

GENERAL

OUTLINE OF CHANGES

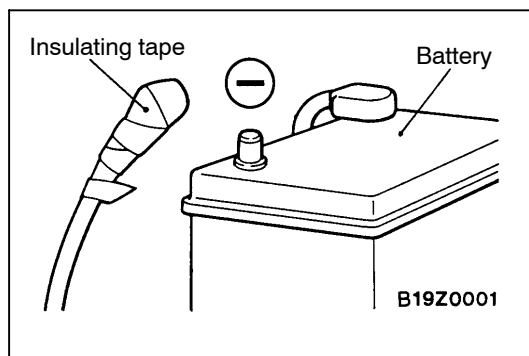
- Addition of side air bag and curtain air bag
- Changes in the SRS-ECU and addition of side impact sensor due to the above-mentioned addition

SRS SERVICE PRECAUTIONS

1. In order to avoid injury to yourself or others from accidental deployment of the air bag and accidental operation of the seat belt with pre-tensioner during servicing, read and carefully follow all the precautions and procedures described in this manual.
2. Do not use any electrical test equipment on or near SRS components, except those specified on P.52B-6.
3. Never Attempt to Repair the Following Components:
 - SRS air bag control unit (SRS-ECU)
 - Clock spring
 - Driver's and front passenger's air bag modules
 - Seat belt with pre-tensioner
 - Side impact sensors
 - Curtain air bag module
 - Front seatback assembly with side airbag module

NOTE

If any of these components are diagnosed as faulty, they should only be replaced, in accordance with the INDIVIDUAL COMPONENTS SERVICE procedures in this manual. (Refer to P.52B-62.)



4. After disconnecting the negative (battery cable, wait 60 seconds at least before any service and insulate the disconnected cable with tape. The SRS retain enough voltage to deploy the air bags for a short time even after the disconnection of the battery. So, serious injury may result by accidental air bag deployment if a work is done on the SRS just after the disconnection of the battery.

SRS-ECU Connector

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
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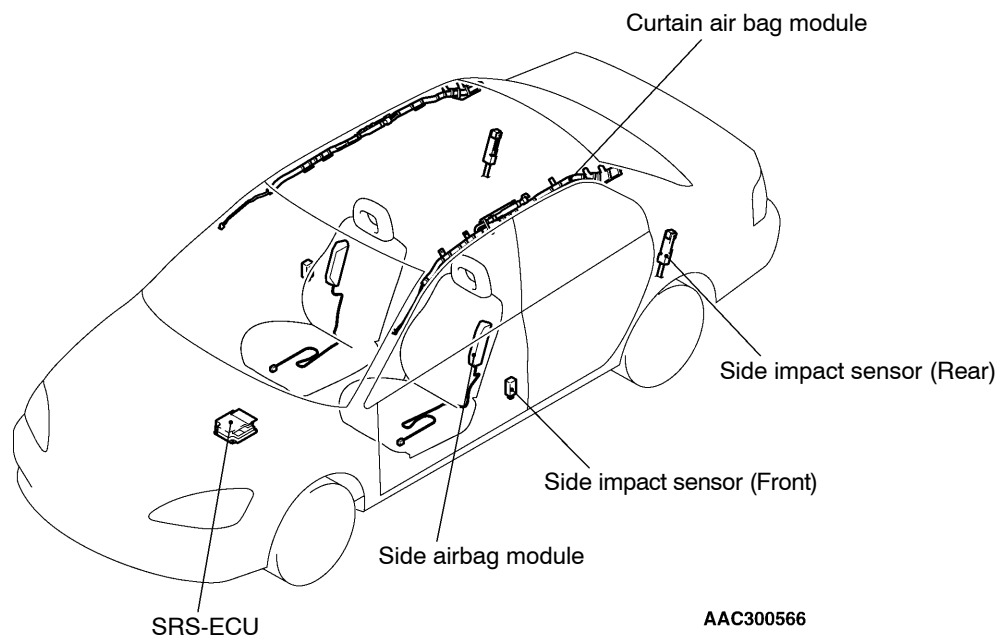
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5. Do not attempt to repair the wiring harness connectors of the SRS. If a defective wiring harness is found, repair or replace it by referring to the table follows.

NOTE

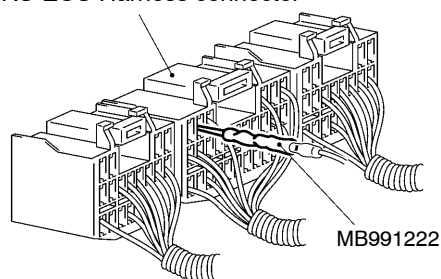
The table below shows the pre-tensioner related terminals only. The other terminals are the same as before.

SRS-ECU Terminal No.	Destination of harness	Corrective action
5, 6	Instrument panel wiring harness → Roof wiring harness → Curtain air bag module (LH)	Correct or replace each wiring harness.
7, 8	Instrument panel wiring harness → Floor wiring harness → Seat belt with pre-tensioner (LH)	Correct or replace each wiring harness.
9, 10	Instrument panel wiring harness → Side-airbag module (LH)	Correct or replace the instrument panel wiring harness.
15, 16	Instrument panel wiring harness → Floor wiring harness → Side impact sensor (Rear: LH)	Correct or replace each wiring harness.
19, 20	Instrument panel wiring harness → Floor wiring harness → Side impact sensor (Front: LH)	Correct or replace each wiring harness.
23	Instrument panel wiring harness → Junction block (fuse No.3)	Correct or replace the instrument panel wiring harness.
24	Instrument panel wiring harness → Junction block (fuse No.2)	Correct or replace the instrument panel wiring harness.
26	Instrument panel wiring harness → Combination meter	Correct or replace the instrument panel wiring harness.
27, 28	Instrument panel wiring harness → Air bag module (Front passenger's side)	Correct or replace the instrument panel wiring harness.
36, 37	Instrument panel wiring harness → Clock spring → Air bag module (Driver's side)	Correct or replace the instrument panel wiring harness. Replace the clock spring.
40	Instrument panel wiring harness → Earth	Correct or replace the instrument panel wiring harness.
44	Instrument panel wiring harness → Diagnosis connector	Correct or replace the instrument panel wiring harness.
57, 58	Instrument panel wiring harness → Side-airbag module (RH)	Correct or replace the instrument panel wiring harness.
59, 60	Instrument panel wiring harness → Floor wiring harness → Seat belt with pre-tensioner (RH)	Correct or replace each wiring harness.
61, 62	Instrument panel wiring harness → Roof wiring harness → Curtain air bag module (RH)	Correct or replace each wiring harness.
63, 64	Instrument panel wiring harness → Floor wiring harness → Side impact sensor (Front: RH)	Correct or replace each wiring harness.
67, 68	Instrument panel wiring harness → Floor wiring harness → Side impact sensor (Rear: RH)	Correct or replace each wiring harness.



6. Inspection of the SRS-ECU harness connector should be carried out by the following procedure. Insert the special tool (probe, MB991222, in the harness set) into the connector from harness side (rear side), and connect the tester to this probe. If any tool than specified is used, damage to the harness and other components will result. Furthermore, measurement should not be carried out by touching the probe directly against the terminals from the front of the connector. The terminals are plated to increase their conductivity, so that if they are touched directly by the probe, the plating may break, which will cause drops in reliability.

SRS-ECU Harness connector



SRS-ECU Harness connector (Rear view)

1	2	B	A	3	4	21	22	23	B	A	24	25	26	51	52	B	A	53	54											
5	6	7	8	9	10	11	12	27	28	29	30	31	32	33	34	55	56	57	58	59	60	61	62							
13	14	15	16	17	18	19	20	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	63	64	65	66	67	68	69	70

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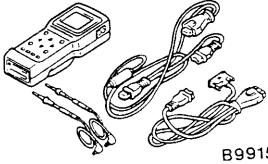
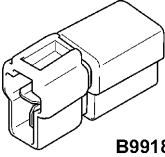
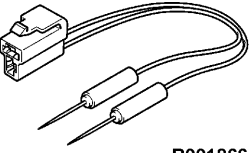
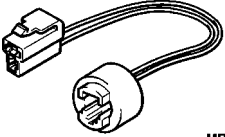
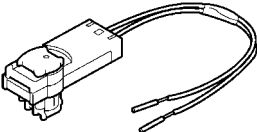
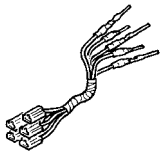
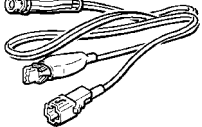
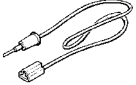

7. SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the SRS-ECU, driver's and front passenger's air bag modules, clock spring, curtain air bag module, front seat assembly (side-airbag module) and seat belt with pre-tensioner before drying or baking the vehicle after painting.
- SRS-ECU, air bag modules, clock spring : 93°C or more
 - Seat belt with pre-tensioner : 90°C or more
8. Whenever you finish servicing the SRS, check warning lamp operation to make sure that the system functions properly.
9. Make certain that the ignition switch is the LOCK (OFF) position when the MUT-II is connected or disconnected.
10. If you have any questions about the SRS, please contact your local distributor.

NOTE

SERIOUS INJURY CAN RESULT FROM UNINTENDED AIR BAG DEPLOYMENT, SO USE ONLY THE PROCEDURES AND EQUIPMENT SPECIFIED IN THIS MANUAL.


SPECIAL TOOLS

The items other than below are the same as before.

Tool	Number	Name	Use
 B991502	MB991502	MUT-II sub assembly	<ul style="list-style-type: none"> • Reading and erasing diagnosis codes • Reading trouble period • Reading erase times
 B991865	MB991865	Dummy resistor	Checking SRS air bag and seat belt pre-tensioner electrical circuit
 B991866	MB991866	Resistor harness (for SRS air bag)	Checking SRS air bag circuit
 MB991884	MB991884	Resistor harness (for pre-tensioner)	Checking seat belt pre-tensioner electrical circuit
 MB991885	MB991885	Seat belt pre-tensioner adapter harness	Deployment of curtain air bag module in the exterior of the vehicle and deployment of seat belt pretensioner in the interior or exterior of the vehicle
<div>A</div>  <div>B</div>  <div>C</div>  <div>D</div>  C991223	MB991223 A: MB991219 B: MB991220 C: MB991221 D: MB991222	Harness set A: Check harness B: LED harness C: LED harness adapter D: Probe	Checking continuity and measuring voltage at SRS-ECU harness connector

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TEST EQUIPMENT

Tool	Name	Use
 13R0746	Digital multi-meter	Checking SRS electrical circuitry Use multi-meter for which the maximum test current is 2 mA or less at minimum range of resistance measurement

TROUBLESHOOTING

The following items have been changed. The other items are the same as before.

INSPECTION CHART FOR DIAGNOSIS CODES

Code No.	Diagnosis item	Reference page
3A* ¹	Curtain air bag module (squib) system	Short circuit between the squib circuit terminals 52B-9
3B* ¹	(RH)	Open in the squib circuit 52B-11
3C	Curtain air bag module (squib) ignition	Short circuit in the ignition drive circuit 52B-19
3D	drive circuit system (Internal: RH)	Open in the ignition drive circuit
3E	Curtain air bag module (squib) system	Short circuit to power supply of the squib circuit 52B-12
3F	(RH)	Short circuit to earth of the squib circuit
4A* ¹	Curtain air bag module (squib) system	Short circuit between the squib circuit terminals 52B-13
4B* ¹	(LH)	Open in the squib circuit 52B-15
4C	Curtain air bag module (squib) ignition	Short circuit in the ignition drive circuit 52B-19
4D	drive circuit system (Internal: LH)	Open in the ignition drive circuit
4E	Curtain air bag module (squib) system	Short circuit to power supply of the squib circuit 52B-16
4F	(LH)	Short circuit to earth of the squib circuit
5A	Side impact sensor power supply voltage abnormal (Rear: LH)	52B-17
5B* ²	Malfunction of G sensor in the side impact sensor (Rear: LH)	52B-17
5C	Side impact sensor communication abnormal (Rear: LH)	52B-17
5D	Side impact sensor communication impossible (Rear: LH)	
6A* ²	Side impact sensor power supply voltage abnormal (Rear: RH)	52B-18
6B	Malfunction of G sensor in the side impact sensor (Rear: RH)	52B-17
6C	Side impact sensor communication abnormal (Rear: RH)	52B-18
6D	Side impact sensor communication impossible (Rear: RH)	
14	Analog G sensor system for frontal impact in the SRS-ECU	52B-19
15	Safing G sensor for frontal impact system in the SRS-ECU	Short circuit in the sensor 52B-19
16	Safing G sensor for frontal impact system in the SRS-ECU	Open circuit in the sensor 52B-19
17	Safing G sensor for side impact system in the SRS-ECU	52B-19
21* ¹	Driver's air bag module (squib) system	Short circuit between the squib circuit terminals 52B-20
22* ¹		Open in the squib circuit 52B-23
24* ¹	Front passenger's air bag module (squib)	Short circuit between the squib circuit terminals 52B-25
25* ¹	system	Open in the squib circuit 52B-27

Code No.	Diagnosis item	Reference page
26*1	Driver's seat belt pretensioner (squib) system	Short circuit between the squib circuit terminals
27*1		Open in the squib circuit
28*1	Front passenger's seat belt pretensioner (squib) system	Short circuit between the squib circuit terminals
29*1		Open in the squib circuit
31	DC-DC converter system in the SRS-ECU	Terminal voltage rises
32		Terminal voltage drops
34*2	Connector locking system	52B-34
35	SRS-ECU (air bag deployed) system	52B-34
39	SRS-ECU (all air bags deployed) system	52B-34
41*2	Power supply circuit system (fuse No.2 circuit)	52B-35
42*2	Power supply circuit system (fuse No.3 circuit)	52B-37
43*2	SRS warning lamp drive circuit system	Lamp not turned ON
		Lamp not turned OFF
44*2	SRS warning lamp drive circuit system	52B-38
45	Internal circuit system, including unvolatile memory (EEPROM) in the SRS-ECU	52B-19
46*2	Erroneous installation of SRS-ECU assembly	52B-38
51	Driver's air bag module (squib) ignition drive circuit system (Internal)	Short circuit in the ignition drive circuit
52		Open in the ignition drive circuit
54	Front passenger's air bag module (squib) ignition drive circuit system (Internal)	Short circuit in the ignition drive circuit
55		Open in the ignition drive circuit
56	Driver's seat belt pretensioner (squib) ignition drive circuit system (Internal)	Short circuit in the ignition drive circuit
57		Open in the ignition drive circuit
58	Front passenger's seat belt pretensioner (squib) ignition drive circuit system (Internal)	Short circuit in the ignition drive circuit
59		Open in the ignition drive circuit
61	Driver's air bag module (squib) system	Short circuit to power supply of the squib circuit
62		Short circuit to earth of the squib circuit
64	Front passenger's air bag module (squib) system	Short circuit to power supply of the squib circuit
65		Short circuit to earth of the squib circuit
66	Driver's seat belt pretensioner (squib) system	Short circuit to power supply of the squib circuit
67		Short circuit to earth of the squib circuit
68	Front passenger's seat belt pretensioner (squib) system	Short circuit to power supply of the squib circuit
69		Short circuit to earth of the squib circuit
71*1	Side air bag module (squib) system (RH)	Short circuit between the squib circuit terminals
72*1		Open in the squib circuit
73	Side air bag module (squib) ignition drive circuit system (Internal: RH)	Short-circuit in the ignition drive circuit
74		Open circuit in the ignition drive circuit
75	Side air bag module (squib) system (RH)	Short circuit to power supply of the squib circuit
76		Short circuit to earth of the squib circuit
79	Side impact sensor communication abnormal (Front: LH)	52B-50
81*1	Side air bag module (squib) system (RH)	Short circuit between the squib circuit terminals
82*1		Open in the squib circuit

Code No.	Diagnosis item	Reference page
83	Side air bag module (squib) ignition drive circuit system in the SRS-ECU	52B-19
84	(Internal: RH)	Open in the ignition drive circuit
85	Side air bag module (squib) system (RH)	52B-53
86		Short circuit to earth of the squib circuit
89	Side impact sensor communication abnormal (Front: RH)	52B-55
91	Side impact sensor power supply voltage abnormal (Front: LH)	52B-55
92*2	Malfunction of G sensor in the side impact sensor (Front: LH)	52B-56
93	Side impact sensor communication impossible (Front: LH)	52B-50
94*2	Side impact sensor power supply voltage abnormal (Front: RH)	52B-56
95	Malfunction of G sensor in the side impact sensor (Front: RH)	52B-56
96	Side impact sensor communication impossible (Front: RH)	52B-55

NOTE

- (1) *1: If the trouble(s) are removed, the SRS warning lamp go out with diagnosis code history stored.
- (2) *2: If the trouble(s) are removed, the SRS warning lamp will go out with diagnosis code history automatically erased.
- (3) When the battery has been discharged, diagnosis code Nos.41 or 42 is stored. Check the battery when either of these is displayed.

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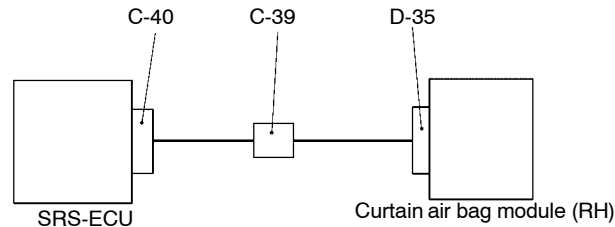
INSPECTION PROCEDURE CLASSIFIED BY DIAGNOSIS CODE

Code No.3A Curtain air bag module (RH) (squib) system (short circuit between terminals of the squib circuit)	Probable cause
This code is output at the time of short circuit between terminals of curtain air bag module (RH) (squib) circuit. However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)	<ul style="list-style-type: none"> Improper connector engagement or defective short spring* Short circuit between terminals of curtain air bag module (RH) (squib) circuit Faulty connector SRS-ECU inoperable

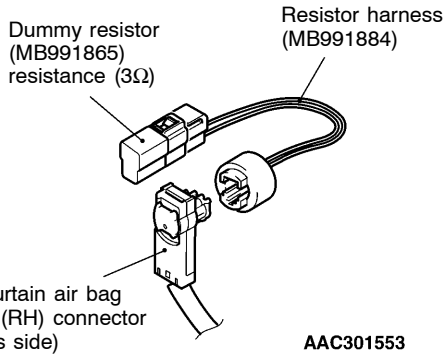
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NOTES:

- *: Since the squib circuit connector a built-in short spring (to prevent erroneous deployment operation due to static electricity or etc. by short-circuiting the positive (+) cable and the negative (-) cable when the connector is not connected), improper engagement of the connector shown below or the faulty connector may cause the failure of short spring release despite the fact that the connector has been connected. Therefore, disconnect the connect shown in the illustration below once and then reconnect it before carrying out the following troubleshooting. Check the diagnosis code output again after erasing the memory of the diagnosis code. If the diagnosis code is not output, the improper connector engagement may be the cause of the above-mentioned code output.



AAC402125



<Curtain air bag module (RH) (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (–) battery terminal.
- Disconnect the D-35 curtain air bag module (RH) connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Connect the special tool resistor harness (MB991884) to the D-35 curtain air bag module (RH) connector at the harness side.
- Connect the negative (–) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.3A output?

YES

NO

<Circuit inspection between the SRS-ECU and the curtain air bag module (RH)>

Measure the resistance at the C-40 SRS-ECU connector.

- Disconnect the C-40 SRS-ECU connector.
- Disconnect the D-27 curtain air bag module (RH) connector.

Caution:

Disconnect this connector and short-circuit the squib circuit so that the short spring of the SRS-ECU connector can be released in the following operation.

- Insert an insulator (width: 3 mm, thickness: 0.5 mm), such as a cable tie between terminals 61 and 62 of the C-40 SRS-ECU connector (harness side) and the short spring to release the short spring. (See Illustration A.)

Caution:

Be sure to insert the insulator for 4 mm or more to avoid a possible failure in release of the short spring.

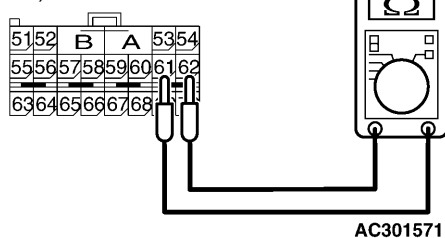
- Continuity inspection between terminals 61 and 62

Caution:

Do not directly insert a probe or other devices to the terminal from the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-40 connector (harness side) rear view



OK

Replace SRS-ECU. (Refer to P.52B-63.)

Replace the curtain air bag module (RH).
(Refer to P.52B-64.)

NG

Check the following connectors: D-35, C-39, C-40

YES

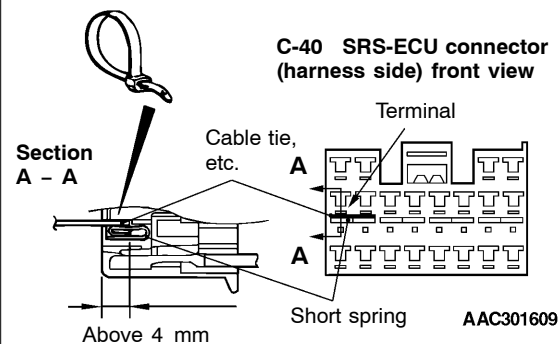
Check the trouble symptoms.

NG

Check the harness between the curtain air bag module (RH) and the SRS-ECU, and repair if necessary.

Repair

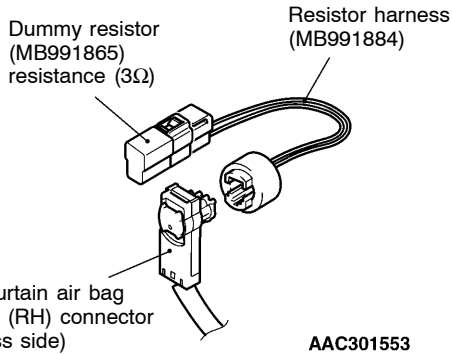
Illustration A



**Code No.3B Curtain air bag module (RH) (squib) system
(open in the squib circuit)****Probable cause**

This code is output when the curtain air bag module (RH) (squib) circuit becomes an open circuit.
However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)

- Connector improper contact
- Open in the curtain air bag module (RH) (squib) circuit
- SRS-ECU malfunction

**<Curtain air bag module (RH) (squib) inspection>****MUT-II Self-diag code**

- Disconnect the negative (-) battery terminal.
- Disconnect the D-35 curtain air bag module (RH) connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Connect the special tool resistor harness (MB991884) to the D-35 curtain air bag module (RH) connector at the harness side.
- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.3B output?

YES

NO

<Circuit inspection between the SRS-ECU and the curtain air bag module (RH)>

Measure the resistance at the C-42 SRS-ECU connector and the D-35 curtain air bag module (RH).

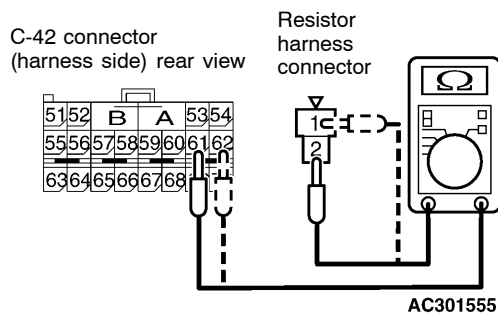
- Disconnect the C-42 SRS-ECU connector and measure at the harness side.
- Disconnect the D-35 curtain air bag module (RH) connector and connect the special tool resistor harness (MB991884) at the harness side.
- Continuity inspection between the following terminals

C-42 connector		Resistor harness connector
61	-	2
62	-	1

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: Continuity (2Ω or less)



OK

Replace SRS-ECU. (Refer to P.52B-63.)

Replace the curtain air bag module (RH).
(Refer to P.52B-64.)

NG

Check the following connectors: D-35, C-39, C-42

OK

NG

Check the trouble symptoms.

Repair

NG

Check the harness between the curtain air bag module (RH) and the SRS-ECU, and repair if necessary.

