MITSUBISHI MOTORS

SERVICE BULLETIN

PUBLICATION GROUP, AFTER SALES SERVICE DEP.
MITSUBISHI MOTOR SALES EUROPE BV

SERVICE BULLETIN	Nr.: ESB-99E52-900	
	Date: 2000-09-15	<Model> <M/Y>
Subject:	CORRECTION OF CONNECTOR NUMBERS IN SRS-DIAGNOSTIC PROCEDURE.	(EC) SPACE STAR 99-10
Group:	INTERIOR	
INFORMATION/CORRECTION	O. Kai - E.V.P. & G.M. After Sales Service Dept.	

1. Description:

Connector numbers of the SRS-system in diagnostic procedures have been corrected.

2. Applicable Manuals:

Manual	Pub. No.	Language	Page(s)
	CMXE99E1	(English)	52B-10
	CMXS99E1	(Spanish)	52B-10 – 52B-18
	CMXF99E1	(French)	
	CMXG99E1	(German)	
	CMXD99E1	(Dutch)	
	CMXW99E1	(Swedish)	
	CMXI99E1	(Italian)	

3. Details:

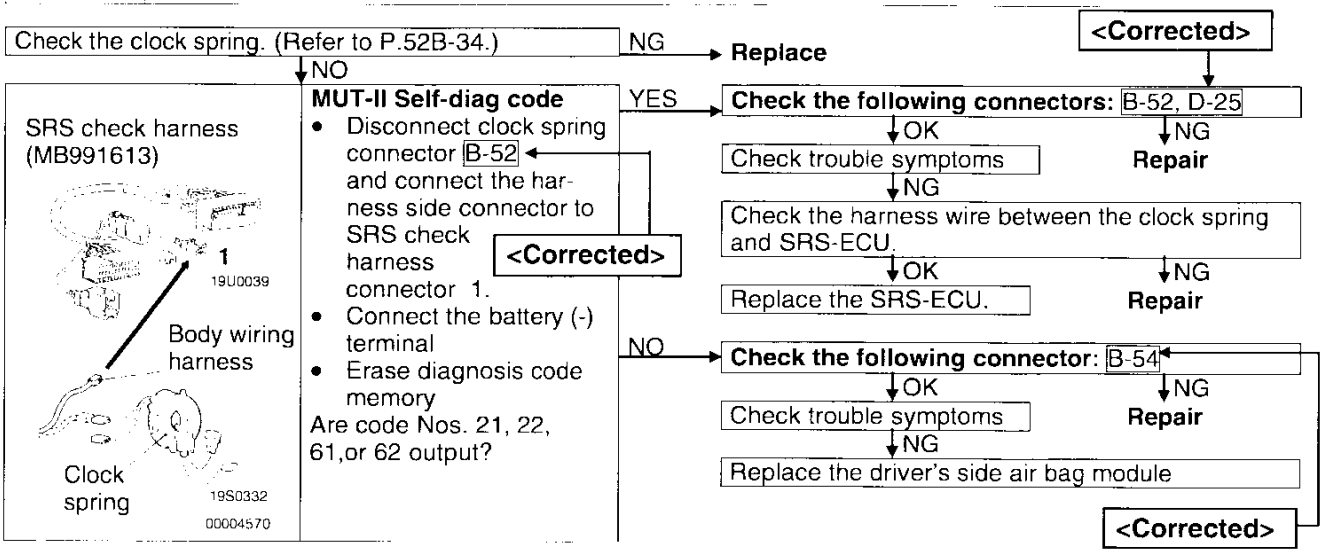
Code No.21, 22, 61 or 62 Driver's side air bag module (squib) system

These diagnosis codes are output if there is abnormal resistance between the input terminals of the driver's side air bag module (squib).
The trouble causes for each diagnosis code No. are as follows.

