GROUP 52B

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

CONTENTS

Continued on next page

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

> ⚠ ***WARNING***
> - ***Carefully read and observe the information in the SRS SERVICE PRECAUTIONS prior to any service.***
> - ***For information concerning diagnosis or maintenance, 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 MMSA Tech Line.***

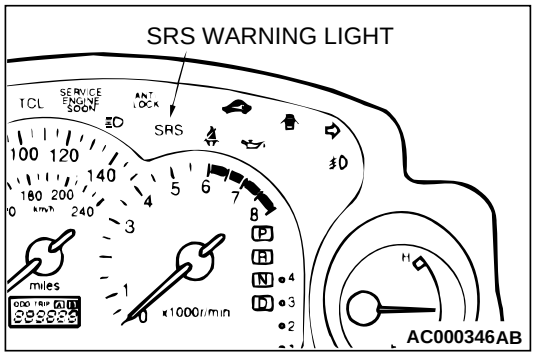
GENERAL DESCRIPTION

M1524000100213

⚠ ***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) is designed to supplement the driver's and front passenger's seat belts to help reduce the risk or severity of injury to the driver and front passenger by activating and deploying both front air bags in certain frontal collisions.



The SRS consist of four air bag modules, SRS air bag control unit (SRS-ECU), SRS warning light, and clock spring. Air bags are located in the center of the steering wheel, above the glove box, and in the front seat back assemblies. Each air bag is made up of a folded air bag and an inflator unit. The control unit 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. Only authorized service personnel should do work on or around the SRS components. Those service personnel should read this manual carefully before starting any such work.

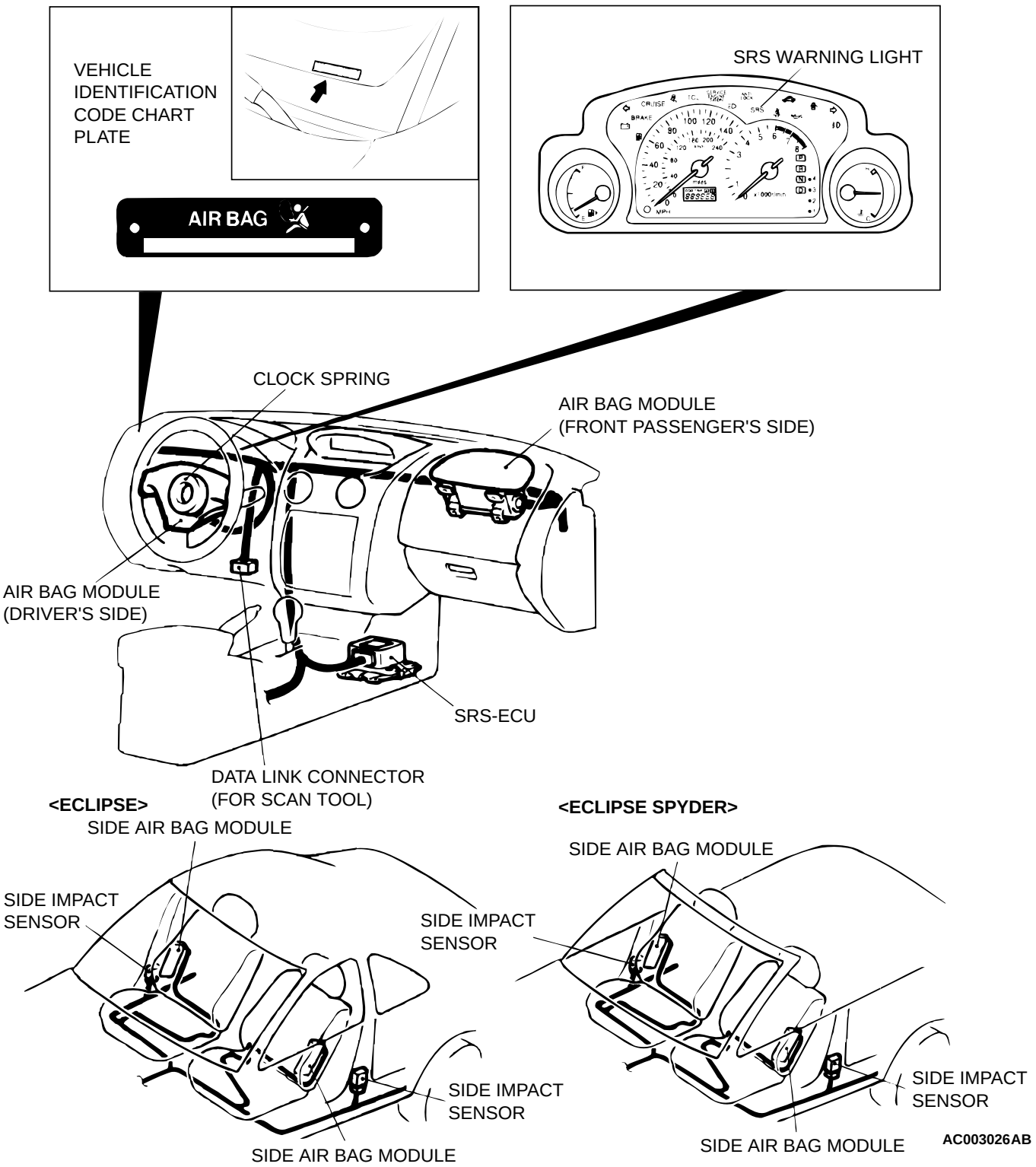
ON-BOARD DIAGNOSTIC/SRS WARNING LIGHT FUNCTION

The SRS-ECU monitors the SRS system and stores data concerning any detected faults in the system. When the ignition switch is in the "ON" or "START" position, the SRS warning light should illuminate for about 7 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 7 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

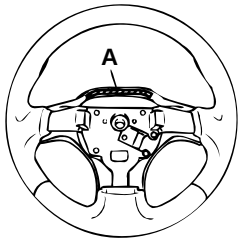


NOTE: This construction diagram shows the general view of the SRS components. For details, refer to "Schematic (P.52B-8)," "Configuration Diagrams (P.52B-12)" and "Circuit Diagram (P.52B-13)."

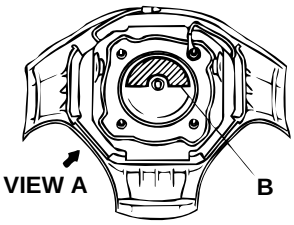
WARNING/CAUTION LABELS

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. If labels are dirty or damaged, replace them.

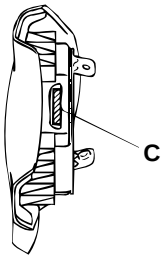
STEERING WHEEL



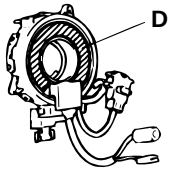
AIR BAG MODULE (DRIVER'S SIDE)



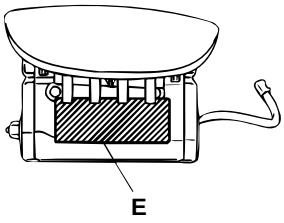
VIEW A



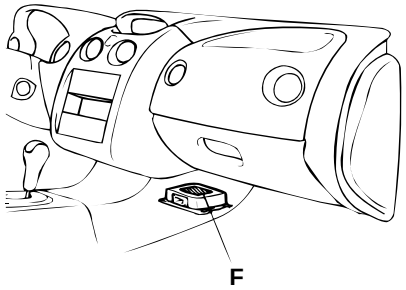
CLOCK SPRING



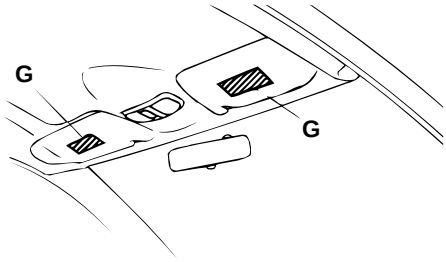
AIR BAG MODULE (FRONT PASSENGER'S SIDE)



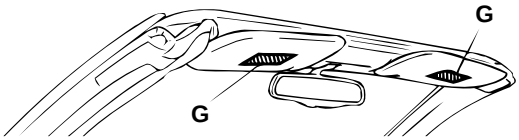
SRS-ECU



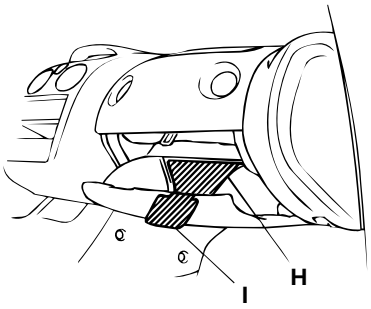
SUN VISOR <ECLIPSE>



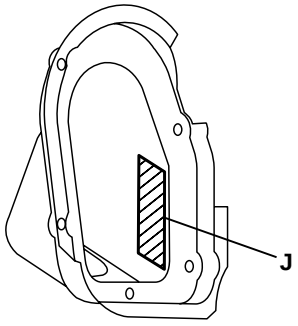
SUN VISOR <ECLIPSE SPYDER>



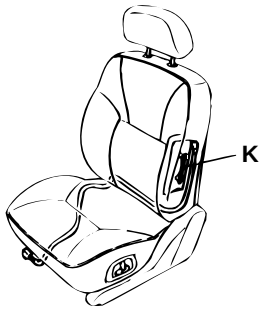
GLOVE BOX



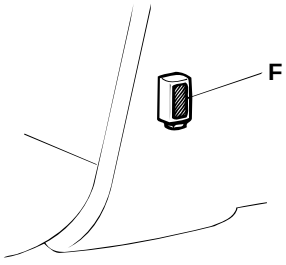
STEERING JOINT COVER



SIDE AIR BAG MODULE (DRIVER'S AND FRONT PASSENGER'S SEAT)



SIDE IMPACT SENSOR



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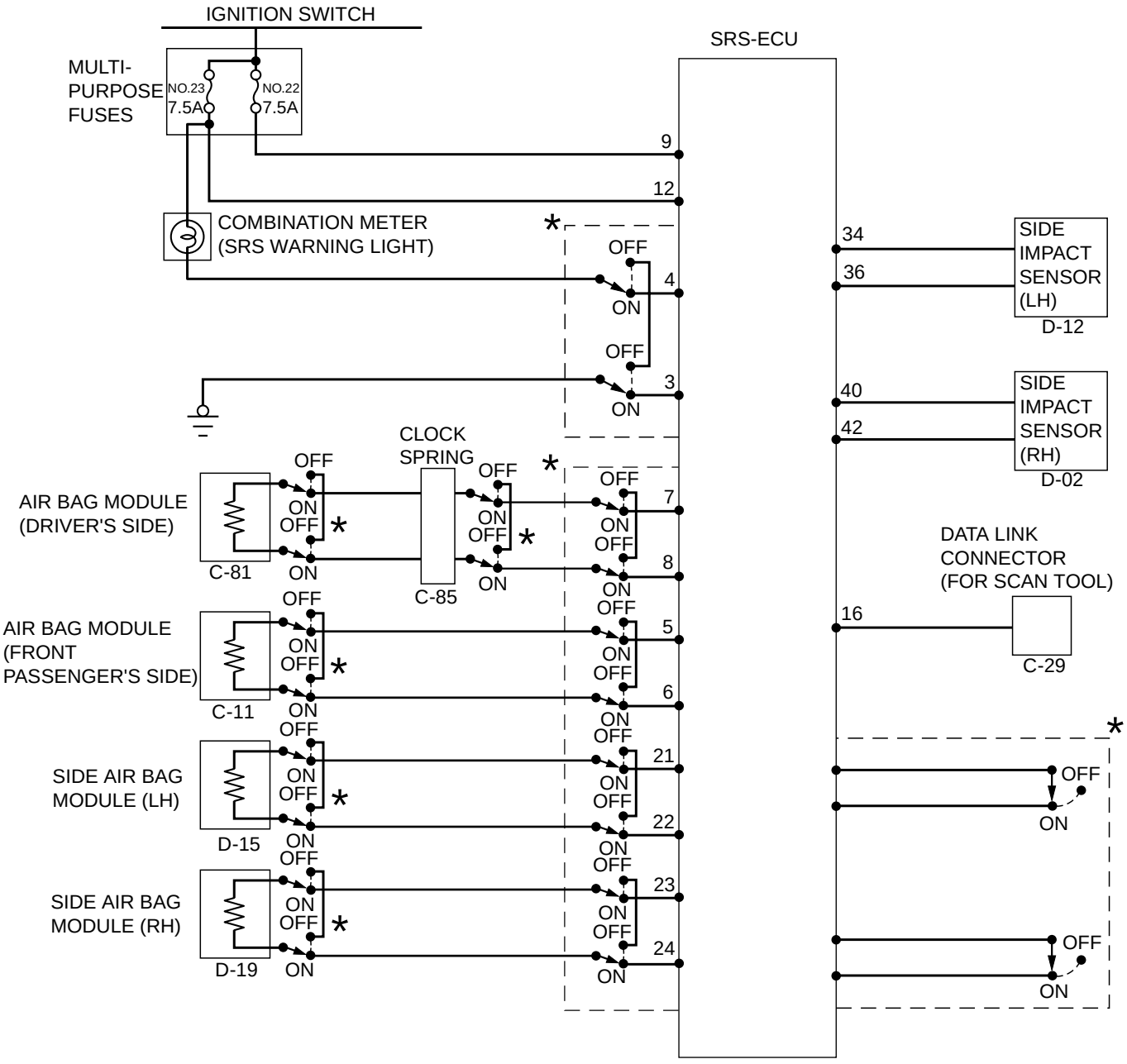
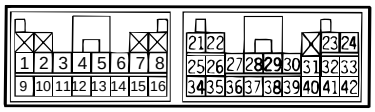
LABEL CONTENTS	
A	CAUTION: SRS BEFORE REPLACING STEERING WHEEL, READ SERVICE MANUAL, CENTER FRONT WHEELS AND ALIGN SRS CLOCK SPRING NEUTRAL MARKS. FAILURE TO DO SO MAY RENDER SRS SYSTEM INOPERATIVE, RISKING SERIOUS DRIVER INJURY.
B	DANGER FLAMMABLE MATERIAL TO PREVENT PERSONAL INJURY, DO NOT DISMANTLE, INCINERATE, OR BRING INTO CONTACT WITH ELECTRICITY STORE BELOW 200 °F (93 °C).
C	WARNING: SRS THIS AIR BAG MODULE CANNOT BE REPAIRED. DO NOT DISASSEMBLE OR TAMPER. DO NOT PERFORM DIAGNOSIS. DO NOT TOUCH WITH ELECTRICAL TEST EQUIPMENT OR PROBES. REFER TO SERVICE MANUAL FOR FURTHER INSTRUCTIONS, AND FOR SPECIAL HANDLING, STORAGE AND DISPOSAL PROCEDURES, TAMPERING OR MISHANDLING CAN RESULT IN INJURY.
D	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 >><<.
E	WARNING: SRS THIS AIR BAG MODULE CANNOT BE REPAIRED, DO NOT DISASSEMBLE OR TAMPER. DO NOT PERFORM DIAGNOSIS. DO NOT TOUCH WITH ELECTRICAL TEST EQUIPMENT OR PROSES. REFER TO SERVICE MANUAL FOR FURTHER INSTRUCTIONS, AND FOR SPECIAL HANDING, STORAGE AND DISPOSAL PROCEDURES. TAMPERING OR MISHANDLING CAN RESULT IN INJURY. DANGER POISON KEEP OUT OF THE REACH OF CHILDREN. CONTAINS SODIUM AZIDE AND POTASSIUM NITRATE CONTENTS ARE POISONOUS AND EXTREMELY FLAMMABLE. CONTACT WITH ACID, WATER, OR HEAVY METALS MAY PRODUCE HARMFUL AND IRRITATING GASES OR EXPLOSIVE COMPOUNDS. DO NOT DISMANTLE, INCINERATE, BRING INTO CONTACT WITH ELECTRICITY OR STORE AT TEMPERATURES EXCEEDING 200 °F (93°C). FIRST AID: IF CONTENTS ARE SWALLOWED INDUCE VOMITING. FOR EYE CONTACT FLUSH EYE WITH WATER FOR 15 MINUTES. IF GASES FORM ACID OR WATER CONTACT ARE INHALED, FRESH AIR. IN EVERY CASE, GET PROMPT MEDICAL ATTENTION.
F	CAUTION: DO NOT DISASSEMBLE OR DROP. IF DEFECT REFER TO SERVICE MANUAL.
G  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 RESTRAINS.

LABEL CONTENTS	
H	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.
I	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.
J	CAUTION: SRS BEFORE REMOVAL OF STEERING GEARBOX, READ SERVICE MANUAL, CENTER FRONT WHEELS AND REMOVE IGNITION KEY. FAILURE TO DO SO MAY DAMAGE SRS CLOCK SPRING AND RENDER SRS SYSTEM INOPERATIVE, RISKING SERIOUS DRIVER INJURY.
K	WARNING FLAMMABLE/EXPLOSIVE SRS AIR BAG MODULE TO AVOID SERIOUS INJURY: • DO NOT REPAIR, DISASSEMBLE OR TAMPER WITH. • AVOID CONTACT WITH FLAME OR ELECTRICITY. • DO NOT USE TEST EQPT OR PROBES. • STORE BELOW 200°F (93°C). • BEFORE DOING ANY WORK INVOLVING MODULE, READ SERVICE MANUAL FOR IMPORTANT FURTHER DATA.

SCHEMATIC



NOTE
*: CONNECTOR LOCK SWITCH
CONNECTOR ENGAGED: ON
CONNECTOR DISENGAGED: OFF



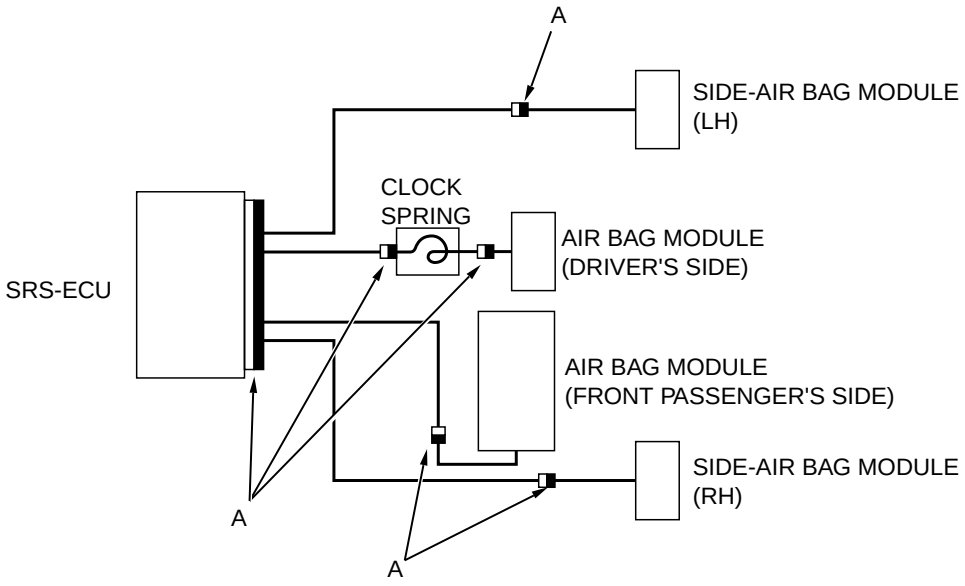
SRS-ECU CONNECTOR

AC102603AF

TSB Revision

SRS air bag special connector

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

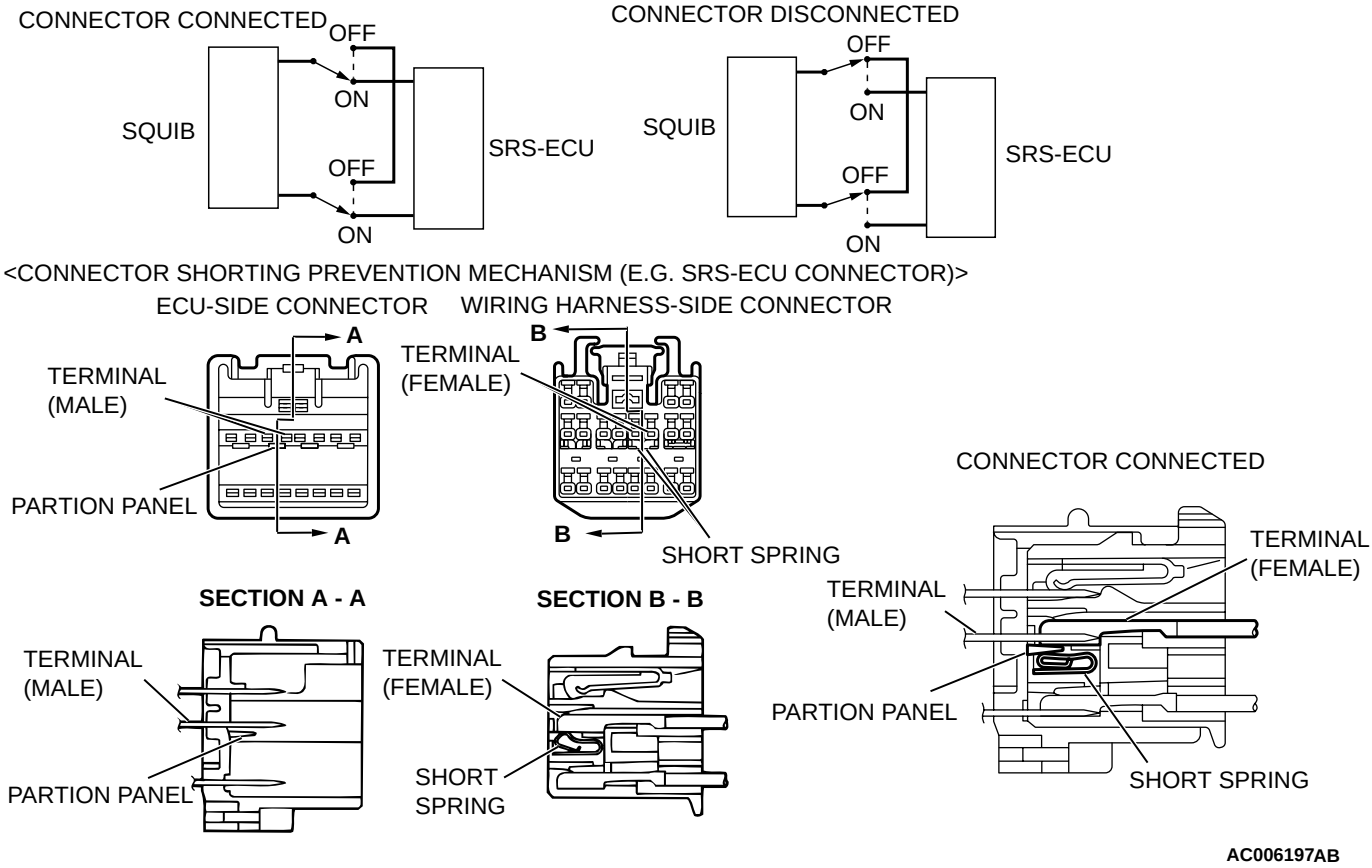


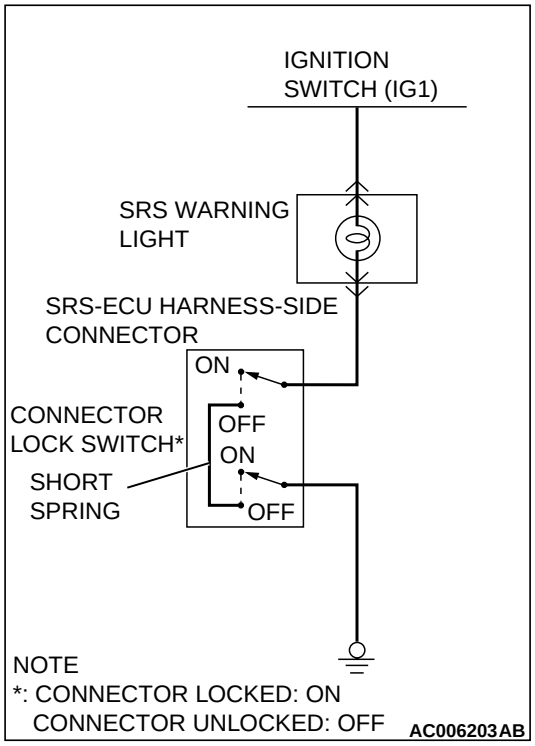
SQUIB CIRCUIT CONNECTOR LOCK SWITCH

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

⚠ CAUTION

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



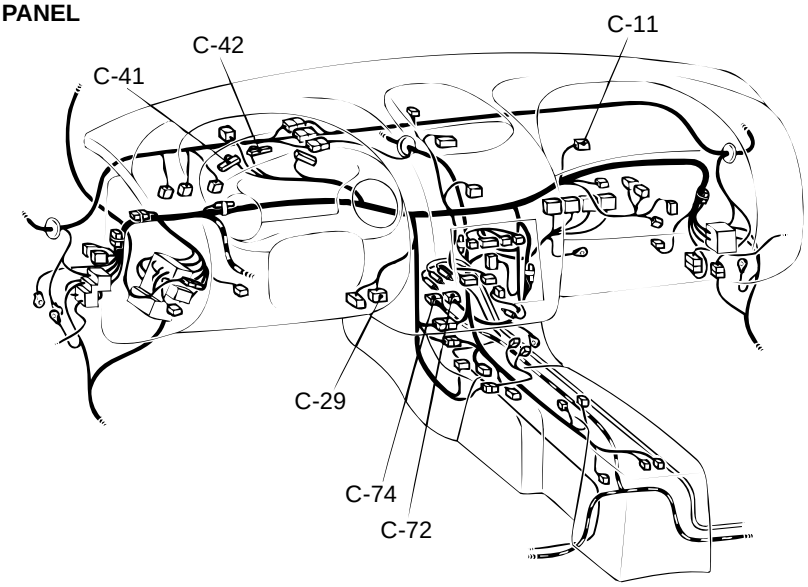


WARNING LIGHT CIRCUIT CONNECTOR LOCK SWITCH

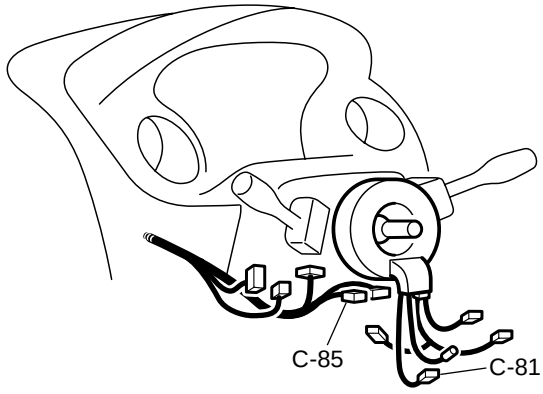
The switch is a mechanism that shorts the power supply terminal to the ground terminal automatically in the warning light circuit when the connector is disconnected. Its structure is similar to the squib circuit connector shorting mechanism.

CONFIGURATION DIAGRAMS

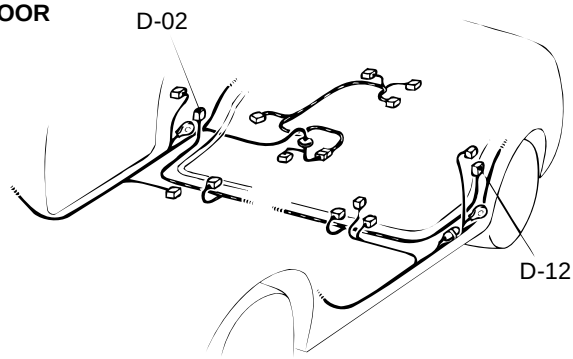
DASH PANEL



STEERING COLUMN



FLOOR



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C-11	AIR BAG MODULE (FRONT PASSENGER'S SIDE)
C-29	DATA LINK CONNECTOR (FOR SCAN TOOL)
C-41	COMBINATION METER (FOR SRS WARNING LIGHT)
C-42	COMBINATION METER (FOR SRS WARNING LIGHT)
C-72	SRS-ECU
C-74	SRS-ECU <VEHICLES WITH SRS SIDE AIR BAG>

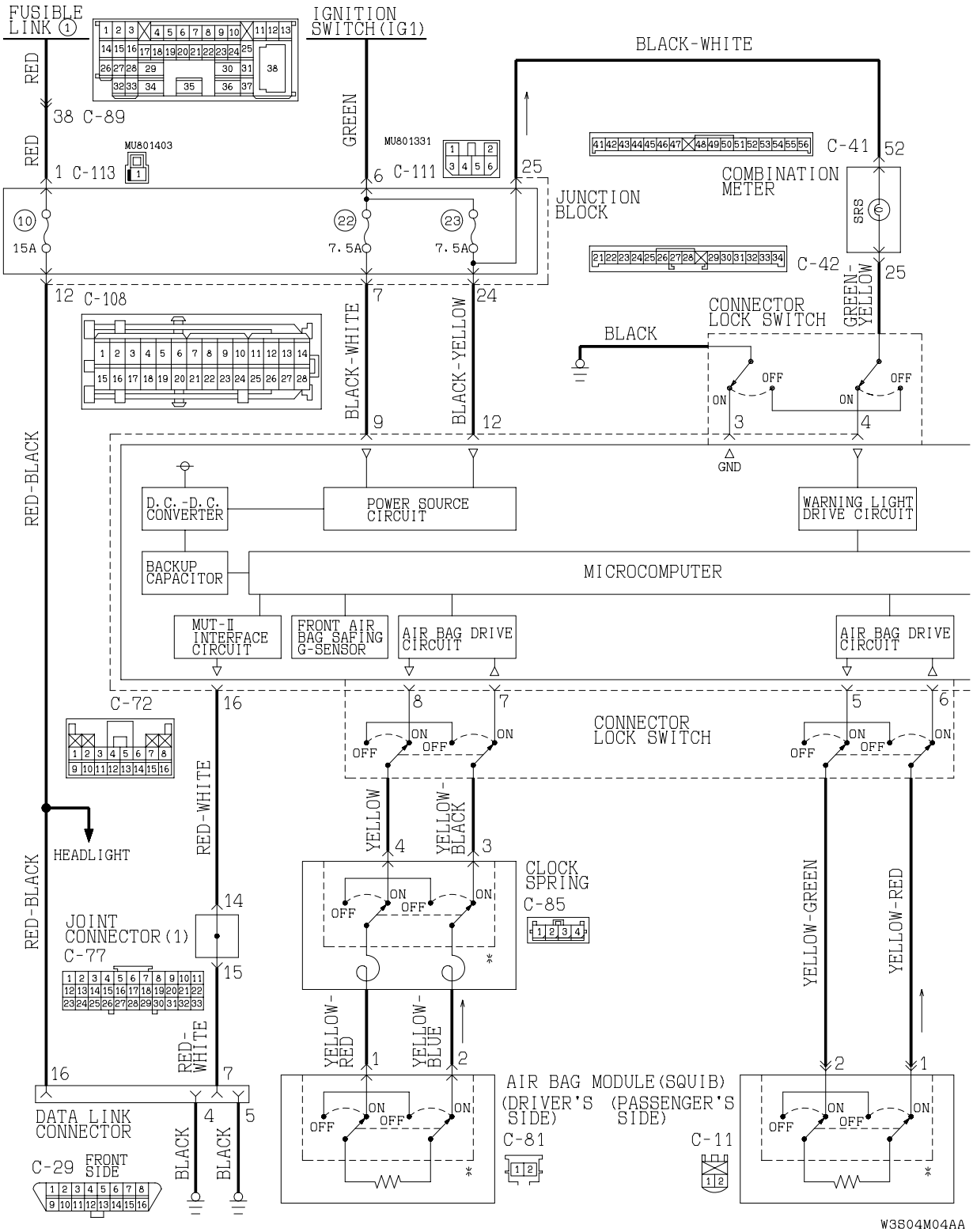
(Continued)

C-81	AIR BAG MODULE (DRIVER'S SIDE)
C-85	CLOCK SPRING
D-02	SIDE IMPACT SENSOR (RH) <VEHICLES WITH SRS SIDE AIR BAG>
D-12	SIDE IMPACT SENSOR (LH) <VEHICLES WITH SRS SIDE AIR BAG>

CIRCUIT DIAGRAM

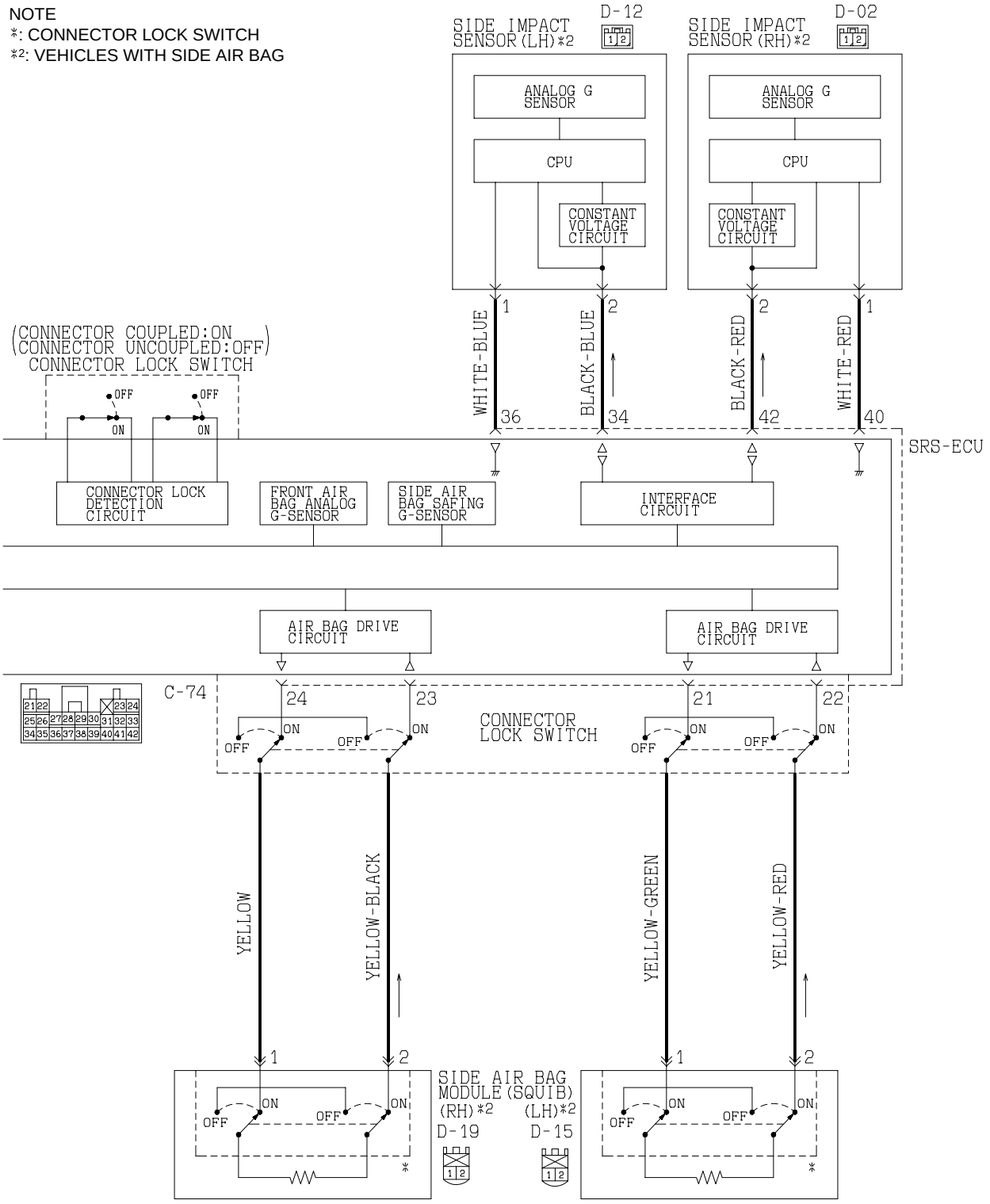
⚠ WARNING

- ***Do not repair, splice, or modify the SRS wiring (except for specific repairs to the front wiring harness, the instrument panel wiring harness, floor wiring harness and the side air bag wiring harness shown on P.52B-17): 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-136.) and a digital multi-meter (refer to P.52B-137.).***



NOTE
* : CONNECTOR LOCK SWITCH

TSB Revision



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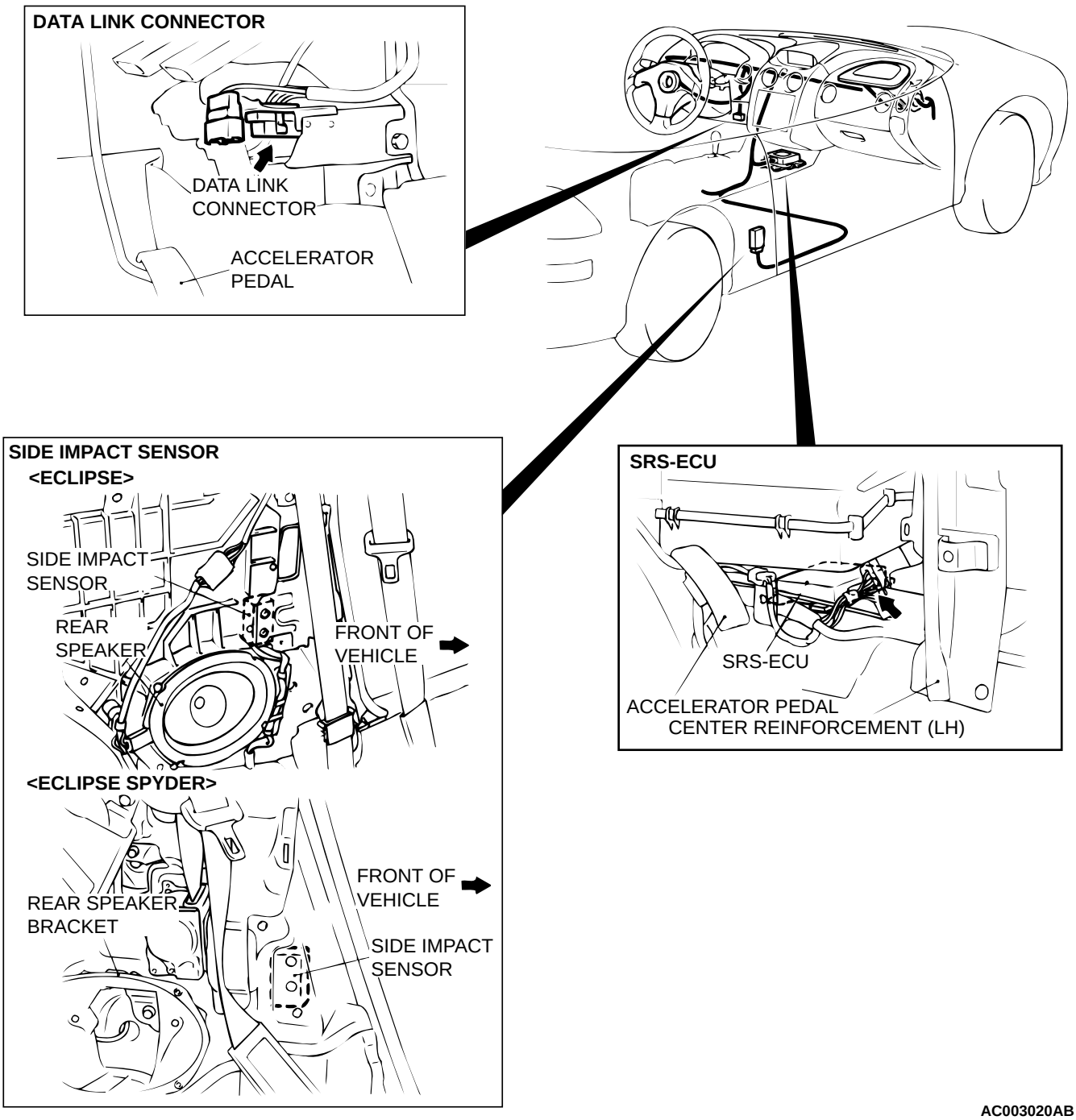
TSB Revision

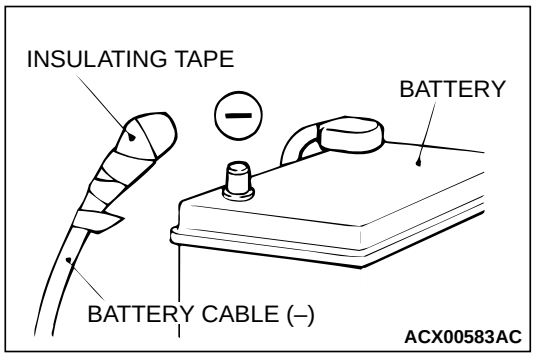
COMPONENT LOCATION



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

SRS SERVICE PRECAUTIONS

M1524000300239



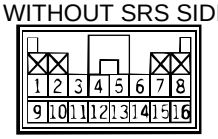
⚠ DANGER

- ***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.***

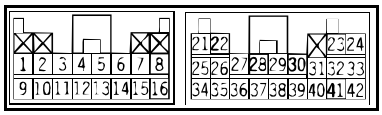
⚠ WARNING

- ***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-137.***
- ***Never Attempt to Repair the Following Components: SRS-ECU, Clock Spring, Air Bag Module, Side Impact Sensor. 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 page P.52B-141.***

SRS-ECU CONNECTOR
<VEHICLES WITHOUT SRS SIDE AIR BAG>



<VEHICLES WITH SRS SIDE AIR BAG>



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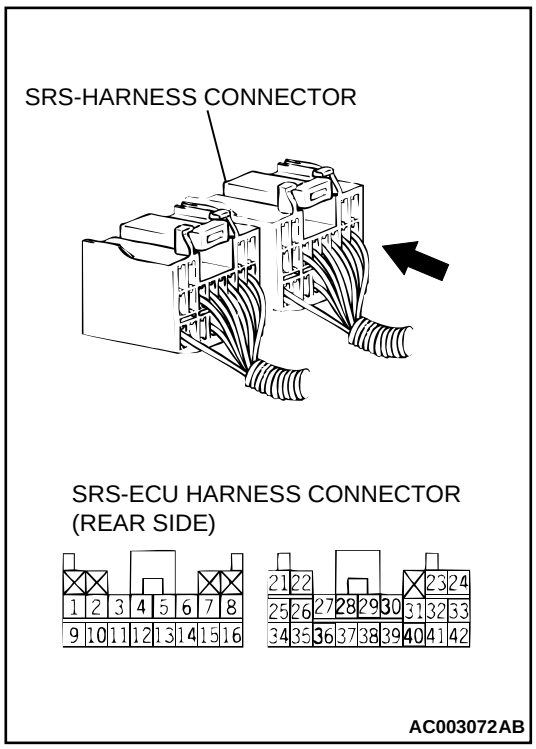
- ***Do not attempt to repair the wiring harness connectors of the SRS. If any of the connectors are diagnosed as faulty, replace the wiring harness. If the wires are diagnosed as faulty, replace or repair the wiring harness according to the following table.***

SRS-ECU TERMINAL NO.	DESTINATION OF HARNESS	CORRECTIVE ACTION
3	Instrument panel wiring harness→ Ground	Correct or replace the instrument panel wiring harness.
4	Instrument panel wiring harness → SRS warning light	Correct or replace the instrument panel wiring harness.
5, 6	Instrument panel wiring harness → Air bag module (Front passenger's side)	Correct or replace the instrument panel wiring harness.
7, 8	Instrument panel wiring harness → Clock spring → Air bag module (Driver's side)	Correct or replace the instrument panel wiring harness. Replace the clock spring.
9	Instrument panel wiring harness → Junction block (fuse No.22)	Correct or replace the instrument panel wiring harness.
12	Instrument panel wiring harness →Junction block (fuse No.23)	Correct or replace the instrument panel wiring harness.
16	Instrument panel wiring harness → Data link connector	Correct or replace the instrument panel wiring harness.
21*, 22*	Floor wiring harness → Side air bag module (LH)	Correct or replace the floor wiring harness.
23*, 24*	Floor wiring harness → Side air bag module (RH)	Correct or replace the floor wiring harness.
34*, 36*	Floor wiring harness → Side impact sensor (LH)	Correct or replace the floor wiring harness.
40*, 42*	Floor wiring harness → Side impact sensor (RH)	Correct or replace the floor wiring harness.

*NOTE: *Vehicles with side air bags*



⚠ ***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, 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 should not be subjected to heat over 93°C (200°F), so remove the SRS-ECU, air bag modules, and clock spring before drying or baking the vehicle after painting.***
- ***After servicing the SRS system, check the SRS warning light operation to make sure that the system functions properly. (Refer to P.52B-3.)***
- ***Make certain that the ignition switch is in the "LOCK" (OFF) position when the scan tool is connected or disconnected.***
- ***If you have any questions about the SRS system, please contact the MMSA Tech Line.***

SRS AIR BAG DIAGNOSIS

INTRODUCTION TO DIAGNOSIS

M1524005000136

The SRS system is controlled by the SRS-ECU. The SRS-ECU judges how severe a collision is by detecting signals from the analog G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the safing G-sensor is on, the SRS air bag will inflate. 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 collided, there may be a malfunction in the SRS system.

- The SRS warning light does not go off within approximately 7 seconds after the ignition switch has been turned "ON."
- The SRS warning light does not illuminate when the ignition switch is turned "ON."

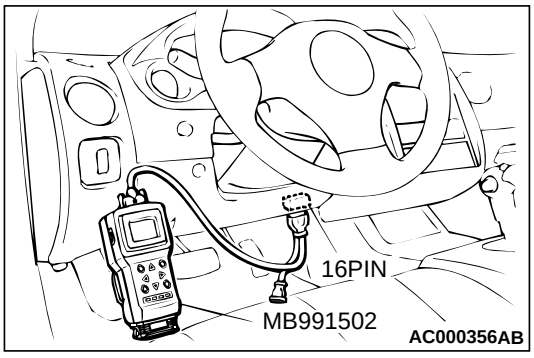
Refer to the Post-collision Diagnosis when inspecting and servicing the vehicle that has been in a collision. (Refer to P.52B-138.)

TROUBLESHOOTING STRATEGY

M1524003100159

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 DTC.
4. If you cannot verify the condition but there are no SRS DTCs, the malfunction is intermittent. Refer to GROUP 00, How to use Troubleshooting – Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-6.
5. If there is a SRS DTC, record the code number, then erase the code from vehicle memory using scan tool MB991502.
6. Recreate the SRS DTC set conditions to see if the same SRS DTC will set again.
   - If the same SRS DTC sets again, follow the Inspection Chart for DTC and find the fault.
   - If you cannot get the same SRS DTC to set again, the malfunction is intermittent. Refer to GROUP 00, How to use Troubleshooting – Inspection Service Points – How to Cope with Intermittent Malfunctions P.00-6.



SRS DTC DIAGNOSIS

M1524003200134

Required Special Tool:

- MB991502: Scan Tool (MUT-II)

⚠ 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.

RETRIEVING SRS DTC

Connect scan tool MB991502 to the data link connector, and then check DTC.

ERASING SRS DTC

Connect scan tool MB991502 to the data link connector, and then erase the DTC.

