GROUP 52B

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS

Continued on next page

⚠ WARNING
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

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

GENERAL DESCRIPTION

M1524000100860

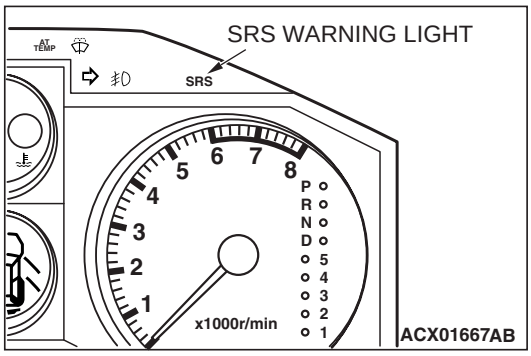
⚠ ***WARNING***

Extreme care must be used when servicing the SRS to avoid injury to the service personnel (by inadvertent deployment of the air bags) or the driver (by rendering the SRS inoperative).

The Supplemental Restraint System (SRS) and seat belt with pre-tensioner is designed to supplement the driver's and front passenger's seat belts to help reduce the risk or severity of injury to the driver and front passenger by activating and deploying both front air bags in certain frontal collisions.

The SRS consist of four air bag modules, SRS air bag control unit (SRS-ECU), two front impact sensors, two side impact sensors, SRS warning light, clock spring and seat belt pre-tensioner. Air bags are located in the center of the steering wheel, above the glove box, and in the outside bolsters of the front seat back assemblies. Each air bag is made up of a folded air bag and an inflator unit. The SRS-ECU under the floor console 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 sensors are assembled outside the headlight support panel to monitor impact in case of front impact. The side impact sensors inside the center pillars monitor the shock incurred by the sides of the vehicle. The warning light on the instrument panel indicates the operational status of the SRS. The clock spring is installed in the steering column. The seat belt pre-tensioner is built into the driver's and passenger's front seat belt retractor.

Only authorized service personnel should do work on or around the SRS components. Those service personnel should read this manual carefully before starting any such work.

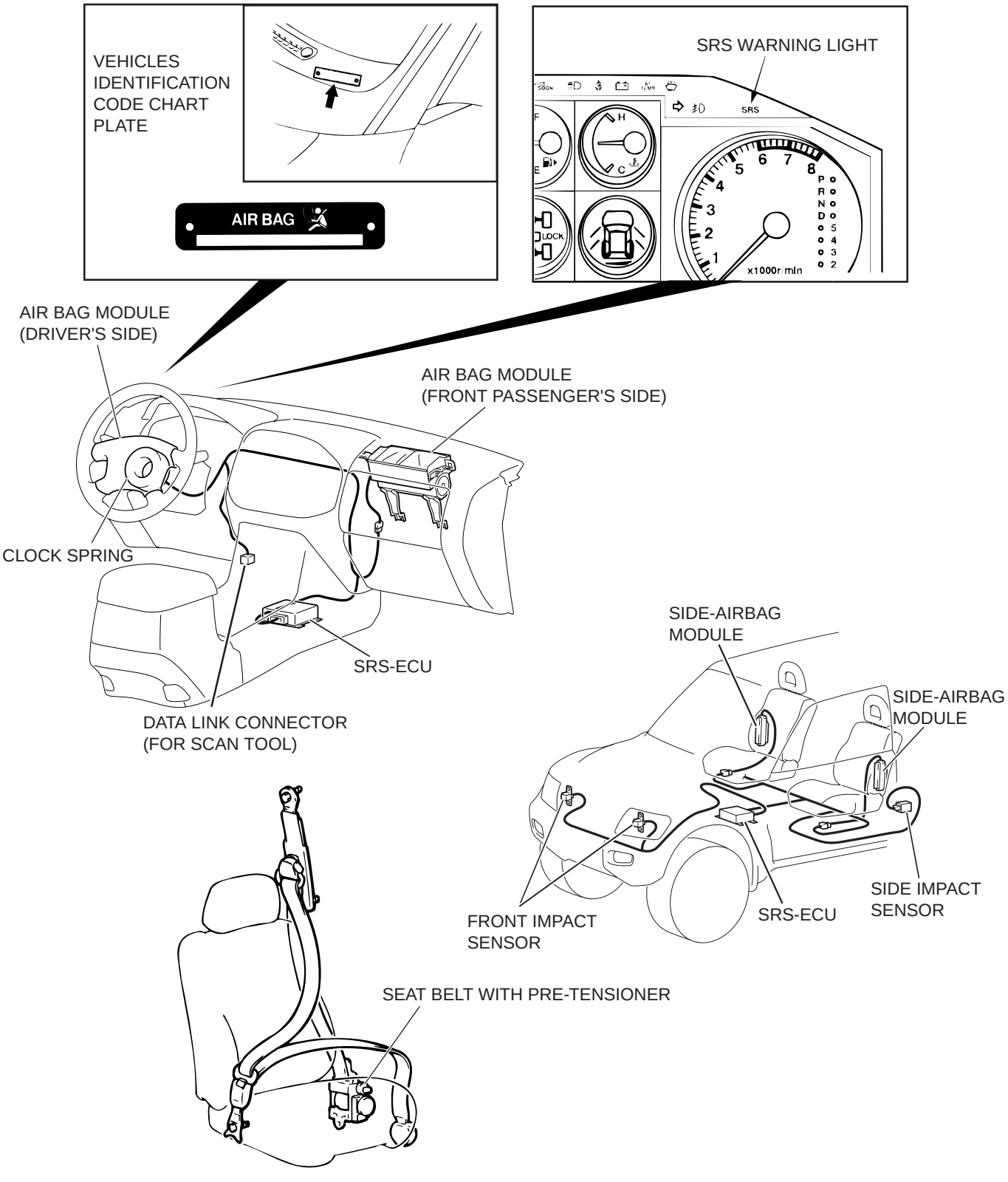


ONBOARD DIAGNOSTIC/SRS WARNING LIGHT FUNCTION

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

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.

CONSTRUCTION DIAGRAM



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NOTE: This construction diagram shows the general view of the SRS components. For details, refer to "Schematic, (P.52B-8)" "Configuration Diagrams(P.52B-12)" and "Circuit Diagram. (P.52B-13)"

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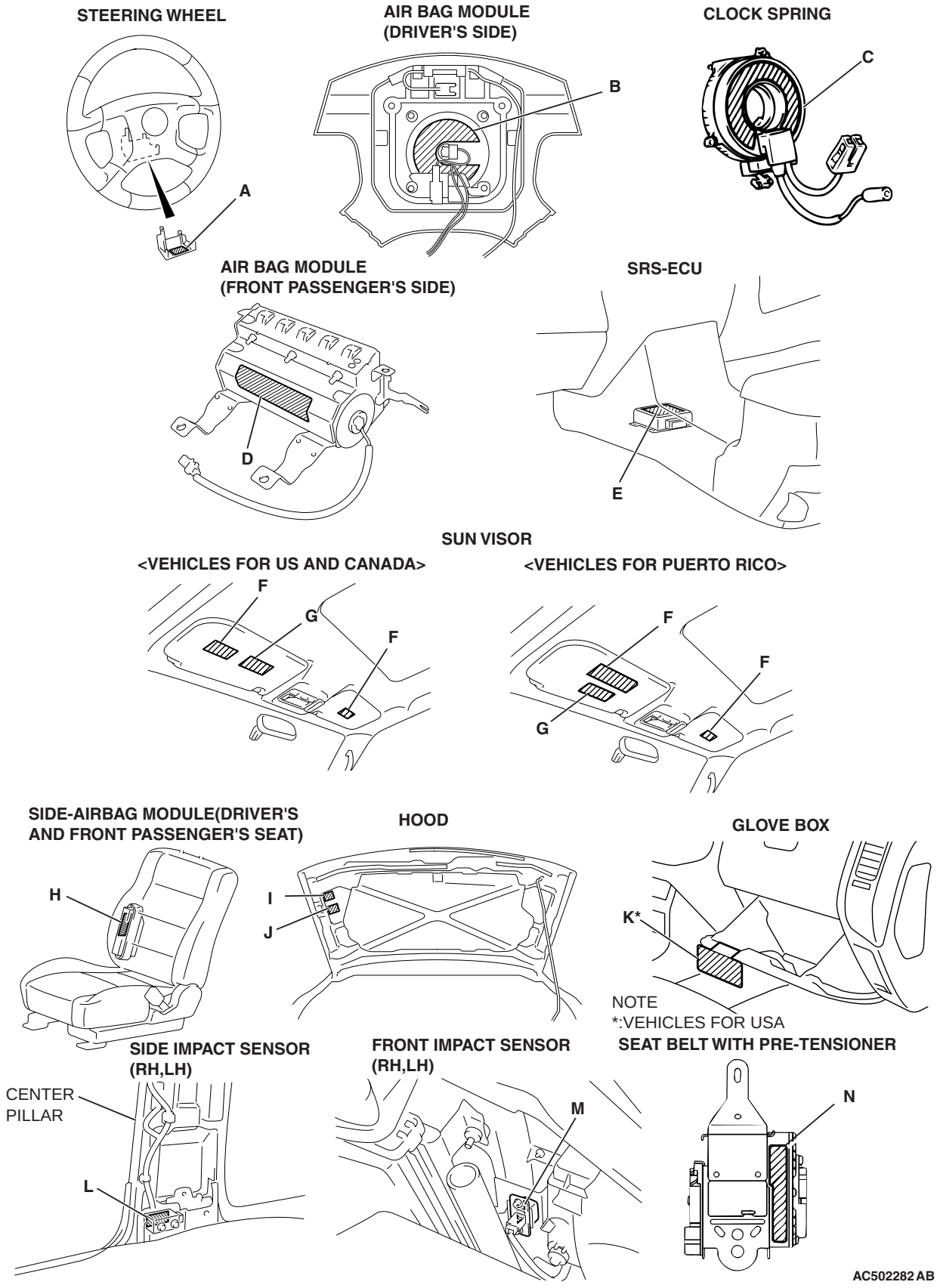
WARNING/CAUTION LABELS

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

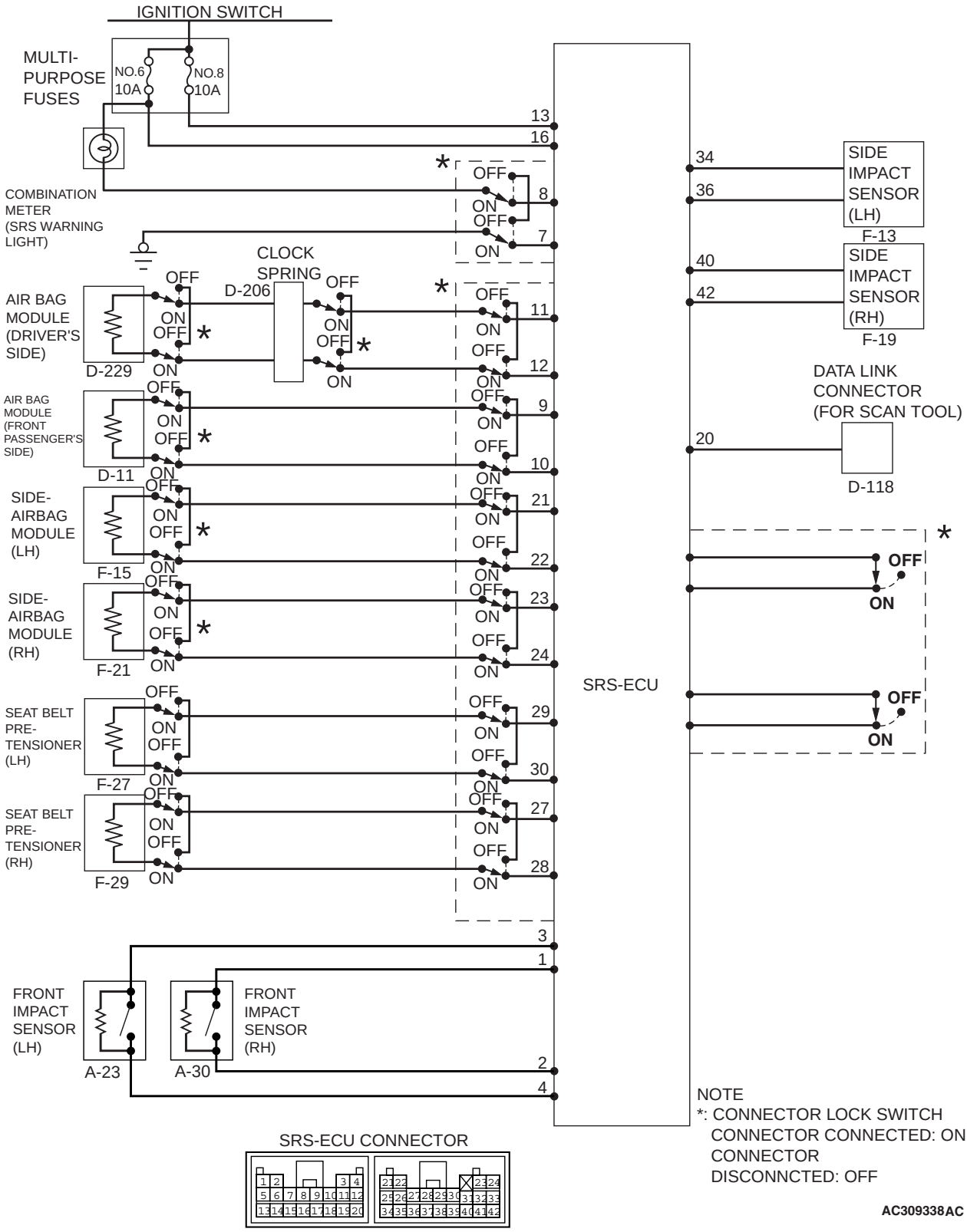


TSB Revision

LABEL CONTENTS	
A	CAUTION: SRS BEFORE REPLACING STEERING WHEEL, READ SERVICE MANUAL. THIS AIR BAG MODULE CANNOT BE REPAIRED. DO NOT DISASSEMBLE OR TAMPER.
B	DANGER FLAMMABLE MATERIAL TO PREVENT PERSONAL INJURY. DO NOT DISMANTLE. INCINERATE OR BRING INTO CONTACT WITH ELECTRICITY, STORE BELOW 200°F (93°C). READ SERVICE MANUAL FOR DETAIL.
C	CAUTION: SRS CLOCKSPRING THIS IS NOT A REPAIRABLE PART. IF DEFECTIVE REPLACE ENTIRE UNIT ACCORDING TO THE SERVICE MANUAL INSTRUCTIONS. TO RE-CENTER: ROTATE CLOCKWISE UNTIL TIGHT. THEN ROTATE IN OPPOSITE DIRECTION ROUGHLY 3 3/4TURNS AND ALIGN ARROWS ><.
D, H	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.
E, L	CAUTION: DO NOT DISASSEMBLE OR DROP. IF DEFECT REFER TO SERVICE MANUAL.
F	 V0037AA 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 RESTRAINTS.
G	 AC107269 WARNING: HIGHER ROLLOVER RISK Avoid Abrupt Maneuvers and Excessive Speed. Always Buckle Up. See Owner's Manual for Further Information.  AC107270

LABEL CONTENTS	
I	<VEHICLES FOR CANADA> ATTENTION CE VEHICULE EST EQUIPE D'UN SYSTEME A COUSSIN A AIR DU COTE DU CONDUCTEUR. CONSULTER LE MANUEL D'ENTRETIEN AVANT TOUT TRAVALL OU DEMONTAGE SOUS LE CAPOT. IL EST EGALEMENT IMPORTANT DE LIRE LA PRESENTATION DE CET EQUIPEMENT DANS LE MANUEL (SECTION SYSTEME DE RETENUE SUPPLEMENTAIRE). TOUTE MANIPULATION ERRONEE PENDANT LES TRAVAUX D'ENTRETIEN PEUT PRODUIRE LE GONFLEMENT INOPINE DU COUSSIN A AIR OU DE RENDRE LE SRS INEFFICACE, AVEC RISQUE DE BLESSURE.
J	WARNING THIS VEHICLE HAS AN AIR BAG SYSTEM. REFER TO SERVICE MANUAL BEFORE SERVICING OR DISASSEMBLING UNDERHOOD COMPONENTS. READ THE "SRS" SECTION OF MANUAL FOR IMPORTANT INSTRUCTIONS. IMPROPER SERVICE PROCEDURES CAN RESULT IN THE AIR BAG FIRING OR BECOMING INOPERATIVE, POSSIBLY LEADING TO INJURY.
K	WARNING 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.
M	CAUTION: DO NOT DISASSEMBLE OR DROP.
N	DANGER: SEAT BELT PRETENSIONER • DO NOT IMPACT. DISMANTLE OR INSTALL IT INTO ANOTHER VEHICLE. • SERVICE DISPOSE OF IT AS DIRECTEO IN THE REPAIR MANUAL.

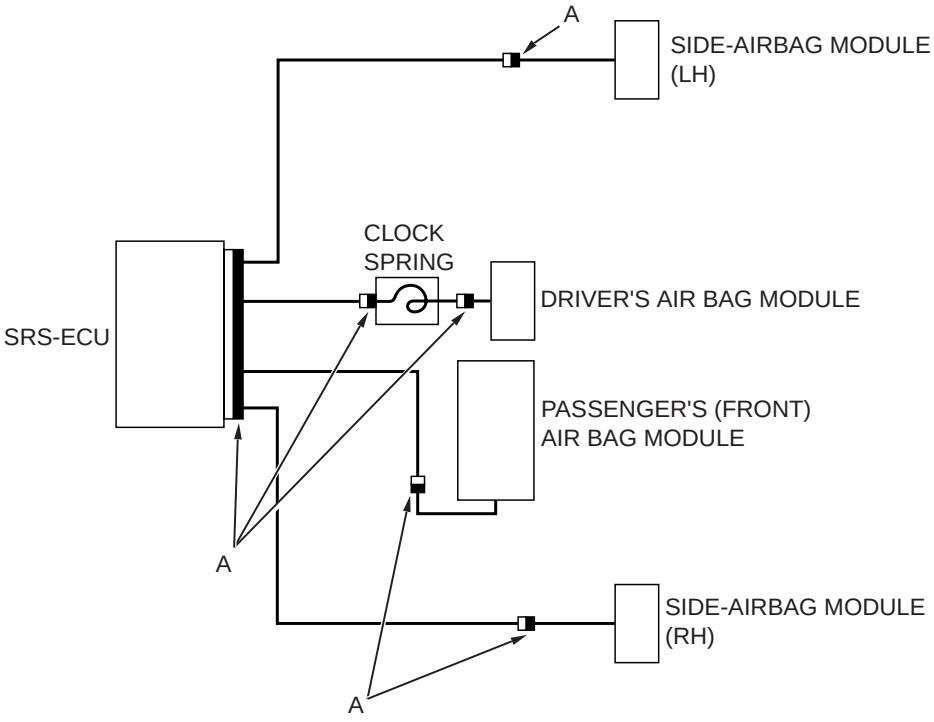
SCHEMATIC



TSB Revision

SRS AIR BAG SPECIAL CONNECTOR

To enhance the system reliability, a connector lock switch is integrated in the SRS-ECU connector, the air bag module connectors, the clock spring connector, the seat belt pretensioner connectors (black connector "A" shown in the illustration below).

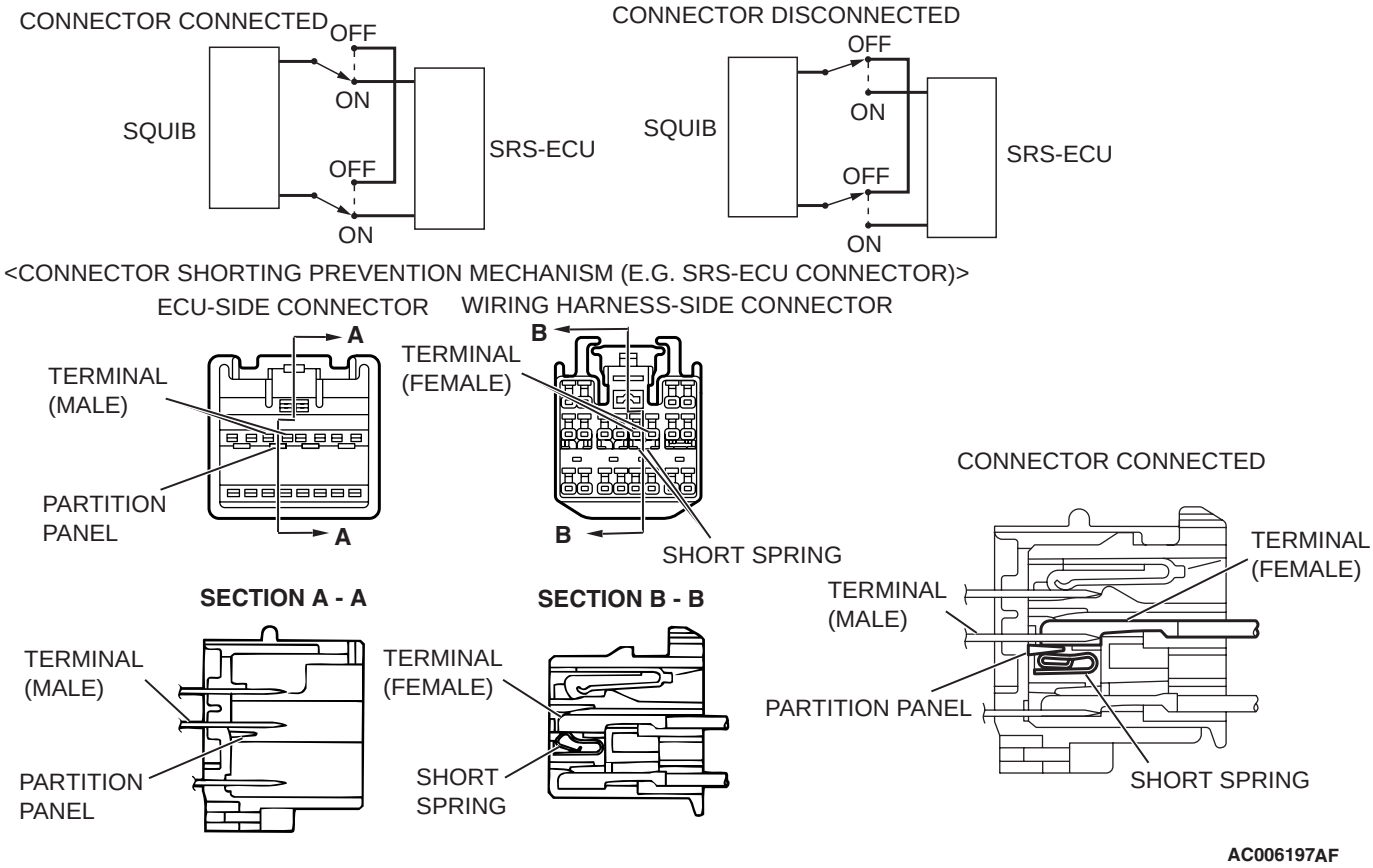


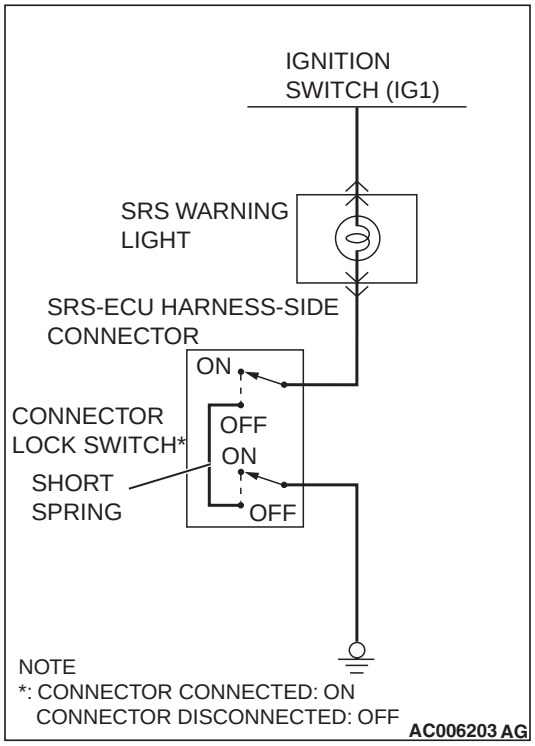
SQUIB CIRCUIT CONNECTOR LOCK SWITCH

The switch is a mechanism that shorts the power supply terminal to the ground terminal automatically in the air bag squib circuit when the connector is disconnected. A "short" spring is integrated inside the connector. This spring prevents static electricity from flowing to the squib by shorting the power supply terminal to the ground terminal (i.e. there is no potential difference between the two terminals).

⚠ CAUTION

When the connector is disconnected, there will be short circuit between the terminals. This is not a fault.

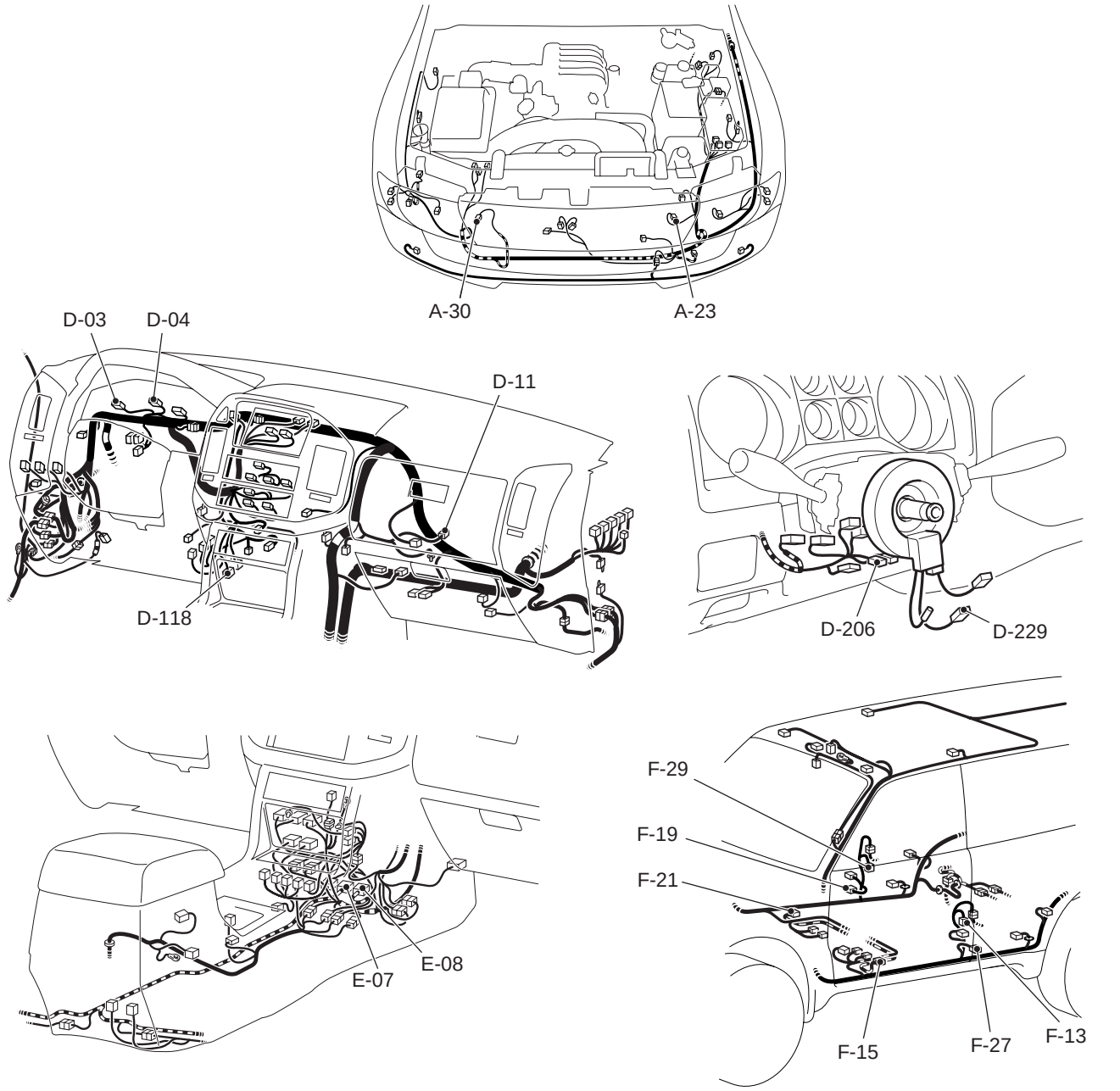




WARNING LIGHT CIRCUIT CONNECTOR LOCK SWITCH

The switch is a mechanism that shorts the power supply terminal to the ground terminal automatically in the warning light circuit when the connector is disconnected. Its structure is similar to the squib circuit connector shorting mechanism.

CONFIGURATION DIAGRAMS



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A-23 (Y)	FRONT IMPACT SENSOR (LH)
A-30 (Y)	FRONT IMPACT SENSOR (RH)
D-03 (GR)	COMBINATION METER (FOR SRS WARNING LIGHT)
D-04 (GR)	COMBINATION METER (FOR SRS WARNING LIGHT)
D-11 (R)	AIR BAG MODULE (FRONT PASSENGER'S SIDE)
D-118 (B)	DATA LINK CONNECTOR (FOR SCAN TOOL)
D-206 (Y)	CLOCK SPRING
D-229	AIR BAG MODULE (DRIVER'S SIDE)
E-07 (Y)	SRS-ECU
E-08 (Y)	SRS-ECU
F-13 (Y)	SIDE IMPACT SENSOR (LH)
F-15 (R)	SIDE-AIRBAG MODULE (SQUIB) (LH)
F-19 (Y)	SIDE IMPACT SENSOR (RH)
F-21 (R)	SIDE-AIRBAG MODULE (SQUIB) (RH)
F-27 (R)	SEAT BELT PRE-TENSIONER (LH)
F-29 (R)	SEAT BELT PRE-TENSIONER (RH)

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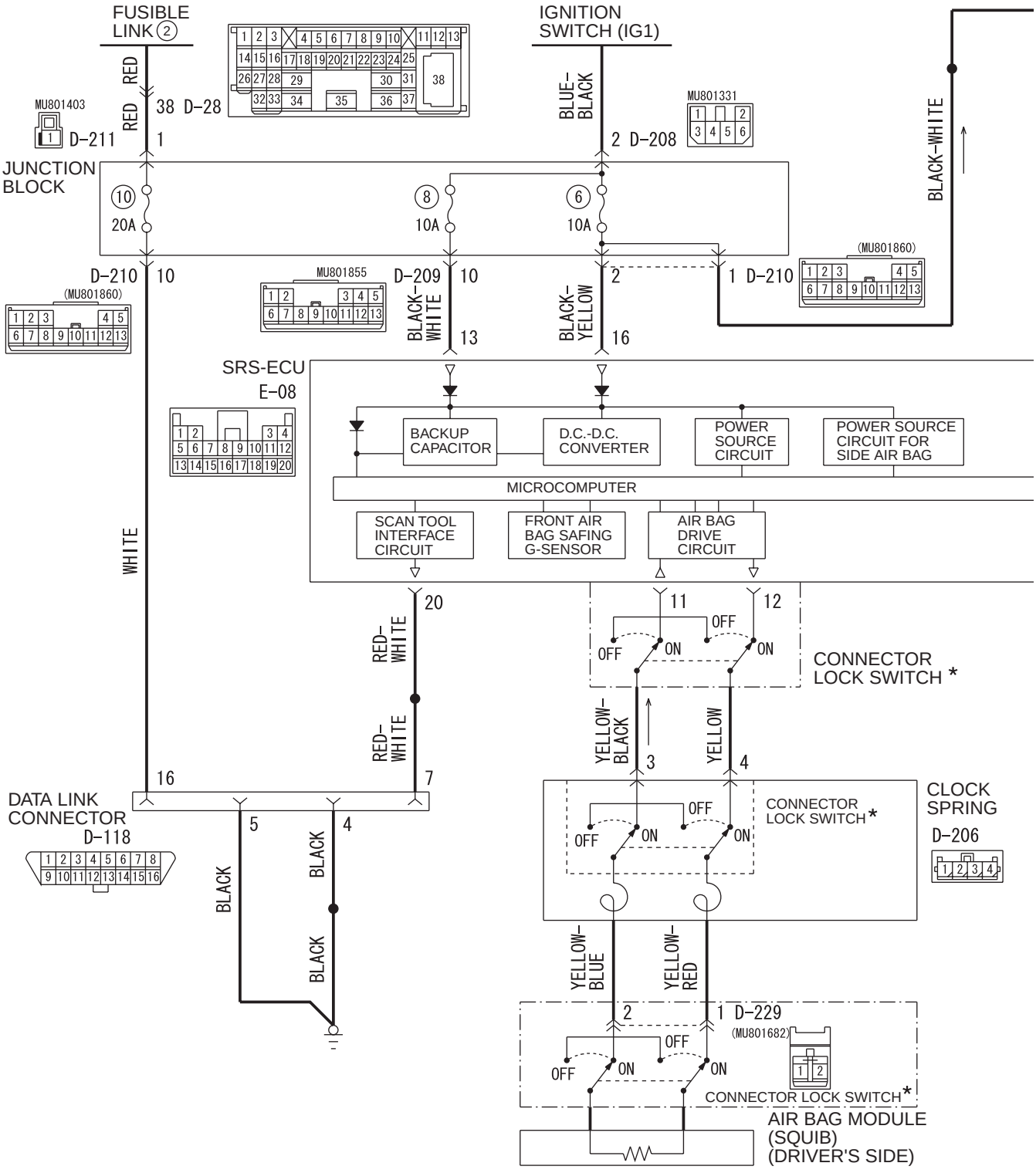
CIRCUIT DIAGRAM

⚠ WARNING

- ***Do not repair, splice, or modify the SRS wiring (except for specific repairs to the front wiring harness, the instrument panel wiring harness and the side air bag wiring harness shown on P.52B-18): 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-204) and a digital multi-meter (refer to P.52B-205).***



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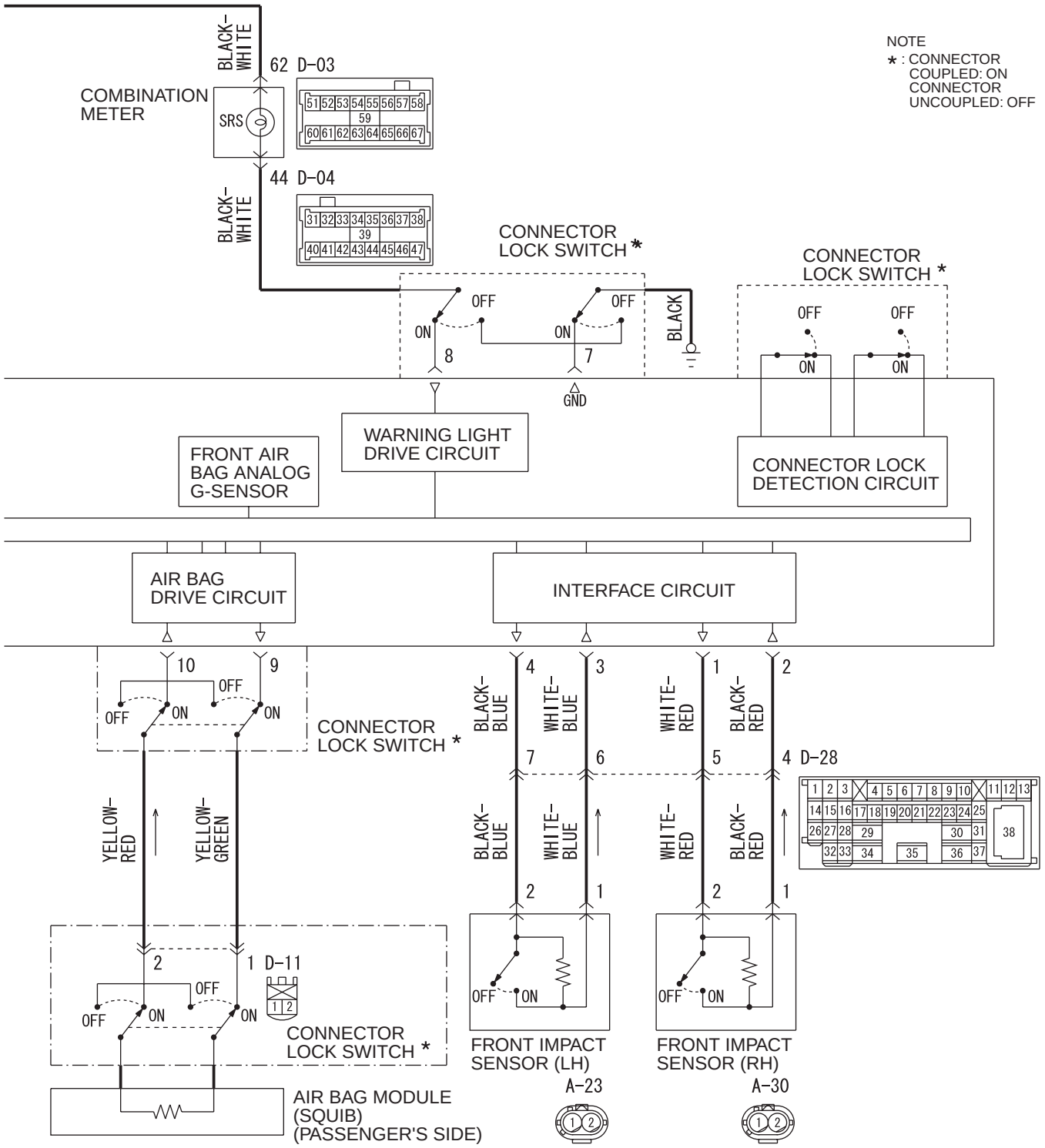

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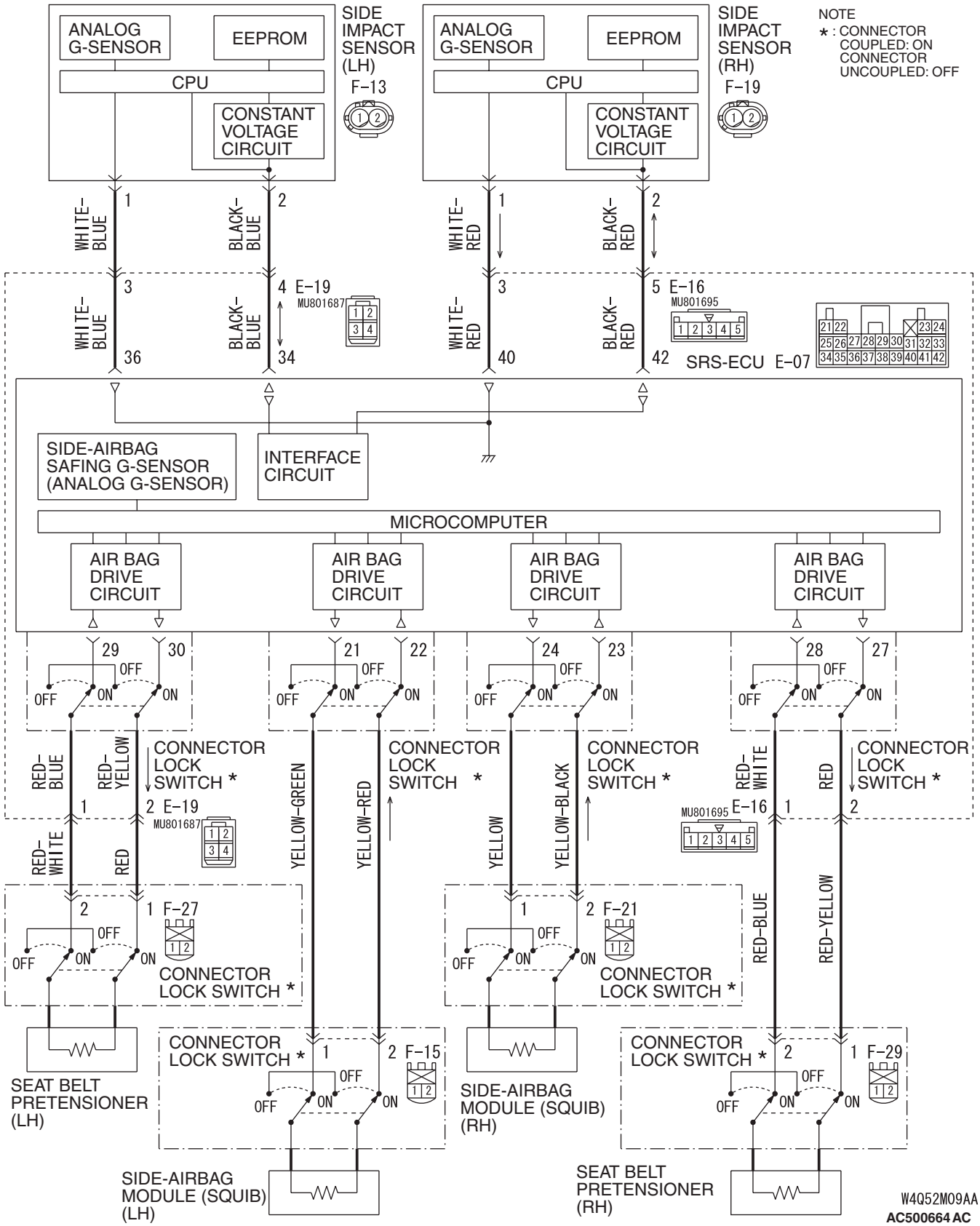
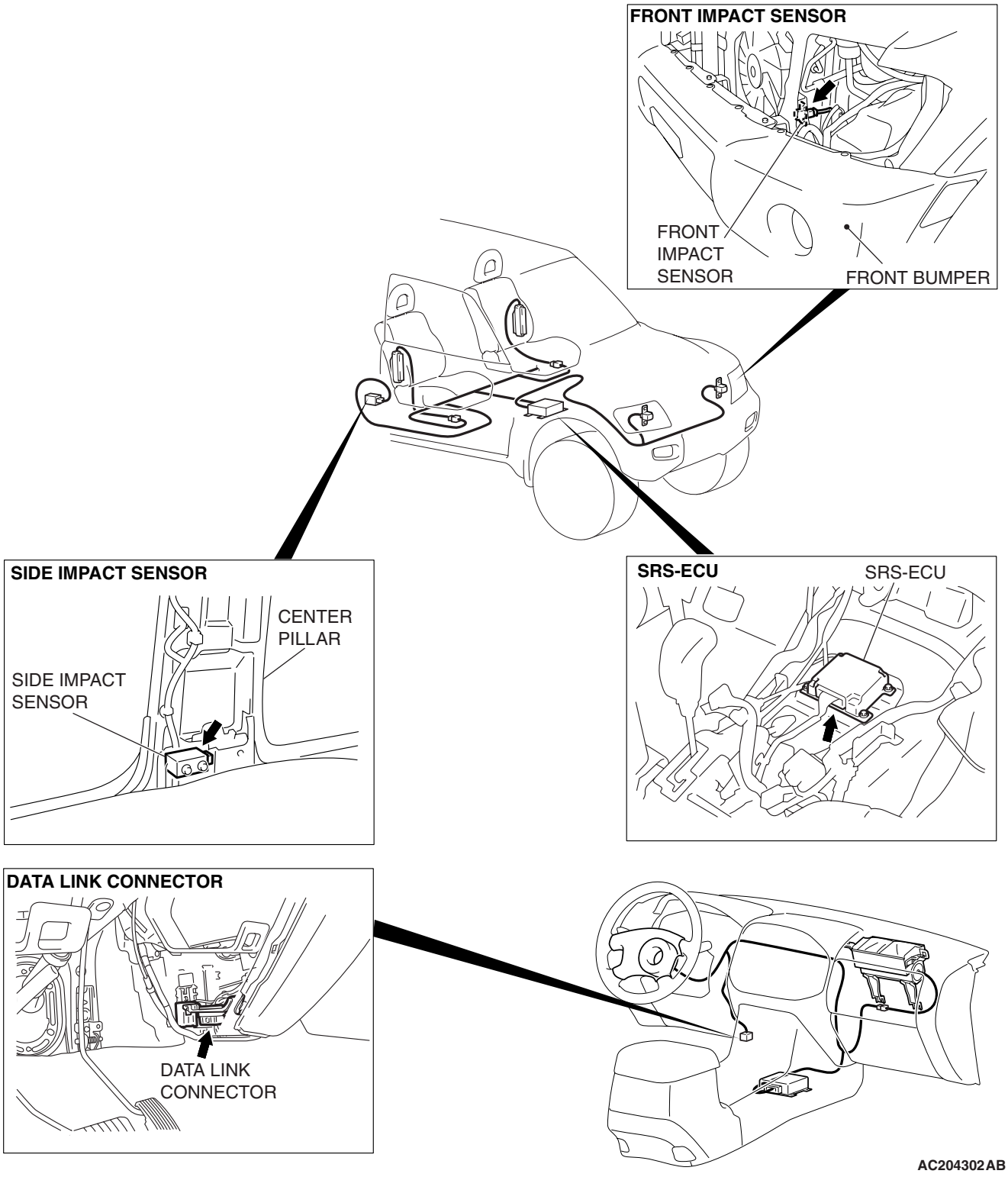


TSB Revision

COMPONENT LOCATION



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

SERVICE PRECAUTIONS

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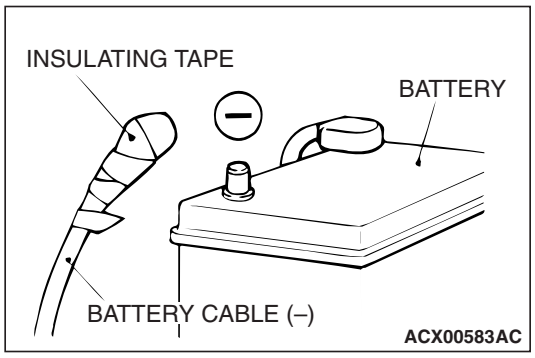
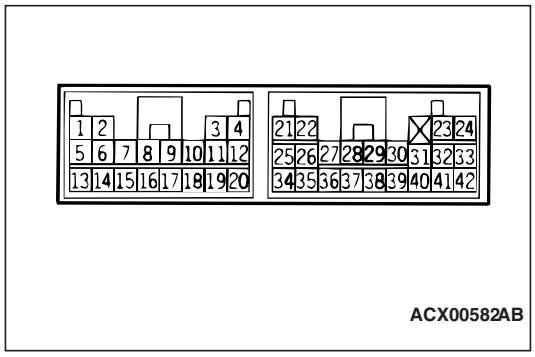


⚠ DANGER

- ***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.***

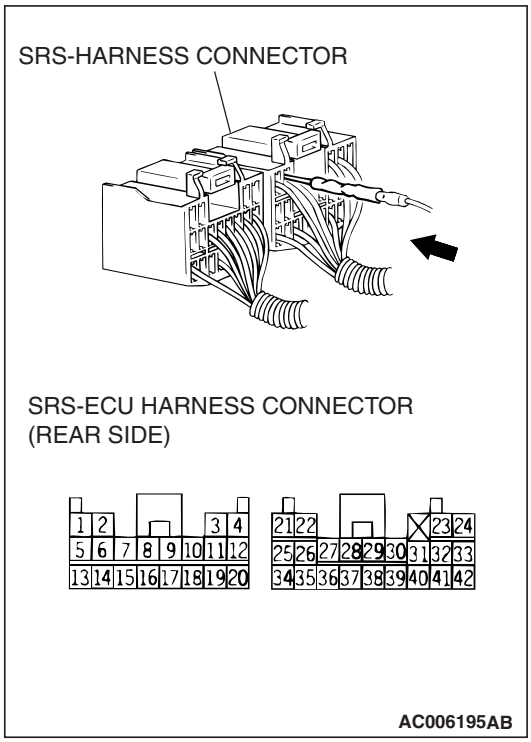
⚠ WARNING

- ***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-205.***
- ***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. 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-210.***



- ***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, 3, 4	Instrument panel wiring harness → Front wiring harness → Front impact sensor	Correct or replace each wiring harness.
7	Instrument panel wiring harness→ Ground	Correct or replace the instrument panel wiring harness.
8	Instrument panel wiring harness→ SRS warning light	Correct or replace the instrument panel wiring harness.
9, 10	Instrument panel wiring harness → Air bag module (Front passenger's side)	Correct or replace the instrument panel wiring harness.
11, 12	Instrument panel wiring harness → Clock spring → Air bag module (Driver's side)	Correct or replace each wiring harness. Replace the clock spring.
13	Instrument panel wiring harness → Junction block (fuse No.8)	Correct or replace the instrument panel wiring harness.
16	Instrument panel wiring harness →Function block (fuse No.6)	Correct or replace the instrument panel wiring harness.
20	Instrument panel wiring harness → Data link connector	Correct or replace the instrument panel wiring harness.
21, 22	Side-airbag wiring harness → Side-airbag module (LH)	Correct or replace the side air bag wiring harness.
23, 24	Side-airbag wiring harness → Side-airbag module (RH)	Correct or replace the side air bag wiring harness.
27, 28	Side-airbag wiring harness → Floor wiring harness→ Seat belt pre-tensioner (RH)	Correct or replace each wiring harness.
29, 30	Side-airbag wiring harness → Floor wiring harness → Seat belt pre-tensioner (LH)	Correct or replace each wiring harness.
34, 36	Side-airbag wiring harness → Floor wiring harness → Side impact sensor (LH)	Correct or replace each wiring harness.
40, 42	Side-airbag wiring harness → Floor wiring harness→ Side impact sensor (RH)	Correct or replace each wiring harness.



⚠ ***WARNING***

- ***Inspection of the SRS-ECU connector harness should be carried out by the following procedure. Insert the backprobing tool into connector from harness side (rear side), and connect the tester to backprobing tool. If any tool other than backprobing tool is used, it may cause damage to the harness and other components. Furthermore, measurement should not be carried out by touching the backprobing tool directly against the terminals from the front of the connector. The terminals are plated to increase their conductivity, so if they are touched directly by the backprobing tool, the plating may break, which will decrease reliability.***
- ***The SRS components and seat belt with pre-tensioner should not be subjected to heat, so removed the SRS-ECU, driver's and front passenger's air bag modules, clock spring, side-airbag module, front impact sensor, side impact sensor, and seat belt pre-tensioner before drying or baking the vehicle after painting.***
  - ***SRS-ECU, air bag module, clock spring, front impact sensor, side 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-20).***
- ***Make certain that the ignition switch is "LOCK" (OFF) position when the scan tool is connected or disconnected.***
- ***If you have any questions about the SRS system, please contact the MMNA Tech Line.***

SRS AIR BAG DIAGNOSIS

INTRODUCTION TO DIAGNOSIS

M1524005000459

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 side impact sensors, front impact sensors, front air bag analog G-sensor, 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 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.

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Refer to the Post-collision Diagnosis (Refer to P.52B-206). when inspecting and servicing the vehicle that has been in a collision.

TROUBLESHOOTING STRATEGY

M1524003100610

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.00-13.
5. If there is a SRS DTC, record the code number, then erase the code from vehicle memory using scan tool MB991502.
6. Recreate the SRS DTC set conditions to see if the same SRS DTC will set again.
   - If the same SRS DTC sets again, follow the Inspection Chart for DTC and find the fault.
   - If you cannot get the same SRS DTC to set again, the malfunction is intermittent. Refer to GROUP 00, How to use Troubleshooting/ Inspection Service Points – How to Cope With Intermittent Malfunctions P.00-13.

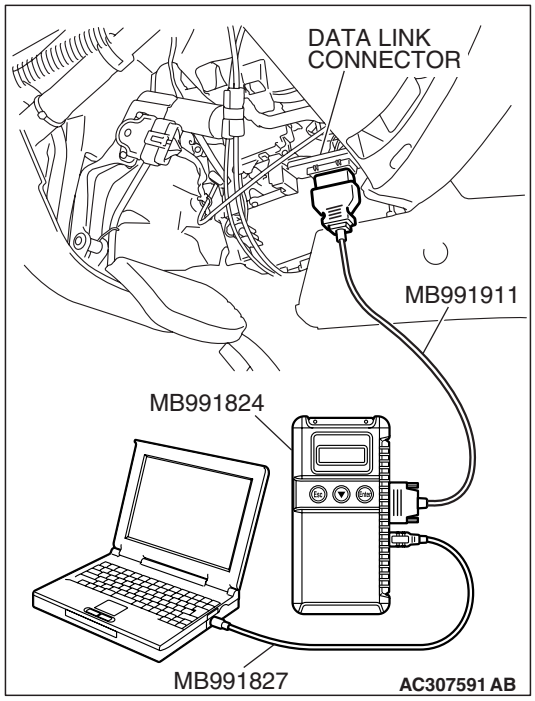
DIAGNOSTIC FUNCTION

M1524013800115

HOW TO CONNECT THE SCAN TOOL

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without 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. 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 MB991911 to special tool MB991824.
5. Connect special tool MB991911 to the data link connector.
6. Turn the power switch of special tool MB991824 to the "ON" position.

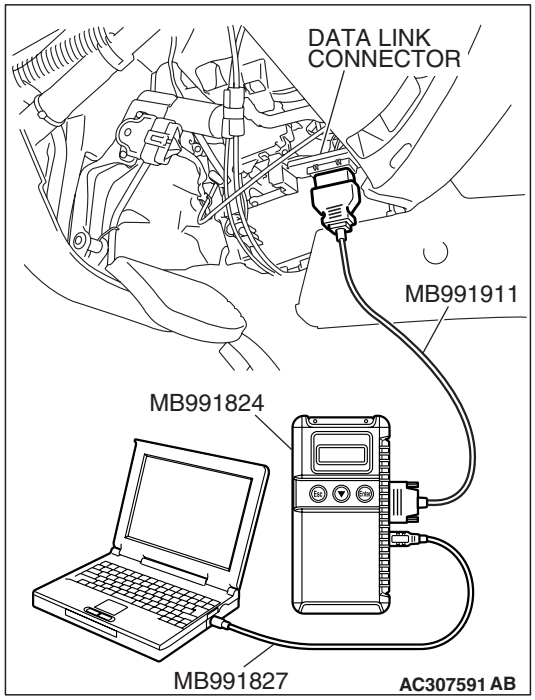
   NOTE: When special tool MB991824 is energized, special tool MB991824 indicator light will be illuminated in a green color.
7. Start the MUT-III system on the personal computer.

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 (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without 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.

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 "Interactive Diagnosis" from the start-up screen.
4. Select "System select."
5. Choose "SRS-AIR BAG" from the "BODY" tab.
6. Select "MITSUBISHI."
7. Select "Diagnostic Trouble Code."
8. If a DTC is set, it is shown.
9. Choose "Erase DTCs" to erase the DTC.

SRS WARNING LIGHT CHECK

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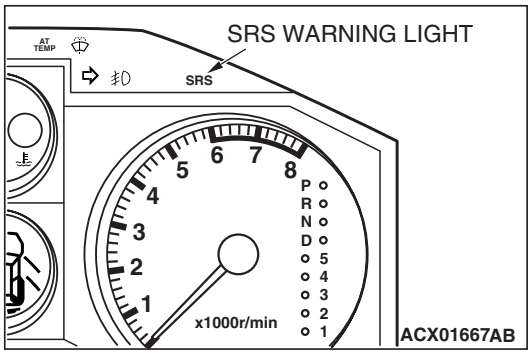

1. Check that the SRS warning light illuminates when the ignition switch is in the "ON" position.
2. Check that it illuminates for approximately seven seconds and then goes out.
3. If not, check for DTC.

DIAGNOSTIC TROUBLE CODE CHART

M1524003300959

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

DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM	REFERENCE PAGE
1A*3	Front impact sensor (LH) circuit short	P.52B-26
1B*3	Front impact sensor (LH) circuit open	P.52B-26
1C*3	Front impact sensor (LH) short-circuited to power supply	P.52B-26
1D*3	Front impact sensor (LH) short-circuited to ground	P.52B-26
2A*3	Front impact sensor (RH) circuit short	P.52B-26
2B*3	Front impact sensor (RH) circuit open	P.52B-26
2C*3	Front impact sensor (RH) short-circuited to power supply	P.52B-26
2D*3	Front impact sensor (RH) short-circuited to ground	P.52B-26
11*4	Front impact sensor system circuit short	P.52B-32
12*4	Front impact sensor system either circuit open or no power supply	P.52B-32
13*4	Front impact sensor system detects either both are open or no power supply	P.52B-32
14	Analog G-sensor system in the SRS-ECU	P.52B-38
15	Safing G-sensor short circuit	P.52B-38
16	Safing G-sensor open circuit	P.52B-38
17	Safing G-sensor for side-airbag faults	P.52B-38
21*2	Driver's air bag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)	P.52B-40
22*2	Driver's air bag module (squib) system fault 2 (Open in the squib circuit)	P.52B-47
24*2	Passenger's (front) air bag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)	P.52B-51
25*2	Passenger's (front) air bag module (squib) system fault 2 (Open in the squib circuit)	P.52B-57
26*2	Driver's seat belt pre-tensioner (squib) system fault 1 (Short circuit between terminals of the squib circuit)	P.52B-60
27*2	Driver's seat belt pre-tensioner (squib) system fault 2 (Open in the squib circuit)	P.52B-67
28*2	Passenger's (front) seat belt pre-tensioner (squib) system fault 1 (Short circuit between terminals of the squib circuit)	P.52B-71
29*2	Passenger's (front) seat belt pre-tensioner (squib) system fault 2 (Open in the squib circuit)	P.52B-78
31	SRS-ECU capacitor circuit voltage too high	P.52B-38
32	SRS-ECU capacitor circuit voltage too low	P.52B-38
34*1	Connector lock system detects connector unlocked	P.52B-82

TSB Revision

DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM		REFERENCE PAGE
35	SRS-ECU air bag condition monitor detects deployed air bag		P.52B-84
39*3	Air bags deployed simultaneously		P.52B-84
41*1	IG1 power circuit system (fuse No.6 circuit)		P.52B-85
42*1	IG1 power circuit system (fuse No.8 circuit)		P.52B-92
43*1	SRS warning light drive circuit system fault 1	Light does not illuminate*1	P.52B-99
		Light does not switch off	P.52B-105
44*1	SRS warning light drive circuit system fault 2		P.52B-109
45	SRS-ECU non-volatile memory (EEPROM) and A/D converter system		P.52B-38
46*1*3	Improper installation SRS-ECU		P.52B-110
51	Driver's air bag module (squib ignition drive circuit) system detected short circuit		P.52B-38
52	Driver's air bag module (squib ignition drive circuit) system detected open circuit		P.52B-38
54	Passenger's (front) air bag module (squib ignition drive circuit) system detected short circuit		P.52B-38
55	Passenger's (front) air bag module (squib ignition drive circuit) system detected open circuit		P.52B-38
56	Driver's seat belt pre-tensioner (squib ignition drive circuit) system detected short circuit		P.52B-38
57	Driver's seat belt pre-tensioner (squib ignition drive circuit) system detected open circuit		P.52B-38
58	Passenger's (front) seat belt pre-tensioner (squib ignition drive circuit) system detected short circuit		P.52B-38
59	Passenger's (front) seat belt pre-tensioner (squib ignition drive circuit) system detected open circuit		P.52B-38
61	Driver's air bag module (squib) system fault for power supply circuit (Short-circuited to power supply)		P.52B-111
62	Driver's s air bag module (squib) system fault for ground circuit (Short-circuited to ground)		P.52B-116
64	Passenger's (front) air bag module (squib) system fault for power supply circuit (Short-circuited to power supply)		P.52B-121
65	Passenger's (front) air bag module (squib) system fault for ground circuit (Short-circuited to ground)		P.52B-125
66	Driver's seat belt pre-tensioner (squib) system fault for power supply circuit (Short-circuited to power supply)		P.52B-129
67	Driver's seat belt pre-tensioner (squib) system fault for ground circuit (Short-circuited to ground)		P.52B-134
68	Passenger's (front) seat belt pre-tensioner (squib) system fault for power supply circuit (Short-circuited to power supply)		P.52B-139

TSB Revision

DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM	REFERENCE PAGE
69	Passenger's (front) seat belt pre-tensioner (squib) system fault for ground circuit (Short-circuited to ground)	P.52B-144
71*2	Right hand side-airbag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)	P.52B-149
72*2	Right hand side-airbag module (squib) system fault 2 (Open in the squib circuit)	P.52B-155
73	Right hand side-airbag module (squib) system detected short circuit	P.52B-38
74	Right hand side-airbag module (squib) system detected open circuit	P.52B-38
75	Right hand side-airbag module (squib) system fault power supply circuit (Short-circuited to power supply)	P.52B-158
76	Right hand side-airbag module (squib) system fault ground circuit (Short-circuited to ground)	P.52B-162
79	Left hand side-airbag module (squib) system fault 5 for power supply circuit	P.52B-166
81*2	Left hand side-airbag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)	P.52B-169
82*2	Left hand side-airbag module (squib) system fault 2 (Open in the squib circuit)	P.52B-175
83	Left hand side-airbag module (squib) system fault 3 for ignition drive circuit	P.52B-38
84	Left hand side-airbag module (squib) system fault 4 for ignition drive circuit	P.52B-38
85	Left hand side-airbag module (squib) system fault power supply circuit (Short-circuited to power supply)	P.52B-178
86	Left hand side-airbag module (squib) system fault ground circuit (Short-circuited to ground)	P.52B-182
89	Right hand side-airbag module (squib) system fault 5 for power supply circuit	P.52B-166
91*1	Left hand side-impact sensor power supply circuit system	P.52B-189
92	Left hand side-impact sensor system for fault 1	P.52B-192
93	Left hand side-airbag module (squib) system fault 6 for communication system	P.52B-166
94*1	Right hand side-impact sensor power supply circuit system	P.52B-193
95	Right hand side-impact sensor system for fault 1	P.52B-192
96	Right hand side-airbag module (squib) system fault 6 for communication system	P.52B-166

NOTE:

1. **1: If the vehicle condition returns to normal, the DTC will be automatically erased, and the SRS warning light will return to normal.*
2. **2: However, if no DTC resets, the SRS warning light will be switched off (The DTC will be retained).*
3. *If the vehicle has a discharged battery, it will store the DTC 41 or 42. When these DTC are read, check the battery.*
4. **3: Vehicles with side-airbag*
5. **4: Vehicles with side-airbag*

TSB Revision

DIAGNOSTIC TROUBLE CODE PROCEDURES

DIAGNOSTIC TROUBLE CODE PROCEDURES

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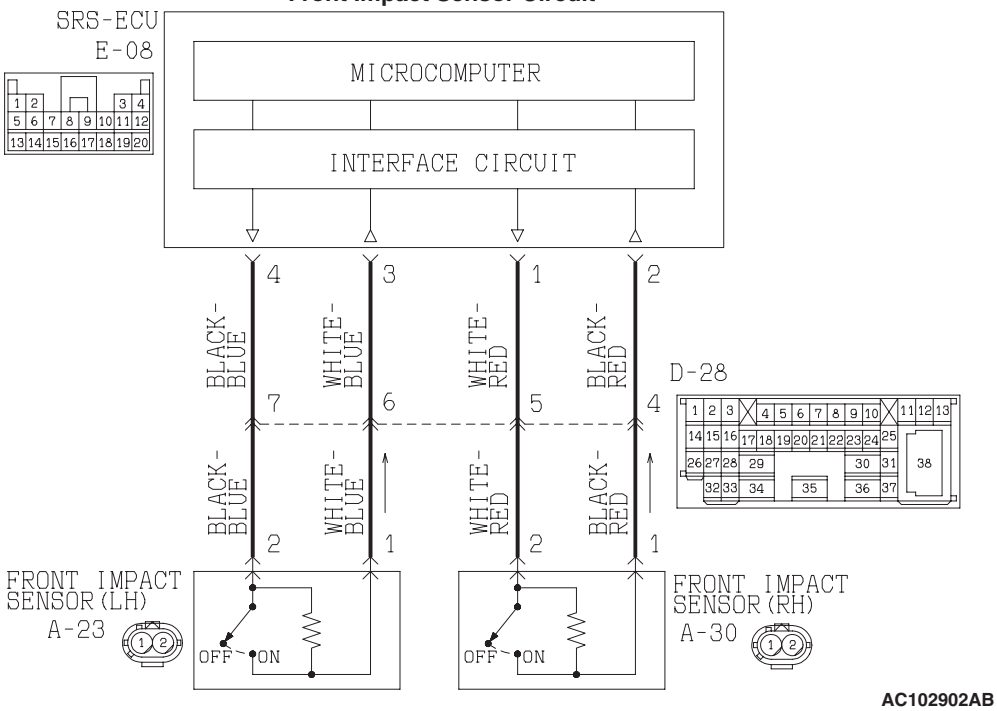
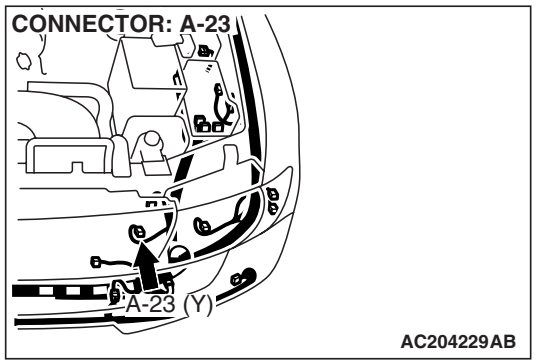
DTC 1A Front impact sensor (LH) circuit short
DTC 1B Front impact sensor (LH) circuit open
DTC 1C Front impact sensor (LH) short-circuited to power supply
DTC 1D Front impact sensor (LH) short-circuited to ground
DTC 2A Front impact sensor (RH) circuit short
DTC 2B Front impact sensor (RH) circuit open
DTC 2C Front impact sensor (RH) short-circuited to power supply
DTC 2D Front impact sensor (RH) short-circuited to ground

Front Impact Sensor Circuit



AC102902AB W1Q03M02AA



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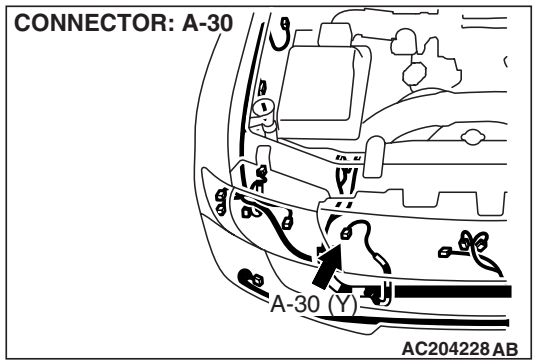

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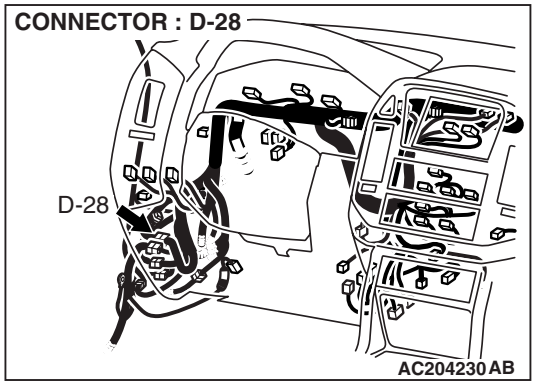
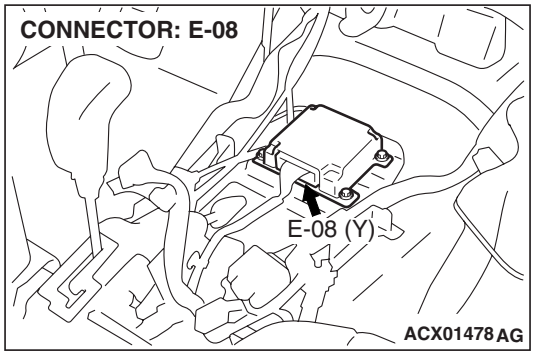
TSB Revision





CIRCUIT OPERATION

- When the left and right front impact sensors detect a collision, the switches inside the sensors turn ON.
- 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.

DTC SET CONDITIONS

These DTCs are set if there is abnormal resistance between the input terminals of the front impact sensors.
The most likely causes for these codes to be set are shown in the table below:

DTC	SYMPTOM
1A	• Left front impact sensor or its wiring shorted
1B	• Left front impact sensor or wiring open circuit
1C	• Short to the power supply in the left front impact sensor harness
1D	• Short to body ground in the left front impact sensor harness
2A	• Right front impact sensor or its wiring shorted
2B	• Right front impact sensor or wiring open circuit
2C	• Short to the power supply in the right front impact sensor harness
2D	• Short to body ground in the right front impact sensor harness

TROUBLESHOOTING HINTS

- Damaged harness wires and connectors
- Front impact sensor failed
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

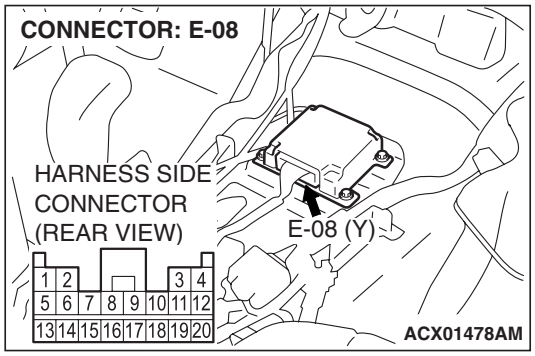
- MB992006: Extra Fine Probe
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

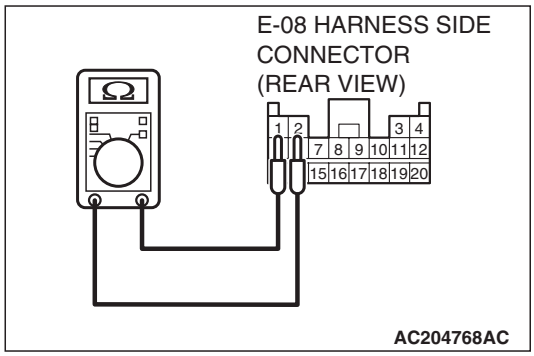
Step 1. Check the front impact sensor.
Refer to P.52B-213.

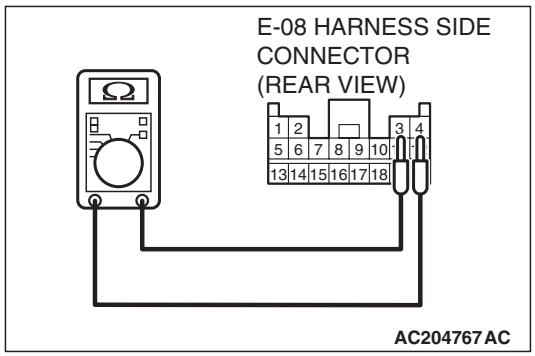
Q: Is the check result satisfactory?

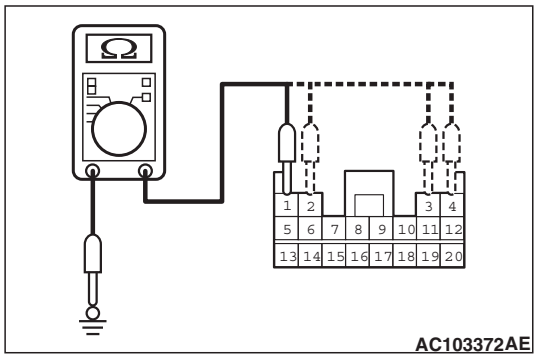
YES : Go to Step 2.
NO : Replace the front impact sensor (Refer to P.52B-211).

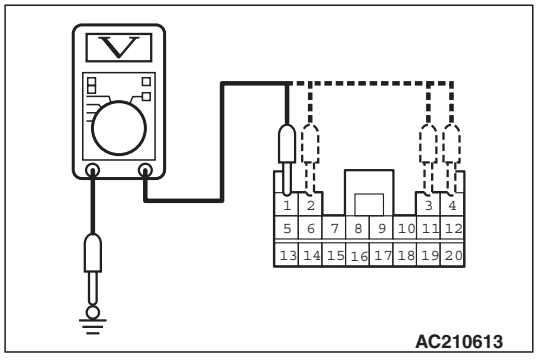
Step 2. Measure the resistance and voltage at SRS-ECU connector E-08.
(1) Disconnect SRS-ECU connector E-08.











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

(2) Take the measurements below at harness-side connector E-08.

- Resistance between terminals 1 and 2, and between 3 and 4.

