GROUP 52B

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS

⚠ ***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, always observe the procedures in the SRS Diagnosis or the SRS Maintenance sections, respectively.***
- ***If any SRS components are removed or replaced in connection with any service procedures, be sure to follow the procedures in the INDIVIDUAL COMPONENT SERVICE section for the comportments involved.***
- ***If you have any questions about the SRS, please contact the MMNA Tech Line.***

GENERAL DESCRIPTION

M1524000100343

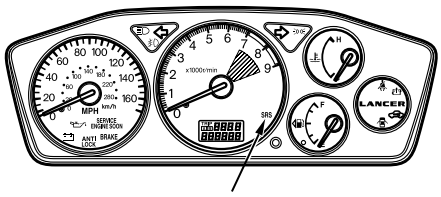
⚠ ***WARNING***

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 driver's/passenger air bag modules, SRS air bag control unit (SRS-ECU), front impact sensors, SRS warning light, and clock spring. Air bags are located in the center of the steering wheel and above the glove box. 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 safing G-sensor and an analog G-sensor. 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. The front impact sensor is assembled on the headlight support panel to monitor collision upon frontal impact.

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.



SRS WARNING LIGHT

AC211642 AC

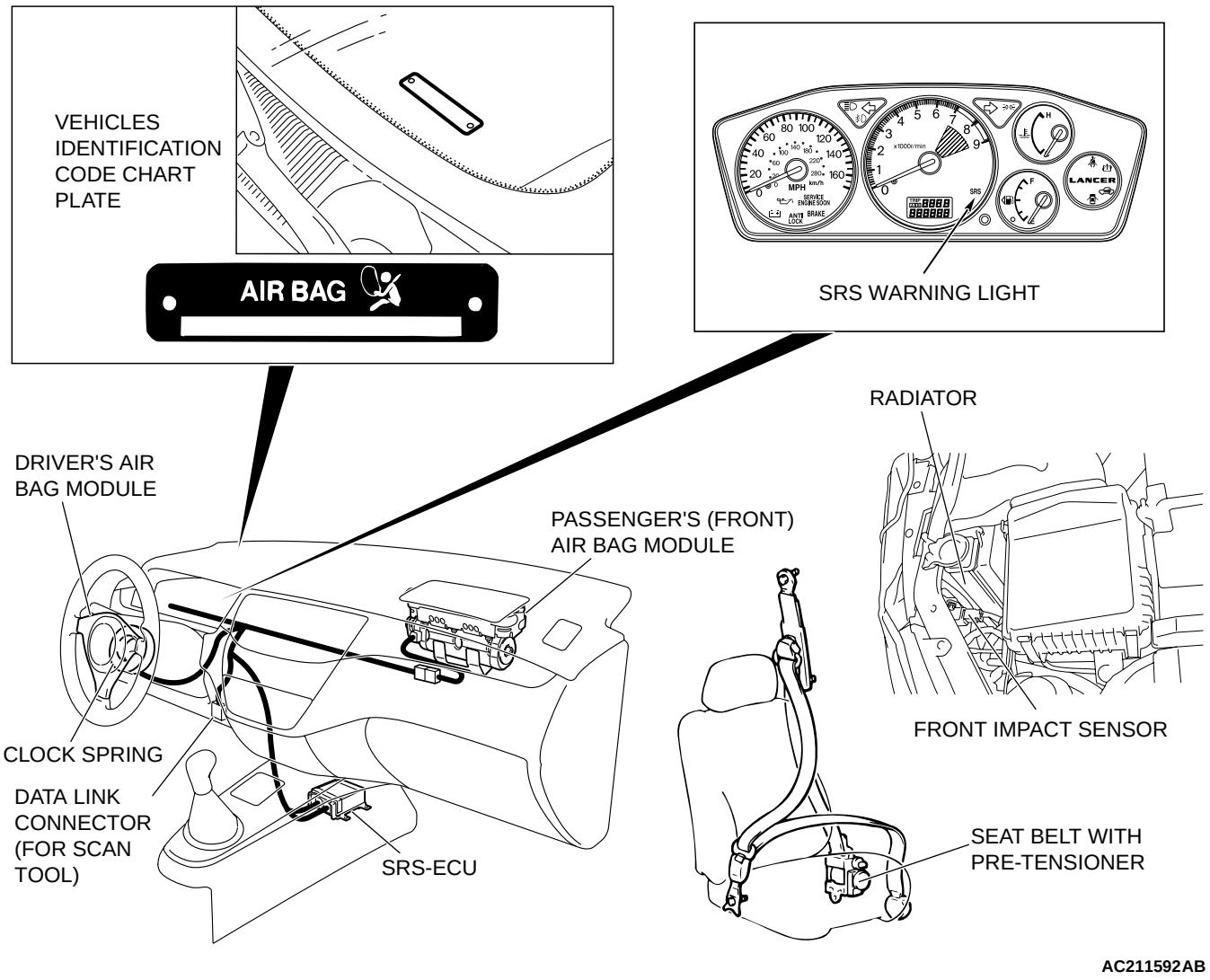
ON-BOARD DIAGNOSTIC/SRS WARNING LIGHT FUNCTION

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

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

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

CONSTRUCTION DIAGRAM

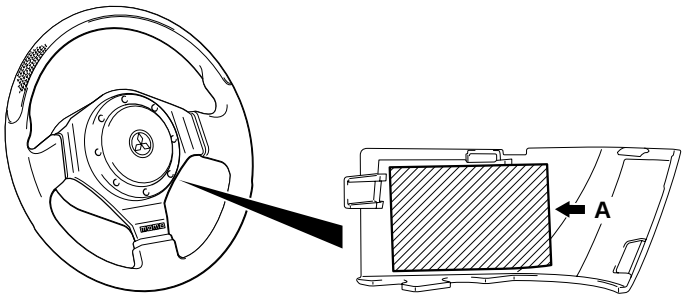


NOTE: This construction diagram shows the general view of the SRS components. For details, refer to "Schematic", (P.52B-8)"Configuration Diagrams" (P.52B-11)and "Circuit Diagram" (P.52B-12).

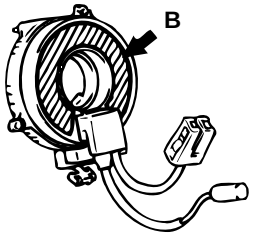
WARNING/CAUTION LABELS

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 H is not to be removed except by owner. If the other labels are dirty or damaged, replace them.

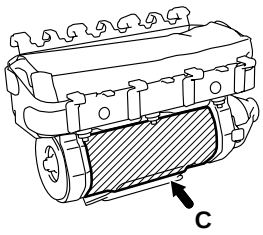
COVER



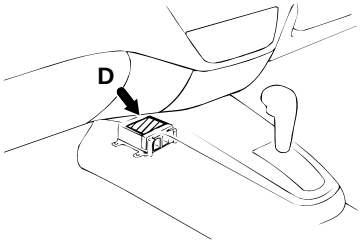
CLOCK SPRING



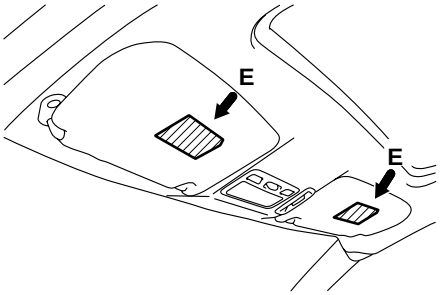
PASSENGER'S (FRONT) AIR BAG MODULE



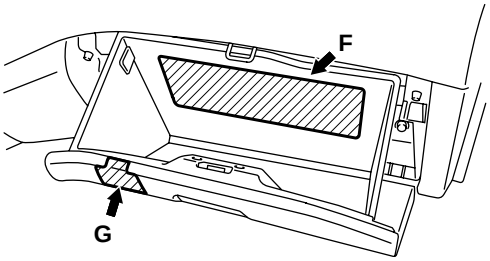
SRS-ECU



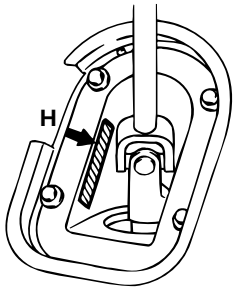
SUN VISOR



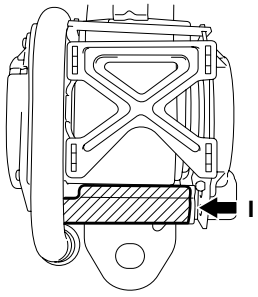
GLOVE BOX



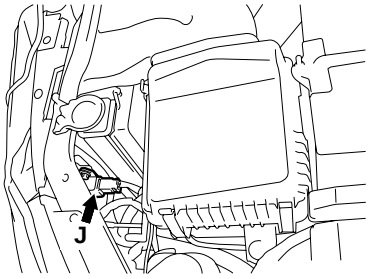
STEERING JOINT COVER



SEAT BELT WITH PRE-TENSIONER (DRIVER'S AND FRONT PASSENGER'S SEATBELT)



FRONT IMPACT SENSOR



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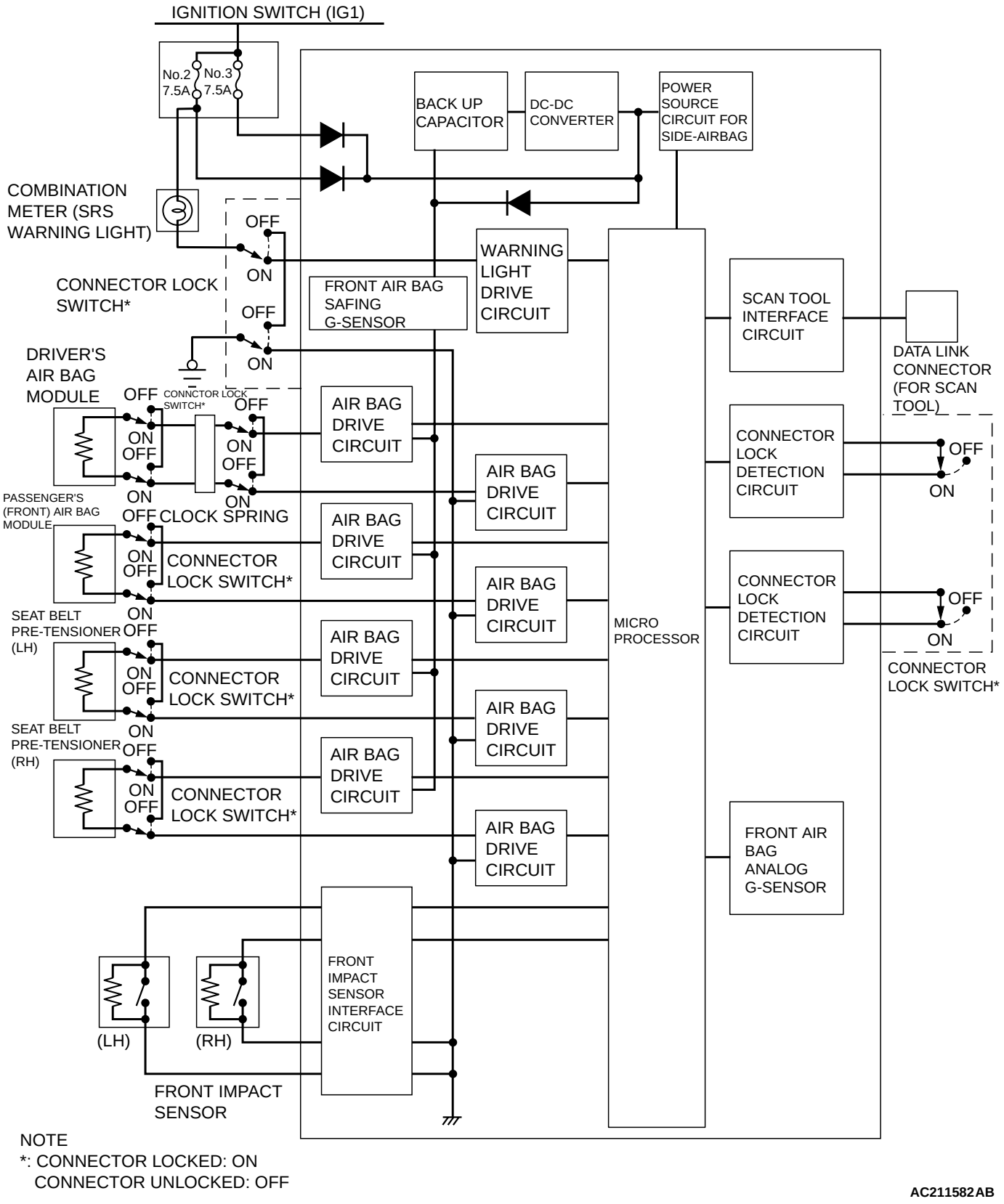
LABEL CONTENTS	
A	WARNING: SRS BEFORE REPLACING STEERING WHEEL, READ SERVICE MANUAL. THIS AIR BAG MODULE CANNOT BE REPAIRED. DO NOT DISASSEMBLE OR TAMPER.
B	CAUTION: SRS CLOCK SPRING THIS IS NOT A REPAIRABLE PART. IF DEFECTIVE, REPLACE ENTIRE UNIT ACCORDING TO THE SERVICE MANUAL INSTRUCTIONS. TO RE-CENTER: ROTATE CLOCKWISE UNTIL TIGHT. THEN ROTATE IN OPPOSITE DIRECTION ROUGHLY 3 TURNS AND ALIGN ARROWS >><<.
C	WARNING FLAMMABLE/EXPLOSIVE SRS AIR BAG MODULE TO AVOID SERIOUS INJURY: • DO NOT REPAIR, DISASSEMBLE OR TAMPER. • AVOID CONTACT WITH FLAME OR ELECTRICITY. • DO NOT DIAGNOSIS/USE NO TEST EQUIPMENT OR PROBES. • STORE BELOW 200°F (93°C). • BEFORE DOING ANY WORK INVOLVING MODULE, READ SERVICE MANUAL FOR IMPORTANT FURTHER DATA.
D	CAUTION: DO NOT DISASSEMBLE OR DROP. IF DEFECT REFER TO SERVICE MANUAL.
E  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.
F	AIR BAG SYSTEM INFORMATION THIS VEHICLE HAS AN AIR BAG SYSTEM WHICH WILL SUPPLEMENT THE SEAT BELT IN CERTAIN FRONTAL COLLISIONS. THE AIR BAG IS NOT A SUBSTITUTE FOR THE SEAT BELT IN ANY TYPE OF COLLISION. THE DRIVER AND ALL OTHER OCCUPANTS SHOULD WEAR SEAT BELTS AT ALL TIME. WARNING! IF THE "SRS" WARNING LIGHT DOES NOT ILLUMINATE FOR SEVERAL SECONDS WHEN IGNITION KEY IS TURNED TO "ON" OR THE ENGINE IS STARTED, OR IF THE WARNING LIGHT STAYS ON WHILE DRIVING, TAKE THE VEHICLE TO YOUR NEAREST AUTHORIZED DEALER IMMEDIATELY. ALSO, IF VEHICLE'S FRONT END IS DAMAGED OR IF THE AIR BAG HAS DEPLOYED, TAKE THE VEHICLE FOR SERVICE IMMEDIATELY. THE AIR BAG SYSTEM MUST BE INSPECTED BY AN AUTHORIZED DEALER TEN YEARS AFTER THE VEHICLE MANUFACTURE DATE SHOWN ON THE CERTIFICATION LABEL LOCATED ON THE LEFT FRONT DOOR-LATCH POST OR DOOR FRAME. READ THE "SRS" SECTION OF YOUR OWNER'S MANUAL BEFORE DRIVING FOR IMPORTANT INFORMATION ABOUT OPERATION AND SERVICE OF THE AIR BAG SYSTEM. WHEN YOU ARE GOING TO DISCARD YOUR GAS GENERATOR OR VEHICLE, PLEASE SEE YOUR DEALER.

LABEL CONTENTS	
G	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 SEAT. NOT TO BE REMOVED EXCEPT BY OWNER.
H	CAUTION: SRS FIX STRG. WHEEL AT TIRES STRAIGHT AHEAD BEFORE GEARBOX REMOVAL. OTHERWISE, MAY DAMAGE SRS CLOCK SPRING MAKING SRS SYSTEM IN OPERATIVE. RISKING SERIOUS DRIVER INJURY.
I	DANGER: SEAT BELT PRETENSIONER CAUTION: THIS ASSEMBLY CONTAINS AN EXPLOSIVE INITIATOR FLAMMABLE MATERIAL TO PREVENT PERSONAL INJURY • DO NOT IMPACT, DISMANTLE OR INSTALL IT INTO ANOTHER VEHICLE. • SERVICE OR DISPOSE OF IT AS DIRECTED IN THE REPAIR MANUAL.
J	CAUTION: DO NOT DISASSEMBLE OR DROP.

SCHEMATIC



NOTE
*: CONNECTOR LOCKED: ON
CONNECTOR UNLOCKED: OFF

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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).

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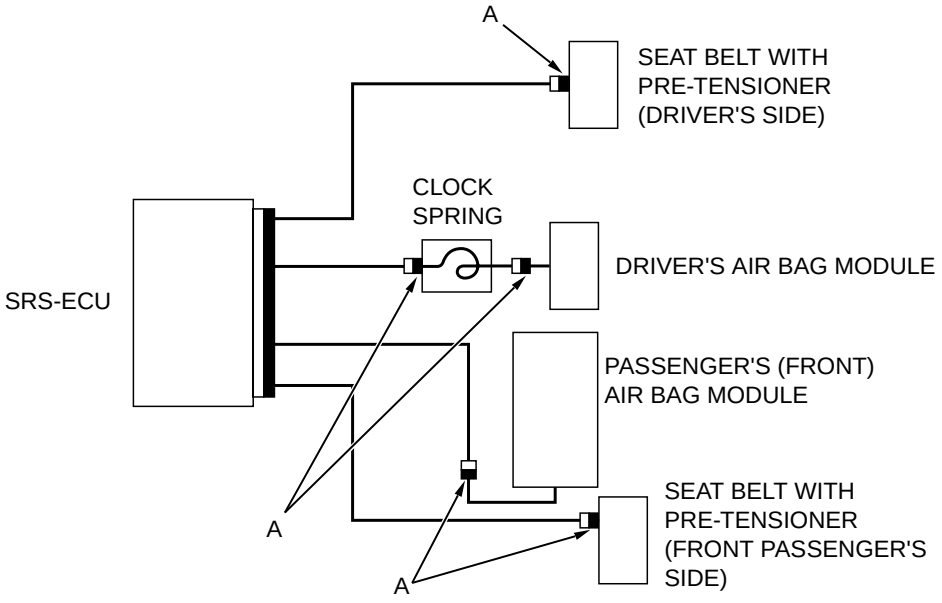
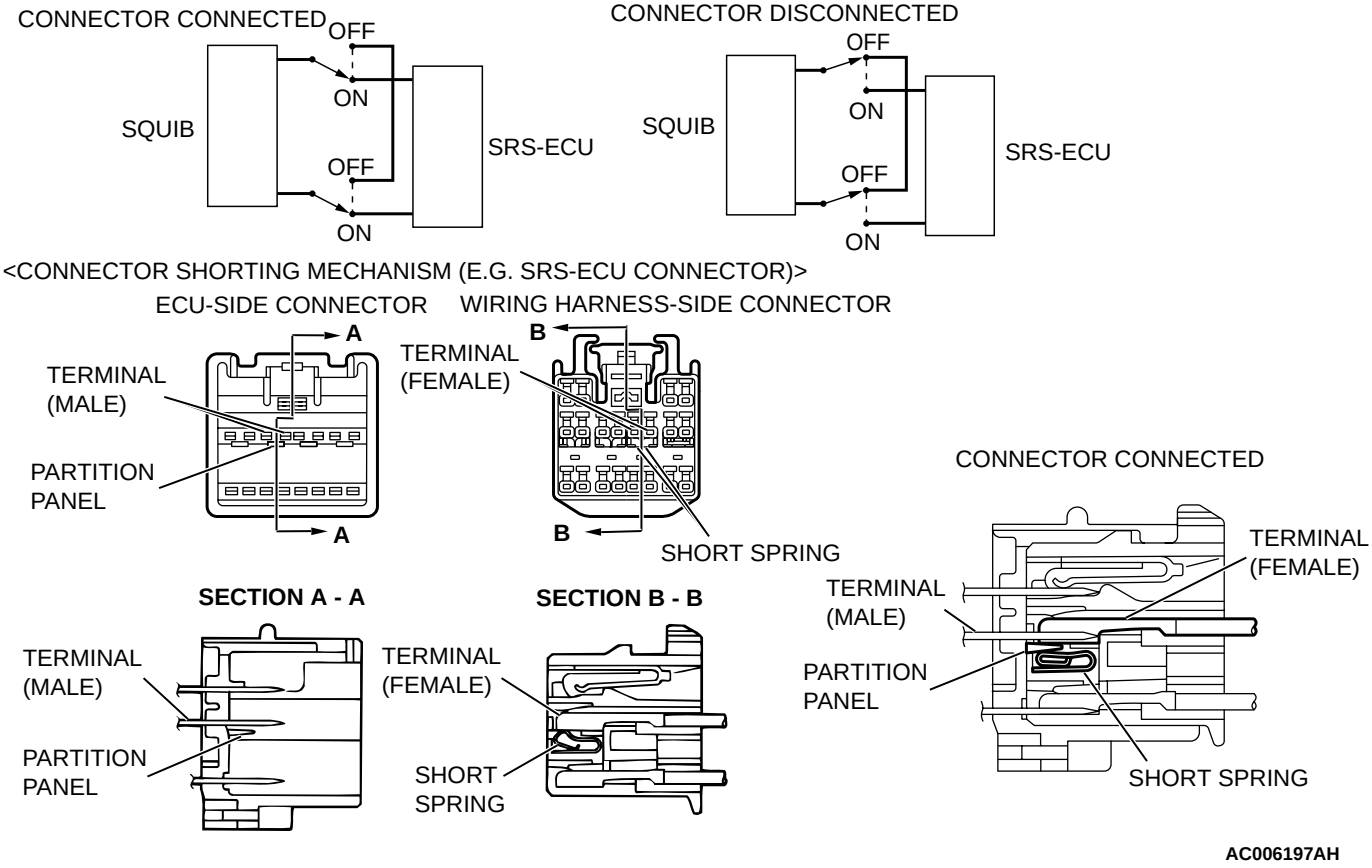


SQUIB CIRCUIT CONNECTOR LOCK SWITCH

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.



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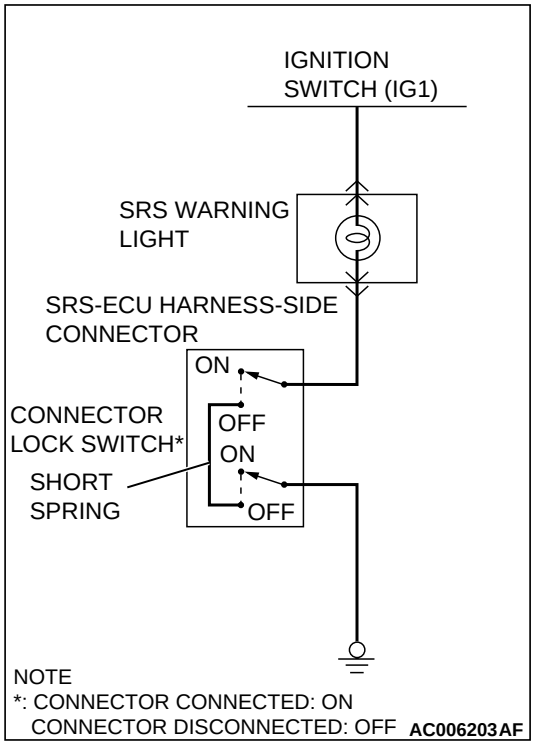
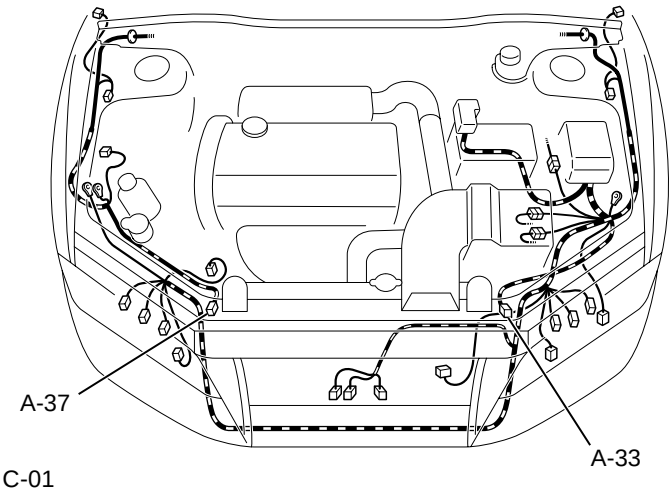


WARNING LIGHT CIRCUIT CONNECTOR LOCK SWITCH

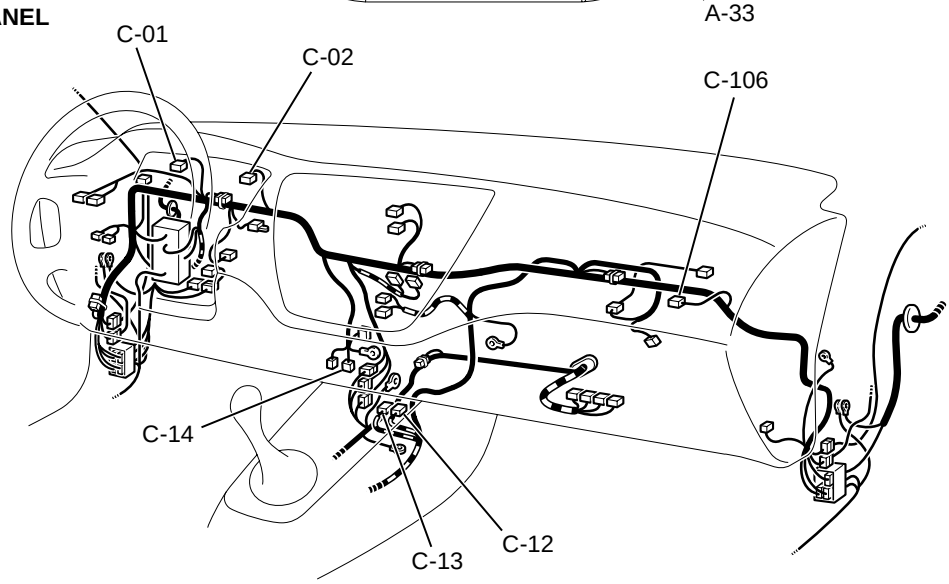
The switch is a mechanism that shorts the power supply terminal to the ground terminal automatically in the warning light circuit when the connector is disconnected. Its structure is similar to the squib circuit connector shorting mechanism.

CONFIGURATION DIAGRAMS

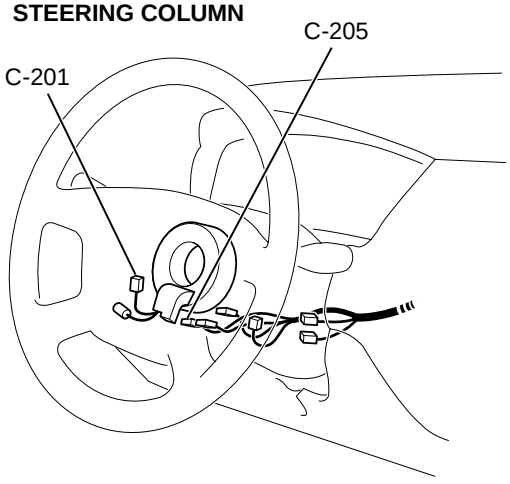
ENGINE COMPARTMENT



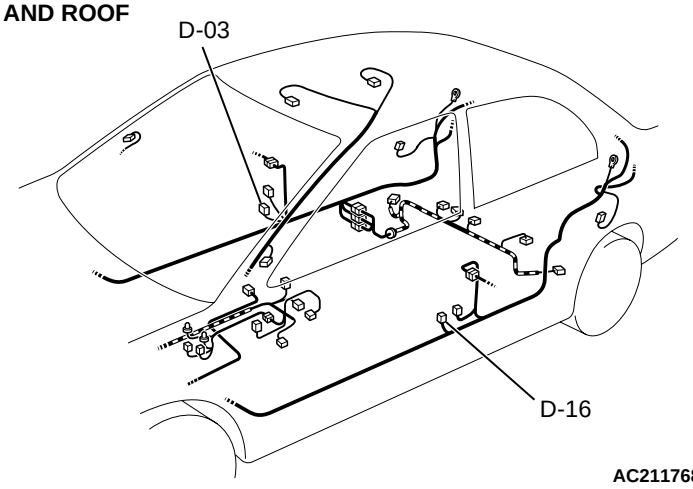
DASH PANEL



STEERING COLUMN



FLOOR AND ROOF



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A-33	FRONT IMPACT SENSOR (LH)
A-37	FRONT IMPACT SENSOR (RH)
C-01	COMBINATION METER
C-02	COMBINATION METER
C-12	SRS-ECU
C-13	SRS-ECU
C-14	DATA LINK CONNECTOR
C-106	AIR BAG MODULE (SQUIB) <PASSENGER'S SIDE>
C-201	AIR BAG MODULE (SQUIB) <DRIVER'S SIDE>
C-205	CLOCK SPRING
D-03	SEAT BELT PRETENSIONER (RH)
D-16	SEAT BELT PRETENSIONER (LH)

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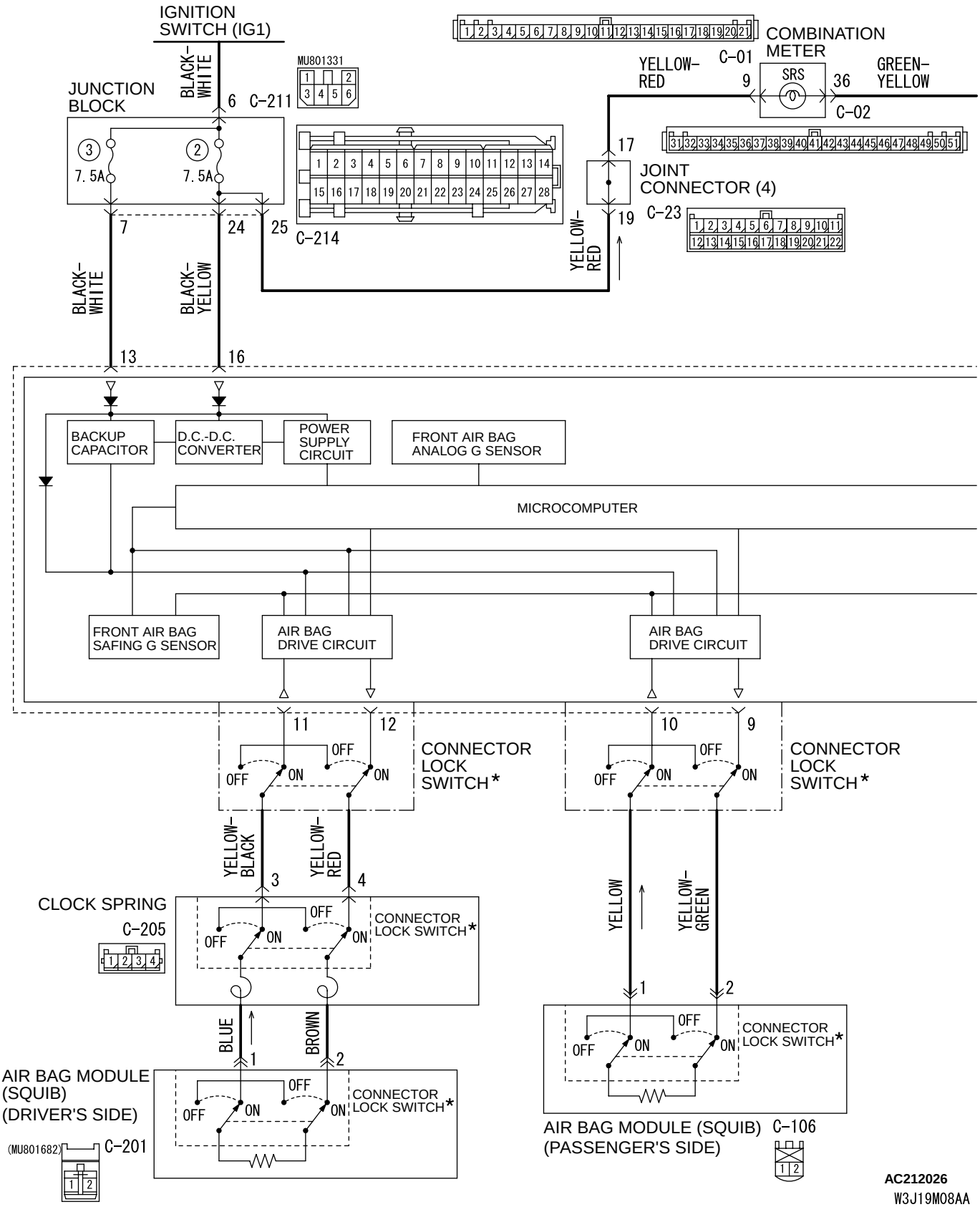
CIRCUIT DIAGRAM

⚠ ***WARNING***

- ***Do not repair, splice, or modify the SRS wiring (except for specific repairs to the instrument panel wiring harness and the floor wiring harness shown on P.52B-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-172) and a digital multi-meter (refer to P.52B-173).***

