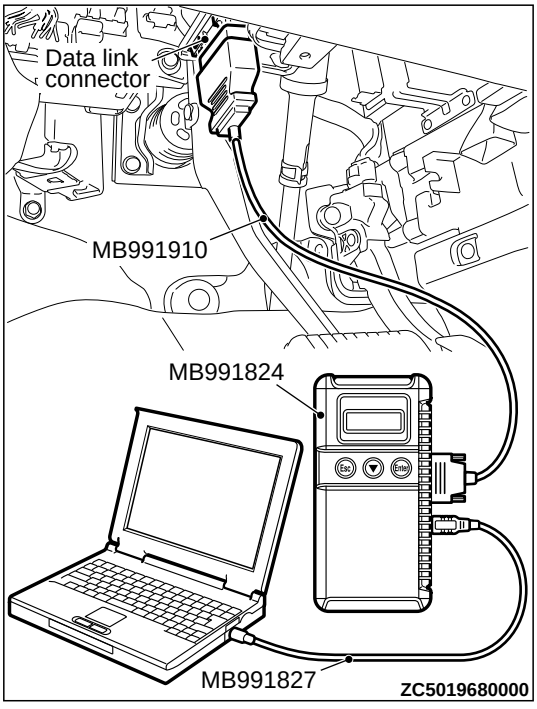
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check for any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

Check the side impact sensor (rear) (LH).

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



Q:Is DTC U0173 set?

YES: Replace the side impact sensor (rear) (LH) with a new one. (Refer to P.52B-338). Go to Step 5.

NO: Go to Step 4.

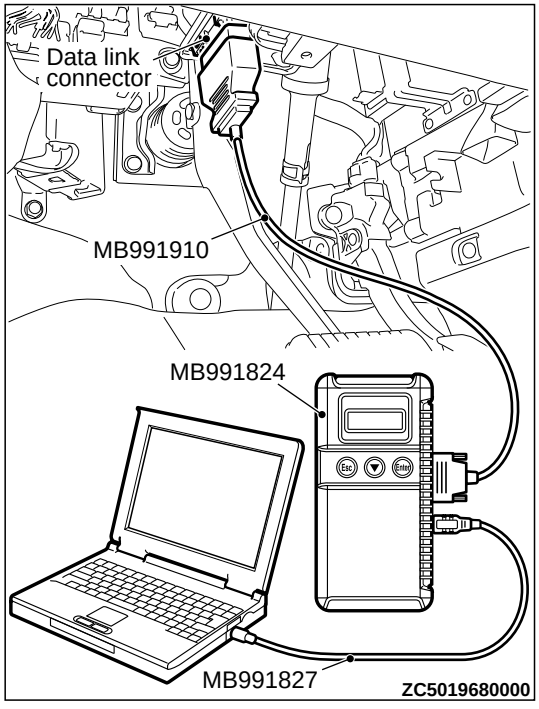
STEP 4. Check the harness wires for open circuit or short circuit between side impact sensor (rear) (LH) connector

D-115 (terminal No.1 and 2) and side impact sensor (front) (LH) connector D-122 (terminal No.4 and 3).

Q:Are the harness wires between side impact sensor (rear) (LH) connector D-115 (terminal No.1 and 2) and side impact sensor (front) (LH) connector D-122 (terminal No. 4 and 3) in good condition?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0173 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 5.

NO: Replace the harness wires between side impact sensor (rear) (LH) connector D-115 and side impact sensor (front) (LH) connector D-122. Then go to Step 5.



STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC U0173 set?

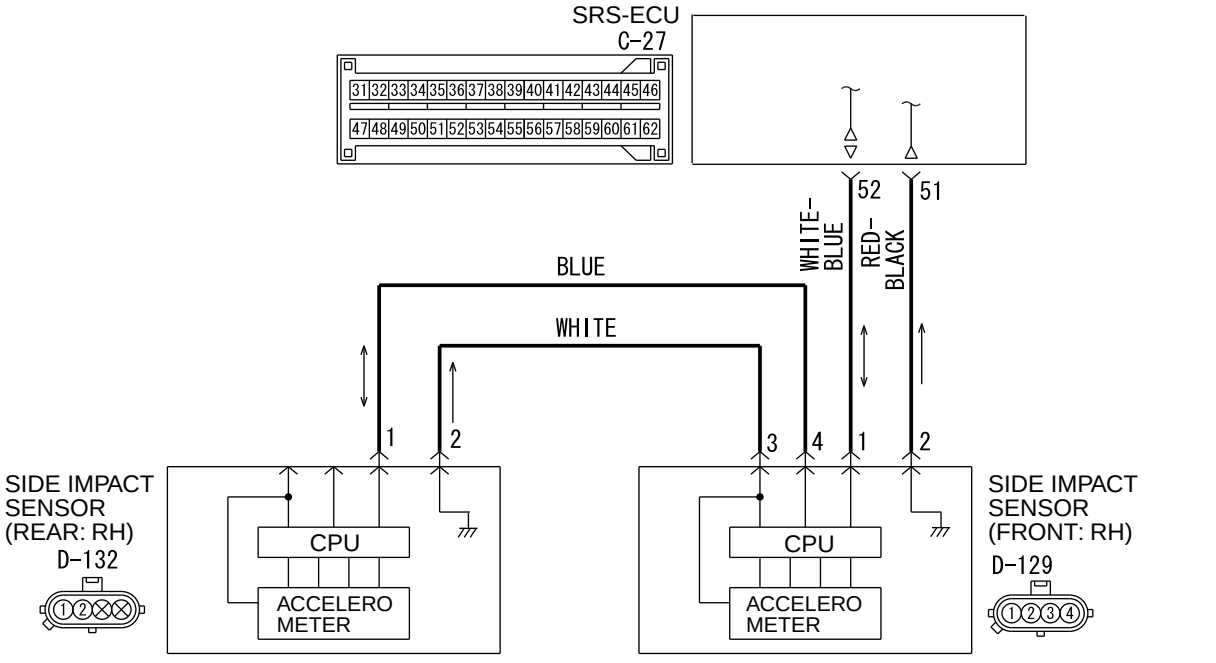
YES: Return to Step 1.

NO: The procedure is complete.

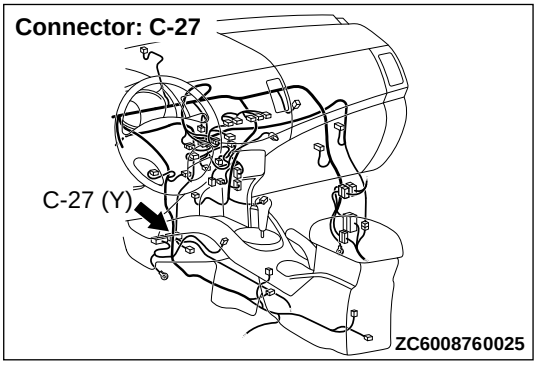
DTC U0175: Side Impact Sensor (Front) (RH) Communication Error

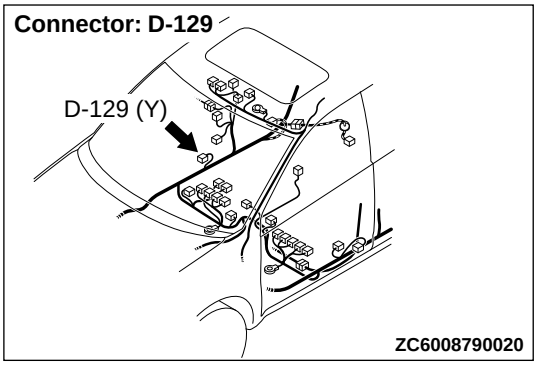
M15204000975USA0000010000

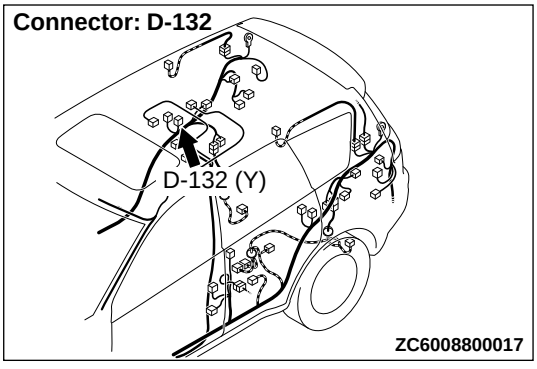
Side Impact Sensor (Front, Rear) (RH) Circuit



D7G52M020A00







⚠ CAUTION

If DTC U0175 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the side impact sensor sends the coded acceleration data to SRS-ECU. Based on the acceleration data, SRS-ECU determines the necessity of side air bag and curtain air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

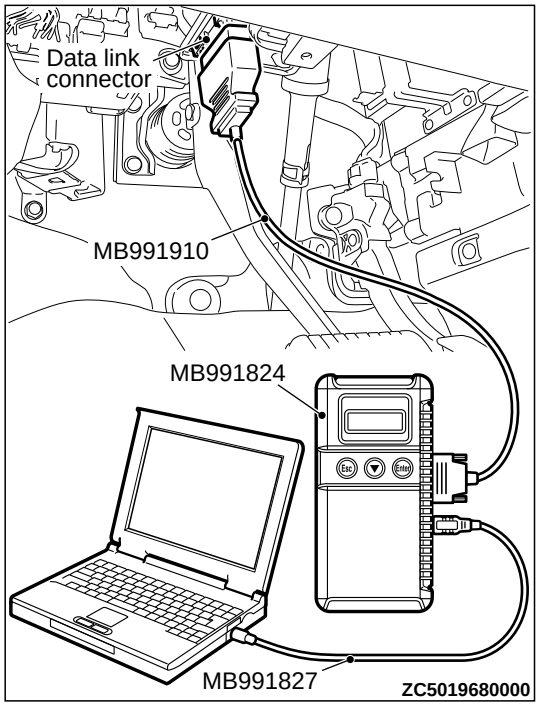
- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (front) (RH)
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



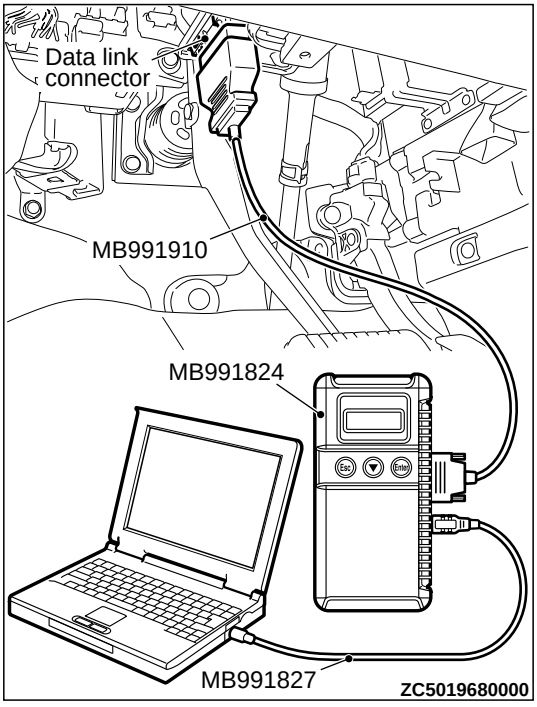
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

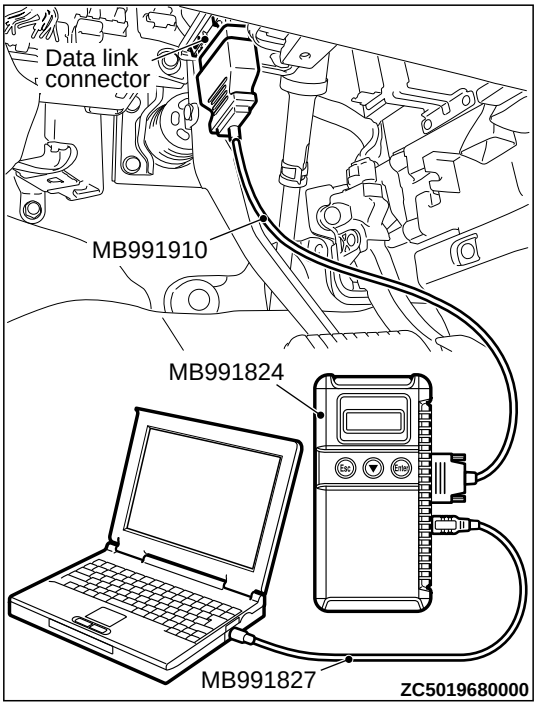
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check for any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

Check the side impact sensor (front) (RH).

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



Q:Is DTC U0175 set?

YES: Replace the side impact sensor (front) (RH) with a new one. (Refer to P.52B-338). Go to Step 5.

NO: Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-27 (terminal No.51

and 52) and side impact sensor (front) (RH) connector D-129 (terminal No.2 and 1).

Q:Are the harness wires between SRS-ECU connector C-27 (terminal No.51 and 52 and side impact sensor (front) (RH) connector D-129 (terminal No.2 and 1) in good condition?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0175 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 5.

NO: Replace the harness wires between SRS-ECU connector C-27 and side impact sensor (front) (RH) connector D-129. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

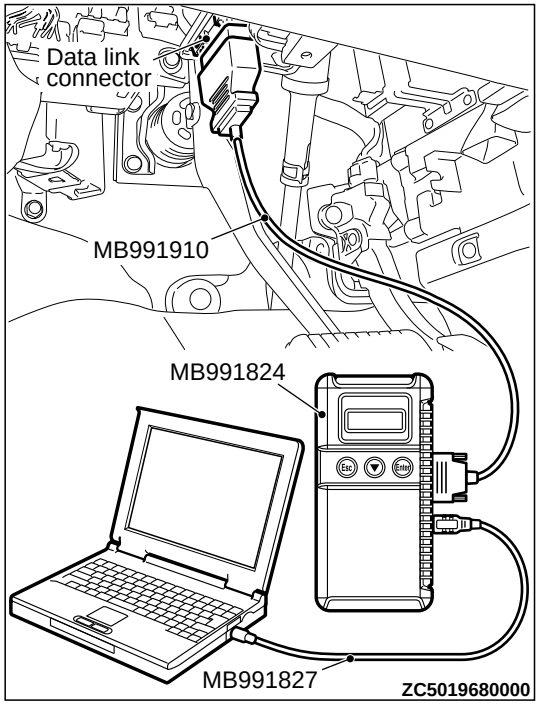
Check again if the DTC is set.

(1) Erase the DTC.

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

(3) Check if the DTC is set.

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



Q:Is DTC U0175 set?

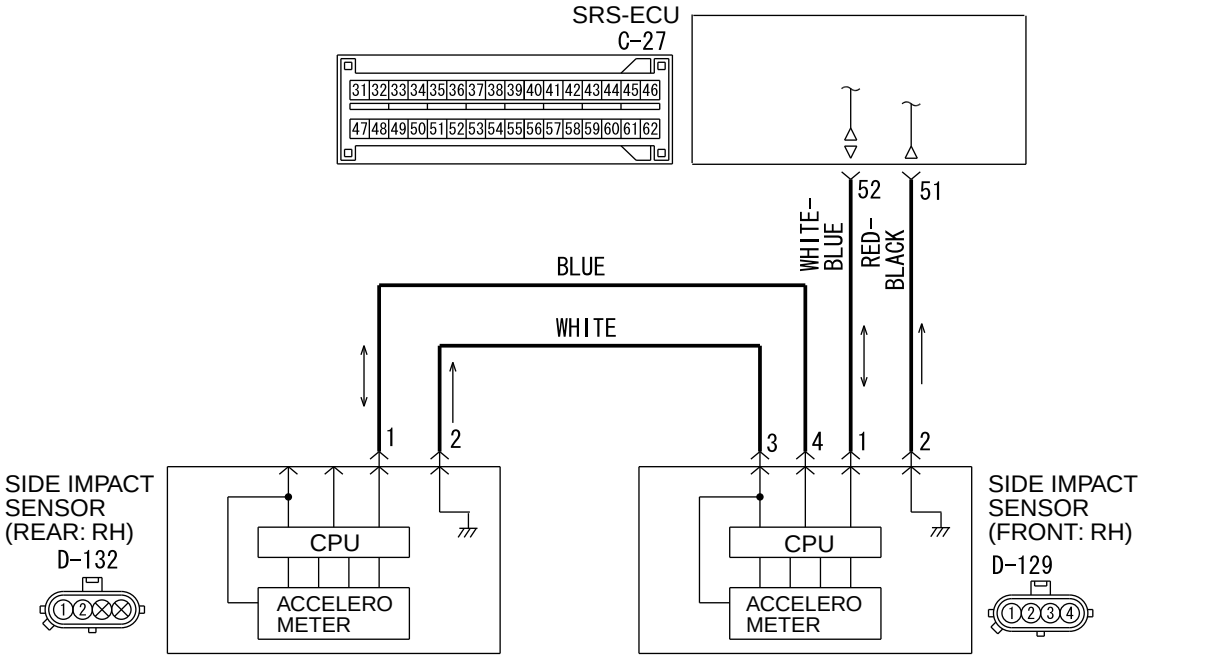
YES: Return to Step 1.

NO: The procedure is complete.

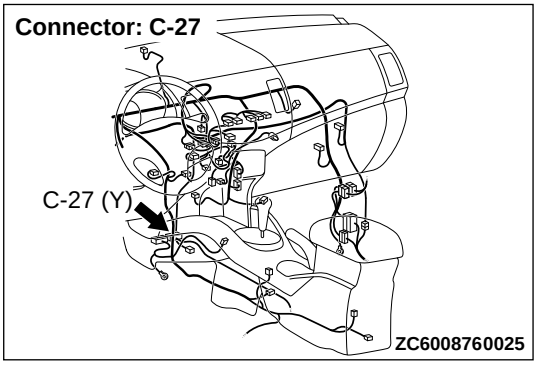
DTC U0176: Side Impact Sensor (Rear) (RH) Communication Error

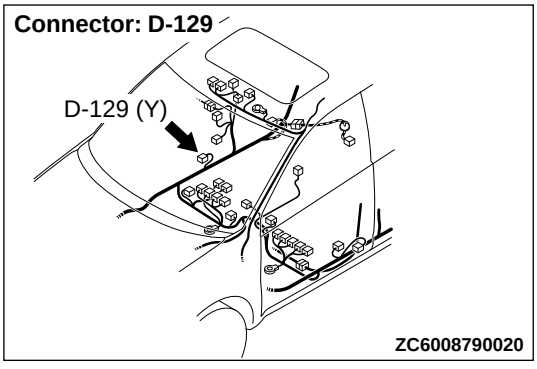
M15204000978USA0000010000

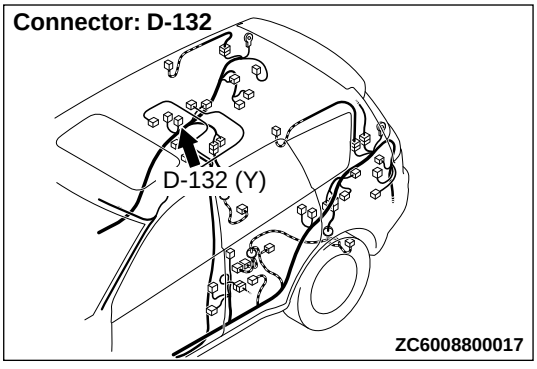
Side Impact Sensor (Front, Rear) (RH) Circuit



D7G52M020A00







⚠ CAUTION

If DTC U0176 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the side impact sensor (rear) sends the coded acceleration data to SRS-ECU via side impact sensor (front). Based on the acceleration data, SRS-ECU determines the necessity of curtain air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

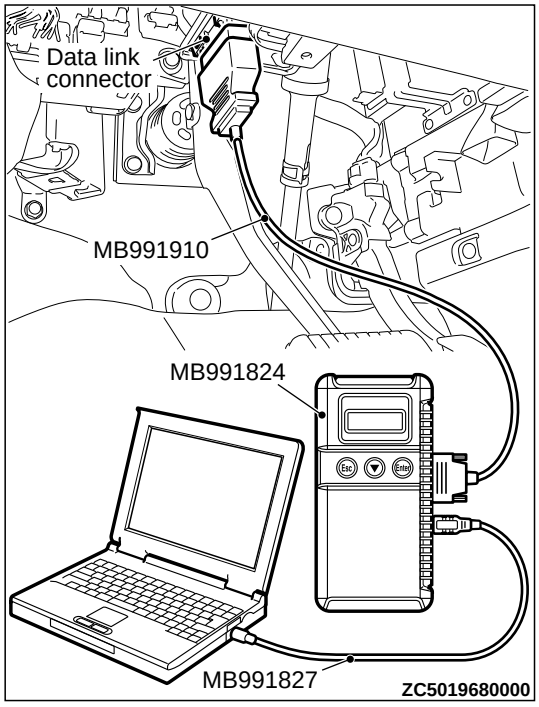
- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (rear) (RH)
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



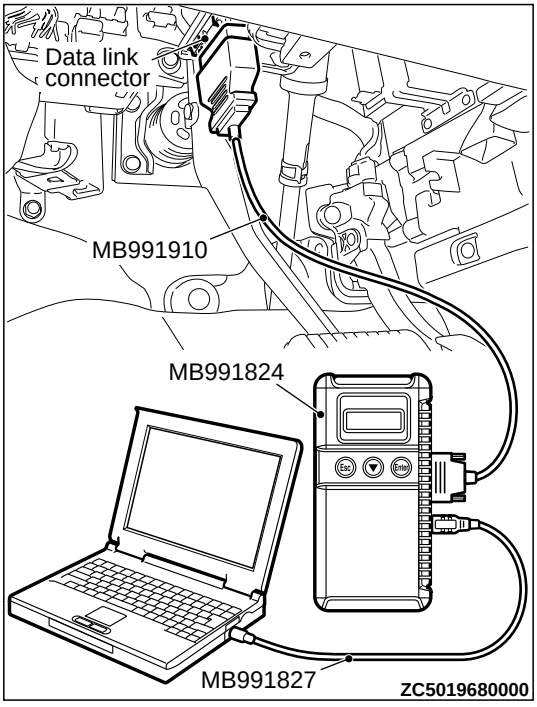
⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

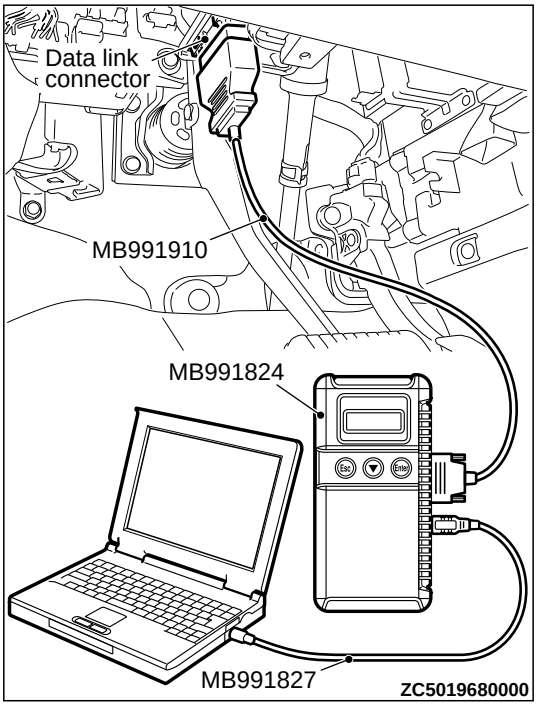
YES: Go to Step 3.

NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15).

STEP 3. Check for any diagnostic trouble code. (Using scan tool MB991958, read the diagnostic trouble code.)

Check the side impact sensor (rear) (RH).

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



Q:Is DTC U0176 set?

YES: Replace the side impact sensor (rear) (RH) with a new one. (Refer to P.52B-338). Go to Step 5.

NO: Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between side impact sensor (rear) (RH) connector

D-132 (terminal No.1 and 2) and side impact sensor (front) (RH) connector D-129 (terminal No.4 and 3).

Q:Are the harness wires between side impact sensor (rear) (RH) connector D-132 (terminal No.1 and 2) and side impact sensor (front) (RH) connector D-129 (terminal No. 4 and 3) in good condition?

