

Restraints

TROUBLESHOOTING

دیجیتال خودرو

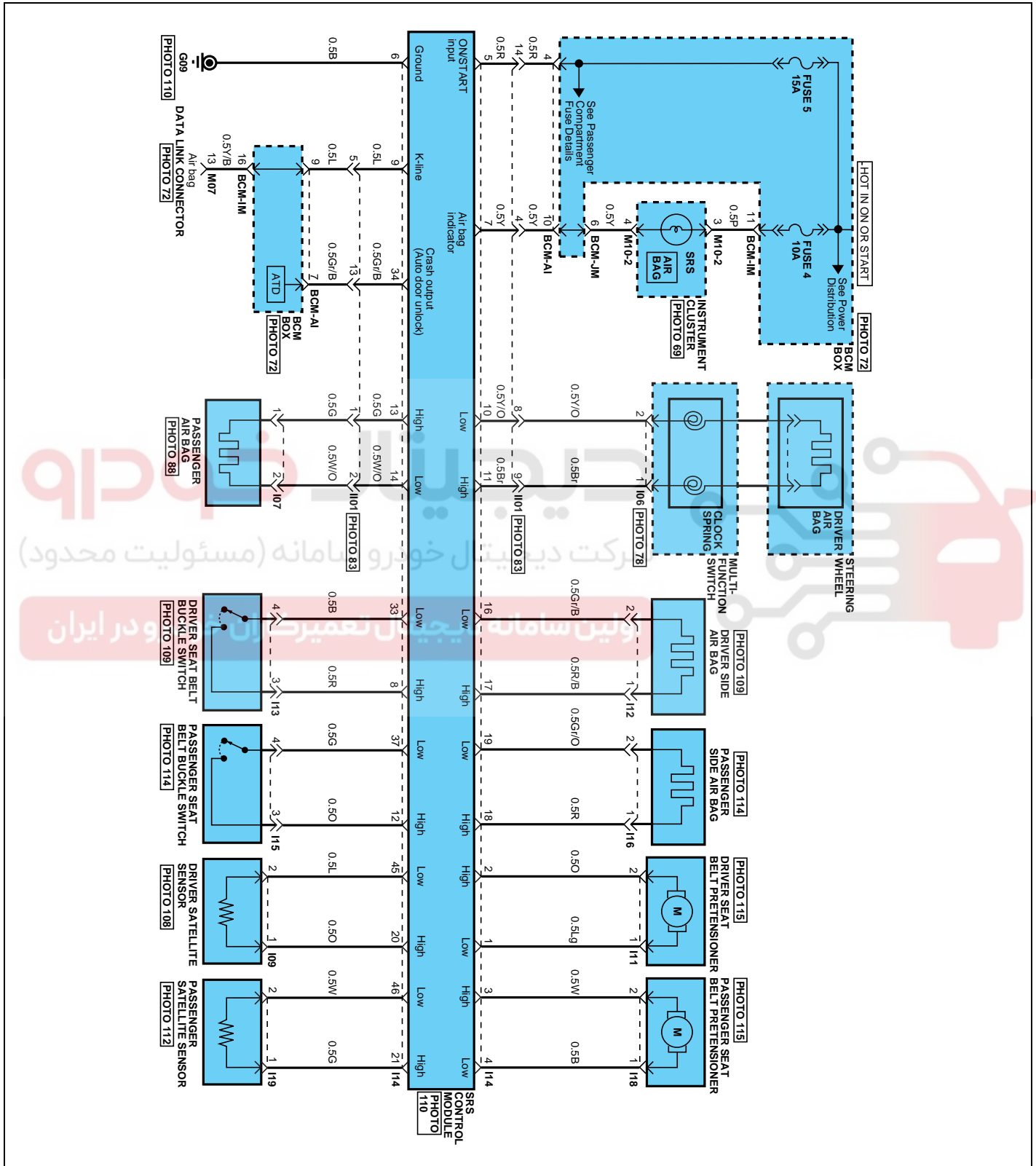
شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



TROUBLESHOOTING

CIRCUIT DIAGRAM EA020CCF



EROF501B

TROUBLESHOOTING

RT -3

SRSCM CONNECTOR TERMINAL E6BE507C

SRSCM HARNESS CONNECTOR

1	2	3	4	5	6	7	8	9	10	11	12	13	14	*	16	17	18	19	20	21	*	*	*	*
*	*	*	*	*	*	*	33	34	*	*	37	*	*	*	*	*	*	*	45	46			*	*

****** Shorting Bar

EROF501C

Pin	Function	input/ output	Pin	Function	input/ output
1	Belt-pretensioner, Low (Driver Side)	output	26		
2	Belt-pretensioner, High (Driver Side)	output	27		
3	Belt-pretensioner, High (Passenger Side)	output	28		
4	Belt-pretensioner, Low (Passenger Side)	output	29		
5	Battery Voltage	input	30		
6	GND	-	31		
7	Airbag Warning Lamp	output	32		
8	Seat-belt Buckle Switch, High (Driver Side)	input	33	Seat-belt Buckle Switch, Low (Driver Side)	input
9	Diagnostic Serial Data I/O (K-line)	input/output	34	Crash Output	
10	Front Airbag, Low (Driver Side)	output	35		
11	Front Airbag, High (Driver Side)	output	36		
12	Seat-belt Buckle Switch, High (Passenger Side)	input	37	Seat-belt Buckle Switch, Low (Passenger Side)	input
13	Front Airbag, High (Passenger Side)	output	38		
14	Front Airbag, Low (Passenger Side)	output	39		
15		output	40		
16	Side Airbag, Low (Driver Side)	output	41		
17	Side Airbag, High (Driver Side)	output	42		
18	Side Airbag, High (Passenger Side)		43		
19	Side Airbag, Low (Passenger Side)	output	44		
20	Side Impact Sensor, High (Driver Side)	input	45	Side Impact Sensor, Low (Driver Side)	input
21	Side Impact Sensor, High (Passenger Side)	input	46	Side Impact Sensor, Low (Passenger Side)	input
22			47		
23			48		
24			49		
25			50		

RT -4

RESTRAINTS

DIAGNOSTIC TROUBLE CODES(DTC)

DTC	FAULT DESCRIPTION	Page
B1101	Battery Voltage Too High	RT - 6
B1102	Battery Voltage Too Low	RT - 6
B1345	Firing Circuit 1(Driver Front Airbag), Open	RT - 7
B1346	Firing Circuit 1(Driver Front Airbag), Resistance too High	RT - 7
B1347	Firing Circuit 1(Driver Front Airbag), Resistance too Low or Short	RT - 7
B1348	Firing Circuit 1(Driver Front Airbag), Short to GND	RT - 10
B1349	Firing Circuit 1(Driver Front Airbag), Short to Battery	RT - 16
B1351	Firing Circuit 2(Passenger Front Airbag), Open	RT - 23
B1352	Firing Circuit 2(Passenger Front Airbag), Resistance too High	RT - 23
B1353	Firing Circuit 2(Passenger Front Airbag), Resistance too Low or Short	RT - 23
B1354	Firing Circuit 2(Passenger Front Airbag), Short to GND	RT - 10
B1355	Firing Circuit 2(Passenger Front Airbag), Short to Battery	RT - 16
B1360	Firing Circuit 3(Driver Belt-pretensioner), Open	RT - 26
B1361	Firing Circuit 3(Driver Belt-pretensioner), Resistance too High	RT - 26
B1362	Firing Circuit 3(Driver Belt-pretensioner), Resistance too Low or Short	RT - 26
B1363	Firing Circuit 3(Driver Belt-pretensioner), Short to GND	RT - 10
B1364	Firing Circuit 3(Driver Belt-pretensioner), Short to Battery	RT - 16
B1366	Firing Circuit 4(Passenger Belt-pretensioner), Open	RT - 26
B1367	Firing Circuit 4(Passenger Belt-pretensioner), Resistance too High	RT - 26
B1368	Firing Circuit 4(Passenger Belt-pretensioner), Resistance too Low or Short	RT - 26
B1369	Firing Circuit 4(Passenger Belt-pretensioner), Short to GND	RT - 10
B1370	Firing Circuit 4(Passenger Belt-pretensioner), Short to Battery	RT - 16
B1377	Firing Circuit 5(Driver Side Airbag), Open	RT - 29
B1378	Firing Circuit 5(Driver Side Airbag), Resistance too High	RT - 29
B1379	Firing Circuit 5(Driver Side Airbag), Resistance too Low or Short	RT - 29
B1380	Firing Circuit 5(Driver Side Airbag), Short to GND	RT - 10
B1381	Firing Circuit 5(Driver Side Airbag), Short to Battery	RT - 16
B1382	Firing Circuit 6(Passenger Side Airbag), Resistance too High	RT - 29
B1383	Firing Circuit 6(Passenger Side Airbag), Resistance too Low or Short	RT - 29
B1384	Firing Circuit 6(Passenger Side Airbag), Short to GND	RT - 10
B1385	Firing Circuit 6(Passenger Side Airbag), Short to Battery	RT - 16
B1386	Firing Circuit 6(Passenger Side Airbag), Open	RT - 29
B1400	Driver Side Impact Sensor(SIS) defect	RT - 32
B1401	Driver Side Impact Sensor(SIS) Short to GND	RT - 10
B1402	Driver Side Impact Sensor(SIS) Short to Battery	RT - 16
B1403	Passenger Side Impact Sensor(SIS) defect	RT - 32
B1404	Passenger Side Impact Sensor(SIS) Short to GND	RT - 10
B1405	Passenger Side Impact Sensor(SIS) Short to Battery	RT - 16