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DTC CHART

M1524003300283

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

CODE NO.	ON-BOARD DIAGNOSTIC ITEM		REFERENCE PAGE
14	Analog G-sensor system in the SRS-ECU		P.52B-23
15	Safing G-sensor short circuit		P.52B-23
16	Safing G-sensor open circuit		P.52B-23
17	Safing G-sensor for side-airbag faults		P.52B-23
21*2	Driver's air bag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)		P.52B-25
22*2	Driver's air bag module (squib) system fault 2 (Open in the squib circuit)		P.52B-31
24*2	Passenger's (front) air bag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)		P.52B-35
25*2	Passenger's (front) air bag module (squib) system fault 2 (Open in the squib circuit)		P.52B-40
31	SRS-ECU capacitor circuit voltage too high		P.52B-23
32	SRS-ECU capacitor circuit voltage too low		P.52B-23
34*1	Connector lock system detects connector unlocked		P.52B-43
35	SRS-ECU air bag condition monitor detects deployed air bag		P.52B-44
41*1	IG1 power circuit system (fuse No.23 circuit)		P.52B-45
42*1	IG1 power circuit system (fuse No.22 circuit)		P.52B-52
43	SRS warning light drive circuit system fault 1	Light does not illuminate*1	P.52B-57
		Light does not switch off	P.52B-61
44*1	SRS warning light drive circuit system fault 2		P.52B-57
45	SRS-ECU non-volatile memory (EEPROM) and A/D converter system		P.52B-23
51	Driver's air bag module (squib ignition drive circuit) system detected short circuit		P.52B-23
52	Driver's air bag module (squib ignition drive circuit) system detected open circuit		P.52B-23
54	Passenger's (front) air bag module (squib ignition drive circuit) system detected short circuit		P.52B-23
55	Passenger's (front) air bag module (squib ignition drive circuit) system detected open circuit		P.52B-23
61	Driver's air bag module (squib) system fault for power supply circuit (Short-circuited to power supply)		P.52B-66
62	Driver's s air bag module (squib) system fault for ground circuit (Short-circuited to ground)		P.52B-70
64	Passenger's (front) air bag module (squib) system fault for power supply circuit (Short-circuited to power supply)		P.52B-74
65	Passenger's (front) air bag module (squib) system fault for ground circuit (Short-circuited to ground)		P.52B-78
71*2	Right hand side-airbag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)		P.52B-82

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CODE NO.	ON-BOARD DIAGNOSTIC ITEM	REFERENCE PAGE
72*2	Right hand side-airbag module (squib) system fault 2 (Open in the squib circuit)	P.52B-87
73	Right hand side-airbag module (squib) system detected short circuit	P.52B-23
74	Right hand side-airbag module (squib) system detected open circuit	P.52B-23
75	Right hand side-airbag module (squib) system fault power supply circuit (Short-circuited to power supply)	P.52B-90
76	Right hand side-airbag module (squib) system fault ground circuit (Short-circuited to ground)	P.52B-94
79	Left hand side-airbag module (squib) system fault 5 for power supply circuit	P.52B-98
81*2	Left hand side-airbag module (squib) system fault 1 (Short circuit between terminals of the squib circuit)	P.52B-101
82*2	Left hand side-airbag module (squib) system fault 2 (Open in the squib circuit)	P.52B-106
83	Left hand side-airbag module (squib) system fault 3 for ignition drive circuit	P.52B-23
84	Left hand side-airbag module (squib) system fault 4 for ignition drive circuit	P.52B-23
85	Left hand side-airbag module (squib) system fault power supply circuit (Short-circuited to power supply)	P.52B-109
86	Left hand side-airbag module (squib) system fault ground circuit (Short-circuited to ground)	P.52B-113
89	Right hand side-airbag module (squib) system fault 5 for power supply circuit	P.52B-98
91*1	Left hand side-impact sensor power supply circuit system	P.52B-120
92	Left hand side-impact sensor system for fault 1	P.52B-124
93	Left hand side-airbag module (squib) system fault 6 for communication system	P.52B-98
94*1	Right hand side-impact sensor power supply circuit system	P.52B-125
95	Right hand side-impact sensor system for fault 1	P.52B-124
96	Right hand side-airbag module (squib) system fault 6 for communication system	P.52B-98

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). <Vehicles without SRS side-airbag>*
3. *If the vehicle has a discharged battery, it will store the DTC 41 or 42. When these DTC are read, check the battery condition.*

SYMPTOM CHART

M1524003400194

SYMPTOMS	INSPECTION PROCEDURE NO.	REFERENCE PAGE
Communication with scan tool MB991502 is not possible. (Communication with all systems is not possible)	–	GROUP 13A, DIAGNOSIS P.13A-434 GROUP 13B, DIAGNOSIS P.13B-530
Communication with scan tool MB991502 is not possible. (Communication is not possible with SRS system only.)	1	P.52B-130
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-57
After the ignition switch is turned to "ON" position, the SRS warning light does not go off within approximately 7 seconds.	Refer to DTC No. 43.	P.52B-57

DIAGNOSTIC TROUBLE CODE PROCEDURES

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

DTC SET CONDITIONS

- These DTC are output 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	SYMPTOMS
14	Analog G-sensor	• When the analog G-sensor is not operating • When the characteristics of the analog G-sensor are abnormal • When the output from the analog G-sensor is abnormal
15	Safing G-sensor (front air bag)	• Short circuit in the safing G-sensor
16		• Open circuit in the safing G-sensor
17	Safing G-sensor (side-airbag)	• When the safing G-sensor is not operating • When the characteristics of the safing G-sensor are abnormal • When the output from the safing G-sensor is abnormal
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 diagnostic trouble code No. 41 or 42 indicating battery positive voltage drop has been output.)
45	Non-volatile memory (EEPROM) and A/D converter	• When the non-volatile memory (EEPROM) and A/D converter system are abnormal
51	Driver's air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
52		• Open circuit in the squib ignition drive circuit
54	Passenger's (front) air bag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
55		• Open circuit in the squib ignition drive circuit
73	Right hand side-airbag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
74		• Open circuit in the squib ignition drive circuit
83	Left hand side-airbag module (squib ignition drive circuit)	• Short circuit in the squib ignition drive circuit
84		• Open circuit in the squib ignition drive circuit

DIAGNOSIS

Replace the SRS-ECU. (Refer to P.52B-142.)

Q: Is any of DTC output?

YES : There is no action to be taken.
NO : This diagnosis is complete.

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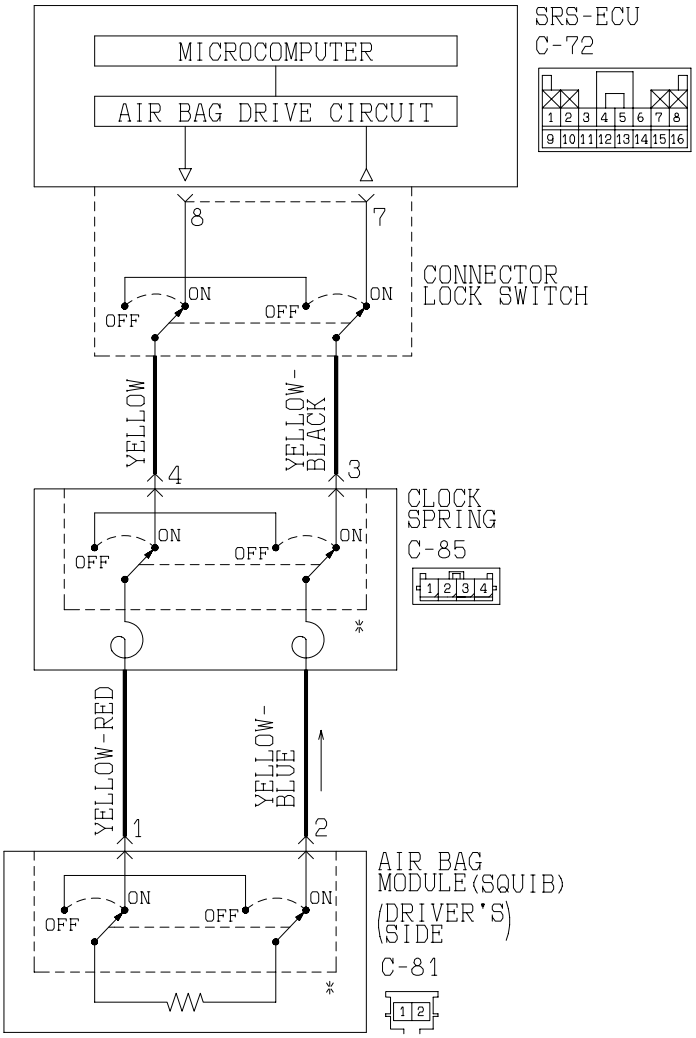
DTC 21: Driver's Air Bag Module (Squib) System Fault 1 (Short Circut between Terminal of the Squib Circuit)

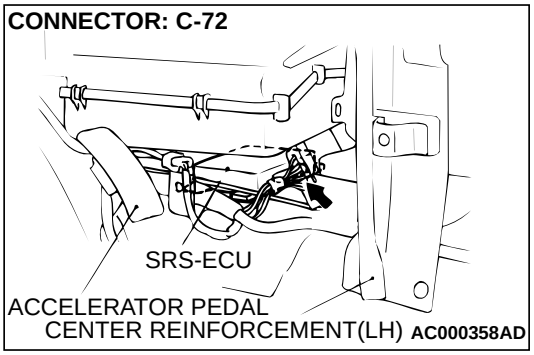
Driver's Air Bag Module (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

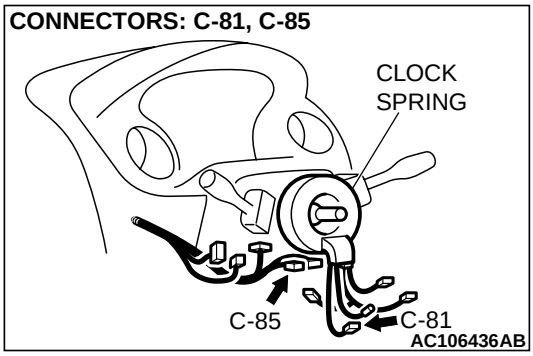
W3S15M01AA
AC106622 AB

CONNECTOR: C-72



AC000358AD

CONNECTORS: C-81, C-85



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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 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 shown in the table below: However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

TROUBLESHOOTING HINTS

- Improper engaged connector or defective short 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-20.) Therefore, if the connector C-72, C-85 or C-81 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)
- MB991613: SRS Check Harness
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the DTC.

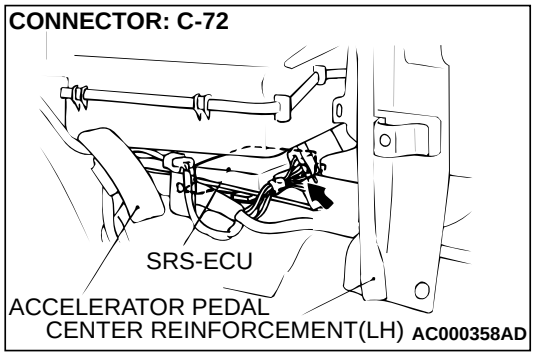
Q: Is DTC 34 output?

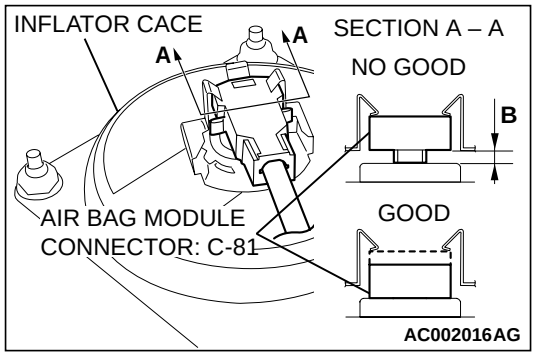
YES : Go to Step 2.
NO : Go to Step 3.

STEP 2. Check the SRS-ECU connector C-72.

Q: Is the connector correctly engaged?

YES : Go to Step 3.
NO : Engage the connector correctly. Then go to Step 9.





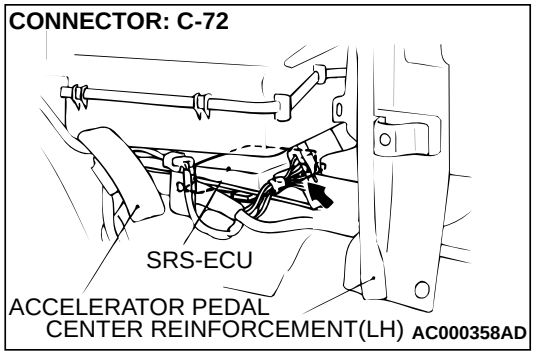
STEP 3. Check the air bag module connector C-81.

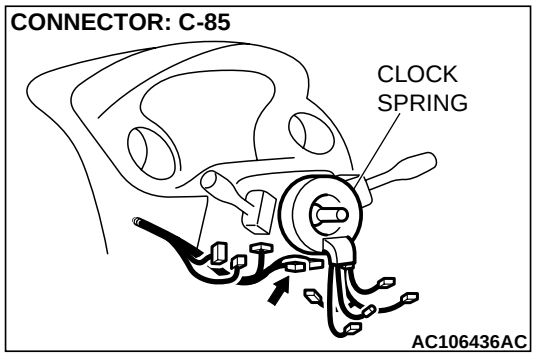
Remove the air bag module mounting equipment and check air bag module connector C-81.At this time, check that there is no gap at place B shown in the illustration. (Refer to P.52B-144 .)

Q: Is the connector correctly connected?

YES : Go to Step 4.

NO : Insert the connector to the place, where there remains no gap at place B shown in the illustration. Then go to Step 9.





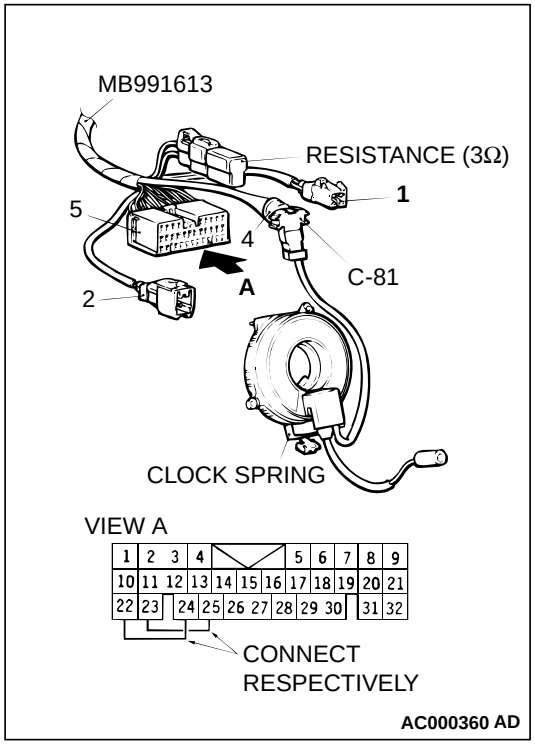
STEP 4. Check the SRS-ECU connector C-72 and clock spring connector C-85.

(1) Disconnect the negative battery terminal.
(2) Disconnection connectors C-72 and C-85 then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the DTC memory, and then check the DTC.

Q: Is DTC 21 output?

YES : Go to Step 5.

NO : The inspection is complete. (It is assumed that DTC 21 set as connector C-72 or C-85 was engaged improperly.)

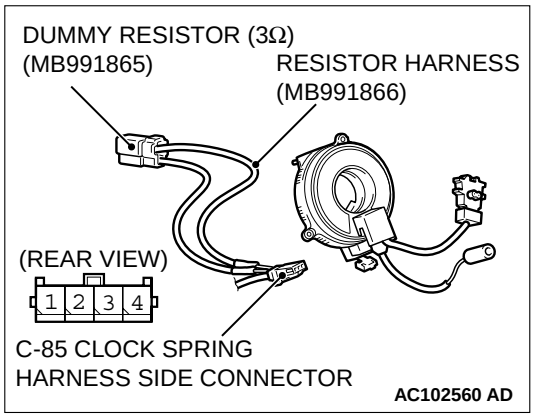


STEP 5. Check the driver's air bag module line.

(1) Disconnect the negative battery terminal.
(2) Remove the driver's air bag module. (Refer to P.52B-144.)
(3) Connect connector (4) of special tool MB991613 to clock spring connector C-81.special tool MB991613 to special tool MB991866.
(4) Connect connector (1) of special tool MB991613 to connector (2).
(5) Connect terminals 22 to 24, and terminals 23 to 25 of special tool MB991613 to connector (5).
(6) Connect the clock spring to the body wiring harness.
(7) Connect the negative battery terminal.
(8) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 21 output?

YES : Go to Step 6.
NO : Replace the driver's air bag module. Refer to P.52B-144. Then go to Step 9.



STEP 6. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-85.
(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.

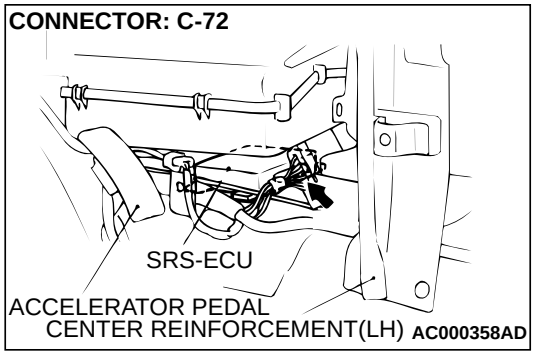
(4) Insert special tool MB991866 into clock spring harness side connector C-85 (terminal No.3 and 4) by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 21 output?

YES : Go to Step 7.
NO : Replace the clock spring. Refer to P.52B-144. Then go to Step 9.

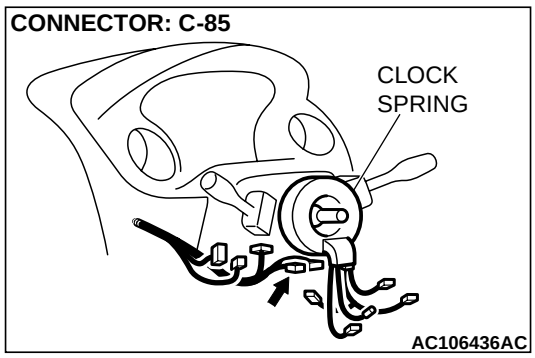
STEP 7. Check harness between the SRS-ECU and the clock spring for short circuit.

(1) Disconnect SRS-ECU connector C-72.



⚠ CAUTION
To release the short bar in the SRS-ECU connector, disconnect connector C-85 to short the squib circuit.

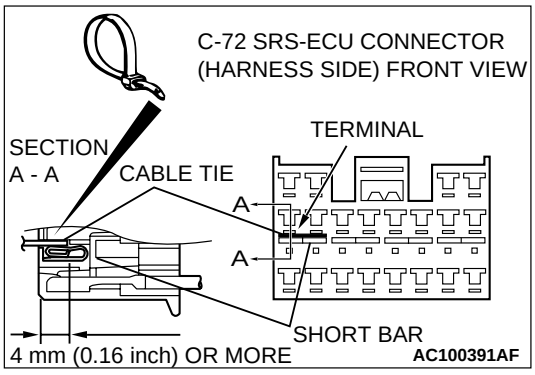
(2) Disconnect the clock spring connector C-85.



⚠ 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 cable tie release.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7, 8 and the short bar to release the short bar.

(4) Measure at the wiring harness side.



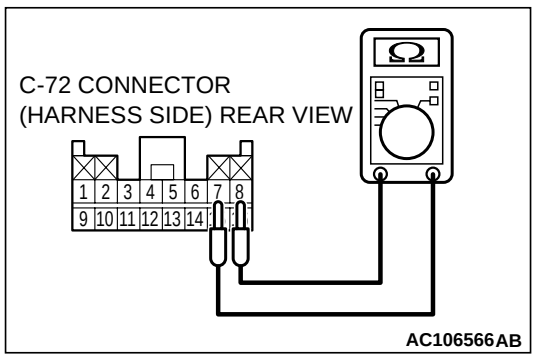
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

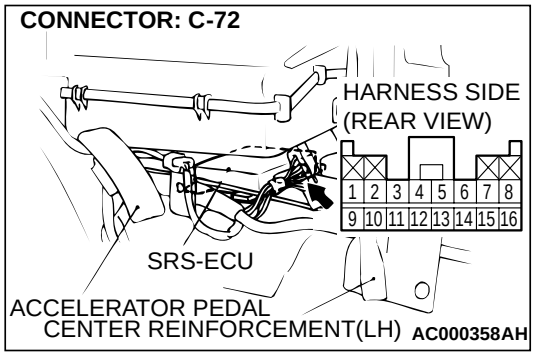
(5) Check the continuity between terminals 7 and 8.
- There should be open circuit.

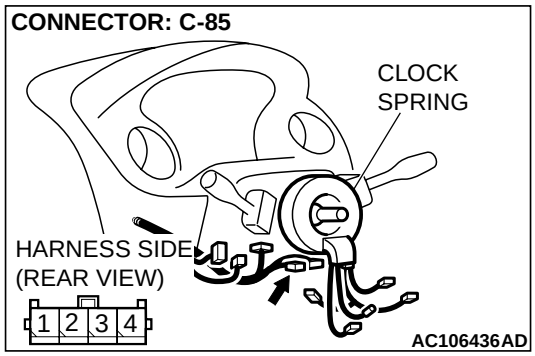
Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 21 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 9.

NO : Go to Step 8.







STEP 8. Check the harness for short circuit between SRS-ECU connector C-72 (terminal No.7 and 8) and clock spring connector C-85 (terminal No.3 and 4) .

Q: Are harness wires between SRS-ECU connector C-72 (terminal No.7 and 8) and clock spring connector C-85 (terminal No.3 and 4) in good condition?

YES : Go to Step 9.

NO : Repair the harness wires between SRS-ECU connector C-72 and clock spring connector C-85. Then go to Step 9.

STEP 9. Check the DTC.

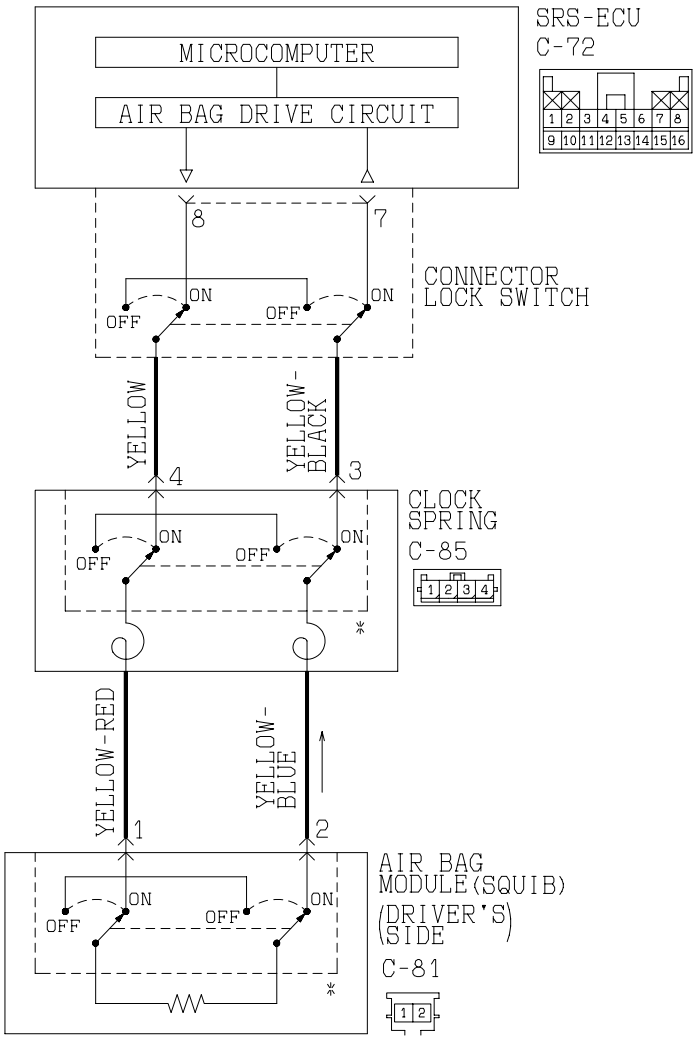
Q: Is DTC 21 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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)

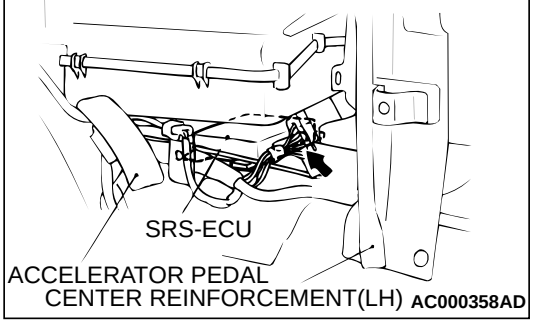
Driver's Air Bag Module (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

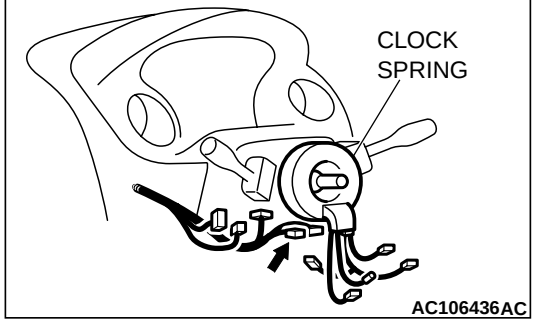
W3S15M01AA
AC106622 AB

CONNECTOR: C-72



AC000358AD

CONNECTOR: C-85



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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 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

- These DTC are output 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 shown in the table below: However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

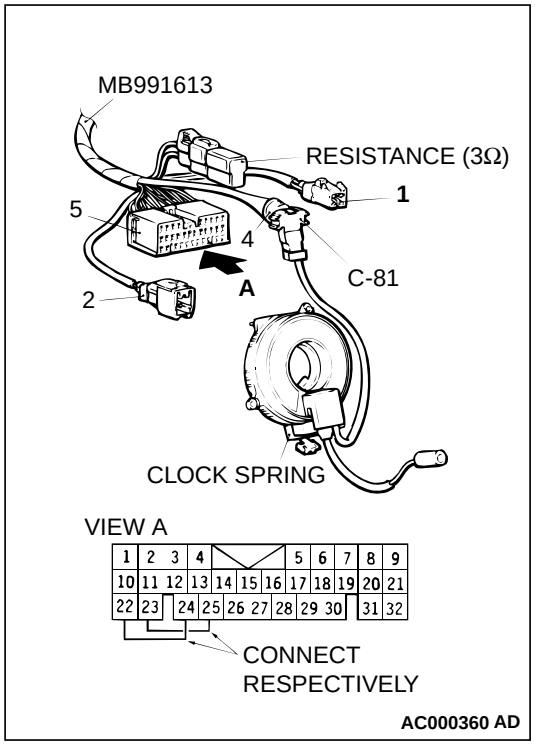
- MB991502: Scan Tool (MUT-II)
- MB991613: SRS Check Harness
- MB991865: Dummy resister
- MB991866 Resister harness

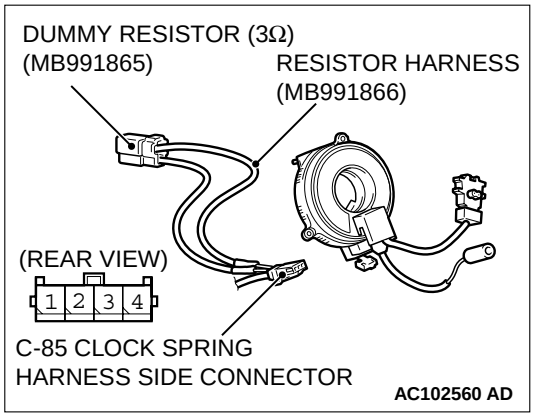
STEP 1. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.
(2) Remove the driver’s air bag module. (Refer to P.52B-144.)
(3) Connect connector (4) of special tool MB991613 to clock spring connector C-81.special tool MB991613 to special tool MB991866.
(4) Connect connector (1) of special tool MB991613 to connector (2).
(5) Connect terminals 22 to 24, and terminals 23 to 25 of special tool MB991613 to connector (5).
(6) Connect the clock spring to the body wiring harness.
(7) Connect the negative battery terminal.
(8) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 22 out put?

YES : Go to Step 2.
NO : Replace the driver’s air bag module. Then go to Step 4.





STEP 2. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-85.
(3) Connect special tool MB991865 to special tool MB991866.

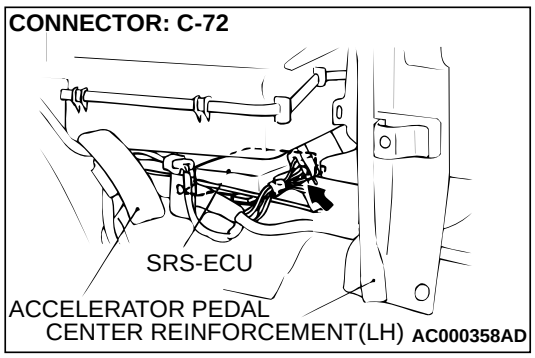
⚠ CAUTION

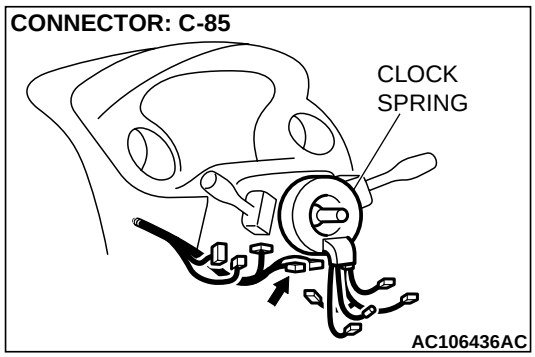
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

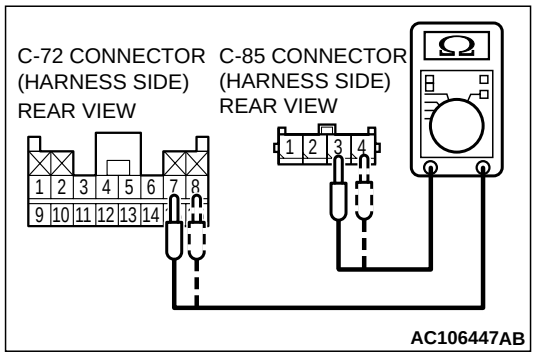
(4) Insert special tool MB991866 into clock spring harness side connector C-85 (terminal No.3 and 4) by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the DTC memory, and then recheck DTC.

Q: Is DTC 22 output?

YES : Go to Step 3.
NO : Replace the clock spring. Refer to P.52B-144. Then go to Step 4.







STEP 3. Check the harness between the SRS-ECU and the clock spring for open circuit.

(1) Disconnect SRS-ECU connector C-72 and clock spring connector C-85, 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 the continuity between the following terminals.

C-72 connector		C-85 connector
7	-	3
8	-	4

- Should be less than 2 ohm.

Q: Is the continuity normal?

YES : Eras the DTC memory, and recheck if any DTC sets. If DTC 22 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 4.
NO : Repair the harness wires between SRS-ECU connector C-72 and clock spring connector C-85. Then go to Step 4.

STEP 4. Check the DTC.

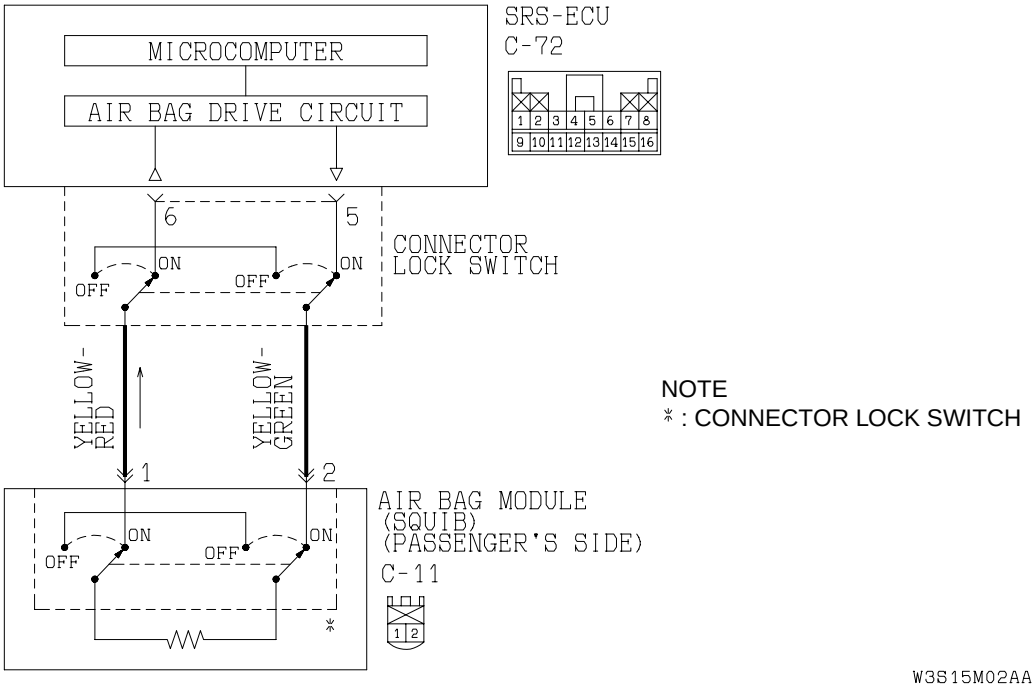
Q: Is DTC 22 output?

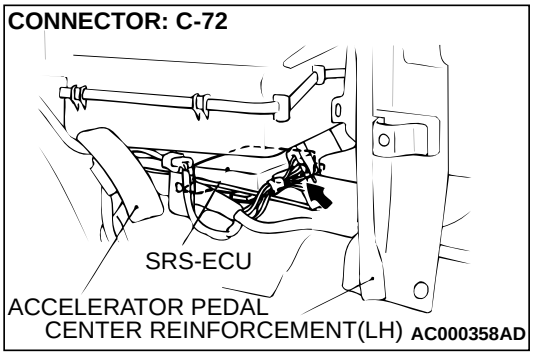
YES : Return to Step 1.

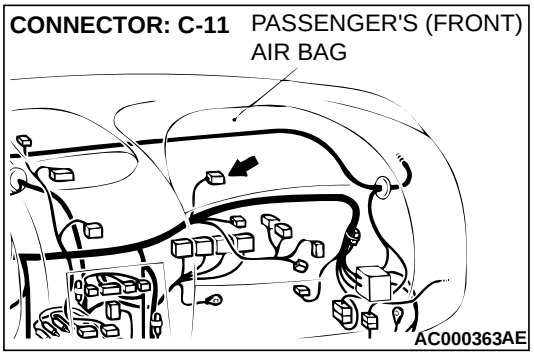
NO : This diagnosis is complete. (If no malfunctions are not found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-6.)

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

Driver's Air Bag Module (Squib) Circuit







CIRCUIT OPERATION

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

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib). The most likely causes for this code to be set are shown in the table below: However, if no DTC resets, the SRS warning light will be switched off (The DTC will be retained).

TROUBLESHOOTING HINTS

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

*NOTE: *: The squib circuit connectors integrate a "short" 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-20.) Therefore, if the connector C-11 or C-72 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)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the DTC.

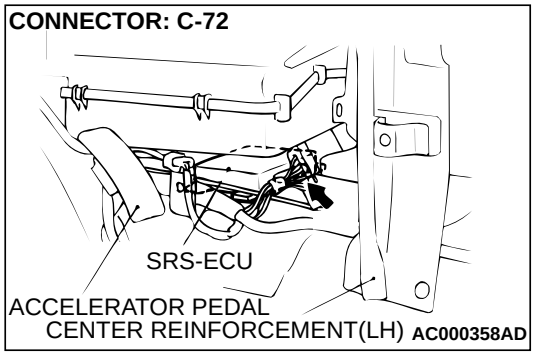
Q: Is DTC 34 output?

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

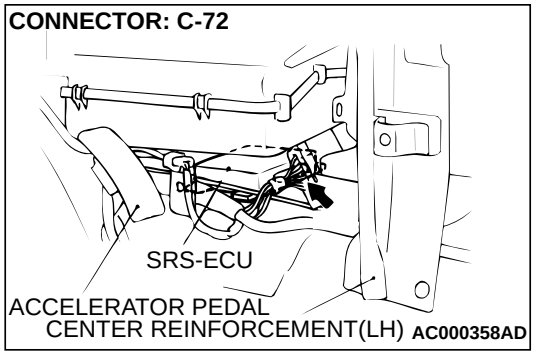
STEP 2. Check SRS-ECU connector C-72.

Q: Is the connector correctly engaged?

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



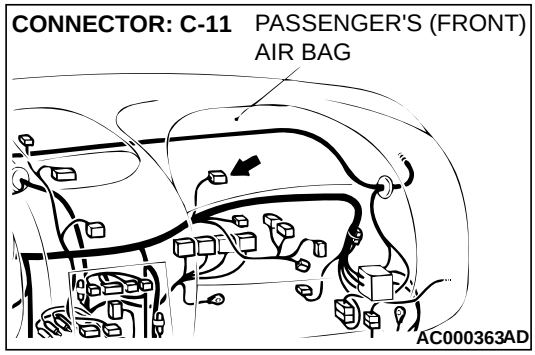
STEP 3. Check SRS-ECU connector C-72 and passenger's connector C-11.



(1) Disconnection connectors C-72 and C-11, and then reconnect them.
(2) Connect the negative battery terminal.
(3) Erase the DTC memory, and then check the DTC.

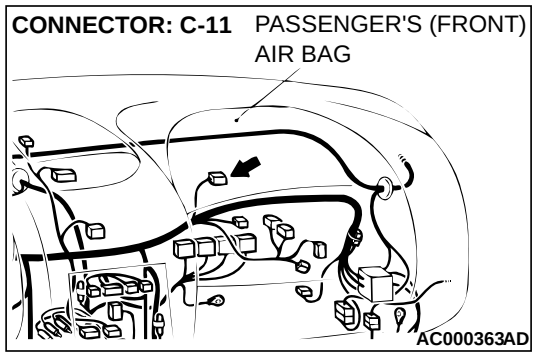
Q: Is DTC 24 output?

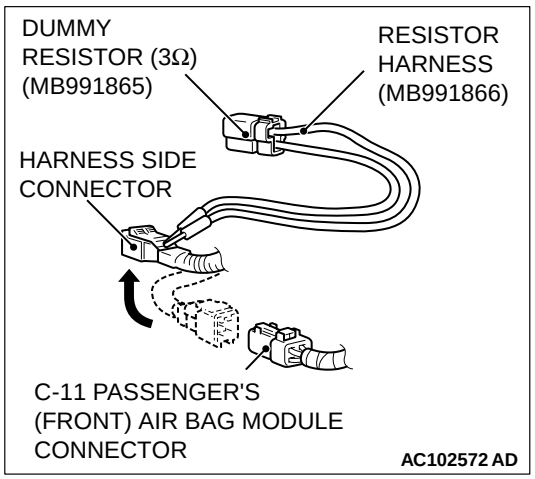
YES : Go to Step 4.
NO : The inspection is complete. (It is assumed that DTC 24 set as connector C-72 or C-11 was engaged improperly.)



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

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





(2) 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.

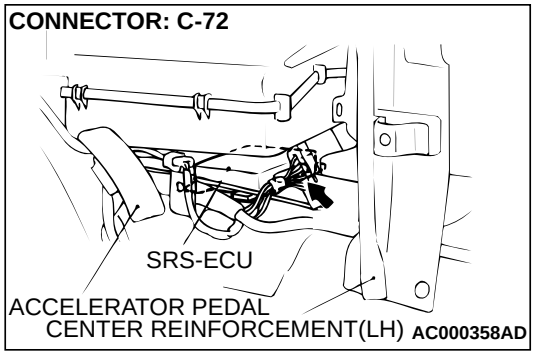
(3) Disconnect the passenger's air bag module connector C-11, and insert special tool MB991866 into the harness side connector by backprobing.
(4) Connect the negative battery terminal.
(5) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 24 output?

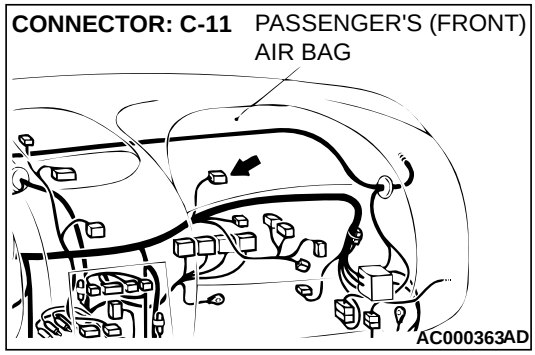
YES : Go to Step 5.
NO : Replace the passenger's air bag module. Refer to P.52B-144. Then go to Step 7.

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

(1) Disconnect SRS-ECU connector C-72.



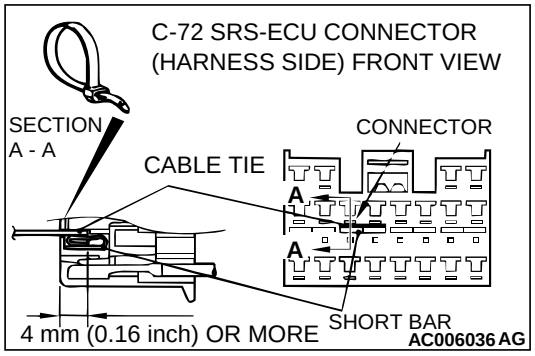
(2) Unclip passenger's air bag module connector C-11.



⚠ CAUTION

To release the short bar in the SRS-ECU connector, disconnect connector C-11 to short the squib circuit.

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



⚠ 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 cable tie release.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 5, 6 and the short bar to release the short bar.

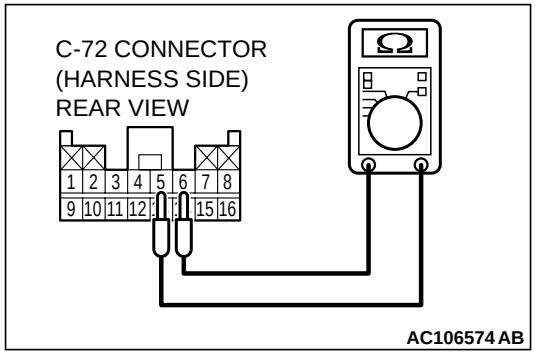
(5) Measure at the wiring harness side.

⚠ CAUTION

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

(6) Check the continuity between terminals 5 and 6.

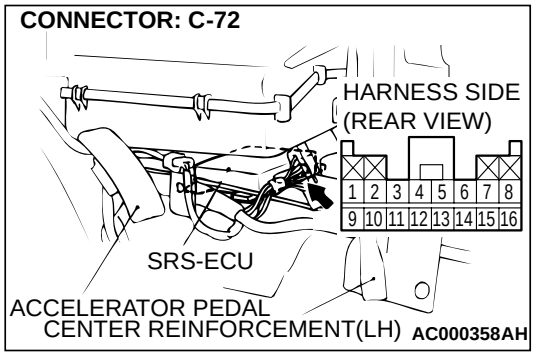
- There should be open circuit.

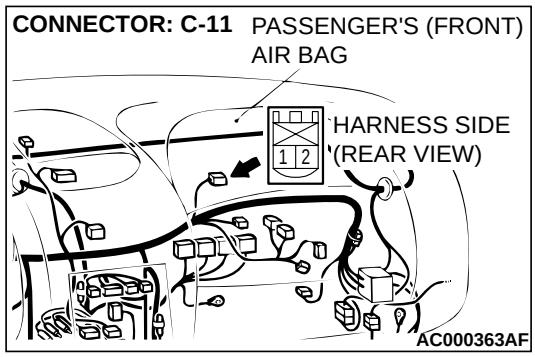


Q: Is the continuity normal?

YES : Eras the DTC memory, and recheck if any DTC sets. If DTC 24 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 7.

NO : Go to Step 6.





STEP 6. Check the harness for short circuit between SRS-ECU connector C-72 (terminal No.5 and 6) and passenger's side air bag module connector C-11 (terminal No.1 and 2).

Q: Are harness wires between SRS-ECU connector C-72 (terminal No.5 and 6) and passenger's side air bag module connector C-11 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-72 and passenger's side air bag module connector C-11. Then go to Step 7.

STEP 7. Check the DTC.

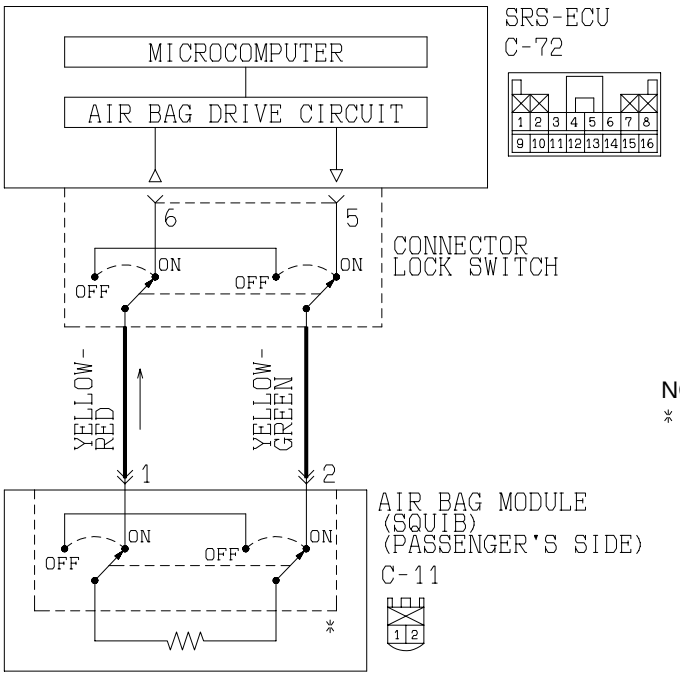
Q: Is DTC 24 output?

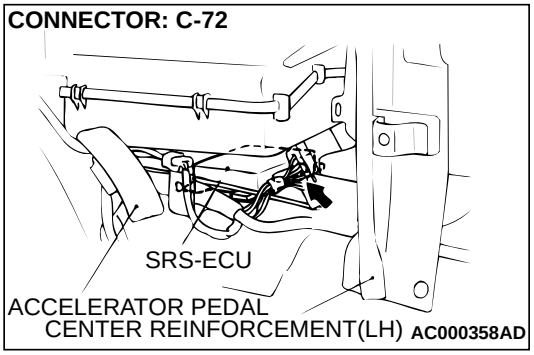
YES : Return to Step 1.

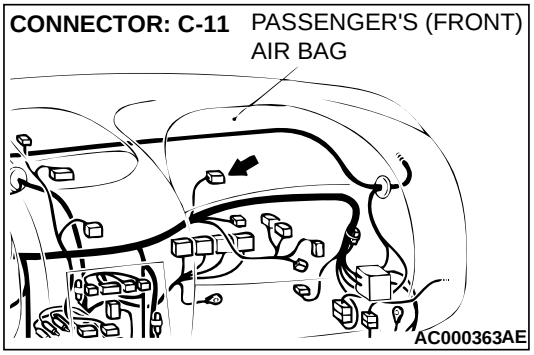
NO : This diagnosis is complete. (If no malfunctions are not found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-6.)

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

Driver's Air Bag Module (Squib) Circuit







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). The most likely causes for this code to be set are shown in the table below: However, if no DTC resets, the SRS warning light will be switched off (DTC will be retained).

TROUBLESHOOTING HINTS

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

TSB Revision

DIAGNOSIS

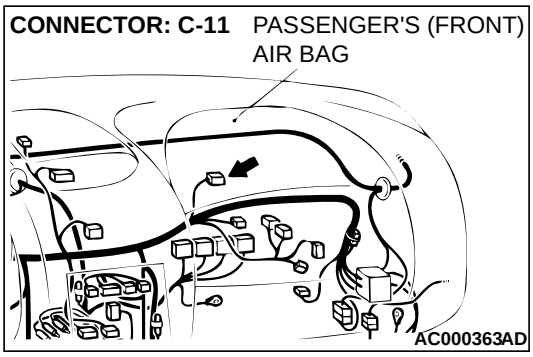
Required Special Tools:

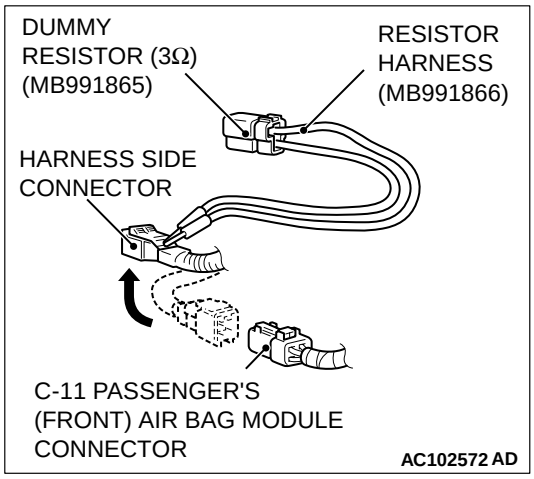
- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866 Resister harness

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

(1) Disconnect the negative battery terminal.

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





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

⚠ CAUTION

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

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

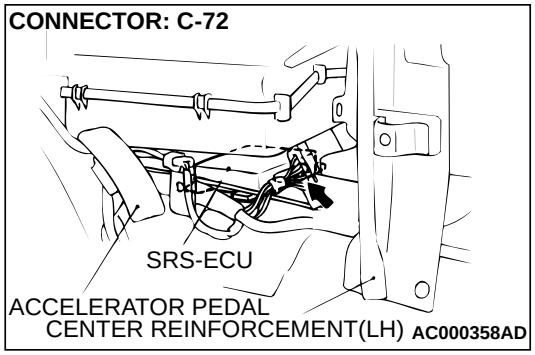
(5) Connect the negative battery terminal.

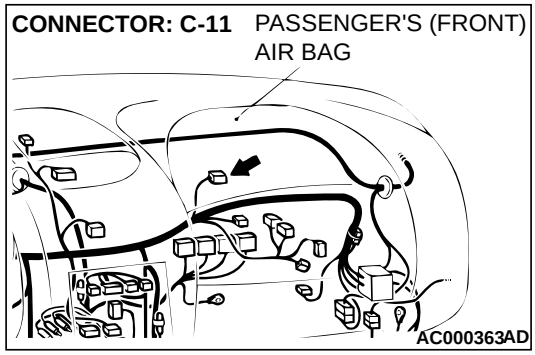
(6) Erase the DTC memory, and then recheck the DTC.

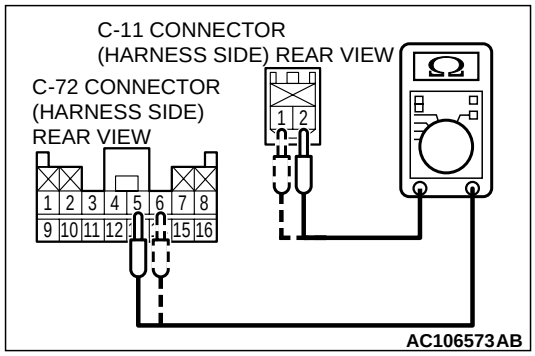
Q: Is DTC 25 output?

YES : Go to Step 2.

NO : Replace the passenger's air bag module. Refer to P.52B-144. Then go to Step 3.







STEP 2. Check the harness for open circuit between SRS-ECU and the passenger's side air bag module.

(1) Unclip passenger's air bag module connector C-11.
(2) Disconnect SRS-ECU connector C-72 and passenger's air bag module connector C-11, 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.

(3) Check the continuity between the following terminals.

C-72 connector		C-11 connector
5	-	2
6	-	1

- Should be less than 2 ohm.

Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC. If DTC 25 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 3.
NO : Repair the harness wires between SRS-ECU connector C-72 and passenger's side air bag module connector C-11. Then go to Step 3.

STEP 3. Check the DTC.

Q: Is DTC 25 output?

YES : Return to Step 1.
NO : This diagnosis is complete. (If no malfunctions are not 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

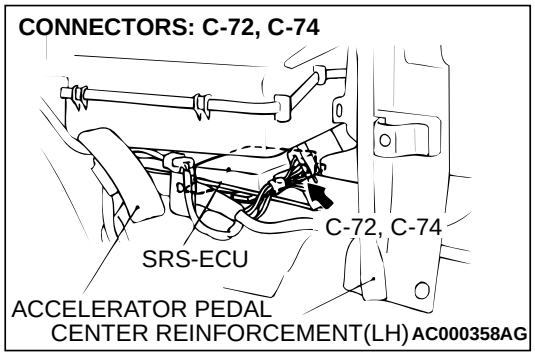
DIAGNOSIS

STEP 1. Check the SRS-ECU connector C-72 <Vehicles without SRS side air bag>/C-72 and C-74 <Vehicles with SRS side air bag>.

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-72 <Vehicles without SRS side air bag>/C-72 and C-74 <Vehicles with SRS side air bag> for damage. If SRS-ECU connectors C-72 and C-74 are damaged, repair or replace them.