YES: Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0176 sets, replace the SRS-ECU (Refer to P.52B-326). Then go to Step 5.

NO: Replace the harness wires between side impact sensor (rear) (RH) connector D-132 and side impact sensor (front) (RH) connector D-129. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

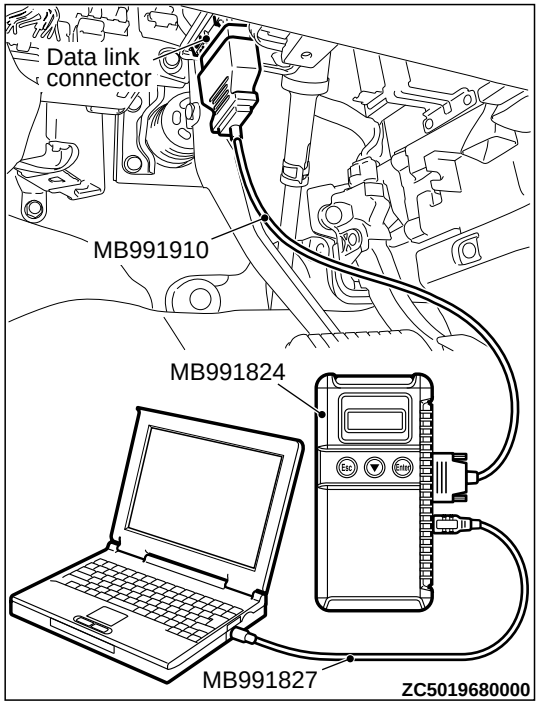
Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is DTC U0176 set?

YES: Return to Step 1.

NO: The procedure is complete.



DTC U0184: Audio CAN Timeout

M15204001007USA0000010000

⚠ CAUTION

- **If the DTC U0184 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

When the signals from radio and CD player or CD changer cannot be received, the SRS-ECU sets the DTC U0184.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

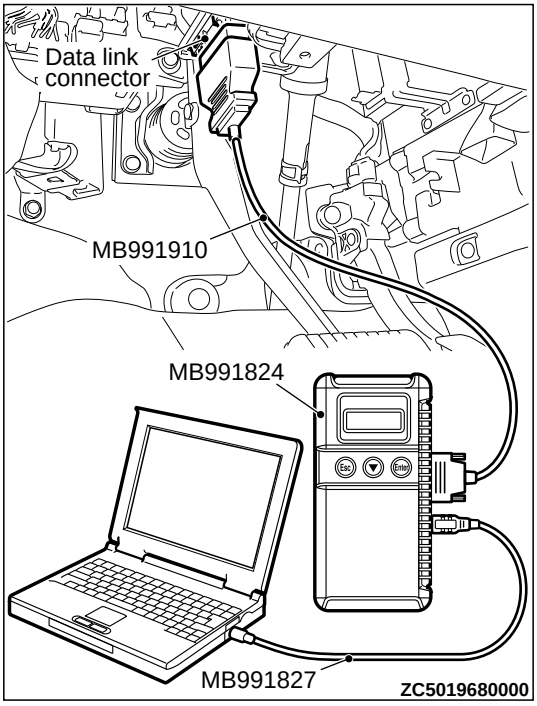
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The radio and CD player or CD changer may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line



⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the audio diagnostic trouble code

Check if the DTC is set to the audio.

Q:Is the DTC set?

YES: Diagnose the radio and CD player (Refer to GROUP 54B Diagnosis P.54B-165).
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00,

How to use Troubleshooting/inspection Service Points P. 00-15).

DTC U0195: Satellite Radio Tuner CAN Timeout

M15204001008USA0000010000

⚠ CAUTION

- **If the DTC U0195 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

TROUBLE JUDGEMENT

If the signal from satellite radio tuner cannot be received, the SRS-ECU sets the DTC U0195.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

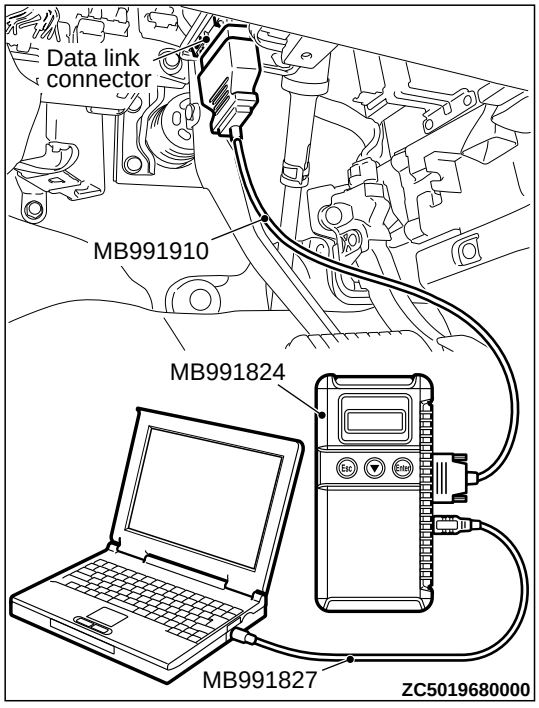
- The CAN bus may be defective.
- The satellite radio tuner may be defective.
- The SRS-ECU may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the satellite radio tuner diagnostic trouble code.
Check if DTC is set to the satellite radio tuner.

Q:Is the DTC set?
YES: Troubleshoot the satellite radio.
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?
YES: Replace the SRS-ECU.
NO: The trouble can be an intermittent malfunction such as a poor connection or open circuit in the CAN bus lines between the satellite radio tuner and the ETACS-ECU. (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-15)

DTC U0197: Hands Free Module CAN Timeout

M15204001009USA0000010000

⚠ CAUTION
- **If the DTC U0197 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

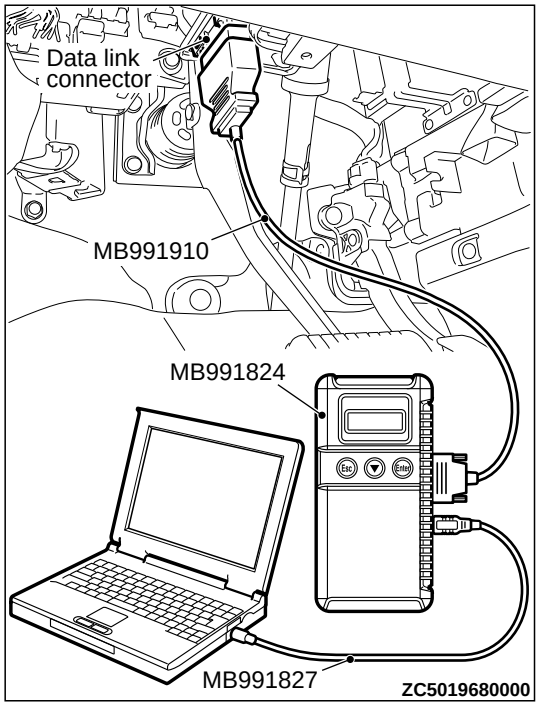
DIAGNOSTIC FUNCTION
When the signals from hands free module cannot be received, the SRS-ECU sets the DTC U0197.

JUDGEMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective.
- The hands free module may be defective.
- The SRS-ECU may be defective.

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the hands free module diagnostic trouble code

Check if the DTC is set to the hands free module.

Q:Is the DTC set?

YES: Troubleshoot the hands-free cellular phone system.
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-15).

DTC U0212: Steering Wheel Sensor CAN Timeout

M15204001010USA0000010000

⚠ CAUTION

- **If the DTC U0212 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION
If the signal from steering wheel sensor cannot be received, the SRS-ECU sets the DTC U0212.

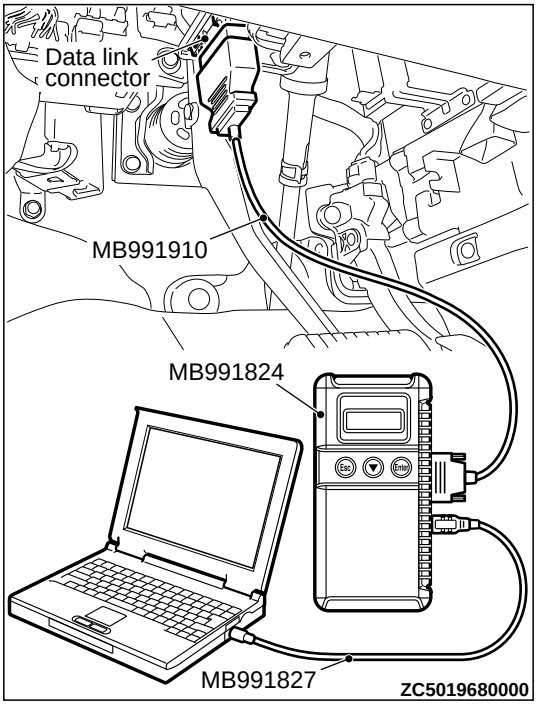
JUDGEMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line



⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?
YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the steering wheel sensor diagnostic trouble code
Check if the DTC is set to the steering wheel sensor.

Q:Is the DTC set?
YES: Diagnose the steering wheel sensor (Refer to GROUP 35C, Diagnosis P.35C-198).
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.

(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?
YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P. 00-15).

DTC U1414: Defective Coding Data

M15204001011USA0000010000

⚠ CAUTION
- **If the DTC U1414 is set, diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

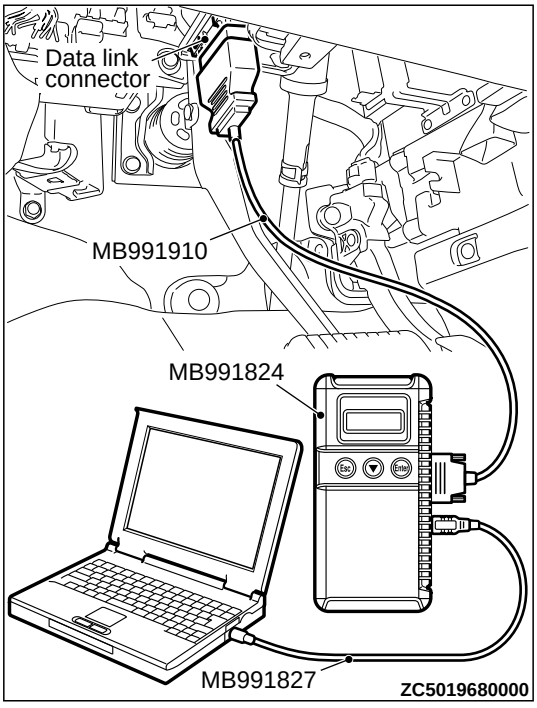
DIAGNOSTIC FUNCTION
If the vehicle information data is not registered to the SRS-ECU, the SRS-ECU sets the DTC U1414.

JUDGEMENT CRITERIA
When the coding data (vehicle information) from ETACS-ECU is not received, SRS-ECU determines that the abnormality is present.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?

YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code

Check if DTC is set to the ETACS-ECU.

Q:Is the DTC set?

YES: Troubleshoot the ETACS-ECU (Refer to GROUP 54Ad, Diagnosis P.54Ad-8).
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?

YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-15).

DTC U1415: Coding not Completed/Data Fail

M15204001012USA0000010000

⚠ CAUTION

- **If the DTC U1415 is set, diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION
If the vehicle information data is not registered to the SRS-ECU, the SRS-ECU sets the DTC U1415.

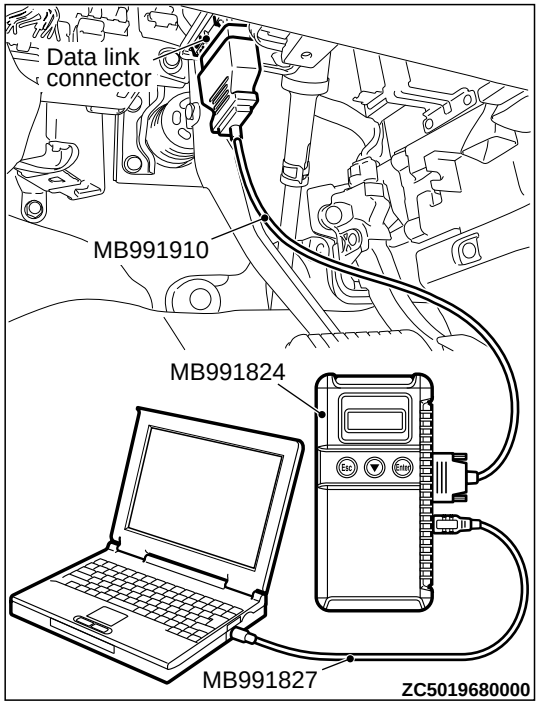
JUDGEMENT CRITERIA
With the global coding counter value "0", if all the global coding data (vehicle information) are not stored, the SRS-ECU determines that a problem has occurred.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line



⚠ CAUTION

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

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-31."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the CAN bus line found to be normal?
YES: Go to Step 2.
NO: Repair the CAN bus line. (Refer to GROUP 54D, Diagnosis P.54D-17).

STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code
Check if DTC is set to the ETACS-ECU.

Q:Is the DTC set?
YES: Troubleshoot the ETACS-ECU (Refer to GROUP 54Ad, Diagnosis P.54Ad-8).
NO: Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.

(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q:Is the DTC set?
YES: Replace the SRS-ECU.
NO: There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P. 00-15).

TROUBLE SYMPTOM CHART

M15204000034USA0000010000

⚠ CAUTION
During diagnosis, a DTC code associated with another system may be set when the ignition switch is turned on with connector(s) disconnected. After completing the repair, confirm all systems for DTC code(s). If DTC code (s) are set, erase them all.

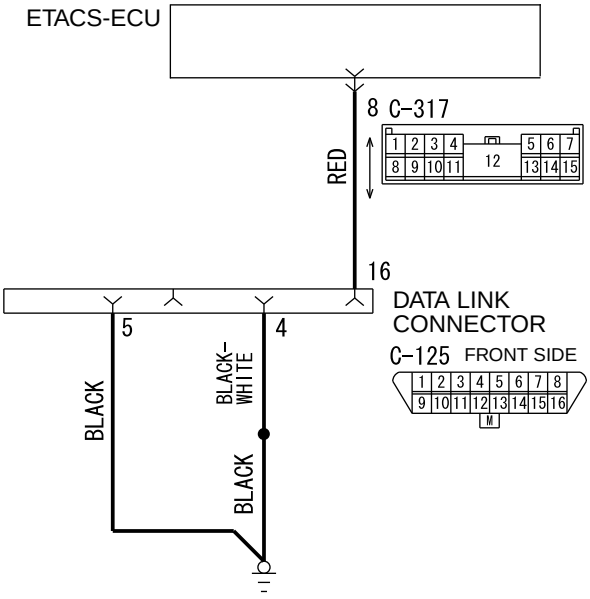
SYMPTOM	INSPECTION PROCEDURE No.	REFERENCE PAGE
Communication between the scan tool and the SRS-ECU is not possible.	1	P.52B-307
Power supply circuit system	2	P.52B-309
The SRS warning light does not illuminate.	3	P.52B-311
The SRS warning light does not go out.	4	P.52B-311

SYMPTOM PROCEDURES

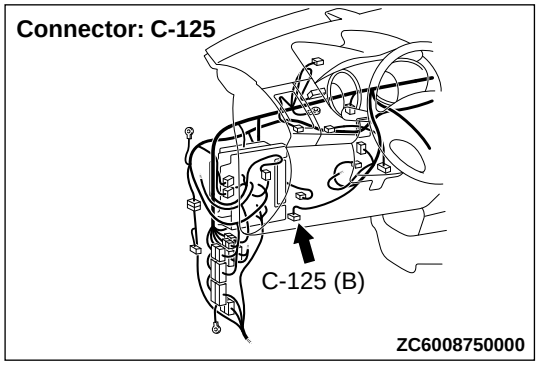
INSPECTION PROCEDURE 1: Communication between the Scan Tool and the SRS-ECU is not possible.

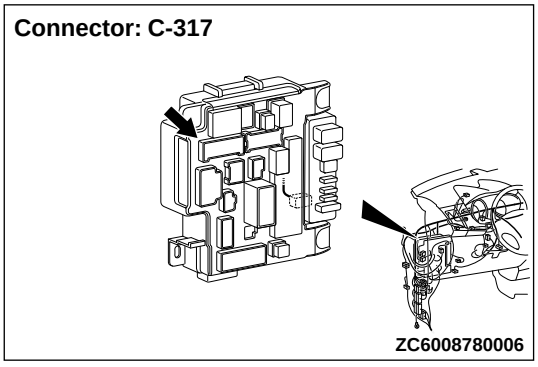
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Diagnosis Connector Circuit



D7G52M026A00





TECHNICAL DESCRIPTION (COMMENT)

If the scan tool (M.U.T.-III Sub Assembly) can not communicate with the SRS system, the CAN bus lines may be defective. If the SRS system does not work, the SRS-ECU or its power supply circuit may be defective.

TROUBLESHOOTING HINTS (The most likely causes for this case:)

- Damaged wiring harness or connector
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. V.C.I. status check

Check that the V.C.I. indicator light is illuminated in green.

Q:Is it illuminated in green?

YES: Diagnose the CAN bus line, and repair if necessary. (Refer to GROUP 54D, Diagnosis P.54D-17.)

NO: Go to Step 2.

STEP 2. Connector check: C-317 ETACS-ECU connector, C-125 data link connector

Q:Is the check result normal?

YES: Go to Step 3.

NO: Repair the connector concerned.

STEP 3. Wiring harness check between the C-317 ETACS-ECU connector No. 8 and the C-125 data link connector terminal No. 16

- Check the power supply line for open circuit.

Q:Is the check result normal?

YES: Go to Step 4.

NO: Repair the wiring harness.

STEP 4. Wiring harness check between the C-125 data link connector terminal No. 4 or 5 and the ground

- Check the ground wires for open circuit.

Q:Is the check result normal?

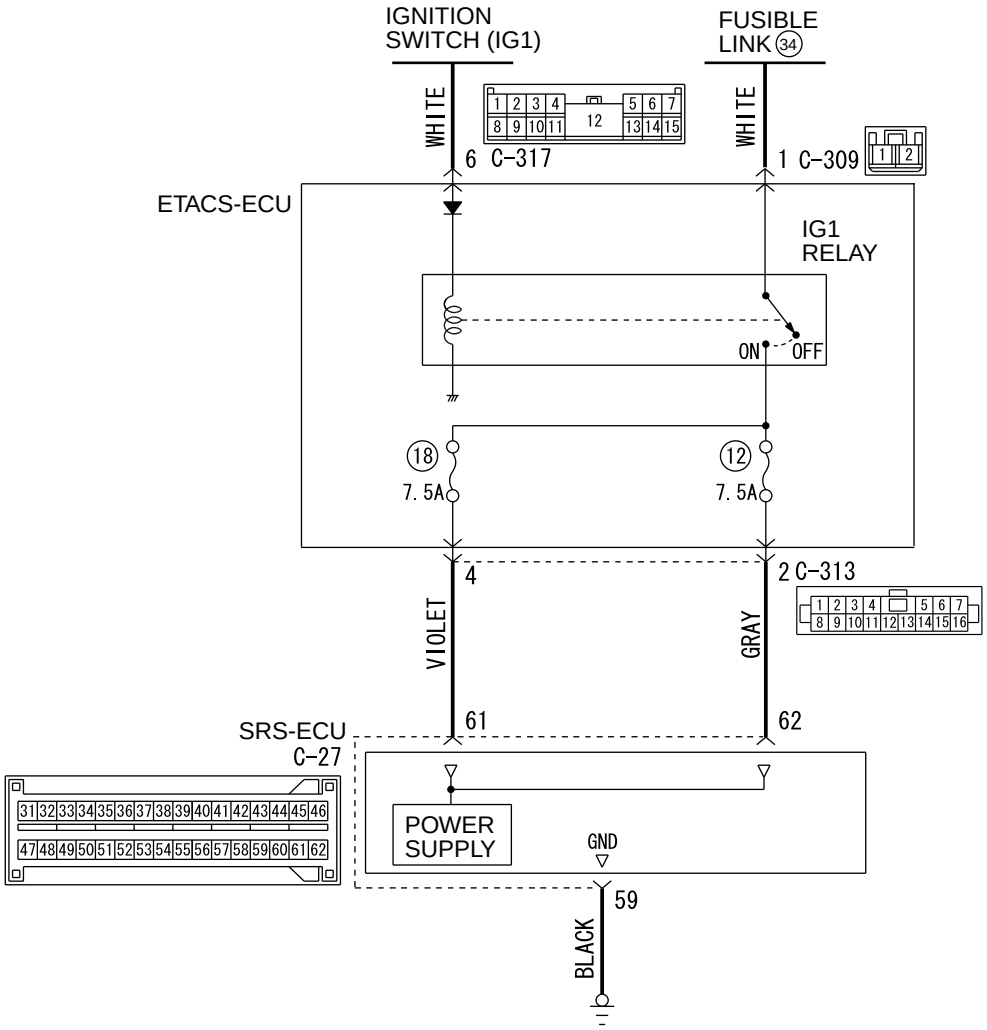
YES: Check the scan tool.

NO: Repair the wiring harness.

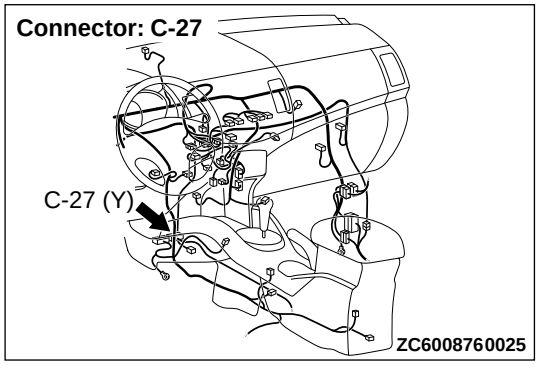
INSPECTION PROCEDURE 2: Power supply circuit system

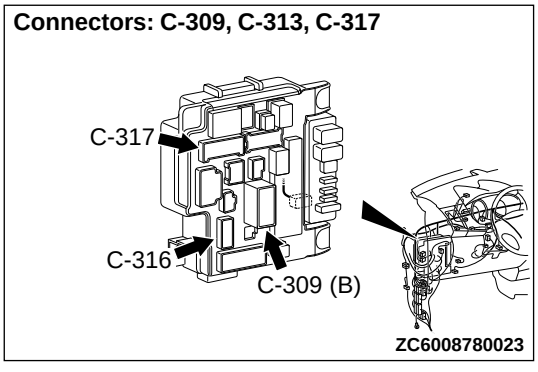
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IG1 Power Supply Circuit



D7G52M027A00





CIRCUIT OPERATION

- The SRS-ECU is energized by the ignition switch (IG1) through multi-purpose fuse 18 and the SRS-ECU terminal 61 and multi-purpose fuse 12 and the SRS-ECU terminal 62.
- If the power supply to the SRS-ECU has failed, scan tool (M.U.T.-III Sub Assembly) will not be able to communicate with it.

TROUBLESHOOTING HINTS (THE MOST LIKELY CAUSES FOR THIS CASE:)

- Damaged wiring harness or connector
- Defective battery
- Charging system failed
- Malfunction of the SRS-ECU

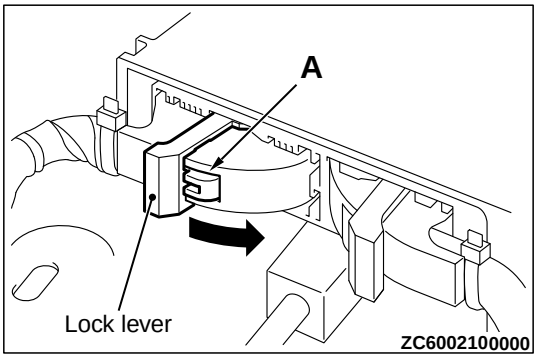
DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Resistance measurement at the C-27 SRS-ECU connectors

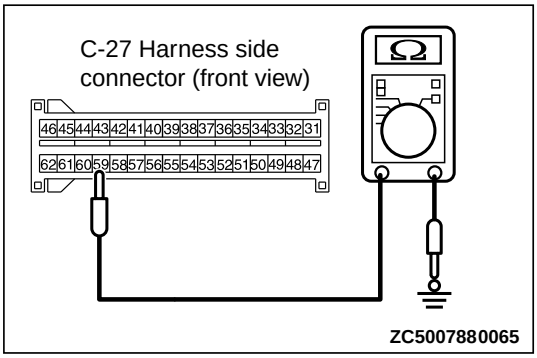
(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-27 SRS-ECU connectors.