Code No.3E Curtain air bag module (RH) (squib) system (short circuit to power supply of the squib circuit)	Probable cause
Code No.3F Curtain air bag module (RH) (squib) system (short circuit to earth of the squib circuit)	
This code is output when the curtain air bag module (RH) (squib) input terminal has short-circuited to the power supply (code No.3E) or short-circuited to earth (code No.3F).	<ul style="list-style-type: none"> Faulty connector The curtain air bag module (RH) (squib) harness has short-circuited to power supply (code No.3E) or short-circuited to earth (code No.3F). SRS-ECU inoperable

Dummy resistor (MB991865) resistance (3Ω)

Resistor harness (MB991884)

D-35 Curtain air bag module (RH) connector (harness side)

AAC301553

<Curtain air bag module (RH) (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) terminal of battery.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Disconnect the D-35 curtain air bag module (RH) connector.
- Connect the special tool resistor harness (MB991884) to the D-35 harness side connector.
- Connect negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No. 3E or 3F output?

YES (When No.3E is output)

YES (When No.3F is output)

NO

Replace the curtain air bag module (RH).
(Refer to P.52B-64.)

<Circuit inspection between the SRS-ECU and the curtain air bag module (RH)>

Measure the voltage at the C-40 SRS-ECU connector.

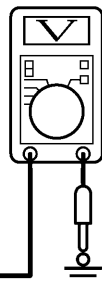
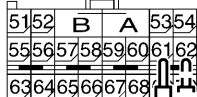
- Disconnect the C-40 SRS-ECU connector.
- Disconnect the D-35 curtain air bag module (RH) connector.
- Ignition switch: ON
- Measure at the harness side.
- Voltage between terminals 61, 62 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: 0 V

C-40 connector (harness side) rear view



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OK

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Replace the SRS-ECU.
(Refer to P.52B-63.)

<Circuit inspection between the SRS-ECU and the curtain air bag module (RH)>

Measure the resistance at the C-40 SRS-ECU connector.

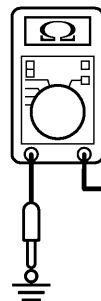
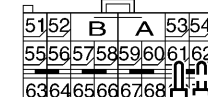
- Disconnect the C-40 SRS-ECU connector.
- Disconnect the D-35 curtain air bag module (RH) connector.
- Measure at the harness side.
- Continuity between terminals 61, 62 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-40 connector (harness side) rear view



AC301575

NG

OK

Replace SRS-ECU.
(Refer to P.52B-63.)

Check the following connectors: C-39, C-40, D-35

NG

Repair

Check the trouble symptoms.

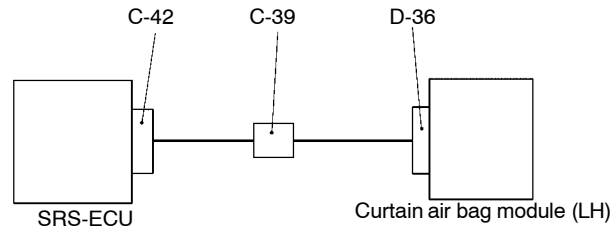
NG

Check the harness between the curtain air bag module (RH) and the SRS-ECU, and repair if necessary.

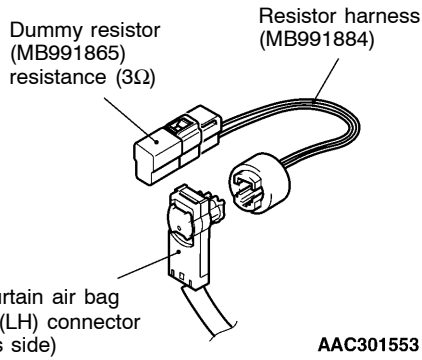
Code No.4A Curtain air bag module (LH) (squib) system (short circuit between terminals of the squib circuit)	Probable cause
This code is output at the time of short circuit between terminals of curtain air bag module (LH) (squib) circuit. However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)	<ul style="list-style-type: none"> • Improper connector engagement or defective short spring* • Short circuit between terminals of curtain air bag module (LH) (squib) circuit • Faulty connector • SRS-ECU inoperable

NOTES:

- *: Since the squib circuit connector a built-in short spring (to prevent erroneous deployment operation due to static electricity or etc. by short-circuiting the positive (+) cable and the negative (-) cable when the connector is not connected), improper engagement of the connector shown below or the faulty connector may cause the failure of short spring release despite the fact that the connector has been connected. Therefore, disconnect the connect shown in the illustration below once and then reconnect it before carrying out the following troubleshooting. Check the diagnosis code output again after erasing the memory of the diagnosis code. If the diagnosis code is not output, the improper connector engagement may be the cause of the above-mentioned code output.



AAC402125



<Curtain air bag module (RH) (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) battery terminal.
- Disconnect the D-36 curtain air bag module (LH) connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Connect the special tool resistor harness (MB991884) to the D-36 curtain air bag module (LH) connector at the harness side.
- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.4A output?

YES

NO

<Circuit inspection between the SRS-ECU and the curtain air bag module (LH)>

Measure the resistance at the C-42 SRS-ECU connector.

- Disconnect the C-42 SRS-ECU connector.
- Disconnect the D-36 curtain air bag module (RH) connector.

Caution:

Disconnect this connector and short-circuit the squib circuit so that the short spring of the SRS-ECU connector can be released in the following operation.

- Insert an insulator (width: 3 mm, thickness: 0.5 mm), such as a cable tie between terminals 5 and 6 of the C-42 SRS-ECU connector (harness side) and the short spring to release the short spring. (See Illustration A.)

Caution:

Be sure to insert the insulator for 4 mm or more to avoid a possible failure in release of the short spring.

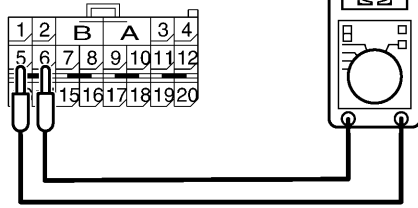
- Continuity inspection between terminals 5 and 6

Caution:

Do not directly insert a probe or other devices to the terminal from the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-42 connector (harness side) rear view



OK

Replace SRS-ECU. (Refer to P.52B-63.)

Replace the curtain air bag module (LH).
(Refer to P.52B-64.)

NG

Check the following connectors: D-36, C-39, C-42

YES

Check the trouble symptoms.

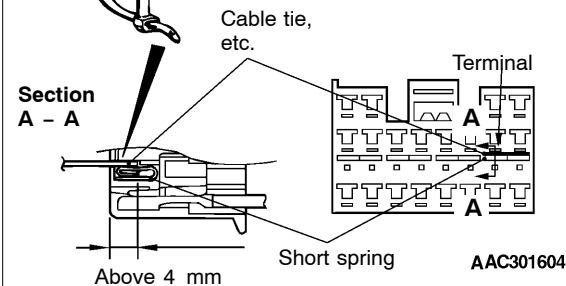
NG

Check the harness between the curtain air bag module (LH) and the SRS-ECU, and repair if necessary.

Repair

Illustration A

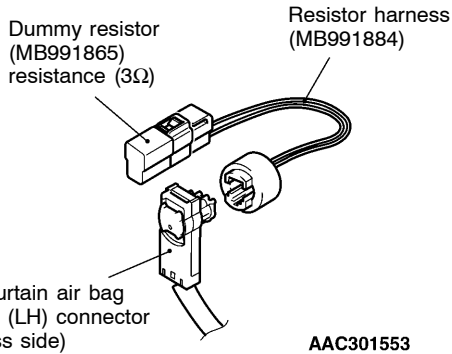
C-42 SRS-ECU connector (harness side) front view



**Code No.4B Curtain air bag module (LH) (squib) system
(open in the squib circuit)****Probable cause**

This code is output when the curtain air bag module (LH) (squib) circuit becomes an open circuit.
However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)

- Connector improper contact
- Open in the curtain air bag module (LH) (squib) circuit
- SRS-ECU malfunction

**<Curtain air bag module (LH) (squib) inspection>****MUT-II Self-diag code**

- Disconnect the negative (-) battery terminal.
- Disconnect the D-36 curtain air bag module (LH) connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Connect the special tool resistor harness (MB991884) to the D-36 curtain air bag module (LH) connector at the harness side.
- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.4B output?

YES

NO

<Circuit inspection between the SRS-ECU and the curtain air bag module (LH)>

Measure the resistance at the C-40 SRS-ECU connector and the D-36 curtain air bag module (LH).

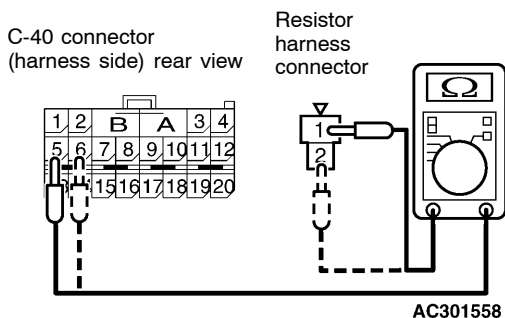
- Disconnect the C-40 SRS-ECU connector and measure at the harness side.
- Disconnect the D-36 curtain air bag module (LH) connector and connect the special tool resistor harness (MB991884) at the harness side.
- Continuity inspection between the following terminals

C-40 connector		Resistor harness Connector
5	-	1
6	-	2

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: Continuity (2Ω or less)



OK

Replace SRS-ECU. (Refer to P.52B-63.)

Replace the curtain air bag module (LH).
(Refer to P.52B-64.)

NG

Check the following connectors: D-36, C-39, C-40

OK

NG

Check the trouble symptoms.

Repair

NG

Check the harness between the curtain air bag module (LH) and the SRS-ECU, and repair if necessary.

Code No.4E Curtain air bag module (LH) (squib) system (short circuit to power supply of the squib circuit)	Probable cause
Code No.4F Curtain air bag module (LH) (squib) system (short circuit to earth of the squib circuit)	
This code is output when the curtain air bag module (LH) (squib) input terminal has short-circuited to the power supply (code No.4E) or short-circuited to earth (code No.4F).	<ul style="list-style-type: none"> Faulty connector The curtain air bag module (LH) (squib) harness has short-circuited to power supply (code No.4E) or short-circuited to earth (code No.4F). SRS-ECU inoperable

Dummy resistor (MB991865) resistance (3Ω)

Resistor harness (MB991884)

D-34 Curtain air bag module (LH) connector (harness side)

AAC301553

<Curtain air bag module (LH) (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) terminal of battery.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Disconnect the D-34 curtain air bag module (LH) connector.
- Connect the special tool resistor harness (MB991884) to the D-34 harness side connector.
- Connect negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No. 4E or 4F output?

YES (When No.4E is output)

YES (When No.4F is output)

NO

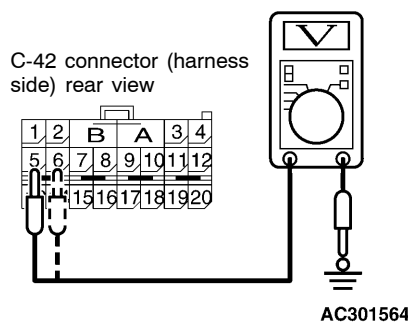
Replace the curtain air bag module (LH).
(Refer to P.52B-64.)

<Circuit inspection between the SRS-ECU and the curtain air bag module (LH)>
Measure the voltage at the C-42 SRS-ECU connector.

- Disconnect the C-42 SRS-ECU connector.
- Disconnect the D-34 curtain air bag module (LH) connector.
- Ignition switch: ON
- Measure at the harness side.
- Voltage between terminals 5, 6 and body earth

Caution:
Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: 0 V



OK

NG

Replace the SRS-ECU.
(Refer to P.52B-63.)

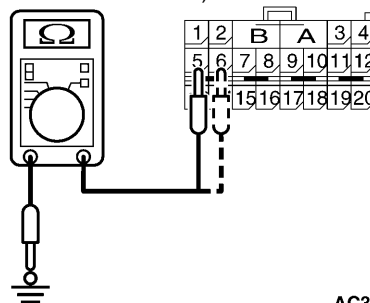
<Circuit inspection between the SRS-ECU and the curtain air bag module (LH)>
Measure the resistance at the C-42 SRS-ECU connector.

- Disconnect the C-42 SRS-ECU connector.
- Disconnect the D-34 curtain air bag module (LH) connector.
- Measure at the harness side.
- Continuity between terminals 5, 6 and body earth

Caution:
Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-42 connector (harness side) rear view



NG

OK

Replace SRS-ECU.
(Refer to P.52B-63.)

Check the following connectors: C-39, C-42, D-34

OK

NG

Check the trouble symptoms.

NG

Repair

Check the harness between the curtain air bag module (LH) and the SRS-ECU, and repair if necessary.

Code No.5A Side impact sensor (Rear: LH) power supply circuit system**Probable cause**

Power supply voltage of side impact sensor (Rear: LH) is lower than specified for five successive seconds or more.
However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.

- Defective wiring harnesses or connectors
- Malfunction of side impact sensor (Rear: LH)
- Malfunction of SRS-ECU

Measure at side impact sensor (Rear: LH) connector D-32.

- Disconnect connector and measure at the harness side.
- Connect negative (-) battery terminal.
- Ignition switch: ON
- Voltage between terminal No.1 and body earth.
OK: 9 V or more

D-32 connector
(harness side) front view



AC102810

OK

Replace side impact sensor (Rear: LH). (Refer to P.52B-69.)

NG

Check the following connectors: D-32, C-44, C-42

OK

Check trouble symptoms.

NG

Check harness wire between side impact sensor (Rear: LH) and SRS-ECU.

OK

Replace SRS-ECU.
(Refer to P.52B-63.)

NG

Repair

NG

Repair

Code No.5B, 6B Side impact sensor (Rear) system**Probable cause**

Code No.5B is displayed when malfunction is present inside side impact sensor (Rear: LH).
Code No.6B is displayed when malfunction is present inside side impact sensor (Rear: RH).

- Not working
- Having abnormal
- Having abnormal output

- Malfunction of side impact sensor (Rear: LH) (Code No.5B)
- Malfunction of side impact sensor (Rear: RH) (Code No.6B)

Replace side impact sensor (Rear: LH) (code No.5B).
(Refer to P.52B-69.)

Replace side impact sensor (Rear: RH) (code No.6B).
(Refer to P.52B-69.)

**Code No.5C or No.5D
Side impact sensor (Rear: LH) communication system****Probable cause**

These diagnosis code are output if communication between the side impact sensor (Rear: LH) and the SRS-ECU is not possible (code No.5C) or abnormal (code No.5D).

- Malfunction of wiring harnesses or connectors
- Malfunction of side impact sensor (Rear: LH)
- Malfunction of SRS-ECU

MUT-II Self-diag code

- Switch over the side impact sensor (Rear: RH) and the side impact sensor (Rear: LH)
 - Erase diagnosis code memory.
- Are code Nos.5C and 5D erased and code Nos.6C and 6D output?

YES

Replace the side impact sensor (Rear: LH). (Refer to P.52B-69.)

NO

Check the following connectors: C-42, C-44, D-32

OK

Check trouble symptoms.

NG

Check the harness wire between the side impact sensor (Rear: LH) and SRS-ECU.

OK

Replace the SRS-ECU.
(Refer to P.52B-63.)

NG

Repair

NG

Repair

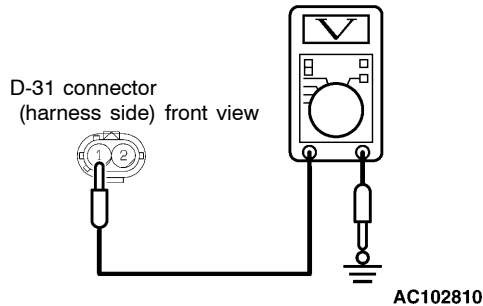
Code No.6A Side impact sensor (Rear: RH) power supply circuit system**Probable cause**

Power supply voltage of side impact sensor (Rear: RH) is lower than specified for five successive seconds or more.
However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.

- Defective wiring harnesses or connectors
- Malfunction of side impact sensor (Rear: RH)
- Malfunction of SRS-ECU

Measure at side impact sensor (Rear: RH) connector D-31.

- Disconnect connector and measure at the harness side.
 - Connect negative (-) battery terminal.
 - Ignition switch: ON
 - Voltage between terminal No.1 and body earth.
- OK:** 9 V or more



NG

Check the following connectors: D-31, C-143, C-40

OK

Check trouble symptoms.

NG

Check harness wire between side impact sensor (Rear: RH) and SRS-ECU.

OK

Replace SRS-ECU.
(Refer to P.52B-63.)

NG

Repair**Repair**

OK

Replace side impact sensor (Rear: RH). (Refer to P.52B-69.)

Code No.6C or No.6D Side impact sensor (Rear: RH) communication system**Probable cause**

These diagnosis code are output if communication between the side impact sensor (Rear: RH) and the SRS-ECU is not possible (code No.6C) or abnormal (code No.6D).

- Malfunction of wiring harnesses or connectors
- Malfunction of side impact sensor (Rear: RH)
- Malfunction of SRS-ECU

MUT-II Self-diag code

- Switch over the side impact sensor (Rear: LH) and the side impact sensor (Rear: RH)
 - Erase diagnosis code memory.
- Are code Nos.6C and 6D erased and code Nos.5C and 5D output?

YES

Replace the side impact sensor (Rear: RH). (Refer to P.52B-69.)

NO

Check the following connectors: C-40, C-143, D-31

OK

Check trouble symptoms.

NG

Check the harness wire between the side impact sensor (Rear: RH) and SRS-ECU.

OK

Replace the SRS-ECU.
(Refer to P.52B-63.)

NG

Repair**Repair**

Code No. 3C, 3D, 4C, 4D, 14, 15, 16, 17, 31, 32, 45, 51, 52, 54, 55, 56, 57, 58, 59, 73, 74, 83, 84 System inside SRS-ECU	Probable cause
This code is output when any abnormality is detected in the circuit of the SRS-ECU. Refer to Table 1 for location and cause of the fault corresponding to each code No.	Malfunction of SRS-ECU

Table 1

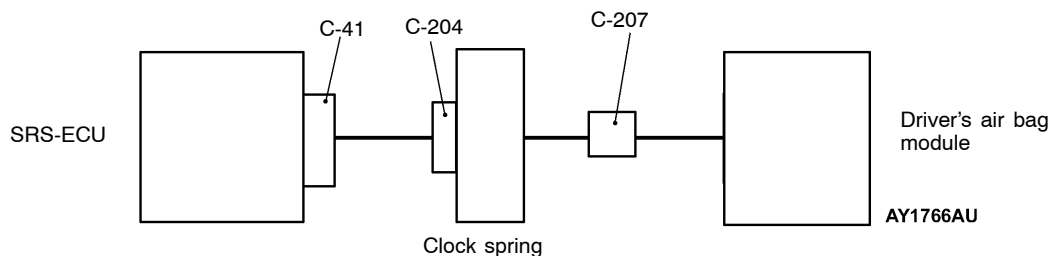
Code No.	Location of the fault inside SRS-ECU	Trouble
3C	Curtain air bag module (squib) ignition drive circuit system (RH)	When squib ignition drive circuit (RH) is short-circuited
3D		When squib ignition drive circuit (RH) becomes an open circuit
4C	Curtain air bag module (squib) ignition drive circuit system (LH)	When squib ignition drive circuit (LH) is short-circuited
4D		When squib ignition drive circuit (LH) becomes an open circuit
14	Front impact analog G-sensor	<ul style="list-style-type: none"> Not operating Abnormal characteristics Abnormal output
15	Front impact safing G-sensor	When the front impact safing G-sensor is short circuited
16		When the front impact safing G-sensor becomes an open circuit
17	Side impact analog G-sensor	<ul style="list-style-type: none"> When the side impact analog G-sensor is not activated When the characteristics of the side impact analog G-sensor are abnormal When the output of the side impact analog G-sensor is abnormal
31	DC-DC converter	<ul style="list-style-type: none"> Terminal voltage of the converter higher than specified for five seconds or more
32		<ul style="list-style-type: none"> Terminal voltage of the converter lower than specified for 5 seconds or more (this code is not detected when code No.41 or 42, which indicates discharged battery, has been detected)
45	Non-volatile memory (EEPROM)	When a fault is found inside the non-volatile memory (EEPROM)
51	Driver's air bag module (squib) ignition drive circuit	When the driver's seat (squib) ignition drive circuit is short circuited
52		When the driver's seat (squib) ignition drive circuit becomes an open circuit
54	Front passenger's air bag module (squib) ignition drive circuit	When the front passenger's seat (squib) ignition drive circuit is short circuited
55		When the front passenger's seat (squib) ignition drive circuit becomes an open circuit
56	Driver's seat belt pretensioner (squib) ignition drive circuit	When the driver's seat (squib) ignition drive circuit is short circuited
57		When the driver's seat (squib) ignition drive circuit becomes an open circuit
58	Front passenger's seat belt pretensioner (squib) ignition drive circuit	When the front passenger's seat (squib) ignition drive circuit is short circuited
59		When the front passenger's seat (squib) ignition drive circuit becomes an open circuit
73	Side air bag module (squib) ignition drive circuit system (RH)	When squib ignition drive circuit (RH) is short-circuited
74		When squib ignition drive circuit (RH) becomes an open circuit
83	Side air bag module (squib) ignition drive circuit system (LH)	When squib ignition drive circuit (LH) is short-circuited
84		When squib ignition drive circuit (LH) becomes an open circuit

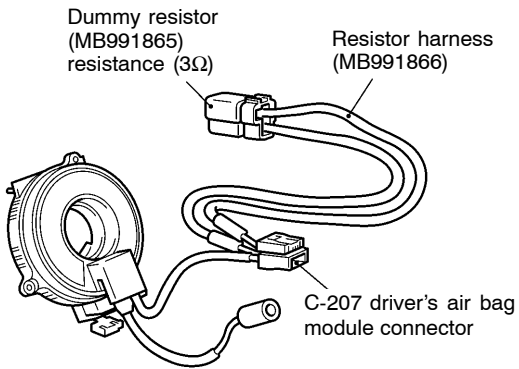
If the above-mentioned code No. is output, replace the SRS-ECU.

Code No.21 Driver's air bag module (squib) system (short circuit between terminals of the squib circuit)	Possible cause
This code is output at the time of short circuit between terminals of driver's air bag module (squib) circuit. However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)	<ul style="list-style-type: none"> • Improper connector engagement or defective short spring* • Short circuit in the clock spring • Short circuit between terminals of the driver's air bag module (squib) circuit • Faulty connector • SRS-ECU inoperable

NOTES:

- *: Since the squib circuit connector a built-in short spring (to prevent erroneous deployment operation due to static electricity or etc. by short-circuiting the positive (+) cable and the negative (-) cable when the connector is not connected), improper engagement of the connector shown below or the faulty connector may cause the failure of short spring release despite the fact that the connector has been connected. Therefore, disconnect the connect shown in the illustration below once and then reconnect it before carrying out the following troubleshooting. Check the diagnosis code output again after erasing the memory of the diagnosis code. If the diagnosis code is not output, the improper connector engagement may be the cause of the above-mentioned code output.





AY1728AU

<Driver's air bag module (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) battery terminal.
- Disconnect the C-207 driver's air bag module connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Insert the probe of the special tool resistor harness (MB991866) from the behind of the C-207 driver's air bag module connector of the clock spring.

Caution:

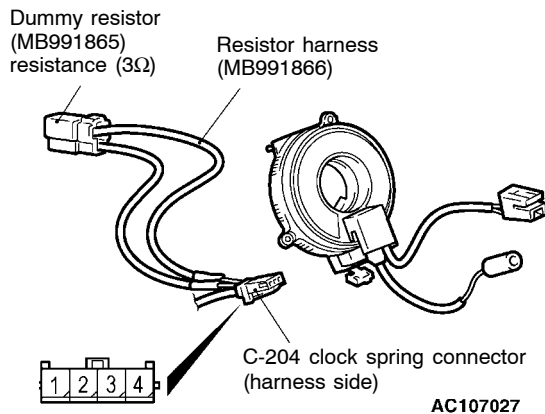
Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (-) battery terminal.
 - Check the diagnosis code again after erasing the memory.
- Is code No.21 output?

YES

NO

Replace the driver's air bag module (squib).



AC107027

<Clock spring inspection>

MUT-II Self-diag code

- Disconnect the negative (-) battery terminal.
- Disconnect the C-204 (4-pin) clock spring connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Insert the probe of the special tool resistor harness (MB991866) to terminals 3 and 4 from the behind of the C-204 clock spring connector (harness side).

Caution:

Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (-) battery terminal.
 - Check the diagnosis code again after erasing the memory.
- Is code No.21 output?

YES

NO

To the next page

Replace the clock spring.

From the previous page

YES

<Circuit inspection between the SRS-ECU and clock spring>

Measure the resistance at the C-41 SRS-ECU connector.