TROUBLESHOOTING

RT -5

DTC	FAULT DESCRIPTION	Page
B1409	Driver SIS Communication Error	RT - 32
B1410	Passenger SIS Communication Error	RT - 32
B1414	Driver SIS Wrong ID	RT - 34
B1415	Passenger SIS Wrong ID	RT - 34
B1511	Driver Seat-belt Buckle Switch, Short to Battery or Open	RT - 35
B1512	Driver Seat-belt Buckle Switch, Short to GND or Short	RT - 35
B1513	Passenger Seat-belt Buckle Switch, Short to Battery or Open	RT - 35
B1514	Passenger Seat-belt Buckle Switch, Short to GND or Short	RT - 35
B1515	Driver Seat-belt Buckle Switch, Settle fail(Switch Defect)	RT - 36
B1516	Passenger Seat-belt Buckle Switch, Settle fail(Switch Defect)	RT - 36
B1620	Internal Fault	RT - 37
B1650	Front Crash Recording	RT - 37
B1651	Driver Side Crash Recording	RT - 37
B1652	Passenger Side Crash Recording	RT - 37
B1657	Belt-Pretensioner Only Fire	RT - 37
B2501	Warning Lamp Fault - Bulb Open	RT - 38
B2503	Warning Lamp Fault - Short to Battery or Bulb Short	RT - 38
B2504	Warning Lamp Fault - Short to GND or Bulb open	RT - 38

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران

CIRCUIT INSPECTION

E2E12A38

DTC	B1101 Battery voltage too high (V 16.5V) B1102 Battery voltage too low (V 9.0V)
-----	--

CIRCUIT DESCRIPTION

The diagnosis system malfunction display for this circuit is different to other circuits. When the SRS warning lamp remains lit up and the DTC is a B1101 or B1102 code, battery voltage too high or low is indicated. When voltage returns to normal, the SRS warning light automatically goes off and a malfunction is no longer indicated.

LIMIT : 9 ~ 16V

NG → Check the harness between the battery and the SRSCM. Check the battery and charging system

OK
↓

INSPECTION PROCEDURE

ERJB040A

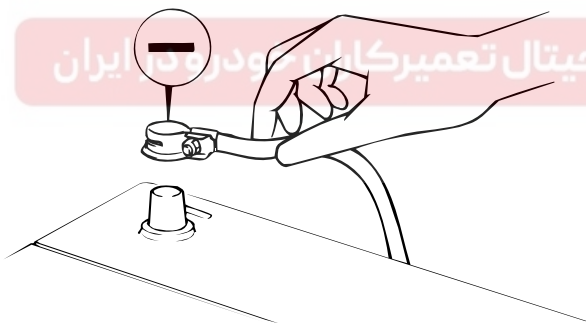
1. Preparation

- 1) Disconnect the negative (-) terminal cable from the battery, and wait at least 30 seconds.
- 2) Remove the DAB module.
- 3) Disconnect the connectors of the PAB, left and right side airbags, belt pretensioners and Side Impact Sensor(SIS).
- 4) Disconnect the SRSCM connector.

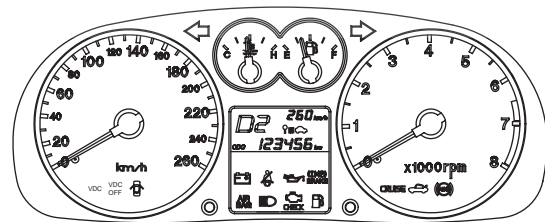
3. Does the SRS warning lamp turn off ?

[PREPARATION]

- 1) Turn the ignition switch to LOCK.
- 2) Connect the DAB module.
- 3) Connect the PAB connector, left and right side airbag, belt pretensioner and SIS.
- 4) Connect the SRSCM connector.
- 5) Turn the ignition switch ON.



EADA011A



KROF501E

CAUTION

Place the DAB with the front surface facing upward.

2. Check source voltage.

- 1) Connect the negative (-) terminal cable to the battery.
- 2) Turn the ignition switch ON.

[CHECK]

Check that the SRS warning lamp goes off.

NG → Check for DTCs. If a DTC is output, perform troubleshooting for the DTC. If B1101 or B1102 is output, replace the SRSCM.

OK
↓

From the results of the above inspection, the malfunctioning part can now be considered normal.

[CHECK]

Measure voltage between the battery supply terminal 21 of the SRS connector and body ground.

EROF500Y

TROUBLESHOOTING

RT -7

CIRCUIT INSPECTION ED82F9E2

DTC	B1345 DAB open B1346 DAB resistance too high (R 2.2) B1347 DAB resistance too low or short (R 1.8)
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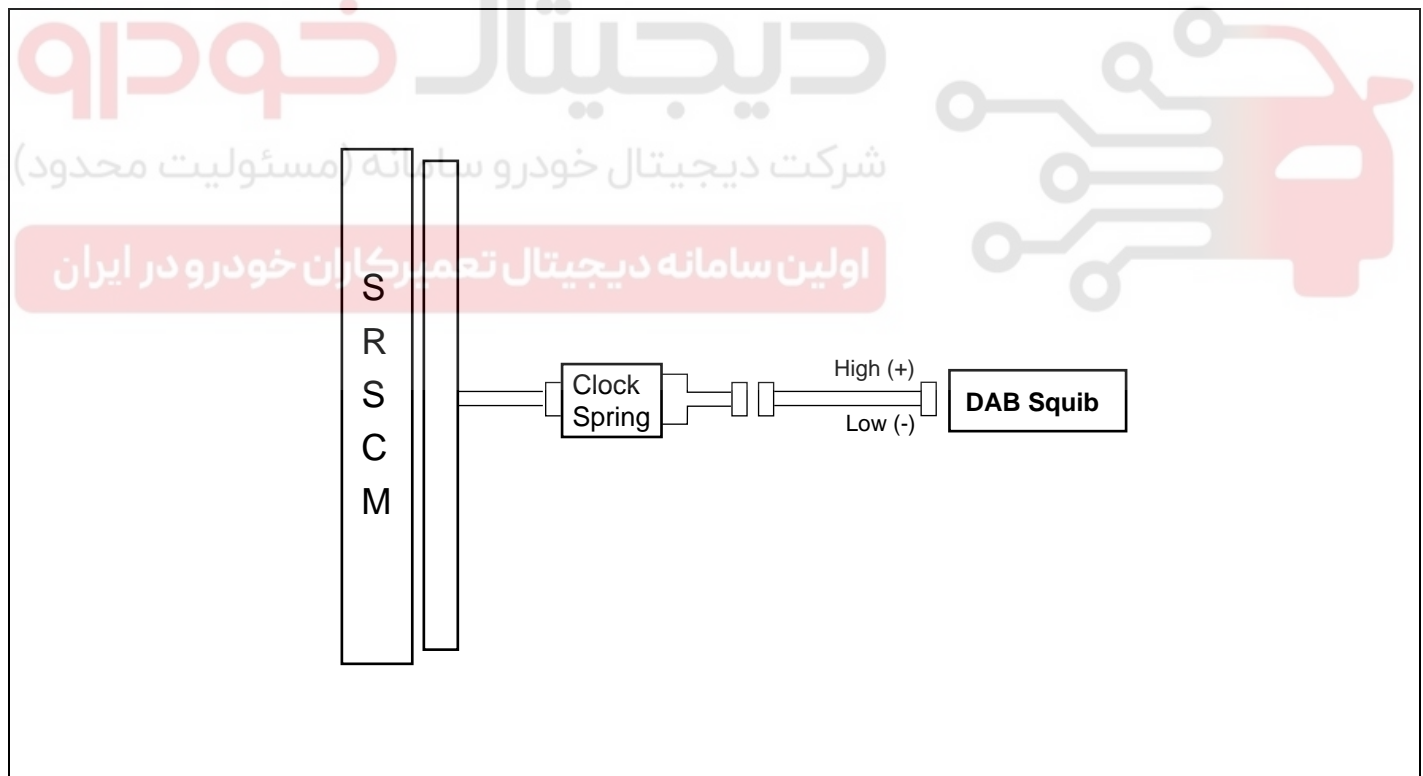
CIRCUIT DESCRIPTION

The DAB squib circuit consists of the SRSCM, the clock spring, the DAB. It causes the airbag to deploy when the airbag deployment conditions are satisfied. The above DTCs are recorded when the DAB circuit is open or the

DAB resistance too high or low is detected in the DAB squib circuit.

DTC Detecting Condition	Trouble Area
<ul style="list-style-type: none"> • Too high or low resistance between DAB high (+) wiring harness and DAB low (-) wiring harness of squib. • DAB malfunction • Clock spring malfunction • SRSCM malfunction 	<ul style="list-style-type: none"> • DAB squib • Clock spring • SRSCM • Wire harness

WIRING DIAGRAM



ERA9012A

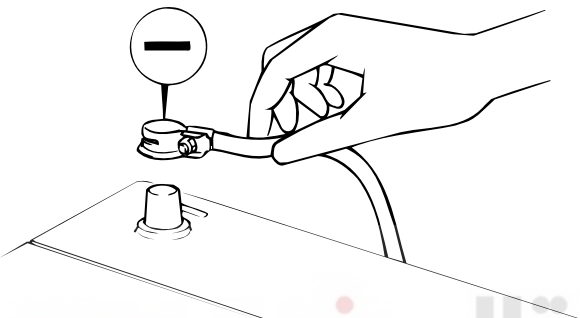
RT -8

RESTRAINTS

INSPECTION PROCEDURE

1. Preparation

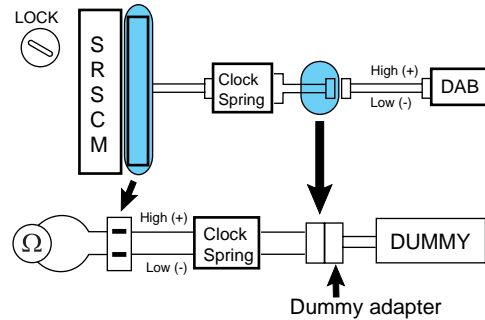
- 1) Disconnect the negative (-) terminal cable from the battery, and wait at least 30 seconds.
- 2) Remove the DAB module.
- 3) Disconnect the connectors of the PAB, left and right side airbags, belt pretensioners and SIS.
- 4) Disconnect the SRSCM connector.