(2) Take the measurements below at the C-27 wiring harness side connectors.

- Continuity between C-27 wiring harness side connector terminal No. 59 and body ground

  OK: Continuity (Less than 2 ohms)



Q:Is the check result normal?

YES: Go to Step 2.

NO: Repair the wiring harness between the C-27 SRS-ECU connector terminal No. 59 and the ground.

STEP 2. Wiring harness check between the C-27 SRS-ECU connector terminal Nos. 61 and 62 and the ignition switch IG1

NOTE: Prior to the wiring harness inspection, check the ETACS-ECU connectors C-309, C-317 and C-313, and repair if necessary.

- Check the power supply line for open circuit.

Q:Is the check result normal?

YES: Go to Step 3.

NO: Repair the wiring harness.

STEP 3. Retest the system

Q:Is the communication between scan tool and SRS-ECU possible?

YES: Intermittent malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points -How to Cope with Intermittent Malfunction P.00-15.)

NO: Replace SRS-ECU. (Refer to P.52B-326.)

INSPECTION PROCEDURE 3:The SRS Warning Light does not Illuminate.

M15204000104USA0000010000

CIRCUIT OPERATION

- SRS-ECU sends the SRS warning light signal to the combination meter via the CAN communication.
- As a cause, the failure of CAN bus line, combination meter, or SRS-ECU is suspected.

TROUBLESHOOTING HINTS

- Damaged wiring harness and connectors
- Combination meter malfunction
- Malfunction of SRS-ECU

DIAGNOSIS

STEP 1. Combination meter check

Use scan tool to perform the combination meter actuator tests.

Q:Is the check result normal?

YES: Replace SRS-ECU. (Refer to P.52B-326.)

NO: Replace the combination meter (Refer to GROUP 54Ab, Combination Meter P.54Ab-77).

INSPECTION PROCEDURE 4: The SR SWarning Light does not Go Out.

M15204000105USA0000010000

CIRCUIT OPERATION

- SRS-ECU sends the SRS warning light signal to the combination meter via the CAN communication.
- As a cause, the failure of CAN bus line, combination meter, or SRS-ECU is suspected.

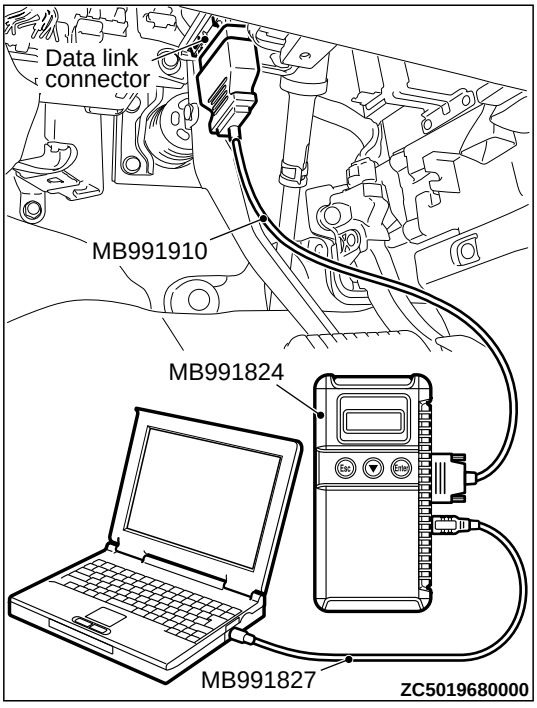
TROUBLESHOOTING HINTS

- Damaged wiring harness and connectors
- Combination meter malfunction
- Malfunction of SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991817: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

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

Use scan tool MB991958 to diagnose the CAN bus lines.
(1) Connect scan tool MB991958 to the data link connector.
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.

Q:Is the check result satisfactory?

YES: Replace the SRS-ECU. (Refer to P.52B-326.)
NO: Repair the CAN bus line (Refer to GROUP 54D, Diagnosis P.54D-17).

DATA LIST REFERENCE TABLE

M15204000035USA0000010000

DATA LIST OUTPUT

The following items can be read by the scan tool from the SRS-ECU input data.

Item No.	Check items	Check conditions	Normal conditions
01	SRS warning light illumination request	▪Ignition switch: ON ▪After warning lamp pre-check	OFF
		▪Ignition switch: ON ▪During warning lamp pre-check	ON

The following items can be read by the scan tool from the occupant classification-ECU input data.

Item No.	Check items	Check conditions	Normal conditions
01	Passenger weight	Apply a load to the passenger seat.	-2048 Kg (4515 lb) to 2048 Kg (4515 lb)
02	Dr seat position sensor current	Slide the seat the back-end to the front-position.	0 to 4095.93 mA
03	Dr seat position sensor voltage	Slide the seat the back-end to the front-position.	0 to 5000 mV
07	Dr seat position sensor status	Slide the seat the back-end to the front-position.	Not in Frontal Zone/In Frontal Zone/Undetermined
08	occupant classification status	Apply a load to the passenger seat.	Empty/PFIS/Child/More 5th %/ Undermined

Item No.	Check items	Check conditions	Normal conditions
10	Battery voltage	Always	0 to 30 V
21	Pa seat weight sensor 1 RR	Apply a load to the passenger seat.	-2048 Kg (4515 lb) to 2048 Kg (4515 lb)
22	Pa seat weight sensor 1 RR volt	Apply a load to the passenger seat.	0 to 5000 mV
23	Pa seat weight sensor 2 RF	Apply a load to the passenger seat.	-2048 Kg (4515 lb) to 2048 Kg (4515 lb)
24	Pa seat weight sensor 2 RF volt	Apply a load to the passenger seat.	0 to 5000 mV
25	Pa seat weight sensor 3 LF	Apply a load to the passenger seat.	-2048 Kg (4515 lb) to 2048 Kg (4515 lb)
26	Pa seat weight sensor 3 LF volt	Apply a load to the passenger seat.	0 to 5000 mV
27	Pa seat weight sensor 4 LR	Apply a load to the passenger seat.	-2048 Kg (4515 lb) to 2048 Kg (4515 lb)
28	Pa seat weight sensor 4 LR volt	Apply a load to the passenger seat.	0 to 5000 mV
30	VIN Information	Always	-

ACTUATOR TEST REFERENCE TABLE

M15204000036USA0000010000

The scan tool activates the following actuators for testing.

Item No.	Item name	Test item	Driven component
01	SRS warning light	SRS warning light illumination	ON

FAIL-SAFE FUNCTION

M15204000037USA0000010000

If the SRS-ECU determines that the following parts are defective, the SRS-ECU operates the SRS warning light and controls as follows.

- If the seat slide sensor is defective, the SRS-ECU determines that the seat is in its backward position and controls the air bag.
- If the occupant classification sensor or the occupant classification-ECU is defective, the SRS-ECU determines that the occupant classification is class 2 [The occupant classification sensor detects 30 kg (66 pounds) or more.] and controls the air bag and the passenger's air bag OFF indicator light.

ACCURACY TESTING OF OCCUPANT CLASSIFICATION SENSOR

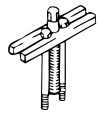
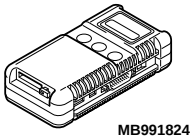
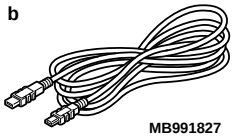
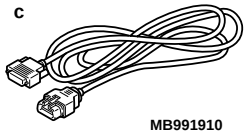
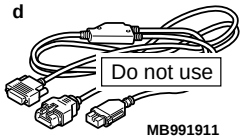
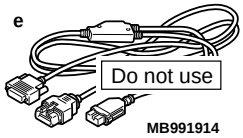
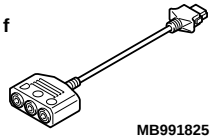
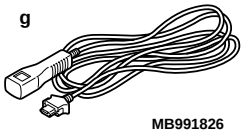
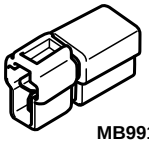
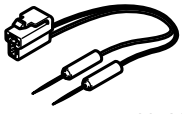
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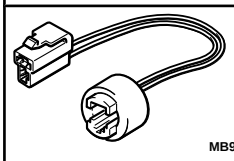
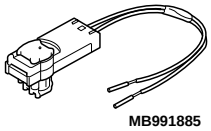
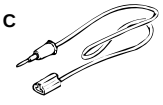
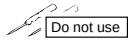
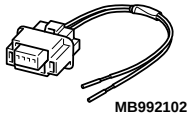
The scan tool can be used to perform the next function.

- Seat Weight Sensor Accuacy Check
- Zero-calibration

SPECIAL TOOLS

M15204000007USA0000010000

Tool	Tool number and name	Supersession	Application
 MB990803	MB990803 Steering wheel puller	General service tool	Steering wheel removal
a  MB991824 b  MB991827 c  MB991910 d  MB991911 e  MB991914 f  MB991825 g  MB991826 YB9919580000	MB991958 A: MB991824 B: MB991827 C: MB991910 D: MB991911 E: MB991914 F: MB991825 G: 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 main harness C (for Daimler Chrysler models only) F: M.U.T.-III measurement adapter G: M.U.T.-III Trigger Harness	MB991824-KIT *NOTE: G: MB991826 M.U.T.-III Trigger Harness is not necessary when pushing V.C.I. ENTER key.*	Checking diagnostic trouble code **⚠ CAUTION** **M.U.T.-III main harness A (MB991910) should be used. M.U.T.-III main harness B and C 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	Tool number and name	Supersession	Application
 MB991884	MB991884 Resistor harness		▪Seat belt with pre-tensioner circuit check ▪Curtain air bag circuit check
 MB991885	MB991885 Adapter harness		▪Deployment of seat belt with pre-tensioner and curtain air bag inside the vehicle ▪Deployment of seat belt with pre-tensioner and curtain air bag outside the vehicle
A  B  C  D  Do not use YB9912230001	MB991223 A: MB991219 B: MB991220 C: MB991221 D: MB991222 Harness set A: Test harness B: LED harness C: LED harness adaptor D: Probe	General service tools	Checking the continuity and measuring the voltage at the SRS-ECU harness connector
 MB992102	MB992102 Air bag inflation adapter harness		Deployment of driver's or front passenger's (front) air bag inside or outside the vehicle
 MB992006	MB992006 Extra fine probe		Continuity check and voltage measurement at harness wire or connector for loose, corroded or damaged terminals, or terminals pushed back in the connector.

TEST EQUIPMENT

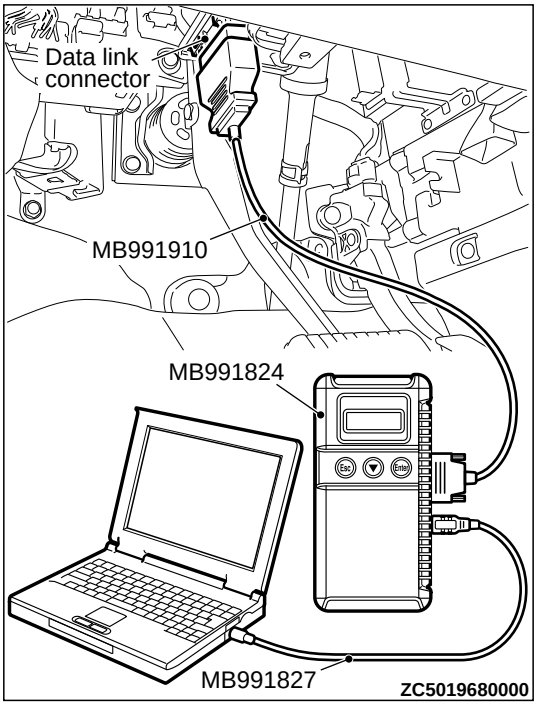
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Tool	Name	Use
 AC000019	Digital multi-meter Use a multi-meter for which the maximum test current is 2 mA or less at the minimum range of resistance measurement	Checking the SRS electrical circuitry with SRS check harness

POST-COLLISION DIAGNOSIS

M15204000011USA0000010000

To inspect and service the SRS after a collision (whether or not the air bags have deployed), perform the following steps.



SRS-ECU MEMORY CHECK

Required Special Tool:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface (V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A (Vehicles with CAN Communication System)

⚠ CAUTION

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

1. Connect scan tool MB991958 to the data link connector (16-pin).
2. Read (and write down) all displayed diagnostic trouble codes (Refer to P.52B-33).

   NOTE: If the battery power supply has been disconnected or disrupted by the collision, scan tool MB991958 cannot communicate with the SRS-ECU. Check the battery, then check and, if necessary, repair the front wiring harness and the instrument panel wiring harness before proceeding.
3. Read the data list (fault duration and how many times memories are erased), using scan tool MB991958 (Refer to P.52B-312).
4. Erase the diagnostic trouble codes, and then turn the ignition switch to the LOCK (OFF) position.
5. Wait for at least one second, and then turn the ignition switch to the ON position again.
6. After waiting 15 seconds or more, note all displayed diagnostic trouble codes (Refer to P.52B-31).

REPAIR PROCEDURE

WHEN FRONT AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones:
   - SRS-ECU (Refer to P.52B-326).
   - Air bag modules (Refer to P.52B-329).
   - Seat belt with pre-tensioner (Refer to P.52B-345).
   - Front impact sensors (Refer to P.52B-324).
   - Front passenger's air bag lid assembly (Refer to GROUP 52A, Instrument Panel Assembly P.52A-2).
2. Check the following parts and replace if there are any malfunctions:
   - Clock spring (Refer to P.52B-329).
   - Seat slide sensor (Refer to P.52B-349).
   - Occupant classification-ECU and weight sensor.
   - Seat belt switch (Refer to GROUP 52A, Front Seat Assembly P.52A-18).

- Steering wheel, steering column 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 and 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 37A, On-Vehicle Service - Steering Column Shaft Assembly Shock Absorbing Mechanism Check P.37-19).

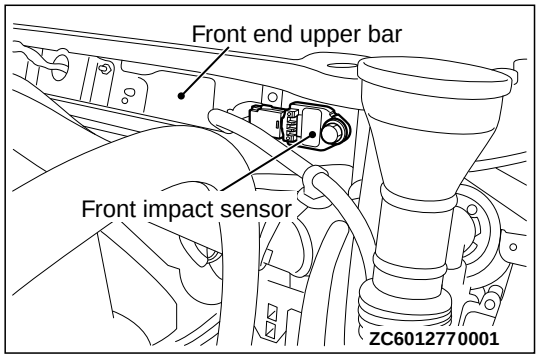
3. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to P.52B-28).

WHEN SIDE AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones:
   - SRS-ECU (Refer to P.52B-326).
   - Side impact sensors (Refer to P.52B-338).
   - Front seatback assembly.
2. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to P.52B-28).

WHEN AIR BAGS DO NOT DEPLOY IN LOW-SPEED COLLISION.

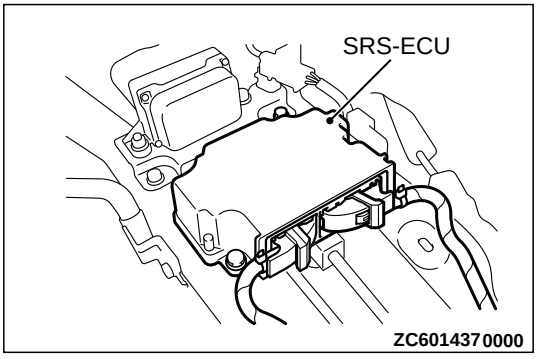
Check the SRS components. If the SRS components are showing any visible damage such as dents, cracks, or deformation, replace them with new ones. Concerning parts removed for inspection, replacement with new parts and cautionary points for working, refer to appropriate INDIVIDUAL COMPONENT SERVICE P.52B-321.



FRONT IMPACT SENSOR

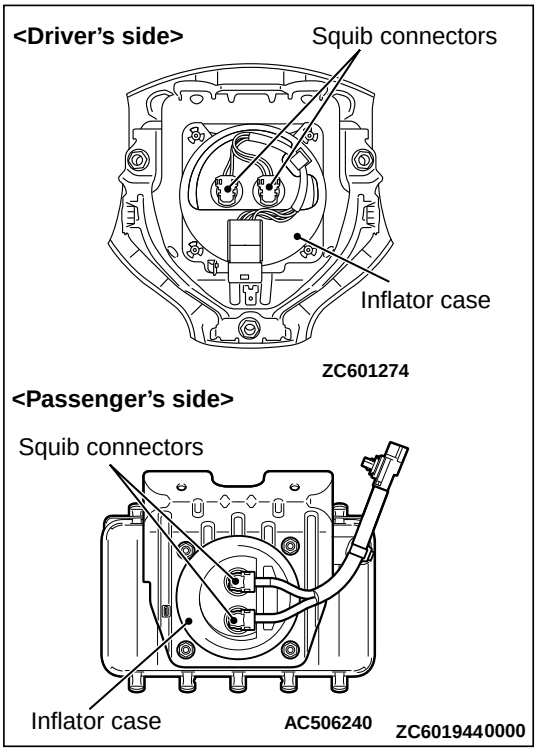
1. Check the front end upper bar for distortion and rust.
2. Check the front impact sensor for dents, cracks, deformation or rust.
3. Check the front impact sensor wiring harness for binding, check the connector for damage, and check the terminals for deformation.

NOTE: The illustration shows the side impact sensor (RH). The position of the side impact sensor (LH) is symmetrical to this.



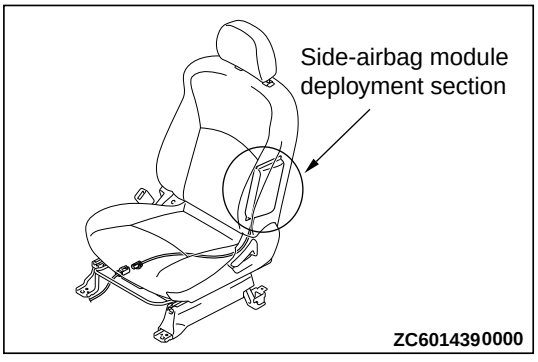
SRS-ECU

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 installation of the SRS-ECU and its bracket.



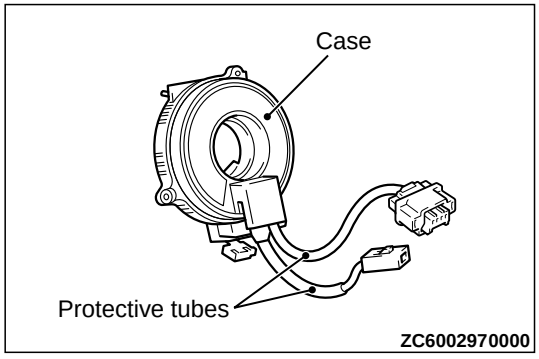
AIR BAG MODULES

1. Check the pad cover for dents, cracks or deformation.
2. Check the connector for damage, terminal deformities, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformities.
4. Install the air bag module (driver's side) to the steering wheel to check installation or alignment with the steering wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember to check installation or alignment.



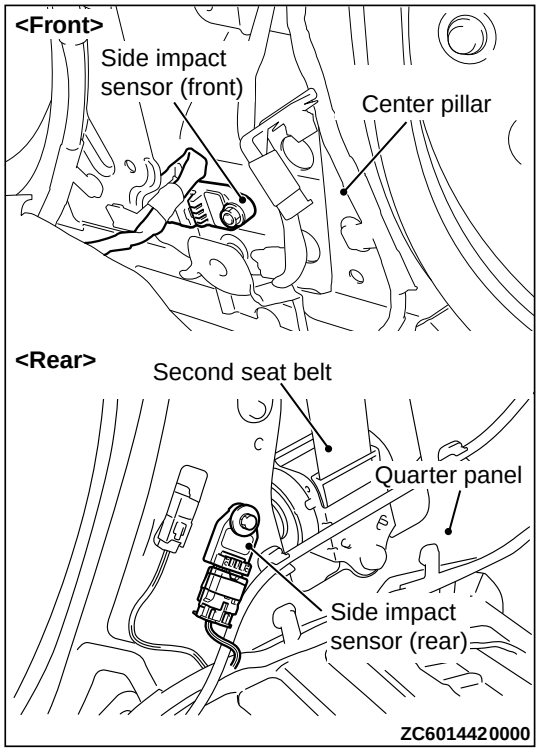
FRONT SEATBACK ASSEMBLY (SIDE-AIRBAG MODULE)

1. Check the air bag module deployment section for dents or deformation.
2. Check that there is no connector damage, bent terminals or harness crimping.



CLOCK SPRING

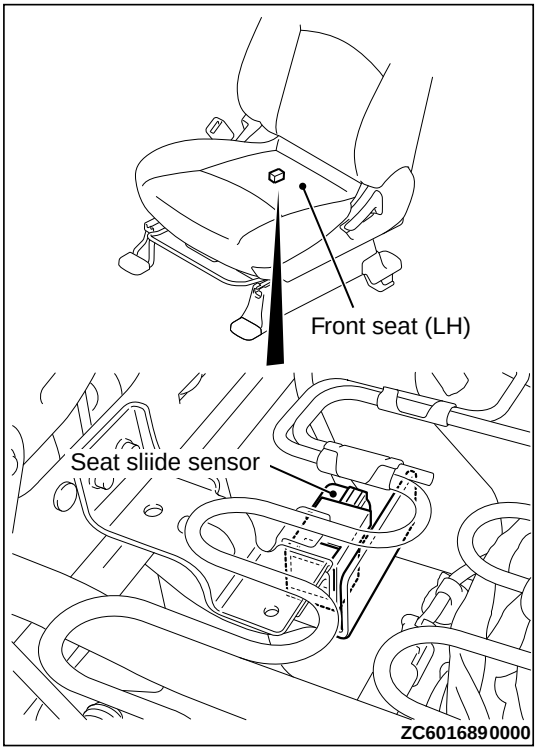
1. Check the clock spring connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.



SIDE IMPACT SENSOR

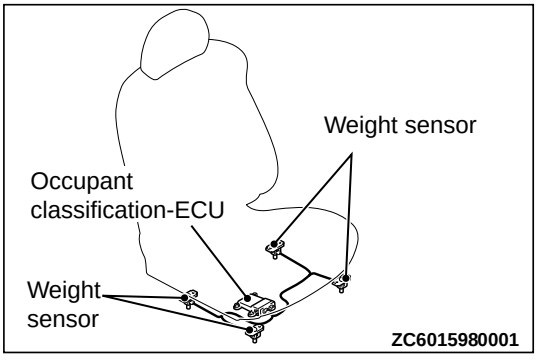
1. Check that there is no bending or corrosion in the center pillar and quarter panel.
2. Check that there is no denting, breakage or bending of the side impact sensor.
3. Check that there is no harness crimping, connector damage or bent terminals.

NOTE: The illustration shows the side impact sensor (RH). The position of the side impact sensor (LH) is symmetrical to this.



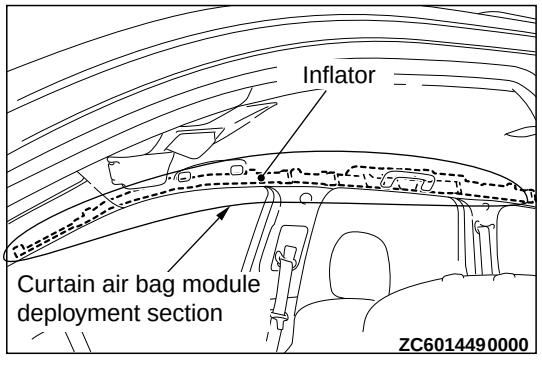
SEAT SLIDE SENSOR

1. Check that there is no connector damage, bent terminals or harness crimping.
2. Check the installation of the seat slide sensor.