  NG: 2 ohms or less (short circuit) or 2 KΩ or more (open circuit)

- Continuity between terminals 1, 2, 3, 4 and body ground

  OK: No continuity

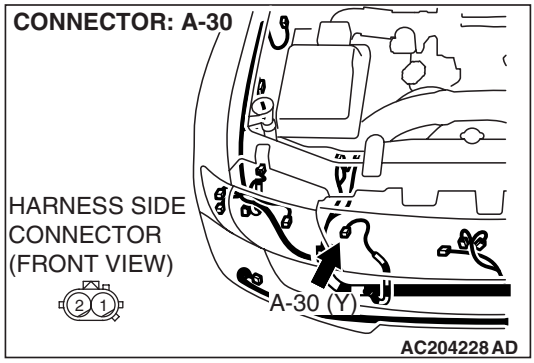
- Voltage between terminals 1, 2, 3, 4 and body ground

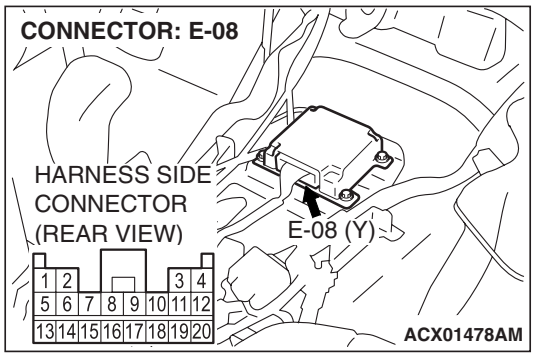
  OK: 0V

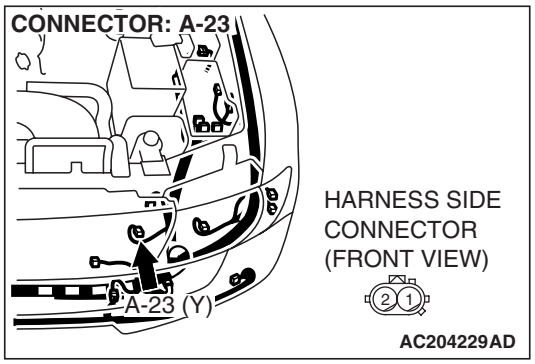
Q: Is the check result satisfactory?

YES : Go to Step 4.
NO : Go to Step 3.

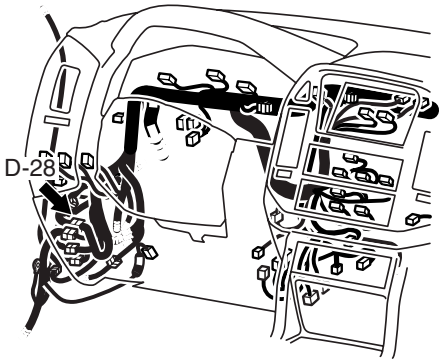
Step 3. Check the wiring harness between the right front impact sensor connector A-30 (terminal No.1 and 2) and SRS-ECU connector E-08 (terminal No.1 and 2) as well as between left front impact sensor connector A-23 (terminal No.1 and 2) and SRS-ECU connector E-08 (terminal No.3 and 4).



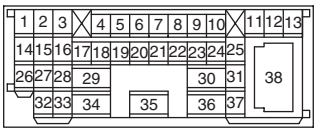




CONNECTOR : D-28



D-28



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NOTE: After inspecting intermediate connector D-28, inspect the wiring harness. If intermediate connector D-28 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 4.

- Check the front impact sensor output line for open or short circuit.

Q: Is the check result satisfactory?

YES : Go to Step 4.
NO : Repair the wiring harness.

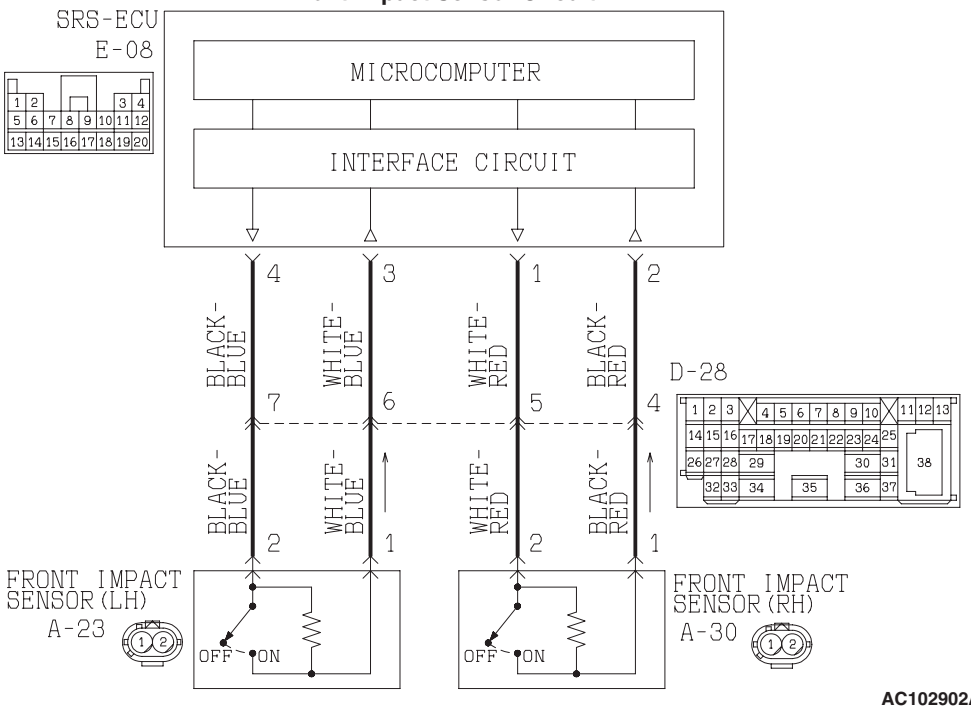
Step 4. Recheck for diagnostic trouble code.

Q: Is DTC 1A, 1B, 1C, 1D, 2A, 2B, 2C or 2D set?

YES : Replace the SRS-ECU (Refer to P.52B-215).
NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 11: Front impact sensor system circuit short
DTC 12: Front impact sensor system either circuit open or on power supply
DTC 13: Front impact sensor system detects either both are open or no power supply

Front Impact Sensor Circuit



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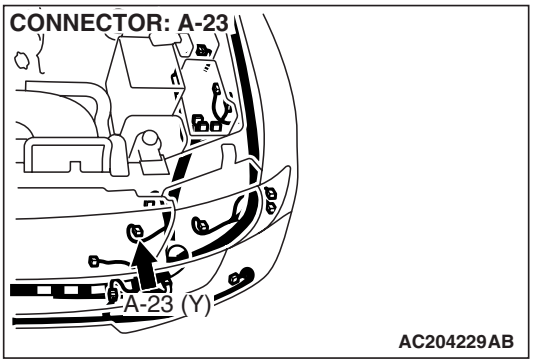

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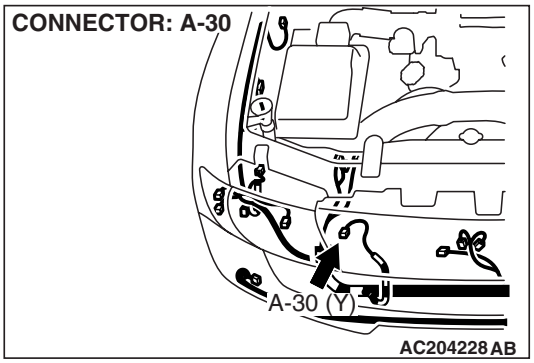

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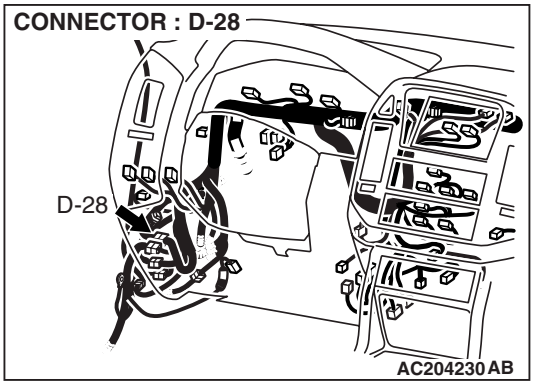

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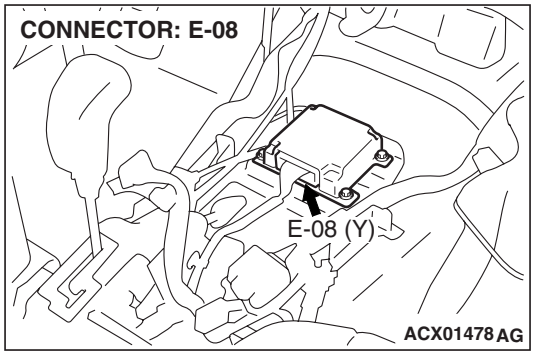

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TSB Revision

CIRCUIT OPERATION

- When the left and right front impact sensors detect a collision, the switches inside the sensors turns ON.
- SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the analog G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the safing G-sensor is on, the SRS air bag will inflate.

DTC SET CONDITIONS

These DTC are set if there is abnormal resistance between the input terminals of the front impact sensors.
The most likely causes for these codes to be set are shown in the table below:

DTC	SYMPTOM
11	• Short circuit in front impact sensor or harness • Short circuit in front impact sensor harness leading to the vehicle body ground • Short circuit in front impact sensor harness leading to the power supply
12	• Open circuit in either left or right from impact sensor or harness • Short circuit in front impact sensor harness leading to the power supply
13	• Open circuit in both left and right front impact sensor or harness • Short circuit in front impact sensor harness leading to the power supply

TROUBLESHOOTING HINTS

- Malfunction of the front impact sensor
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

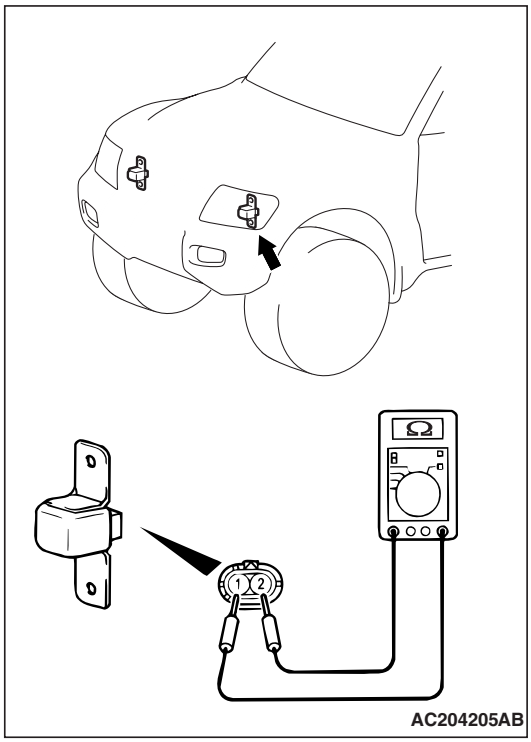
Required Special Tools:

- MB992006: Extra Fine Probe
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

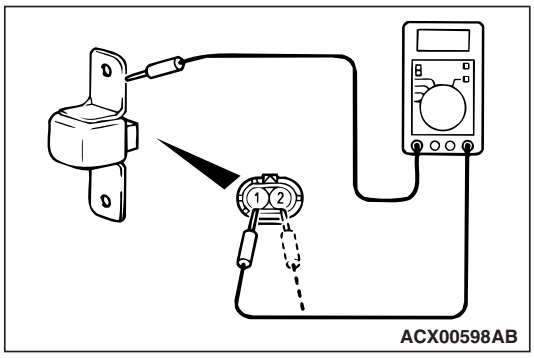
STEP 1. Check the front impact sensor.

(1) Measure the resistance between terminals and check whether it is within the standard value.

Standard value: 820 ± 82 Ω



(2) Check for continuity between the terminal and bracket. There should be no continuity.

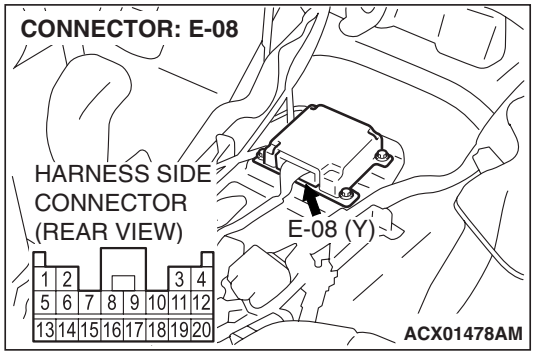


Q: Does the resistance meet the value above, and is there continuity?

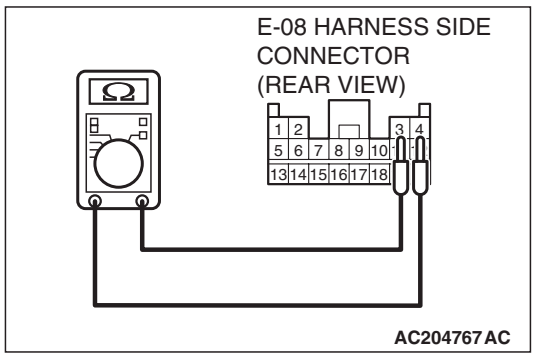
YES : Go to Step 2.

NO : Replace front impact sensor (Refer to P.52B-211).

STEP 2. Check the front impact sensor (LH) circuit at SRS-ECU connector E-08.



(1) Disconnect SRS-ECU connector E-08 and measure at the harness side (rear side).



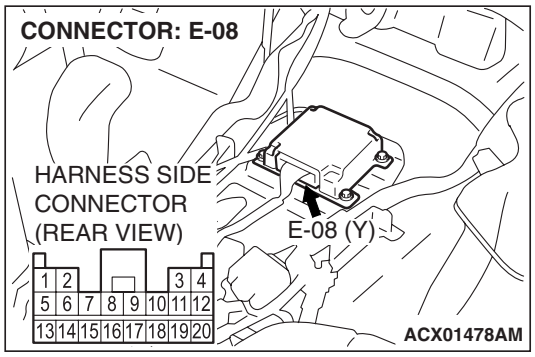
(2) Measure the resistance between terminal 3 and terminal 4. Resistance should be 820 ± 82 Ω

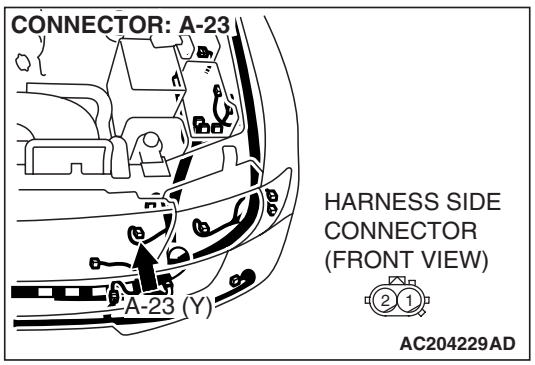
Q: Does the resistance meet the value above?

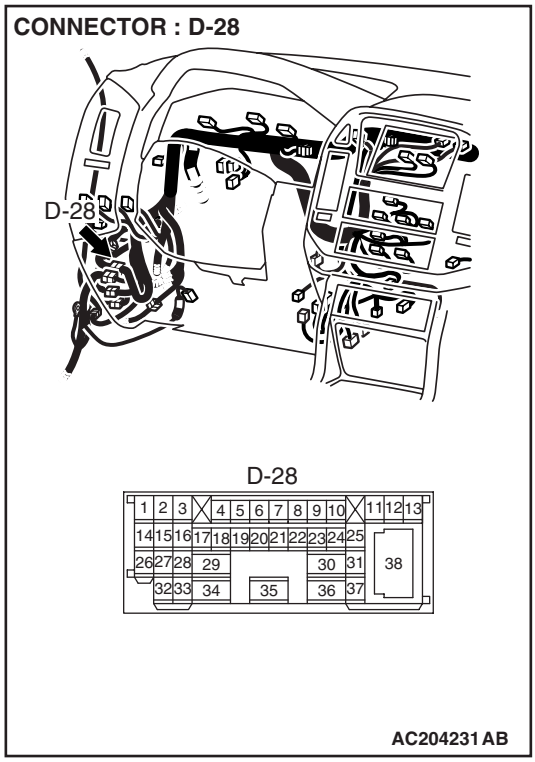
YES : Go to Step 4.

NO : Go to Step 3.

STEP 3. Check the harness wires between SRS-ECU connector E-08 (terminal No.3 and 4) and front impact sensor (LH) connector A-23 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector D-28, inspect the wiring harness. If the intermediate connector D-28 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 6.

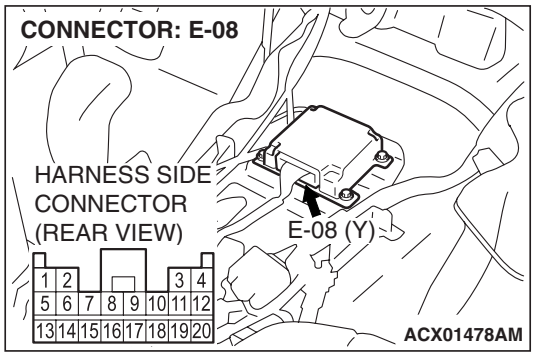
Q: Are harness wires between SRS-ECU connector E-08 (terminal No.3 and 4) and front impact sensor (LH) connector A-23 (terminal No.1 and 2) in good condition?

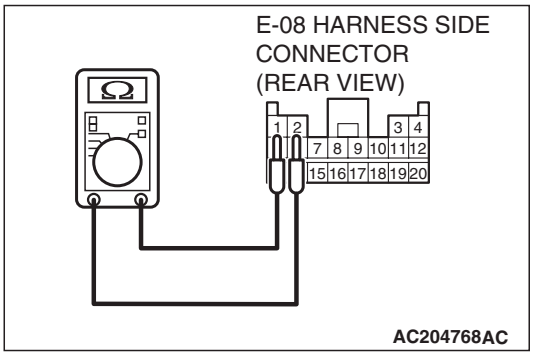
YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector E-08 and front impact sensor (LH) connector A-23. Then go to Step 6.

STEP 4. Check the front impact sensor (RH) circuit at SRS-ECU connector E-08.

(1) Disconnect SRS-ECU connector E-08 and measure at the harness side (rear side).





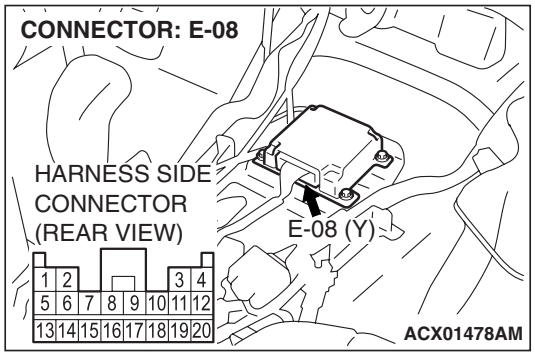
(2) Resistance between terminal 1 and terminal 2.
Resistance should be 820 ± 82 Ω

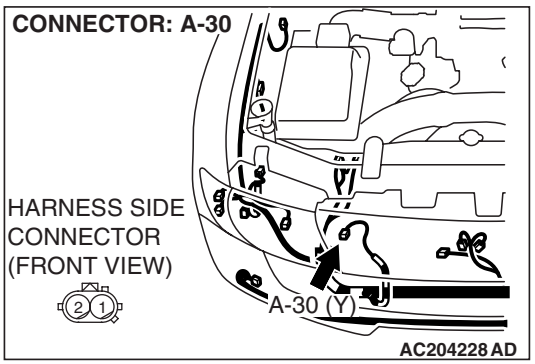
Q: Does the resistance meet the value above?

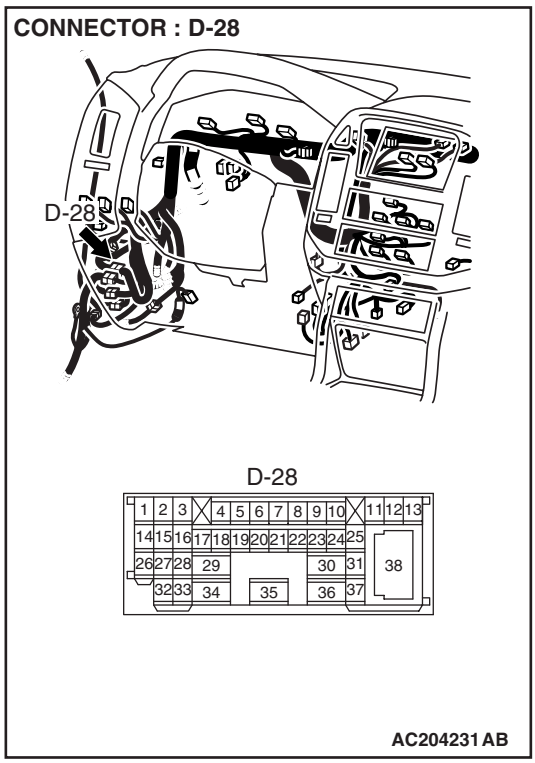
YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 11, 12 or 13 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check the harness wires between SRS-ECU connector E-08 (terminal No.1 and 2) and front impact sensor (RH) connector A-30 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector D-28, inspect the wiring harness. If intermediate connector D-28 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 6.

Q: Are harness wires between SRS-ECU connector E-08 (terminal No.1 and 2) and front impact sensor (RH) connector A-30 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector E-08 and front impact sensor (RH) connector A-30. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

Q: Is any of DTC 11, 12 or 13 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 14: Analog G-Sensor System in the SRS-ECU
DTC 15: Safing G-Sensor Short Circuit
DTC 16: Safing G-Sensor Open Circuit
DTC 17: Safing G-Sensor for Side-AirBag Faults
DTC 31: SRS-ECU Capacitor Circuit Voltage too High
DTC 32: SRS-ECU Capacitor Circuit Voltage too Low
DTC 45: SRS-ECU Non-Volatile Memory (EEPROM) and A/D Converter System
DTC 51: Driver's Air Bag Module (Squib Ignition Drive Circuit) System Detected Short Circuit
DTC 52: Driver's Air Bag Module (Squib Ignition Drive Circuit) System Detected Open Circuit
DTC 54: Passenger's (Front) Air Bag Module (Squib Ignition Drive Circuit) System Detected Short Circuit
DTC 55: Passenger's (Front) Air Bag Module (Squib Ignition Drive Circuit) System Detected Open Circuit
DTC 56: Driver's Seat Belt Pre-tensioner (Squib Ignition Drive Circuit) System Detected Short Circuit
DTC 57: Driver's Seat Belt Pre-tensioner (Squib Ignition Drive Circuit) System Detected Open Circuit
DTC 58: Passenger's (Front) Seat Belt Pre-tensioner (Squib Ignition Drive Circuit) System Detected Short Circuit
DTC 59: Passenger's (Front) Seat Belt Pre-tensioner (Squib Ignition Drive Circuit) System Detected Open Circuit
DTC 73: Right Hand Side-Airbag Module (Squib) System Detected Short Circuit
DTC 74: Right Hand Side-Airbag Module (Squib) System Detected Open Circuit
DTC 83: Left Hand Side-Airbag Module (Squib) System Fault 3 for Ignition Drive Circuit
DTC 84: Left Hand Side-Air Bag Module (Squib) System Fault 4 for Ignition Drive Circuit

DTC SET CONDITIONS

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

CODE NO.	DEFECTIVE PART	SYMPTOM
14	Analog G-sensor	• When the analog G-sensor is not operating • When the characteristics of the analog G-sensor are abnormal • When the output from the analog G-sensor is abnormal
15	Safing G-sensor (front air bag)	• Short circuit in the safing G-sensor
16		• Open circuit in the safing G-sensor
17	Safing G-sensor (side-airbag)	• When the safing G-sensor is not operating • When the characteristics of the safing G-sensor are abnormal • When the output from the safing G-sensor is abnormal

TSB Revision

CODE NO.	DEFECTIVE PART	SYMPTOM
31	Capacitor	• Voltage at the capacitor terminal is higher than the specified value for five seconds or more
32		• Voltage at the capacitor terminal is lower than the specified value for five seconds or more (This is not detected if DTC No.41 or 42 indicating battery positive voltage drop has been output).
45	Non-volatile memory (EEPROM) and A/D converter	• When the non-volatile memory (EEPROM) and A/D converter system are abnormal
51	Driver's air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
52		• Open circuit in the squib ignition drive circuit
54	Front passenger's air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
55		• Open circuit in the squib ignition drive circuit
56	Driver’s seat belt pre-tensioner (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
57		• Open circuit in the squib ignition drive circuit
58	Front passenger's seat belt pre-tensioner (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
59		• Open circuit in the squib ignition drive circuit
73	Side-airbag module (RH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
74		• Open circuit in the squib ignition drive circuit
83	Side-airbag module (LH) (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
84		• Open circuit in the squib ignition drive circuit

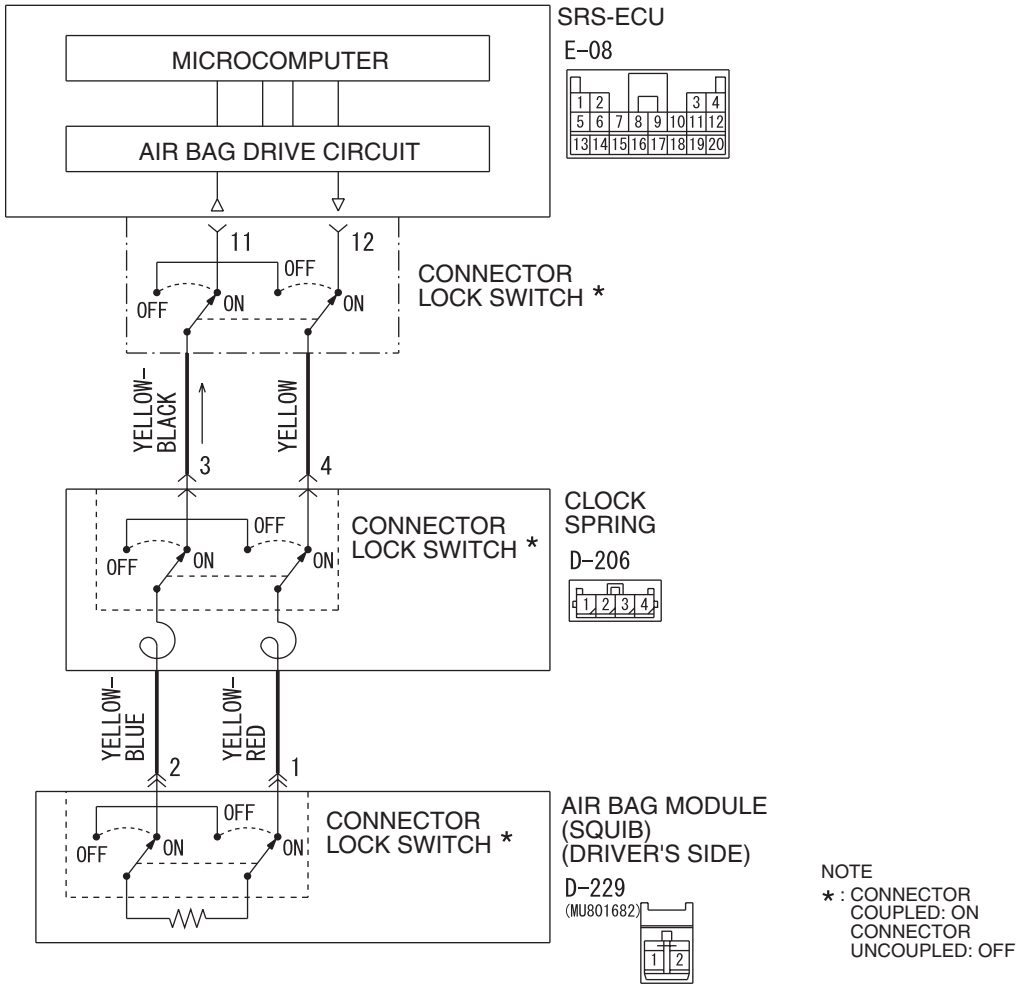
TROUBLESHOOTING HINTS
Malfunction of the SRS-ECU.

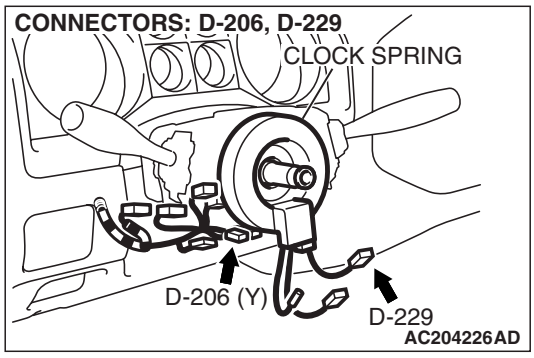
DIAGNOSIS
Replace the SRS-ECU (Refer to P.52B-215).

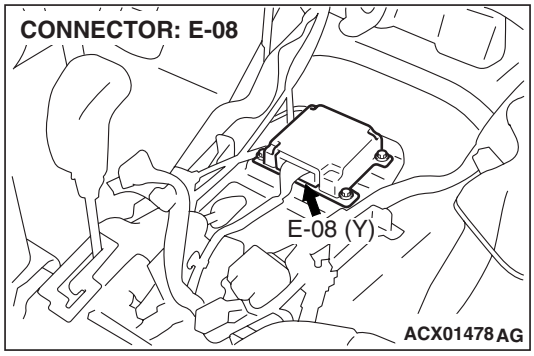
TSB Revision

DTC 21: Driver's Air Bag Module (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Driver's Air Bag Module (Squib) Circuit







TSB Revision

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 outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's side air bag module (squib). The most likely causes for this code to be set the followings:

- Short circuit in driver’s air bag module (squib) or harness
- Short circuit in the clock spring

However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

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-20). Therefore, if connector E-08, D-206 or D-229 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

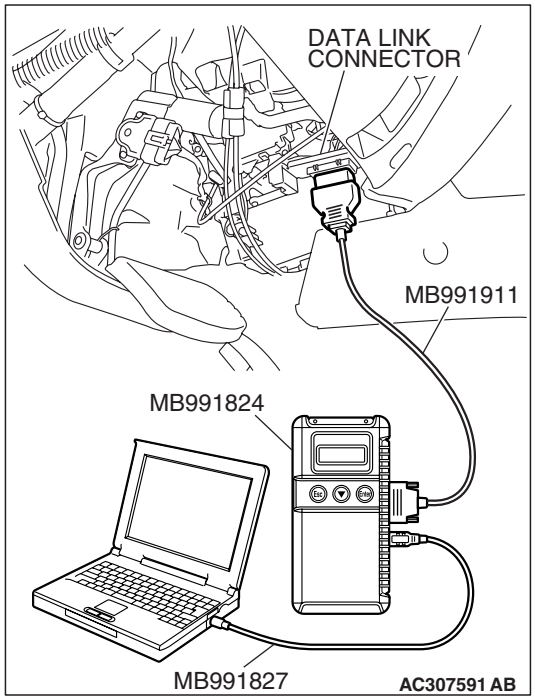
Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, read the diagnostic trouble code.

Q: Is DTC 34 set?

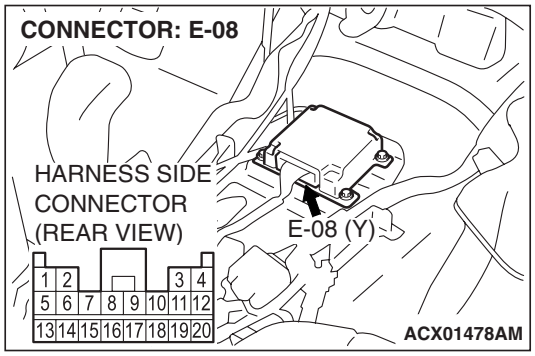
YES : Go to Step 2.
NO : Go to Step 3.

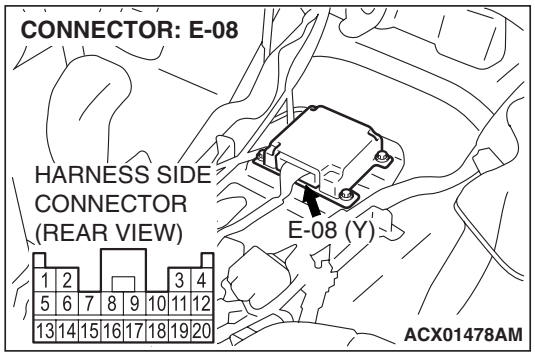


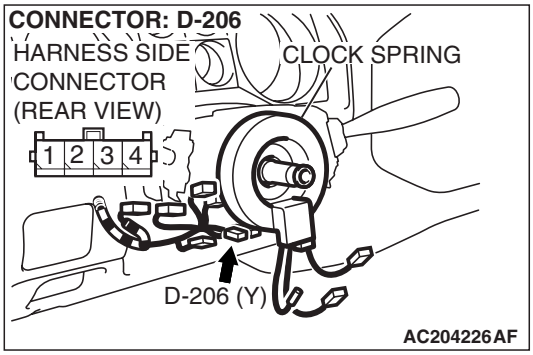
STEP 2. Check SRS-ECU connector E-08.

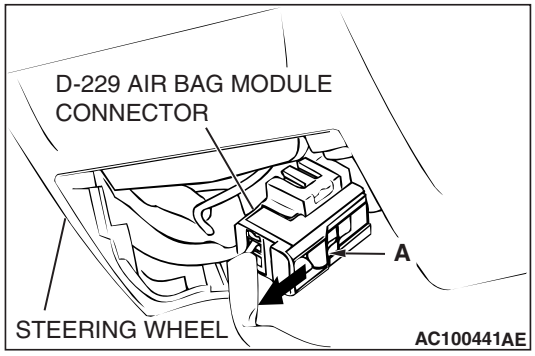
Q: Is the connector correctly engaged?

YES : Go to Step 3.
NO : Engage the connector correctly. Then go to Step 8.









STEP 3. Check SRS-ECU connector E-08, clock spring connector D-206 and driver's airbag module connector D-229 (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.
(2) Disconnection connectors E-08, D-206 and D-229, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

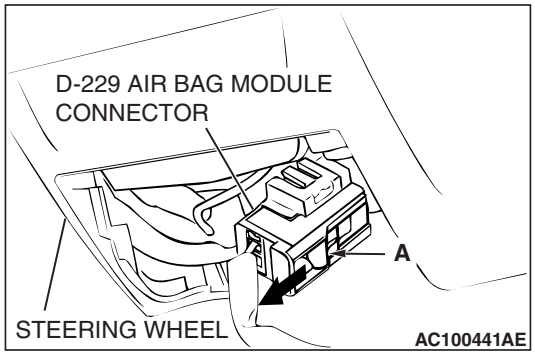
Q: Is DTC 21 set?

YES : Go to Step 4.
NO : The procedure is complete (It is assumed that DTC 21 set as connector E-08, D-206 or D-229 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.

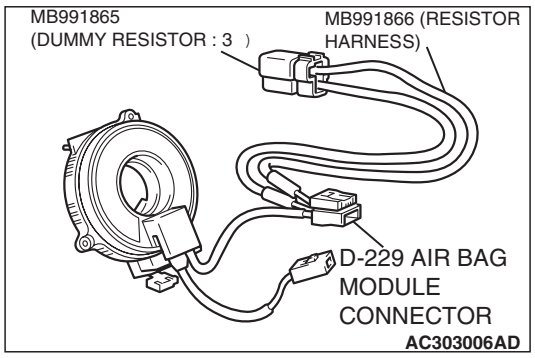
(2) By sliding the A section (in the figure) of air bag module connector D-229 in the arrow direction, disconnect the connector.



(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 air bag module connector D-229 by backprobing.

(5) Connect the negative battery terminal.

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

Q: Is DTC 21 set?

YES : Go to Step 5.

NO : Replace the driver's air bag module (Refer to P.52B-217). Then go to Step 8.

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

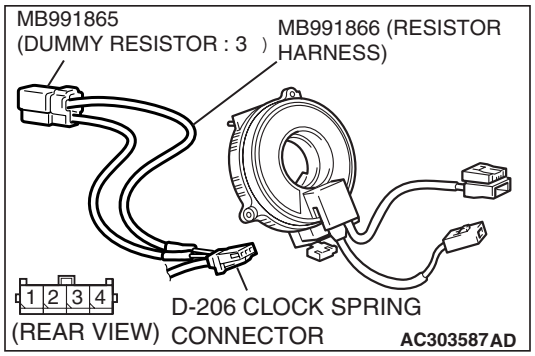
(1) Disconnect the negative battery terminal.

(2) Disconnect the clock spring connector D-206.

(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 connector D-206 (terminal No.3 and 4) by backprobing.

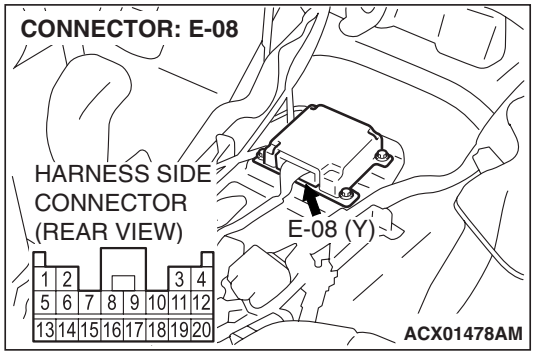
(5) Connect the negative battery terminal.

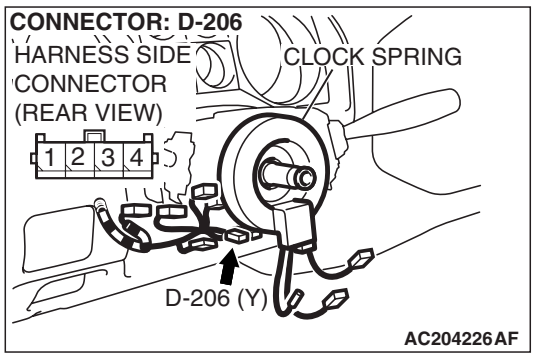
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

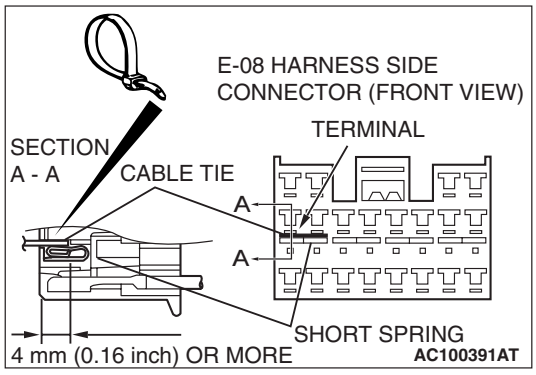
Q: Is DTC 21 set?

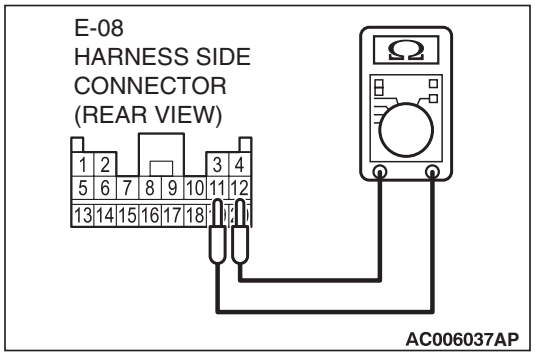
YES : Go to Step 6.

NO : Replace the clock spring (Refer to P.52B-217). Then go to Step 8.









STEP 6. Check harness between the SRS-ECU and the clock spring for short circuit.

(1) Disconnect SRS-ECU connector E-08.

⚠ ***DANGER***

To prevents the air bag from deploying unintentionally, disconnect the clock spring connector D-206 to short the squib circuit.

(2) Disconnect the clock spring connector D-206.

⚠ **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 cable tie release.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 11, 12 and the short spring to release the short spring.

⚠ **CAUTION**

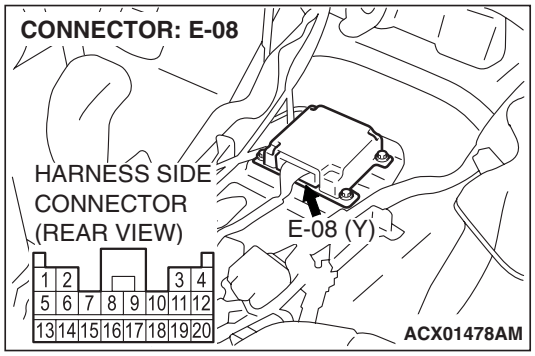
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

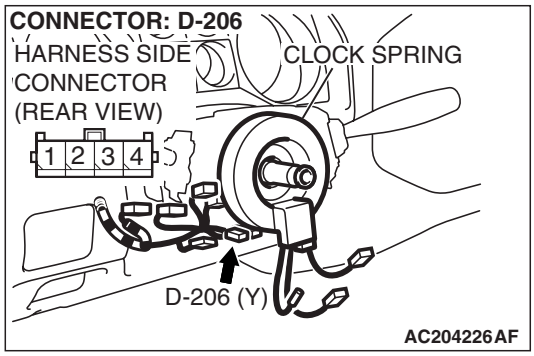
(4) Check for continuity between E-08 harness connector terminals 11 and 12.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 7.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 21 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 8.





STEP 7. Check the harness for short circuit between SRS-ECU connector E-08 (terminal No.11 and 12) and clock spring connector D-206 (terminal No.3 and 4).

Q: Are harness wires between SRS-ECU connector E-08 (terminal No.11 and 12) and clock spring connector D-206 (terminal No.3 and 4) in good condition?

YES : Go to Step 8.

NO : Repair the harness wires between SRS-ECU connector E-08 and clock spring connector D-206. Then go to Step 8.

STEP 8. Recheck for diagnostic trouble code.

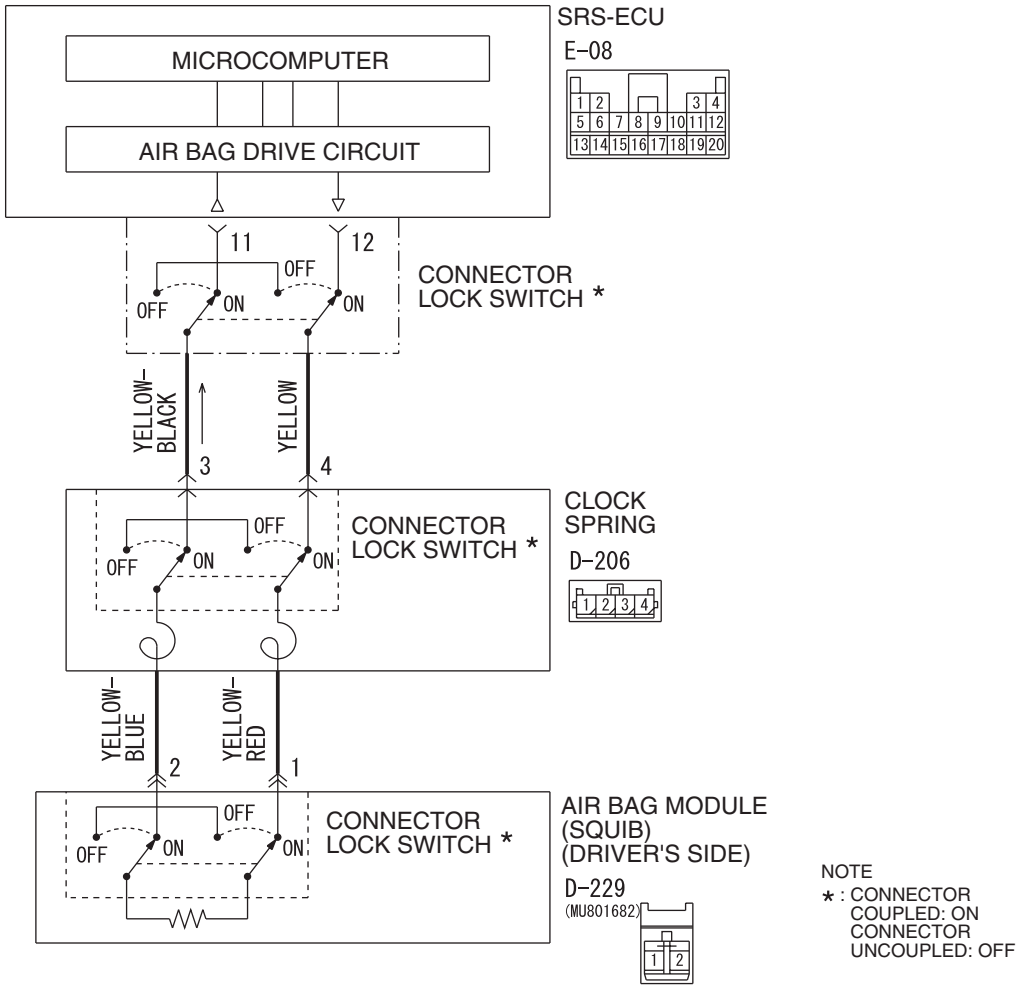
Q: Is DTC 21 set?

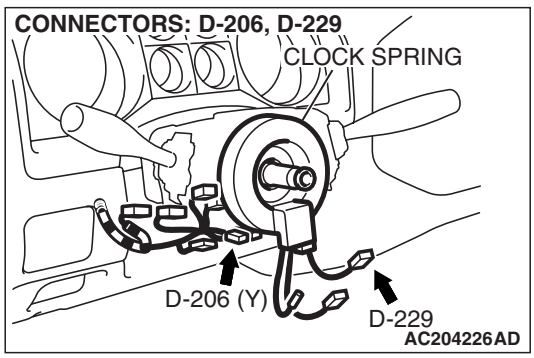
YES : Return to Step 1.

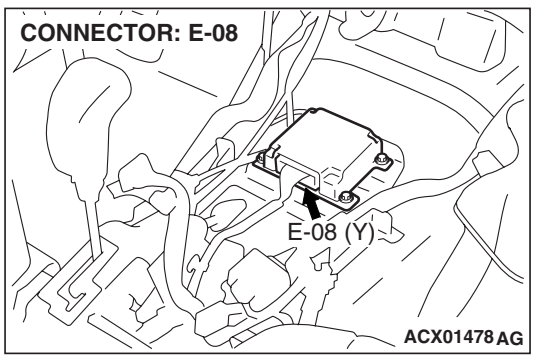
NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 22: Driver's Air Bag Module (Squib) System Fault 2 (Open in the Squib Circuit)

Driver's Air Bag Module (Squib) Circuit







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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 outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's side 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

However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

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

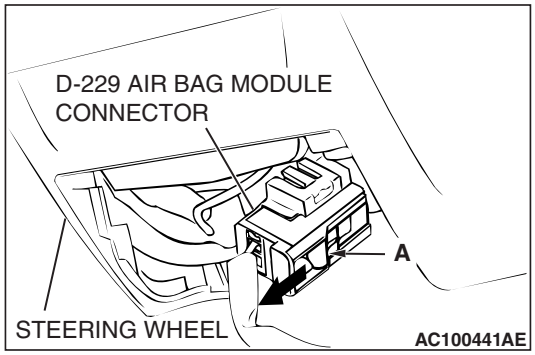
DIAGNOSIS

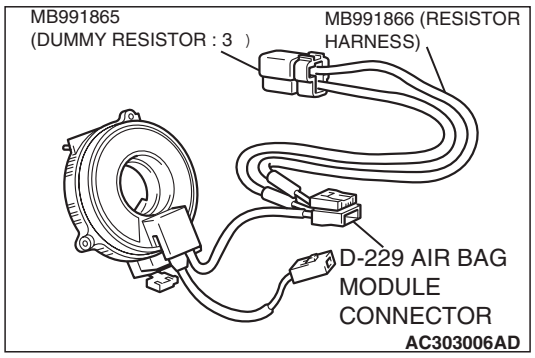
Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the driver's air bag module (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.
(2) By sliding the A section (in the figure) of air bag module connector D-229 in the arrow direction, 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.

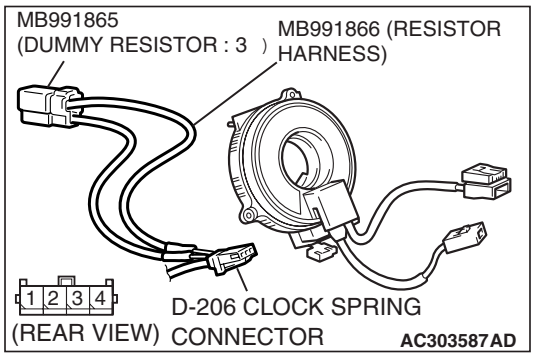
(4) Insert special tool MB991866 into clock spring side air bag module connector D-229 by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC 22 set?

YES : Go to Step 2.
NO : Replace the driver's air bag module (Refer to P.52B-217). Then go to Step 4.

STEP 2. Check the clock spring (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.
(2) Disconnect clock spring connector D-206.
(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.

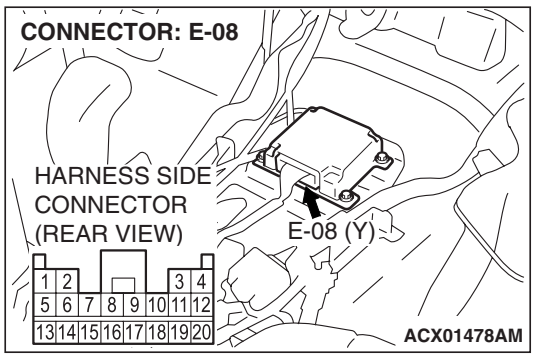
(4) Insert special tool MB991866 into clock spring harness connector D-206 (terminal No.3 and 4) by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check diagnostic trouble code.

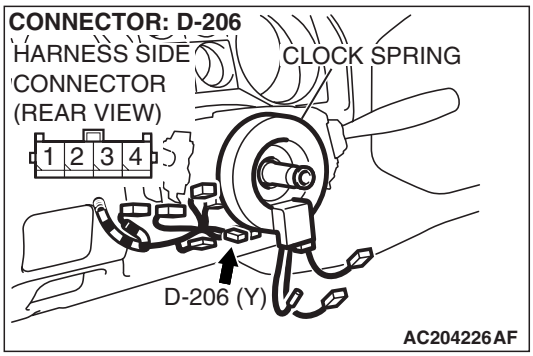
Q: Is DTC 22 set?

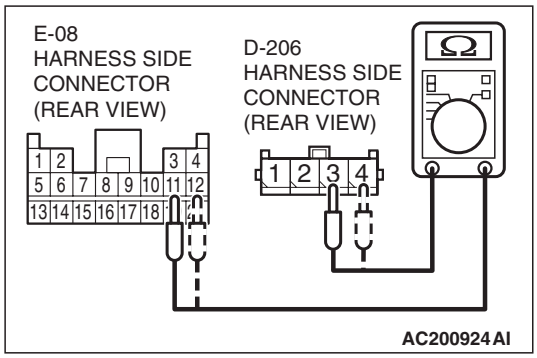
YES : Go to Step 3.
NO : Replace the clock spring (Refer to P.52B-217). Then go to Step 4.

STEP 3. Check the harness between the SRS-ECU connector E-08 (terminal No.11 and 12) and the clock spring connector D-206 (terminal No.3 and 4) for open circuit.

(1) Disconnect SRS-ECU connector E-08 and clock spring connector D-206, 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 the following terminals.
- Between connector E-08 terminal 11 and connector D-206 terminal 3
- Between connector E-08 terminal 12 and connector D-206 terminal 4

(3) It should be less than 2 ohms.

Q: Does continuity exist?

YES : Eras the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 22 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-08 and clock spring connector D-206. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Q: Is DTC 22 set?

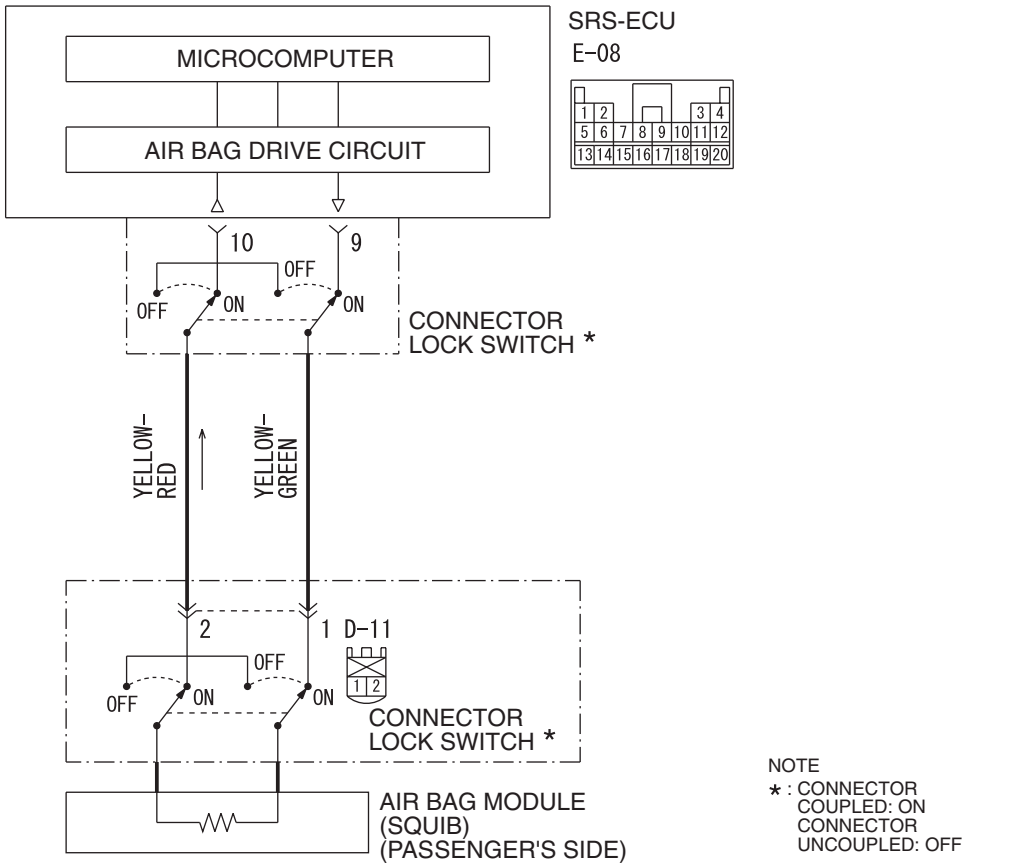
YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

TSB Revision

DTC 24: Passenger's (Front) Air Bag Module (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

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



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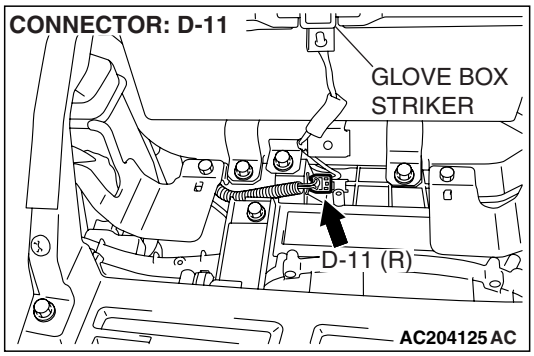
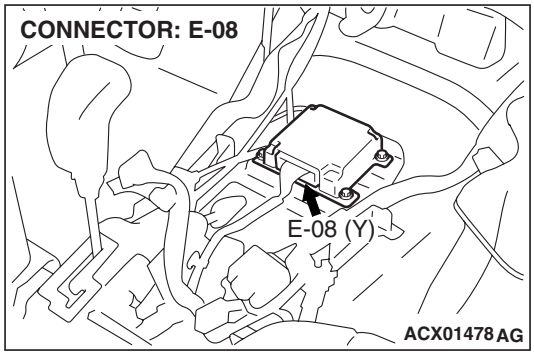




CIRCUIT OPERATION

- 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 outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via 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 air bag module (squib). However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

TSB Revision

TROUBLESHOOTING HINTS

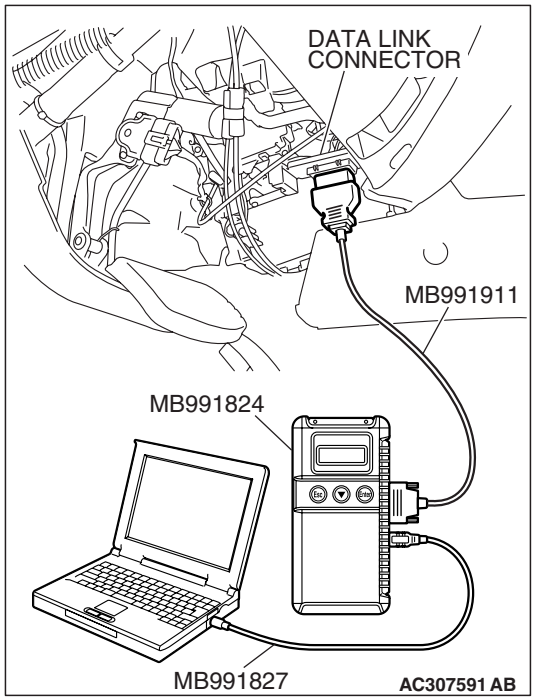
- Improper engaged connector or defective short spring*
- Short circuit between the passenger's air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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-3). Therefore, if connector E-08 or D-11 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

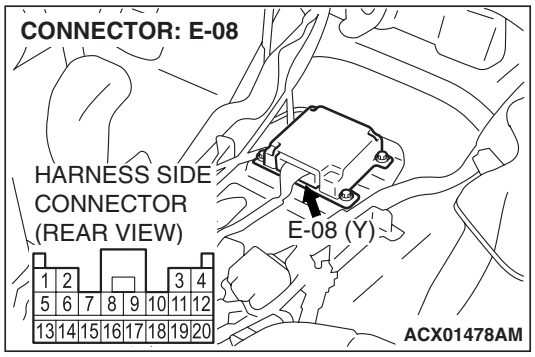
Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness



STEP 1.Using scan tool MB991958, read the diagnostic trouble code.
Q: Is DTC 34 set?

YES : Go to Step 2.
NO : Go to Step 3.

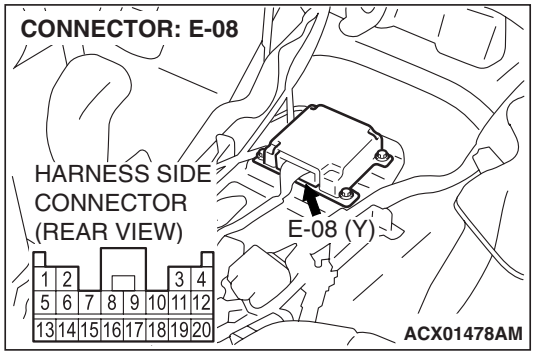


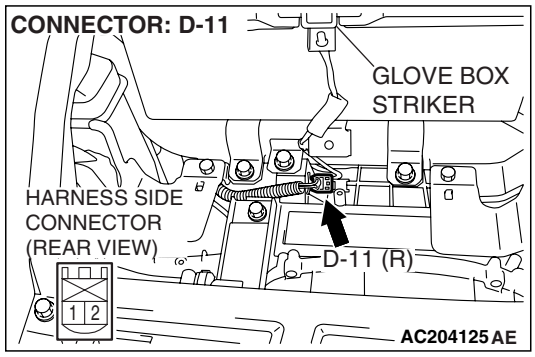
STEP 2. Check SRS-ECU connector E-08.

Q: Is the connector correctly engaged?

YES : Go to Step 3.

NO : Engage the connector correctly. Then go to Step 7.





STEP 3. Check SRS-ECU connector E-08 and passenger's air bag module connector D-11 (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors E-08 and D-11, 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 24 set?

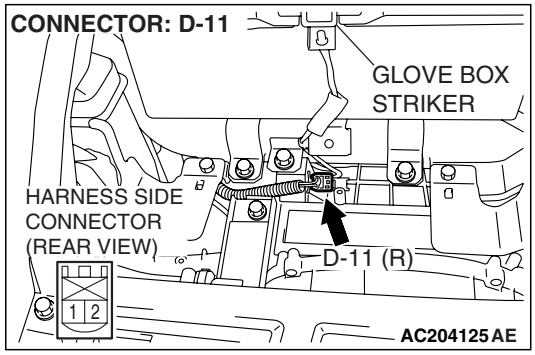
YES : Go to Step 4.

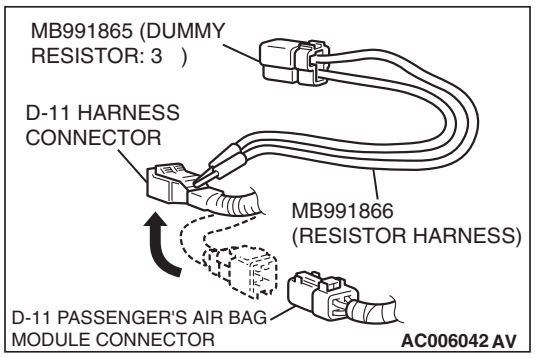
NO : The procedure is complete (It is assumed that DTC 24 set as connector E-08 or D-11 was engaged improperly).

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

(1) Disconnect the negative battery terminal.

(2) Unclip passenger's air bag module connector D-11.





(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) Disconnect the passenger's air bag module connector D-11, and insert special tool MB991866 into the harness connector by backprobing.

(5) Connect the negative battery terminal.

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

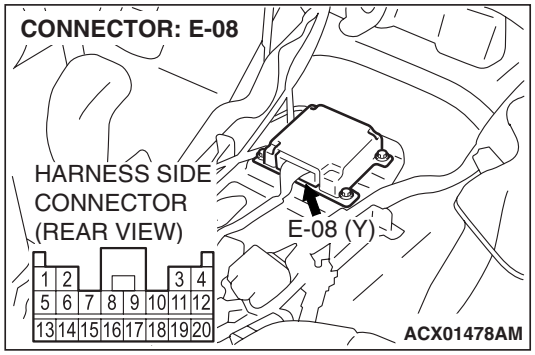
Q: Is DTC 24 set?

YES : Go to Step 5.

NO : Replace the passenger's air bag module (Refer to P.52B-217). Then go to Step 7.

STEP 5. Check the harness for short circuit between SRS-ECU and the passenger's air bag module.

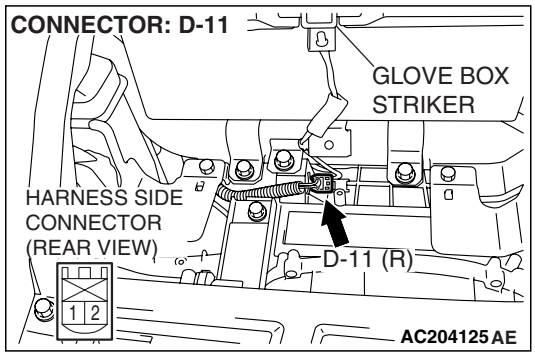
(1) Disconnect SRS-ECU connector E-08.



(2) Unclip passenger's air bag module connector D-11.

⚠ *DANGER*

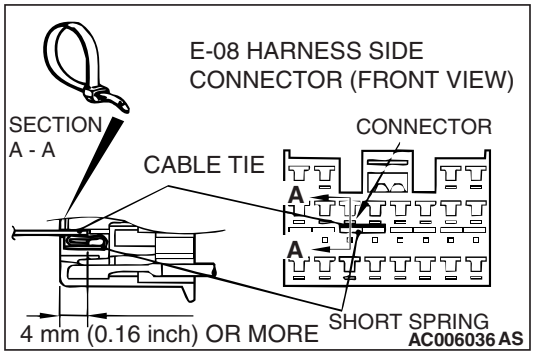
To prevents the air bag from deploying unintentionally, disconnect the passenger's air bag module connector D-11 to short the squib circuit.



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

⚠ CAUTION

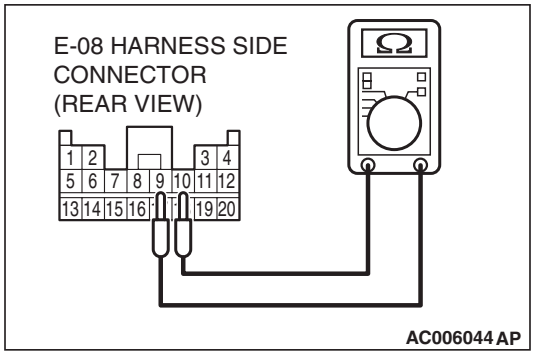
Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not cable tie release.



(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 9, 10 and the short spring to release the short spring.

⚠ CAUTION

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

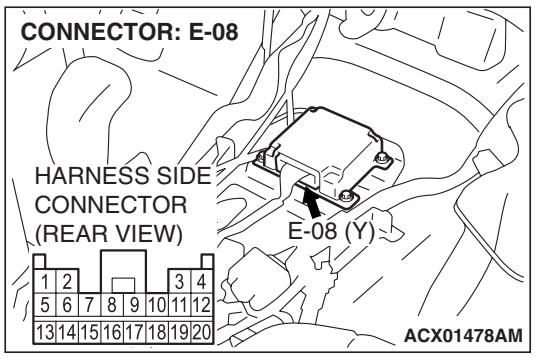


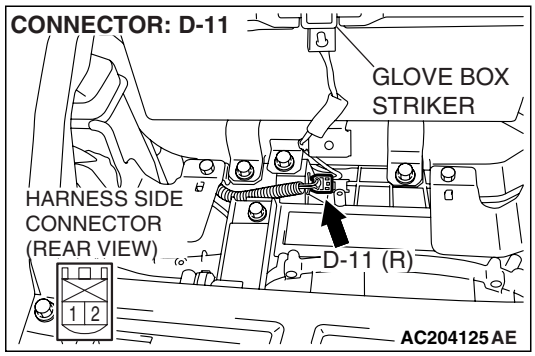
(5) Check for continuity between E-08 harness connector terminals 9 and 10.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

NO : Eras the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 24 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 7.





STEP 6. Check the harness for short circuit between SRS-ECU connector E-08 (terminal No.9 and 10) and passenger's side air bag module connector D-11 (terminal No.1 and 2).

Q: Are harness wires between SRS-ECU connector E-08 (terminal No.9 and 10) and passenger's side air bag module connector D-11 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector E-08 and passenger's side air bag module connector D-11. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

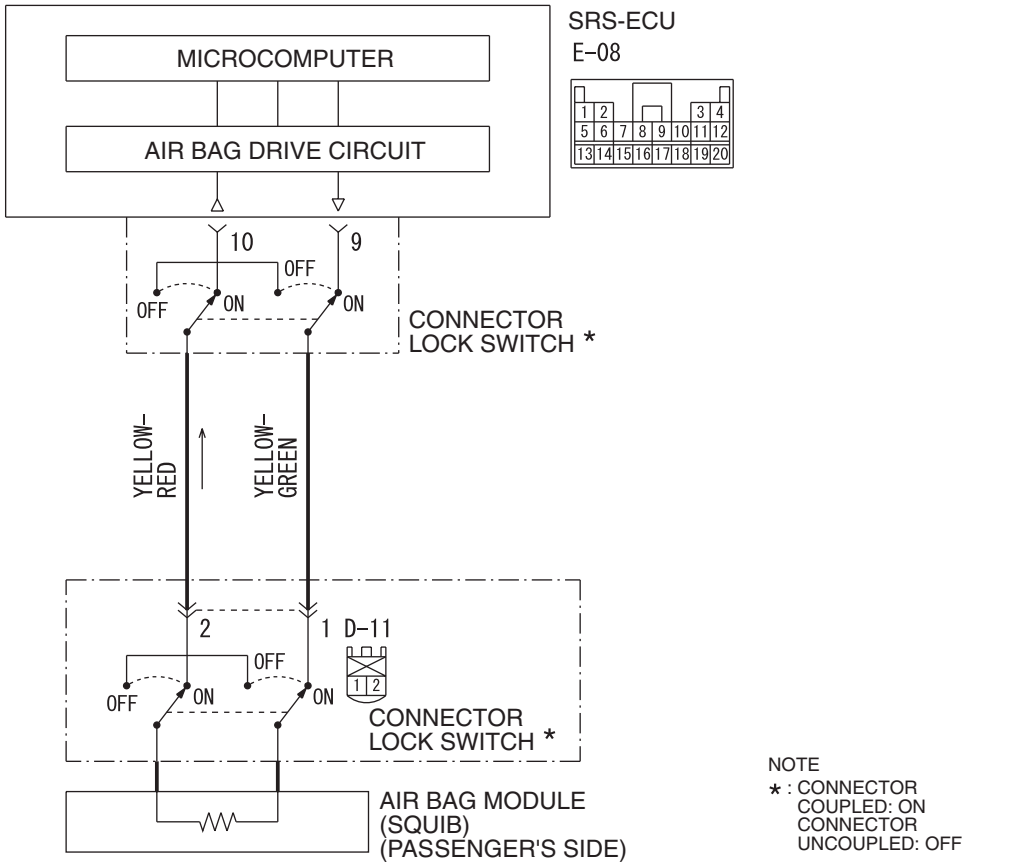
Q: Is DTC 24 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 25: Passenger's (Front) Air Bag Module (Squib) System Fault 2 (Open in the Squib Circuit)

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



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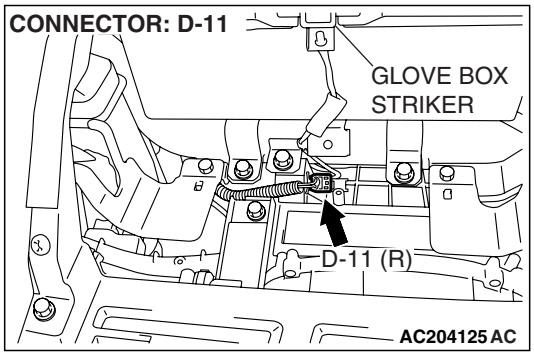
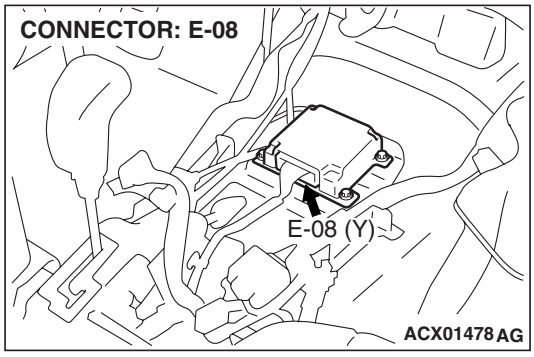




CIRCUIT OPERATION

- 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 outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via 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 air bag module (squib). The most likely causes for this code to be set are shown in the table below: However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

TSB Revision

TROUBLESHOOTING HINTS

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

DIAGNOSIS

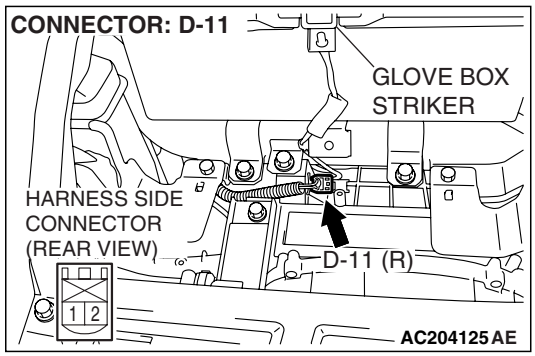
Required Special Tools:

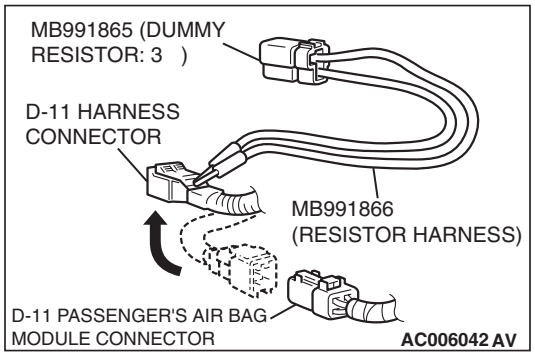
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the passenger's air bag module (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.

(2) Unclip passenger's air bag module connector D-11.





(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) Disconnect the passenger's air bag module connector D-11, and insert special tool MB991866 into the harness connector by backprobing.

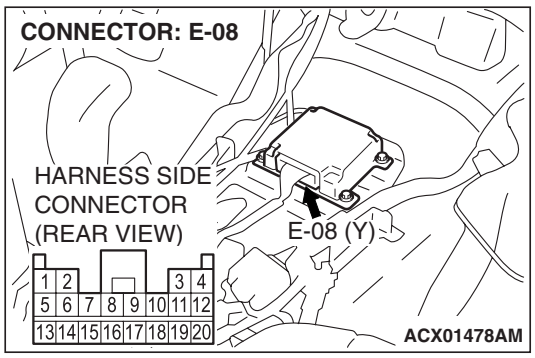
(5) Connect the negative battery terminal.