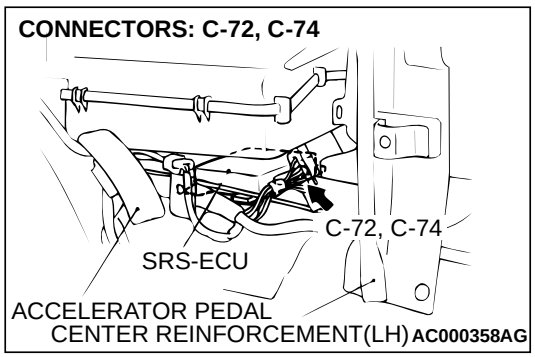
(1) Disconnect SRS-ECU connectors C-72 and C-74.

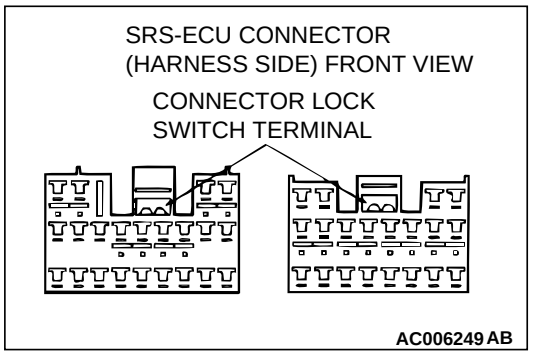
(2) Check the connector lock switch terminal inside the harness side connector for improper contact or deformation.

Q: Are SRS-ECU connectors C-72 and C-74 in good condition?

YES : Eras the DTC memory, and recheck if any DTC sets. If DTC 34 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 3.

NO : Repair or replace the SRS-ECU connector C-72, C-74. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 3.





STEP 3. Check for DTC.

Q: Is DTC 34 output?

YES : There is no action to be taken.

NO : This diagnosis is complete. (If no malfunctions are not 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 code is output before the air bag has deployed, the cause is probably a malfunction inside the SRS-ECU.

TROUBLESHOOTING HINTS

- Malfunction of the SRS-ECU

DIAGNOSIS

Replace the SRS-ECU. (Refer to P.52B-142.)

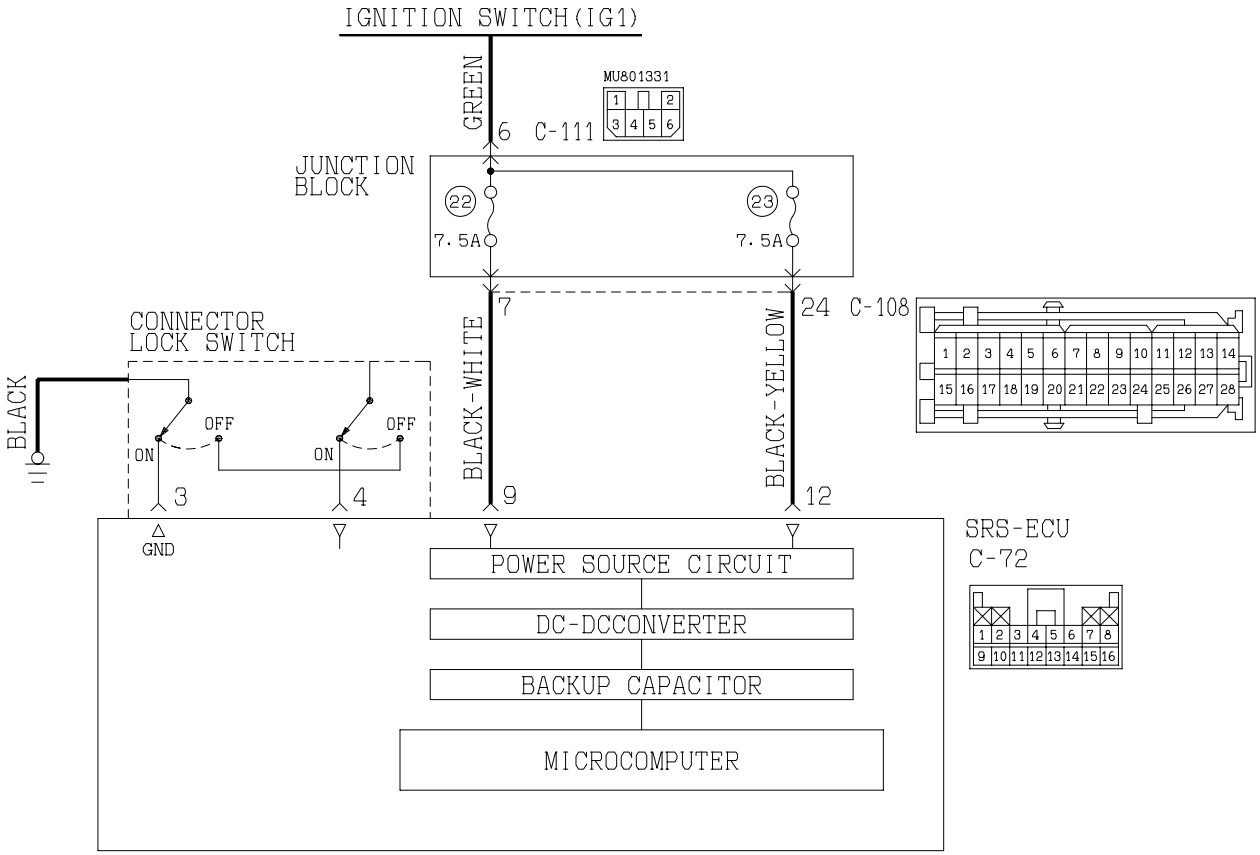
Q: Is DTC 35 output?

YES : There is no action to be taken.

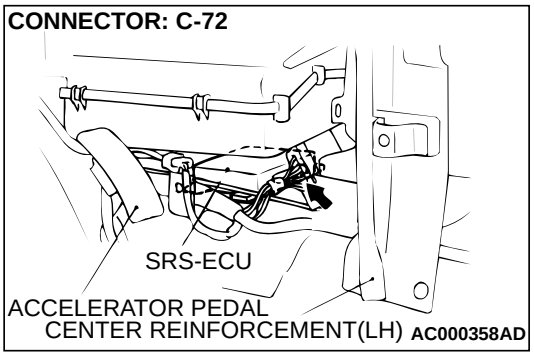
NO : This diagnosis is complete.

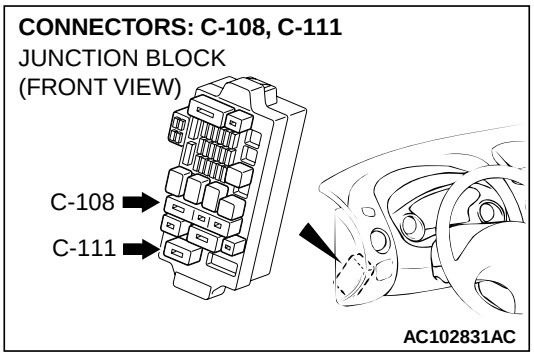
DTC 41: IG1 Power Circuit System (Fuse No.23 Circuit)

IG1 Power Circuit System (Fuse No.23 Circuit)



W3S04M01AA
AC106617AB





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.23 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 numbers 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

STEP 1. Check junction block multi-purpose fuse number 23.

Q: Is the fuse burned out?

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

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

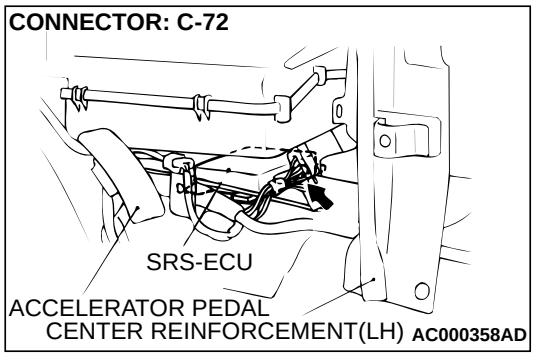
(1) Disconnect SRS-ECU connector C-72.
(2) Connect the negative battery terminal.
(3) Turn the ignition switch to the "ON" position.
(4) Measure at the wiring harness side.

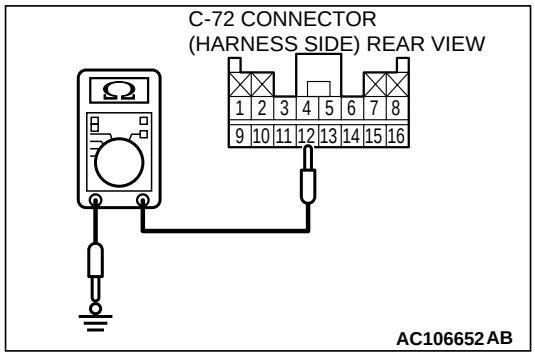
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

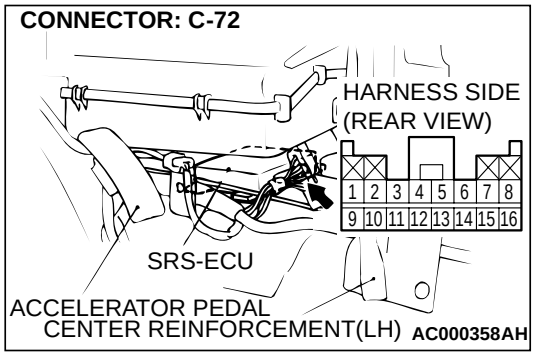
(5) Measure the Voltage between terminal 12 and body ground
- Voltage should be 9 volts or more

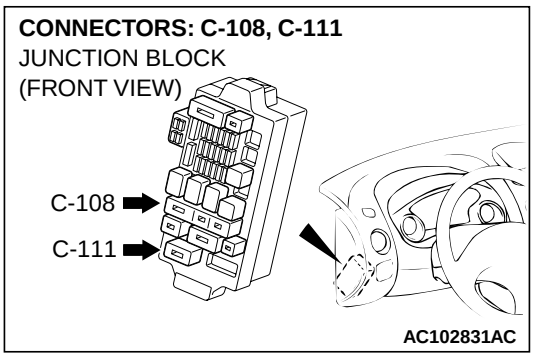
Q: Is the voltage normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 41 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 10.
NO : Go to Step 3.









STEP 3. Check the harness for open circuit between SRS-ECU connector C-72 (terminal No.9) and the ignition switch (IG1).

NOTE: After inspecting intermediate connectors C-108 and C-111, 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: Are harness between SRS-ECU connector C-72 (terminal No.9) and the ignition switch (IG1) in good condition?

YES : Go to Step 10.

NO : Repair the harness wire between SRS-ECU connector C-72 and the ignition switch (IG1). Then go to Step 10.

STEP 4. Check a burned-out fuse.

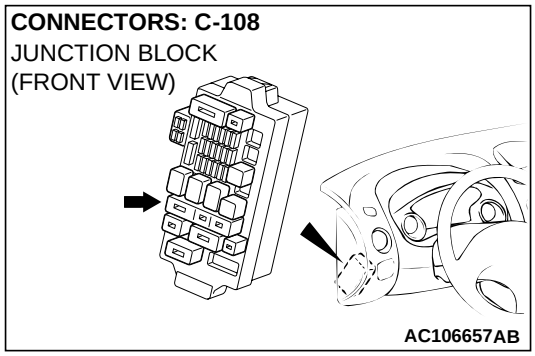
(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the switch off.
(3) Check the fuse.

Q: Is the fuse in good condition?

YES : . Then go to Step 10.

NO : Go to Step 5.

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



(1) Disconnect junction block connector C-108, and measure at the wiring harness side.

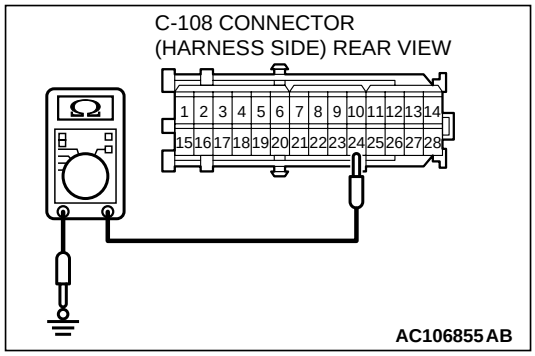
⚠ CAUTION

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

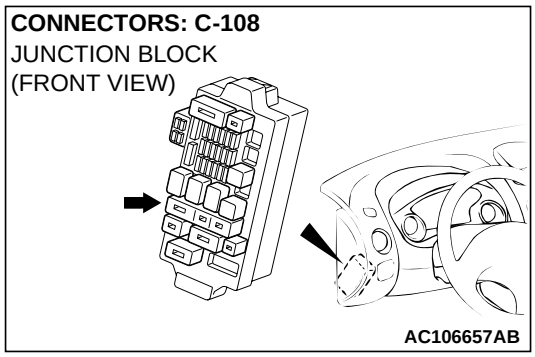
(2) Check the continuity between terminals 24 and body ground.
- There should be open circuit.

Q: Is the continuity normal?

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



STEP 6. Check the harness for short circuit to ground between the junction block and the combination meter.



(1) Disconnect junction block connector C-108, and measure at the wiring harness side.

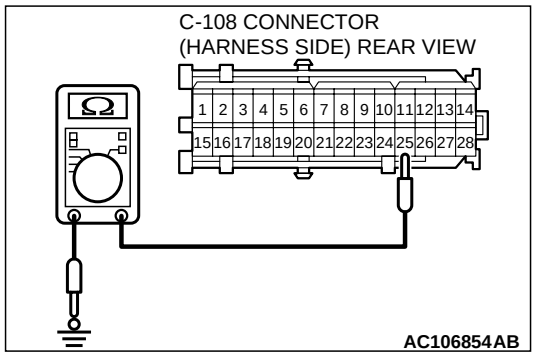
⚠ CAUTION

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

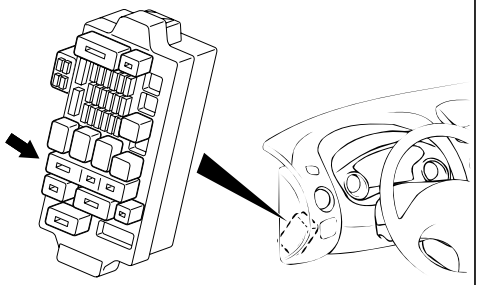
(2) Check the continuity between terminals 25 and body ground.
- There should be open circuit.

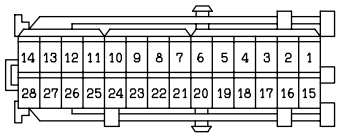
Q: Is the continuity normal?

YES : Check the other circuit, which flows through multi-purpose fuse number 23.
NO : Go to Step 7.



CONNECTOR: C-108
JUNCTION BLOCK
(FRONT VIEW)

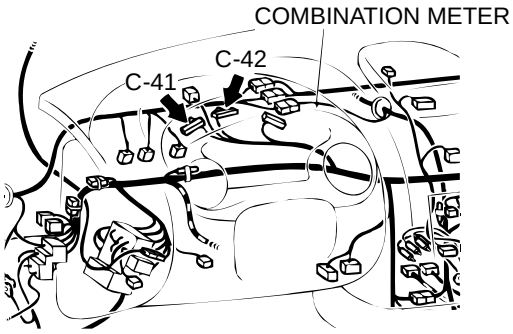




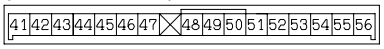
C-108 CONNECTOR
(HARNESS SIDE)
FRONT VIEW

AC106627AB

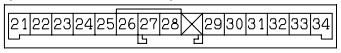
CONNECTORS: C-41, C-42



C-41 CONNECTOR
(HARNESS SIDE) FRONT VIEW



C-42 CONNECTOR
(HARNESS SIDE) FRONT VIEW



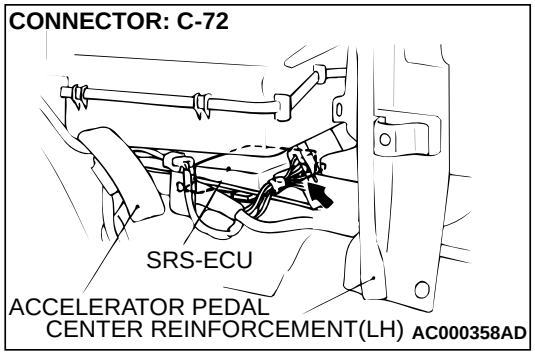
AC106856AB

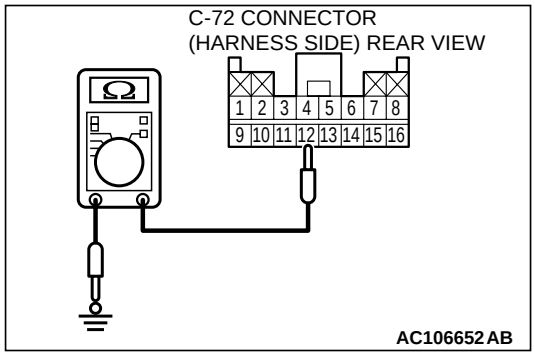
STEP 7. Check the harness for short circuit to ground between junction block connector C-108 (terminal No.25) and combination meter connector C-41 (terminal No.52).
NOTE: After inspecting intermediate connectors C-42, inspect the wiring harness. If intermediate connectors are damaged, repair or replace them. Refer to GROUP 00E, Harness Connector Inspection P.00E-2. Then go to Step 10.

Q: Are harness wires between junction block connector C-108 (terminal No.25) and combination meter connector C-41(terminal No.52) in good condition?

YES : Go to Step 10.

NO : Repair the harness wires between junction block connector C-108 and combination connector C-41. Then go to Step 10.





STEP 8. Check the harness for short circuit to ground between the SRS-ECU and the junction block.

(1) Disconnect SRS-ECU connector C-72, and measure at the wiring harness side.

⚠ CAUTION

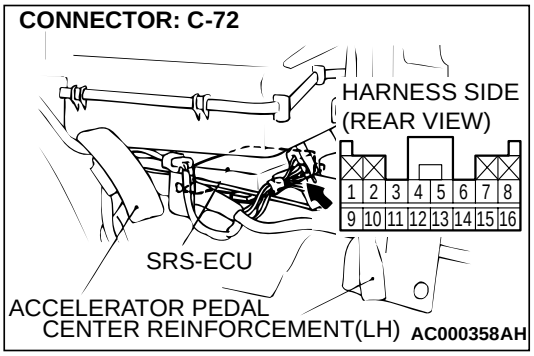
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

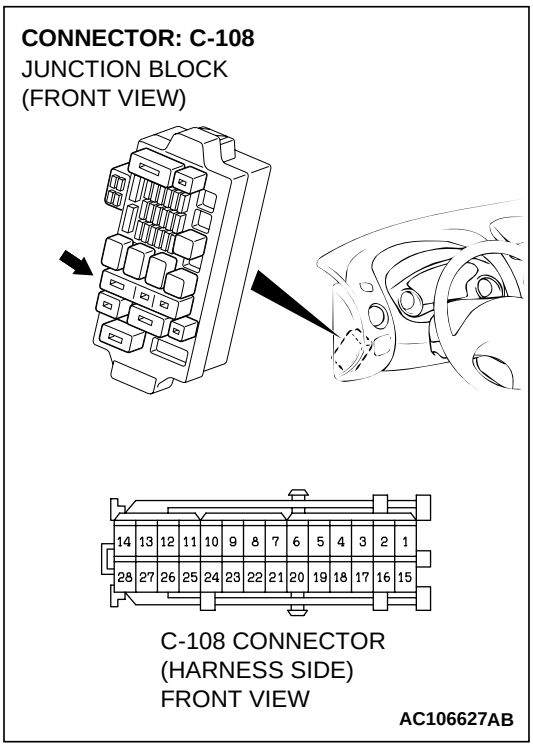
(2) Check the continuity between terminals 12 and body ground.
- There should be open circuit.

Q: Is the circuit normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 41 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 10.

NO : Go to Step 9.





STEP 9. Check the harness for short circuit ground between SRS-ECU connector C-72 (terminal No.24) and junction block connector C-108 (terminal No.12).

Q: Are harness wires between SRS-ECU connector C-72 (terminal No.24) and junction block connector C-108 (terminal No.12) in good condition?

YES : Go to Step 10.

NO : Repair the harness wires between SRS-ECU connector C-72 and junction block connector C-108. Then go to Step 10.

STEP 10. Check for DTC.

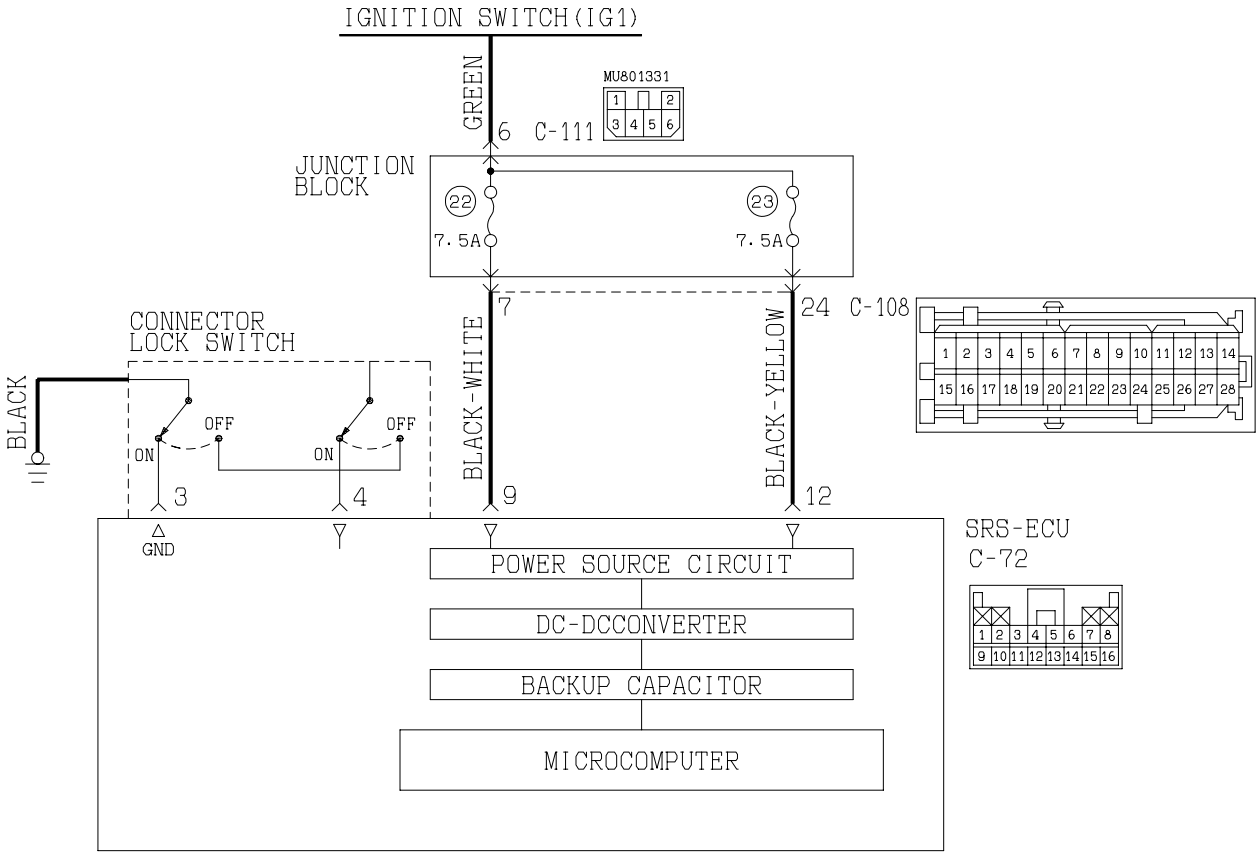
Q: Is DTC 41 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 Circuit System (Fuse No.22 Circuit)

IG1 Power Circuit System (Fuse No.22 Circuit)



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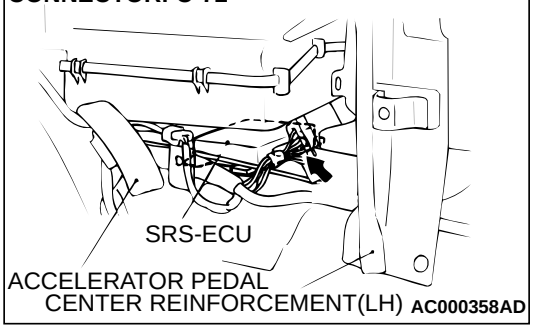
AC106617AC

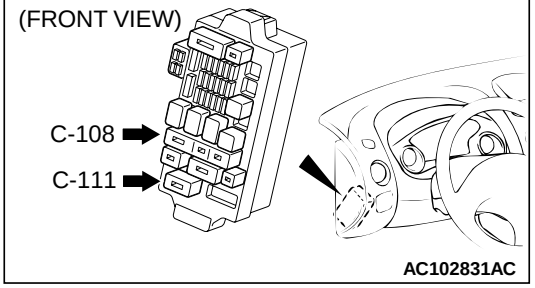
CONNECTOR: C-72



AC000358AD

CONNECTORS: C-108, C-111

JUNCTION BLOCK
(FRONT VIEW)



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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.22 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 numbers 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-II)
- MB991223 (MB991222): Harness set (Probe)

STEP 1. Check junction block multi-purpose fuse number 22.

Q: Is the fuse burned out?

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

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

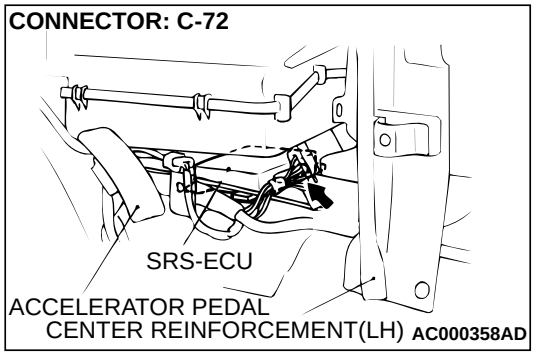
Measurement at SRS-ECU connector C-72.
(1) Disconnect SRS-ECU connector C-72.
(2) Connect the negative battery terminal.
(3) Turn the ignition switch to the "ON" position.

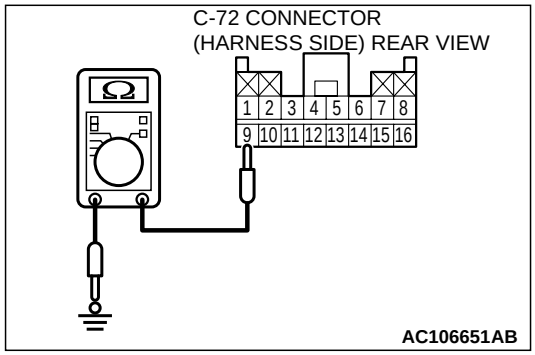
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

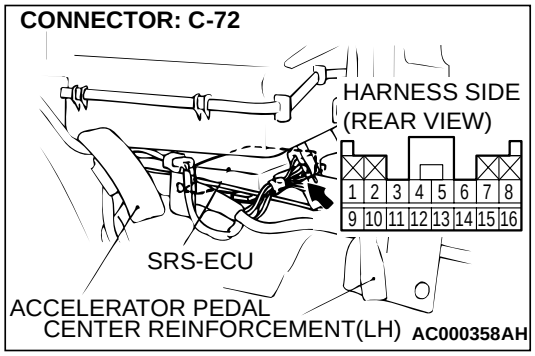
(4) Measure at the wiring harness side.
(5) Measure the voltage between terminal 9 and body ground
- Voltage should be 9 volts or more.

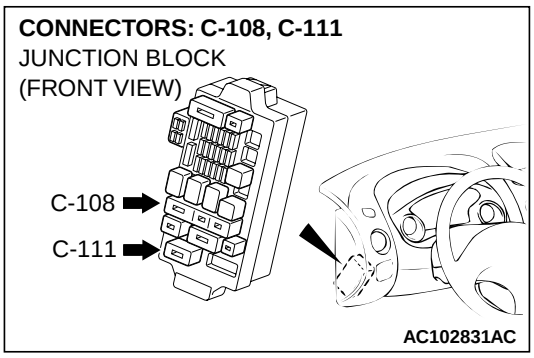
Q: Is the voltage normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 42 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 8.
NO : Go to Step 3.









STEP 3. Check the harness for open circuit between SRS-ECU connector C-72 (terminal No.9) and the ignition switch (IG1).

NOTE: After inspecting intermediate connectors C-108 and C-111, 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: Are harness wires between SRS-ECU connector C-72 (terminal No.9) and the ignition switch (IG1) in good condition?

YES : Go to Step 8.

NO : Repair the harness wires between SRS-ECU connector C-72 and the ignition switch (IG1). Then go to Step 8.

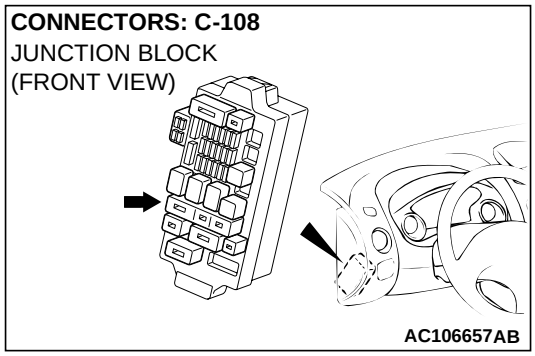
STEP 4. Check a burned-out fuse.

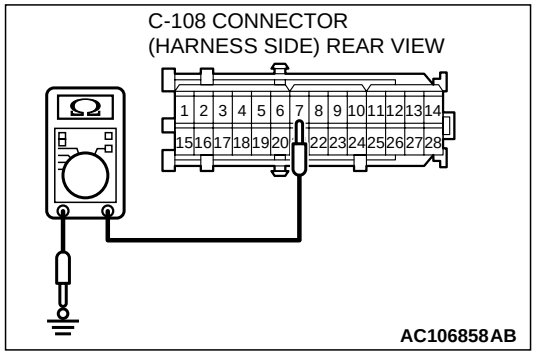
(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the switch off.
(3) Check the fuse.

Q: Is the fuse in good condition?

YES : Go to Step 8.

NO : Go to Step 5.





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

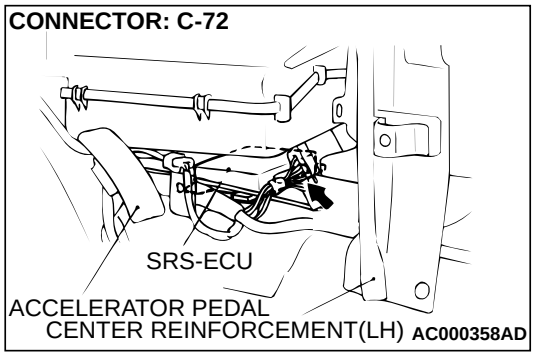
(1) Measure at junction block connector C-108.
(2) Disconnect junction block connector C-108, and measure at the wiring harness side.

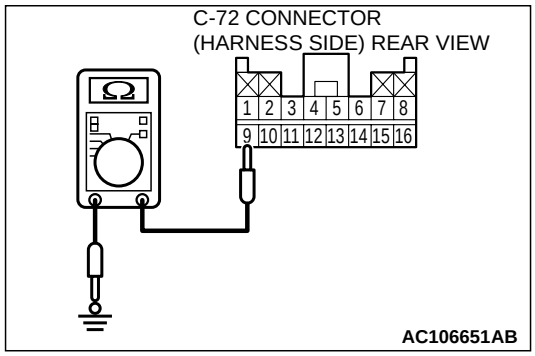
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Check the continuity between terminals 7 and body ground.
- There should be open circuit.

Q: Is the circuit normal?

YES : Check the other circuit, which flows through multi-purpose fuse number 22.
NO : Go to Step 6.





STEP 6. Check the harness for short circuit to ground between the SRS-ECU and the junction block.

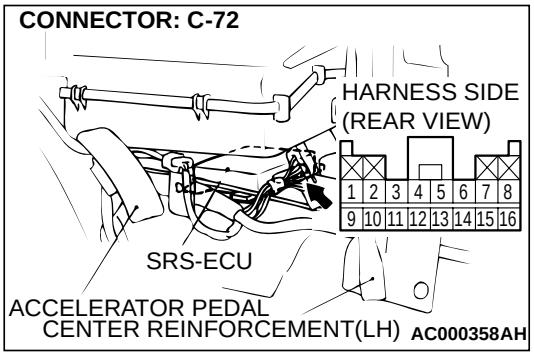
(1) Disconnect SRS-ECU connector C-72, and measure at the wiring harness side.

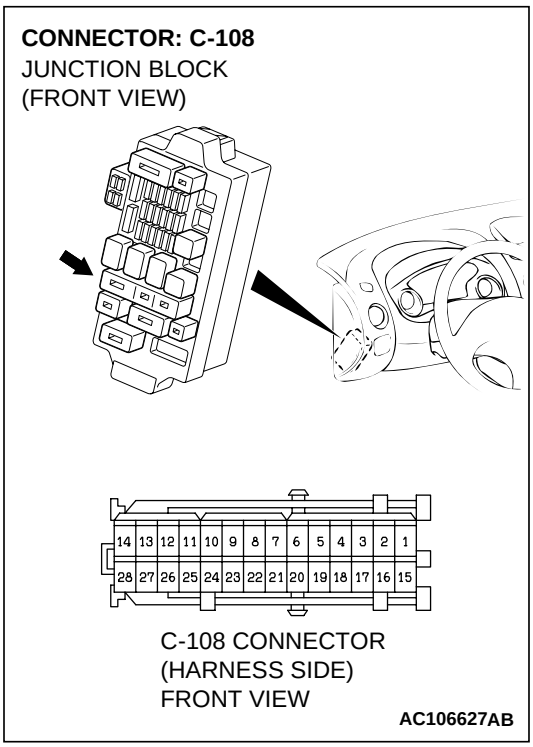
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(2) Check the continuity between terminals 9 and body ground.
- There should be open circuit.

Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 42 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 8.
NO : Go to Step 7.





STEP 7. Check the harness wires between SRS-ECU connector C-72 (terminal No.9) and junction block connector C-108 (terminal No.7).

Q: Are harness wires between SRS-ECU connector C-72 (terminal No.9) and junction block connector C-108 (terminal No.7) in good condition?

YES : Go to Step 8.

NO : Repair the harness wires between SRS-ECU connector C-72 and junction block connector C-108. Then go to Step 8.

STEP 8. Check for DTC.

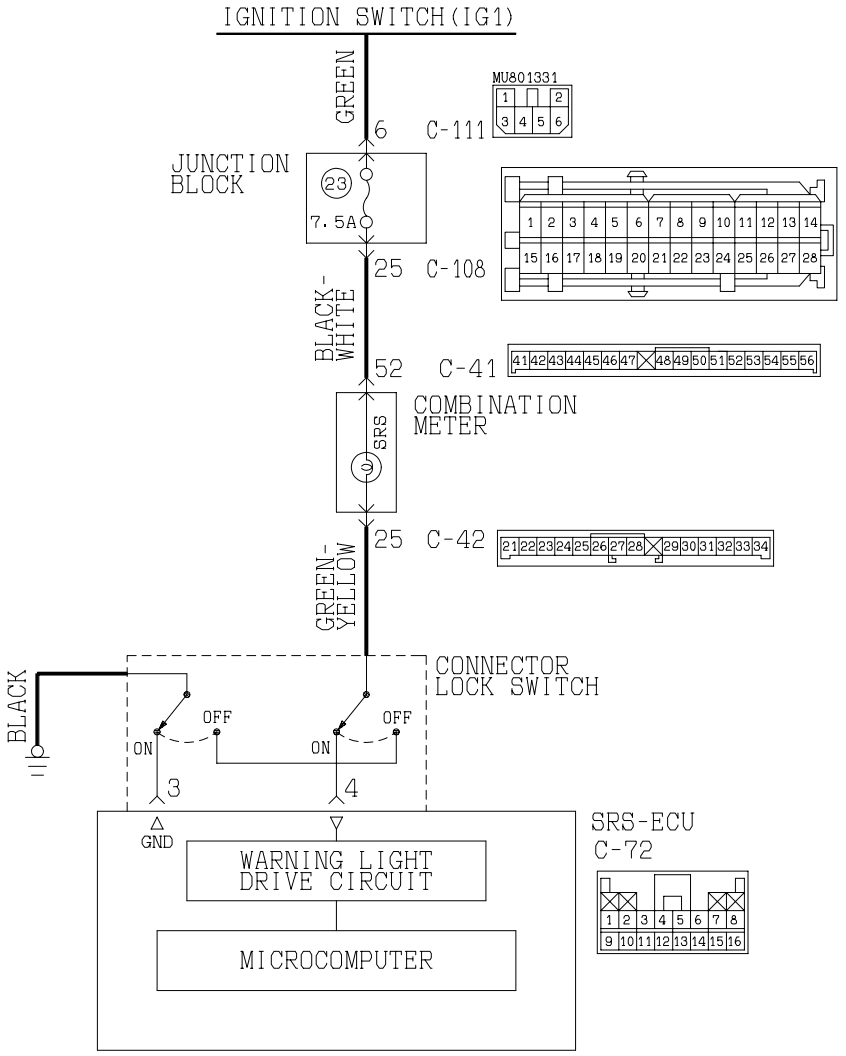
Q: Is DTC 42 output?

YES : Replace the SRS-ECU. Refer to P.52B-142.

NO : This diagnosis is complete. (If no malfunctions are not 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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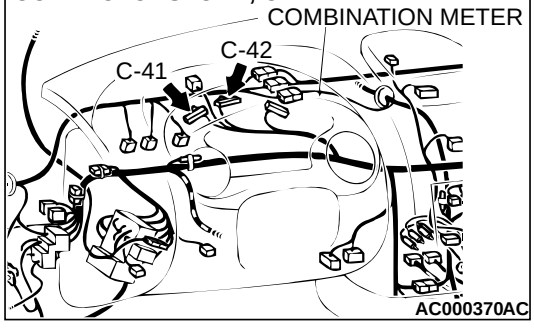
AC106619AB

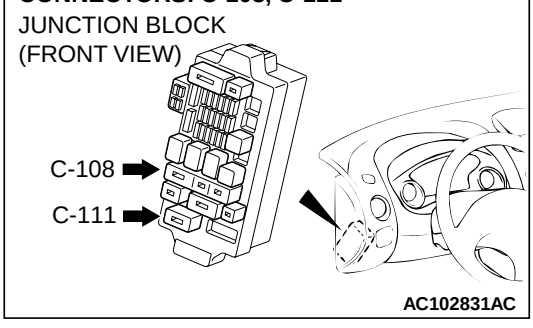
CONNECTORS: C-41, C-42



AC000370AC

CONNECTORS: C-108, C-111

JUNCTION BLOCK
(FRONT VIEW)



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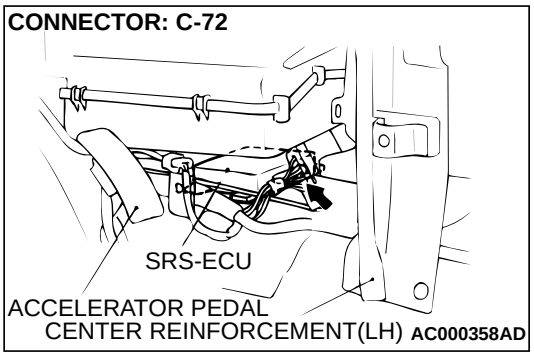
TSB Revision



CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

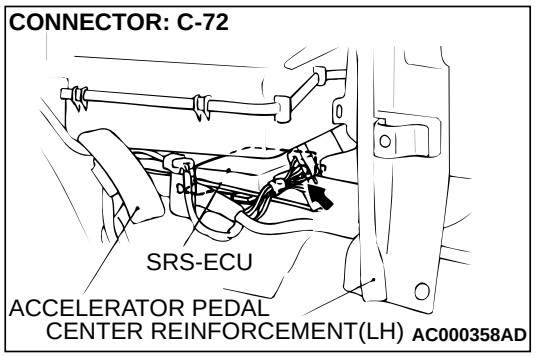
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)



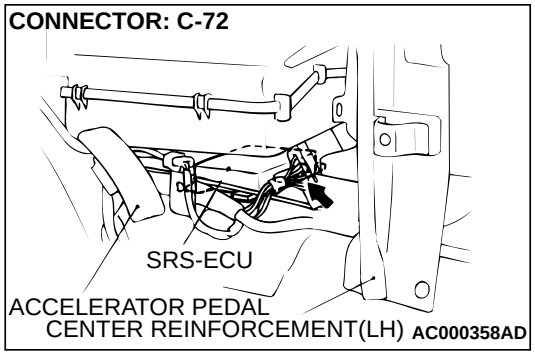
STEP 1. Check the SRS warning light.

(1) Connect the negative battery terminal.
(2) Disconnected the SRS-ECU connector C-72.
(3) Turn the ignition switch to the "ON" position.

Q: Does the warning light illuminate?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 43 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 6.

NO : Go to Step 2.



STEP 2. Check the ground line at the SRS-ECU connector C-72.

(1) Disconnect SRS-ECU connector C-72.
(2) Connect the negative battery terminal.

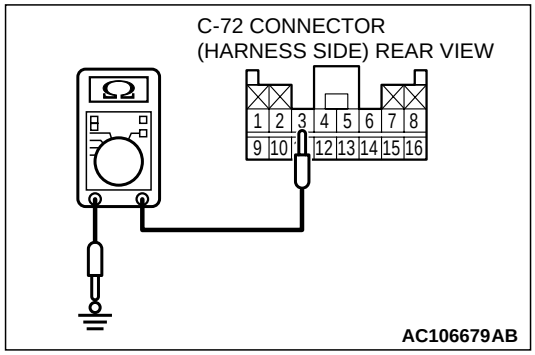
⚠ CAUTION

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

(3) Measure the continuity between terminal 3 and ground.
- Should be less than 2 ohm.

Q: Is the continuity normal?

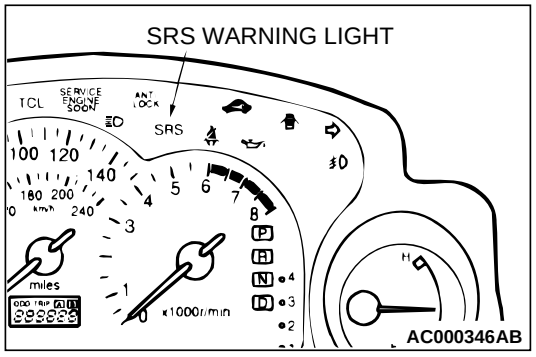
YES : Go to Step 3.
NO : Then go to Step 5.

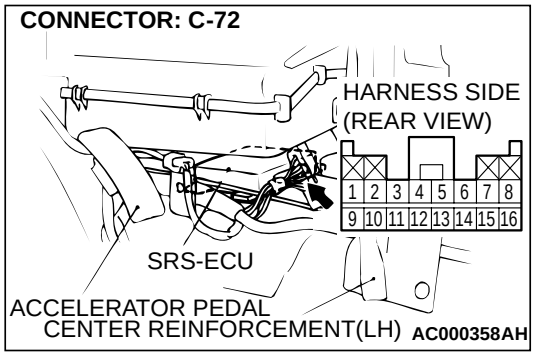


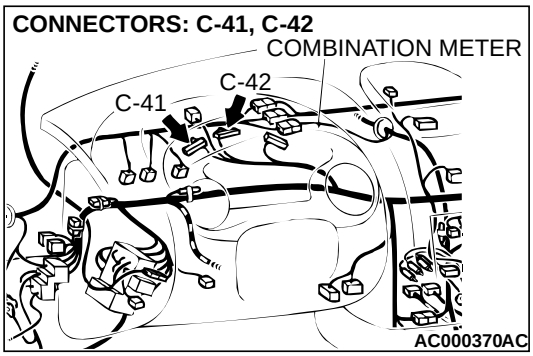
STEP 3. Check the SRS warning light bulb.

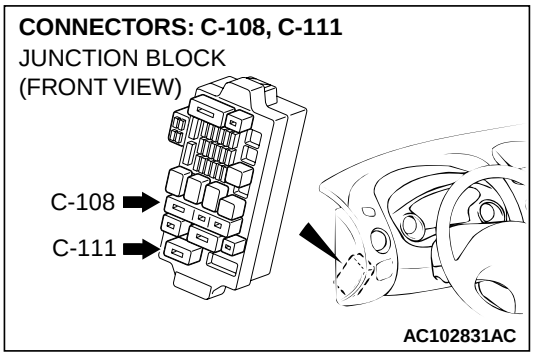
Q: Has the SRS warning light bulb blown?

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









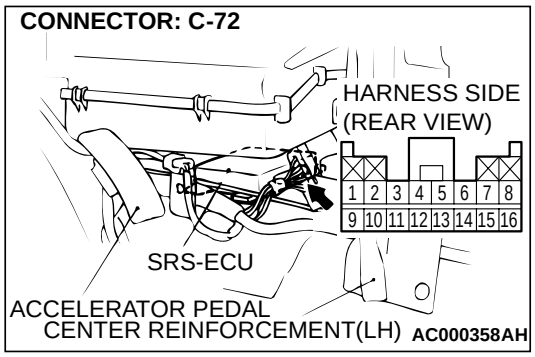
STEP 4. Check the harness for open circuit between SRS-ECU connector C-72 (terminal No.4) and the ignition switch (IG1).

NOTE: After inspecting intermediate connectors C-41, C-42, C-108, C-111 inspect the wiring harness. If intermediate connectors C-41, C-42, C-108, C-111 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-72 (terminal No.4) and the ignition switch (IG1) in good condition?

YES : Replace the combination meter.

NO : Repair the harness wires between SRS-ECU connector E-08 and the ignition switch (IG1). Then go to Step 6.



STEP 5. Check the harness for open circuit between SRS-ECU connector C-72 (terminal No.3) and ground.

Q: Is the harness wire between SRS-ECU connector C-72 (terminal No.3) and ground in good condition?

YES : Go to Step 6.

NO : Repair the harness wires between SRS-ECU connector C-72 and ground. Then go to Step 6.

STEP 6. Check for DTC.

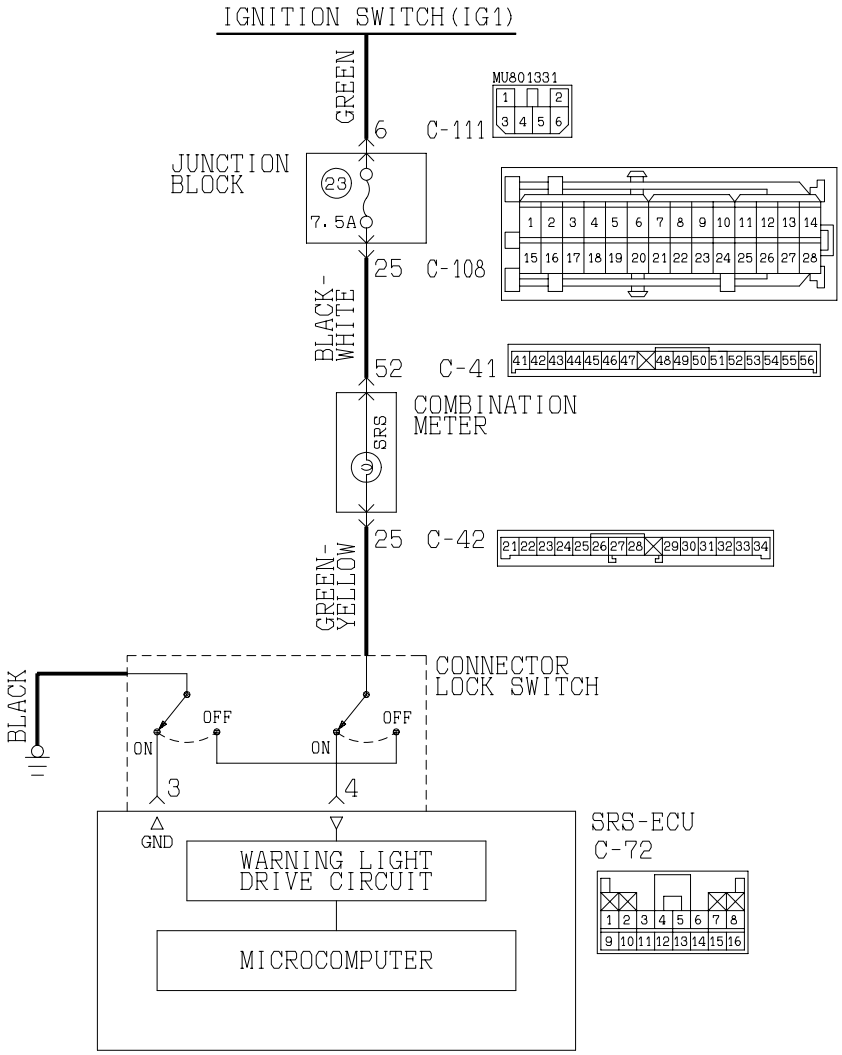
Q: Is DTC 43 output?

YES : There is no action to be taken.