NOTES



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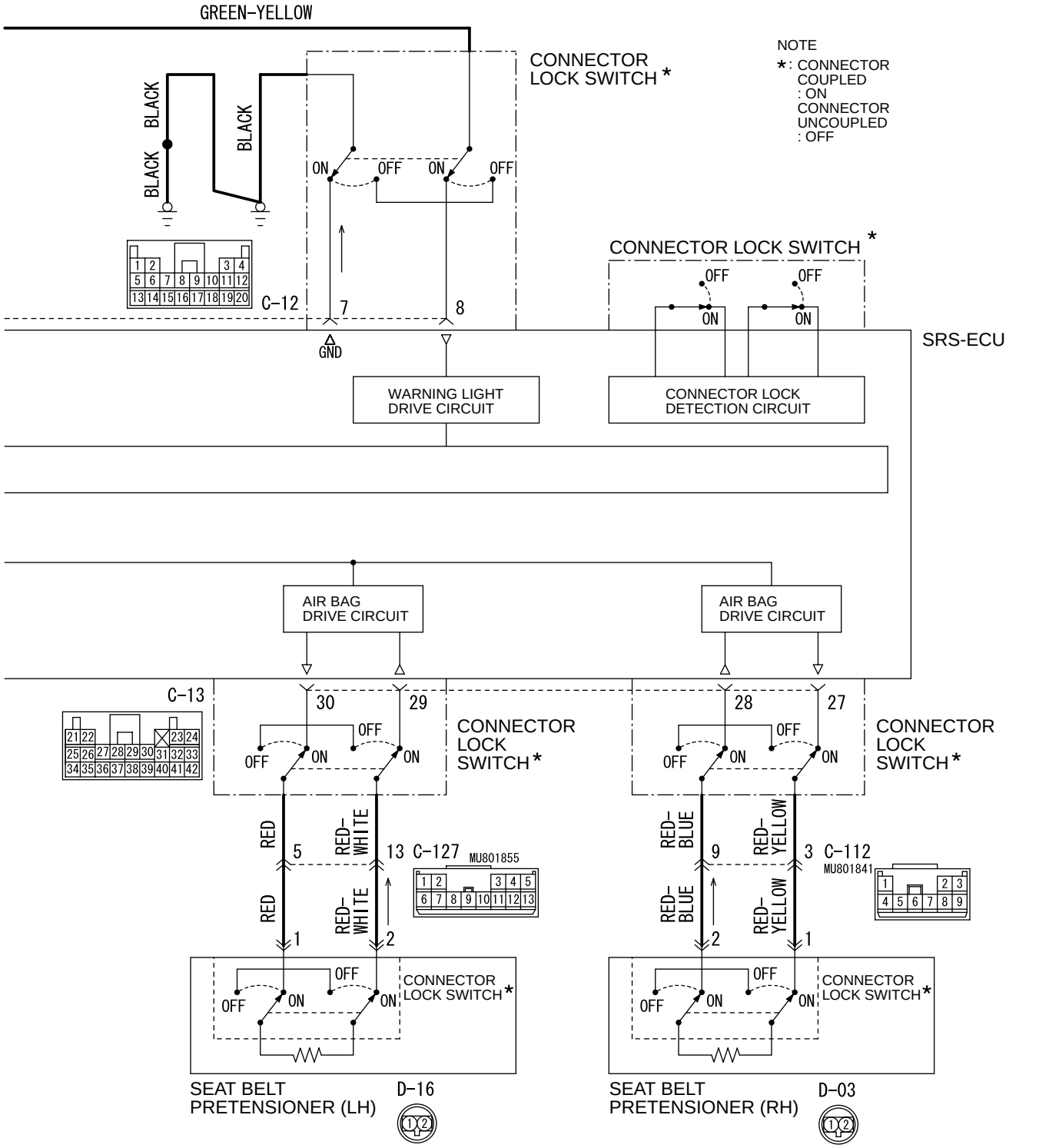

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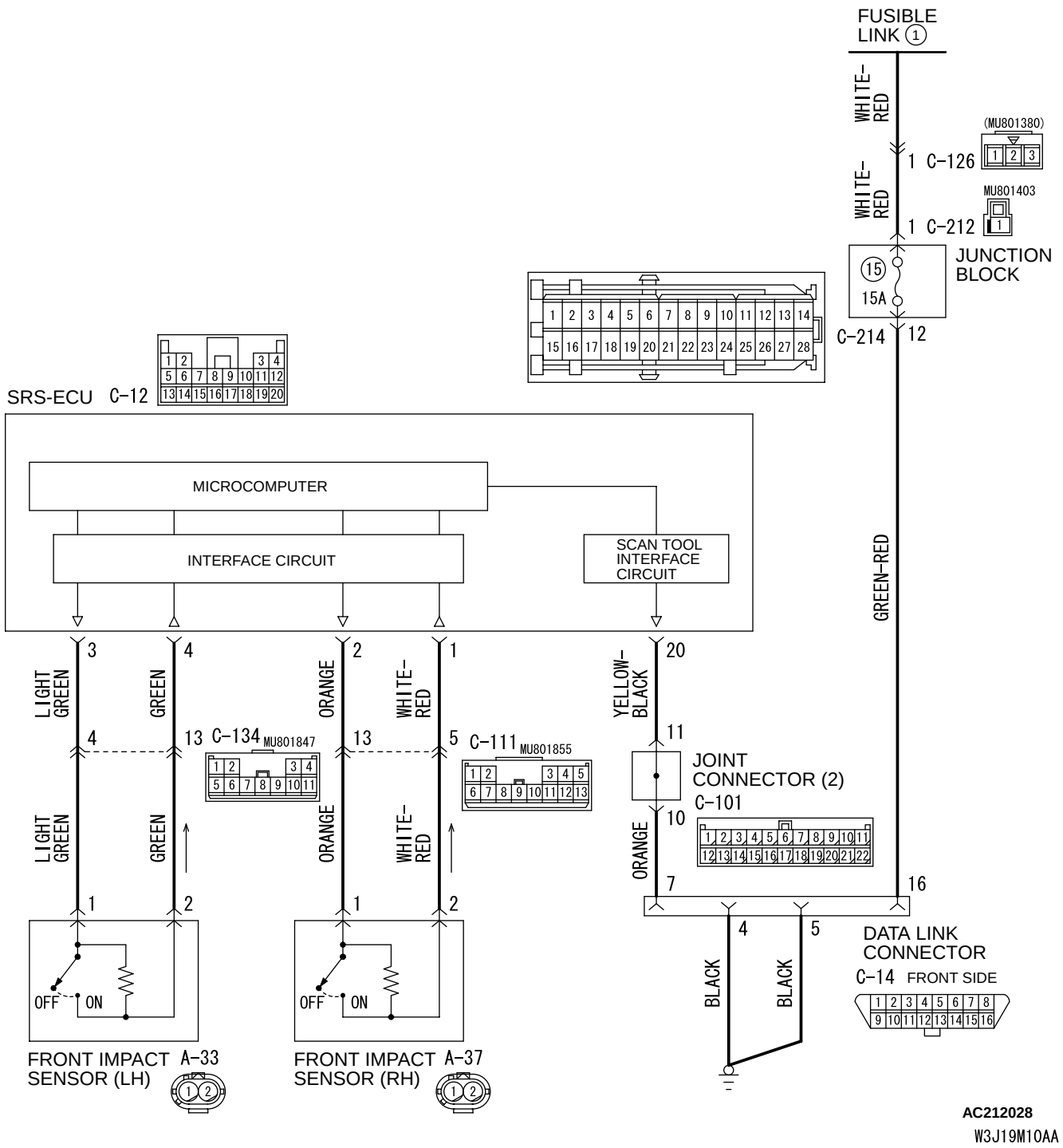

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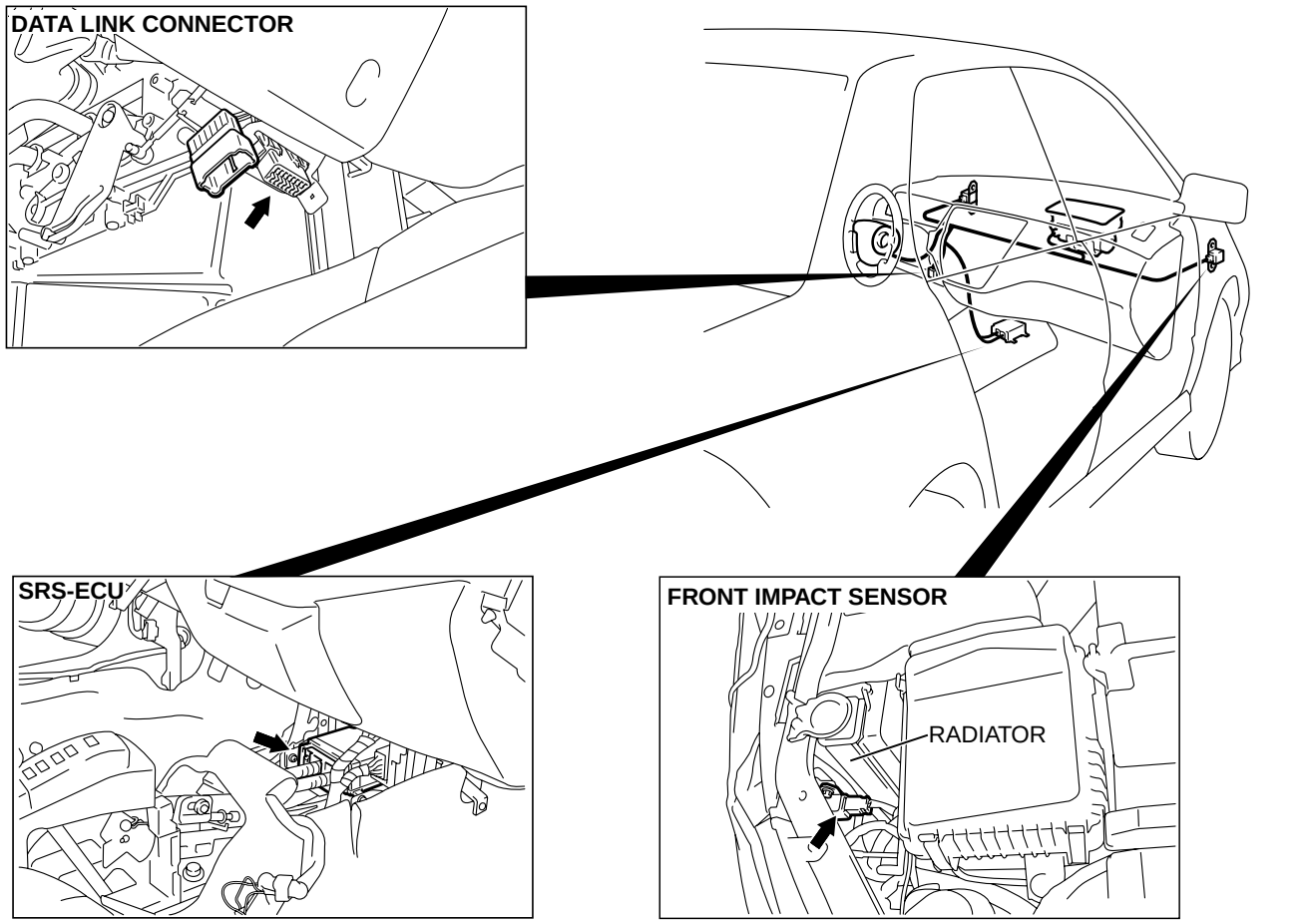
COMPONENT LOCATION



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

SERVICE PRECAUTIONS

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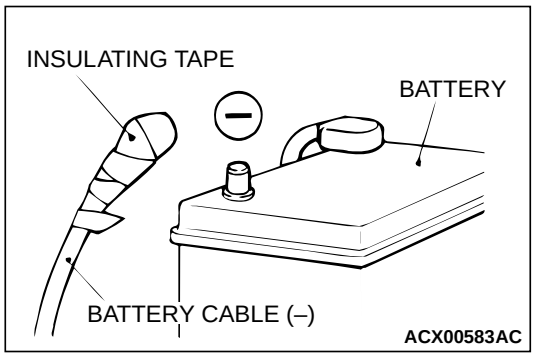
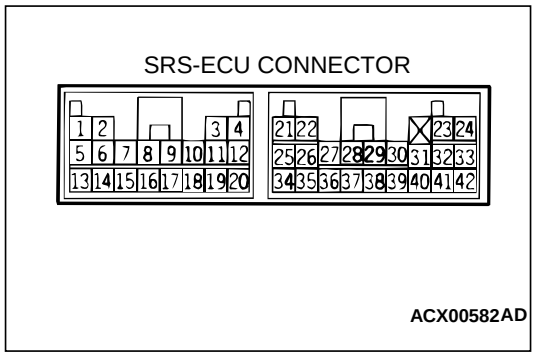


⚠ *DANGER*

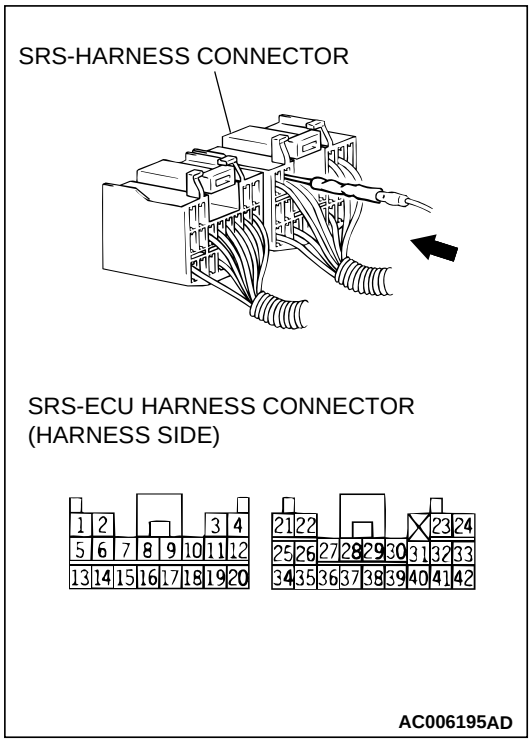
- ***In order to avoid injury to yourself or others from accidental deployment of the air bag during servicing, read and carefully follow all the precautions and procedures described in this manual.***
- ***After disconnecting the battery cable, wait 60 seconds or more before proceeding with the following 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-173.***
- ***Never Attempt to Repair the Following Components: SRS-ECU, Clock Spring, Air Bag Module, 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-178.***
- ***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	Instrument panel wiring harness → Front wiring harness → Front impact sensor (RH)	Correct or replace each wiring harness.
3, 4	Instrument panel wiring harness → Front wiring harness → Front impact sensor (LH)	Correct or replace each wiring harness.
7	Instrument panel wiring harness→ Ground	Correct or replace the body wiring harness.
8	Instrument panel wiring harness → SRS warning light	Correct or replace each wiring harness.
9, 10	Instrument panel wiring harness → Air bag module (Front passenger's side)	Correct or replace the body 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.3)	Correct or replace the body wiring harness.
16	Instrument panel wiring harness → Junction block (fuse No.2)	Correct or replace the body wiring harness.
20	Instrument panel wiring harness → Data link connector	Correct or replace the body wiring harness.
27, 28	Floor wiring harness (RH) → Seat belt pre-tensioner (RH)	Connector or replace each wiring harness.
29, 30	Floor wiring harness (LH) → Seat belt pre-tensioner (LH)	Connector 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, and seat belt pre-tensioner before drying or baking the vehicle after painting.***
  - ***SRS-ECU, air bag module, clock spring: 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-3.)***
- ***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

M1524005000307

The SRS system is controlled by the SRS-ECU. The SRS-ECU judges how severe a collision is by detecting signals from the left and right front impact sensors, front air bag analog G-sensor and front sir bag safing 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. 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 "ON".
- The SRS warning light does not illuminate when the ignition switch is turned "ON".

Refer to the Post-collision Diagnosis when inspecting and servicing the vehicle that has been in a collision (Refer to P.52B-174.).

TSB Revision

TROUBLESHOOTING STRATEGY

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

1. Gather information about the problem from the customer.
2. Verify that the condition described by the customer exists.
3. Check the vehicle for any SRS diagnostic trouble codes (SRS DTC).
4. If you cannot verify the condition but there are no SRS DTCs, the malfunction is intermittent. Refer to INTRODUCTION, How to use Troubleshooting – Inspection Service Points – How to Cope With Intermittent Malfunctions P.00-6.
5. If there is a SRS DTC, record the code number, then erase the code from vehicle memory using scan tool MB991502 or scan tool MB991958.
6. Recreate the SRS DTC set conditions to see if the same SRS DTC will be set again.
   - If the same SRS DTC is set again, follow the Inspection Chart for DTC and find the fault.
   - If you cannot get the same SRS DTC to be set again, the malfunction is intermittent. Refer to GROUP 00, How to use Troubleshooting – Inspection Service Points – How to Cope With Intermittent Malfunctions P.00-6.

DIAGNOSTIC FUNCTION

M1524013800029

HOW TO CONNECT THE SCAN TOOL

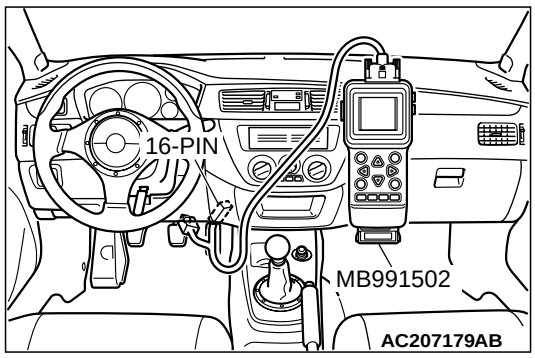
Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness A

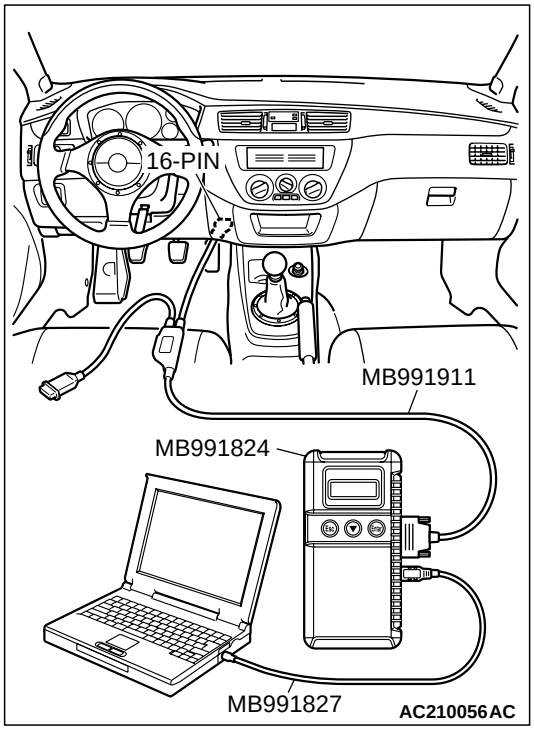
<When using scan tool MB991502>

⚠ CAUTION

To prevent damage to scan tool MB991502, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991502.



1. Connect scan tool MB991502 to the data link connector.
2. Turn the ignition switch to the "ON" position.
3. Use scan tool MB991502 to check for SRS diagnostic trouble codes.
4. Turn the ignition switch to the "LOCK" (OFF) position.
5. Disconnect scan tool MB991502.



<When using scan tool MB991958>

⚠ 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

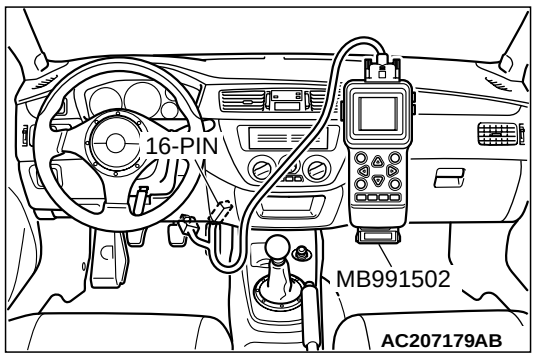
Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness A

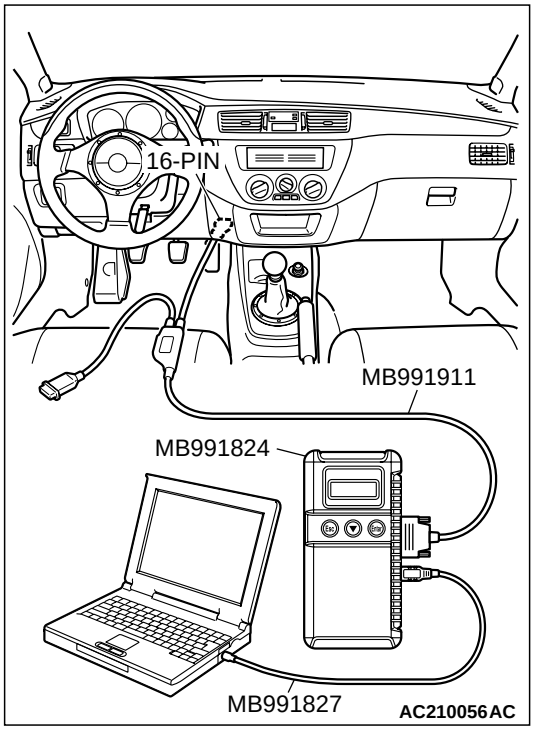
<When using scan tool MB991502>

⚠ CAUTION

To prevent damage to scan tool MB991502, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991502.



1. Connect scan tool MB991502 to the data link connector.
2. Turn the ignition switch to the "ON" position.
3. Use scan tool MB991502 to erase for SRS diagnostic trouble codes.
4. Turn the ignition switch to the "LOCK" (OFF) position.
5. Disconnect scan tool MB991502.



<When using scan tool MB991958>

⚠ CAUTION

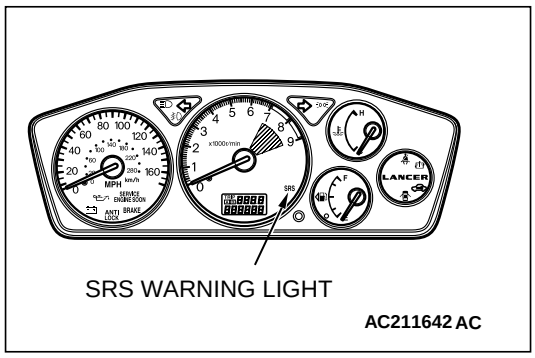
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

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 "Diagnostic Trouble Code."
7. If a DTC is set, it is shown.
8. Choose "Erase DTCs" to erase the DTC.

SRS WARNING LIGHT CHECK

M1524004300275



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

M1524003300454

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

DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM	REFERENCE PAGE
1A	Front impact sensor (LH) circuit short	P.52B-26
1B	Front impact sensor (LH) circuit open	P.52B-26
1C	Front impact sensor (LH) short-circuited to power supply	P.52B-26
1D	Front impact sensor (LH) short-circuited to ground	P.52B-26
2A	Front impact sensor (RH) circuit short	P.52B-26
2B	Front impact sensor (RH) circuit open	P.52B-26
2C	Front impact sensor (RH) short-circuited to power supply	P.52B-26

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DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM		REFERENCE PAGE
2D	Front impact sensor (RH) short-circuited to ground		P.52B-26
14	Analog G-sensor system in the SRS-ECU		P.52B-33
15	Safing G-sensor short circuit		P.52B-33
16	Safing G-sensor open circuit		P.52B-33
21*2	Driver's air bag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)		P.52B-34
22*2	Driver's air bag module (squib) system fault 2 (Open in the squib circuit)		P.52B-42
24*2	Passenger's (front) air bag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)		P.52B-47
25*2	Passenger's (front) air bag module (squib) system fault 2 (Open in the squib circuit)		P.52B-55
26*2	Driver's seat belt pre-tensioner (squib) system fault 1 (Short circuit between terminals of the squib circuit)		P.52B-59
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-72
29*2	Passenger's (front) seat belt pre-tensioner (squib) system fault 2 (Open in the squib circuit)		P.52B-80
31	SRS-ECU capacitor circuit voltage too high		P.52B-33
32	SRS-ECU capacitor circuit voltage too low		P.52B-33
34*1	Connector lock system detects connector unlocked		P.52B-85
35	SRS-ECU air bag condition monitor detects deployed air bag		P.52B-87
39	Airbag deployed simultaneously		P.52B-87
41*1	IG1 power supply circuit system (fuse No.2 circuit)		P.52B-88
42*1	IG1 power supply circuit system (fuse No.3 circuit)		P.52B-97
43*1	SRS warning light drive circuit system fault 1	Light does not illuminate*1	P.52B-104
		Light does not switch off	P.52B-111
44*1	SRS warning light drive circuit system fault 2		P.52B-116
45	SRS-ECU non-volatile memory (EEPROM) and A/D converter system		P.52B-33
46*1	Improper installed of SRS-ECU		P.52B-119
51	Driver's air bag module (squib ignition drive circuit) system detected short circuit		P.52B-33
52	Driver's air bag module (squib ignition drive circuit) system detected open circuit		P.52B-33
54	Passenger's (front) air bag module (squib ignition drive circuit) system detected short circuit		P.52B-33

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DIAGNOSTIC TROUBLE CODE NO.	INSPECTION ITEM	REFERENCE PAGE
55	Passenger's (front) air bag module (squib ignition drive circuit) system detected open circuit	P.52B-33
56	Driver's seat belt pre-tensioner (squib ignition drive circuit) system detected short circuit	P.52B-33
57	Driver's seat belt pre-tensioner (squib ignition drive circuit) system detected open circuit	P.52B-33
58	Passenger's (front) seat belt pre-tensioner (squib ignition drive circuit) system detected short circuit	P.52B-33
59	Passenger's (front) seat belt pre-tensioner (squib ignition drive circuit) system detected open circuit	P.52B-33
61	Driver's air bag module (squib) system fault for power supply circuit (Short-circuited to power supply)	P.52B-119
62	Driver's air bag module (squib) system fault for ground circuit (Short-circuited to ground)	P.52B-125
64	Passenger's (front) air bag module (squib) system fault for power supply circuit (Short-circuited to power supply)	P.52B-130
65	Passenger's (front) air bag module (squib) system fault for ground circuit (Short-circuited to ground)	P.52B-135
66	Driver's seat belt pre-tensioner (squib) system fault for power supply circuit (Short-circuited to power supply)	P.52B-140
67	Driver's seat belt pre-tensioner (squib) system fault for ground circuit (Short-circuited to ground)	P.52B-146
68	Passenger's (front) seat belt pre-tensioner (squib) system fault for power supply circuit (Short-circuited to power supply)	P.52B-152
69	Passenger's (front) seat belt pre-tensioner (squib) system fault for ground circuit (Short-circuited to ground)	P.52B-158

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.*

TROUBLE SYMPTOM CHART

M1524003400398

SYMPTOM	INSPECTION PROCEDURE NO.	REFERENCE PAGE
Communication with scan tool MB991502 or MB991958 is not possible (Communication with all systems is not possible).	–	GROUP 13A, DIAGNOSIS P.13A-551.
Communication with scan tool MB991502 or MB991958 is not possible (Communication is not possible with SRS).	1	P.52B-164
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-104
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-111

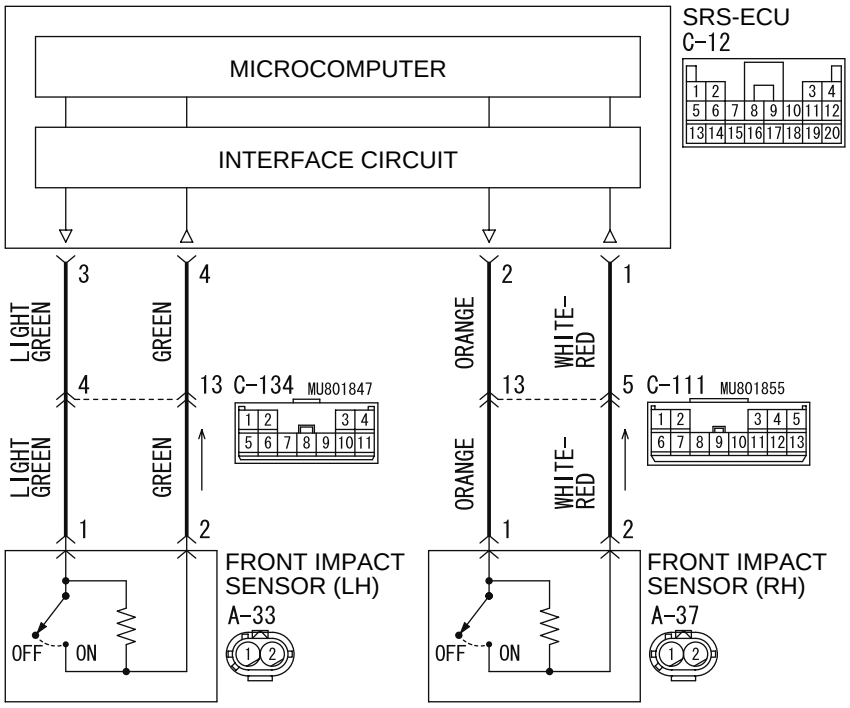
DIAGNOSTIC TROUBLE CODE PROCEDURES

DIAGNOSTIC TROUBLE CODE PROCEDURES

M1524011900031

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



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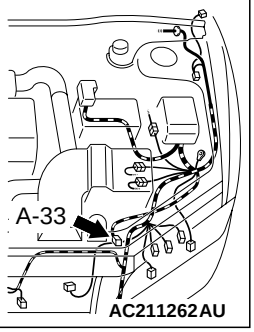
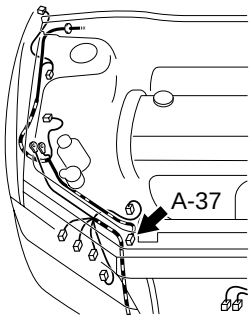
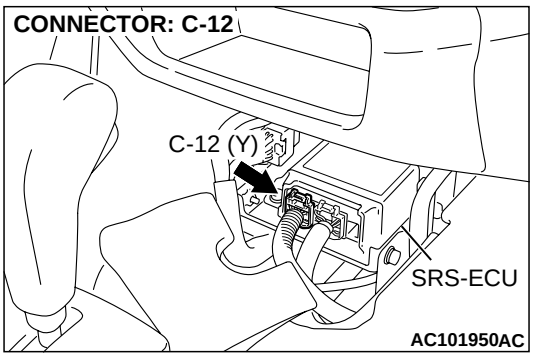
CONNECTOR : A-33



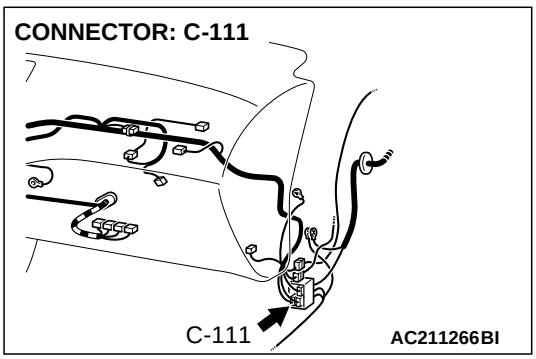
CONNECTOR: A-37



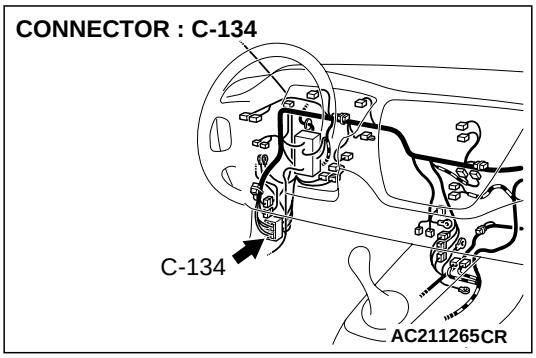
CONNECTOR: C-12



CONNECTOR: C-111



CONNECTOR : C-134



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 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 these are 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	SYMPTOMS
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

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DTC	SYMPTOMS
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

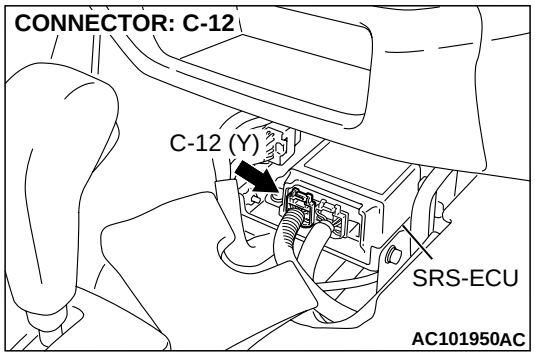
Required Special Tools:
- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991222: Probe

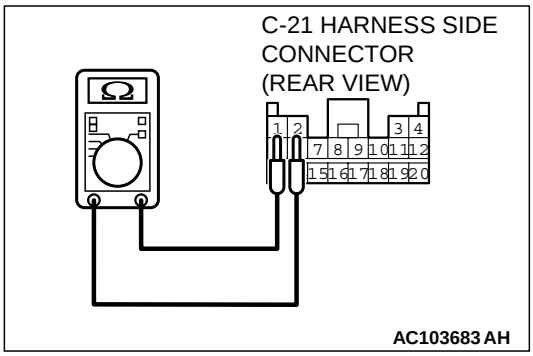
Step 1. Check the front impact sensor.
Refer to P.52B-181.

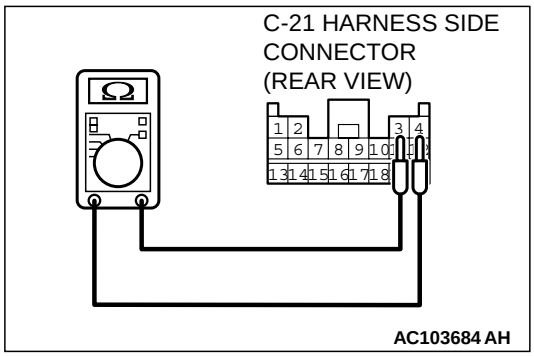
Q: Is the check result satisfactory?

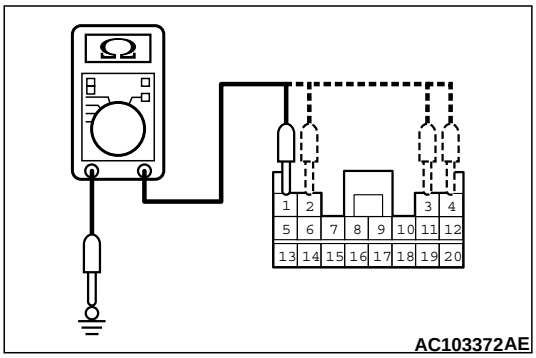
YES : Go to Step 2.
NO : Replace the front impact sensor (Refer to P.52B-179).

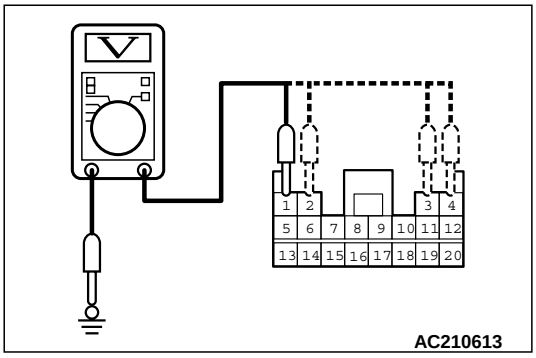
Step 2. Measure the resistance and voltage at SRS-ECU connector C-12.
(1) Disconnect SRS-ECU connector C-12.











⚠ 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 C-12.

- Resistance between terminals 1 and 2 as well as 3 and 4.