EADA011A

NOTE

Before checking the resistance, you have to insert the shorting bar insert plastic that is attached to the diagnosis checker into the SRSCM connector.



ERKB010C

[CHECK]

Measure the resistance between the DAB high (+) and low (-).

1.80 R 2.2

NG → Go to step "4"

OK ↓

CAUTION

Place the DAB with the front surface facing upward.

2. Check the DAB resistance.

[PREPARATION]

Release the airbag activation prevention mechanism on SRSCM side of airbag squib side. Connect the dummy (0957A-38200) and dummy adapter (0957A-38400) to the clock spring side connector.

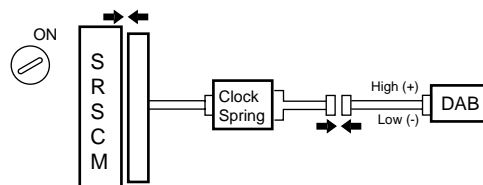
CAUTION

Never attempt to measure the circuit resistance of the airbag module (squib) even if you are using the specified tester.

3. Check the DAB squib.

[PREPARATION]

1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the DAB connector.
4. Connect the negative (-) terminal cable to the battery, and wait for 30 seconds.



ERA9011U

TROUBLESHOOTING

RT -9

[CHECK]

1. Turn the ignition switch to ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using Hi-Scan Pro, check the DTC.
There is no DTC.

[HINT]

Codes other than these may be output at this time, but they are not relevant to this procedure.

[CHECK]

Measure the resistance between the DAB high (+) and low (-).

1.80 R 2.2

NG → Replace the clock spring.

OK

↓
Repair or replace the harness or the connector between the SRSCM and the clock spring.

ERDA027R

NG → Replace the PAB.

OK



From the results of the above inspection, the malfunctioning part can now be considered normal.

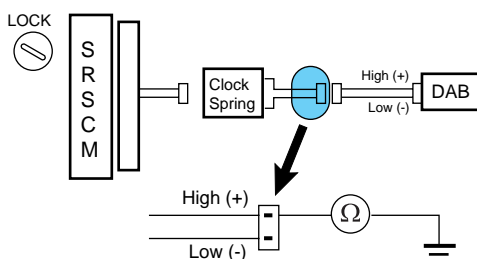
4. Check the clock spring.

[PREPARATION]

Disconnect the connector between the SRSCM clock spring, and connect the dummy connector (0957A-38200) and dummy adapter (0957A-38400) to the clock spring side connector.

NOTE

Before checking the resistance, you have to insert the shorting bar insert plastic that is attached to the diagnosis checker into the SRSCM connector.



ERKB010D

RT -10

RESTRAINTS

CIRCUIT INSPECTION

E1FFAF2F

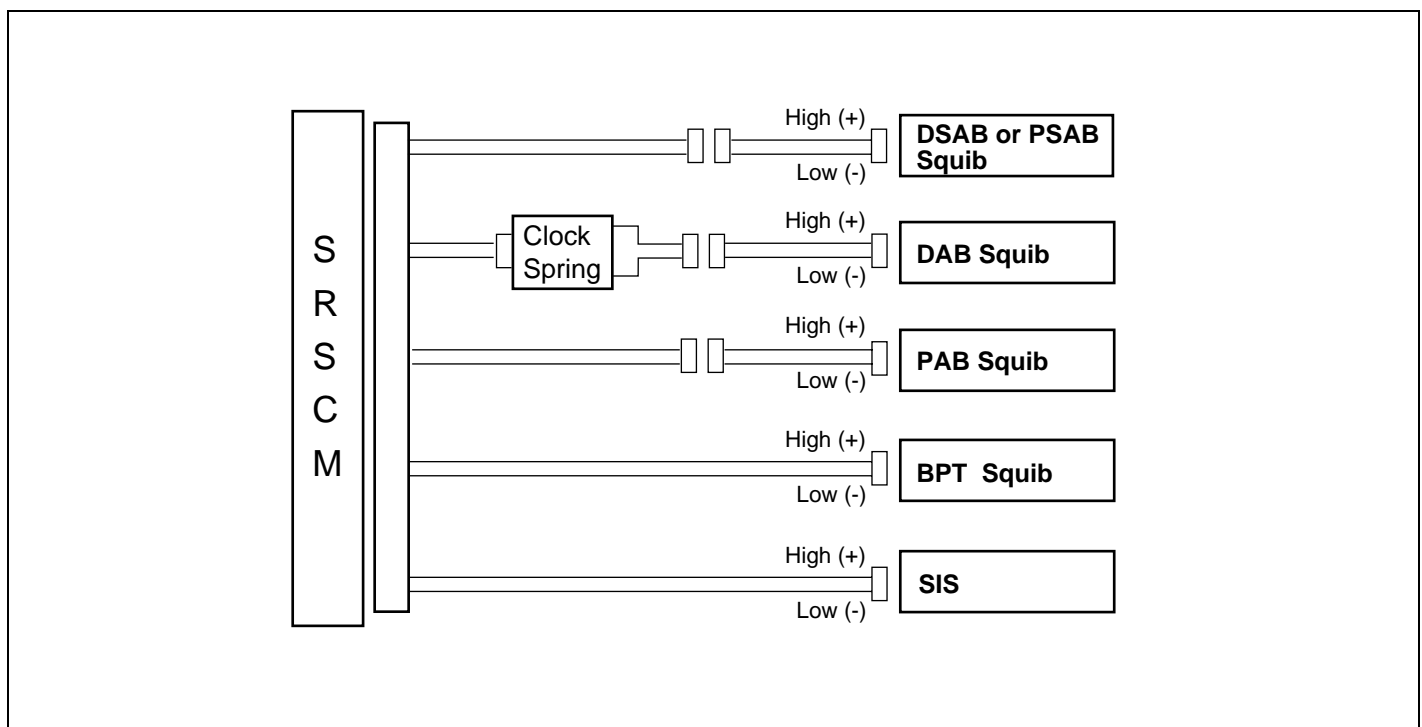
DTC	B1348 DAB short to ground B1354 PAB short to ground B1363 DBPT short to ground B1369 PBPT short to ground B1380 DSAB short to ground B1384 PSAB short to ground B1401 Side Impact Sensor(SIS) driver side short to ground B1404 Side Impact Sensor(SIS) passenger side short to ground
-----	---

CIRCUIT DESCRIPTION

The squib circuit consists of the SRSCM, clock spring, DAB, PAB, SAB, BPT, and SIS. It causes the SRS to deploy when the SRS deployment conditions are satisfied. The above DTCs are recorded when a short to ground is detected in a squib circuit.

DTC Detecting Condition	Trouble Area
<ul style="list-style-type: none"> • Short circuit in squib wire harness (to ground) • Squib malfunction • Clock spring malfunction • SRSCM malfunction 	<ul style="list-style-type: none"> • DAB squib • PAB squib • DSAB squib • PSAB squib • BPT squib • SIS • Clock spring • SRSCM • Wire harness

WIRING DIAGRAM



EROF500C

TROUBLESHOOTING

RT -11

INSPECTION PROCEDURE

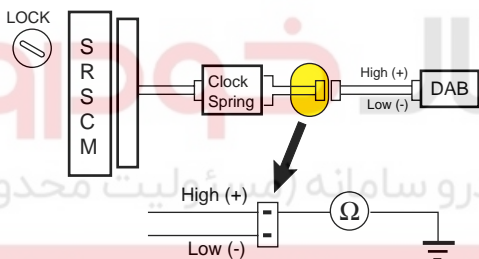
1. Preparation

- 1) Disconnect negative (-) terminal cable from the battery, and wait at least 30 seconds.
- 2) Remove the DAB module.
- 3) Disconnect the connectors of the PAB, left and right side airbag, space belt pretensioner and SIS.
- 4) Disconnect the connector of the SRSCM.

CAUTION

Place the DAB with the front surface facing upward.

2. Check DAB squib circuit.



ERA9011B

[CHECK]

For the connector (on the clock spring side) between clock spring and DAB, measure the resistance between DAB high and body ground.

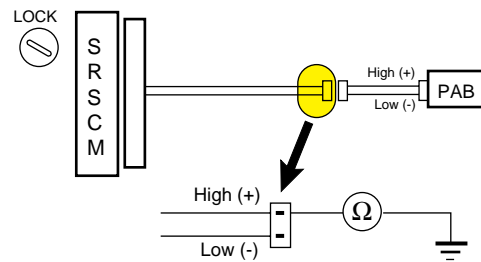
Resistance :

NG → Go to step "13"

OK
↓
Go to step "8"

ERJB041A

3. Check the PAB squib circuit.



ERA9011C

[CHECK]

For the connector (on the SRSCM side) between SRSCM and PAB, measure the resistance between PAB high and body ground.

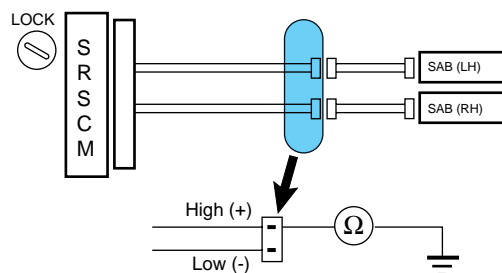
Resistance :

NG → Repair or replace harness or connector between the SRSCM and the PAB.