NO : This diagnosis is complete. (If no malfunctions are not 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



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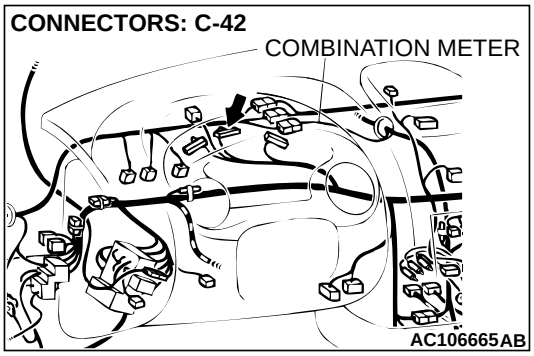
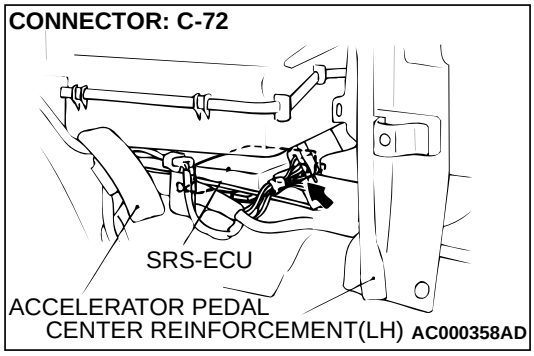
TSB Revision





CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

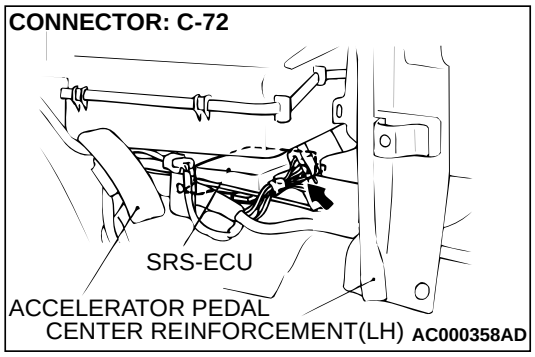
TROUBLESHOOTING HINTS

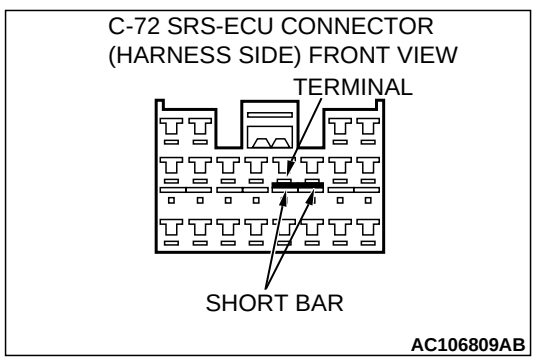
- Damaged wiring harnesses of connectors
- Malfunction of the SRS-ECU
- Malfunction of the combination meter

DIAGNOSIS

Required Special Tool:

- MB991502: Scan Tool (MUT-II)





STEP 1. Check SRS-ECU connector C-72 for damage.

(1) Disconnect SRS-ECU connectors C-72.
(2) Check the warning light terminal short bar inside the harness side connector for improper contact or deformation.

Q: Is SRS-ECU connectors C-72 good condition?

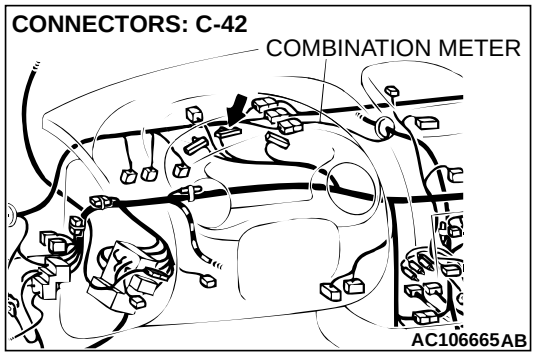
YES : Then go to Step 2.
NO : Repair or replace the SRS-ECU connector C-72. Then go to Step 4.

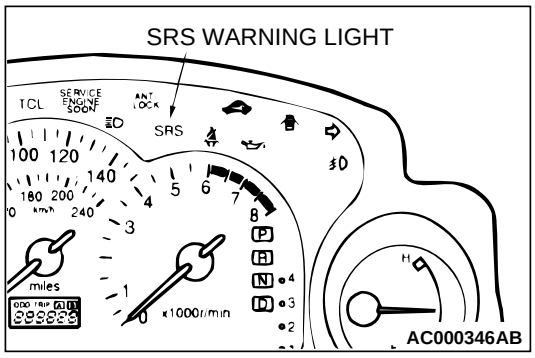
STEP 2. Check the SRS warning light.

(1) Disconnect the combination meter connector C-42.
(2) Connect the negative battery cable.
(3) Turn the ignition switch to the "ON" position.

Q: Does the SRS warning light go out when combination meter connector C-42 is disconnected?

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

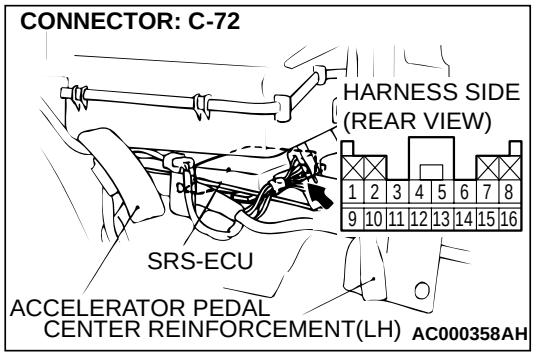


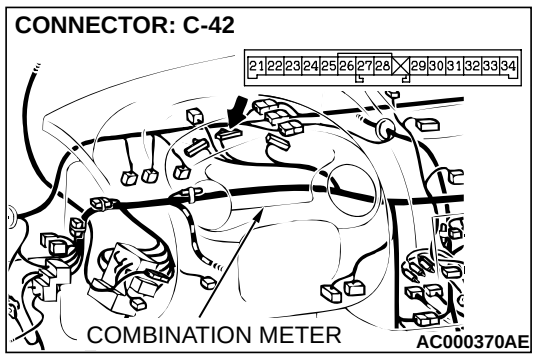


STEP 3. Check the harness for short circuit to ground between SRS-ECU connector C-72 (terminal No.3) and combination meter connector C-42 (terminal No.25).

Q: Is the harness wire between the SRS-ECU connector C-72 (terminal No.3) and combination meter connector C-42 (terminal No.25) in good condition?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 43 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 4.
NO : Repair the harness wire between SRS-ECU connector C-72 and combination meter connector C-42. Then go to Step 4.





STEP 4. Check for DTC.

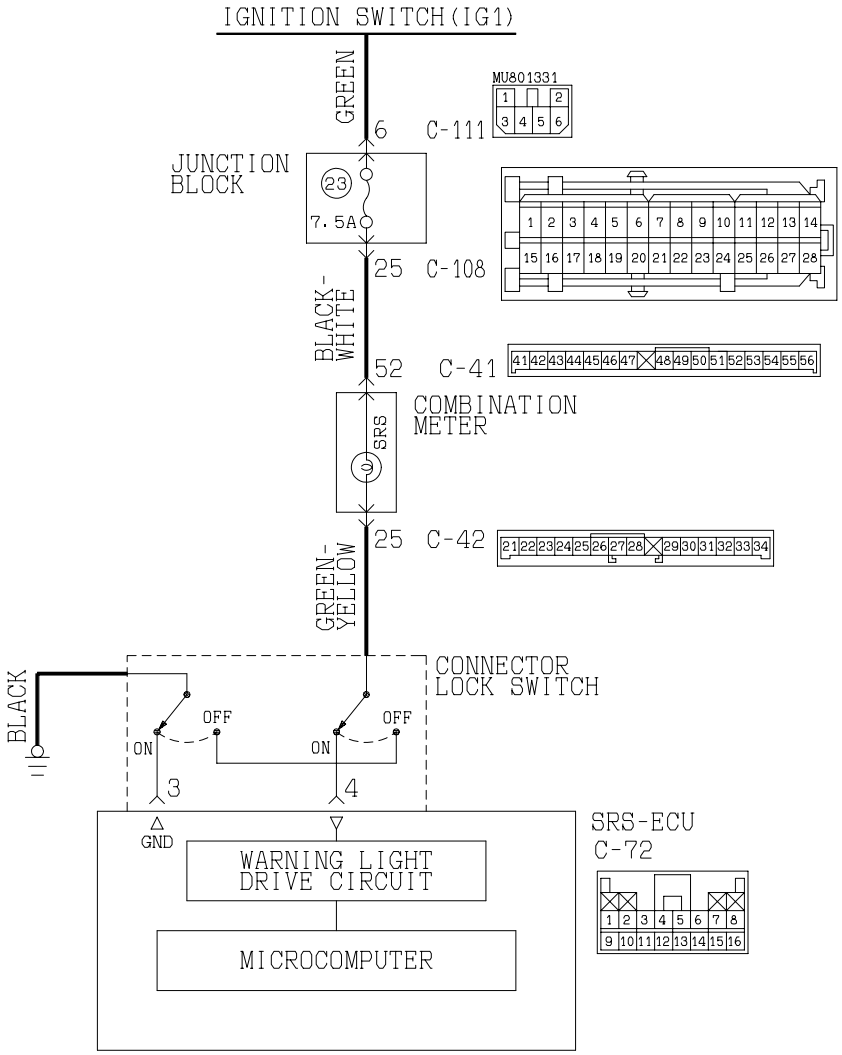
Q: Is DTC 43 output?

YES : There is no action to be taken.

NO : This diagnosis is complete. (If no malfunctions are not 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



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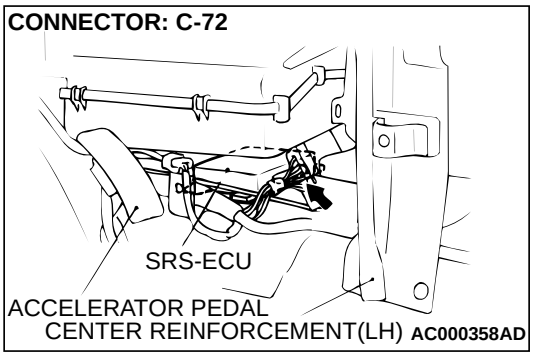


CIRCUIT OPERATION

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

DTC SET CONDITIONS

This DTC is set under one of the following cases while the SRS-ECU is monitoring the warning light drive circuit:

- When a short circuit occurs in the warning light drive circuit.
- When a malfunction is detected in the output transistor inside the SRS-ECU.
- However, if the vehicle condition returns to normal, DTC 44 will be automatically erased, and the SRS warning light will go out.

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tool:

- MB991502: Scan Tool (MUT-II)

STEP 1. Check the SRS warning light drive circuit system. Refer to P.52B-129.

Q: Is the SRS warning light drive circuit normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 43 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 2.

STEP 2. Check for DTC.

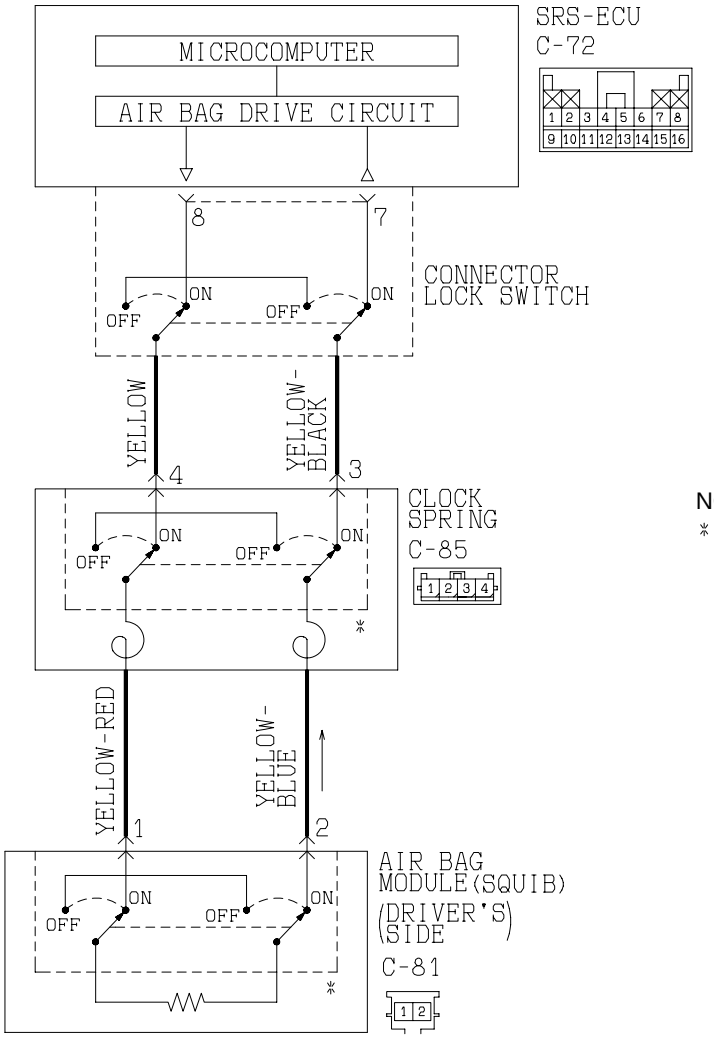
Q: Is DTC 44 output?

YES : There is no action to be taken.

NO : This diagnosis is complete. (If no malfunctions are not 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 MalfunctionP.00-6.)

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

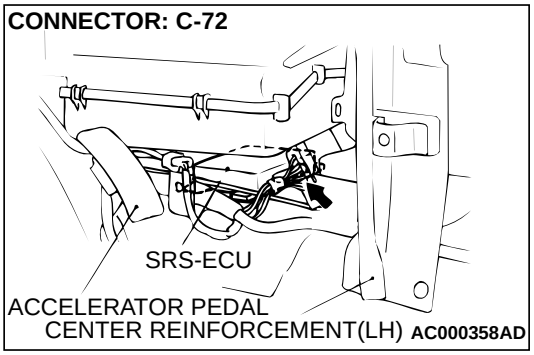
Driver's Air Bag Module (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

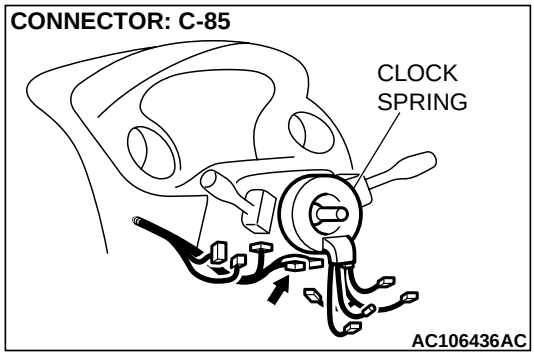
W3S15M01AA
AC106622 AB

CONNECTOR: C-72



AC000358AD

CONNECTOR: C-85



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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 SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

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

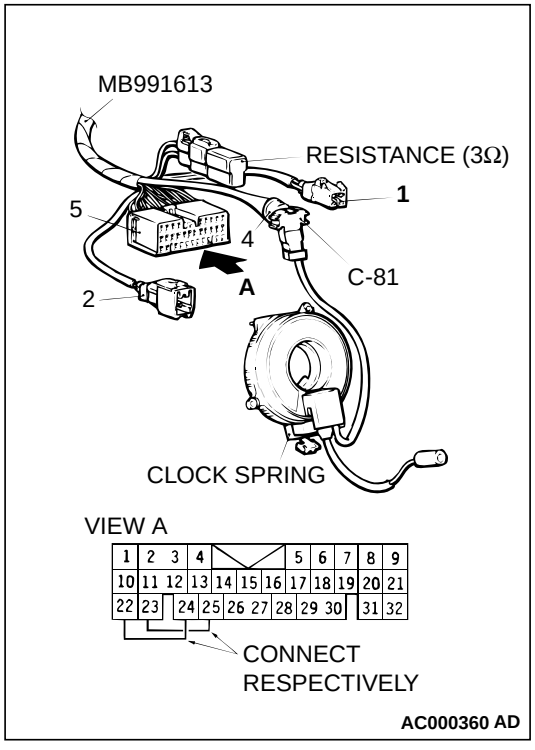
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991613: SRS Check Harness
- MB991865: Dummy resister
- MB991866: Resister harness

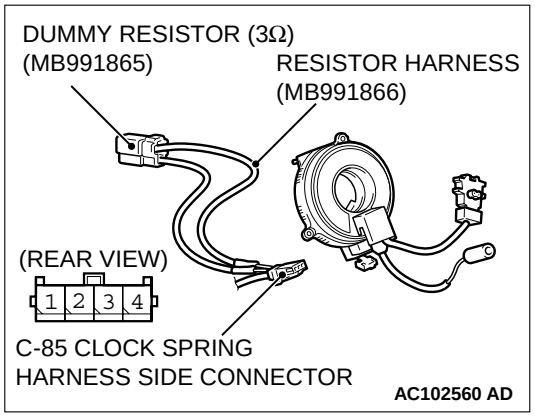


STEP 1. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.
(2) Remove the driver's air bag module. (Refer to P.52B-144.)
(3) Connect connector (4) of special tool MB991613 to clock spring connector C-81.
(4) Connect connector (1) of special tool MB991613 to connector (2).
(5) Connect terminals 22 to 24, and terminals 23 to 25 of special tool MB991613 to connector (5).
(6) Connect the clock spring to the body wiring harness.
(7) Connect the negative battery terminal.
(8) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 61 set?

YES : Go to Step 2.
NO : Replace the driver's air bag module. Then go to Step 5.



STEP 2. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-85.
(3) Connect special tool MB991865 to special tool MB991866.

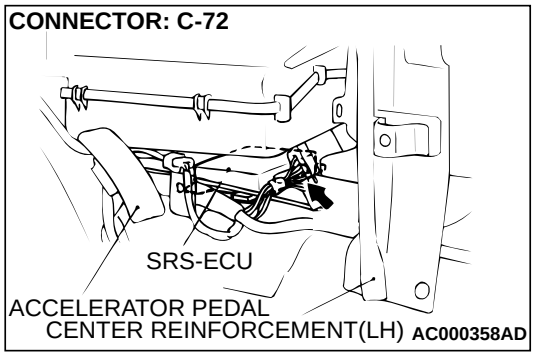
⚠ CAUTION

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-85 (terminal No.3 and 4) by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 61 output?

YES : Go to Step 3.
NO : Replace the clock spring. Then go to Step 5.



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

(1) Disconnect SRS-ECU connector C-72.
(2) Disconnect clock spring connector C-85.
(3) Turn the ignition switch to the "ON" position.
(4) Measure at the wiring harness side.

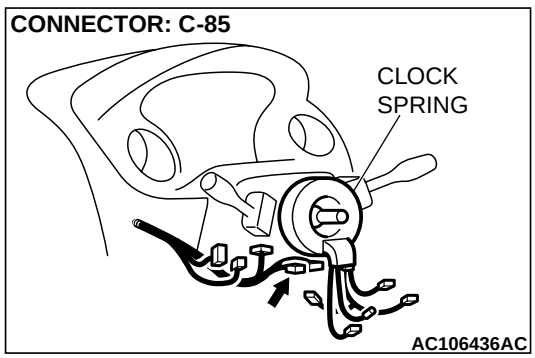
⚠ CAUTION

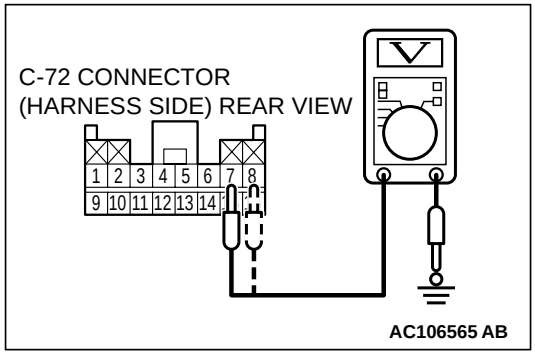
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

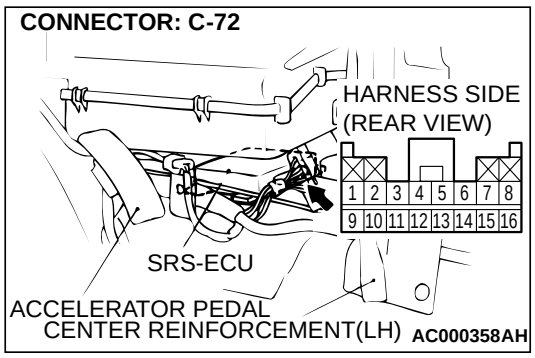
(5) Measure the voltage between terminals 7, 8 and body ground
- Voltage should be 0 volt.

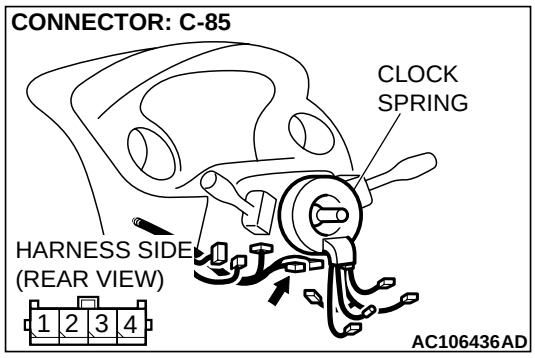
Q: Is the voltage normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 61 sets. replace the SRS-ECU. Refer to P.52B-142. Then go to Step 5.
NO : Then go to Step 4.









STEP 4. Check the harness for short circuit to power supply between SRS-ECU connector C-72 (terminal No.7 and 8) and clock spring connector C-85 (terminal No.3 and 4).

Q: Are harness wires between the SRS-ECU connector C-72 (terminal No.7 and 8) and clock spring connector C-85 (terminal No.3 and 4) in good condition?

YES : Go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-72 and clock spring connector C-85. Then go to Step 5.

STEP 5. Check the DTC.

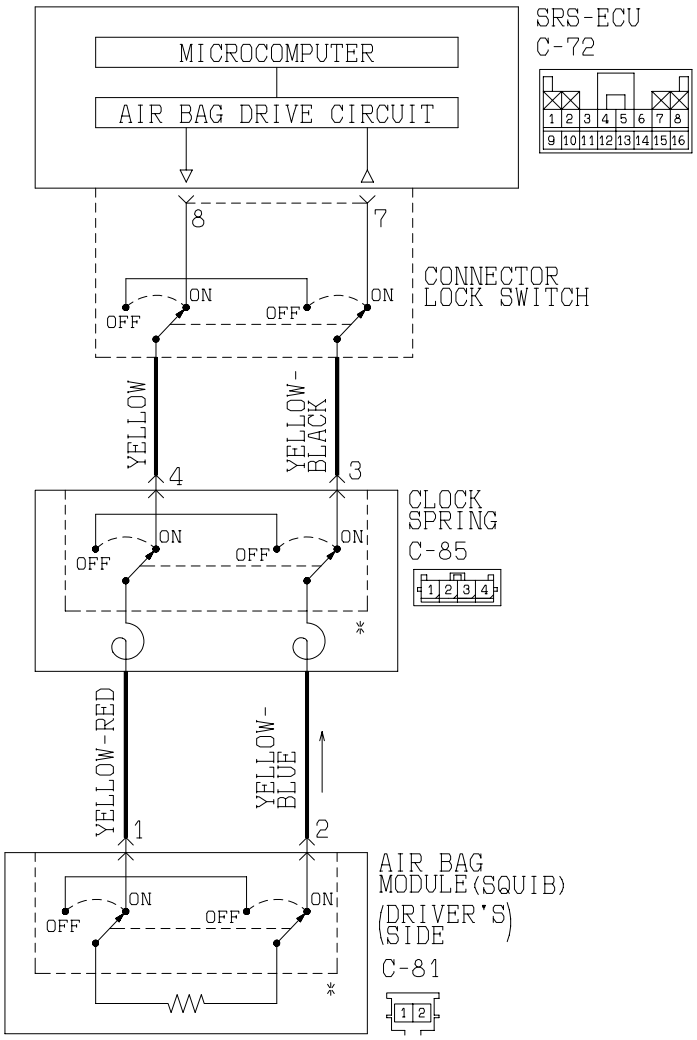
Q: Is DTC 61 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 62: Driver's Air Bag Module (Squib) System Fault for Ground Circuit (Short-Circuited to ground)

Driver's Air Bag Module (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

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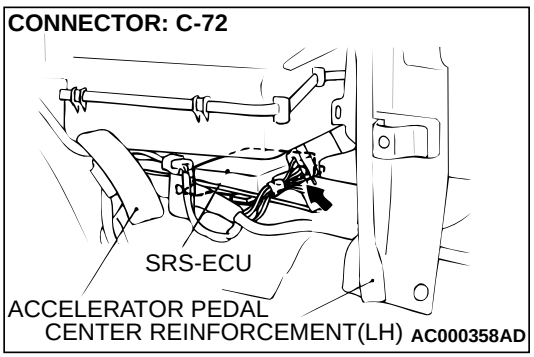
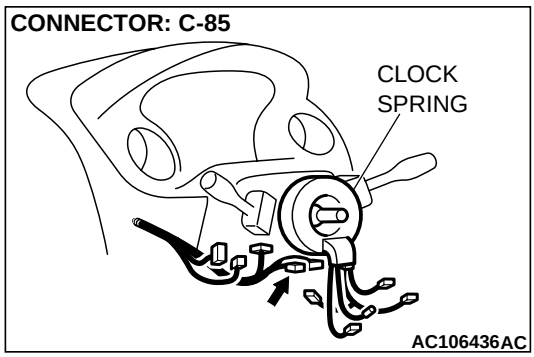
AC106622 AB





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 SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

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

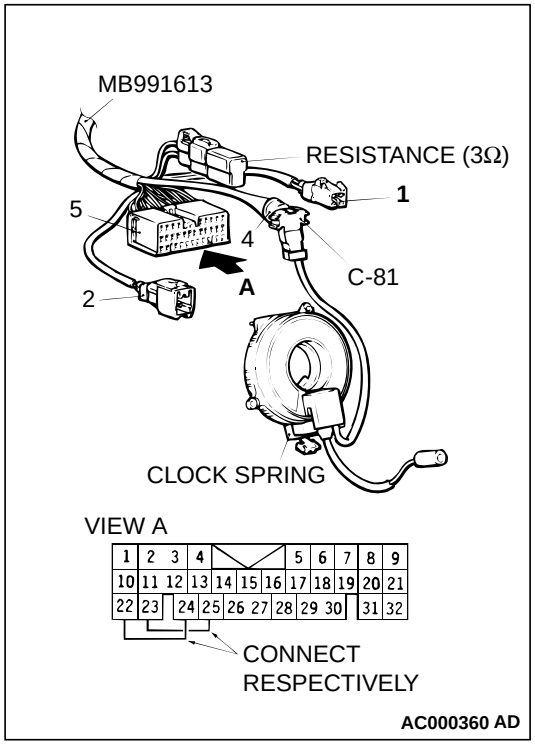
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991613: SRS Check Harness
- MB991865: Dummy resister
- MB991866: Resister harness

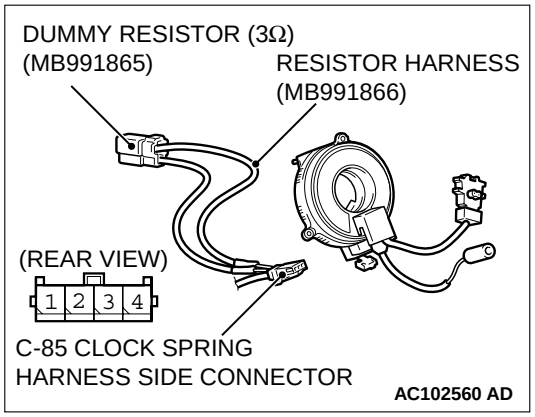


STEP 1. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.
(2) Remove the driver's air bag module. (Refer to P.52B-144.)
(3) Connect connector (4) of special tool MB991613 to clock spring connector C-81.special tool MB991613 to special tool MB991866.
(4) Connect connector (1) of special tool MB991613 to connector (2).
(5) Connect terminals 22 to 24, and terminals 23 to 25 of special tool MB991613 to connector (5).
(6) Connect the clock spring to the body wiring harness.
(7) Connect the negative battery terminal.
(8) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 22 out put?

YES : Go to Step 2.
NO : Replace the driver's air bag module. Then go to Step 5.



STEP 2. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-85.
(3) Connect special tool MB991865 to special tool MB991866.

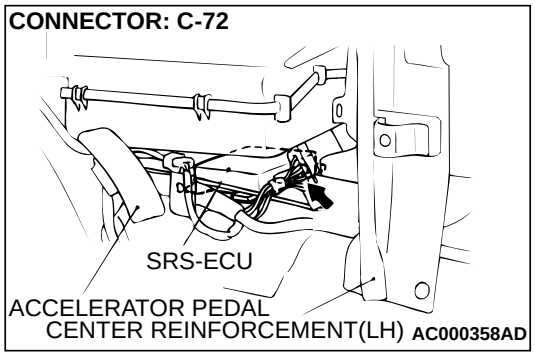
⚠ CAUTION

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-85 (terminal No.3 and 4) by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 62 output?

YES : Go to Step 3.
NO : Replace the clock spring. Then go to Step 5.



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

(1) Disconnect SRS-ECU connector C-72.
(2) Disconnect the clock spring connector C-85.
(3) Measure at the wiring harness side.

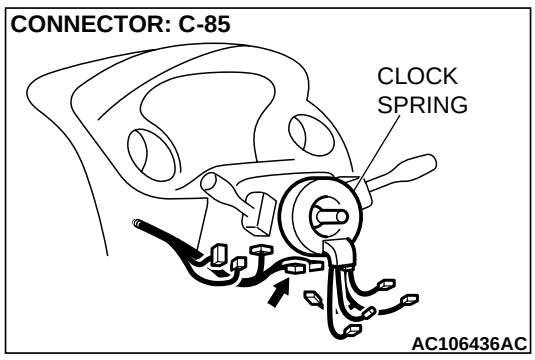
⚠ CAUTION

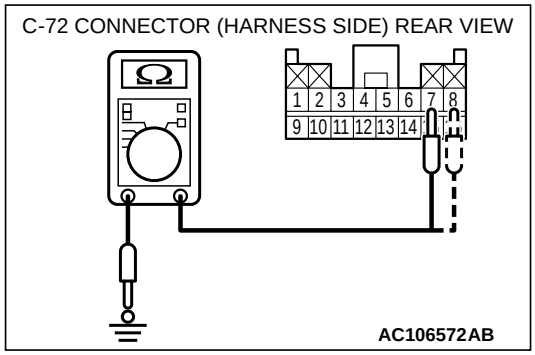
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

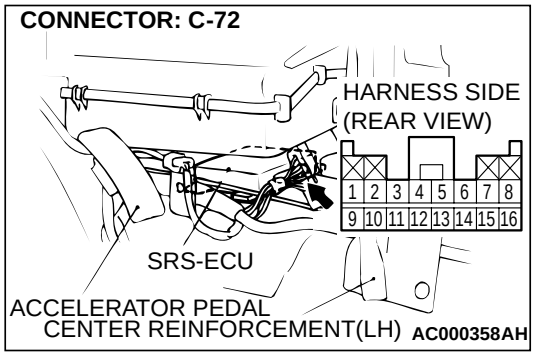
(4) Check the continuity between terminals7, 8 and body ground
- There should be open circuit.

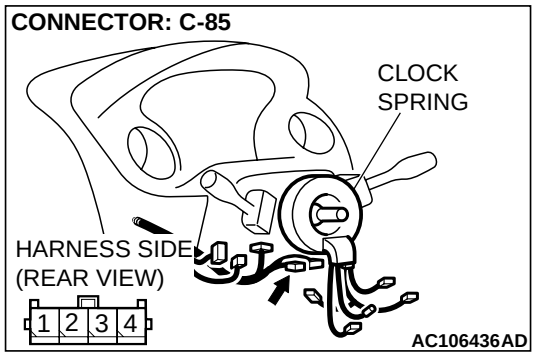
Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 62 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 5.
NO : Go to Step 4.









STEP 4. Check the harness for short circuit to ground between SRS-ECU connector C-72 (terminal No.7 and 8) and clock spring connector C-85 (terminal No.3 and 4).

Q: Are the harness wires between SRS-ECU connector C-72 (terminal No.7 and 8) and clock spring connector C-85 (terminal No.3 and 4) in good condition?

YES : Go to Step 5.

NO : Repair the harness wires between SRS-ECU connector C-72 and clock spring connector C-85. Then go to Step 5.

STEP 5. Check the DTC.

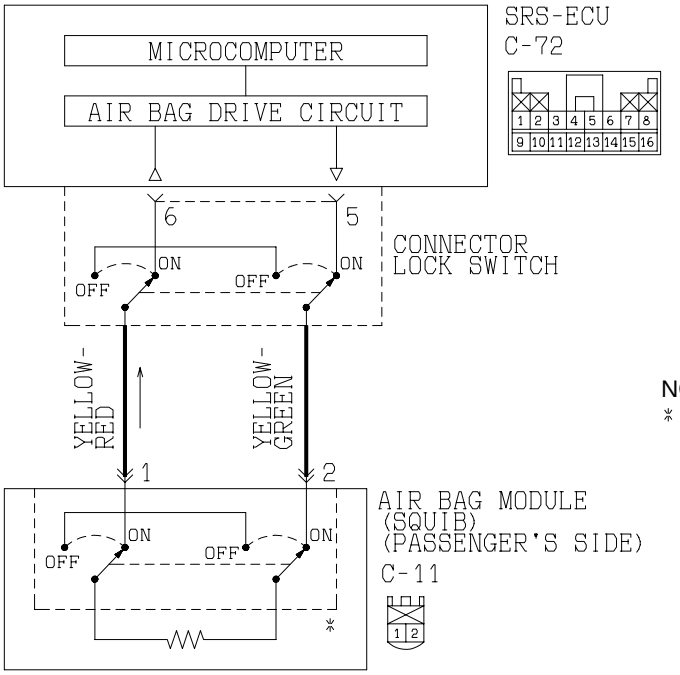
Q: Is DTC 62 output?

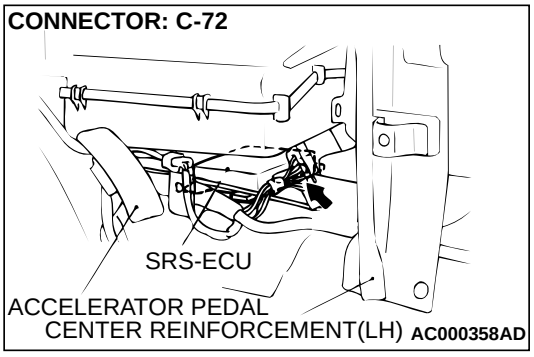
YES : Return to Step 1.

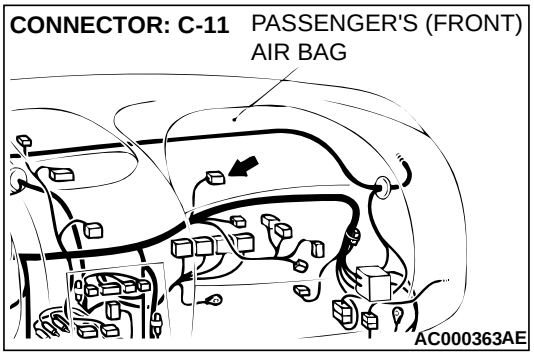
NO : This diagnosis is complete. (If no malfunctions are not found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-6.)

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

Driver's Air Bag Module (Squib) Circuit







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 resets, the SRS warning light will be switched off (DTC will be retained).

TROUBLESHOOTING HINTS

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

TSB Revision

DIAGNOSIS

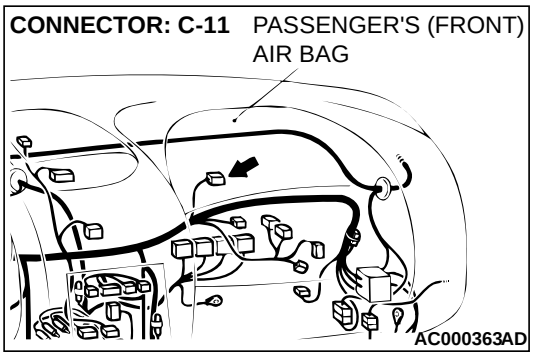
Required Special Tools:

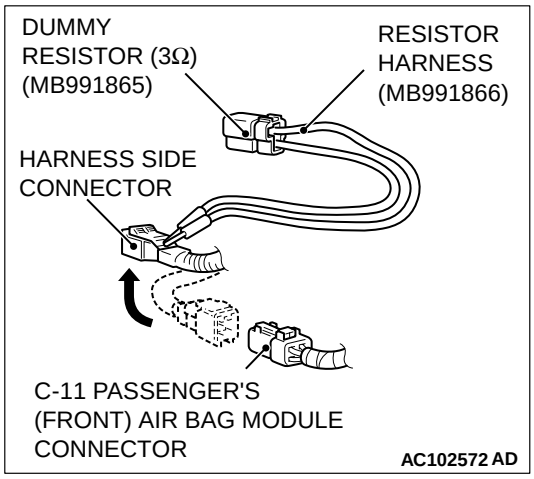
- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866: Resister harness

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

(1) Disconnect the negative battery terminal.

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





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

⚠ CAUTION

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

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

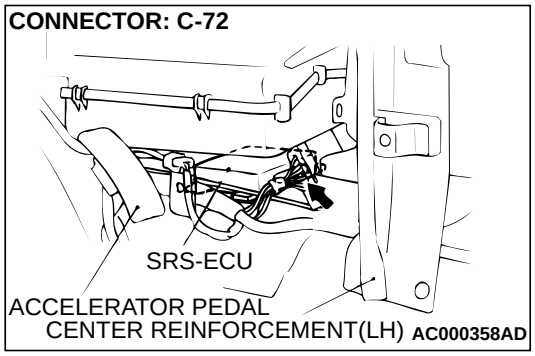
(5) Connect the negative battery terminal.

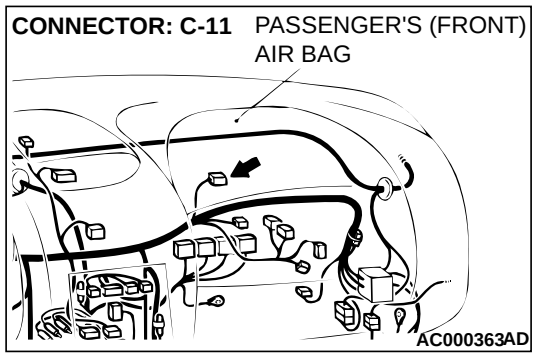
(6) Erase the DTC memory, and then recheck the DTC.

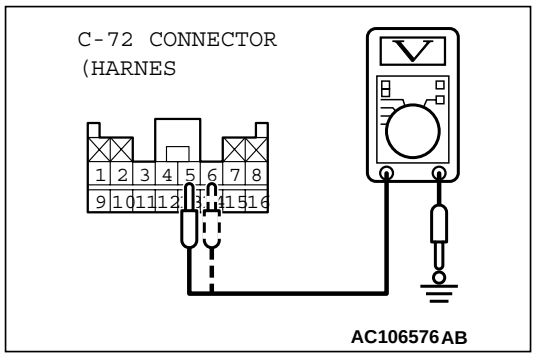
Q: Is DTC 64 output?

YES : Go to Step 2.

NO : Replace the passenger's air bag module. Refer to P.52B-144. Then go to Step 4.







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

Measurement at SRS-ECU connector C-72.
(1) Disconnect SRS-ECU connector C-72.
(2) Unclip passenger’s air bag module connector C-11.
(3) Disconnect the passenger's air bag module connector C-11.
(4) Turn the ignition switch to the "ON" position.
(5) 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.

(6) Measure the voltage between terminals 5, 6 and body ground
- Voltage should be 0 volt.

Q: Is the voltage normal?

YES : Eras the DTC memory, and recheck if any DTC sets. If DTC 64 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 4.

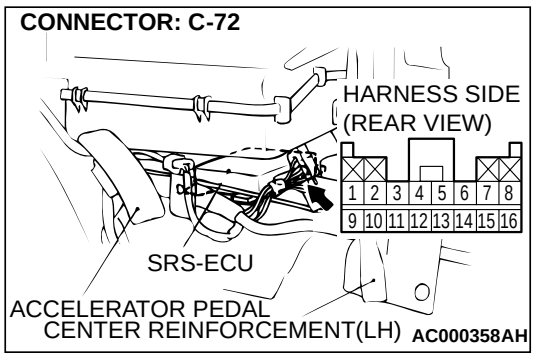
NO : Go to Step 3.

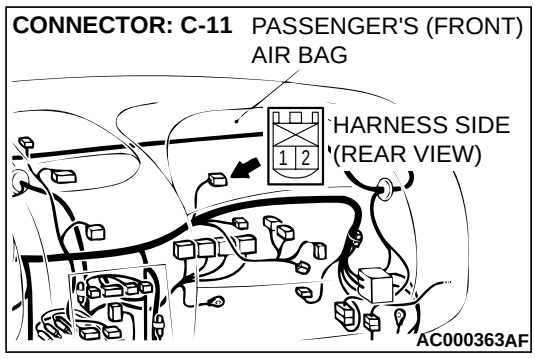
STEP 3. Check the harness wires for short circuit to power supply between SRS-ECU connector C-72 (terminal No.5 and 6) and passenger's air bag module connector C-11 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-72 (terminal No.5 and 6) and passenger's air bag module connector C-11 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-72 and passenger's air bag module connector C-11. Then go to Step 4.





STEP 4. Check the DTC.

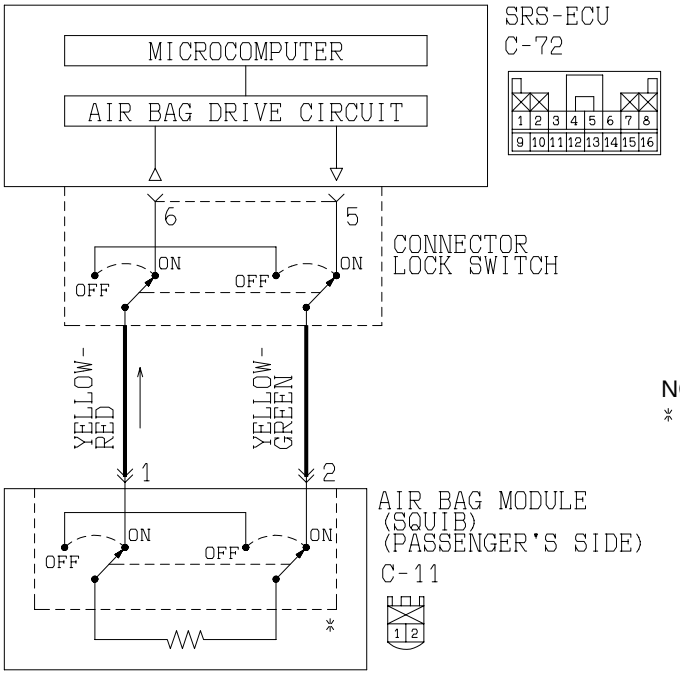
Q: Is DTC 64 output?

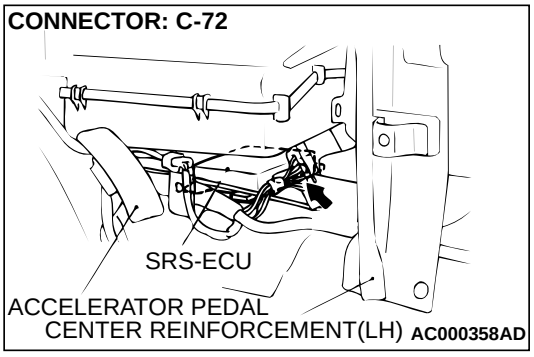
YES : Return to Step 1.

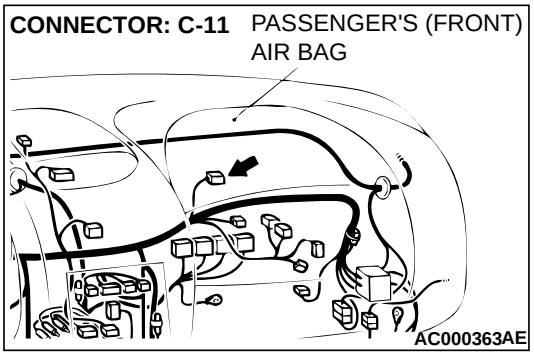
NO : This diagnosis is complete. (If no malfunctions are not found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-6.)

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

Driver's Air Bag Module (Squib) Circuit







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 resets, the SRS warning light will be switched off (DTC will be retained).

TROUBLESHOOTING HINTS

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

TSB Revision

DIAGNOSIS

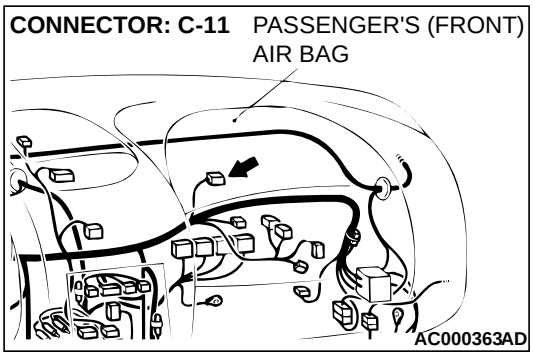
Required Special Tools:

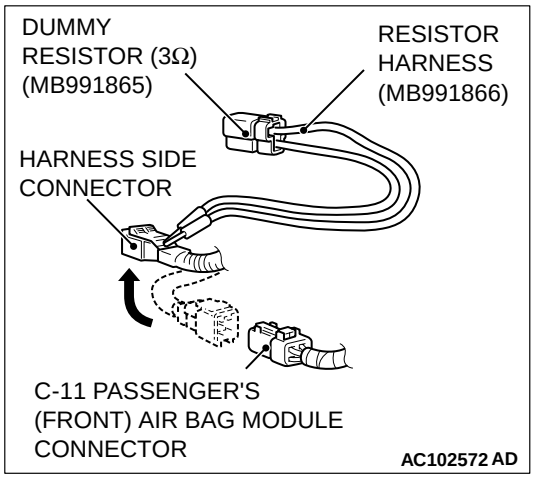
- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866: Resister harness

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

(1) Disconnect the negative battery terminal.

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





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

⚠ CAUTION

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

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

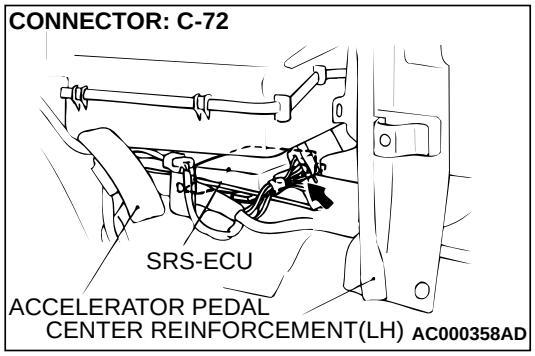
(5) Connect the negative battery terminal.

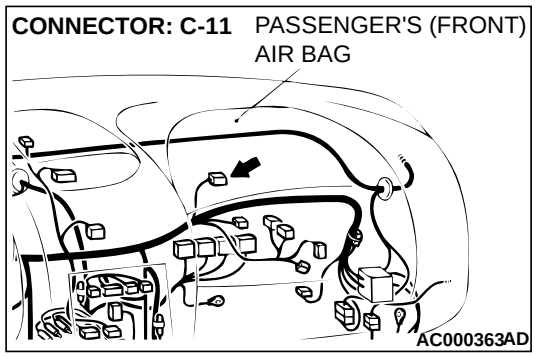
(6) Erase the DTC memory, and then recheck the DTC.

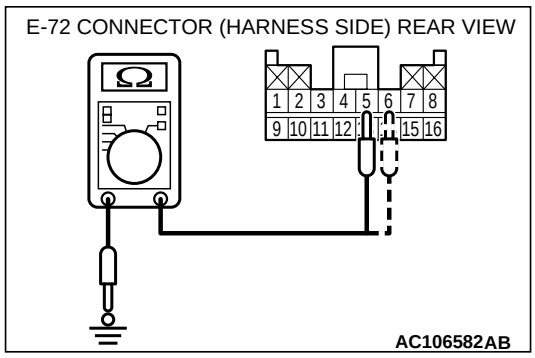
Q: Is DTC 64 output?

YES : Go to Step 2.

NO : Replace the passenger's air bag module. Refer to P.52B-144. Then go to Step 4.







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

(1) Disconnect SRS-ECU connector C-72.
(2) Unclip passenger’s air bag module connector C-11.
(3) Disconnect the passenger's air bag module connector C-11.
(4) Measure at the wiring harness side.

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

(5) Check the continuity between terminals 5, 6 and body ground.
- There should be open circuit.

Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 65 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 4.

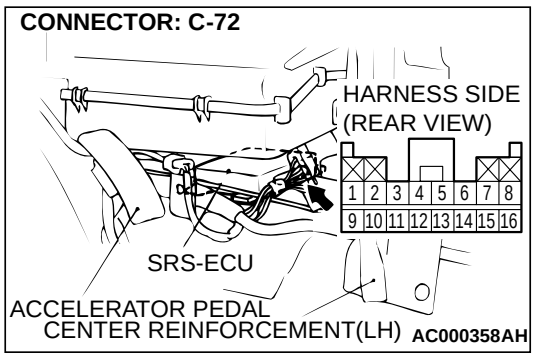
NO : Go to Step 3.

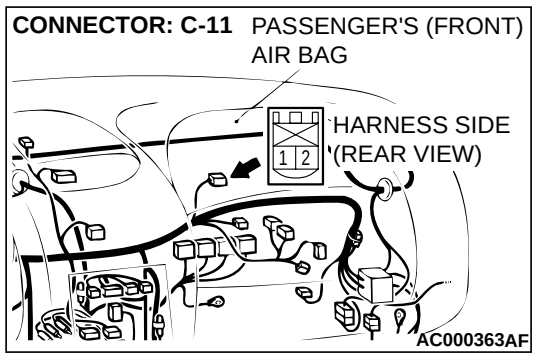
STEP 3. Check the harness wires for short circuit to ground between SRS-ECU connector C-72 (terminal No.5 and 6) and passenger's air bag module connector C-11 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-72 (terminal No.5 and 6) and passenger's air bag module connector C-11 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-72 and passenger's air bag module connector C-11. Then go to Step 4.





STEP 4. Check the DTC.