Probable cause

- Malfunction of clock spring
- Partial disconnection due to incorrect clock spring neutral position
- Malfunction of wiring harnesses or connectors
- Malfunction of driver's side air bag module (squib)
- Malfunction of SRS–ECU

Code No.	Trouble causes
21	• Short in driver's side air bag module (squib) or harness short • Short in clock spring
22	• Open circuit in driver's side air bag module (squib) or open harness • Open circuit in clock spring • Disconnected driver's side air bag module (squib) connector • Partial disconnection due to incorrect clock spring neutral position • Malfunction of connector contact
61	• Short in driver's side air bag module (squib) harness leading to the power supply
62	• Short in driver's side air bag module (squib) harness leading to the earth



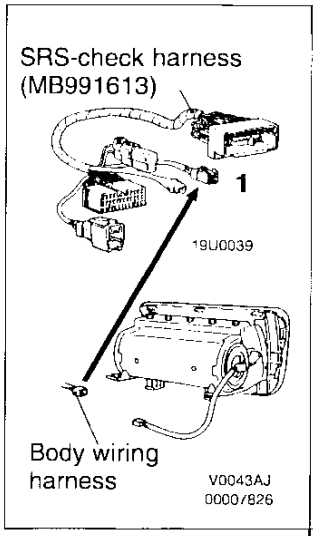
Code No.24, 25, 64 or 65 Front passenger's side air ba module (squib) system

These diagnosis codes are output if there is abnormal resistance between the input terminals of the front passenger's side air bag module (squib).
The trouble causes for each diagnosis code No. are as follows.

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of front passenger's side air bag module (squib)
- Malfunction of SRS–ECU

Code No.	Trouble causes
24	• Short in front passenger's side air bag module (squib) or harness short
25	• Open circuit in front passenger's side air bag module (squib) or open harness • Malfunction of connector contact
64	• Short in front passenger's side air bag module (squib) harness leading to the power supply
65	• Short in front passenger's side air bag module (squib) harness leading to the earth



Mut-II Self-diag code

- Disconnect front passenger's side air bag module connector B-17, and connect the harness side connector to SRS check harness connector 1.
- Connect the battery (-) terminal
- Erase diagnosis code memory.

Are code Nos. 24, 25, 64, or 65 output?

YES → **Check the following connectors:** B-17, D-25
- OK → Check trouble symptoms.
  - NG → Check the harness wire between the front passenger's side air bag module and SRS-ECU.
    - OK → Replace the SRS-ECU
    - NG → **Repair**
  - NG → **Repair** → **<Corrected>**
- NG → **Repair**

<Corrected> → back to Mut-II Self-diag code

NO → Replace the front passenger's side air bag module.

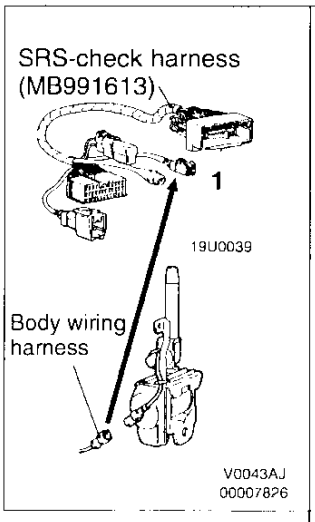
Code No.26, 27, 66 or 67 Driver's side pre–tensioner (squib) system

These diagnosis codes are output if there is abnormal resistance between the input terminals of the driver's side pre–tensioner (squib).
The trouble causes for each diagnosis code No. are as follows.

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of driver's side pre–tensioner (squib)
- Malfunction of SRS–ECU

Code No.	Trouble causes
26	• Short in driver's side pre–tensioner (squib) or harness short
27	• Open circuit in driver's side pre–tensioner (squib) or open harness • Malfunction of connector contact
66	• Short in driver's side pre–tensioner (squib) harness leading to the power supply
67	• Short in driver's side pre–tensioner (squib) harness leading to the earth



Mut-II Self-diag code

- Disconnect front passenger's side air bag module connector B-17, and connect the harness side connector to SRS check harness connector 1.
- Connect the battery (-) terminal
- Erase diagnosis code memory

Are code Nos. 26, 27, 66, or 67 output?