OCCUPANT CLASSIFICATION-ECU AND WEIGHT SENSOR

1. Check the occupant classification-ECU case and weight sensor for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the installation of the occupant classification-ECU and weight sensor.



CURTAIN AIR BAG MODULE

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 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 37A, On-Vehicle Service - Steering Column Shaft Assembly Shock Absorbing Mechanism Check P. 37-19).

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 (FRONT WIRING HARNESS, INSTRUMENT PANEL WIRING HARNESS, AND FLOOR WIRING HARNESS)

Check the harnesses for binding, the connectors for damage, poor connection, and the terminals for deformation (Refer to P. 52B-28).

INDIVIDUAL COMPONENT SERVICE

M15204000029USA0000010000

⚠WARNING

- ***If heat damage occurs during paint work, remove the SRS-ECU, the air bag modules, the clock spring, front seats, impact sensor and the seat belt with pre-tensioner. Recheck the SRS system operability after reinstalling them.***
  - ***SRS-ECU, air bag module, clock spring, front seats, impact sensor: 93° C (200° F) or more***
  - ***Seat belt with pre-tensioner: 90°C (194° F) or more***
- ***If the SRS components are removed for the purpose of inspection, 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, diagnosis, etc., follow the appropriate procedure in this section. (Front impact sensor: refer to P.52B-324, SRS-ECU: refer to P. 52B-326, Air bag modules and clock spring: refer to P.52B-329, Side-airbag module: refer to GROUP 52A, Front Seat Assembly P.52A-18, Side impact sensor: refer to P.52B-338, Curtain air bag module: refer to P.52B-341, Seat belt with pre-tensioner: refer to P.52B-345).

ON-VEHICLE SERVICE

ACCURACY CHECK OF OCCUPANT CLASSIFICATION SENSOR

M15204000988USA0000010000

⚠ CAUTION

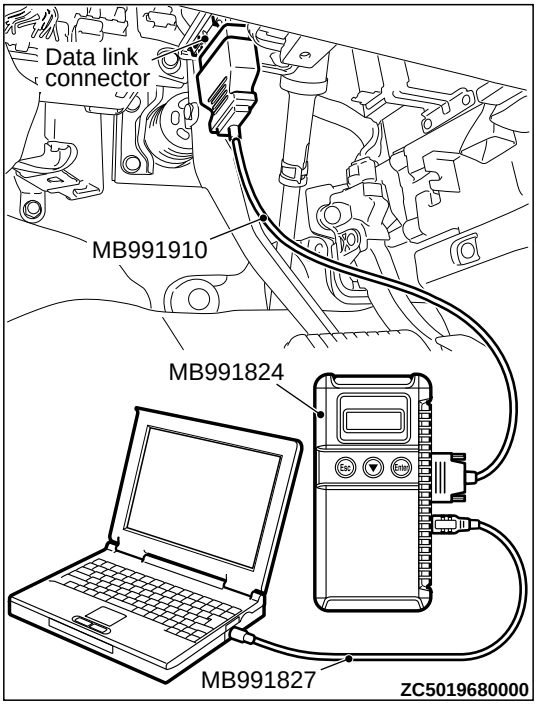
The following precaution must be observed when executing accuracy testing and calibration.

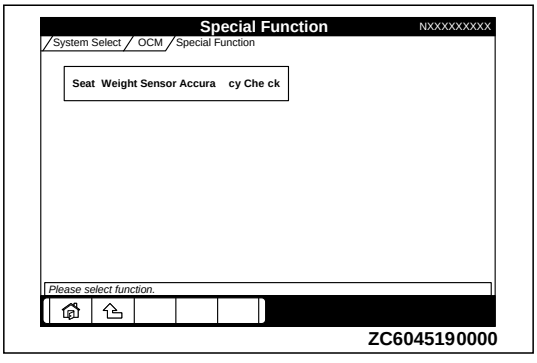
- **Perform the occupant classification sensor calibration at room temperature. (Proposal: 20 ± 15°C (68 ± 27° F)) (Before the calibration, place the occupant classification sensor more than 30 minutes at room temperature.)**
- **Do not apply any load or vibration while the weight check and the calibration is performed.**
- **Perform the weight check and the calibration after seat components are all assembled.**

⚠ CAUTION

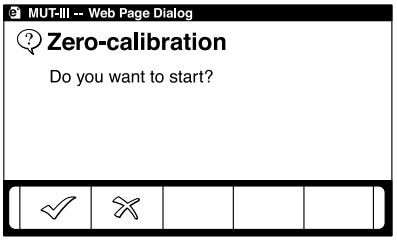
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

1. Connect scan tool MB991958 to the data link connector.

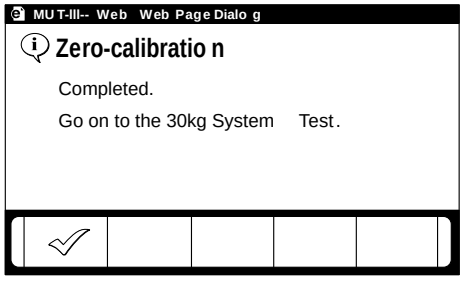




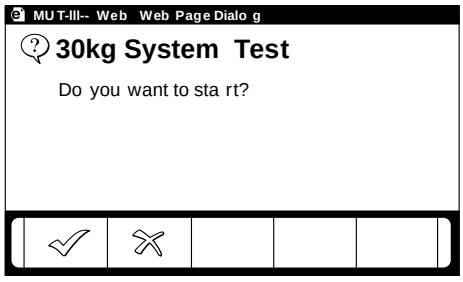
2. To execute accuracy check and calibration, operate scan tool MB991958 (M.U.T.-III Sub Assembly) as follows.
   (1) Select "OCM".
   (2) Select "Special Function".
   (3) Select "Zero Calibration & System Test".
   (4) The start of the zero calibration.
   (5) The execution check of the zero calibration.
   (6) The zero calibration has been completed when the screen as shown in the illustration is displayed. The OK button is pushed and it progresses to the next.
   (7) The start of 30 kg (66 pounds) system test.
   (8) The execution check of the 30 kg (66 pounds) system test.



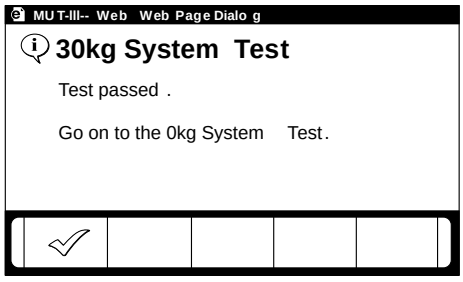
ZC6014700000



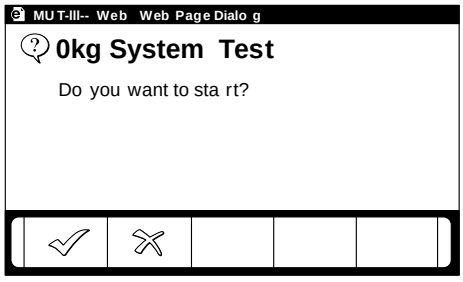
ZC6045220000



ZC6045200000

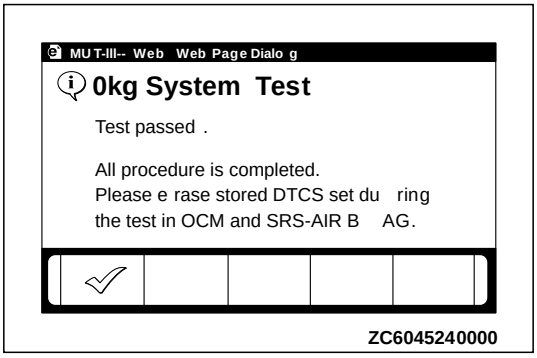


ZC6045210000



ZC6045230000

(9) The 30 kg (66 pounds) system test has been completed when the screen as shown in the illustration is displayed. The OK button is pushed and it progresses to the next.
(10) The start of 0 kg (0 pound) system test.
(11) The execution check of the 0 kg (0 pound) system test.
(12) The 0 kg (0 pound) system test has been completed when the screen as shown in the illustration is displayed.



ZC6045240000

FRONT IMPACT SENSORS

REMOVAL AND INSTALLATION

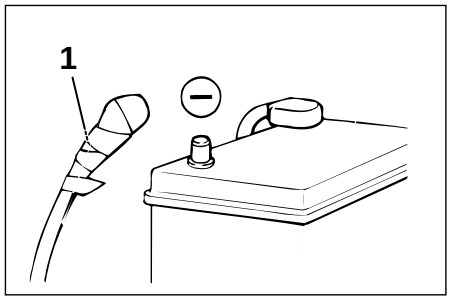
M15204000015USA0000010000

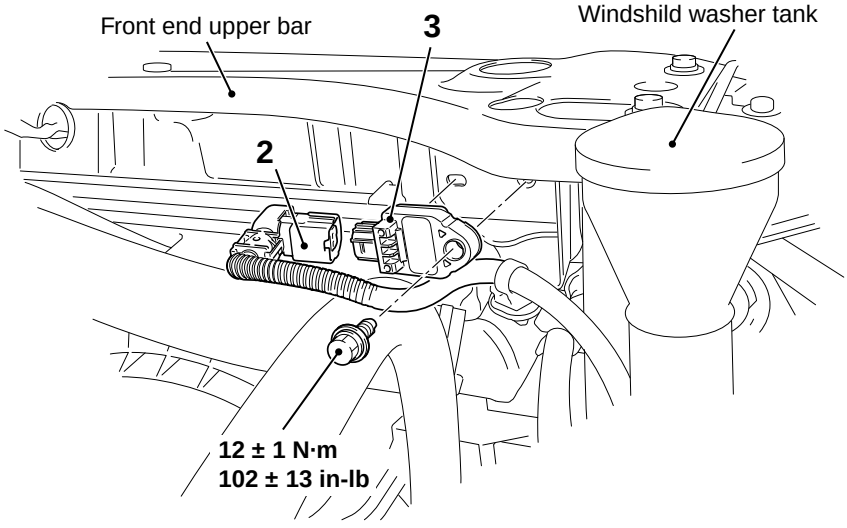
⚠ WARNING

- ***Never repair or disassemble the front impact sensor. If faulty, replace it.***
- ***Handle the front impact sensors very carefully, taking care not to drop them. They must be replaced if they are dropped.***
- ***Replace the sensors with new ones after the air bag has deployed.***

Pre-removal Operation

- Turn the ignition key to the "LOCK" (OFF) position.





ZC601701AA00

Removal steps

<<A>> 1. Negative (-) battery cable connection
<<B>> 2. Front impact sensor connector connection
3. Front impact sensor

Installation steps

>>A<< · Pre-installation inspection

Installation steps

>>B<< 3. Front impact sensor
2. Front impact sensor connector connection
1. Negative(-) battery cable connection
>>C<< · Post-installation inspection

NOTE: The figure indicates the right front impact sensor. The left impact sensor is symmetrical to this.

REMOVAL SERVICE POINT

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

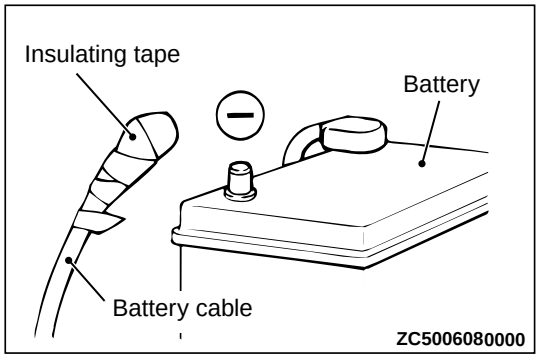
DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-28).

WARNING

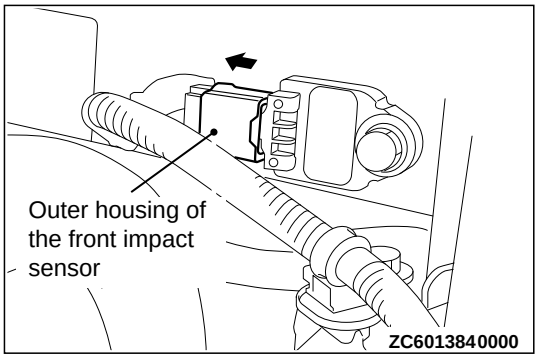
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag (s) deployment.



<<B>> FRONT IMPACT SENSOR CONNECTOR REMOVAL

Side the outer housing of the front impact sensor connector in the arrow direction shown, and disconnect the connector.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

When installing the new front impact sensor, refer to "INSPECTION."

>>B<< FRONT IMPACT SENSOR INSTALLATION

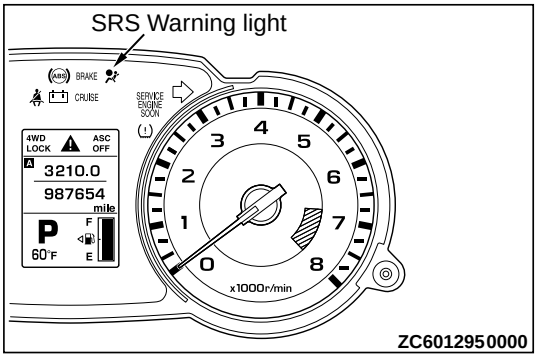
⚠ WARNING

The SRS may not activate properly if a front impact sensor is not installed properly, which could result in serious injury or death to the vehicle's driver.

1. Securely connect the connector.
2. Position the front impact sensor facing toward the front of the vehicle as indicated by the arrow on the label, and install it securely.

>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition key to "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and then remain off for at least five seconds after turning "OFF"?
4. If yes, the SRS system is functioning properly.
   If not, consult page P.52B-33.



INSPECTION

M15204000016USA0000010000

⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the front impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-33).

1. Check the front impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the radiator support panel.

SRS CONTROL UNIT (SRS-ECU)

REMOVAL AND INSTALLATION

M15204000021USA0000010000

⚠ DANGER

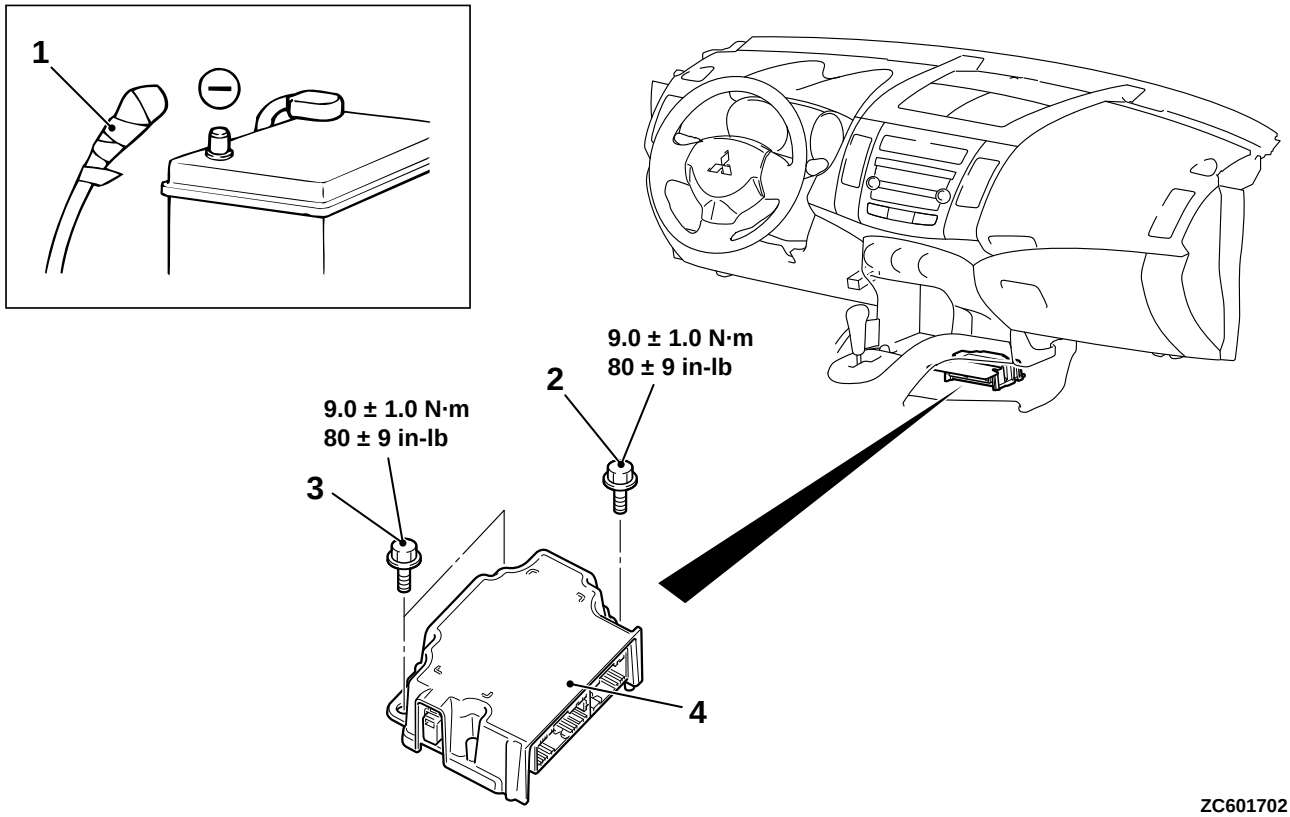
The SRS-ECU adopts the rollover specification that the curtain airbag and seat belt pre-tensioner operate at the occurrence of rollover. Therefore, do not tilt the vehicle to the right and left with the IG ON or tilt the SRS-ECU to the right and left with the IG ON and the harness installed.

⚠ WARNING

- ***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.***
- ***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 here P.52B-315.***

Pre-removal Operation

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



ZC601702 AA00

Removal steps

<<A>> 1. Negative (-) battery cable connection
· Lower side cover (Refer to GROUP 52A - Front Floor Console Assembly P. 52A-8).
2. SRS-ECU mounting bolt (ground bolt)
3. SRS-ECU mounting bolt
<<B>> 4. SRS-ECU

Installation steps

>>A<< 4. SRS-ECU

Installation steps

3. SRS-ECU mounting bolt
>>B<< 2. SRS-ECU mounting bolt (ground bolt)
· Lower side cover (Refer to GROUP 52A - Front Floor Console Assembly P. 52A-8).
1. Negative (-) battery cable connection
>>C<< · Post-installation inspection

REMOVAL SERVICE POINT

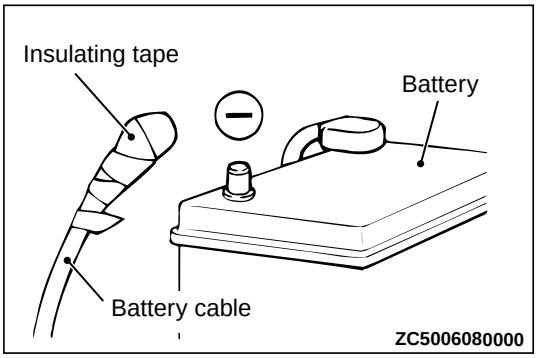
<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-28).

WARNING

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

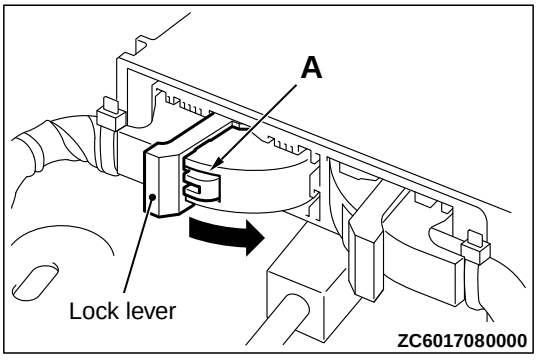


Disconnect the negative battery cable from the battery and tape the terminal to prevent accidental connection and deployment.

<<B>> SRS-ECU REMOVAL

DANGER

The SRS-ECU adopts the rollover specification that the curtain airbag and seat belt pre-tensioner operate at the occurrence of rollover. Therefore, do not tilt the vehicle to the right and left with the IG ON or tilt the SRS-ECU to the right and left with the IG ON and the harness installed.



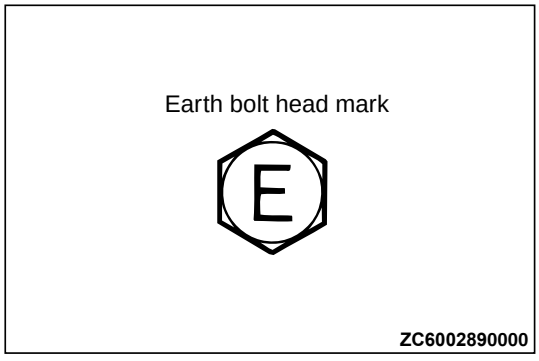
While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever.

INSTALLATION SERVICE POINTS

>>A << SRS-ECU INSTALLATION

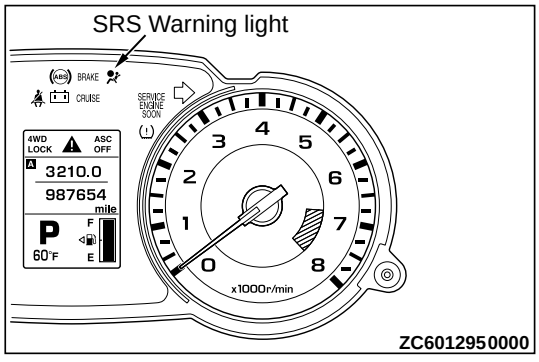
WARNING

The SRS may not activate if the SRS-ECU is not installed properly, which could result in serious injury or death to the vehicle's driver or front passenger.



>>B<< SRS-ECU MOUNTING BOLT (GROUND BOLT) INSTALLATION

Check the head mark "E" and install the ground bolt.



>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and then go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-33.

INSPECTION

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⚠WARNING

If a dent, crack, deformation or rust is discovered, replace the SRS-ECU with a new one.

- Check the SRS-ECU and brackets for dents, cracks or deformation.
- Check the SRS-ECU connector for damage, and the terminals for deformation.

NOTE: Refer to P.52B-33for inspection of SRS-ECU for other than physical damage.