- Disconnect the C-41 SRS-ECU connector.
- Disconnect the C-204 clock spring connector.

Caution:

Disconnect this connector and short-circuit the squib circuit so that the short spring of the SRS-ECU connector can be released in the following operation.

- Insert an insulator (width: 3 mm, thickness: 0.5 mm), such as a cable tie between terminals 36 and 37 of the C-41 SRS-ECU connector (harness side) and the short spring to release the short spring. (See Illustration A.)

Caution:

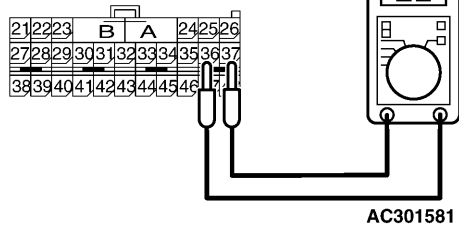
Be sure to insert the insulator for 4 mm or more to avoid a possible failure in release of the short spring.

- Continuity inspection between terminals 36 and 37

Caution:

Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-41 connector
(harness side) rear view

OK

Replace the SRS-ECU. (Refer to P.52B-63.)

NG

Check the following connectors: C-41, C-204

OK

Check the trouble symptoms.

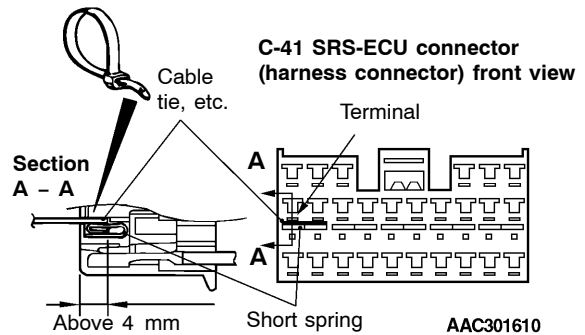
NG

Check the harness between the clock spring and the SRS-ECU, and repair if necessary.

NG

Repair

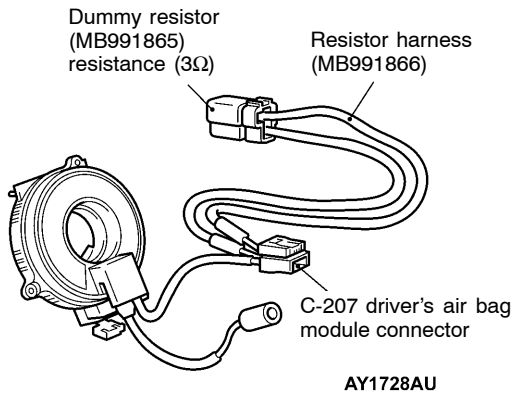
Illustration A



**Code No.22 Driver's air bag module (squib) system
(Open in the squib circuit)****Probable cause**

This code is output when the driver's air bag module (squib) circuit becomes an open circuit.
However, SRS warning lamp goes out when a normal operation is resumed
(diagnosis code is not cleared.)

- Open in the clock spring
- Half open in the circuit due to improper neutral positioning of the clock spring
- Open in the driver's air bag module (squib) circuit
- Connector improper contact
- SRS-ECU inoperable

**<Driver's air bag module (squib) inspection>****MUT-II Self-diag code**

- Disconnect the negative (–) battery terminal.
- Disconnect the C-207 driver's air bag module connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Insert the probe of the special tool resistor harness (MB991866) from the behind of the C-207 driver's air bag module connector of the clock spring.

Caution:

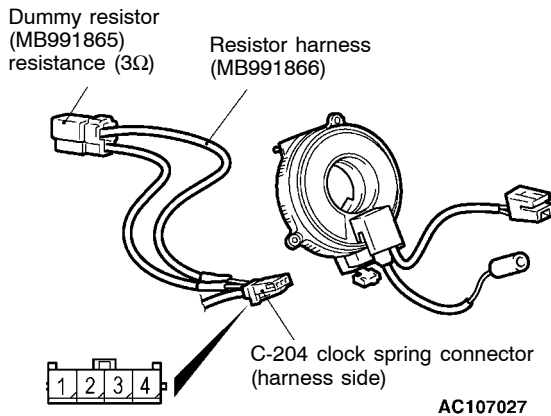
Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (–) battery terminal.
 - Check the diagnosis code again after erasing the memory.
- Is code No.22 output?

YES

NO

Replace the driver's air bag module (squib).

**<Clock spring inspection>****MUT-II Self-diag code**

- Disconnect the negative (–) battery terminal.
- Disconnect the C-204 (4-pin) clock spring connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Insert the probe of the special resistor harness (MB991866) to terminals 3 and 4 from the behind of the C-204 clock spring connector (harness side).

Caution:

Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (–) battery terminal.
 - Check the diagnosis code again after erasing the memory.
- Is code No.22 output?

YES

NO

To the next page

Replace the clock spring.

From the previous page

YES

<Circuit inspection between the SRS-ECU and clock spring>

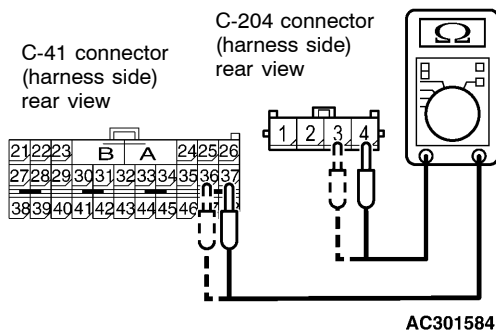
Measure the resistance at the C-21 SRS-ECU connector and the C-204 clock spring connector.

- Disconnect the C-41 SRS-ECU connector and the C-204 clock spring connector and measure at the harness side.
- Continuity check between the following terminals

C-41 connector		C-204 connector
36	–	3
37	–	4

Caution:

Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

OK: Continuity (2Ω or less)

OK

Replace the SRS-ECU. (Refer to P.52B-63.)

NG

Check the following connectors: C-41, C-204

OK

Check the trouble symptoms.

NG

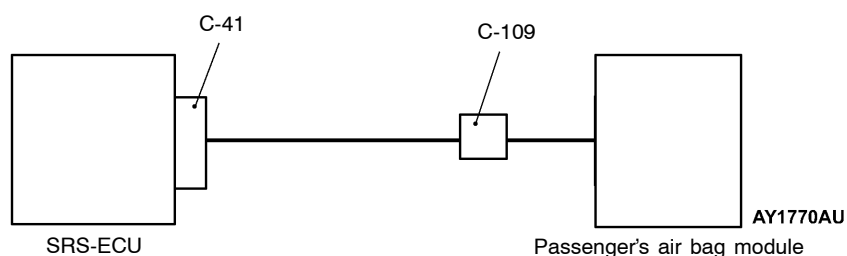
Check the harness between the clock spring and the SRS-ECU, and repair if necessary.

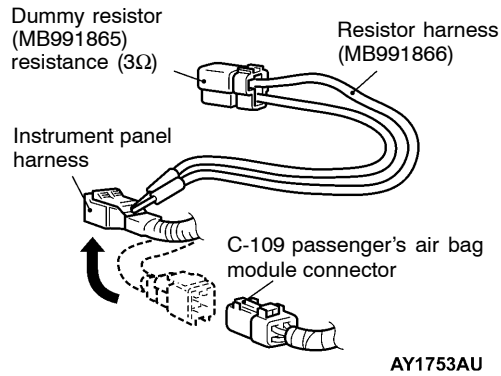
NG
Repair

Code No.24 Front passenger's air bag module (squib) system (short circuit between terminals of the squib circuit)	Possible cause
This code is output at the time of short circuit between terminals of the front passenger's air bag module (squib) circuit. However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)	<ul style="list-style-type: none"> Improper connector engagement or defective short spring* Short circuit between terminals of the front passenger's air bag module (squib) circuit Faulty connector SRS-ECU inoperable

NOTES:

- *: Since the squib circuit connector a built-in short spring (to prevent erroneous deployment operation due to static electricity or etc. by short-circuiting the positive (+) cable and the negative (-) cable when the connector is not connected), improper engagement of the connector shown below or the faulty connector may cause the failure of short spring release despite the fact that the connector has been connected. Therefore, disconnect the connect shown in the illustration below once and then reconnect it before carrying out the following troubleshooting. Check the diagnosis code output again after erasing the memory of the diagnosis code. If the diagnosis code is not output, the improper connector engagement may be the cause of the above-mentioned code output.





<Front passenger's airbag module (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) battery terminal.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Disconnect the C-109 front passenger's air bag module connector and insert the special tool resistor harness (MB991866) from the behind of the harness side connector.

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.24 output?

YES

NO

<Circuit inspection between the SRS-ECU and the front passenger's air bag module>

Measure the resistance at the C-41 SRS-ECU connector.

- Disconnect the C-41 SRS-ECU connector.
- Disconnect the C-109 front passenger's air bag module connector.

Caution:

Disconnect this connector and short-circuit the squib circuit so that the short spring of the SRS-ECU connector can be released in the following operation.

- Insert the cable tie or etc. (width: 3 mm, thickness: 0.5 mm) between terminals 27 or 28 and the short bar to release the short spring. (See Illustration A.)

Caution:

Insert the insulator for 4 mm or more to avoid a possible failure in release of the short spring.

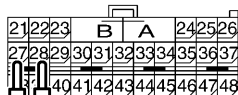
- Measure at the harness side.
- Continuity inspection between terminals 27 and 28

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-41 connector
(harness side) rear view



AC301582

OK

Replace the SRS-ECU. (Refer to P.52B-63.)

Replace front passenger's air bag module (squib).

NG

Check the following connectors: C-41, C-109

YES

NG

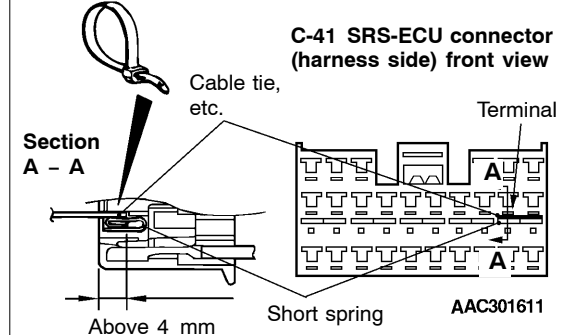
Check the trouble symptoms.

Repair

NG

Check the harness between the front passenger's air bag module and the SRS-ECU, and repair if necessary.

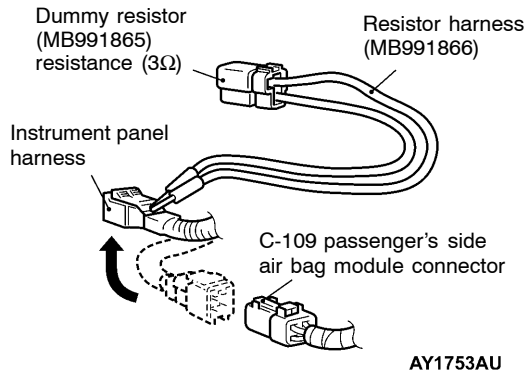
Illustration A



Code No.25 Front passenger's air bag module (squib) system short circuit between terminals of the squib circuit)**Probable cause**

This code is output when the front passenger's air bag module (squib) circuit becomes an open circuit.
However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)

- Open in the front passenger's air bag module (squib) circuit
- Connector improper contact
- SRS-ECU malfunction

**<Front passenger's airbag module (squib) inspection>****MUT-II Self-diag code**

- Disconnect the negative (-) battery terminal.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Disconnect the C-109 front passenger's air bag module connector and insert the special tool resistor harness (MB991866) from the behind of the connector (harness side).

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.25 output?

YES

NO

<Circuit inspection between the SRS-ECU and the front passenger's air bag module>

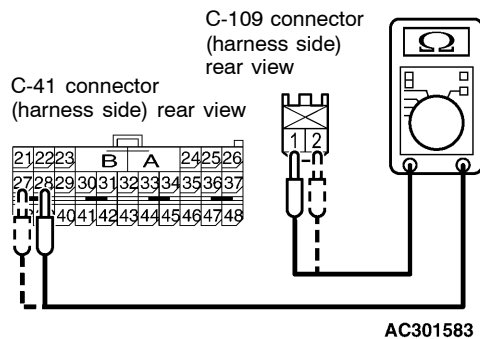
Measure the resistance at the C-41 SRS-ECU connector and C-109 passenger air bag module connector.

- Disconnect the C-41 SRS-ECU connector and the C-109 front passenger's air bag module connector and measure at the harness side.
 - Continuity inspection between the following terminals
- | C-41 connector | | C-109 connector |
|----------------|---|-----------------|
| 27 | - | 2 |
| 28 | - | 1 |

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: Continuity (2Ω or less)



OK

Replace the SRS-ECU. (Refer to P.52B-63.)

Replace the front passenger's air bag module (squib).

NG

Check the following connectors: C-41, C-109

OK

Check the trouble symptoms.

NG

Check the harness between the front passenger's air bag module and the SRS-ECU, and repair if necessary.

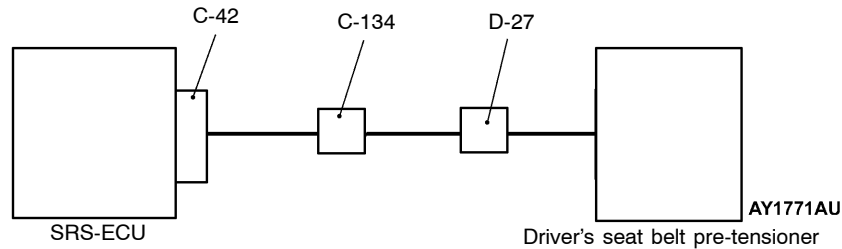
NG

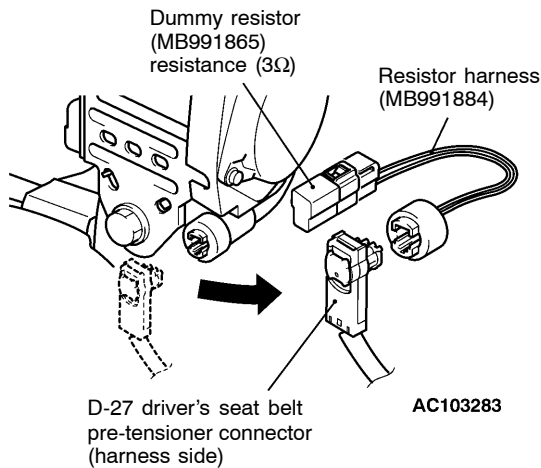
Repair

Code No.26 Driver's seat belt pretensioner (squib) system (short circuit between terminals of the squib circuit)	Probable cause
<p>This code is output at the time of short circuit between terminals of driver's seat belt pretensioner (squib) circuit. However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)</p>	<ul style="list-style-type: none"> Improper connector engagement or defective short spring* Short circuit between terminals of driver's seat belt pretensioner (squib) circuit Faulty connector SRS-ECU inoperable

NOTES:

- *: Since the squib circuit connector a built-in short spring (to prevent erroneous deployment operation due to static electricity or etc. by short-circuiting the positive (+) cable and the negative (-) cable when the connector is not connected), improper engagement of the connector shown below or the faulty connector may cause the failure of short spring release despite the fact that the connector has been connected. Therefore, disconnect the connect shown in the illustration below once and then reconnect it before carrying out the following troubleshooting. Check the diagnosis code output again after erasing the memory of the diagnosis code. If the diagnosis code is not output, the improper connector engagement may be the cause of the above-mentioned code output.





<Driver's seat belt pretensioner (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) battery terminal.
- Disconnect the D-27 driver's seat belt pretensioner connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Connect the special tool resistor harness (MB991884) to the D-27 driver's seat belt pretensioner connector at the harness side.
- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.26 output?

YES

NO

<Circuit inspection between the SRS-ECU and the driver's seat belt pretensioner>

Measure the resistance at the C-42 SRS-ECU connector.

- Disconnect the C-42 SRS-ECU connector.
- Disconnect the D-27 driver's seat belt pretensioner connector.

Caution:

Disconnect this connector and short-circuit the squib circuit so that the short spring of the SRS-ECU connector can be released in the following operation.

- Insert an insulator (width: 3 mm, thickness: 0.5 mm), such as a cable tie between terminals 59 and 60 of the C-42 SRS-ECU connector (harness side) and the short spring to release the short spring. (See Illustration A.)

Caution:

Be sure to insert the insulator for 4 mm or more to avoid a possible failure in release of the short spring.

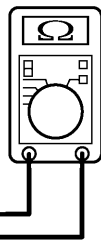
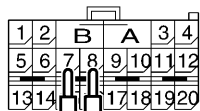
- Continuity inspection between terminals 7 and 8

Caution:

Do not directly insert a probe or other devices to the terminal from the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-42 connector (harness side) rear view



OK

Replace SRS-ECU. (Refer to P.52B-63.)

Replace the driver's seat belt pretensioner.

NG

Check the following connectors: C-42, D-27, C-134

OK

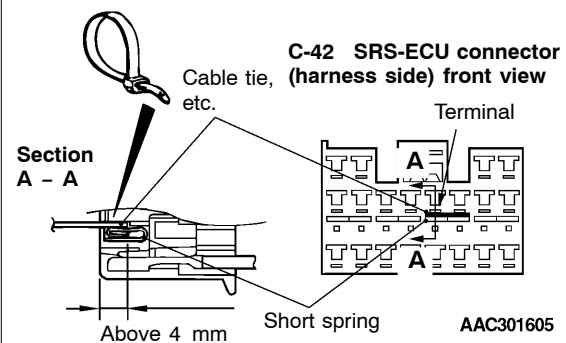
Check the trouble symptoms.

NG

Check the harness between the driver's seat belt pretensioner and the SRS-ECU, and repair if necessary.

Repair

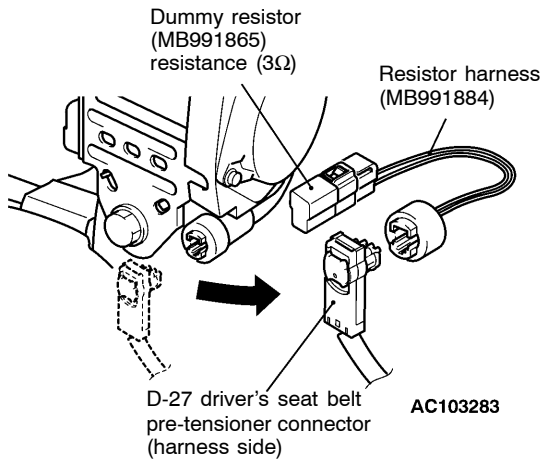
Illustration A



**Code No.27 Driver's seat belt pretensioner (squib) system
(open in the squib circuit)****Probable cause**

This code is output when the driver's seat belt pretensioner (squib) circuit becomes an open circuit.
However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)

- Connector improper contact
- Open in the driver's seat belt pretensioner (squib) circuit
- SRS-ECU malfunction

**<Driver's seat belt pretensioner (squib) inspection>****MUT-II Self-diag code**

- Disconnect the negative (-) battery terminal.
- Disconnect the D-27 driver's seat belt pretensioner connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Connect the special tool resistor harness (MB991884) to the D-27 driver's seat belt pretensioner connector at the harness side.
- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.27 output?

YES

<Circuit inspection between the SRS-ECU and the driver's seat belt pretensioner>

Measure the resistance at the C-42 SRS-ECU connector and the D-02 driver's seat belt pretensioner.

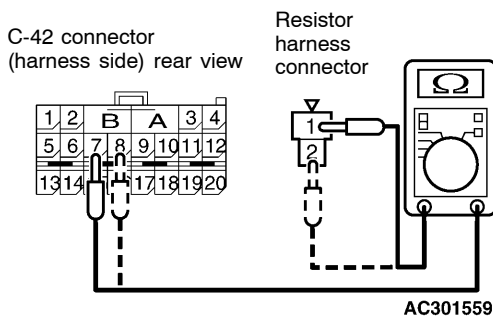
- Disconnect the C-42 SRS-ECU connector and measure at the harness side.
- Disconnect the D-27 driver's seat belt pretensioner connector and connect the special tool resistor harness (MB991884) at the harness side.
- Continuity inspection between the following terminals

C-42 connector		Resistor harness Connector
7	-	1
8	-	2

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: Continuity (2Ω or less)



OK

Replace SRS-ECU. (Refer to P.52B-63.)

NO

Replace the driver's seat belt pretensioner.

NG

Check the following connectors: C-42, D-27, C-134

OK

Check the trouble symptoms.

NG

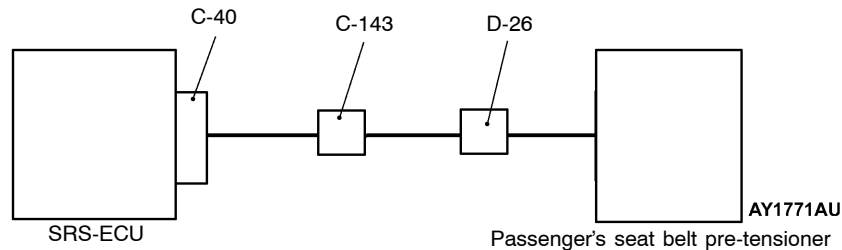
Check the harness between the driver's seat belt pretensioner and the SRS-ECU, and repair if necessary.

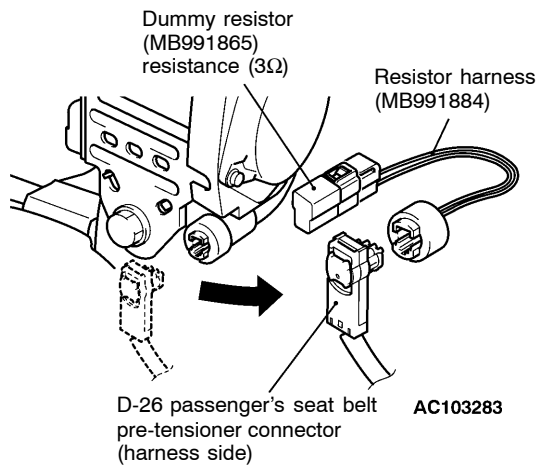
Repair

Code No.28 front passenger's seat belt pretensioner (squib) system (short circuit between terminals of the squib circuit)	Probable cause
This code is output at the time of short circuit between terminals of front passenger's seat belt pretensioner (squib) circuit. However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)	<ul style="list-style-type: none"> • Improper connector engagement or defective short spring* • Short circuit between terminals of front passenger's seat pretensioner (squib) circuit • Faulty connector • SRS-ECU inoperable

NOTES:

- *: Since the squib circuit connector a built-in short spring (to prevent erroneous deployment operation due to static electricity or etc. by short-circuiting the positive (+) cable and the negative (-) cable when the connector is not connected), improper engagement of the connector shown below or the faulty connector may cause the failure of short spring release despite the fact that the connector has been connected. Therefore, disconnect the connect shown in the illustration below once and then reconnect it before carrying out the following troubleshooting. Check the diagnosis code output again after erasing the memory of the diagnosis code. If the diagnosis code is not output, the improper connector engagement may be the cause of the above-mentioned code output.





<Front passenger's seat belt pretensioner (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) battery terminal.
- Disconnect the D-26 front passenger's seat belt pretensioner connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Connect the special tool resistor harness (MB991884) to the D-26 front passenger's seat belt pretensioner connector at the harness side.
- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.28 output?

YES

<Circuit inspection between the SRS-ECU and the front passenger's seat belt pretensioner>

Measure the resistance at the C-40 SRS-ECU connector.

- Disconnect the C-40 SRS-ECU connector.
- Disconnect the D-26 front passenger's seat belt pretensioner connector.

Caution:

Disconnect this connector and short-circuit the squib circuit so that the short spring of the SRS-ECU connector can be released in the following operation.

- Insert an insulator (width: 3 mm, thickness: 0.5 mm), such as a cable tie between terminals 7 and 8 of the C-40 SRS-ECU connector (harness side) and the short spring to release the short spring. (See Illustration A.)

Caution:

Be sure to insert the insulator for 4 mm or more to avoid a possible failure in release of the short spring.

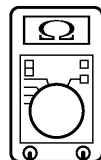
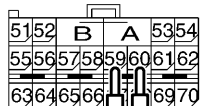
- Continuity inspection between terminals 59 and 60

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-40 connector (harness side) rear view



AC301572

OK

Replace the SRS-ECU. (Refer to P.52B-63.)

NO

Replace the front passenger's seat belt pretensioner.