YES → **Check the following connectors:** D-20, D-25
- OK → Check trouble symptoms
  - NG → Check the harness wire between the driver's side pre-tensions SRS-ECU.
    - OK → Replace the SRS-ECU.
    - NG → **Repair**
  - NG → **Repair** → **<Corrected>**
- NG → **Repair**

<Corrected> → back to Mut-II Self-diag code

NO → Replace the front passenger's side air bag module.

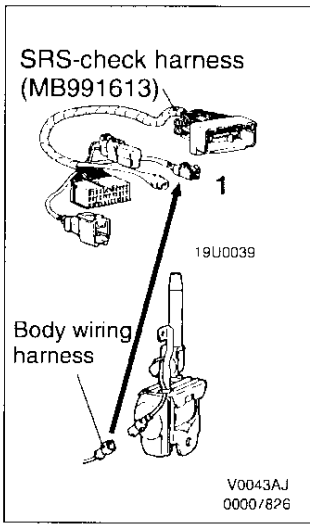
Code No.28, 29, 68 or 69 Front passenger's side pre–tensioner (squib) system

These diagnosis codes are output if there is abnormal resistance between the input terminals of the front passenger's side pre–tensioner (squib).
The trouble causes for each diagnosis code No. are as follows.

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of front passenger's side pre–tensioner (squib)
- Malfunction of SRS–ECU

Code No.	Trouble causes
28	• Short in front passenger's side pre–tensioner (squib) or harness short
29	• Open circuit in front passenger's side pre–tensioner (squib) or open harness • Malfunction of connector contact
68	• Short in front passenger's side pre–tensioner (squib) harness leading to the power supply
69	• Short in front passenger's side pre–tensioner (squib) harness leading to the earth



Mut-II Self-diag code

- Disconnect front passenger's side pretensioned connector D-02, and connect the harness side connector to SRS check harness connector 1.
- Connect the battery (-) terminal.
- Erase diagnosis code memory

Are code Nos. 28, 29, 68, or 69 output?

YES → **Check the following connectors:** D-02, D-25
- OK → Check trouble symptoms
  - NG → **Repair**
  - OK → Check the harness wire between the front passenger's side pre-tensioned and SRS-ECU
    - NG → **Repair**
    - OK → Replace the SRS-ECU. → **<Corrected>**

<Corrected>

NO → Replace the front passenger's side pre-tensioner.

Code No.35 SRS–ECU (deployed air bag) system

This diagnosis code is output after the air bag deploys. If this code is output before the air bag has deployed, the cause is probably a malfunction inside the SRS–ECU.

Probable cause

- Malfunction of SRS–ECU

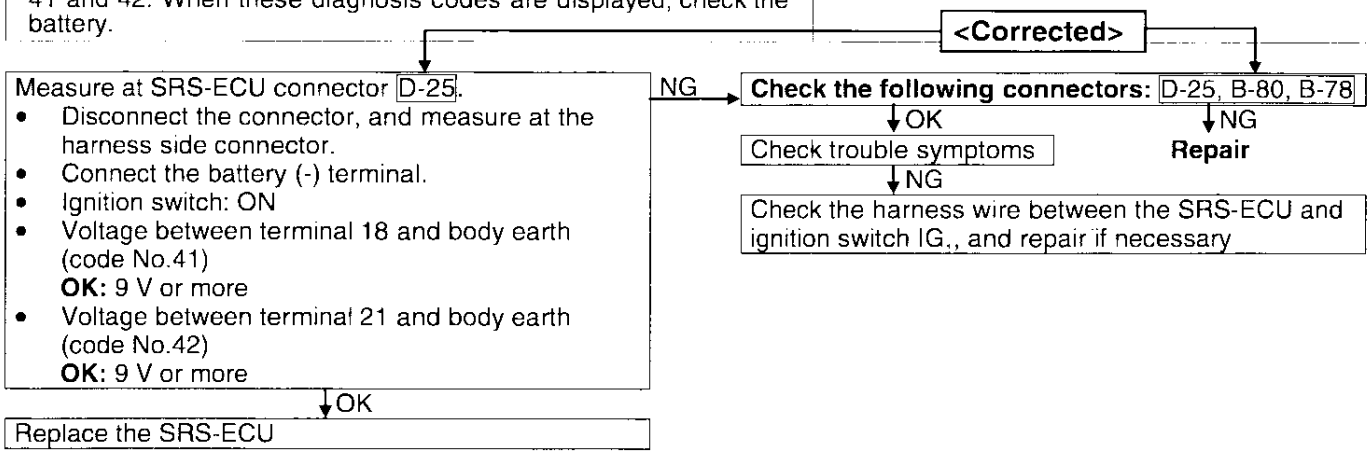
Replace the SRS-ECU.