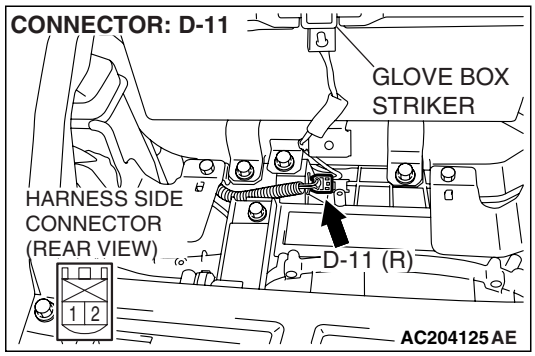
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

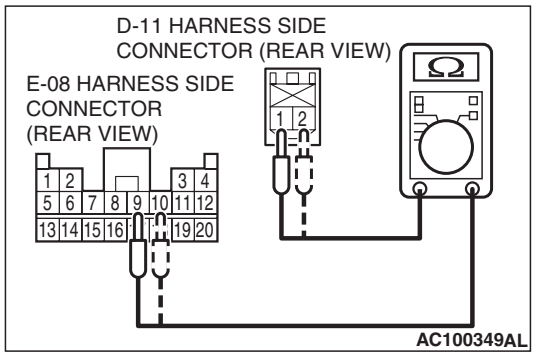
Q: Is DTC 25 set?

YES : Go to Step 2.

NO : Replace the passenger's air bag module (Refer to P.52B-217). Then go to Step 3.







STEP 2. Check the harness for open circuit between SRS-ECU connector E-08 (terminal No.9 and 10) and the passenger's side air bag module connector D-11 (terminal No.1 and 2).

(1) Unclip passenger's air bag module connector D-11.
(2) Disconnect SRS-ECU connector E-08 and passenger's air bag module connector D-11.

⚠ 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.
- Between connector E-08 terminal 9 and connector D-11 terminal 1
- Between connector E-08 terminal 10 and connector D-11 terminal 2

(4) It should be less than 2 ohms.

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 25 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector E-08 and passenger's side air bag module connector D-11. Then go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Q: Is DTC 25 set?

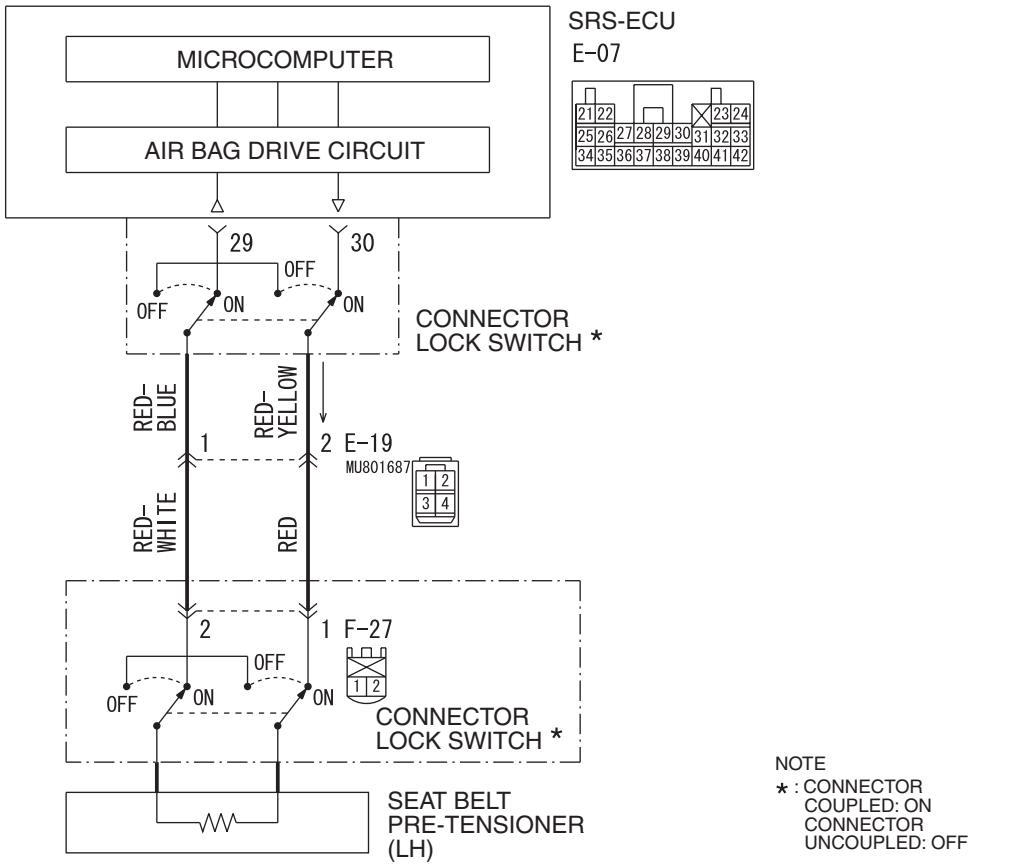
YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

TSB Revision

DTC 26: Driver's Seat Belt Pre-tensioner (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Driver's Seat Belt Pre-tensioner (Squib)



NOTE
* : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF

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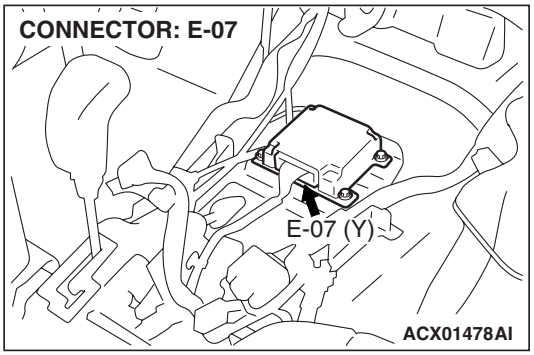

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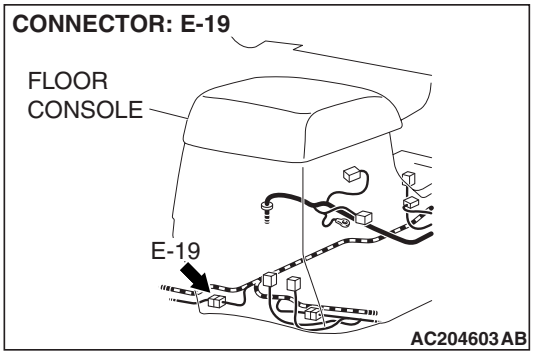

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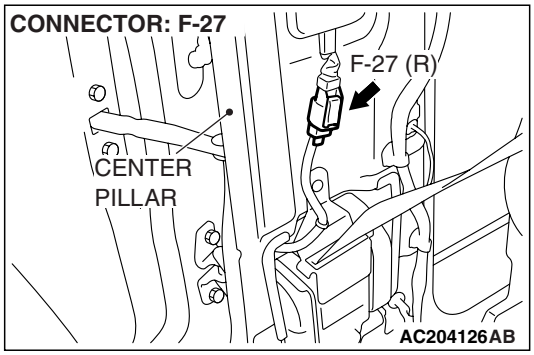
TSB Revision



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 outputs 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 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 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-3). Therefore, if connector E-07 or F-27 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

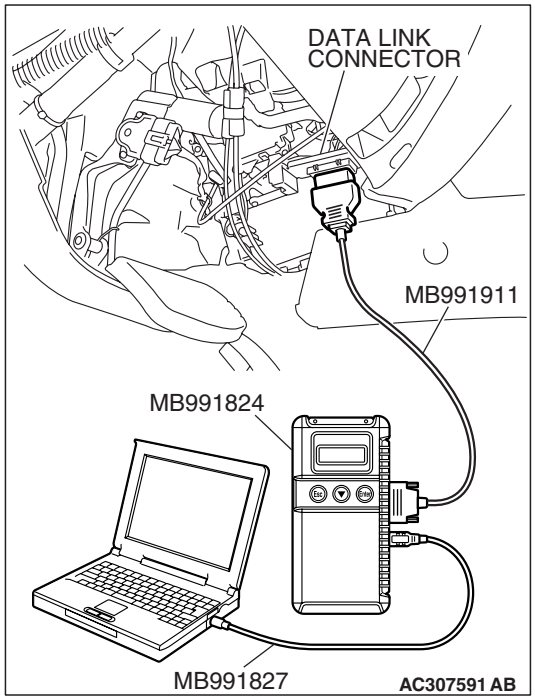
Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, read the diagnostic trouble code.

Q: Is DTC 34 set?

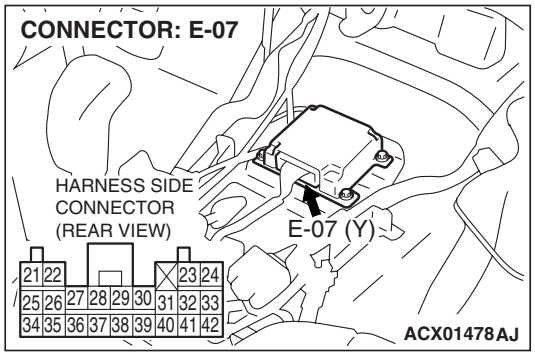
YES : Go to Step 2.
NO : Go to Step 4.

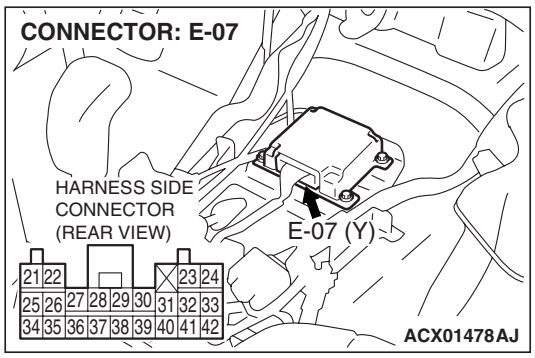


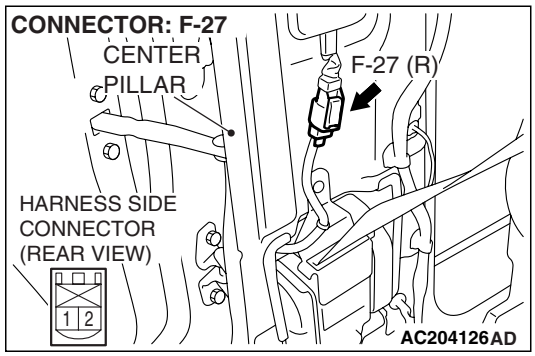
STEP 2. Check the SRS-ECU connector E-07.

Q: Is the connector correctly engaged?

YES : Go to Step 3.
NO : Engage the connector correctly. Then go to Step 7.







STEP 3. Check SRS-ECU connector E-07 and driver's seat belt pre-tensioner connector F-27 (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.
(2) Disconnection connectors E-07 and F-27, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

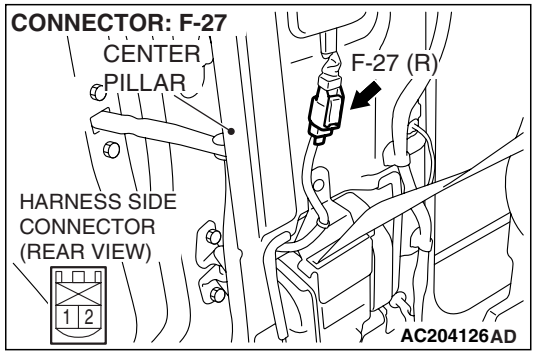
Q: Is DTC 26 set?

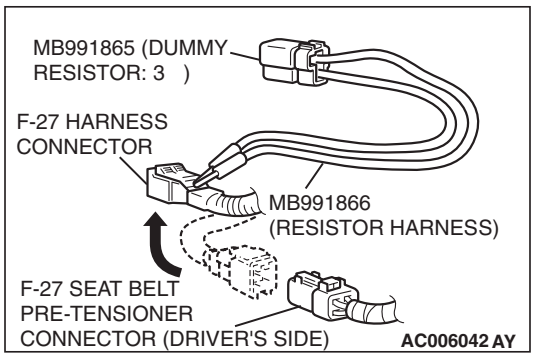
YES : Go to Step 4.
NO : The procedure is complete (It is assumed that DTC 26 set as connector E-07 or F-27 was engaged improperly).

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 the driver's seat belt pretensioner connector F-27.





(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 harness connector by backprobing.

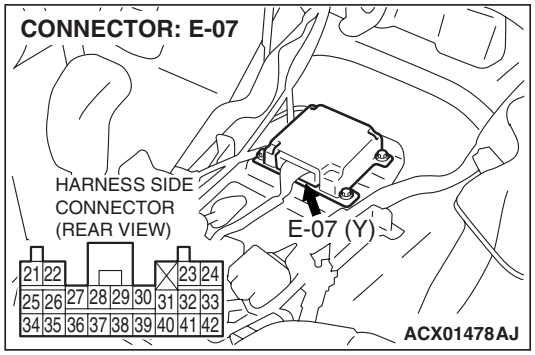
(5) Connect the negative battery terminal.

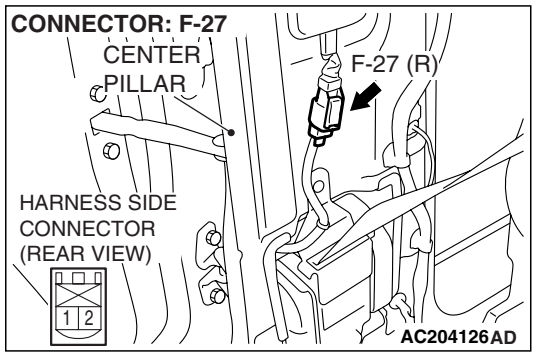
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

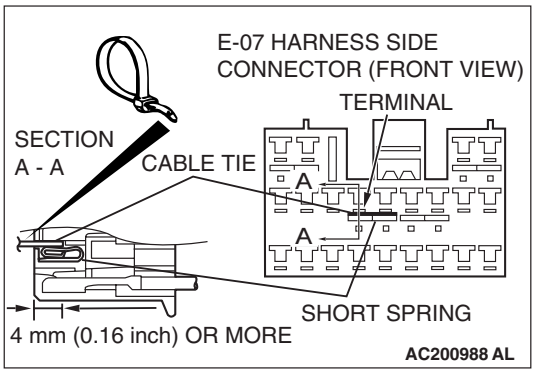
Q: Is DTC 26 set?

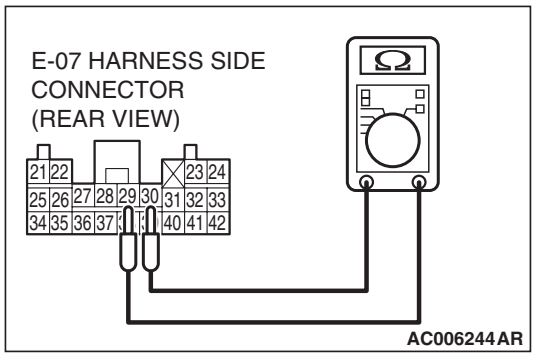
YES : Go to Step 5.

NO : Replace the driver's seat belt pre-tensioner (Refer to P.52B-228). Then go to Step 7.









STEP 5. Check the driver's side seat belt pretensioner circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.

⚠ ***DANGER***

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector F-27 to short the squib circuit.

(2) Disconnect driver's seat belt pretensioner connector F-27.

⚠ **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 29, 30 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.

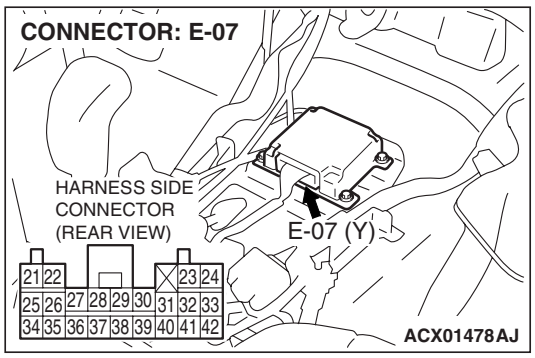
(4) Check for continuity between E-07 harness connector terminals 29 and 30.
It should be open circuit.

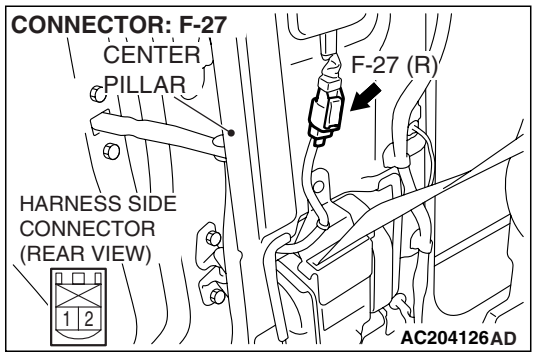
Q: Does continuity exist?

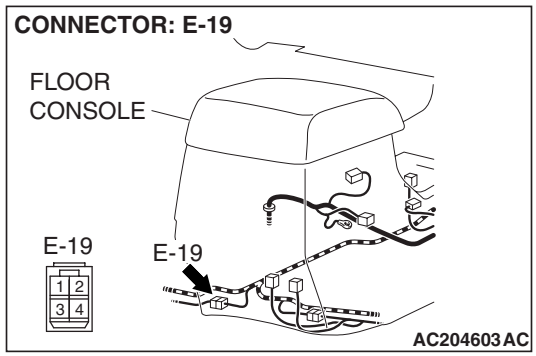
YES : Go to Step 6.

NO : Eras the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 26 sets, replace the SRS-ECU (Refer to P.52B-215).

STEP 6. Check the harness for short circuit between SRS-ECU connector E-07 (terminal No.29 and 30) and driver's seat belt pre-tensioner connector F-27 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-19, inspect the wiring harness. If the intermediate connector E-19 is damaged, repair or replace it (Refer to GROUP 00E, Harness Connector Inspection P.00E-2). Then go to Step 7.

Q: Are harness wires between SRS-ECU connector E-07 (terminal No.29 and 30) and driver's seat belt pre-tensioner connector F-27 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector E-07 and driver's side seat belt pre-tensioner connector F-27. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

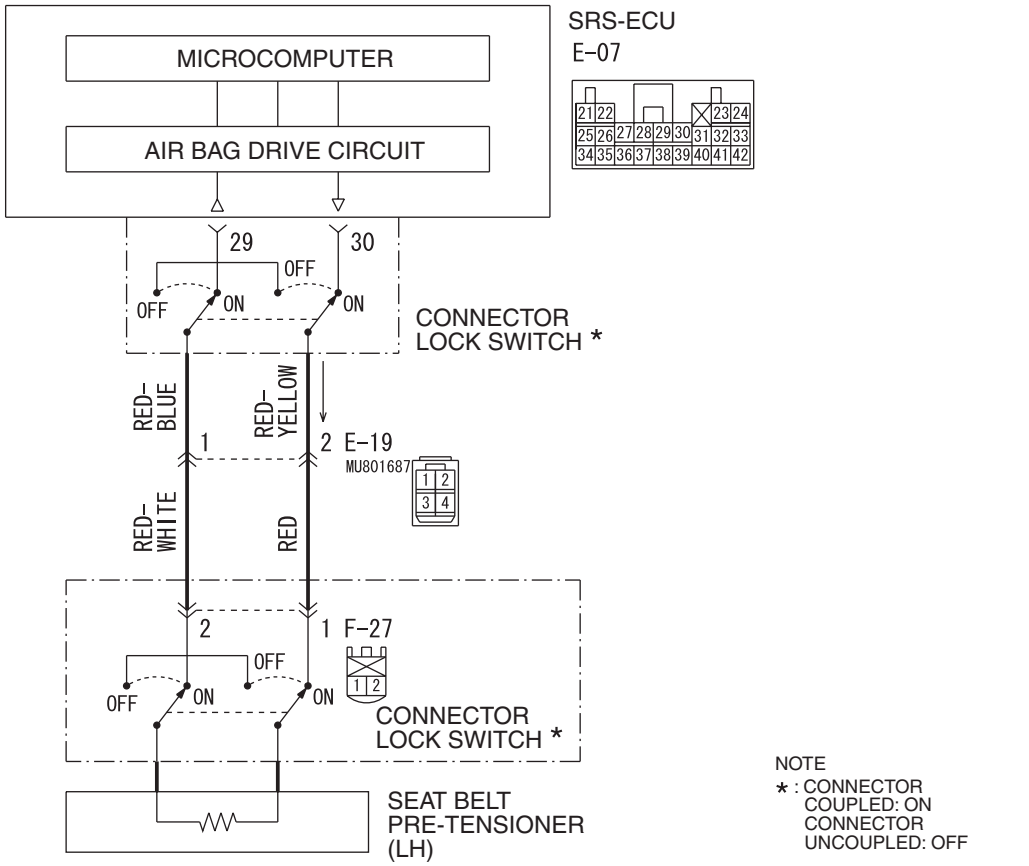
Q: Is DTC 26 set?

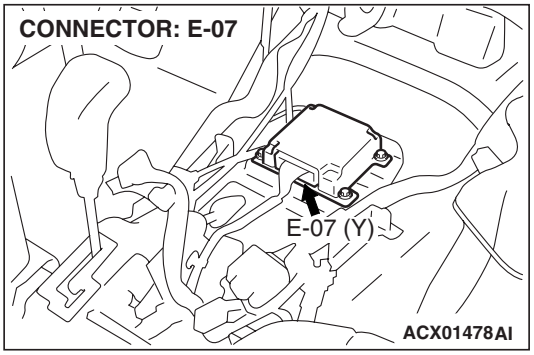
YES : Return to Step 1.

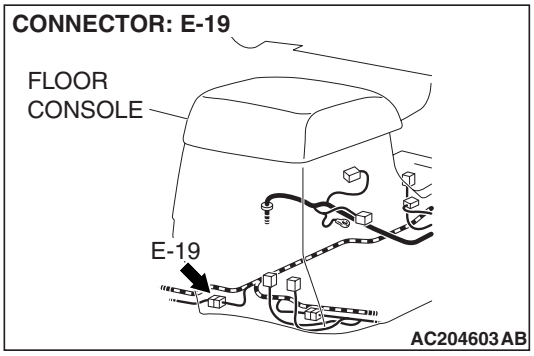
NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 27: Driver's Seat Belt Pre-tensioner (Squib) System Fault 2 (Open in the Squib Circuit)

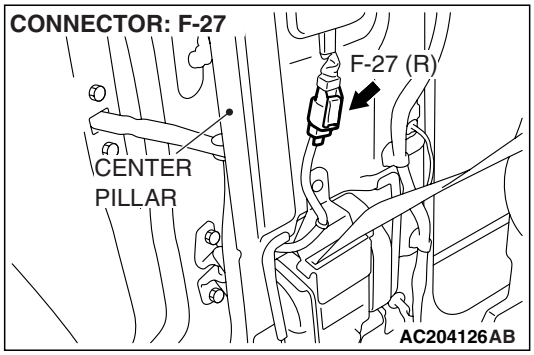
Driver's Seat Belt Pre-tensioner (Squib)







TSB Revision



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 outputs 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 pretensioner (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

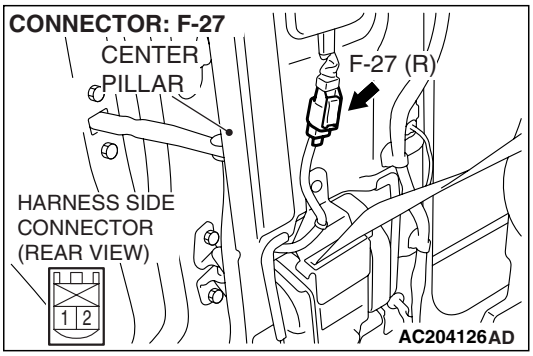
Required Special Tools:

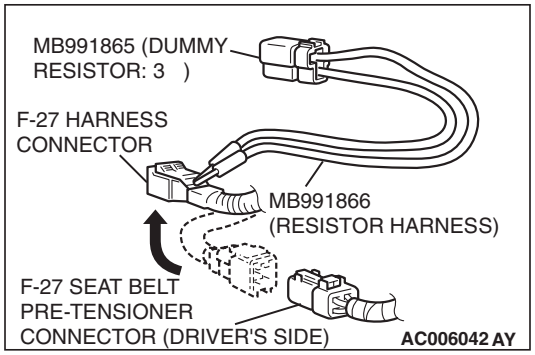
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. 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 the driver's seat belt pretensioner connector F-27.





(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 harness connector by backprobing.

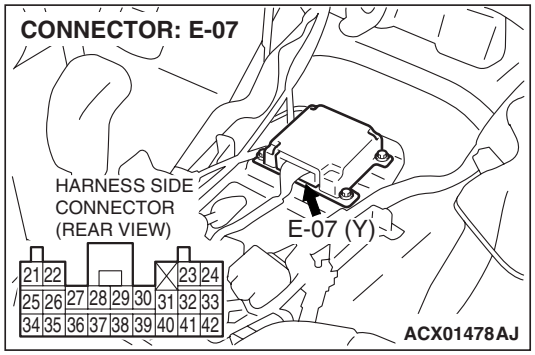
(5) Connect the negative battery terminal.

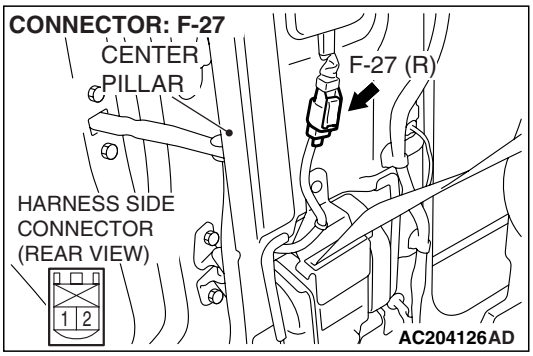
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

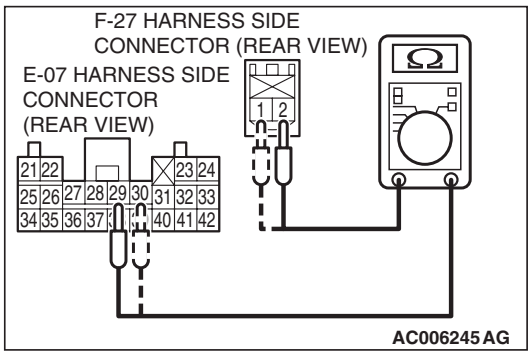
Q: Is DTC 27 set?

YES : Go to Step 2.

NO : Replace the driver's seat belt pre-tensioner (Refer to P.52B-228). Then go to Step 3.







STEP 2. Check the harness for open circuit between SRS-ECU connector E-07 (terminal No.29 and 30) and the driver's seat belt pretensioner F-27 (terminal No.1 and 2).

⚠ CAUTION

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

(1) Disconnect SRS-ECU connector E-07 and driver's seat belt pretensioner connector F-27, and measure at the wiring harness.

(2) Check for continuity between the following terminals.
- Between connector E-07 terminal 30 and connector F-27 terminal 1
- Between connector E-07 terminal 29 and connector F-27 terminal 2

(3) It should be less than 2 ohms.

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code sets. If DTC 27 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 3.

NO : Repair harness wires between SRS-ECU connector E-07 and driver's seat belt pre-tensioner connector F-27. Then go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

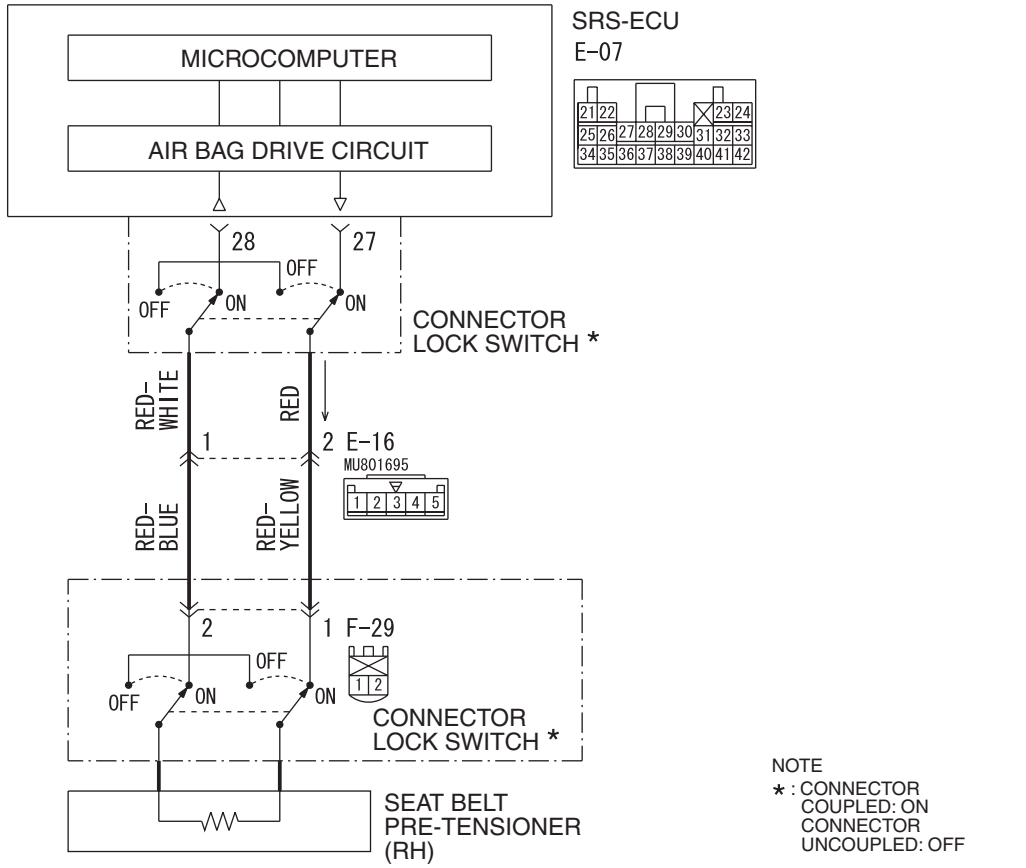
Q: Is DTC 27 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 28: Passenger's (Front) Seat Belt Pre-tensioner (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

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



NOTE
* : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF

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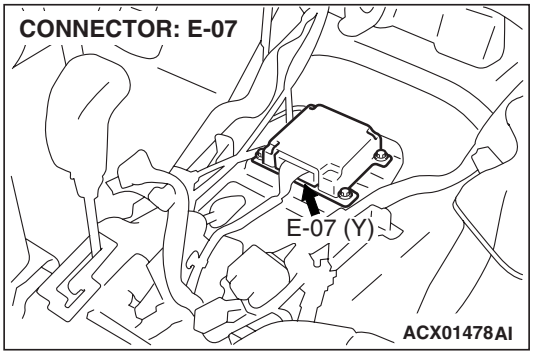
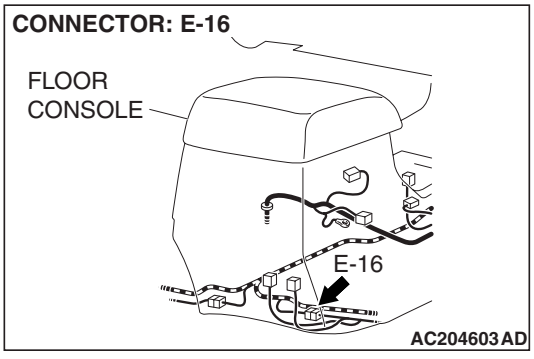
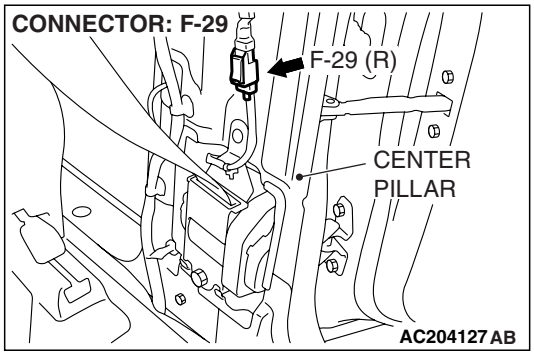
AC500705 AB





TSB Revision



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 outputs 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 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-3). Therefore, if connector E-07 or F-29 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

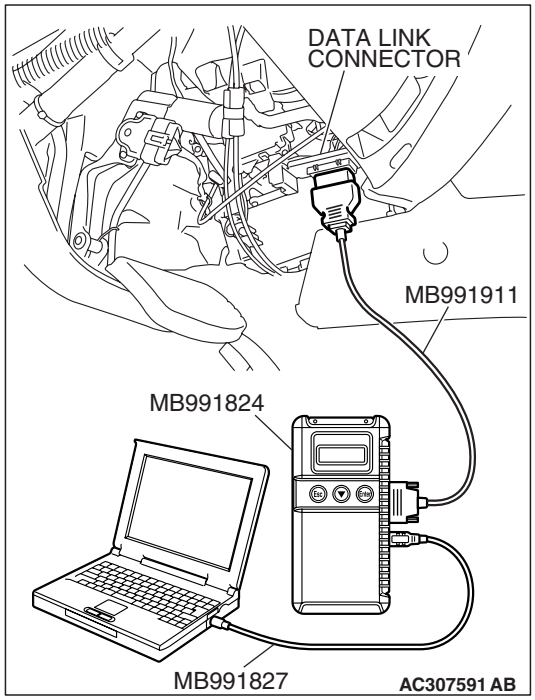
Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, read the diagnostic trouble code.

Q: Is DTC 34 set?

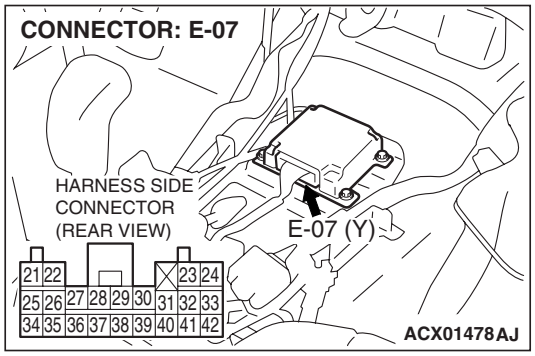
YES : Go to Step 2.
NO : Go to Step 3.

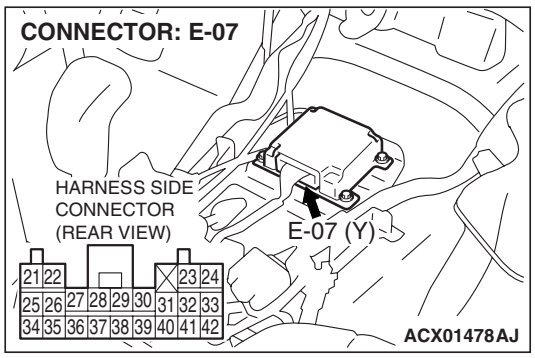


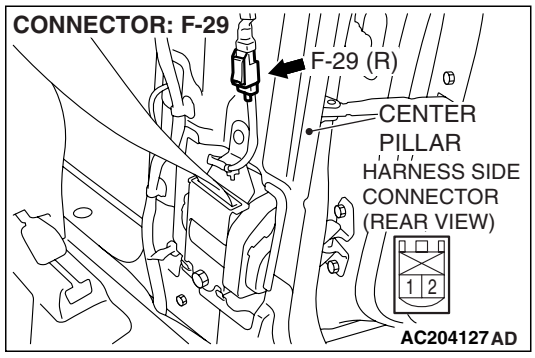
STEP 2. Check the SRS-ECU connector E-07.

Q: Is connector correctly engaged?

YES : Go to Step 3.
NO : Engage the connector to the place. Then go to Step 7.







STEP 3. Check SRS-ECU connector E-07 and passenger's seat belt pre-tensioner connector F-29 (Using scan tool MB991958, read the diagnostic trouble code).

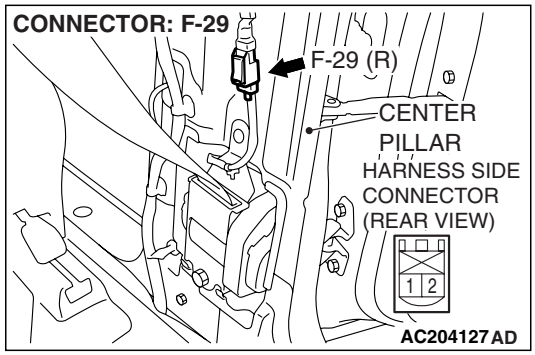
(1) Disconnect the negative battery terminal.
(2) Disconnection connectors E-07 and F-29, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and the diagnostic trouble code.

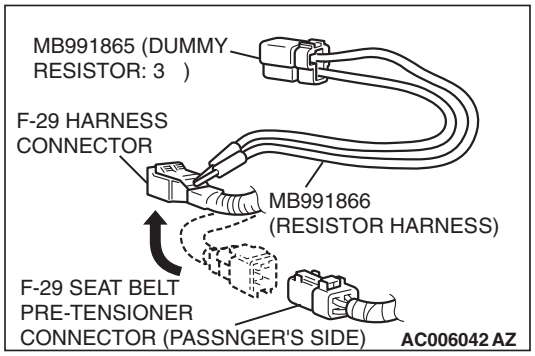
Q: Is DTC 28 set?

YES : Go to Step 4.
NO : The procedure is complete. It is assumed that DTC 28 set as connector E-07 or F-29 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 the passenger's seat belt pretensioner connector F-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.

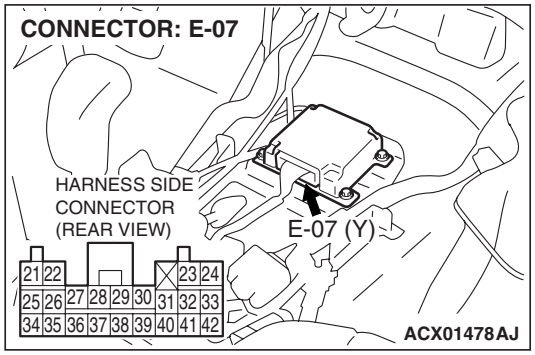
(4) Insert special tool MB991866 into the harness connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

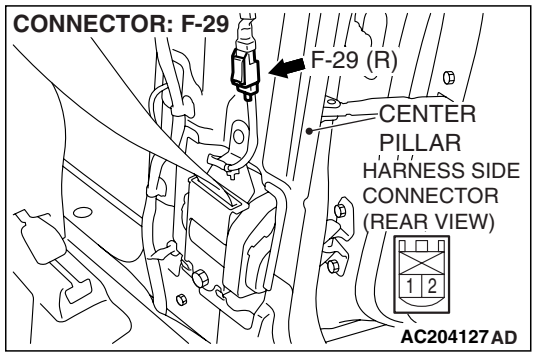
Q: Is DTC 28 set?

YES : Go to Step 5.
NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-228). Then go to Step 7.

STEP 5. Check the passenger's seat belt pretensioner circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.

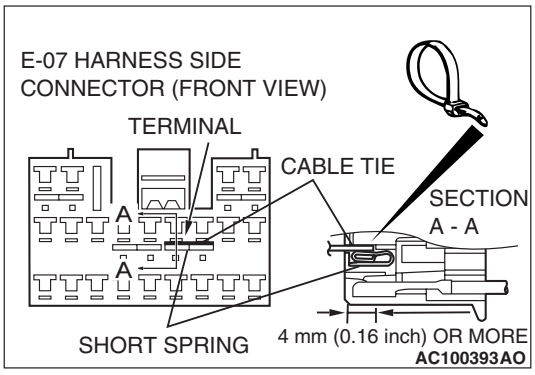




⚠ DANGER

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector F-29 to short the squib circuit.

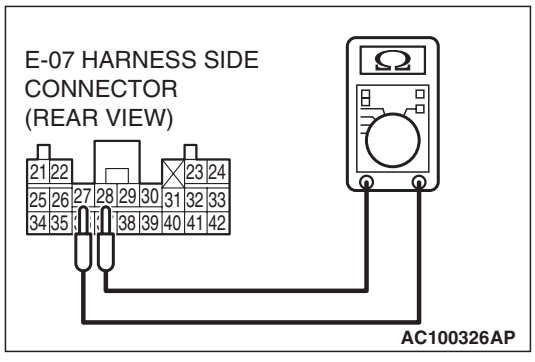
(2) Disconnect passenger's seat belt pretensioner connector F-29.



⚠ 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 27, 28 and the short spring to release the short spring.



⚠ CAUTION

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

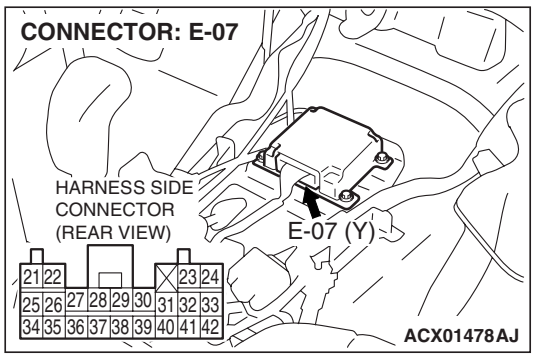
(4) Check for continuity between E-07 harness connector terminals 27 and 28.
It should be open circuit.

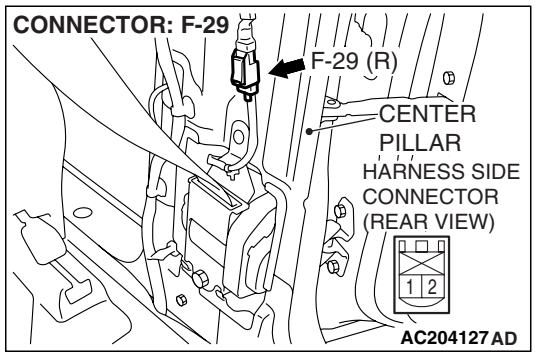
Q: Does continuity exist?

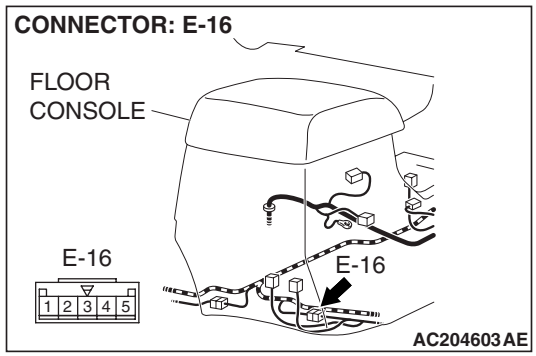
YES : Go to Step 6.

NO : Eras the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 28 sets, replace the SRS-ECU (Refer to P.52B-215).

STEP 6. Check the harness for short circuit between SRS-ECU connector E-07 (terminal No.27 and 28) and passenger's seat belt pre-tensioner connector F-29 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-16, inspect the wiring harness. If the intermediate connector E-16 is damaged, repair or replace it (Refer to GROUP 00E, Harness Connector Inspection P.00E-2). Then go to Step 7.

Q: Are harness wires between SRS-ECU connector E-07 (terminal No.27 and 28) connector and passenger's seat belt pre-tensioner connector F-29 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector E-07 and passenger's seat belt pre-tensioner connector F-29. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

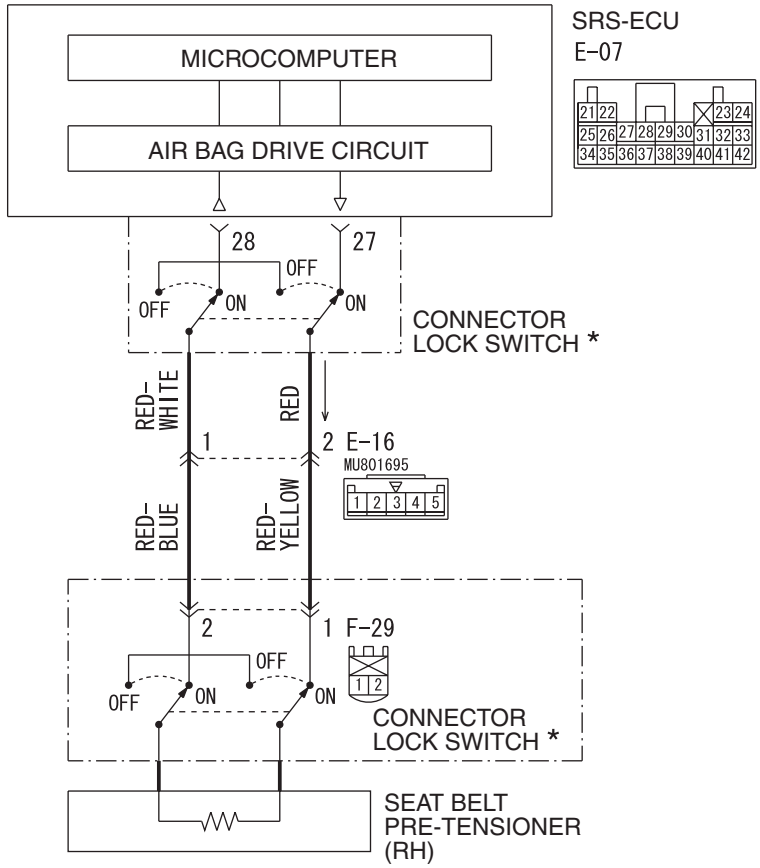
Q: Is DTC 28 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 29: Passenger's (Front) Seat Belt Pre-tensioner (Squib) System Fault 2 (Open in the Squib Circuit)

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



NOTE
* : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF

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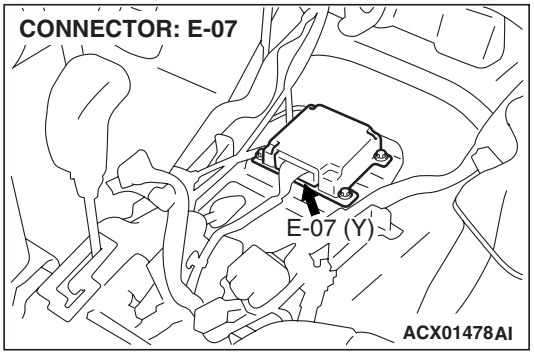
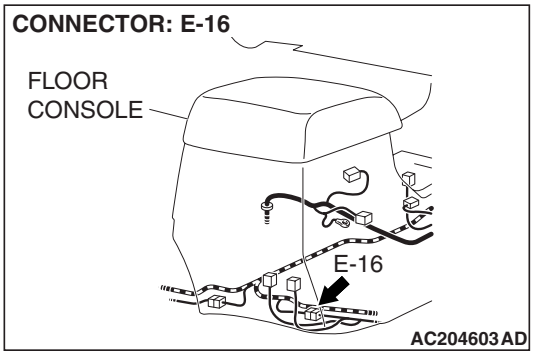
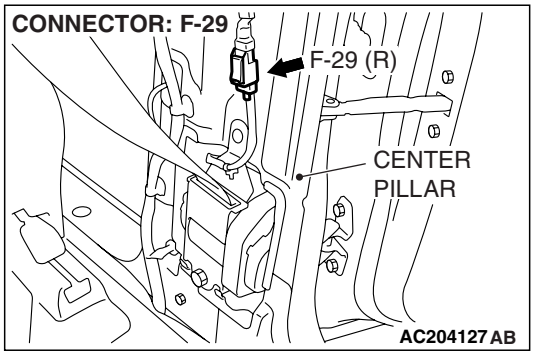
AC500705 AB





TSB Revision



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 outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

These DTC are 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

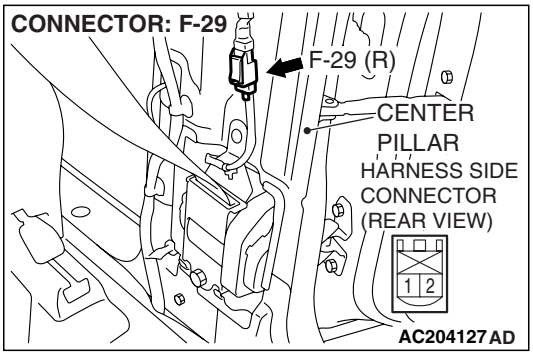
Required Special Tools:

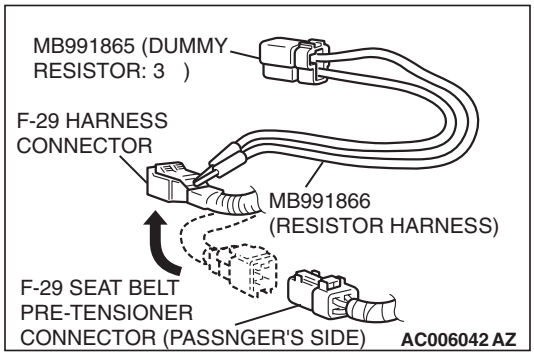
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. 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 the passenger's seat belt pretensioner connector F-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 harness 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 29 set?

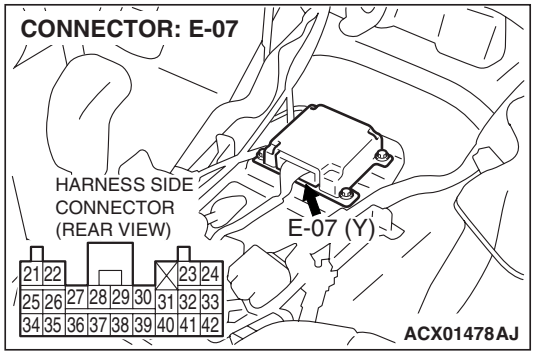
YES : Go to Step 2.

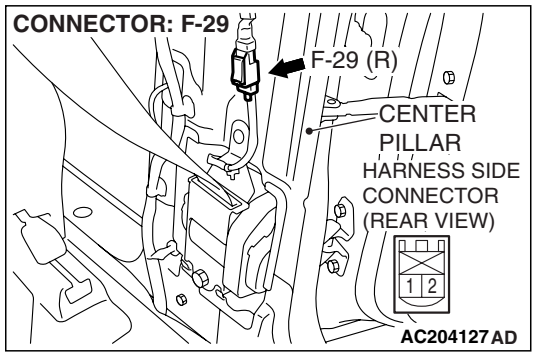
NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-228). Then go to Step 3.

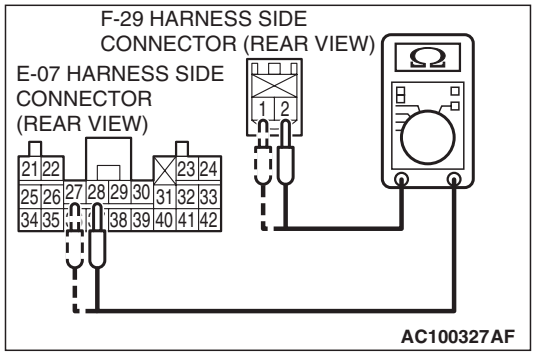
STEP 2. Check the harness for open circuit between SRS-ECU connector E-07 (terminal No.27 and 28) and the passenger's seat belt pretensioner F-29 (terminal No.1 and 2).

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

(1) Disconnect SRS-ECU connector E-07 and passenger's seat belt pretensioner connector F-29, and measure at the wiring harness.







(2) Check for continuity between the following terminals.
- Between connector E-07 terminal 28 and connector F-29 terminal 2
- Between connector E-07 terminal 27 and connector F-29 terminal 1

(3) It should be less than 2 ohms.

Q: Does continuity exist?

YES : Erase the diagnosis trouble code memory, and check the diagnostic trouble code. If DTC 29 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector E-07 passenger's seat belt pre-tensioner connector F-29. Then go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Q: Is DTC 29 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 34: Connector Lock System Detects Connector Unlocked

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

- Damaged connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tool:

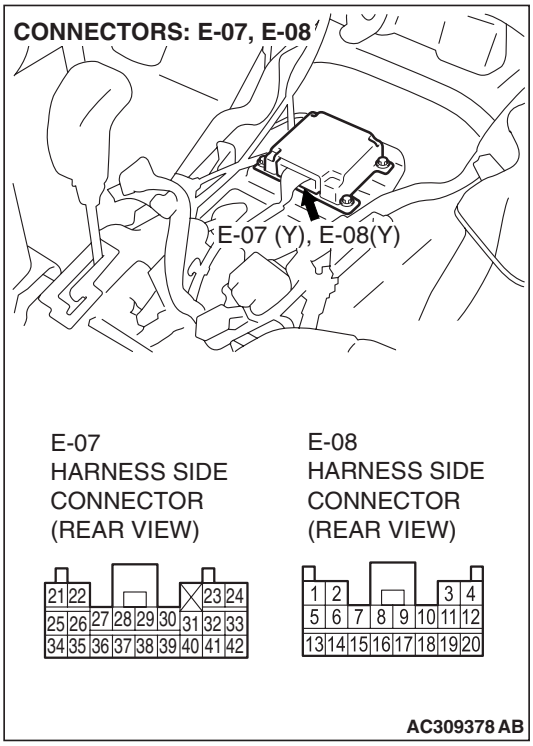
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

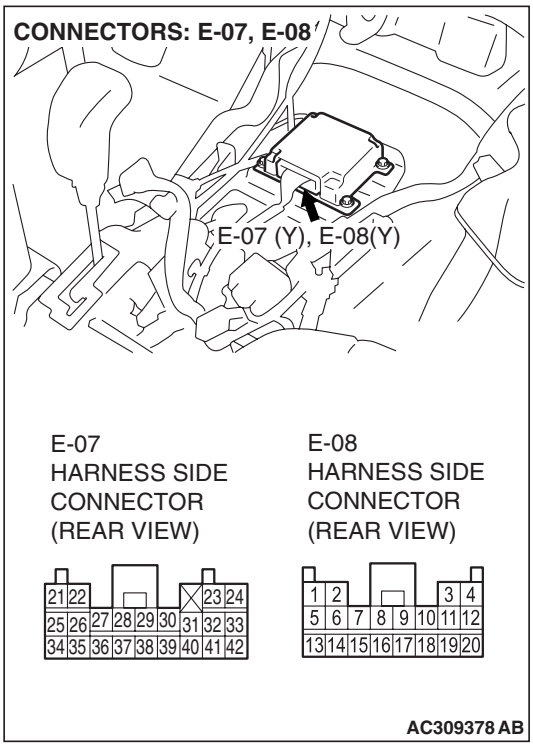
STEP 1. Check the SRS-ECU connector E-07, E-08.

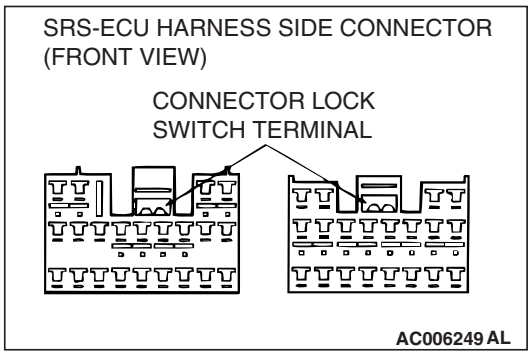
Q: Are connectors correctly engaged?

YES : Go to Step 2.

NO : Engage the connectors correctly. Then go to Step 3.







STEP 2. Check SRS-ECU connector E-07, E-08 for damage.

(1) Disconnect SRS-ECU connectors E-07 and E-08.
(2) Check the connector lock switch terminal inside the harness side connector for improper contact or deformation.

Q: Are the SRS-ECU connector E-07, E-08 in good condition?

YES : Eras the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 34 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 3.

NO : Repair or replace the SRS-ECU connector E-07, E-08 (Refer to GROUP 00E, Harness Connector Inspection P.00E-2). Then go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Q: Is DTC 34 set?

YES : There is no action to be taken.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 35: SRS-ECU Air Bag Condition Monitor Detects Deployed Air Bag

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

TROUBLESHOOTING HINTS
Malfunction of the SRS-ECU

DIAGNOSIS
Replace the SRS-ECU (Refer to P.52B-215).

DTC 39: Air Bags Deployed Simultaneously

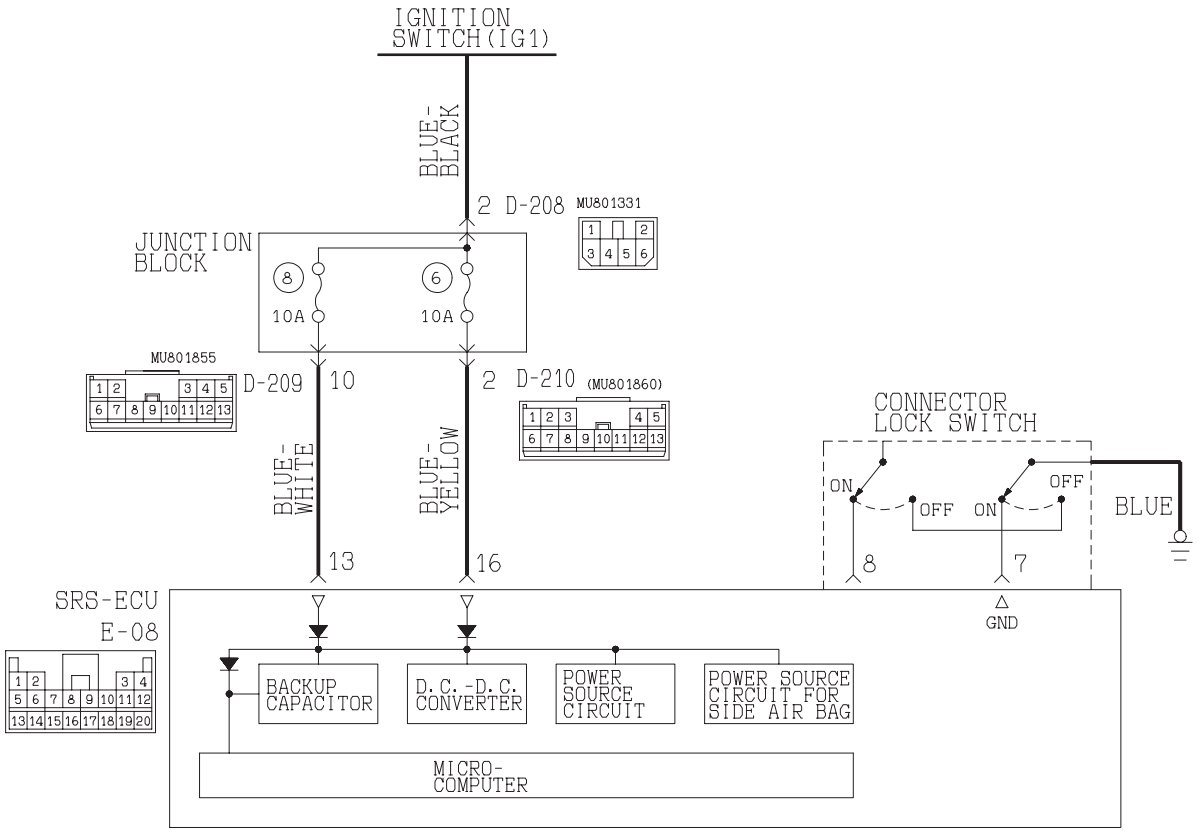
TROUBLE JUDGMENT
This DTC will be set when the air bags deployed simultaneously. If this DTC is set before the deployment, a failure may has occurred in the SRS-ECU.

POSSIBLE CAUSES
- Malfunction of the SRS-ECU

DIAGNOSIS
Replace the SRS-ECU (Refer to P.52B-215).

DTC 41: IG1 Power Circuit System (Fuse No.6 Circuit)

IG1 Power Circuit System (Fuse No.6 Circuit)



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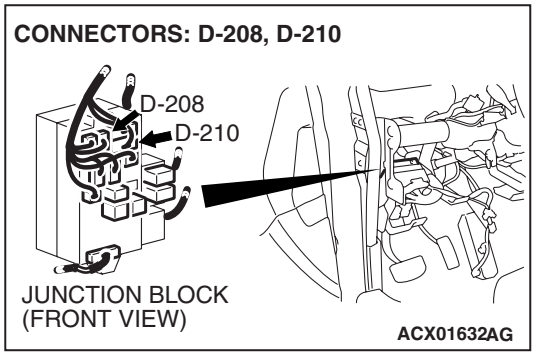
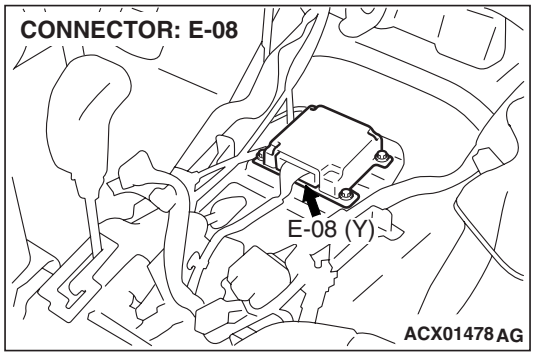




TSB Revision

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.6 circuit) and ground is lower than a predetermined value for a continuous period of five second or more. However, if the vehicle condition returns to normal, DTC number 41 will be automatically erased, and the SRS warning light will switch off.

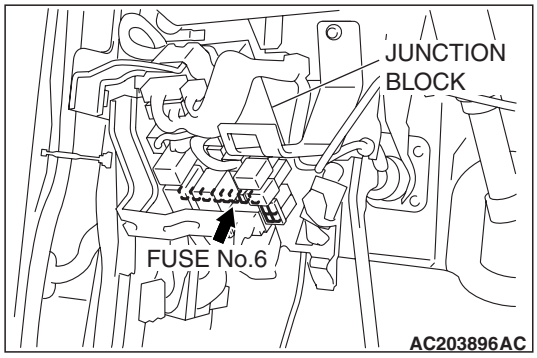
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB992006: Extra Fine Probe

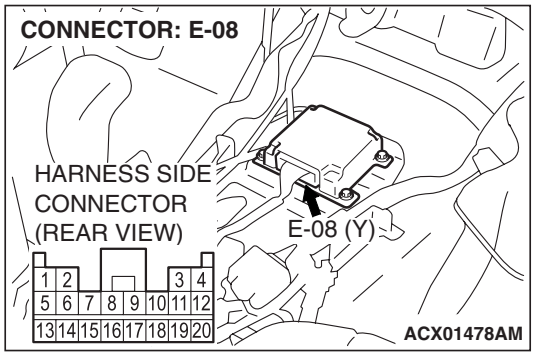


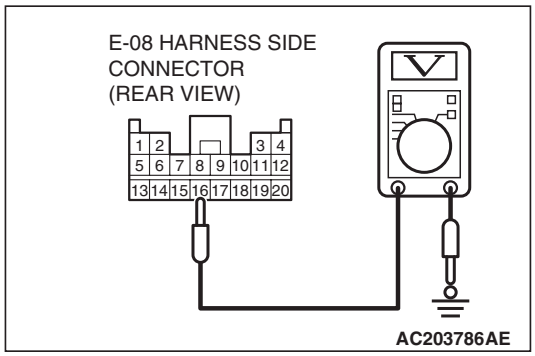
STEP 1. Check junction block fuse number 6.

Q: Is the fuse burned out?

YES : Go to Step 4.

NO : Go to Step 2.





STEP 2. Check the circuit between the SRS-ECU and the ignition switch (IG1).

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector E-08.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.

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

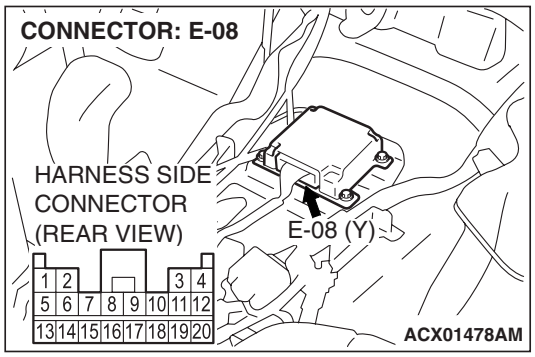
(5) Measure the Voltage between E-08 harness connector terminal 16 and body ground.
Voltage should measure 9 volts or more.

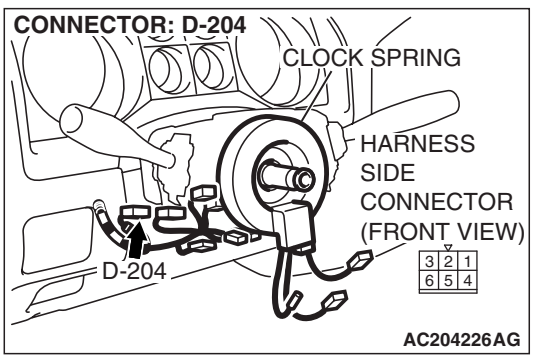
Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 41 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 8.

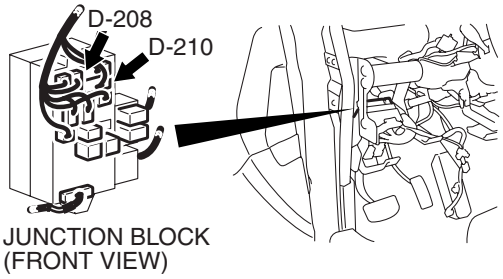
NO : Go to Step 3.

STEP 3. Check the harness for open circuit between SRS-ECU connector E-08 (terminal No.16) and the ignition switch connector D-204 (terminal No.2).



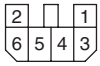


CONNECTORS : D-208, D-210

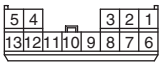


JUNCTION BLOCK
(FRONT VIEW)

D-208 HARNESS SIDE
CONNECTOR (FRONT VIEW)



D-210 HARNESS SIDE
CONNECTOR (FRONT VIEW)



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NOTE: After inspecting junction block connectors D-210 and D-208, inspect the wiring harness. If junction block connectors are damaged, repair or replace them (Refer to GROUP 00E, Harness Connector Inspection P.00E-2). Then go to Step 8.

Q: Are harness between SRS-ECU connector E-08 (terminal No.16) and the ignition switch connector D-204 (terminal No.2) in good condition?

YES : Go to Step 8.
NO : Repair the harness wire between SRS-ECU connector E-08 and the ignition switch connector D-204. Then go to Step 8.

STEP 4. Check a burned-out fuse.

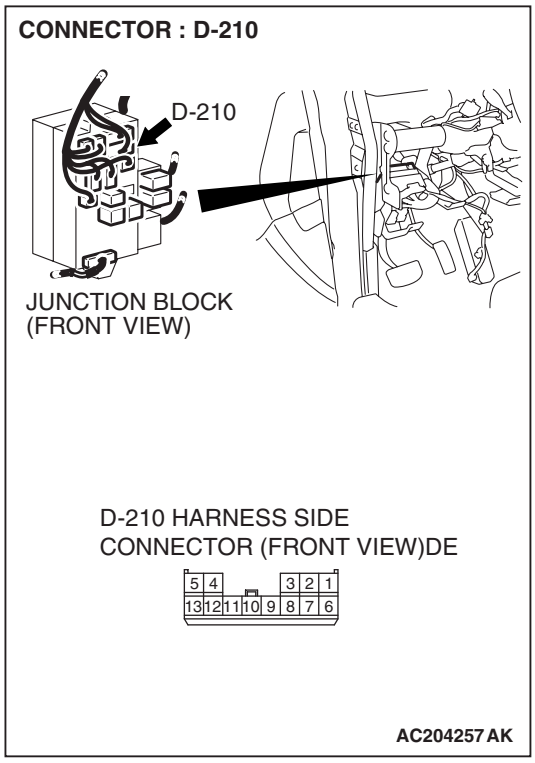
(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the ignition switch to the "LOCK" (OFF) position.
(3) Check the fuse.

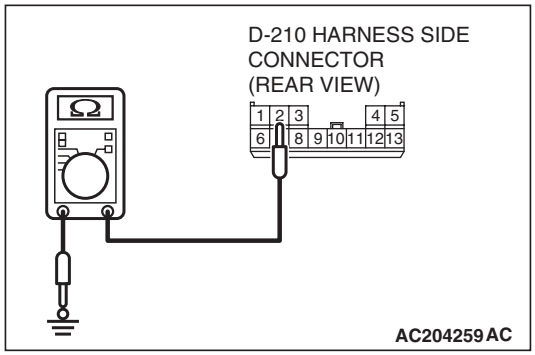
Q: Is the fuse in good condition?

YES : Go to Step 8.
NO : Go to Step 5.

STEP 5. Check the harness for short circuit to ground between the SRS-ECU and the junction block.

(1) Disconnect junction block connector D-210, and measure at the wiring harness.





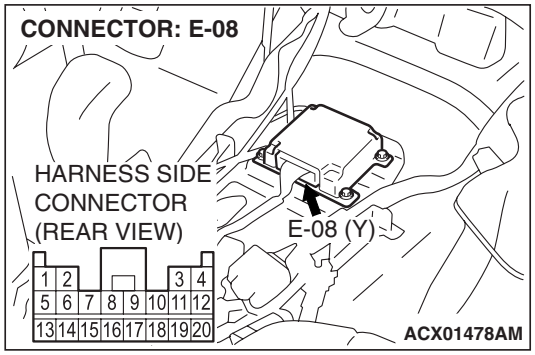
⚠ CAUTION

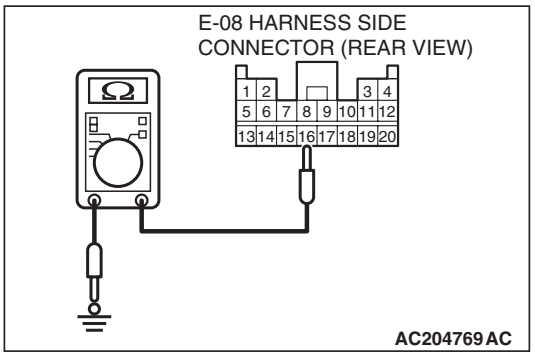
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Check for continuity between D-210 harness connector terminal 2 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 6.
NO : Go to Step 8.





STEP 6. Check the power supply circuite for short circuit to ground at the SRS-ECU connector E-08.

(1) Disconnect SRS-ECU connector E-08, and measure at the wiring harness.

⚠ CAUTION

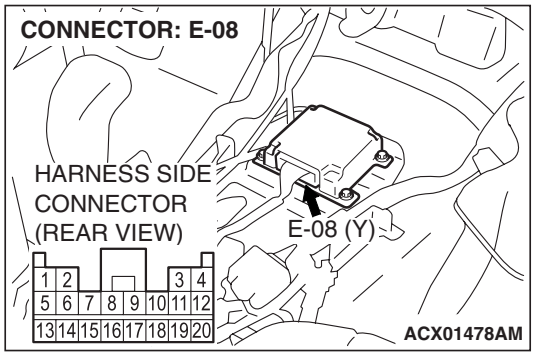
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

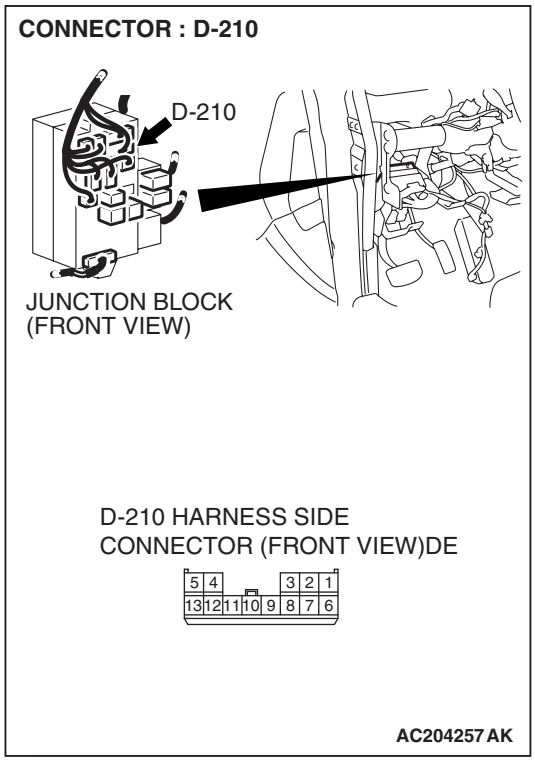
(2) Check for continuity between E-08 harness connector terminal 16 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 7.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 41 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 8.





STEP 7. Check the harness for short circuit ground between SRS-ECU connector E-08 (terminal No.16) and junction block connector D-210 (terminal No.2).

Q: Are harness wires between SRS-ECU connector E-08 (terminal No.16) and junction block connector D-210 (terminal No.2) in good condition?

YES : Go to Step 8.

NO : Repair the harness wire between SRS-ECU connector E-08 and junction block connector D-210. Then go to Step 8.

STEP 8. Recheck for diagnostic trouble code.