NG

Check the following connectors: C-40, D-26, C-143

OK

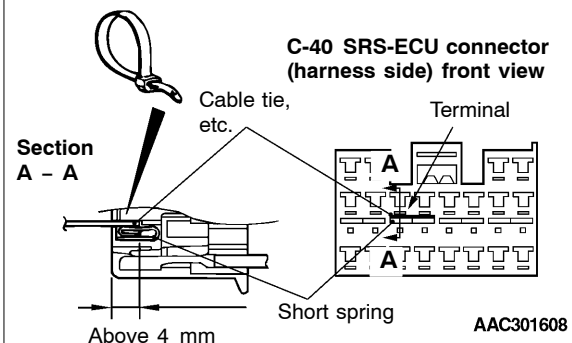
Check the trouble symptoms.

NG

Check the harness between the front passenger's seat belt pretensioner and the SRS-ECU, and repair if necessary.

Repair

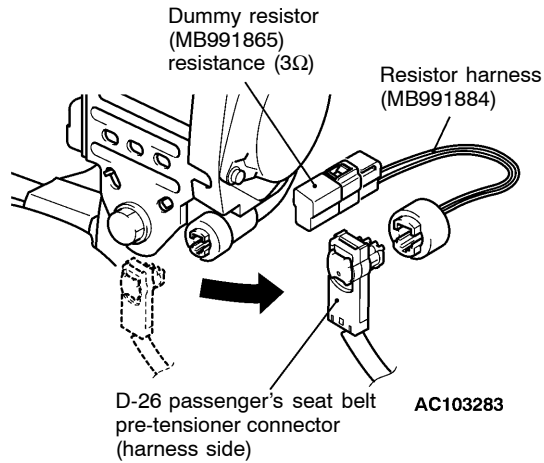
Illustration A



Code No.29 Front passenger's seat belt pretensioner (squib) system (open in the squib circuit)**Probable cause**

This code is output when the front passenger's seat belt pretensioner (squib) circuit becomes an open circuit. However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)

- Open in the front passenger's seat pretensioner (squib) circuit
- Connector improper contact
- SRS-ECU malfunction

**<Front passenger's seat belt pretensioner (squib) inspection>****MUT-II diagnosis code**

- Disconnect the negative (-) battery terminal.
- Disconnect the D-26 front passenger's seat belt pretensioner connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Connect the special tool resistor harness (MB991884) to the D-26 front passenger's seat belt pretensioner connector at the harness side.
- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.29 output?

YES

NO

<Circuit inspection between the SRS-ECU and the front passenger's seat belt pretensioner>

Measure the resistance at the C-40 SRS-ECU connector and the D-26 front passenger's seat belt pretensioner connector.

- Disconnect the C-40 SRS-ECU connector and measure at the harness side.
- Disconnect the D-26 front passenger's seat belt pretensioner connector and connect the special tool resistor harness (MB991884).
- Continuity inspection between the following terminals

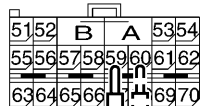
C-40 connector		Resistor harness connector
59	-	2
60	-	1

Caution:

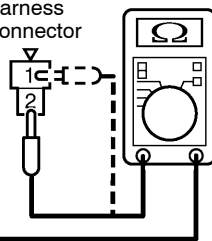
Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: Continuity (2Ω or less)

C-40 connector (harness side) rear view



Resistor harness connector



OK

Replace the SRS-ECU. (Refer to P.52B-63.)

Replace the front passenger's seat belt pretensioner.

NG

Check the following connectors: C-40, D-26, C-143

OK

NG

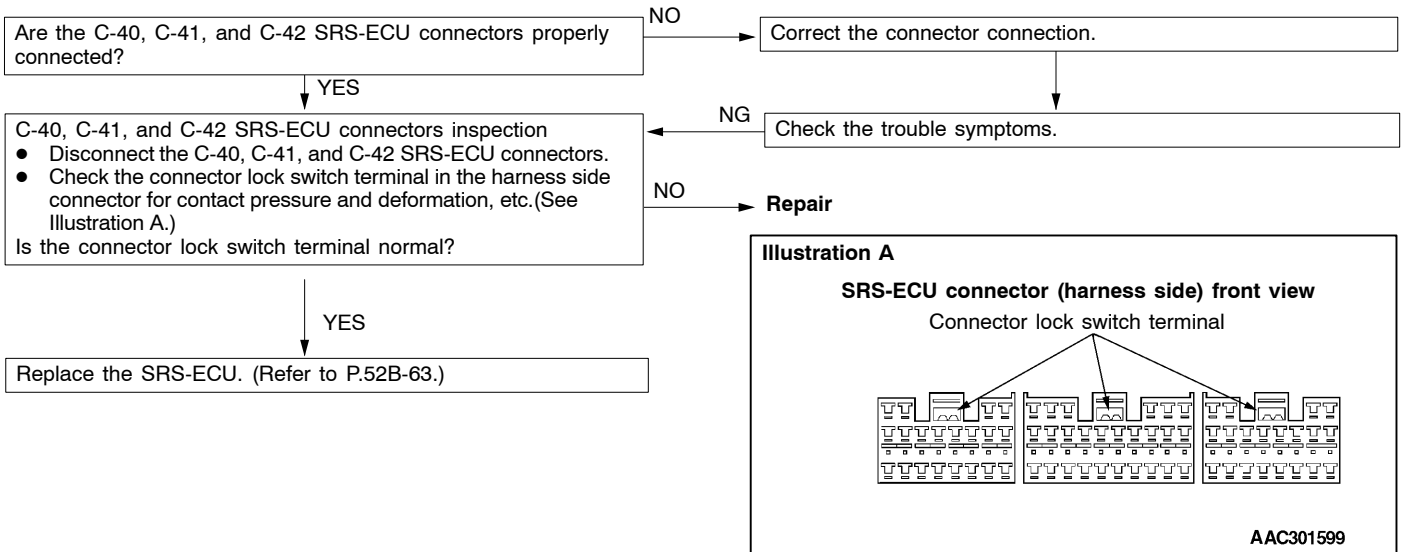
Check the trouble symptoms.

Repair

NG

Check the harness between the front passenger's seat belt pretensioner and the SRS-ECU, and repair if necessary.

Code No.34 Connector Lock System	Probable cause
The SRS-ECU connector is mounted with a connector lock switch terminal for detecting the connected state of the connector. This is output when connection of the SRS-ECU connector is improper or contact defect is found in the connector lock switch terminal despite the fact that connection is properly done. However, when the vehicle condition returns to normal, this code will be automatically erased, and the SRS warning lamp will go out.	<ul style="list-style-type: none"> Faulty connector SRS-ECU inoperable



Code No.35 SRS-ECU (deployed air bag) system	Probable cause
This code is displayed after deployment of air bags. If displayed before deployment, the code indicates malfunction probably present in SRS-ECU.	<ul style="list-style-type: none"> SRS-ECU inoperable

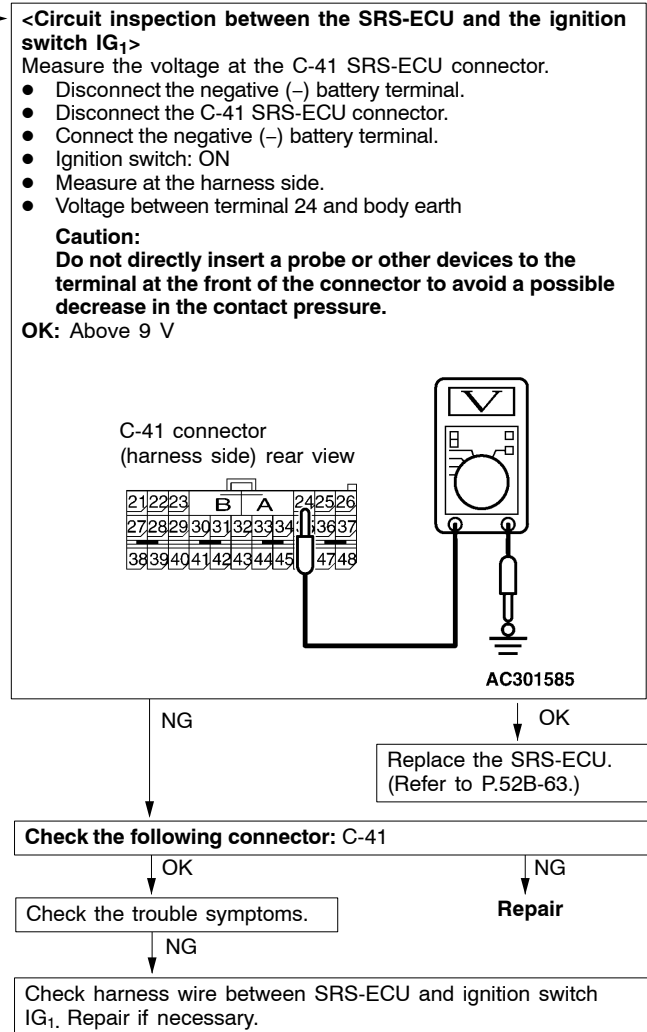
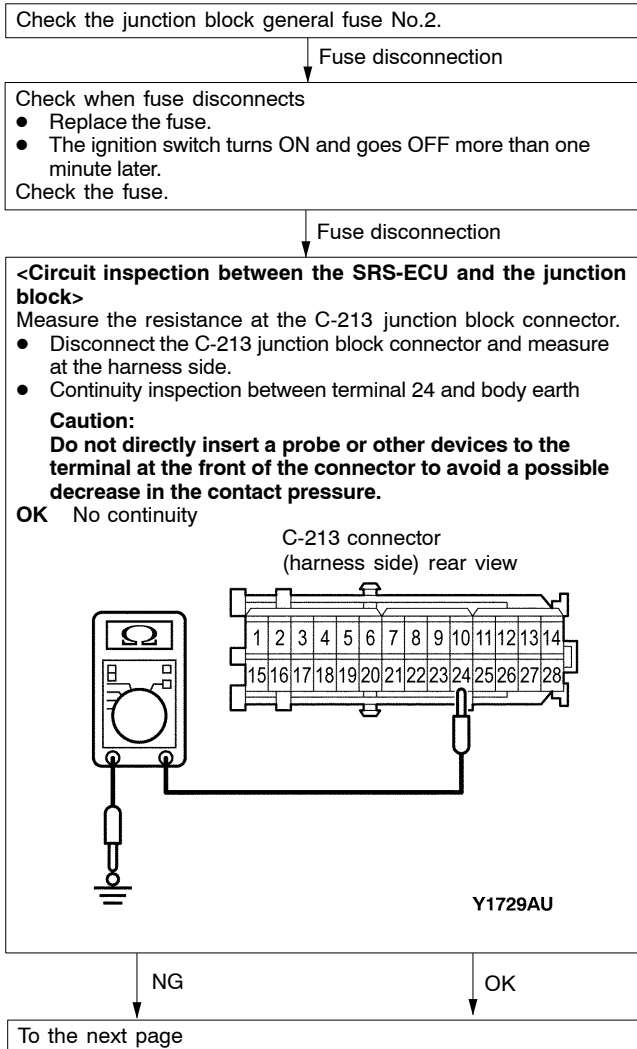
Replace the SRS-ECU if the above-mentioned code No. is output. (Refer to P.52B-63.)

Code No.39 Deployed air bag system	Probable cause
This code is output after the deployed air bag system operation takes place. If this code is output before the deployed air bag system operation takes place, the SRS-ECU may be defective.	<ul style="list-style-type: none"> SRS-ECU inoperable

Replace the SRS-ECU if the above-mentioned code No. is output. (Refer to P.52B-63.)

Code No.41 Power circuit system (fuse No.2 circuit)	Probable cause
This code is output when the voltage between terminal IG ₁ (SRS-ECU, terminal No.24) and earth has become lower than the specified value for 5 seconds or more. However, SRS warning lamp goes out when a normal operation is resumed (code No. 41 is automatically cleared.) If code Nos.41 and 42 are displayed together, check battery first as the lowered battery voltage may be the cause.	<ul style="list-style-type: none"> Defective wiring harnesses or connectors SRS-ECU inoperable

Fuse is normal.



From the previous page

NG

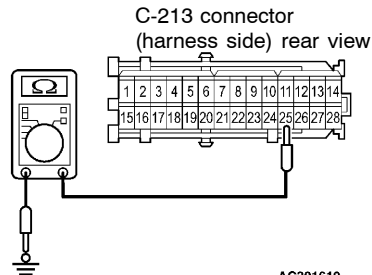
OK

<Circuit inspection between the junction block and the combination meter>
Measure the resistance at the C-213 junction block connector.

- Disconnect the C-213 junction block connector and measure at the harness side.
- Continuity inspection between terminal 25 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

NG

Correct the harness between the junction block and combination meter (SRS warning clamp).

OK

Check the other circuits using the general fuse No.2.
(See the Electrical Wiring Diagram.)

<Circuit inspection between the SRS-ECU and the junction block>

Measure the resistance at the C-41 SRS-ECU connector.

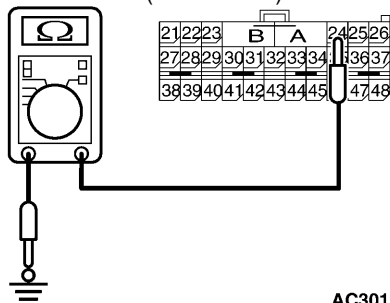
- Disconnect the C-41 SRS-ECU connector and measure at the harness side.
- Continuity inspection between terminal 24 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK No continuity

C-41 connector
(harness side) rear view



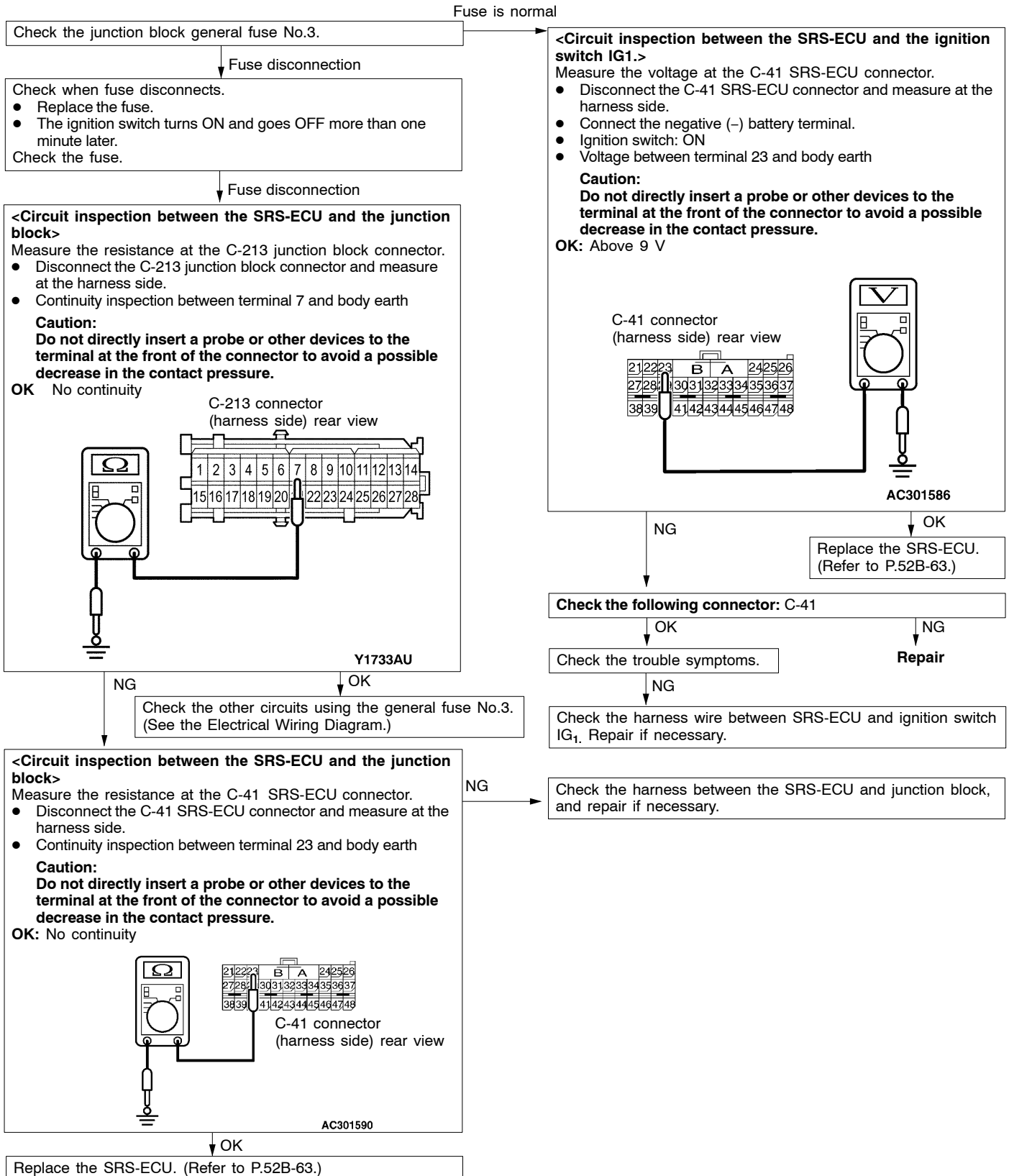
NG

Check the harness between the SRS-ECU and junction block, and repair if necessary.

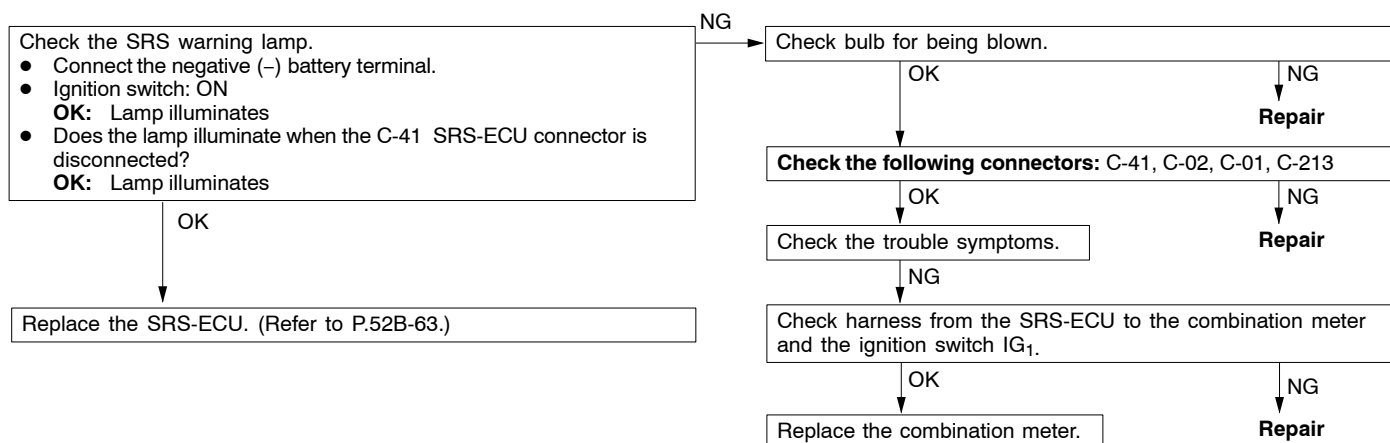
OK

Replace the SRS-ECU. (Refer to P.52B-63.)

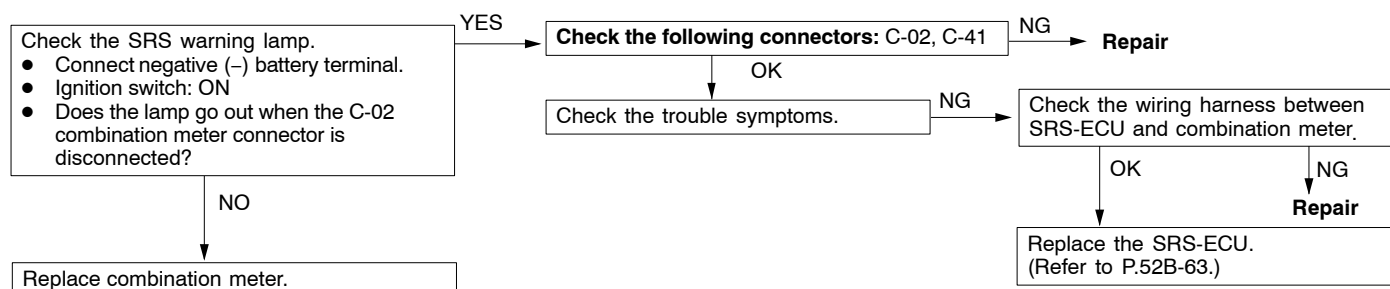
Code No.42 Power Supply Circuit System (Fuse No.3 circuit)	Probable cause
<p>This code is output when the voltage between terminal IG1 (SRS-ECU, terminal No.23) and earth has become lower than the specified value for 5 seconds or more. However, once the trouble has been removed, these codes will be automatically erased, and SRS warning lamp will go out.</p> <p>If code Nos.41 and 42 are displayed together, check battery first as vehicle may have discharged battery.</p>	<ul style="list-style-type: none"> Defective wiring harnesses or connectors SRS-ECU inoperable



Code No.43 SRS warning lamp drive circuit system (Lamp does not illuminate)	Probable cause
This code is output when the SRS warning lamp drive circuit has become an open circuit for 5 seconds or more. However, if the code is output because of open circuit failure, the SRS warning lamp will go out when a normal operation is resumed and code No.43 is automatically cleared.	<ul style="list-style-type: none"> Defective wiring harnesses or connectors Blown bulb SRS-ECU inoperable Malfunction of combination meter



Code No.43 SRS warning lamp drive circuit system (Lamp does not go out off)	Probable cause
Harness between SRS warning lamp and SRS-ECU is being shorted to earth. However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.	<ul style="list-style-type: none"> Defective wiring harnesses or connectors SRS-ECU inoperable Malfunction of combination meter



Code No.44 SRS warning lamp drive circuit system	Probable cause
Short is present in SRS warning lamp drive circuit, or output transistor in SRS-ECU is defective. However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.	<ul style="list-style-type: none"> Defective wiring harnesses or connectors SRS-ECU inoperable



Code No.46 SRS-ECU erroneous installation	Probable cause
This code is output when the SRS-ECU that can only activate the air bag is erroneously installed to the vehicle with seat belt pretensioner.	Erroneous installation of the SRS-ECU

Replace the SRS-ECU with the SRS-ECU that can properly activate the features if the above-mentioned code No. is output. (Refer to P.52B-63.)

Code No.61 Driver's air bag module (squib) system (short-circuited to power supply)	Possible cause
Code No.62 Driver's air bag module (squib) system (short-circuited to earth)	
This code is output when the input terminal of the SRS-ECU driver's air bag module (squib) is short-circuited to power supply (code No.61) or short-circuited to earth (code No.62).	<ul style="list-style-type: none">● Clock spring fault● Defective wiring harnesses or connectors● The harness of the driver's air bag module (squib) is short-circuited to power supply (code No.61) or short-circuited to earth (code No.62)● SRS-ECU inoperable

Dummy resistor (MB991865) resistance (3Ω)

Resistor harness (MB991866)

C-207 driver's air bag module connector

AY1728AU

<Driver's air bag module (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (–) terminal of battery.
- Disconnect the C-207 driver's air bag module connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness.
- Insert the probe of the special tool resistor harness (MB991866) from the behind of the C-207 driver's air bag module connector of the clock spring.

Caution:
Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (–) terminal of the battery.
- Check the diagnosis code again after erasing the memory.

Is code No.61 or No.62 output?

YES

NO

Replace the driver's air bag module (squib).

Dummy resistor (MB991865) resistance (3Ω)

Resistor harness (MB991866)

C-204 clock spring connector (harness side)

AC107027

<Clock spring inspection>

MUT-II Self-diag code

- Disconnect the negative (–) terminal of battery.
- Disconnect the C-204 (4-pin) clock spring connector.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness.
- Insert the probe of the special tool resistor harness (MB991866) into terminals 3 and 4 from the behind of the C-204 clock spring connector (harness side).

Caution:
Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (–) terminal of the battery.
- Check the diagnosis code again after erasing the memory.

Is code No.61 or No.62 output?

YES (when No.61 is output)

YES (when No.62 is output)

NO

To the next page

Replace the clock spring.