Code No.41 Power circuit system (fuse No.4 circuit)
Code No.42 Power circuit system (fuse No.11 circuit)

Code No.41 is output if the voltage between the IG , terminal (SRS-ECU, terminal 18) and the earth is lower than the specified value for a continuous period of 5 seconds or more.
Code No.42 is output if the voltage between the IG , terminal (SRS-ECU, terminal 21) and the earth is lower than the specified value for a continuous period of 5 seconds or more.
Automatically erased, and the SRS warning lamp will switch off.
If the vehicle has a discharged battery it will store the fault codes 41 and 42. When these diagnosis codes are displayed, check the battery.

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of SRS–ECU

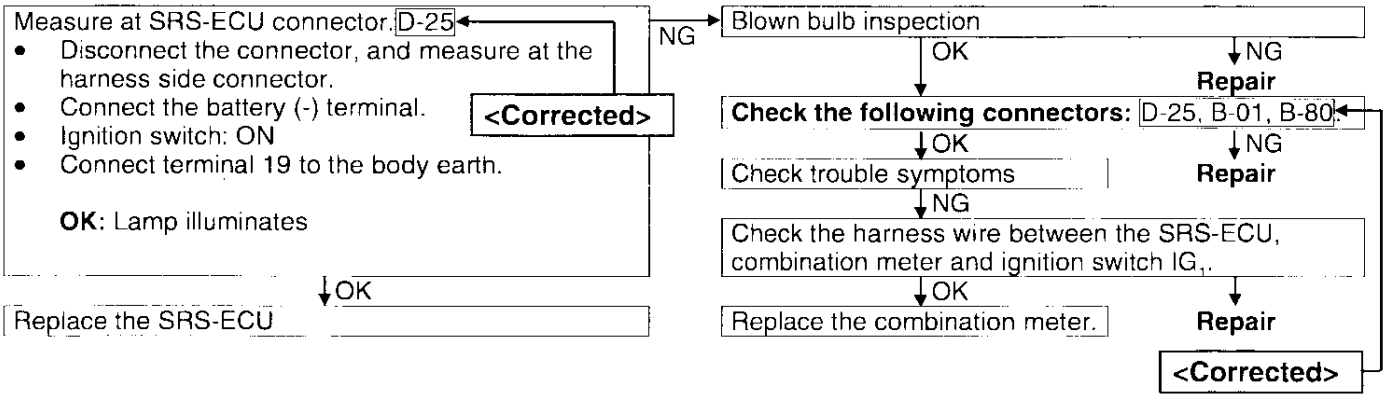


Code No.43 SRS warning lamp drive circuit system (Lamp does not illuminate.)

This diagnosis code is output when an open circuit occurs for a continuous period of 5 seconds while the SRS–ECU in monitoring the SRS warning lamp and the lamp is OFF (transistor OFF).
However, if this code is output due to an open circuit, if the vehicle condition returns to normal, this diagnosis code No.43 will be automatically erased, and the SRS warning lamp will return to normal.

Probable cause

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



Code No.43 SRS warning lamp drive circuit system (Lamp does not switch off.)

This diagnosis code is output when a short to earth occurs in the harness between the lamp and the SRS–ECU while SRS–ECU is monitoring the SRS warning lamp and the lamp is ON.