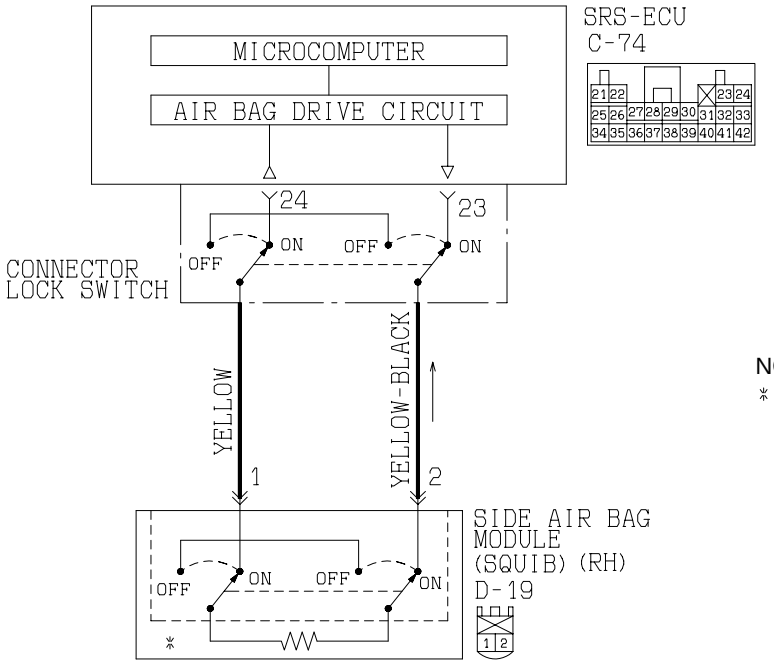
Q: Is DTC 65 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 71: Right Hand Side-Airbag Module (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

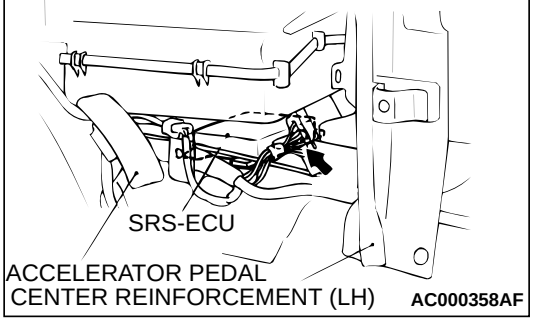
Side Air Bag Module (RH) (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

W3S15M03AA
AC106624AB

CONNECTOR: C-74



AC000358AF

CONNECTOR: D-19

AC002976AB

CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

TSB Revision

TROUBLESHOOTING HINTS

- Improper engaged connector or defective short bar*
- Short between the side air bag module (RH) (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-74 or D-19 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)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the DTC.

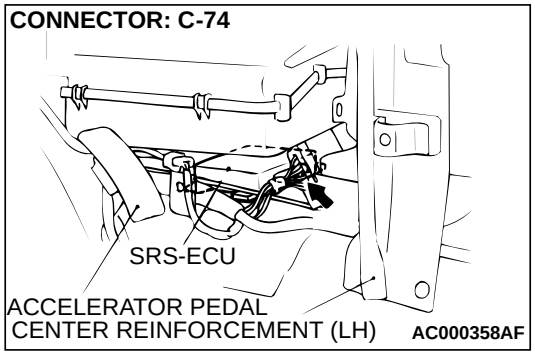
Q: Is DTC 34 output?

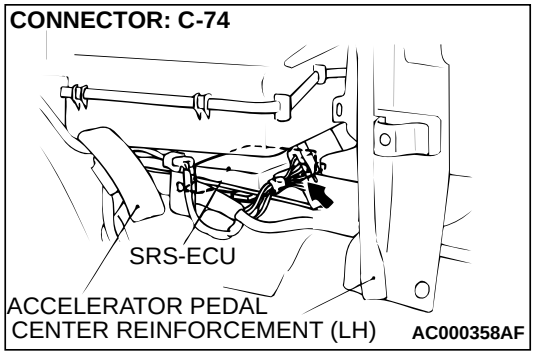
YES : Go to Step 2.
NO : Go to Step 3.

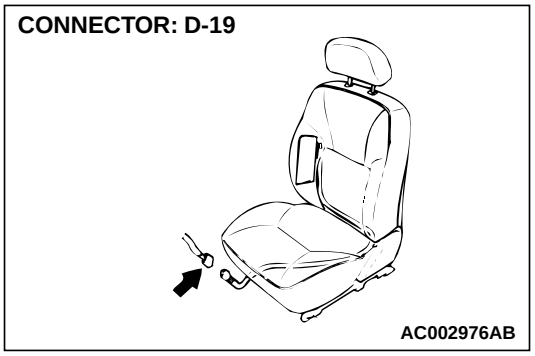
STEP 2. Check SRS-ECU connector C-74.

Q: Is the connector correctly engaged?

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





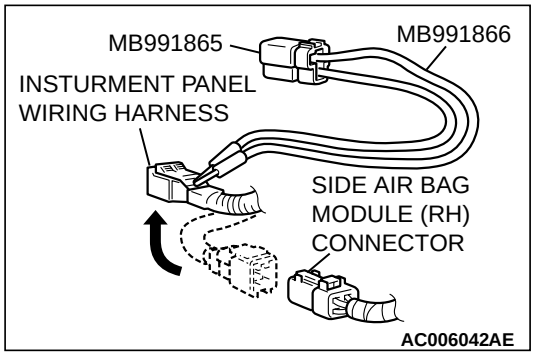


STEP 3. Check SRS-ECU connector C-74 and side-air bag module (RH) connector D-19.

(1) Disconnection connectors C-74 and D-19, and then reconnect them.
(2) Connect the negative battery terminal.
(3) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 71 output?

YES : Go to Step 4.
NO : The inspection is complete. (It is assumed that DTC 71 set as connector C-74 or D-19 was engaged improperly.)



STEP 4. Check the side-airbag module.

(1) 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.

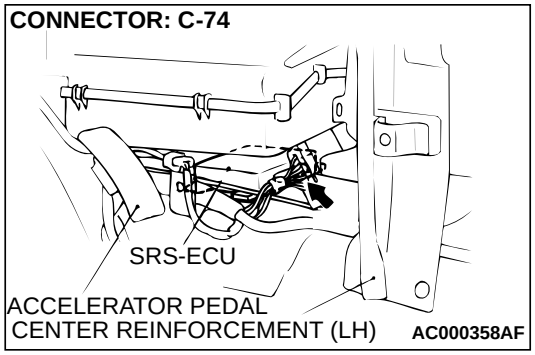
(2) Disconnect the side-airbag module (RH) connector D-19, and insert special tool MB991866 into the harness side connector by backprobing.
(3) Connect the negative battery terminal.
(4) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 71 output?

YES : Go to Step 5.
NO : Replace the seat back assembly of the front seat (RH). Refer to GROUP 52A, Front Seat P.52A-16. Then go to Step 7.

STEP 5. Check the harness for short circuit between SRS-ECU and the side-airbag module (RH).

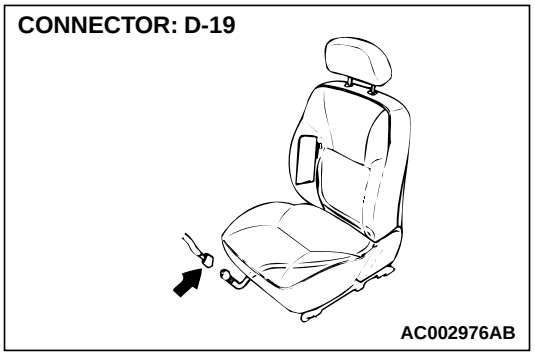
(1) Disconnect SRS-ECU connector C-74.



⚠ CAUTION

To release the short bar in the SRS-ECU connector, disconnect connector D-19 to short the squib circuit.

(2) Disconnect side-airbag module connector D-19.

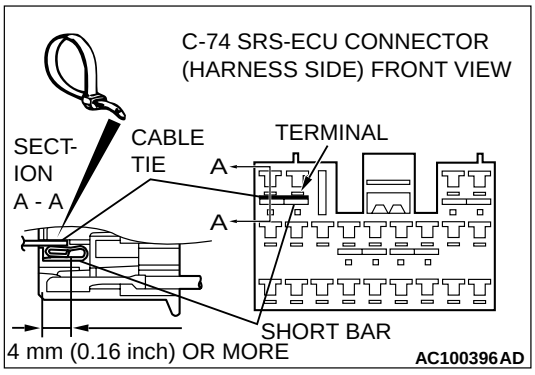


⚠ CAUTION

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

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

(4) Measure at the wiring harness side.

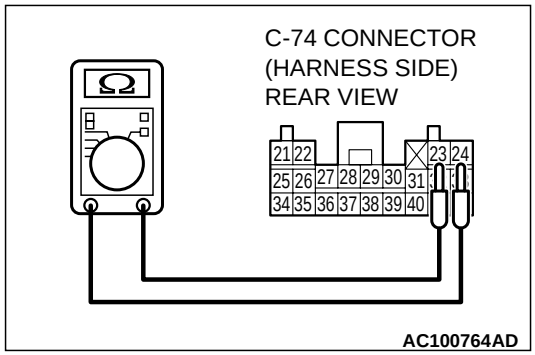


⚠ CAUTION

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

(5) Check the continuity between terminals 23 and 24.

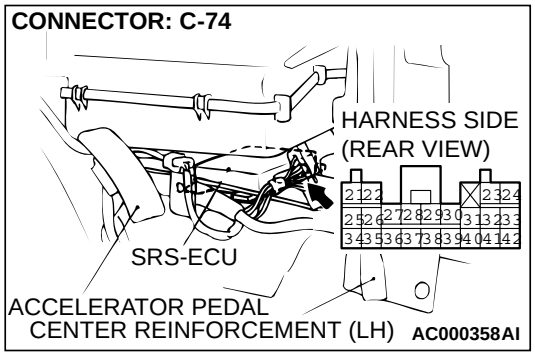
- There should be open circuit.

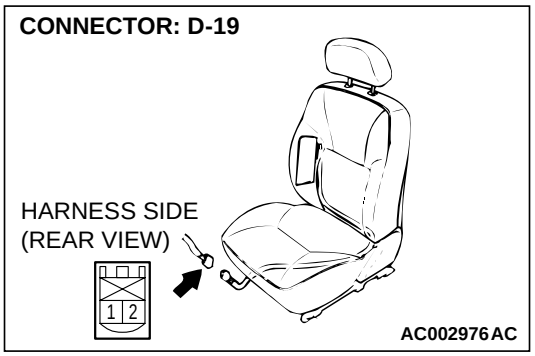


Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 71 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 7.

NO : Go to Step 6.





STEP 6. Check the harness wires for short circuit between SRS-ECU connector C-74 (terminal No.23 and 24) and side-airbag module (RH) connector D-19 (terminal No.1 and 2)

Q: Are the harness wires between SRS-ECU connector C-74 (terminal No.23 and 24) and side-airbag module (RH) connector D-19 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-74 and side-airbag module connector D-19. Then go to Step 7.

STEP 7. Check for DTC.

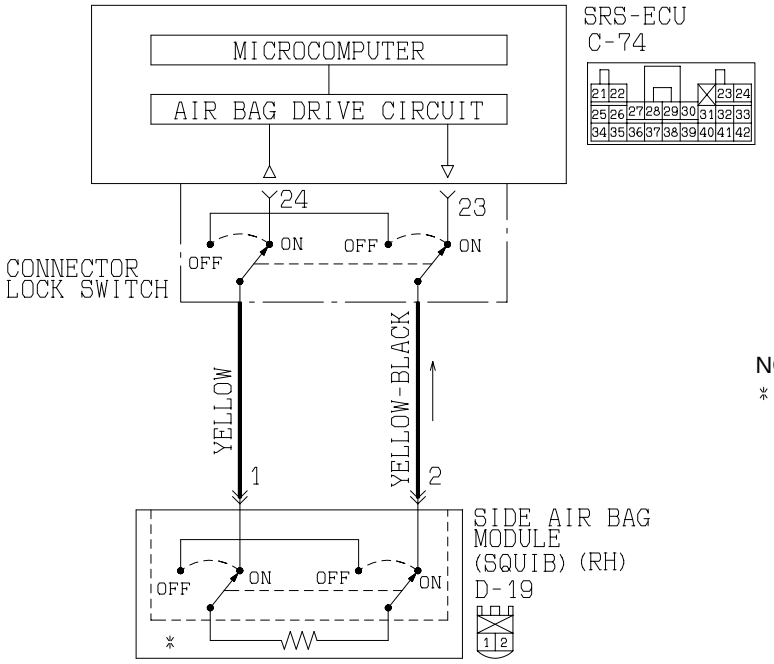
Q: Is DTC 71 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 72: Right Hand Side-Airbag Module (Squib) System Fault 2 (Open in the Squib Circuit)

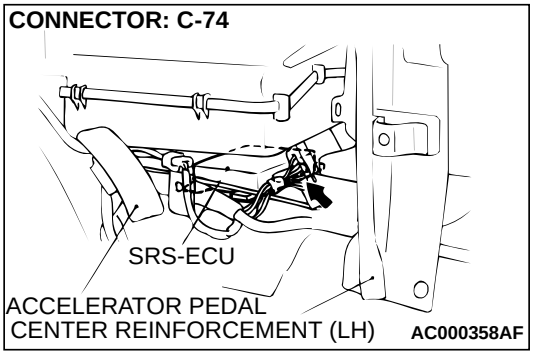
Side Air Bag Module (RH) (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

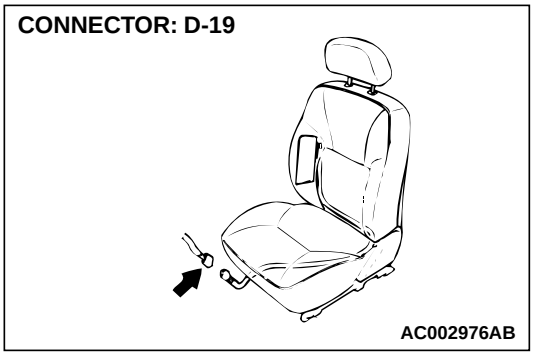
W3S15M03AA
AC106624AB

CONNECTOR: C-74



AC000358AF

CONNECTOR: D-19



AC002976AB

CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

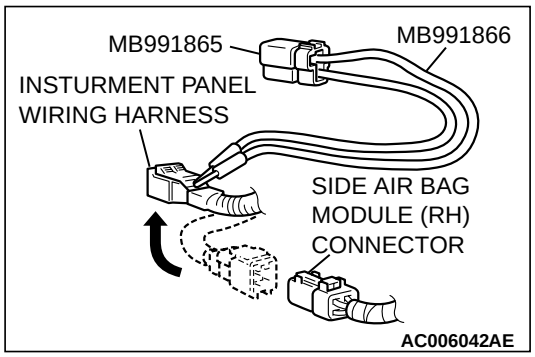
- Open circuit in the side-airbag module (RH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866: Resister harness

TSB Revision



STEP 1. Check the side-airbag module (RH).

(1) 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.

(2) Disconnect the side-airbag module (RH) connector D-19, and insert special tool MB991866 into the harness side connector by backprobing.

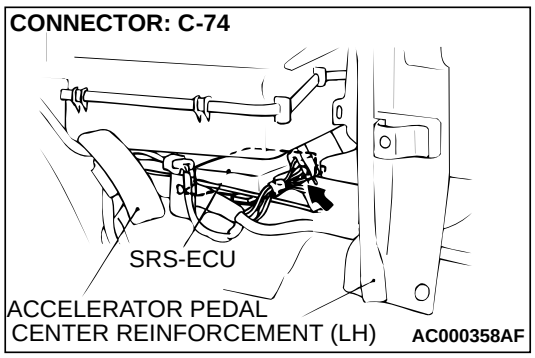
(3) Connect the negative battery terminal.

(4) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 72 output?

YES : Go to Step 2.

NO : Replace the seat back assembly of the front seat (RH). Refer to GROUP 52A, Front Seat P.52A-16. Then go to Step 3.



STEP 2. Check the harness for open circuit between SRS-ECU and the side-air bag module (RH).

(1) Disconnect SRS-ECU connector C-74 and side-air bag module (RH) connector D-19, 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 the continuity between the following terminals.

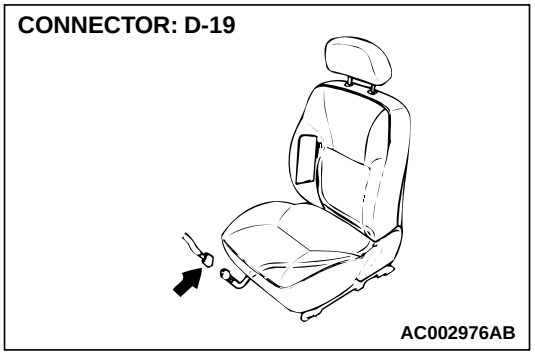
C-74 connector		D-19 connector
23	-	2
24	-	1

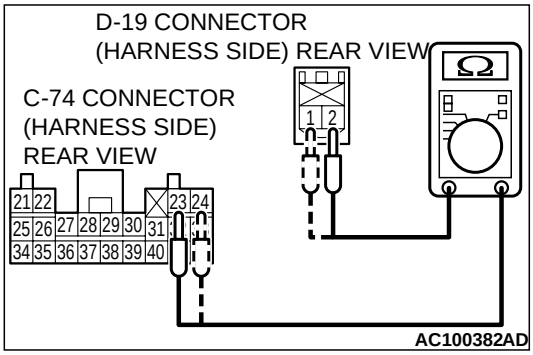
- Should be less than 2 ohm.

Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 72 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-74 and side-airbag module (RH) connector D-19. Then go to Step 3.





STEP 3. Check for DTC.

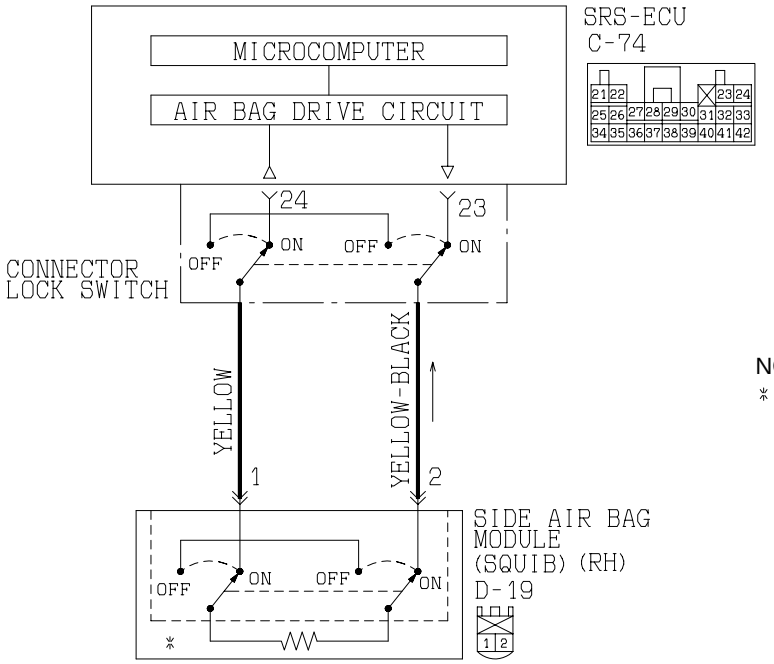
Q: Is DTC 72 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 75: Right Hand Side-Airbag Module (Squib) System Fault Power Supply Circuit (Short-Circuit to Power Supply)

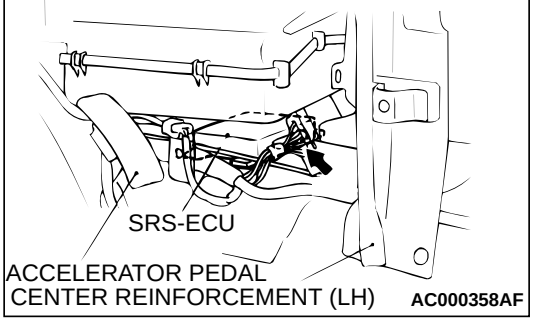
Side Air Bag Module (RH) (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

W3S15M03AA
AC106624AB

CONNECTOR: C-74



AC000358AF

CONNECTOR: D-19

AC002976AB

CIRCUIT OPERATION

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

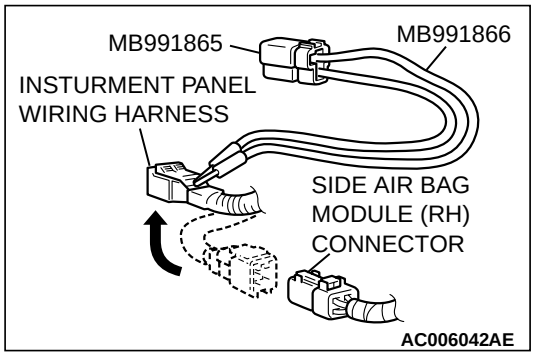
DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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

TSB Revision



DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the side-airbag module (RH).

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

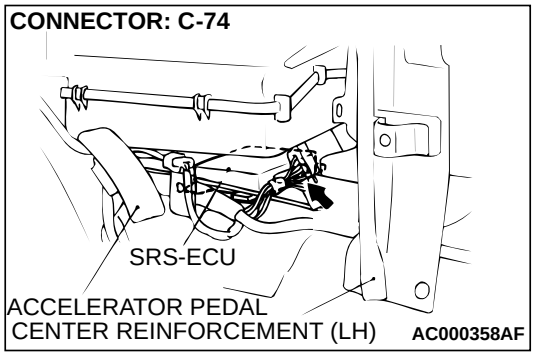
⚠ CAUTION

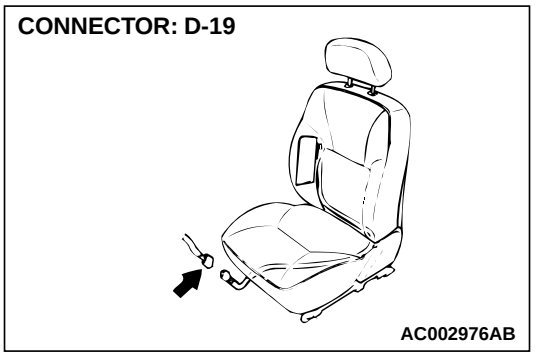
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

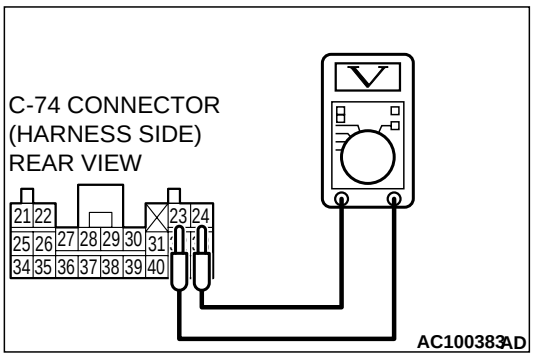
(2) Disconnect the side-airbag module (RH) connector D-19, and insert special tool MB991866 into the harness side connector by backprobing.
(3) Connect the negative battery terminal.
(4) Erase the DTC memory, and then recheck the DTC.

Q: Is the circuit normal?

YES : Go to Step 2.
NO : Replace the seat back assembly of the front seat (RH). Refer to GROUP 52A, Front Seat P.52A-16. Then go to Step 4.







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

Measure at SRS-ECU connector C-74.

(1) Disconnect SRS-ECU connector C-74.
(2) Disconnect side-airbag module (RH) connector D-19.
(3) Turn the ignition switch to the "ON" position.
(4) Measure at the wiring harness side.

⚠ CAUTION

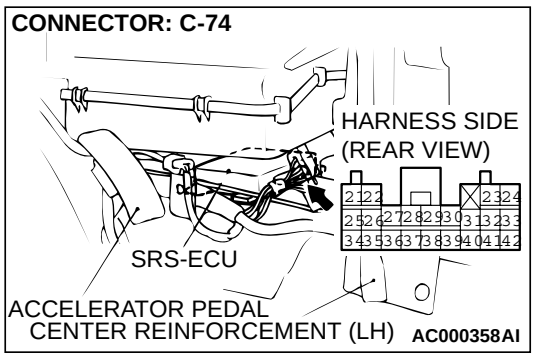
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

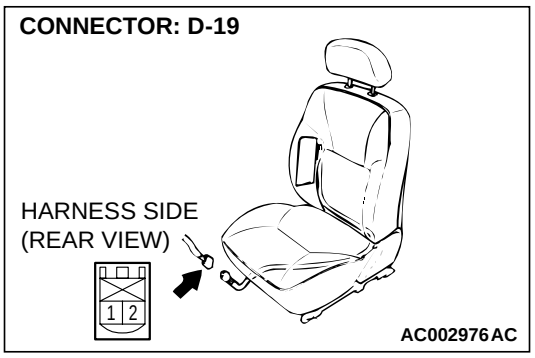
(5) Measure the voltage between terminals 23, 24 and baby ground.
- Voltage should be 0 volt.

Q: Is the voltage normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 75 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 4.

NO : Go to Step 3.





STEP 3. Check the harness wires for short circuit to power supply between SRS-ECU connector C-74 (terminal No.23 and 24) and side-airbag module (RH) connector D-19 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-74 (terminal No.23 and 24) and side-airbag module (RH) connector D-19 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-74 and side-airbag module (RH) connector D-19. Then go to Step 4.

STEP 4. Check for DTC.

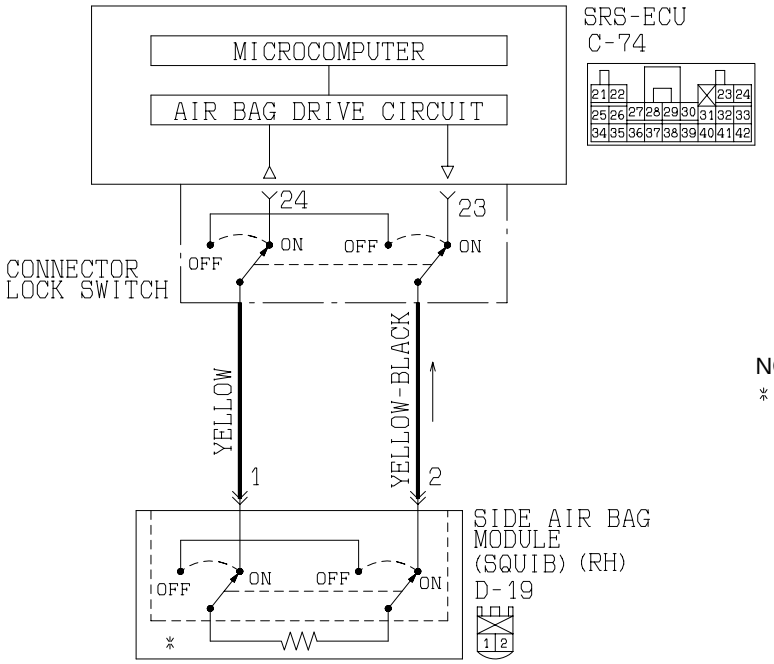
Q: Is DTC 75 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 76: Right Hand Side-Airbag Module (Squib) System Fault Ground Circuit (Short-Circuit to Ground)

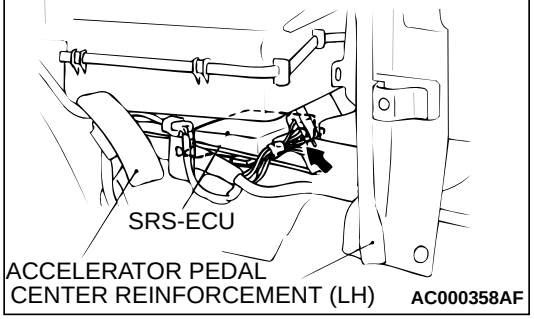
Side Air Bag Module (RH) (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

W3S15M03AA
AC106624AB

CONNECTOR: C-74



AC000358AF

CONNECTOR: D-19

AC002976AB

CIRCUIT OPERATION

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

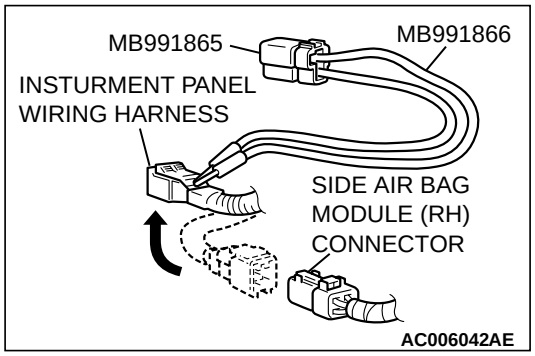
DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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

TSB Revision



DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the side-airbag module (RH).

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

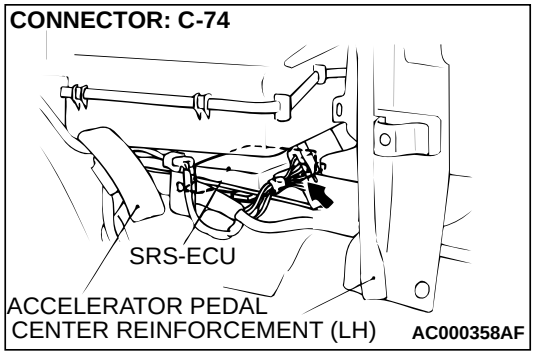
⚠ CAUTION

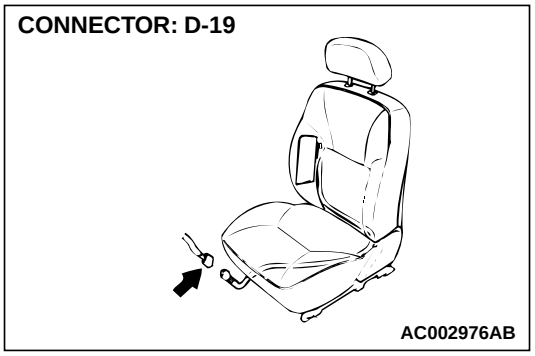
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

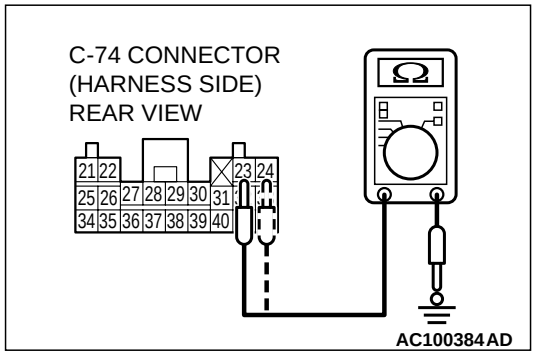
(2) Disconnect the side-airbag module (RH) connector D-19, and insert special tool MB991866 into the harness side connector by backprobing.
(3) Connect the negative battery terminal.
(4) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 76 output?

YES : Go to Step 2.
NO : Replace the seat back assembly of the front seat (RH). Refer to GROUP 52A, Front Seat P.52A-16. Then go to Step 4.







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

(1) Disconnect SRS-ECU connector C-74.
(2) Disconnect side-airbag module (RH) connector D-19.
(3) Measure at the wiring harness side.

⚠ CAUTION

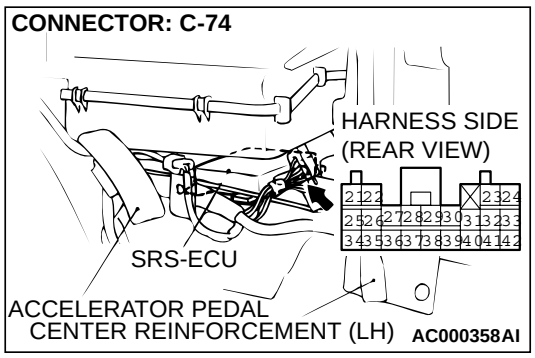
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

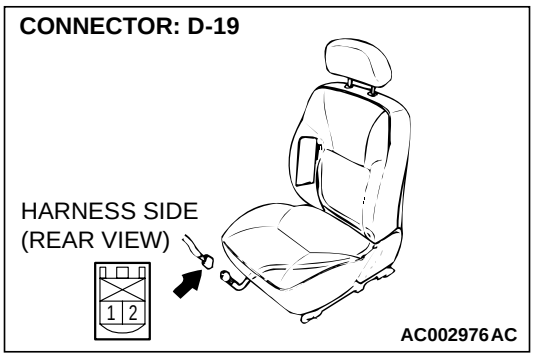
(4) Check the continuity between terminals 23, 24 and body ground.
- There should be open circuit.

Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 76 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 4.

NO : Go to Step 3.





STEP 3. Check the harness wires for short circuit to ground between SRS-ECU connector C-74 (terminal No.23 and 24) and side-airbag module (RH) connector D-19 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-74 (terminal No.23 and 24) and side-airbag module (RH) connector D-19 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-74 and side-airbag module (RH) connector D-19. Then go to Step 4.

STEP 4. Check for DTC.

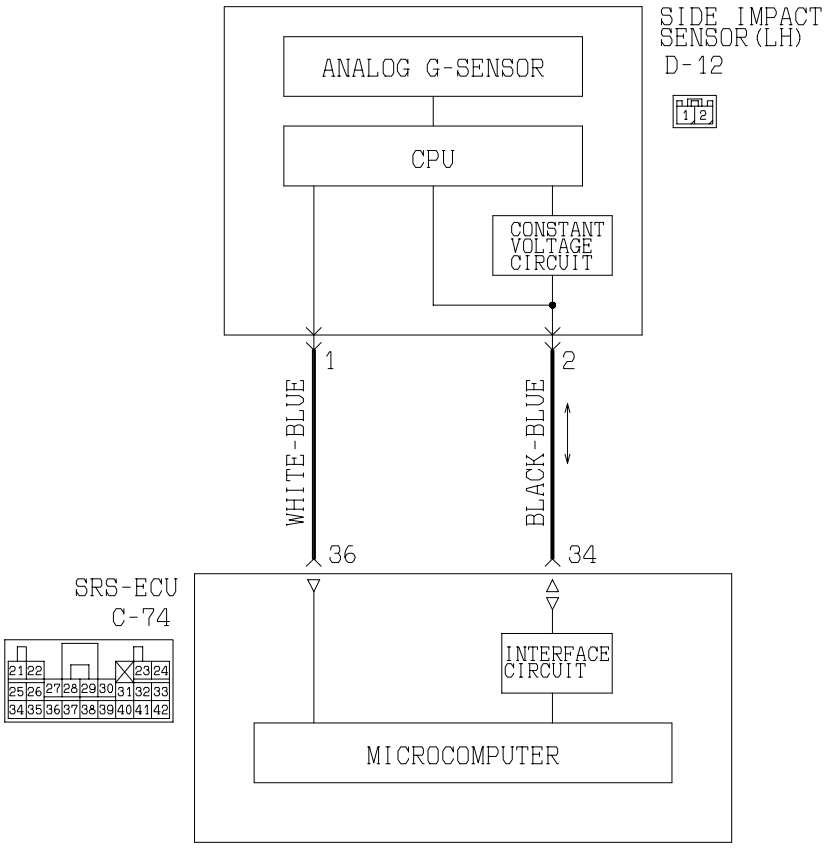
Q: Is DTC 76 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 79: Left Hand Side-airbag Module (Squib) System Fault 5 for Power Supply Circuit
DTC 93: Left Hand Side-airbag Module (Squib) System Fault 6 for Communication System

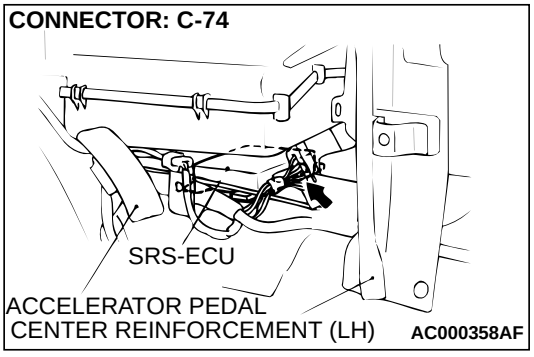
Side Impact Sensor (LH) Circuit



W1S01M01AA

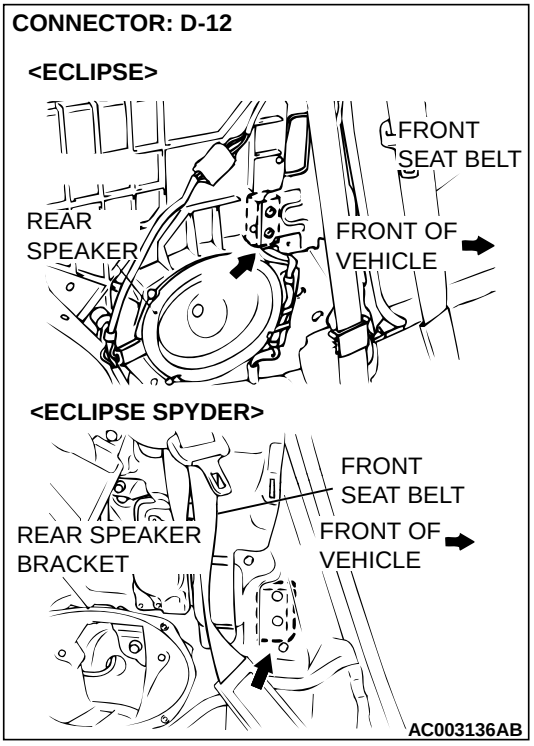
AC003886AB

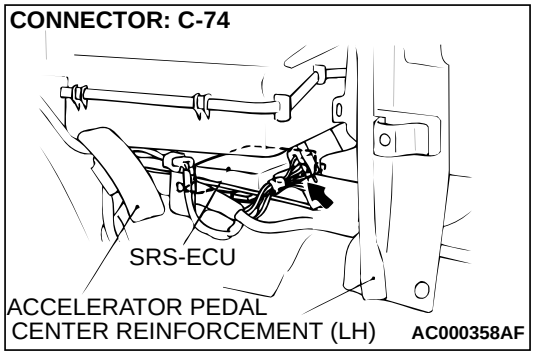
CONNECTOR: C-74



AC000358AF

TSB Revision





CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tool:

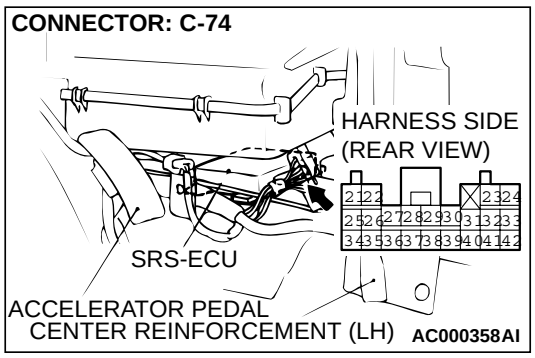
- MB991502: Scan Tool (MUT-II)

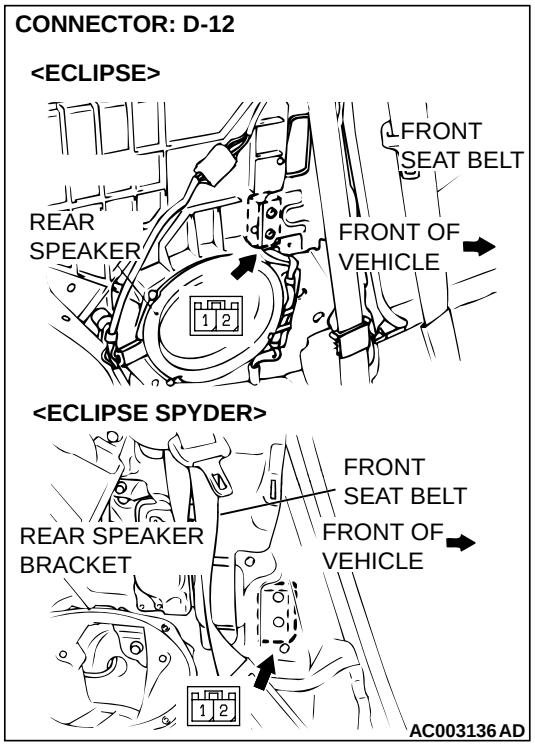
STEP 1. Check the side impact sensor (LH).

(1) Replace the side impact sensor (LH) with the side impact sensor (RH).
(2) Connect the negative battery terminal.
(3) Erase DTC memory, and then recheck the DTC.

Q: Is DTC 89 or 96 output?

YES : Replace the side impact sensor (LH) with a new one. Refer to P.52B-153. Then go to Step 3.
NO : Go to Step 2.





STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-74 (terminal No.34 and 36) and side impact sensor (LH) connector D-12 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-74 (terminal No.34 and 36) and side impact sensor (LH) connector D-12 (terminal No.1 and 2) in good condition?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 79 or 93 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-74 and side impact sensor (LH) connector D-12. Then go to Step 3.

STEP 3. Check for DTC.

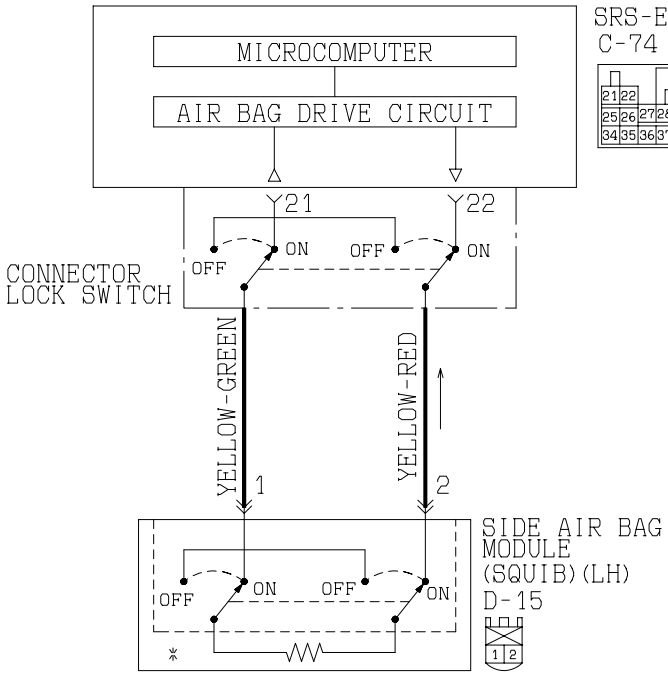
Q: Is DTC 79 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 81: Left Hand Side-Air Bag Module (Squib) System Fault 1 (Short Circuit between Terminals of the Squib Circuit)

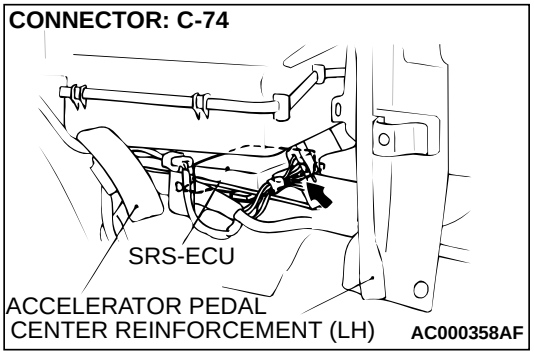
Side Air Bag Module (LH) (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

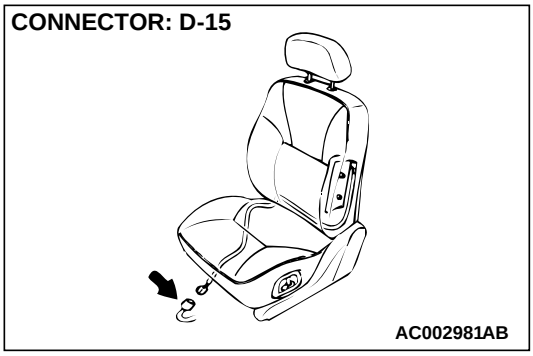
W3S15M04AA
AC106625AB

CONNECTOR: C-74



AC000358AF

CONNECTOR: D-15



AC002981AB

CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

- Improper engaged connector or defective short bar*
- Short circuit between the left-side 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-74 or D-15 is damaged or improperly engaged, the short bar may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tool:

- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the DTC.

Q: Is DTC 34 output?

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

STEP 2. Check SRS-ECU connector C-74.

Q: Is the connector correctly engaged?

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

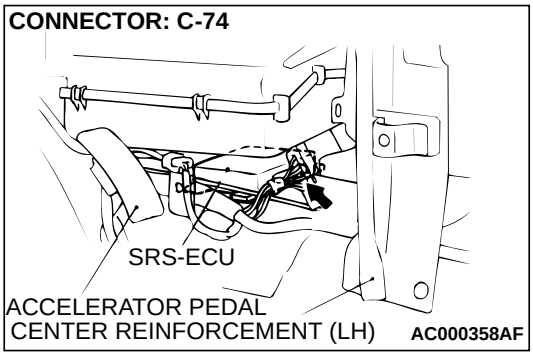
STEP 3. Check SRS-ECU connector C-74 and side-airbag module (LH) connector D-15.

(1) Disconnection connectors C-74 and D-15, and then reconnect them.
(2) Connect the negative battery terminal.
(3) Erase DTC memory, and then recheck the DTC.

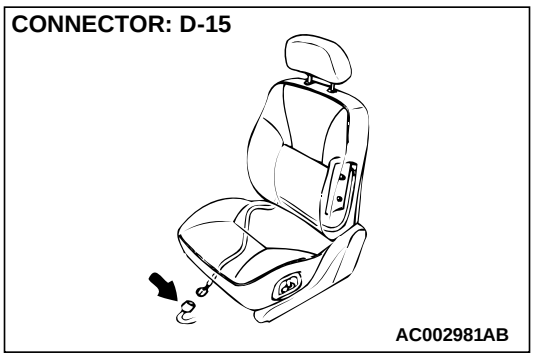
Q: Is DTC 81 output?

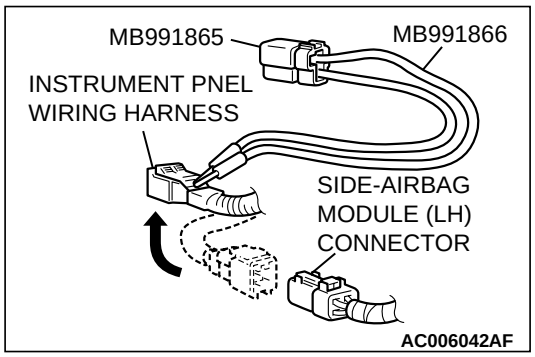
YES : Go to Step 4.
NO : The inspection is complete. (It is assumed that DTC 81 set as connector C-74 or D-15 was engaged improperly.)

CONNECTOR: C-74



CONNECTOR: D-15





STEP 4. Check the side-airbag module (LH).

(1) 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.

(2) Disconnect the left hand side-airbag (LH) connector D-15, and insert special tool MB991866 into the harness side connector by backprobing.

(3) Connect the negative battery terminal.

(4) Erase DTC memory, and then recheck the DTC.

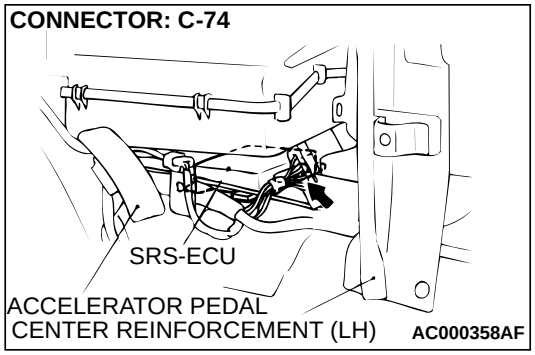
Q: Is DTC 81 output?

YES : Go to Step 5.

NO : Replace the seat back assembly of the front seat (LH). Refer to GROUP 52A, Front Seat P.52A-16. Then go to Step 7.

STEP 5. Check the harness for short circuit between the SRS-ECU and the left hand side-airbag module (LH).

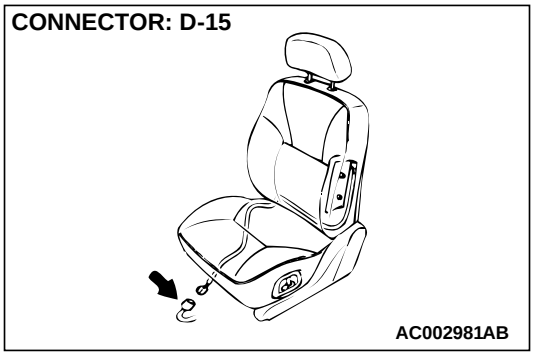
(1) Disconnect SRS-ECU connector C-74.



⚠ CAUTION

To release the short bar in the SRS-ECU connector, disconnect connector D-15 to short the squib circuit.

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

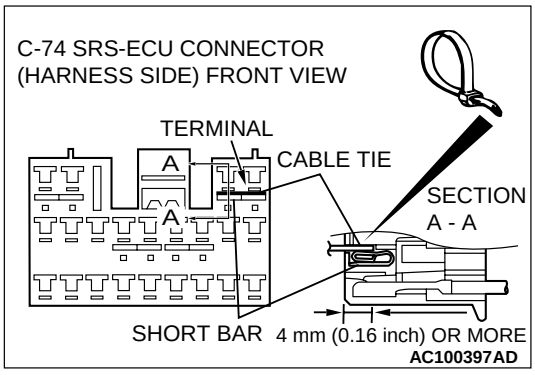


⚠ CAUTION

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

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

(4) Measure at the wiring harness side.



⚠ CAUTION

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

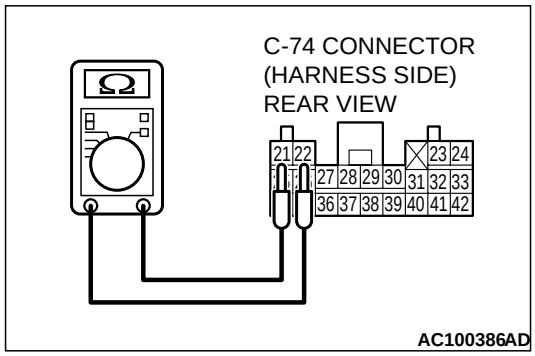
(5) Check the continuity between terminals 21 and 22.

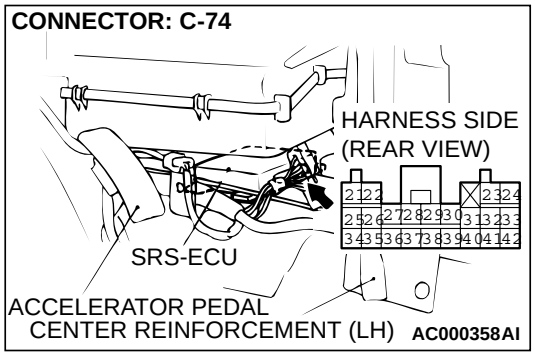
- There should be open circuit.