AIR BAG MODULE(S) AND CLOCK SPRING

REMOVAL AND INSTALLATION

M15204000024USA0000010000

⚠WARNING

- ***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 with the pad cover facing upward. Do not place anything on top of it.***
- ***Do not expose the air bag modules to temperatures over 93°C (200°F).***
- ***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-352).***
- ***When removing and installing the front passenger seat, be sure to carry out accuracy check of the occupant classification sensor after the seat has been installed in the vehicle. (On-Vehicle Service P.52B-322.)***

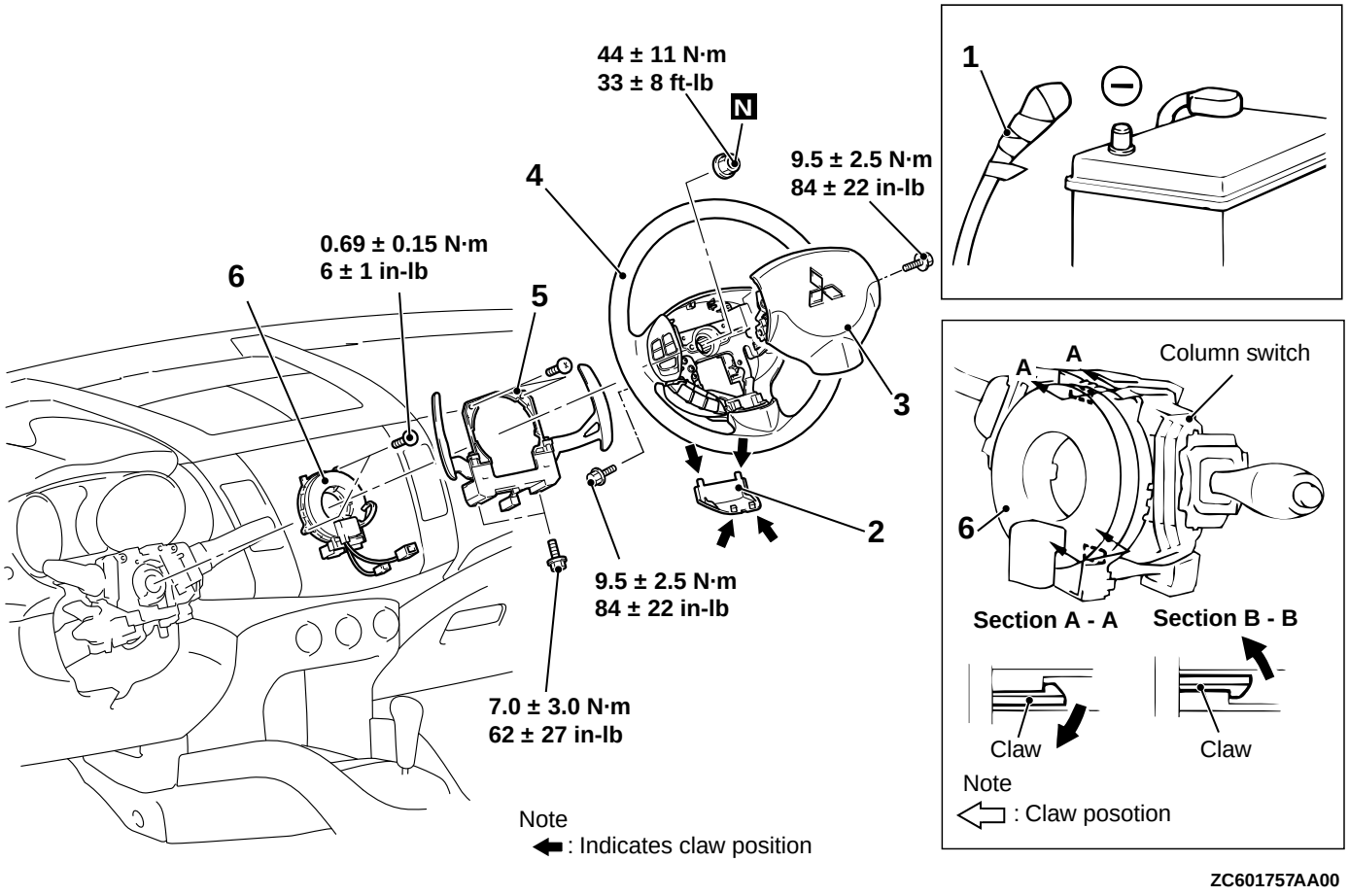
SIDE-AIRBAG MODULE

For removal and installation of the front seatback assembly with side-airbag module, refer to GROUP 52A, Front Seat P.52A-18.

DRIVER'S AIR BAG MODULE AND CLOCK SPRING

⚠ CAUTION

On vehicles with ASC, always carry out steering wheel sensor calibration after the clock spring has been installed (Refer to GROUP 35C, On-vehicle Service-Steering Wheel Sensor Calibration P.35C-192). This is necessary because the ASC-ECU should update the steering neutral point.



ZC601757AA00

		Driver's air bag module removal steps			**Driver's air bag module removal steps**
<<A>>	1.	Negative (-) battery cable connection	<<D>>	3.	Driver's air bag module
<<B>>	2.	Cover			**Driver's air bag module installation steps**
	·	Horn connector connection	>>A<<	·	Pre-installation inspection
<<C>>	·	Driver's air bag module connector connection	>>C<<	3.	Driver's air bag module

Driver's air bag module installation steps

>>D<< · Driver's air bag module connector connection
>>D<< · Horn connector connection
2. Cover
1. Negative (-) battery cable connection
>>E<< · Post-installation inspection

Clock spring removal steps

<<A>> 1. Negative (-) battery cable connection
<<B>> 2. Cover
· Horn connector connection
<<C>> · Driver's air bag module connector connection
<<D>> 3. Driver's air bag module
<<E>> 4. Steering wheel assembly
· Lower, upper column cover
5. Paddle shift assembly <vehicles with paddle shift>

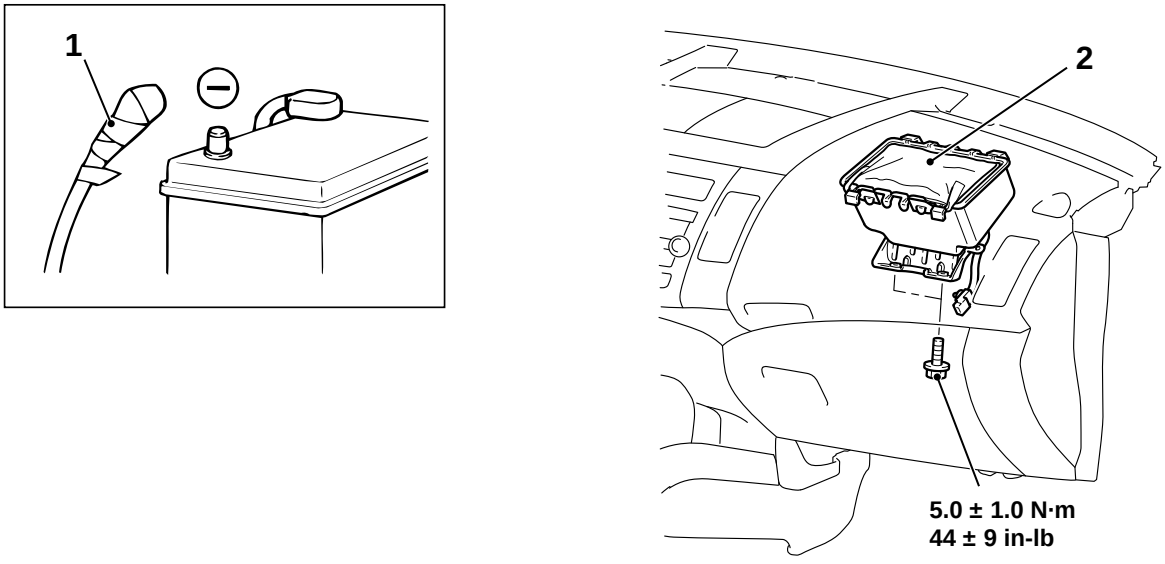
<<F>> 6. Clock spring

Clock spring installation steps

>>A<< Pre-installation inspection
>>B<< 6. Clock spring
· Lower, upper column cover
5. Paddle shift assembly <vehicles with paddle shift>
>>C<< 4. Steering wheel assembly
>>C<< 3. Driver's air bag module
>>D<< · Driver's air bag module connector connection
>>D<< · Horn connector connection
2. Cover
1. Negative (-) battery cable connection
>>E<< · Post-installation inspection
· Steering wheel sensor calibration (Refer to GROUP 35C, On-vehicle Service - Steering Wheel Sensor Calibration P.35C-192.)

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface (V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A
- MB992006: Extra Fine Probe
- MB990803: Steering Wheel Puller

PASSENGER'S (FRONT) AIR BAG MODULE



Passenger's (front) air bag module removal steps

<<A>> 1. Negative (-) battery cable connection
<<G>> · Passenger's (front) air bag module connector

Passenger's (front) air bag module removal steps

· Instrument panel assembly (Refer to GROUP 52A, Instrument Panel Assembly P.52A-2.)
<<H>> 2. Passenger's (front) air bag module

		Passenger's (front) Installation steps
>>A<<	·	Pre-installation inspection
	2.	Passenger's (front) air bag module
	·	Instrument panel assembly (Refer to GROUP 52A, Instrument Panel Assembly P.52A-2.)
	·	Passenger's (front) air bag module connector
	·	Negative (-) battery connection
>>E<<	·	Post-installation inspection

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A
  - MB992006: Extra Fine Probe

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

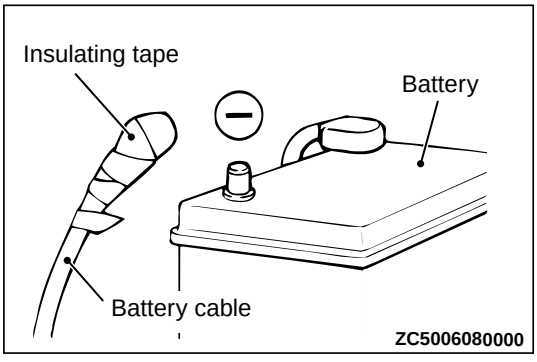
DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

WARNING

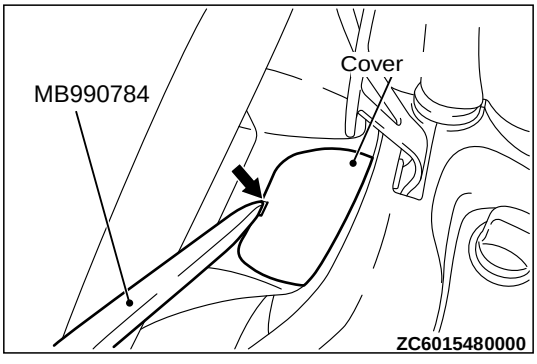
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

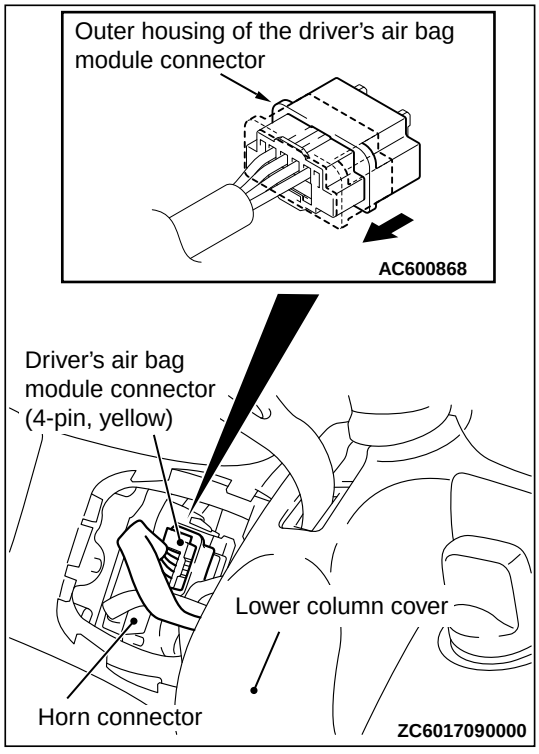
Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag (s) deployment.



<<B>> COVER REMOVAL

Insert the ornament remover (Special tool: MB990784) into the notch shown in the figure, and remove the cover.





<<C>> DRIVER'S AIR BAG MODULE CONNECTOR REMOVAL

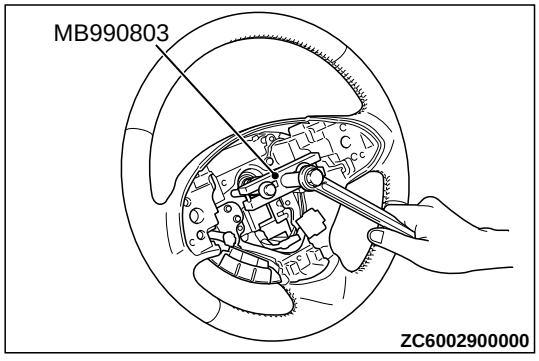
Slide the outer housing of the driver's air bag module connector in the arrow direction shown, and disconnect the connector.

<<D>> AIR BAG MODULE ASSEMBLY REMOVAL

WARNING

- ***The air bag module must not be measured with such equipment as an ohmmeter.***
- ***The air bag module must not be disassembled.***
- ***The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.***

Loosen the torx screw and remove the air bag module assembly.



<<E>> STEERING WHEEL ASSEMBLY REMOVAL

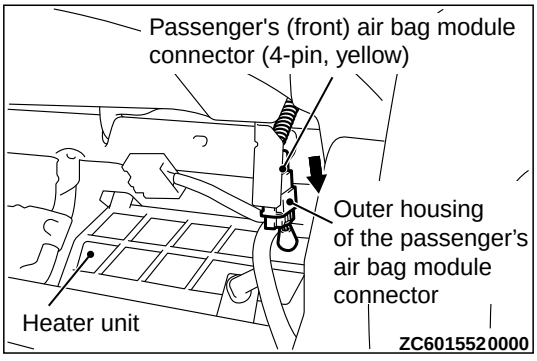
Use special tool MB990803 to remove the steering wheel.

<<F>> CLOCK SPRING REMOVAL

⚠WARNING

The removed clock spring should be stored in a clean, dry place.

<<G>> PASSENGER'S (FRONT) AIR BAG MODULE CONNECTOR REMOVAL

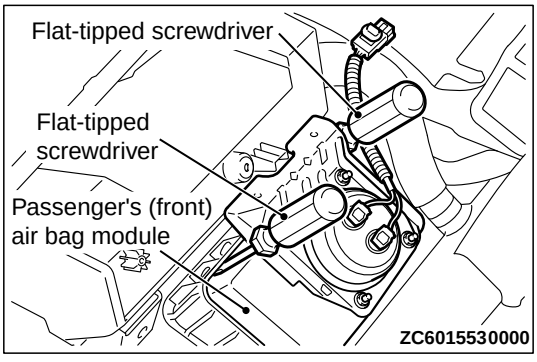


Slide the outer housing of the passenger's (front) air bag module connector in the arrow direction shown, and disconnect the connector.

<<H>> PASSENGER'S (FRONT) AIR BAG MODULE REMOVAL

⚠WARNING

- ***The air bag module must not be measured with such equipment as an ohmmeter.***
- ***The air bag module must not be disassembled.***
- ***The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.***



Insert a slotted (-) screwdriver or similar tool to the location shown in the figure. After disengaging the tabs, remove the front passenger's air bag module.

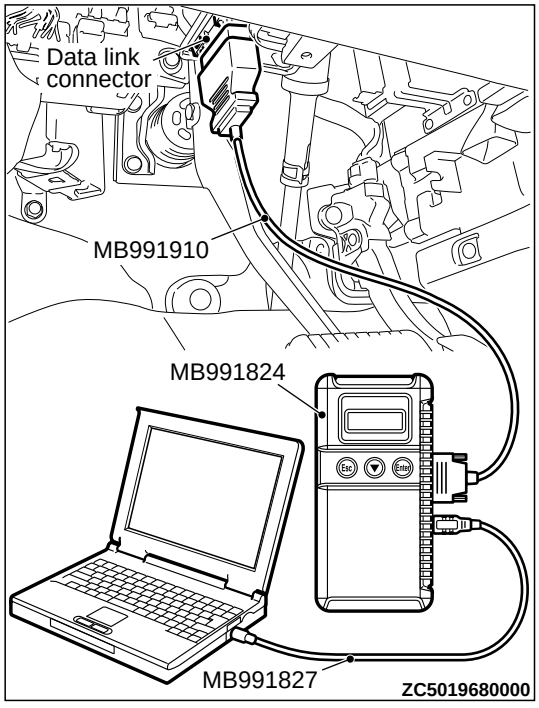
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠WARNING

Dispose of air bag modules only according to the specified procedure (Refer to P.52B-352).

1. When installing the new air bag modules and clock spring, refer to "INSPECTION" (P.52B-336).



2. Connect the negative (-) battery cable.

⚠ CAUTION

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

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the “ON” position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.
   At this time, check that no DTC except B1B02, B1B06, B1B0A and B1B0E are set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

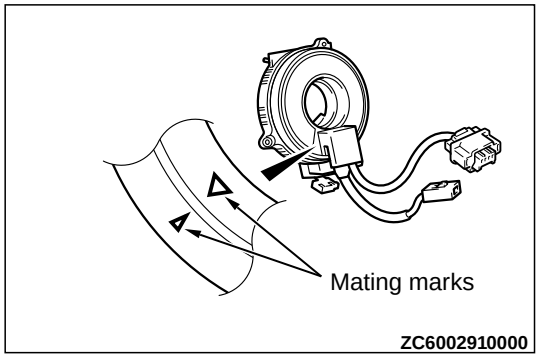
⚠ WARNING

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

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

1. Check that the front wheels are at the straight-ahead position.



⚠ CAUTION

- **If the center of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.**
- **When aligning the clock spring neutral position mark, perform with the clock spring independently. If performed with the steering wheel sensor installed, the steering wheel sensor may be damaged.**

2. Align the mating marks of the clock spring.
   Alignment of mating marks
   (1) Turn the clock spring clockwise fully.
   (2) Turn the clock spring counterclockwise approximately three and 3/4 turns to align the mating marks.
   (3) Install the clock spring to the column switch.

>>C<< STEERING WHEEL ASSEMBLY/DRIVER’S AIR BAG MODULE ASSEMBLY INSTALLATION

⚠ CAUTION

When installing the steering wheel and air bag module, ensure that the harness of the clock spring does not become caught or tangled.

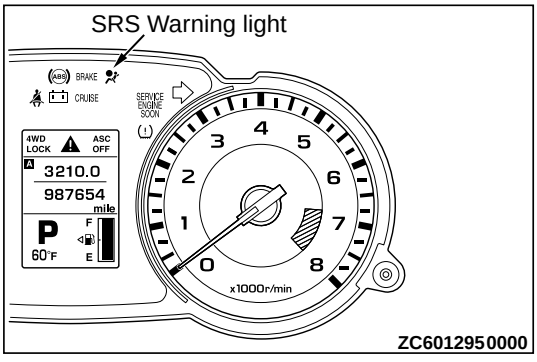
1. Before installing the steering wheel and air bag module, turn the vehicle's front wheels to the straight-ahead position and align the mating marks of the clock spring.
2. After securing the steering wheel, turn the steering wheel all the way in both directions to confirm that the steering wheel rotation is normal.

>>D<< DRIVER'S AIR BAG MODULE CONNECTOR/HORN CONNECTOR CONNECTION

Connect the connector securely and route the harnesses not to lie off the cover hole.

>>E<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-33.



INSPECTION

M15204000025USA0000010000

AIR BAG MODULE CHECK

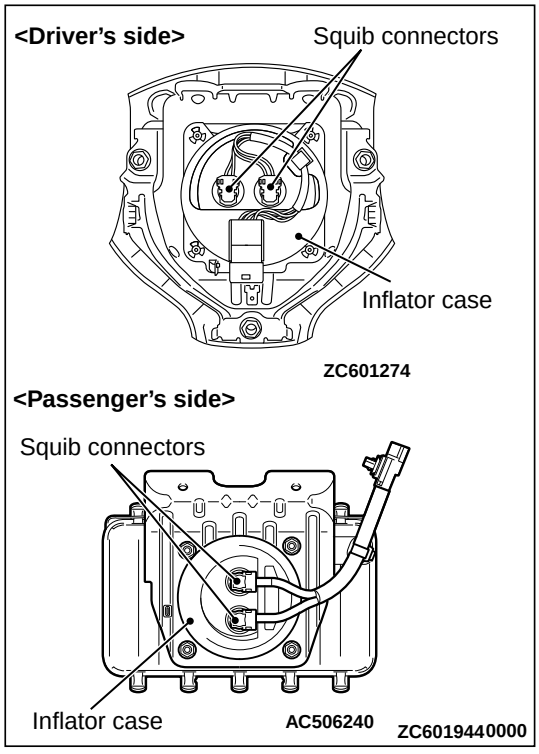
DANGER

Never attempt to measure the circuit resistance of the air bag modules (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

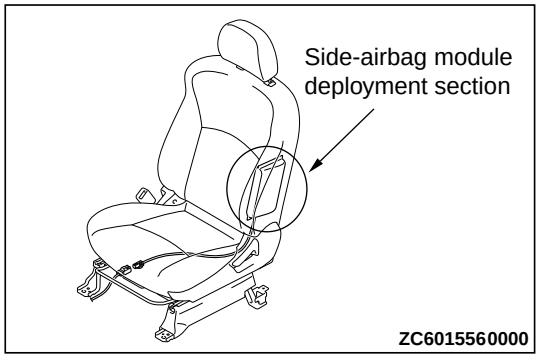
WARNING

If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-352).

1. Check the pad cover for dents, cracks or deformation.



2. Check the connectors for damage, the terminals for deformation, and the harness for binding.
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 steering wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember and check fit and alignment.



FRONT SEATBACK ASSEMBLY WITH SIDE-AIRBAG MODULE CHECK

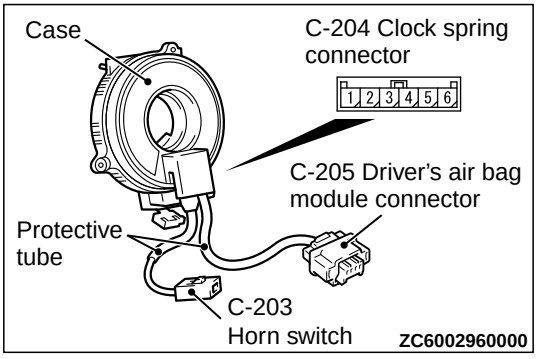
DANGER

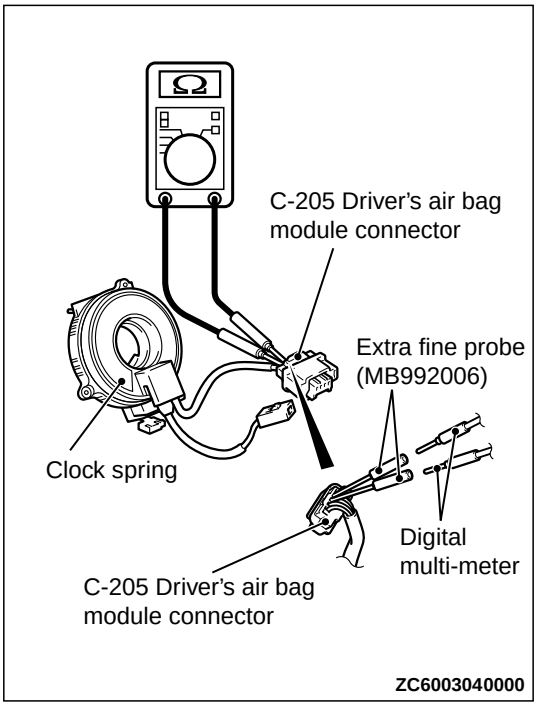
Never attempt to measure the circuit resistance of the air bag module (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

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-352).

1. Check the air bag module deployment section for dents or deformation.
2. Check the connector for damage, the terminals for deformation, and the harness for binding.





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-203 horn switch.

⚠ CAUTION

Do not directly insert a probe, etc. into the terminal from the front of the connector.

4. Insert the special tool (MB992006) from behind the airbag module connector of the C-205 driver's side.
5. Connect the circuit tester to the special tool as shown in the figure, and check the continuity among terminal No. 1 - 2 and No. 3 - 4.