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of SRS–ECU
- Malfunction of combination meter

SRS-warning lamp inspection
- Connect the battery (-) terminal.
- Ignition switch: ON
- Does lamp switch off when SRS-ECU connector D-25 is disconnected?

NO → **Check the following connectors:** D-25, B-01
- OK → Check trouble symptoms
  - NG → Check the harness wire between the SRS-ECU and combination meter.
    - OK → Replace the combination meter
    - NG → **Repair**
  - NG → **Repair** → **<Corrected>**
- NG → **Repair** → **<Corrected>**

YES → Replace the SRS-ECU. → **<Corrected>**

Code No.44 SRS warning lamp drive circuit system

This diagnosis code is output when a short occurs in the lamp drive circuit or a malfunction of the output transistor inside the SRS–ECU is detected while the SRS–ECU is monitoring the SRS warning lamp drive circuit.
However, if the vehicle condition returns to normal, diagnosis code No.44 will be automatically erased, and the SRS warning lamp will switch off.

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of SRS–ECU

Check the SRS warning lamp drive circuit system. (Refer to P. 52B-12) → OK → Replace the SRS-ECU.

Code No.71, 72, 75 or 76 Side air bag module (L.H.) (squib) system

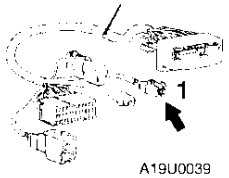
These diagnosis codes are output if the resistance value between the side air bag module (L.H.) (squib) input terminals of the SRS–ECU is abnormal. The problems, which cause these codes to be output, are as follows.

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of side air bag module (L.H.) (squib)
- Malfunction of SRS–ECU

Code No.	Trouble causes
71	• Short in side air bag module (L.H.) (squib) or harness short
72	• Open circuit in side air bag module (L.H.) (squib) or open harness • Malfunction of connector contact
75	• Short in side air bag module (L.H.) (squib) harness leading to the power supply
76	• Short in side air bag module (L.H.) (squib) harness leading to the earth

SRS-Check harness (MB991613)



MUT-II Self-diag code

- Disconnect side air bag module (L.H) (squib) connector D-21, and connect the harness side connector to SRS check harness connector 1. <Corrected>
- Connect the battery (-) terminal.
- Erase diagnosis code memory.

Are code Nos. 71, 72, 75 or 76 output?

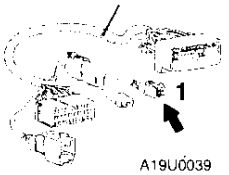
YES → **Check the following connectors:** D-25, D-21
- OK → Check trouble symptoms
  - NG → Check the harness wire between the side air bag module (L.H.) (squib) and SRS-ECU.
    - OK → Replace the SRS-ECU
    - NG → **Repair**
- NG → **Repair** → **<Corrected>**

NO → Replace the seat back assembly of the front seat (L.H.).

Code No.81, 82, 85 or 86 Side air bag module (R.H.) (squib) system	**Probable cause**
These diagnosis codes are output if the resistance value between the side air bag module (R.H.) (squib) input terminals of the SRS–ECU is abnormal. The problems, which cause these codes to be output, are as follows.	• Malfunction of wiring harnesses or connectors • Malfunction of side air bag module (R.H.) (squib) • Malfunction of SRS–ECU

Code No.	Trouble causes
81	• Short in side air bag module (R.H.) (squib) or harness short
82	• Open circuit in side air bag module (R.H.) (squib) or open harness • Malfunction of connector contact
85	• Short in side air bag module (R.H.) (squib) harness leading to the power supply
86	• Short in side air bag module (R.H.) (squib) harness leading to the earth

SRS check harness (MB991613)



MUT-II Self-dig code

- Disconnect side air bag module (R.H.) (squib) connector D-26 and connect the harness side connector 1. <Corrected>
- Connect the battery (-) terminal.
- Erase diagnosis code memory.

Are code Nos.. 81, 82, 85 or 86 output?