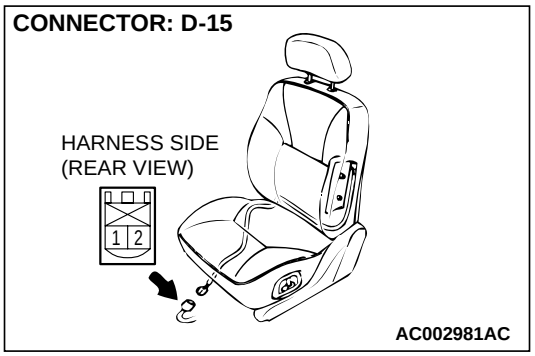
Q: Is the circuit normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 81 sets, replace the SRS-ECU. Refer to P.52B-142.

NO : Go to Step 6.







STEP 6. Check the harness wires for short circuit between SRS-ECU connector C-74 (terminal No.21 and 22) and side-airbag module (LH) connector D-15 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-74 (terminal No.21 and 22) and side-airbag module (LH) connector D-15 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-74 and side-airbag module (LH) connector D-15. Then go to Step 7.

STEP 7. Check for DTC.

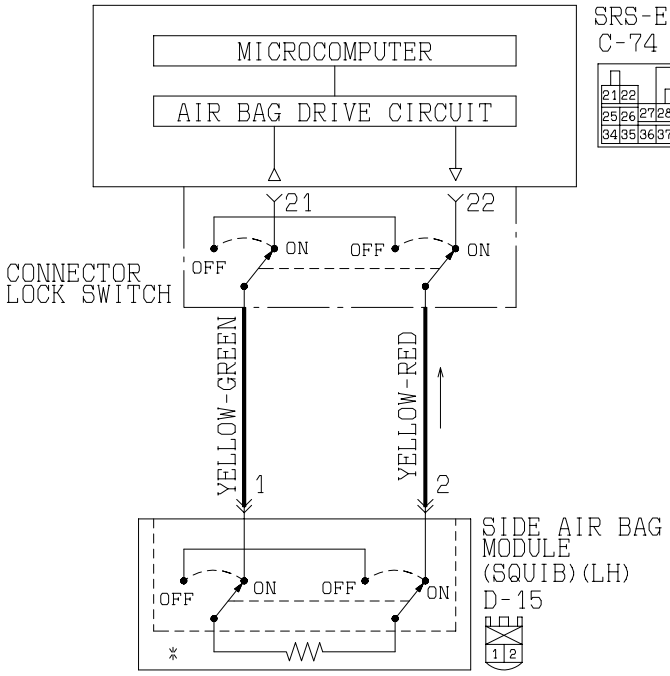
Q: Is DTC 81 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 82:Left Hand Side-Airbag Module (Squib) System Fault 2 (Open in the Squib Circuit)

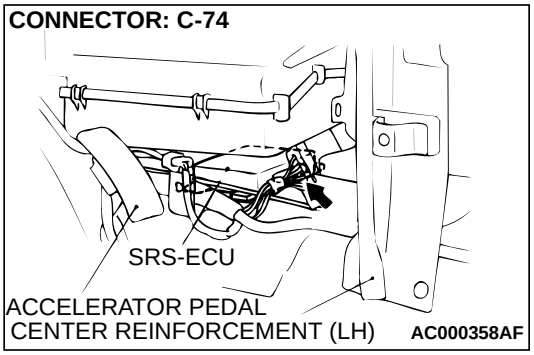
Side Air Bag Module (LH) (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

W3S15M04AA
AC106625AB

CONNECTOR: C-74



AC000358AF

CONNECTOR: D-15

AC002981AB

CIRCUIT OPERATION

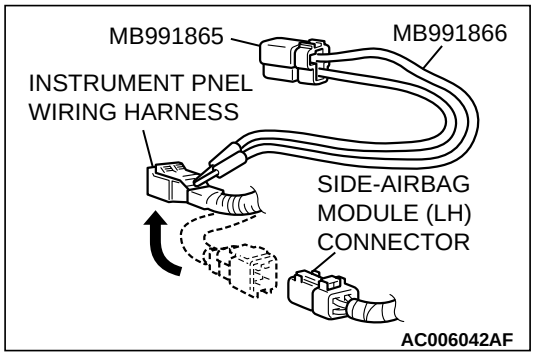
- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal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

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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



DIAGNOSIS

Required Special Tool:

- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Check the side-air bag module (LH).

(1) 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.

(2) Disconnect the left hand side-airbag connector D-15, and insert special tool MB991866 into the harness side connector by backprobing.

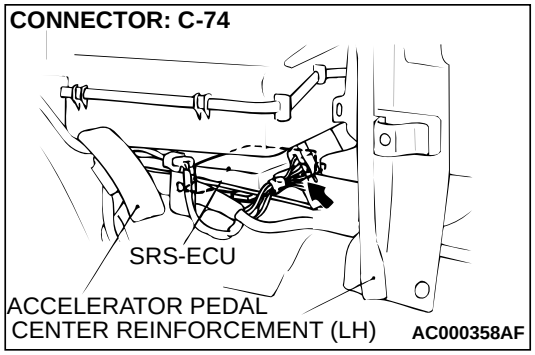
(3) Connect the negative battery terminal.

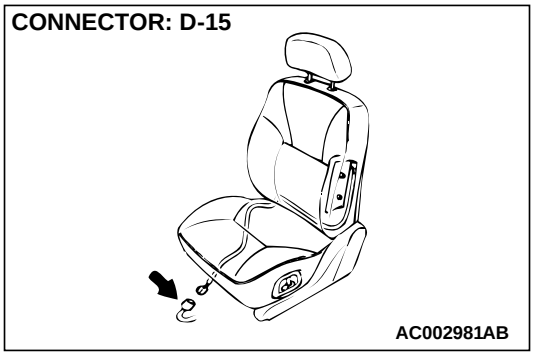
(4) Erase DTC memory, and then recheck the DTC.

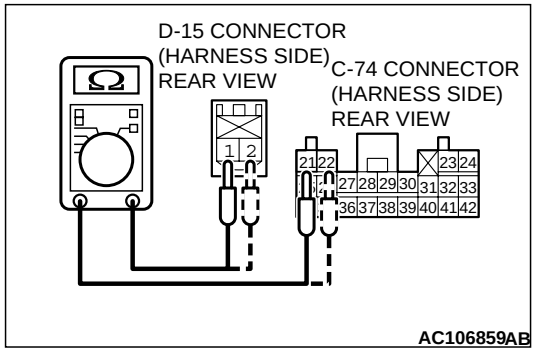
Q: Is DTC 82 output?

YES : Go to Step 2.

NO : Replace the seat back assembly of the front seat (LH). Refer to GROUP 52A, Front Seat P.52A-16. Then go to Step 3.







STEP 2. Check the harness for open circuit between the SRS-ECU and the left hand side-airbag module (LH).

(1) Disconnect SRS-ECU connector C-74 and side-airbag module (LH) connector D-15, 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 the continuity between the following terminals.

C-74 connector		D-15 connector
21	-	1
22	-	2

- Should be less than 2 ohm.

Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 82 sets, replace the SRS-ECU. Refer to P.52B-144. Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-74 and side-airbag module (LH) connector D-15. Then go to Step 3.

STEP 3. Check for DTC.

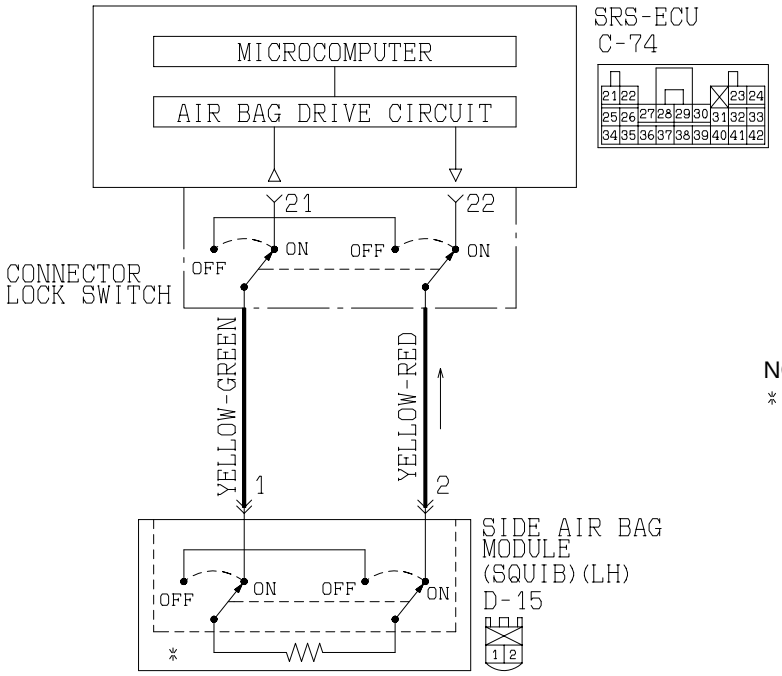
Q: Is DTC 82 output?

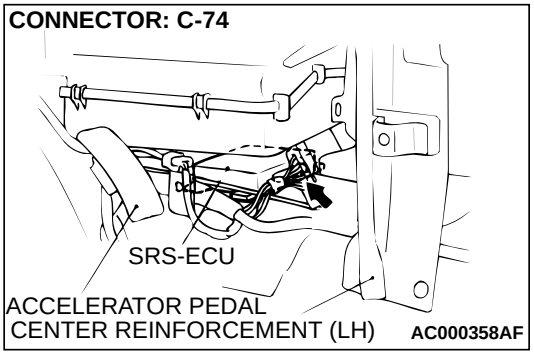
YES : Return to Step 1.

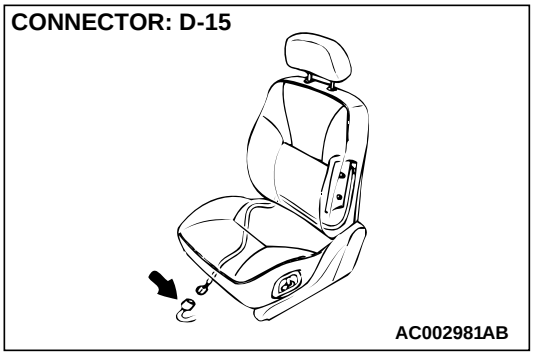
NO : This diagnosis is complete. (If no malfunctions are not found in all steps, an intermittent malfunction is suspected. Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points – How to Cope with Intermittent Malfunction P.00-6.)

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

Side Air Bag Module (LH) (Squib) Circuit







CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

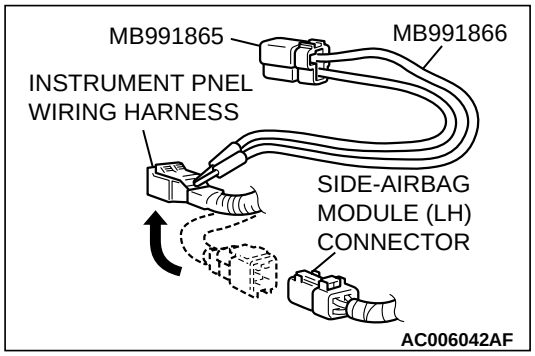
- Damaged wiring harnesses or connectors
- Short to the power supply in the left hand side-airbag module (squib) harness
- Malfunction of the SRS-ECU

TSB Revision

DIAGNOSIS

Required Special Tool:

- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866: Resister harness



STEP1. Check the side-airbag module (LH).

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

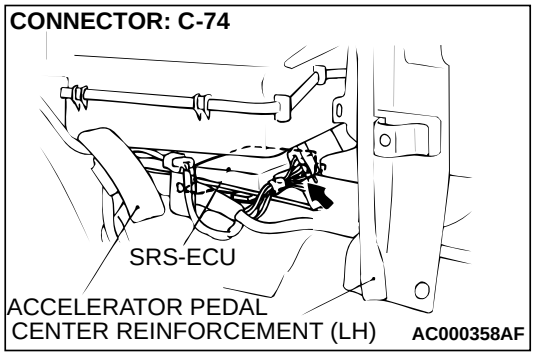
⚠ CAUTION

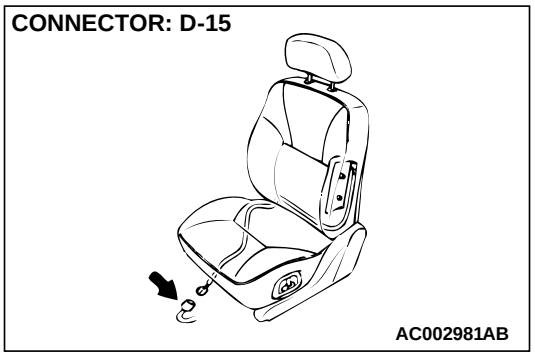
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

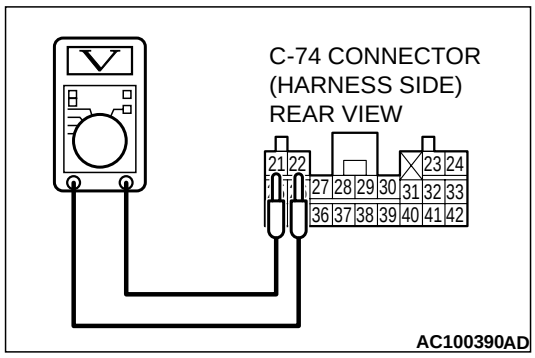
(2) Disconnect the side-airbag module (LH) connector D-15, and insert special tool MB991866 into the harness side connector by backprobing.
(3) Connect the negative battery terminal.
(4) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 85 output?

YES : Go to Step 2.
NO : Replace the seat back assembly of the front seat (LH). Refer to GROUP 52A, Front Seat P.52A-16. Then go to Step 4.







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

(1) Disconnect SRS-ECU connector C-74.
(2) Disconnect left hand side-airbag module connector D-15.
(3) TUrn the ignition switch to the "ON" position.
(4) Measure at the wiring harness side.

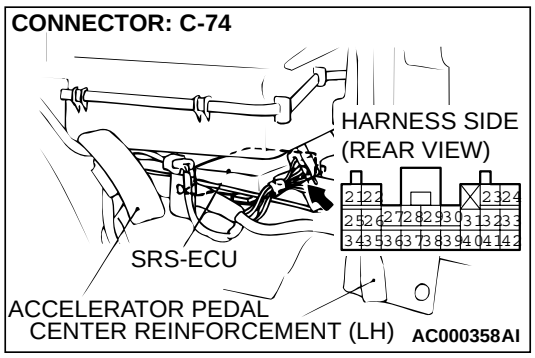
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

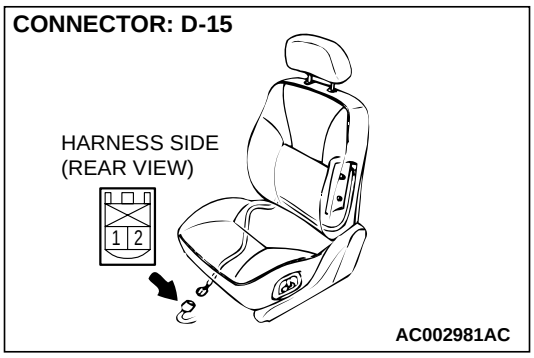
(5) Measure the voltage between terminals 21, 22 and body ground.
- Voltage should be 0 volt.

Q: Is the voltage normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 85 sets, replace the SRS-ECU. Refer to P.52B-144. Then go to Step 4.

NO : Go to Step 3.





STEP 3. Check the harness wires for short circuit to power supply between SRS-ECU connector C-74 (terminal No.21 and 22) and side-airbag module (LH) connector D-15 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-74 (terminal No.21 and 22) and side-airbag module (LH) connector D-15 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-74 and side-airbag module (LH) connector D-15. Then go to Step 4.

STEP 4. Check the DTC.

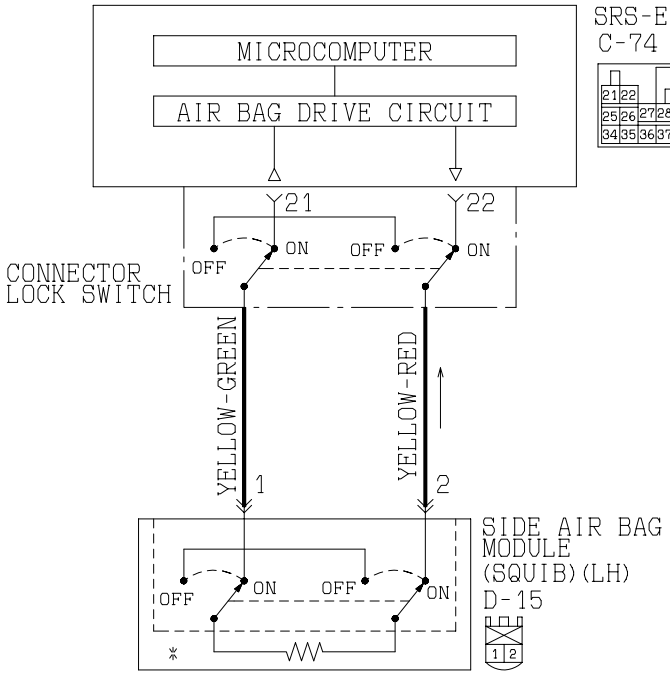
Q: Is DTC 85 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 86:Left Hand Side-Airbag Module (Squib) System Fault Ground Circuit (Short-Circuit to Ground)

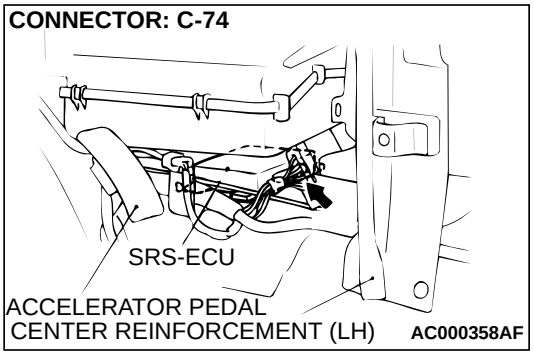
Side Air Bag Module (LH) (Squib) Circuit



NOTE
*: CONNECTOR LOCK SWITCH

W3S15M04AA
AC106625AB

CONNECTOR: C-74



AC000358AF

CONNECTOR: D-15

AC002981AB

CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

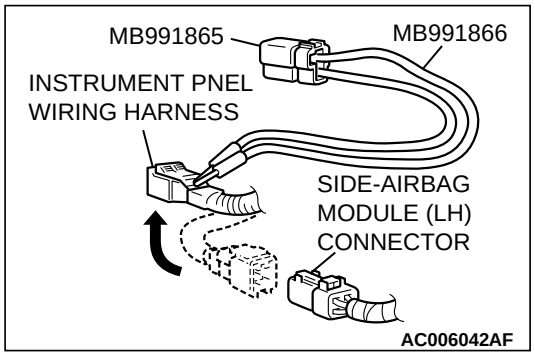
TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tool:

- MB991502: Scan Tool (MUT-II)
- MB991865: Dummy resister
- MB991866: Resister harness



STEP1. Check the side-airbag module (LH).

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

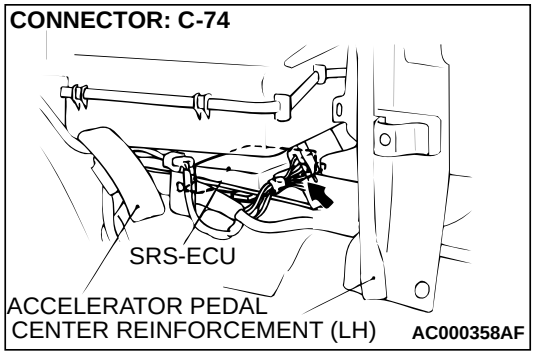
⚠ CAUTION

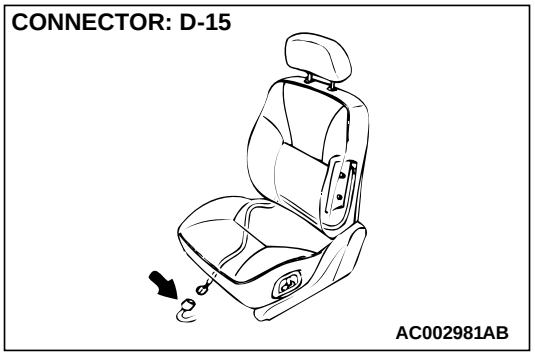
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

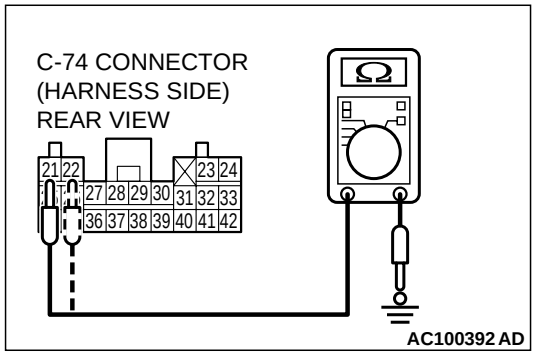
(2) Disconnect the left hand side-airbag module (LH) connector D-15, and insert special tool MB991866 into the harness side connector by backprobing.
(3) Connect the negative battery terminal.
(4) Erase the DTC memory, and then recheck the DTC.

Q: Is DTC 86 output?

YES : Go to Step 2.
NO : Replace the seat back assembly of the front seat (LH). Refer to GROUP 52A, Front Seat P.52A-16. Then go to Step 4.







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

(1) Disconnect SRS-ECU connector C-74.
(2) Disconnect left hand side-airbag module connector D-15.
(3) Measure at the wiring harness side.

⚠ CAUTION

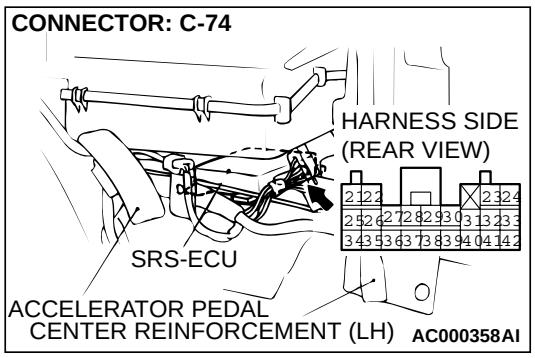
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

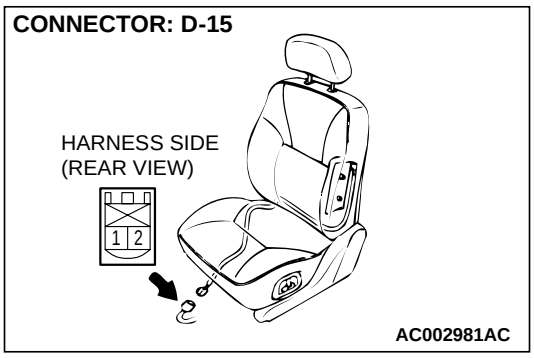
(4) Check the continuity between terminals 21, 22 and body ground.
- There should be open circuit.

Q: Is the continuity normal?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 86 sets, replace the SRS-ECU. Refer to P.52B-144. Then go to Step 4.

NO : Go to Step 3.





STEP 3. Check the harness wires for short circuit to ground between SRS-ECU connector C-74 (terminal No.21 and 22) and side-airbag module (LH) connector D-15 (terminal No.1 and 2).

Q: Are the harness wires for short circuit to ground between SRS-ECU connector C-74 (terminal No.21 and 22) and side-airbag module (LH) connector D-15 (terminal No.1 and 2) in good condition?

YES : Go to Step 4.

NO : Repair the harness wires between SRS-ECU connector C-74 and side-airbag module (LH) connector D-15. Then go to Step 4.

STEP 4. Check the DTC.

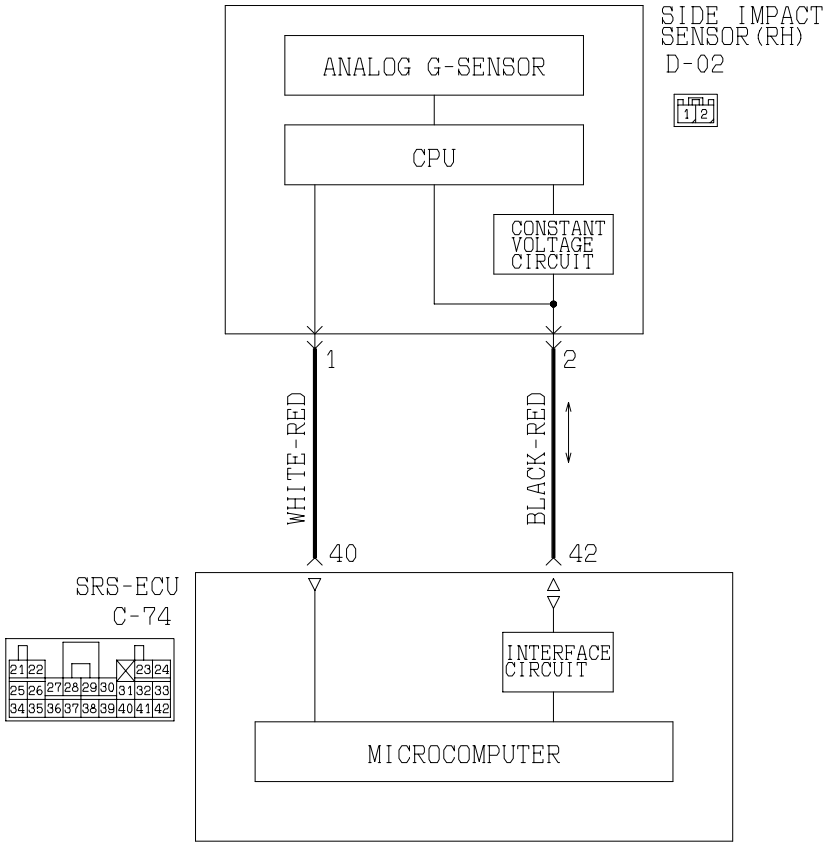
Q: Is DTC 86 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 89: Right Hand Side-airbag Module (Squib) System Fault 5 for Power Supply Circuit
DTC 96: Right Hand Side-airbag Module (Squib) System Fault 6 for Communication System

Side Impact Sensor (RH) Circuit



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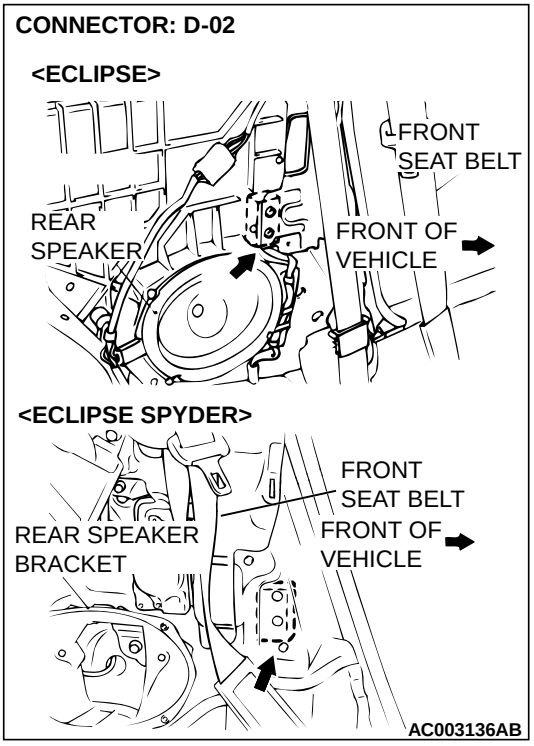
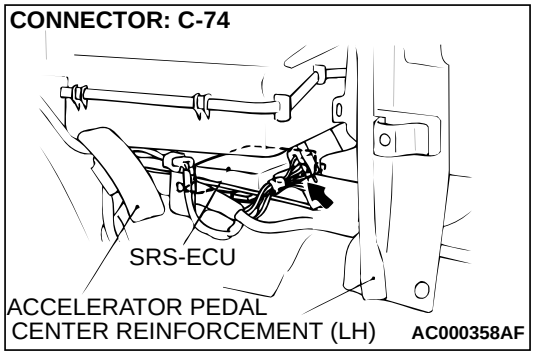
TSB Revision





CIRCUIT OPERATION

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

DTC SET CONDITIONS

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

TROUBLESHOOTING HINTS

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

DIAGNOSIS

Required Special Tool:

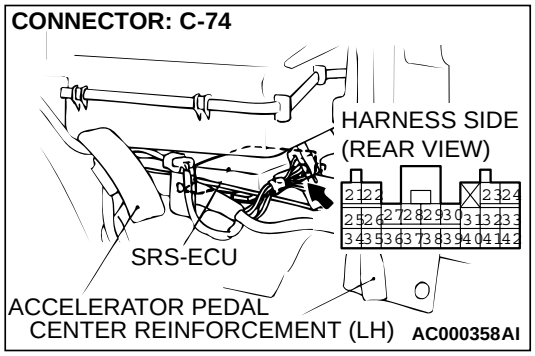
- MB991502: Scan Tool (MUT-II)

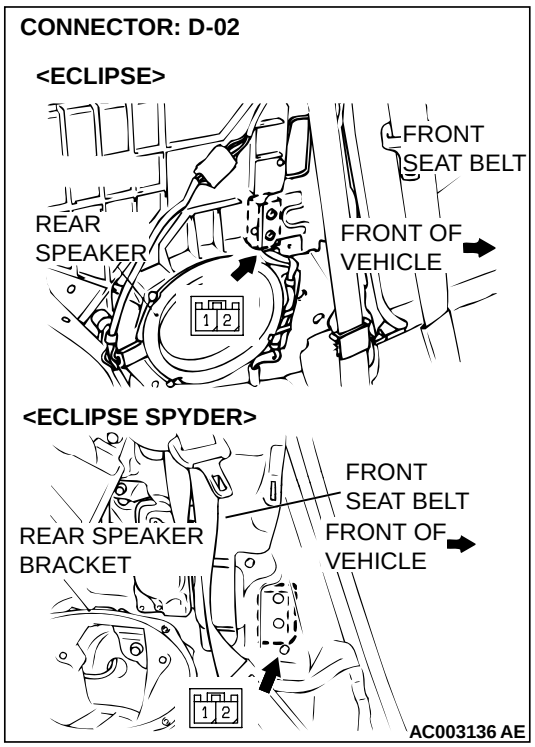
STEP 1. Check the side impact sensor.

(1) Replace the side impact sensor (RH) with the side impact sensor (LH).
(2) Connect the negative battery terminal.
(3) Erase DTC memory.

Q: Is any of DTC 79 or 93 erased and DTC 79 or 93 out put?

YES : Replace the side impact sensor (RH) with a new one. (Refer to P.52B-153.) Then go to Step 3.
NO : Go to Step 2.





STEP 2. Check the harness wires between SRS-ECU connector C-74 (terminal No.40 and 42) and side impact sensor (RH) connector D-02 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector (terminal No.40 and 42) and side impact sensor (RH) connector D-02 (terminal No.1 and 2) in good condition?

YES : Go to Step 3.

NO : Repair them. Then go to Step 3.

STEP 3. Check for DTC.

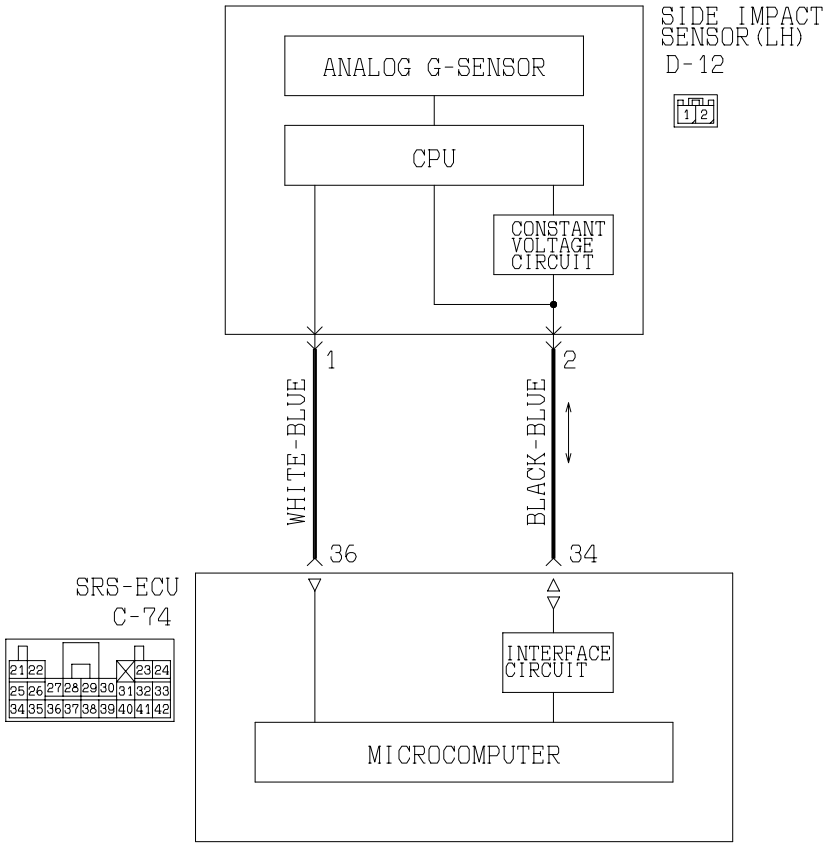
Q: Is any of DTC 89 or 96 output?

YES : Replace the SRS-ECU. (Refer to P.52B-142.)

NO : This diagnosis is complete. (If no malfunctions are not 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 91: Left Hand Side-Impact Sensor Power Supply Circuit System

Side Impact Sensor (LH) Power Supply Circuit



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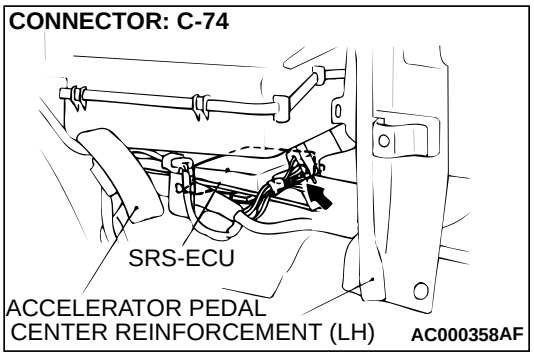

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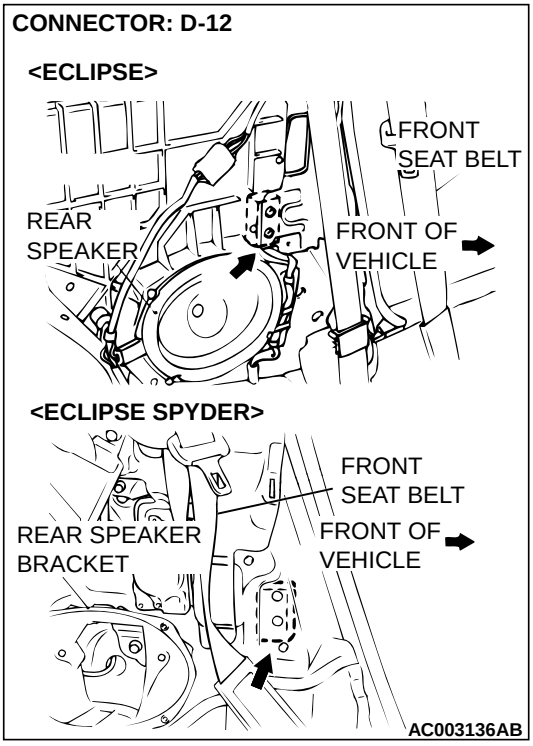


CIRCUIT OPERATION

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

DTC SET CONDITIONS

- This DTC will set when the power supply voltage to the left-side impact sensor remains less than a predetermined value for five seconds. However, if the system returns to normal condition, code number 91 will be erased automatically and the SRS warning light will go out.

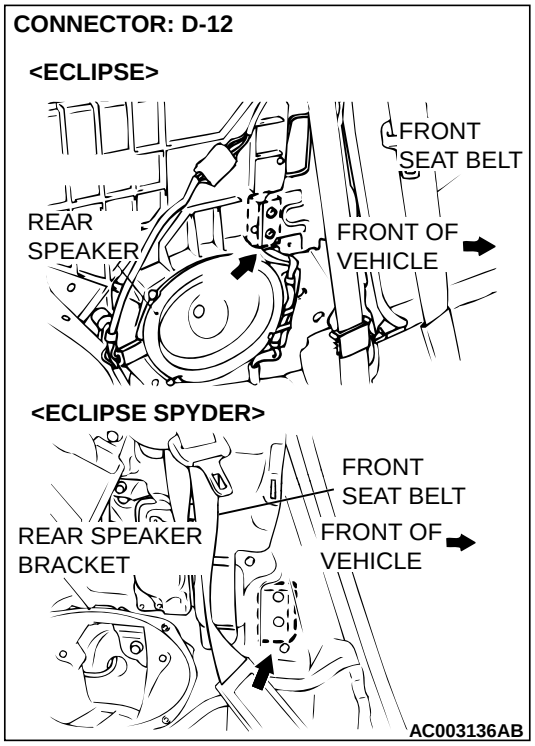
TROUBLESHOOTING HINTS

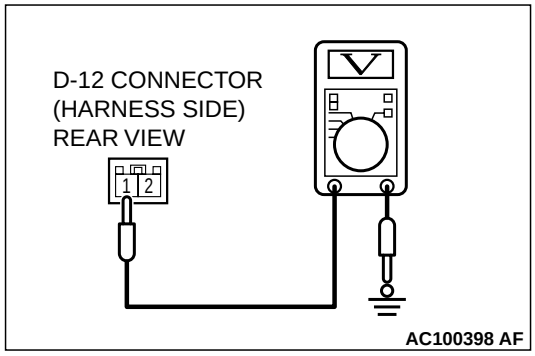
- Damaged wiring harness or connectors
- Malfunction of the side-airbag module (LH) (squib)
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991223 (MB991222): Harness set (Probe)





STEP 1. Check the side impact sensor (LH) line at the SRS-ECU connector C-74.

(1) Disconnect left-side side impact sensor connector D-12, and measure at the wiring harness side.
(2) Connect the negative battery terminal.
(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION

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

(4) Measure the voltage between terminal 1 and the ground.
- Voltage should be 9 volts or more

Q: Is the voltage normal?

YES : Replace the side impact sensor (LH). Refer to P.52B-153. Then go to Step 3.

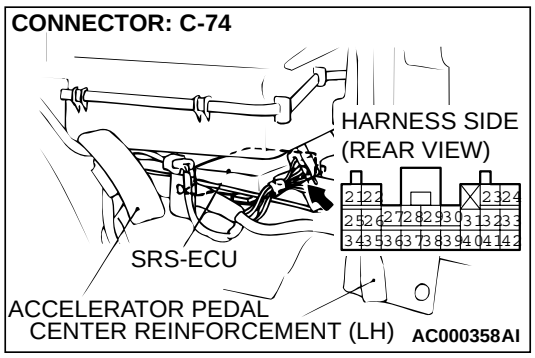
NO : Go to Step 2.

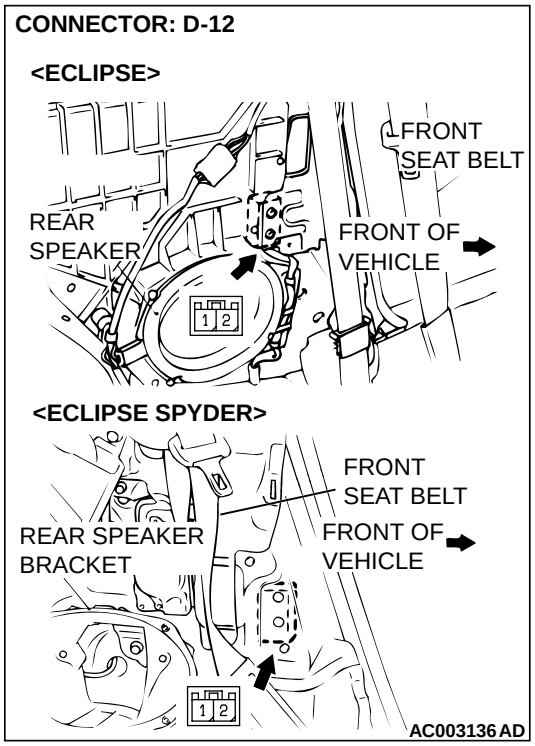
STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-74 (terminal No.34 and 36) and side impact sensor (LH) connector D-12 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-74 (terminal No.34 and 36) and side impact sensor (LH) connector D-12 (terminal No.1 and 2) in good condition?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 91 steps. Replace the SRS-ECU. Refer to P.52B-142.

NO : Repair the harness wires between SRS-ECU connector C-74 and side impact sensor (LH) connector D-12. Then go to Step 3.





STEP 3. Check DTC.

Q: Is DTC 91 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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 92: Left Hand Side-Impact Sensor System for Fault 1
DTC 95: Right Hand Side-Impact Sensor System for Fault 1

DTC SET CONDITIONS
- These DTC are set if the following are detected from the analog G-sensor output.
  - Analog G-sensor is not operating.
  - Analog G-sensor characteristics are abnormal.
  - Analog G-sensor output is abnormal.

TROUBLESHOOTING HINTS
- Malfunction of side impact sensor <LH> (for DTC 92) and side impact sensor <RH> (for DTC 95)

DIAGNOSIS

Required Special Tool:
- MB991502: Scan Tool (MUT-II)

STEP 1. Check for DTC.

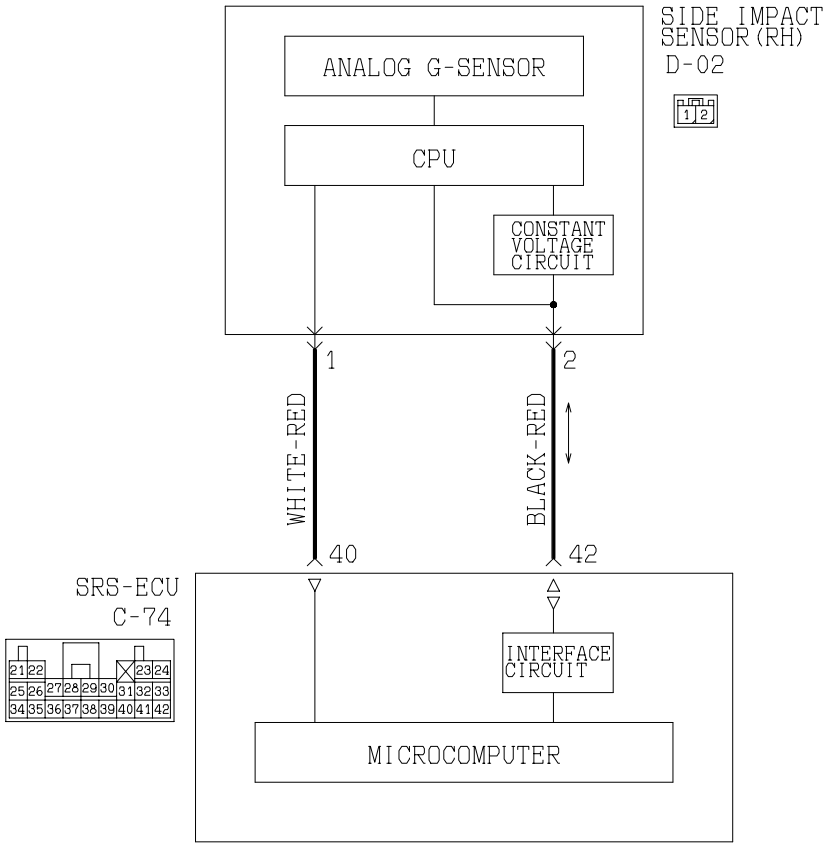
Replace side impact sensor <LH> (for DTC 92) and side impact sensor <RH> (for DTC 95). Refer to P.52B-153.

Q: Is any of DTC 92 or 95 output?

YES : Replace the SRS-ECU. Refer to P.52B-142.
NO : This diagnosis is complete.

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

Side Impact Sensor (RH) Power Supply Circuit



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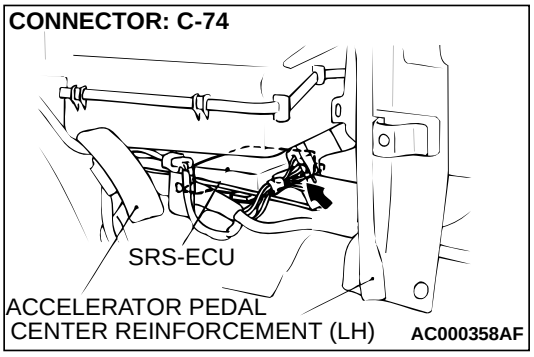
CONNECTOR: C-74



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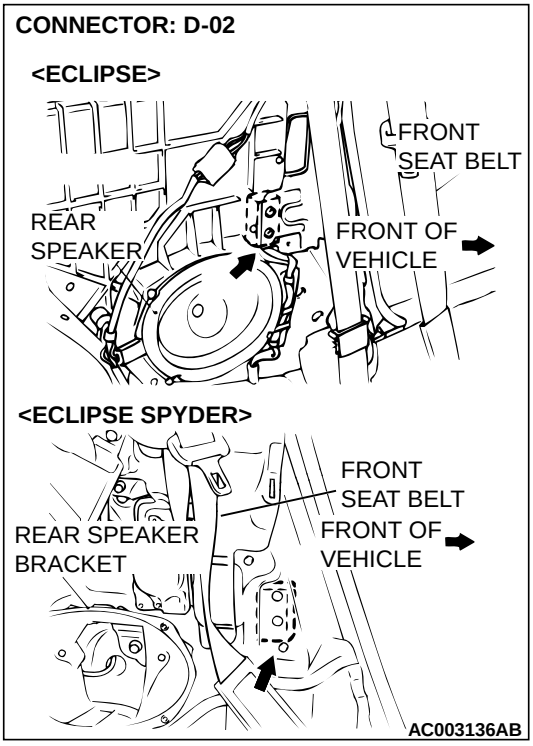


CIRCUIT OPERATION

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

DTC SET CONDITIONS

- This DTC is set if the power supply voltage of the side impact sensor (RH) drops below the rated value for a continuous period of 5 seconds or more. However, DTC number 94 will be automatically cleared and the SRS warning light will switch off if the condition returns to normal.

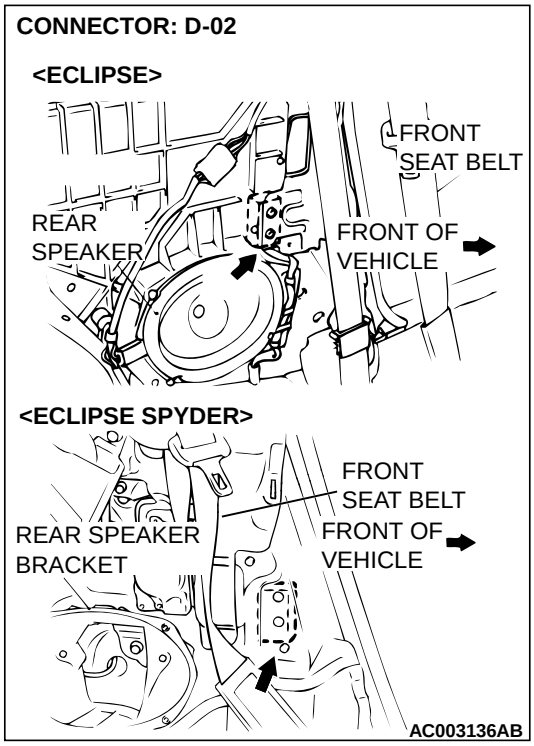
TROUBLESHOOTING HINTS

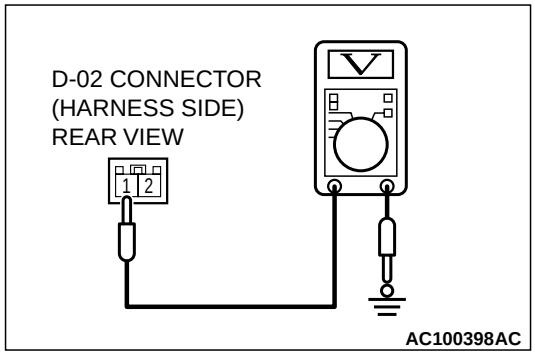
- Damaged wiring harnesses or connectors
- Malfunction of the side-airbag module (RH) (squib)
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991502: Scan Tool (MUT-II)
- MB991223 (MB991222): Harness Set (Probe)





STEP 1. Check the side impact sensor (RH) line at the SRS-ECU connector C-74.

(1) Disconnect side impact sensor (RH) connector D-02, and measure at the wiring harness side.
(2) Connect the negative battery terminal.
(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION

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

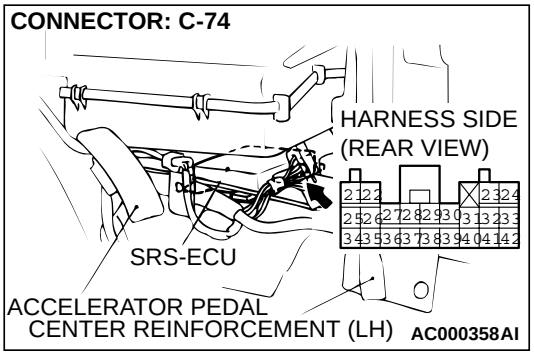
(4) Measure the voltage between terminal 1 and body ground.
- Voltage should be 9 volts or more.

Q: Is the voltage normal?

YES : Replace the side impact sensor (RH). Refer to P.52B-153. Then go to Step 3.

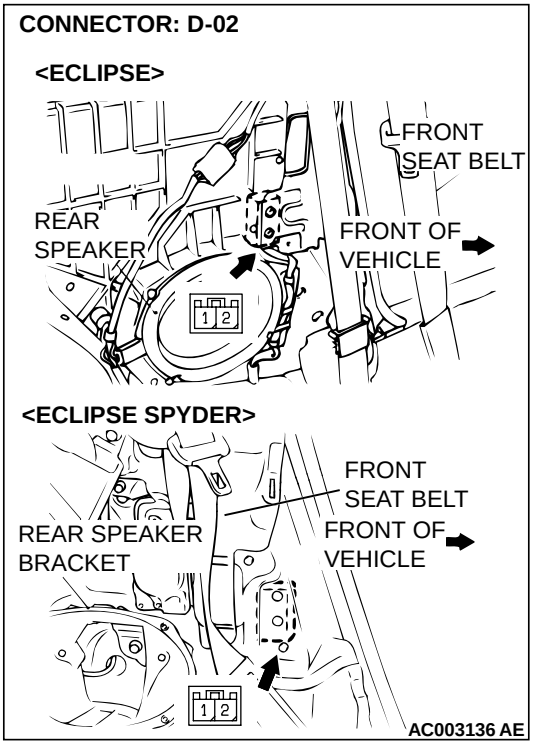
NO : Go to Step 2.