SIDE IMPACT SENSOR

REMOVAL AND INSTALLATION

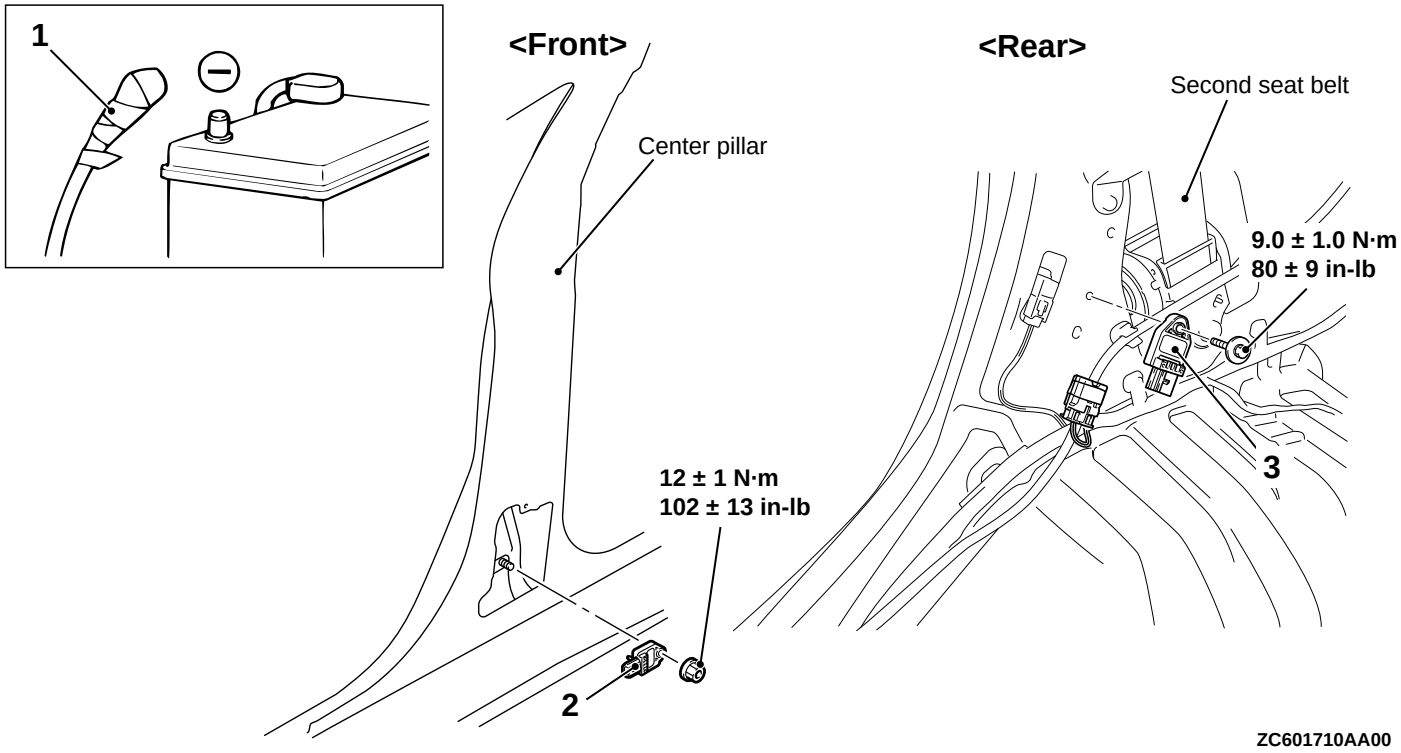
M15204000046USA0000010000

⚠ WARNING

- ***Never attempt to disassemble or repair the side impact sensor. If faulty, replace it.***
- ***Do not drop or subject the side impact sensor to impact or vibration. Replace the side impact sensor, if dents, cracking, deformation, or rust are present.***
- ***Replace the side impact sensor after the side and curtain air bag has deployed.***

Pre-removal Operation

- Turn the ignition key to the "LOCK" (OFF) position.



Side impact sensor (front) removal steps

<<A>> 1. Negative (-) battery cable connection
· Center pillar trim, lower (Refer to GROUP 52A, Interior Trim P.52A-10).
· Seat belt with pre-tensioner (Refer to P.52B-345.)
<<B>> · Side impact sensor connector connection
2. Side impact sensor (Front)

Side impact sensor (front) installation steps

>>A<< · Pre-installation inspection
>>B<< 2. Side impact sensor (Front)
· Side impact sensor connector connection
· Seat belt with pre-tensioner (Refer to P.52B-345.)
· Center pillar trim, lower (Refer to GROUP 52A, Interior Trim P.52A-10).
1. Negative (-) battery cable connection
>>C<< · Post-installation inspection

Side impact sensor (front) installation steps

>>C<< · Post-installation inspection

Side impact sensor (Rear) removal steps

<<A>> 1. Negative (-) battery cable connection
· Quarter trim, lower (Refer to GROUP 52A, Interior Trim P.52A-10.)
<<B>> · Side impact sensor connector connection
3. Side impact sensor (Rear)

Side impact sensor (Rear) installation steps

>>A<< · Pre-installation inspection
>>B<< 3. Side impact sensor (Rear)
· Side impact sensor connector connection
· Quarter trim, lower (Refer to GROUP 52A, Interior Trim P.52A-10).
1. Negative (-) battery cable connection
>>C<< · Post-installation inspection

NOTE: The illustration above shows the side impact sensor (RH). The position of the side impact sensor (LH) is symmetrical to this.

REMOVAL SERVICE POINT

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

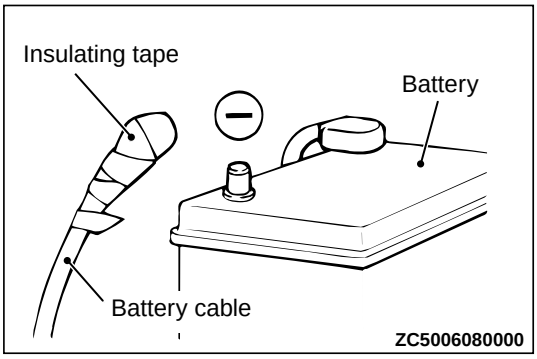
DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-28).

WARNING

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

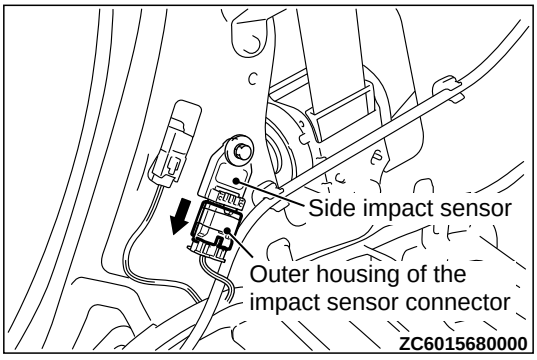
Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag deployment.



<<B>> IMPACT SENSOR CONNECTOR REMOVAL

Slide the outer housing of the impact sensor connector in the arrow direction shown, and disconnect the connector.

NOTE: The illustration shows the side impact sensor (rear). As for the impact sensor (front), follow the same procedure.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

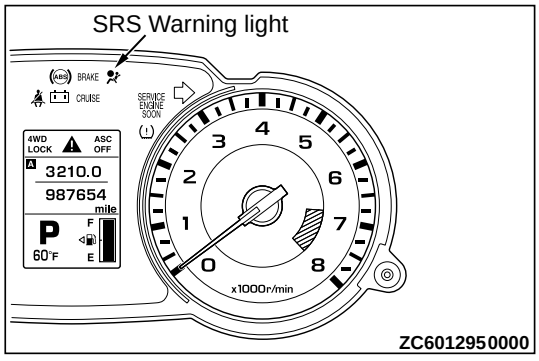
Check the side impact sensor for dents, breakage and bending and measure the resistance between the terminals, even when installing a new side impact sensor.

>>B <<SIDE IMPACT SENSOR INSTALLATION

WARNING

If the side impact sensor is not installed securely and correctly, the side-airbag may not operate normally.

Securely connect the connector.



>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-33.

INSPECTION

M15204000047USA0000010000

⚠WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the side impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to).

1. Check the side impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the center pillar.

CURTAIN AIR BAG MODULE

REMOVAL AND INSTALLATION

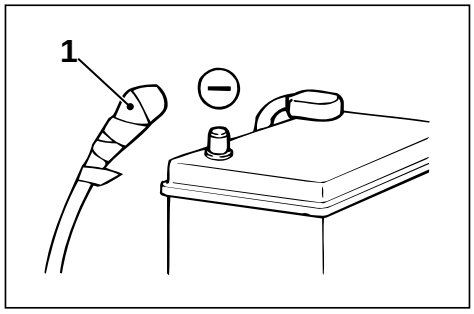
M15204000135USA0000010000

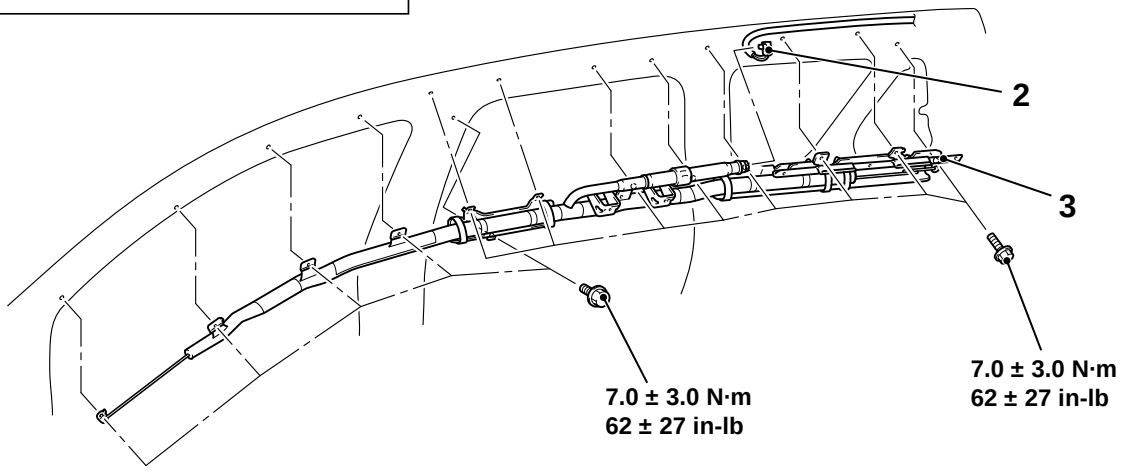
⚠WARNING

- ***Never attempt to disassemble or repair the curtain air bag modules. If faulty, replace it.***
- ***Do not drop the curtain 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.***
- ***Do not expose the curtain air bag modules to temperatures over 93°C (200°F).***
- ***Wear gloves and safety glasses when handling air bags that have already deployed.***
- ***An undeployed curtain air bag module should only be disposed of in accordance with the procedures (Refer to P.52B-352).***
- ***When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle. (On-vehicle Service P.52B-322.)***

Pre-removal Operation

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





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Removal steps

<<A>> 1. Negative (-) battery cable connection
· Headlining (Refer to GROUP 52A, Headlining P.52A-15).
<<B>> 2. Curtain air bag module connector connection
<<C>> 3. Curtain air bag module

INSTALLATION STEPS

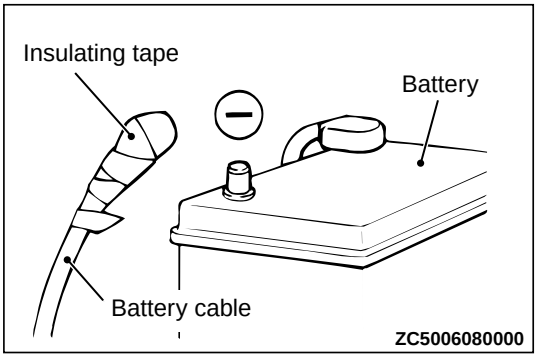
>>A<< · Pre-installation inspection

INSTALLATION STEPS

>>B<< 3. Curtain air bag module
>>C<< 2. Curtain air bag module connector connection
· Headlining (Refer to GROUP 52A, Headlining P.52A-15).
1. Negative (-) battery cable connection
>>D<< · Post-installation inspection

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION



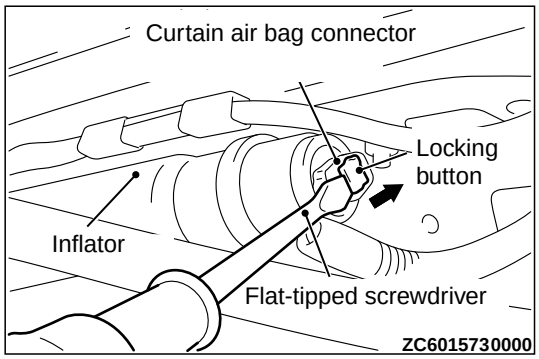
DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

WARNING

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

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.



<<B>> CURTAIN AIR BAG MODULE CONNECTOR REMOVAL

Use a flat-tipped screwdriver to unlock the locking button of the curtain air bag harness side connector. After releasing the lock, disconnect the connector.

<<C>> CURTAIN AIR BAG MODULE REMOVAL

WARNING

- ***The air bag module must not be measured with such equipment as an ohmmeter.***
- ***The air bag module must not be disassembled.***
- ***The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.***

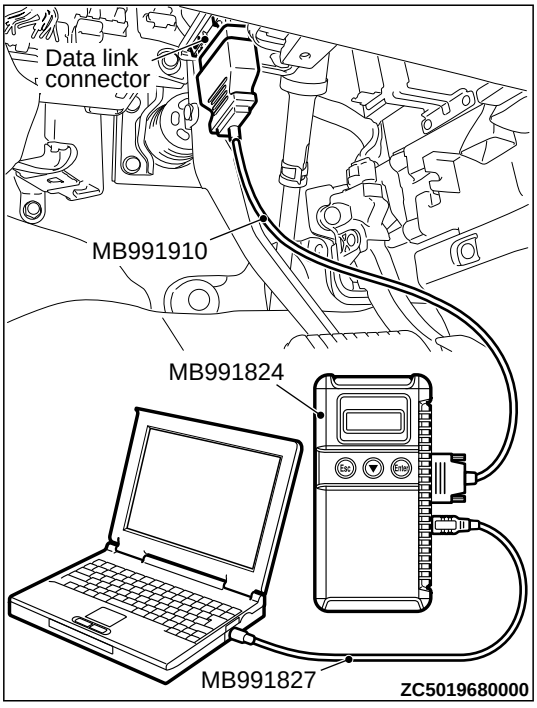
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

WARNING

Dispose of curtain air bag module only according to the specified procedure. (Refer to P.52B-28).

1. When installing the new curtain air bag module, refer to “INSPECTION” (P.52B-345).
2. Connect the negative (-) battery cable.



⚠ CAUTION

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

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the “ON” position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.
   At this time, check that no DTC except B1B1A and B1B2C are set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ WARNING

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

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (-) battery cable and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

>>B<< CURTAIN AIR BAG MODULE INSTALLATION

⚠ CAUTION

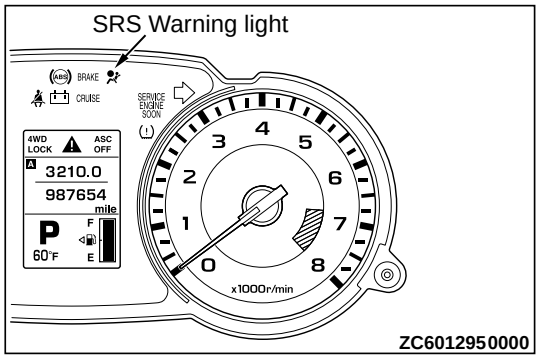
- **Take care not to bend or distort the curtain air bag when installing it.**
- **Take care that the surrounding components do not trap the air bag.**
- **Take care that the front pillar trim clips or other parts do not interfere with the strap.**

>>C<< CURTAIN AIR BAG MODULE CONNECTOR CONNECTION

Connect the curtain air bag module connector, then securely lock the locking button of the harness-side connector.

>>D<< POST-INSTALLATION INSPECTION

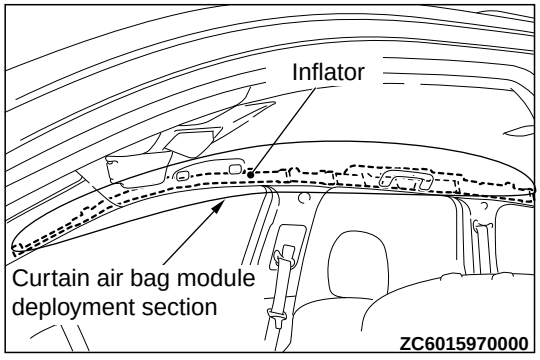
1. Connect the negative (-) battery cable.
2. Turn the ignition switch to the “ON” position.



3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-33.

INSPECTION

M15204000136USA0000010000



CURTAIN AIR BAG MODULE CHECK

DANGER

Never attempt to measure the circuit resistance of the air bag modules (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

WARNING

If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-352).

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.

SEAT BELTS WITH PRE-TENSIONER

REMOVAL AND INSTALLATION

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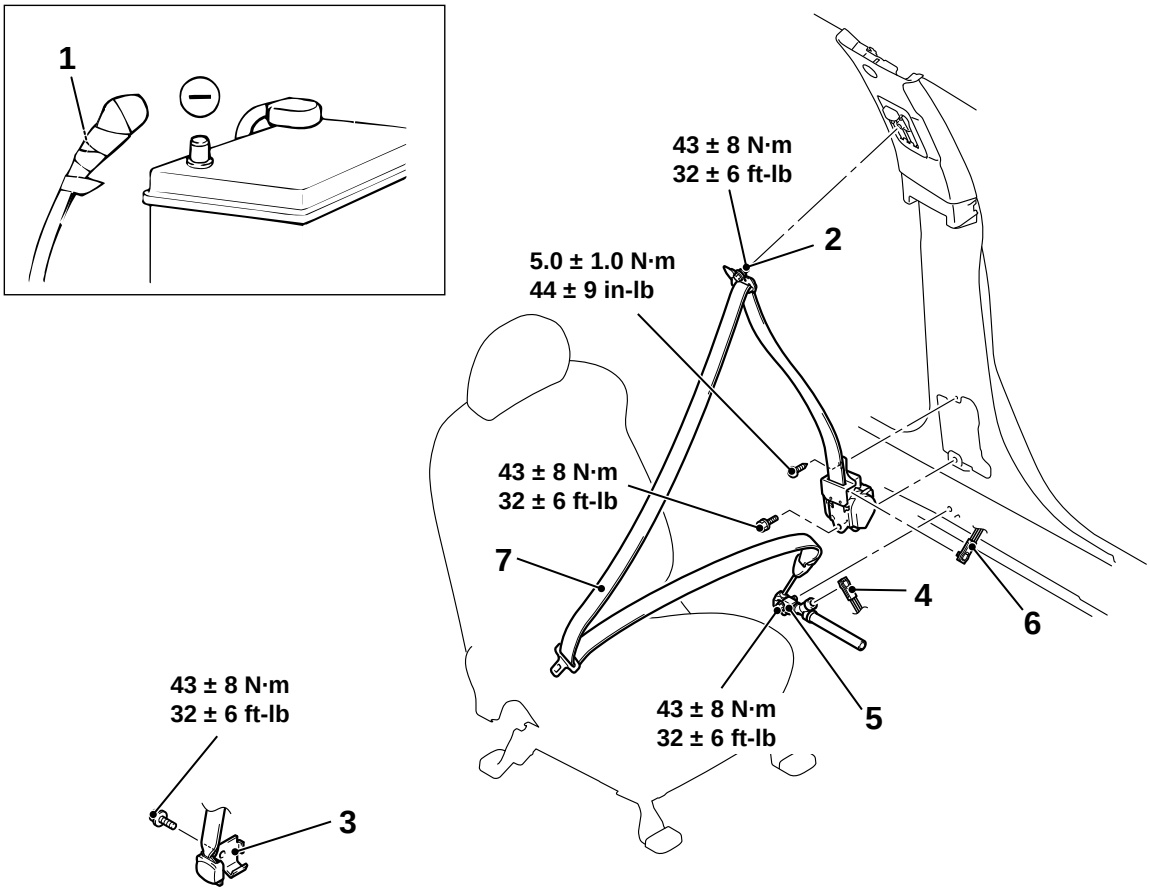
WARNING

- ***Never attempt to disassemble or repair the seat belt pre-tensioner. If faulty, replace it.***
- ***Be extremely careful when handling the seat 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 the seat belt pre-tensioner.***
- ***Do not expose the seat belt pre-tensioner to temperatures over 90°C (194°F).***
- ***After operating the seat belt pre-tensioner, replace the seat belt pre-tensioner with a new part.***
- ***Gloves and protective goggles must be worn when handling a seat belt pre-tensioner once it has been used.***
- ***If disposing of a seat belt with pre-tensioner which has not yet been operated, its seat belt pre-tensioner must be operated first before disposal. (Refer to P.52B-352).***

▪ When removing and installing the front passenger seat belt, be sure to carry out accuracy check of the occupant classification sensor after the seat has been installed in the vehicle. (On-Vehicle Service P.52B-322.)

Pre-removal Operation

▪ Turn the ignition key to the "LOCK" (OFF) position.



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Removal steps

<<A>> 1. Negative (-) battery cable connection
2. Seat belt shoulder anchor bolt
3. Seat belt lower anchor bolt <passenger's seat belt>
· Center pillar trim lower (Refer to GROUP 52A, Interior Trim P.52A-10).
<<B>> 4. lap pre-tensioner connector connection <Driver's seat belt>
5. lap pre-tensioner <Driver's seat belt>
<<C>> 6. Seat belt pre-tensioner connector connection
<<D>> 7. Seat belt with pre-tensioner

Installation steps

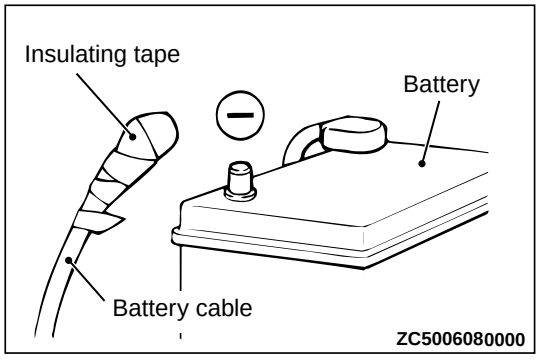
>>A<< · Pre-installation inspection

Installation steps

7. Seat belt with pre-tensioner
>>B<< 6. Seat belt pre-tensioner connector connection
5. lap pre-tensioner <Driver's seat belt>
4. lap pre-tensioner connector <Driver's seat belt>
· Center pillar trim lower (Refer to GROUP 52A, Interior Trim P.52A-10).
3. Seat belt lower anchor bolt <passenger's seat belt>
2. Seat belt shoulder anchor bolt
1. Negative (-) battery cable connection
>>C<< · Post-installation inspection

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface (V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A

REMOVAL SERVICE POINTS



<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

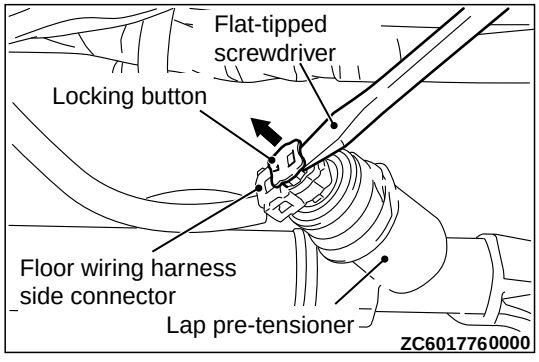
DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

WARNING

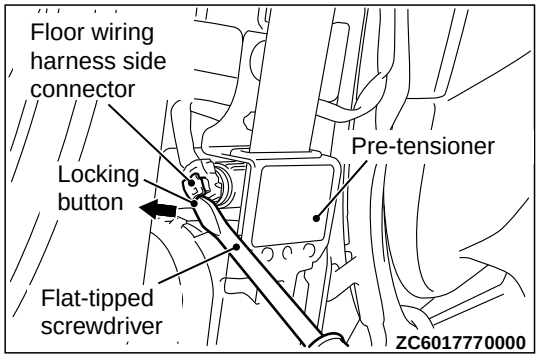
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.



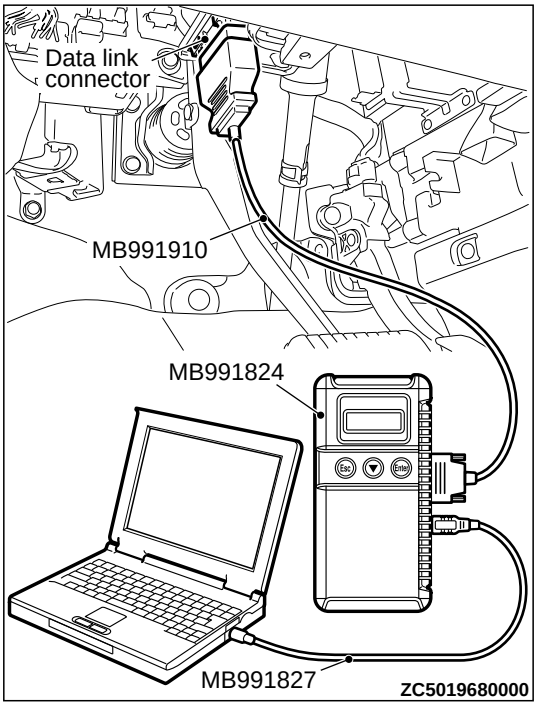
<<B>> LAP PRE-TENSIONER CONNECTOR DISCONNECTION

Use a flat-tipped screwdriver to unlock the locking button of the floor wiring harness side connector. After releasing the lock, disconnect the connector.