YES → **Check the following connectors:** D-25, D-26
- OK → Check trouble symptoms.
  - NG → Check the harness wire between the side air bag module (R.H.) (squib) and SRS-ECU.
    - OK → Replace the SRS-ECU.
    - NG → **Repair**
- NG → **Repair** → **<Corrected>**

NO → Replace the seat back assembly of the front seat (R.H.).

Code No.91 Side impact sensor (L.H.) power suppl circuit system

This diagnosis code is output if the power supply voltage of the side impact sensor (L.H.) drops below the rated value for a continuous period of 5 seconds or more.
However, code No.91 will be automatically cleared and the SRS warning lamp will switch off if the condition returns normal.

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of side impact sensor (L.H.)
- Malfunction of SRS–ECU

Measure at side impact sensor (L.H.) connector D-18
- Disconnect the connector, and measure at the harness side connector.
- Connect the battery (-) terminal.
- Ignition switch: ON
- Voltage between terminal 3 and body earth

OK: 9 V or more
Continuity between terminal 1 and body earth

↓OK

Replace the side impact sensor (L.H.)

NG → **Check the following connectors:** D-25, D-18

↓OK / ↓NG

Check trouble symptoms → ↓NG → **Repair**

Check the harness wire between the side impact sensor (L.H.) and SRS-ECU.

↓OK / ↓NG

Replace the SRS-ECU → ↓NG → **Repair**

<Corrected>

<Corrected>

Code No.92, 95 Side impact sensor system

Code No.92 is output when a fault is detected in the side impact sensor (L.H.).
Code No.95 is output when a fault is detected in the side impact sensor (R.H.).
The defective parts and troubles causes for each diagnosis code No. are as follows.

Probable cause

- Malfunction of side impact sensor (L.H.) (Code No.92)
- Malfunction of side impact sensor (R.H.) (Code No.95)

Code No.	Defective parts	Trouble causes
92 95	Analog G–sensor	• Analog G–sensor is not operating • Analog G–sensor characteristics are abnormal • Analog G–sensor output is abnormal

Replace the side impact sensor (L.H.) (code No. 92)
Replace the side impact sensor (R.H.) (code No. 95)

Code No.93 Side impact sensor (L.H.) communication system

This diagnosis code is output if communication between the side impact sensor (L.H.) and the SRS-ECU is abnormal

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of side impact sensor (L.H.)
- Malfunction of SRS–ECU

MUT-II Self-diag code
- Replace the side impact sensor (L.H.) with the side impact sensor (R.H.) and then install them.
- Connect the battery (-) terminal.
- Erase diagnosis code memory

Will the code No. 93 disappear and show No. 96?

↓YES

Replacement of the side impact sensor (L.H.) installed at the driver's side.

NO → **Check the following connectors:** D-25, D-18

↓OK / ↓NG

Check trouble symptoms → ↓NG → **Repair**

Check the harness wire between the side impact sensor (L.H.) and SRS-ECU.