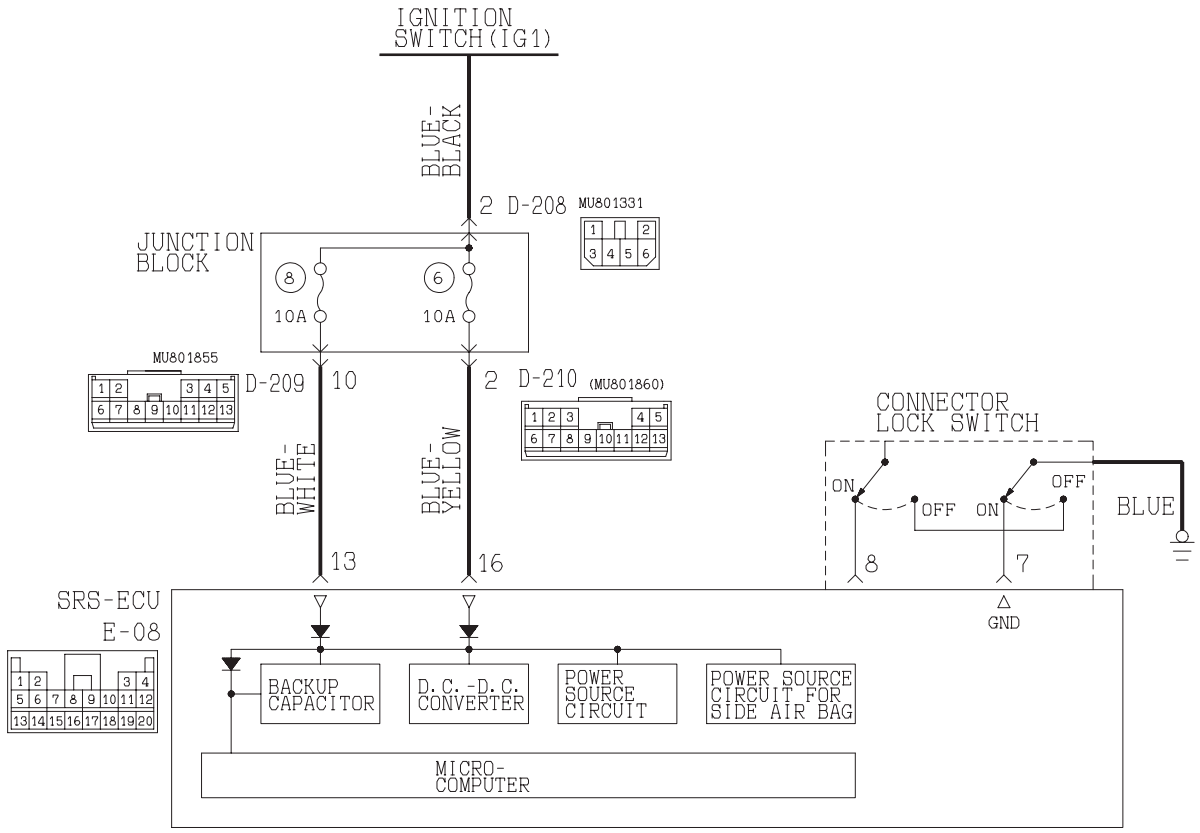
Q: Is DTC 41 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 42: IG1 Power Circuit System (Fuse No.8 Circuit)

IG1 Power Circuit System (Fuse No.8 Circuit)



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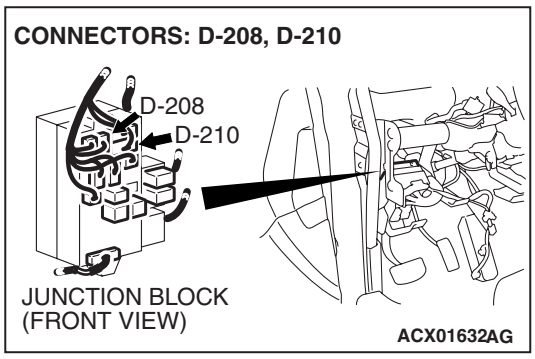
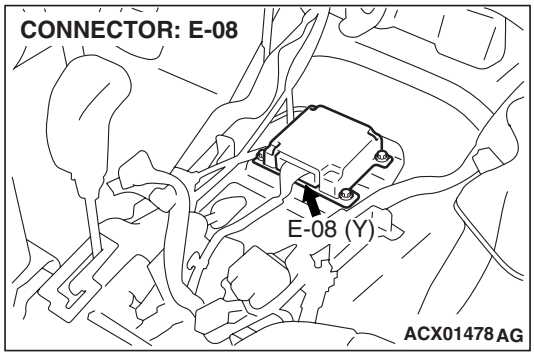




CIRCUIT OPERATION

- 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.

TSB Revision

DTC SET CONDITIONS

This DTC is set if the voltage between the IG1 terminals (fuse No.8 circuit) and ground is lower than a predetermined value for a continuous period of five second or more. However, if the vehicle condition returns to normal, DTC number 42 will be automatically erased, and the SRS warning light will switch off.

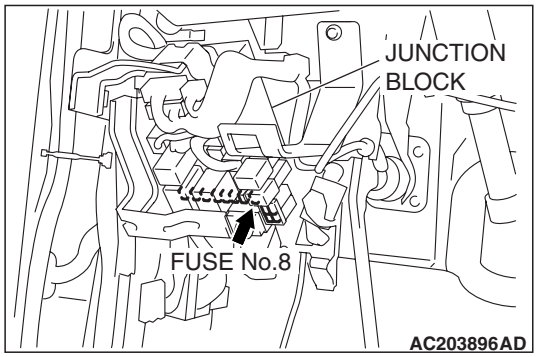
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB992006: Extra Fine Probe

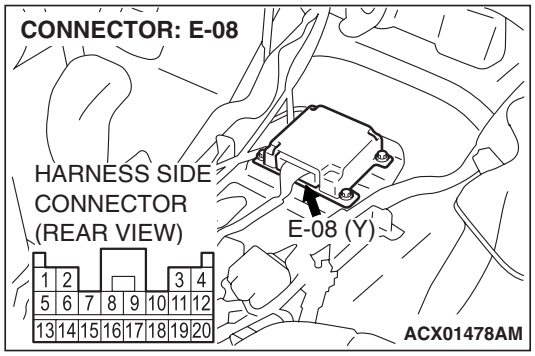


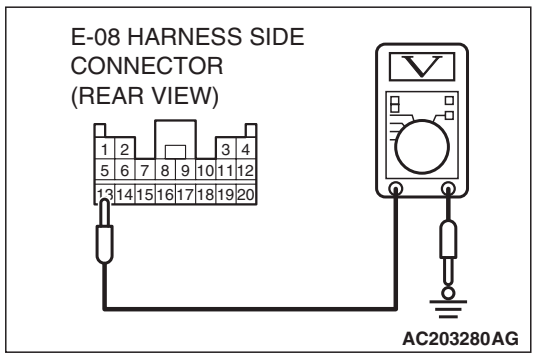
STEP 1. Check junction block fuse number 8.

Q: Is the fuse burned out?

YES : Go to Step 4.

NO : Go to Step 2.





STEP 2. Check the harness for open circuit between the SRS-ECU and the ignition switch (IG1).

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector E-08.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.

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

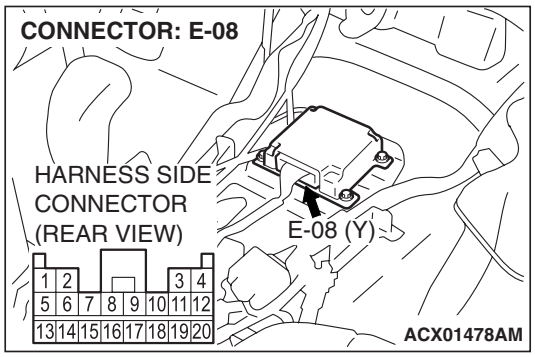
(5) Measure the voltage between E-08 harness connector terminal 13 and body ground.
Voltage should measure 9 volts or more.

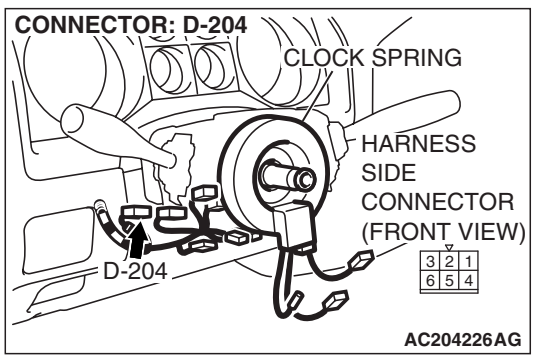
Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 42 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 8.

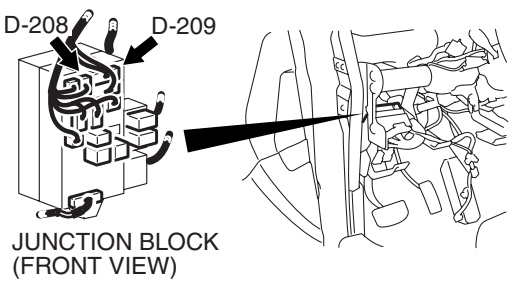
NO : Go to Step 3.

STEP 3. Check the harness for open circuit between SRS-ECU connector E-08 (terminal No.13) and the ignition switch connector D-204 (terminal No.2).



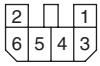


CONNECTORS : D-208, D-209

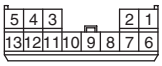


JUNCTION BLOCK
(FRONT VIEW)

D-208 HARNESS SIDE
CONNECTOR (REAR VIEW)



D-209 HARNESS SIDE
CONNECTOR (REAR VIEW)



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NOTE: After inspecting junction block connectors D-209 and D-208, inspect the wiring harness. If junction block connectors are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 8.

Q: Are harness wire between SRS-ECU connector E-08 (terminal No.13) and the ignition switch connector D-204 (terminal No.2) in good condition?

YES : Go to Step 8.
NO : Repair the harness wire between SRS-ECU connector E-08 and the ignition switch connector D-204. Then go to Step 8.

STEP 4. Check a burned-out fuse.

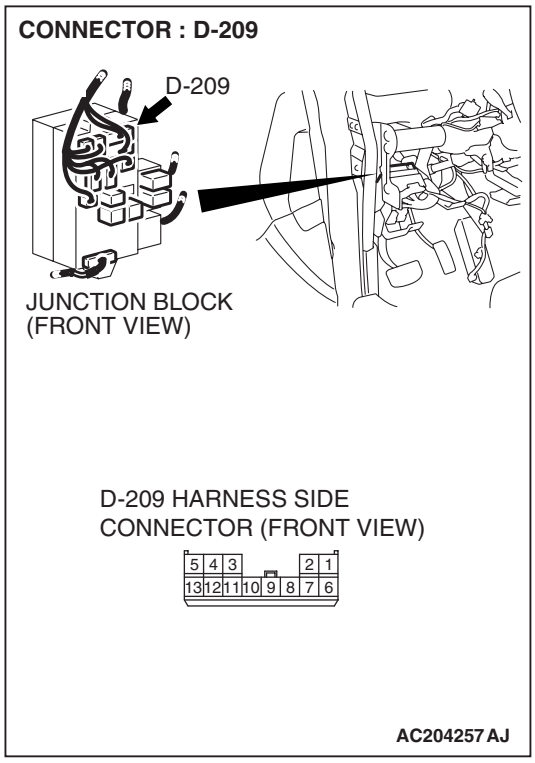
(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the ignition switch to the "LOCK" (OFF) position.
(3) Check the fuse.

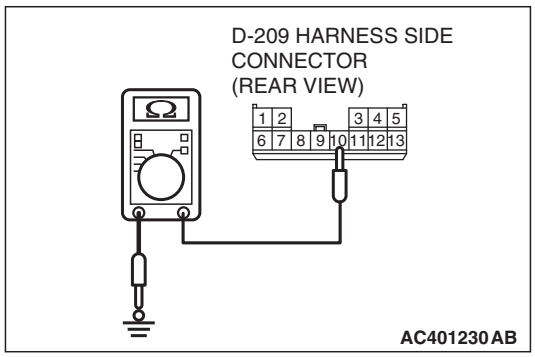
Q: Is the fuse in good condition?

YES : Go to Step 8.
NO : Go to Step 5.

STEP 5. Check the circuit between the SRS-ECU and the junction block connector D-209.

(1) Disconnect junction block connector D-209, and measure at the wiring harness.





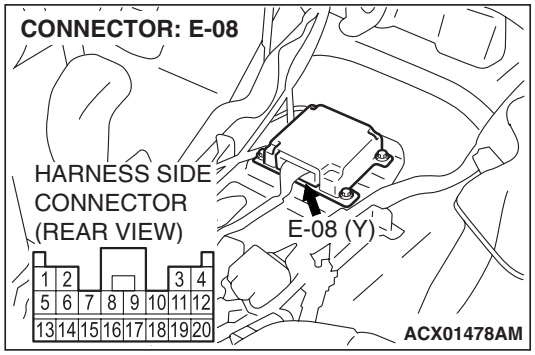
⚠ CAUTION

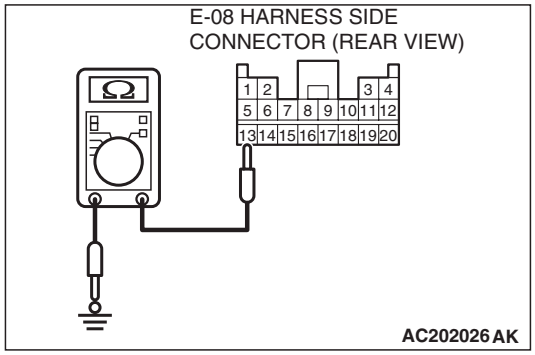
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Check for continuity between D-209 harness connector terminal 10 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 6.
NO : Go to Step 8.





STEP 6. Check the power supply circuit for short circuit to ground at the SRS-ECU connector E-08.

(1) Disconnect SRS-ECU connector E-08, and measure at the wiring harness.

⚠ CAUTION

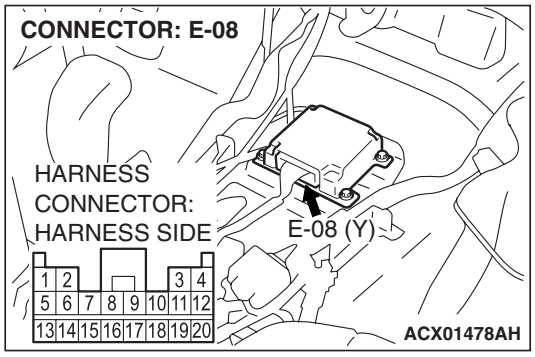
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

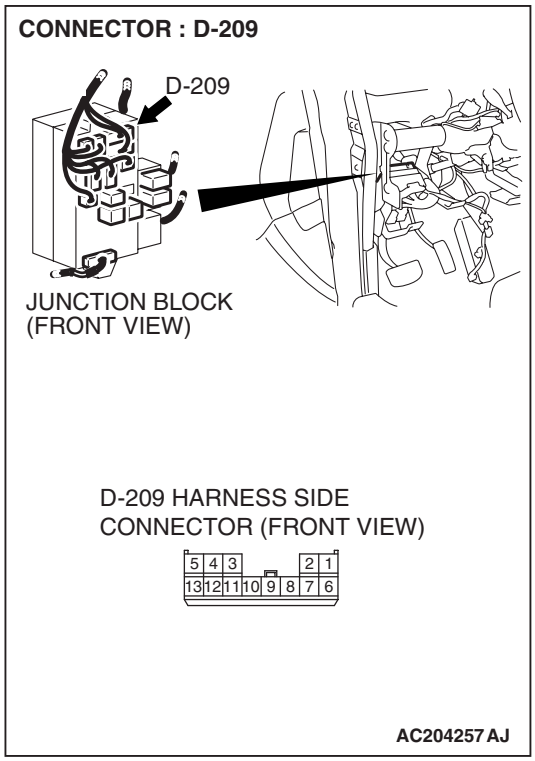
(2) Check for continuity between E-08 harness connector terminal 13 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 7.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 42 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 8.





STEP 7. Check the harness wires between SRS-ECU connector E-08 (terminal No.13) and junction block connector D-209 (terminal No.10).

Q: Are harness wires between SRS-ECU connector E-08 (terminal No.13) and junction block connector D-209 (terminal No.10) in good condition?

YES : Go to Step 8.

NO : Repair the harness wires between SRS-ECU connector E-08 and junction block connector D-209. Then go to Step 8.

STEP 8. Recheck for diagnostic trouble code.

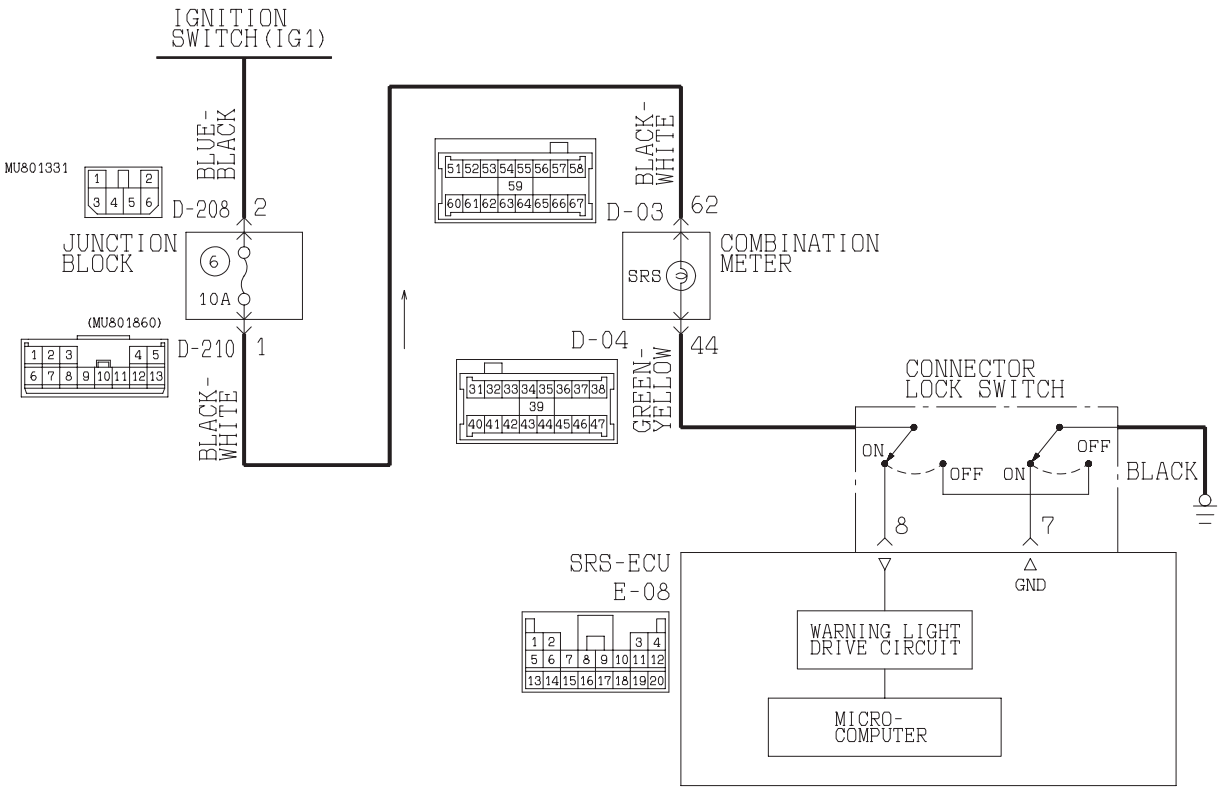
Q: Is DTC 42 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 43: SRS Warning Light Drive Circuit System Fault 1 (Light does not Illuminate).

SRS Warning Light Drive Circuit



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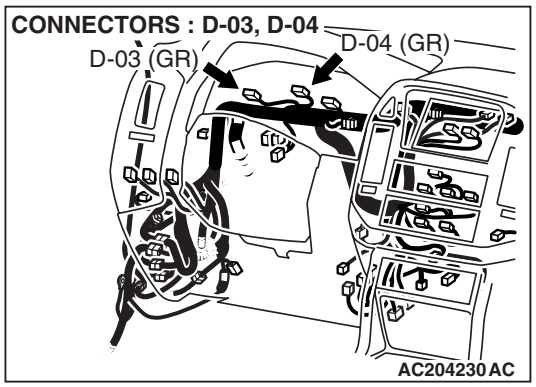

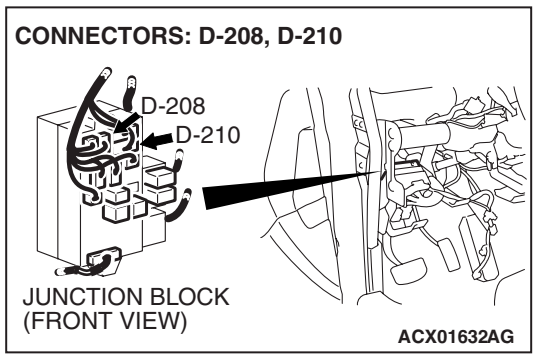

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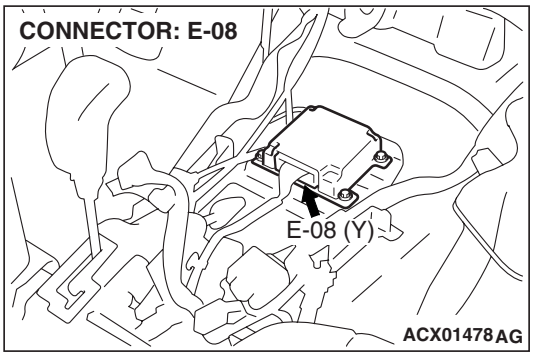


CIRCUIT OPERATION

- Power for the SRS warning light is supplied from the ignition switch (IG1) circuit.
- The SRS warning 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.

DTC SET CONDITIONS

This DTC is set when an open circuit is detected for a continuous period of five seconds while the SRS-ECU is monitoring the SRS warning light and the light is OFF (transistor OFF). However, if the vehicle condition returns to normal, DTC 43 will be automatically erased, and the SRS warning light will go out.

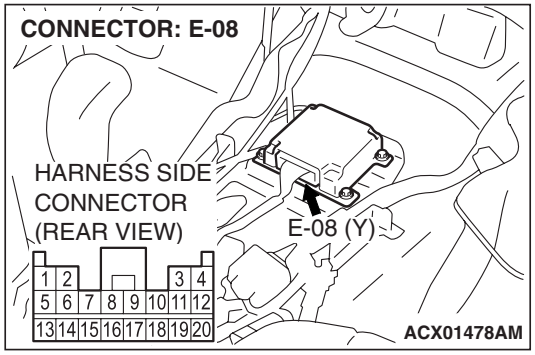
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)



STEP 1. Check the SRS warning light.

(1) Disconnect the negative battery terminal.
(2) Connect the negative battery terminal.
(3) Disconnected the SRS-ECU connector E-08.
(4) Turn the ignition switch to the "ON" position.

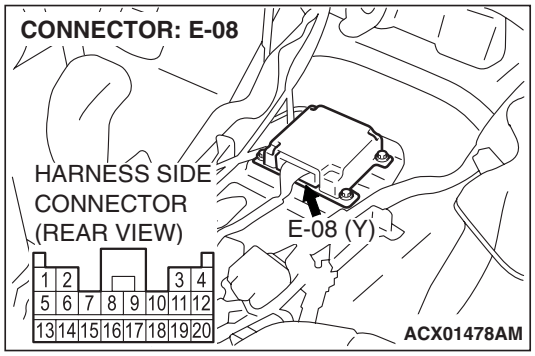
Q: Does the warning light illuminate?

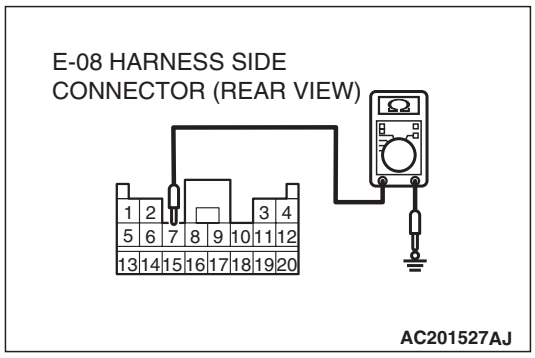
YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 43 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 6.

NO : Go to Step 2.

STEP 2. Check the ground line at the SRS-ECU connector E-08.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector E-08.
(3) Connect the negative battery terminal.





⚠ 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 continuity between terminal 7 and ground. It should be less than 2 ohms.

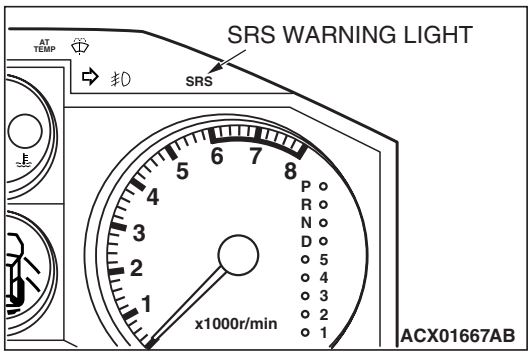
Q: Does continuity exist?

YES : Go to Step 3.
NO : Go to Step 5.

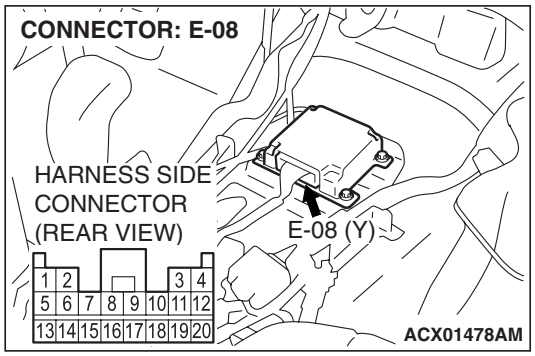
STEP 3. Check the SRS warning light bulb.

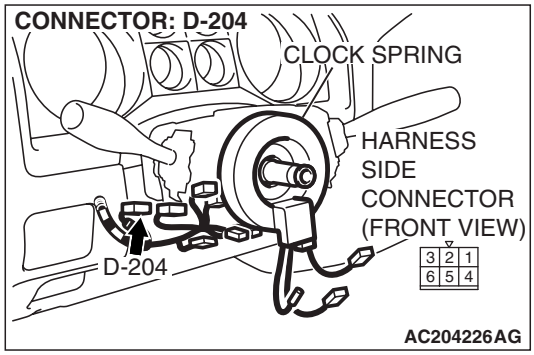
Q: Has the SRS warning light bulb blown?

YES : Replace the SRS warning light bulb. Then go to Step 6.
NO : Go to Step 4.

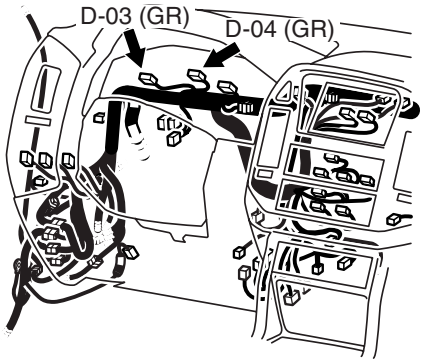


STEP 4. Check the harness for open circuit between ignition switch connector D-204 (terminal No.2) and combination meter D-03 (terminal No.62), and between combination meter D-04 (terminal No.44) and SRS-ECU connector E-08 (terminal No.8).

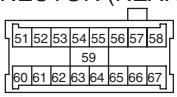




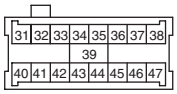
CONNECTORS : D-03, D-04



D-03 HARNESS SIDE CONNECTOR (REAR VIEW)



D-04 HARNESS SIDE CONNECTOR (REAR VIEW)



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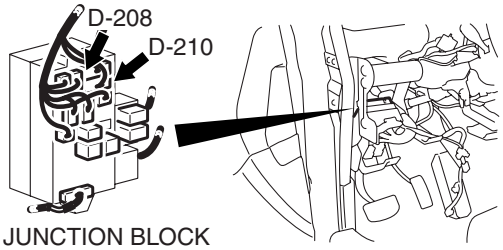
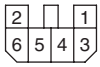
CONNECTORS : D-208, D-210

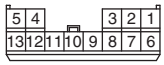


JUNCTION BLOCK (FRONT VIEW)

D-208 HARNESS SIDE CONNECTOR (FRONT VIEW)



D-210 HARNESS SIDE CONNECTOR (FRONT VIEW)



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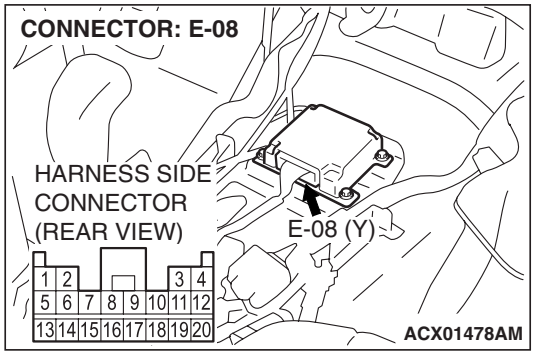
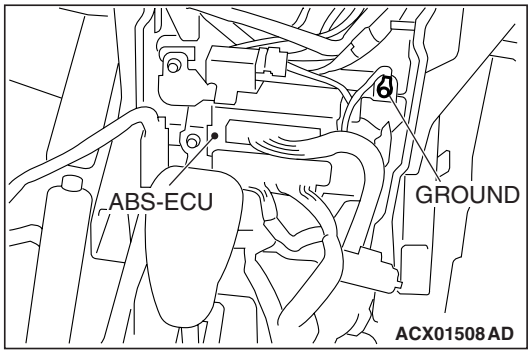
NOTE: After inspecting intermediate connectors D-04, D-03, junction block connectors D-210, D-208 inspect the wiring harness. If intermediate connectors D-04, D-03, junction block connectors D-210, D-208 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 5 .

Q: Are the harness wires between SRS-ECU connector E-08 (terminal No.8) and the ignition switch connector D-204 (terminal No.2) in good condition?

YES : Replace the combination meter (Refer to GROUP 54A, Combination Meter Assembly P.54A-74).

NO : Repair the harness wires between SRS-ECU connector E-08 and the ignition switch connector D-204. Then go to Step 6.





STEP 5. Check the harness for open circuit between SRS-ECU connector E-08 (terminal No.7) and ground.

Q: Is the harness wire between SRS-ECU connector E-08 (terminal No.7) and ground in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector E-08 and ground. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

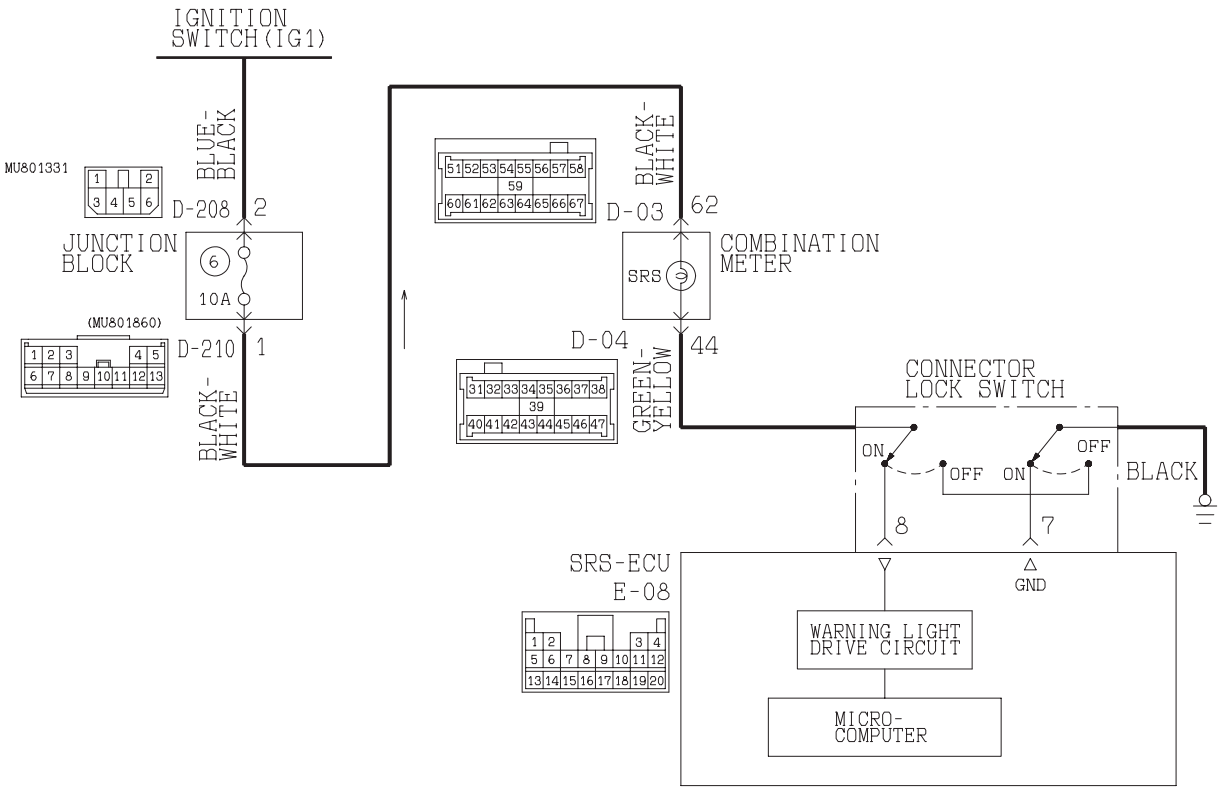
Q: Is DTC 43 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 43: SRS Warning Light Drive Circuit System Fault 1 (Light does not Switch Off).

SRS Warning Light Drive Circuit



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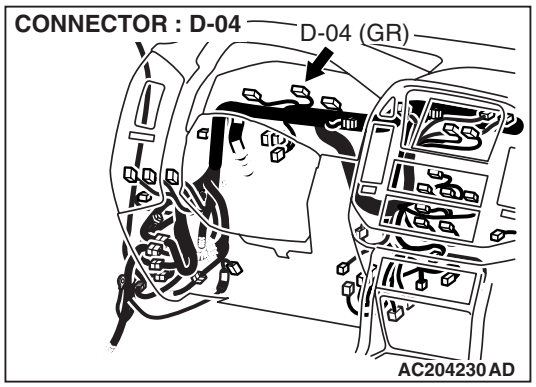
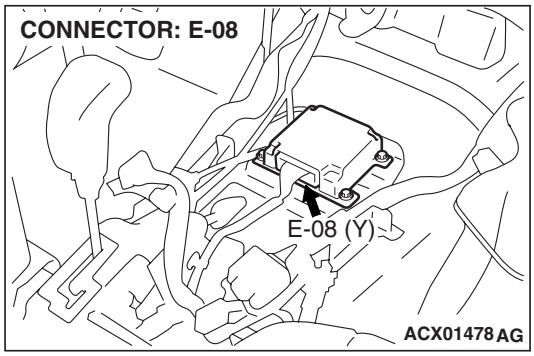




CIRCUIT OPERATION

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

TSB Revision

DTC SET CONDITIONS

This DTC is set when a short to ground occurs in the harness between the SRS warning light and SRS-ECU while SRS-ECU is monitoring the light and the light is ON. However, if the vehicle condition returns to normal, DTC 43 will be automatically erased, and the SRS warning light will go out.

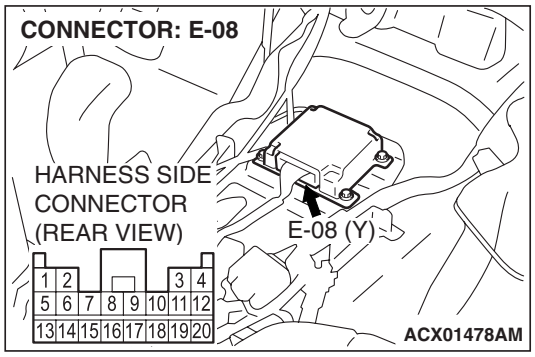
TROUBLESHOOTING HINTS

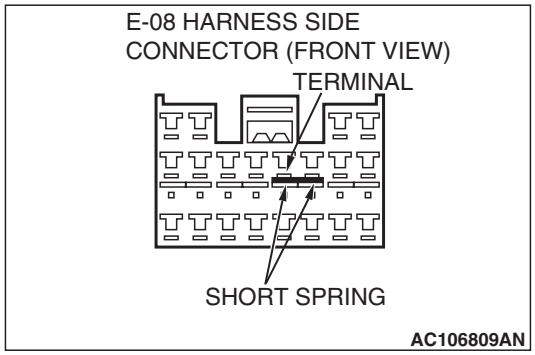
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the combination meter

DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)





STEP 1. Check the SRS-ECU connector E-08.

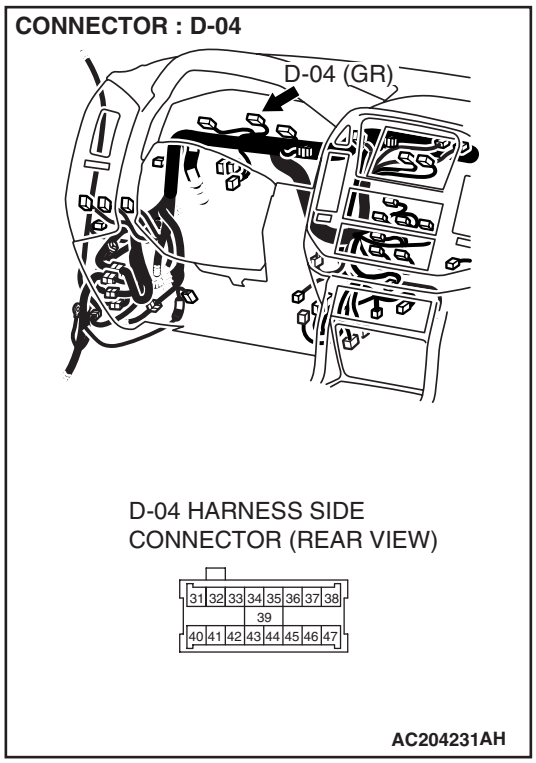
(1) Disconnect SRS-ECU connector E-08.
(2) Check the short spring for the warning light inside the harness connector for improper contact or deformation.

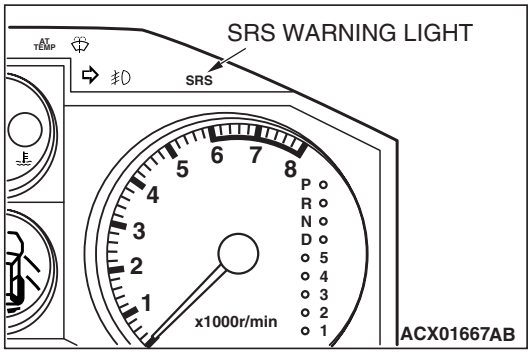
Q: Is SRS-ECU connectors E-08 good condition?

YES : Then go to Step 2.
NO : Repair or replace the SRS-ECU connector E-08. Then go to Step 4.

STEP 2. Check the SRS warning light.

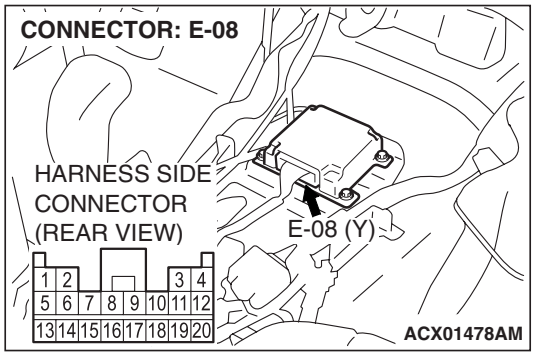
(1) Disconnect the negative battery cable.
(2) Disconnect the combination meter connector D-04.
(3) Connect the negative battery cable.
(4) Turn the ignition switch to the "ON" position.

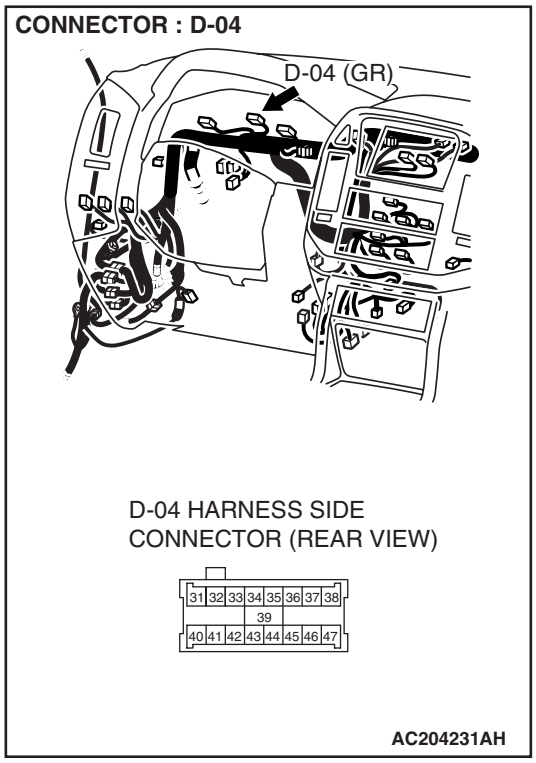




Q: Does the SRS warning light go out when combination meter connector D-04 is disconnected?

YES : Go to Step 3.
NO : Replace the combination meter. Then go to Step 4.





STEP 3. Check the harness for short circuit to ground between SRS-ECU connector E-08 (terminal No.8) and combination meter connector D-04 (terminal No.44).

Q: Is the harness wire between the SRS-ECU connector E-08 (terminal No.8) and combination meter connector D-04 (terminal No.44) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 43 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.

NO : Repair the harness wire between SRS-ECU connector E-08 and combination meter connector D-04. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

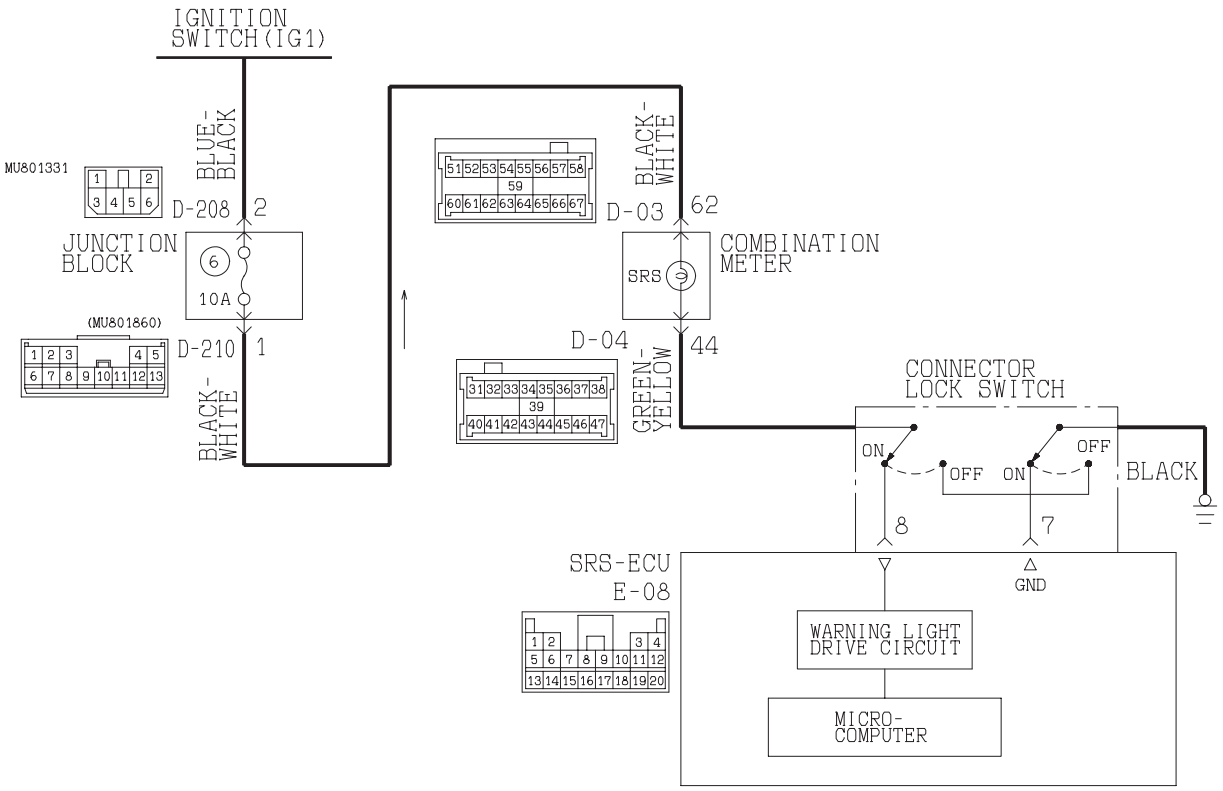
Q: Is DTC 43 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 44: SRS Warning Light Drive Circuit System Fault 2

SRS Warning Light Drive Circuit



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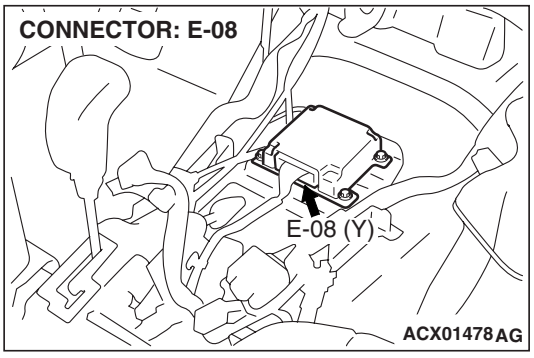


CIRCUIT OPERATION

- Power for the SRS warning light is supplied from the ignition switch (IG1) circuit.
- The SRS warning 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.

TSB Revision

DTC SET CONDITIONS
This DTC is set under one of the following cases while the SRS-ECU is monitoring the warning light drive circuit:
- When a short circuit occurs in the warning light drive circuit.
- When a malfunction is detected in the output transistor inside the SRS-ECU.

However, if the vehicle condition returns to normal, DTC 44 will be automatically erased, and the SRS warning light will go out.

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

DIAGNOSIS

Required Special Tool:
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

STEP 1. Check the SRS warning light drive circuit system (Refer to P.52B-22).

Q: Is the SRS warning light drive circuit normal?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 43 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 2.

NO : Replace the combination meter (Refer to GROUP 54A, Combination Meter Assembly P.54A-74). Then go to Step 2.

STEP 2. Recheck for diagnostic trouble code.

Q: Is DTC 44 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 46 Improper Installation of SRS-ECU

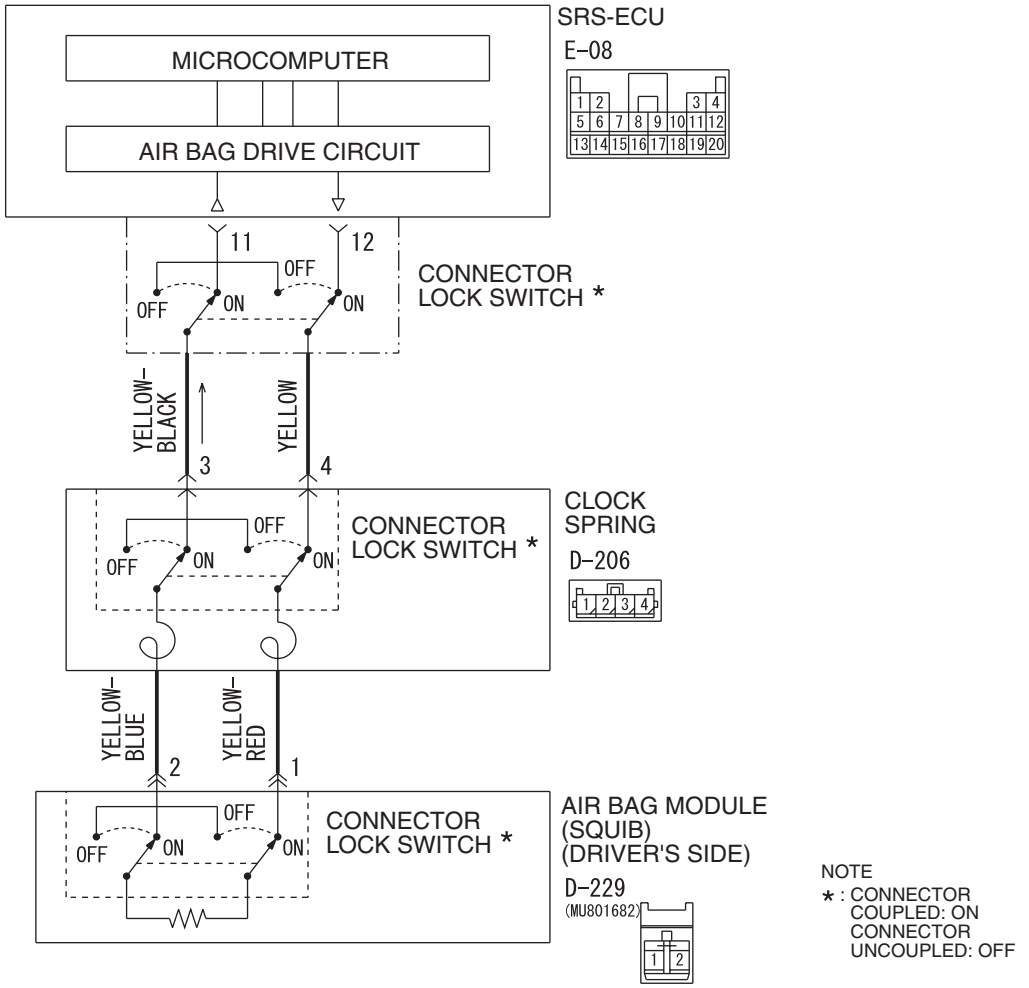
TROUBLE JUDGMENT
This DTC is set when an SRS-ECU, designed only for the driver's air bag, is installed on the vehicle, which has both driver's and passenger's air bags.

TROUBLESHOOTING HINTS
- Malfunction of the SRS-ECU

DIAGNOSIS
Replace the SRS-ECU (Refer to P.52B-215).

DTC 61: Driver's Air Bag Module (Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)

Driver's Air Bag Module (Squib) Circuit



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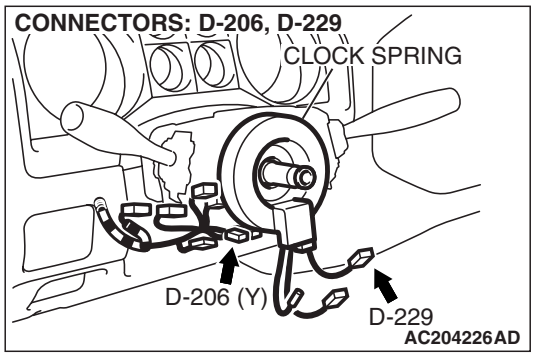
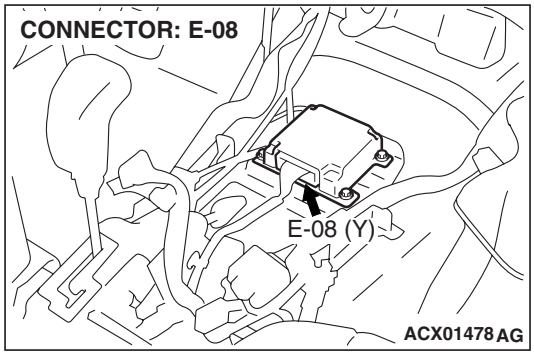




TSB Revision

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 outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's side air bag module (squib). However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

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

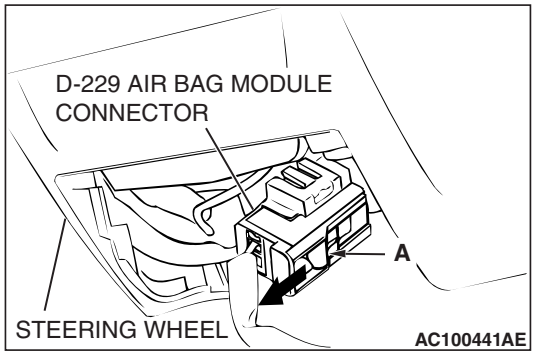
Required Special Tools:

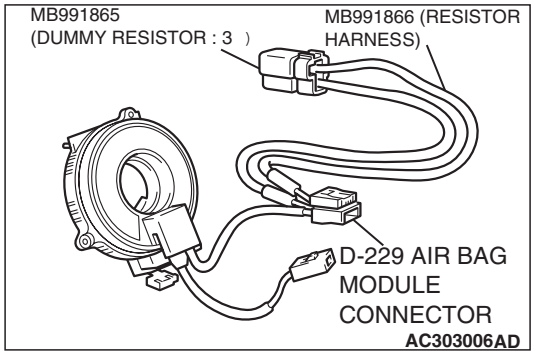
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the driver's air bag module (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.

(2) By sliding the A section (in the figure) of air bag module connector D-229 in arrow direction, 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 air bag module connector D-229 by backprobing.

(5) Connect the negative battery terminal.

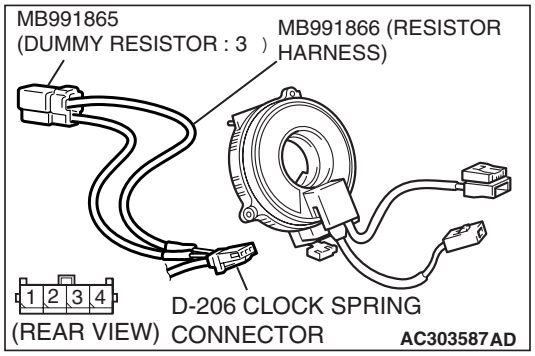
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC 61 out put?

YES : Go to Step 2.

NO : Replace the driver's air bag module (Refer to P.52B-217). Then go to Step 5.

TSB Revision



STEP 2. 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 D-206.
(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.

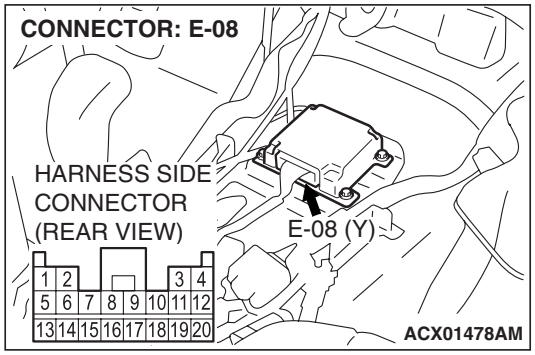
(4) Insert special tool MB991866 into clock spring harness connector D-206 (terminal No.3 and 4) by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

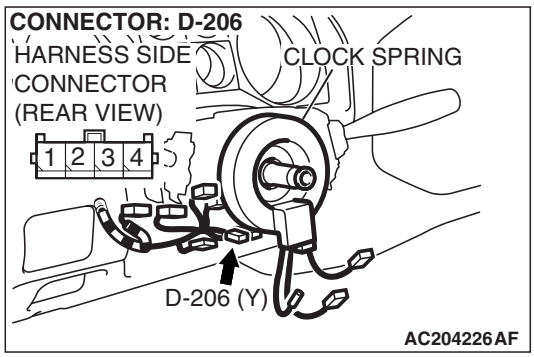
Q: Is DTC 61 set?

YES : Go to Step 3.
NO : Replace the clock spring (Refer to P.52B-217). Then go to Step 5.

STEP 3. Check the harness for short circuit to power supply between the SRS-ECU and the clock spring.

(1) Disconnect SRS-ECU connector E-08.



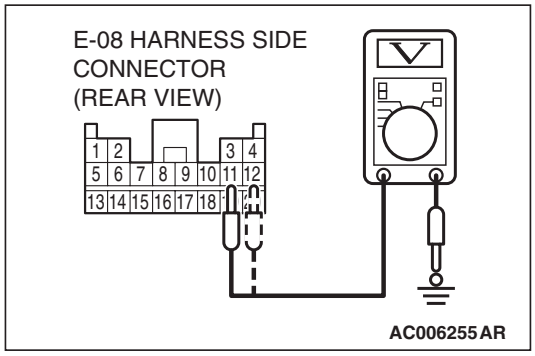


⚠ *DANGER*

To prevents the air bag from deploying unintentionally, disconnect the clock spring connector D-206 to short the squib circuit.

(2) Disconnect the clock spring connector D-206.

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



⚠ CAUTION

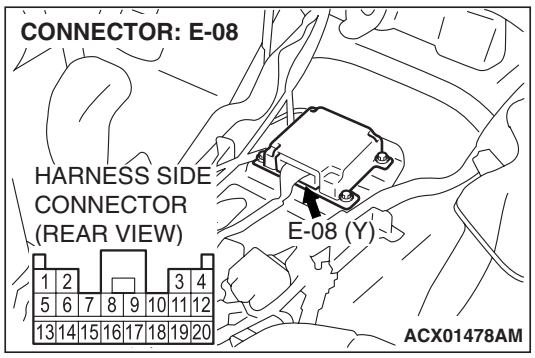
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

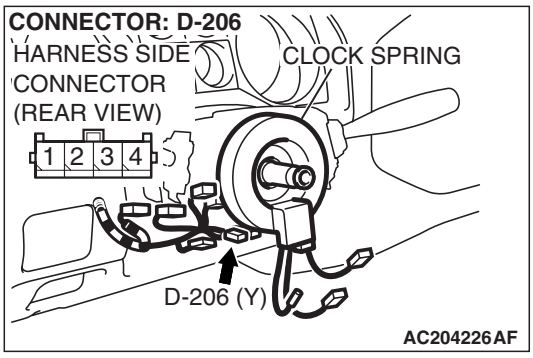
(4) Measure the voltage between E-08 harness connector terminals 11, 12 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 61 sets. replace the SRS-ECU (Refer to P.52B-215). Then go to Step 5.

NO : Then go to Step 4.





STEP 4. Check the harness for short circuit to power supply between SRS-ECU connector E-08 (terminal No.11 and 12) and clock spring connector D-206 (terminal No.3 and 4).

Q: Are harness wires between the SRS-ECU connector E-08 (terminal No.11 and 12) and clock spring connector D-206 (terminal No.3 and 4) in good condition?

YES : Go to Step 5.

NO : Repair the harness wires between SRS-ECU connector E-08 and clock spring connector D-206. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

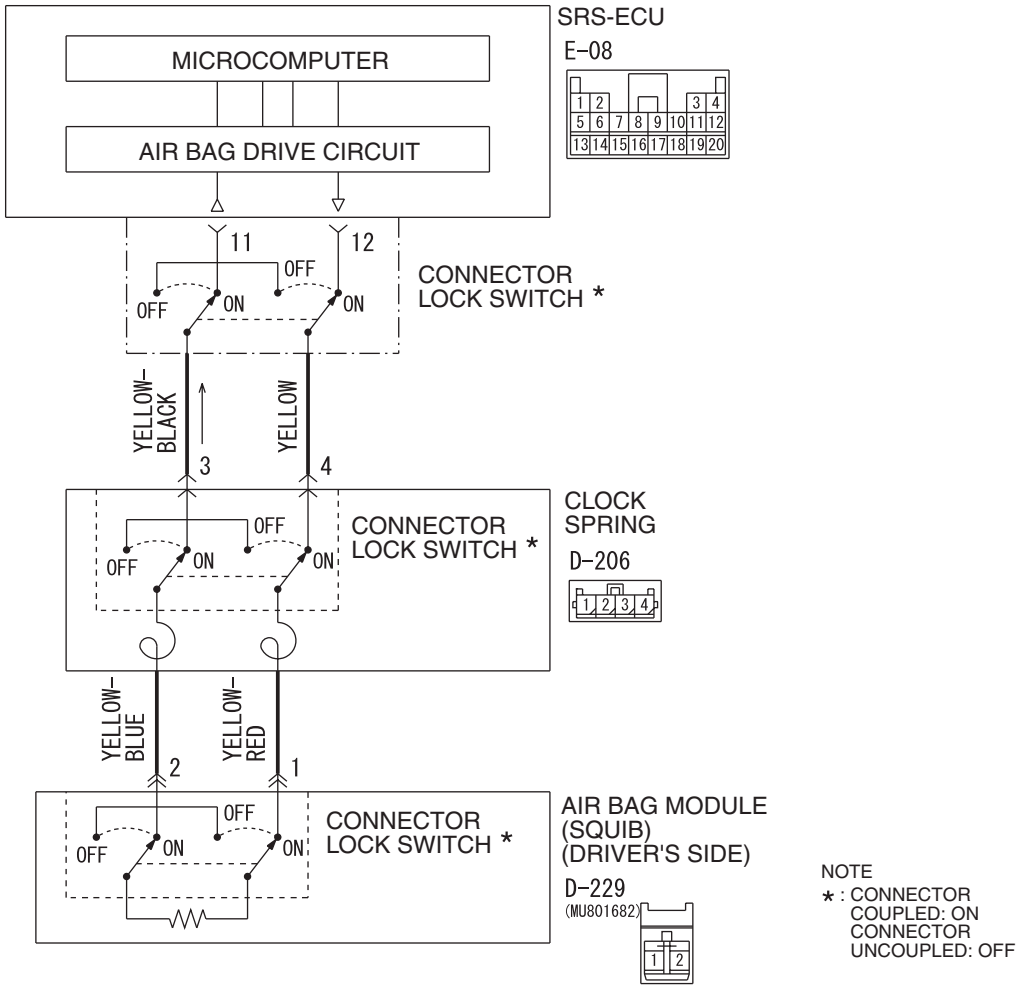
Q: Is DTC 61 set?

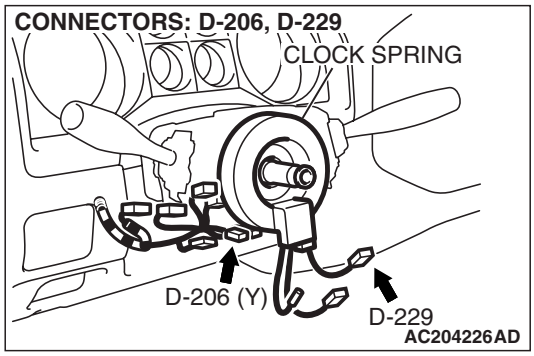
YES : Return to Step 1.

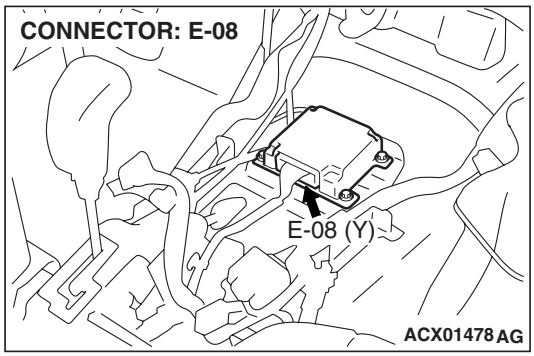
NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 62: Driver's Air Bag Module (Squib) System Fault for Ground Circuit (Short-Circuited to ground)

Driver's Air Bag Module (Squib) Circuit







TSB Revision

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 outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's side air bag module (squib). However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

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

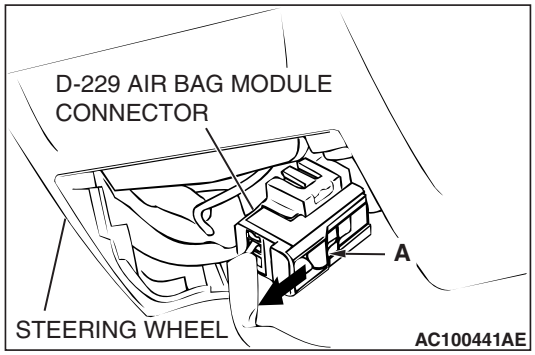
Required Special Tools:

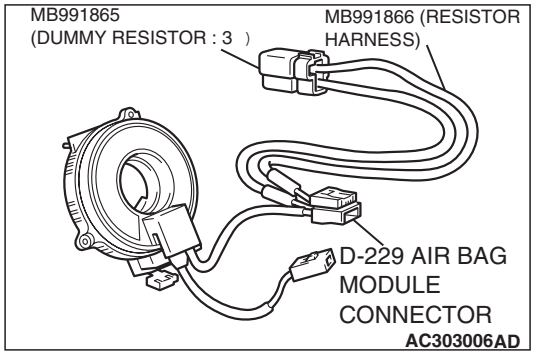
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the driver's air bag module (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.

(2) By sliding the A section (in the figure) of air bag module connector D-229 in arrow direction, 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 air bag module connector D-229 by backprobing.

(5) Connect the negative battery terminal.

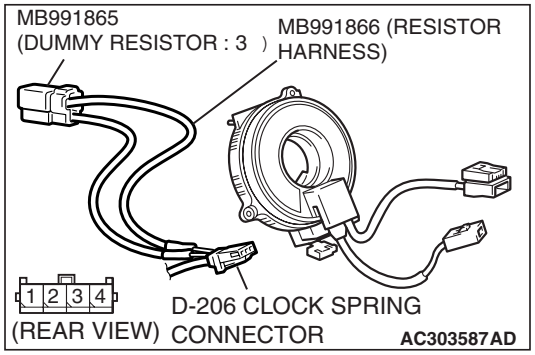
(6) Erase the diagnostic trouble code memory, and then recheck the diagnostic trouble code.

Q: Is DTC 62 set?

YES : Go to Step 2.

NO : Replace the driver's air bag module (Refer to P.52B-217). Then go to Step 5.

TSB Revision



STEP 2. 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 D-206.
(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.

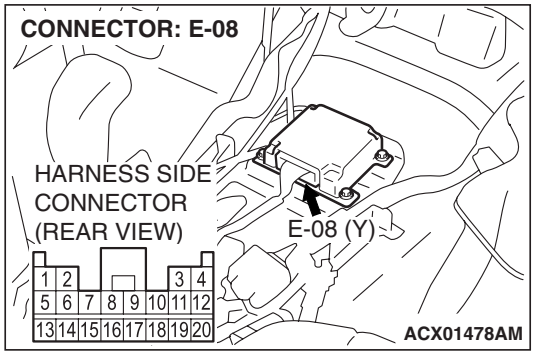
(4) Insert special tool MB991866 into clock spring harness side connector D-206 (terminal No.3 and 4) by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC 62 set?

YES : Go to Step 3.
NO : Replace the clock spring (Refer to P.52B-217). Then go to Step 5.

STEP 3. Check the harness for short circuit to ground between the SRS-ECU and the clock spring.

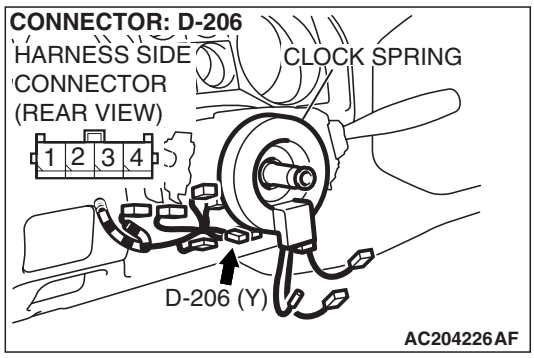
(1) Disconnect SRS-ECU connector E-08.



⚠ ***DANGER***

To prevents the air bag from deploying unintentionally, disconnect the clock spring connector D-206 to short the squib circuit.

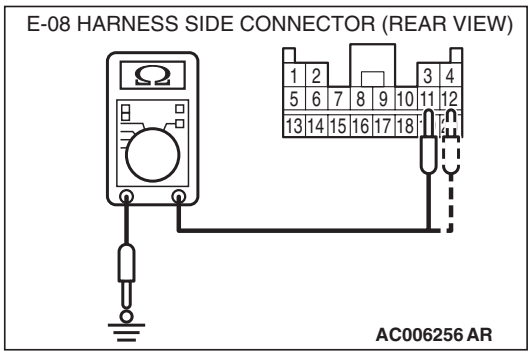
(2) Disconnect the clock spring connector D-206.



⚠ **CAUTION**

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

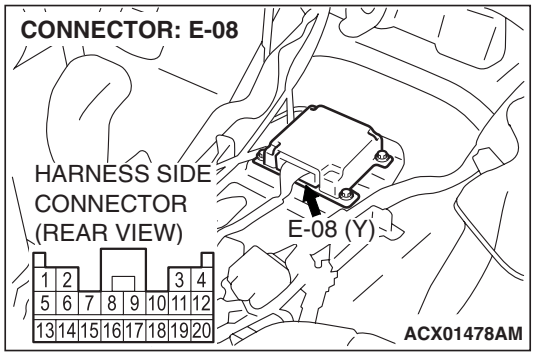
(3) Check for continuity between E-08 harness connector terminals 11, 12 and body ground.
It should be open circuit.

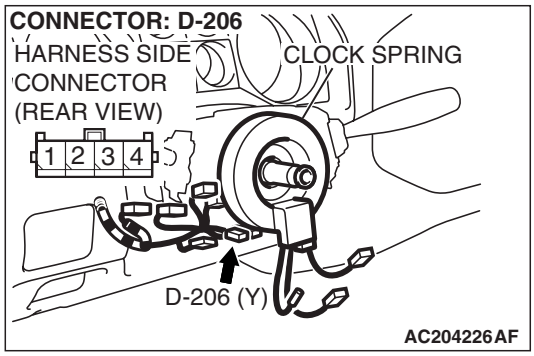


Q: Does continuity exist?

YES : Go to Step 4.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 62 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 5.





STEP 4. Check the harness for short circuit to ground between SRS-ECU connector E-08 (terminal No.11 and 12) and clock spring connector D-206 (terminal No.3 and 4).

Q: Are the harness wires between SRS-ECU connector E-08 (terminal No.11 and 12) and clock spring connector D-206 (terminal No.3 and 4) in good condition?

YES : Go to Step 5.

NO : Repair the harness wires between SRS-ECU connector E-08 and clock spring connector D-206. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

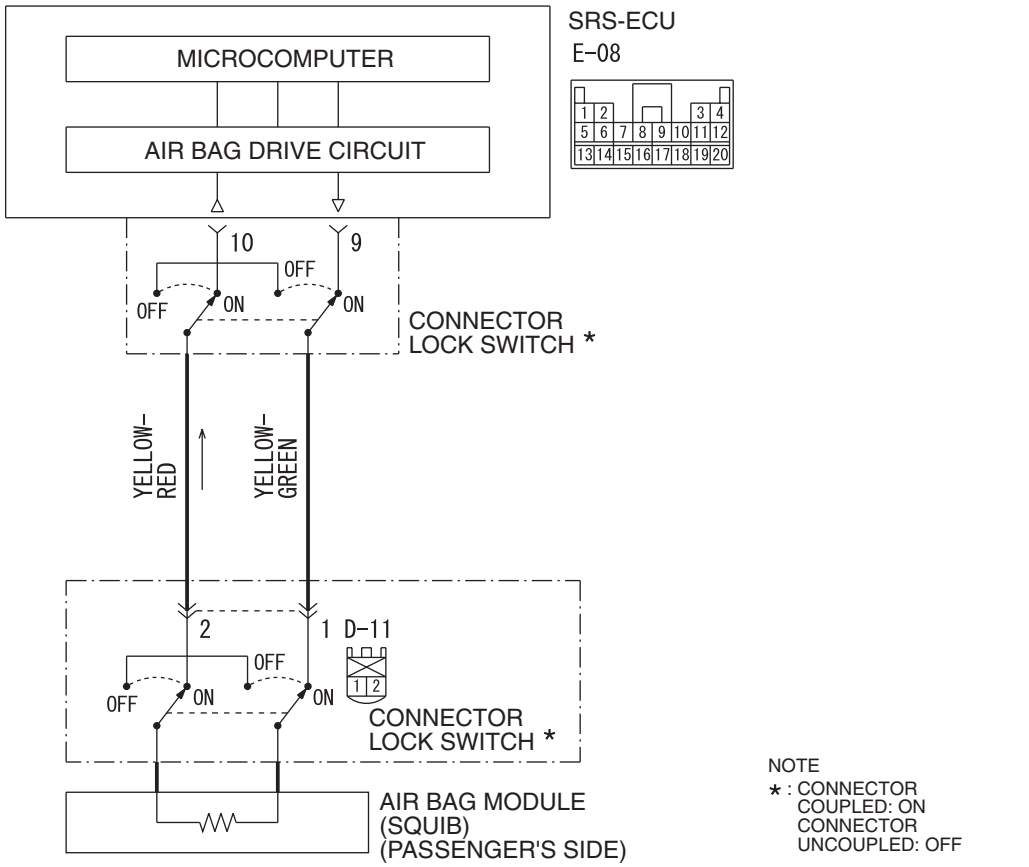
Q: Is DTC 62 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 64: Passenger's (Front) Air Bag Module (Squib) System Fault for Power Supply Circuit (Short-Circuited to Power Supply)

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



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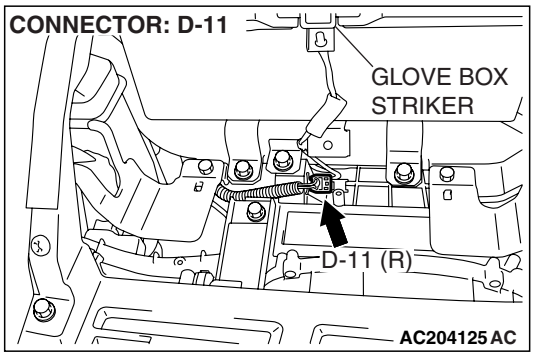
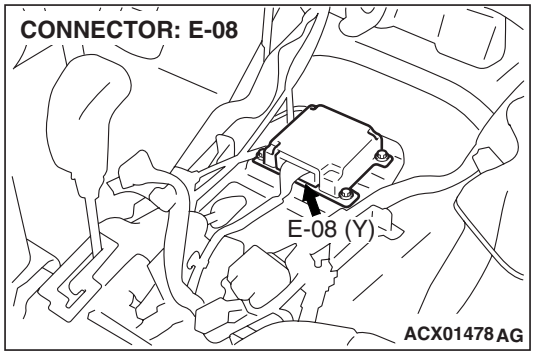




CIRCUIT OPERATION

- 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 outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via 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 air bag module (squib). However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

TSB Revision

TROUBLESHOOTING HINTS

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

DIAGNOSIS

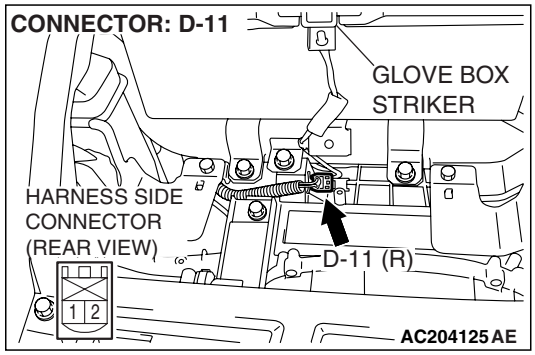
Required Special Tools:

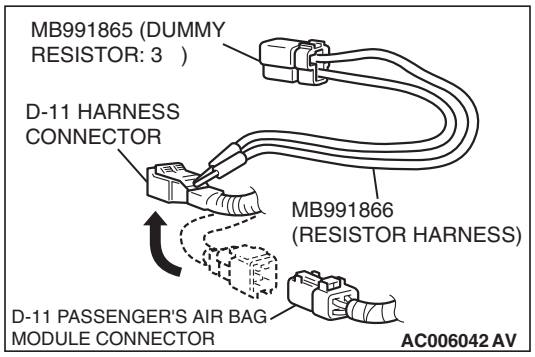
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP1. Check the passenger's air bag module (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.