  NG: 2 ohms or less (short circuit) or 2 megaohms 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

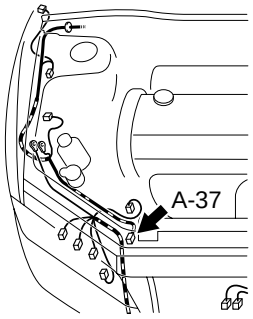
  OK: 0V

Q: Is the check result satisfactory?

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

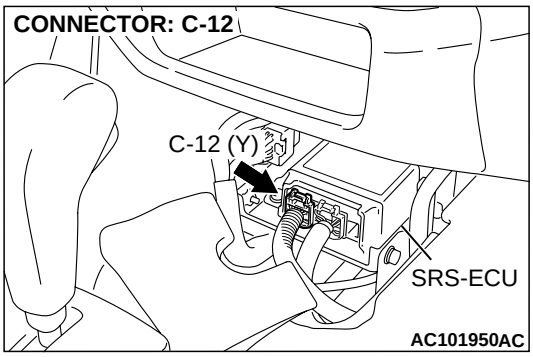
Step 3. Check the wiring harness between the right front impact sensor connector A-37 (terminals 1 and 2) and SRS-ECU connector C-12 (terminals 1 and 2) as well as between left front impact sensor connector A-33 (terminals 1 and 2) and SRS-ECU connector C-12 (terminals 3 and 4).

CONNECTOR: A-37



AC211261AN

CONNECTOR: C-12



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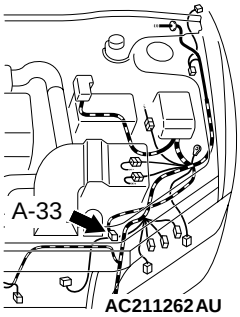
CONNECTOR : A-33



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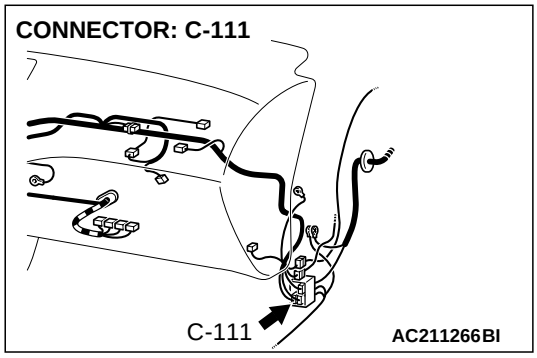
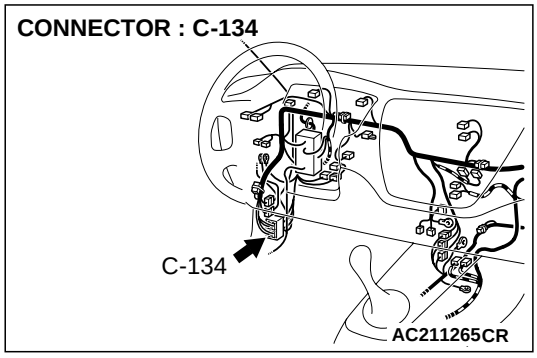


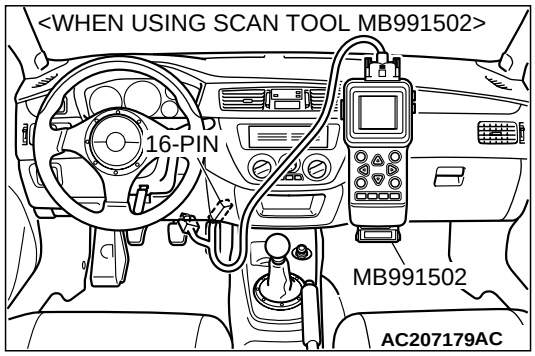


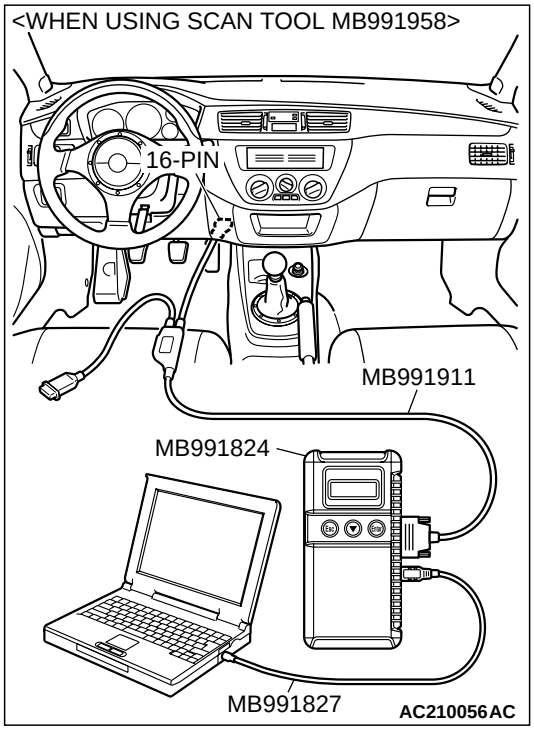
NOTE: Prior to the wiring harness inspection, check intermediate connectors C-111 and C-134, and repair if necessary.

- 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.

Check again if the DTC is set.

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

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

YES : Replace the SRS-ECU (Refer to P.52B-182).

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.00-6).

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 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 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:

TROUBLESHOOTING HINTS

- Malfunction of the SRS-ECU

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
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	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

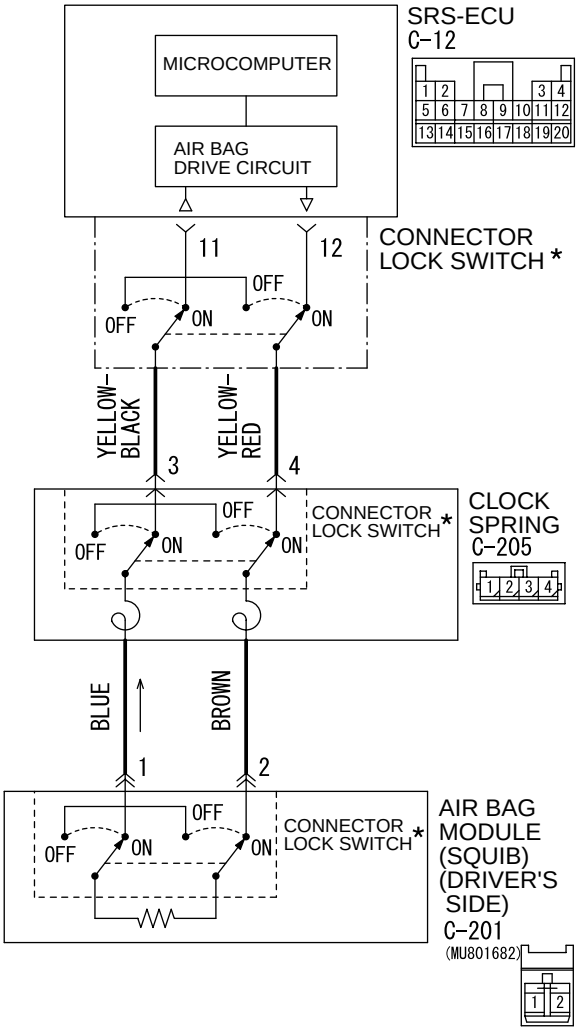
TSB Revision

DIAGNOSIS

Replace the SRS-ECU. (Refer to P.52B-182.)

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



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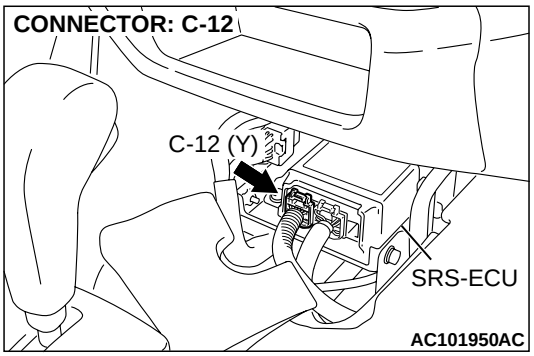

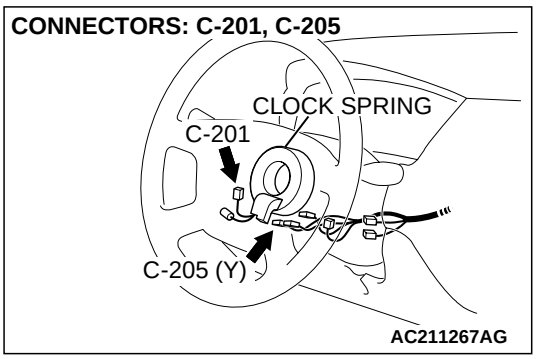

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CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from 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 air bag module (squib). The most likely causes for this code to be set are the following:

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

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

TROUBLESHOOTING HINTS

- Improper engaged connector or defective short bar*
- 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" bar (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 C-12, C-205 or C-201 is damaged or improperly engaged, the short bar may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991502 or MB991958, read the diagnostic trouble code.

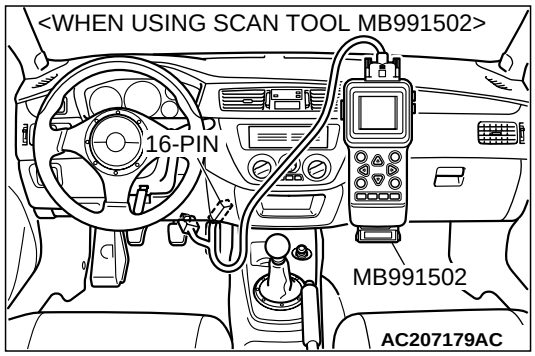
⚠ CAUTION

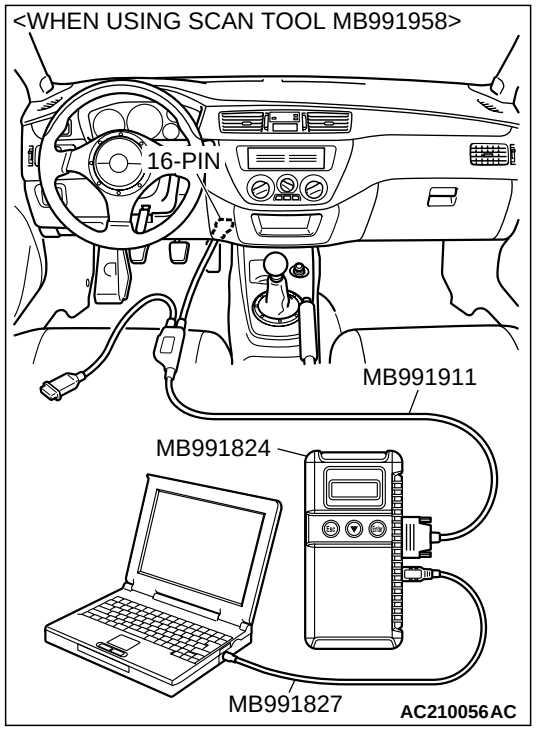
To prevent damage to scan tool MB991502 or MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991502 or MB991958.

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

Q: Is DTC 34 set?

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

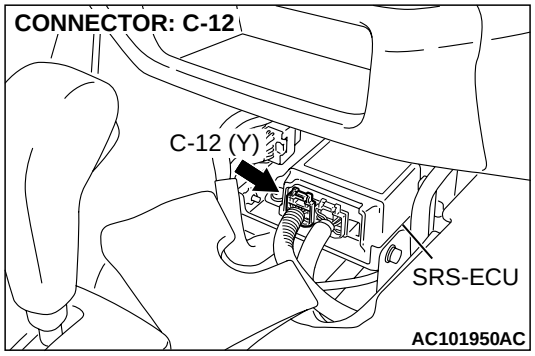


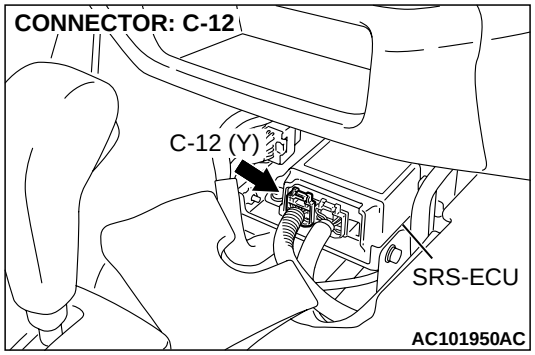


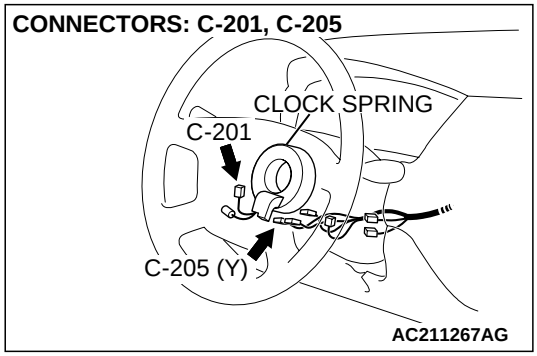
STEP 2. Check SRS-ECU connector C-12.

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 C-12, clock spring connector C-205 and driver's air bag module connector C-201.

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-12, C-205 and C-201, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

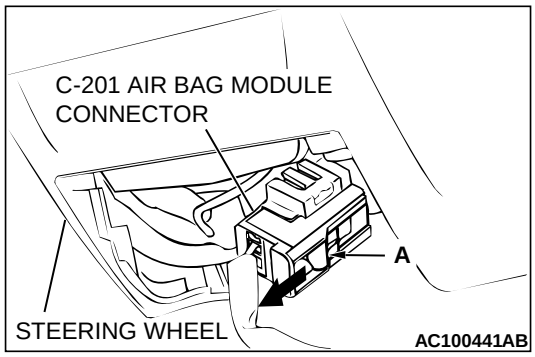
Q: Is DTC 21 set?

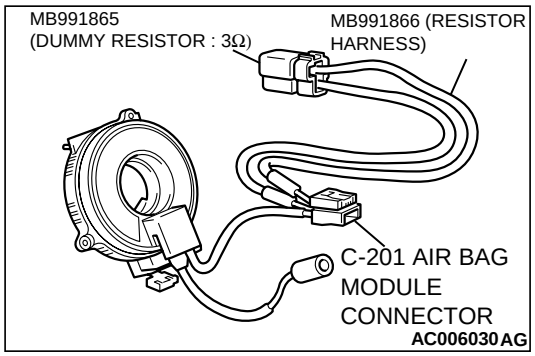
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that DTC 21 set as connector C-12, C-205 or C-201 was engaged improperly.

STEP 4. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.

(2) By sliding the A section (in the figure) of air bag module connector C-201 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 C-201 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.

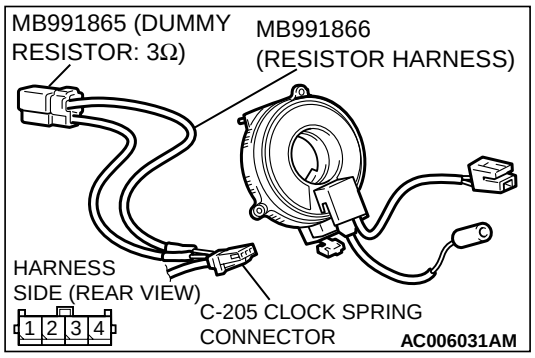
NO : Replace the driver's air bag module. (Refer to P.52B-184.) Then go to Step 8.

STEP 5. Check the clock spring.

(1) Disconnect the negative battery terminal.

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

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



⚠ CAUTION

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

(4) Insert special tool MB991866 into clock spring harness side connector C-205 (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.

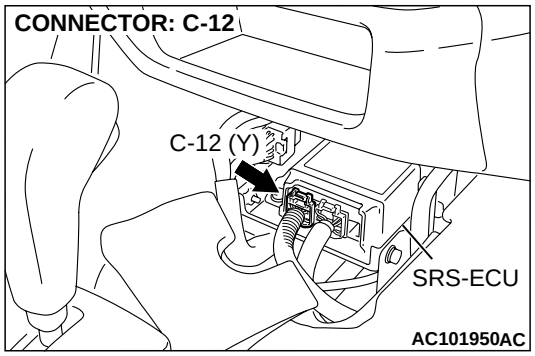
Q: Is DTC 21 set?

YES : Go to Step 6.

NO : Replace the clock spring. (Refer to P.52B-184.) Then go to Step 8.

STEP 6. Check the driver's air bag module circuit at the SRS-ECU connector C-12.

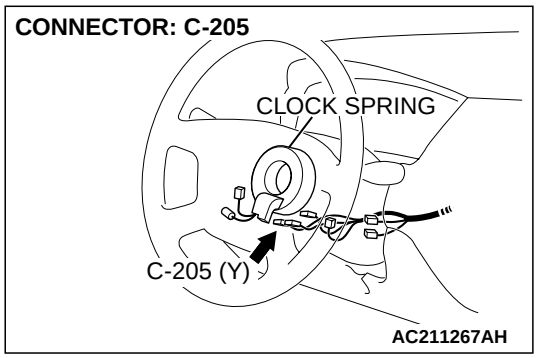
(1) Disconnect SRS-ECU connector C-12.



⚠ ***DANGER***

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

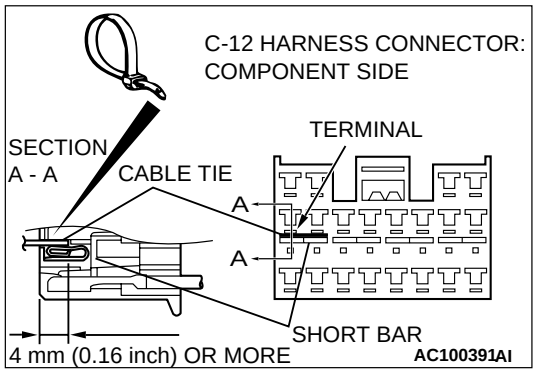
(2) Disconnect the clock spring connector C-205.



⚠ **CAUTION**

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

(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 bar to release the short bar.



⚠ **CAUTION**

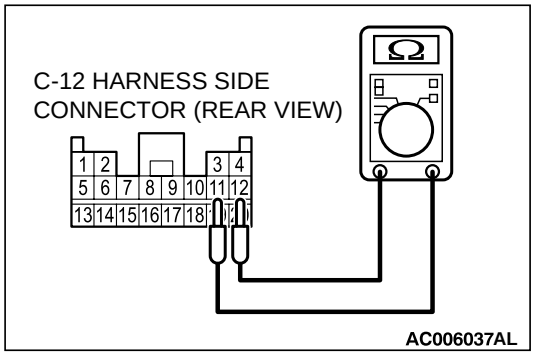
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

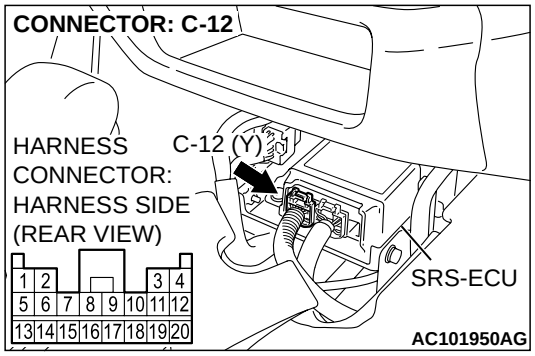
(4) Check for continuity between C-12 harness connector terminals 11 and 12.
It should be open circuit.

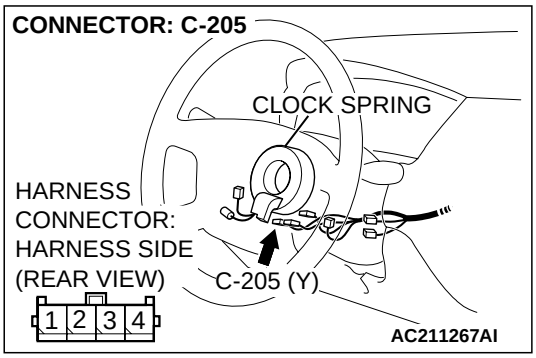
Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 21 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 8.

NO : Go to Step 7.





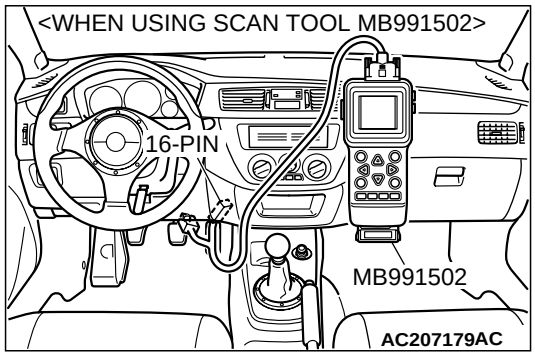


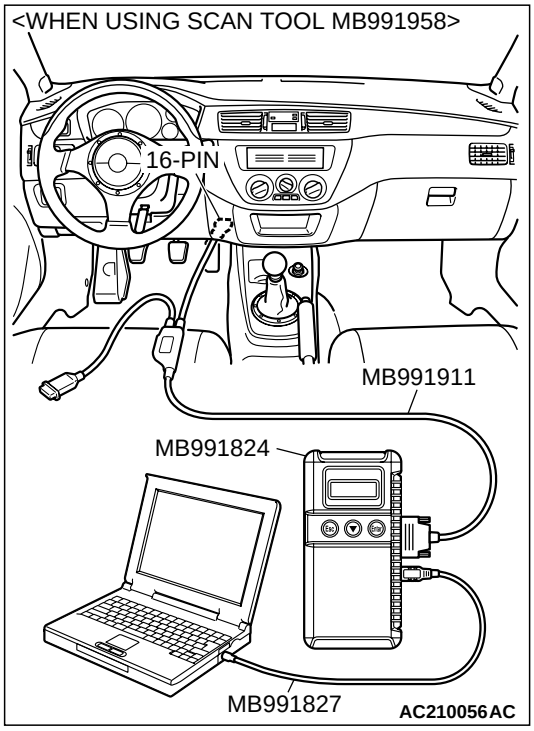
STEP 7. Check the harness for short circuit between SRS-ECU connector C-12 (terminal No.11 and 12) and clock spring connector C-205 (terminal No.3 and 4).

Q: Are harness wires between SRS-ECU connector C-12 (terminal No.11 and 12) and clock spring connector C-205 (terminal No.3 and 4) in good condition?

YES : Go to Step 8.

NO : Repair the harness wires between SRS-ECU connector C-12 and clock spring connector C-205. Then go to Step 8.





STEP 8. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

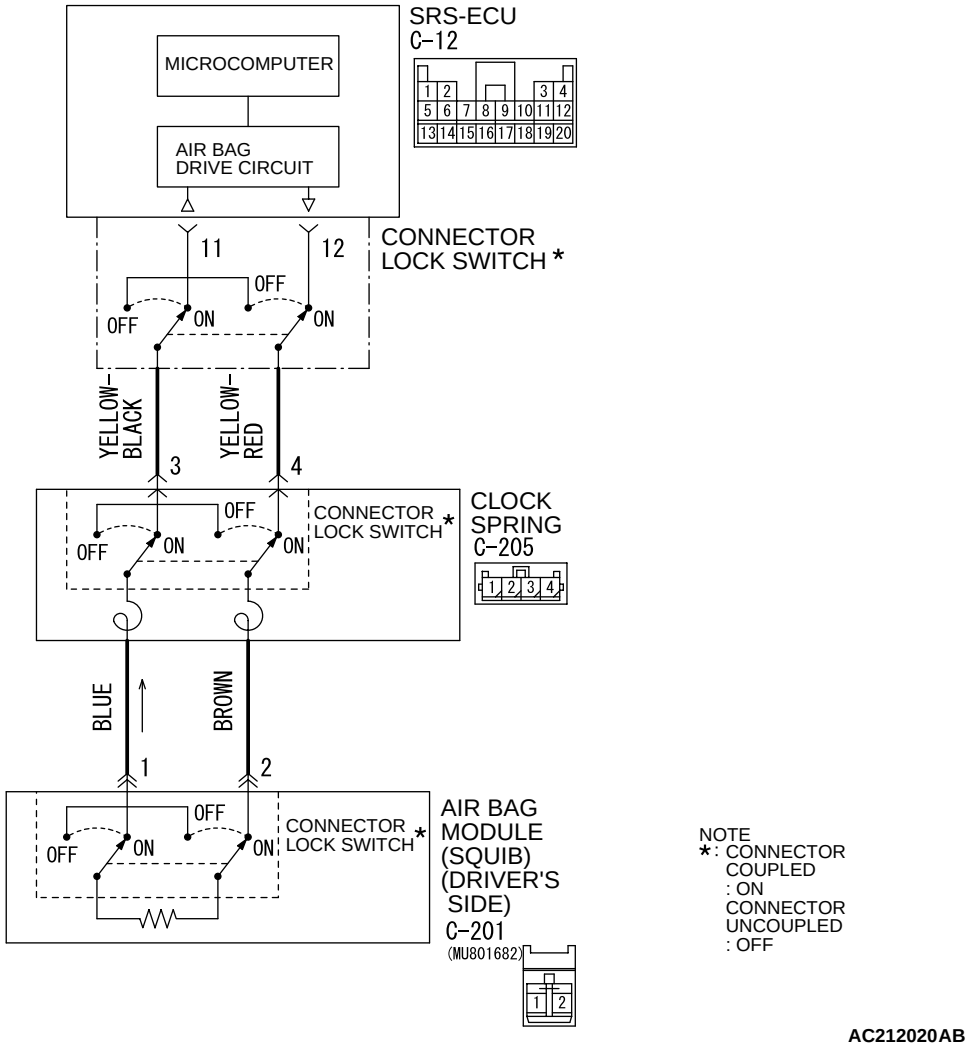
Q: Is DTC 21 set?

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.00-6.)

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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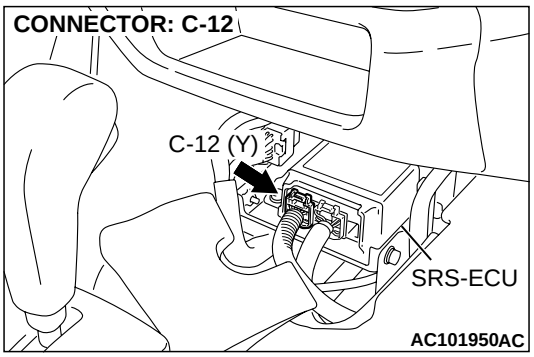

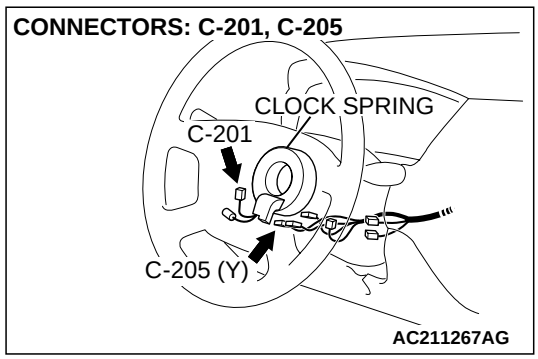

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CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from 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 following:

- 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 reset, 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

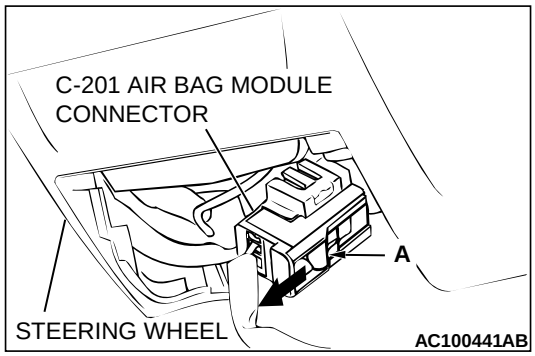
DIAGNOSIS

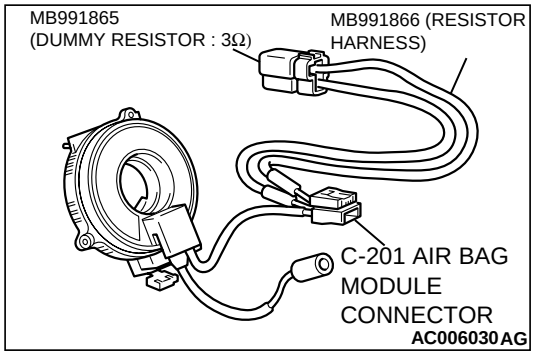
Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.
(2) By sliding the A section (in the figure) of air bag module connector C-201 in the arrow direction, disconnect the connector.





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

⚠ CAUTION

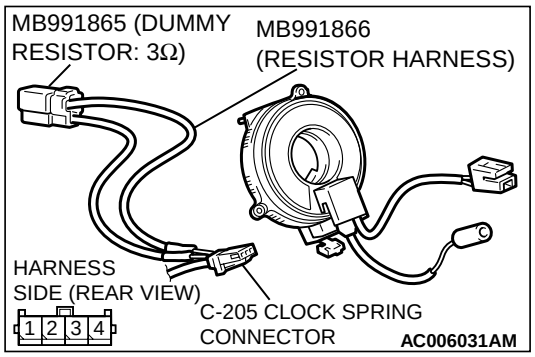
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring side air bag module connector C-201 by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnosis trouble code memory, and check the diagnosis trouble code.

Q: Is DTC 22 set?

YES : Go to Step 2.
NO : Replace the driver's air bag module. (Refer to P.52B-184.) Then go to Step 4.

STEP 2. Check the clock spring.



(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-205.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

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

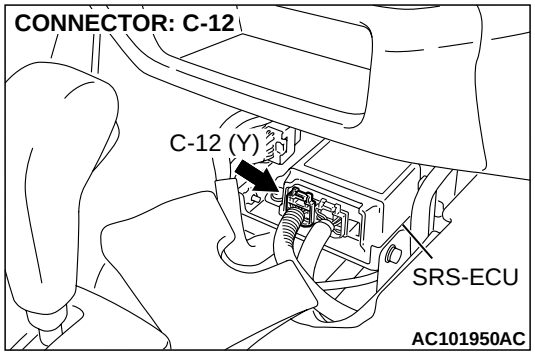
(4) Insert special tool MB991866 into clock spring harness side connector C-205 by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

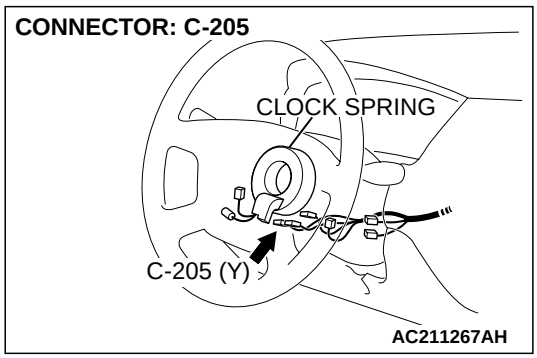
Q: Is DTC 22 set?

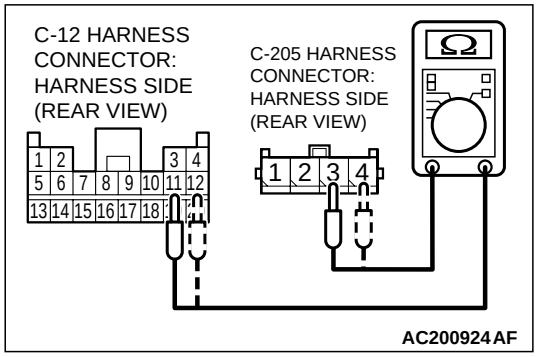
YES : Go to Step 3.
NO : Replace the clock spring. (Refer to P.52B-184.) Then go to Step 4.

STEP 3. Check the harness between the SRS-ECU connector C-12 (terminal No.11 and 12) and the clock spring connector C-205 (terminal No.3 and 4) for open circuit.

(1) Disconnect SRS-ECU connector C-12 and clock spring connector C-205.







⚠ CAUTION

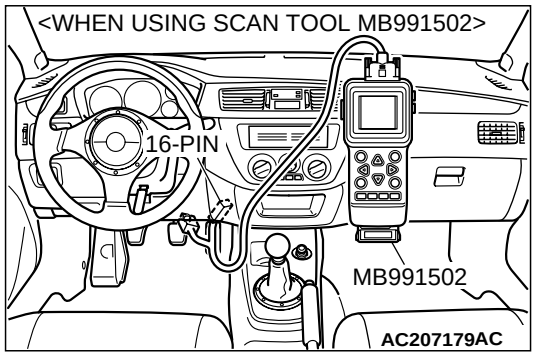
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

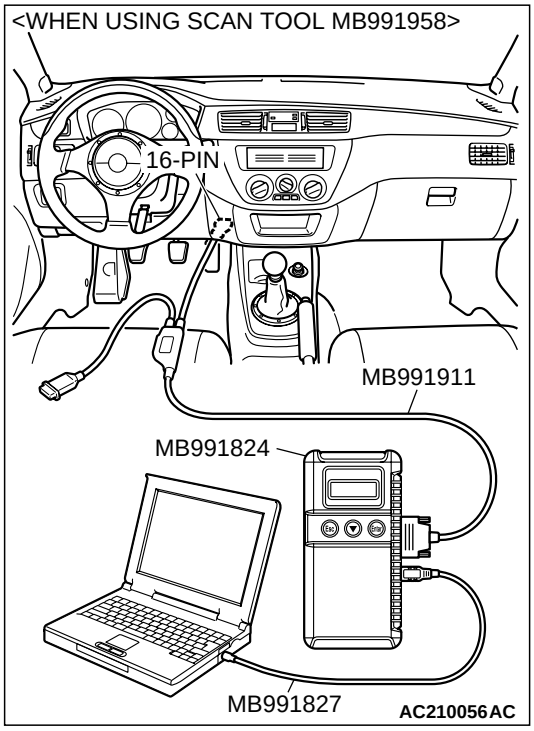
(2) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-12 (terminal No.11) and the clock spring connector C-205 (terminal No.3)
- SRS-ECU connector C-12 (terminal No.12) and the clock spring connector C-205 (terminal No.4)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 22 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-12 and clock spring connector C-205. Then go to Step 4.





STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

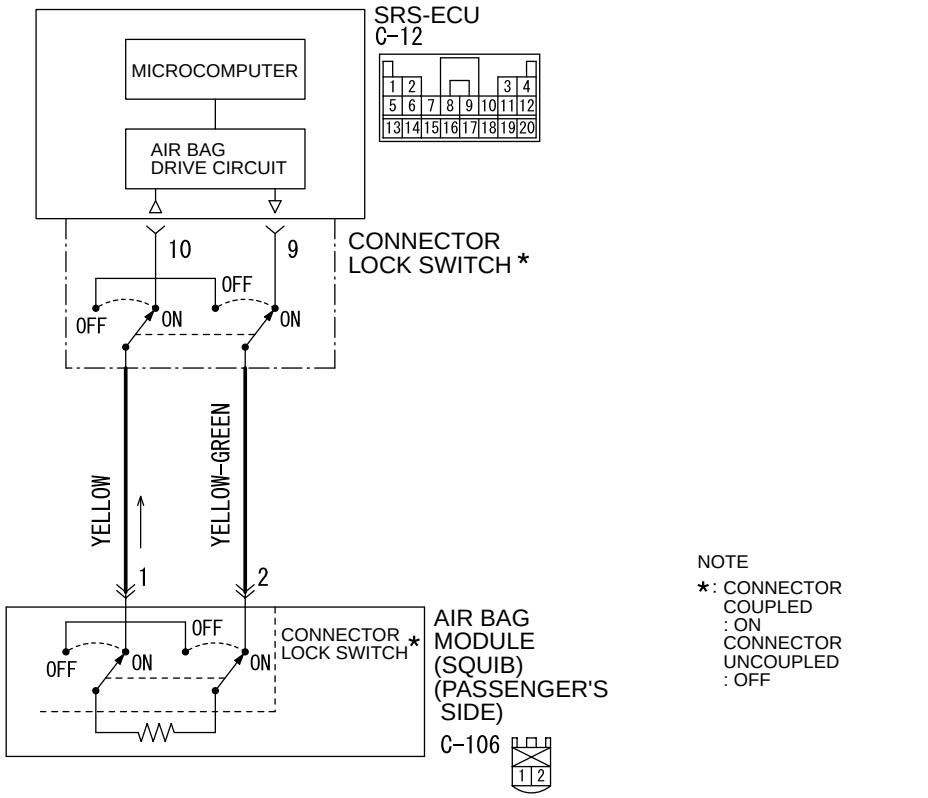
Q: Is DTC 22 set?

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.00-6.)

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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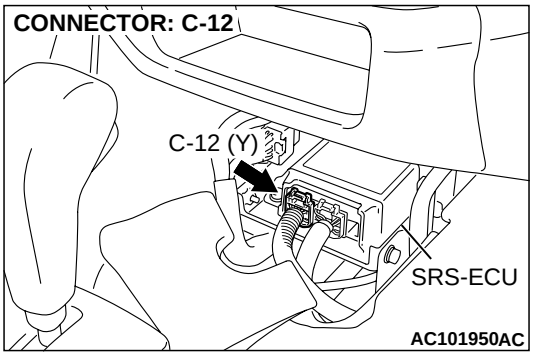

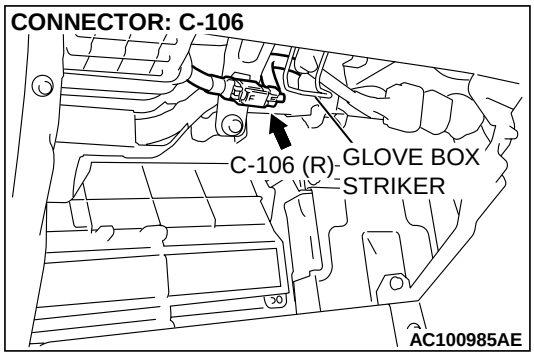

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front 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 passenger's side air bag module (squib). However, if no DTC reset, the SRS warning light will be switched off (DTC will be retained).

TROUBLESHOOTING HINTS

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

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- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" bar (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 C-12 or C-106 is damaged or improperly engaged, the short bar may not be released when the connector is connected.*

DIAGNOSIS

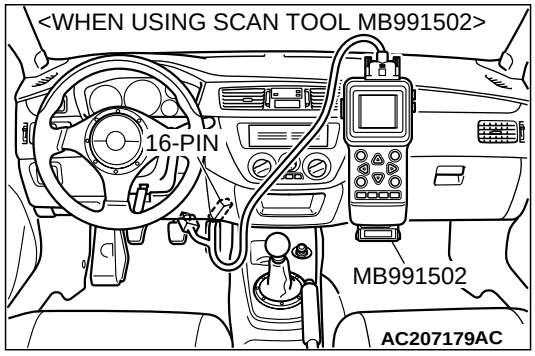
Required Special Tools:

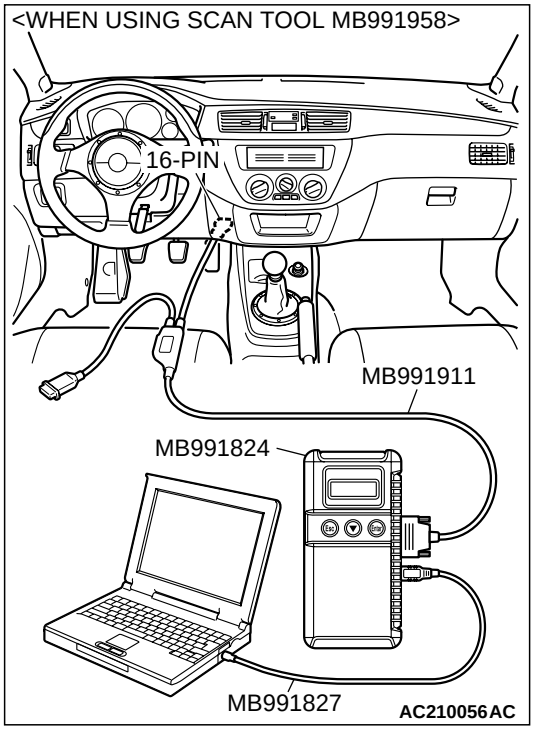
- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991502 or MB991958, read the diagnostic trouble code.

⚠ CAUTION

To prevent damage to scan tool MB991502 or MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991502 or MB991958.

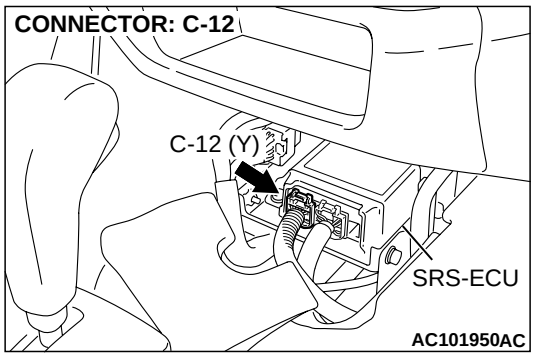




(1) Turn the ignition switch to the "ON" position.
(2) Check if the DTC is set.
(3) Turn the ignition switch to the "LOOK (OFF)" position.

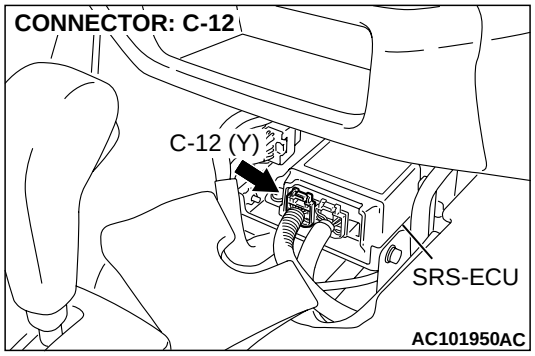
Q: Is DTC 34 set?

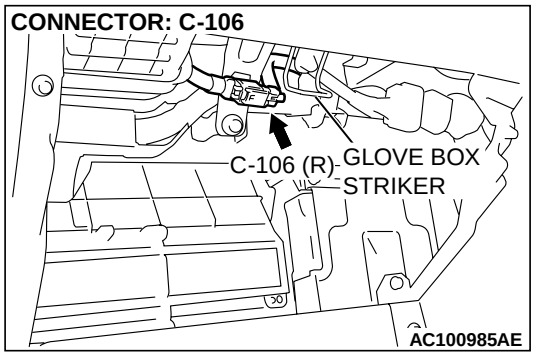
YES : Go to Step 2.
NO : Go to Step 3.



STEP 2. Check SRS-ECU connector C-12.
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 C-12 and passenger's air bag module connector C-106.

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-12 and C-106, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

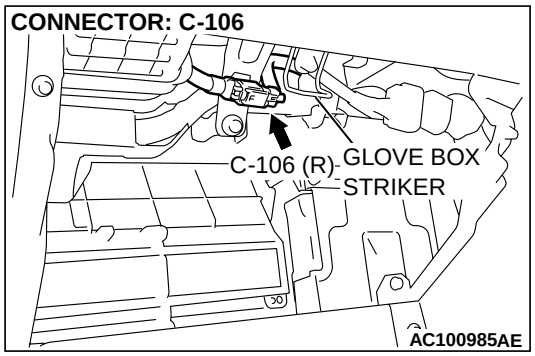
Q: Is DTC 24 set?

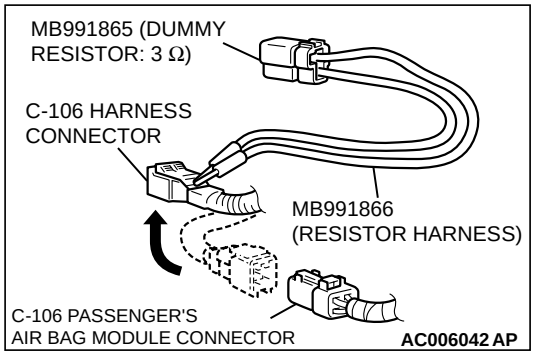
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that DTC 24 set as connector C-12 or C-106 was engaged improperly.

STEP 4. Check the passenger's air bag module.

(1) Disconnect the negative battery terminal.

(2) Unclip passenger's air bag module connector C-106.





(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 C-106, 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.

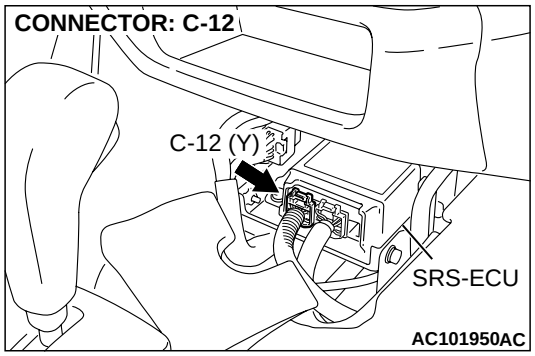
Q: Is DTC 24 set?

YES : Go to Step 5.

NO : Replace the passenger's air bag module. (Refer to P.52B-184.) Then go to Step 7.

STEP 5. Check the passenger's air bag module circuit at SRS-ECU connector C-12.

(1) Disconnect SRS-ECU connector C-12.

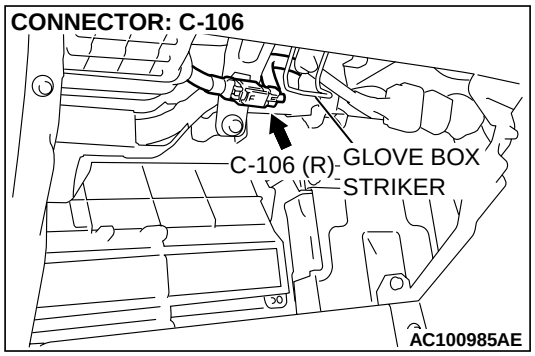


(2) Unclip passenger's air bag module connector C-106.

⚠ *DANGER*

To prevent the air bag from deploying unintentionally, disconnect the passenger's air bag module connector C-106 to short the squib circuit.

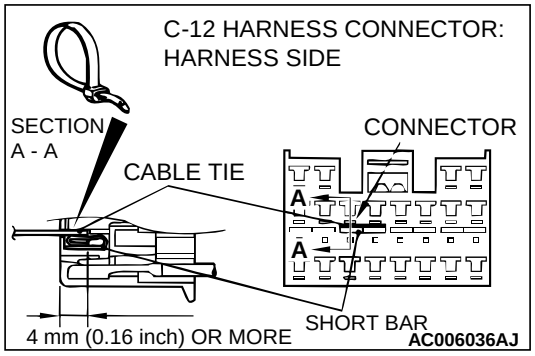
(3) Disconnect the passenger's air bag module connector C-106.



⚠ CAUTION

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

(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 bar to release the short bar.



⚠ CAUTION

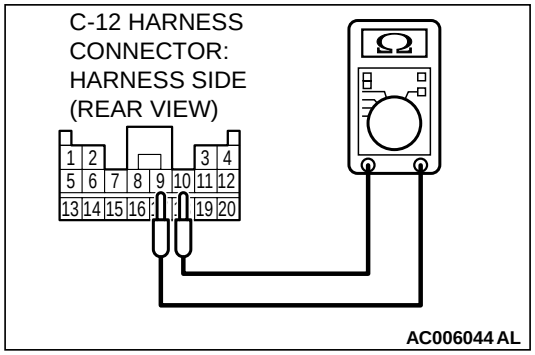
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

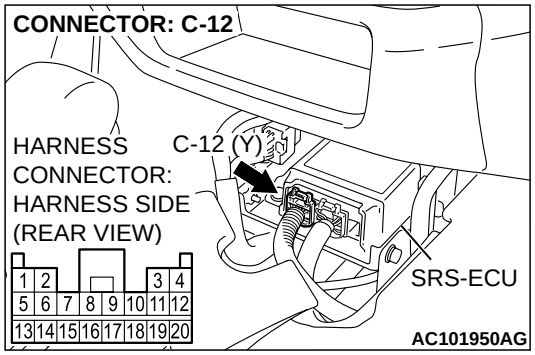
(5) Check for continuity between C-12 harness connector terminals 9 and 10.
It should be open circuit.

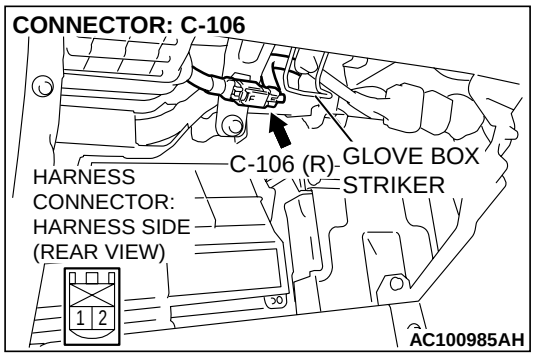
Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 24 set, replace the SRS-ECU. Refer to P.52B-182. Then go to Step 7.

NO : Go to Step 6.





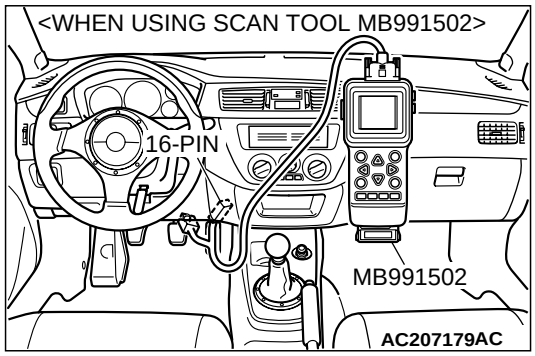


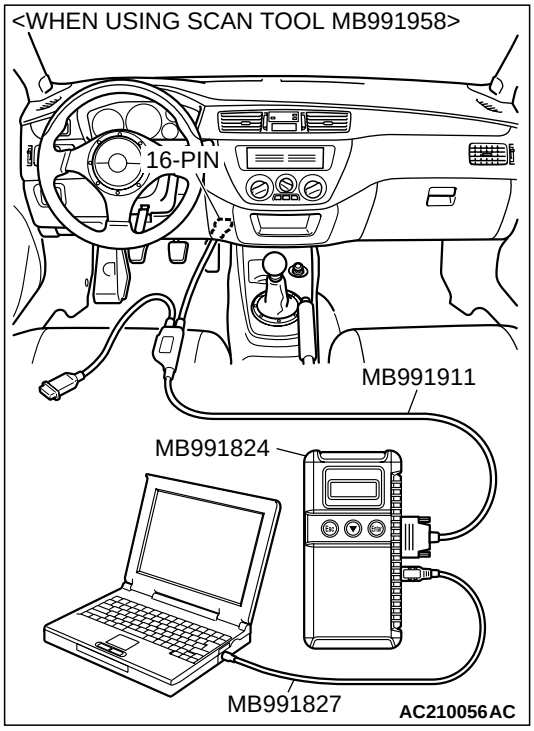
STEP 6. Check the harness for short circuit between SRS-ECU connector C-12 (terminal No.9 and 10) and passenger's air bag module connector C-106 (terminal No.1 and 2).

Q: Are harness wires between SRS-ECU connector C-12 (terminal No.9 and 10) and passenger's air bag module connector C-106 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-12 and passenger's air bag module connector C-106. Then go to Step 7.





STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

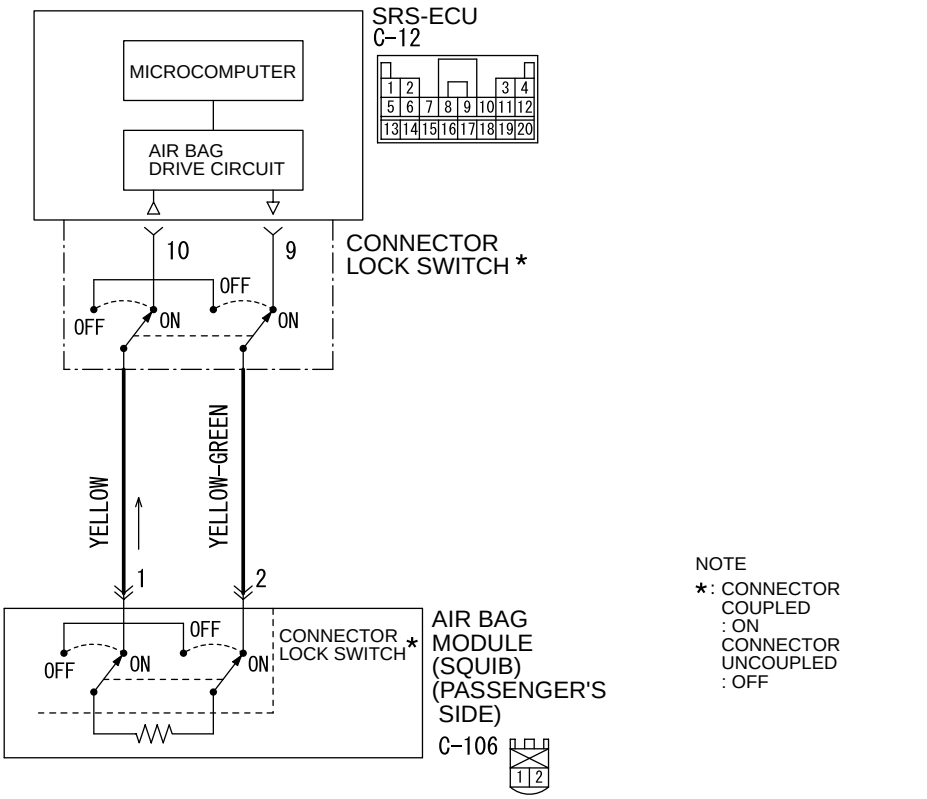
Q: Is DTC 24 set?

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.00-6.)

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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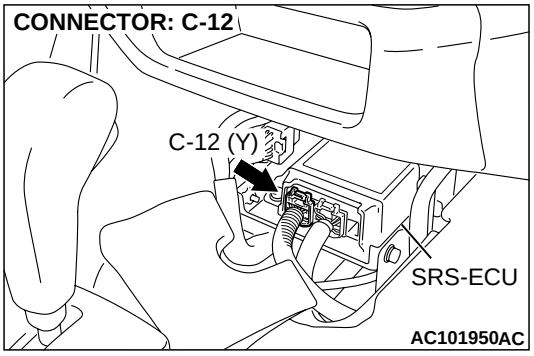
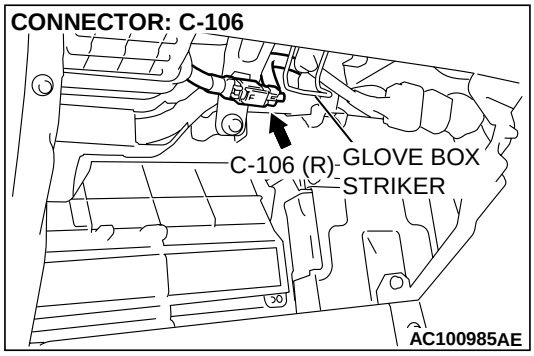




CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front 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 passenger's air bag module (squib). However, if no DTC reset, the SRS warning light will be switched off (DTC will be retained).

TROUBLESHOOTING HINTS

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

TSB Revision

DIAGNOSIS

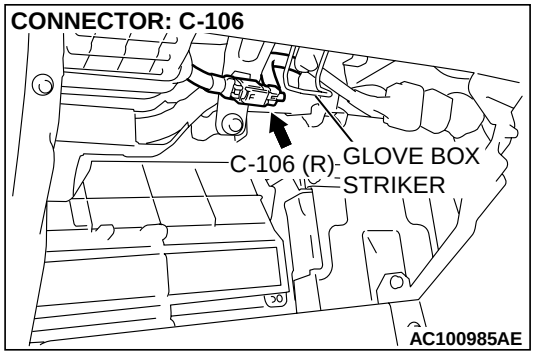
Required Special Tools:

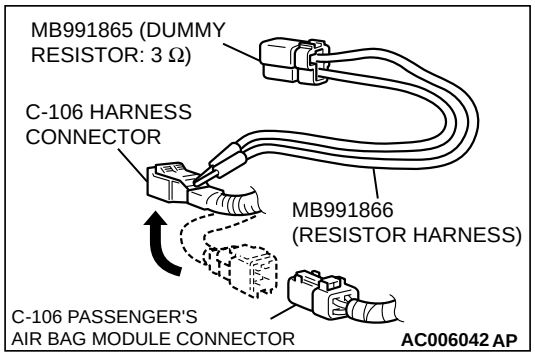
- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the passenger's air bag module.

(1) Disconnect the negative battery terminal.

(2) Unclip passenger's air bag module connector C-106.





(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 C-106, 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.

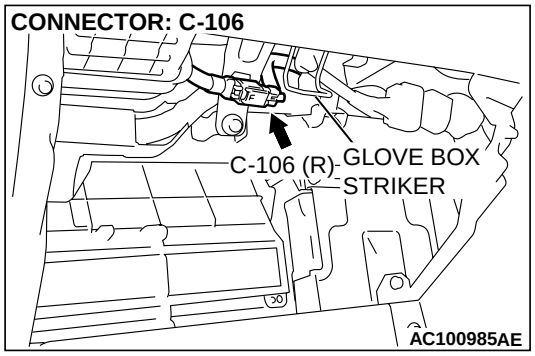
Q: Is DTC 25 set?

YES : Go to Step 2.

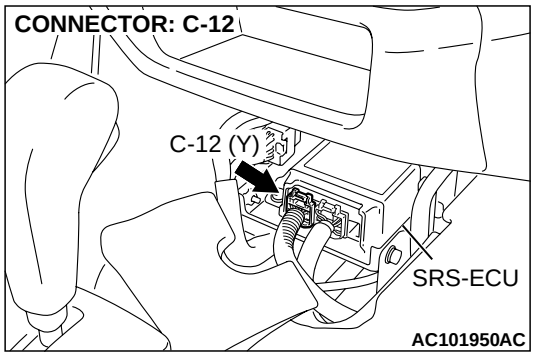
NO : Replace the passenger's air bag module. (Refer to P.52B-184.) Then go to Step 3.

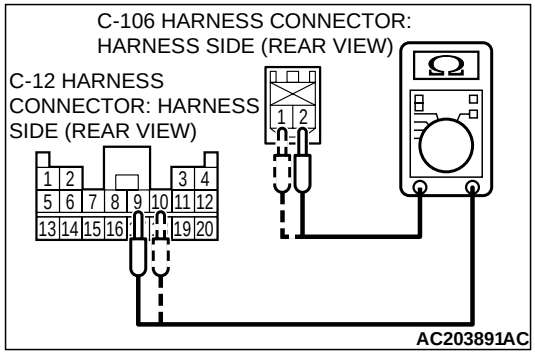
STEP 2. Check the harness for open circuit between SRS-ECU connector C-12 (terminal No.9 and 10) and the passenger's air bag module connector C-106 (terminal No.1 and 2).

(1) Unclip passenger’s air bag module connector C-106.



(2) Disconnect SRS-ECU connector C-12 and passenger's air bag module connector C-106.





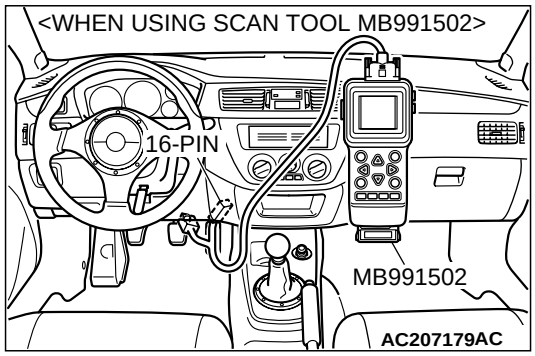
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

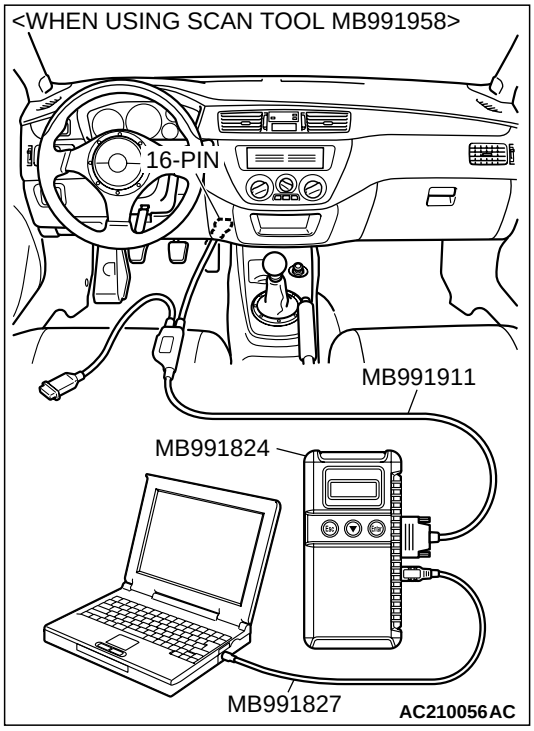
(3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-12 (terminal No.9) and the passenger’s air bag module connector C-106 (terminal No.2)
- SRS-ECU connector C-12 (terminal No.10) and the passenger’s air bag module connector C-106 (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 25 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-12 and passenger’s air bag module connector C-106. Then go to Step 3.





STEP 3. Recheck the diagnostic trouble code.

Check again if the DTC is set.

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

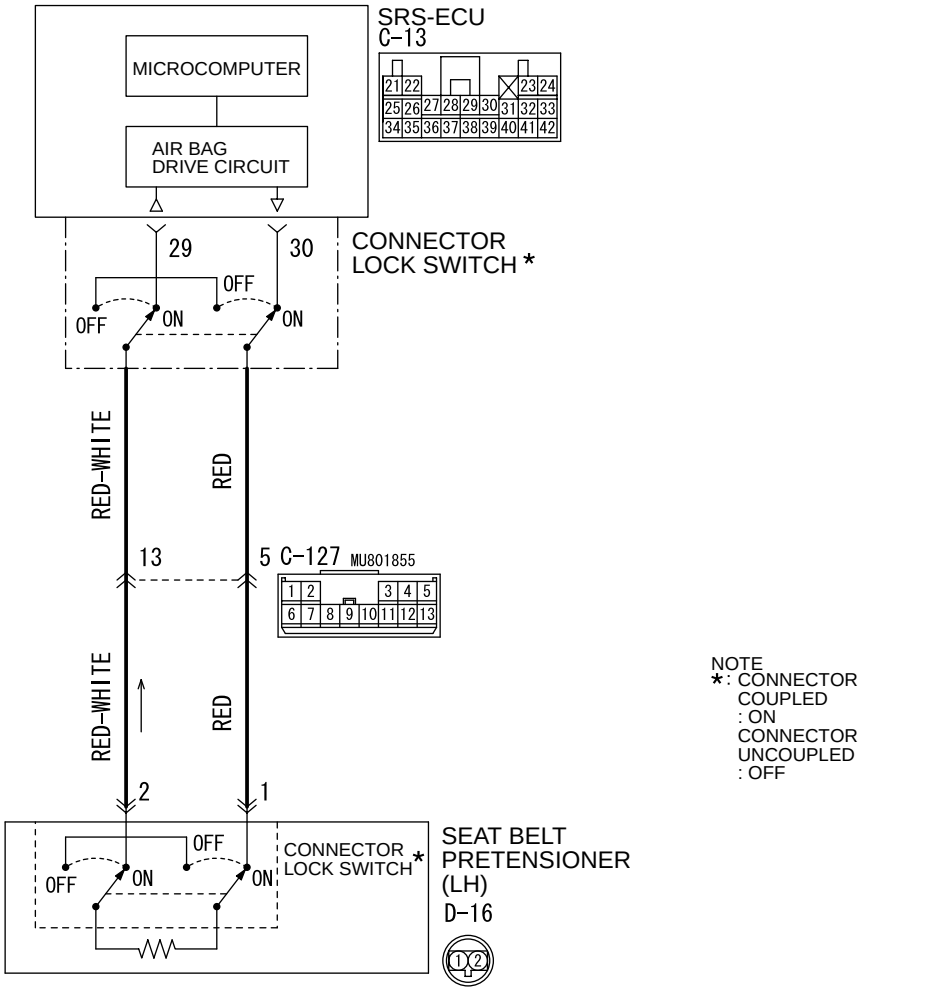
Q: Is DTC 25 set?

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.00-6.)

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)



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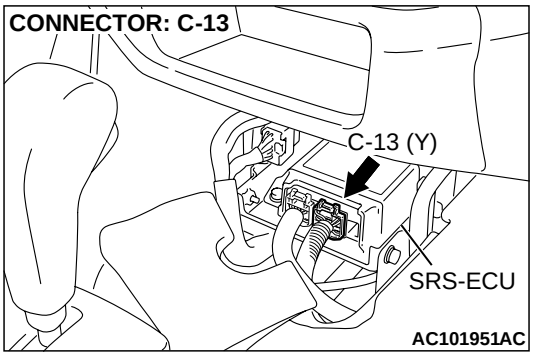
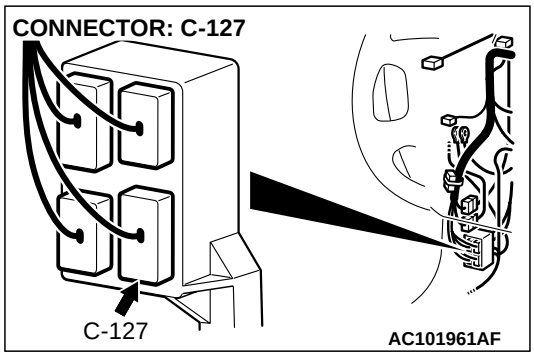
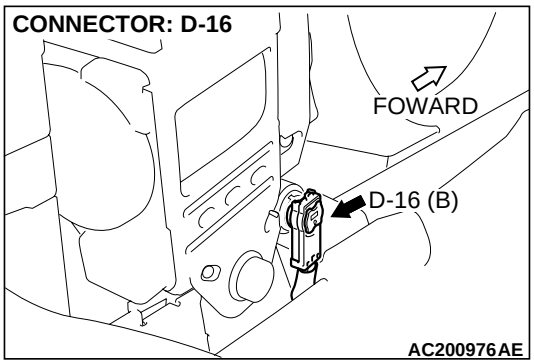




TSB Revision



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 side seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

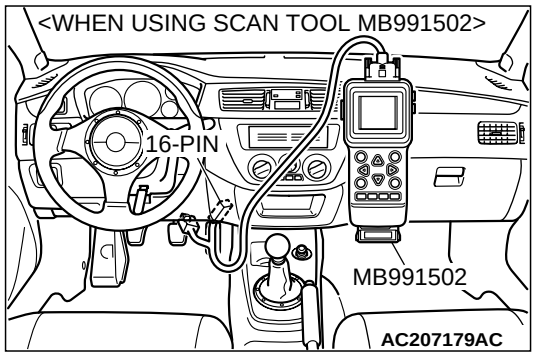
- Improper engaged connector or defective short bar*
- Short circuit between the driver's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

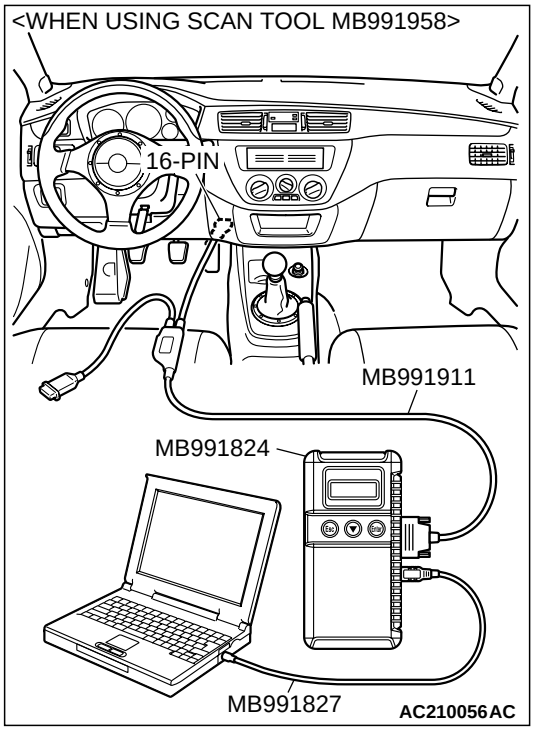
*NOTE: *: The squib circuit connectors integrate a "short" bar (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected). (Refer to P.52B-3.) Therefore, if connector C-13 or D-16 is damaged or improperly engaged, the short bar may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991865: Dummy resister
- MB991866: Resister harness (For Pre-tensioner)





STEP 1. Using scan tool MB991502 or MB991958, read the diagnostic trouble code.

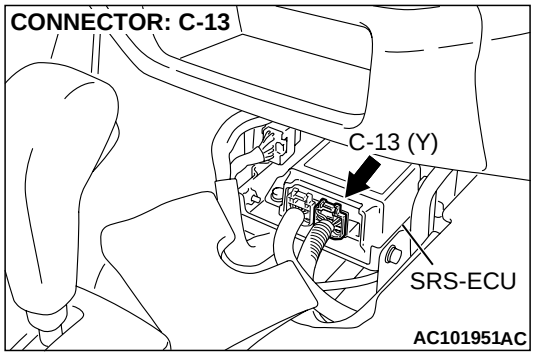
⚠ CAUTION

To prevent damage to scan tool MB991502 or MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991502 or MB991958.

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

Q: Is DTC 34 set?