↓OK / ↓NG

Replace the SRS-ECU → ↓NG → **Repair**

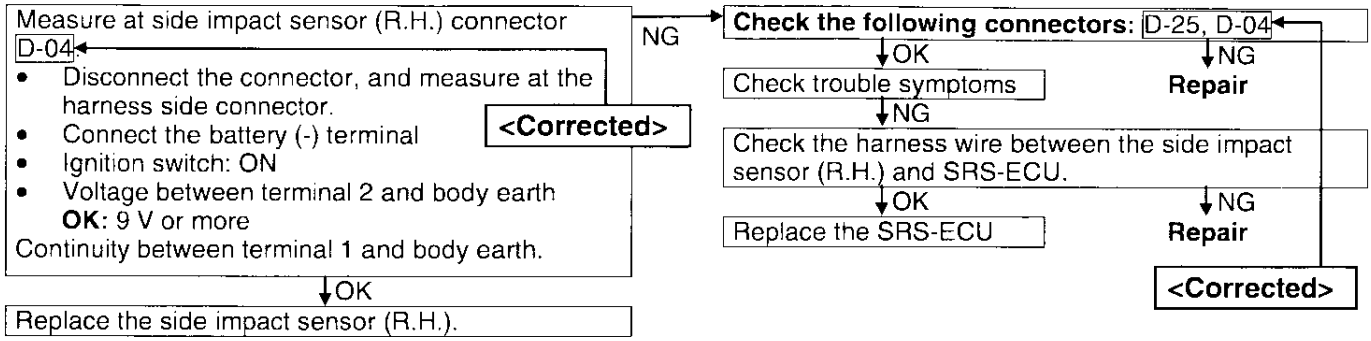
<Corrected>

Code No.94 Side impact sensor (R.H.) power suppl circuit system

This diagnosis code is output if the power supply voltage of the side impact sensor (R.H.) drops below the rated value for a continuous period of 5 seconds or more.
However, code No.94 will be automatically cleared and the SRS warning lamp will switch off if the condition returns normal.

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of side impact sensor (R.H.)
- Malfunction of SRS–ECU

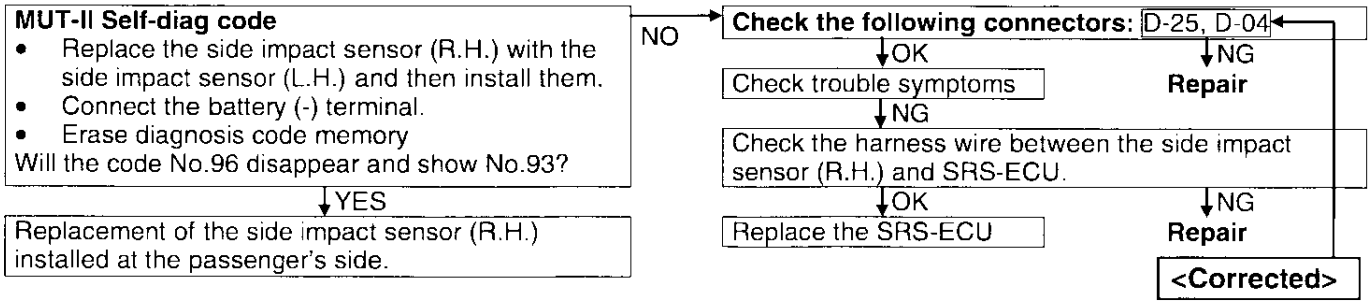


Code No.96 Side impact sensor (R.H.) communication system

This diagnosis code is output if communication between the side impact sensor (R.H.) and the SRS-ECU is abnormal

Probable cause

- Malfunction of wiring harnesses or connectors
- Malfunction of side impact sensor (R.H.)
- Malfunction of SRS–ECU



INSPECTION CHART FOR TROUBLE SYMPTOMS

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Get an understanding of the trouble symptoms and check according to the inspection procedure chart.

Trouble symptom		Inspection procedure No.	Reference page
Communication with MUT–II is not possible.	Communication with all systems is not possible.	1	52B–18
	Communication is not possible with SRS only.	2	52B–18
When the ignition key is turned to "ON" (engine stopped), the SRS warning lamp does not illuminate.		Refer to diagnosis code No.43.	52B–13
After the ignition switch is turned to ON, the SRS warning lamp is still on after approximately 7 seconds have passed.		Refer to diagnosis code No.43, 44.	52B–14

INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

Inspection Procedure 1

Communication with MUT–II is not possible. (Communication with all systems is not possible.)	**Probable cause**
The cause is probably a power supply system (including earth circuit) of the diagnosis line.	• Malfunction of connectors • Malfunction of wiring harness

Refer to GROUP 13A - Troubleshooting

Inspection Procedure 2

Communication with MUT–II is not possible. (Communication is not possible with SRS only.)	**Probable cause**
If communication is not possible with the SRS only, the cause is probably an open circuit in the diagnosis output circuit of the SRS or in the power circuit (including earth circuit).	• Malfunction of wiring harnesses or connectors • Malfunction of SRS–ECU