(2) Unclip passenger's air bag module connector D-11.





(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) Disconnect the passenger's air bag module connector D-11, and insert special tool MB991866 into the harness connector by backprobing.

(5) Connect the negative battery terminal.

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

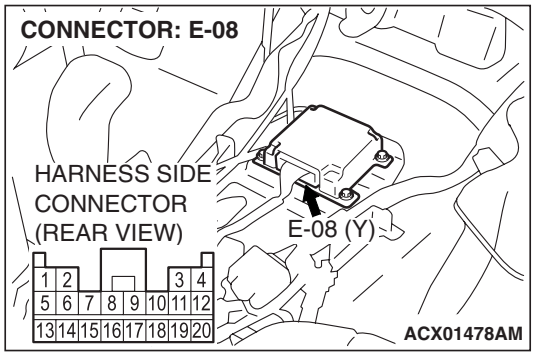
Q: Is DTC 64 set?

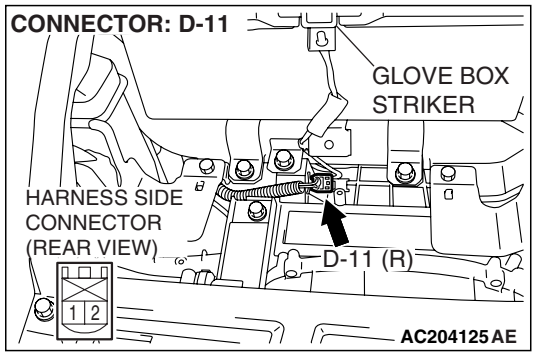
YES : Go to Step 2.

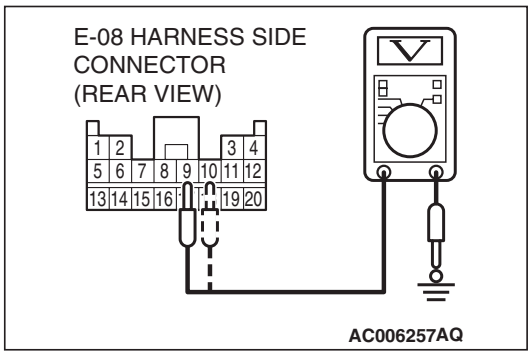
NO : Replace the passenger's air bag module (Refer to P.52B-217). Then go to Step 4.

STEP 2. Check the harness for short circuit to power supply between the SRS-ECU and the passenger's air bag module.

(1) Disconnect SRS-ECU connector E-08.







⚠ *DANGER*

To prevents the air bag from deploying unintentionally, disconnect the passenger's air bag module connector D-11 to short the squib circuit.

(2) Unclip passenger's air bag module connector D-11.
(3) Disconnect the passenger's air bag module connector D-11.
(4) Turn the ignition switch to the "ON" position.

⚠ CAUTION

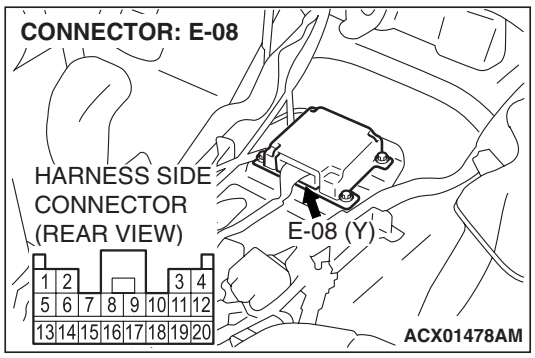
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

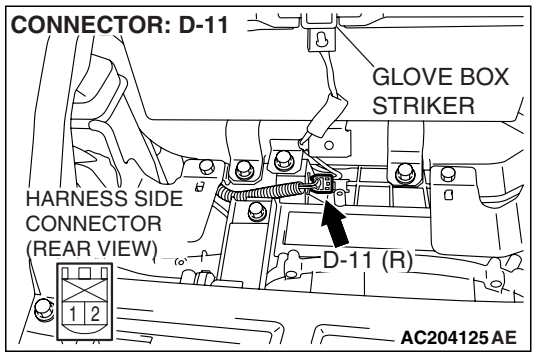
(5) Measure the voltage between terminals 9, 10 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage within the specified range?

YES : Eras the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 64 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.

NO : Go to Step 3.





STEP 3. Check the harness wires for short circuit to power supply between SRS-ECU connector E-08 (terminal No.9 and 10) and passenger's air bag module connector D-11 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector E-08 (terminal No.9 and 10) and passenger's air bag module connector D-11 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-08 and passenger's air bag module connector D-11. Then go to Step 4.

STEP 4. Recheck the diagnostic trouble code.

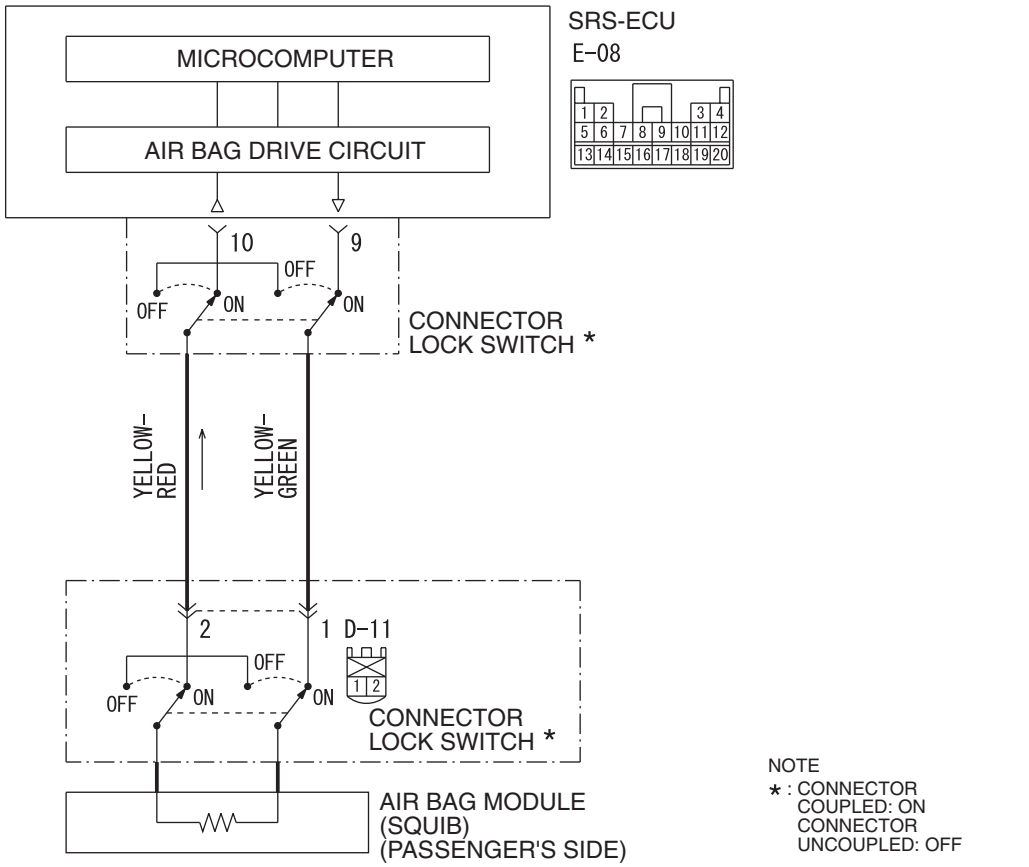
Q: Is DTC 64 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 65: Passenger's (Front) Air Bag Module (Squib) System Fault for Ground Circuit (Short-Circuited to Ground)

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



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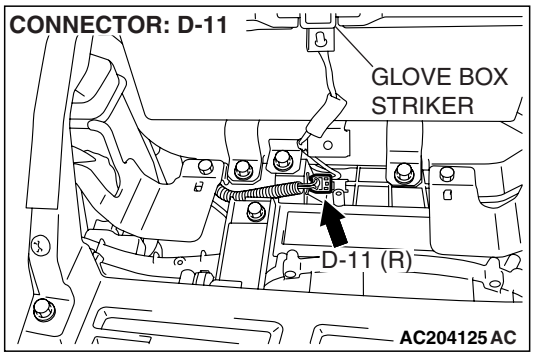
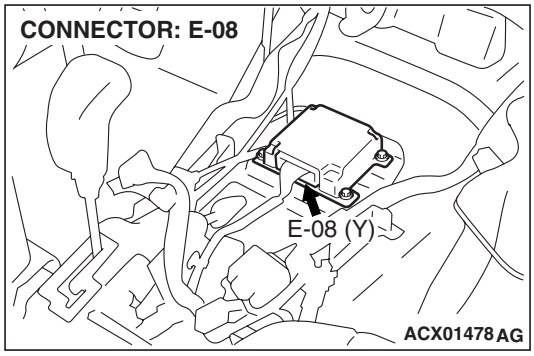




CIRCUIT OPERATION

- 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 outputs an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via 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 air bag module (squib). However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

TSB Revision

TROUBLESHOOTING HINTS

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

DIAGNOSIS

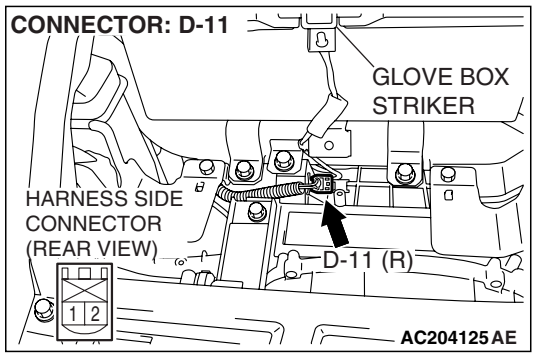
Required Special Tools:

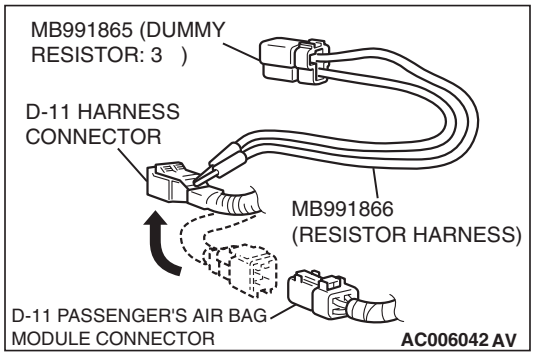
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP1. Check the passenger's air bag module (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.

(2) Unclip passenger's air bag module connector D-11.





(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) Disconnect the passenger's air bag module connector D-11, and insert special tool MB991866 into the harness connector by backprobing.

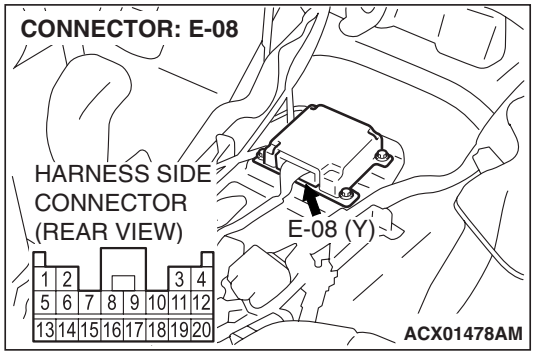
(5) Connect the negative battery terminal.

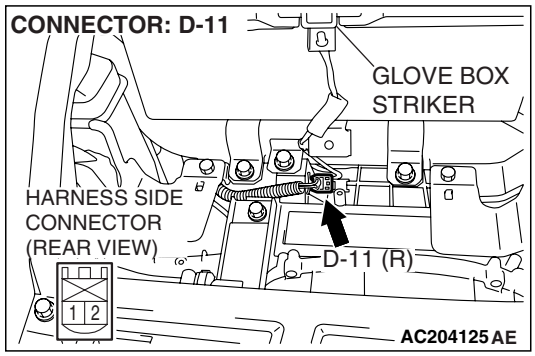
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

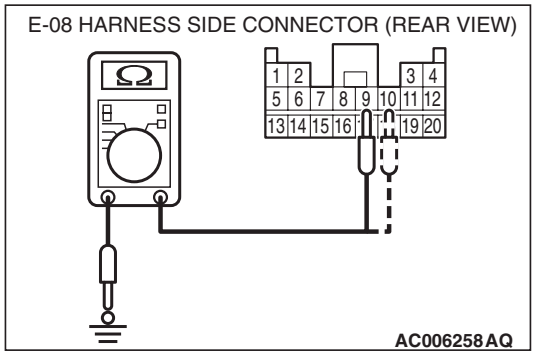
Q: Is DTC 65 set?

YES : Go to Step 2.

NO : Replace the passenger's air bag module (Refer to P.52B-217). Then go to Step 4.







STEP 2. Check the passenger's air bag module circuit at the SRS-ECU connector E-08.

(1) Disconnect SRS-ECU connector E-08.

⚠ ***DANGER***

Unclip passenger's air bag module connector D-11. To prevents the air bag from deploying unintentionally, disconnect the passenger's air bag module connector D-11 to short the squib circuit.

(2) Disconnect the passenger's air bag module connector D-11.

⚠ **CAUTION**

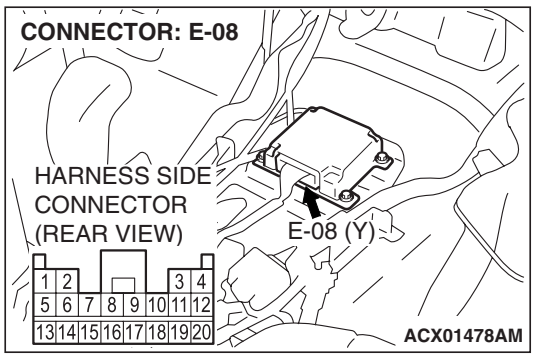
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

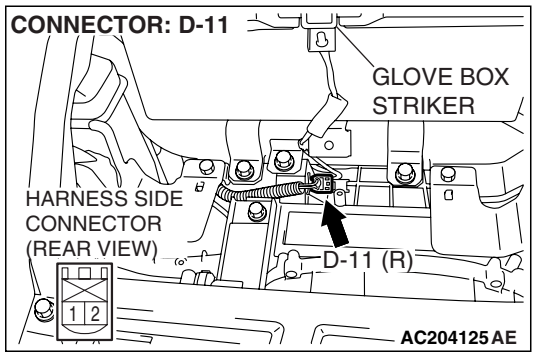
(3) Check for continuity between E-08 harness connector terminals 9, 10 and body ground.
There should be open circuit.

Q: Does continuity exist?

YES : Go to Step 3.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 65 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.





STEP 3. Check the harness wires for short circuit to ground between SRS-ECU connector E-08 (terminal No.9 and 10) and passenger's air bag module connector D-11 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector E-08 (terminal No.9 and 10) and passenger's air bag module connector D-11 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-08 and passenger's air bag module connector D-11. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

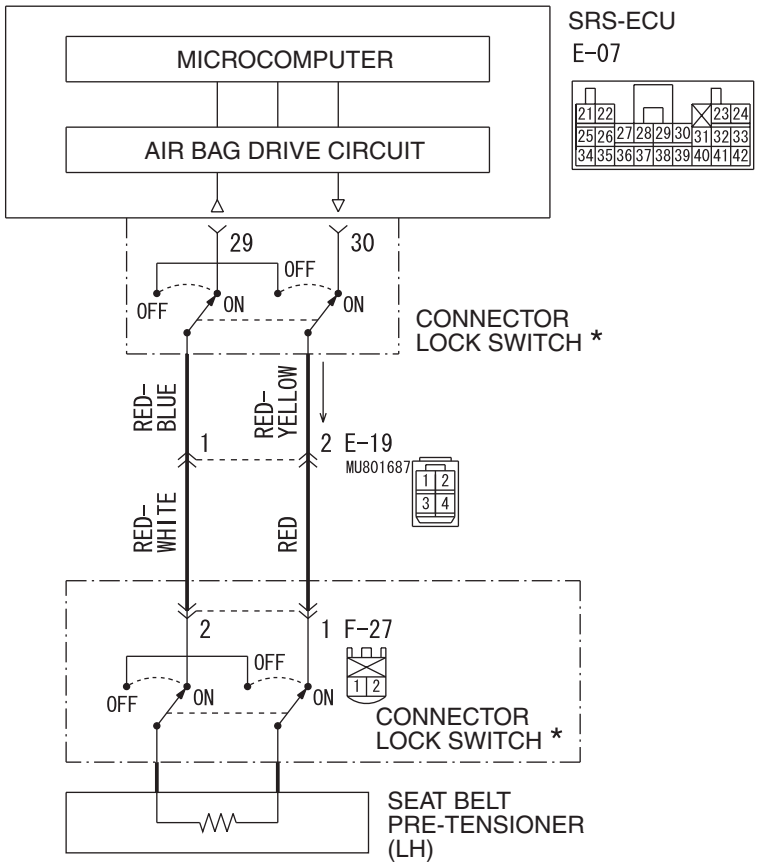
Q: Is DTC 65 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 66: Driver's Seat Belt Pre-tensioner (Squib) System Fault for Power Supply Circuit (Short-circuit to Power Supply)

Driver's Seat Belt Pre-tensioner (Squib)



NOTE
* : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF

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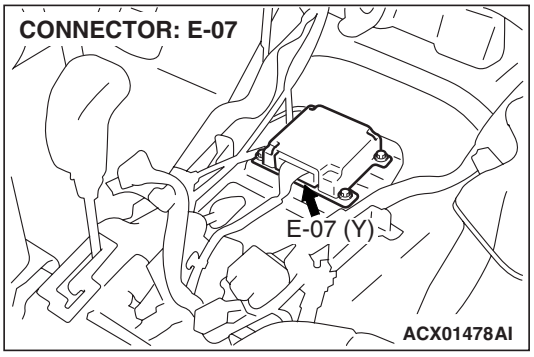
AC500665AB



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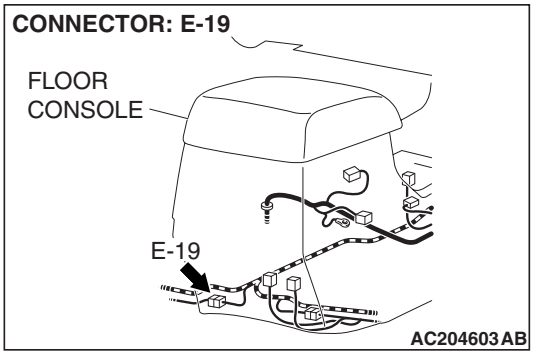

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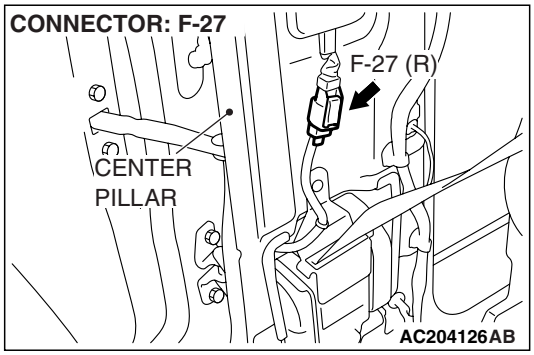
TSB Revision



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 outputs 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 power supply in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

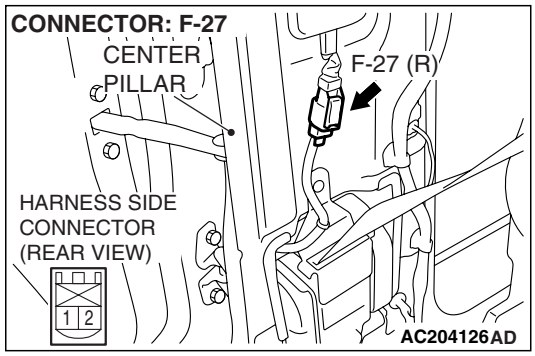
Required Special Tools:

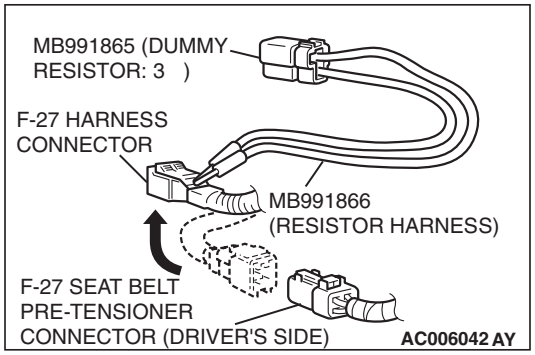
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. 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 the driver's seat belt pre-tensioner connector F-27.





(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 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

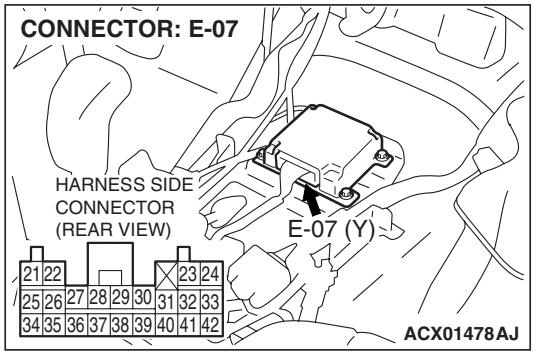
Q: Is DTC 66 set?

YES : Go to Step 2.

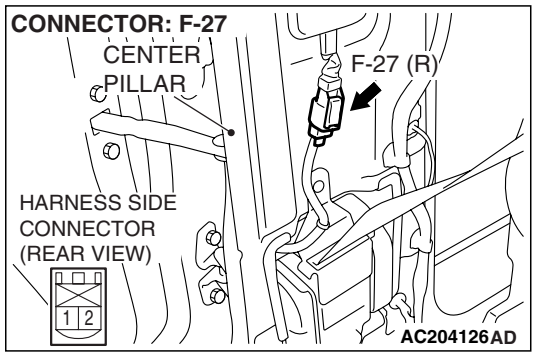
NO : Replace the driver's seat belt pre-tensioner (Refer to P.52B-228). Then go to Step 4.

STEP 2. Check the driver's seat belt pre-tensioner circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.

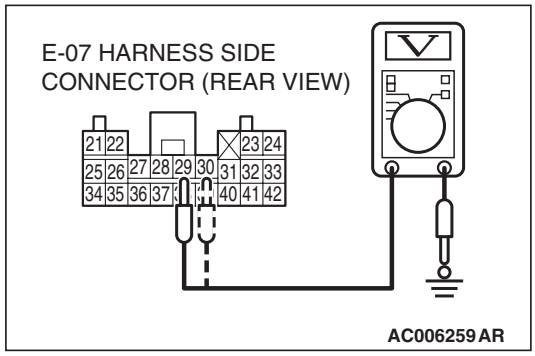


(2) Disconnect driver's seat belt pre-tensioner connector F-27.
(3) Turn the ignition switch to the "ON" position.



⚠ 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 E-07 harness connector terminals 29, 30 and body ground.
Voltage should measure 0 volt.

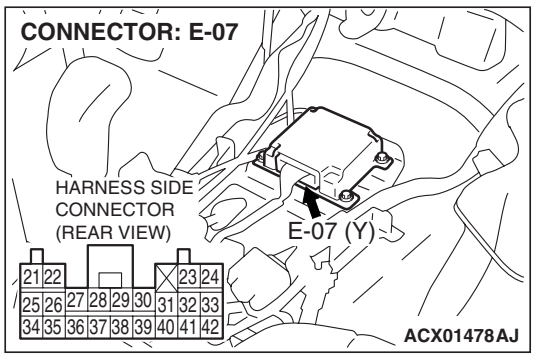


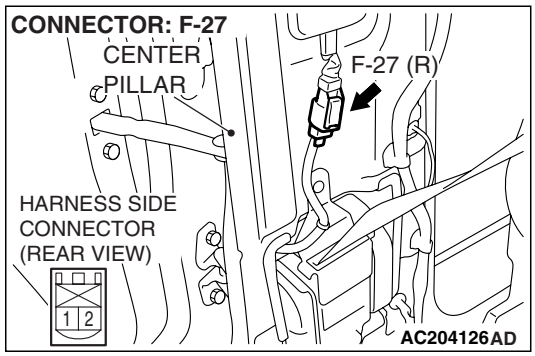
Q: Is the measured voltage within the specified range?

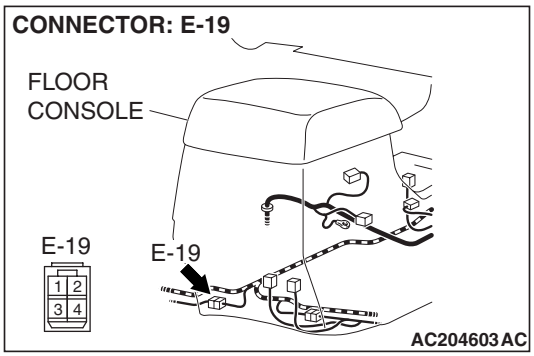
YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 65 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.

NO : Go to Step 3.

STEP 3. Check the harness wires for short circuit to power supply between SRS-ECU connector E-07 (terminal No.29 and 30) and driver's seat belt pre-tensioner connector F-27 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-19 inspect the wiring harness. If the intermediate connector E-19 is damaged, repair or replace it (Refer to GROUP 00E, Harness Connector Inspection). Then go to Step 4.

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.29 and 30) and driver's seat belt pre-tensioner connector F-27 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-07 and driver's seat belt pre-tensioner connector F-27. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

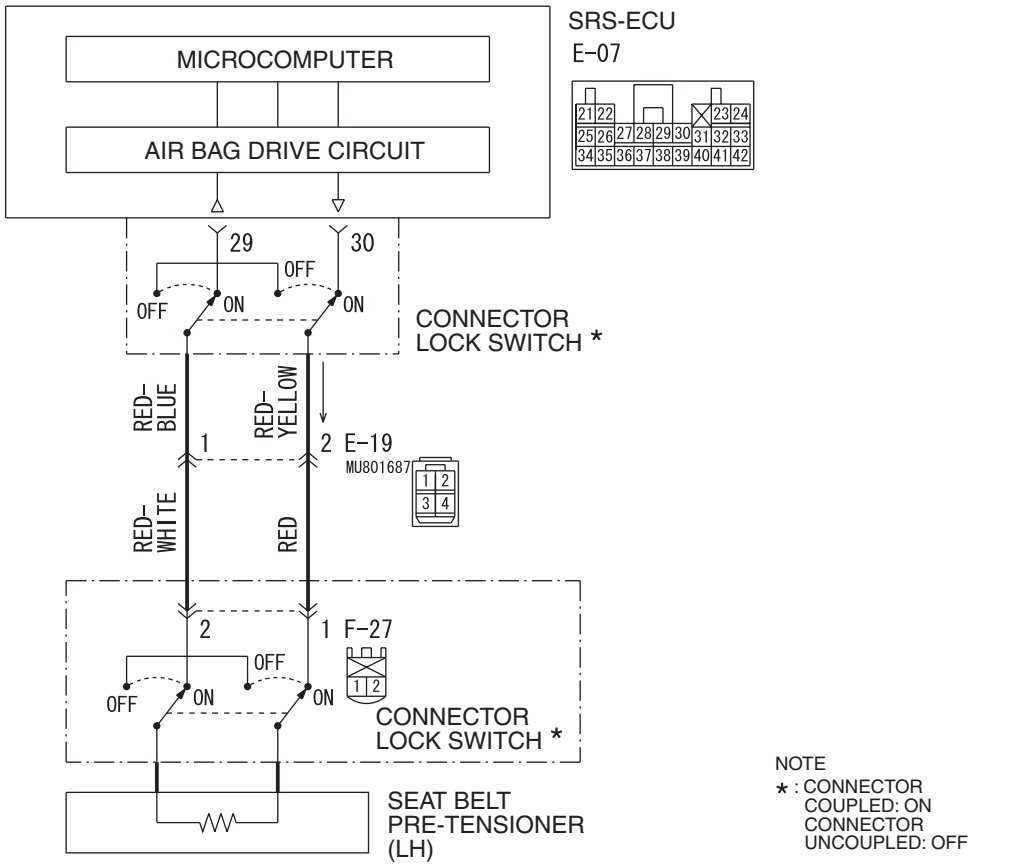
Q: Is DTC 66 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 67: Driver's Seat Belt Pre-tensioner (Squib) System Fault for Ground Circuit (Short-circuited to Ground)

Driver's Seat Belt Pre-tensioner (Squib)



NOTE
* : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF

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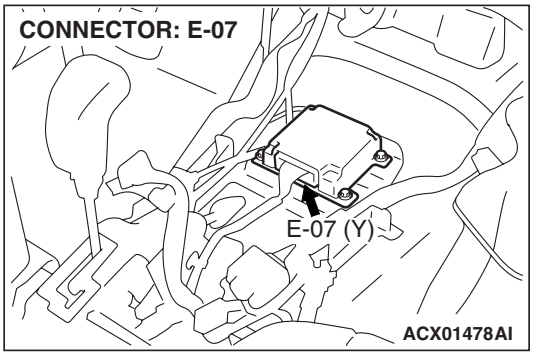

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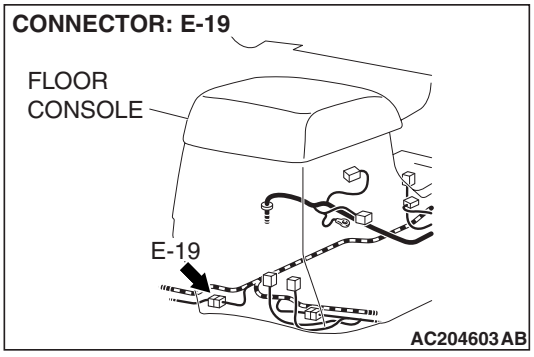

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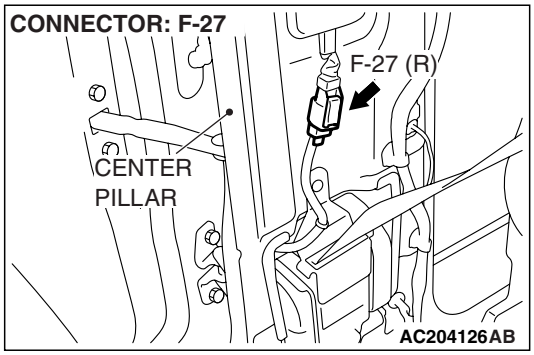
TSB Revision



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 outputs 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

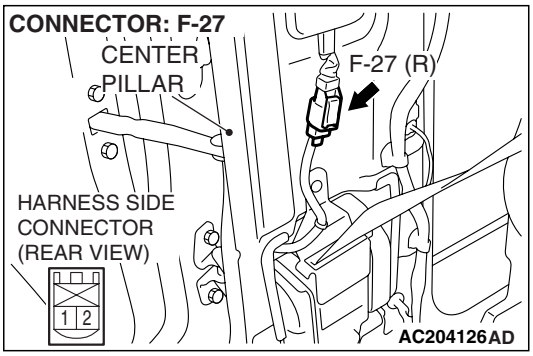
Required Special Tools:

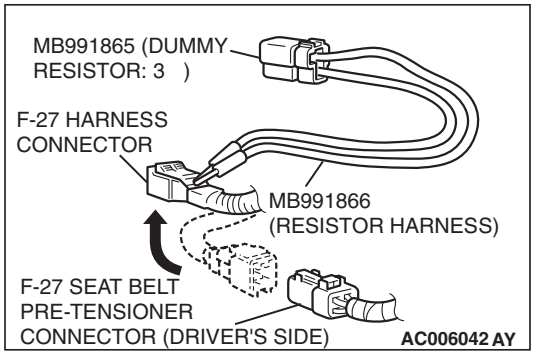
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. 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 the driver's seat belt pre-tensioner connector F-27.





(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 harness connector by backprobing.

(5) Connect the negative battery terminal.

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

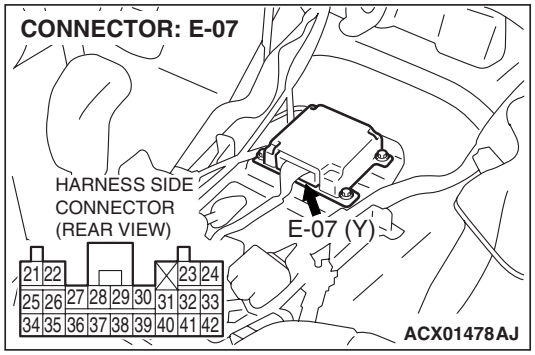
Q: Is DTC 67 set?

YES : Go to Step 2.

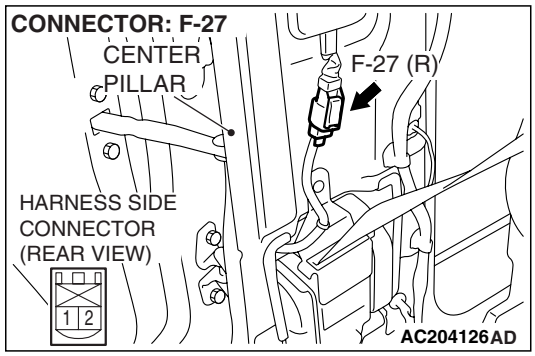
NO : Replace the driver's seat belt pre-tensioner (Refer to P.52B-228). Then go to Step 4.

STEP 2. Check the driver's seat belt pre-tensioner circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.

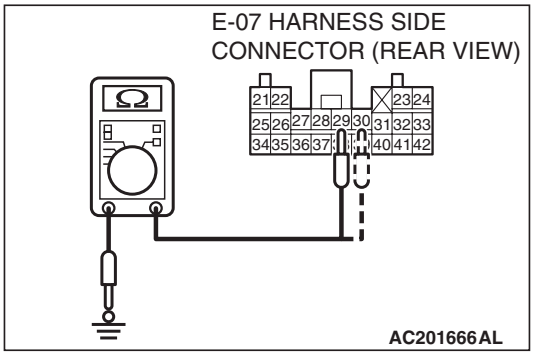


(2) Disconnect driver's seat belt pre-tensioner connector F-27.



⚠ 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 E-07 harness connector terminals 29, 30 and body ground.
It should be open circuit.

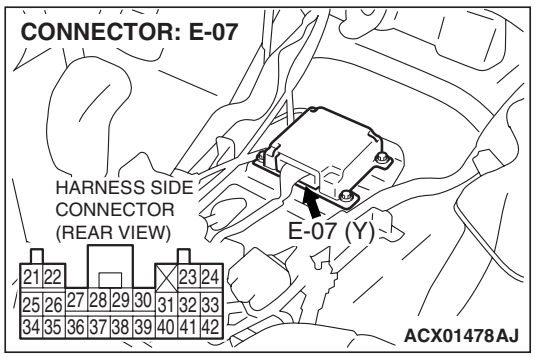


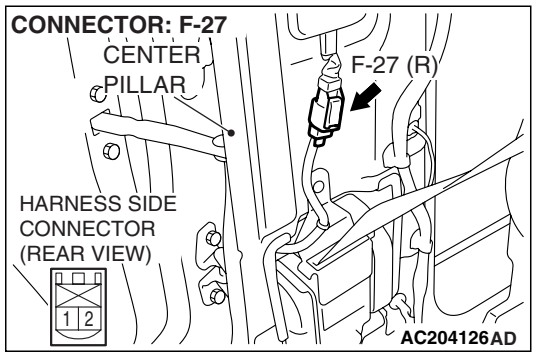
Q: Does continuity exist?

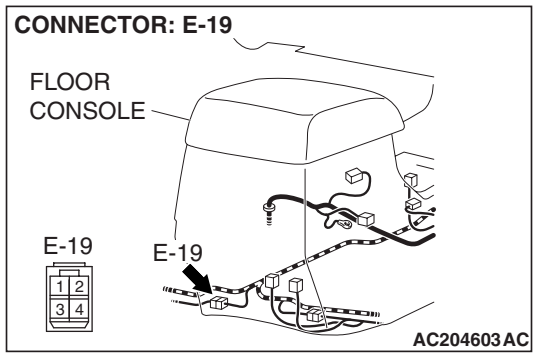
YES : Go to Step 3.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 67 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.

STEP 3. Check harness wires for short circuit to ground between SRS-ECU connector E-07 (terminal No.29 and 30) and driver's seat belt pre-tensioner connector F-27 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-19, inspect the wiring harness. If the intermediate connector E-19 is damaged, repair or replace it (Refer to GROUP 00E, Harness Connector Inspection). Then go to Step 4.

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.29 and 30) and driver's seat belt pre-tensioner connector F-27 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-07 and driver's seat belt pre-tensioner connector F-27. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

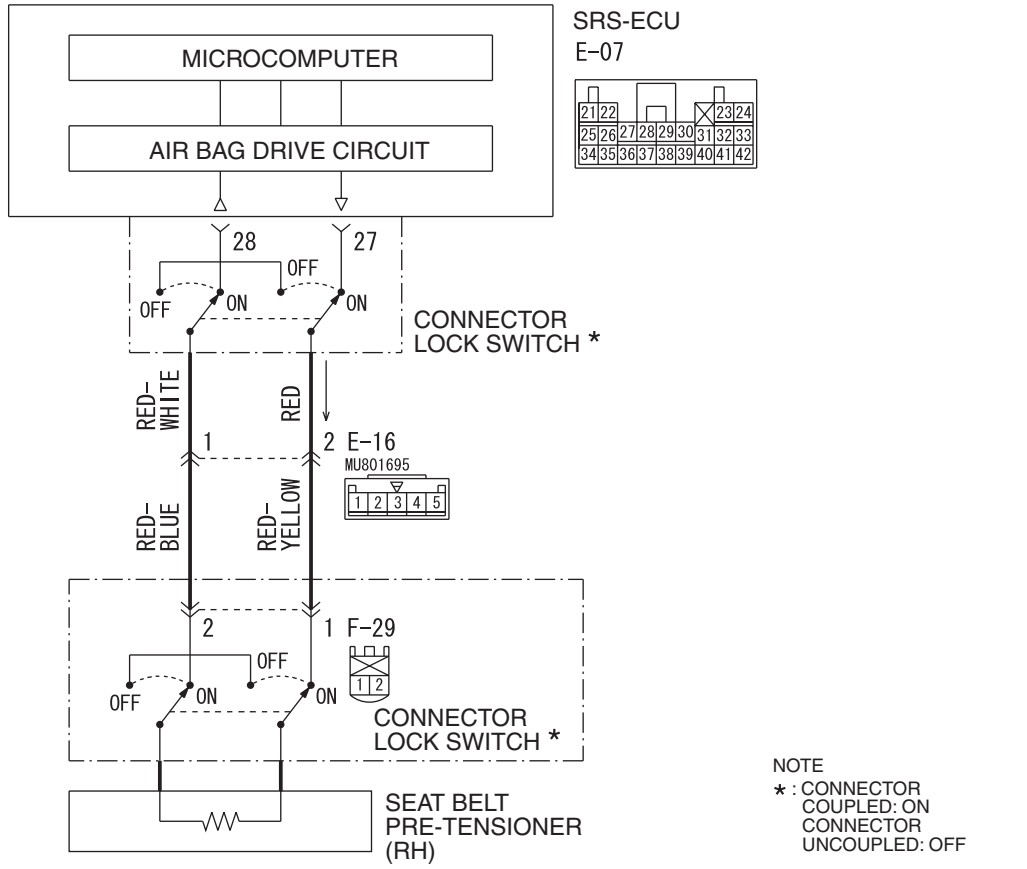
Q: Is DTC 67 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 68: Passenger's (Front) Seat Belt Pre-tensioner (Squib) System Fault for Power Supply Circuit (Short-circuited to Power Supply)

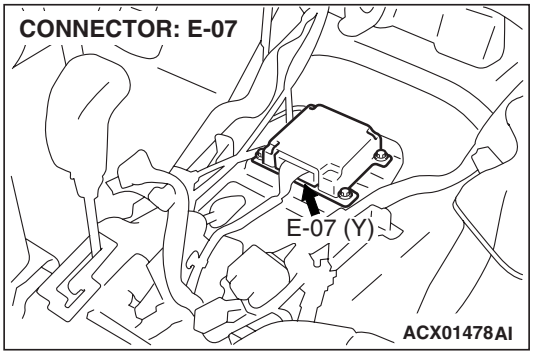
Passenger's (Front) Seat Belt Pre-tensioner (Squib)

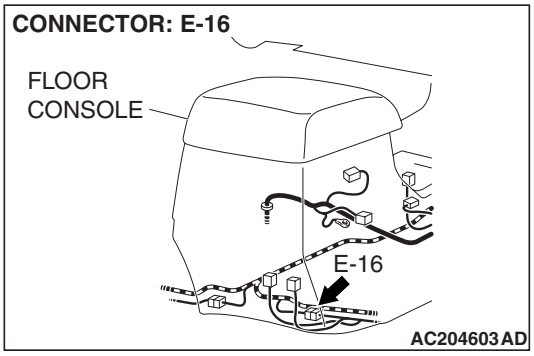


NOTE
* : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF

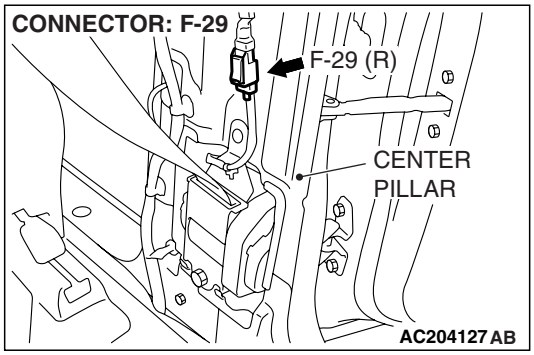
W4Q52M02AA

AC500705 AB





TSB Revision



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 outputs 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

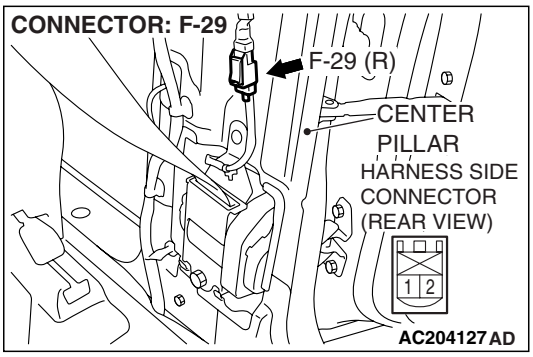
Required Special Tools:

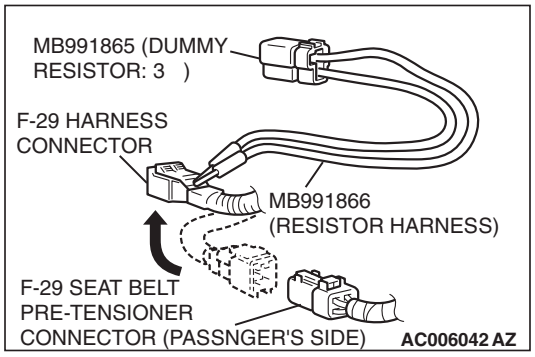
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. 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 the passenger's seat belt pre-tensioner connector F-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 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

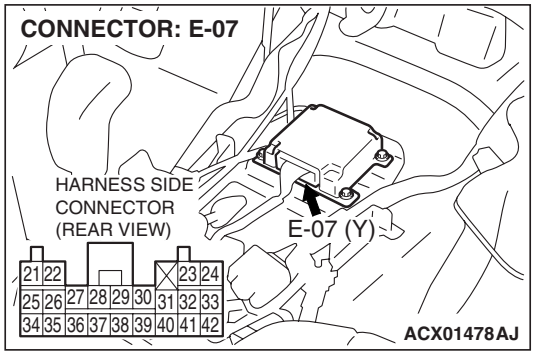
Q: Is DTC 68 set?

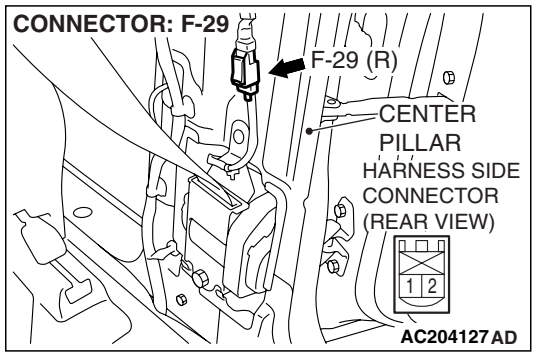
YES : Go to Step 2.

NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-228). Then go to Step 4.

STEP 2. Check the passenger's seat belt pre-tensioner at the SRS-ECU connector E-07.

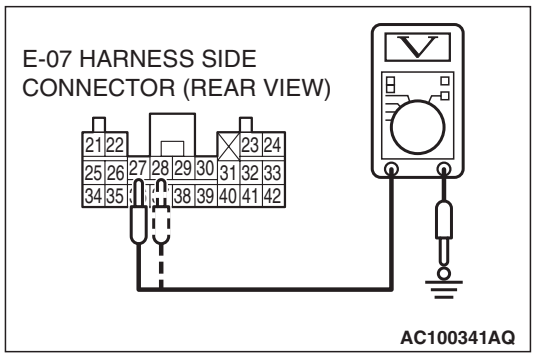
(1) Disconnect SRS-ECU connector E-07.





(2) Disconnect passenger's seat belt pre-tensioner connector F-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.

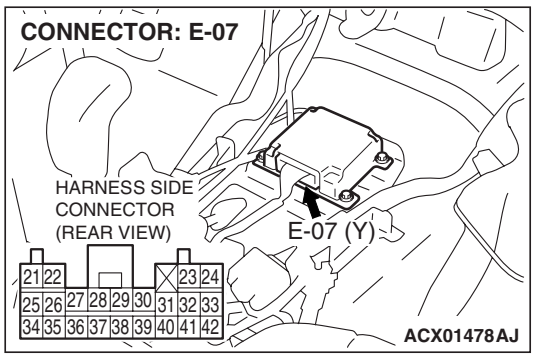
(4) Measure the voltage between E-07 harness connector terminals 27, 28 and body ground.
Voltage should measure 0 volt.

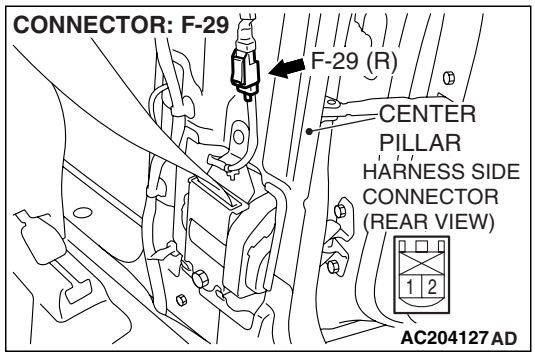
Q: Is the circuit normal?

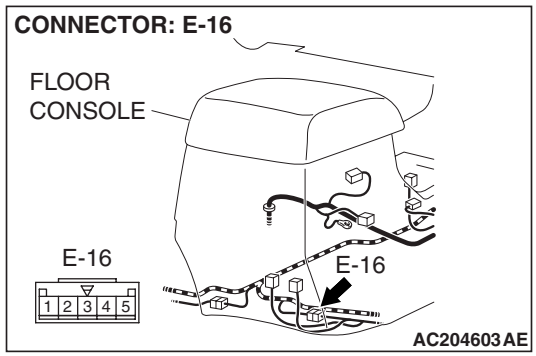
YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 68 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.

NO : Go to Step 3.

STEP 3. Check the harness wires for short circuit to power supply between SRS-ECU connector E-07 (terminal No.27 and 28) and passenger's seat belt pre-tensioner connector F-29 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-16 inspect the wiring harness. If the intermediate connector E-16 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection. Then go to Step 4.

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.27 and 28) and passenger's seat belt pre-tensioner connector F-29 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-07 and passenger's seat belt pre-tensioner connector F-29. Then go to Step 4.

STEP 4. Recheck the diagnostic trouble code.

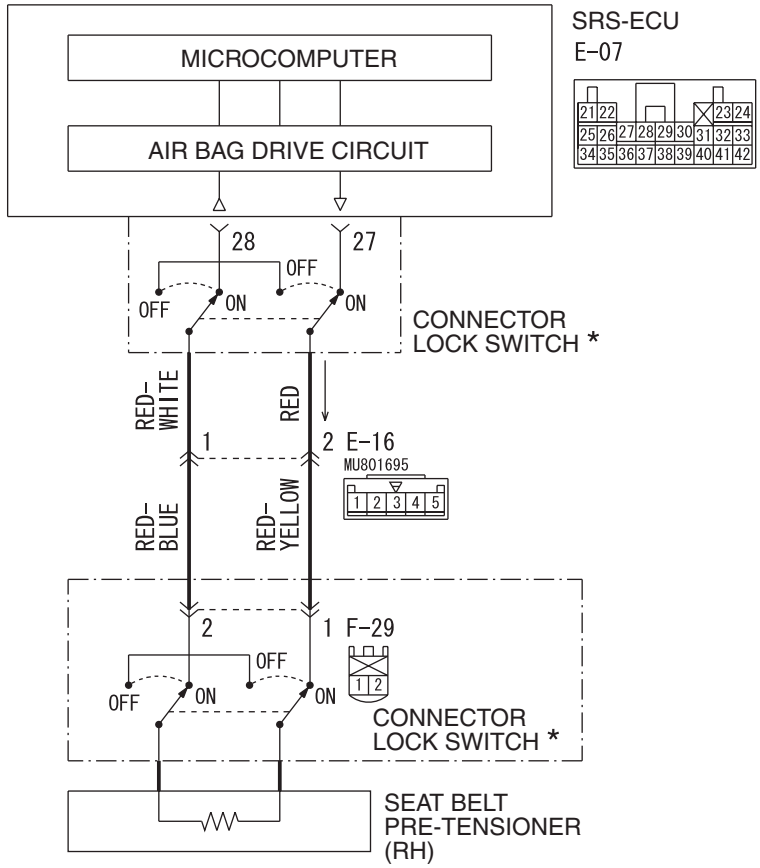
Q: Is DTC 68 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 69: Passenger's (Front) Seat Belt Pre-tensioner (Squib) System Fault for Ground Circuit (Short-circuit to Ground)

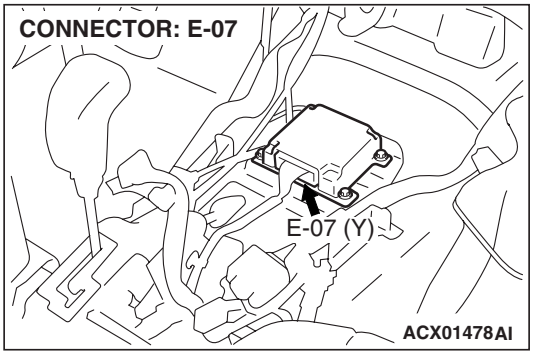
Passenger's (Front) Seat Belt Pre-tensioner (Squib)

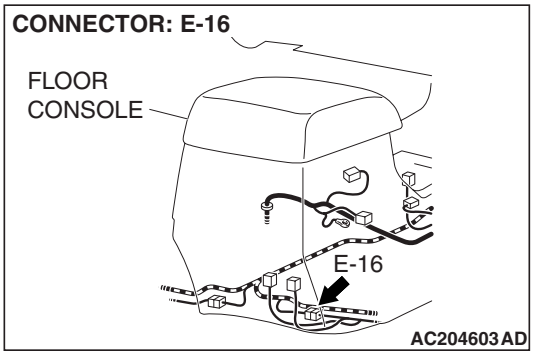


NOTE
* : CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF

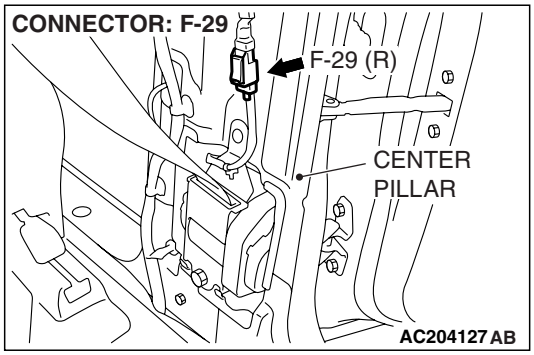
W4Q52M02AA

AC500705 AB





TSB Revision



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 outputs 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 ground in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

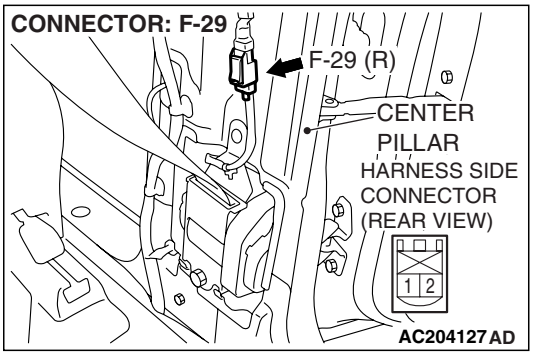
Required Special Tools:

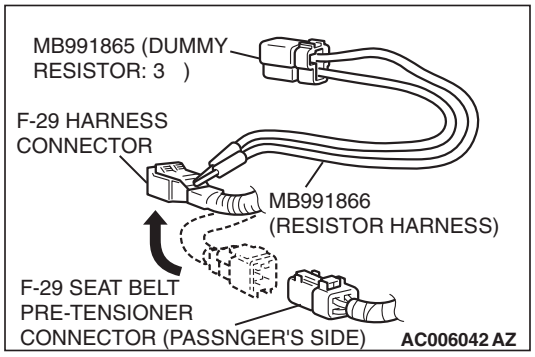
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. 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 the passenger's seat belt pre-tensioner connector F-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 harness connector by backprobing.

(5) Connect the negative battery terminal.

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

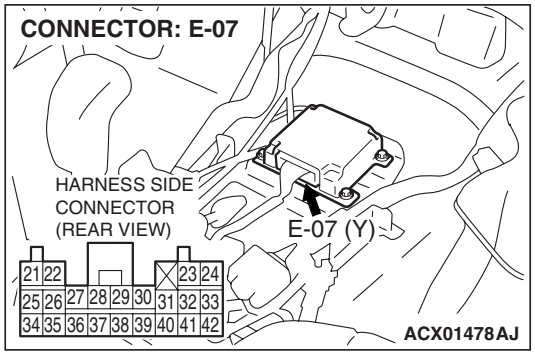
Q: Is DTC 69 set?

YES : Go to Step 2.

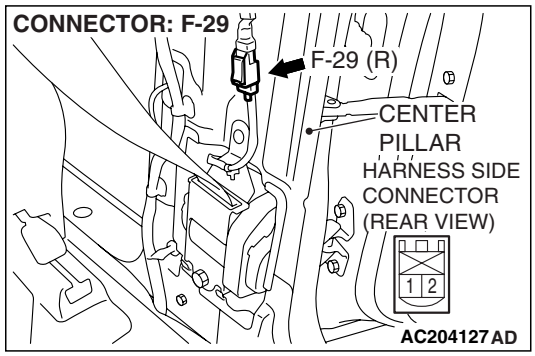
NO : Replace the passenger's seat belt pre-tensioner (Refer to P.52B-228). Then go to Step 4.

STEP 2. Check the passenger's seat belt pre-tensioner circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.

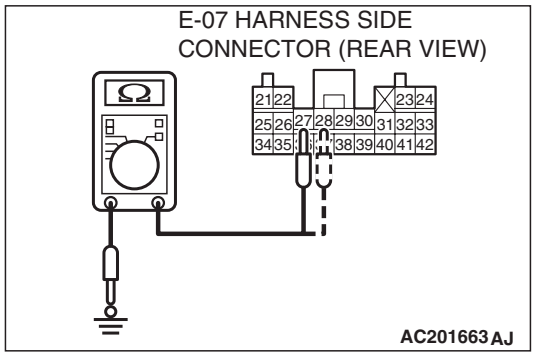


(2) Disconnect passenger's seat belt pre-tensioner connector F-29.



⚠ 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 E-07 harness connector terminals 27, 28 and body ground.
It should be open circuit.

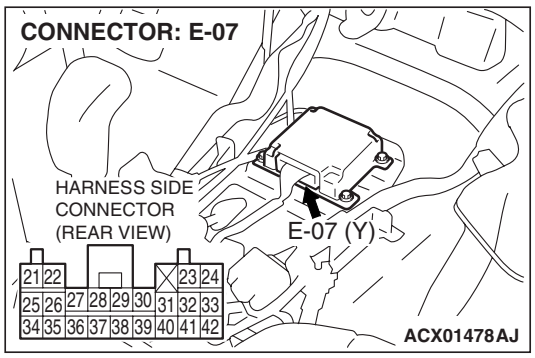


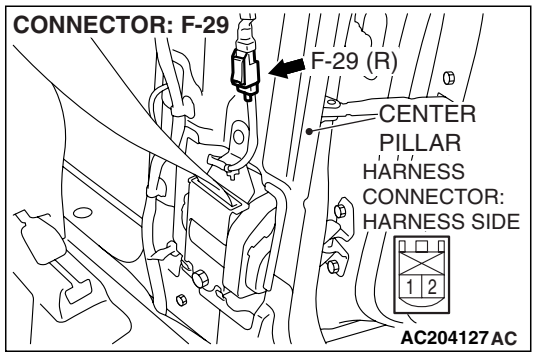
Q: Does continuity exist?

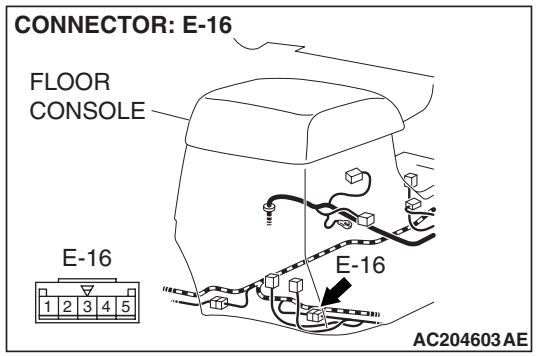
YES : Go to Step 3.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 69 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.

STEP 3. Check harness wires for short circuit to ground between SRS-ECU connector E-07 (terminal No.27 and 28) and passenger's seat belt pre-tensioner connector F-29 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-16 inspect the wiring harness. If the intermediate connector E-16 is damaged, repair or replace it (Refer to GROUP 00E, Harness Connector Inspection). Then go to Step 4.

Q: Are the harness wires between SRS-ECU connector E-07 (terminals No.27 and 28) and passenger's seat belt pre-tensioner connector F-29 (terminals No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-07 and passenger's seat belt pre-tensioner connector F-29. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

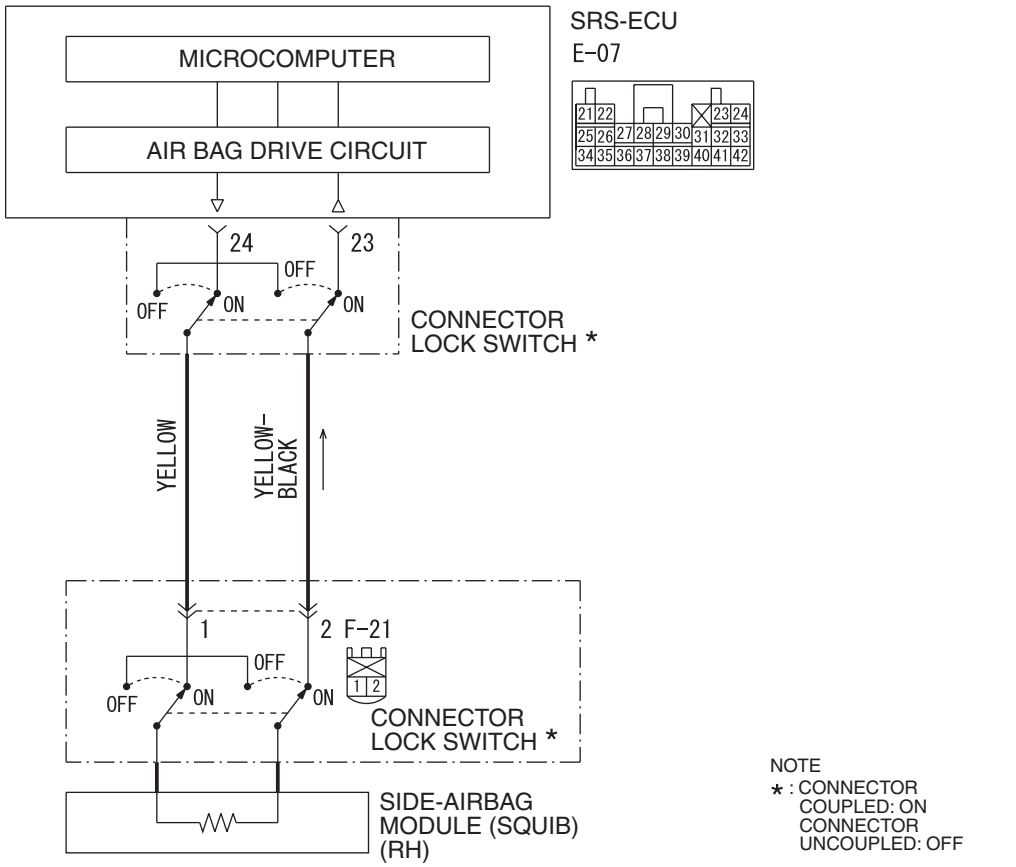
Q: Is DTC 69 set?

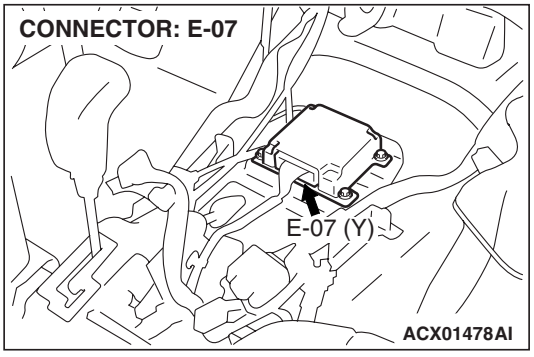
YES : Return to Step 1.

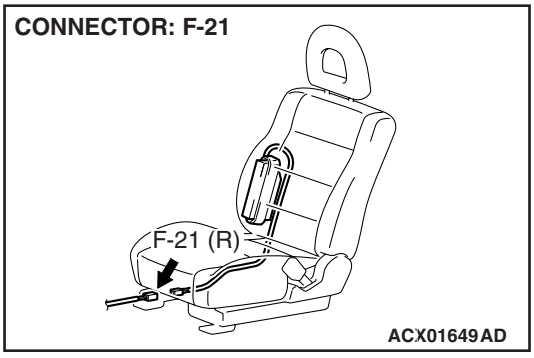
NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 71: Right Hand Side-airbag Module (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Side-airbag Module (RH) (Squib) Circuit







CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TSB Revision

TROUBLESHOOTING HINTS

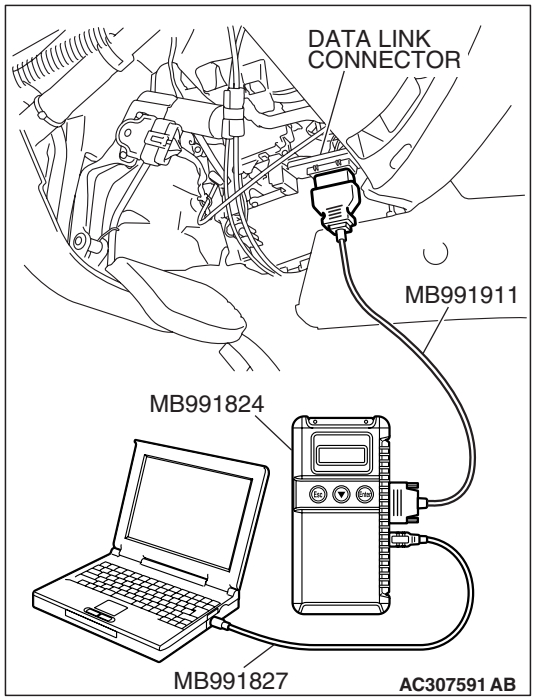
- Improper engaged connector or defective short spring*
- Short between the side-airbag module (RH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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-3). Therefore, if connector E-07 and F-21 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

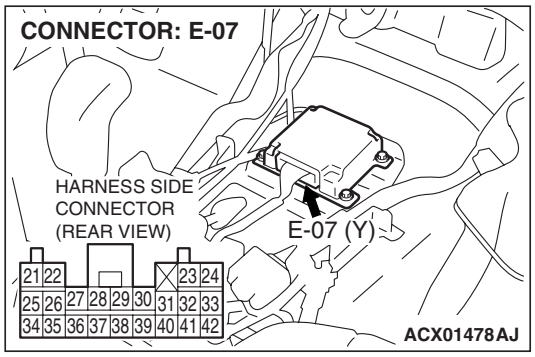


STEP 1. Using scan tool MB991958, read the diagnostic trouble code.

Q: Is DTC 34 set?

YES : Go to Step 2.

NO : Go to Step 3.

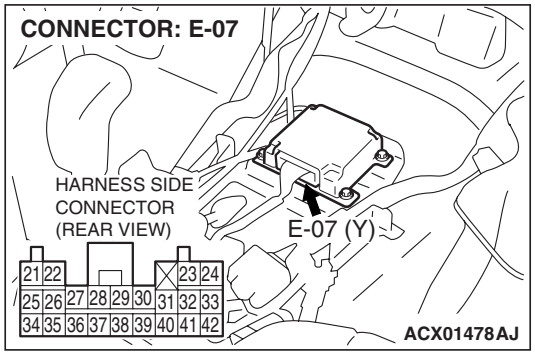


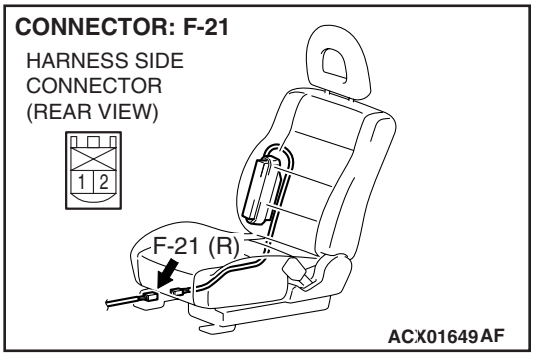
STEP 2. Check SRS-ECU connector E-07.

Q: Is the connector correctly engaged?

YES : Go to Step 3.

NO : Engage the connector correctly. Then go to Step 7.





STEP 3. Check SRS-ECU connector E-07 and side-airbag module (RH) connector F-21 (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.
(2) Disconnection connectors E-07 and F-21, 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 71 set?

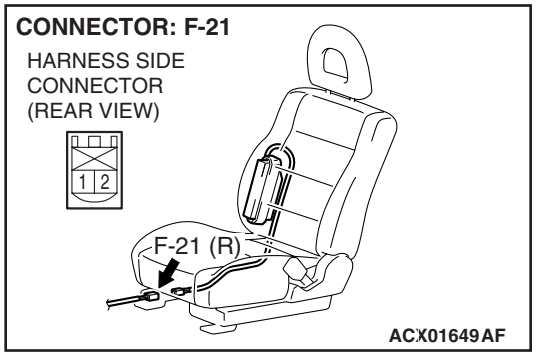
YES : Go to Step 4.

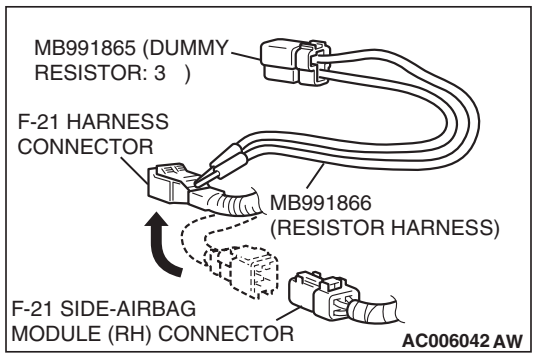
NO : The procedure is complete (It is assumed that DTC 71 set as connector E-07 or F-21 was engaged improperly).

STEP 4. 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 F-21.





(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 F-21 harness connector by backprobing.

(5) Connect the negative battery terminal.

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

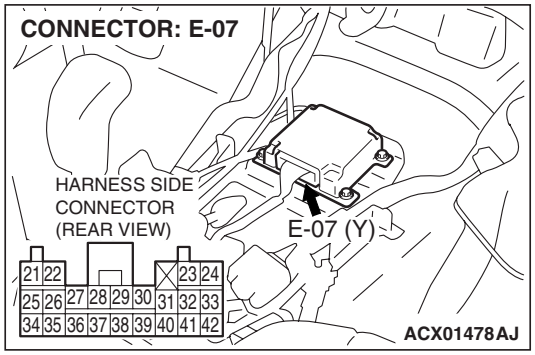
Q: Is DTC 71 set?

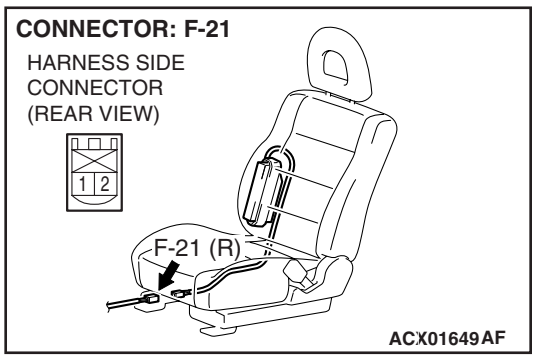
YES : Go to Step 5.

NO : Replace the seat back assembly of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-14). Then go to Step 7.

STEP 5. Check the side-airbag module (RH) circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.

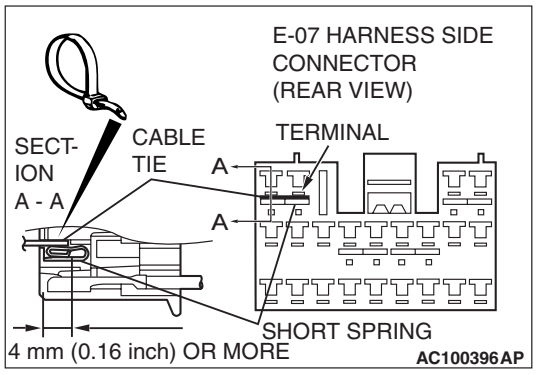




⚠ ***DANGER***

To prevents the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector F-21 to short the squib circuit.

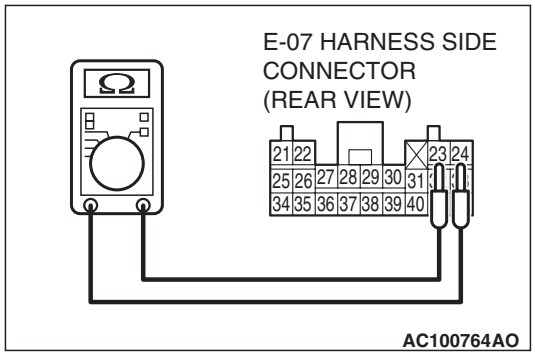
(2) Disconnect side-airbag module connector F-21.



⚠ **CAUTION**

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

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 23, 24 and the short spring to release the short spring.