OK
↓
Go to step "9"

ERJB041B

4. Check PSAB and DSAB squib circuits.



ERA9011D

RT -12

RESTRAINTS

[CHECK]

For the connector (on the SRSCM side) between SRSCM and the SABs, measure the resistance between the SABs high and body ground.

Resistance :

NG → Repair or replace the harness between the SRSCM and the SAB.

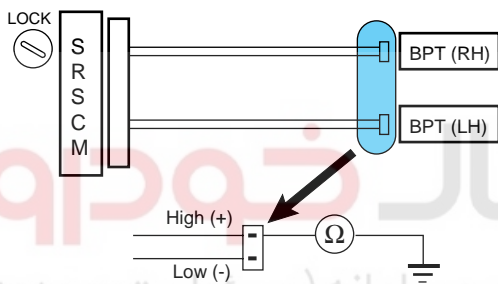
OK
↓

Go to step "10"

ERJB041C

EROF500D

5. Check the BPTs squib circuit.



[CHECK]

For the connector (on the SRSCM side) between the SRSCM and the SIS, measure the resistance between the SIS high and body ground.

Resistance :

NG → Repair or replace the harness between the SRSCM and the SIS.

OK
↓

Go to step "12"

ERA9011E

EROF500Z

[CHECK]

For the connector (on the SRSCM side) between the SRSCM and BPT, measure the resistance between the BPTs high and body ground.

Resistance :

NG → Repair or replace the harness between the SRSCM and the BPTs.

OK
↓

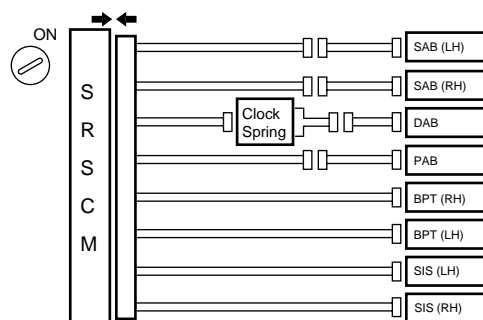
Go to step "11"

ERJB041D

7. Check the SRSCM.

[PREPARATION]

1. Connect the connector to SRSCM.
2. Using a service wire, connect the DAB high and DAB low on the clock spring side of connector.
3. Using a service wire, connect the PAB high and low on SRSCM side of connector.
4. Connect the SABs and BPT using the same method.
5. Connect the negative (-) terminal cable to battery, and wait it least 30 seconds.



EROF500E

TROUBLESHOOTING

RT -13

[CHECK]

1. Turn ignition switch to ON, and wait for at least 30 seconds.
2. Clear any codes stored in the memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using the Hi-Scan Pro, check for DTCs.
There is no DTC.

[HINT]

Codes other than these may be output at this time, but they are not relevant to this check.

5. Using the Hi-Scan Pro, check for DTCs.
There is no DTC.

[HINT]

Codes other than these may be output at this time, but they are not relevant to this procedure.

NG → Replace the DAB.

OK

↓
From the results of the above inspection, the malfunctioning part can now be considered normal.

NG → Replace the SRSCM.

OK

↓
From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041G

8. Check the DAB squib.

[PREPARATION]

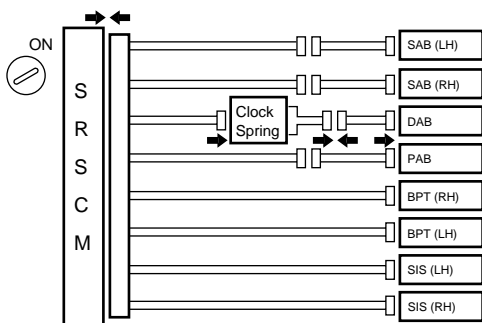
1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the DAB connector.
4. Connect the negative (-) terminal cable to the battery, and wait for 30 seconds.

9. Check the PAB squib.

[PREPARATION]

1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the PAB connector.
4. Connect the negative (-) terminal cable from the battery, and wait for 30 seconds.

ERJB041F



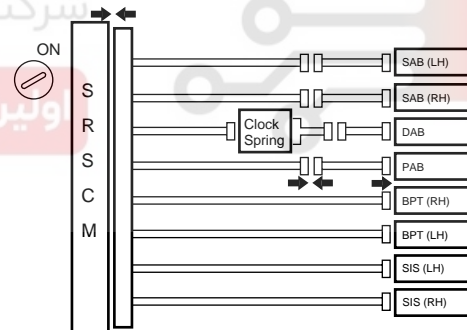
EROF500F

[CHECK]

1. Turn the ignition switch to ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory of the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.

[CHECK]

1. Turn the ignition switch to ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using the Hi-Scan Pro, check for DTCs.
There is no DTC.



EROF500G

RT -14

RESTRAINTS

[HINT]

Codes other than these may be output at this time, but they are not relevant to this procedure.

[HINT]

Codes other than these ones may be output at this time, but they are not relevant to this checking procedure.

NG → Replace the PAB.

NOTE

Check the DSAB using the same procedure.

OK



NG → Replace the SAB.

OK



From the results of the above inspection, the malfunctioning part can now be considered normal.

From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041H

ERJB041I

10. Check the SABs squib.

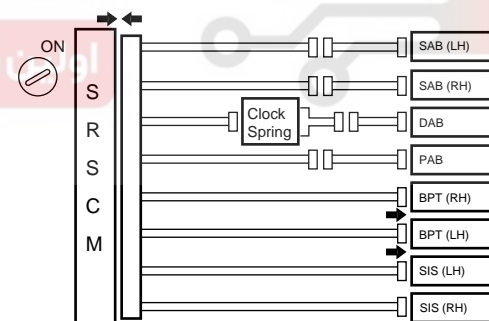
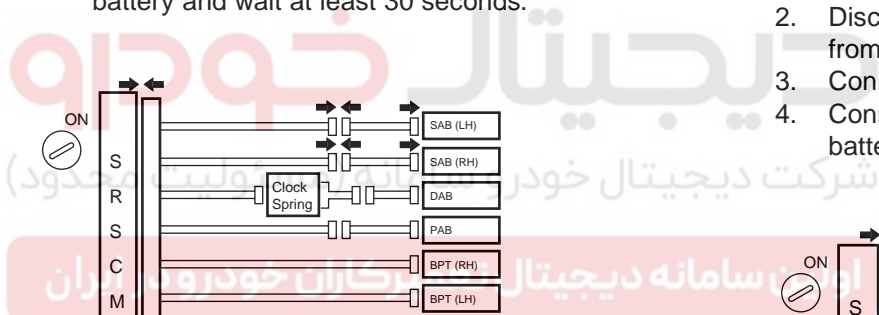
[PREPARATION]

1. Turn ignition switch to LOCK.
2. Disconnect negative (-) terminal cable from the battery, and wait at least 30 seconds.
3. Connect the Satellite sensor connector.
4. Connect the negative (-) terminal cable from the battery and wait at least 30 seconds.

11. Check the BPT squib.

[PREPARATION]

1. Turn ignition switch to LOCK.
2. Disconnect the engine negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the BPTs connector.
4. Connect the negative (-) terminal cable from the battery and wait for 30 seconds.



EROF500H

EROF500I

[CHECK]

1. Turn the ignition switch to ON, and wait at least 30 seconds.
2. Clear the malfunction code stored in memory with the Hi-scan Pro.
3. Turn the ignition switch to LOCK, and wait at least 30 seconds.
4. Turn the ignition switch to ON, and wait at least 30 seconds.
5. Using the Hi-scan Pro, check for DTCs.
There is no DTC.

[CHECK]

1. Turn the ignition switch to ON, and wait for 30 seconds.
2. Clear the malfunction code stored in the memory with the Hi-scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using the Hi-scan Pro, check for DTCs.
There is no DTC.

TROUBLESHOOTING

RT -15

[HINT]

Codes other than these may be output at this time, but they are not relevant to this procedure.

NG → Replace the BPT.

OK



From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041J

[HINT]

Codes other than there may be output at this time, but they are not relevant to this procedure.

NG → Replace the SIS.

OK



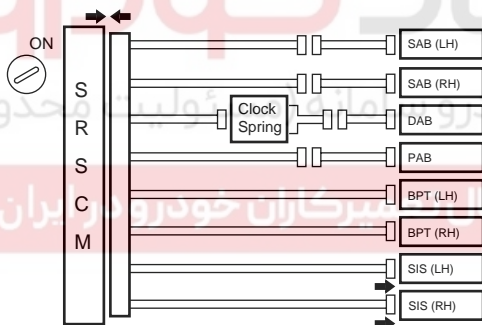
From the results of the above inspection, the malfunctioning part can now be considered normal.

EROF501A

12. Check the SIS.

[PREPARATION]

1. Turn ignition switch to LOCK.
2. Disconnect negative (-)terminal cable from the battery, and wait at least 30 seconds.
3. Connect the Satellite sensor connector.
4. Connect the negative (-) terminal cable from the battery and wait at least 30 seconds.



EROF500J

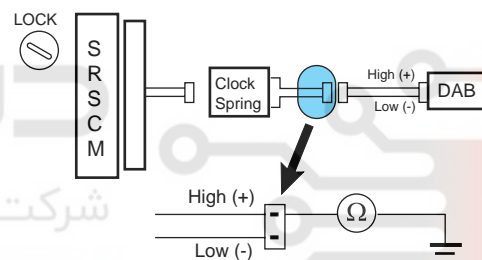
[CHECK]

1. Turn the ignition switch to ON, and wait at least 30 seconds.
2. Clear the malfunction code stored in memory with the Hi-scan Pro.
3. Turn the ignition switch to LOCK, and wait at least 30 seconds.
4. Turn the ignition switch to ON, and wait at least 30 seconds.
5. Using the Hi-scan Pro, check for DTCs.
There is no DTC.