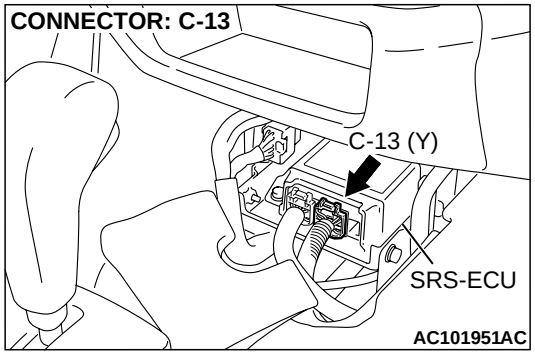
YES : Go to Step 2.
NO : Go to Step 3.

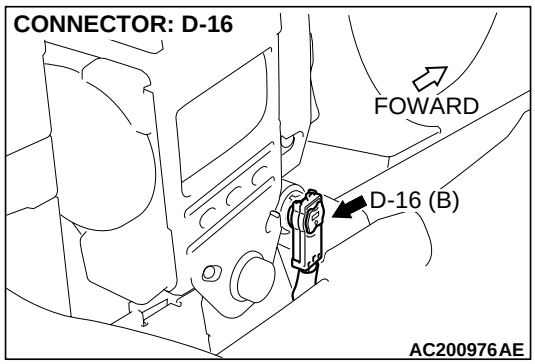


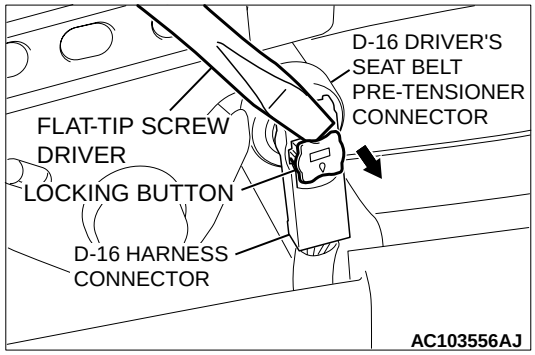
STEP 2. Check the SRS-ECU connector C-13.

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 C-13 and driver's seat belt pre-tensioner connector D-16.

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-13 and D-16, and then reconnect them. For connector D-16, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

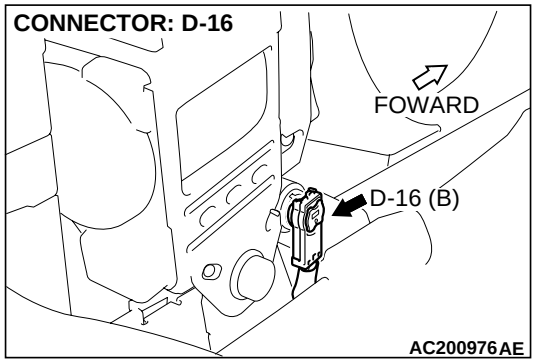
Q: Is DTC 26 set?

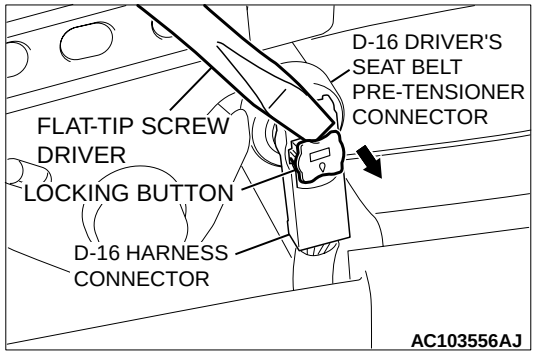
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that DTC 26 set as connector C-13 or D-16 was engaged improperly.

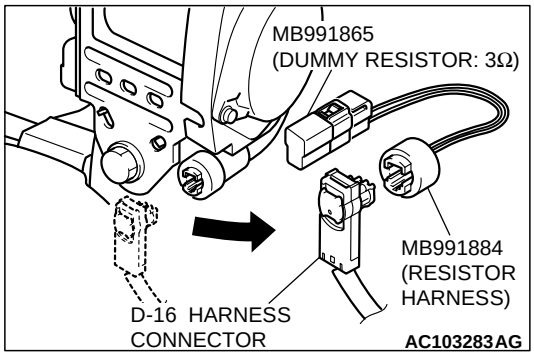
STEP 4. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.

(2) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







(3) Connect special tool MB991865 to special tool MB991884.

(4) Connect special tool MB991884 to the D-16 harness connector.

(5) Connect the negative battery terminal.

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

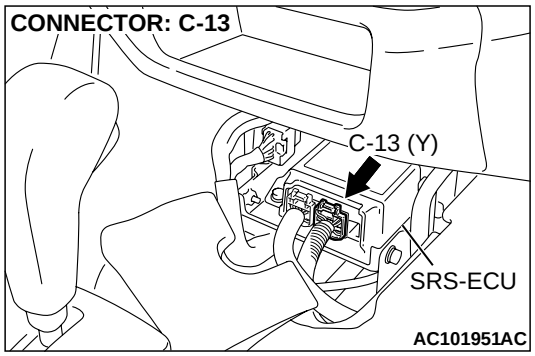
Q: Is DTC 26 set?

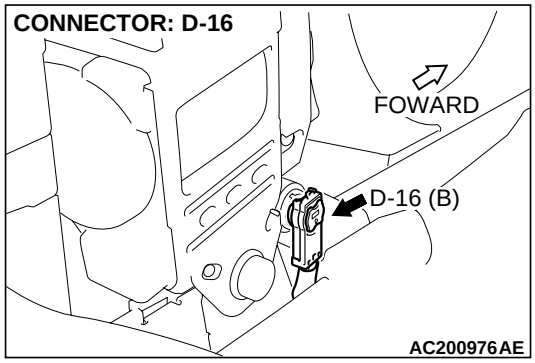
YES : Go to Step 5.

NO : Replace the driver's seat belt pre-tensioner. (Refer to P.52B-192.) Then go to Step 7.

STEP 5. Check the driver's seat belt pre-tensioner circuit at the SRS-ECU connector C-13.

(1) Disconnect SRS-ECU connector C-13.

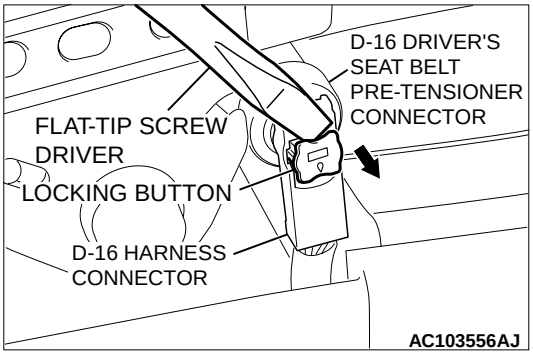




⚠ ***DANGER***

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-16 to short the squib circuit.

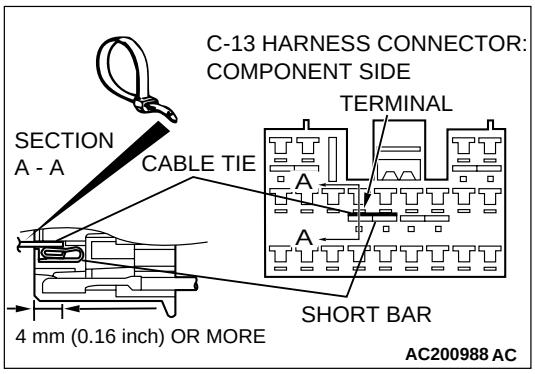
(2) Disconnect driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to pull out the locking button at the harness connector, and then disconnect the connector.

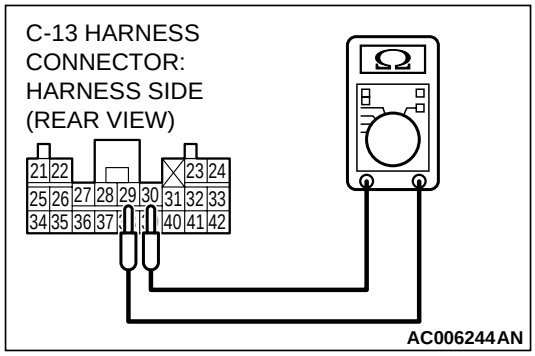


⚠ **CAUTION**

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short bar 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 bar to release the short bar.





⚠ 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 29 and 30.
It should be open circuit.

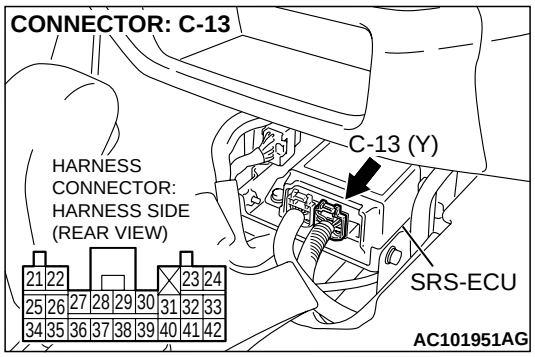
Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 26 sets, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 7.

NO : Go to Step 6.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-13 (terminal No.29 and 30) and driver's seat belt pre-tensioner connector D-16 (terminal No.1 and 2).

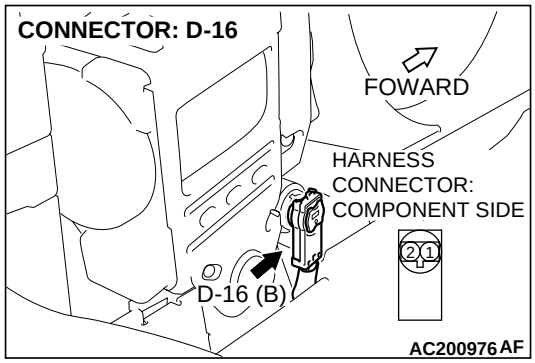
NOTE: After inspecting intermediate connector C-127 inspect the wiring harness.
If the intermediate connector C-127 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection P.00E-2.
Go to Step 7.

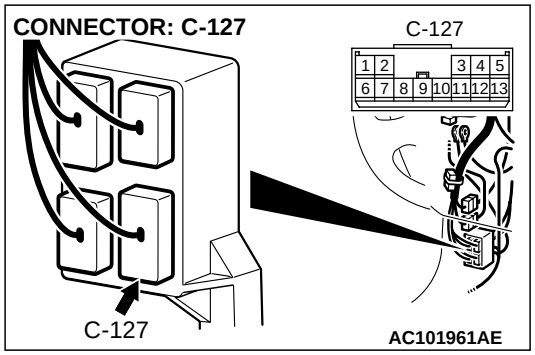


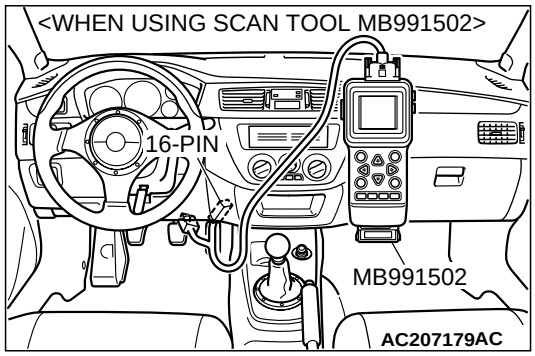
Q: Are harness wires between SRS-ECU connector C-13 (terminal No.29 and 30) and driver's seat belt pre-tensioner connector D-16 (terminal No.1 and 2) in good condition?

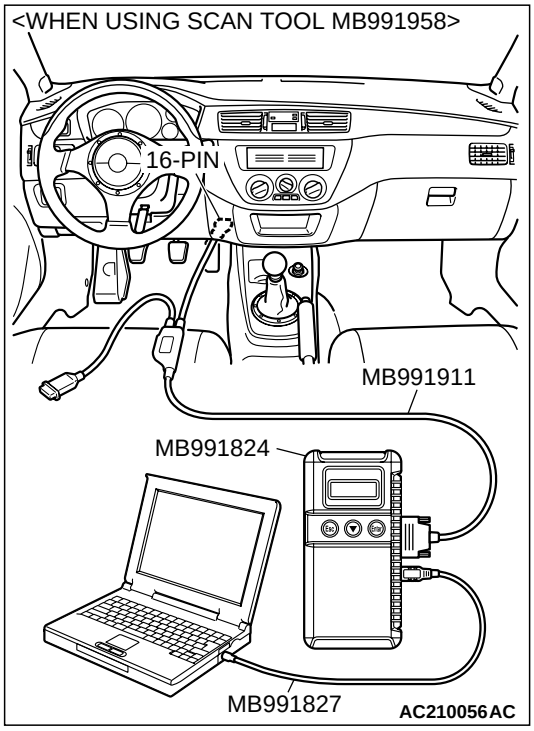
YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-13 and driver's seat belt pre-tensioner connector D-16. Then go to Step 7.









STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

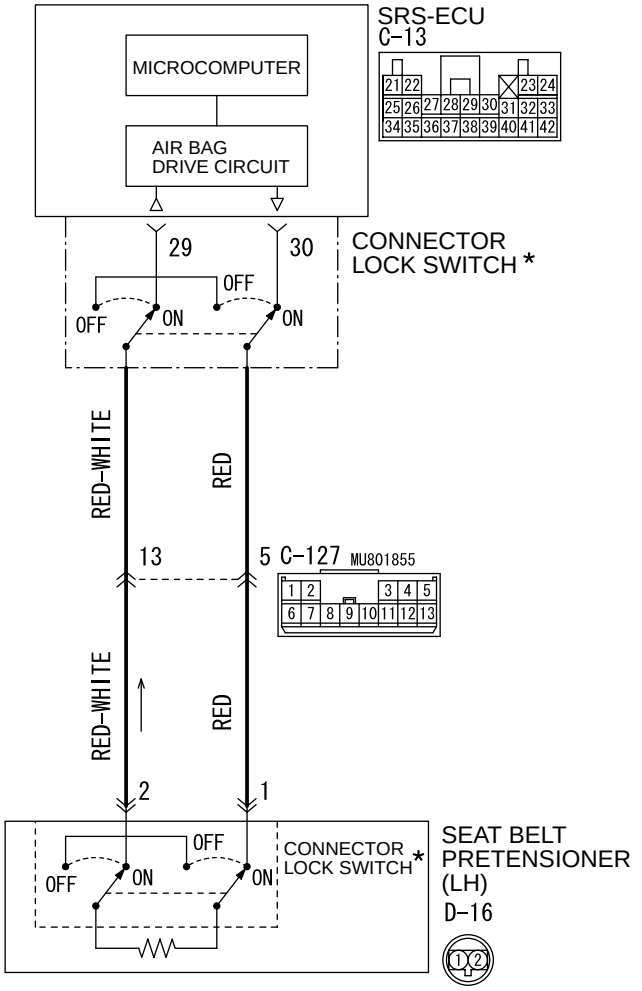
Q: Is DTC 26 set?

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.00-6.)

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

Driver's Seat Belt Pre-tensioner (Squib)



NOTE
*: CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

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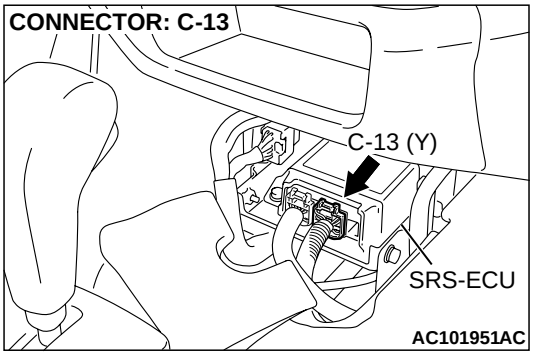
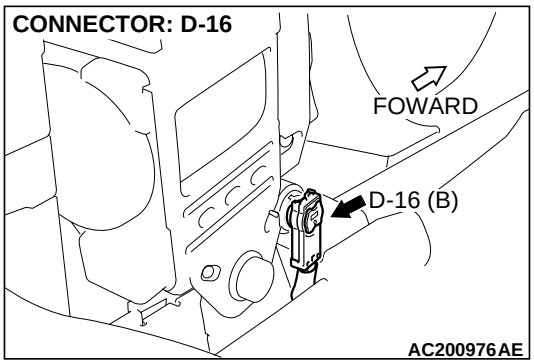
W3J19M04AA



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 pre-tensioner (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

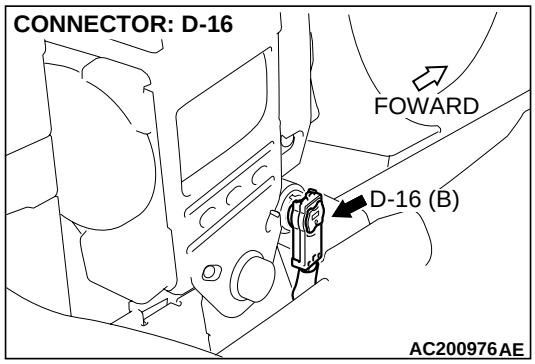
Required Special Tools:

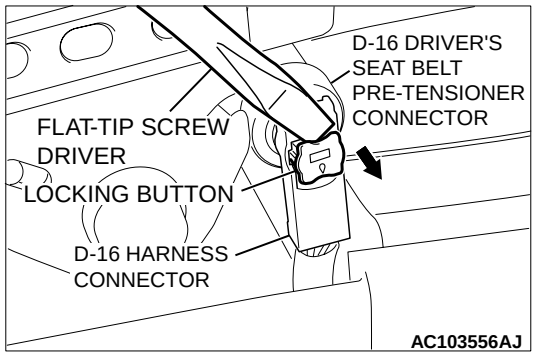
- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991865: Dummy resister
- MB991866: Resister harness (For Pre-tensioner)

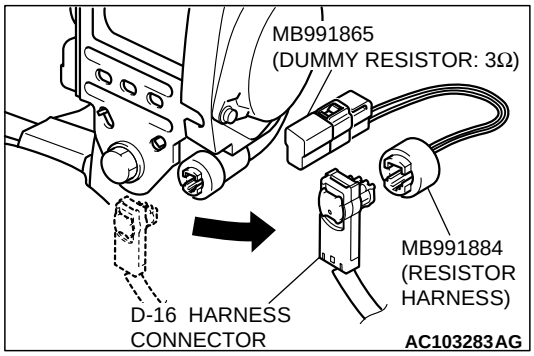
STEP 1. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.

(2) Disconnect the driver's seat belt pre-tensioner connector D-16. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.







(3) Connect special tool MB991865 to special tool MB991884.

(4) Connect special tool MB991884 to the D-16 harness connector.

(5) Connect the negative battery terminal.

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

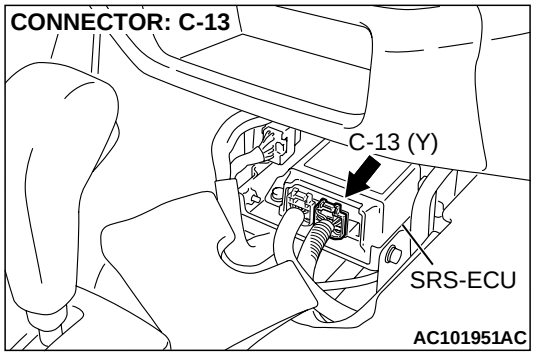
Q: Is DTC 27 set?

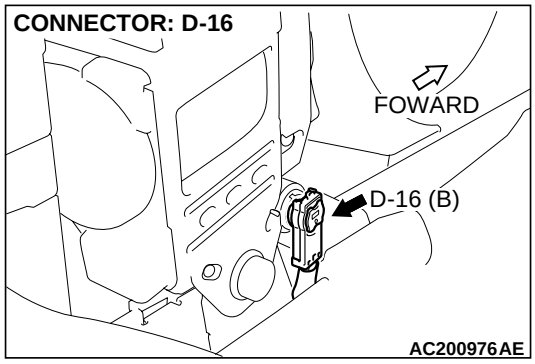
YES : Go to Step 2.

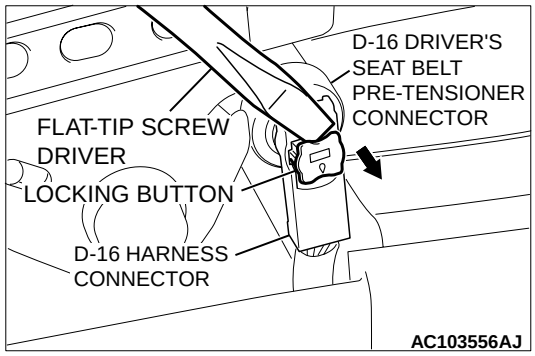
NO : Replace the driver's seat belt pre-tensioner. (Refer to P.52B-192.) Then go to Step 3.

STEP 2. Check the harness for open circuit between SRS-ECU connector C-13 (terminal No.29 and 30) and the driver's seat belt pre-tensioner connector D-16 (terminal No.1 and 2).

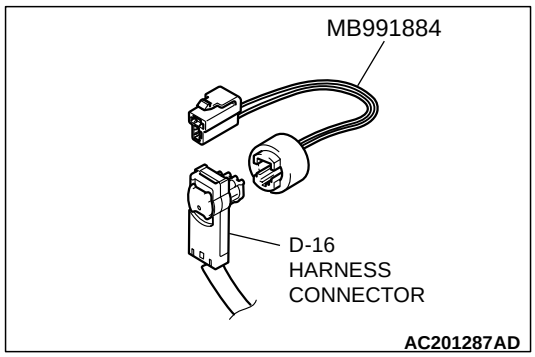
(1) Disconnect SRS-ECU connector C-13 and driver's seat belt pre-tensioner connector D-16, and measure at the wiring harness side. For connector D-16, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

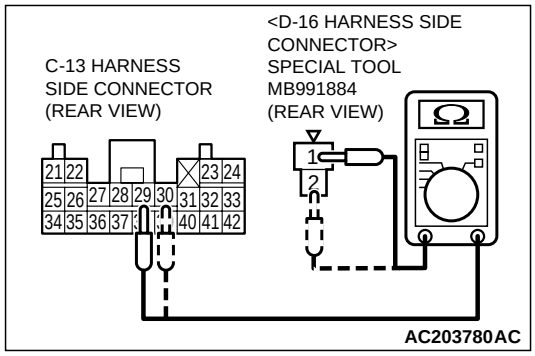






(2) Connect D-16 harness connector to special tool MB991884.





⚠ CAUTION

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

(3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-13 (terminal No.29) and the special tool (terminal No.1)
- SRS-ECU connector C-13 (terminal No.30) and the special tool (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 27 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 3.

NO : Repair harness wires between SRS-ECU connector C-13 and driver's seat belt pre-tensioner connector D-16. Then go to Step 3.

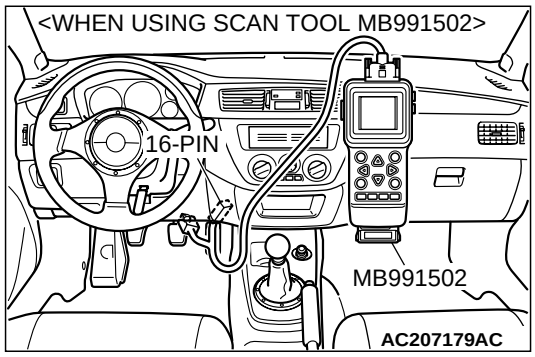
STEP 3. Recheck for diagnostic trouble code.

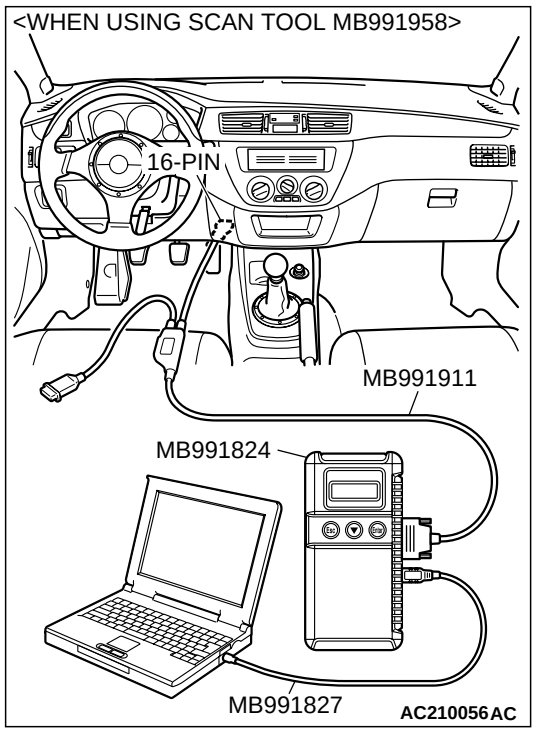
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC 27 set?

YES : Return to Step 1.

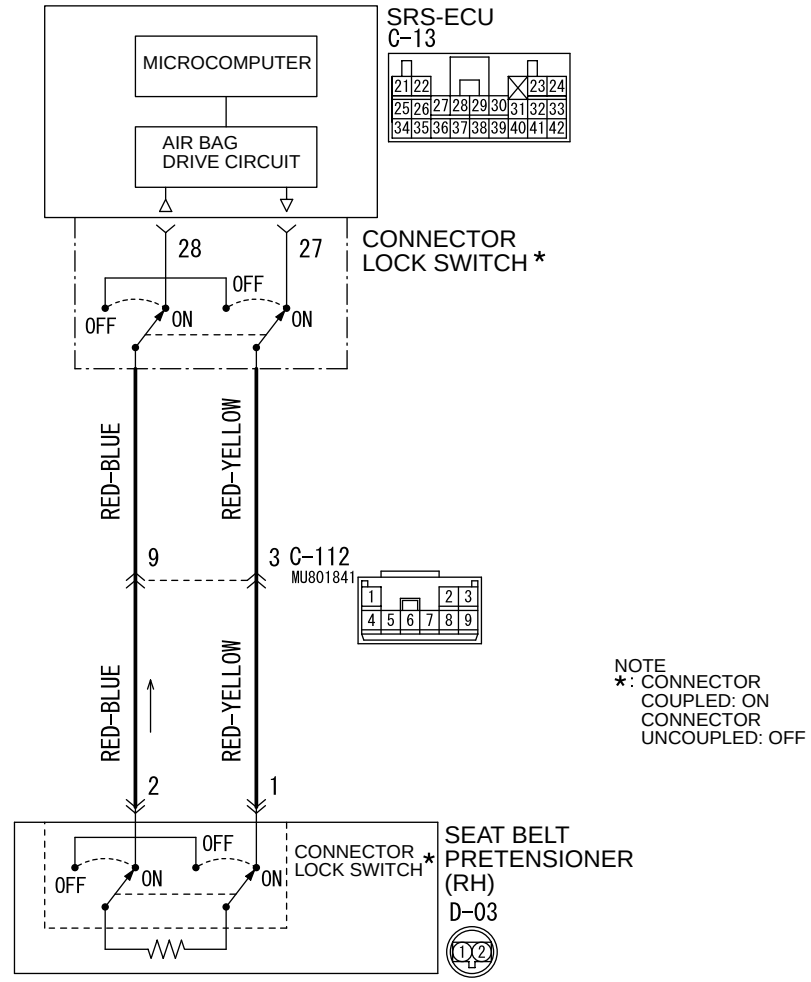
NO : The procedure is complete. (If no malfunctions are found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-6.)





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)



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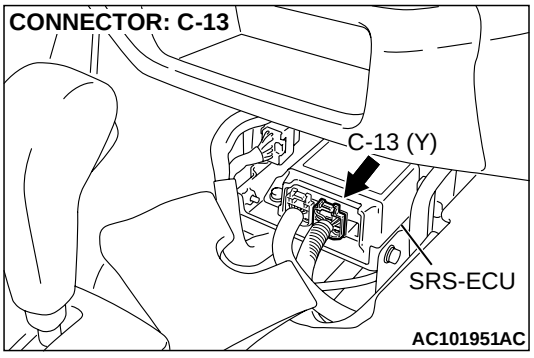
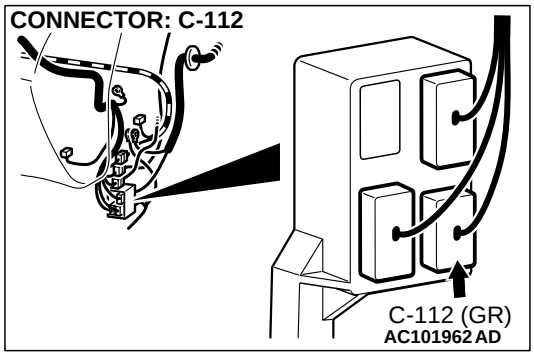
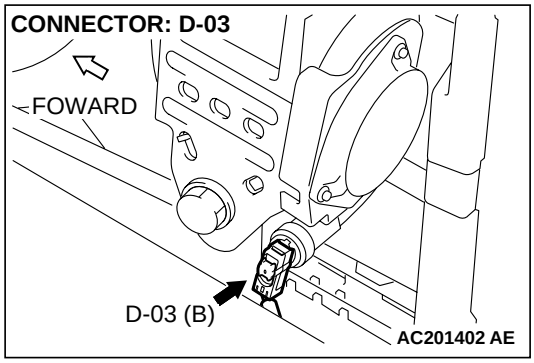




TSB Revision



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 passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short bar*
- 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" bar (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected). (Refer to P.52B-3.) Therefore, if connector C-13 or D-03 is damaged or improperly engaged, the short bar may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991865: Dummy resister
- MB991866: Resister harness (For Pre-tensioner)

STEP 1. Using scan tool MB991502 or MB991958, read the diagnostic trouble code.

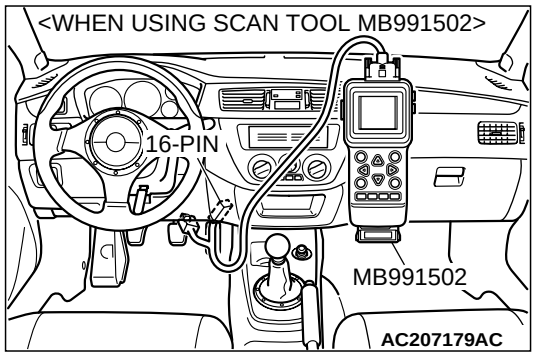
⚠ CAUTION

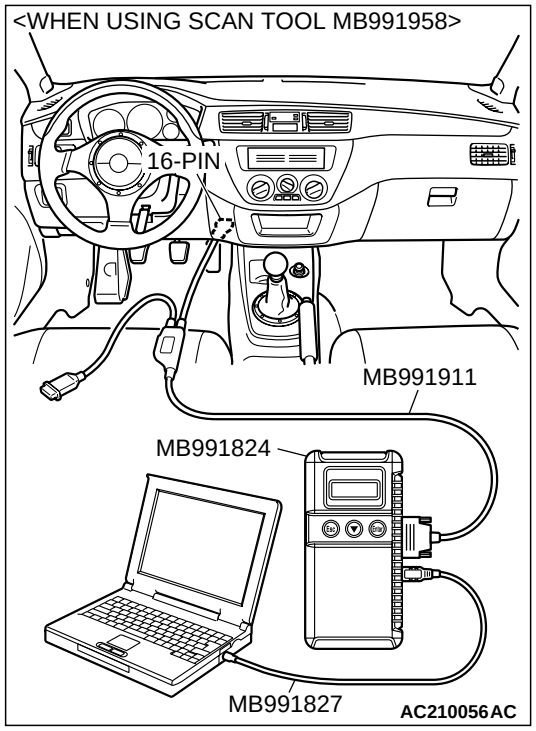
To prevent damage to scan tool MB991502 or MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991502 or MB991958.

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

Q: Is DTC 34 set?

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

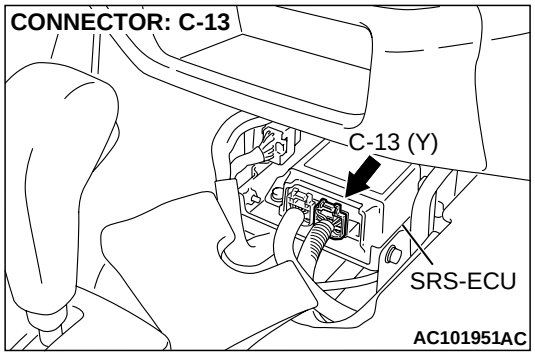


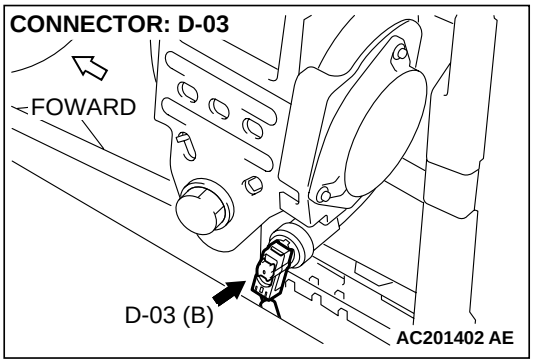


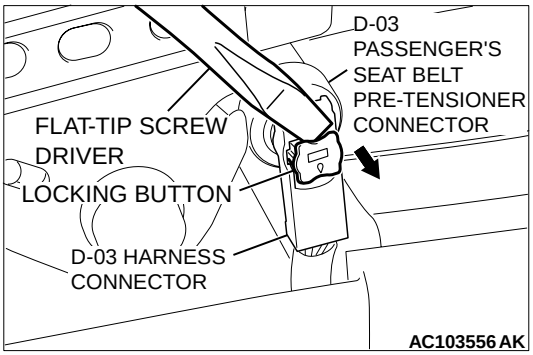
STEP 2. Check the SRS-ECU connector C-13.

Q: Is connector correctly engaged?

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







STEP 3. Check SRS-ECU connector C-13 and passenger's seat belt pre-tensioner connector D-03.

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-13 and D-03, and then reconnect them. For connector D-03, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

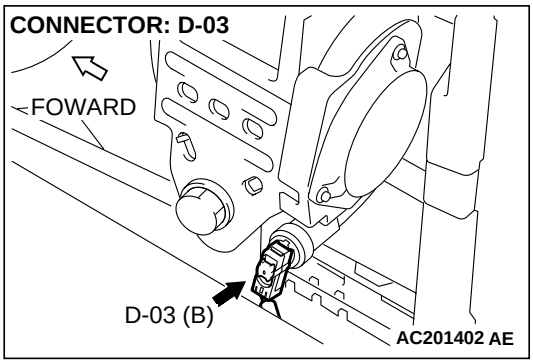
Q: Is DTC 28 set?

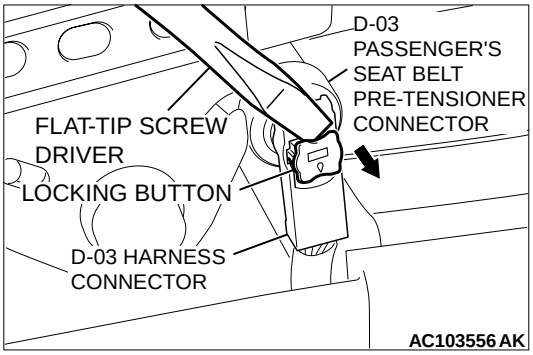
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that DTC 28 set as connector C-13 or D-03 was engaged improperly.