<<C>> SEAT BELT PRE-TENSIONER CONNECTOR DISCONNECTION

Use a flat-tipped screwdriver to unlock the locking button of the floor wiring harness side connector. After releasing the lock, disconnect the connector.



<<D>> SEAT BELT WITH PRE-TENSIONER REMOVAL

⚠ CAUTION

When discarding the seat belt with pre-tensioner, discard after operating the pre-tensioner as specified in the service procedure. (Refer to P.52B-352.)

INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING

Dispose of seat belt pre-tensioner only according to the specified procedure. (Refer to P.52B-352).

1. When installing the new seat belt pre-tensioner, refer to “INSPECTION” (P.52B-349).
2. Connect the negative (-) battery cable.

⚠ CAUTION

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

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the “ON” position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.
   At this time, check that no DTC except B1C35, B1C3A and B1C49 are set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

⚠ WARNING

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

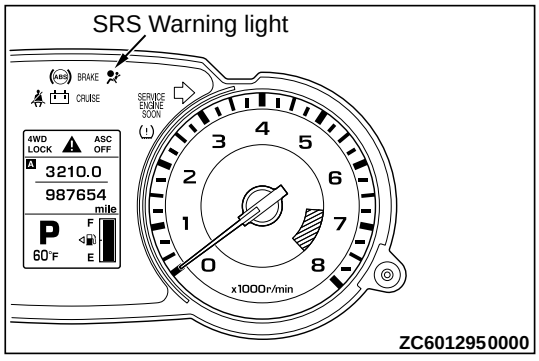
6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (-) battery cable and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

>>B<< PRE-TENSIONER CONNECTOR CONNECTION

Connect the pre-tensioner connector then securely lock the locking button of the harness-side connector.

>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to the “ON” position.



3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-33.

INSPECTION

M15204000042USA0000010000

SEAT BELT WITH PRE-TENSIONER CHECK

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-352).***
- ***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 seat belt pre-tensioner for dents, cracks or deformation.
2. Check the connectors for damage, the terminals for deformation, and the harness for binding.

SEAT SLIDE SENSOR

REMOVAL AND INSTALLATION

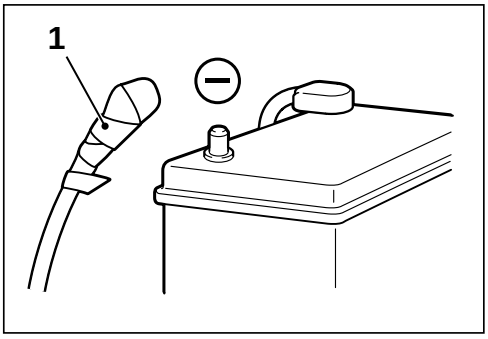
M15204000253USA0000010000

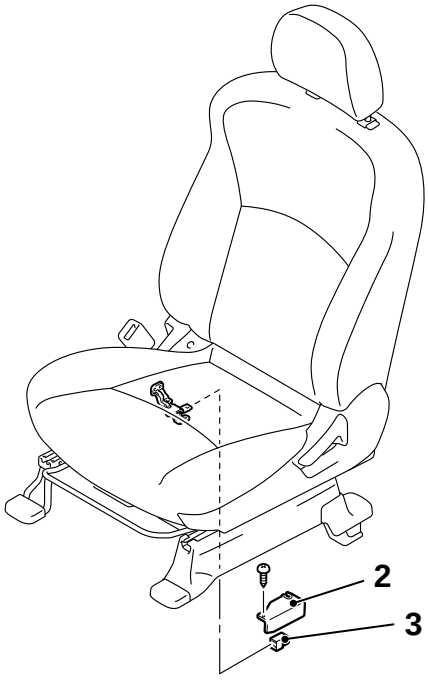
WARNING

- ***Never attempt to disassemble or repair the seat slide sensor. If faulty, replace it.***
- ***Do not drop or subject the seat slide sensor to impact or vibration. Replace the seat slide sensor, if dents, cracking, deformation, or rust are present.***

Pre-removal Operation

- Turn the ignition key to the "LOCK" (OFF) position.





ZC601791AA00

Removal steps

<<A>> 1. Negative (-) battery cable connection
· Front seat <driver's side> (Refer to 52A, Front seat assembly P.52A-18).
2. Seat slide sensor cover
3. Seat slide sensor

Installation steps

>>A<< Pre-installation inspection

Installation steps

>>B<< 3. Seat slide sensor
2. Seat slide sensor cover
· Front seat <driver's side> (Refer to 52A, Front seat assembly P.52A-18).
1. Negative (-) battery cable connection
>>C<< · Post-installation inspection

REMOVAL SERVICE POINT

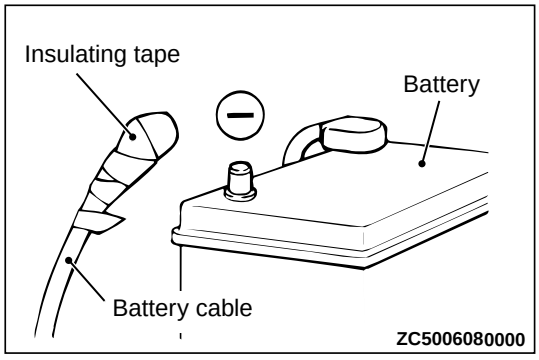
<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-28).

WARNING

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



Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and air bag deployment.

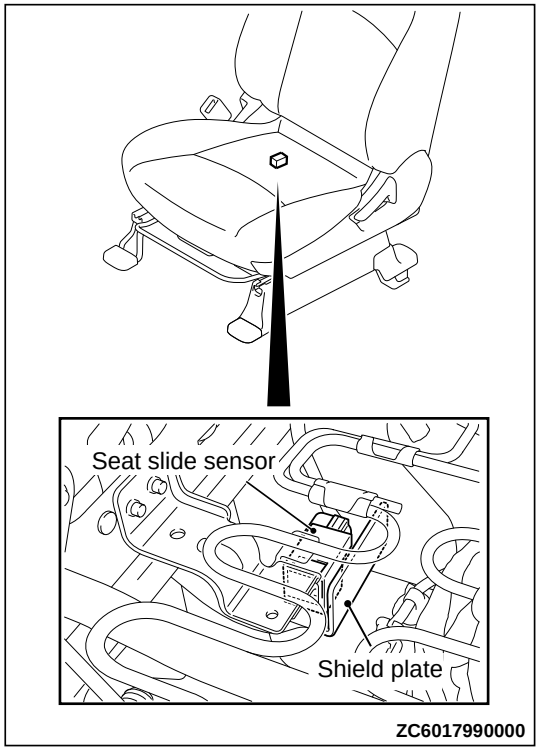
INSTALLATION SERVICE POINTS

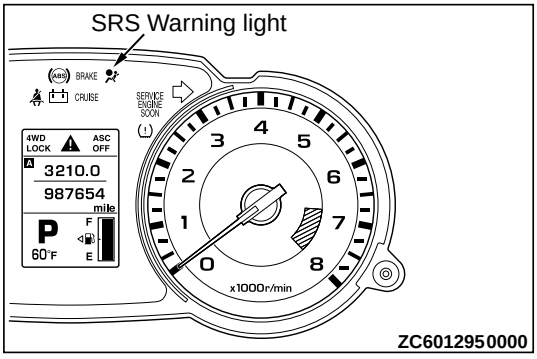
>>A<< PRE-INSTALLATION INSPECTION
Check the seat slide sensor for dents, breakage and bending and measure the resistance between the terminals, even when installing a new seat slide sensor.

>>B<< SEAT SLIDE SENSOR INSTALLATION

WARNING

If the seat slide sensor is not installed securely and correctly, the driver's air bag may not operate normally.
Securely connect the connector.





>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (-) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-33.

INSPECTION

M15204000254USA0000010000

⚠WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the seat slide sensor other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-306).

1. Check the seat slide sensor for dent, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the slide adjuster.

AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES

M15204000012USA0000010000

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

Required Special Tools:

- MB992102: Air Bag Inflation Adapter Harness
- MB991885: Pre-tensioner Adapter Harness (For pre-tensioner)

⚠WARNING

- ***If the vehicle is to be scrapped or otherwise disposed of, deploy the air bags and operate the seat belt pre-tensioners 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-tensioners 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 a loud noise when the air bags are deployed and when the seat belt pre-tensioners 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

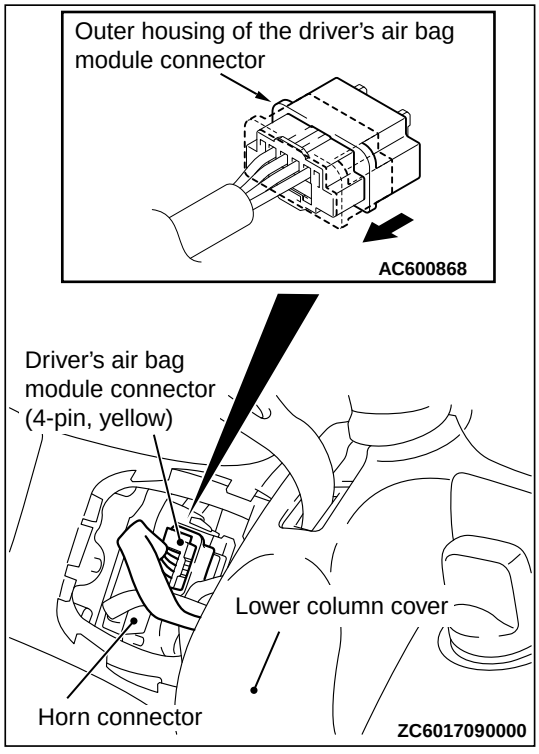
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

WARNING

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

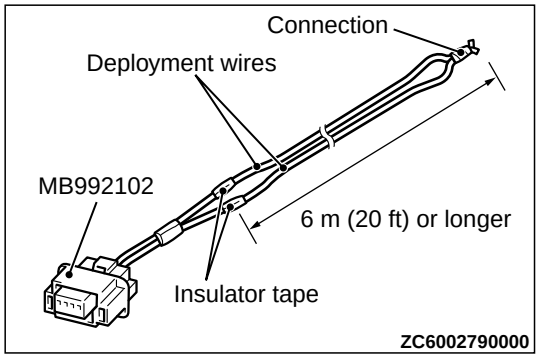
2. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the cover (Refer to P.52B-329).
4. Slide the outer housing of the driver's air bag module connector in the arrow direction shown, and disconnect the connector.

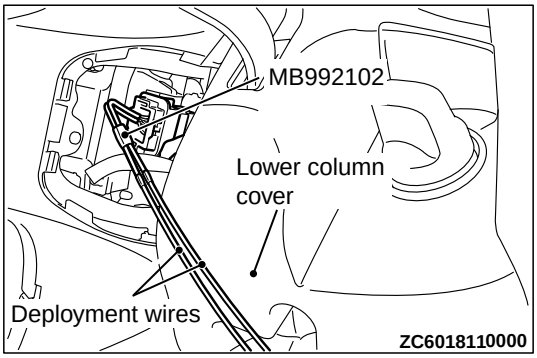
NOTE: When the driver's air bag module connector is disconnected from the inflator, the four pins of inflator connector are automatically shorted. This prevents the unintentional deployment of driver's air bags caused by the static or others.

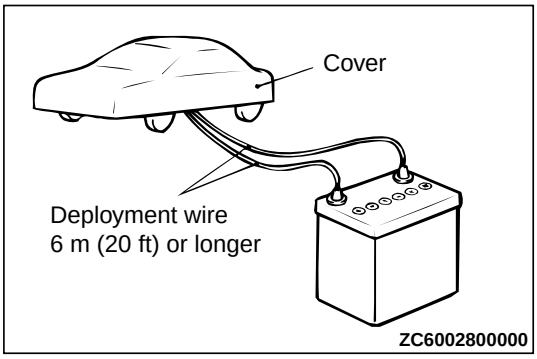


5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB992102, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.







6. Connect the special tool MB992102 to the driver's air bag module, and then pull out the deployment wire to outside the vehicle.

⚠WARNING

If the windshield 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 sound as much as possible, completely close all door windows, close the doors and put a 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-371) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module.***

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-371).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <PASSENGER'S (FRONT) AIR BAG MODULE >

1. Move the vehicle to an isolated spot.

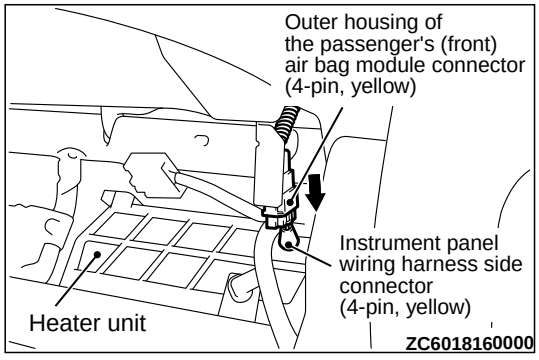
DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

WARNING

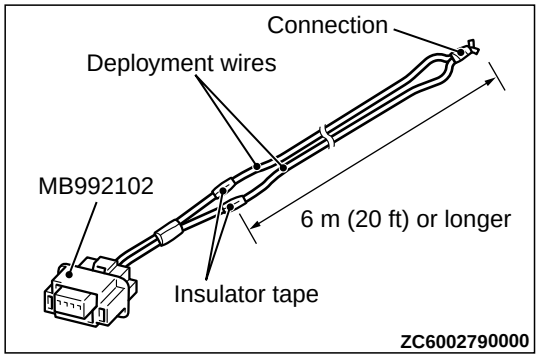
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

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-2).
4. Slide the outer housing of passenger's (front) air bag module connector in the arrow direction shown, and disconnect the connector.



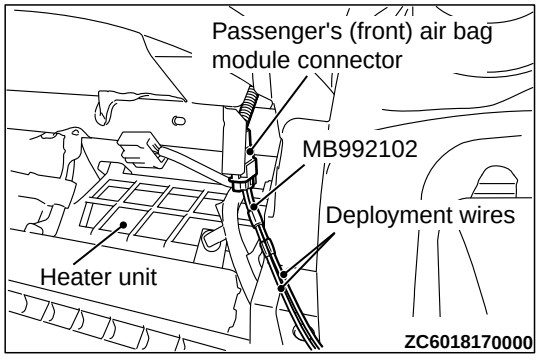
NOTE: When the passenger's (front) air bag module connector is disconnected from the instrument panel wiring harness side connector, the four pins of inflator connector are automatically shorted. This prevents the unintentional deployment of front passenger's air bags caused by the static or others.

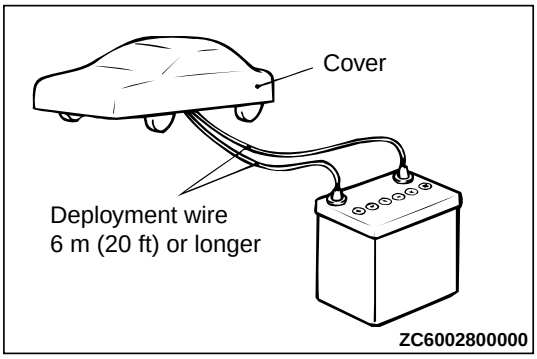
5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of SRS air bag adapter harness (MB9921020), and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.



NOTE: This prevents the unintentional deployment of passenger's (front) air bags caused by the static or others.

6. Connect the special tool MB992102 to the passenger's (front) air bag module, and then pull out the deployment wire to outside 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 a 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-371) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module.***

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-371).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SIDE-AIRBAG MODULE>

1. Move the vehicle to an isolated spot.

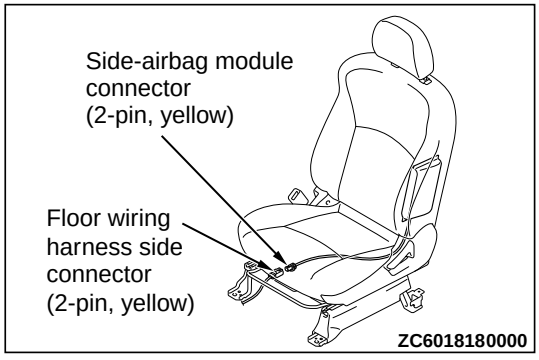
⚠ DANGER

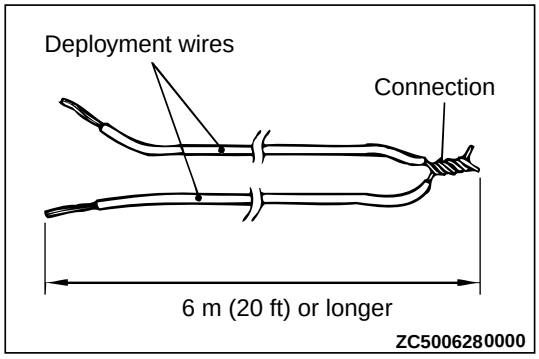
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

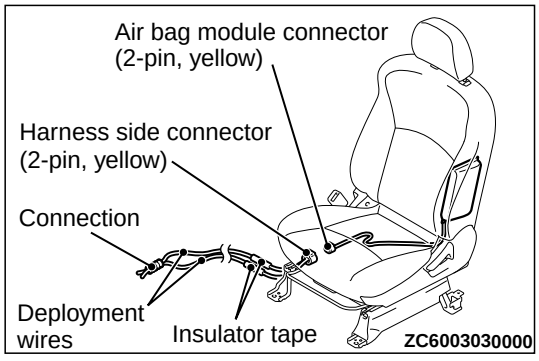
⚠ WARNING

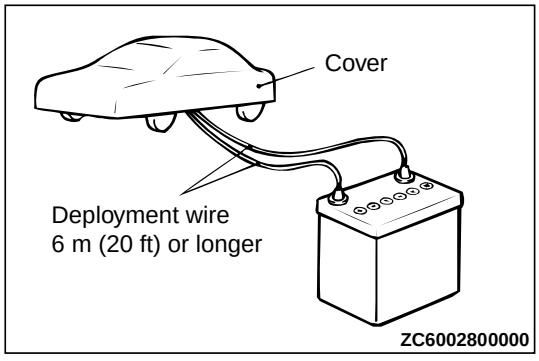
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the (-) and (+) terminals of battery cable, and then remove the battery from the vehicle.









3. Disconnect the connections of the side-airbag module connector (two-pin: yellow) and the floor harness side connector (two-pin: yellow).

⚠ CAUTION

Make sure to deploy both driver's and front passenger's side air bags.

NOTE: When the side-airbag module connector is disconnected from the floor wiring harness side connector, the two pins of side air bag module connector are automatically shorted. This prevents the unintentional deployment of side-airbags caused by the static or others.

4. Obtain two suitable wires, which are 6 meters (20 feet) or longer, as deployment wires. Then connect the wires at one end to short.

NOTE: This prevents the air bags from unintentional deployment caused by static electricity, etc.

⚠ CAUTION

Never fail to do Step 5 in order to prevent accidental deployment caused by static.

5. Touch the vehicle body with bare hands to release the charged static.
6. With the side-airbag module connector disconnected, cut the floor harness using a nipper or similar tools.
7. Connect the deployment wire to each of two cut wiring harnesses. After covering the connection areas with insulation tape, pull out the deployment wire to outside the vehicle.
8. Connect the floor harness, to which the deployment wire is connected, to the side-airbag module 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.

9. 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-371) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module.***

10. 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.
11. 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).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <CURTAIN AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

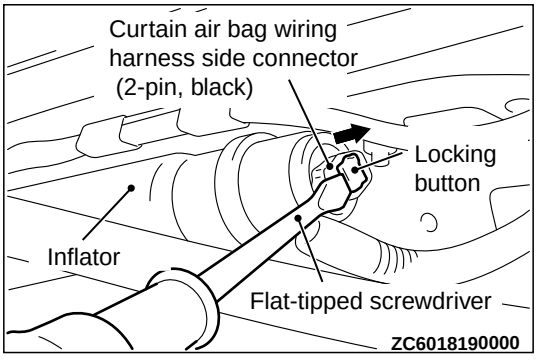
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

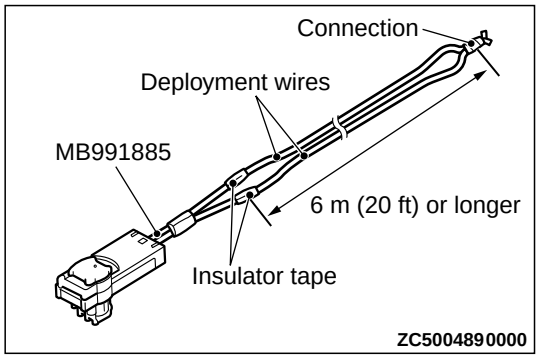
⚠ WARNING

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

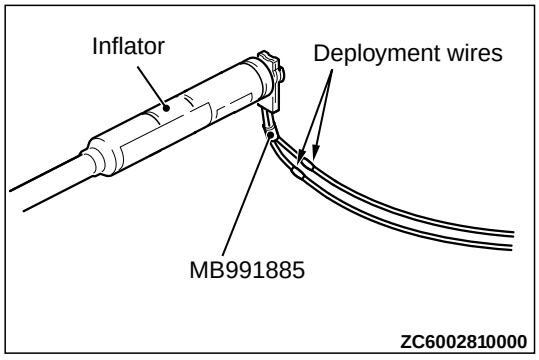
2. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the headlining (Refer to GROUP 52A, HEADLINING P.52A-15).
4. Use the flat-tipped screwdriver to pull out the locking button of curtain air bag harness side connector. After releasing the lock, disconnect the connector.



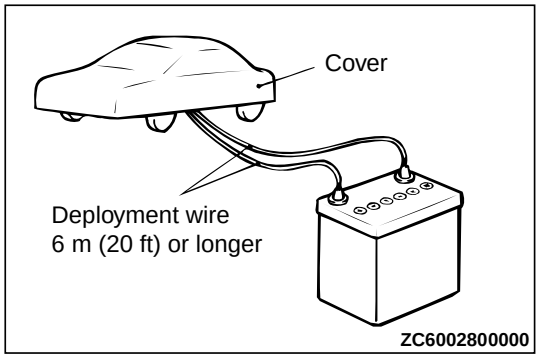
NOTE: If the curtain air bag module connector is disconnected from the floor wiring harness side connector, both electrodes of the curtain air bag module connector will be automatically shorted to prevent unintended deployment of the curtain air bag module due to static electricity, etc.



5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the curtain air bag module.



6. Connect the special tool MB991885 to the inflator, and then pull out the deployment wire to outside 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 deployment 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-371) for post-operation handling instructions.***
- ***If the air bag module fails to deploy, do not go near the air bag module.***

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 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).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SEAT BELT PRE-TENSIONER>

1. Move the vehicle to an isolated spot.

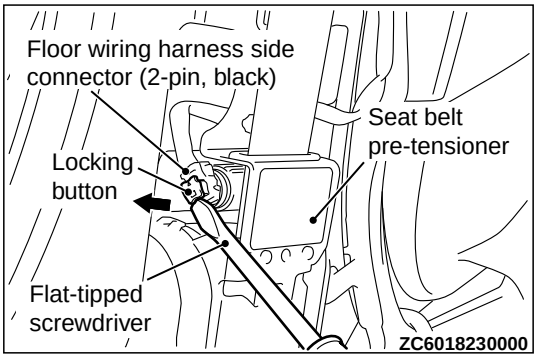
DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

WARNING

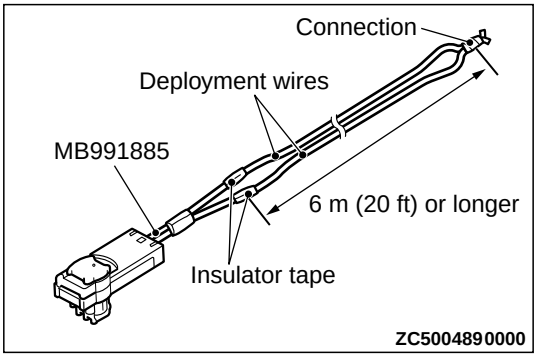
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the center pillar trim, lower (Refer to GROUP 52A, TRIMS P.52A-10).
4. Use the slotted (-) screwdriver to pull out the locking button of floor harness side connector. After releasing the lock, disconnect the connector.