⚠ **CAUTION**

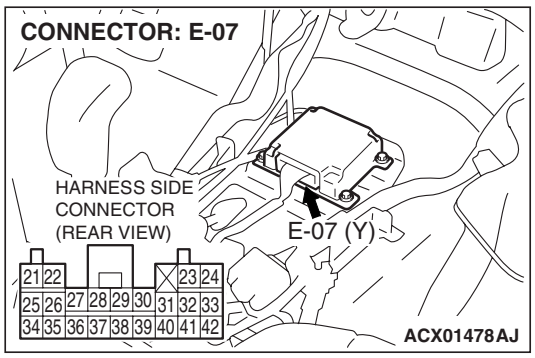
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

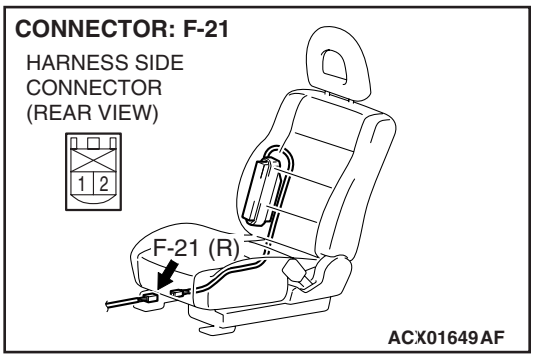
(4) Check for continuity between E-07 harness connector terminals 23 and 24.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 71 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 7.





STEP 6. Check the harness wires for short circuit between SRS-ECU connector E-07 (terminals No.23 and 24) and side-airbag module (RH) connector F-21 (terminal No.1 and 2)

Q: Are the harness wires between SRS-ECU connector E-07 (terminals No.23 and 24) and side-airbag module (RH) connector F-21 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector E-07 and side-airbag module connector F-21. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

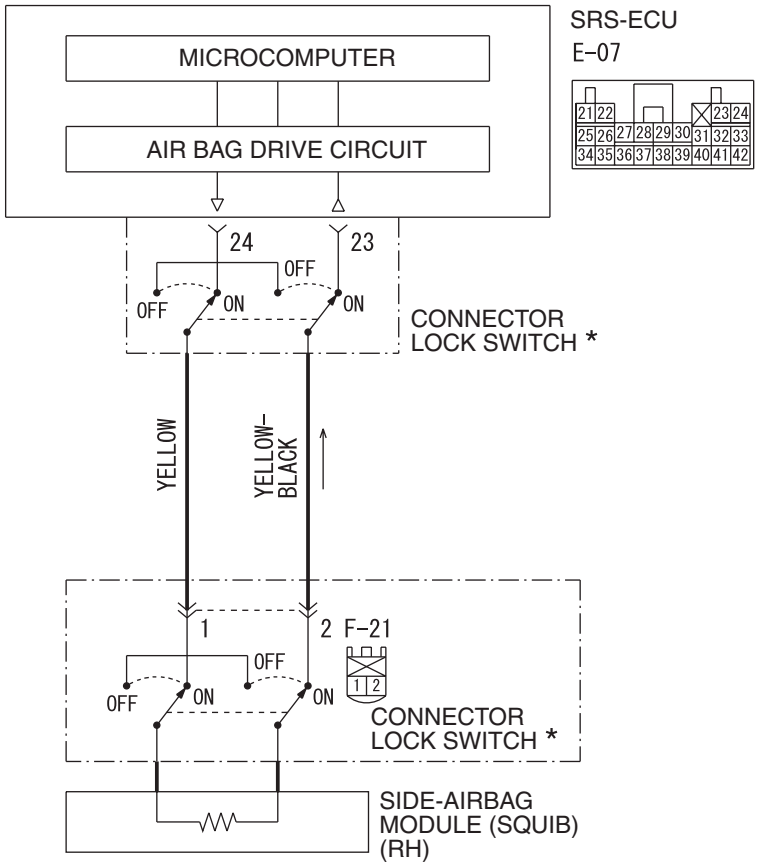
Q: Is DTC 71 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 72: Right Hand Side-airbag Module (Squib) System Fault 2 (Open in the Squib Circuit)

Side-airbag Module (RH) (Squib) Circuit



NOTE
*: CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF

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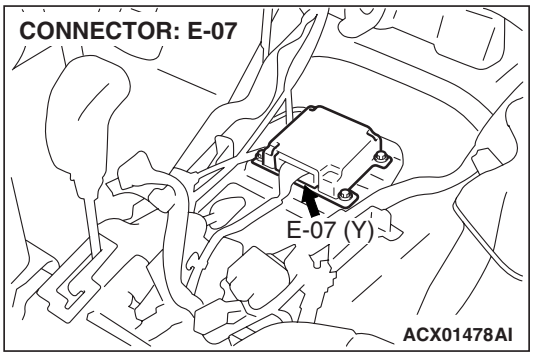
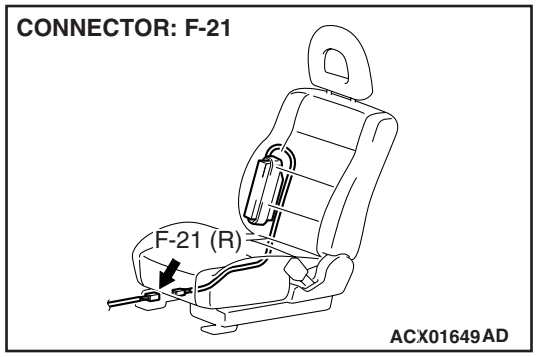




CIRCUIT OPERATION

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

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

TSB Revision

DIAGNOSIS

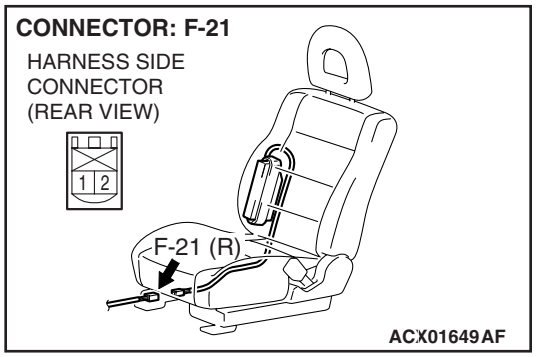
Required Special Tools:

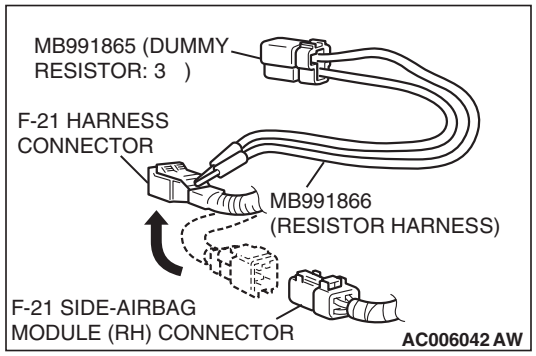
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. 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 F-21.





(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 harness connector by backprobing.

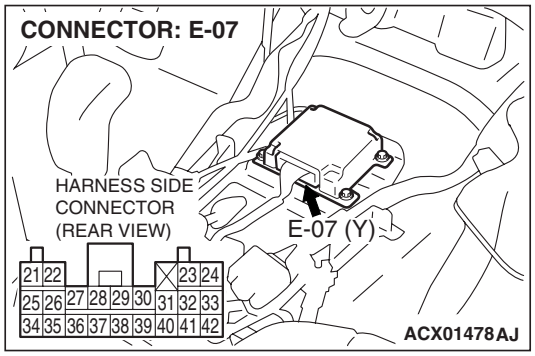
(5) Connect the negative battery terminal.

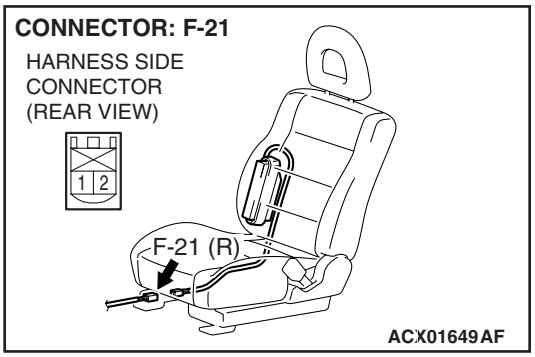
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

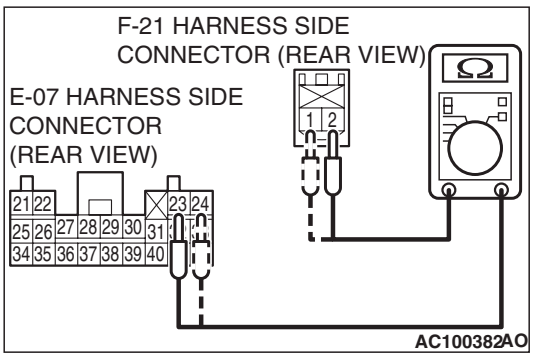
Q: Is DTC 72 set?

YES : Go to Step 2.

NO : Replace the seat back assembly of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-14). Then go to Step 3.







STEP 2. Check the harness for open circuit between SRS-ECU connector E-07 (terminal No.23 and 24) and the side-airbag module (RH) connector F-21 (terminal No.1 and 2).

(1) Disconnect SRS-ECU connector E-07 and side-air bag module (RH) connector F-21.

⚠ 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.
- Between connector E-07 terminal 23 and connector F-21 terminal 2.
- Between connector E-07 terminal 24 and connector F-21 terminal 1.

(3) It should be less than 2 ohms.

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 72 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector E-07 and side-airbag module (RH) connector F-21. Then go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

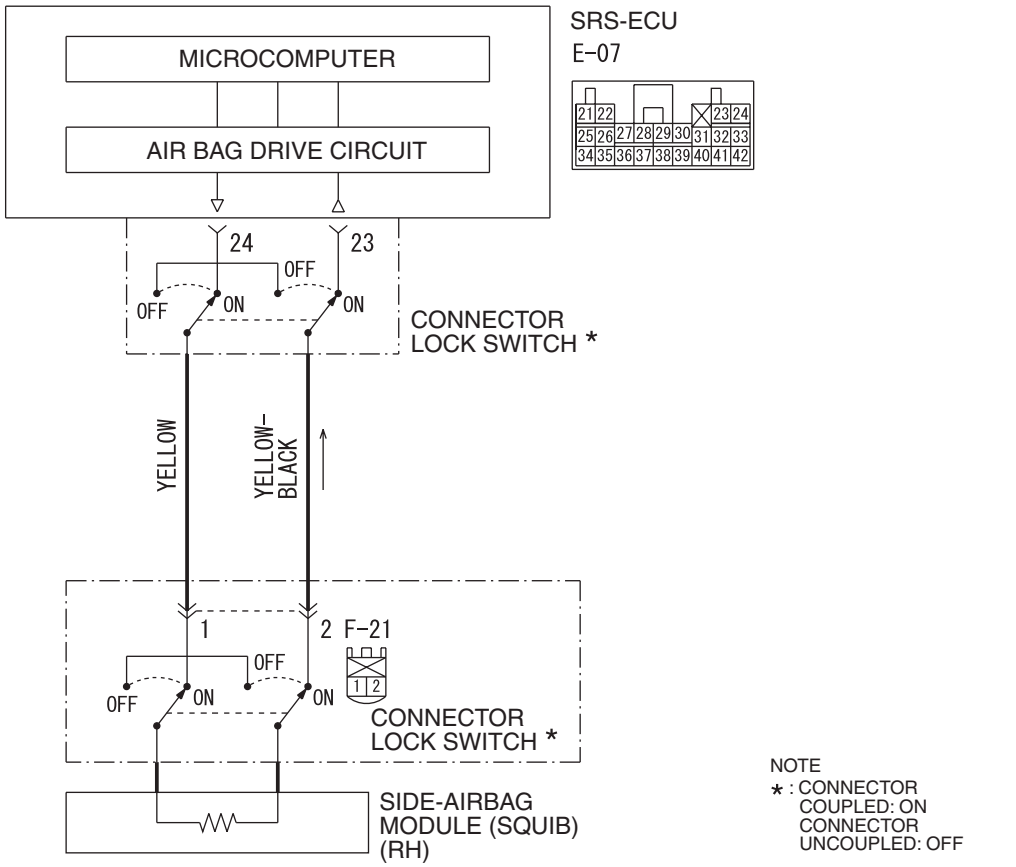
Q: Is DTC 72 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 75: Right Hand Side-airbag Module (Squib) System Fault Power Supply Circuit (Short-circuit to Power Supply)

Side-airbag Module (RH) (Squib) Circuit



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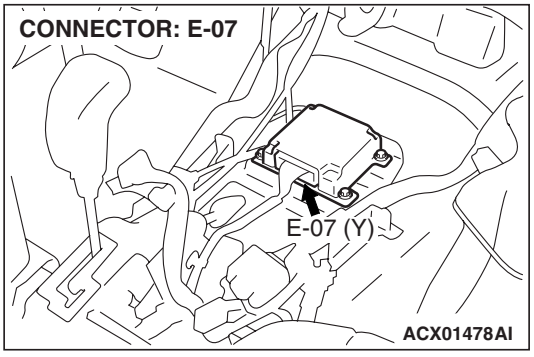
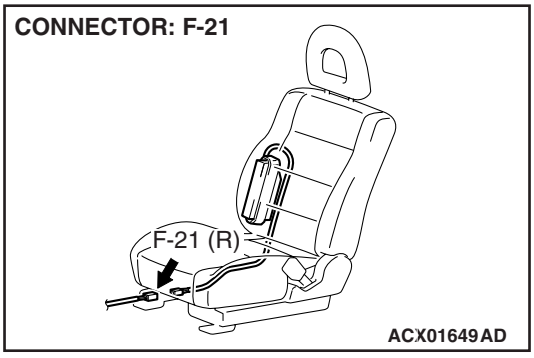




CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TSB Revision

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

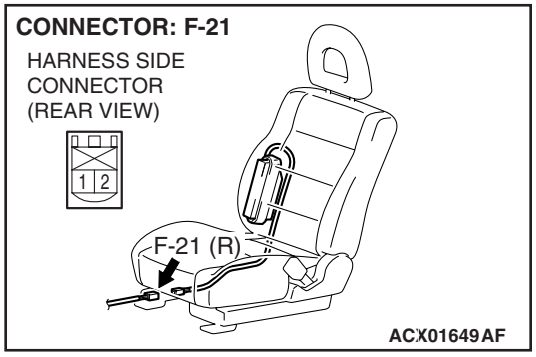
Required Special Tools:

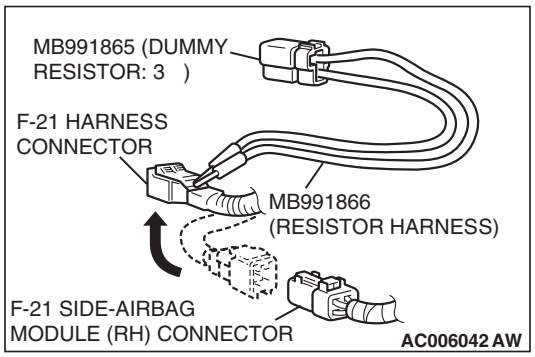
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. 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 F-21.





(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 harness connector by backprobing.

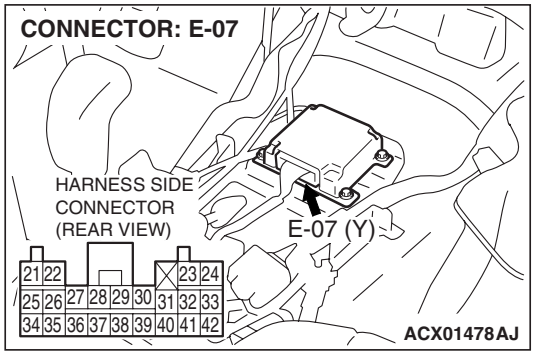
(5) Connect the negative battery terminal.

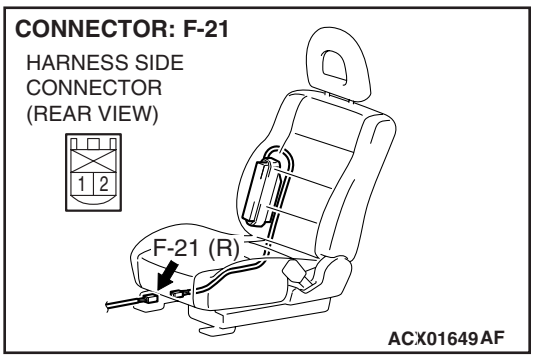
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

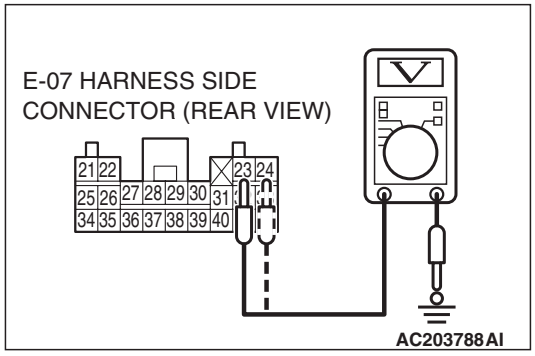
Q: Is DTC 75 set?

YES : Go to Step 2.

NO : Replace the seat back assembly of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-14). Then go to Step 4.







STEP 2. Check the side-airbag module (RH) circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.

⚠ ***DANGER***

To prevents the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector F-21 to short the squib circuit.

(2) Disconnect side-airbag module connector F-21.

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

⚠ **CAUTION**

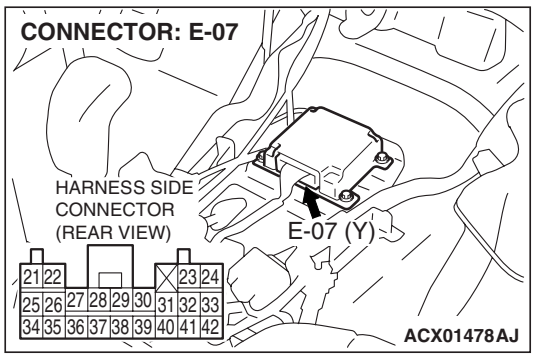
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

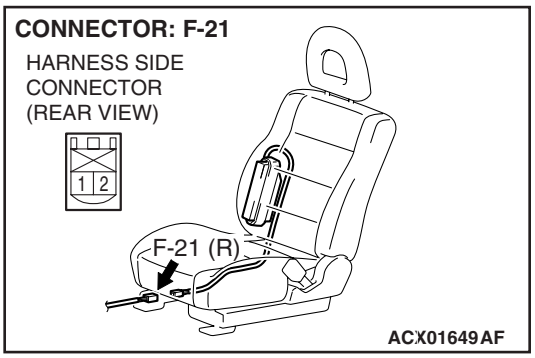
(4) Measure the voltage between E-07 harness connector terminals 23, 24 and baby ground.
Voltage should measure 0 volt.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 75 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.

NO : Go to Step 3.





STEP 3. Check the harness wires for short circuit to power supply between SRS-ECU connector E-07 (terminal No.23 and 24) and side-airbag module (RH) connector F-21 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.23 and 24) and side-airbag module (RH) connector F-21 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-07 and side-airbag module (RH) connector F-21. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

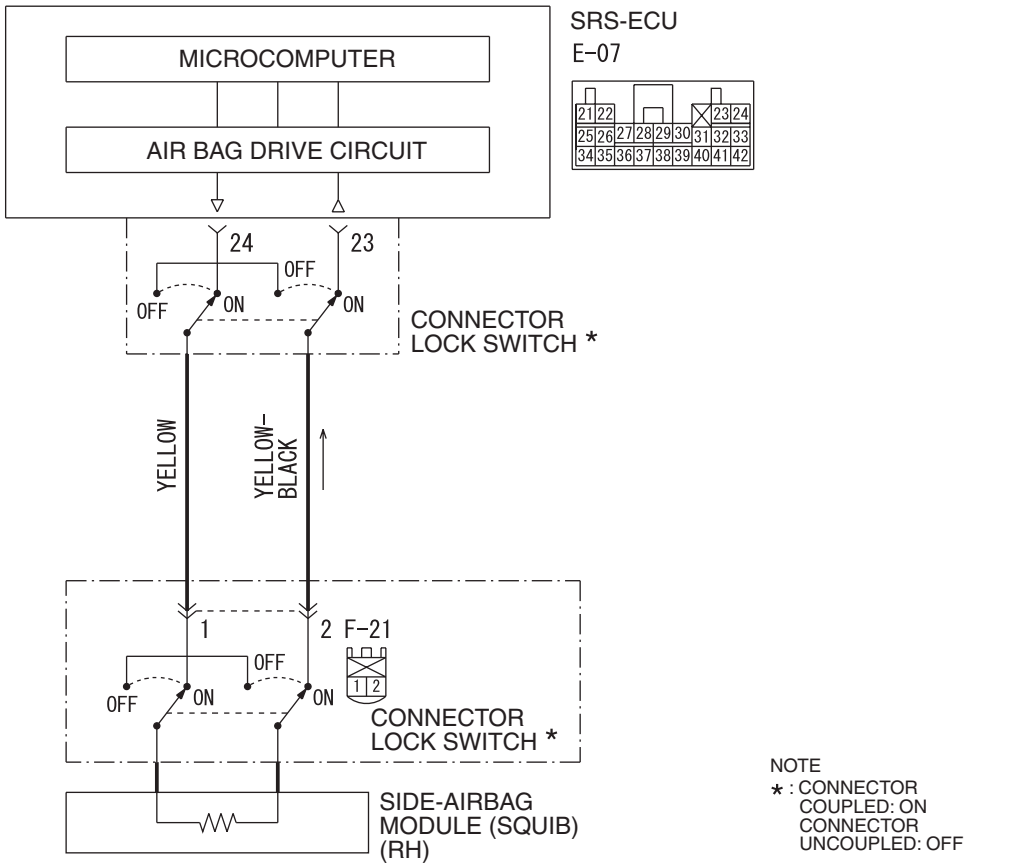
Q: Is DTC 75 set?

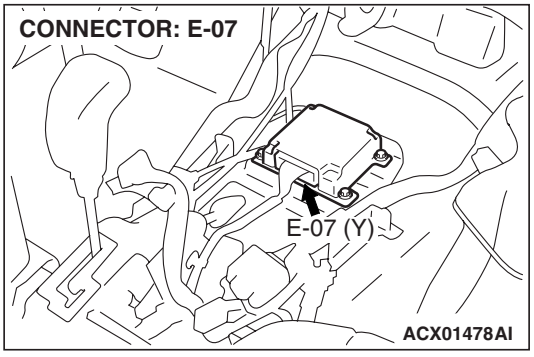
YES : Return to Step 1.

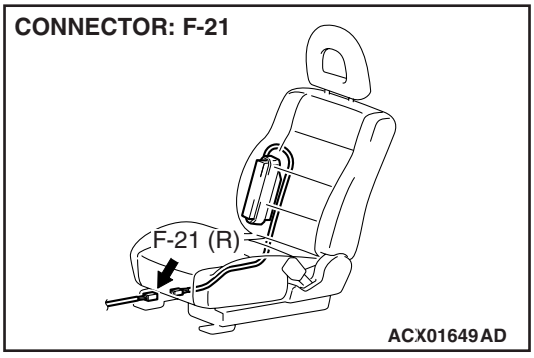
NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 76: Right Hand Side-airbag Module (Squib) System Fault Ground Circuit (Short-circuited to Ground)

Side-airbag Module (RH) (Squib) Circuit







CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TSB Revision

TROUBLESHOOTING HINTS

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

DIAGNOSIS

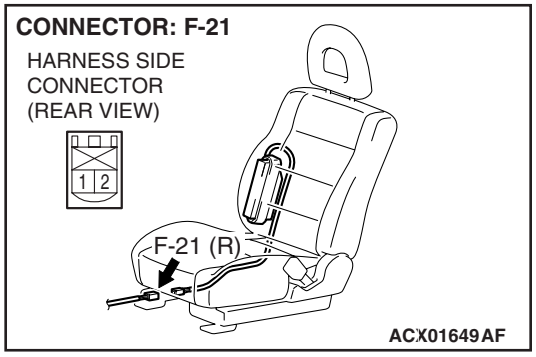
Required Special Tools:

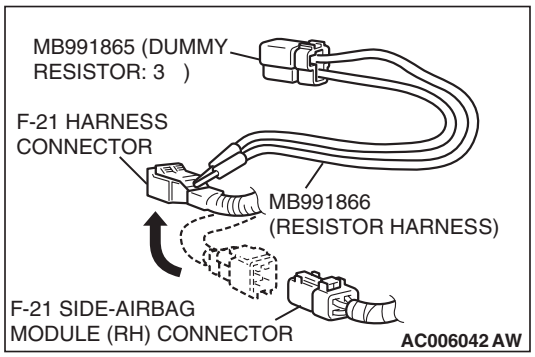
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. 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 F-21.





(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 harness side connector by backprobing.

(5) Connect the negative battery terminal.

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

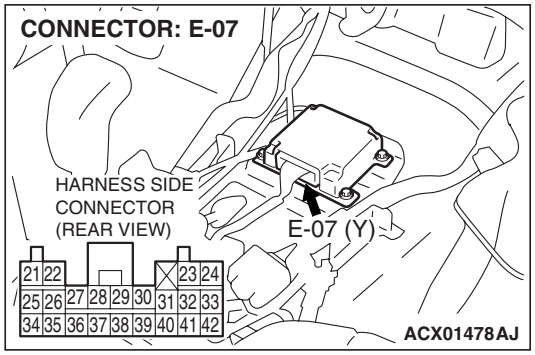
Q: Is DTC 76 set?

YES : Go to Step 2.

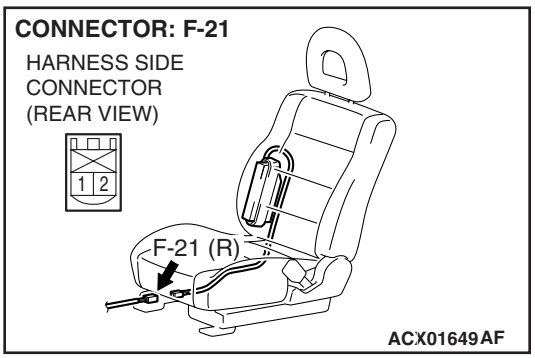
NO : Replace the seat back assembly of the front seat (RH) (Refer to GROUP 52A, Front Seat P.52A-14). Then go to Step 4.

STEP 2. Check the harness for short circuit to ground between SRS-ECU and the side-airbag module (RH).

(1) Disconnect SRS-ECU connector E-07.

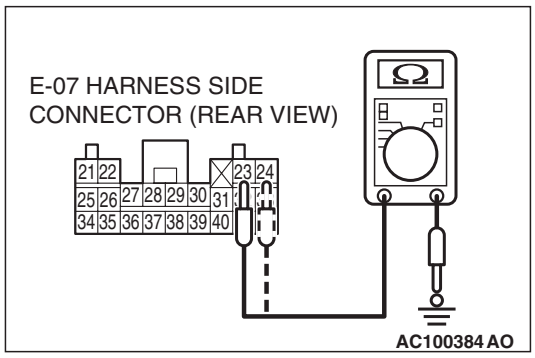


(2) Disconnect side-airbag module (RH) connector F-21.



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

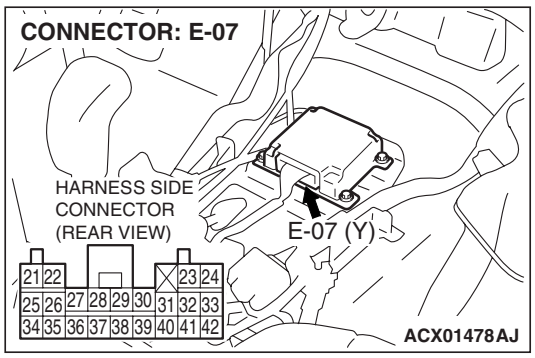
(3) Check for continuity between E-07 harness connector terminals 23, 24 and body ground.
It should be open circuit.

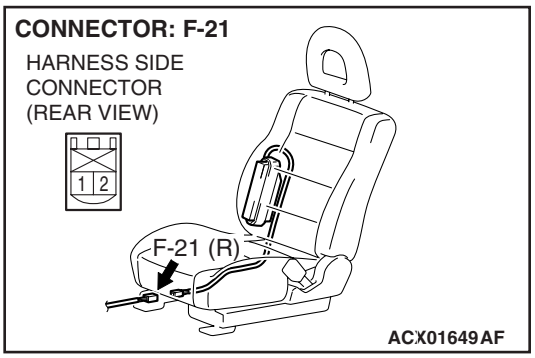


Q: Does continuity exist?

YES : Go to Step 3.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 76 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 4.





STEP 3. Check the harness wires for short circuit to ground between SRS-ECU connector E-07 (terminal No.23 and 24) and side-airbag module (RH) connector F-21 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.23 and 24) and side-airbag module (RH) connector F-21 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-07 and side-airbag module (RH) connector F-21. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

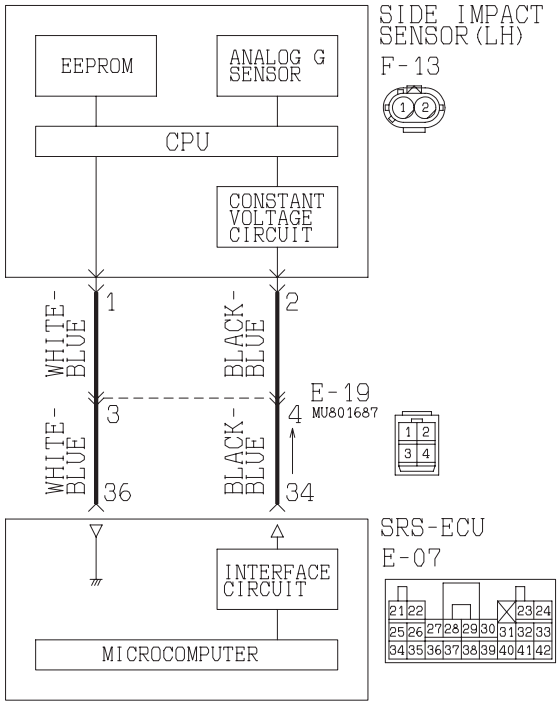
Q: Is DTC 76 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 79: Left Hand Side-Airbag Module (Squib) System Fault 5 for Power Supply Circuit
DTC 93: Left Hand Side-Airbag Module (Squib) System Fault 6 for Communication System

Side Impact Sensor (LH) Power Supply Circuit



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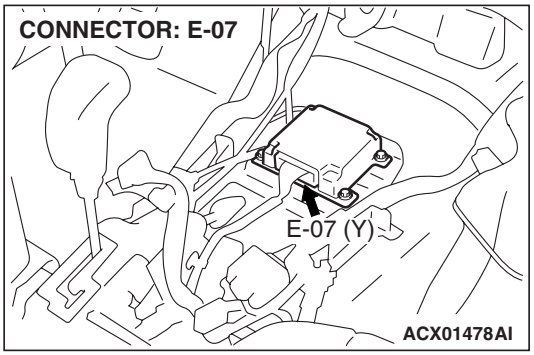
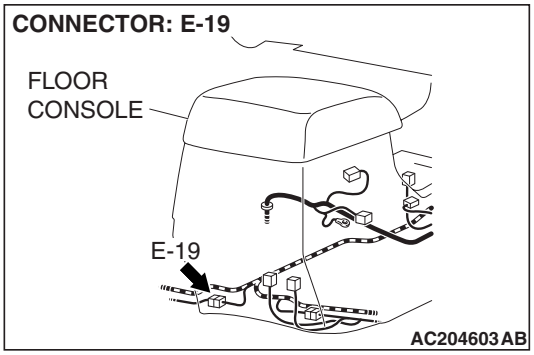
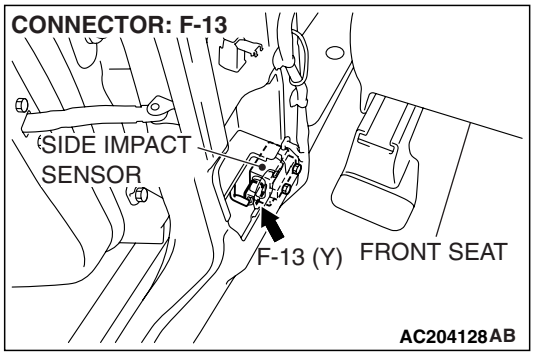






TSB Revision

CIRCUIT OPERATION

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

DTC SET CONDITIONS

These DTC are set if communication between the side impact sensor (LH) and the SRS-ECU is not possible or communication is faulty.

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

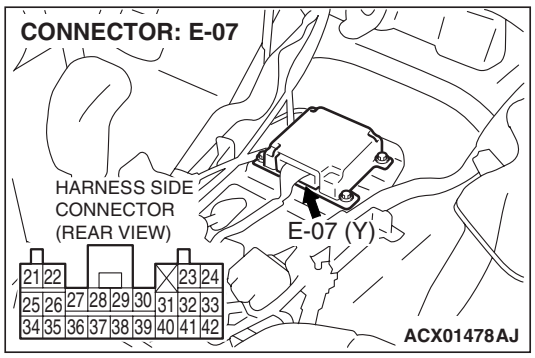
STEP 1. Check the side impact sensor (LH) (Using scan tool MB991958, read the diagnostic trouble code).

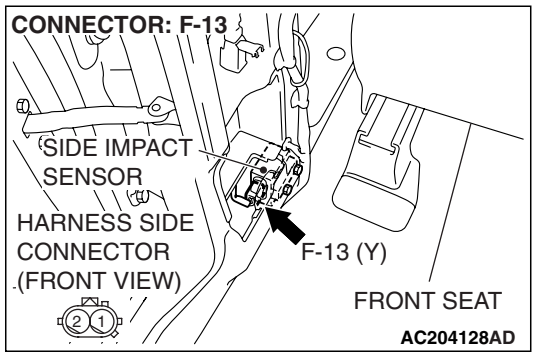
(1) Disconnect the negative battery terminal.
(2) Temporarily replace the side impact sensor (LH) with the side impact sensor (RH).
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

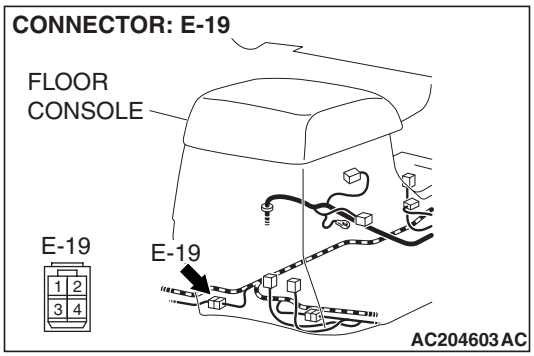
Q: Is DTC 89 or 96 set?

YES : Replace the side impact sensor (LH) with a new one (Refer to P.52B-226). Then go to Step 3.
NO : Go to Step 2.

STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector E-07 (terminal No.34 and 36) and side impact sensor (LH) connector F-13 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-19 inspect the wiring harness. If the intermediate connector E-19 is damaged, repair or replace it (Refer to GROUP 00E, Harness Connector Inspection P.00E-2). Then go to Step 3.

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.34 and 36) and side impact sensor (LH) connector F-13 (terminal No.1 and 2) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 79 or 93 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector E-07 and side impact sensor (LH) connector F-13. Then go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

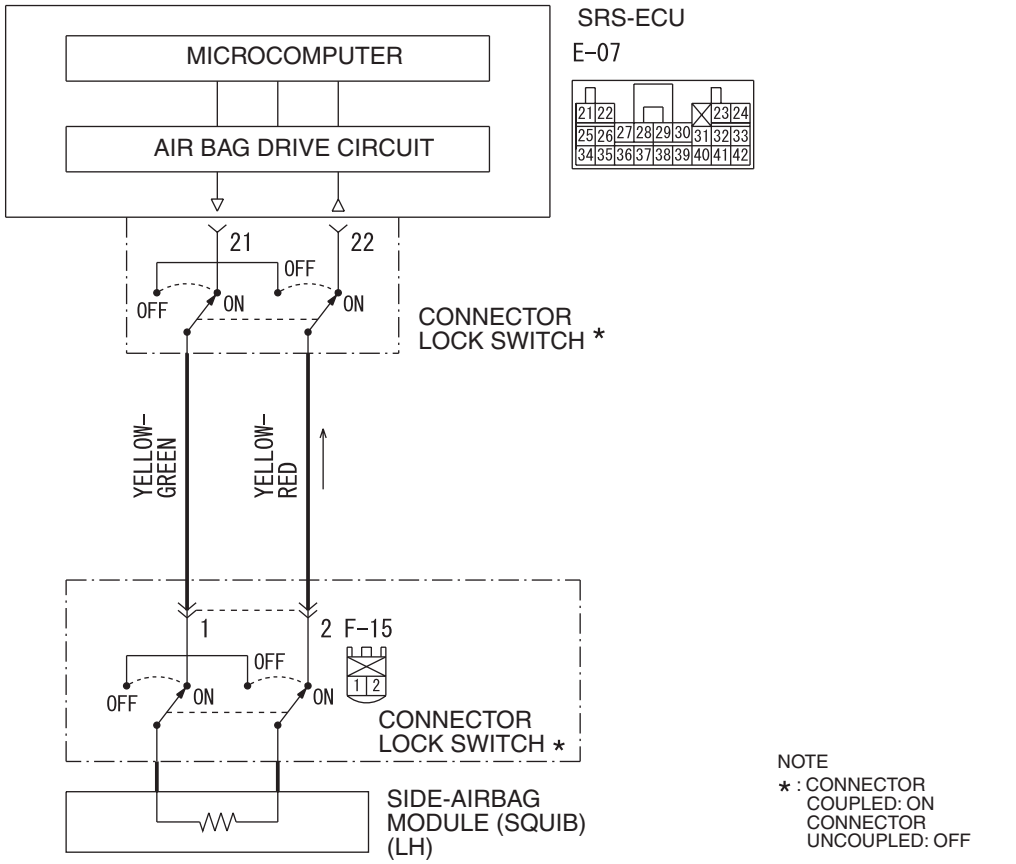
Q: Is DTC 79 or 93 set?

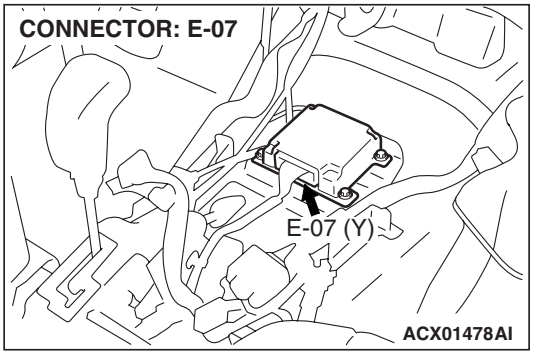
YES : Return to Step 1.

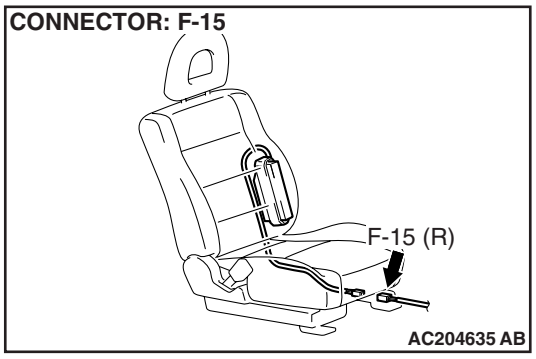
NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 81: Left Hand Side-airbag Module (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

Side-airbag Module (LH) (Squib) Circuit







CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TSB Revision

TROUBLESHOOTING HINTS

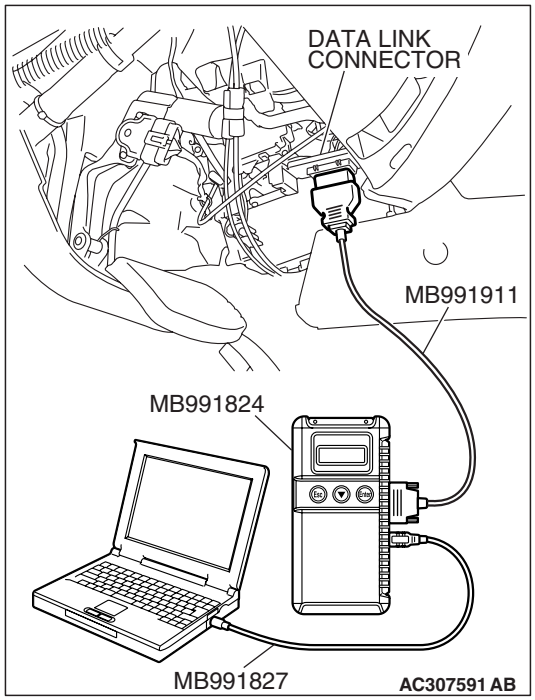
- Improper engaged connector or defective short spring*
- Short circuit between the side-airbag module (LH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*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-3). Therefore, if connector E-07 or F-15 damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

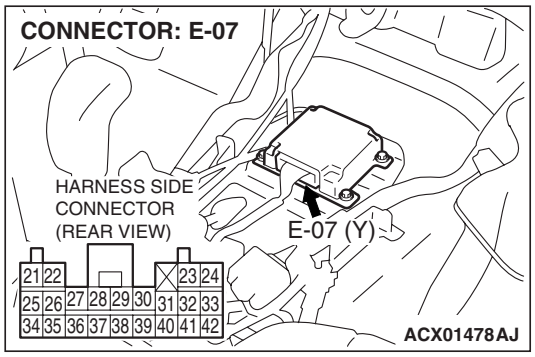


STEP 1. Using scan tool MB991958, read the diagnostic trouble code.

Q: Is DTC 34 set?

YES : Go to Step 2.

NO : Go to Step 3.



STEP 2. Check SRS-ECU connector E-07.

Q: Is the connector correctly engaged?

YES : Go to Step 3.

NO : Engage the connector correctly. Then go to Step 7.

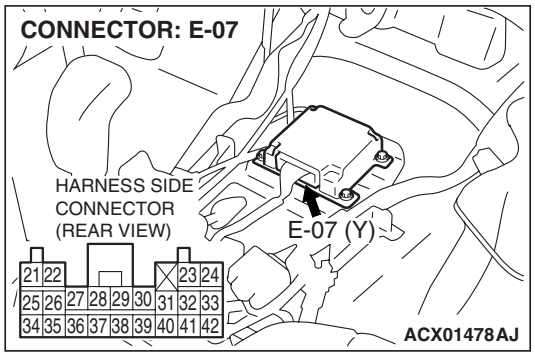
STEP 3. Check SRS-ECU connector E-07 and side-airbag module (LH) connector F-15 (Using scan tool MB991958, read the diagnostic trouble code).

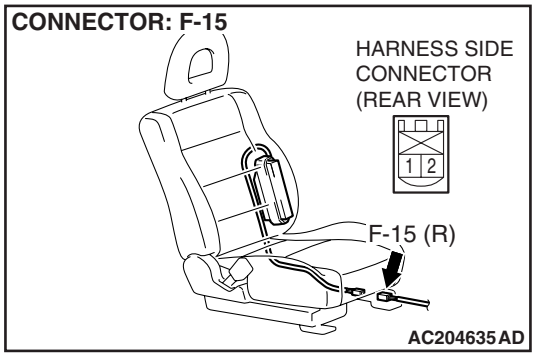
(1) Disconnect the negative battery terminal.
(2) Disconnection connectors E-07 and F-15, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC 81 set?

YES : Go to Step 4.

NO : The procedure is complete (It is assumed that DTC 81 set as connector E-07 or F-15 was engaged improperly).

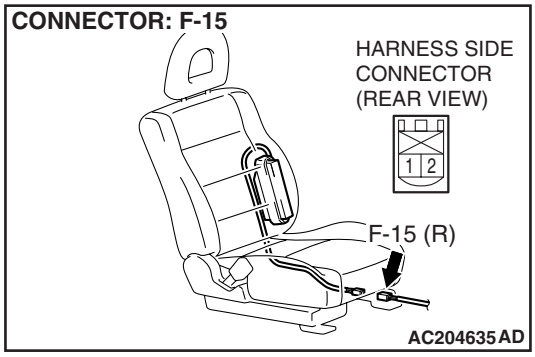


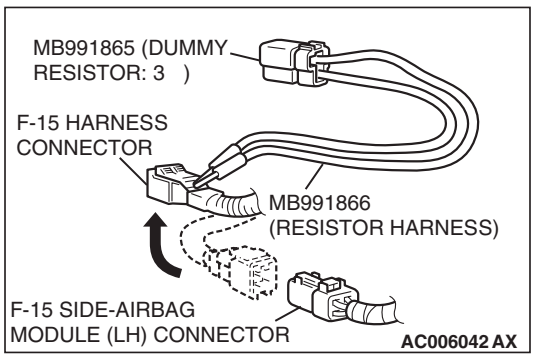


STEP 4. Check the side-airbag module (LH) (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.

(2) Disconnect the left hand side-airbag (LH) connector F-15.





(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 F-15 harness connector by backprobing.

(5) Connect the negative battery terminal.

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

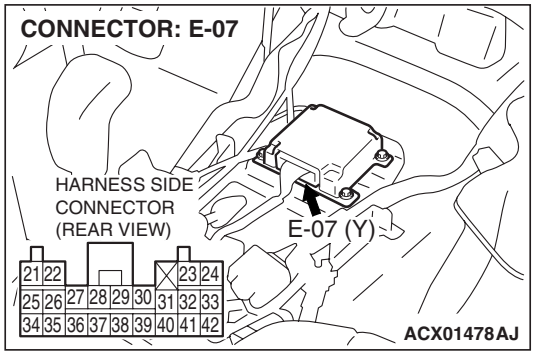
Q: Is DTC 81 set?

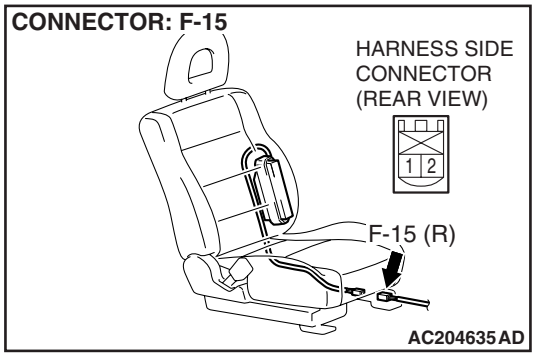
YES : Go to Step 5.

NO : Replace the seat back assembly of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-14). Then go to Step 7.

STEP 5. Check the side-airbag module (LH) circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.

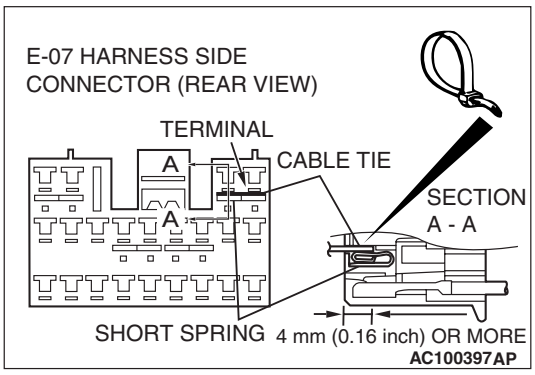




⚠ ***DANGER***

To prevents the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector F-15 to short the squib circuit.

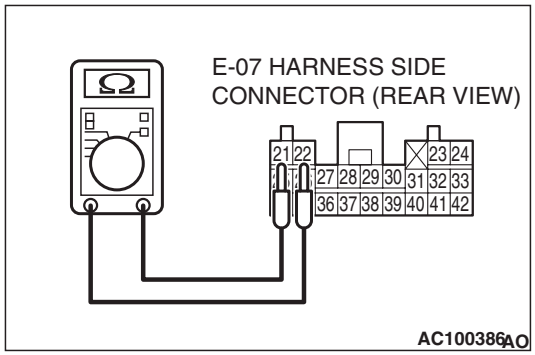
(2) Disconnect side-airbag module connector F-15.



⚠ **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 cable tie release.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 21, 22 and the short spring to release the short spring.



⚠ **CAUTION**

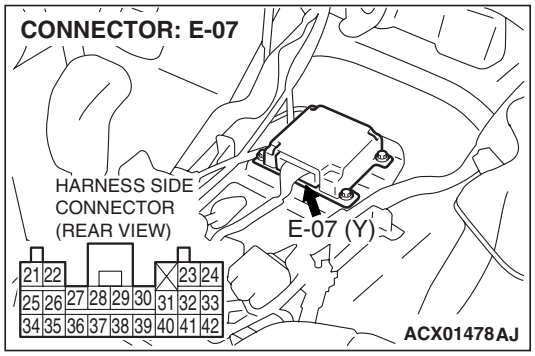
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

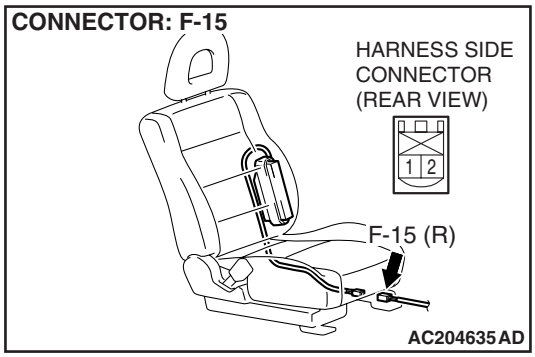
(4) Check for continuity between terminals 21 and 22.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 81 sets, replace the SRS-ECU (Refer to P.52B-215).





STEP 6. Check the harness wires for short circuit between SRS-ECU connector E-07 (terminal No.21and 22) and side-airbag module (LH) connector F-15 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.21and 22) and side-airbag module (LH) connector F-15 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector E-07 and side-airbag module (LH) connector F-15. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

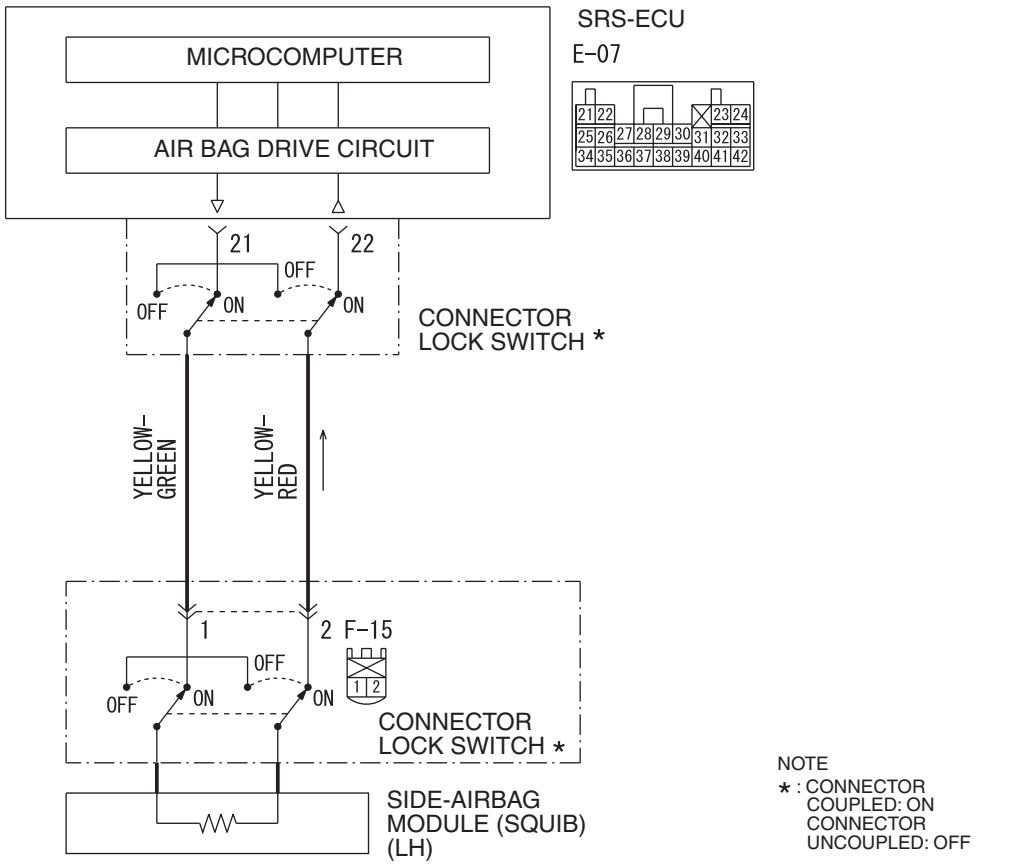
Q: Is DTC 81 set?

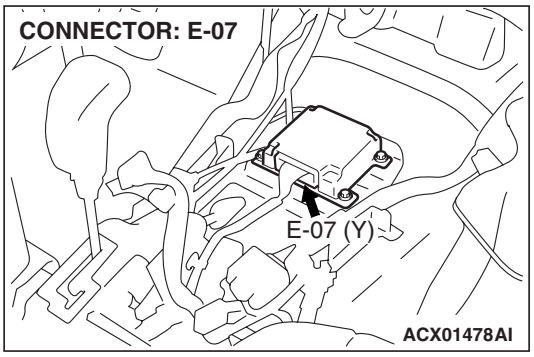
YES : Return to Step 1.

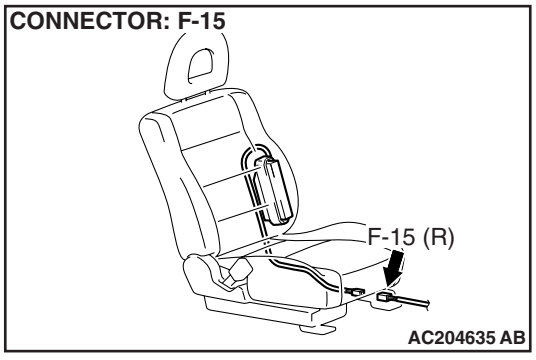
NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 82:Left Hand Side-airbag Module (Squib) System Fault 2 (Open in the Squib Circuit)

Side-airbag Module (LH) (Squib) Circuit







CIRCUIT OPERATION

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

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 left hand side-airbag module (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

TSB Revision

DIAGNOSIS

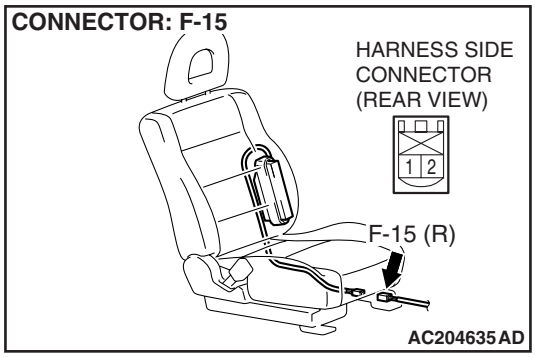
Required Special Tools:

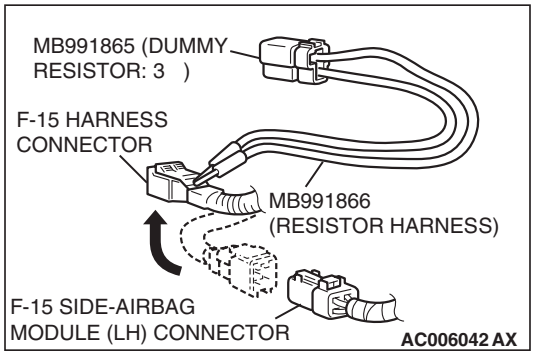
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the side-air bag module (LH) (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.

(2) Disconnect the left hand side-airbag connector F-15.





(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 F-15 harness connector by backprobing.

(5) Connect the negative battery terminal.

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

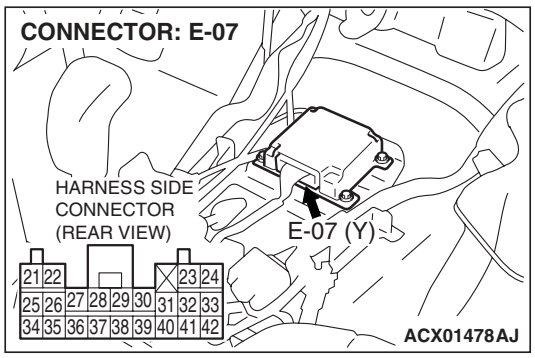
Q: Is DTC 82 set?

YES : Go to Step 2.

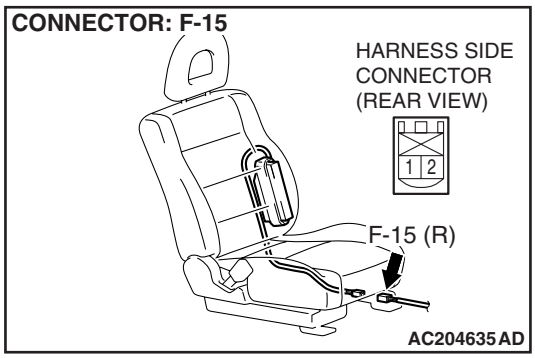
NO : Replace the seat back assembly of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-14). Then go to Step 3.

STEP 2. Check the harness for open circuit between the SRS-ECU connector E-07 (terminal No.21 and 22) and the left hand side-airbag module (LH) F-15 (terminal No.1 and 2).

(1) Disconnect SRS-ECU connector E-07.



(2) Disconnect side-airbag module (LH) connector F-15.

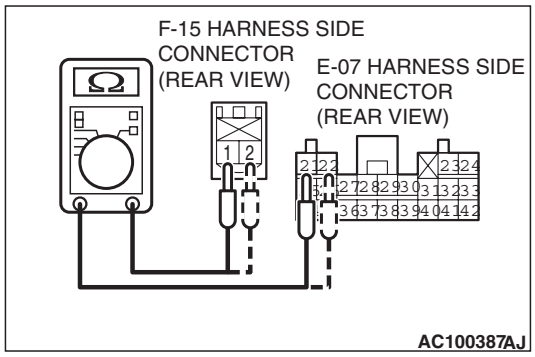


⚠ CAUTION

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.
- Between connector E-07 terminal 21 and connector F-15 terminal 1
- Between connector E-07 terminal 22 and connector F-15 terminal 2

(4) It should be less than 2 ohms.



Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 82 sets, replace the SRS-ECU (Refer to P.52B-217). Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector E-07 and side-airbag module (LH) connector F-15. Then go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

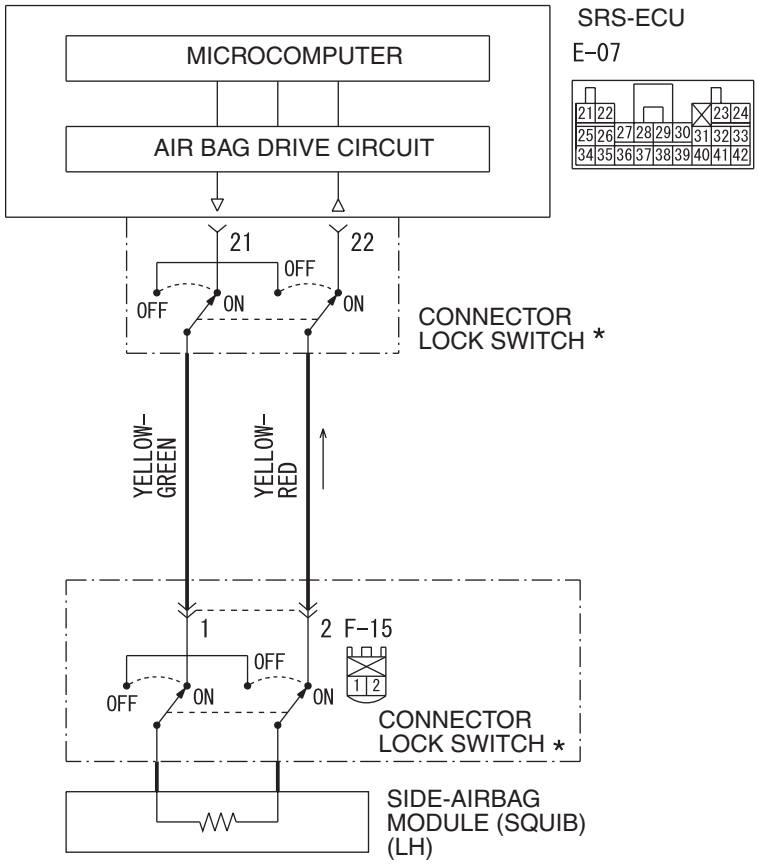
Q: Is DTC 82 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 85:Left Hand Side-airbag Module (Squib) System Fault Power Supply Circuit (Short-circuited to Power Supply)

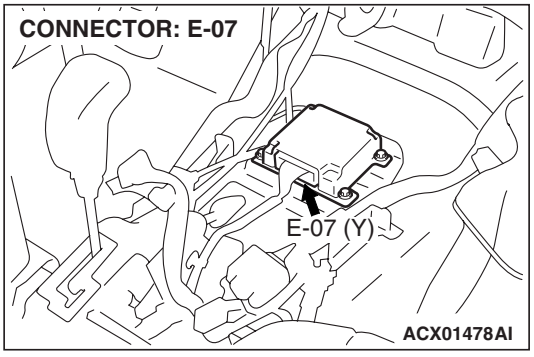
Side-airbag Module (LH) (Squib) Circuit

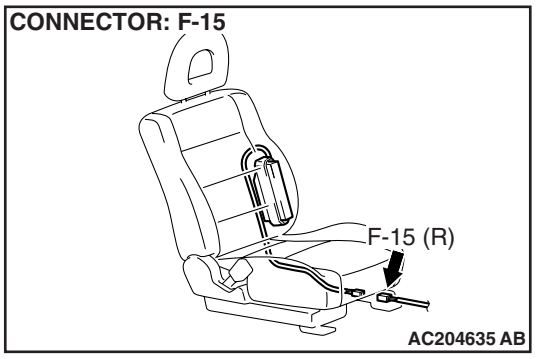


NOTE
*: CONNECTOR COUPLED: ON
CONNECTOR UNCOUPLED: OFF

W4Q52M05AA

AC500709AB





CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TSB Revision

TROUBLESHOOTING HINTS

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

DIAGNOSIS

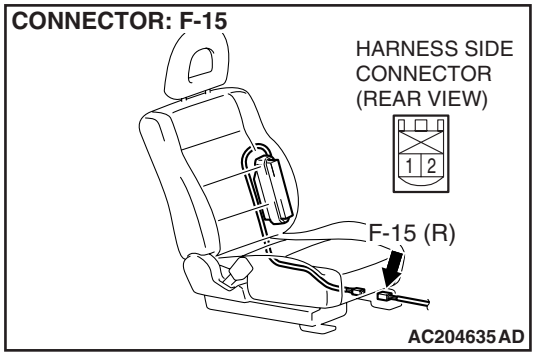
Required Special Tools:

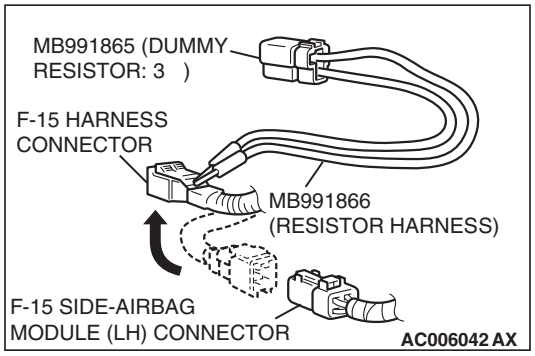
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP1. Check the side-airbag module (LH) (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.

(2) Disconnect the left hand side-airbag connector F-15.





(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 F-15 harness connector by backprobing.

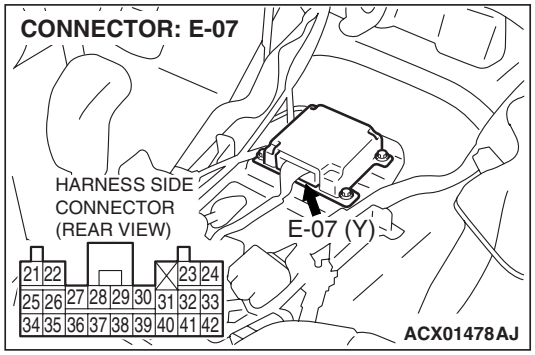
(5) Connect the negative battery terminal.

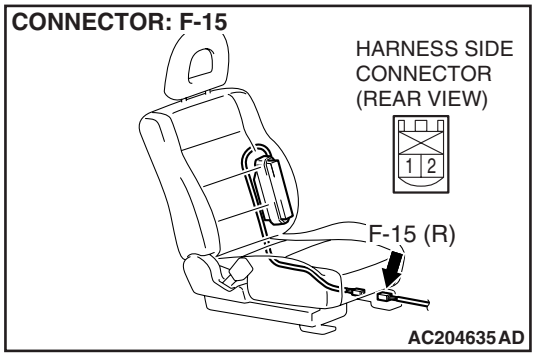
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

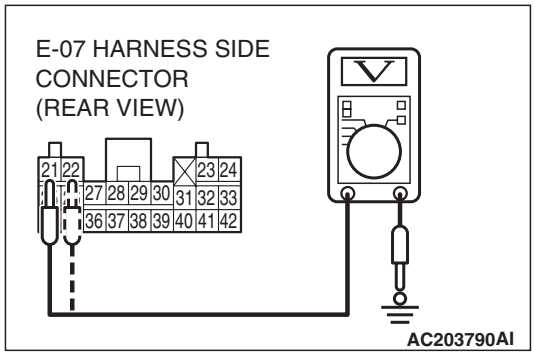
Q: Is DTC 85 set?

YES : Go to Step 2.

NO : Replace the seat back assembly of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-14). Then go to Step 4.







STEP 2. Check the side-airbag module (LH) circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.

⚠ ***DANGER***

To prevents the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector F-15 to short the squib circuit.

(2) Disconnect left hand side-airbag module connector F-15.

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

⚠ **CAUTION**

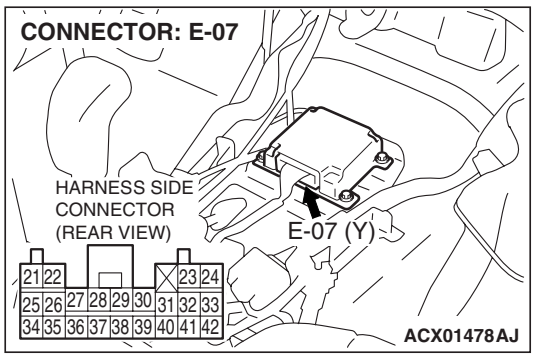
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

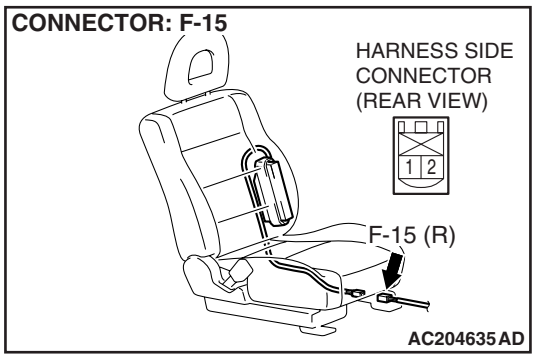
(4) Measure the voltage between E-07 harness connector terminals 21, 22 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 85 sets, replace the SRS-ECU (Refer to P.52B-217). Then go to Step 4.

NO : Go to Step 3.





STEP 3. Check the harness wires for short circuit to power supply between SRS-ECU connector E-07 (terminal No.21 and 22) and side-airbag module (LH) connector F-15 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.21 and 22) and side-airbag module (LH) connector F-15 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-07 and side-airbag module (LH) connector F-15. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

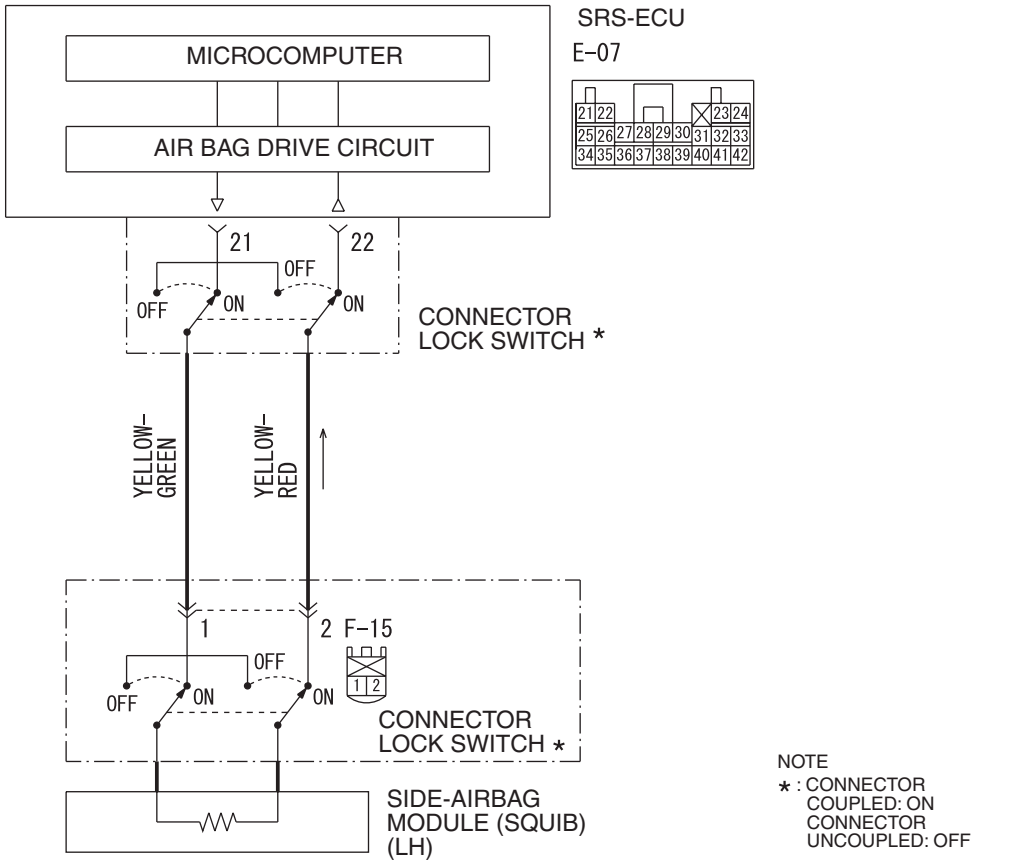
Q: Is DTC 85 set?

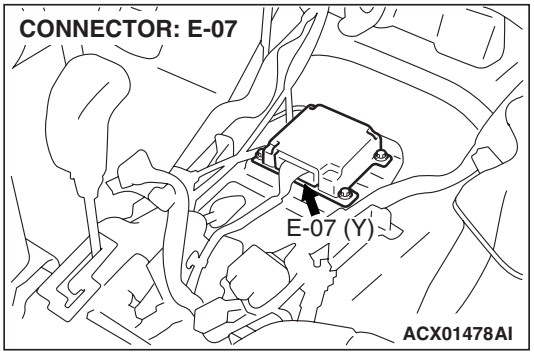
YES : Return to Step 1.

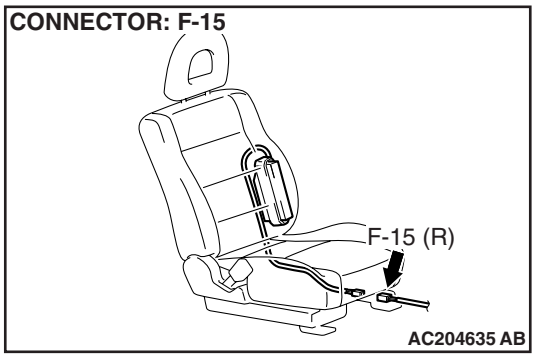
NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 86:Left Hand Side-airbag Module (Squib) System Fault Ground Circuit (Short-circuited to Ground)

Side-airbag Module (LH) (Squib) Circuit







CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TSB Revision

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to ground in the left hand side-airbag module (squib) harness
- Malfunction of the SRS-ECU

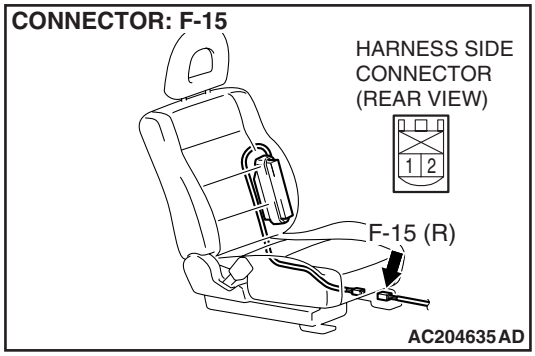
DIAGNOSIS

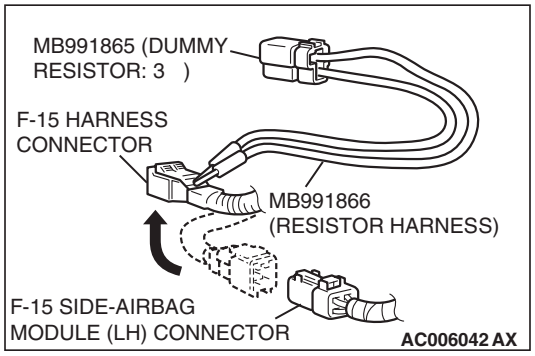
Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP1. Check the side-airbag module (LH) (Using scan tool MB991958, read the diagnostic trouble code).