13. Check clock spring circuit.

[PREPARION]

Disconnect connector between SRSCM and clock spring.



ERKB010B

[CHECK]

Measure resistance between the DAB high on the clock spring side of connector between clock spring and DAB and body ground.

Resistance :

NG → Replace the clock spring.

OK



Repair or replace the harness or the connector between the SRSCM and the clock spring.

ERDA027R

RT -16

RESTRAINTS

CIRCUIT INSPECTION

E34A209F

DTC	B 1349 DAB short to battery B 1355 PAB short to battery B 1364 DBPT short to battery B 1370 PBPT short to battery B 1381 DSAB short to battery B 1385 PSAB short to battery B 1402 Side Impact Sensor(SIS) driver side short to battery B 1405 Side Impact Sensor(SIS) passenger side short to battery
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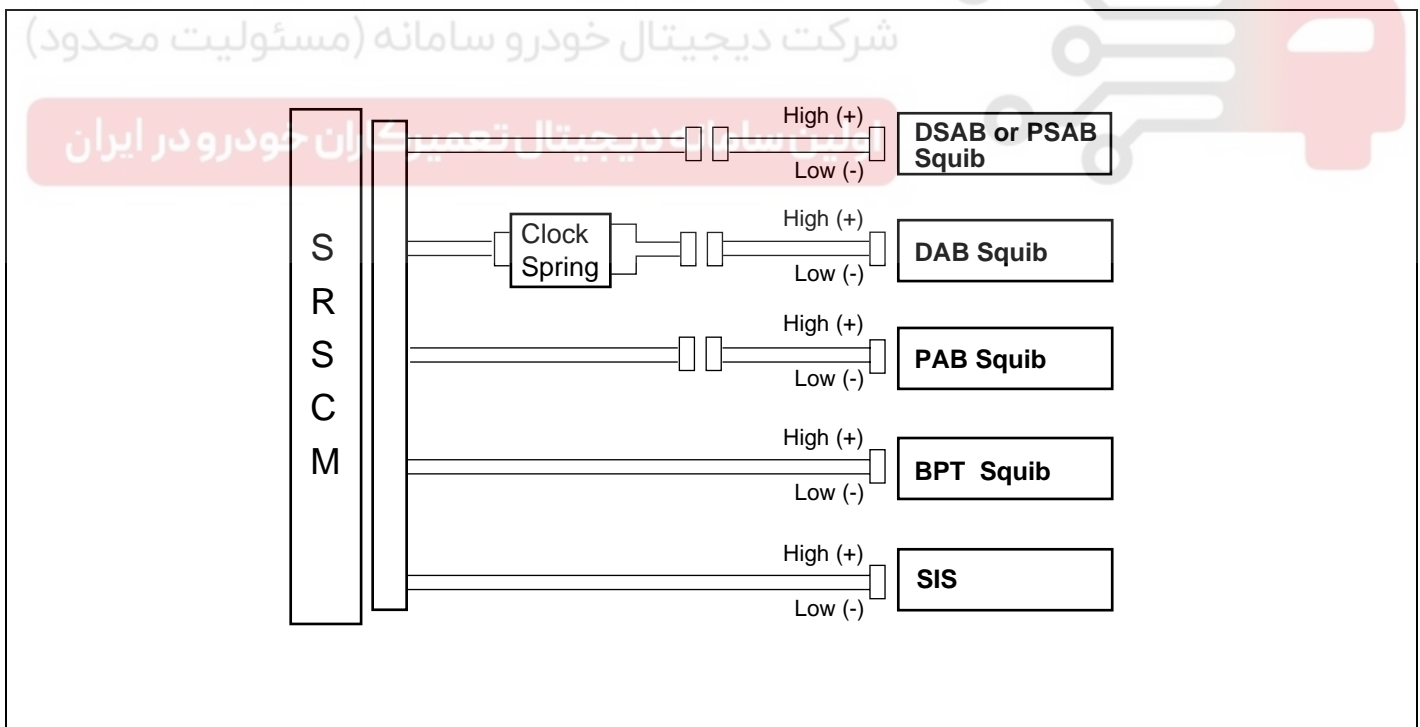
CIRCUIT DESCRIPTION

The squib circuit consists of the SRSCM, clock spring, DAB, PAB, DSAB, PSAB, BPT and SIS. If it causes the SRS to deploy when the SRS deployment conditions are

satisfied. The above DTCs are recorded when a B+ short is detected in the squib circuit.

DTC Detecting Condition	Trouble Area
<ul style="list-style-type: none"> • Short circuit in squib wire harness (to B+) • Squib malfunction • Clock spring cable malfunction • SRSCM malfunction 	<ul style="list-style-type: none"> • DAB squib • PAB squib • DSAB or PSAB squib • BPT squib • SIS • Wire harness

WIRING DIAGRAM



EROF500K

TROUBLESHOOTING

RT -17

INSPECTION PROCEDURE

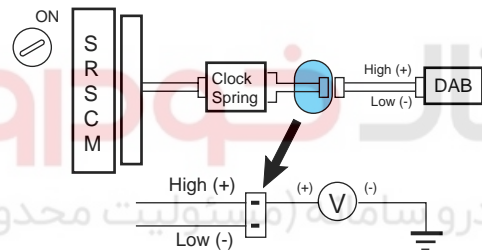
1. Preparation

- 1) Disconnect negative (-) terminal cable from the battery, and wait at least 30 seconds.
- 2) Remove the DAB module.
- 3) Disconnect the connectors of the PAB, left and right side airbag, belt pretensioner and SIS.
- 4) Disconnect the connector of the SRSCM.

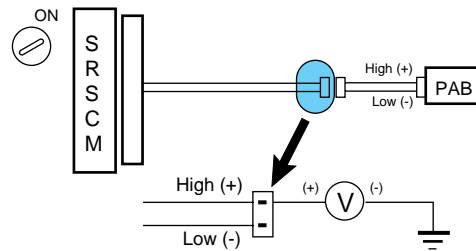
CAUTION

Place the DAB with the front surface facing upward.

2. Check the DAB squib circuit.



3. Check the PAB squib circuit.



[CHECK]

For the connector (on the SRSCM side) between the SRSCM and PAB, measure the voltage between the PAB high and body ground.

Voltage : 0 V

ERA9011P

NG → Repair or replace the harness between the SRSCM and the PAB.

OK
↓
Go to step "9"

ERJB042A

4. Check the SAB squib circuit.

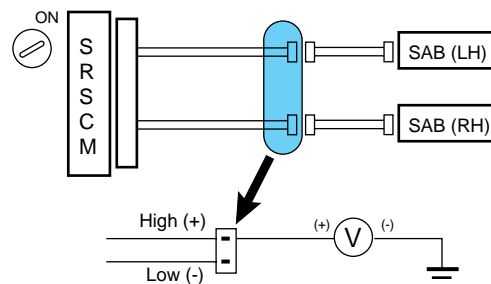
[CHECK]

For the connector (on the clock spring side) between the clock spring and DAB, measure the voltage between the DAB high and body ground.

Voltage : 0 V

NG → Go to step "13"

OK
↓
Go to step "8"



ERA9011Q

ERJB041A

RT -18

RESTRAINTS

[CHECK]

For the connector (on the SRSCM side) between the SRSCM and SAB, measure the voltage between the SAB high and **body ground**.

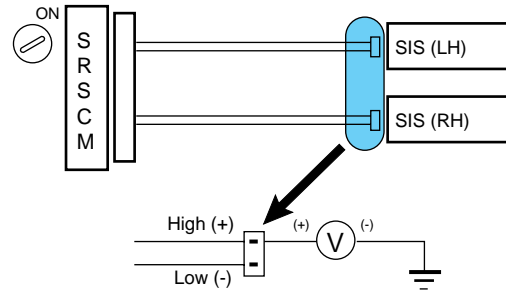
Voltage : 0 V

NG → Repair or replace the harness between the SRSCM and the SAB.

OK

Go to step "10"

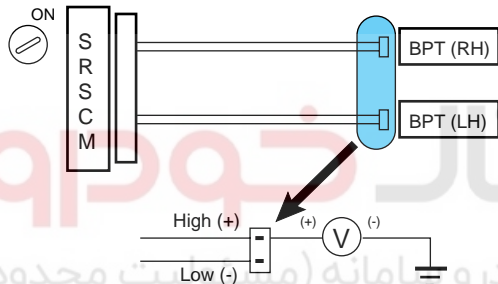
6. Check the SIS circuit.



ERJB041C

EROF500L

5. Check the BPTs squib circuits.



[CHECK]

For the connector between the SRSCM and the SIS, measure the voltage between the SIS high and body ground.

Voltage : 0 V

NG → Repair or replace the harness between the SRSCM and the SIS.

OK

Go to step "12"

ERA9011R

EROF500M

[CHECK]

For the connector between SRSCM and the BPTs, measure the voltage between the BPTs high and body ground.

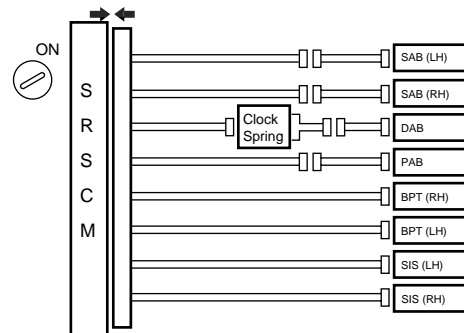
Voltage : 0 V

NG → Repair or replace the harness between the SRSCM and the BPTs.