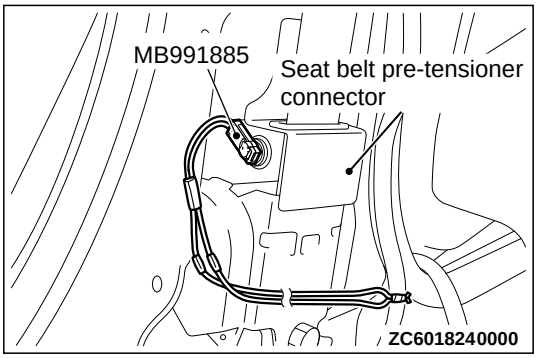


NOTE: If the seat belt pre-tensioner connector is disconnected from the floor wiring harness side connector, both electrodes of the seat belt pre-tensioner connector will be automatically shorted to prevent unintended operation of the seat belt pre-tensioner due to static electricity, etc.

5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the seat belt pre-tensioner.



6. Connect the special tool MB991885 to the two-pin connector of seat belt pre-tensioner, and then pull out the deployment wire to outside the vehicle.
7. In order to suppress the operation sound as much as possible, fully close all the door windows and close the doors.



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 not poisonous, do not inhale gas from the seat belt pre-tensioner operation. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-371) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner.***

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 operate 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).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <LAP PRE-TENSIONER>

1. Move the vehicle to an isolated spot.

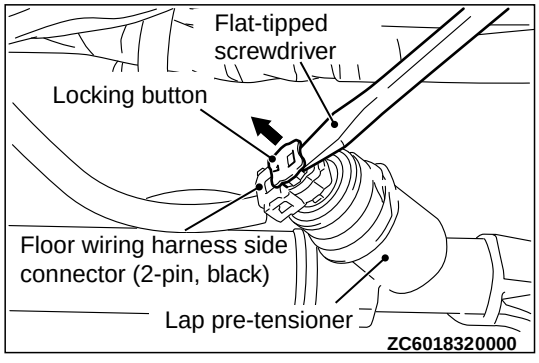
DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

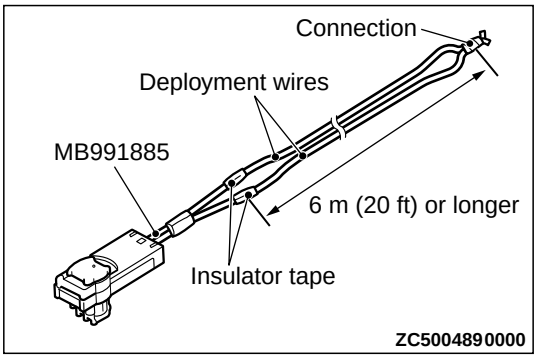
WARNING

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

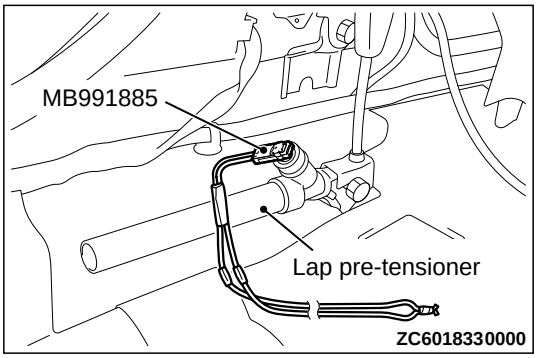
2. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the center pillar trim lower cover (Refer to GROUP 52A, TRIMS P.52A-10).
4. Use the slotted (-) screwdriver to pull out the locking button of floor wiring harness side connector. After releasing the lock, disconnect the connector.



NOTE: If the lap pre-tensioner connector is disconnected from the floor wiring harness side connector, both electrodes of the lap pre-tensioner connector will be automatically shorted to prevent unintended operation of the lap pre-tensioner due to static electricity, etc.



5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the lap pre-tensioner.



6. Connect the special tool MB991885 to the two-pin connector of lap pre-tensioner, and then pull out the deployment wire to outside the vehicle.
7. In order to suppress the operation sound as much as possible, fully close all the door windows and close the doors.

DEPLOYMENT OUTSIDE THE VEHICLE <DRIVER'S AIR BAG MODULE>

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ WARNING

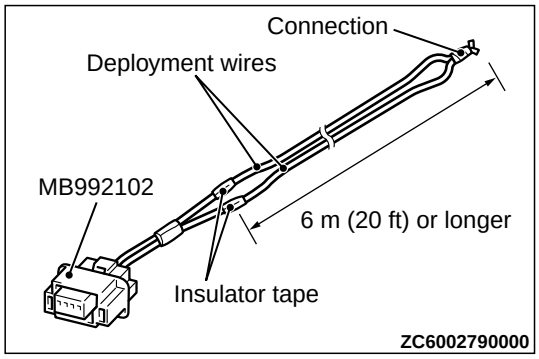
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

1. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ CAUTION

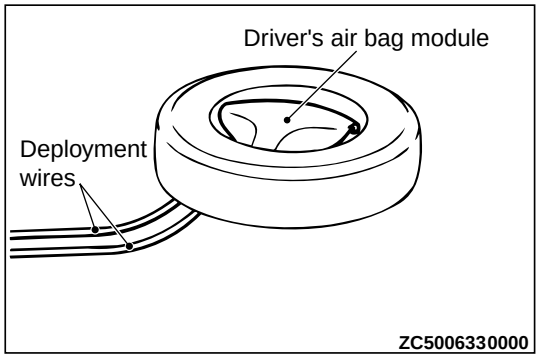
Once disconnected, both electrodes of the driver's air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on a flat place with deployment surface facing up. Do not put anything on it.

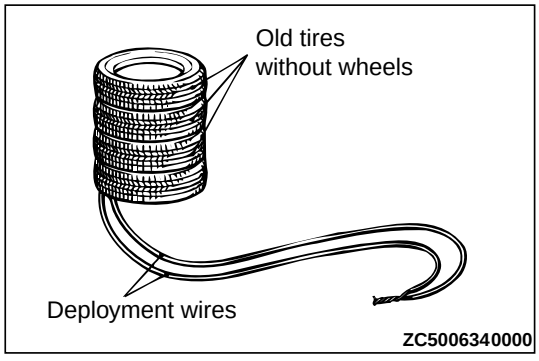
2. Remove the air bag module from the vehicle (Refer P. 52B-329



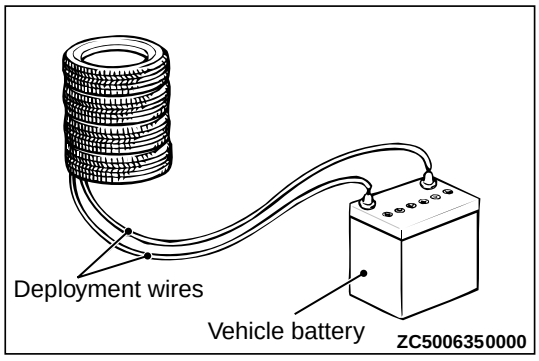
3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB992102, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.
4. Connect the special tool MB992102 to the driver's air bag module.
5. To the torx screw installation hole located at the backside of air bag module, tie a thick wire for fixing the wheel.
6. Route the deployment wires connected to the driver's air bag module beneath an old tire and wheel assembly. Then, using the wire tied to the bolt, secure the driver's air bag module to the tire and wheel assembly with the deployment surface facing up.





7. Place three old tires without wheels on the tire 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-371) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***

8. At a location as far away from the 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.

9. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-371).

DEPLOYMENT OUTSIDE THE VEHICLE <PASSENGER'S (FRONT) AIR BAG MODULE>

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ WARNING

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

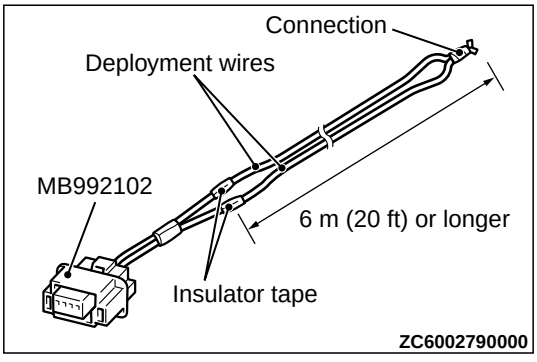
1. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ CAUTION

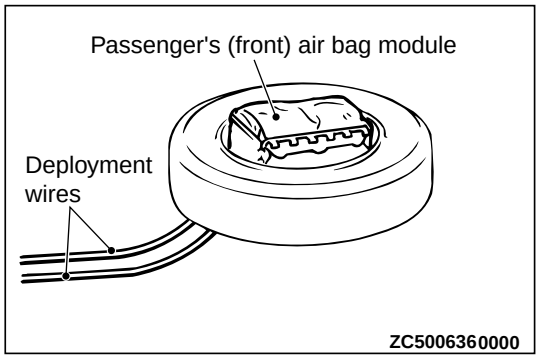
Once disconnected, both electrodes of the front passenger's air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of possible accidental deployment, store the air bag module on flat place with deployment surface facing up. Do not put anything on it.

2. Remove the air bag module from the vehicle (Refer to P. 52B-329).
3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB992102, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

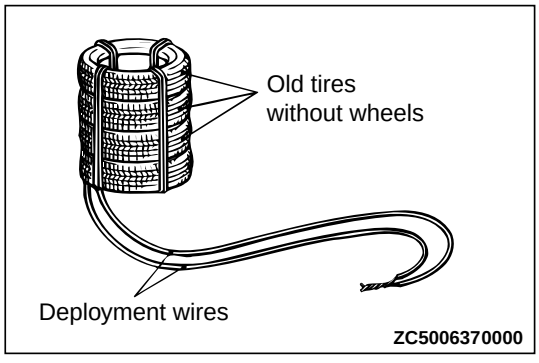
   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.



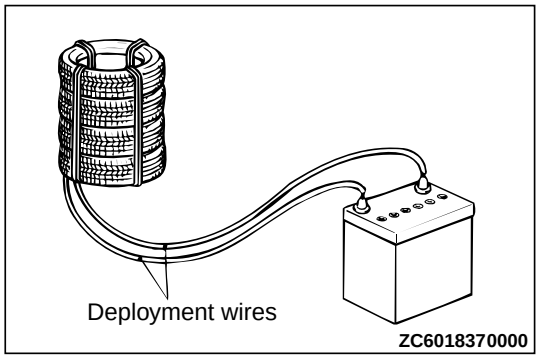
4. Connect the special tool MB992102 to the passenger's (front) air bag module.



5. Pass the thick wire through the hole of air bag module mounting bracket. When, with the air bag module deployment surface facing upward, fit the module to the old tire with wheel.



6. Place three old tires without wheels on top of the tire secured to the air bag module, and secure all tires 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-371) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***

7. At a location as far away from the 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-371).

DEPLOYMENT OUTSIDE VEHICLE< SIDE-AIRBAG MODULE>

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ WARNING

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

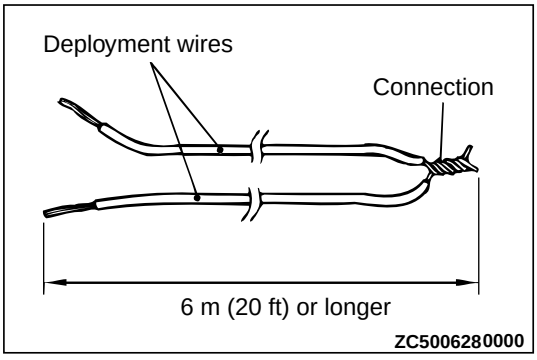
1. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ CAUTION

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 air bag module on flat place with deployment surface facing up. Also, do not put anything on it.

2. Remove the side-airbag module from the front seat assembly incorporated in the side-airbag. (Refer to GROUP 52A-FRONT SEAT ASSEMBLY P.52A-18.)
3. Obtain two suitable wires, which are 6 meters (20 feet) or longer, as deployment wires. Then connect the wires at one end to short.

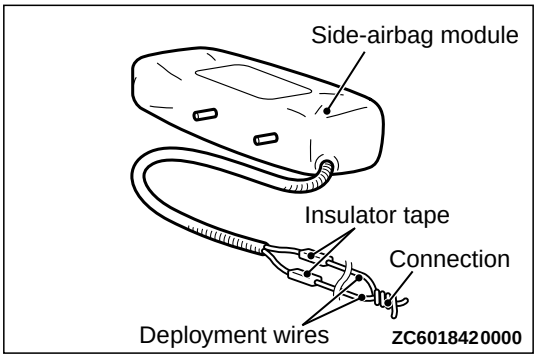
NOTE: This prevents the air bags from unintentional deployment caused by static electricity, etc.

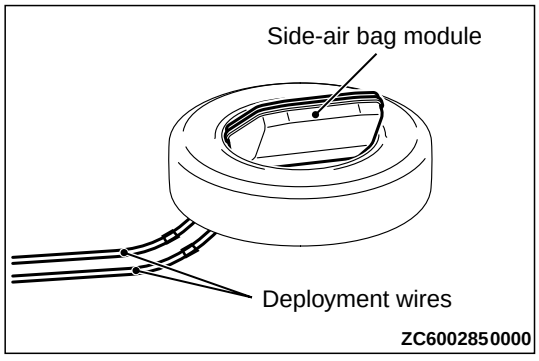


⚠ CAUTION

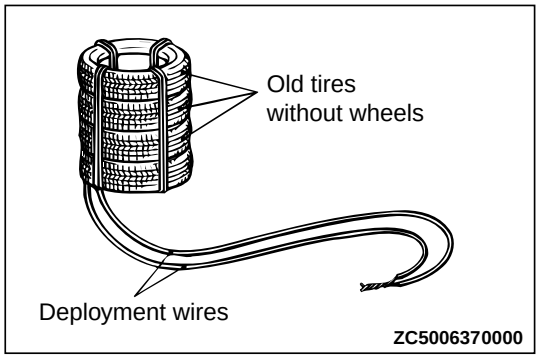
Never fail to do Step 4 in order to prevent accidental deployment caused by static.

4. Touch the vehicle body with bare hands to release the charged static.
5. Cut off the side-airbag module wiring harness connector from the wiring harness with nippers. Connect the deployment wire to each of the two cut wiring harnesses, and cover the connection areas with insulation tape.

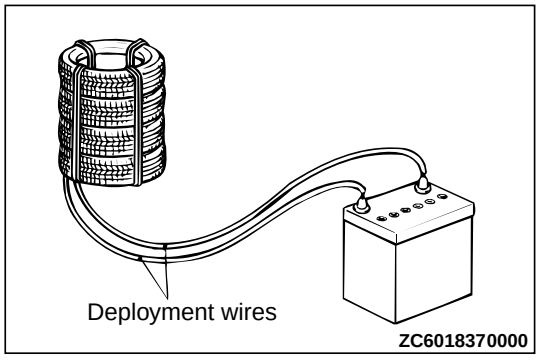




6. Pass the deployment wire under the tire with wheel, and connect it to the side-airbag module connector.
7. Install a surplus nut to the side-airbag module bolt. Then, tie a thick wire for fixing the wheel to the bolt. Fix the side-airbag module to the wheel of old tire with the module deployment surface facing upward.



8. Place three old tires without wheels on top of the tire secured to the air bag module, and secure all tires 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-371) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***

9. At a location as far away from the 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.
10. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to).

DEPLOYMENT OUTSIDE THE VEHICLE <CURTAIN AIR BAG MODULE>

DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

WARNING

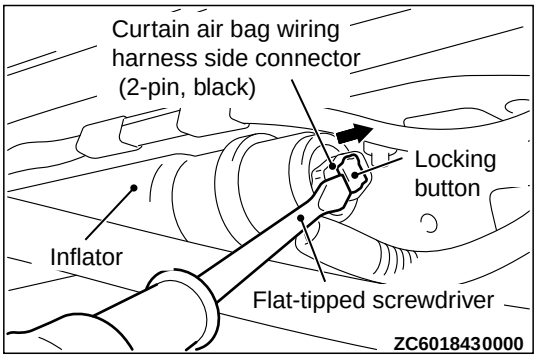
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

1. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

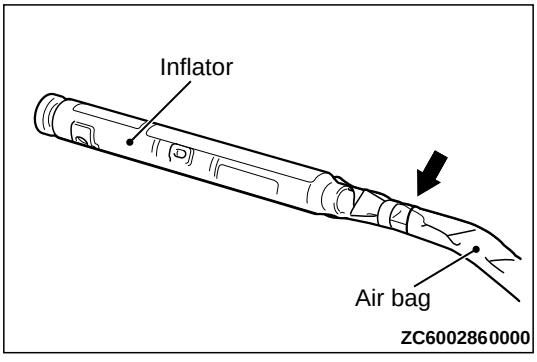
WARNING

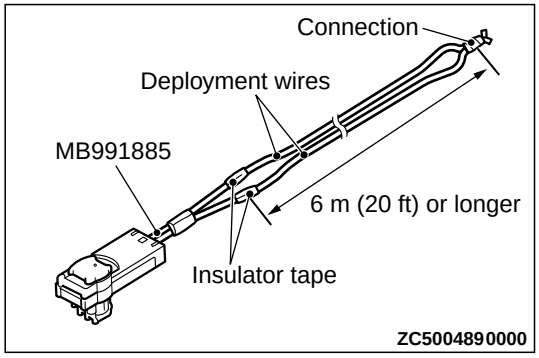
Store the seat belt pre-tensioner on a flat surface with its operation surface facing up. Do not place anything on top of them.

2. Remove the curtain air bag module from the vehicle (Refer to P.52B-341).
3. Use the flat-tipped screwdriver to pull out the locking button of curtain air bag harness side connector. After releasing the lock, disconnect the connector.



4. Cut the inflator from the air bag as shown in the figure using a cutter or a similar tool.

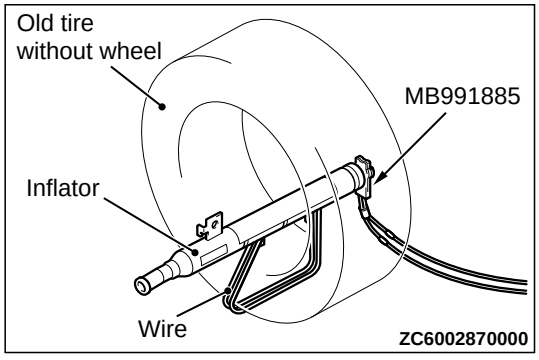




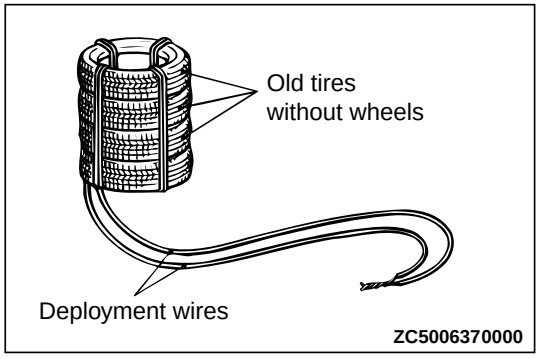
5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.

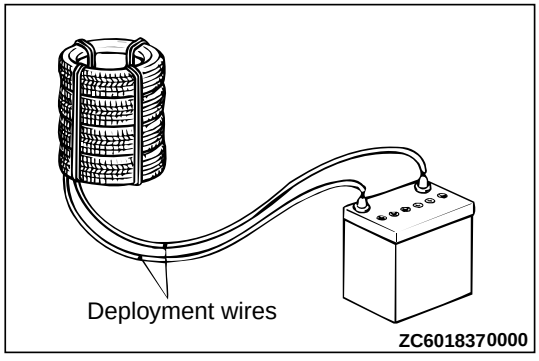
6. Connect the special tool MB991885 to the curtain air bag module.



7. Feed a thick wire through the bracket of the inflator, and connect it to an old tire without a wheel.



8. Place the tyre to which the inflator is fixed onto the two stacked tyres. Then, place 1 or more old tyres without wheel onto the stacked tyres, and tie and fix all the tyres with rope. (4 positions)



⚠WARNING

- ***Before operation, 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-371) for post-operation handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***

9. At a location as far away from the 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.
10. Discard the deployed air bag module as specified in Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal (Refer to P.52B-371).

DEPLOYMENT OUTSIDE THE VEHICLE <SEAT BELT PRE-TENSIONER>

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-28).

⚠ WARNING

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Operate the seat belt pre-tensioner in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform operation outside if a strong wind is blowing. If there is a slight breeze, place the seat belt pre-tensioner downwind from the battery.***

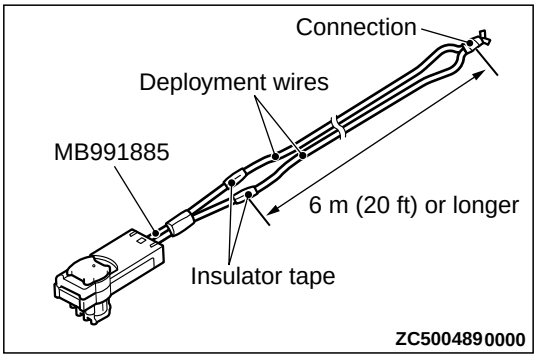
1. Disconnect the negative (-) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ WARNING

Store the seat belt pre-tensioner on a flat surface with its operation surface facing up. Do not place anything on top of them.

2. Remove the seat belt pre-tensioner from the vehicle (Refer to P.52B-345).
3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the seat belt pre-tensioner.

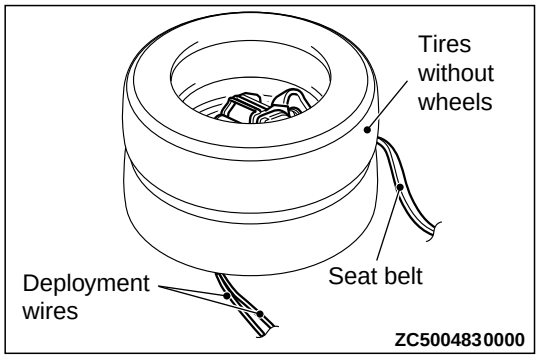
   NOTE: This prevents the unintentional activation of inflator caused by the static or others.
4. Connect the special tool MB991885, which the deployment wires is attached to, to the seat belt pre-tensioner connector.

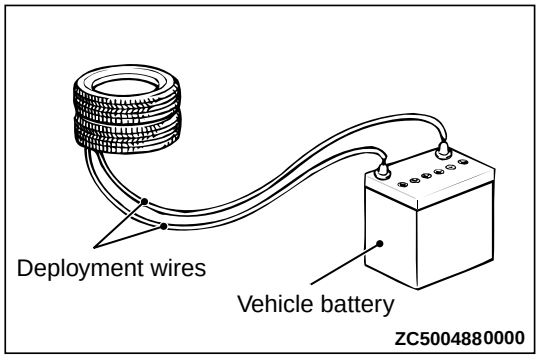


⚠ CAUTION

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.

5. 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 in two places.





6. Pull the seat belt out to the outside of the tire, and then place one tire without a wheel on top.

⚠ 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-371) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner.***

7. At a location as far away from the 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 operate the seat belt pre-tensioner.
8. Discard the operated seat belt pre-tensioner as specified in Deployed Air Bag Module and Seat Belt pre-tensioner Disposal (Refer to P.52B-371).

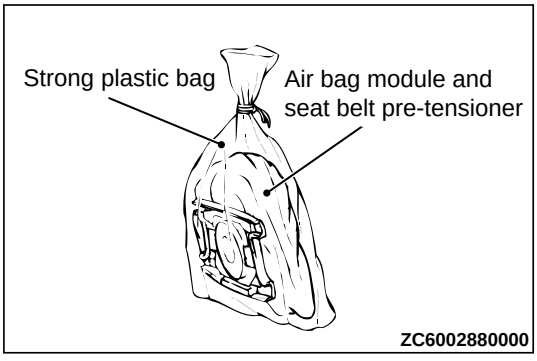
DEPLOYED AIR BAG MODULE AND OPERATED SEAT BELT PRE-TENSIONER DISPOSAL

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.