(1) Disconnect the negative battery terminal.
(2) Disconnect the left hand side-airbag connector F-15.
(3) Connect special tool MB991865 to special tool MB991866.





(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.

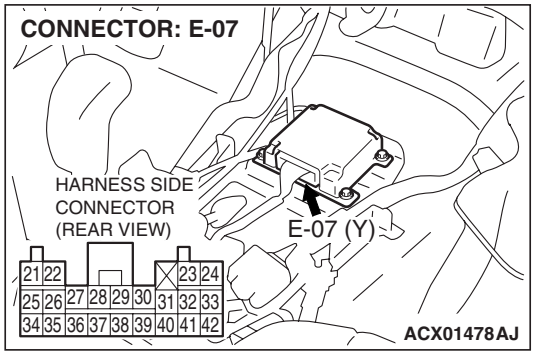
(5) Insert special tool MB991866 into the harness side connector by backprobing.
(6) Connect the negative battery terminal.
(7) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

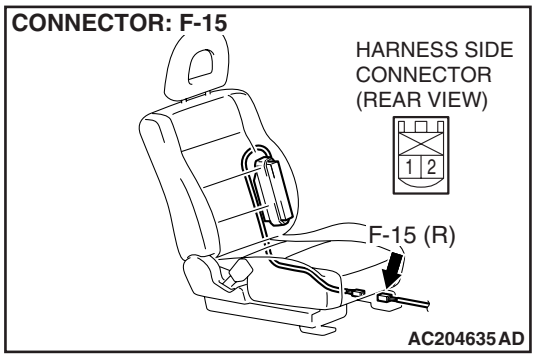
Q: Is DTC 86 set?

YES : Go to Step 2.
NO : Replace the seat back assembly of the front seat (LH) (Refer to GROUP 52A, Front Seat P.52A-14). Then go to Step 4.

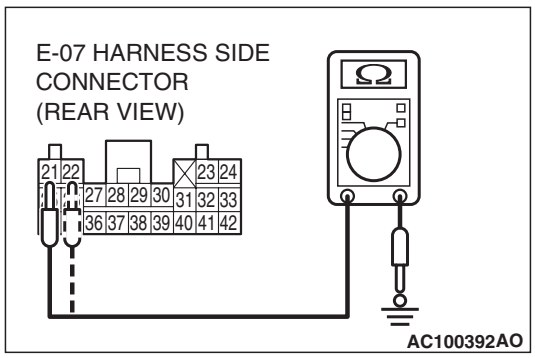
STEP 2. Check the side-airbag module (LH) circuit at the SRS-ECU connector E-07.

(1) Disconnect SRS-ECU connector E-07.





(2) Disconnect left hand side-airbag module connector F-15.



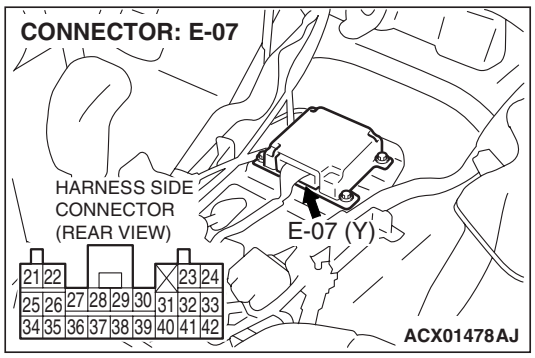
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

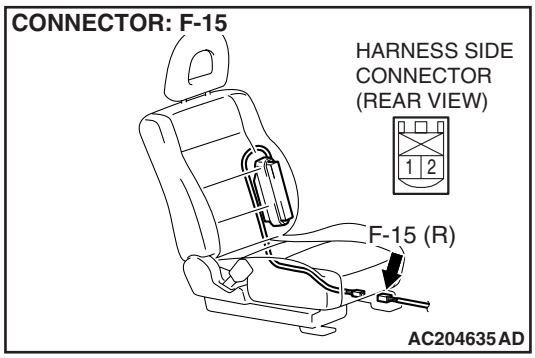
(3) Check for continuity between E-07 harness connector terminals 21, 22 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 3.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 86 sets, replace the SRS-ECU (Refer to P.52B-217). Then go to Step 4.





STEP 3. Check the harness wires for short circuit to ground between SRS-ECU connector E-07 (terminal No.21 and 22) and side-airbag module (LH) connector F-15 (terminal No.1 and 2).

Q: Are the harness wires for short circuit to ground between SRS-ECU connector E-07 (terminal No.21 and 22) and side-airbag module (LH) connector F-15 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector E-07 and side-airbag module (LH) connector F-15. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

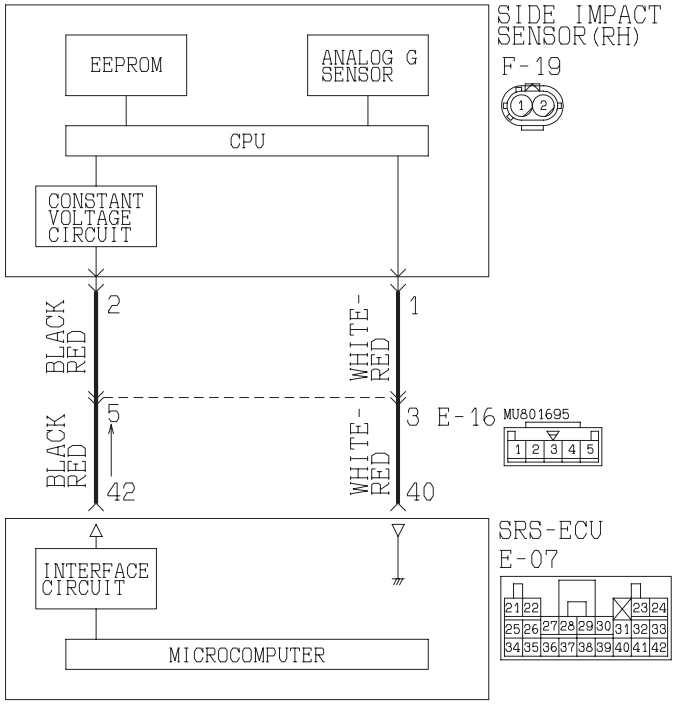
Q: Is DTC 86 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 89: Right Hand Side-airbag Module (Squib) System Fault 5 for Power Supply Circuit
DTC 96: Right Hand Side-airbag Module (Squib) System Fault 6 for Communication System

Side Impact Sensor (RH) Power Supply Circuit



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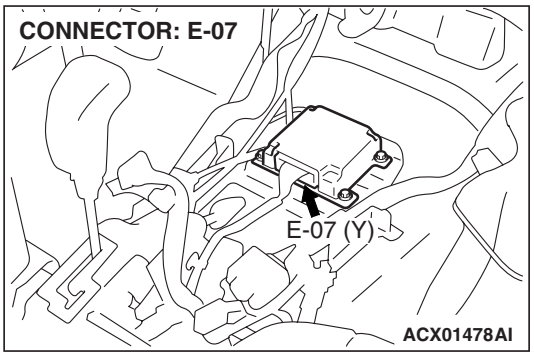
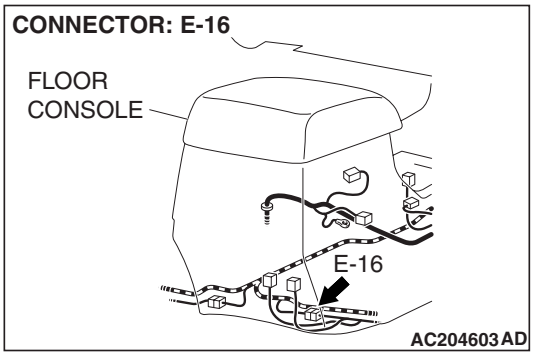
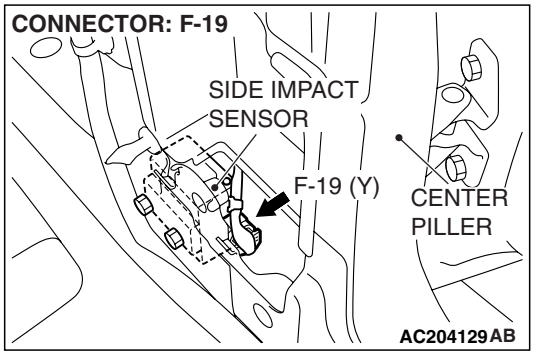






TSB Revision

CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

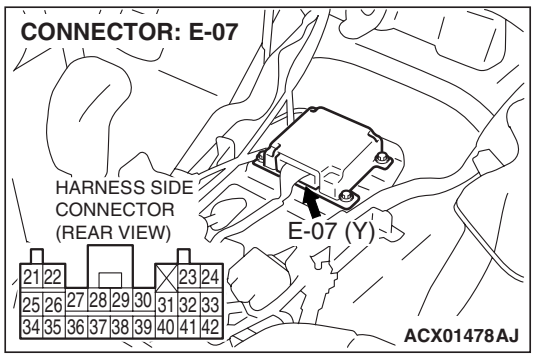
STEP 1. Check the side impact sensor (RH) (Using scan tool MB991958, read the diagnostic trouble code).

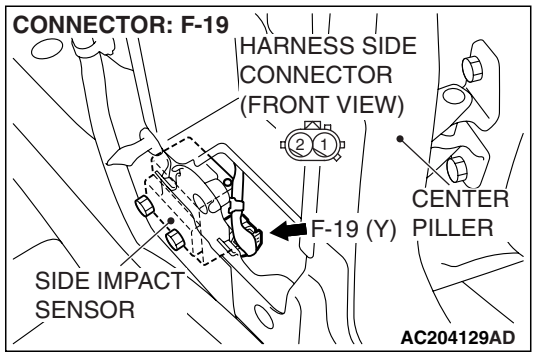
(1) Disconnect the negative battery terminal.
(2) Temporarily replace the side impact sensor (RH) with the side impact sensor (LH)
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

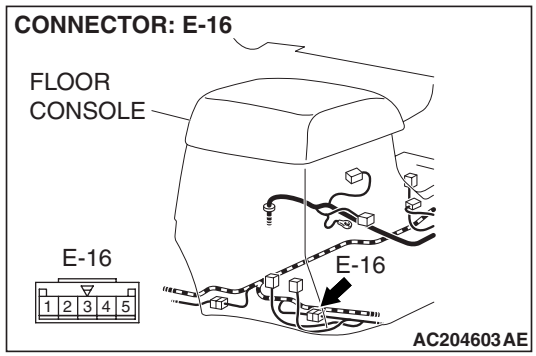
Q: Is DTC 79 or 93 out put?

YES : Replace the side impact sensor (RH) with a new one (Refer to P.52B-226). Go to Step 3.
NO : Go to Step 2.

STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector E-07 (terminal No.40 and 42) and side impact sensor (RH) connector F-19 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-16 inspect the wiring harness. If the intermediate connector E-16 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 3.

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.40 and 42) and side impact sensor (RH) connector F-19 (terminal No.1 and 2) is good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 89 or 96 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector E-07 and side impact sensor (RH) connector F-19. Then go to Step 3.

STEP 3. Recheck the diagnostic trouble code.

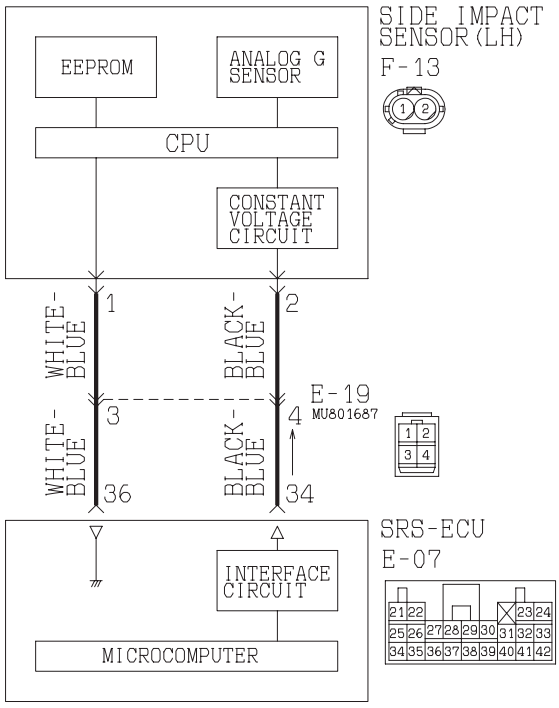
Q: Is DTC 89 or 96 set?

YES : Refer to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 91: Left Hand Side Impact Sensor Power Supply Circuit System

Side Impact Sensor (LH) Power Supply Circuit



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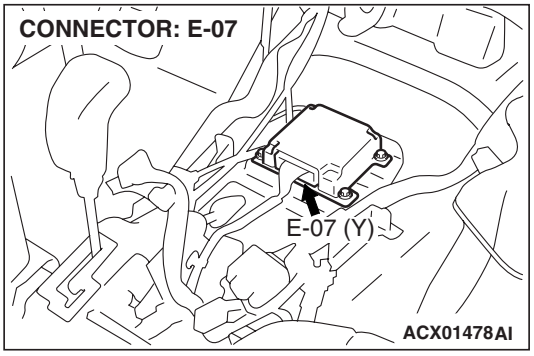
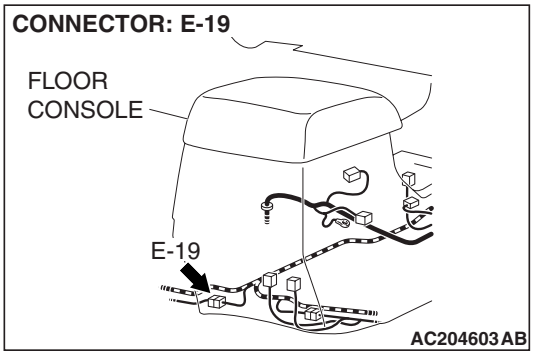
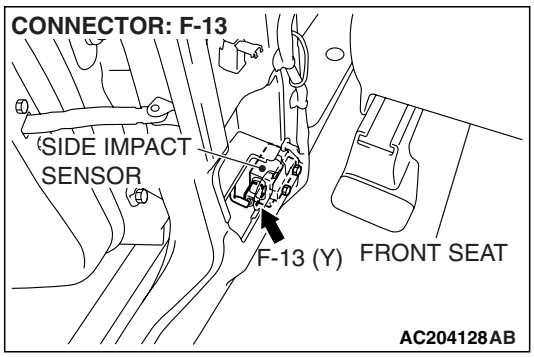






TSB Revision

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC will set when the power supply voltage to the impact sensor (LH) remains less than a predetermined value for five seconds. However, if the vehicle condition returns to normal, DTC 91 will be automatically erased, and the SRS warning light will go out.

TROUBLESHOOTING HINTS

- Damaged wiring harness or connectors
- Malfunction of the side-airbag module (LH) (squib)
- Malfunction of the SRS-ECU

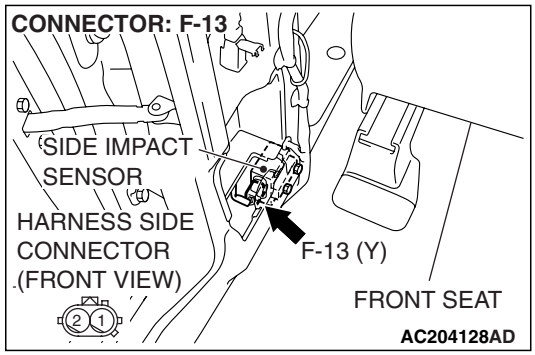
DIAGNOSIS

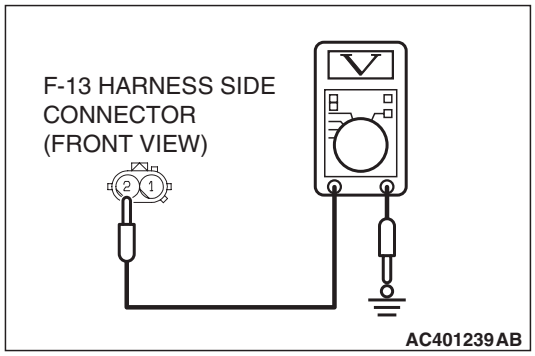
Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB992006: Extra Fine Probe

STEP 1. Check the side impact sensor (LH) power supply circuit at the side impact sensor (LH) connector F-13.

(1) Disconnect the negative battery terminal.
(2) Disconnect side impact sensor (LH) connector F-13, and measure at the wiring harness.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.





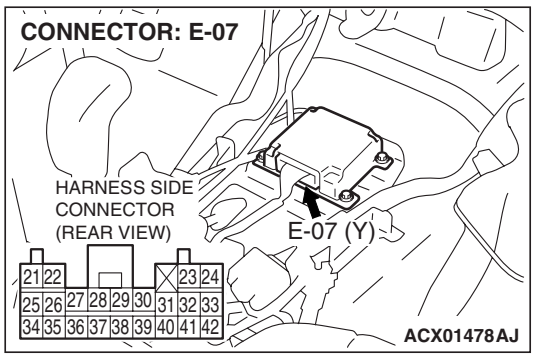
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

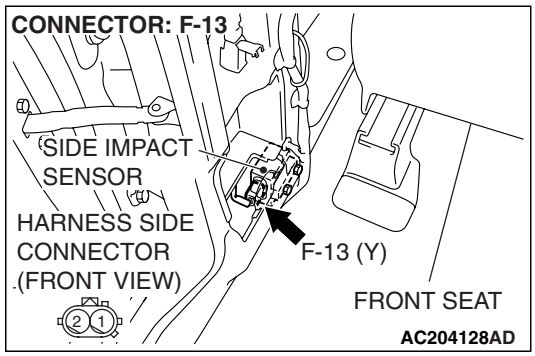
(5) Measure the voltage between F-13 harness connector terminal 2 and the ground.
Voltage should measure 9 volts or more.

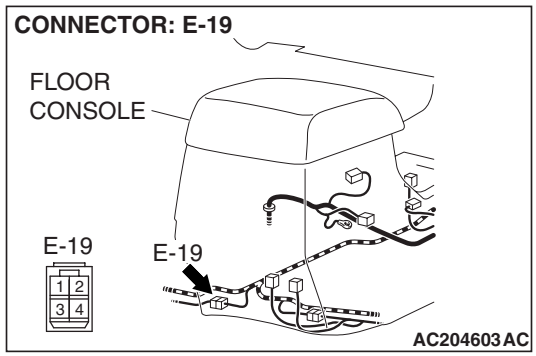
Q: Is the measured voltage within the specified range?

YES : Replace the side impact sensor (LH) (Refer to P.52B-226). Then go to Step 3.
NO : Go to Step 2.

STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector E-07 (terminal No.34 and 36) and side impact sensor (LH) connector F-13 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-19 inspect the wiring harness. If the intermediate connector E-19 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 3.

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.34 and 36) and side impact sensor (LH) connector F-13 (terminal No.1 and 2) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 91 steps. Replace the SRS-ECU (Refer to P.52B-215).

NO : Repair the harness wires between SRS-ECU connector E-07 and side impact sensor (LH) connector F-13. Then go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Q: Is DTC 91 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

DTC 92: Left Hand Side Impact Sensor System for Fault 1
DTC 95: Right Hand Side Impact Sensor System for Fault 1

DTC SET CONDITIONS
These DTC are set if the followings are detected from the analog G-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 <LH> (for DTC 92) and side impact sensor <RH> (for DTC 95)

DIAGNOSIS

Required Special Tool:
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

STEP 1. Recheck for diagnostic trouble code.

(1) Replace side impact sensor <LH> (for DTC 92) and side impact sensor <RH> (for DTC 95) (Refer to P.52B-226).

(2) Eras diagnostic trouble code memory, and check the diagnostic trouble code.

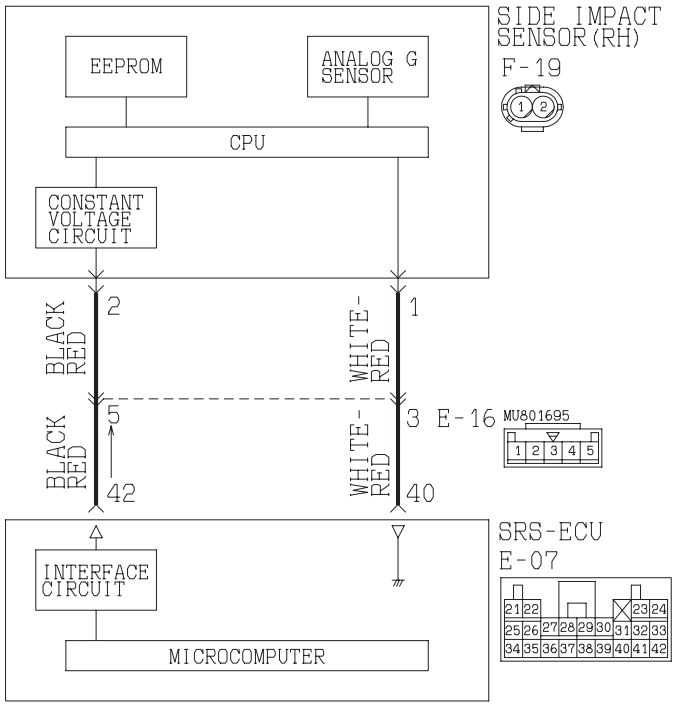
Q: Is any of DTC 92 or 95 set?

YES : Replace the SRS-ECU (Refer to P.52B-215).

NO : The procedure is complete.

DTC 94: Right Hand Side Impact Sensor Power Supply Circuit System

Side Impact Sensor (RH) Power Supply Circuit



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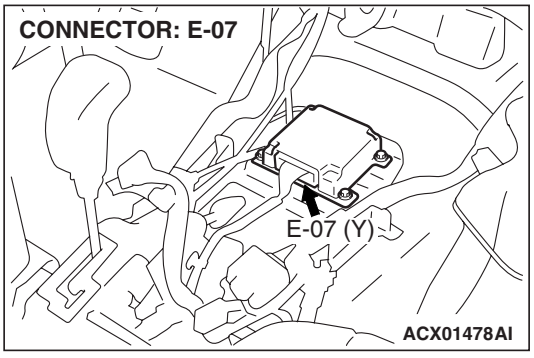
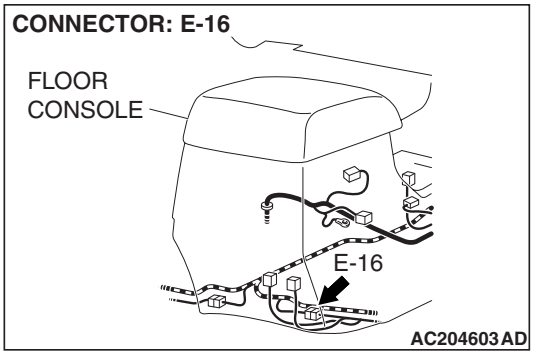
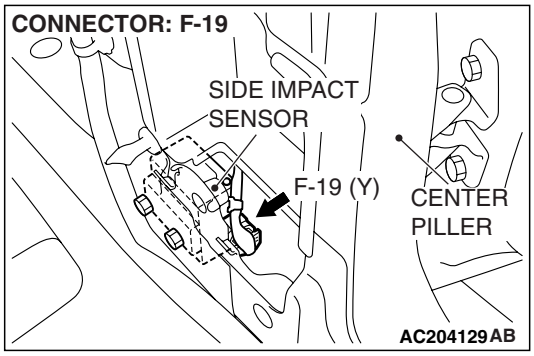






TSB Revision

CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set if the power supply voltage of the side impact sensor (RH) drops below the rated value for a continuous period of five seconds or more. However, if the vehicle condition returns to normal, DTC 94 will be automatically erased, and the SRS warning light will go out.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the side-airbag module (RH) (squib)
- Malfunction of the SRS-ECU

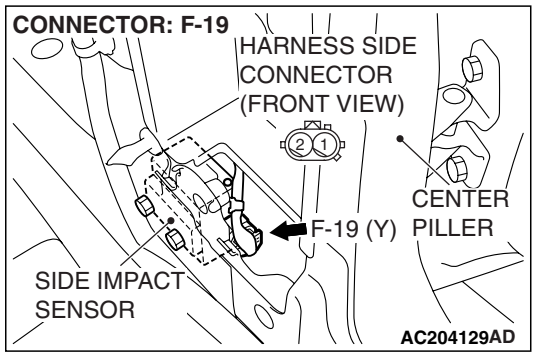
DIAGNOSIS

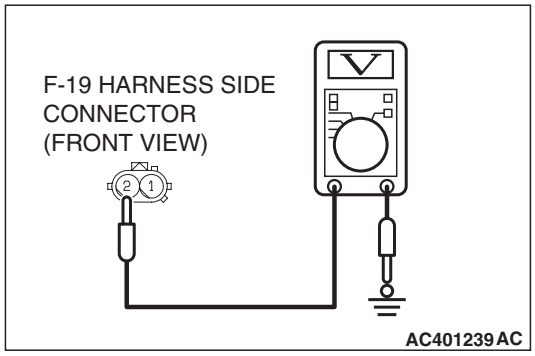
Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)
- MB992006: Extra Fine Probe

STEP 1. Check the side impact sensor (RH) power supply circuit at the SRS-ECU connector E-07.

(1) Disconnect the negative battery terminal.
(2) Disconnect right hand side impact sensor connector F-19, and measure at the wiring harness.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.





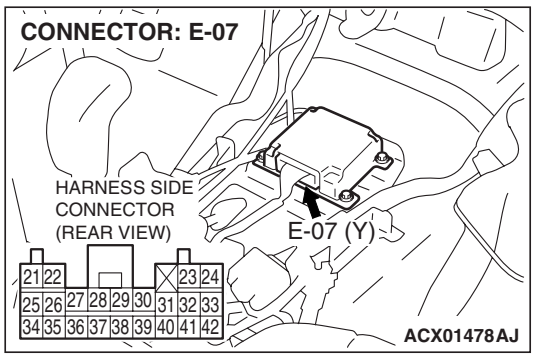
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

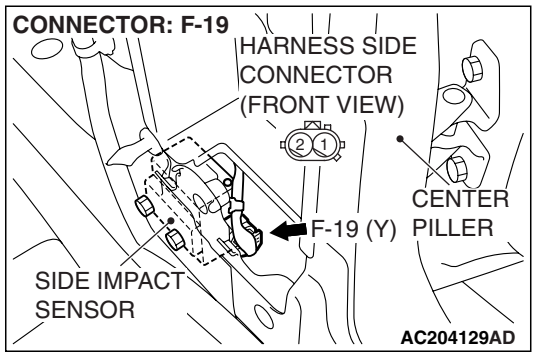
(5) Measure the voltage between F-19 harness connector terminal 2 and body ground.
Voltage should measure 9 volts or more.

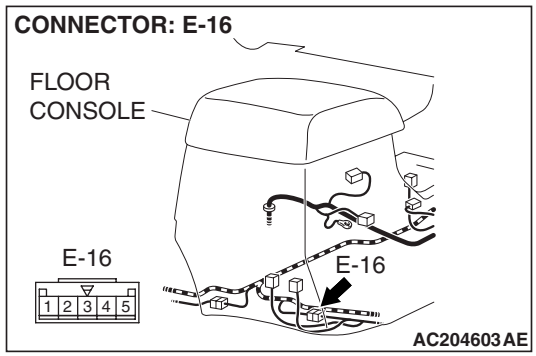
Q: Is the measured voltage within the specified range?

YES : Replace the side impact sensor (RH) (Refer to P.52B-226). Then go to Step 3.
NO : Go to Step 2.

STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector E-07 (terminal No.40 and 42) and side impact sensor (RH) connector F-19 (terminal No.1 and 2).







NOTE: After inspecting intermediate connector E-16, inspect the wiring harness. If the intermediate connector E-16 is damaged, repair or replace it (Refer to GROUP 00E, Harness Connector Inspection P.00E-2). Then go to Step 3.

Q: Are the harness wires between SRS-ECU connector E-07 (terminal No.40 and 42) and side impact sensor (RH) connector F-19 (terminal No.1 and 2) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 94 sets, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector E-07 and side impact sensor (RH) connector F-19. Then go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Q: Is DTC 94 set?

YES : Return to Step 1.

NO : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

TROUBLE SYMPTOM CHART

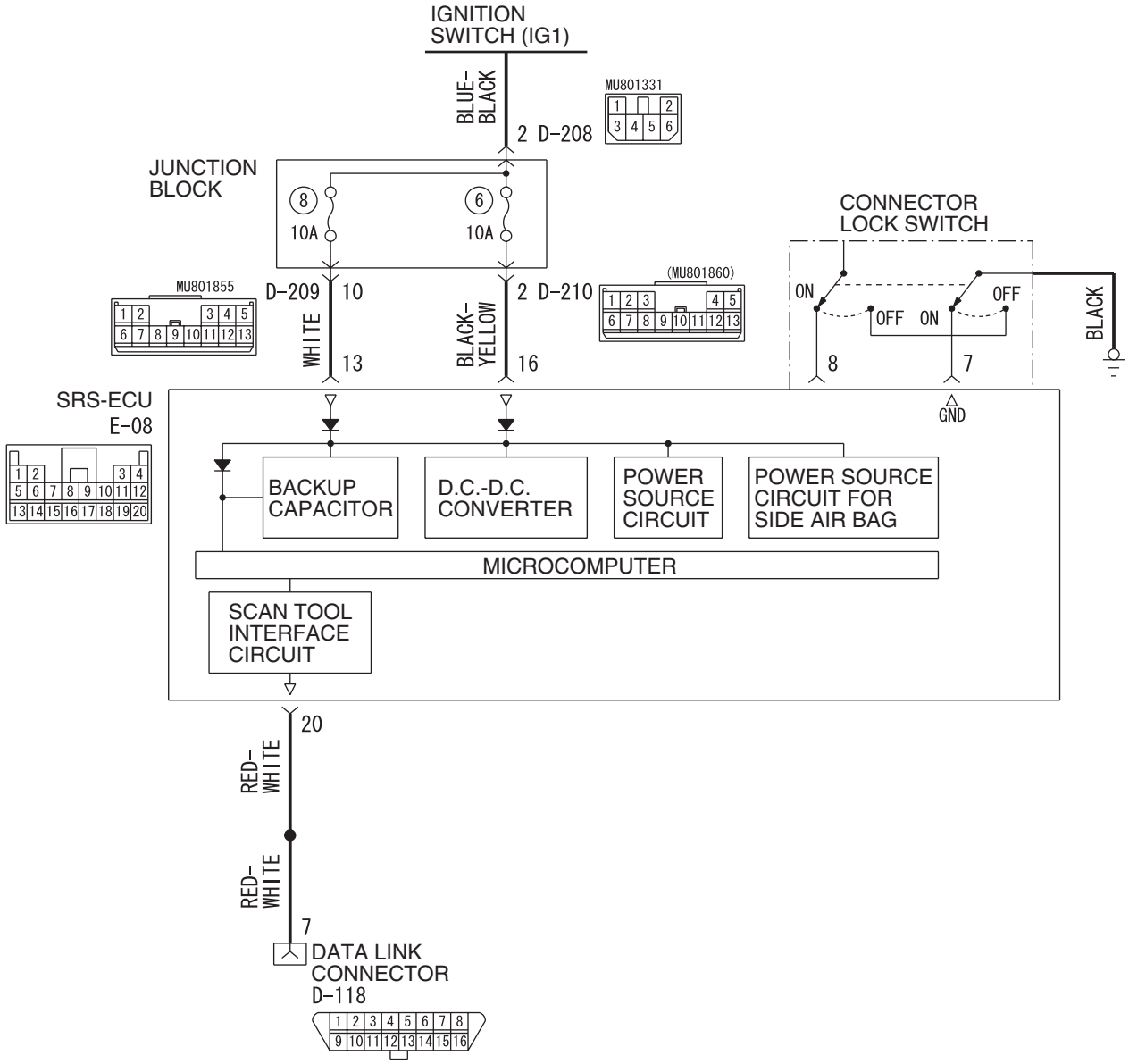
M1524003400707

SYMPTOMS	INSPECTION PROCEDURE NO.	REFERENCE PAGE
Communication with scan tool MB991958 is not possible (Communication with all systems is not possible).	-	GROUP 13A, DIAGNOSIS P.13A-888.
Communication with scan tool MB991958 is not possible (Communication is not possible with SRS).	1	P.52B-197
When the ignition switch is turned to the "ON" position (engine stopped), the SRS warning light does not illuminate.	Refer to DTC No.43.	P.52B-99
After the ignition switch is turned to the "ON" position the SRS warning light does not go off within approximately seven seconds.	Refer to DTC No.43.	P.52B-105

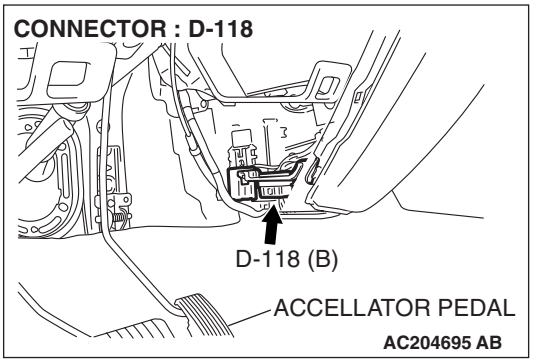
SYMPTOM PROCEDURES

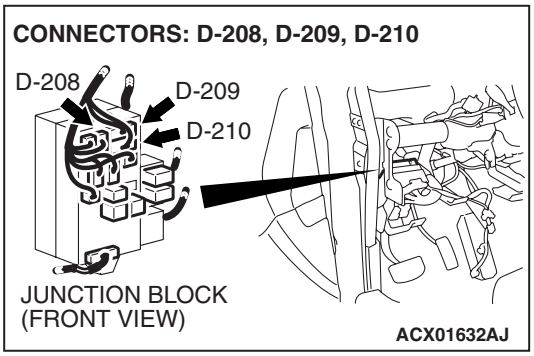
INSPECTION PROCEDURE 1: Communication with scan tool MB991958 is not possible (Communication is not possible with SRS).

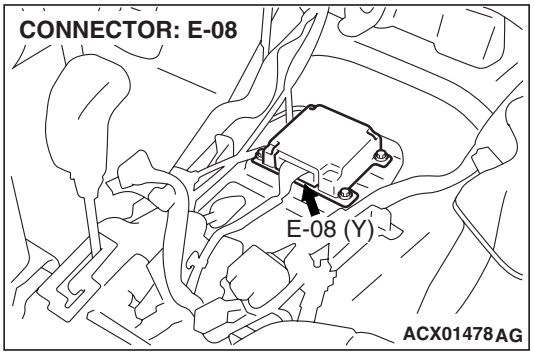
SRS-ECU Power Supply Circuit



W5Q52M001A







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.
- The SRS system diagnosis can be done by connecting scan tool MB991958 to the data link connector.

TECHNICAL DESCRIPTION (COMMENT)

If communication is not possible with the SRS only, the cause is probably an open circuit in the on-board diagnostic output circuit of the SRS or in the power circuit (including ground circuit).

TROUBLESHOOTING HINTS

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

TSB Revision

DIAGNOSIS

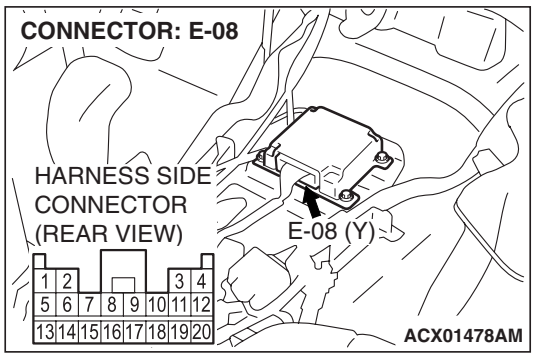
STEP 1. Check that the scan tool can communicate with the other systems.

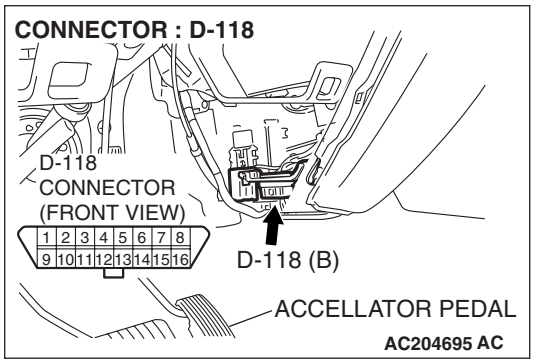
Q: Can the scan tool communicate with the other systems?

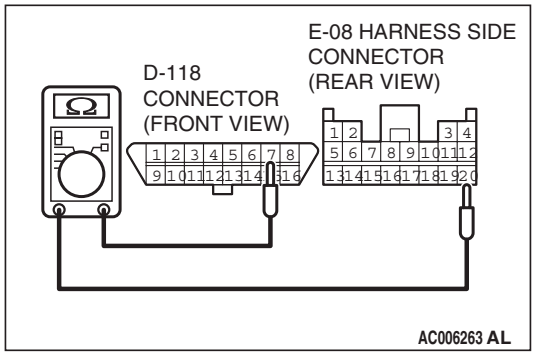
YES : Go to Step 2.
NO : Refer to GROUP 13A, Diagnosis P.13A-888.

STEP 2. Check the communication line between the SRS-ECU and the scan tool.

(1) Disconnect SRS-ECU connector E-08 and data link connector D-118 and measure at the wiring harness side.





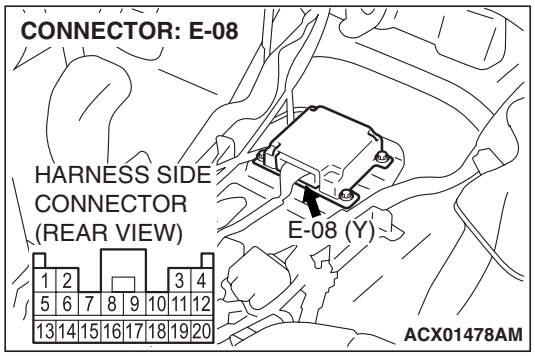


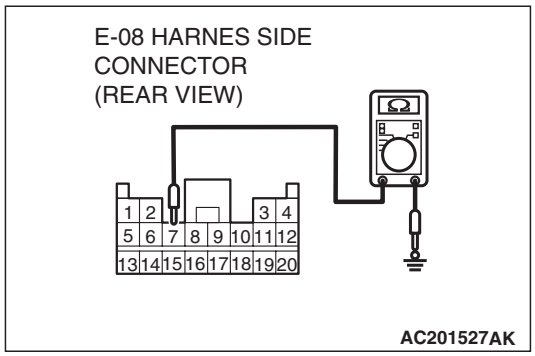
⚠ CAUTION
Do not insert a test probe into the terminal of the SRS-ECU connector E-08 from its front side directly as the connector contact pressure may be weakened.

(2) Check for continuity between the following terminals.
Between connector E-08 terminal 20 and connector D-118 terminal 7
It should be less than 2 ohms.

Q: Does continuity exist?

YES : Go to Step 3.
NO : Go to Step 5.





STEP 3. Check the ground circuit to the SRS-ECU.

(1) Disconnect SRS-ECU connector E-08, and measure at the wiring harness side.

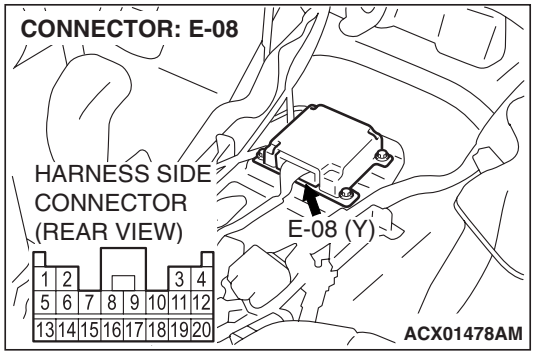
⚠ CAUTION

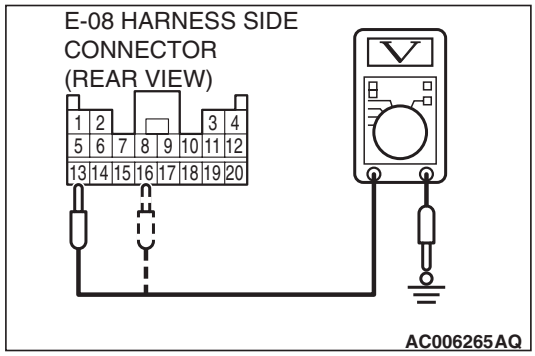
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Check for continuity between E-08 harness terminal 7 and body ground.
It should be less than 2 ohms.

Q: Does continuity exist?

YES : Go to Step 4.
NO : Go to Step 6.





STEP 4. Check the power supply circuit to the SRS-ECU.

(1) Disconnect SRS-ECU connector E-08, and measure at the wiring harness side.
(2) Connect the negative battery terminal.
(3) Turn the ignition switch to the "ON" position.

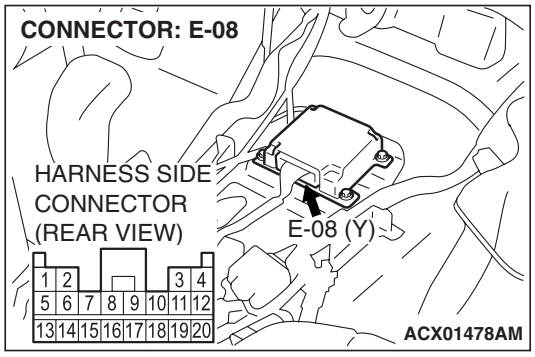
⚠ CAUTION

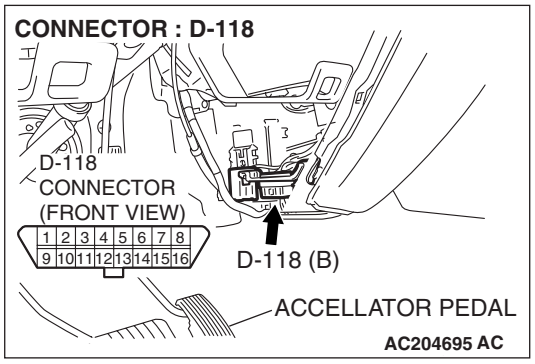
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Measure the voltage between terminals 13, 16 and body ground.
Voltage should measure 9 volts or more.

Q: Is the measured voltage within the specified range?

YES : Recheck the trouble symptom. If it is not solved, replace the SRS-ECU (Refer to P.52B-215). Then go to Step 8.
NO : Go to Step 7.



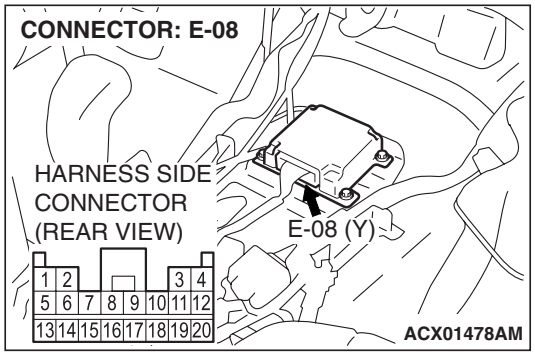


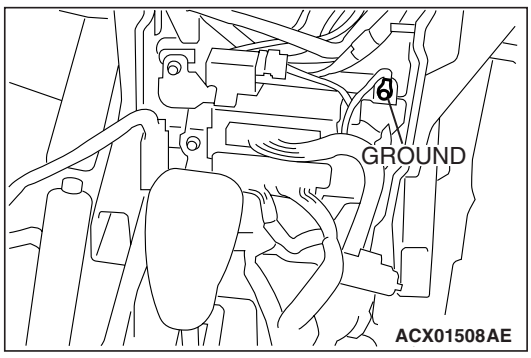
STEP 5. Check the harness wires between SRS-ECU connector E-08 (terminal No.20) and data link connector D-118 (terminal No.7).

Q: Are the harness wires between SRS-ECU connector E-08 (terminal No.20) and data link connector D-118 (terminal No.7) in good condition?

YES : Go to step 8.

NO : Repair the harness wires between SRS-ECU connector E-08 and data link connector D-118. Then go to Step 8.





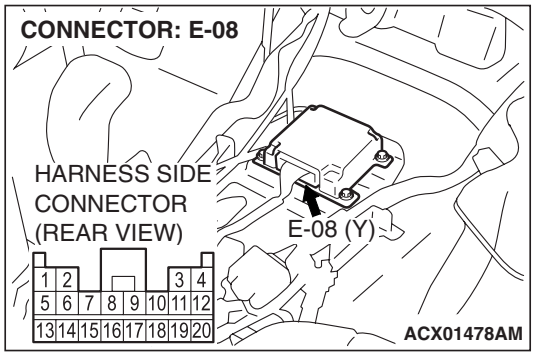
STEP 6. Check the harness wire between SRS-ECU connector E-08 (terminal No.7) and ground.

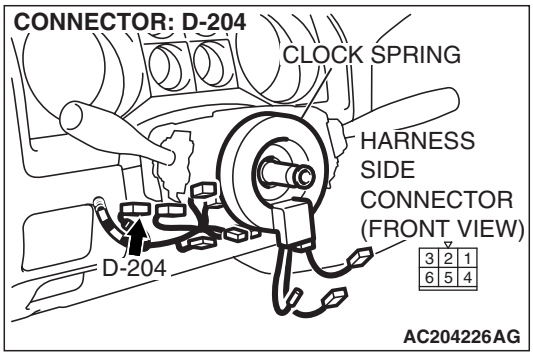
Q: Is the harness wire between SRS-ECU connector E-08 (terminal No.7) and ground in good condition?

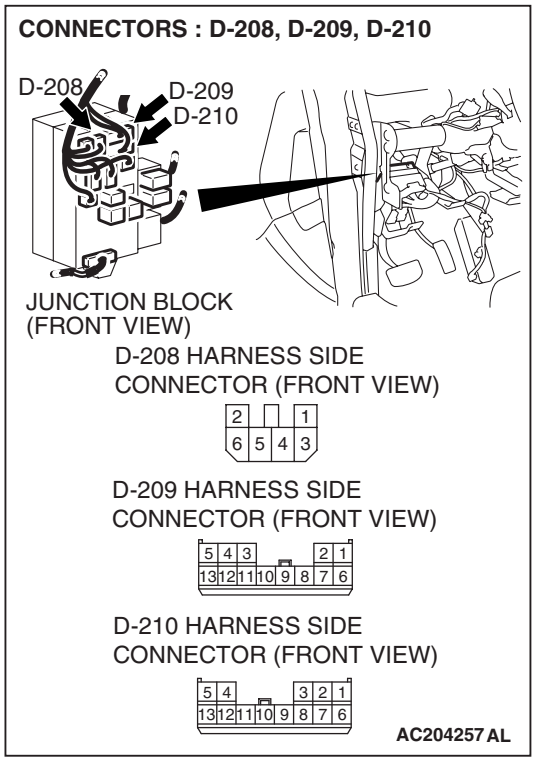
YES : Go to Step 8.

NO : Repair the harness wire between SRS-ECU connector E-08 and ground. Then go to Step 8.

STEP 7. Check the harness wires between SRS-ECU connector E-08 (terminal No.13 and 16) and ignition switch connector D-204 (terminal No.2).







NOTE: After inspecting junction block connector D-210, D-209 and D-208 inspect the wiring harness. If the junction block connector D-210, D-209 or D-208 is damaged, repair or replace it (Refer to GROUP 00E, Harness Connector Inspection P.00E-2). Then go to Step 8 .

Q: Are the harness wires between SRS-ECU connector E-08 (terminal No.13 and 16) and ignition switch connector D-204 (terminal No.2) in good condition?

YES : Go to Step 8.

NO : Repair the harness wires between SRS-ECU connector E-08 and ignition switch connector D-204. Then go to Step 8.

STEP 8. Retest the system.

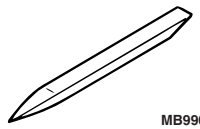
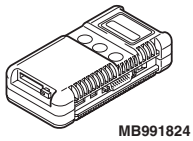
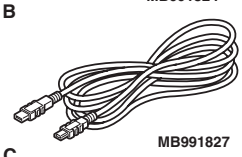
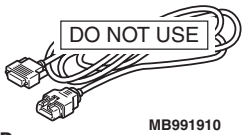
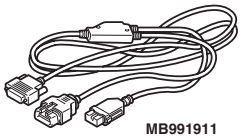
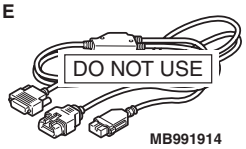
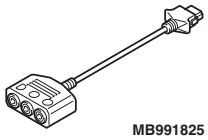
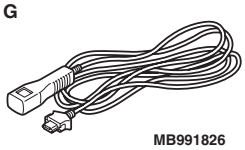
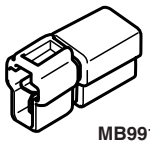
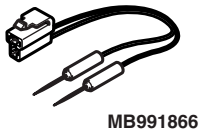
Q: Does the scan tool communicate normally with the SRS system?

YES : The procedure is complete (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-13).

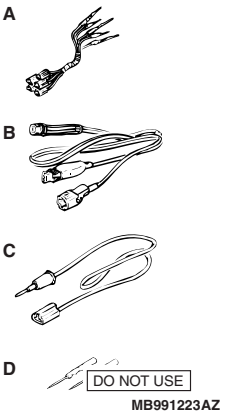
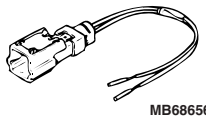
NO : Return to Step 1.

SPECIAL TOOLS

M1524000700754

TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
 MB990784	MB990784 Ornament remover	General service tool	Removal of cover.
A  MB991824 B  MB991827 C  MB991910 D  MB991911 E  MB991914 F  MB991825 G  MB991826 MB991958	MB991958 A: MB991824 B: MB991827 C: MB991910 D: MB991911 E: MB991914 F: MB991825 G: MB991826 MUT-III sub assembly A: Vehicle communication interface (V.C.I.) B: MUT-III USB cable C: MUT-III main harness A (Vehicles with CAN communication system) D: MUT-III main harness B (Vehicles without CAN communication system) E: MUT-III main harness C (for Daimler Chrysler models only) F: MUT-III measurement adapter G: MUT-III trigger harness	MB991824-KIT *NOTE: G: MB991826 MUT-III trigger harness is not necessary when pushing V.C.I. ENTER key.*	SWS communication line check (ECU check and service data) **⚠ CAUTION** **MUT-III main harness B (MB991911) should be used. MUT-III main harness A and C should not be used for this vehicle.**
 MB991865	MB991865 Dummy resistor		SRS air bag circuit check
 MB991866	MB991866 Resistor harness		

TSB Revision

TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
 MB991223AZ	MB991223 A: MB991219 B: MB991220 C: MB991221 D: MB991222 Harness set A: Test harness B: LED harness C: LED harness adapter D: Probe	General service tools	Checking the continuity and measuring the voltage at the SRS-ECU harness connector
 MB992006	MB992006 Extra fine probe		Continuity check and voltage measurement at harness wire or connector for loose, corroded or damaged terminals, or terminals pushed back in the connector.
 MB686560	MB686560 SRS air bag adapter harness	General service tool	• Deployment of air bag module (Front passenger's side) inside the vehicle • Deployment of air bag module (Front passenger's side), seat belt with pre-tensioner outside the vehicle

TEST EQUIPMENT

M1524000800331

TOOL	NAME	USE
 AC000019AB	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

M1524001100982

To inspect and service the SRS after a collision (whether or not the air bags have deployed), perform the following steps.

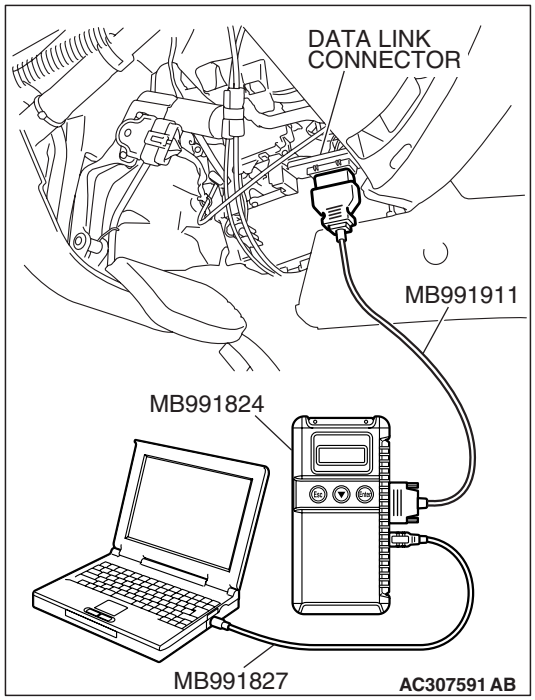
SRS-ECU MEMORY CHECK

Required Special Tools:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without 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-21).

   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 body wiring harness before proceeding.
3. Read the data list (fault duration and how many times memories are erased) using scan tool MB991958.

Data list

NO.	SERVICE DATA ITEM	APPLICABILITY
92	Number indicating how often the memory is cleared	Maximum time to be stored: 250
93	How long a problem has lasted (How long it takes from the occurrence of the problem till the first air bag squib igniting signal)	Maximum time to be stored: 9,999 minutes (approximately seven days)
94	How long a problem has lasted (How long it takes from the first air bag squib igniting signal till now).	

4. Erase the diagnostic trouble codes and, after waiting five seconds or more, read (and write down) all displayed diagnostic trouble codes (Refer to P.52B-23).

TSB Revision

REPAIR PROCEDURE

WHEN FRONT AIR BAGS DEPLOY IN A COLLISION.

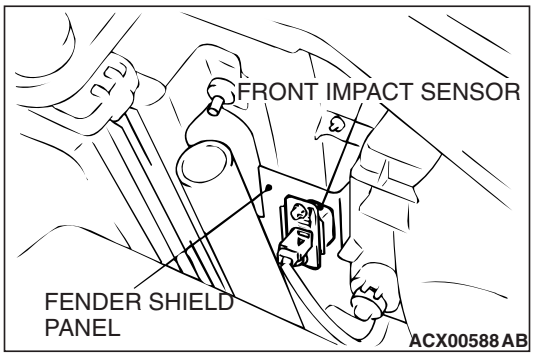
1. Replace the following parts with new ones.
   - Front impact sensor (Refer to P.52B-211).
   - SRS-ECU (Refer to P.52B-215).
   - Air bag modules (Refer to P.52B-217).
   - Seat belt with pre-tensioner (Refer to P.52B-228).
2. Check the following parts and replace if there are any malfunctions.
   - Clock spring (Refer to P.52B-217).
   - Steering wheel, steering column and shaft assembly
     (1) Check the wiring harness (built into the steering wheel) and connectors for damage, and terminals for deformation.
     (2) Install the air bag module to check fit or alignment with the steering wheel.
     (3) Check the steering wheel for noise, binds or difficult operation and excessive free play.
     (4) Check the collision energy absorbing mechanism on the steering column shaft (Refer to GROUP 37, On-vehicle Service – Steering Column Shaft Assembly Shock Absorbing Mechanism Check P.37-21).
3. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to P.52B-18).

WHEN SIDE AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones.
   - SRS-ECU (Refer to P.52B-215).
   - Side impact sensors (Refer to P.52B-226).
   - Front seatback assembly (Refer to GROUP 52A, Front Seat P.52A-14).
2. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to P.52B-18).

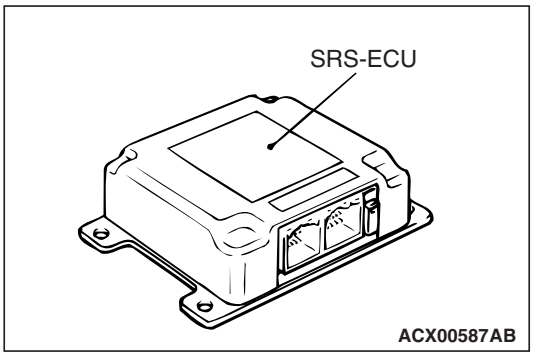
WHEN AIR BAGS DO NOT DEPLOY IN LOW-SPEED COLLISION.

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-210.



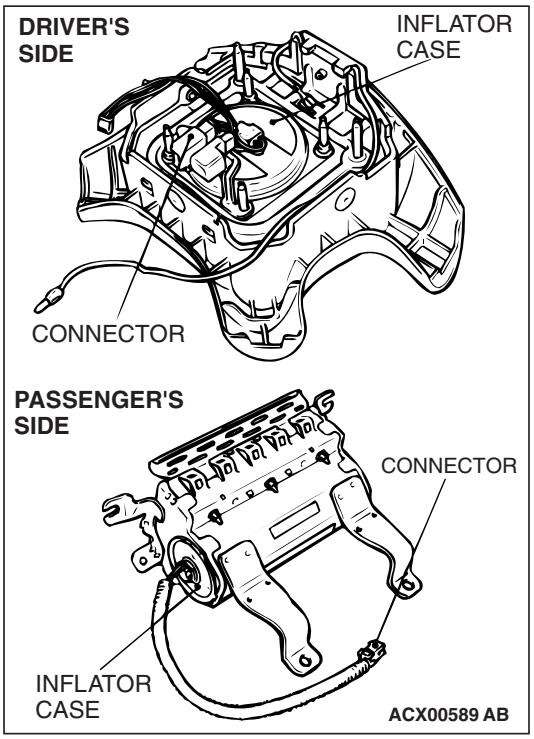
FRONT IMPACT SENSORS

1. Check the headlight support panel for distortion and rust.
2. Check the front impact sensor for dents, cracks, deformation or rust.
3. Check the front impact sensor wiring harnesses for binding, check the connector for damage, and check the terminals for deformation.



SRS-ECU

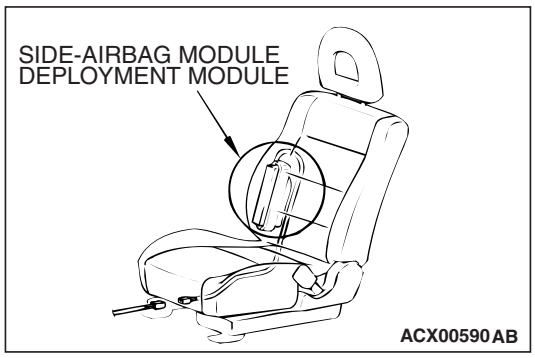
1. Check the SRS-ECU case and brackets for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the fit of the SRS-ECU and its bracket.



AIR BAG MODULES

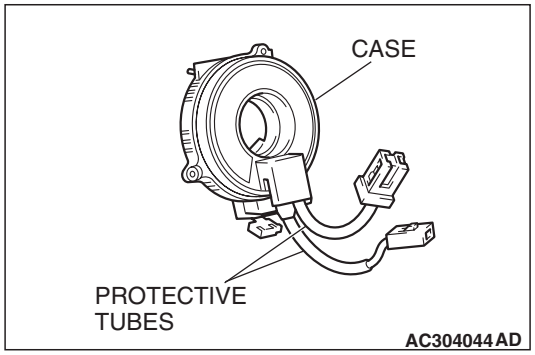
1. Check the pad cover for dents, cracks or deformation.
2. Check the connector for damage, terminals deformities, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformities.
4. Install the air bag module (driver's side) to the steering wheel to check fit or alignment with the steering wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember to check fit or alignment.

TSB Revision



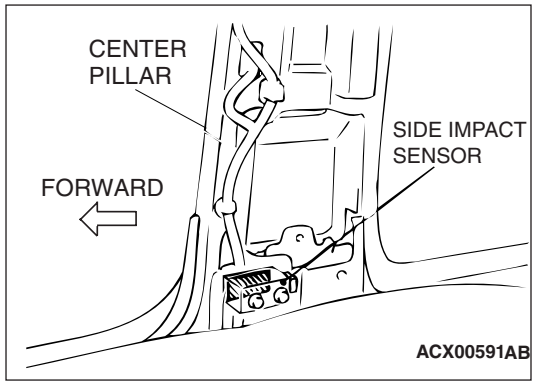
FRONT SEATBACK ASSEMBLY (SIDE-AIRBAG MODULE)

1. Check that there is no abnormality in the side-airbag module deployment section.
2. Check that there is no connector damage, bent terminals or clamping of the harness.



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.
2. Check that there is no denting, breakage or bending of the side impact sensor.
3. Check that there is no clamping of the harness, connector damage or bent terminals.

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

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 collision energy absorbing mechanism on the steering column shaft (Refer to GROUP 37, On-vehicle Service – Steering Column Shaft Assembly Shock Absorbing Mechanism Check P.37-21).

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-18).

INDIVIDUAL COMPONENT SERVICE

M1524002900668

⚠ ***WARNING***

- ***If heat damage may occur during paint work, remove the SRS-ECU, the air bag modules, the clock spring, the front seats and the seat belt with pre-tensioner. Recheck the SRS system operability after reinstalling them.***
  - ***SRS-ECU, air bag module, clock spring, front impact sensor, side 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 check, sheet metal repair, painting, etc, they should be stored in a clean, dry place until they are reinstalled.***

If the SRS components are to be removed or replaced as a result of maintenance, diagnosis, etc., follow the appropriate procedure in this section (Front impact sensor: refer to P.52B-211, SRS-ECU: refer to P.52B-215, Air Bag Modules and Clock Spring: refer to P.52B-217, Side impact sensor: refer to P.52B-226, Seat Belt with Pre-tensioner: refer to P.52B-228).

FRONT IMPACT SENSORS

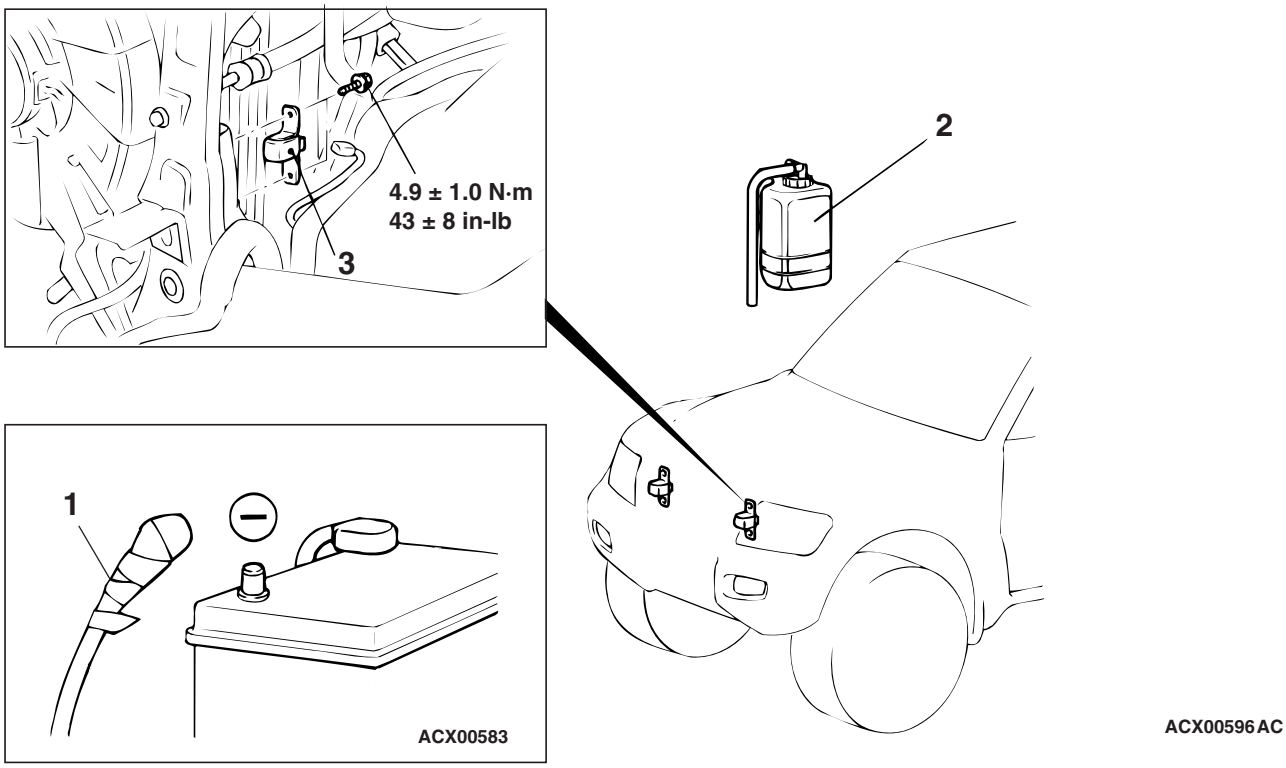
REMOVAL AND INSTALLATION

M1524001500612

⚠ 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 or otherwise a new one is required.***
- ***Replace the sensors with new ones after the air bag has deployed.***

Pre-removal Operation
Turn the ignition switch to the "LOCK" (OFF) position.



REMOVAL STEPS

<<**A**>> 1. NEGATIVE (-) BATTERY CABLE CONNECTION
2. RESERVE TANK
3. FRONT IMPACT SENSOR

INSTALLATION STEPS

>>**A**<< • PRE-INSTALLATION INSPECTION
>>**B**<< 3. FRONT IMPACT SENSOR
2. RESERVE TANK
1. NEGATIVE (-) BATTERY CABLE CONNECTION
>>**C**<< • POST-INSTALLATION INSPECTION

TSB Revision

REMOVAL SERVICE POINT

<<A>>NEGATIVE (–) BATTERY CABLE DISCONNECTION

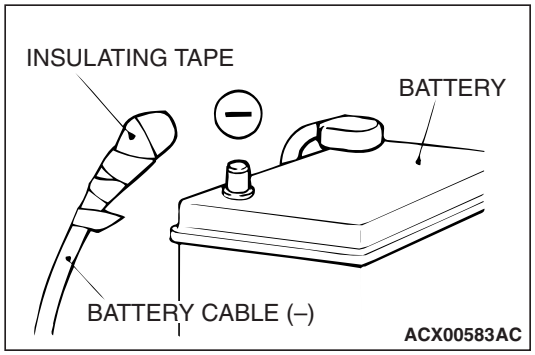
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-18).

⚠ ***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.



INSTALLATION SERVICE POINTS

>>A<<PRE-INSTALLATION INSPECTION

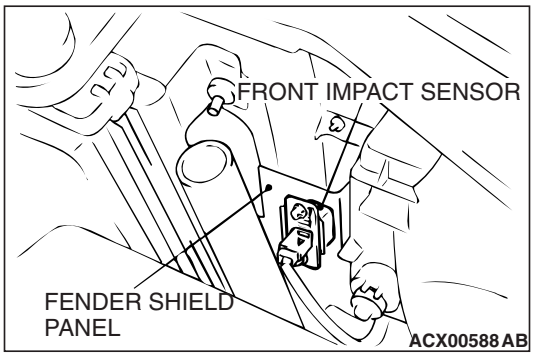
When a new front impact sensor is installed, refer to the previous item "INSPECTION."

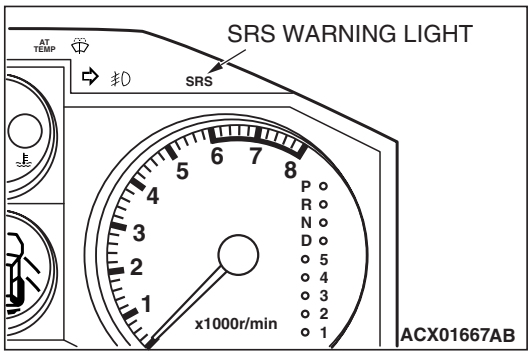
>>B<<FRONT IMPACT SENSOR INSTALLATION

⚠ ***WARNING***

The SRS may mot 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 shown by the arrow on the label, and install it securely.





>>C<<POST-INSTALLATION INSPECTION

1. Connect the negative (–) battery cable.
2. Turn the ignition switch 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 no, consult page P.52B-22.

INSPECTION

M1524001600288

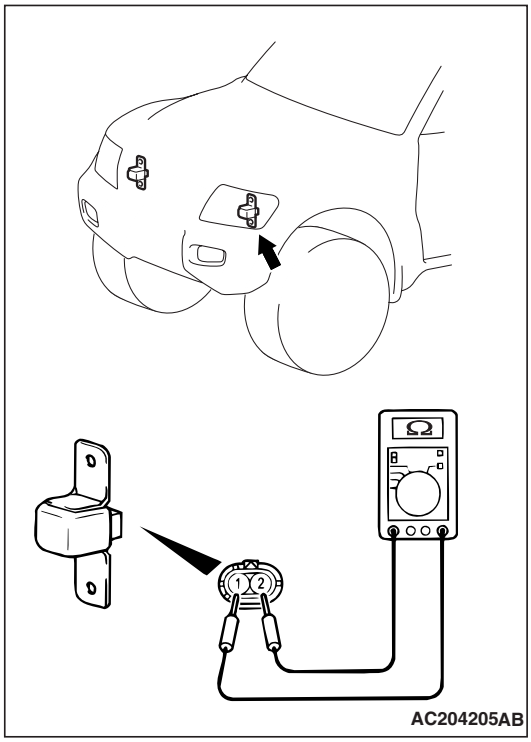
⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

1. Check the front impact sensor for dents, cracks, deformation or rust.

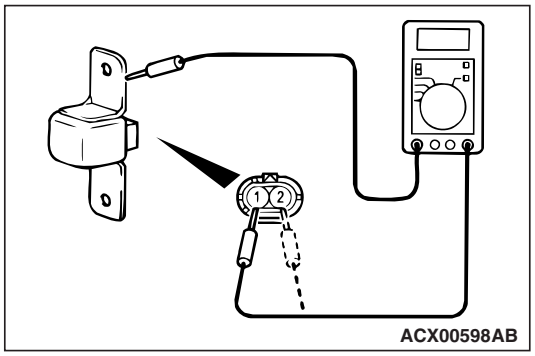
⚠ WARNING

Always replace the sensor with a new one of the resistance is not within the standard value.



2. Measure the resistance between the terminals and check whether it is within the standard value.

   Standard value: 820 ± 82 Ω



3. Check for continuity between the terminal and the bracket. When there is continuity, it shows insufficient insulation of the sensor. Replace the sensor with a new one.
4. Deformation and rust on the headlight support panel.

SRS CONTROL UNIT (SRS-ECU)

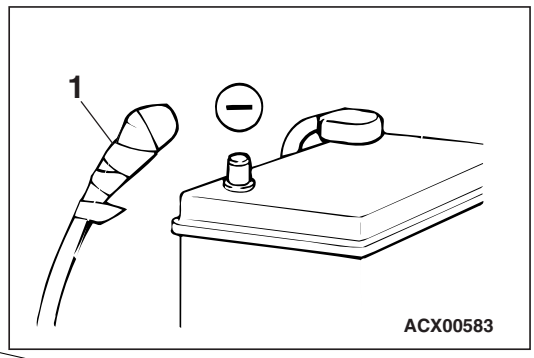
REMOVAL AND INSTALLATION

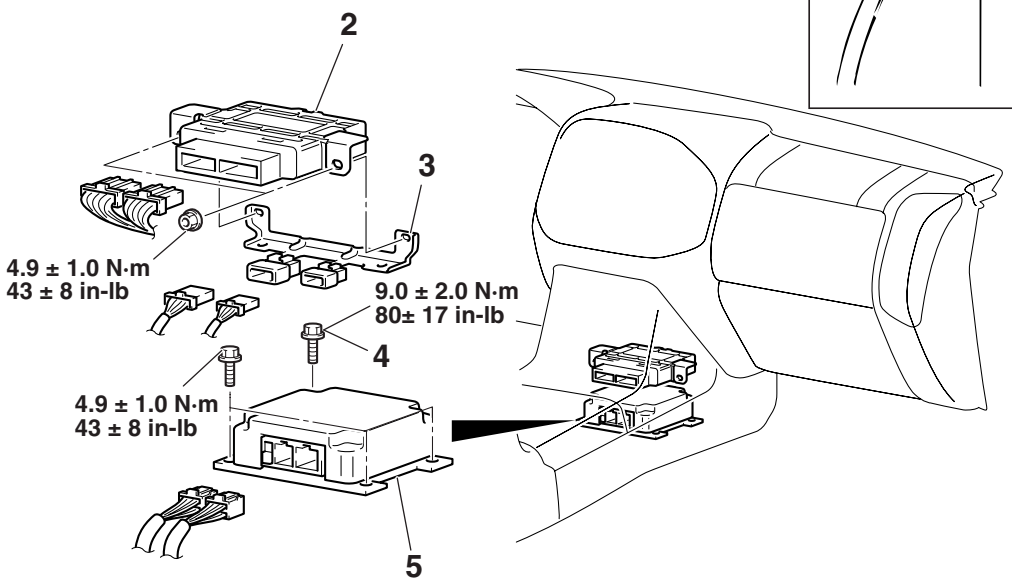
M1524002100747

⚠ 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 on P.52B-205.***

Pre-removal Operation	Post-installation Operation
• Turn the ignition switch to the "LOCK"(OFF) position. • Front Floor Console Removal (Refer to GROUP 52A, Floor Console P.52A-7.)	• Front Floor Console Installation (Refer to GROUP 52A, Floor Console P.52A-7.)