OK

Go to step "11"

7. Check the SRSCM.



ERJB041D

EROF500N

TROUBLESHOOTING

RT -19

[PREPARATION]

1. Connect the connector to the SRSCM.
2. Using a service wire, connect the DAB high and low on the clock spring side of connector between the clock spring and the DAB.
3. Using a service wire, connect the PAB high and low on the SRSCM side of the connector between the SRSCM and the PAB.
4. Using a service wire, connect the SAB high and low on the SRSCM side connector between the SRSCM and the SAB.
5. Using a service wire, connect the BPT high and low on the SRSCM side connector between the SRSCM and the BPT.
6. Using a service wire, connect the satellite high and low on the SRSCM side connector between the SRSCM and the satellite sensor.
7. Connect negative (-) terminal cable to battery, and wait at least 30 seconds.

[CHECK]

1. Turn the ignition switch to ON, and wait at least 30 seconds.
2. Clear the malfunction code stored in memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait at least 30 seconds.
4. Turn the ignition switch to ON, and wait at least 30 seconds.
5. Using the Hi-Scan Pro, check for DTCs.

There is no DTC.**[HINT]**

Codes other than these may be output at this time, but they are not relevant to this check.

NG → Replace the SRSCM.**OK**

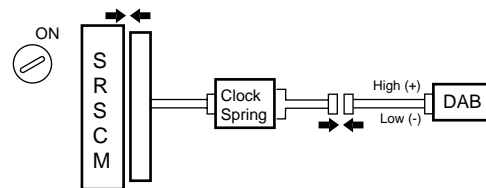
↓
From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041F

8. Check the DAB squib.

[PREPARATION]

1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the DAB connector.
4. Connect the negative (-) terminal cable to the battery, and wait for 30 seconds.



ERA9011U

[CHECK]

1. Turn the ignition switch ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory of the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using the Hi-Scan Pro, check for DTCs.

There is no DTC.**[HINT]**

Codes other than these may be output at this time, but they are not relevant to this procedure.

NG → Replace the DAB.**OK**

↓
From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041G

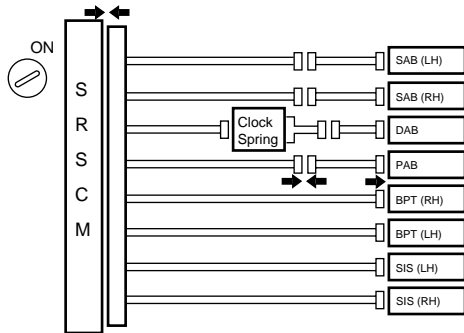
RT -20

RESTRAINTS

9. Check the PAB squib.

[PREPARATION]

1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the PAB connector.
4. Connect the negative (-) terminal cable from the battery, and wait for 30 seconds.

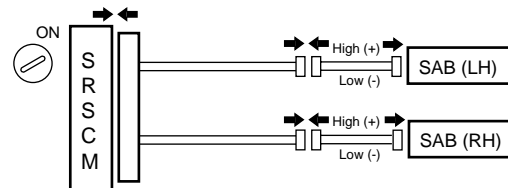


EROF5000

10. Check the SAB squib.

[PREPARATION]

1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the SAB connector.
4. Connect the negative (-) terminal cable from the battery, and wait for 30 seconds.



ERA9011W

[CHECK]

1. Turn the ignition switch to ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch ON, and wait for 30 seconds.
5. Using the Hi-Scan Pro, check for DTCs.

There is no DTC.

[HINT]

Codes other than these may be output at this time, but they are not relevant to this procedure.

[CHECK]

1. Turn the ignition switch to ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch ON, and wait for 30 seconds.
5. Using the Hi-Scan Pro, check for DTCs.

There is no DTC.

[HINT]

Codes other than these may be output at this time, but they are not relevant to this procedure.

NG → Replace the PAB.

OK



From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041H

NG → Replace the SAB.

OK



From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041I

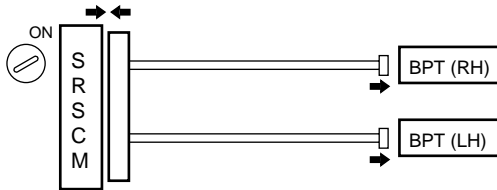
TROUBLESHOOTING

RT -21

11. Check the BPTs squib.

[PREPARATION]

1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the BPTs connector.
4. Connect the negative (-) terminal cable from the battery, and wait for 30 seconds.

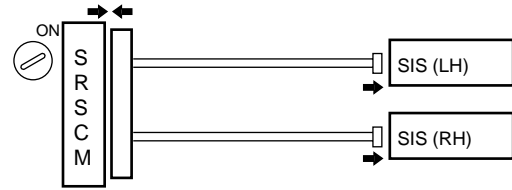


ERA9011X

12. Check the SIS.

[PREPARATION]

1. Turn ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait at least 30 seconds.
3. Connect the SIS sensor connector.
4. Connect the negative (-) terminal cable from the battery, and wait at least 30 seconds.



EROF500P

[CHECK]

1. Turn the ignition switch to ON, and wait for 30 seconds.
2. Clear the malfunction code stored in the memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using the Hi-Scan Pro, check for DTCs.

There is no DTC.**[HINT]**

Codes other than these may be output at this time, but they are not relevant to this procedure.

NG → Replace the BPT.**OK**

From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041J

[CHECK]

1. Turn the ignition switch to ON, and wait at least 30 seconds.
2. Clear the malfunction code stored in memory with Hi-scan.
3. Turn the ignition switch to LOCK, and wait at least 30 seconds.
4. Turn the ignition switch to ON, and wait at least 30 seconds.
5. Using the Hi-Scan Pro, check for DTCs.

There is no DTC.**[HINT]**

Codes other than these may be output at this time, but they are not relevant to this procedure.

NG → Replace the SIS.**OK**

From the results of the above inspection, the malfunctioning part can now be considered normal.

EROF500Q

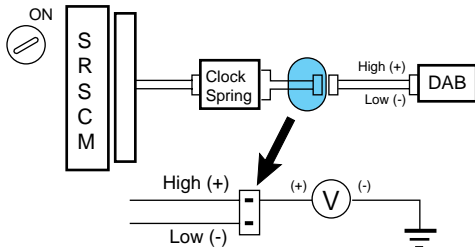
RT -22

RESTRAINTS

13. Check the Clock spring.

[PREPARAION]

1. Turn the ignition switch to LOCK.
2. Disconnect the connector between the SRSCM and the clock spring.



ERAC042A

[CHECK]

Turn the ignition switch ON, and measure the voltage between the DAB high side and the body ground.

Voltage : 0V

NG → Replace the clock spring.

OK

Repair or replace the harness or the connector between the SRSCM and the clock spring.

ERDA027R



TROUBLESHOOTING

RT -23

CIRCUIT INSPECTION E0E2BBAF

DTC	B1351 PAB open B1352 PAB resistance too high (R 2.3) B1353 PAB resistance too low or short (R 1.7)
-----	--

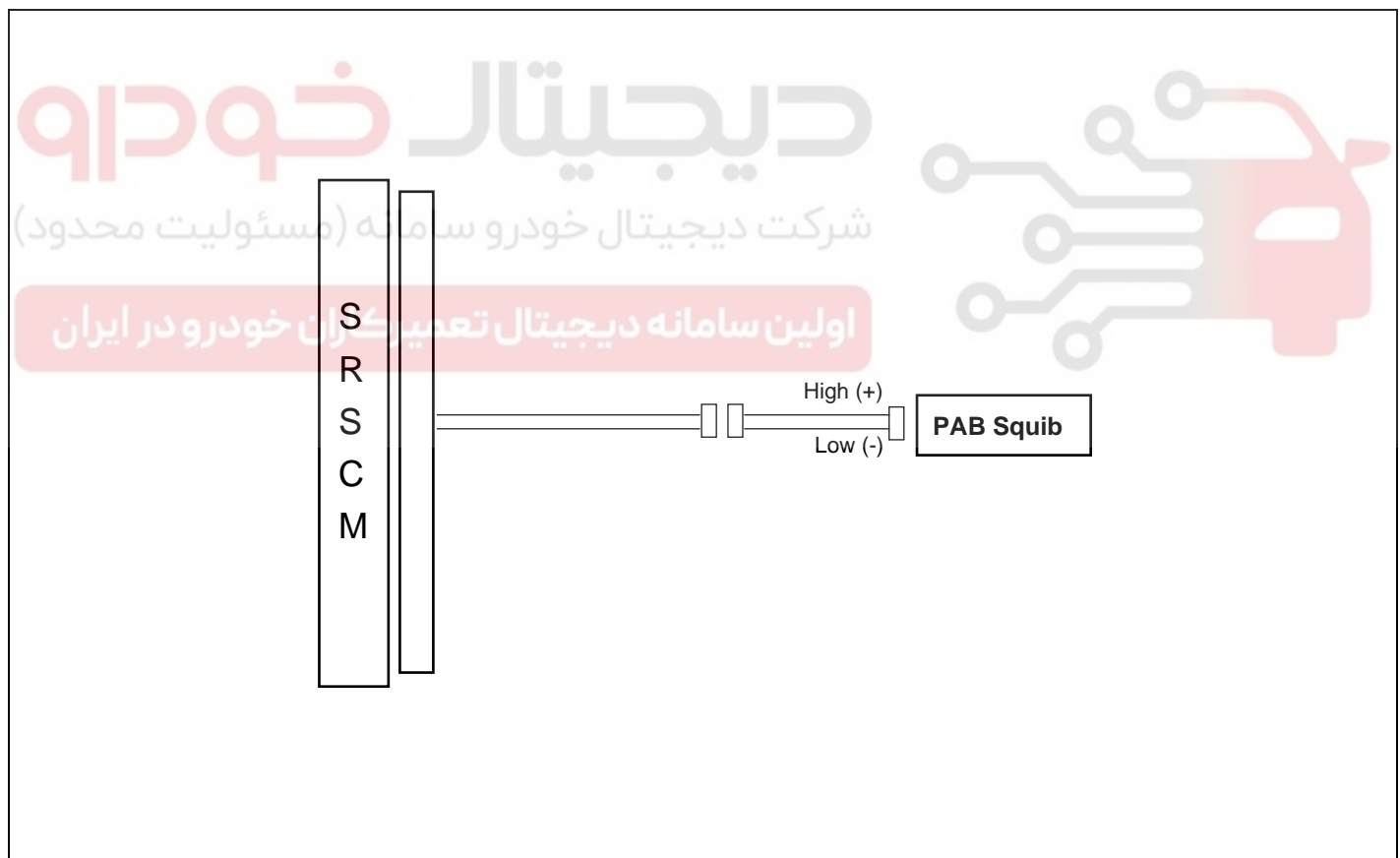
CIRCUIT DESCRIPTION

The PAB squib circuit consists of the SRSCM and PAB. It causes the airbag to deploy when the airbag deployment conditions are satisfied. The above DTCs are recorded

when the PAB circuit is open or the PAB resistance too high or low is detected in the PAB squib circuit.