From the previous page

YES (when No.61 is output)

<Circuit inspection between the SRS-ECU and clock spring>

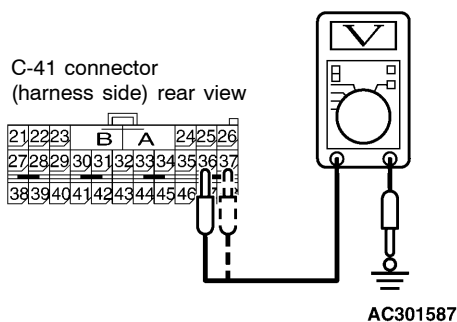
Measure the voltage at the C-41 SRS-ECU connector.

- Disconnect the C-41 SRS-ECU connector.
- Disconnect the C-204 clock spring connector.
- Ignition switch: ON
- Measure at the harness side.
- Voltage between terminals 37, 36 and body earth.

Caution:

Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

OK: 0 V



OK

NG

Replace the SRS-ECU.
(Refer to P.52B-63.)

YES (when No.62 is output)

<Circuit inspection between the SRS-ECU and clock spring>

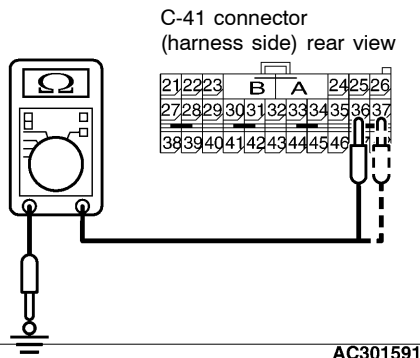
Measure the resistance at the C-41 SRS-ECU connector.

- Disconnect the G-41 SRS-ECU connector.
- Disconnect the G-204 clock spring connector.
- Measure at the harness side.
- Continuity between terminals 37, 36 and body earth

Caution:

Caution:
Do not directly insert a probe or other devices at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity



NG

Check the following connectors: C-41, C-204

NG

Repair

OK

Check the trouble symptoms.

NG

Check the harness between the clock spring and the SRS-ECU, and repair if necessary.

Code No.64 Front passenger's air bag module (squib) system (short-circuited to power supply)	Probable cause
Code No.65 Front passenger's air bag module (squib) system (short-circuited to earth)	
This code is output when the front passenger's airbag module (squib) input terminal has short-circuited to the power supply (code No.64) or short-circuited to earth (code No.65).	<ul style="list-style-type: none"> Faulty connector The front passenger's air bag module (squib) harness has short-circuited to the power supply (code No. 64) or short-circuited to the earth (code No.65). SRS-ECU inoperable

Dummy resistor (MB991865) resistance (3Ω)

Resistor harness (MB991866)

Instrument panel harness

C-109 passenger's air bag module connector

AY1753AU

<Front passenger's air bag module (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) terminal of battery.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Disconnect the C-109 front passenger's air bag module connector and insert the special tool resistor harness (MB991866) from the behind of the connector (harness side).

Caution:
Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No. 64 or 65 output?

YES (when No.64 is output)

↓

To the next page

YES (when No.65 is output)

↓

To the next page

NO

↓

Replace front passenger's air bag module (squib).

From the previous page

YES (When No.64 is output)

YES (When No.65 is output)

<Circuit inspection between the SRS-ECU and the front passenger's air bag module>

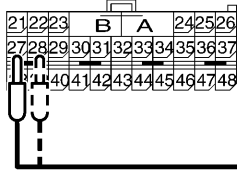
Measure the voltage at the C-41 SRS-ECU connector.

- Disconnect the C-41 SRS-ECU connector.
- Disconnect the C-109 front passenger's air bag module connector.
- Ignition switch: ON
- Measure at the harness side.
- Voltage between terminals 27, 28 and body earth.

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: 0 V

C-41 connector
(harness side) rear view

AC301588

OK

Replace the SRS-ECU.
(Refer to P.52B-63.)

NG

<Circuit inspection between the SRS-ECU and the front passenger's air bag module>

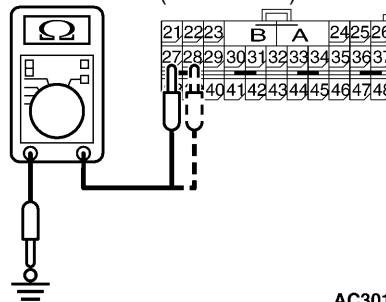
Measure the resistance at the C-41 SRS-ECU connector.

- Disconnect the C-41 SRS-ECU connector.
- Disconnect the C-109 front passenger's air bag module connector.
- Measure at the harness side.
- Continuity between terminals 27, 28 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-41 connector
(harness side) rear view

AC301592

OK

Replace SRS-ECU.
(Refer to P.52B-63.)

NG

Check the following connectors: C-41, C-109

NG

Repair

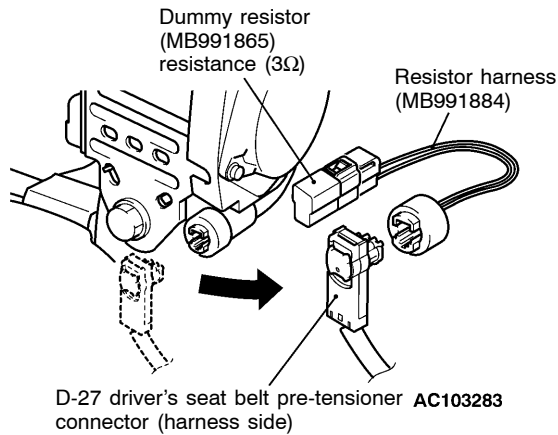
OK

Check the trouble symptoms.

NG

Check the wiring harness between front passenger's air bag module and SRS-ECU.

Code No.66 Driver's seat belt pretensioner (squib) system (short circuit to power supply of the squib circuit)	Probable cause
Code No.67 Driver's seat belt pretensioner (squib) system (short circuit to earth of the squib circuit)	
This code is output when the driver's seat belt pretensioner (squib) input terminal has short-circuited to the power supply (code No.66) or short-circuited to earth (code No.67).	<ul style="list-style-type: none"> Faulty connector The driver's seat belt pretensioner (squib) harness has short-circuited to power supply (code No.66) or short-circuited to earth (code No.67). SRS-ECU inoperable



<Driver's seat belt pretensioner (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) terminal of battery.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Disconnect the D-27 driver's seat belt pretensioner connector.
- Connect the special tool resistor harness (MB991884) to the D-27 harness side connector.
- Connect negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No. 66 or 67 output?

YES (When No.66 is output)

YES (When No.67 is output)

NO

Replace the driver's seat belt pretensioner.

<Circuit inspection between the SRS-ECU and the driver's seat belt pretensioner>

Measure the voltage at the C-42 SRS-ECU connector.

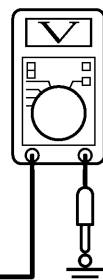
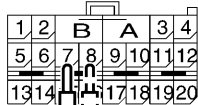
- Disconnect the C-42 SRS-ECU connector.
- Disconnect the D-27 driver's seat belt pretensioner connector.
- Ignition switch: ON
- Measure at the harness side.
- Voltage between terminals 7, 8 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: 0 V

C-42 connector (harness side) rear view



AC301566

OK

NG

Replace the SRS-ECU.
(Refer to P.52B-63.)

<Circuit inspection between the SRS-ECU and the driver's seat belt pretensioner>

Measure the resistance at the C-42 SRS-ECU connector.

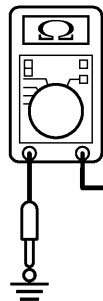
- Disconnect the C-42 SRS-ECU connector.
- Disconnect the D-27 driver's seat belt pretensioner connector.
- Measure at the harness side.
- Continuity between terminals 7, 8 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-42 connector (harness side) rear view



AC301565

NG

OK

Replace SRS-ECU.
(Refer to P.52B-63.)

Check the following connectors: C-134, C-42, D-27

NG

Repair

Check the trouble symptoms.

NG

Check the harness between the driver's seat belt pretensioner and the SRS-ECU, and repair if necessary.

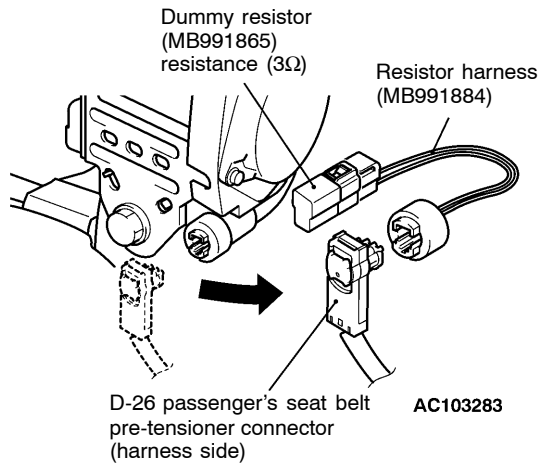
Code No.68 Front passenger's seat belt pretensioner (squib) system (short circuit to power supply of the squib circuit)

Probable Cause

Code No.69 Front passenger's seat belt pretensioner (squib) system (short circuit to earth of the squib circuit)

This code is output when the front passenger's seat belt pretensioner (squib) input terminal has short-circuited to the power supply (code No.68) or short-circuited to earth (code No.69).

- Connector fault
- The front passenger's seat belt pretensioner (squib) harness has short-circuited to power supply (code No.68) or short-circuited to earth (code No.69).
- SRS-ECU defective



<Front passenger's seat belt pretensioner (squib) inspection>

MUT-II diagnosis code

- Disconnect the negative (-) terminal of battery.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991884).
- Disconnect the D-26 front passenger's seat belt pretensioner connector.
- Connect the special tool resistor harness (MB991884) to the D-26 harness side connector.
- Connect the negative (-) terminal of battery.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.68 or No. 69 output?

YES (when No.68 is output)

YES (when No.69 is output)

NO

Replace the front passenger's seat belt pretensioner.

<Circuit inspection between the SRS-ECU and the front passenger's seat belt pretensioner>
Measure the voltage at the C-40 SRS-ECU connector.

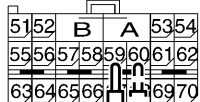
- Disconnect the C-40 SRS-ECU connector.
- Disconnect the D-26 front passenger's seat belt pretensioner connector.
- Ignition switch: ON
- Measure at the harness side.
- Voltage between terminals 59, 60 and body earth.

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: 0 V

C-40 connector
(harness side) rear view



AC301577

OK

NG

Replace the SRS-ECU.
(Refer to P.52B-63.)

<Circuit inspection between the SRS-ECU and the front passenger's seat belt pretensioner>
Measure the resistance at the C-40 SRS-ECU connector.

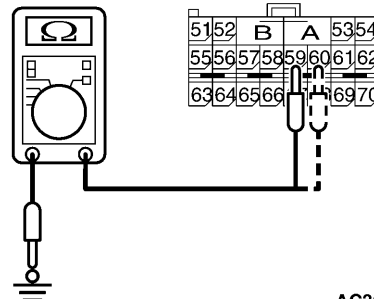
- Disconnect the C-40 SRS-ECU connector.
- Disconnect the D-26 front passenger's seat belt pretensioner connector.
- Measure at the harness side.
- Continuity between terminals 58, 60 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-40 connector
(harness side) rear view



AC301574

NG

NG

Check the following connectors:
C-143, C-40, D-26

OK

Check the trouble symptoms.

NG

OK

Replace the SRS-ECU.
(Refer to P.52B-63.)

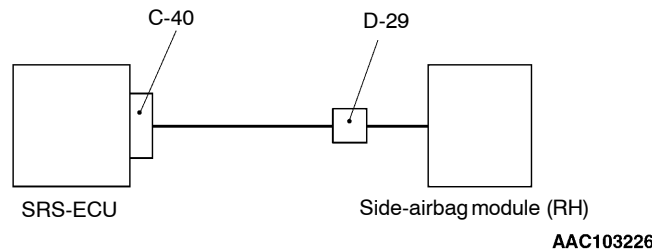
Repair

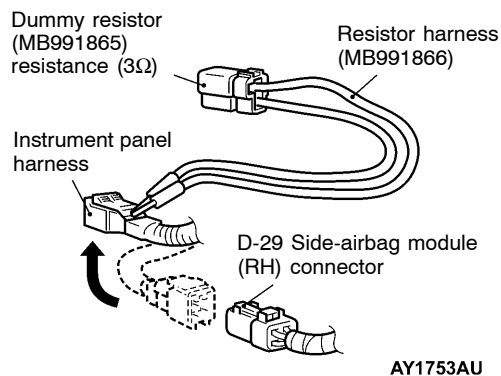
Check the harness between the front passenger's seat belt pretensioner and the SRS-ECU, and repair if necessary.

Code No.71 Side-airbag module (RH) (squib) system (short circuit between terminals of the squib circuit)	Possible cause
This code is output at the time of short circuit between terminals of the side-airbag module (RH) (squib) circuit. However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)	<ul style="list-style-type: none"> • Improper connector engagement or defective short spring* • Short circuit between terminals of the side-airbag module (RH) (squib) circuit • Faulty connector • SRS-ECU inoperable

NOTES:

- *: Since the squib circuit connector has a built-in short spring (to prevent erroneous deployment operation due to static electricity or etc. by short-circuiting the positive (+) cable and the negative (-) cable when the connector is not connected), improper engagement of the connector shown below or the faulty connector may cause the failure of short spring release despite the fact that the connector has been connected. Therefore, disconnect the connector shown in the illustration below once and then reconnect it before carrying out the following troubleshooting. Check the diagnosis code output again after erasing the memory of the diagnosis code. If the diagnosis code is not output, the improper connector engagement may be the cause of the above-mentioned code output.





<Side-airbag module (RH) (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) battery terminal.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Disconnect the D-29 side-airbag module (RH) connector and insert the special tool resistor harness (MB991866) from the behind of the harness side connector.

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.71 output?

YES

NO

<Circuit inspection between the SRS-ECU and the side-airbag module (RH)>

Measure the resistance at the C-40 SRS-ECU connector.

- Disconnect the C-40 SRS-ECU connector.
- Disconnect the D-29 Side-airbag module (RH) connector.

Caution:

Disconnect this connector and short-circuit the squib circuit so that the short spring of the SRS-ECU connector can be released in the following operation.

- Insert the cable tie or etc. (width: 3 mm, thickness: 0.5 mm) between terminals 57 or 58 and the short bar to release the short spring. (See Illustration A.)

Caution:

Insert the insulator for 4 mm or more to avoid a possible failure in release of the short spring.

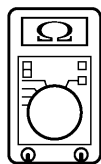
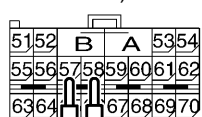
- Measure at the harness side.
- Continuity inspection between terminals 57 and 58

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-40 connector
(harness side) rear view



AC301573

OK

Replace the SRS-ECU. (Refer to P.52B-63.)

Replace front seatback assembly. (Refer to P.52B-64.)

NG

Check the following connectors: C-40, D-29

YES

NG

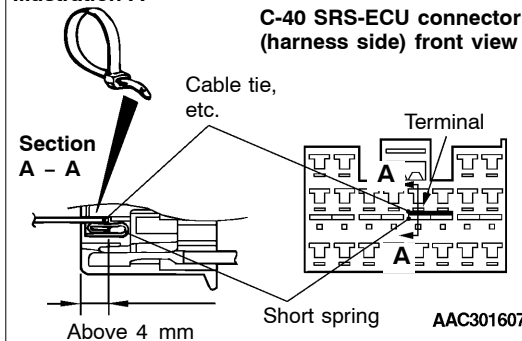
Check the trouble symptoms.

Repair

NG

Check the harness between the side-airbag module (RH) and the SRS-ECU, and repair if necessary.

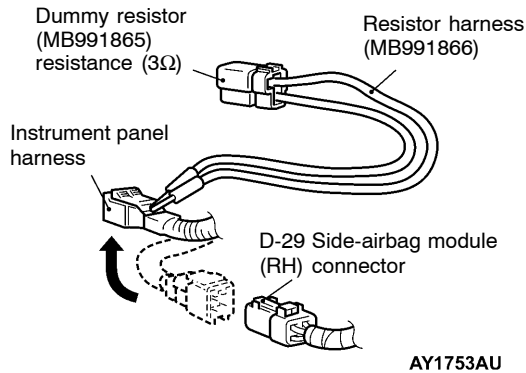
Illustration A



**Code No.72 Side-airbag module (RH) (squib) system
(short circuit between terminals of the squib circuit)****Probable cause**

This code is output when the side-airbag module (RH) (squib) circuit becomes an open circuit.
However, SRS warning lamp goes out when a normal operation is resumed
(diagnosis code is not cleared.)

- Open in the side-airbag module (RH) (squib) circuit
- Connector improper contact
- SRS-ECU malfunction

**<Side-airbag module (RH) (squib) inspection>****MUT-II Self-diag code**

- Disconnect the negative (–) battery terminal.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Disconnect the D-29 side-airbag module (RH) connector and insert the special tool resistor harness (MB991866) from the behind of the connector (harness side).

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (–) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.72 output?

YES

NO

<Circuit inspection between the SRS-ECU and the side-airbag module (RH)>

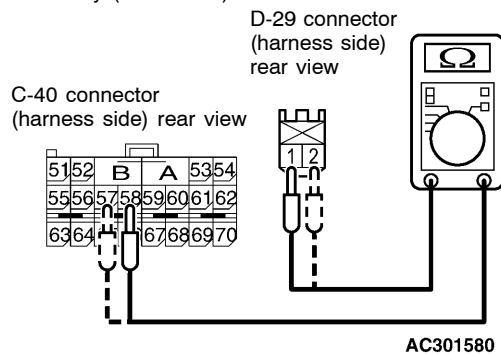
Measure the resistance at the C-40 SRS-ECU connector and D-29 side-airbag module (RH) connector.

- Disconnect the C-40 SRS-ECU connector and the D-29 side-airbag module (RH) connector and measure at the harness side.
 - Continuity inspection between the following terminals
- | C-40 connector | | D-29 connector |
|----------------|---|----------------|
| 57 | – | 2 |
| 58 | – | 1 |

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: Continuity (2Ω or less)



OK

Replace the SRS-ECU. (Refer to P.52B-63.)

Replace the front seatback assembly. (Refer to P.52B-64.)

NG

Check the following connectors: C-40, D-29

OK

Check the trouble symptoms.

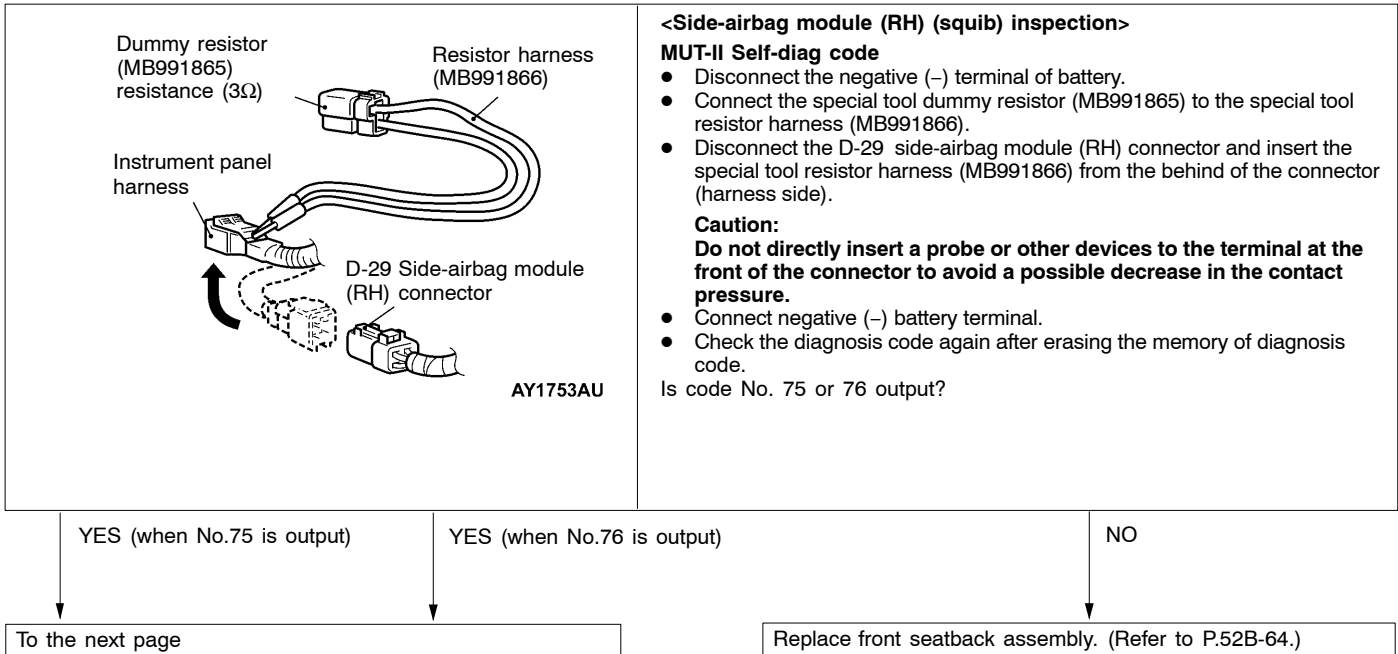
NG

Check the harness between the side-airbag module (RH) and the SRS-ECU, and repair if necessary.

NG

Repair

Code No.75 Side-airbag module (RH) (squib) system (short-circuited to power supply)	Probable cause
Code No.76 Side-airbag module (RH) (squib) system (short-circuited to earth)	
This code is output when the side-airbag module (RH) (squib) input terminal has short-circuited to the power supply (code No.75) or short-circuited to earth (code No.76).	<ul style="list-style-type: none"> Faulty connector The side-airbag module (RH) (squib) harness has short-circuited to the power supply (code No. 75) or short-circuited to the earth (code No. 76). SRS-ECU inoperable



From the previous page

YES (When No.75 is output)

YES (When No.76 is output)

<Circuit inspection between the SRS-ECU and the side-airbag module (RH)>

Measure the voltage at the C-40 SRS-ECU connector.

- Disconnect the C-40 SRS-ECU connector.
- Disconnect the D-29 side-airbag module (RH) connector.
- Ignition switch: ON
- Measure at the harness side.
- Voltage between terminals 57, 58 and body earth.

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: 0 V

C-40 connector
(harness side) rear view

AC301579

OK

NG

Replace the SRS-ECU.
(Refer to P.52B-63.)

<Circuit inspection between the SRS-ECU and the side-airbag module (RH)>

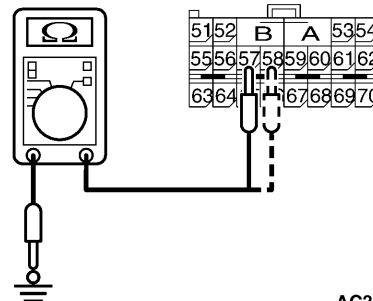
Measure the resistance at the C-40 SRS-ECU connector.

- Disconnect the C-40 SRS-ECU connector.
- Disconnect the D-29 side-airbag module (RH) connector.
- Measure at the harness side.
- Continuity between terminals 57, 58 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-40 connector
(harness side) rear view

AC301576

OK

Replace SRS-ECU.
(Refer to P.52B-63.)

NG

Check the following connectors: C-40, D-29

OK

Check the trouble symptoms.

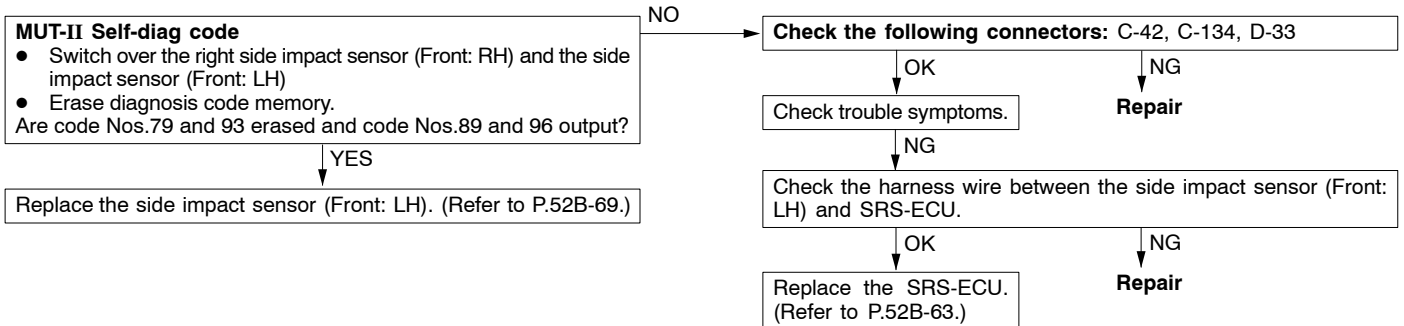
NG

Check the wiring harness between
side-airbag module (RH) and SRS-ECU, and
repair if necessary.