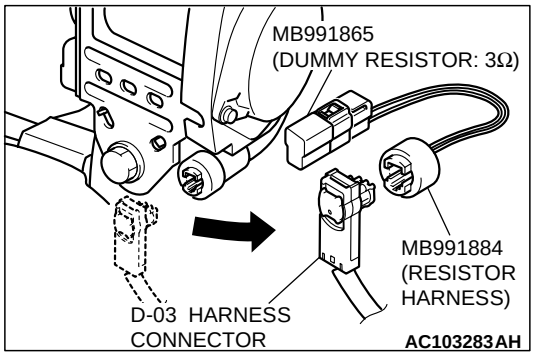
STEP 4. Check the passenger's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.

(2) Disconnect driver's seat belt pre-tensioner connector D-03. Use a flat-tipped screwdriver to unlock the locking button at the harness connector by withdrawing it toward you in two stages, and then disconnect the connector.







(3) Connect special tool MB991865 to special tool MB991884.

(4) Connect special tool MB991884 to the D-03 harness connector.

(5) Connect the negative battery terminal.

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

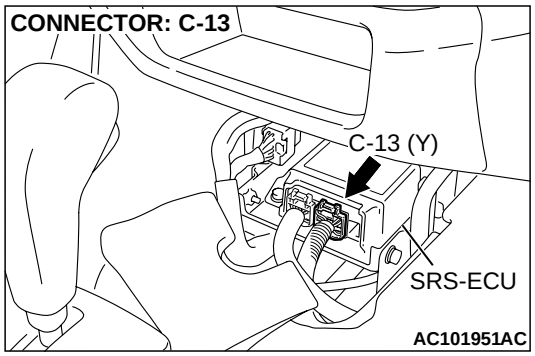
Q: Is DTC 28 set?

YES : Go to Step 5.

NO : Replace the passenger's seat belt pre-tensioner. (Refer to P.52B-192.) Then go to Step 7.

STEP 5. Check the passenger's seat belt pre-tensioner circuit at the SRS-ECU connector C-13.

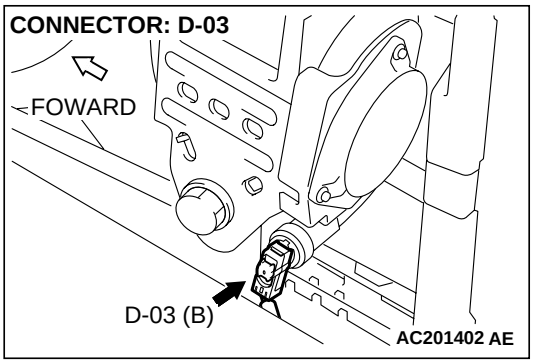
(1) Disconnect SRS-ECU connector C-13.

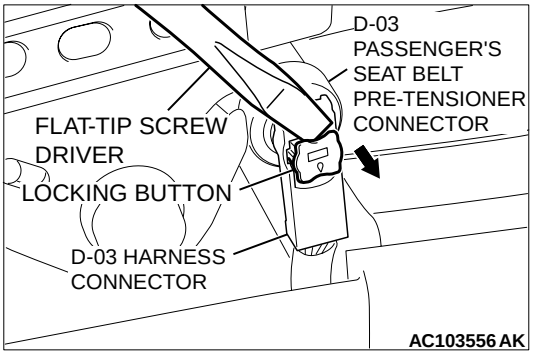


⚠ ***DANGER***

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-03 to short the squib circuit.

(2) Disconnect driver's seat belt pre-tensioner connector D-03. Use a flat-tipped screwdriver to unlock the locking button at the harness connector by withdrawing it toward you in two stages, and then disconnect the connector.

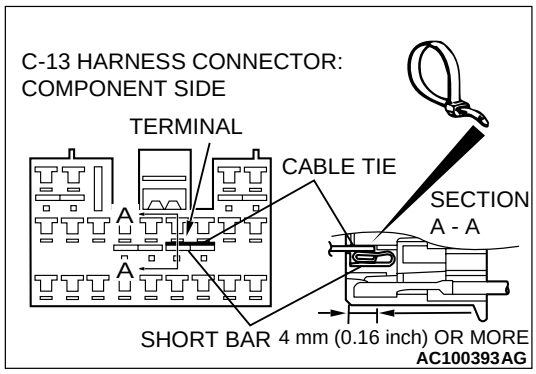


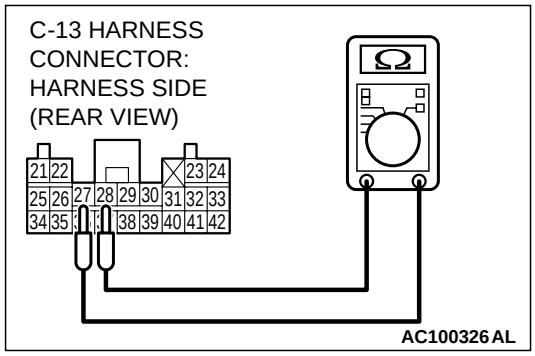


⚠ **CAUTION**

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short bar 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 bar to release the short bar.





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

(4) Check for continuity between C-13 harness connector terminals 27 and 28.
It should be open circuit.

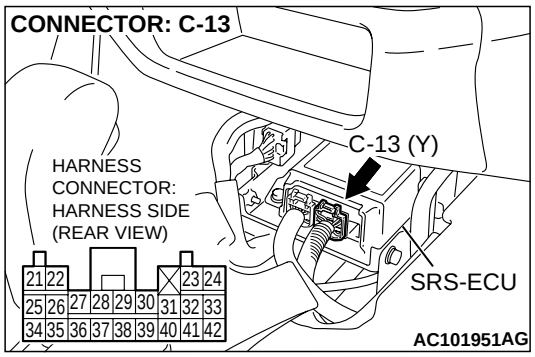
Q: Does continuity exist?

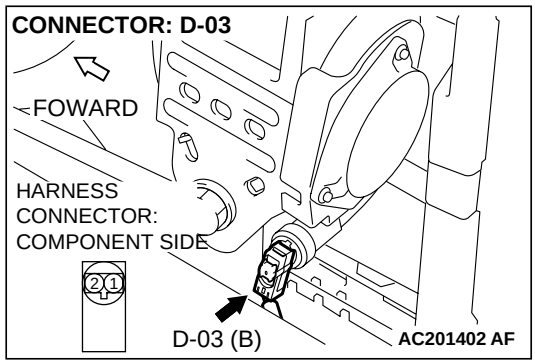
YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 28 set, replace the SRS-ECU. (Refer to P.52B-182). Then go to Step 7.

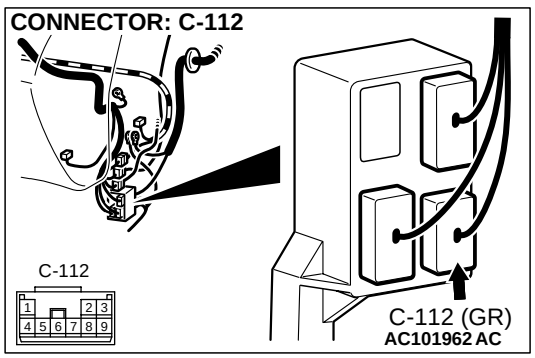
NO : Go to Step 6.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-13 (terminal No. 27 and 28) and passenger's seat belt pre-tensioner connector D-03 (terminal No.1 and 2).

NOTE: After inspecting intermediate connector C-112, inspect the wiring harness.
If the intermediate connector C-112 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection P.00E-2.
Go to Step 7.



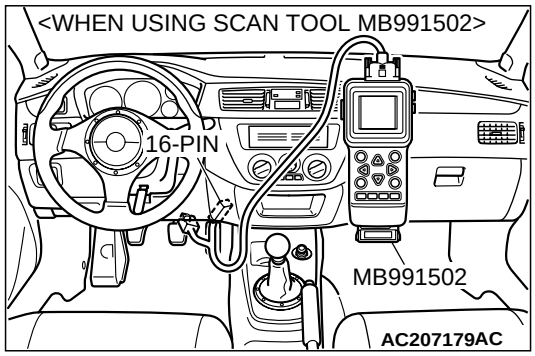


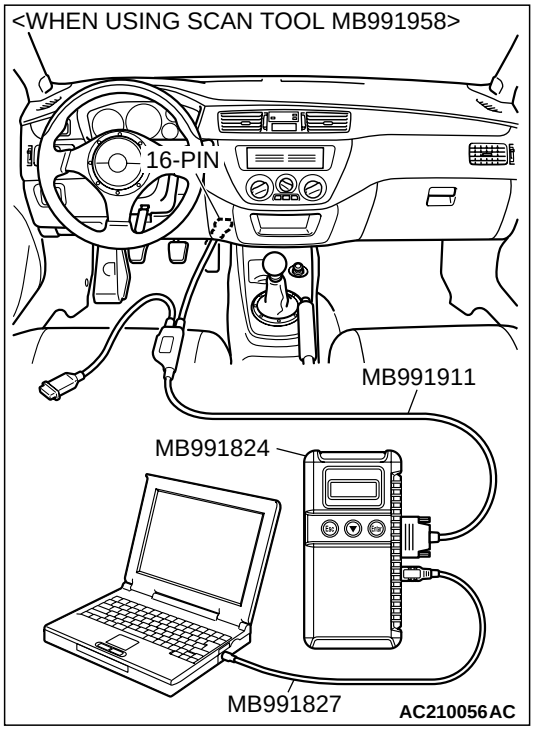


Q: Are harness wires between SRS-ECU connector C-13 (terminal No. 27 and 28) connector and passenger's seat belt pre-tensioner connector D-03 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-13 and passenger's seat belt pre-tensioner connector D-03. Then go to Step 7.





STEP 7. Recheck for diagnostic trouble code DTC.

Check again if the DTC is set.

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

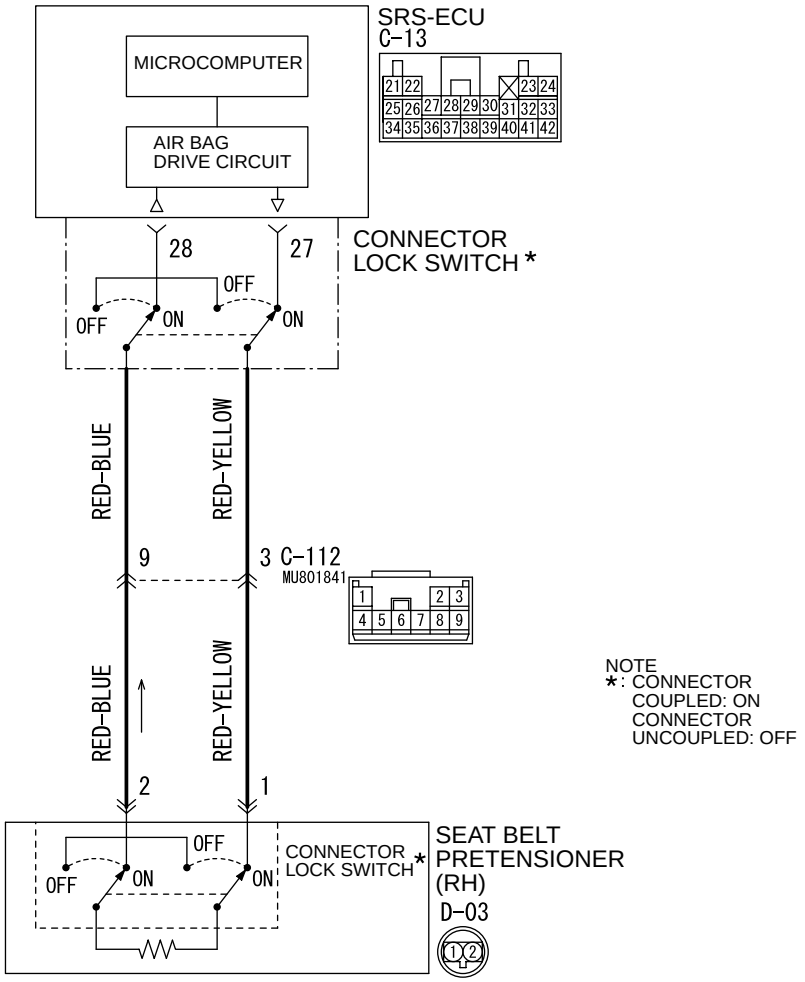
Q: Is DTC 28 set?

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.00-6.)

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)



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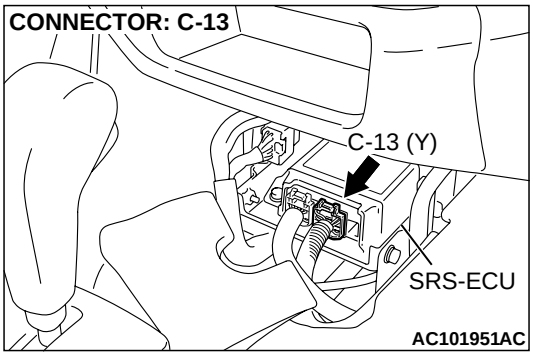
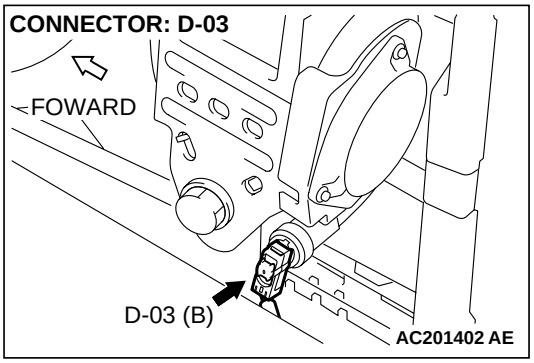




TSB Revision

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from 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).

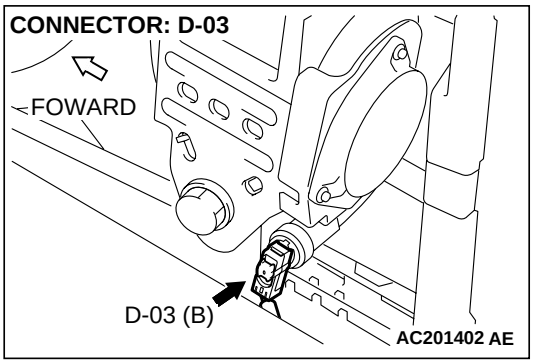
TROUBLESHOOTING HITS

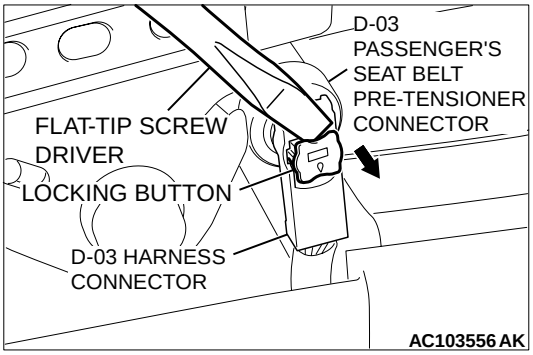
- Open circuit in the passenger's seat belt pre-tensioner (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

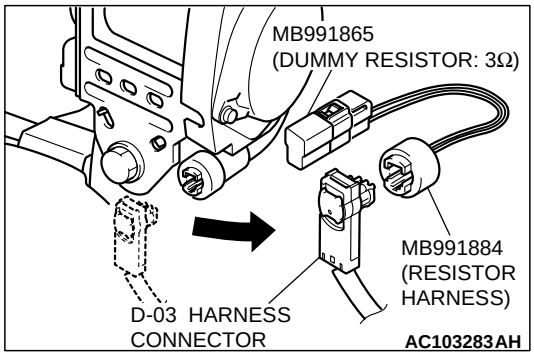
DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-ll)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991865: Dummy resister
- MB991866: Resister harness (For Pre-tensioner)







STEP 1. Check the passenger's seat belt pre-tensioner.

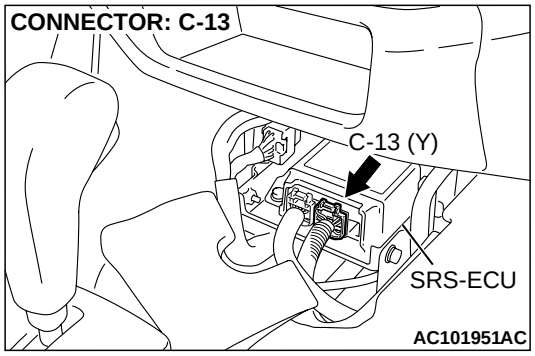
(1) Disconnect the negative battery terminal.
(2) Disconnect driver's seat belt pre-tensioner connector D-03. Use a flat-tipped screwdriver to unlock the locking button at the harness connector side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-03 harness connector.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

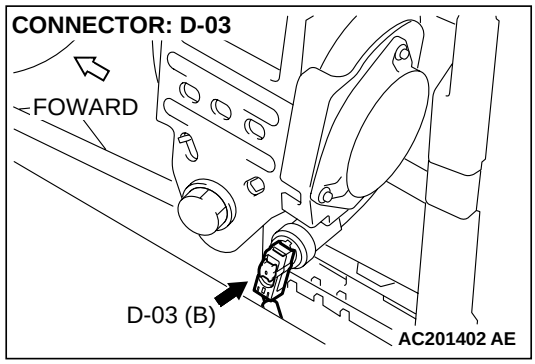
Q: Is DTC 29 set?

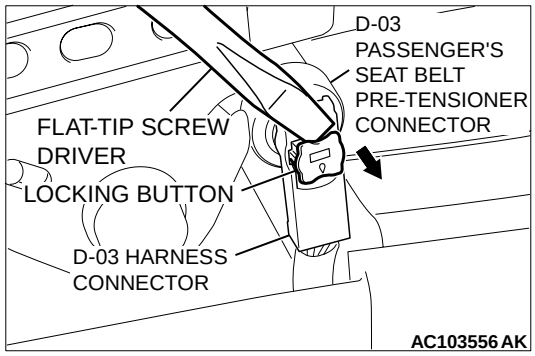
YES : Go to Step 2.
NO : Replace the passenger's seat belt pre-tensioner. (Refer to P.52B-192.) Then go to Step 3.

STEP 2. Check the harness for open circuit between SRS-ECU connector C-13 (terminal No.27 and 28) and the passenger's seat belt pre-tensioner connector D-03 (terminal No.1 and 2).

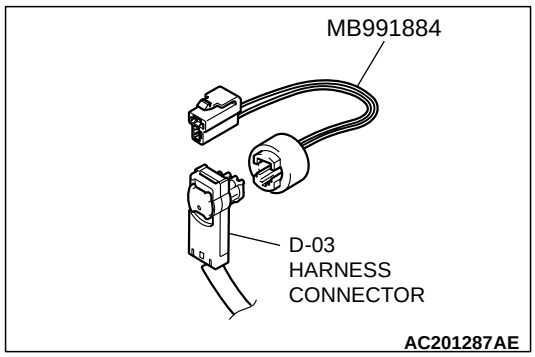
(1) Disconnect SRS-ECU connector C-13 and driver's seat belt pre-tensioner connector D-03, and measure at the wiring harness side. For connector D-03, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

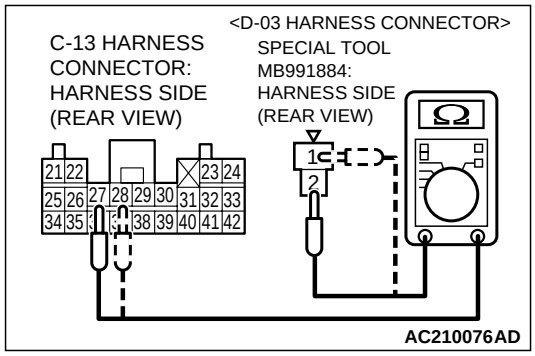






(2) Connect D-03 harness connector to special tool MB991884.





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

(3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-13 (terminal No.27) and the special tool (terminal No.2)
- SRS-ECU connector C-13 (terminal No.28) and the special tool (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 29 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-13 passenger's seat belt pre-tensioner connector D-03. Then go to Step 3.

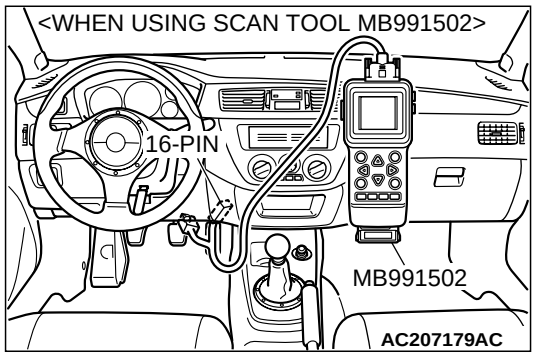
STEP 3. Recheck for diagnostic trouble code.

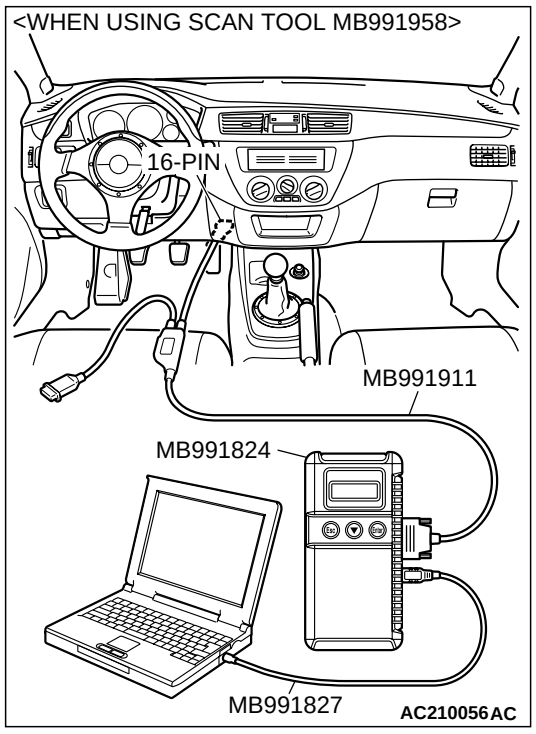
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

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.00-6.)





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:

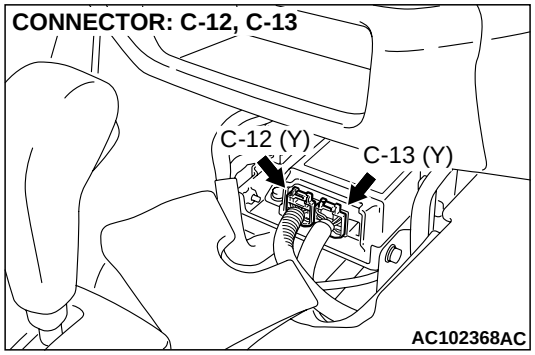
- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B

STEP 1. Check the SRS-ECU connector C-12, C-13.

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 C-12, C-13 for damage.

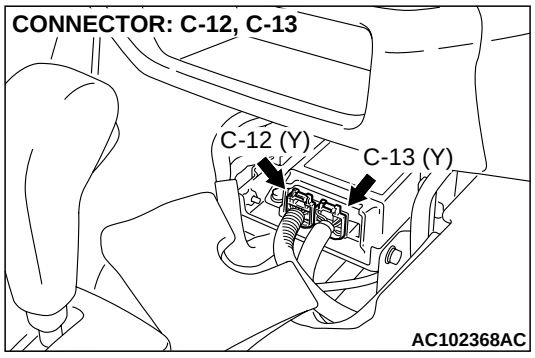
(1) Disconnect SRS-ECU connectors C-12 and C-13.

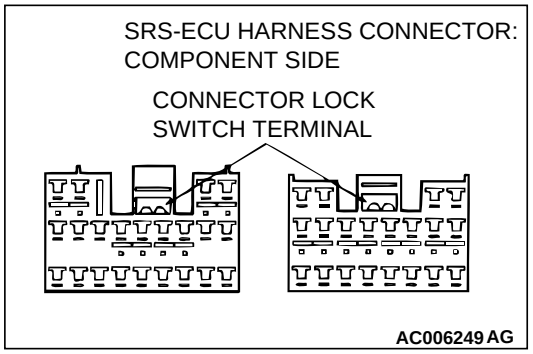
(2) Check the connector lock switch terminal inside the harness side connector for improper contact or deformation.

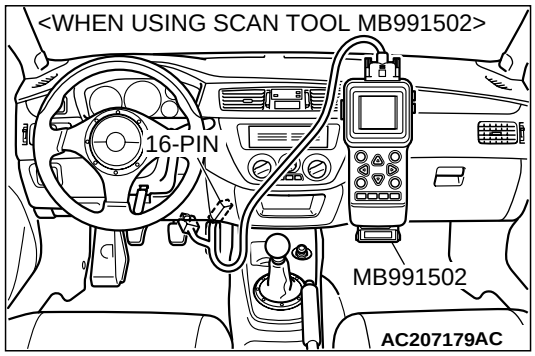
Q: Are the SRS-ECU connector C-12, C-13 in good condition?

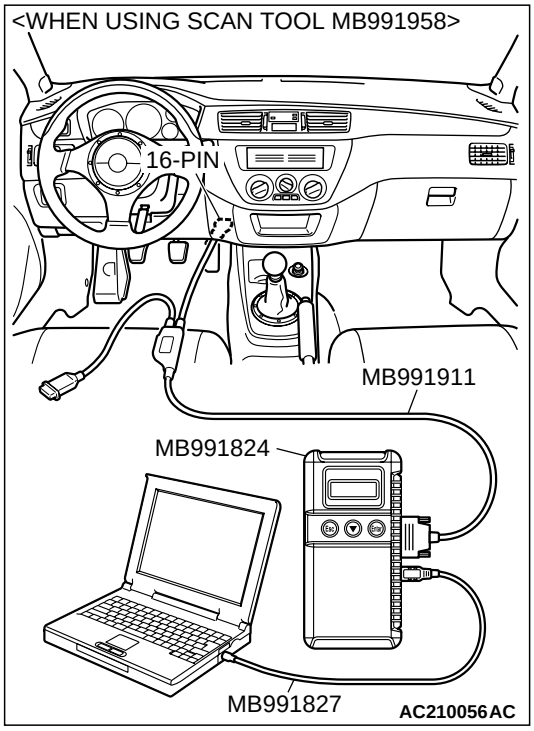
YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 34 sets, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 3.

NO : Repair or replace the SRS-ECU connector C-12, C-13. (Refer to GROUP 00E, Harness Connector Inspection P.00E-2.) Then go to Step 3.









STEP 3. Recheck the diagnostic trouble code.

Check again if the DTC is set.

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

Q: Is DTC 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.00-6.)

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

Required Special Tool:
- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B

Replace the SRS-ECU. (Refer to P.52B-182.)
Check the diagnostic trouble code.

Q: Is DTC 35 set?

YES : There is no action to be taken.
NO : The procedure is complete.

DTC 39 Airbags Deployed Simultaneously

TROUBLE JUDGMENT
This code is set when the airbags have deployed simultaneously. If this code is set before the airbags have deployed, an internal failure may have occurred in the SRS-ECU.

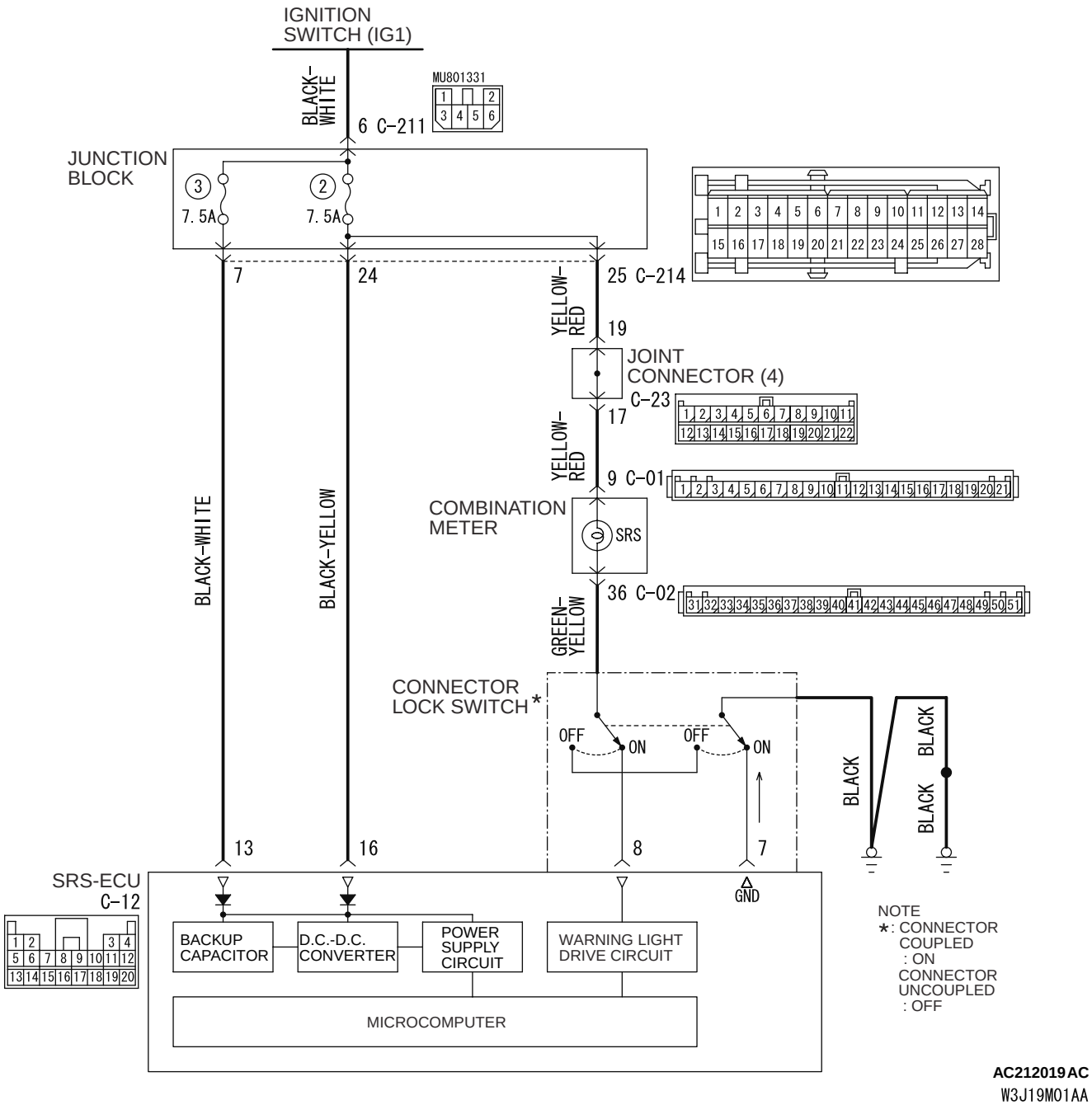
Possible causes
- Malfunction of the SRS-ECU

Diagnosis

Replace the SRS-ECU (Refer to P.52B-182).

DTC 41: IG1 Power Supply Circuit System (Fuse No.2 Circuit)

IG1 Power Supply Circuit System (Fuse No.2 Circuit)



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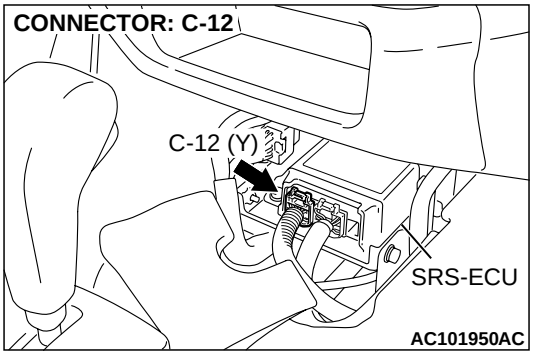
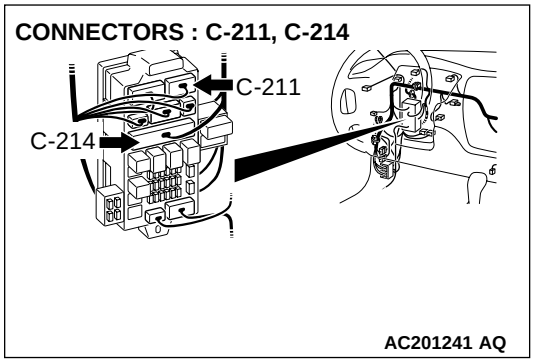
TSB Revision





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.2 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.

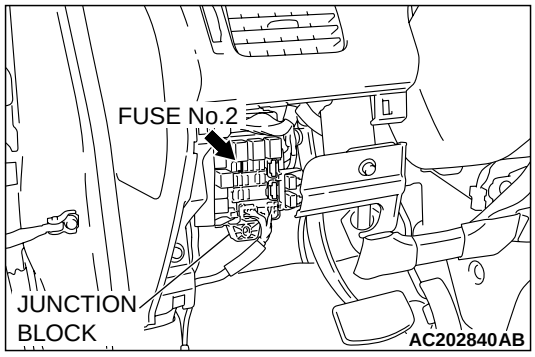
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-ll)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991223 (MB991222): Harness set (Probe)

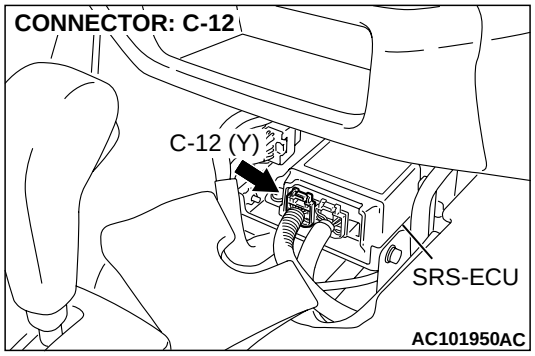


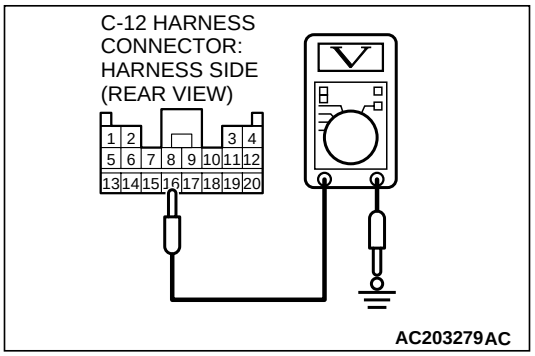
STEP 1. Check junction block fuse number 2.

Q: Is the fuse burned out?

YES : Go to Step 4.