CONNECTOR: C-74



CONNECTOR: D-02

<ECLIPSE>



STEP 2. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-74 (terminal No.40 and 42) and side impact sensor (RH) connector D-02 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-74 (terminal No.40 and 42) and side impact sensor (RH) connector D-02 (terminal No.1 and 2) in good condition?

YES : Erase the DTC memory, and recheck if any DTC sets. If DTC 94 sets, replace the SRS-ECU. Refer to P.52B-142. Then go to Step 3.

NO : Repair the harness wires between SRS-ECU connector C-74 and side impact sensor (RH) connector D-02. Then go to Step 3.

STEP 3. Check for DTC.

Q: Is DTC 94 output?

YES : Return to Step 1.

NO : This diagnosis is complete. (If no malfunctions are not 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.)

SRS WARNING LIGHT CHECK

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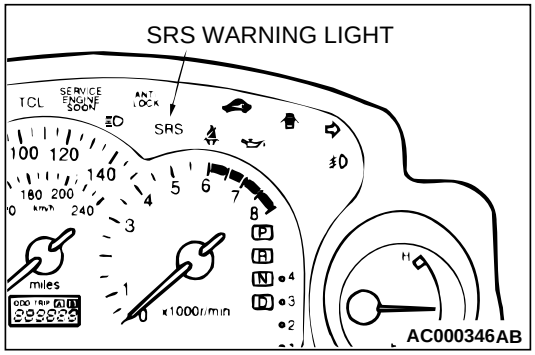
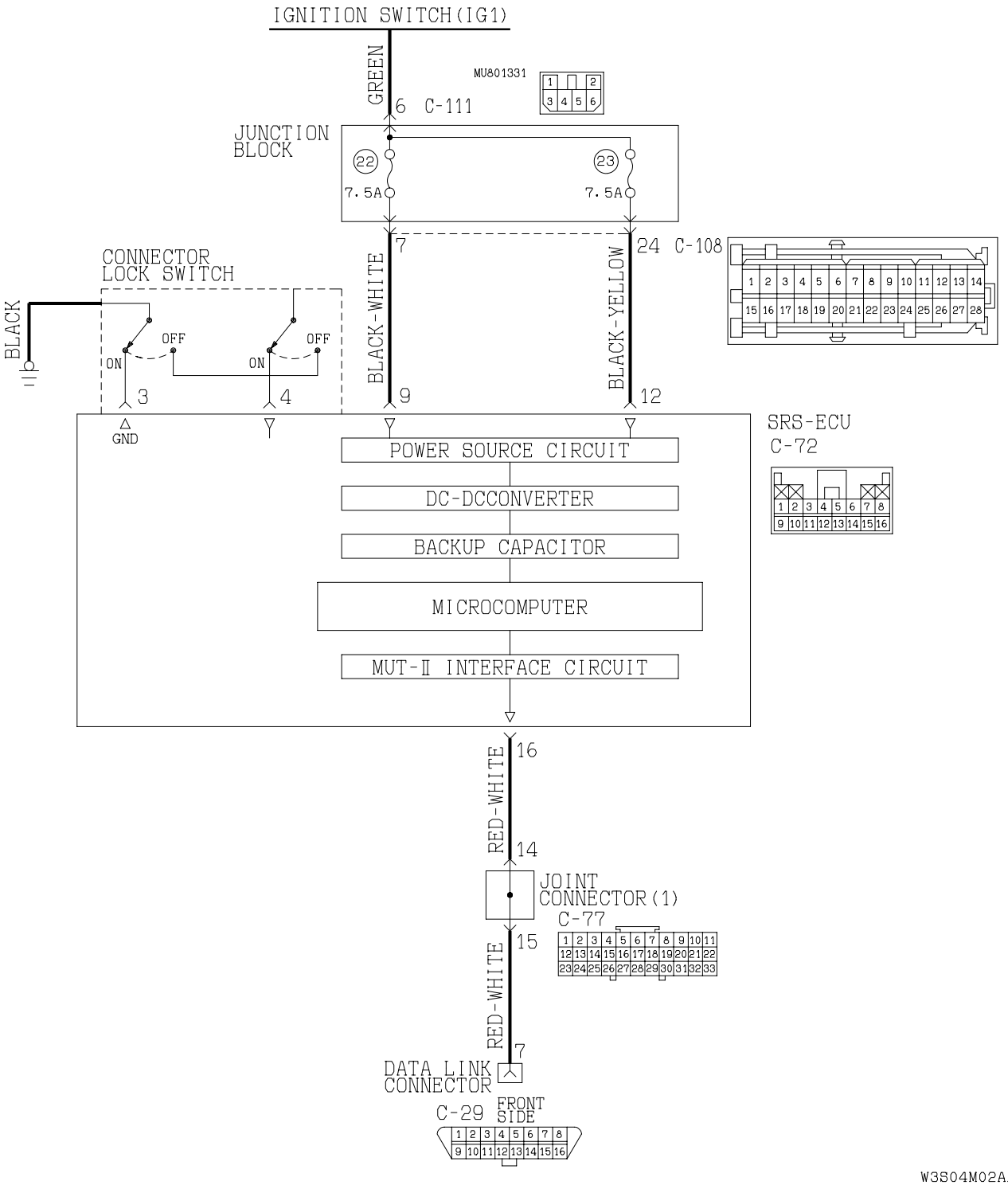


1. Check that the SRS warning light illuminates when the ignition switch is in the "ON" position.
2. Check that it illuminates for approximately 7 seconds and then goes out.
3. If not, check for DTC.

SYMPTOM PROCEDURES

INSPECTION PROCEDURE 1: Communication with scan tool MB991502 is not possible with the SRS system.

SRS-ECU Power Supply Circuit



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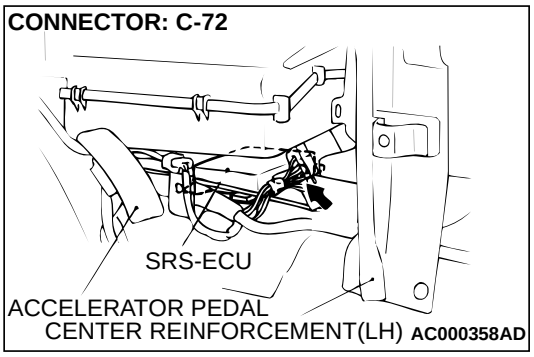
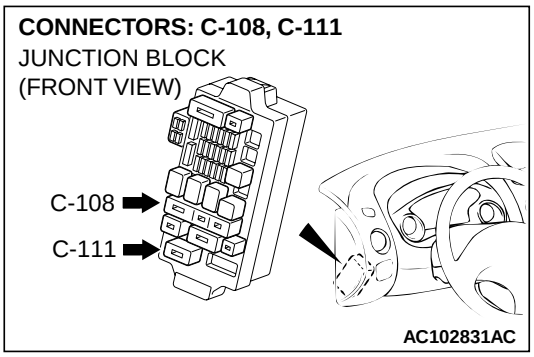
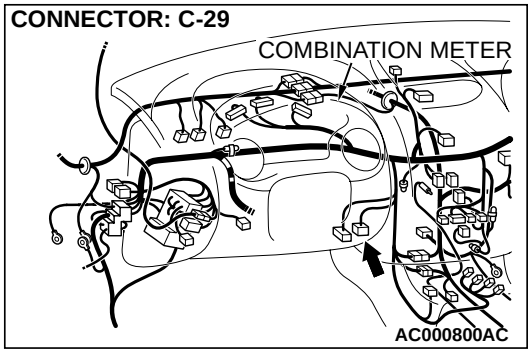
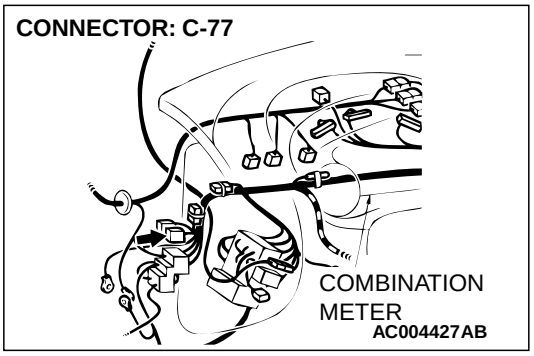








CIRCUIT OPERATION

- The SRS-ECU is powered from the ignition switch (IG1).
- The SRS-ECU power is supplied from two circuits. Even if one circuit is shut off, the air bag can inflate.
- The SRS system diagnosis can be done by connecting scan tool MB991502 to the data link connector.
- The SRS-ECU judges how severe a collision is by detecting signals from the left and right side impact sensors and the analog G-sensor. If the impact is over a predetermined level, the SRS-ECU outputs an ignition signal. At this time, if the safing G-sensor is on, the SRS air bag will inflate.

TECHNICAL DESCRIPTION (COMMENT)

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

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Incorrect scan tool (MUT-II) ROM pack

DIAGNOSIS

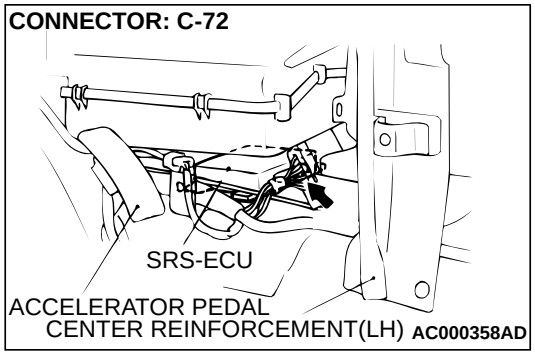
Required Special Tools:

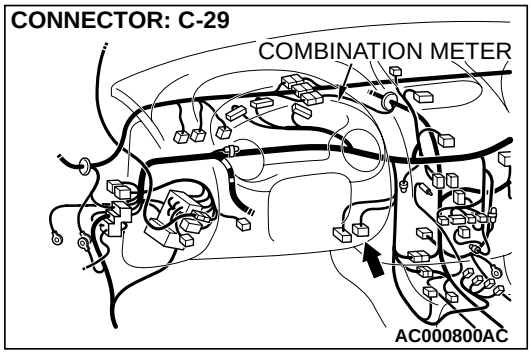
- MB991223 (MB991222): Harness set (Probe)

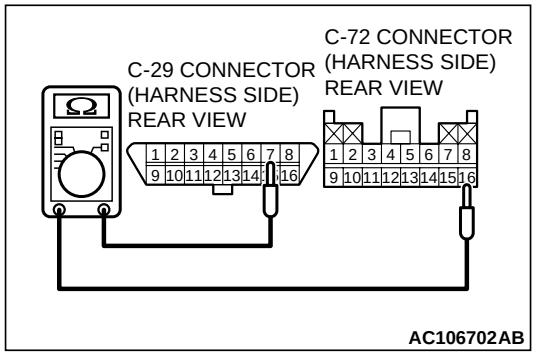
STEP 1. Check that the scan tool can communicate with the other systems.

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

YES : Go to Step 2.
NO : Refer to GROUP 13A, Diagnosis P.13A-434 GROUP 13B, Diagnosis P.13B-530.







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

(1) Disconnect SRS-ECU connector C-72 and data link connector C-29 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 the continuity between the following terminals.

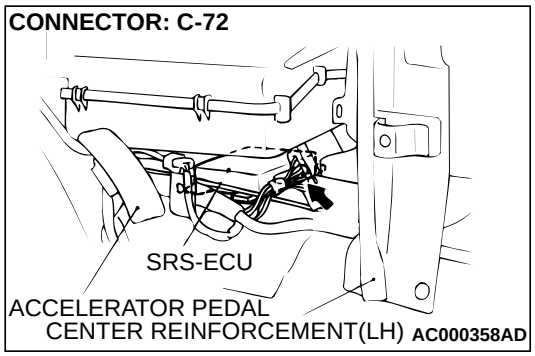
C-72 connector		C-29 connector
16	-	7

- Should be less than 2 ohm.

Q: Is the continuity normal?

YES : Go to Step 3.

NO : Go to Step 5.

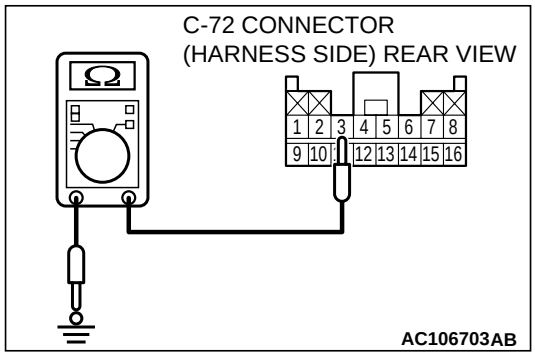


STEP 3. Check the ground circuit to the SRS-ECU.

(1) Disconnect SRS-ECU connector C-72, and measure at the wiring harness side.

⚠ CAUTION

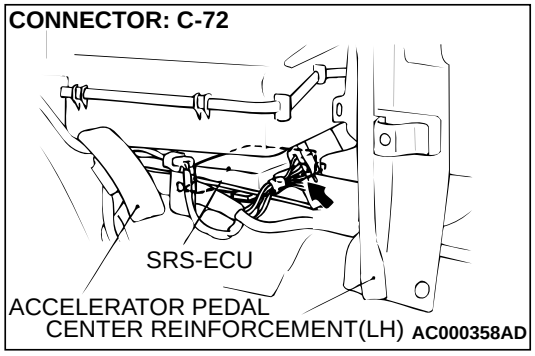
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.



(2) Check the continuity between terminals 3 and body ground.
- Should be less than 2 ohm.

Q: Is the continuity normal?

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



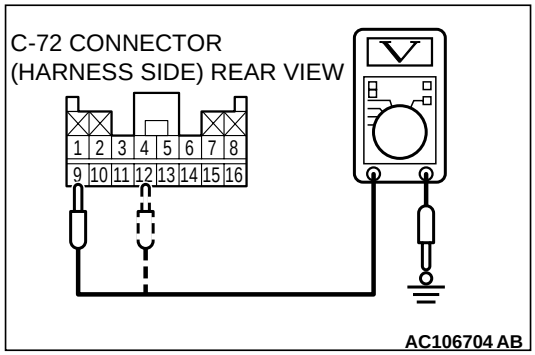
STEP 4. Check the power supply circuit to the SRS-ECU.

(1) Disconnect SRS-ECU connector C-72, and measure at the wiring harness side.
(2) Connect the negative battery terminal.
(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION

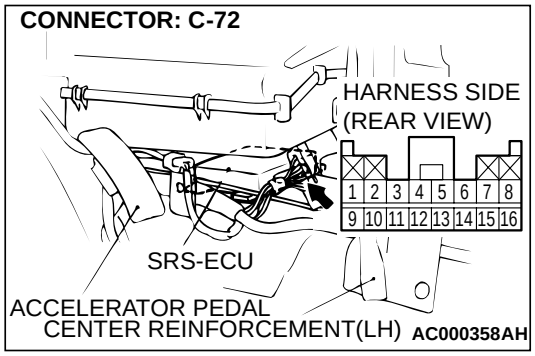
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

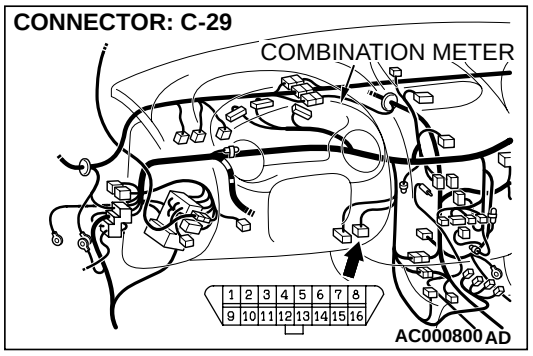
(4) Measure the voltage between terminals 9, 12 and body ground
- Voltage should be 9 volts or more.

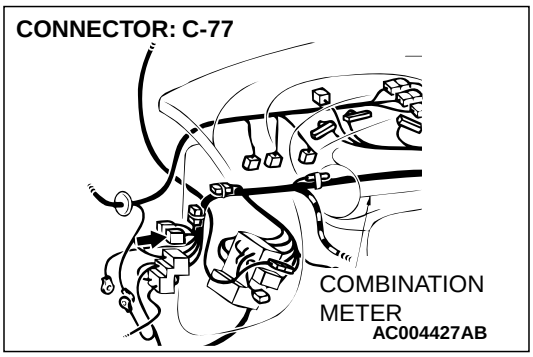


Q: Is the voltage normal?

YES : Replace SRS-ECU. Refer to P.52B-142. Then go to Step 8.
NO : Go to Step 7.





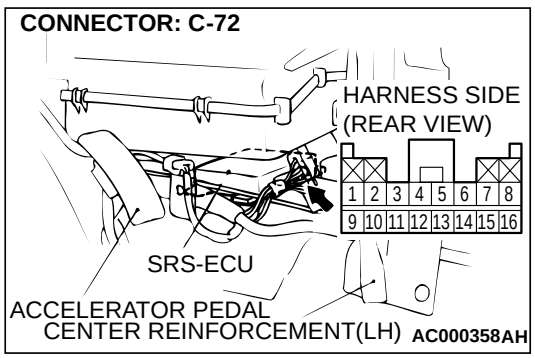


STEP 5. Check the harness wires between SRS-ECU connector C-72 (terminal No.16) and data link connector C-29 (terminal No.7).

NOTE: After inspecting intermediate connector C-77 inspect the wiring harness.
If the intermediate connector C-77 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection P.00E-2.
Go to Step 8.

Q: Are the harness wires between SRS-ECU connector C-72 (terminal No.16) and data link connector C-29 (terminal No.7) in good condition?

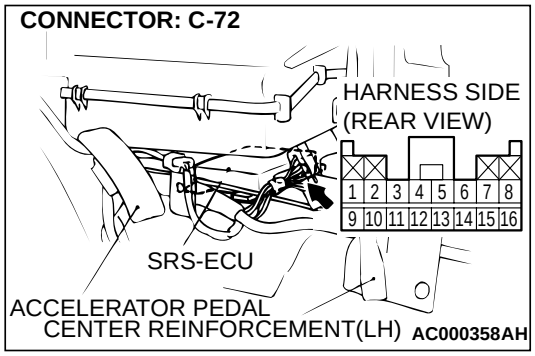
YES : Go to step 8.
NO : Repair the harness wires between SRS-ECU connector C-72 and data link connector C-29. Then go to Step 8.

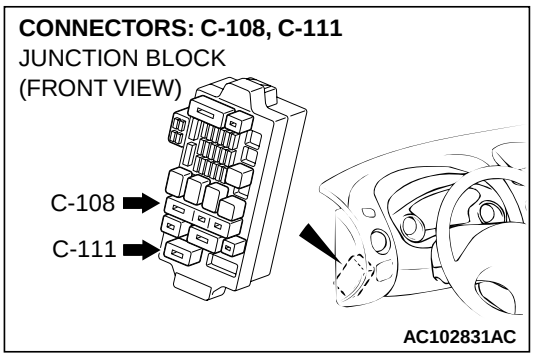


STEP 6. Check the harness wires between SRS-ECU connector C-72 (terminal No.3) and ground.

Q: Are the harness wires between SRS-ECU connector C-72 (terminal No.3) and ground in good condition?

YES : Go to Step 8.
NO : Repair the harness wires between SRS-ECU connector C-72 and ground. Then go to Step 8.





STEP 7. Check the harness wires between SRS-ECU connector C-72 (terminal No.9 and 12) and ignition switch (IG1).

NOTE: After inspecting intermediate connector C-108, C-111 inspect the wiring harness.
If the intermediate connector C-108, C-111 is damaged, repair or replace it. Refer to GROUP 00E, Harness Connector Inspection P.00E-2.
Go to Step 8.

Q: Are the harness wires between SRS-ECU connector C-72 (terminal No.9 and 12) and ignition switch (IG1) in good condition?

YES : Go to Step 8.
NO : Repair the harness wires between SRS-ECU connector C-72 and ignition switch (IG1). Then go to Step 8.

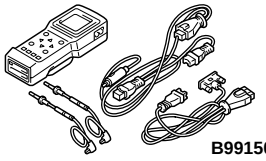
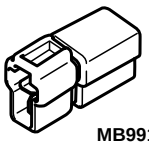
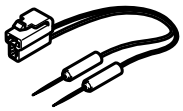
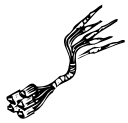
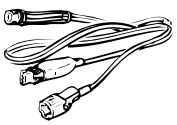
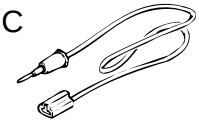
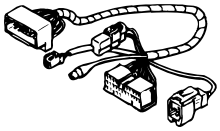
STEP 8. Check symptoms.

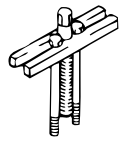
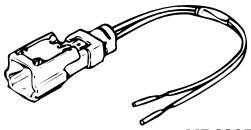
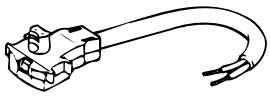
Q: Does the scan tool communicate normally with the SRS system?

YES : This diagnosis is complete. (If no malfunctions are not 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.)
NO : There is no action to be taken.

SPECIAL TOOLS

M1524000700204

TOOL	TOOL NUMBER AND NAME	REPLACED BY MILLER TOOL NUMBER	APPLICATION
 B991502	MB991502 Scan tool (MUT-II)	MB991496-OD	• Reading diagnostic trouble codes • Erasing diagnostic trouble codes • Reading vehicle data for a specific period • Reading erase times (Refer to MUT-II operating instructions)
 MB991865	MB991865 Dummy resistor	–	SRS air bag circuit check
 MB991866	MB991866 Resistor harness	–	
A  B  C  D  MB991223AG	MB991223 A: MB991219 B: MB991220 C: MB991221 D: MB991222 Harness set A: Test harness B: LED harness C: LED harness adapter D: Probe	–	Checking the continuity and measuring the voltage at the SRS-ECU harness connector
 MB991613	MB991613 SRS check harness	MB991613	Clock spring check

TOOL	TOOL NUMBER AND NAME	REPLACED BY MILLER TOOL NUMBER	APPLICATION
 MB990803	MB990803 Steering wheel puller	General service tool	Removal of steering wheel
 MB686560	MB686560 SRS air bag adapter harness A	General service tool	• Deployment of air bag module (Front passenger's side) inside the vehicle • Deployment of air bag module (Front passenger's side) outside the vehicle
 MB628919	MR203491 or MB628919 SRS air bag adapter harness B	General service tool	Deployment of air bag module (Driver's side) outside the vehicle

TEST EQUIPMENT

M1524000800126

TOOL	NAME	USE
 AC000019AB	Digital multi-meter Use a multi-meter for which the maximum test current is 2 mA or less at the minimum range of resistance measurement	Checking the SRS electrical circuitry with SRS check harness

SRS MAINTENANCE

M1524003900111

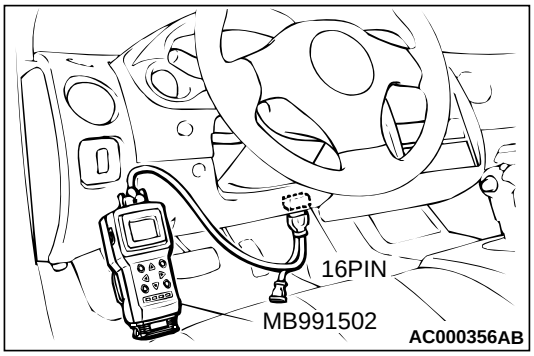
The SRS must be inspected by an authorized dealer up to 10 years after the date of vehicle registration. (Refer to GROUP 00, Maintenance Service – SRS Maintenance P.00-59.)

POST-COLLISION DIAGNOSIS

M1524001100205

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

SRS-ECU MEMORY CHECK



Required Special Tool:

- MB991502: Scan tool (MUT-II)

⚠ 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 (16-pin).

   NOTE: If the battery power supply has been disconnected or disrupted by the collision, scan tool MB991502 cannot communicate with the SRS-ECU. Check the battery then check and, if necessary, repair the front wiring harness and the instrument panel wiring harness before proceeding.
2. Read (and write down) all displayed DTC. (Refer to P.52B-21.)
3. Read the data list (fault duration and how many times memories are erased) using scan tool MB991502.

Data list

NO.	SERVICE DATA ITEM	APPLICABILITY
92	Number indicating how often the memory is cleared	Maximum time to be stored: 250
93	How long a problem has lasted (How long it takes from the occurrence of the problem till the first air bag squib igniting signal)	Maximum time to be stored: 9,999 minutes (approximately 7 days)
94	How long a problem has lasted (How long it takes from the first air bag squib igniting signal till now.)	

4. Erase the DTC and, after waiting 5 seconds or more, read (and write down) all displayed DTC. (Refer to P.52B-21.)

REPAIR PROCEDURE

WHEN FRONT AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones.
   - SRS-ECU (Refer to P.52B-142.)
   - Air bag modules (driver's and front passenger's) (Refer to P.52B-144.)
2. Check the following parts and replace if there are any malfunctions.
   - Clock spring (Refer to P.52B-144.)
   - Steering wheel, steering column and intermediate joint
     (1) Check the wiring harness (built into the steering wheel) and connectors for damage, and terminals for deformation.
     (2) Install the air bag module to check fit or alignment with the steering wheel.
     (3) Check the steering wheel for noise, binds or difficult operation and excessive free play.
3. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation. (Refer to P.52B-17.)

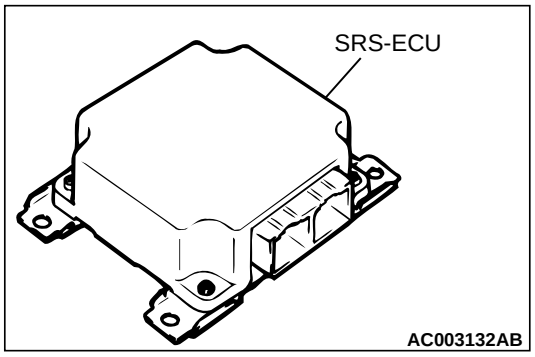
WHEN SIDE-AIRBAG DEPLOYS IN A COLLISION.

1. Replace the following parts with new ones.
   - SRS-ECU (Refer to P.52B-142.)
   - Side impact sensors (Refer to P.52B-153.)
   - Front seat back assembly (Refer to GROUP 52A, Front Seat P.52A-16.)
2. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation. (Refer to P.52B-17.)

WHEN AIR BAG DOES NOT DEPLOY IN LOW-SPEED COLLISION.

Check the SRS components. If the SRS components are showing any visible damage such as dents, cracks, or deformation, replace them with new ones. Concerning parts removed for inspection, replacement with new parts and cautionary points for working, refer to appropriate INDIVIDUAL COMPONENT SERVICE P.52B-141.

SRS-ECU



1. Check the SRS-ECU case and brackets for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.

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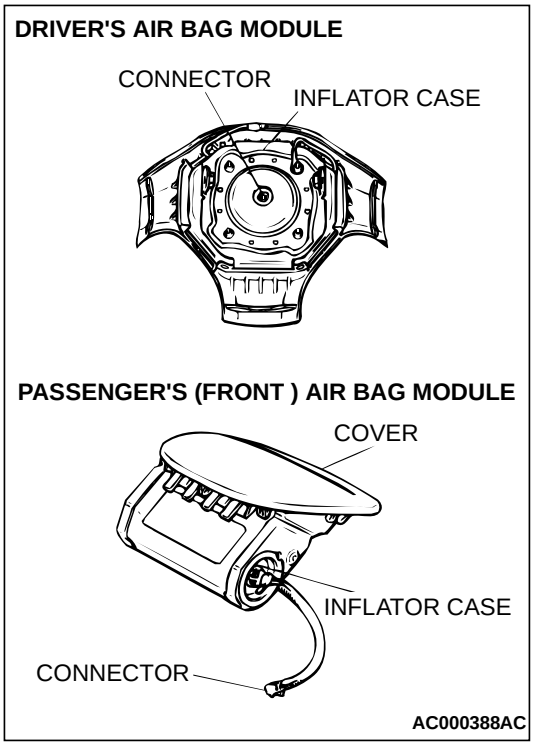
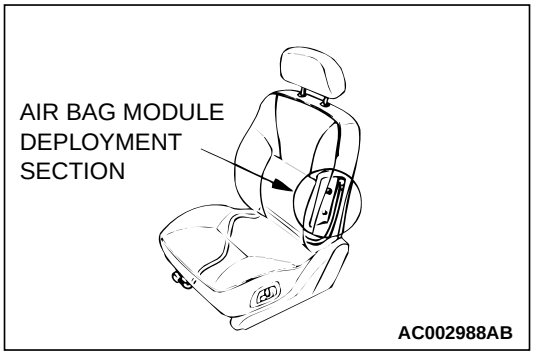


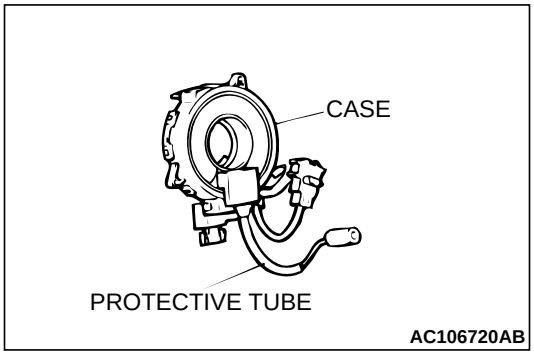
Air bag modules

1. Check the pad cover for dents, cracks or deformation.
2. Check the connector for damage, terminals deformities, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformities.
4. Install the driver's air bag module to the steering wheel to check fit or alignment with the steering wheel.
5. Install the passenger's (front) air bag module to the instrument panel and crossmember to check fit or alignment.
6. Install the passenger's (front) air bag module cover to the instrument panel to check fit or alignment.



Front seat back assembly (Side-airbag module)

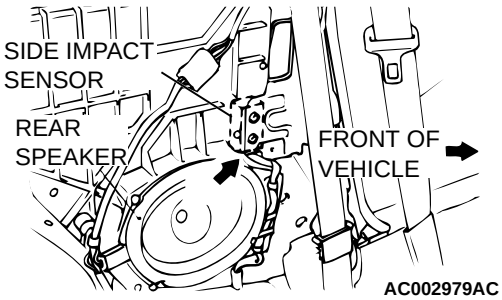
1. Check that there is no abnormality in the seat air bag module deployment section.
2. Check that there is no connector damage, bent terminals or clamping of the harness.



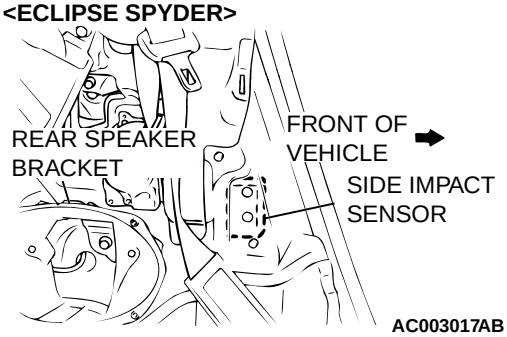
Clock spring

1. Check the clock spring connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.

<ECLIPSE>



<ECLIPSE SPYDER>



Side impact sensor

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

1. Check that there is no bending or corrosion in the center pillar.
2. Check that there is no denting, breakage or bending of the side impact sensor.
3. Check that there is no clamping of the harness, connector damage or bent terminals.

Steering wheel, steering column and intermediate joint

1. Check the wiring harness (built into the steering wheel) and the connectors for damage, and the terminals for deformation.
2. Install the air bag module to check fit or alignment with the steering wheel.
3. Check the steering wheel for noise, binding or difficult operation and excessive free play.

Harness connector

Check the harnesses for binding, the connectors for damage, poor connection, and the terminals for deformation. (Refer to P.52B-17.)

INDIVIDUAL COMPONENT SERVICE

M1524002900129

⚠ ***WARNING***

- ***The SRS components should not be subjected to heat over 93°C (200°F), so remove the SRS-ECU, air bag modules (driver's side and front passenger's side), front seat assemblies (side air back module), clock spring, side impact sensors before drying or baking the vehicle after painting. Recheck the SRS system operability after reinstalling them. (Refer to GROUP 00, Maintenance Service - SRS Maintenance P.00-59.)***
- ***If the SRS components are removed for the purpose of checking, sheet metal repair, painting, etc., they should be stored in a clean, dry place until they are reinstalled.***

If the SRS components are to be removed or replaced as a result of maintenance, diagnosis, etc., follow the appropriate procedure in this section. (SRS Air Bag Control Unit: refer to P.52B-142, Air Bag Modules and Clock Spring: refer to P.52B-144, Side impact sensors: refer to P.52B-153.)

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SRS CONTROL UNIT (SRS-ECU)

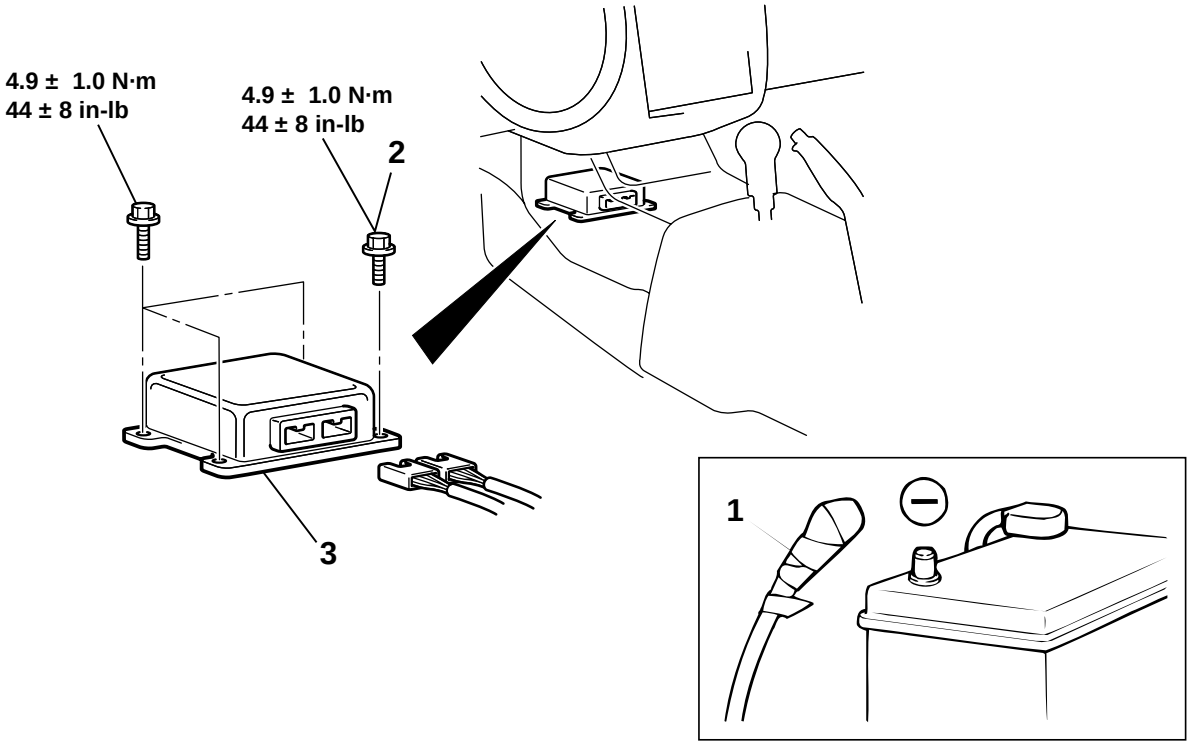
M1524002100123

⚠ WARNING

- ***Never attempt to disassemble or repair the SRS-ECU. If faulty, replace it.***
- ***Do not drop or subject the SRS-ECU to impact or vibration. If denting, cracking, deformation, or rust are discovered in the SRS-ECU, replace it with a new SRS-ECU. Discard the old one.***
- ***After deployment of an air bag, replace the SRS-ECU with a new one.***
- ***Never use an ohmmeter on or near the SRS-ECU, and use only the special test equipment described on P.52B-137.***

REMOVAL AND INSTALLATION

Pre-removal Operation	Post-installation Operation
• Turn the ignition switch to the "LOCK" (OFF) position. • Floor Console Removal (Refer to GROUP 52A, Floor Console P.52A-8.)	• Floor Console Installation (Refer to GROUP 52A, Floor Console P.52A-8.)



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REMOVAL STEPS

<<A>>
1. NEGATIVE (–) BATTERY CABLE CONNECTION
2. BRACKET MOUNTING BOLT (GROUNDING BOLT)
3. SRS-ECU

INSTALLATION STEPS

>>A<<
3. SRS-ECU

>>B<<
2. BRACKET MOUNTING BOLT (GROUNDING BOLT)
1. NEGATIVE (–) BATTERY CABLE CONNECTION

>>C<<
- POST-INSTALLATION INSPECTION

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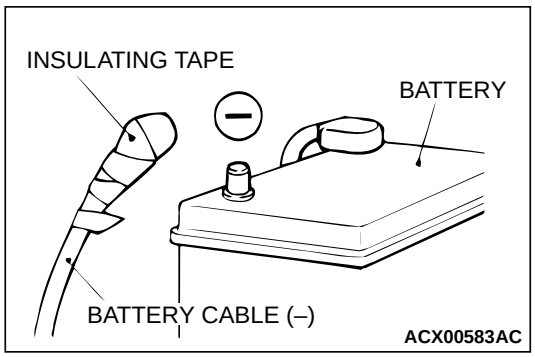
REMOVAL SERVICE POINT

<<A>>NEGATIVE (–) BATTERY CABLE DISCONNECTION



⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-17.)

⚠ ***WARNING***

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

Disconnect the negative battery cable from the battery and tape the terminal to prevent accidental connection and deployment.

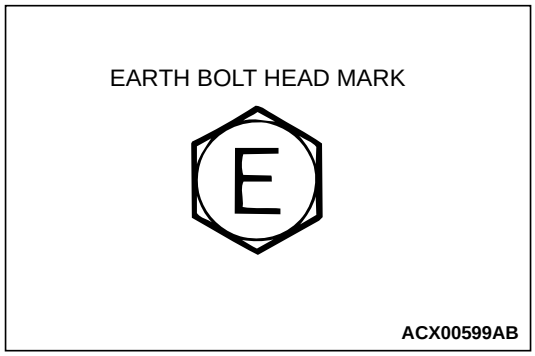
INSTALLATION SERVICE POINTS

>>A<< SRS-ECU INSTALLATION

⚠ ***WARNING***

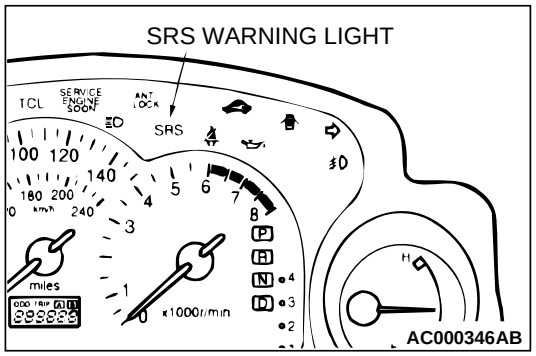
The SRS may not activate if the SRS-ECU is not installed properly, which could result in serious injury or death to the vehicle's driver or front passenger.

>>B<< BRACKET MOUNTING BOLT (GROUNDING BOLT) INSTALLATION



Check the head mark "E" on the bolt and attach the grounding bolt.

>>C<< POST-INSTALLATION INSPECTION



1. Reconnect the negative (–) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately 7 seconds, and then remain off for at least 5 seconds after turning "OFF"?
4. If yes, the SRS system is functioning properly. If no, refer to P.52B-129.

INSPECTION

M1524002200119

⚠ ***WARNING***

If a dent, crack, deformation or rust is discovered, replace the SRS-ECU with a new one.

- Check the SRS-ECU and brackets for dents, cracks or deformation.
- Check the SRS-ECU connector for damage, and the terminals for deformation.

NOTE: Refer to P.52B-23 for inspection of SRS-ECU for other than physical damage.

AIR BAG MODULE(S) AND CLOCK SPRING

AIR BAG MODULES AND CLOCK SPRING REMOVAL AND INSTALLATION

M1524002400209

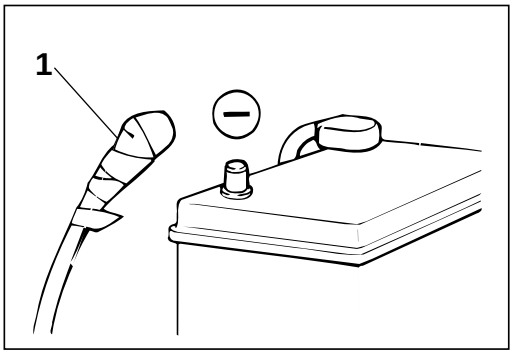
⚠ ***WARNING***

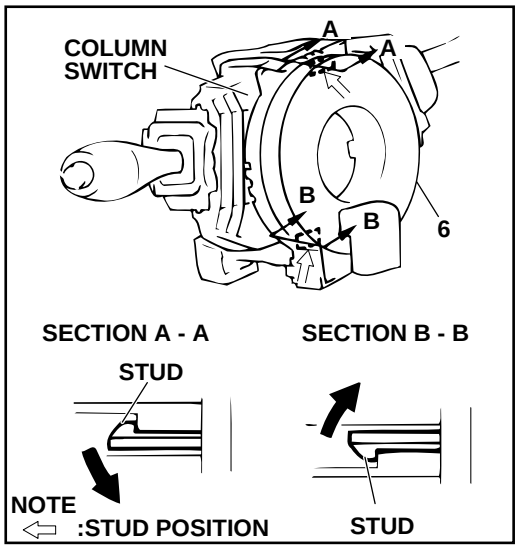
- ***Never attempt to disassemble or repair the air bag modules or clock spring. If faulty, replace it.***
- ***Do not drop the air bag modules or clock spring or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***The air bag modules should be stored on a flat surface with the pad cover facing upward. Do not place anything on top of it.***
- ***Do not expose the air bag modules to temperatures over 93°C (200°F).***
- ***After deployment of an air bag, replace the clock spring with a new one.***
- ***Wear gloves and safety glasses when handling air bags that have already deployed.***
- ***An undeployed air bag module should only be disposed of in accordance with the procedures. (Refer to P.52B-157.)***

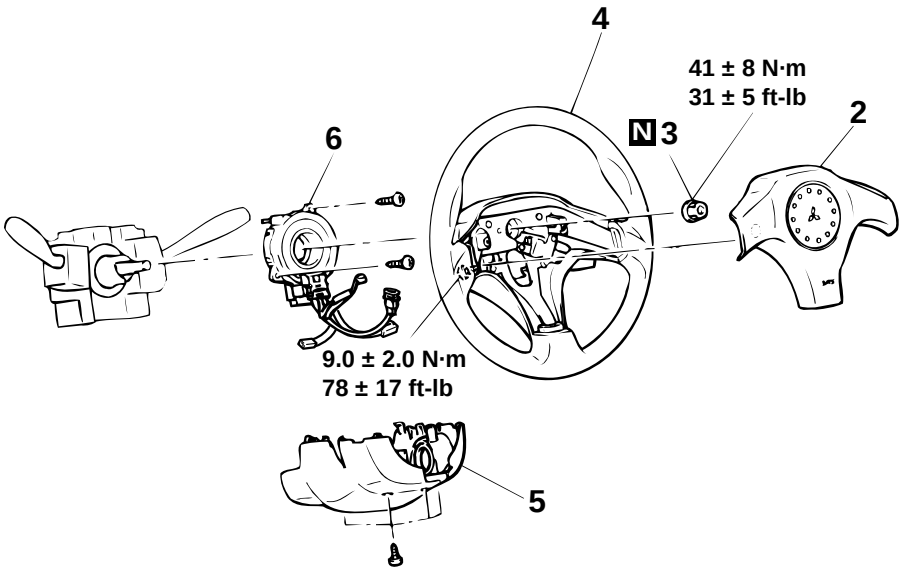
<Side-airbag module>

For removal and installation of the front seatback assembly with side-airbag module, refer to GROUP 52A, Front Seat P.52A-16.

REMOVAL AND INSTALLATION
<Driver's air bag module, clock spring>







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AIR BAG MODULE REMOVAL STEPS

<<A>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION
<<B>> 2. DRIVER'S AIR BAG MODULE

CLOCK SPRING REMOVAL STEPS

<<A>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION
<<B>> 2. DRIVER'S AIR BAG MODULE
3. STEERING WHEEL NUT
<<C>> 4. STEERING WHEEL
5. COLUMN COVER LOWER
<<D>> 6. CLOCK SPRING

AIR BAG MODULE INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION
>>D<< 2. DRIVER'S AIR BAG MODULE
1. NEGATIVE (–) BATTERY CABLE CONNECTION
>>E<< • POST-INSTALLATION INSPECTION

CLOCK SPRING INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION
>>B<< 6. CLOCK SPRING
5. COLUMN COVER LOWER
>>C<< 4. STEERING WHEEL
3. STEERING WHEEL NUT
>>D<< 2. DRIVER'S AIR BAG MODULE

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CLOCK SPRING INSTALLATION STEPS (Continued)

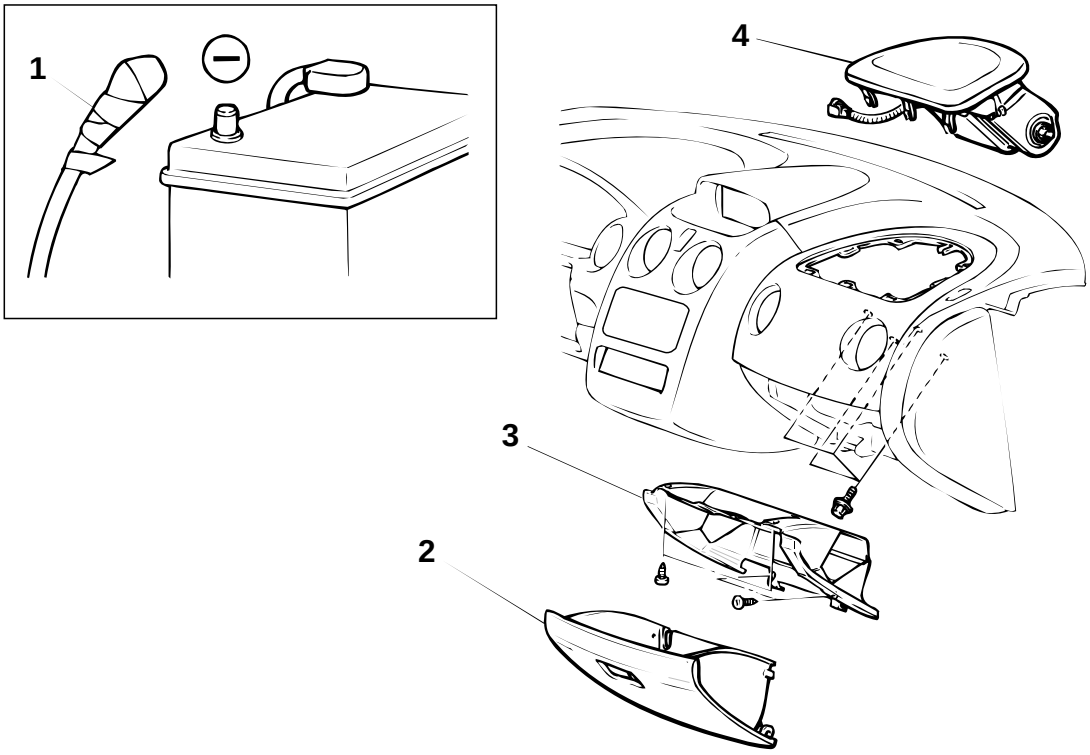
1. NEGATIVE (–) BATTERY CABLE CONNECTION

>>E<< • POST-INSTALLATION INSPECTION

Required Special Tools:

- MB990502: Scan Tool (MUT-II)
- MB990803: Steering Wheel Puller
- MB991613: SRS Check Harness

<Passenger's (front) air bag module>



AC000698AB

AIR BAG MODULE REMOVAL STEPS

<<A>> 1. NEGATIVE (–) BATTERY CABLE CONNECTION
2. GLOVE BOX OUTER
3. GLOVE BOX INNER
<<E>> 4. PASSENGER'S (FRONT) AIR BAG MODULE

AIR BAG MODULE INSTALLATION STEPS

>>A<< • PRE-INSTALLATION INSPECTION
4. PASSENGER'S (FRONT) AIR BAG MODULE

AIR BAG MODULE INSTALLATION STEPS (Continued)

3. GLOVE BOX INNER
2. GLOVE BOX OUTER
1. NEGATIVE (–) BATTERY CABLE CONNECTION

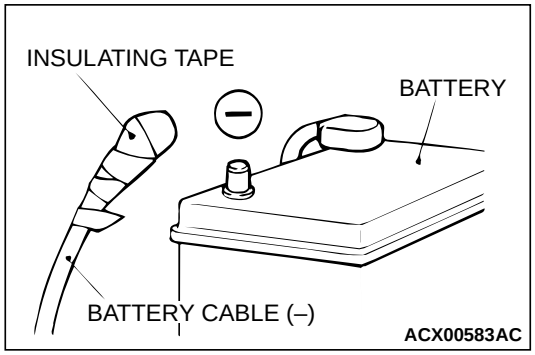
>>E<< • POST-INSTALLATION INSPECTION

Required Special Tools:

- MB990502: Scan Tool (MUT-II)
- MB990803: Steering Wheel Puller
- MB991613: SRS Check Harness

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION



⚠ ***DANGER***

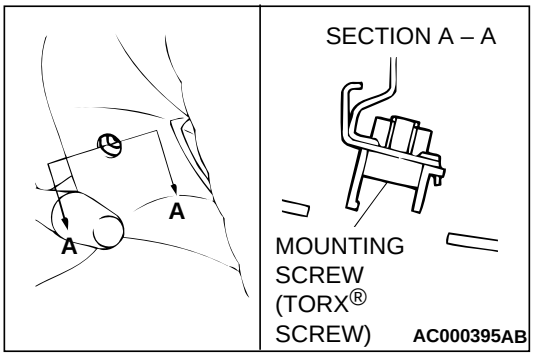
Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-17.)