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REMOVAL STEPS

<<A>>
1. NEGATIVE (–) BATTERY CABLE CONNECTION
2. TRANSFER-ECU
3. CONNECTOR BRACKET
4. BRACKET MOUNTING BOLT (GROUNDING BOLT)
5. SRS-ECU

INSTALLATION STEPS

>>A<<
5. SRS-ECU

>>B<<
4. BRACKET MOUNTING BOLT (GROUNDING BOLT)
3. CONNECTOR BRACKET
2. TRANSFER-ECU
1. NEGATIVE (-) BATTERY CABLE CONNECTION

>>C<<
- POST-INSTALLATION INSPECTION

TSB Revision

REMOVAL SERVICE POINT

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

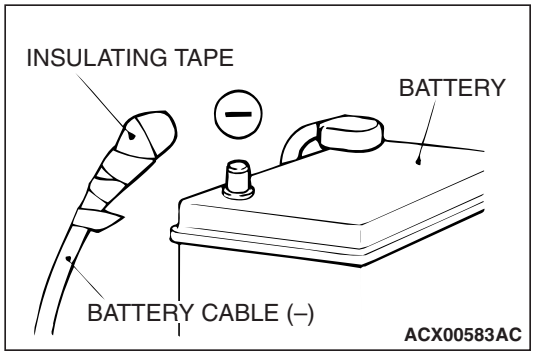
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-18).

⚠ ***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.



INSTALLATION SERVICE POINTS

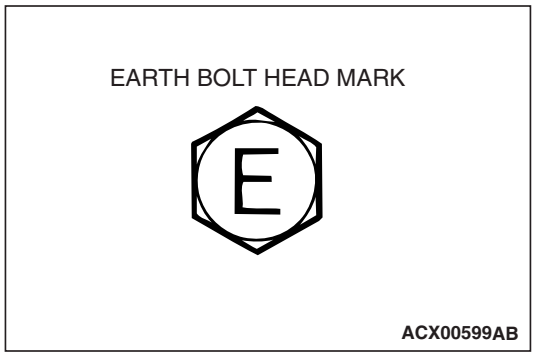
>>A<< PRE-INSTALLATION INSPECTION

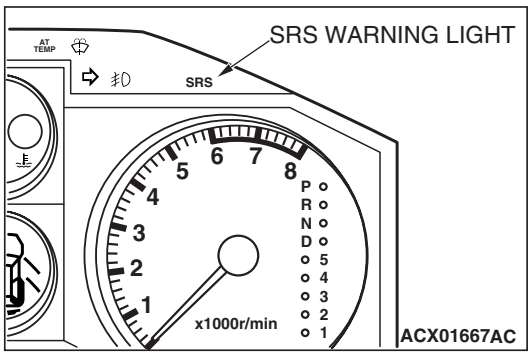
⚠ ***WARNING***

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<< ATTACHMENT OF BRACKET MOUNTING BOLT (GROUNDING BOLT)

Check the head mark "E" on the bolt and attach the grounding bolt.





>>C<< 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 after turning "OFF?"
4. If yes, the SRS system is functioning properly.
   If no, refer to page P.52B-22.

INSPECTION

M1524002200391

⚠ 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 for inspection of SRS-ECU for other than physical damage.

AIR BAG MODULES AND CLOCK SPRING

REMOVAL AND INSTALLATION

M1524002400737

⚠ WARNING

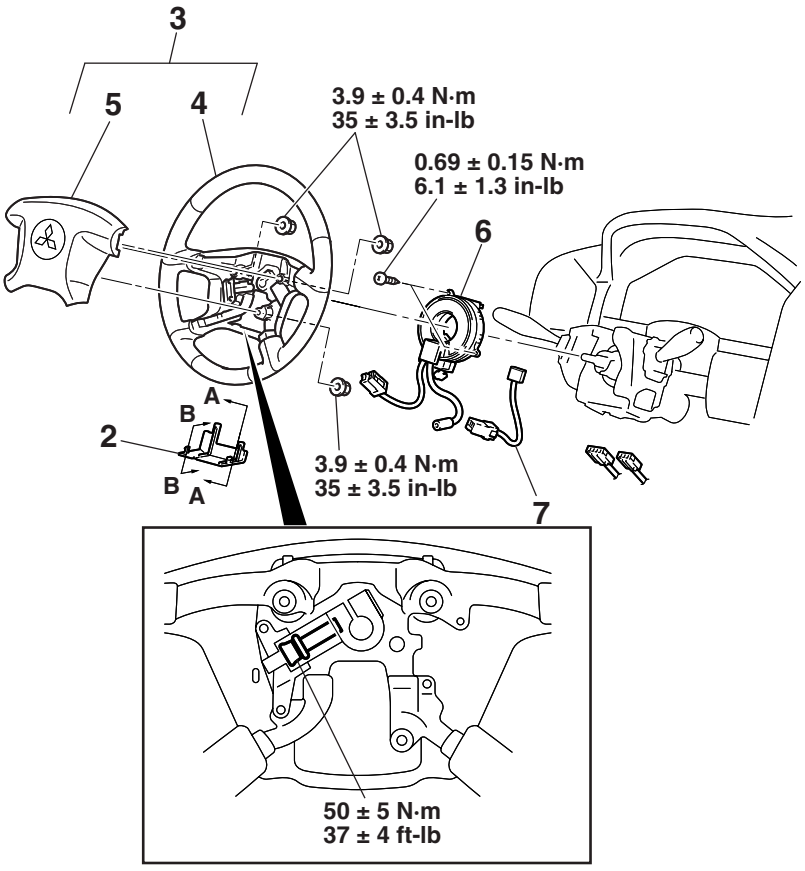
- ***Never attempt to disassemble or repair the air bag modules or clock spring. If faulty, replace it.***
- ***Do not drop the air bag modules or clock spring or allow contact with water, grease or oil.***
- ***Replace it if a dent, crack, deformation or rust is detected.***
- ***The air bag modules should be stored on a flat surface and placed so that the pad surface is facing upward. Do not place anything on top of it.***
- ***Do not expose the air bag modules to temperatures over 93℃(200 ℉).***
- ***After deployment of an air bag, replace the air bag modules. Check the clock spring and if faulty, replace it with a new part.***
- ***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 described on P.52B-233.***

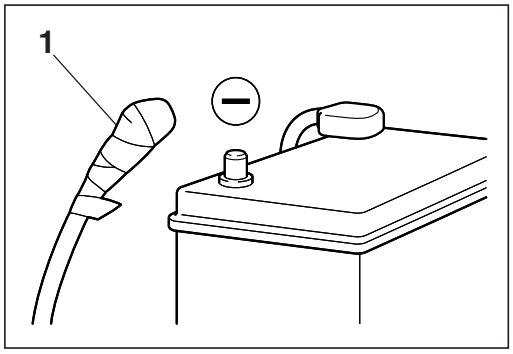
<SIDE-AIRBAG MODULE>

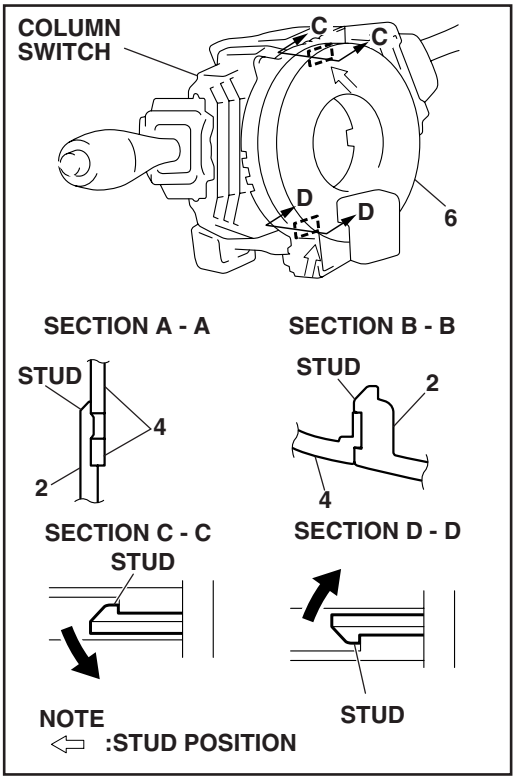
For removal and installation of the front seatback assembly with side-airbag module, refer to GROUP 52A, Front seat P.52A-14.

<AIR BAG MODULE (DRIVER'S SIDE) AND CLOCK SPRING>

Pre-removal Operation
- After setting the steering wheel and the front wheels to the straight ahead position, remove the ignition key.







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AIR BAG MODULE REMOVAL STEPS
- <<A>> 1. NEGATIVE (-) BATTERY CABLE CONNECTION
- <<B>> 2. COVER
- <<C>> 3. STEERING WHEEL AND AIR BAG MODULE
- 4. STEERING WHEEL
- <<D>> 5. AIR BAG MODULE

CLOCK SPRING REMOVAL STEPS
- <<A>> 1. NEGATIVE (-) BATTERY CABLE CONNECTION
- <<B>> 2. COVER
- <<C>> 3. STEERING WHEEL AND AIR BAG MODULE

CLOCK SPRING REMOVAL STEPS (Continued)
- COLUMN COVER LOWER
- <<E>> 6. CLOCK SPRING
- 7. CLOCK SPRING SUB HARNESS

AIR BAG MODULE INSTALLATION STEPS
- >>A<< PRE-INSTALLATION INSPECTION
- 5. AIR BAG MODULE
- 4. STEERING WHEEL
- >>C<< 3. STEERING WHEEL AND AIR BAG MODULE
- 2. COVER

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AIR BAG MODULE INSTALLATION STEPS

1. NEGATIVE (-) BATTERY CABLE CONNECTION

>>D<< • POST-INSTALLATION INSPECTION

CLOCK SPRING INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION

CLOCK SPRING INSTALLATION STEPS

7. CLOCK SPRING SUB HARNESS

>>B<< 6. CLOCK SPRING

• COLUMN COVER LOWER

>>C<< 3. STEERING WHEEL AND AIR BAG MODULE

2. COVER

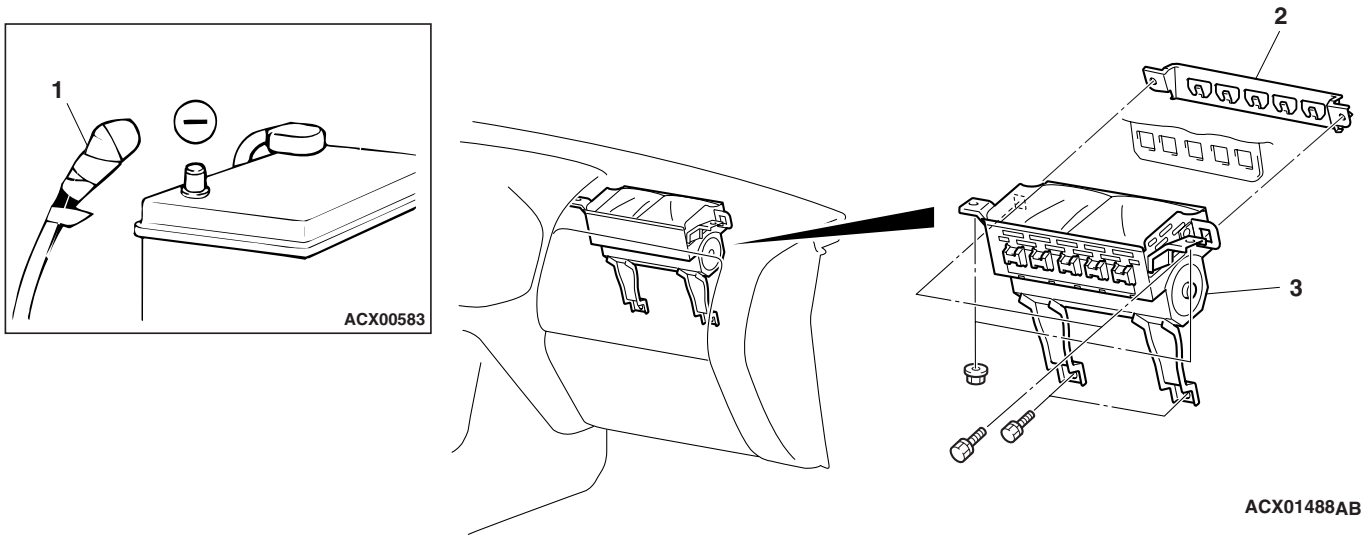
1. NEGATIVE (-) BATTERY CABLE CONNECTION

>>D<< • POST-INSTALLATION INSPECTION

Required Special Tools:

- MB990784: Ornament Remover
- MB992006: Extra Fine Probe
- MB991958: Scan Tool (MUT-III Sub Assembly)
- MB991824: Vehicle Communication Interface (V.C.I.)
- MB9991827: MUT-III USB Cable
- MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

<AIR BAG MODULE (FRONT PASSENGER'S SIDE)>



AIR BAG MODEL REMOVAL STEPS

<<A>> 1. NEGATIVE (-) BATTERY CABLE CONNECTION

• GLOVE BOX, UPPER (REFER TO GROUP 52A, INTERIOR P.52A-3.)

• GLOVE BOX (REFER TO GROUP 52A, INTERIOR P.52A-3.)

<<F>> 2. AIR BAG SIDE PLATE

<<G>> 3. AIR BAG MODULE

AIR BAG MODULE INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION

3. AIR BAG MODULE

2. AIR BAG SIDE PLATE

• GLOVE BOX (REFER TO GROUP 52A, INTERIOR P.52A-3.)

• GLOVE BOX, UPPER (REFER TO GROUP 52A, INTERIOR P.52A-3.)

1. NEGATIVE BATTERY CABLE CONNECTION

>>D<< • POST-INSTALLATION INSPECTION

Required Special Tools:

MB991958: Scan Tool (MUT-III Sub Assembly)

- MB991824: Vehicle Communication Interface (V.C.I.)
- MB9991827: MUT-III USB Cable
- MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

TSB Revision

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

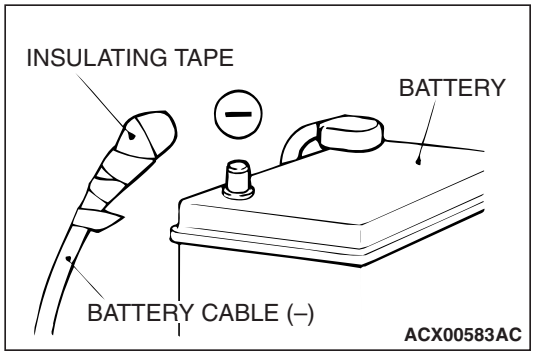
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-18).

⚠ ***WARNING***

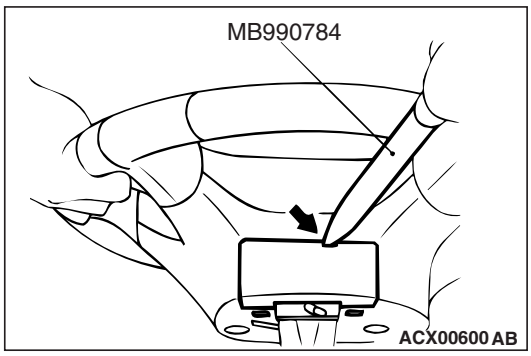
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



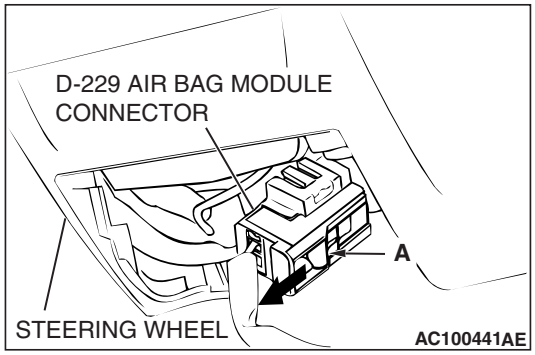
<<B>> COVER REMOVAL

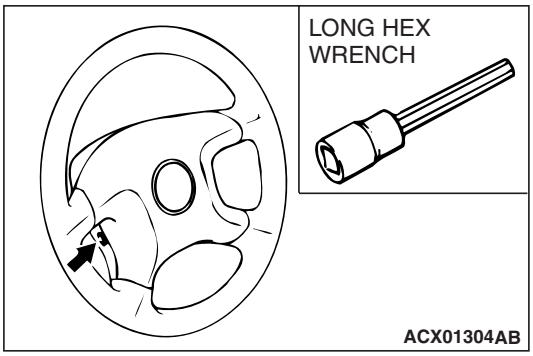
Insert the special tool MB990784 from the position as shown by the arrow in the illustration to remove the cover.
NOTE: There is a cutout for tool insertion at the inside of position shown in the illustration.



<<C>> STEERING WHEEL AIR BAG MODULE ASSEMBLY REMOVAL

1. Remove the air bag module and the horn switch connector through the hole appeared after removing the steering wheel cover.





2. Loosen the bolt completely before removing the steering wheel assembly.
   NOTE: We recommend to use the commercial hex bit socket or the hexagonal wrench which effective length of hexagonal portion is 75 mm (3.0 inches) and over and which width across flats is 8 mm (0.3 inch).
   Recommended tool: Hex bit socket 8 mm (0.3 inch). (Type: 3010M-160, 4010M-160) made by KOKEN

<<D>> AIR BAG MODULE (DRIVER'S SIDE) REMOVAL

⚠ CAUTION

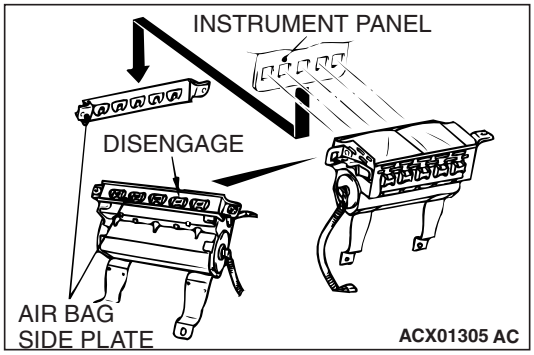
- **Do not diagnose the circuit using an electric circuit tester or disassemble the air bag module.**
- **Keep the removed driver's side air bag module at the clean and dry place turning the pad face up.**

<<E>> CLOCK SPRING REMOVAL

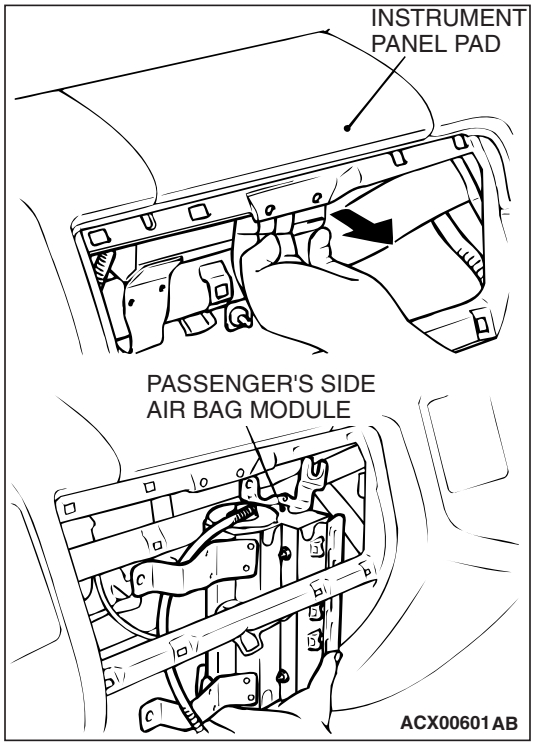
⚠ CAUTION

Keep the removed clock spring at the clean and dry place.

<<F>> AIR BAG SIDE PLATE REMOVAL



1. After removing the mounting bolt of the air bag side plate, slide the plate downward to disengage it from the front passenger's side air bag module.
2. After removing the mounting bolts and nuts of the front passenger's side air bag module, slide the front passenger's side air bag module crosswise to remove the air bag side plate.



<<G>> AIR BAG MODULE (FRONT PASSENGER'S SIDE) REMOVAL

⚠ CAUTION

Keep the front passenger's side air bag module at the clean and dry place turning the inflating face up.

While pulling the portion shown in the illustration on the instrument panel pad toward you, remove the front passenger's side air bag module to pull it out from down side.

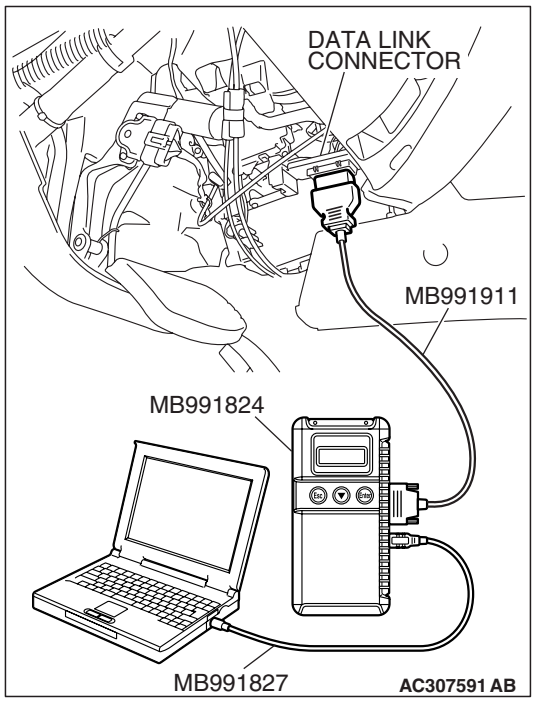
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING

Dispose of air bag modules only according to the specified procedure (Refer to P.52B-233).

1. When installing the new air bag modules and clock spring, refer to "INSPECTION" (P.52B-224).
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 DTC, using scan tool MB991958 to ensure entire SRS system operates properly.
   At this time, check that DTC except 21 and 24 is not set.

⚠ DANGER

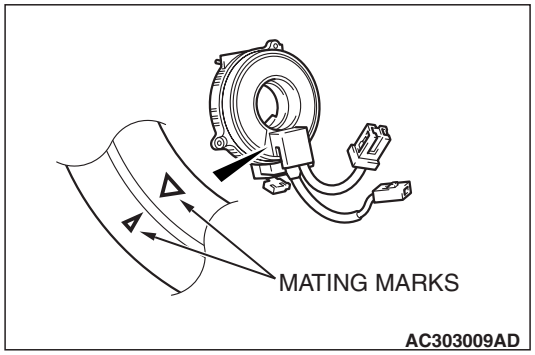
Wait at least 60 seconds after disconnecting the battery cable before doing any further work.(Refer to P.52B-18).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition key to the "LOCK" (OFF) position. Disconnect the negative (−) battery cable and tape the terminal to prevent accidental connection and air bag deployment.

>>B<< CLOCK SPRING INSTALLATION



⚠ WARNING

Ensure that the clock spring's mating marks are properly aligned. If not, the steering wheel may not rotate completely during a turn, or the flat harness in the clock spring could be damaged. This would prevent normal SRS operation and possibly cause serious injury to the driver.

Align the mating marks of the cock spring. Turn the front wheels to the straight-ahead position. Then install the clock spring to the column switch.

<Mating Mark Alignment>

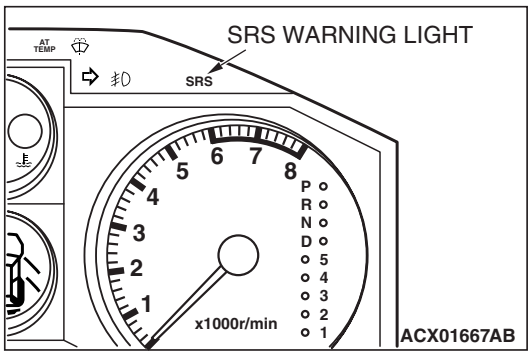
Turn the clock spring clockwise fully. Then turn it back approximately 3 3/4 turns counterclockwise to align the mating marks.

>>C<< STEERING WHEEL AND AIR BAG MODULE INSTALLATION

⚠ CAUTION

When installing the steering wheel, ensure that the harness of the clock spring does not become caught or tangled.

1. Before installing the steering wheel, turn the vehicle's front wheels to the straight-ahead position and align the mating marks of the clock spring.
2. After securing the steering wheel, turn the steering wheel all the way in both directions to confirm that the steering wheel rotation is normal.



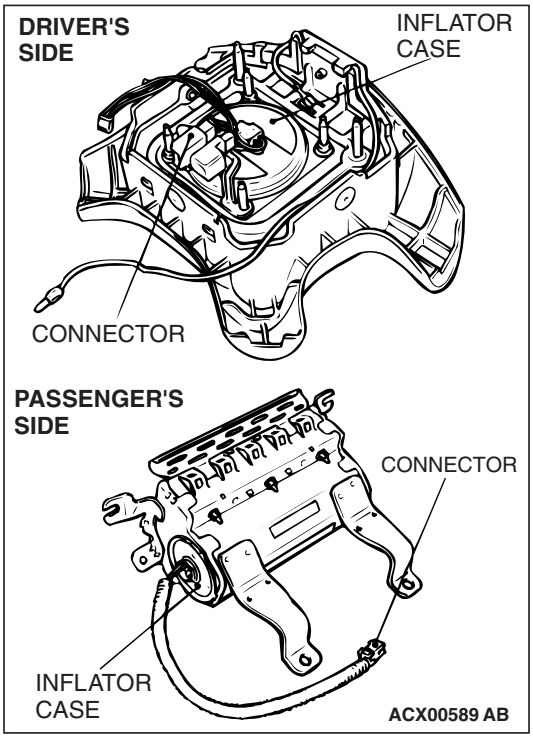
>>D<< POST-INSTALLATION INSPECTION

1. 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 the remain off for at least five seconds after turning "OFF?"
4. If yes, the SRS system is functioning properly.
   If no, consult page P.52B-22.

INSPECTION

M1524002500637

AIR BAG MODULE CHECK



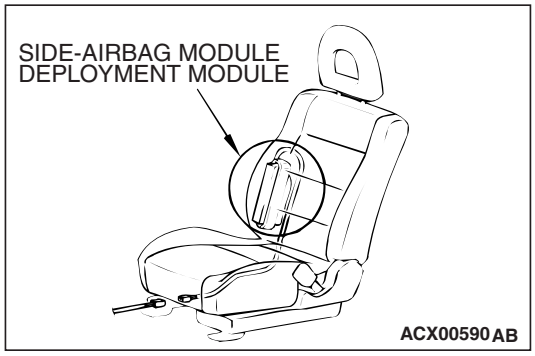
⚠ DANGER

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 in 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-233).

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 wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember and check fit and alignment.
6. Install the air bag module cover (front passenger's side) to the instrument panel to check fit and alignment.



FRONT SEATBACK ASSEMBLY WITH SIDE-AIRBAG MODULE CHECK

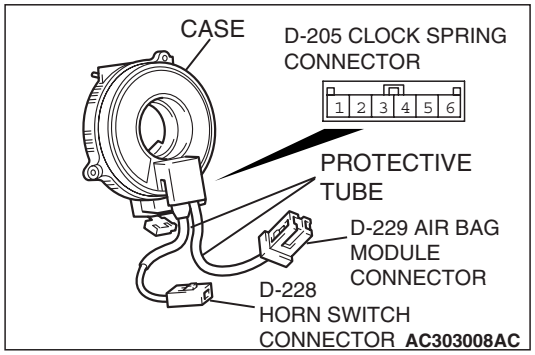
⚠ ***DANGER***

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 in 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-233).

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 binds.



CLOCK SPRING CHECK

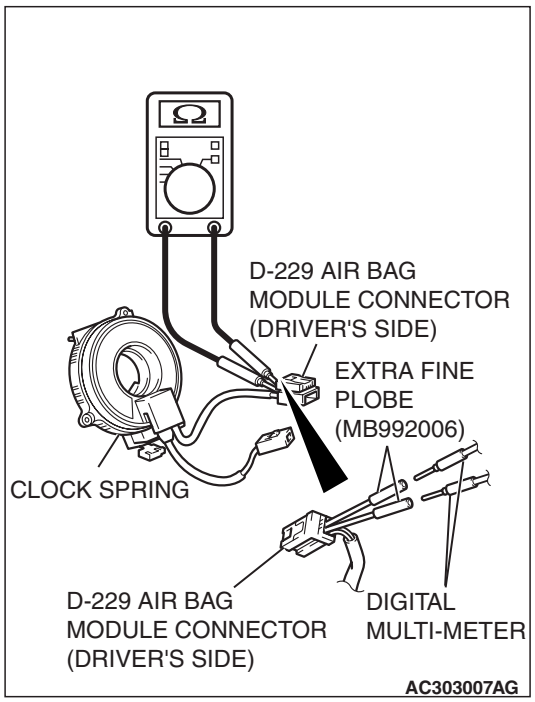
If any malfunction is found in the following inspections, replace the clock spring with a new one.

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 change (continuity) between the D-205 clock spring connector terminal 1 and D-228 horn switch connector.

⚠ **CAUTION**

Do not insert the probe directly to the terminal from the front of the connector.

4. Insert special tool MB992006 from behind the air bag module connector of the D-229 driver's side.
5. As shown in the Figure, connect the circuit tester to special tool MB992006 and check to see that there is a charge between the terminals.



SIDE IMPACT SENSOR

REMOVAL AND INSTALLATION

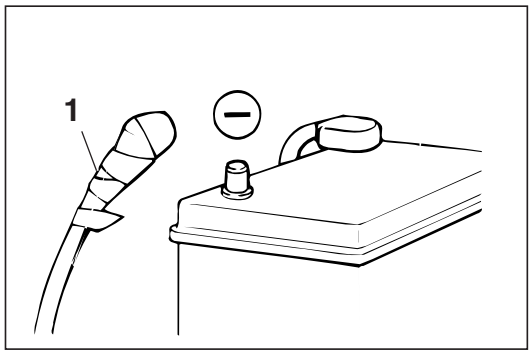
M1524004600599

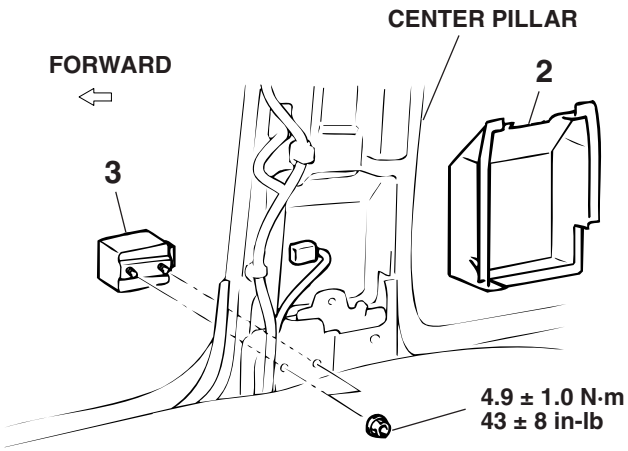
A side impact sensor is installed behind the center pillar trim on both driver and passenger sides of the vehicle.

⚠ 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 air bag has deployed.***

Pre-removal Operation	Post-installation Operation
• Turn the ignition switch to "LOCK" (OFF) position. • Front Seat Belt Removal (Refer to GROUP 52A, Front Seat Belt P.52A-28.) • Center Pillar Trim, Lower Removal (Refer to GROUP 52A, Trims P.52A-8.)	• Center Pillar Trim, Lower Installation (Refer to GROUP 52A, Trims P.52A-8.) • Front Seat Belt Installation (Refer to GROUP 52A, Front Seat Belt P.52A-28.)





ACX01489AB

REMOVAL STEPS

<<A>>
1. NEGATIVE (-) BATTERY CABLE CONNECTION
2. FRONT NOISE PROTECTOR
3. SIDE IMPACT SENSOR

INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION
>>B<< 3. SIDE IMPACT SENSOR
2. FRONT NOISE PROTECTOR
1. NEGATIVE (-) BATTERY CABLE CONNECTOR
>>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.

TSB Revision

REMOVAL SERVICE POINT

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

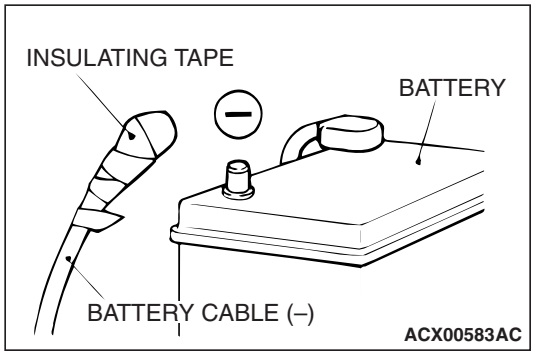
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-18).

⚠ ***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.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

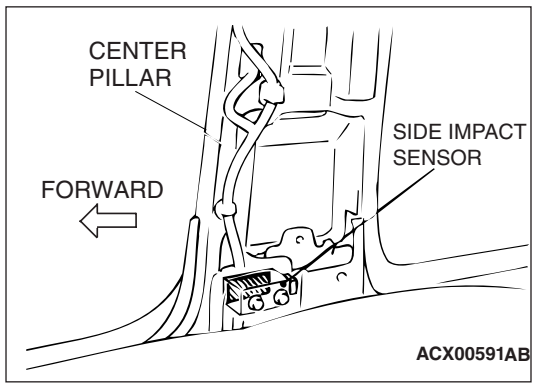
Check the side impact sensor for dents, breakage and bending and measure the resistance between the terminals, even when installing a new side impact sensor.

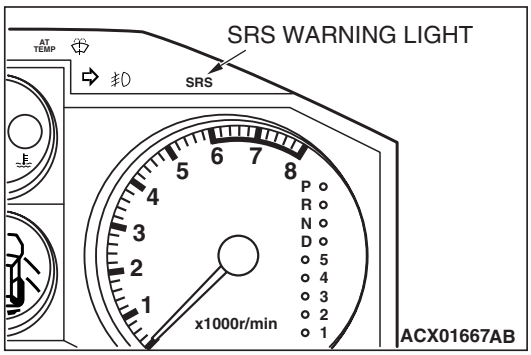
>>B<< SIDE IMPACT SENSOR INSTALLATION

⚠ ***WARNING***

If the side impact sensor is not installed securely and correctly, the side air bag may not operate normally.

Securely connect the connector.





>>C<< 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 then remain off for at least five seconds after turning "OFF"?
4. If yes, the SRS system is functioning properly. If no, refer to P.52B-22.

INSPECTION

M1524004700295

⚠ 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 above, refer to the section concerning SRS diagnosis (Refer to P.52B-21).

- Check the side impact sensor and bracket for dents, cracks or deformation.
- Check the connector for damage, and terminal for deformation.
- Check that there is no bending or corrosion in the center pillar.

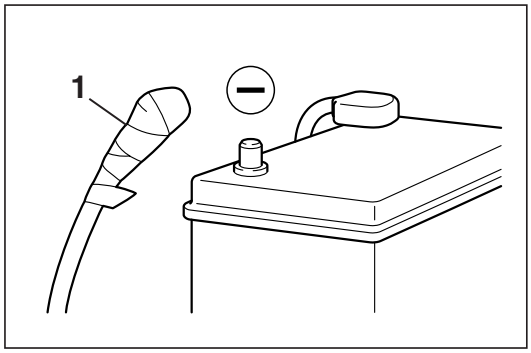
SEAT BELTS WITH PRE-TENSIONER

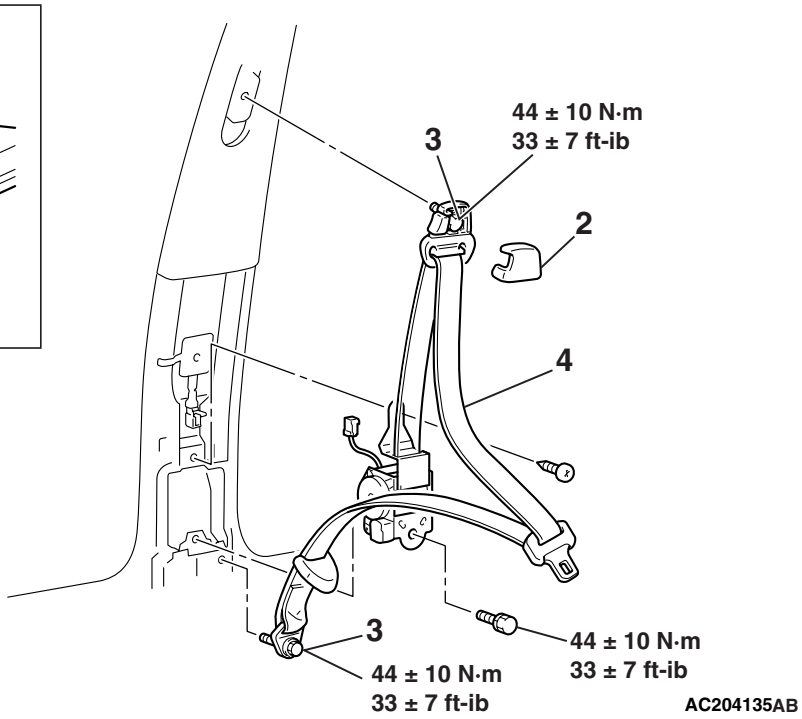
REMOVAL AND INSTALLATION

M1524004100594

⚠ 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 top of 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 should 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 should be operated first before disposal (Refer to P.52B-233).***





REMOVAL STEPS

<<**A**>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION
2. SASH GUIDE COVER
- CENTER PILLAR TRIM, LOWER (REFER TO GROUP 52A, TRIMS P.52A-3.)

3. OUTER SEAT BELT CONNECTION
4. SEAT BELT WITH PRE-TENSIONER

INSTALLATION STEPS

>>**A**<< - PRE-INSTALLATION INSPECTION

4. SEAT BELT WITH PRE-TENSIONER
3. OUTER SEAT BELT CONNECTION
- CENTER PILLAR TRIM, LOWER (REFER TO GROUP 52A, TRIMS P.52A-3.)

2. SASH GUIDE COVER

INSTALLATION STEPS (Continued)

1. NEGATIVE (–) BATTERY CABLE CONNECTION

>>**B**<< - POST-INSTALLATION INSPECTION

Required Special Tool:

- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB9991827: MUT-III USB Cable
  - MB991911: MUT-III Main Harness B (Vehicles without CAN communication system)

TSB Revision

REMOVAL SERVICE POINT

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

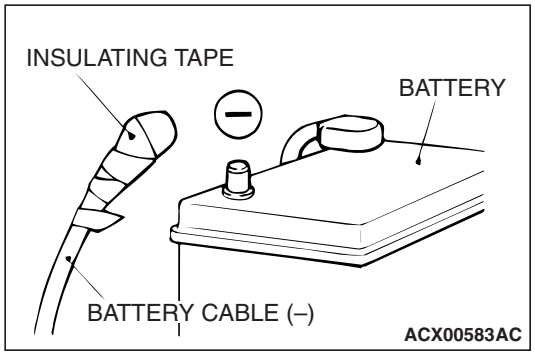
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-18).

⚠ ***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.



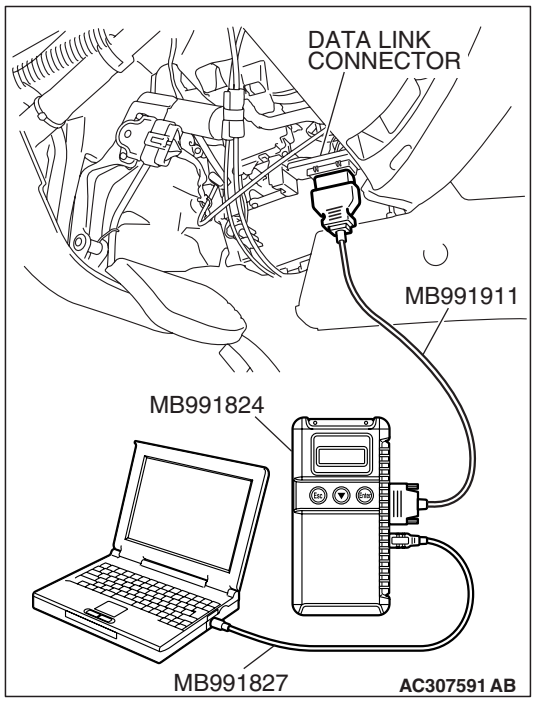
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ ***WARNING***

Dispose of seat belt pre-tensioner only according to the specified procedure (Refer to P.52B-233).

1. When installing the new seat belt pre-tensioner, refer to "INSPECTION" (P.52B-232).
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 DTC except 26 and 28 is not set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-18).

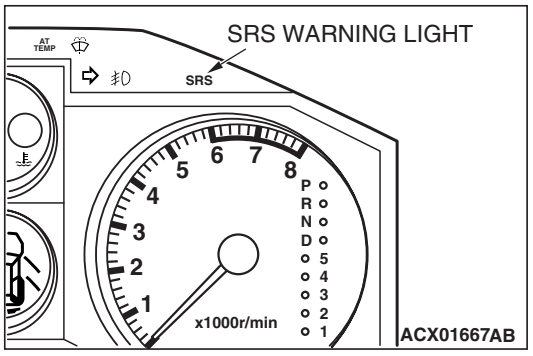
⚠ WARNING

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<< 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 no, refer to P.52B-22.



INSPECTION

M1524004200289

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-233).***
- ***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 binds.

AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES

M1524001200860

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 Tool:

- MB686560: SRS Air Bag Adapter Harness

⚠ ***WARNING***

- ***If the vehicle is to be scrapped or otherwise disposed of, deploy the air bags and operate the seat belt pre-tensioner inside the vehicle. If the vehicle will continue to be used and only the air bag modules and seat belt pre-tensioner are to be disposed of, deploy the air bags and operate the seat belt pre-tensioner outside the vehicle.***
- ***Since a large amount of smoke is produced when the air bag is deployed and the seat belt pre-tensioner is operated, avoid residential areas whenever possible.***
- ***Since there is loud noise when the air bags are deployed and when the seat belt pre-tensioner are operated, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.***
- ***Suitable ear protection should be worn by personnel performing these procedures or by people in the immediate area.***

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <AIR BAG MODULE (DRIVER'S SIDE)>

1. Move the vehicle to an isolated spot.

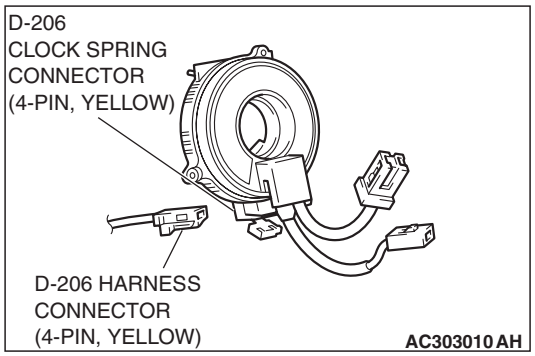
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-18).

⚠ ***WARNING***

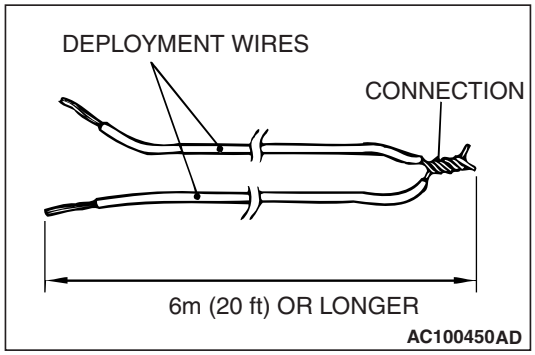
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the steering column cover lower (Refer to GROUP 52A, Instrument Panel P.52A-3).



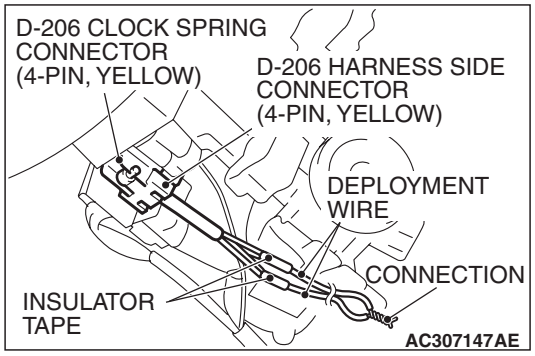
4. Remove the connection between the D-206 clock spring connector (four-pin, yellow) and the harness connector (four-pin, yellow).

   NOTE: If the clock spring connector is disconnected from the instrument panel wiring harness, both electrodes of the clock spring connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.



5. 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 bag from unintentional deployment caused by static electricity, etc.



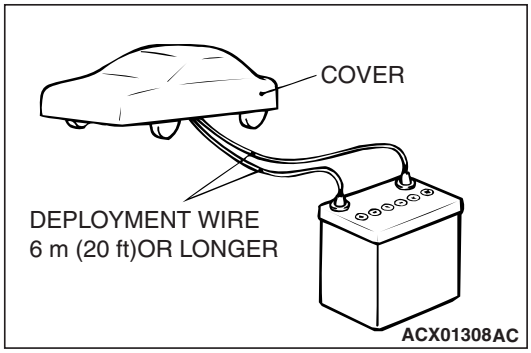
6. Cut with a nipper, etc. the instrument panel wiring harness shown in the Figure of the instructions, while the D-206 clock spring connector is disconnected.

   NOTE: The disconnection location should be sufficiently away from the D-206 harness connector with consideration to the expansion harness connection location upon disconnections.

7. Individually connect a harness on the two harnesses disconnected, cover the connection areas with insulation tape and then pull out the expansion harness outside the vehicle.
8. Connect the D-206 harness side connector connected with an expansion harness to the D-206 clock spring connector.

⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.



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-247) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact the MMNA Tech Line.***

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 air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-247).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <AIR BAG MODULE (FRONT PASSENGER'S SIDE)>

1. Move the vehicle to an isolated spot.

⚠ ***DANGER***

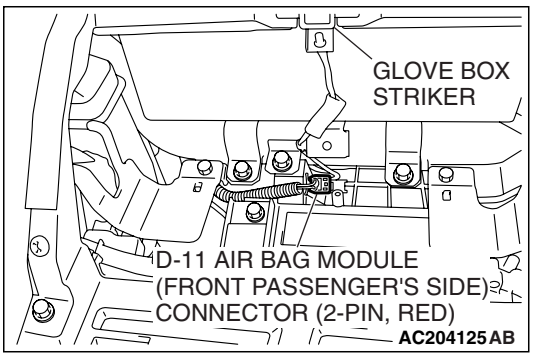
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-18).

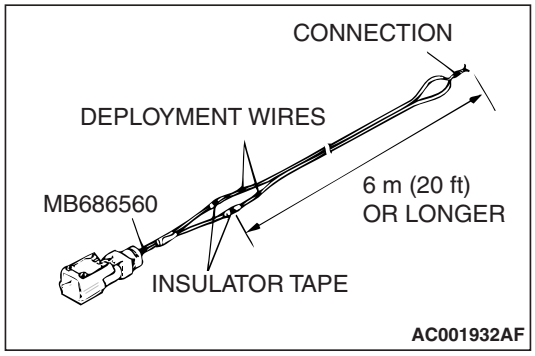
⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

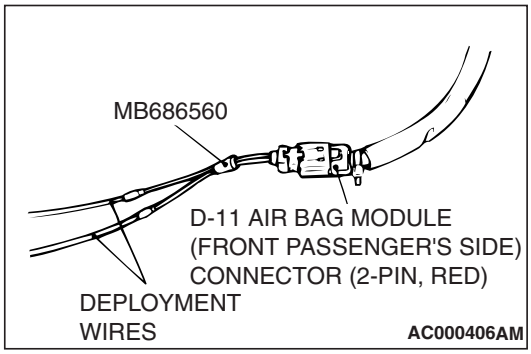
2. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the glove box (Refer to GROUP 52A, Instrument Panel P.52A-3).
4. Remove the connect between the D-11 air bag module (front passenger's side) connector (two-pin, red) and the harness connector (two-pin, red).

   NOTE: If the D-11 air bag module connector is disconnected from the instrument panel wiring harness, both electrodes of the air bag module connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.

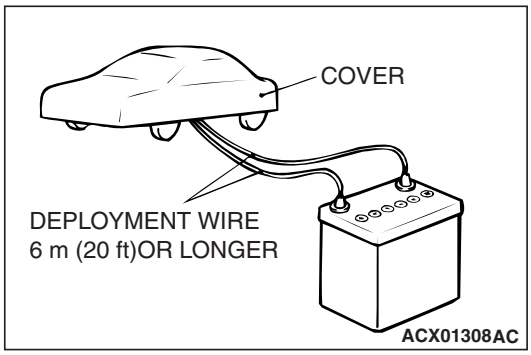




5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB686560, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.



6. Connect the D-11 air bag module (front passenger's side) connector (two-pin, red) to special tool MB686560 and move the deployment wires out of the vehicle.



⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-247) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact the MMNA Tech Line.***

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 Seat Belt Pre-tensioner Disposal (Refer to P.52B-247).

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-18).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

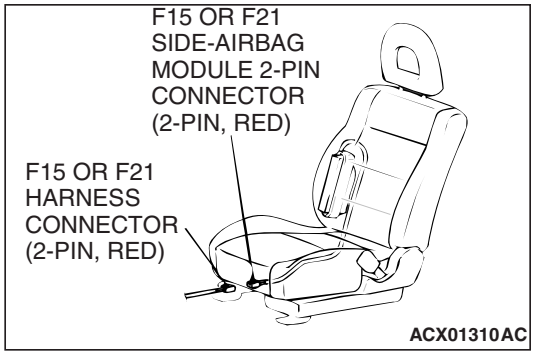
2. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ WARNING

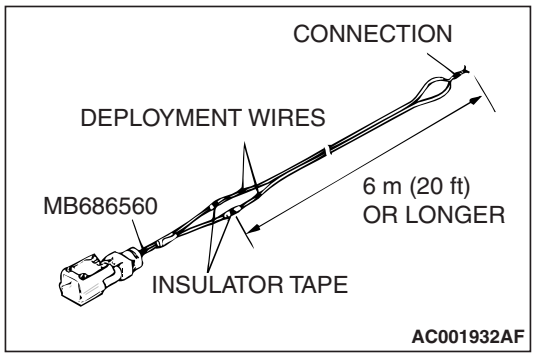
The side-airbag modules for both the driver's side and passenger's side should be deployed.

3. Remove the connection between the side-airbag module connector (red two-pin) and the side-airbag wiring harness connector.

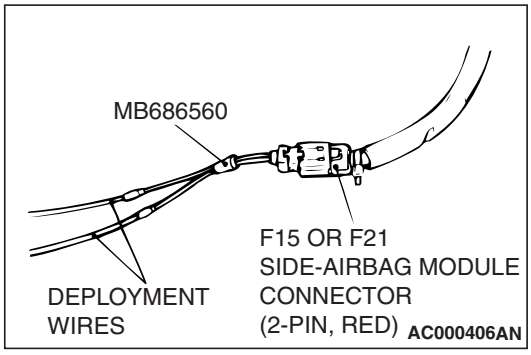
   NOTE: If the side-airbag module connector is disconnected from the floor wiring harness, both electrodes of the side-airbag module connector will be automatically shorted to prevent unintended deployment of the side-airbag due to static electricity, etc.

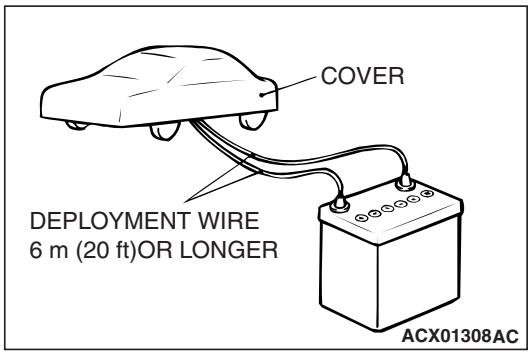


4. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB686560, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the side-airbag module.



5. Connect the side-airbag module two-pin connector to special tool MB686560 and move the deployment wires out of the vehicle.





⚠ ***WARNING***

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

6. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the vehicle.

⚠ ***WARNING***

- ***Before deploying the side-airbag 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 side-airbag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-247) for post-deployment handling instructions.***
- ***If the side-airbag module fails to deploy, do not go near the module. Contact the MMNA Tech Line.***

7. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the side-airbag.
8. After deployment, dispose of the front seatback assembly (air bag module) according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-247).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SEAT BELT PRE-TENSIONER>

1. Move the vehicle to an isolated spot.

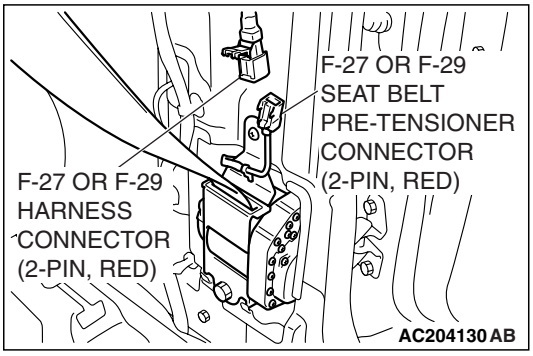
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-18).

⚠ ***WARNING***

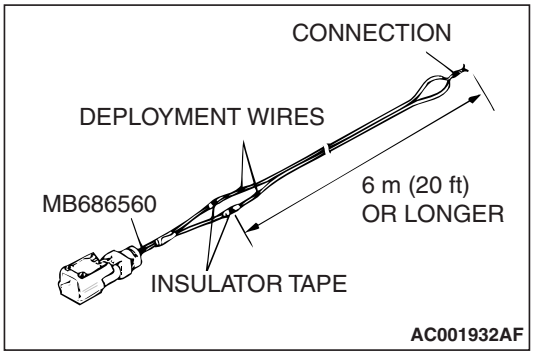
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

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 lower trim (Refer to GROUP 52A, TRIMS P.52A-8).

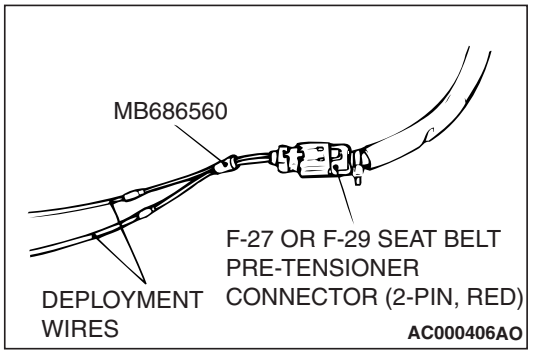


4. Remove the connection between the F-27 or F-29 seat belt pre-tensioner connector (two-pin, red) and the harness connector (two-pin, red).

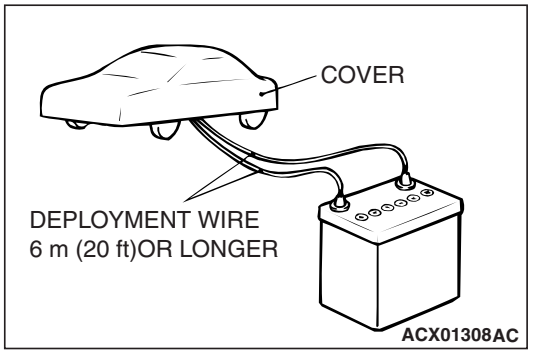
   NOTE: If the seat belt pre-tensioner connector is disconnected from the floor wiring harness, both electrodes of the seat belt pre-tensioner connector will be automatically shorted to prevent unintended operation of the seat belt pre-tensioner due to static electricity, etc.



5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB686560, 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 operate of the seat belt pre-tensioner.



6. Connect the F-27 or F-29 seat belt pre-tensioner connector (two-pin, red) to special tool MB686560 and move the deployment wires out of the vehicle.



⚠ WARNING

If the glass is scratched, seat belt pre-tensioner operation could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ ***WARNING***

- ***Before operating the seat belt pre-tensioner in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the operation, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although no poisonous, do not inhale gas from the seat belt pre-tensioner operation. See Deployed Air Bag and Operated Seat Belt pre-tensioner Disposal (Refer to P.52B-247) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner. Contact the MMNA Tech Line.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each the, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operating the seat belt pre-tensioner.
9. After operation, dispose of the seat belt pre-tensioner according to the Deployed Air Bag Module operated seat belt pre-tensioner Disposal (Refer to P.52B-247).

DEPLOYMENT OUTSIDE THE VEHICLE <AIR BAG MODULE (DRIVER'S SIDE)>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-18).

⚠ ***WARNING***

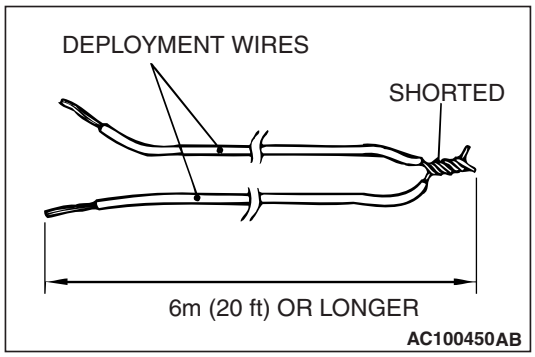
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If 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 flat place with deployment surface facing up. Also, do not put anything on it.

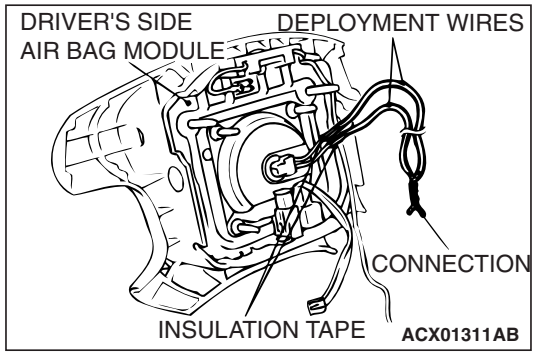
2. Remove the air bag module from the vehicle (Refer to P.52B-217).
3. Prepare two wires longer than 6 meters (20 feet) for deployment and connect the terminals in one end to short-circuit. This is to prevent accidental deployment caused by static etc.



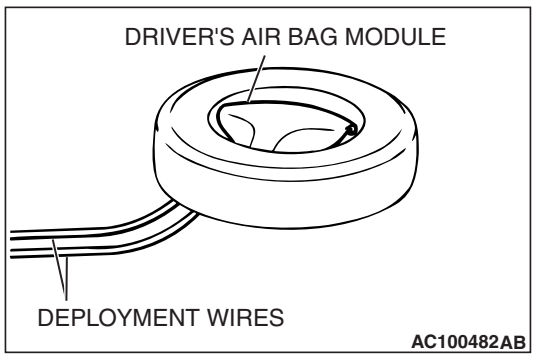
⚠ CAUTION

Never fail to do Step 4 in order to prevent accidental deployment caused by static.

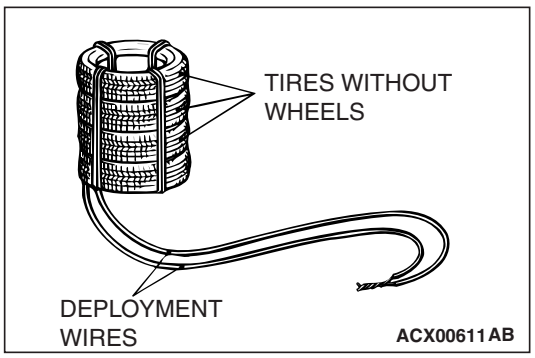
4. Touch the vehicle's body with bare hands to discharge static in you.



5. Using pliers, cut the driver's air bag module connector from the harnesses. Connect the deployment wires to each harness that has been cut and insulate the connections with plastic tape.



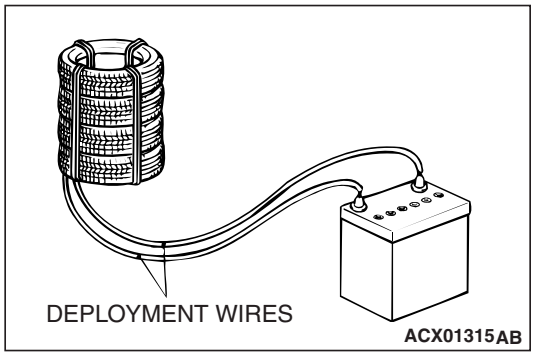
6. Install a nut to the bolt behind the driver's side air bag module and tie thick wire there for securing.
7. Route the deployment wires connected to the driver's side air bag module beneath an old tire and wheel assembly. Then, using the wire tied to the bolt, secure the driver's side air bag module to the tire and wheel assembly with the deployment surface facing up.



8. Place three old tires without wheels on the tire secured with the driver's side 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-247) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module. Contact the MMNA Teach Line.***



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 P.52B-247).

DEPLOYMENT OUTSIDE THE VEHICLE <AIR BAG MODULE (FRONT PASSENGER'S SIDE)>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-18).

⚠ ***WARNING***

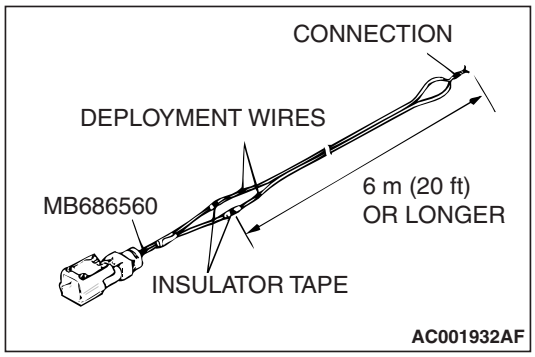
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

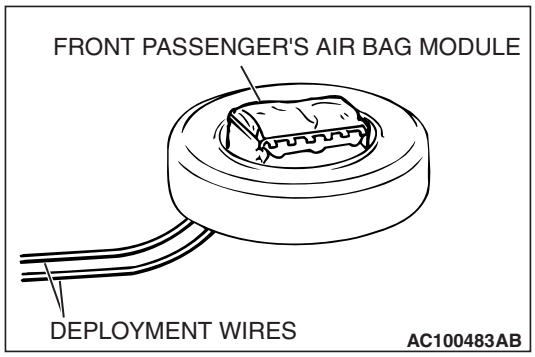
1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ 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 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 air bag module from the vehicle (Refer to P.52B-217).
3. Connect two wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB686560, and cover the connections with insulation tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.



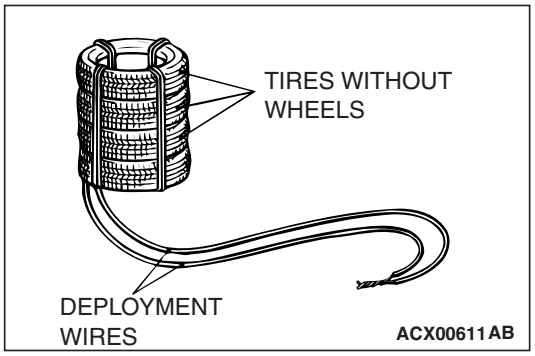


4. Connect the deployment wires to special tool MB686560, pass it beneath the tire and wheel assembly, and connect it to the air bag module.

⚠ CAUTION

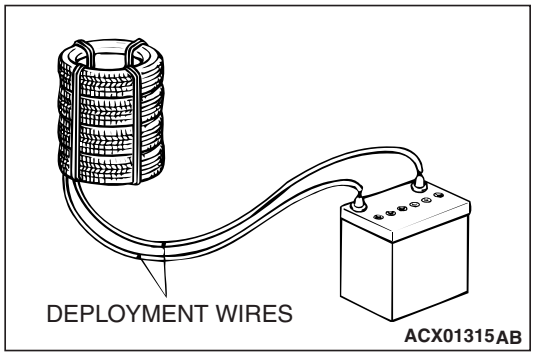
- **The adapter harness below the wheel should be loose. If it is too tight, the reaction when the air bag deploys could damage the adapter harness.**
- **During deployment, the connector of special tool MB686560 must not be between the tires.**

5. Pass the thick wire through the air bag module mounting hole, and then secure the air bag module to an old tire with a wheel in it so that the pad on the module is facing upwards.
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-247) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module. Contact the MMNA Tech Line.***



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-247).

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-18).

⚠ ***WARNING***

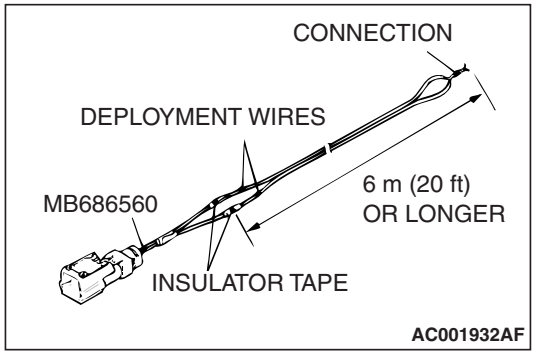
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

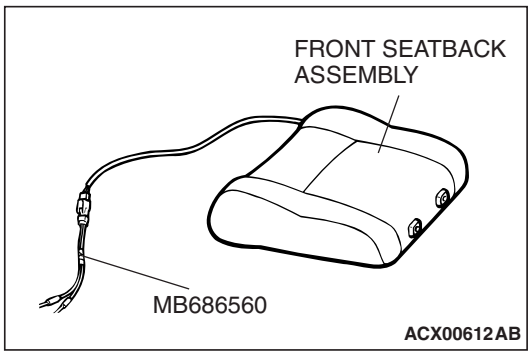
1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
2. Remove the front seatback assembly with side-airbag module from the vehicle (Refer to GROUP 52A, Front Seat P.52A-14).

⚠ 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 side-airbag module on flat place with deployment surface facing up. Also, do not put anything on it.

3. Connect two wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB686560, and cover the connections with insulation tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the side-airbag module.

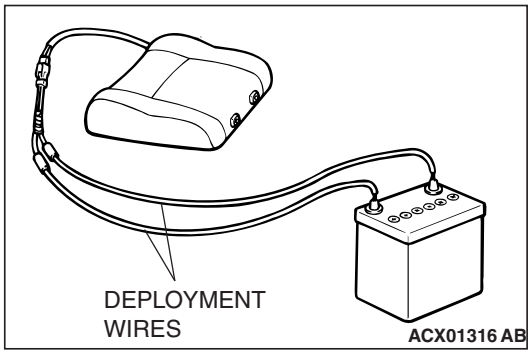




4. Place the front seatback assembly with its back contact with the ground.
5. Connect the SRS air bag adapter harness with the deployment wires to the side-airbag module connector.

⚠ 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 side-airbag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-247) for post-deployment handling instructions.***
- ***If the side-airbag fails to deploy, do not go near the module. Contact the MMNA Tech Line.***



6. Disconnect the deployment wires as far from the front seatback assembly possible and connect the harnesses to the battery removed from the vehicle. Then, deploy.
7. Remove the deployed air bag module from the seatback assembly and discard as specified in the Deployed air bag module and Operated Seat Belt Pre-tensioner (Refer to P.52B-247).

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-18).

⚠ ***WARNING***

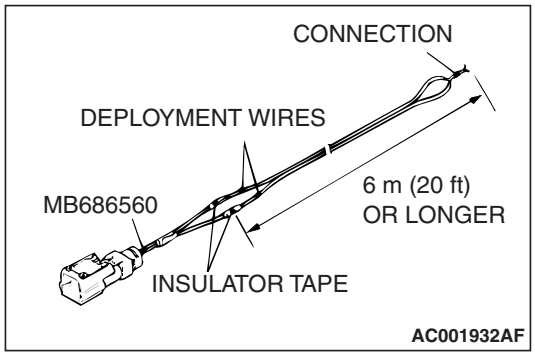
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Operate the seat belt pre-tensioner in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform operation outside if a strong wind 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 operated seat belt pre-tensioner the correct way up with its operation surface upper most on a flat surface. Do not place anything on top of them.

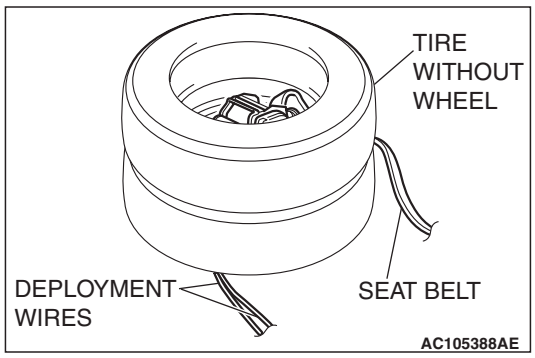
2. Remove the seat belt pre-tensioner from the vehicle (Refer to P.52B-228).
3. Connect two wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB686560, and cover the connections with insulator tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the seat belt pre-tensioner.
4. Connect the deployment wires to special tool MB686560, pass it beneath the tire and wheel assembly, and connect it to the seat belt pre-tensioner.



⚠ **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.**
- **During deployment, the connector of special tool MB686560 must not be between the tires.**

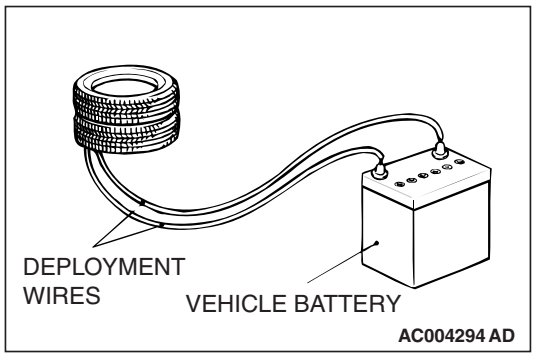
5. Pass the thick wires through the hole on the seat belt pre-tensioner bracket and secure them to the front (raised part) of the wheel on two place.



6. Pull the seat belt out the outside of the tire, and then place one tire without a wheel inside on top of the existing tire.

⚠ 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-247) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner. Contact the MMNA Tech Line.***



7. At a location as far away from the seat belt pre-tensioner as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operated seat belt pre-tensioner.
8. Discard the operated seat belt pre-tensioner as specified in Deployed Air Bag Module and Operated Seat Belt pre-tensioner Disposal (Refer to P.52B-247).

DEPLOYED AIR BAG MODULE AND OPERATED SEAT BELT PRE-TENSIONER DISPOSAL

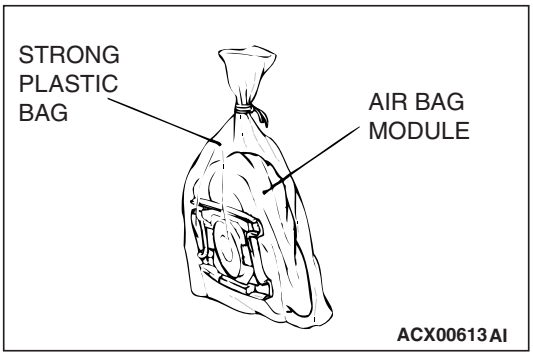
After deployment and operation, the air bag module and seat belt pre-tensioner should be disposed of in the same manner as any other scrap parts, adhering to local laws and/or legislation. Observe the following precautions during air bag or seat belt pre-tensioner disposal:

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 or seat belt pre-tensioner in a strong plastic bag for disposal.
5. Be sure to always wash your hands after completing this operation.

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

M1524004900404

ITEM	SPECIFICATION
Air bag module(s) and clock spring	
Air bag module (driver's side) mounting nut	3.9 ± 0.4 N·m (35 ± 3.5 in-lb)
Clock spring screw	0.69 ± 0.15 N·m (6.1 ± 1.3 in-lb)
Steering wheel bolt	50 ± 5 N·m (37 ± 4 ft-lb)
Front impact sensor	
Front impact sensor bolt	4.9 ± 1.0 N·m (43 ± 8 in-lb)
Seat belt with pre-tensioner	
Outer seat belt connection bolt	44 ± 10 N·m (33 ± 7 ft-lb)
Seat belt with pre-tensioner mounting bolt	44 ± 10 N·m (33 ± 7 ft-lb)
Side impact sensor	
Side impact sensor nut	4.9 ± 1.0 N·m (43 ± 8 in-lb)
SRS control unit (SRS-ECU)	
SRS-ECU bolt	4.9 ± 1.0 N·m (43 ± 8 in-lb)
Transfer-ECU nut	4.9 ± 1.0 N·m (43 ± 8 in-lb)

SERVICE SPECIFICATIONS

M1524000400173

ITEM	STANDARD VALUE
Front impact sensor resistance Ω	820 ± 82