NO : Go to Step 2.





STEP 2. Check the power supply circuit for open circuit at the SRS-ECU connector C-12.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-12.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.

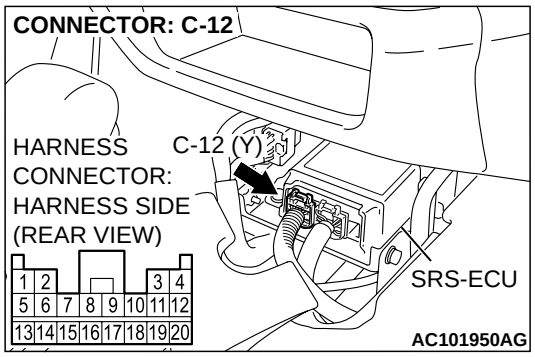
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

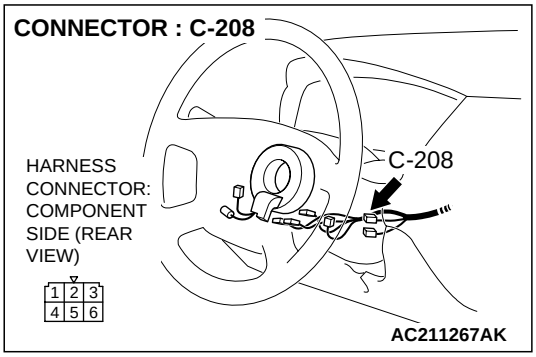
(5) Measure the voltage between C-12 harness connector terminal 16 and body ground.
Voltage should measure 9 volts or more.

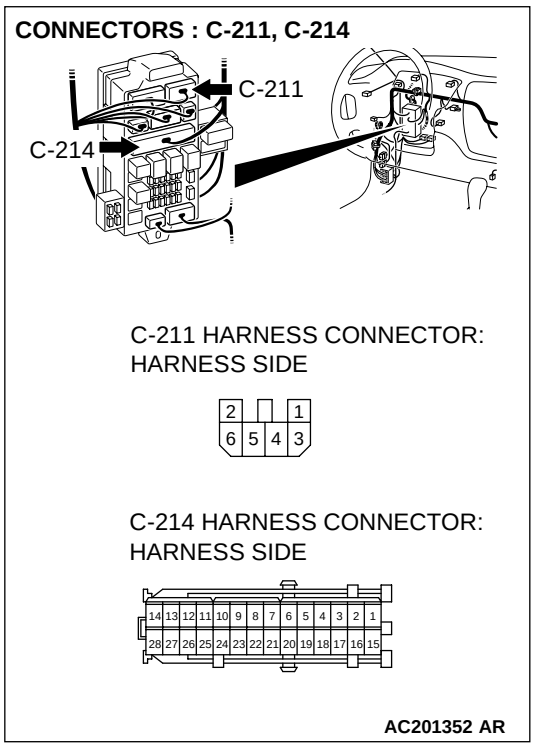
Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 41 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 10.

NO : Go to Step 3.







STEP 3. Check the harness for open circuit between SRS-ECU connector C-12 (terminal No.16) and the ignition switch connector C-208 (terminal No.2).

NOTE: After inspecting intermediate connectors C-214 and C-211, inspect the wiring harness. If intermediate connectors are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 10.

Q: Is harness between SRS-ECU connector C-12 (terminal No.16) and the ignition switch connector C-208 (terminal No.2) in good condition?

YES : Go to Step 10.

NO : Repair the harness wire between SRS-ECU connector C-12 and the ignition switch connector C-208. Then go to Step 10.

STEP 4. Check a burned-out fuse.

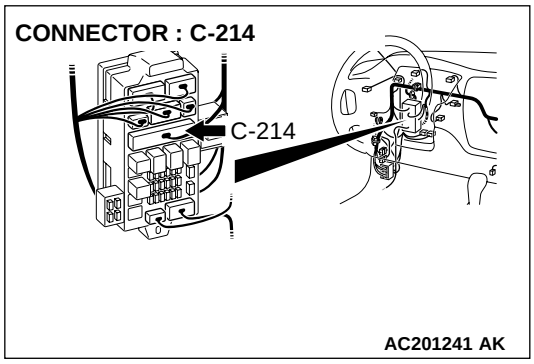
(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the ignition switch to the "LOCK" (OFF) position.
(3) Check the fuse.

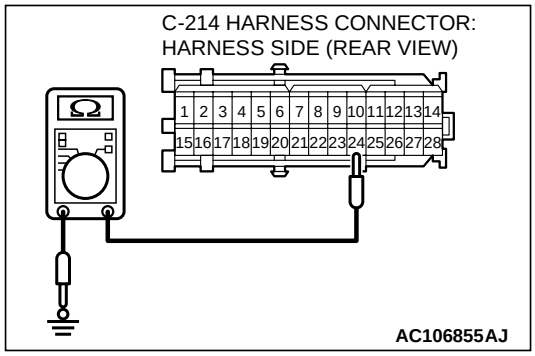
Q: Is the fuse in good condition?

YES : Go to Step 10.
NO : Go to Step 5.

STEP 5. Check the SRS-ECU power supply circuit for short circuit to ground at the junction block connector C-214.

(1) Disconnect junction block connector C-214, and measure at the wiring harness side.



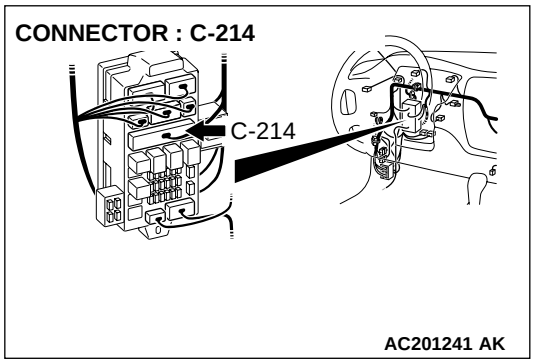


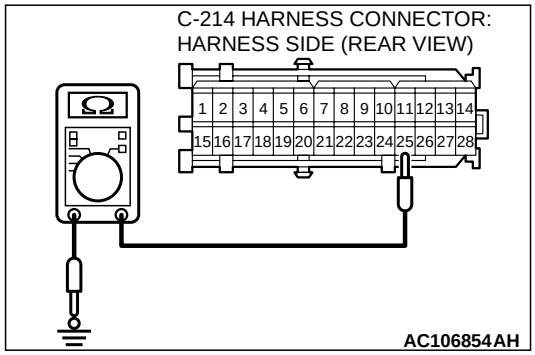
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Check for continuity between terminal 24 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 fuse number 2-related circuit at junction block connector C-214.

(1) Disconnect junction block connector C-214, and measure at the wiring harness side.

⚠ CAUTION

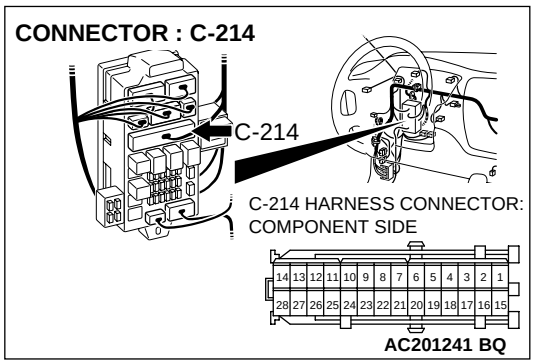
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

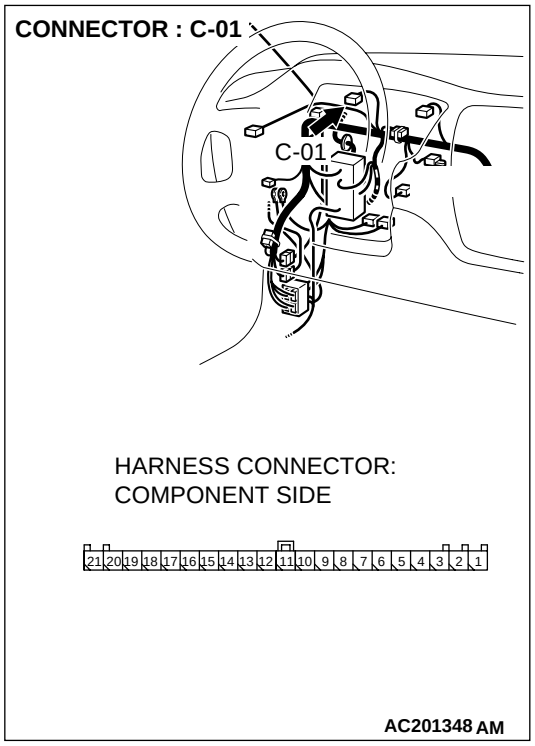
(2) Check for continuity between C-214 harness connector terminal 25 and body ground.
It should be open circuit.

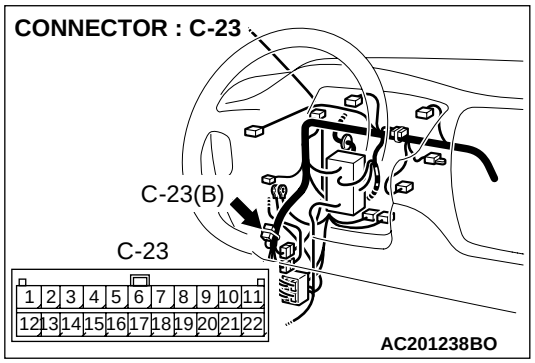
Q: Does continuity exist?

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

NO : Go to Step 7.







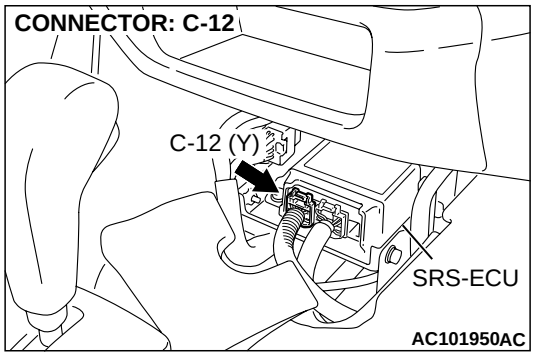
STEP 7. Check the harness for short circuit to ground between junction block connector C-214 (terminal No.25) and combination meter connector C-01 (terminal No.9).

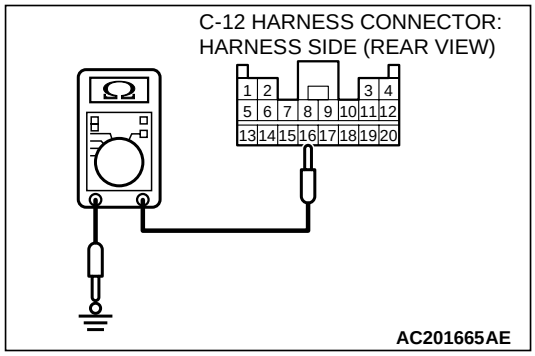
NOTE: After inspecting intermediate connector C-23, inspect the wiring harness. If intermediate connectors are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 10.

Q: Is the harness wire between junction block connector C-214 (terminal No.25) and combination meter connector C-01 (terminal No.9) in good condition?

YES : Go to Step 10.

NO : Repair the harness wire between junction block connector C-214 and combination meter connector C-01. Then go to Step 10.





STEP 8. Check the power supply circuit for short circuit to ground at the SRS-ECU connector C-12.

(1) Disconnect SRS-ECU connector C-12, and measure at the wiring harness side.

⚠ CAUTION

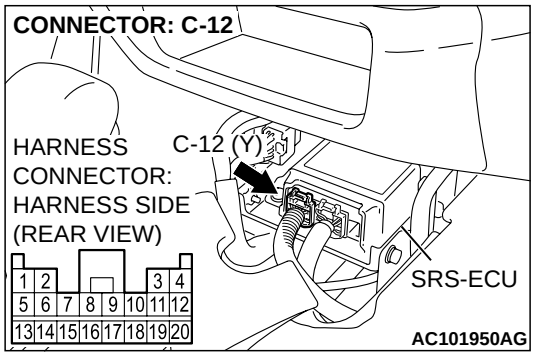
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

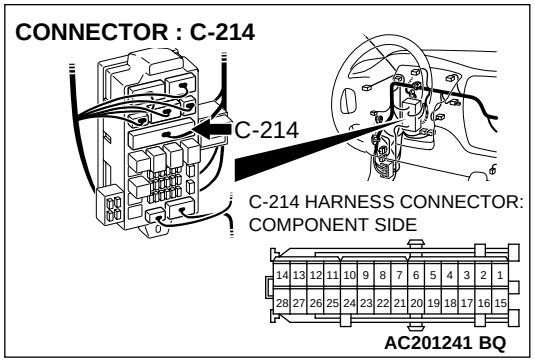
(2) Check for continuity between terminal 16 and body ground. It should be open circuit.

Q: Is the circuit normal?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 41 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 10.

NO : Go to Step 9.



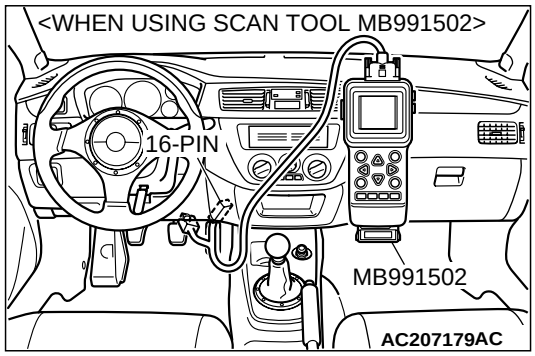


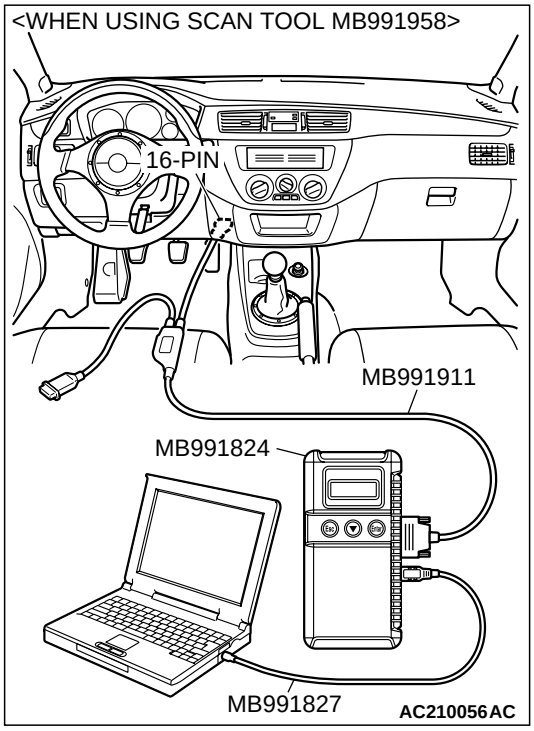
STEP 9. Check the harness for short circuit to ground between SRS-ECU connector C-12 (terminal No.16) and junction block connector C-214 (terminal No.24).

Q: Are harness wire between SRS-ECU connector C-12 (terminal No.16) and junction block connector C-214 (terminal No.24) in good condition?

YES : Go to Step 10.

NO : Repair the harness wires between SRS-ECU connector C-12 and junction block connector C-214. Then go to Step 10.





STEP 10. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

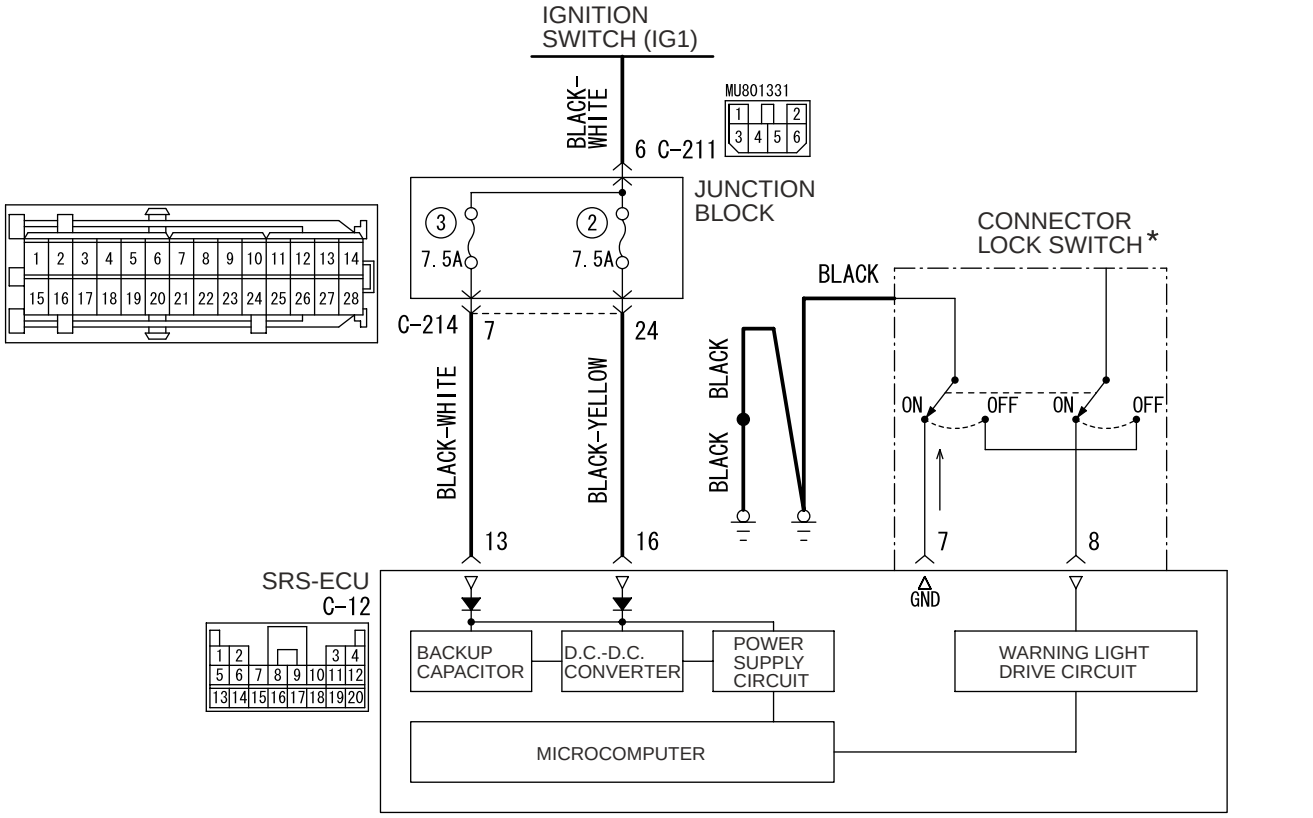
Q: Is DTC 41 set?

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.00-6.)

DTC 42: IG1 Power Supply Circuit System (Fuse No.3 Circuit)

IG1 Power Supply Circuit System (Fuse No.3 Circuit)



NOTE
*: CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

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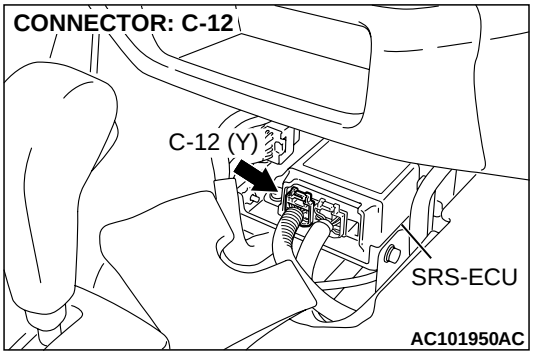
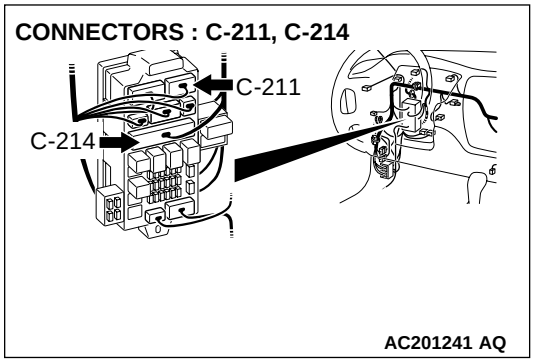




CIRCUIT OPERATION

- 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.3 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.

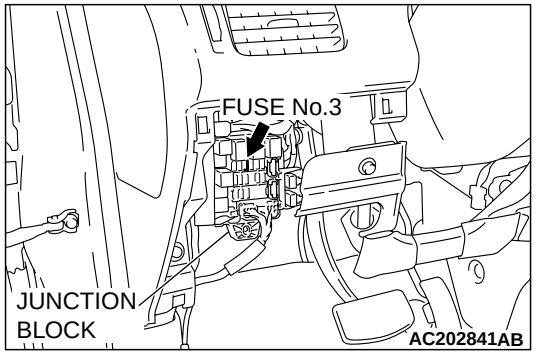
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-ll)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B
- MB991223 (MB991222): Harness set (Probe)

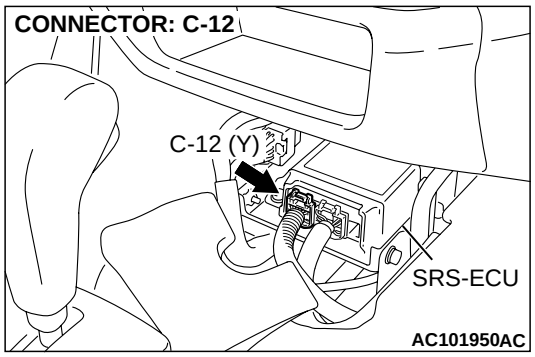


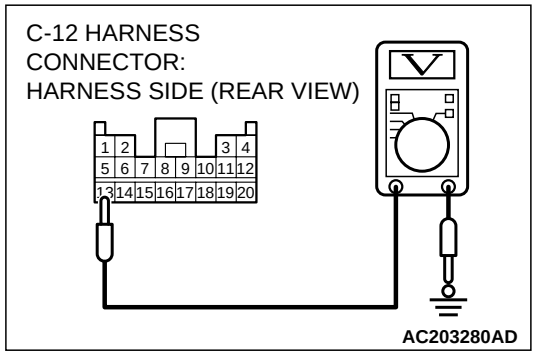
STEP 1. Check junction block fuse number 3.

Q: Is the fuse burned out?

YES : Go to Step 4.

NO : Go to Step 2.





STEP 2. Check the power supply circuit harness for open circuit at the SRS-ECU connector C-12.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-12.
(3) Connect the negative battery terminal.
(4) Turn the ignition switch to the "ON" position.

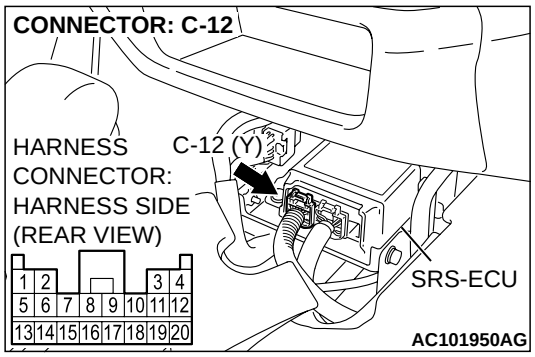
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

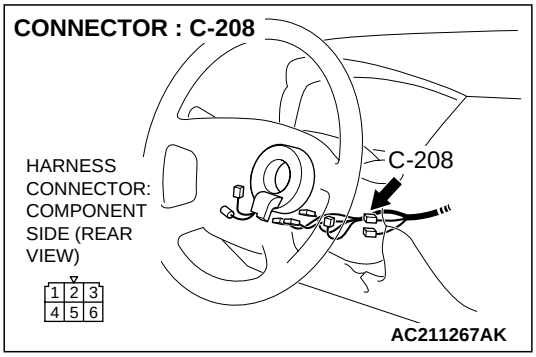
(5) Measure the voltage between C-12 harness connector terminal 13 and body ground.
Voltage should measure 9 volts or more.

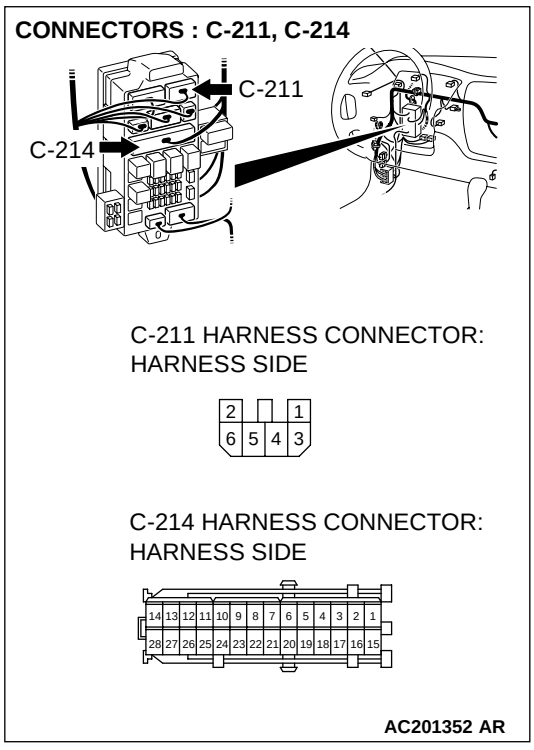
Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 42 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 8.

NO : Go to Step 3.







STEP 3. Check the harness for open circuit between SRS-ECU connector C-12 (terminal No.13) and the ignition switch connector C-208 (terminal No.2).

NOTE: After inspecting intermediate connectors C-214 and C-211, inspect the wiring harness. If intermediate connectors are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 8.

Q: Is the harness wire between SRS-ECU connector C-12 (terminal No.13) and the ignition switch connector C-208 (terminal No.2) in good condition?

YES : Go to Step 8.

NO : Repair the harness wire between SRS-ECU connector C-12 and the ignition switch connector C-208. Then go to Step 8.

STEP 4. Check a burned-out fuse.

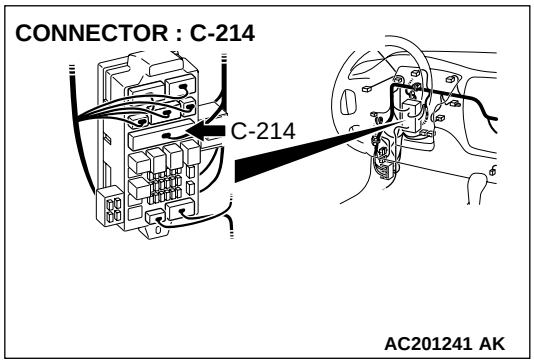
(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the ignition switch to the "LOCK" (OFF) position.
(3) Check the fuse.

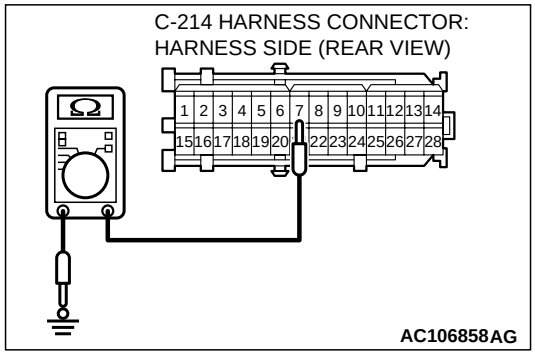
Q: Is the fuse in good condition?

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

STEP 5. Check the SRS-ECU power supply circuit for short circuit to ground at the junction block connector C-214.

(1) Disconnect junction block connector C-214, 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.

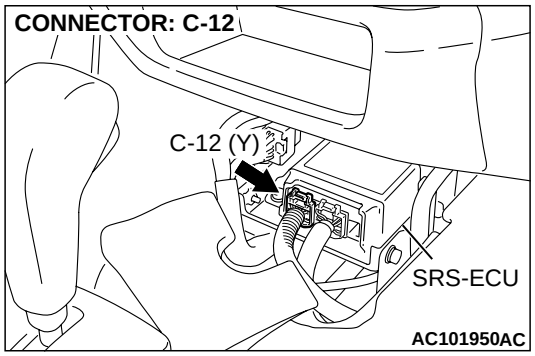
(2) Check for continuity between C-214 harness connector terminal 7 and body ground.
It should be open circuit.

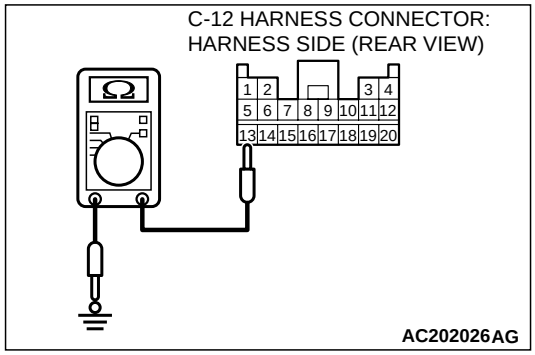
Q: Does continuity exist?

YES : Check the other circuit, which flows through fuse number 3.
NO : Go to Step 6.

STEP 6. Check the power supply circuit for short circuit to ground at the SRS-ECU connector C-12.

(1) Disconnect SRS-ECU connector C-12, 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 C-12 harness connector terminal 13 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 42 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 8.

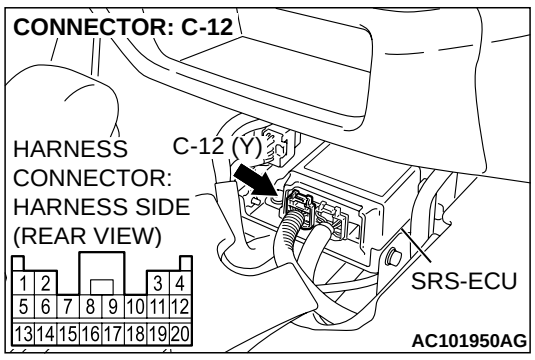
NO : Go to Step 7.

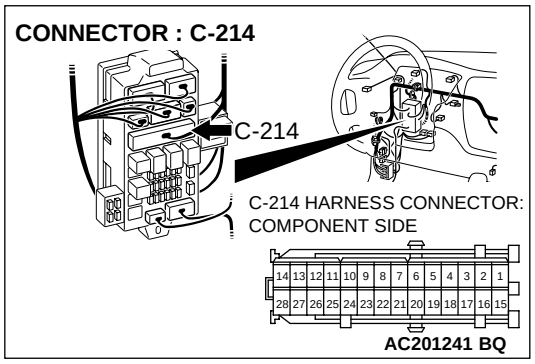
STEP 7. Check the harness for short circuit to ground between SRS-ECU connector C-12 (terminal No.13) and junction block connector C-214 (terminal No.7).

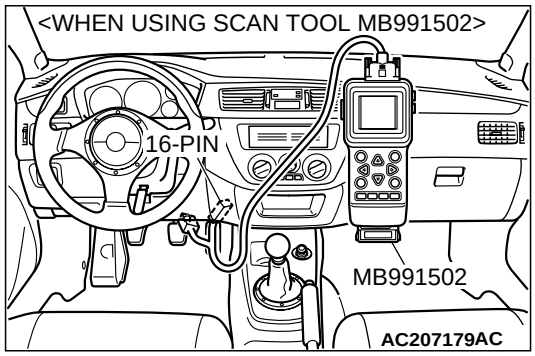
Q: Is the harness wire between SRS-ECU connector C-12 (terminal No.13) and junction block connector C-214 (terminal No.7) in good condition?

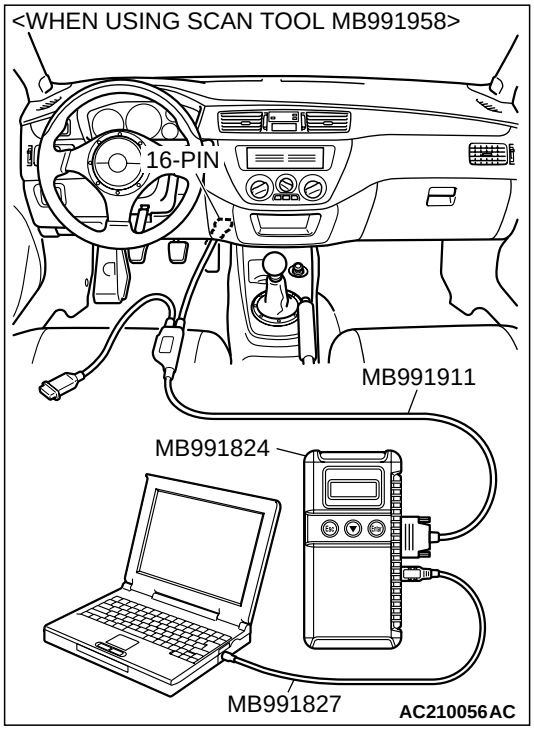
YES : Go to Step 8.

NO : Repair the harness wire between SRS-ECU connector C-12 and junction block connector C-214. Then go to Step 8.









STEP 8. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

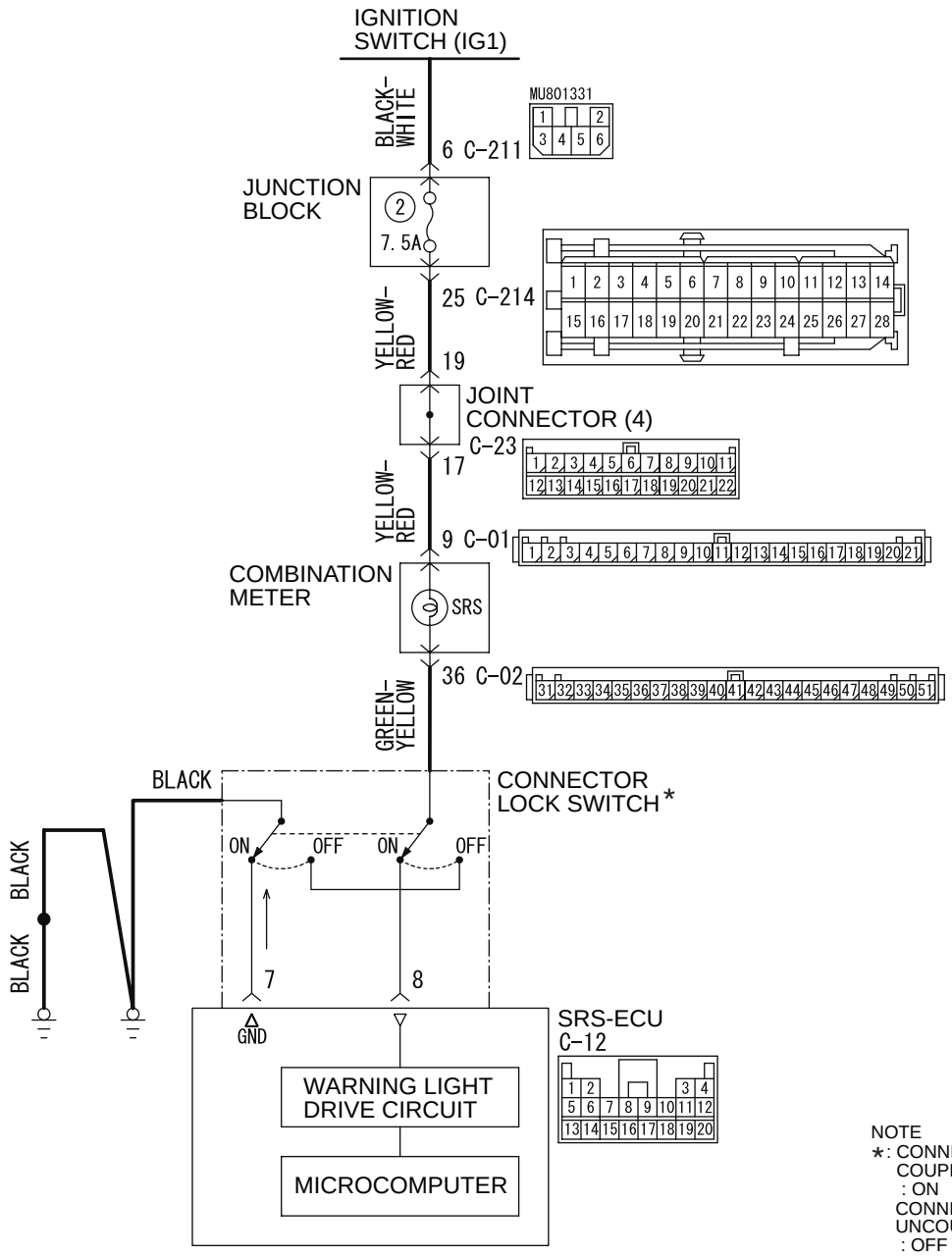
Q: Is DTC 42 set?