NG

Repair

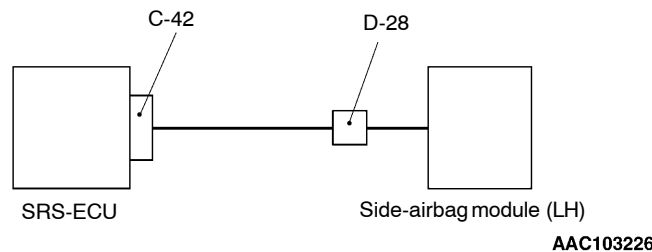
Code No.79 or No.93 Side impact sensor (Front: LH) communication system	Probable cause
These diagnosis code are output if communication between the side impact sensor (Front: LH) and the SRS-ECU is not possible (code No.79) or abnormal (code No.93).	<ul style="list-style-type: none"> • Malfunction of wiring harnesses or connectors • Malfunction of side impact sensor (Front: LH) • Malfunction of SRS-ECU

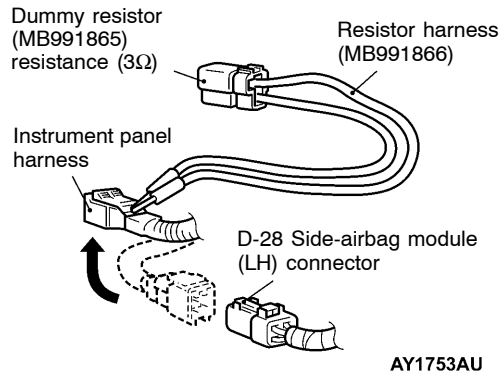


Code No.81 Side-airbag module (LH) (squib) system (short circuit between terminals of the squib circuit)	Possible cause
This code is output at the time of short circuit between terminals of the side-airbag module (LH) (squib) circuit. However, SRS warning lamp goes out when a normal operation is resumed (diagnosis code is not cleared.)	<ul style="list-style-type: none"> • Improper connector engagement or defective short spring* • Short circuit between terminals of the side-airbag module (LH) (squib) circuit • Faulty connector • SRS-ECU inoperable

NOTES:

- *: Since the squib circuit connector a built-in short spring (to prevent erroneous deployment operation due to static electricity or etc. by short-circuiting the positive (+) cable and the negative (-) cable when the connector is not connected), improper engagement of the connector shown below or the faulty connector may cause the failure of short spring release despite the fact that the connector has been connected. Therefore, disconnect the connect shown in the illustration below once and then reconnect it before carrying out the following troubleshooting. Check the diagnosis code output again after erasing the memory of the diagnosis code. If the diagnosis code is not output, the improper connector engagement may be the cause of the above-mentioned code output.





<Side-airbag module (LH) (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (-) battery terminal.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Disconnect the D-28 side-airbag module (LH) connector and insert the special tool resistor harness (MB991866) from the behind of the harness side connector.

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.81 output?

YES

NO

<Circuit inspection between the SRS-ECU and the side-airbag module (LH)>

Measure the resistance at the C-42 SRS-ECU connector.

- Disconnect the C-42 SRS-ECU connector.
- Disconnect the D-28 Side-airbag module (LH) connector.

Caution:

Disconnect this connector and short-circuit the squib circuit so that the short spring of the SRS-ECU connector can be released in the following operation.

- Insert the cable tie or etc. (width: 3 mm, thickness: 0.5 mm) between terminals 9 or 10 and the short bar to release the short spring. (See Illustration A.)

Caution:

Insert the insulator for 4 mm or more to avoid a possible failure in release of the short spring.

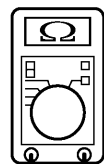
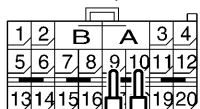
- Measure at the harness side.
- Continuity inspection between terminals 9 and 10

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-42 connector
(harness side) rear view



AC301562

OK

Replace the SRS-ECU. (Refer to P.52B-63.)

Replace front seatback assembly. (Refer to P.52B-64.)

NG

Check the following connectors: C-42, D-28

YES

NG

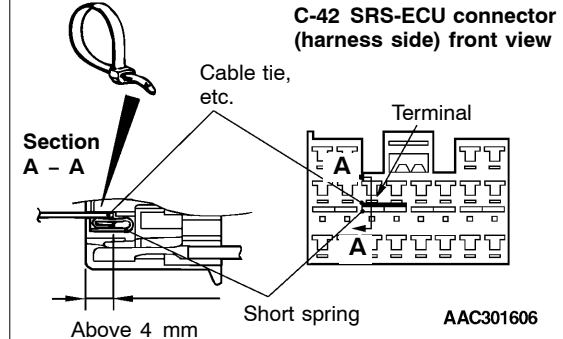
Check the trouble symptoms.

Repair

NG

Check the harness between the side-airbag module (LH) and the SRS-ECU, and repair if necessary.

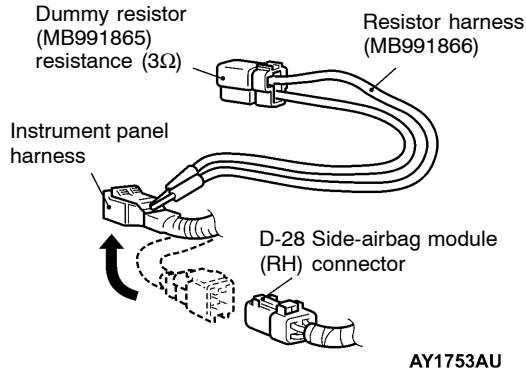
Illustration A



**Code No.82 Side-airbag module (LH) (squib) system
(short circuit between terminals of the squib circuit)****Probable cause**

This code is output when the side-airbag module (LH) (squib) circuit becomes an open circuit.
However, SRS warning lamp goes out when a normal operation is resumed
(diagnosis code is not cleared.)

- Open in the side-airbag module (LH) (squib) circuit
- Connector improper contact
- SRS-ECU malfunction

**<Side-airbag module (LH) (squib) inspection>****MUT-II Self-diag code**

- Disconnect the negative (-) battery terminal.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Disconnect the D-28 side-airbag module (LH) connector and insert the special tool resistor harness (MB991866) from the behind of the connector (harness side).

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect the negative (-) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No.82 output?

YES

NO

<Circuit inspection between the SRS-ECU and the side-airbag module (LH)>

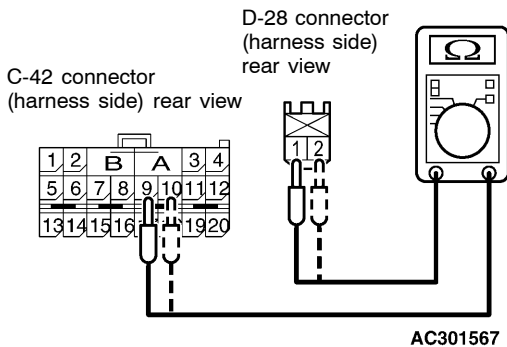
Measure the resistance at the C-42 SRS-ECU connector and D-28 side-airbag module (LH) connector.

- Disconnect the C-42 SRS-ECU connector and the D-28 side-airbag module (LH) connector and measure at the harness side.
 - Continuity inspection between the following terminals
- | C-42 connector | | D-28 connector | |
|----------------|---|----------------|--|
| 9 | - | 1 | |
| 10 | - | 2 | |

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: Continuity (2Ω or less)



OK

Replace the SRS-ECU. (Refer to P.52B-63.)

Replace the front seatback assembly. (Refer to P.52B-64.)

NG

Check the following connectors: C-42, D-28

OK

Check the trouble symptoms.

NG

Check the harness between the side-airbag module (LH) and the SRS-ECU, and repair if necessary.

NG

Repair

Code No.85 Side-airbag module (LH) (squib) system (short-circuited to power supply)	Probable cause
Code No.86 Side-airbag module (LH) (squib) system (short-circuited to earth)	
This code is output when the side-airbag module (LH) (squib) input terminal has short-circuited to the power supply (code No.85) or short-circuited to earth (code No.86).	<ul style="list-style-type: none"> Faulty connector The side-airbag module (LH) (squib) harness has short-circuited to the power supply (code No. 85) or short-circuited to the earth (code No. 86). SRS-ECU inoperable

Dummy resistor (MB991865) resistance (3Ω)

Resistor harness (MB991866)

Instrument panel harness

D-28 Side-airbag module (LH) connector

AY1753AU

<Side-airbag module (LH) (squib) inspection>

MUT-II Self-diag code

- Disconnect the negative (–) terminal of battery.
- Connect the special tool dummy resistor (MB991865) to the special tool resistor harness (MB991866).
- Disconnect the D-28 side-airbag module (LH) connector and insert the special tool resistor harness (MB991866) from the behind of the connector (harness side).

Caution:
Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

- Connect negative (–) battery terminal.
- Check the diagnosis code again after erasing the memory of diagnosis code.

Is code No. 85 or 86 output?

YES (when No.85 is output)

↓

To the next page

YES (when No.86 is output)

↓

To the next page

NO

↓

Replace front seatback assembly. (Refer to P.52B-64.)

From the previous page

YES (When No.85 is output)

YES (When No.86 is output)

<Circuit inspection between the SRS-ECU and the side-airbag module (LH)>

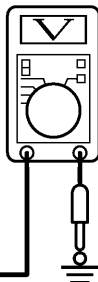
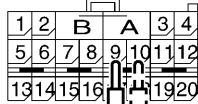
Measure the voltage at the C-42 SRS-ECU connector.

- Disconnect the C-42 SRS-ECU connector.
- Disconnect the D-28 side-airbag module (LH) connector.
- Ignition switch: ON
- Measure at the harness side.
- Voltage between terminals 9, 10 and body earth.

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: 0 V

C-42 connector
(harness side) rear view

AC301570

OK

NG

Replace the SRS-ECU.
(Refer to P.52B-63.)

<Circuit inspection between the SRS-ECU and the side-airbag module (LH)>

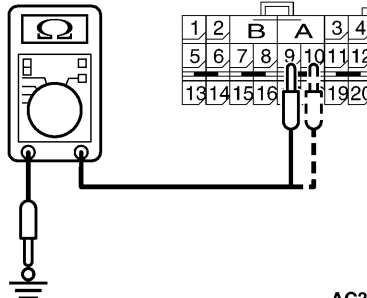
Measure the resistance at the C-42 SRS-ECU connector.

- Disconnect the C-42 SRS-ECU connector.
- Disconnect the D-28 side-airbag module (LH) connector.
- Measure at the harness side.
- Continuity between terminals 9, 10 and body earth

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

OK: No continuity

C-42 connector
(harness side) rear view

AC301569

OK

Replace SRS-ECU.
(Refer to P.52B-63.)

NG

Check the following connectors: C-42, D-28

NG

Repair

OK

Check the trouble symptoms.

NG

Check the wiring harness between
side-airbag module (LH) and SRS-ECU, and
repair if necessary.

Code No.89 or No.96**Side impact sensor (Front: RH) communication system****Probable cause**

These diagnosis code are output if communication between the side impact sensor (Front: RH) and the SRS-ECU is not possible (code No.89) or abnormal (code No.96).

- Malfunction of wiring harnesses or connectors
- Malfunction of side impact sensor (Front: RH)
- Malfunction of SRS-ECU

MUT-II Self-diag code

- Switch over the side impact sensor (Front: LH) and the side impact sensor (Front: RH)
 - Erase diagnosis code memory.
- Are code Nos.89 and 96 erased and code Nos.79 and 93 output?

YES

Replace the side impact sensor (Front: RH). (Refer to P.52B-69.)

NO

Check the following connectors: C-40, C-143, D-34

OK

Check trouble symptoms.

NG

Check the harness wire between the side impact sensor (Front: RH) and SRS-ECU.

OK

Replace the SRS-ECU.
(Refer to P.52B-63.)

NG

Repair

NG

Repair

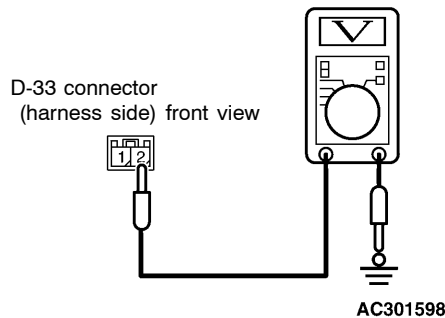
Code No.91 Side impact sensor (Front: LH) power supply circuit system**Probable cause**

Power supply voltage of side impact sensor (Front: LH) is lower than specified for five successive seconds or more.
However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.

- Defective wiring harnesses or connectors
- Malfunction of side impact sensor (Front: LH)
- Malfunction of SRS-ECU

Measure at side impact sensor (Front: LH) connector D-33.

- Disconnect connector and measure at the harness side.
 - Connect negative (-) battery terminal.
 - Ignition switch: ON
 - Voltage between terminal No.2 and body earth.
- OK:** 9 V or more



OK

Replace side impact sensor (Front: LH). (Refer to P.52B-69.)

NG

Check the following connectors: D-33, C-134, C-42

OK

Check trouble symptoms.

NG

Check harness wire between side impact sensor (Front: LH) and SRS-ECU.

OK

Replace SRS-ECU.
(Refer to P.52B-63.)

NG

Repair

NG

Repair

Code No.92, 95 Side impact sensor (Front) system	Probable cause
Code No.92 is displayed when malfunction is present inside side impact sensor (Front: LH). Code No.95 is displayed when malfunction is present inside side impact sensor (Front: RH). <ul style="list-style-type: none"> Not working Having abnormal Having abnormal output 	<ul style="list-style-type: none"> Malfunction of side impact sensor (Front: LH) (Code No.92) Malfunction of side impact sensor (Front: RH) (Code No.95)

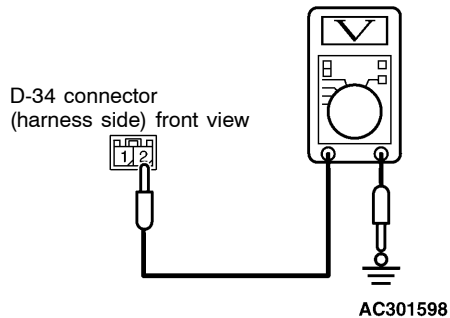
Replace side impact sensor (Front: LH) (code No.92).
 (Refer to P.52B-69.)
 Replace side impact sensor (Front: RH) (code No.95).
 (Refer to P.52B-69.)

Code No.94 Side impact sensor (Front: RH) power supply circuit system	Probable cause
Power supply voltage of side impact sensor (Front: RH) is lower than specified for five successive seconds or more. However, once trouble is extinguished, this code will be automatically erased, and SRS warning lamp will go out.	<ul style="list-style-type: none"> Defective wiring harnesses or connectors Malfunction of side impact sensor (Front: RH) Malfunction of SRS-ECU

Measure at side impact sensor (Front: RH) connector D-34.

- Disconnect connector and measure at the harness side.
- Connect negative (-) battery terminal.
- Ignition switch: ON
- Voltage between terminal No.2 and body earth.

OK: 9 V or more



OK

Replace side impact sensor (Front: RH). (Refer to P.52B-69.)

NG

Check the following connectors: D-34, C-143, C-40

OK

Check trouble symptoms.

NG

Check harness wire between side impact sensor (Front: RH) and SRS-ECU.

OK

Replace SRS-ECU.
 (Refer to P.52B-63.)

NG

Repair

Repair

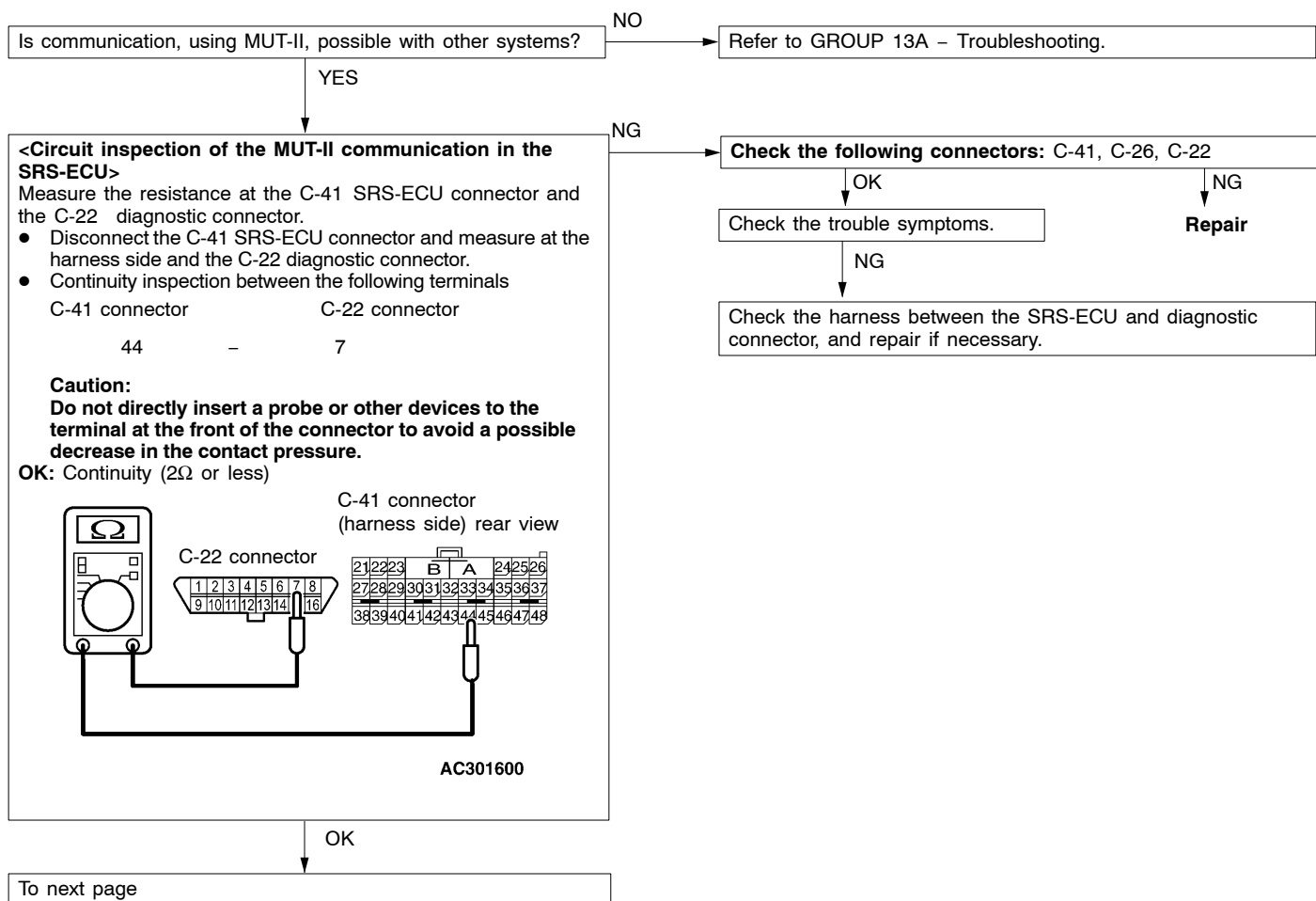
INSPECTION CHART FOR TROUBLE SYMPTOMS

Trouble symptom	Inspection Procedures No. for Trouble Symptoms	Reference page
Cannot communicate with MUT-II.	1	52B-57
The SRS warning lamp does not illuminate.	Refer to diagnosis code No.43.	52B-38
The SRS warning lamp does not go out.	Refer to diagnosis code No.43 and No.44.	52B-38

INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

Inspection Procedure 1

Cannot communicate with MUT-II.	Probable Cause
If cannot communicate with any other system, it is highly likely that the problem is a diagnosis circuit fault. If only communication with the SRS air bag cannot be established, open in the diagnosis output circuit or power supply circuit (including earth circuit) in the SRS-ECU may be the cause.	<ul style="list-style-type: none"> • Harness or connector fault • SRS-ECU defective • MUT ROM pack unmatching



From previous page

OK

<SRS-ECU power supply circuit (including earth circuit) inspection>

Measure the resistance and the voltage at the C-41 SRS-ECU connector.

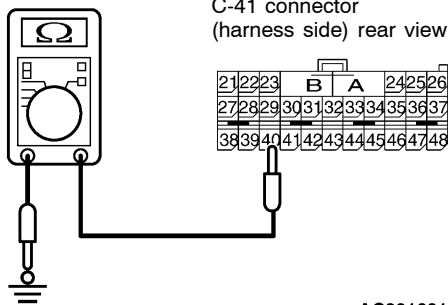
- Disconnect the C-41 SRS-ECU connector and measure at the harness side.

Caution:

Do not directly insert a probe or other devices to the terminal at the front of the connector to avoid a possible decrease in the contact pressure.

- (1) Continuity between terminal 40 and body earth

OK: Continuity (2Ω or less)

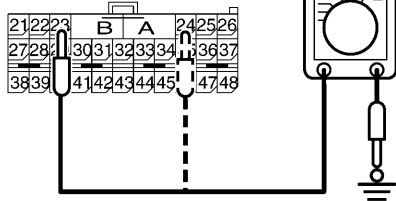


AC301601

- Connect the negative (-) terminal of battery.
 - Ignition switch: ON
- (2) Voltage between terminal 23 and body earth
OK: 9 V or more

- (3) Voltage between terminal 24 and body earth
OK: 9 V or more

C-41 connector
(harness side) rear view



AC301602

(1) NG

Check the following connector: C-41

OK

Check the trouble symptoms.

NG

Check the harness between the SRS-ECU and earth, and repair if necessary.

NG

Repair(2), (3)
NG

Check the following connectors: C-41, C-213

OK

Check the trouble symptoms.

NG

Check the harness between the SRS-ECU and the ignition switch IG₁, and repair if necessary.

NG

Repair

OK

Replace the SRS-ECU. (Refer to P.52B-63.)

SRS MAINTENANCE

SRS COMPONENT VISUAL CHECK

The items other than below are the same procedures as before.

SRS CONTROL UNIT (SRS-ECU)

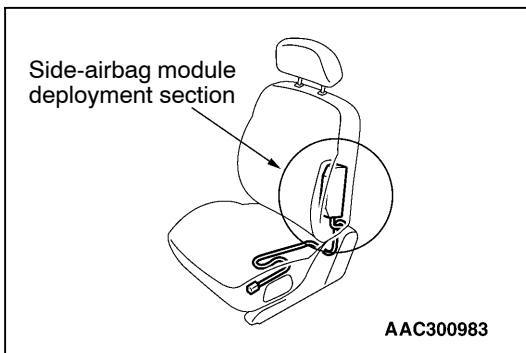
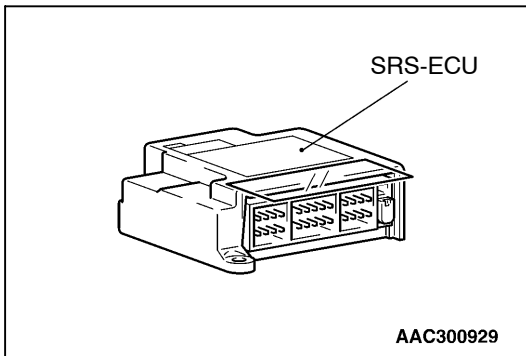
1. Check SRS-ECU case and brackets for dents, cracks, deformation or rust.

Caution

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.

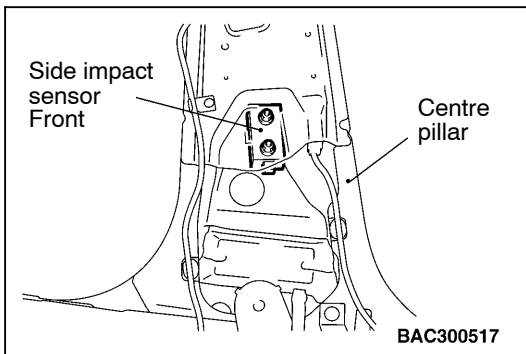
2. Check connector for damage, and terminals for deformation or rust.

Replace SRS-ECU if it fails visual check. (Refer to P.52B-63.)



FRONT SEATBACK ASSEMBLY WITH SIDE-AIRBAG MODULE

1. Check the side-airbag module deployment section in the seat for dents and deformation.
2. Check the harness for binds, the connector for damage and the terminals for deformation.