⚠ ***WARNING***

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

Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.

<<B>> DRIVER'S AIR BAG MODULE REMOVAL

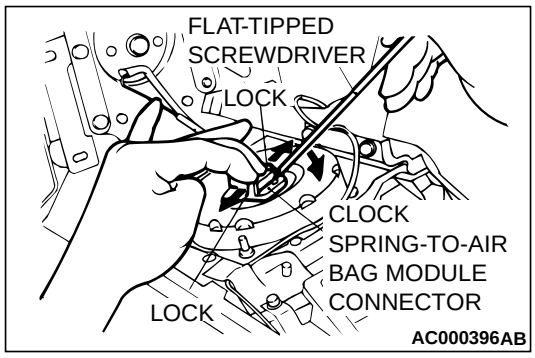


1. Remove the air bag module mounting screws (TORX® screws) at the sides of the steering wheel.

   NOTE: Do not remove the screws from the holders.

⚠ ***WARNING***

The removed air bag module should be stored in a clean, dry place with the pad cover face up.

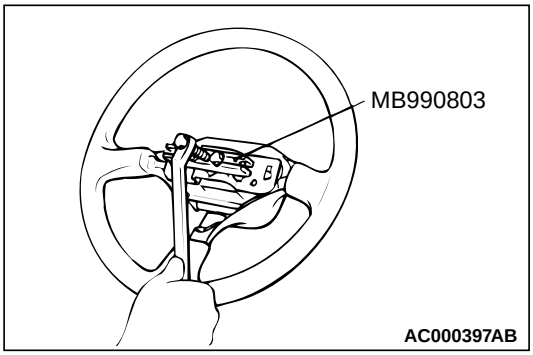


⚠ **CAUTION**

When disconnecting the air bag module-to-clock spring connector, take care not to apply excessive force to it.

2. When disconnecting the connector of the clock spring from the air bag module, press the air bag's lock toward the outer side to spread to open. Use a flat-tipped screwdriver, as shown in the figure at the left, to pry gently to remove the connector.

<<C>> STEERING WHEEL REMOVAL



⚠ **CAUTION**

Do not hammer on the steering wheel. Doing so may damage the collapsible column mechanism.

<<D>> CLOCK SPRING REMOVAL

⚠ ***WARNING***

The removed clock spring should be stored in a clean, dry place.

<<E>> PASSENGER'S (FRONT) AIR BAG MODULE REMOVAL

⚠ ***WARNING***

The removed air bag module should be stored in a clean, dry place with the pad cover face up.

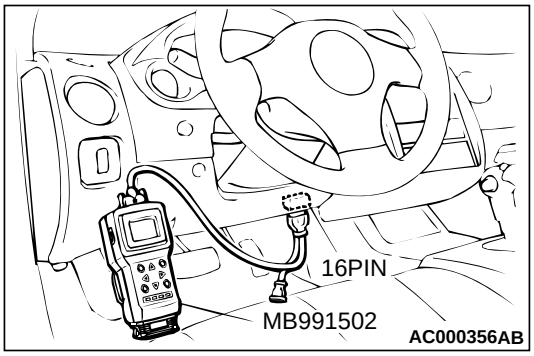
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ ***WARNING***

Dispose of air bag modules only according to the specified procedure. (Refer to P.52B-157.)

1. When installing the new air bag modules and clock spring, refer to "INSPECTION (P.52B-151)."
2. Connect the negative (–) battery cable.



⚠ **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.

3. Connect scan tool MB991502 to the data link connector.
4. Turn the ignition switch to the "ON" position.
5. Conduct diagnostic test using scan tool MB991502 to ensure entire SRS operates properly.

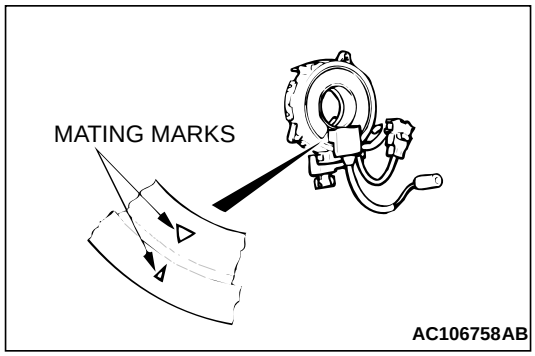
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-17.)

⚠ ***WARNING***

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

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (–) battery cable and tape the terminal to prevent accidental connection and air bags deployment.



>>B<< CLOCK SPRING INSTALLATION

⚠ WARNING

Ensure that the clock spring's mating marks are properly aligned. If not, the steering wheel may not rotate completely during a turn, or the flat cable in the clock spring could be damaged. This would prevent normal SRS operation and possibly cause serious injury to the driver.

Align the mating marks of the clock spring. Turn the front wheels to the straight-ahead position. Then install the clock spring to the column switch.

<Mating Mark Alignment>

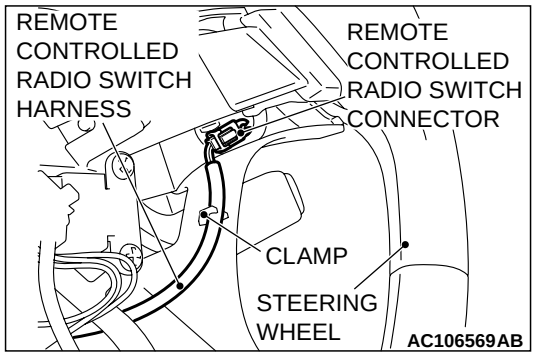
Turn the clock spring clockwise fully. Then turn it back approximately 3 turns counterclockwise to align the mating marks.

>>C<< STEERING WHEEL INSTALLATION

⚠ CAUTION

When installing the steering wheel, ensure that the harness of the clock spring does not become caught or tangled.

1. Before installing the steering wheel, turn the vehicle's front wheels to the straight-ahead position and align the mating marks of the clock spring.
2. After installing the steering wheel, the remote controlled radio switch harness should be clamped at right and left sides as shown.
3. After securing the remote controlled radio switch harness, turn the steering wheel all the way in both directions to confirm that the steering wheel rotation is normal.

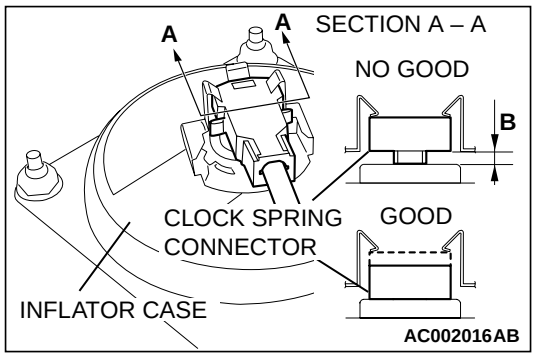


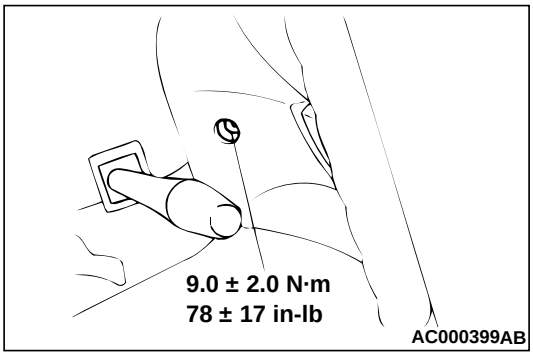
>>D<< DRIVER'S AIR BAG MODULE INSTALLATION

⚠ CAUTION

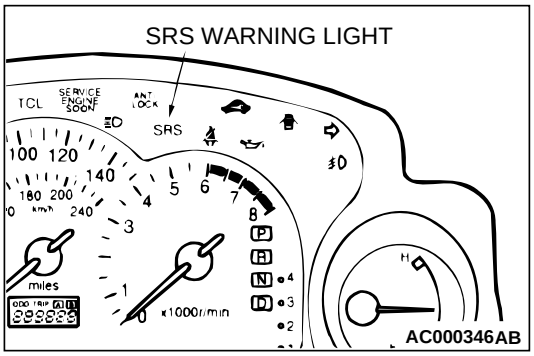
If there is gap at place B shown in the illustration, that means the connector is not firmly inserted, i.e. not correctly connected. In such a case, insert connector to the place, where there remains no gap at place B shown in the illustration.

1. Connect the clock spring connector securely.





2. Tighten the air bag module mounting screws to 9.0 ± 2.0 N·m (78 ± 17 in-lb).



>>E<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (–) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the SRS warning light illuminate for approximately 7 seconds, and then remain off for at least 5 seconds after turning "OFF"?
4. If yes, the SRS system is functioning properly. If no, refer to P.52B-129.

INSPECTION

M1524002500206

AIR BAG MODULE CHECK

⚠ ***DANGER***

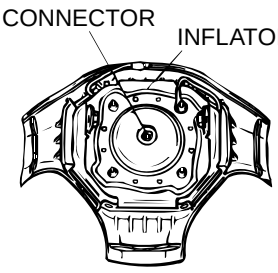
Never attempt to measure the circuit resistance of the air bag modules (squib) even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result in serious personal injury.

⚠ ***WARNING***

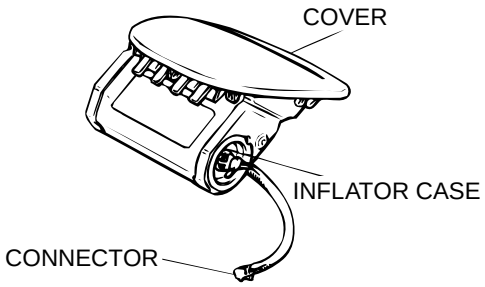
If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure. (Refer to P.52B-157.)

1. Check the pad cover for dents, cracks or deformation.
2. Check the connectors for damage, the terminals for deformation, and the harness for binds.
3. Check the air bag inflator case for dents, cracks or deformation.
4. Install the driver's air bag module to the steering wheel and check fit and alignment with the wheel.
5. Install the passenger's (front) air bag module to the instrument panel and crossmember, and check fit and alignment.

DRIVER'S AIR BAG MODULE



PASSENGER'S (FRONT) AIR BAG MODULE



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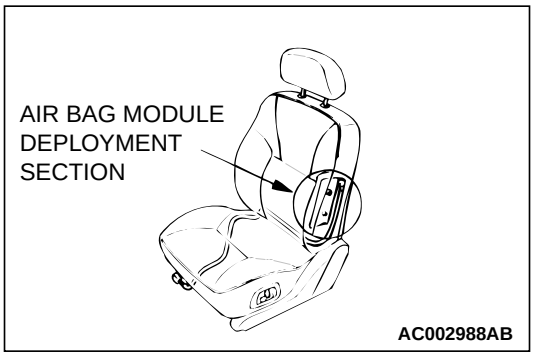
FRONT SEATBACK ASSEMBLY WITH SIDE-AIRBAG MODULE CHECK

⚠ ***DANGER***

Never attempt to measure the circuit resistance of the air bag module (squib) even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result in serious personal injury.

⚠ ***WARNING***

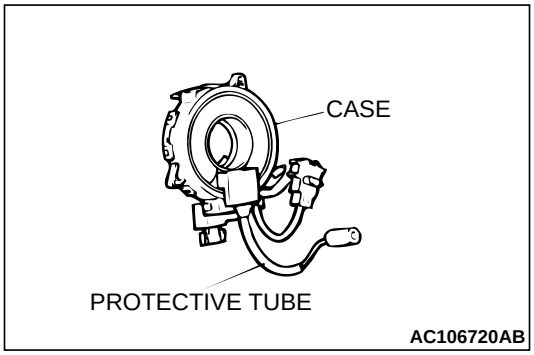
If any improper part is found during the following inspection, replace the front seatback assembly with a new one. Dispose of the old one according to the specified procedure. (Refer to P.52B-157.)



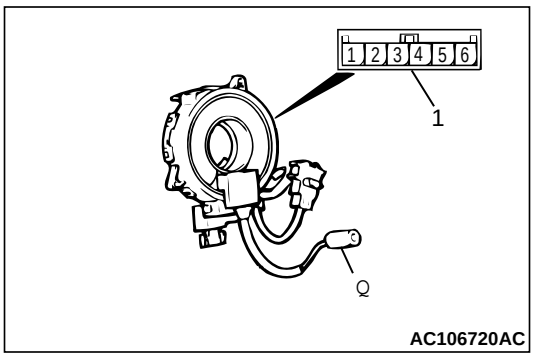
1. Check the air bag module deployment section for dents or deformation.
2. Check connector for damage, terminals for deformation, and harness for binds.

CLOCK SPRING CHECK

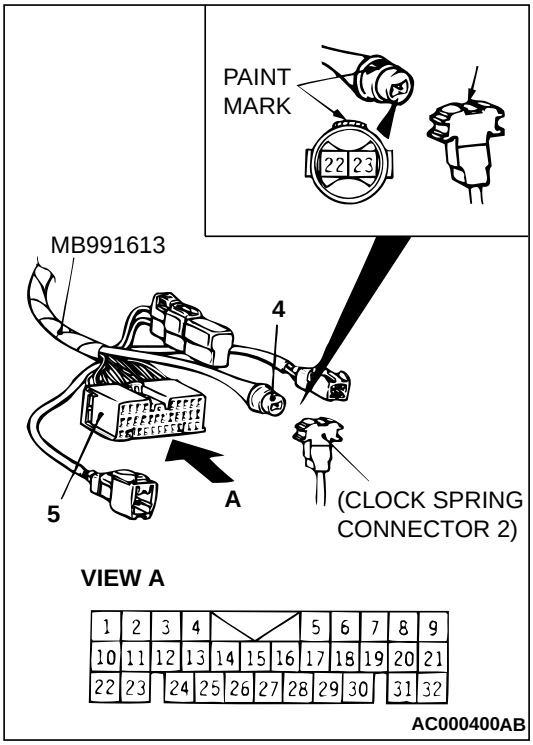
If any malfunction is found in steps 1 through 4, replace the clock spring with a new one.



1. Check the connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.



3. Check that there is continuity among the clock spring connectors number 1 and number 2.
   Connect terminal 1 of the connector number 1 and connector number 2.



4. Align the paint mark of special tool MB991613 connector number 4 with the notch in clock spring connector number 2 (arrow in the illustration) to connect the connectors number 2 and 4.
5. Measure the resistance between the terminals 22 and 23 of special tool MB991613 connector number 5.

   Standard value: less than 0.4 Ω

SIDE IMPACT SENSOR

M1524004600083

Side impact sensors are installed behind the center pillar trims on both driver and passenger sides of the vehicle.

⚠ WARNING

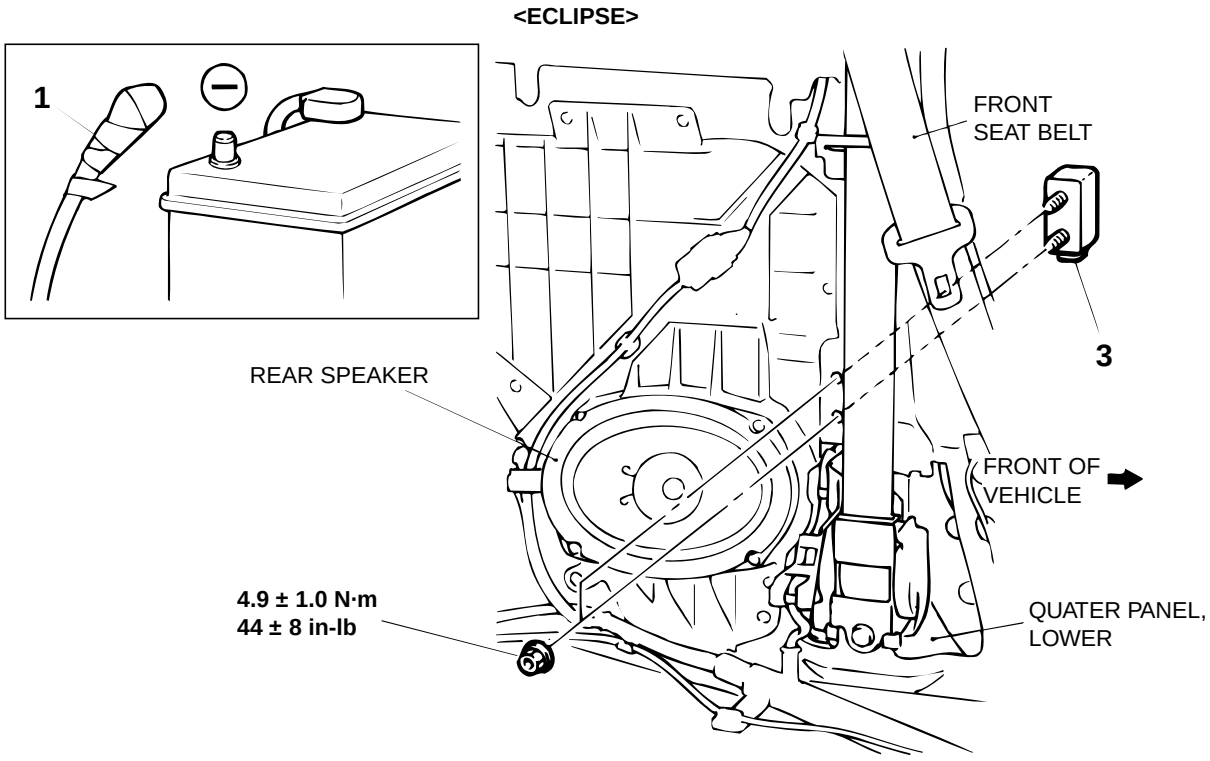
- ***Never attempt to disassemble or repair the side impact sensor. If faulty, replace it.***
- ***Do not drop or subject the side impact sensor to impact or vibration. Replace the side impact sensor, if dents, cracking, deformation, or rust are present.***
- ***Replace the side impact sensor after the air bag has deployed.***

REMOVAL AND INSTALLATION

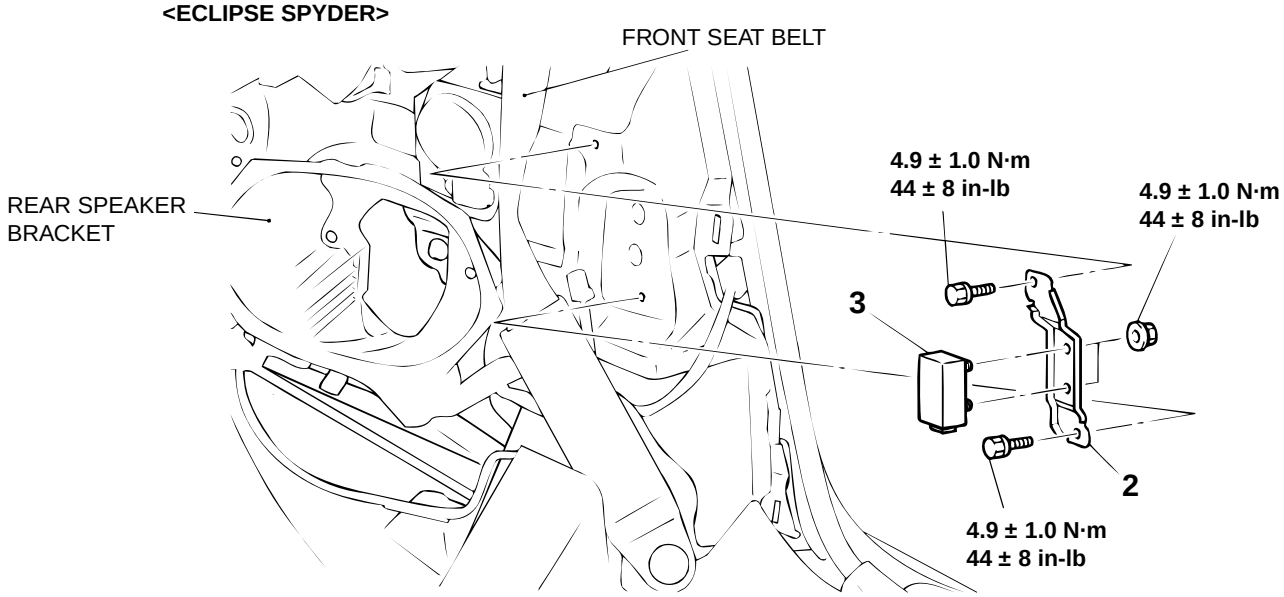
Pre-removal Operation	Post-installation Operation
• Turn the ignition key to the "LOCK" (OFF) position. • Rear Seat Cushion Removal (Refer to GROUP 52A, Rear Seat P.52A-20.) • Rear Seat Belt Removal (Refer to Rear Seat Belt P.52A-27.) • Quarter Trim, Lower Removal (Refer to GROUP 52A, Trims P.52A-9.)	• Quarter Trim, Lower Installation (Refer to GROUP 52A, Trims P.52A-9.) • Rear Seat Belt Installation (Refer to Rear Seat Belt P.52A-27.) • Rear Seat Cushion Installation (Refer to GROUP 52A, Rear Seat P.52A-20.)

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

<ECLIPSE>



<ECLIPSE SPYDER>



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REMOVAL STEPS

<<A>>
1. NEGATIVE (–) BATTERY CABLE CONNECTION
2. SIDE IMPACT SENSOR BRACKET
3. SIDE IMPACT SENSOR

INSTALLATION STEPS

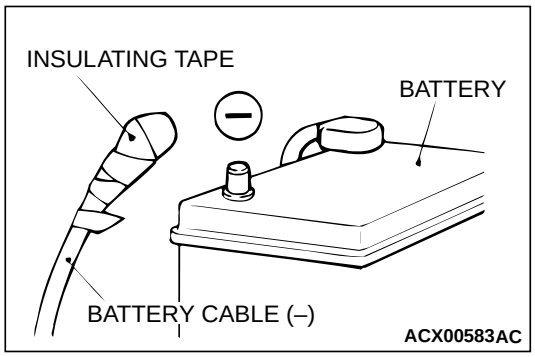
>>A<< • PRE-INSTALLATION INSPECTION

>>B<<
3. SIDE IMPACT SENSOR
2. SIDE IMPACT SENSOR BRACKET
1. NEGATIVE (–) BATTERY CABLE CONNECTOR

>>C<< • POST-INSTALLATION INSPECTION

TSB Revision

REMOVAL SERVICE POINT



<<A>> NEGATIVE (–) BATTERY CABLE DISCONNECTION

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work. (Refer to P.52B-17.)

⚠ ***WARNING***

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

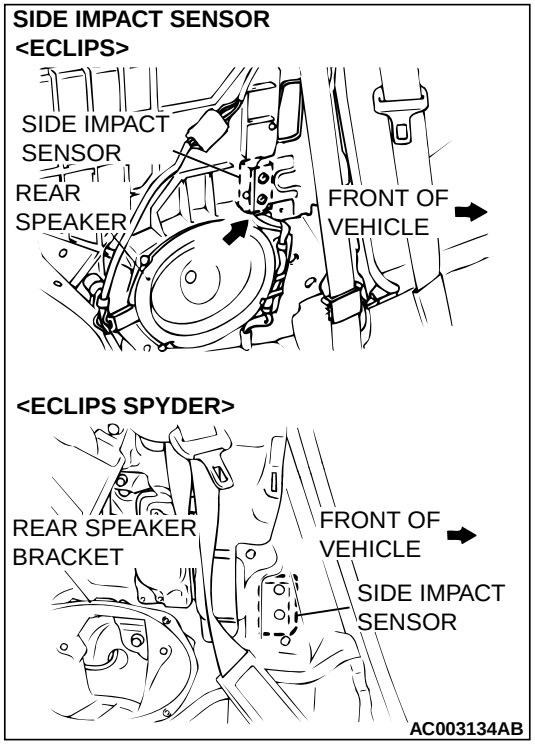
Disconnect the negative (–) battery cable from the battery and tape the terminal to prevent accidental connection and air bag deployment.

INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

Check the side impact sensor for dents, breakage and bending and measure the resistance between the terminals (Refer to P.52B-120 or P.52B-125.), even when installing a new side impact sensor.

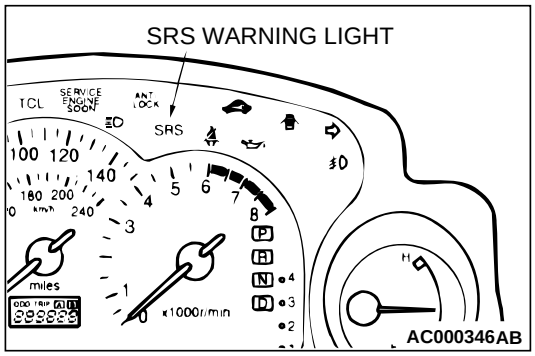
>>B<< SIDE IMPACT SENSOR INSTALLATION



⚠ ***WARNING***

If the side impact sensor is not installed securely and correctly, the side air bag may not operate normally.

Securely connect the connector.



>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (–) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the SRS warning light illuminate for approximately 7 seconds, and then remain off for at least 5 seconds after turning "OFF"?
4. If yes, the SRS system is functioning properly. If no, refer to P.52B-129.

INSPECTION

M1524004700080

⚠ ***WARNING***

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the side impact sensor other than described above, refer to the section concerning SRS diagnosis. (Refer to P.52B-120 or P.52B-125.)

- Check the side impact sensor and bracket for dents, cracks or deformation.
- Check the connector for damage, and terminal for deformation.
- Check that there is no bending or corrosion in the center pillar.

AIR BAG MODULE DISPOSAL PROCEDURES

M1524001200194

Before disposing of an air bag or a vehicle equipped with an air bag, follow the procedures below to deploy the air bag.

UNDEPLOYED AIR BAG MODULE DISPOSAL

Required Special Tools:
MB628919 or MR203491: SRS Air Bag Adapter Harness B
MB686560: SRS Air Bag Adapter Harness A

⚠ ***WARNING***

- ***If the vehicle is to be scrapped or otherwise disposed of, deploy the air bags inside the vehicle. If the vehicle will continue to be used and only the air bag modules are to be disposed of, deploy the air bags outside the vehicle.***
- ***Since a large amount of smoke is produced when the air bag is deployed, avoid residential areas whenever possible.***
- ***Since there is loud noise when the air bags are deployed, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.***
- ***Suitable ear protection should be worn by personnel performing these procedures or by people in the immediate area.***

DEPLOYMENT INSIDE THE VEHICLE (when disposing of a vehicle) <Driver's air bag module>

1. Move the vehicle to an isolated spot.

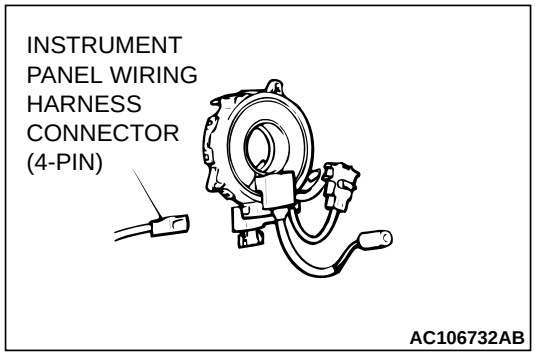
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-17.)

⚠ ***WARNING***

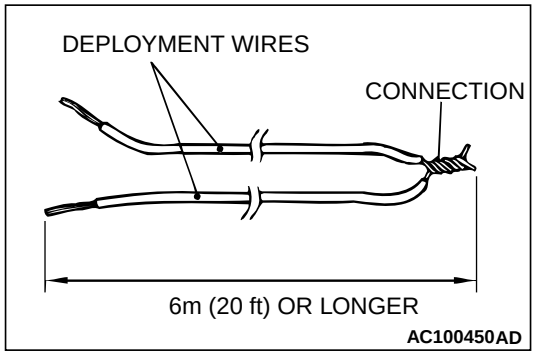
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle. (Refer to GROUP 54A, Battery P.54A-8.)



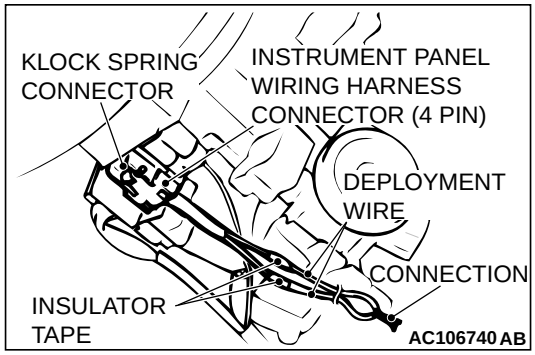
3. Remove the steering column cover lower.
4. Remove the connection between the clock spring two-pin connector and the instrument panel wiring harness connector (four-pin).

   NOTE: If the clock spring connector is disconnected from the instrument panel wiring harness, both electrodes of the clock spring connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.

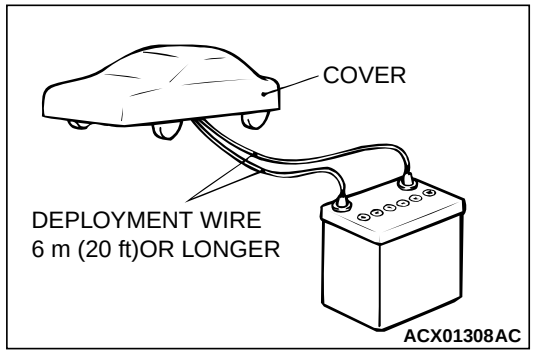


5. Obtain two suitable wires, which are 6 meters (20 feet) or longer, as deployment wires. Then connect the wires at one end to short.

   NOTE: This prevents the air bags from unintentional deployment caused by static.



6. Cut off the instrument panel wiring harness connector from the wiring harness with nippers. Connect the two connector wires to the deployment wires, and insulate the connections with plastic tape. Then connect the instrument panel wiring harness connector to the clock spring, and route the deployment wires out of the vehicle.



⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ ***WARNING***

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module Disposal Procedures (Refer to P.52B-167.) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact the MMSA Tech Line.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the air bag module according to the Deployed Air Bag Module Disposal Procedures. (Refer to P.52B-167.)

DEPLOYMENT INSIDE THE VEHICLE (when disposing of a vehicle) <Passenger's (front) air bag module>

1. Move the vehicle to an isolated spot.

⚠ DANGER

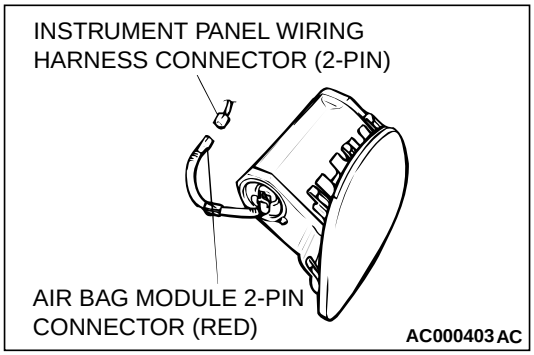
Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-17.)

⚠ WARNING

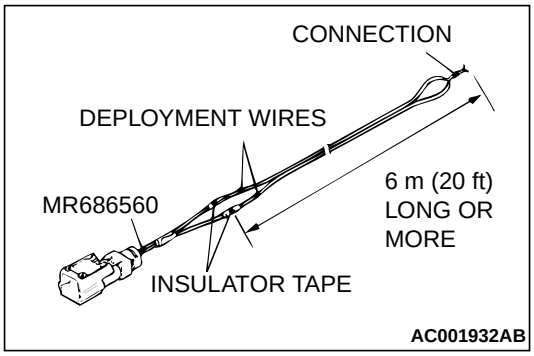
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle. (Refer to GROUP 54A, Battery P.54A-8.)
3. Remove the glove box.
4. Remove the connection between the passenger's (front) air bag module connector (red two-pin) and the instrument panel wiring harness connector.

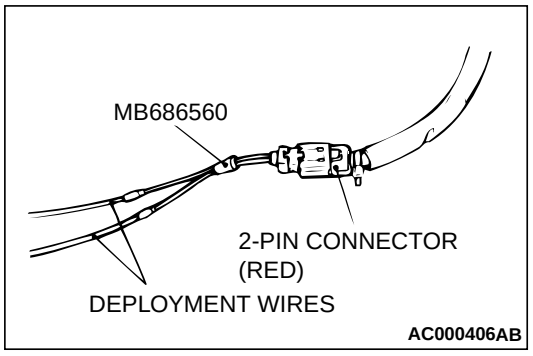
   NOTE: If the air bag module connector is disconnected from the instrument panel wiring harness, both electrodes of the air bag module connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.

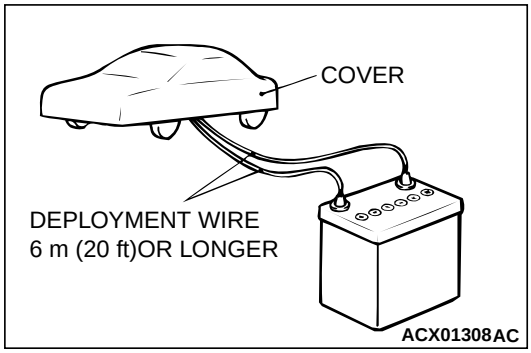


5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB686560, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.



6. Connect the passenger's (front) air bag module two-pin connector to special tool MB686560 and move the deployment wires out of the vehicle.





⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module Disposal Procedures (Refer to P.52B-167.) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact the MMSA Tech Line.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the air bag module according to the Deployed Air Bag Module Disposal Procedures. (Refer to P.52B-167.)

DEPLOYMENT INSIDE THE VEHICLE (when disposing of a vehicle) <Side-airbag module>

1. Move the vehicle to an isolated spot.

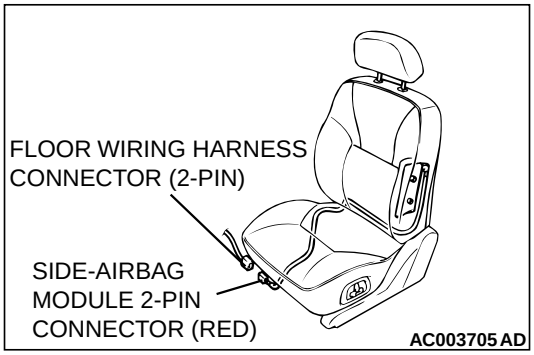
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-17.)

⚠ WARNING

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

2. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle. (Refer to GROUP 54A, Battery P.54A-8.)

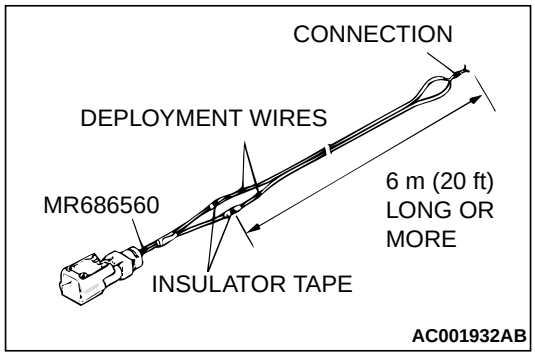


⚠ ***WARNING***

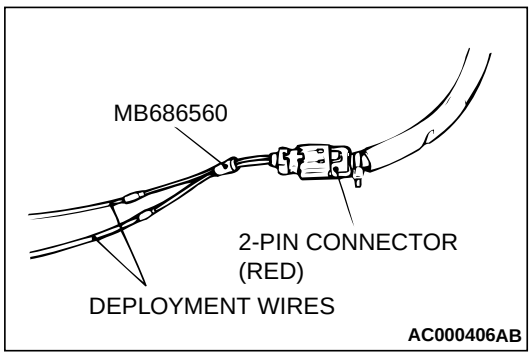
The side-airbag modules for both the driver's side and passenger's side should be deployed.

3. To deploy the side-airbag module: Remove the connection between the side-airbag module connector (red two-pin) and the floor wiring harness connector.

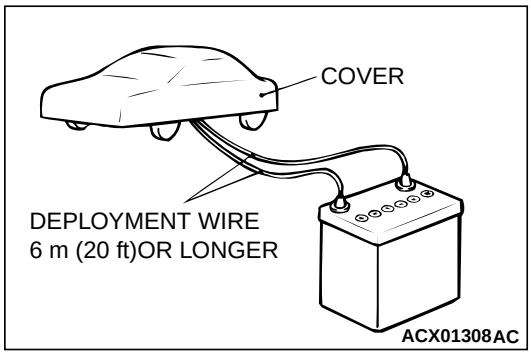
   NOTE: If the side-airbag module connector is disconnected from the floor wiring harness, both electrodes of the air bag module connector will be automatically shorted to prevent unintended deployment of the air bag due to static electricity, etc.



4. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB686560, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.



5. Connect the side-airbag module two-pin connector to special tool MB686560 and move the deployment wires out of the vehicle.



⚠ ***WARNING***

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

6. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module Disposal Procedures (Refer to P.52B-167.) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module. Contact the MMSA Tech Line.***

7. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
8. After deployment, dispose of the air bag module according to the Deployed Air Bag Module Disposal Procedures. (Refer to P.52B-167.)

DEPLOYMENT OUTSIDE THE VEHICLE <Driver's air bag module>

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-17.)

⚠ WARNING

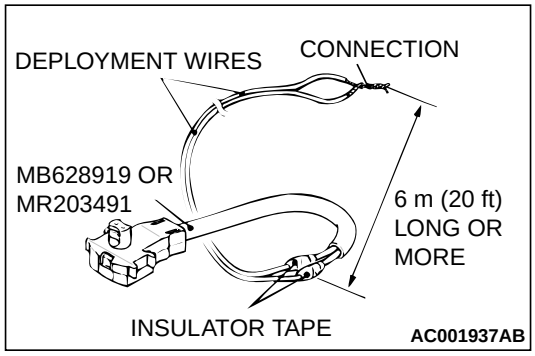
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle. (Refer to GROUP 54A, Battery P.54A-8.)

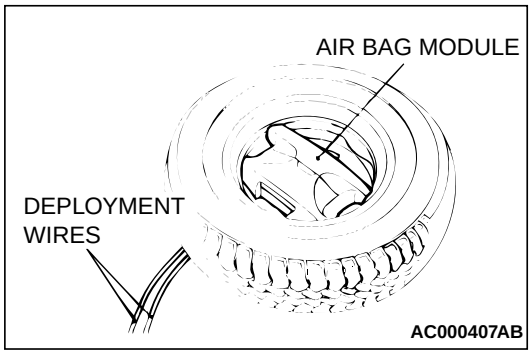
⚠ WARNING

Store the air bag module on a flat surface with the pad cover facing up. Do not place anything on top of it.

2. Remove the air bag module from the vehicle. (Refer to P.52B-144.)



3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB628919 or MR203491, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

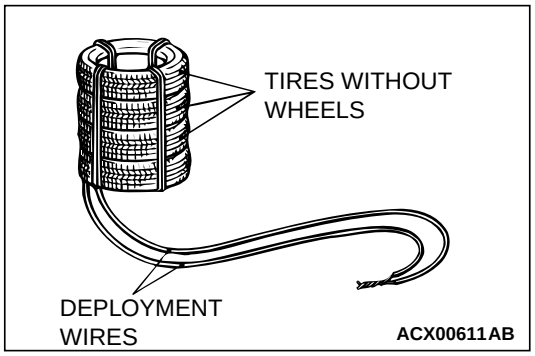


4. Take special tool MB628919 or MR203491 that is connected to the wires, pass it beneath an old tire wheel assembly, and connect it to the air bag module.

⚠ CAUTION

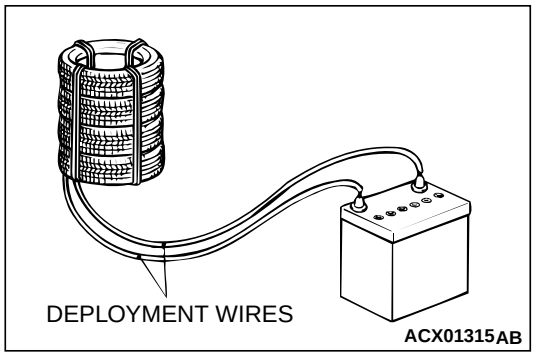
The adapter harness (special tool MB628919 or MR203491) below the wheel should be loose. If it is too tight, the reaction when the air bag deploys could damage the adaptor harness.

5. Pass the thick wire through the air bag module mounting hole, and then secure the air bag module to an old tire with a wheel in it so that the pad on the module is facing upwards.
6. Place three old tires without wheels on top of the tire secured to the air bag module, and secure all tires together with ropes (four locations).



⚠ WARNING

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module Disposal Procedures (Refer to P.52B-167.) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module. Contact the MMSA Tech Line.***



7. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
8. Discard the deployed air bag module as specified in Deployed Air Bag Module Disposal Procedures. (Refer to P.52B-167.)

DEPLOYMENT OUTSIDE THE VEHICLE <Passenger's (front) air bag module>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work. (Refer to P.52B-17.)

⚠ ***WARNING***

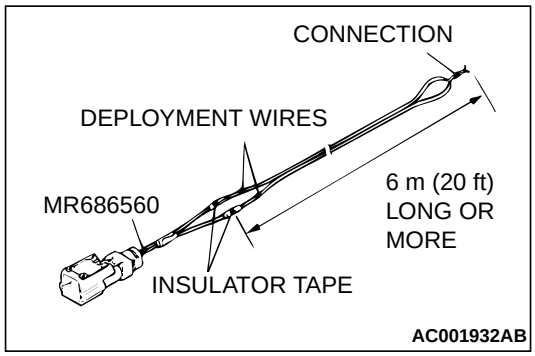
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

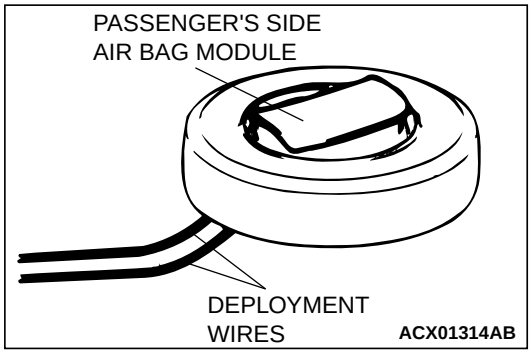
1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle. (Refer to GROUP 54A, Battery P.54A-8.)

⚠ ***WARNING***

Store the air bag module on a flat surface with the pad cover facing up. Do not place anything on top of it.

2. Remove the air bag module from the vehicle. (Refer to P.52B-144.)
3. Connect two wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB686560, and cover the connections with insulation tape. The other ends of the two wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.



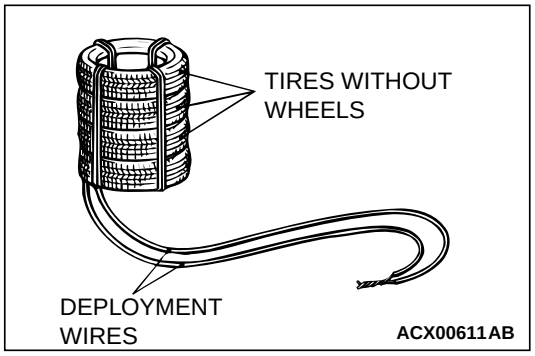


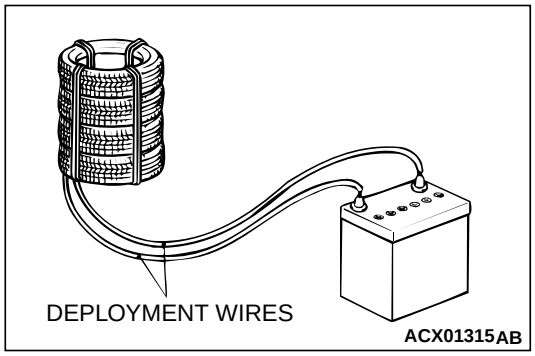
4. Connect the deployment wires to special tool MB686560, pass it beneath the tire and wheel assembly, and connect it to the air bag module.

⚠ **CAUTION**

- **The adapter harness (special tool MR686560) below the wheel should be loose. If it is too tight, the reaction when the air bag deploys could damage the adaptor harness**
- **During deployment, the connector of special tool MB686560 must not be between the tires.**

5. Pass the thick wire through the air bag module mounting hole, and then secure the air bag module to an old tire with a wheel in it so that the pad on the module is facing upwards.





6. Place three old tires without wheels on top of the tire secured to the air bag module, and secure all tires together with ropes (four locations).

⚠ *WARNING*

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module Disposal Procedures (Refer to P.52B-167) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module. Contact the MMSA Tech Line.***

7. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
8. Discard the deployed air bag module as specified in Deployed Air Bag Module Disposal Procedures. (Refer to P.52B-167.)

DEPLOYMENT OUTSIDE VEHICLE <Side-airbag module>

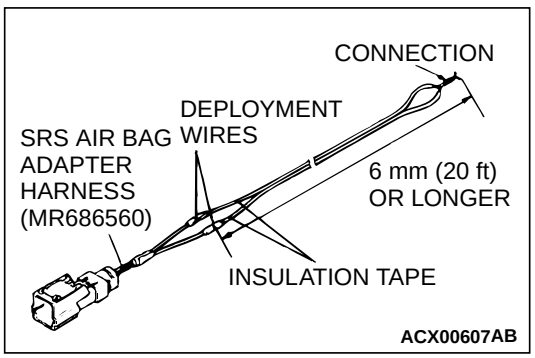
1. Remove the front seatback assembly with side-airbag module from the vehicle. (Refer to P.52A-16.)

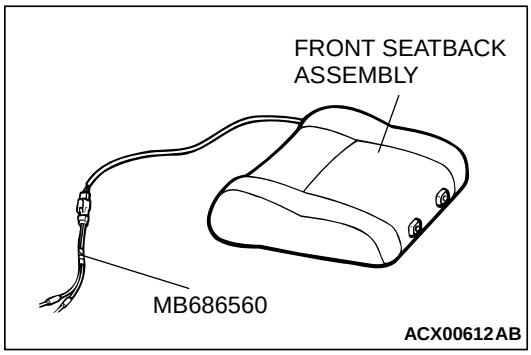
⚠ CAUTION

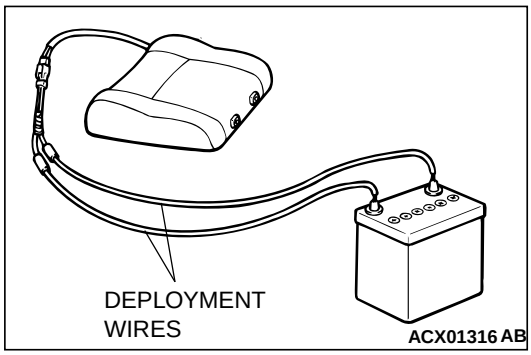
Once disconnected, both electrodes of the side-airbag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on flat place with deployment surface facing up. Also, do not put anything on it.

2. Connect deployment wires 6 meters (20 feet) or longer with the SRS air bag adapter harness respectively. Insulate the connections with tape.

   Also, connect the other ends of the deployment wires each other to short, thereby preventing the side-airbag from accidental deployment caused by static etc.







3. Place the front seat back assembly with its back contact with the ground.
4. Connect the SRS air bag adapter harness with the deployment wires to the side air bag module connector.

⚠ CAUTION

- **Before the deployment, see that no one is near the front seatback assembly.**
- **The deployment makes the inflator of the side-airbag very hot. Before handling the inflator, wait more than 30 minutes for cooling.**
- **If the side-airbag module fails to deploy although the procedure is respected, do not go near the module. Contact the MMSA Tech Line.**

5. Disconnect the deployment wires as far from the front seat back assembly possible and connect the harnesses to the battery removed from the vehicle. Then, deploy.
6. Remove the deployed air bag module from the seatback assembly and discard as specified in Deployed Air Bag Module Disposal Procedures. (Refer to P.52B-167.)

DEPLOYED AIR BAG MODULE DISPOSAL

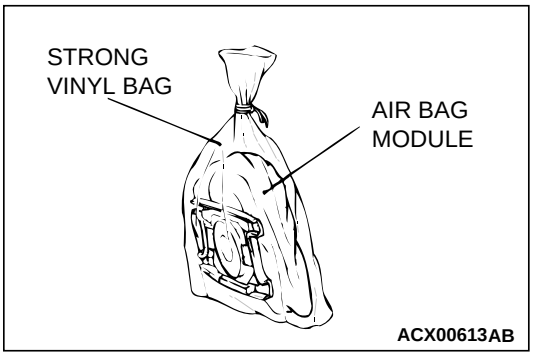
After deployment, the air bag module should be disposed of in the same manner as any other scrap parts, adhering to local laws and/or legislation. Observe the following precautions during air bag disposal:

1. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it cool before attempting to handle it.
2. Do not put water or oil on the air bag after deployment.

⚠ WARNING

If after following these precautions, any material does get into the eyes or on the skin, immediately rinse the affected area with a large amount of clean water. If any irritation develops, seek medical attention.

3. There may be material on the deployed air bag module, that could irritate the eye and/or skin. Wear gloves and safety glasses when handling a deployed air bag module.



4. Tightly seal the air bag module in a strong plastic bag for disposal.
5. Be sure to always wash your hands after completing this operation.

SPECIFICATIONS

M1524004900114

FASTENER TIGHTENING SPECIFICATIONS

ITEMS	SPECIFICATIONS
Air bag module (driver's side) mounting screw	9.0 ± 2.0 N·m (78 ± 17 in-lb)
Side impact sensor bracket bolt	4.9 ± 1.0 N·m (44 ± 8 in-lb)
Side impact sensor mounting nut	4.9 ± 1.0 N·m (44 ± 8 in-lb)
SRS-ECU mounting bolt	4.9 ± 1.0 N·m (44 ± 8 in-lb)
Steering wheel nut	41 ± 8 N·m (31 ± 5 ft-lb)

SERVICE SPECIFICATION

M1524000400117

ITEM	STANDARD VALUE
Clock spring resistance Ω	Less than 0.4