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.00-6.)

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

SRS Warning Light Drive Circuit



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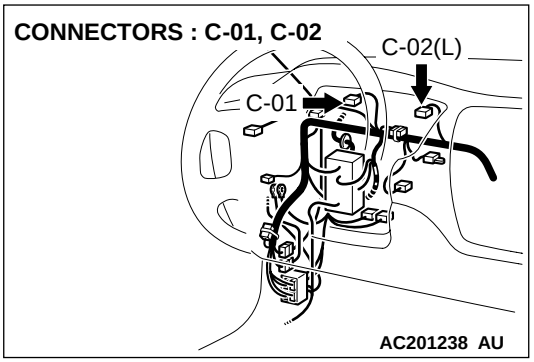
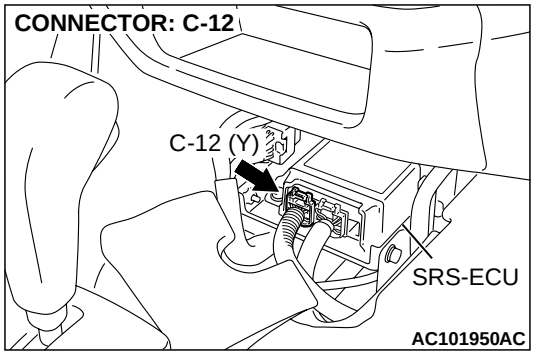
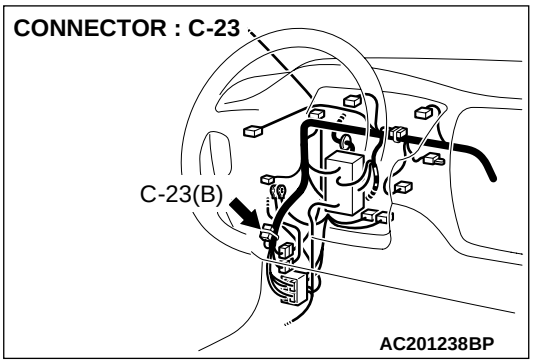
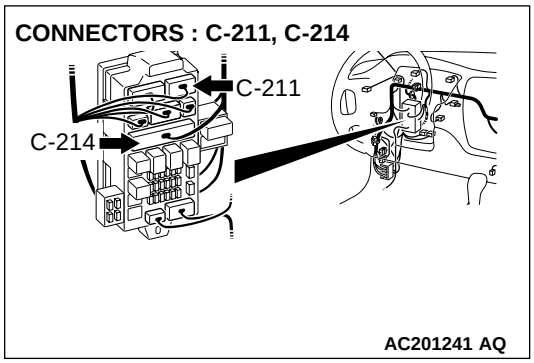








CIRCUIT OPERATION

- Power for the SRS warning light is supplied from the ignition switch (IG1).
- 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.) If the vehicle condition returns to normal, DTC 43 will be automatically erased, and the SRS warning light will go out.

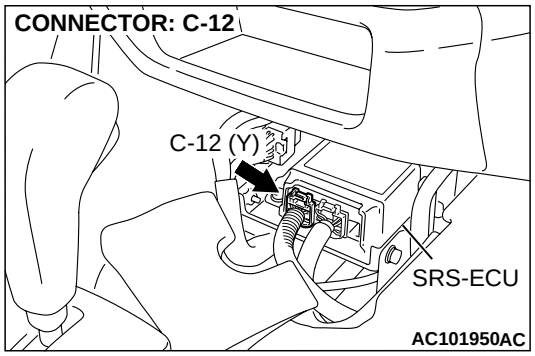
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tool:

- MB991502: Scan Tool (MUT-ll)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B

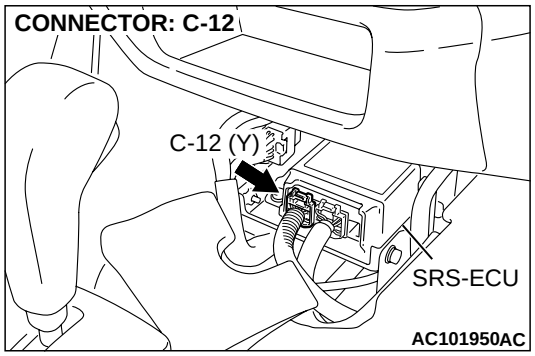


STEP 1. Check the SRS warning light.

(1) Connect the negative battery terminal.
(2) Disconnected the SRS-ECU connector C-12.
(3) Turn the ignition switch to the "ON" position.

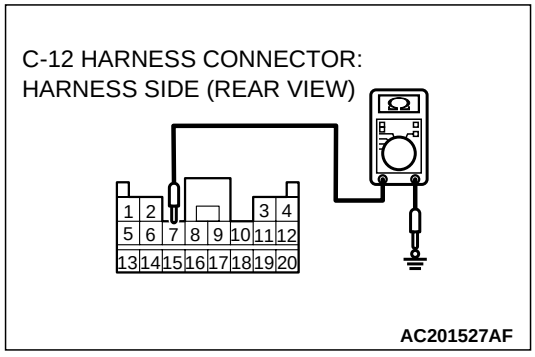
Q: Does the warning light illuminate?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 43 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 6.
NO : Go to Step 2.



STEP 2. Check the ground line at the SRS-ECU connector C-12.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-12.

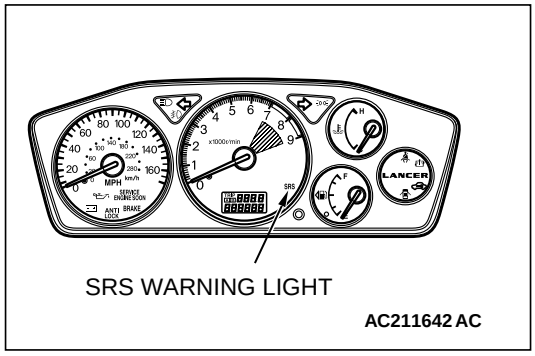


⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Check for continuity between C-12 harness connector 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.

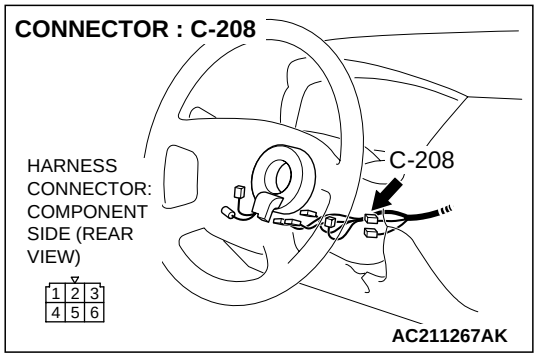


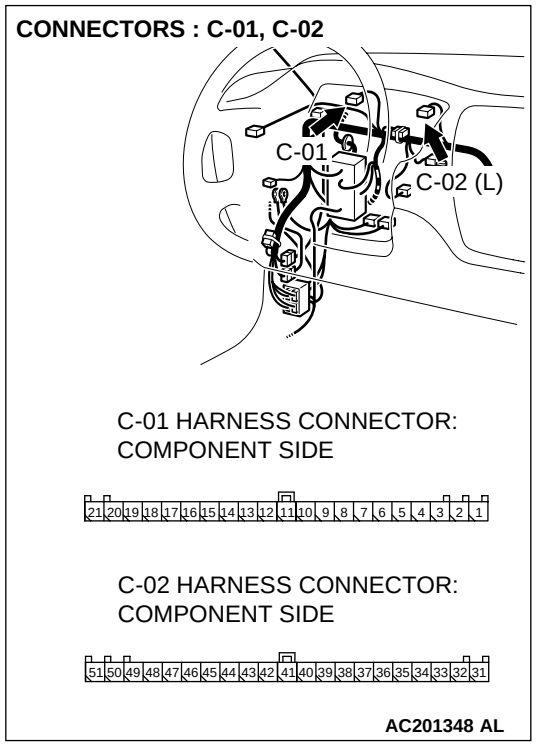
STEP 3. Check the SRS warning light bulb.

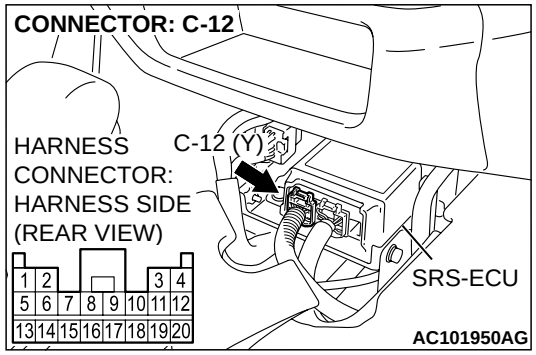
Q: Has the SRS warning light bulb blown?

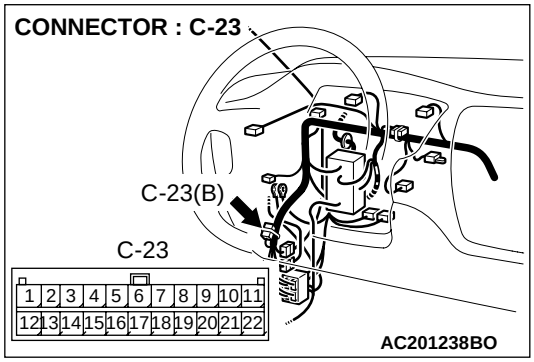
YES : Replace the SRS warning light bulb. Then go to Step 6.
NO : Go to Step 4.

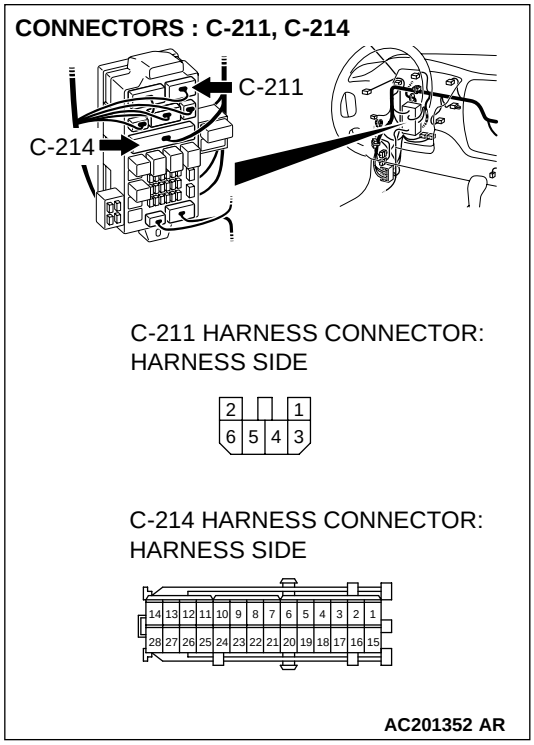
STEP 4. Check the harness for open circuit between ignition switch connector C-208 (terminal No.2) and combination meter connector C-01 (terminal No.9), and between combination meter connector C-02 (terminal No.36) and SRS-ECU connector C-12 (terminal No.8).









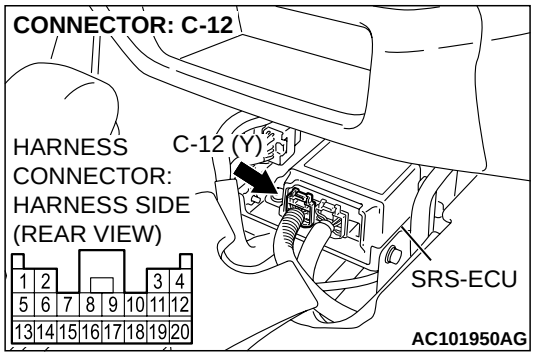


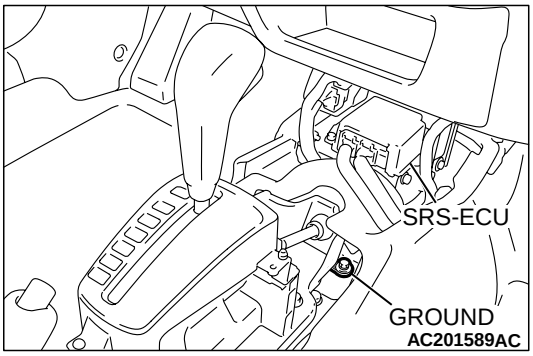
NOTE: After inspecting intermediate connectors C-01, C-02, C-23, C-211, C-214 inspect the wiring harness. If intermediate connectors C-01, C-02, C-23, C-211, C-214 are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 5.

Q: Are the harness wires between SRS-ECU connector C-12 and the ignition switch connector C-208 in good condition?

YES : Replace the combination meter. (Refer to GROUP 54A, Combination Meters Assembly P.54A-81.) Then go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-12 and the ignition switch connector C-208. Then go to Step 6.



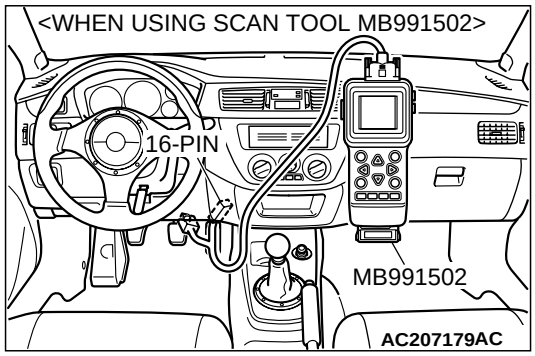


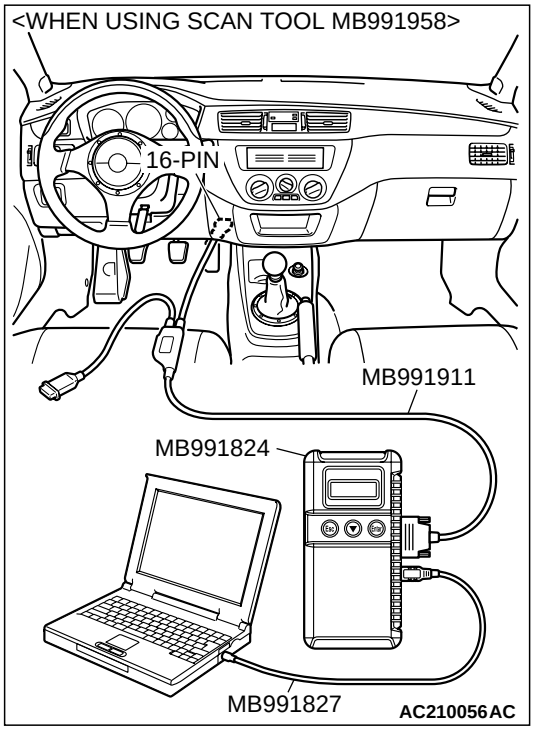
STEP 5. Check the harness for open circuit between SRS-ECU connector C-12 (terminal No.7) and ground.

Q: Is the harness wire between SRS-ECU connector C-12 (terminal No.7) and ground in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-12 and ground. Then go to Step 6.





STEP 6. Recheck for diagnostic trouble code.

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

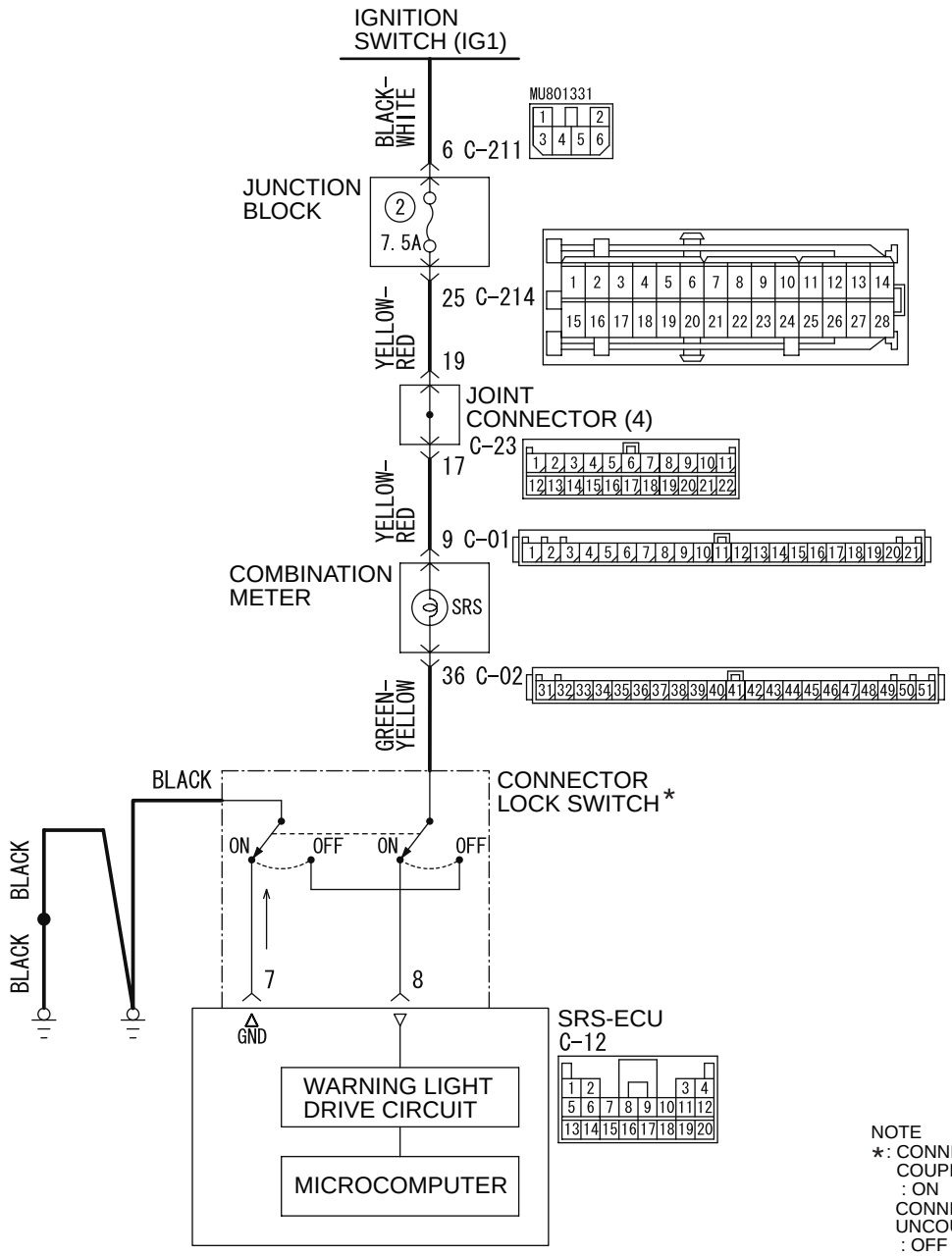
Q: Is DTC 43 set?

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.00-6.)

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

SRS Warning Light Drive Circuit



NOTE
*: CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

AC212018AB
W3J19M00AA

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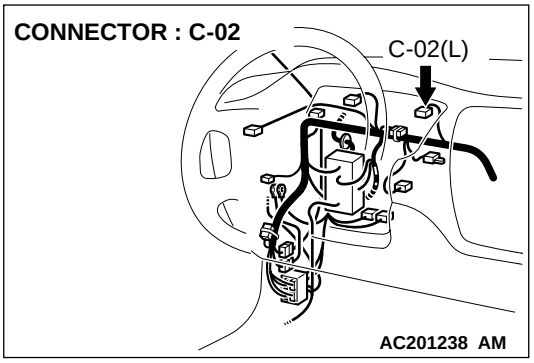
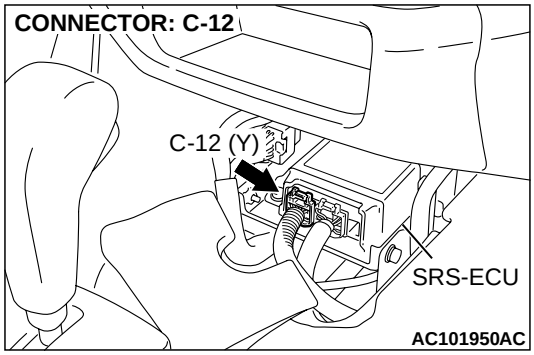




CIRCUIT OPERATION

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

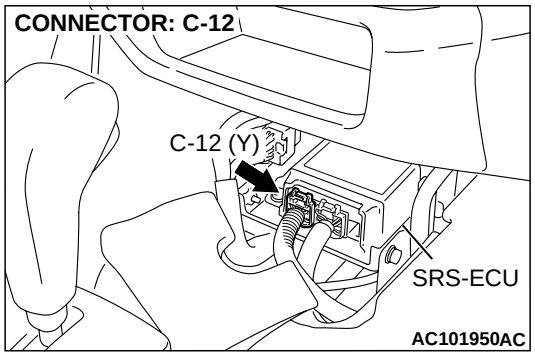
DIAGNOSIS

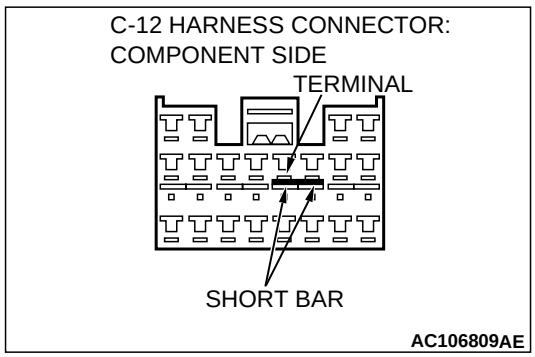
Required Special Tool:

- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B

STEP 1. Check SRS-ECU connector C-12 for damage.

(1) Disconnect SRS-ECU connector C-12.





(2) Check the short bar for warning light inside the harness connector for improper contact or deformation.

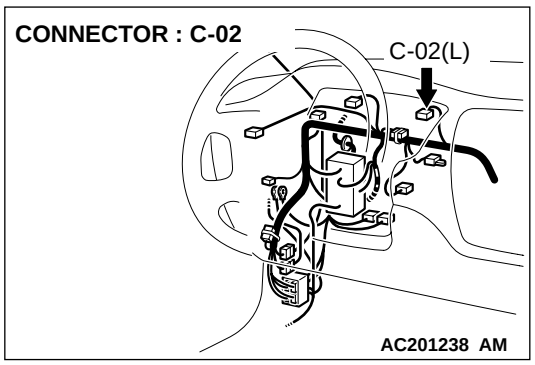
Q: Is SRS-ECU connector C-12 in good condition?

YES : Then go to Step 2.

NO : Repair or replace the SRS-ECU connector C-12. (Refer to P.52B-182.) Then go to Step 4.

STEP 2. Check the SRS warning light.

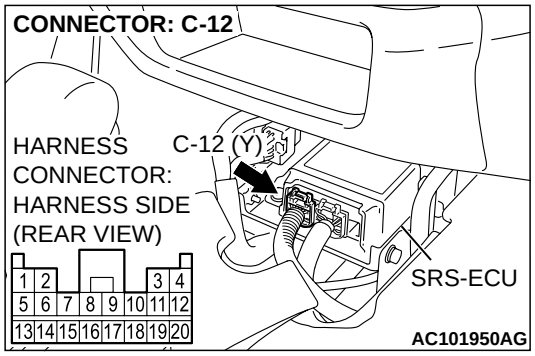
(1) Disconnect the negative battery cable.
(2) Disconnect the combination meter connector C-02.
(3) Connect the negative battery cable.
(4) Turn the ignition switch to the "ON" position.

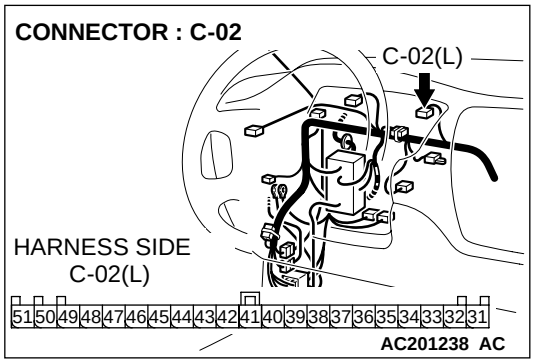


Q: Does the SRS warning light go out?

YES : Go to Step 3.

NO : Replace the combination meter. (Refer to GROUP 54A, Combination Meter Assembly P.54A-81.) Then go to Step 4.



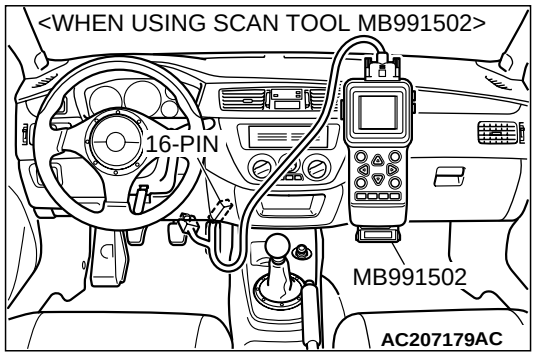


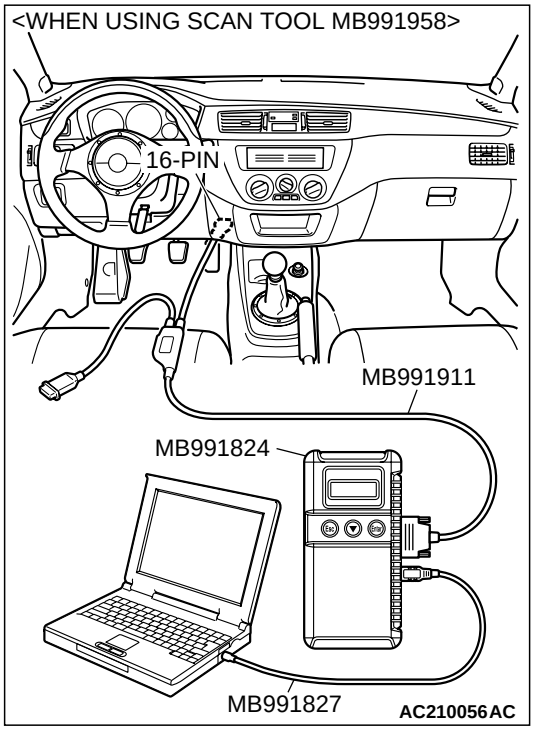
STEP 3. Check the harness for short circuit to ground between SRS-ECU connector C-12 (terminal No.8) and combination meter connector C-02 (terminal No.36).

Q: Is the harness wire between the SRS-ECU connector C-12 (terminal No.8) and combination meter connector C-02 (terminal No.36) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC 43 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 4.

NO : Repair the harness wire between SRS-ECU connector C-12 and combination meter connector C-02. Then go to Step 4.





STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

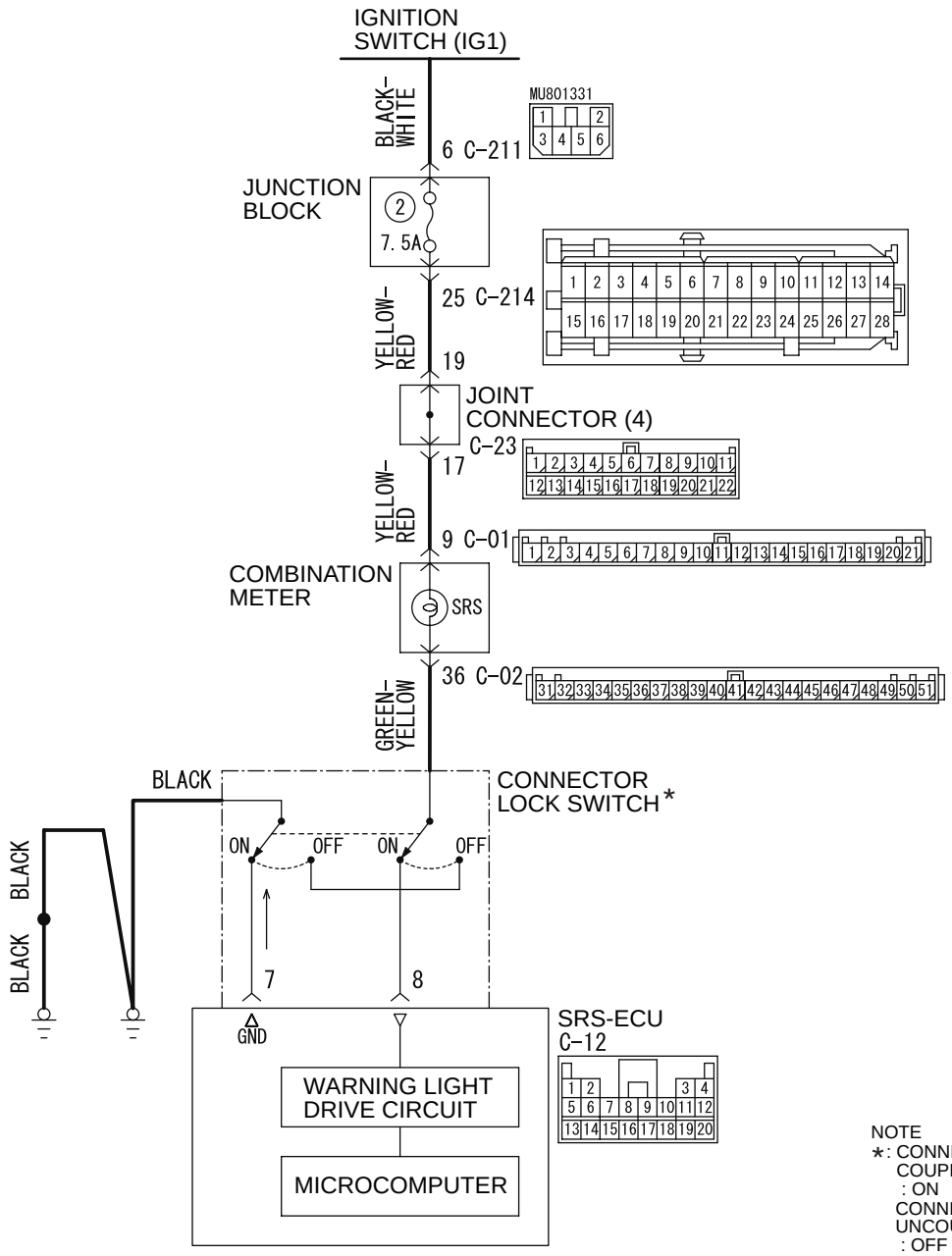
Q: Is DTC 43 set?

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.00-6.)

DTC 44: SRS Warning Light Drive Circuit System Fault 2

SRS Warning Light Drive Circuit



CIRCUIT OPERATION

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

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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:

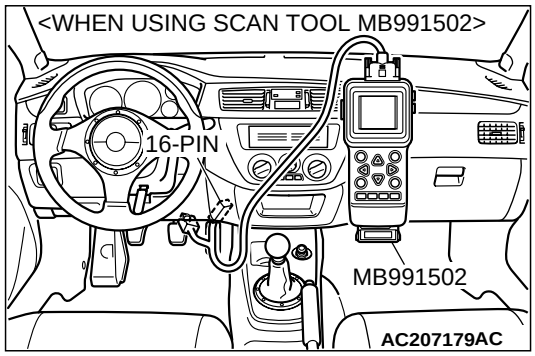
- MB991502: Scan Tool (MUT-II)
- MB991958: Scan Tool (MUT-III Sub Assembly)
  - MB991824: V.C.I.
  - MB991827: USB Cable
  - MB991911: Main Harness B

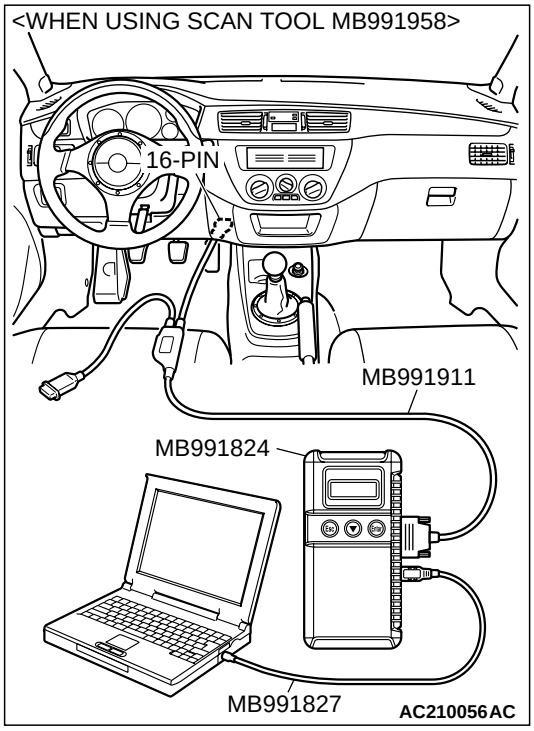
STEP 1. Check the SRS warning light drive circuit system. Refer to P.52B-111.

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 set, replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 2.

NO : Repair the harness wires or replace the SRS-ECU. (Refer to P.52B-182.) Then go to Step 2.





STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

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

Q: Is DTC 44 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.00-6.)