SIDE IMPACT SENSORS

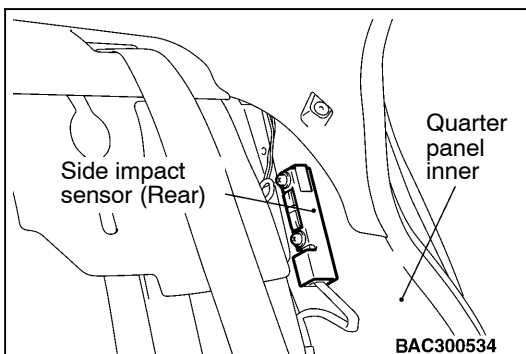
1. Check the centre pillar and quarter inner panel for deformation or rust.
2. Check the side impact sensors for dents, cracks, deformation and rust.
3. Check the connector for damage and the terminals for deformation.

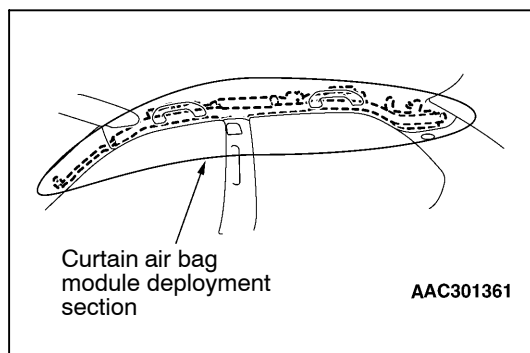
NOTE

The figures show side impact sensors (LH). The side impact sensors (RH) is symmetrical with the side impact sensors (LH).

Caution

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





CURTAIN AIR BAG MODULE

1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the air bag for breakage.
4. Check the connector for damage, the terminal for deformation and the harness for binding.

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POST-COLLISION DIAGNOSIS

Check and service the vehicle after collision as follows regardless of the operation of the pre-tensioner:

SRS-ECU MEMORY CHECK

The check procedure is the same as before.

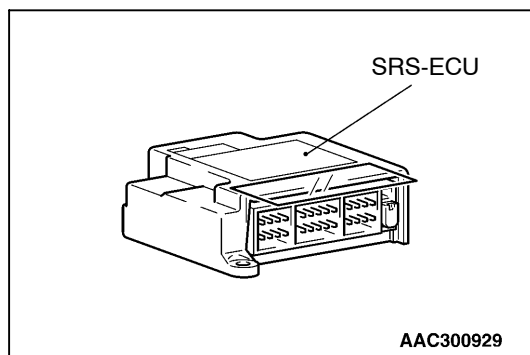
REPAIR PROCEDURE

WHEN FRONT AIR BAGS DEPLOY IN A COLLISION

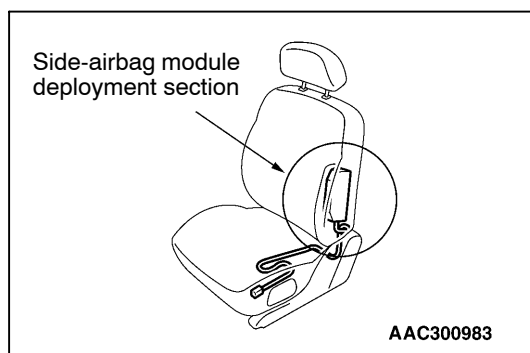
1. Replace the following parts with new ones.
 - SRS-ECU (Refer to P.52B-63.)
 - Driver's air bag module
 - Front passenger's air bag module
 - Seat belt with pre-tensioner
 - Instrument panel
2. Check the following parts and replace if there are any malfunctions.
 - Clock spring
 - Steering wheel, steering column and shaft assembly
 - (1) Check the wiring harness (built into the steering wheel) and connectors for damage, and terminals for deformation.
 - (2) Install the air bag module to check fit or alignment with the steering wheel.
 - (3) Check the steering wheel for noise, binds or difficult operation and excessive free play.
 - (4) Check the steering column shaft shock absorbing mechanism
3. Check the harness for binding, connectors for damage, poor connections, and terminals for deformation

WHEN SIDE AIR BAGS DEPLOY IN A COLLISION

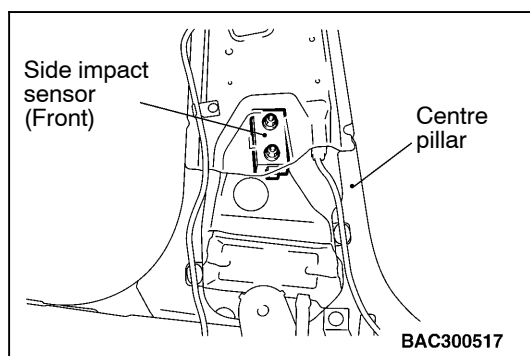
1. Replace the following parts with new ones.
 - Front seatback assembly (Refer to P.52B-64.)
 - Curtain air bag module (Refer to P.52B-64.)
 - Side impact sensor (Refer to P.52B-69.)
 - Headlining
 - Front pillar trim, Centre pillar trim, Rear pillar trim (Refer to GROUP 52A – Trims.)
2. Check the harness for binding, connectors for damage, poor connections, and terminals for deformation

**SRS-ECU**

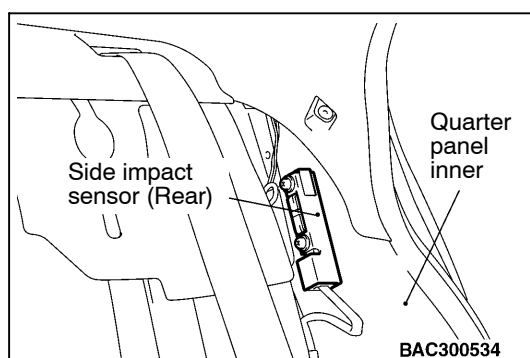
1. Check the SRS-ECU case and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check the SRS-ECU and bracket for proper installation.

**FRONT SEAT ASSEMBLY (with SIDE-AIRBAG MODULE)**

1. Check the side air bag module deployment section in the seat for dents and deformation.
2. Check the connectors for damage, the terminals for deformation, and the harness for binds.

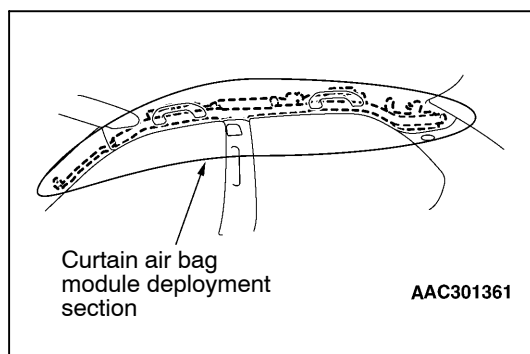
**SIDE IMPACT SENSORS****<Front>**

1. Check the centre pillar for deformation or rust.
2. Check the side impact sensors for dents, cracks, deformation and rust.
3. Check the connector for damage and the terminals for deformation.

**<Rear>**

1. Check the quarter panel inner for deformation or rust.
2. Check the side impact sensors for dents, cracks, deformation and rust.
3. Check the case and connector for damage and the terminal for deformation.

NOTE: The figures show side impact sensors (RH). The side impact sensors (LH) is symmetrical with the side impact sensors (RH).

**CURTAIN AIR BAG MODULE**

1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the air bag for breakage.
4. Check the connector for damage, the terminal for deformation and the harness for binding.

INDIVIDUAL COMPONENT SERVICE

If the SRS components are to be removed or replaced as a result of maintenance, troubleshooting, etc., follow the appropriate procedure in this section. (SRS-ECU: refer to P.52B-63, Side-airbag module: refer to P.52B-64, Curtain air bag module: refer to P.52B-64.)

Caution

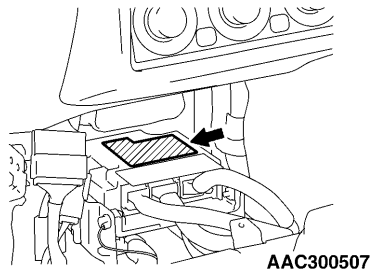
- The following parts should be removed before drying or baking the vehicle after painting.
 - SRS-ECU, air bag modules, clock spring: 93°C or more
 - Seat belt with pre-tensioner: 90°C or more
- If the SRS components are removed for the purpose of check, sheet metal repair, painting, etc., they should be stored in a clean, dry place until they are reinstalled.

WARNING/CAUTION LABELS

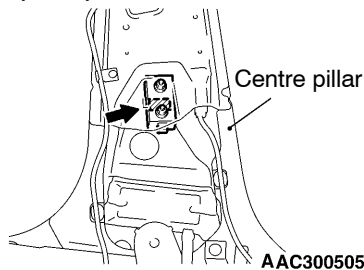
Labels indicating cautions regarding handling and servicing of SRS air bag and seat belt with pretensioner are attached at the locations in the illustration shown below. Carry out service operation according to the instructions on the label. If the label is damaged or dirty, replace it with a new one.

NOTE: The warning/caution labels are the same as before except for the items shown below.

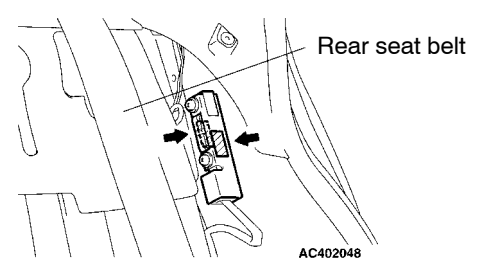
SRS-ECU



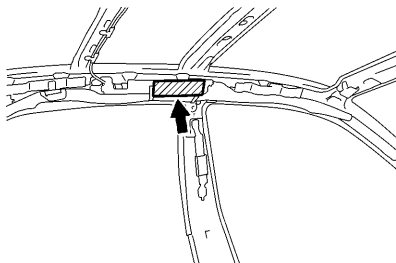
Side impact sensor
(Front)



(Rear)

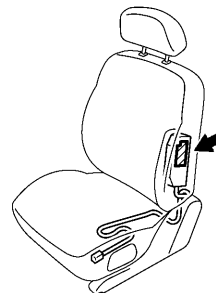


Curtain air bag module



AAC300553

Side-airbag module



AAC300984

SRS AIR BAG CONTROL UNIT (SRS-ECU)

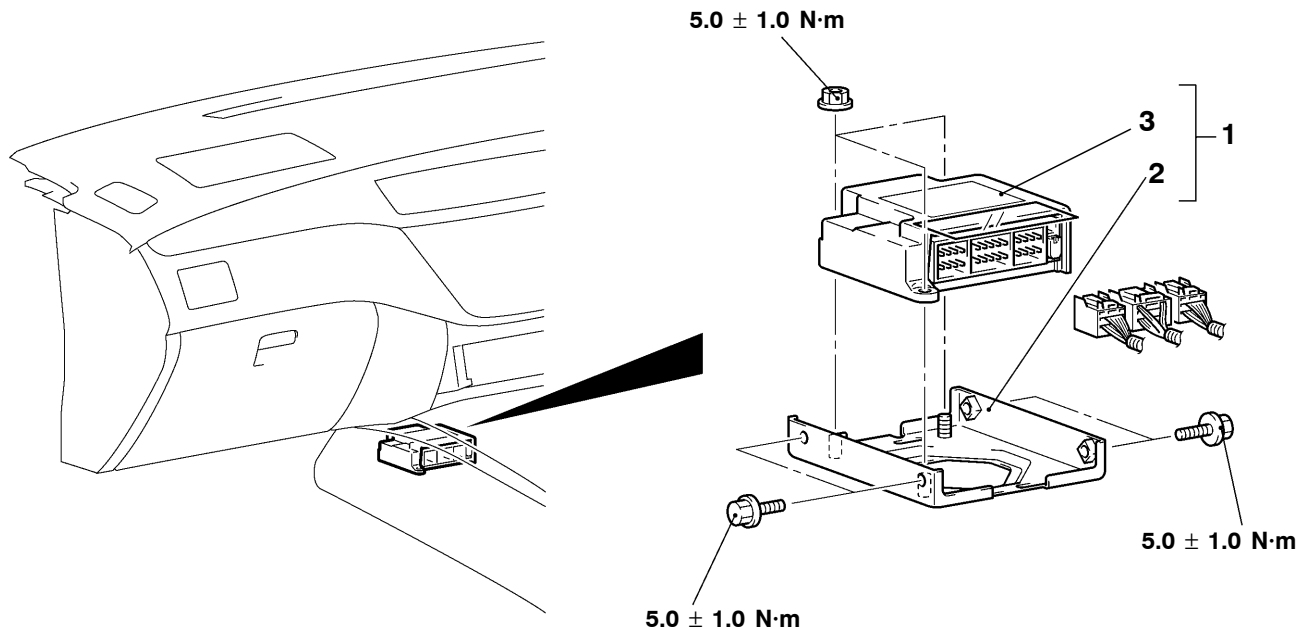
Caution

- Disconnect the negative (-) battery terminal and wait for 60 seconds or more before starting work. Also, the disconnected battery terminal should be insulated with tape.
- Never attempt to disassemble or repair the SRS-ECU. If faulty, just replace with a new one.
- Do not drop or subject the SRS-ECU to impact or vibration. If denting, cracking, deformation, or rust are found in the SRS-ECU, replace it with a new one. Discard the old one.
- After deployment of the air bags, 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-6.

REMOVAL AND INSTALLATION

Pre-removal Operation

- Turn Ignition Key to LOCK (OFF) Position.
- Disconnect the Negative (-) Battery Terminal.



Removal steps

- Front floor console
 - Rear heater duct B
<Vehicles with rear heater duct>
1. SRS-ECU and SRS-ECU bracket assembly
 2. SRS-ECU
 3. SRS-ECU bracket

Installation steps

- ▶A◀ 3. SRS-ECU bracket
2. SRS-ECU
1. SRS-ECU and SRS-ECU bracket assembly
 - Rear heater duct B
<Vehicles with rear heater duct>
 - Front floor console
 - Negative (-) battery terminal connection
- ▶B◀ • Post-installation inspection

NOTE: Installation service points are the same as before.

SIDE CURTAIN AIR BAG MODULE

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[Group TOC](#)

Caution

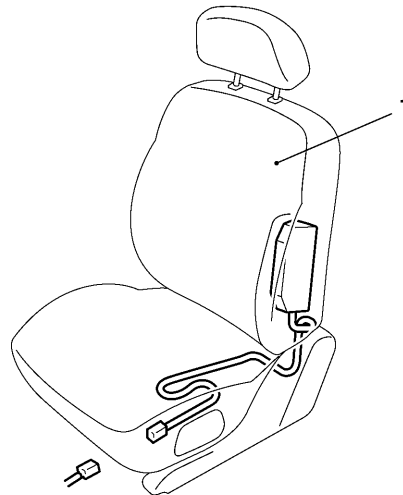
- Disconnect the negative (–) battery terminal and wait for 60 seconds or more before starting work. Also, the disconnected battery terminal should be insulated with tape.
- Never attempt to disassemble or repair the air bag module. If faulty, replace the part with a new one.
- Take care not to drop or expose the air bag module to water or oil when handling it. In addition, if any dent, crack or deformation is found in the part, be sure to replace the faulty part with a new one.
- Place the air bag module facing the surface of air bag deployment upward to store it on a level surface. In addition, avoid putting a heavy object on top of the air bag module.
- Never attempt to store the air bag module in a place where the temperature exceeds 93°C.
- After deployment of the side/curtain air bags, replace the front seatback assembly and curtain air bag module with new ones.
- Be sure to wear gloves and protective glasses when handling the deployed air bag.
- If a folded air bag module needs to be disposed, be sure to deploy the air bag before disposal. (Refer to P.52B-72.)

REMOVAL AND INSTALLATION

Front seat assembly with side-airbag module

Pre-removal Operation

- Turn Ignition Key to LOCK (OFF) Position.
- Disconnect the Negative (–) Battery Terminal.



AAC301340

Removal steps



1. Front seat assembly

Installation steps



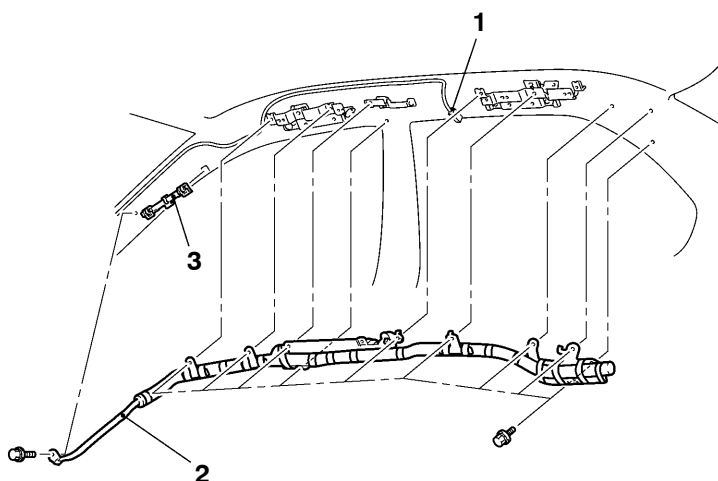
- Pre-installation inspection
- 1. Front seat assembly
- Negative (–) battery terminal connection
- Post-installation inspection



Curtain air bag module

Pre-removal Operation

- Turn Ignition Key to LOCK (OFF) Position.
- Disconnect the Negative (-) Battery Terminal.



AAC402058

Removal steps

- Front floor console
 - Headlining
1. Connector
 2. Curtain air bag module
 3. Strap guide bracket

Installation steps

- A◀
- Pre-installation inspection
- B◀
3. Strap guide bracket
 2. Curtain air bag module
 1. Connector
- Headlining
 - Front floor console
 - Negative (-) battery terminal connection
- C◀
- Post-installation inspection

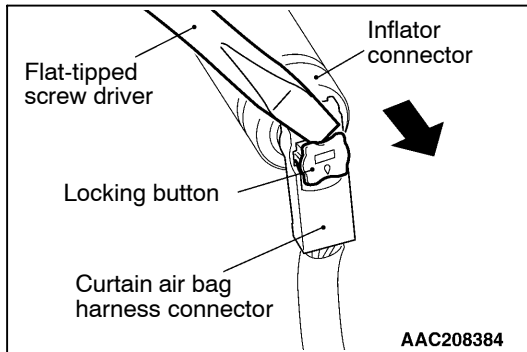
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REMOVAL SERVICE POINTS**◀A▶ FRONT SEAT ASSEMBLY REMOVAL**

Refer to GROUP 52A – Seat.

Caution

If the air bag module needs to be disposed, be sure to follow the regular procedure and deploy the air bag before disposal. (Refer to P.52B-76.)

**◀B▶ CONNECTOR REMOVAL**

Use a flat-tipped screwdriver to pull out forward and unlock the locking button of the curtain air bag harness-side connector.

INSTALLATION SERVICE POINTS**▶A◀ PRE-INSTALLATION INSPECTION**

1. Even new air bag modules require inspection before installation. (Refer to P.52B-68.)

Caution

When discarding the air bag module or seatback assembly, deploy the air bag as specified in the service procedure. (Refer to P.52B-72.)

2. Connect the negative (–) battery terminal.
3. Connect the MUT-II to the diagnosis connector (16-pin).

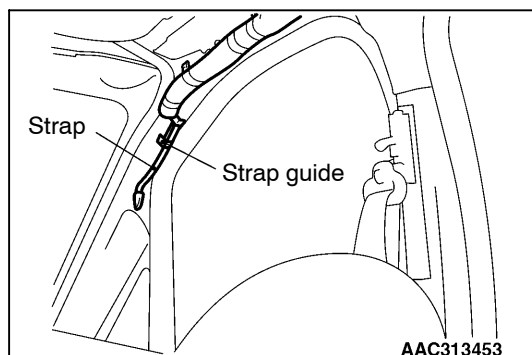
Caution

Turn the ignition switch to LOOK (OFF) position when connecting and disconnecting the MUT-II.

4. Turn the ignition switch to ON.
5. Read a diagnostic code to refer to that the SRS is operating properly except an open in the air bag module circuit.
6. Turn the ignition switch to LOCK (OFF) position. Disconnect the negative (–) battery cable and insulate with tape.

Caution

Wait at least 60 seconds after the disconnection of the battery cable before any further job. (Refer to P.52B-2.)

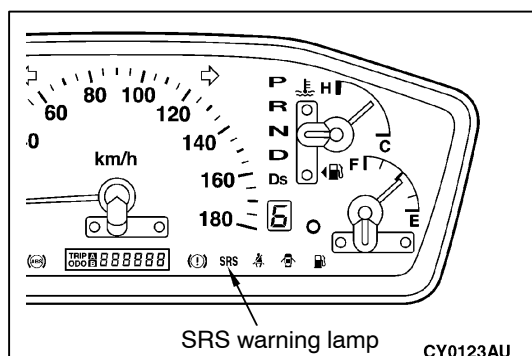


►B◄ CURTAIN AIR BAG MODULE INSTALLATION

Hang the strap on the strap guide.

Caution

- Take care not to contort the curtain air bag when installing it.
- Take care that the surrounding components do not trap the air bag.
- Take care that the front pillar trim clips or other do not trap the strap.



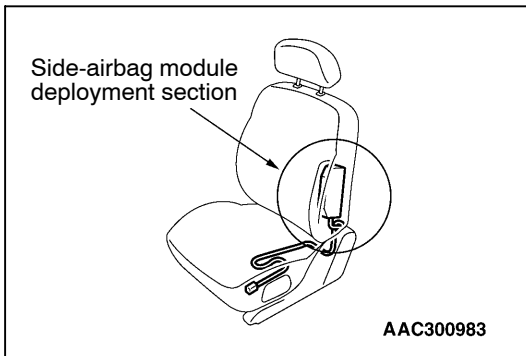
►C◄ POST-INSTALLATION CHECK

1. Lightly turn the steering wheel right and left to check if noise and malfunction are not present.
2. Turn the ignition switch to ON.
3. Does the SRS warning lamp illuminate for about 7 seconds and then go out for 5 seconds or more?
4. Yes: The SRS is working properly.
No: Go to Troubleshooting (Refer to P.52-6.)

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INSPECTION

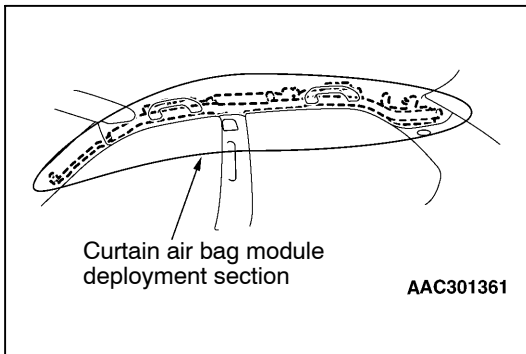
FRONT SEATBACK ASSEMBLY WITH SIDE-AIRBAG MODULE CHECK

Caution

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.

If any fault is found in the following inspection, replace the part with a new seat frame assembly. After the seat frame assembly is removed, deploy the side air bag according to the regular procedure before disposal. (Refer to P.52B-72.)

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



CURTAIN AIR BAG MODULE CHECK

Caution

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.

If any fault is found in the following inspection, replace the part with a new curtain air bag. After the curtain air bag is removed, deploy the side air bag according to the regular procedure before disposal. (Refer to P.52B-72.)

1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the air bag for breakage.
4. Check the connector for damage, the terminal for deformation and the harness for binding.

SIDE IMPACT SENSOR

Caution

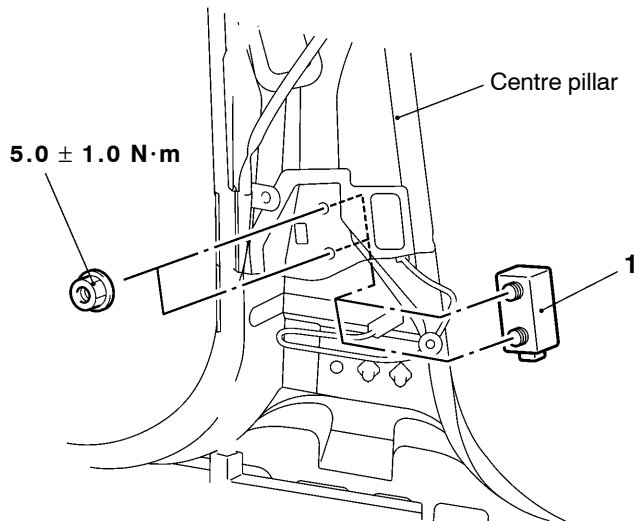
- Disconnect the negative (-) battery terminal and wait for 60 seconds or more before starting work. Also, the disconnected battery terminal should be insulated with tape.
- Never attempt to disassemble or repair the side impact sensor. If faulty, replace the sensor with a new one.
- Take care not to drop or subject the side impact sensor to vibration or impact when handling it. In addition, if any dent, crack or deformation is found, be sure to replace the faulty sensor with a new one.
- After deployment of the side/curtain air bag, replace the sensor with a new one.