DTC Detecting Condition	Trouble Area
<ul style="list-style-type: none"> • Too high or low resistance between PAB high (+) wiring harness and PAB low (-) wiring harness of squib. • PAB malfunction • SRSCM malfunction 	<ul style="list-style-type: none"> • PAB squib • SRSCM • Wire harness

WIRING DIAGRAM



ERA9012E

RT -24

RESTRAINTS

INSPECTION PROCEDURE

1. Preparation

- 1) Disconnect the negative (-) terminal cable from the battery, and wait at least 30 seconds.
- 2) Remove the DAB module.
- 3) Disconnect the connectors of the PAB, left and right side airbags, belt pretensioners and SIS.
- 4) Disconnect the SRSCM connector.

[CHECK]

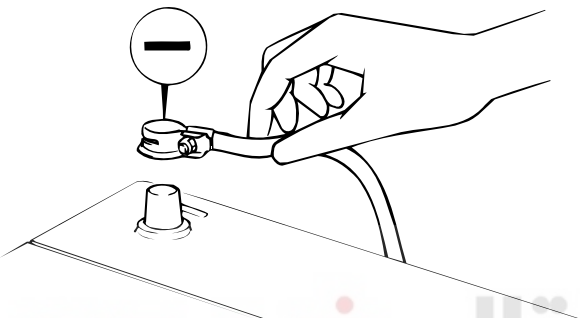
Measure the resistance between the PAB high (+) and the PAB low (-).

1.7 R 2.3

NG → Repair or replace the harness between the SRSCM and the PAB.

OK
↓

ERJB044A



EADA011A

CAUTION

Place the DAB with the front surface facing upward.

2. Check the PAB resistance.

[PREPARATION]

Release the airbag activation prevention mechanism on the SRSCM side of the airbag squib side. Connect the dummy (0957A-38200) and dummy adapter (0957A-38300) to PAB connector of the SRSCM connector side.

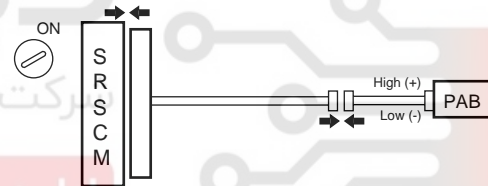
NOTE

Before checking the resistance, you have to insert the shorting bar insert plastic that is attached to the diagnosis checker into the SRSCM connector.

3. Check the PAB squib.

[PREPARATION]

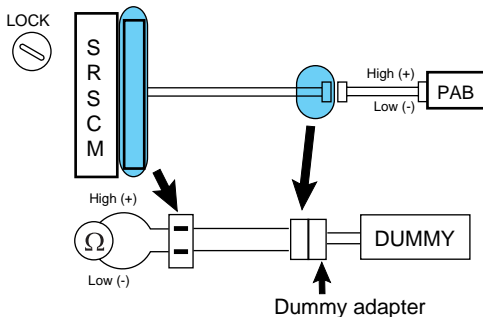
1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the PAB connector.
4. Connect the negative (-) terminal cable to the battery, and wait for 30 seconds.



ERA9011V

[CHECK]

1. Turn the ignition switch to ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using Hi-Scan Pro, check the DTC.
There is no DTC.



ERKB010E

TROUBLESHOOTING

RT -25

[HINT]

Codes other than these may be output at this time, but they are not relevant to this procedure.

NG → Replace the PAB.

OK



From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041H

دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



CIRCUIT INSPECTION

EAAC7CB7

DTC	B1360 DBPT open B1361 DBPT Resistance too high (R 2.5) B1362 DBPT Resistance too low or short (R 1.8) B1366 PBPT open B1367 PBPT Resistance too high (R 2.5) B1368 PBPT Resistance too low or short (R 1.8)
-----	--

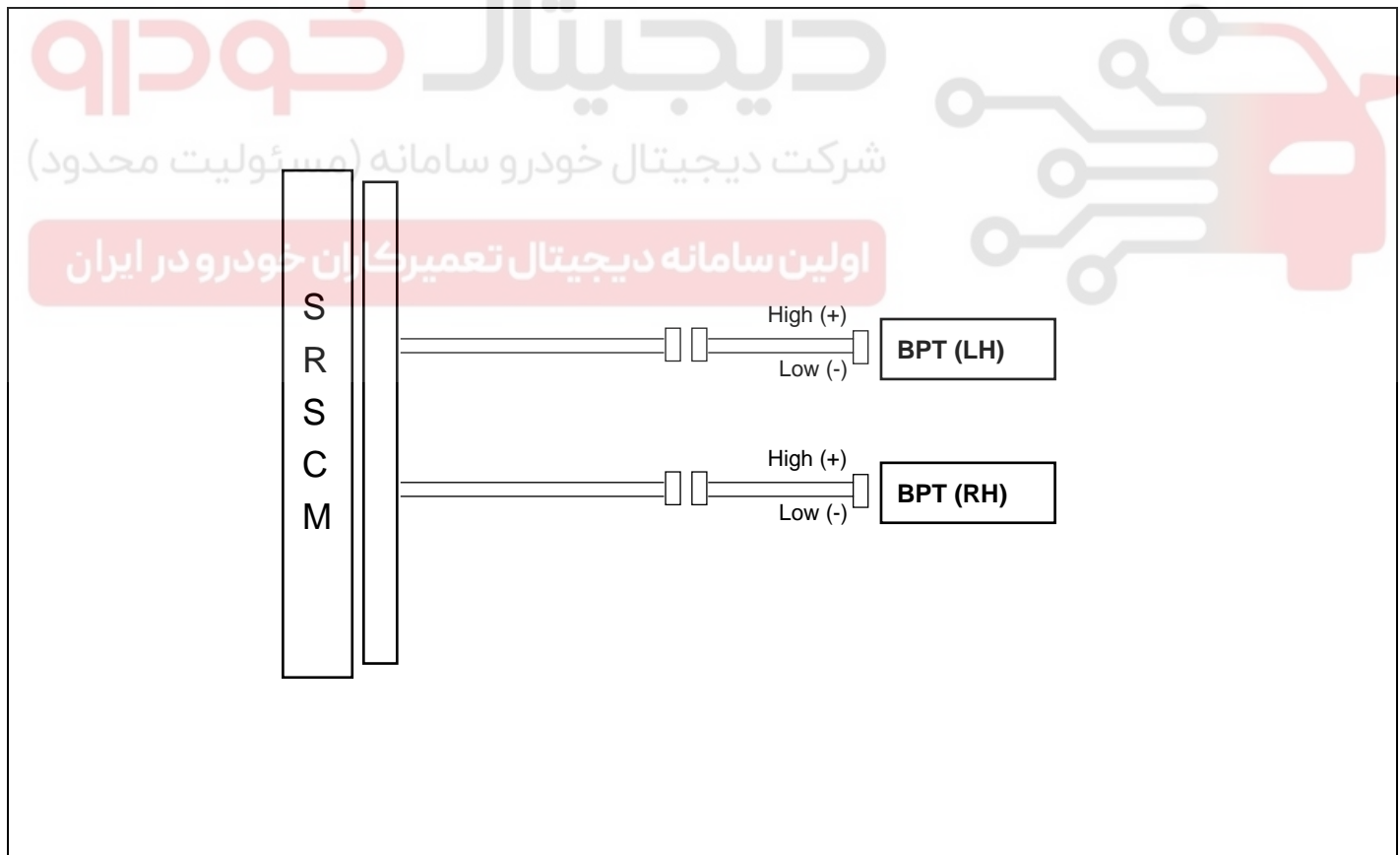
CIRCUIT DESCRIPTION

The BPT squib circuit consists of the SRSCM and BPT. It causes the airbag to deploy when the airbag deployment conditions are satisfied. The above DTCs are recorded

when the BPT circuit is open or the BPT resistance too high or low is detected in the BPT squib circuit.

DTC Detecting Condition	Trouble Area
<ul style="list-style-type: none"> • Too high or low resistance between BPT high (+) wiring harness and BPT low (-) wiring harness of squib. • BPT malfunction • SRSCM malfunction 	<ul style="list-style-type: none"> • BPT squib • SRSCM • Wire harness

WIRING DIAGRAM



ERJB046A

TROUBLESHOOTING

RT -27

INSPECTION PROCEDURE

1. Preparation

- 1) Disconnect the negative (-) terminal cable from the battery, and wait at least 30 seconds.
- 2) Remove the DAB module.
- 3) Disconnect the connectors of the PAB, left and right side airbags, belt pretensioners and SIS.
- 4) Disconnect the SRSCM connector.



EADA011A

CAUTION

Place the DAB with the front surface facing upward.