REMOVAL AND INSTALLATION

Pre-removal Operation

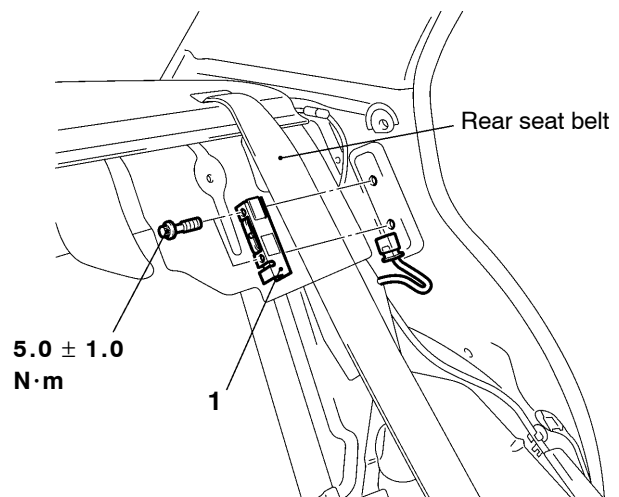
- Turn Ignition Key to LOCK (OFF) Position.
- Disconnect the Negative (-) Battery Terminal.

<Front>



AAC101041

<Rear>



AAC300615

Side impact sensor (front) removal steps

- Centre pillar trim lower
- Front seat belt
- 1. Side impact sensor (front)

Side impact sensor (rear) removal steps

- Rear seat cushion
- Rear seatback
- 1. Side impact sensor (rear)

Side impact sensor (front) installation steps

- ▶A◀ • Pre-installation inspection
- ▶B◀ 1. Side impact sensor (front)
 - Front seat belt
 - Centre pillar trim lower
 - Negative (-) battery terminal connection
- ▶C◀ • Post-installation inspection

Side impact sensor (rear) installation steps

- ▶A◀ • Pre-installation inspection
- ▶B◀ 1. Side impact sensor (rear)
 - Rear seatback
 - Rear seat cushion
 - Negative (-) battery terminal connection
- ▶C◀ • Post-installation inspection

INSTALLATION SERVICE POINTS**►A◄ PRE-INSTALLATION INSPECTION**

1. Be sure to conduct pre-installation inspection when a new side impact sensor is going to be installed. (Refer to P. 52B-71.)
2. Turn the ignition switch to ON.
3. Read a diagnostic code to refer to that the SRS is operating properly except an open in the air bag module circuit.
4. Turn the ignition switch to LOCK (OFF) position. Disconnect the negative (-) battery cable and insulate with tape.

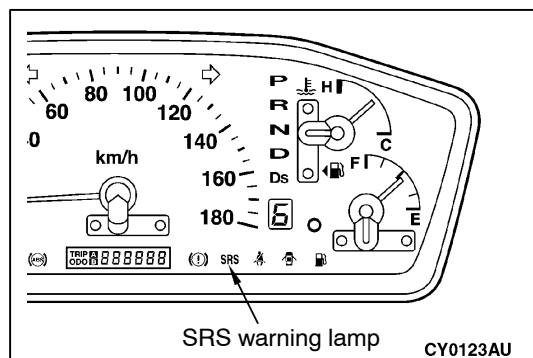
Caution

Wait at least 60 seconds after the disconnection of the battery cable before any further job. (Refer to P. 52B-3.)

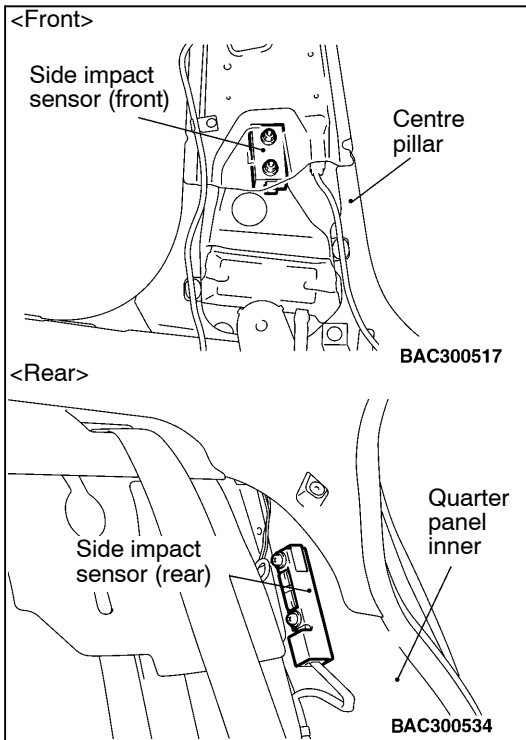
►B◄ SIDE IMPACT SENSOR (FRONT)/SIDE IMPACT SENSOR (REAR) INSTALLATION**Caution**

If the side impact sensor is not installed securely or correctly, the side air bag or curtain air bag will not work properly.

1. For secure installation, place the side impact sensor (front) so that the surface to adhere the caution label can face outward of the vehicle and place the side impact sensor (rear) so that the direction of an arrow indicated on the caution label can face outward of the vehicle.
2. Install the connector securely.

**►C◄ POST-INSTALLATION CHECK**

1. Lightly turn the steering wheel right and left to check if noise and malfunction are not present.
2. Turn the ignition switch to ON.
3. Does the SRS warning lamp illuminate for about 7 seconds and then go out for 5 seconds or more?
4. Yes: The SRS is working properly.
No: Go to Troubleshooting (Refer to P.52-6).



INSPECTION

- Dent, crack, deformation on the side impact sensor
- Damage in the connector and deformation on the terminal
- Deformation and rust on the centre pillar and quarter panel inner

Caution

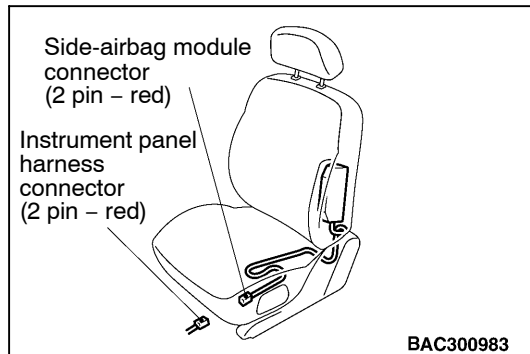
If any dent, crack or deformation is found in the SRS-ECU, replace the component with a new one.

NOTE

For inspections on side impact sensor other than the above-mentioned items, refer to the section regarding troubleshooting.(Refer to P.52B-6.)

AIR BAG MODULE DISPOSAL PROCEDURES

The procedure is the same as before except for the items shown below.

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UNDEPLOYED AIR BAG MODULES DEPLOYMENT INSIDE THE VEHICLE

NOTE

For the driver's/front passenger's airbag module and seat belt pretensioner, the procedures are the same as before.

<Side-airbag module>

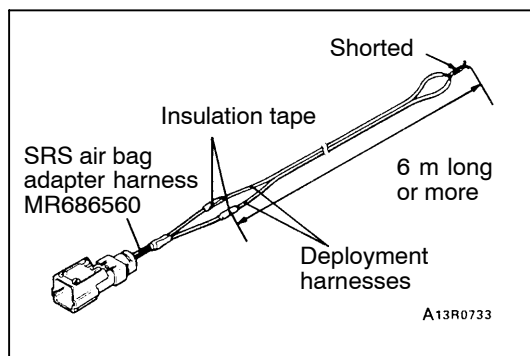
Caution

Be sure to deploy both driver's and front passenger's side air bag modules.

1. Disconnect the side-airbag module wiring harness connector (2-pin, red) and instrument panel wiring harness connector (2-pin).

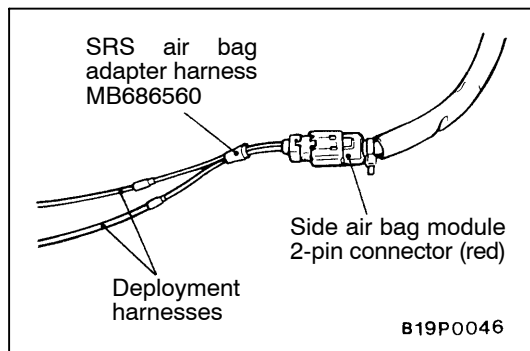
NOTE

Once disconnected from the instrument panel wiring harness, both electrodes of the side-airbag module connector short automatically. This prevents the side-airbag from accidental deployment caused by static, etc.

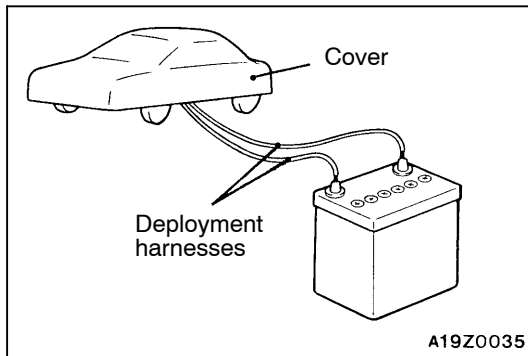


2. Connect deployment harnesses longer than 6 m to each SRS air bag adapter harness and insulate the connections with plastic tape.

Also, connect the deployment harnesses in the other ends to short, thereby preventing the front side-air bag from accidental deployment caused by static etc.



3. Connect the SRS air bag adapter harness to the side air bag module 2-pin connector and route the deployment harnesses out of the vehicle.



4. Close all the doors with the windows fully closed and put a cover over the vehicle to minimize report.

Caution

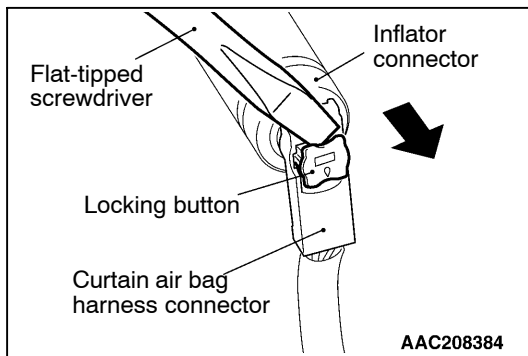
The cover is required as the glass, if already damaged, may break.

5. Disconnect the deployment wires as far from the vehicle as possible and connect the wires to the terminals of the battery removed from the vehicle. Deploy the side air bag module.

Caution

- 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 deployment of the side air bag makes the inflator very hot. Before handling the inflator, wait more than 30 minutes for cooling.
- If the air bag module fails to deploy when the procedures above are followed, do not go near the module. Contact your local distributor.

6. Remove the deployed side air bag module from the seat back assembly and discard as specified in the procedure.



<Curtain air bag module>

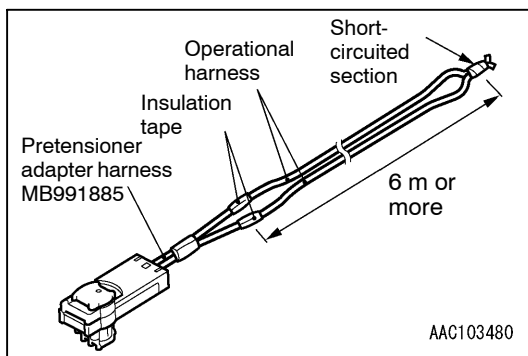
Caution

Be sure to deploy both (LH and RH) of curtain air bag modules.

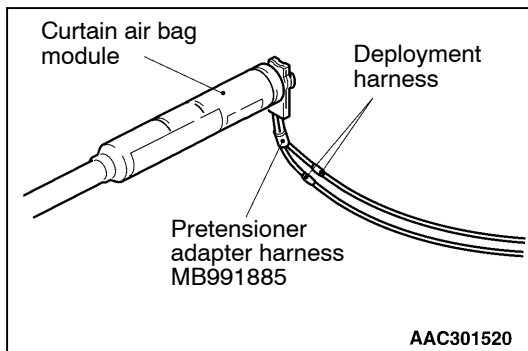
1. Remove the headlining.
2. Use the flat-tipped screwdriver to pull out the locking button of the harness connector for two levels forward for unlocking, and then disconnect the connector.

NOTE

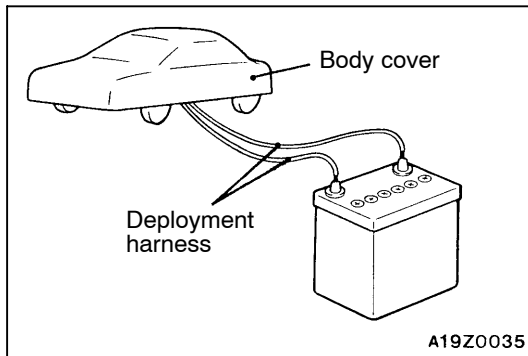
When the curtain air bag module connector is removed from the inflator, both electrodes of the inflator connector are automatically short-circuited so that accidental deployment of curtain air bag can be prevented.



3. Connect two deployment harnesses of 6 meters or longer with each of the special tool pretensioner adapter harness (MB991885) to shield the connections with insulation tape. In addition, connect (short-circuit) the other ends of deployment harnesses with each other. Thus, accidental deployment of curtain air bag due to static electricity can be prevented.



4. Connect the pretensioner adapter harness to the curtain air bag module to pull the deployment harness out of the vehicle.



5. Place the body cover over the vehicle after making all the door window glasses fully closed so that operation sound of the vehicle can be minimized.

Caution

Be sure to place the body cover over the vehicle to prevent breakage of glass if any damage is found in the glass.

6. Disconnect the deployment harness in a place as distant from the vehicle as possible and connect the harnesses to each electrode of the battery removed from the vehicle so that deployment of driver's air bag module can be carried out.
7. Place the body cover over the vehicle after making all the door window glasses fully closed so that operation sound of the vehicle can be minimized.

Caution

- **Deployment of air bag must be carried out after confirming that no person is present inside or near the vehicle.**
 - **Since the inflator is heated immediately after deployment of curtain air bag, leave the inflator for more than 30 minutes to cool it down before doing any further work.**
 - **If the inflator fails to operate properly, contact the personnel at MITSUBISHI AUTO SALES.**
8. Discard the inflator after deployment according to the existing procedure for disposal.

DEPLOYMENT OUTSIDE THE VEHICLE**Caution**

- **This should be carried out in a wide, flat area at least 6 m away from obstacles and other people.**
 - **Do not operate outside if wind is high. Even in a soft wind, ignite to windward of the pre-tensioner.**
1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

Caution

Wait at least 60 seconds after disconnecting the battery cables before doing any further work.

2. Operate air bag modules and pre-tensioner as specified in the service procedures that follows.

NOTE

For the driver's/front passenger's airbag module and seat belt pretensioner, the procedures are the same as before.

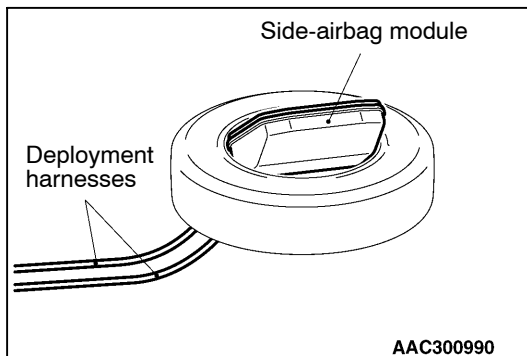
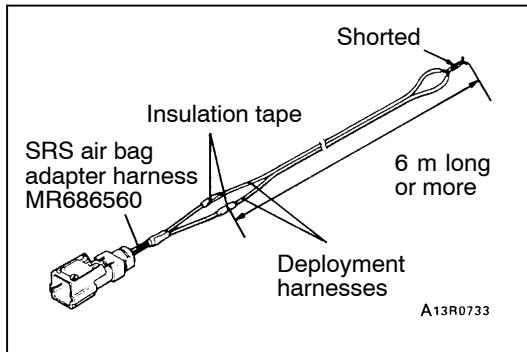
<Side-airbag module>

1. Remove the front seatback assembly with side air bag from the vehicle. (Refer to P.52B-64.)
2. Remove the side air bag module from the front seatback assembly with side air bag.

NOTE

Once disconnected from the instrument panel wiring harness, both electrodes of the side-airbag module connector short automatically. This prevents the side-airbag from accidental deployment caused by static, etc.

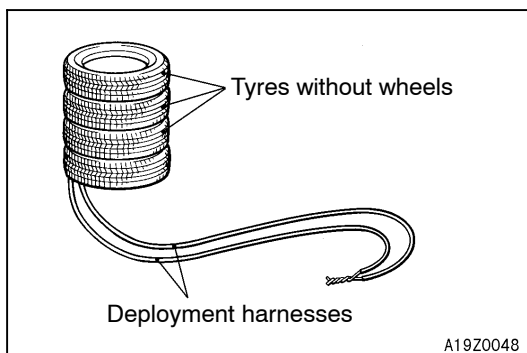
3. Connect deployment harnesses longer than 6 m to each SRS air bag adapter harness and insulate the connections with plastic tape. Also, connect the deployment harnesses in the other ends to short, thereby preventing the front side-airbag from accidental deployment caused by static etc.



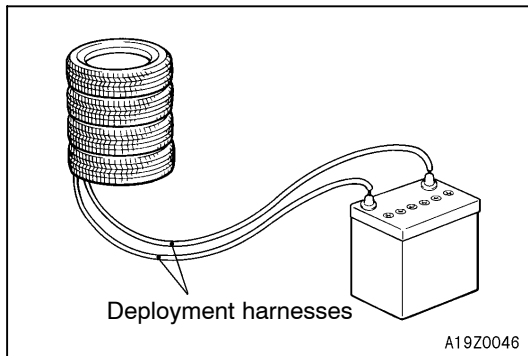
4. Pass the SRS adapter harness with the deployment harness attached through an old tyre with wheel to connect it with the side air bag module connector.
5. Install any unnecessary nut to the bolt of the side air bag module and tie a thick wire to fix to the wheel. And then place the side back air module so that the deployment side can face upward for fixing it to the old tyre with wheel.

Caution

- Let the deployment harness have some slacks under the wheel. If no slacks are allowed, the adapter harness may get damaged at the time of deployment.
- Be careful that SRS air bag adapter harness connector does not get tucked into the tyre at the time of deployment.



6. Put three old tyres without wheels on the tyre secured to the side-airbag module. Secure all the tyres with ropes (4 locations).

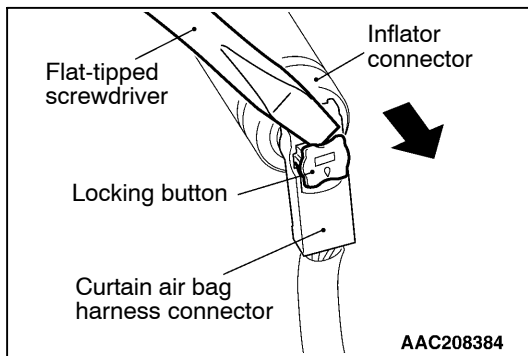


7. Disconnect the deployment harnesses as far from the side-airbag module as possible and connect the wires to the terminals of the battery removed from the vehicle. Then deploy.

Caution

- Before the deployment, be sure that no one is near the side-airbag module.
- The deployment of the side-airbag makes the inflator very hot. Before handling the inflator, wait more than 30 minutes for cooling.
- If the driver's air bag module fails to deploy when the procedures above are followed, do not go near the module. Contact your local distributor.

8. After deployment of the side-airbag module, discard as specified in the procedure.

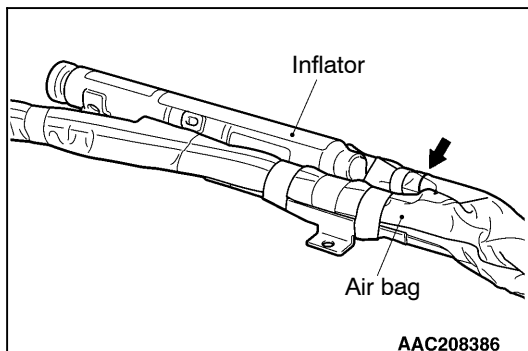


<Curtain air bag module>

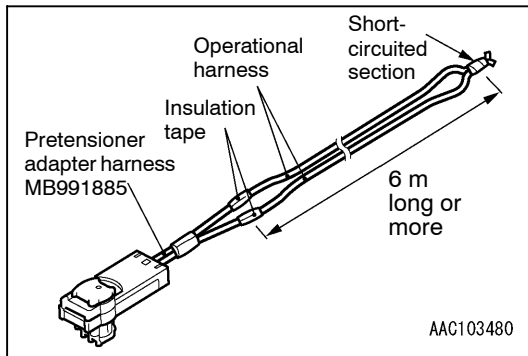
1. Remove the headlining.
2. Use the flat-tipped screwdriver to pull out the locking button of the harness connector for two levels forward for unlocking, and then disconnect the connector.

Caution

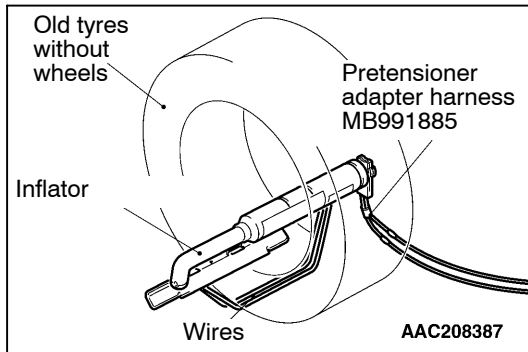
Once the inflator is disconnected from the connector, both electrodes of the connector short automatically. This prevents accidental deployment caused by static electricity. Place the inflator so the operation side can face upward in order to avoid erroneous operation. In addition, avoid putting a heavy object on top of the air bag module.



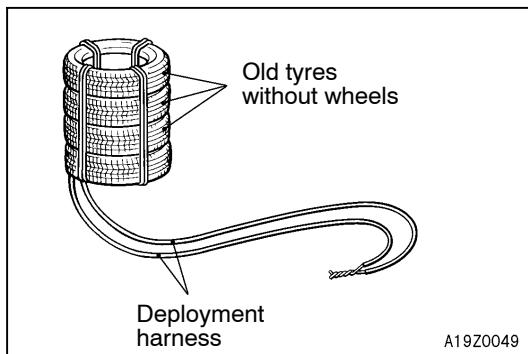
3. Use a cutter or other tool to cut the inflator and air bag as shown in the illustration.



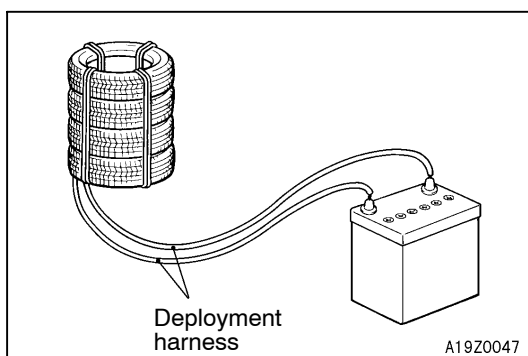
4. Connect two operation harnesses of 6 meters or longer with each of the special tool pretensioner adapter harness (MB991885) to shield the connections with insulation tape. In addition, connect (short-circuit) the other ends of operation harnesses with each other. Thus, accidental deployment of curtain air bag due to static electricity can be prevented.



5. Pass a thick wire through the hole of the inflator bracket to fix it to the old tyre without wheels.
6. Connect the pretensioner adapter harness to the inflator connector.



7. Put the inflator-fixed tyre on top of the vertically stacked two tyres as shown in the illustration. Furthermore, put the old tyres, which include at least one tyre without wheel, on top of the stacked tyres to bundle all the tyres together with ropes. (4 locations)



8. Disconnect the deployment harness in a place as distant from the inflator as possible and connect the harnesses to each electrode of the battery removed from the vehicle so that deployment can be carried out.

Caution

- Deployment of air bag must be carried out after confirming that no person is present near the inflator.
- Since the inflator is heated immediately after operation of inflator, leave the inflator for more than 30 minutes to cool it down before doing any further work.
- If the inflator fails to operate properly, contact the personnel at MITSUBISHI AUTO SALES.

9. Discard the inflator after operation according to the existing procedure for disposal.