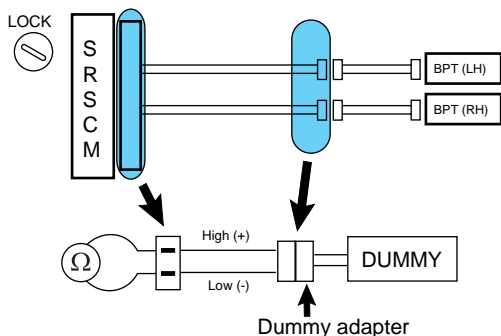
2. Check the BPT resistance.

[PREPARATION]

Release the airbag activation prevention mechanism on the SRSCM side of the airbag squib side. Connect the dummy (0957A-38200) and dummy adapter (0957A-38300) to the BPT connector of the SRSCM connector side.

NOTE

Before checking the resistance, you have to insert the shorting bar insert plastic that is attached to the diagnosis checker into the SRSCM connector.



ERJB046D

[CHECK]

Measure the resistance between the BPT high (+) and the BPT low (-).

1.8 R 2.5

NG → Repair or replace the harness between the SRSCM and the BPT.

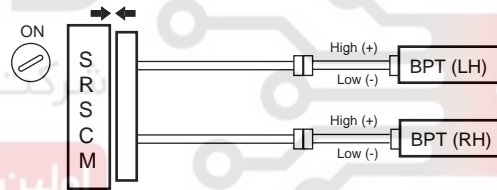
OK
↓

ERJB046B

3. Check the BPT squib.

[PREPARATION]

1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the BPT connector.
4. Connect the negative (-) terminal cable to the battery, and wait for 30 seconds.



ERJB046C

[CHECK]

1. Turn the ignition switch to ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using Hi-Scan Pro, check the DTC.
There is no DTC.

RT -28

RESTRAINTS

[HINT]

Codes other than these may be output at this time, but they are not relevant to this procedure.

NG → Replace the BPT.

OK



From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB041J

دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



TROUBLESHOOTING

RT -29

CIRCUIT INSPECTION

E09AF1CA

DTC	B1377 DSAB open B1378 DSAB Resistance too high (R 2.5) B1379 DSAB Resistance too low or short (R 1.9) B1382 PSAB Resistance too high (R 2.5) B1383 PSAB Resistance too low or short (R 1.9) B1386 PSAB open
-----	--

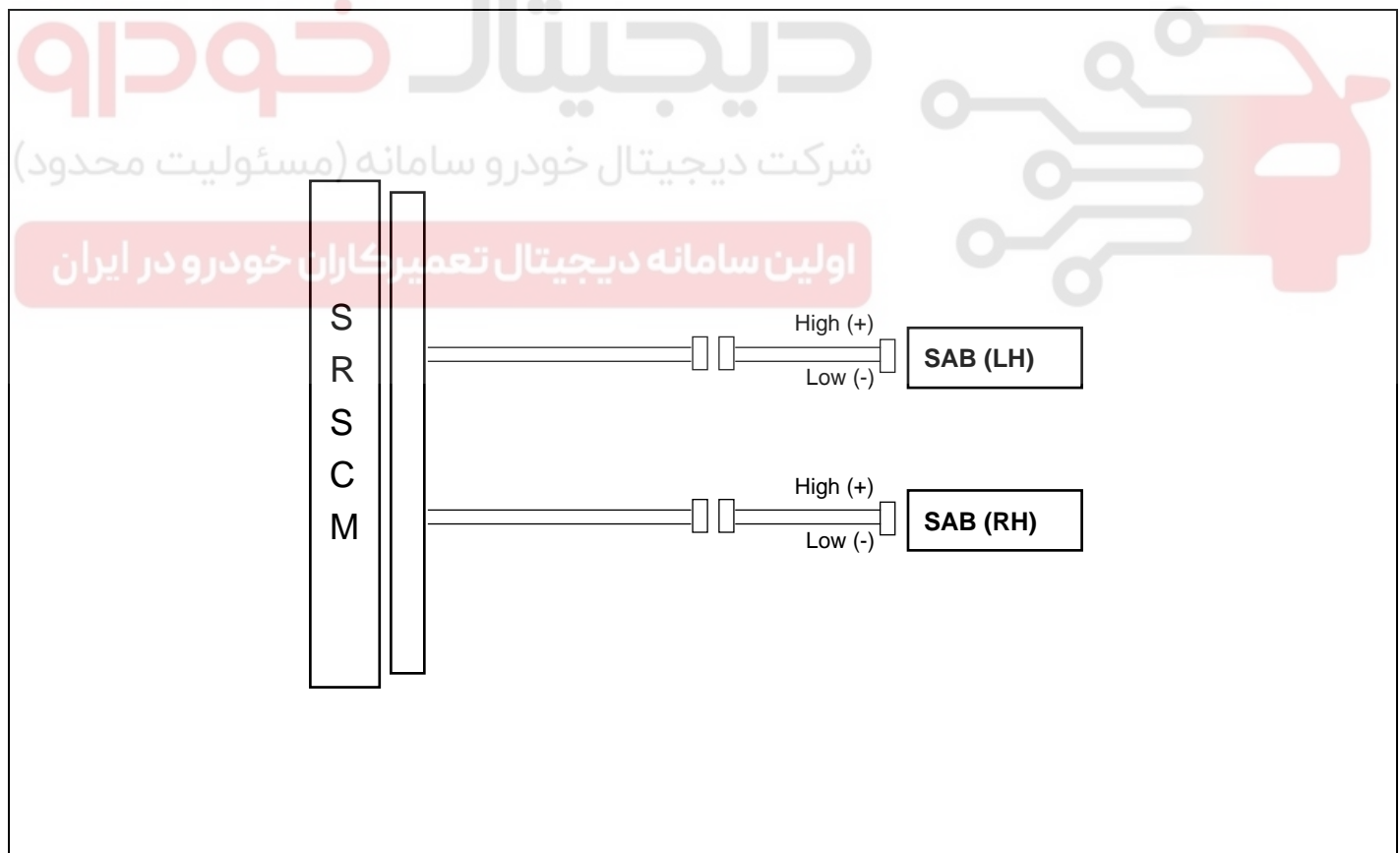
CIRCUIT DESCRIPTION

The SAB squib circuit consists of the SRSCM and SAB. It causes the airbag to deploy when the airbag deployment conditions are satisfied. The above DTCs are recorded

when the SAB circuit is open or the SAB resistance too high or low is detected in the SAB squib circuit.

DTC Detecting Condition	Trouble Area
<ul style="list-style-type: none"> • Too high or low resistance between SAB high (+) wiring harness and SAB low (-) wiring harness of squib. • SAB malfunction • SRSCM malfunction 	<ul style="list-style-type: none"> • SAB squib • SRSCM • Wire harness

WIRING DIAGRAM



ERJB045B

RT -30

RESTRAINTS

INSPECTION PROCEDURE

1. Preparation

- 1) Disconnect the negative (-) terminal cable from the battery, and wait at least 30 seconds.
- 2) Remove the DAB module.
- 3) Disconnect the connectors of the PAB, left and right side airbags, belt pretensioners and SIS.
- 4) Disconnect the SRSCM connector.

[CHECK]

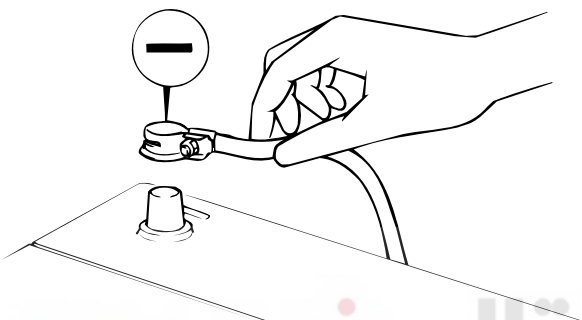
Measure the resistance between the SAB high (+) and the SAB low (-).

1.9 R 2.5

NG → Repair or replace the harness between the SRSCM and the SAB.

OK
↓

ERJB045A



EADA011A

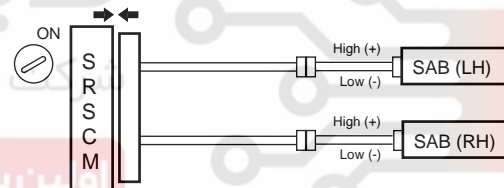
CAUTION

Place the DAB with the front surface facing upward.

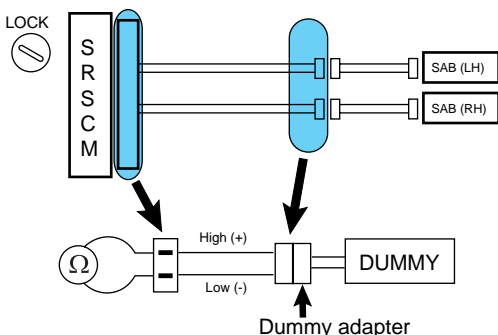
2. Check the SAB resistance.

[PREPARATION]

Release the airbag activation prevention mechanism on the SRSCM side of the airbag squib side. Connect the dummy (0957A-38200) and dummy adapter (0957A-38300) to the SAB connector of the SRSCM connector side.



ERA9012K



ERKB020A

NOTE

Before checking the resistance, you have to insert the shorting bar insert plastic that is attached to the diagnosis checker into the SRSCM connector.

[CHECK]

1. Turn the ignition switch to ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory with the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using Hi-Scan Pro, check the DTC.
There is no DTC.

TROUBLESHOOTING

RT -31

[HINT]

Codes other than these may be output at this time, but they are not relevant to this procedure.

NG → Replace the SAB.

OK



From the results of the above inspection, the malfunctioning part can now be considered normal.

ERJB0411

دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



CIRCUIT INSPECTION

EC1CBFF5

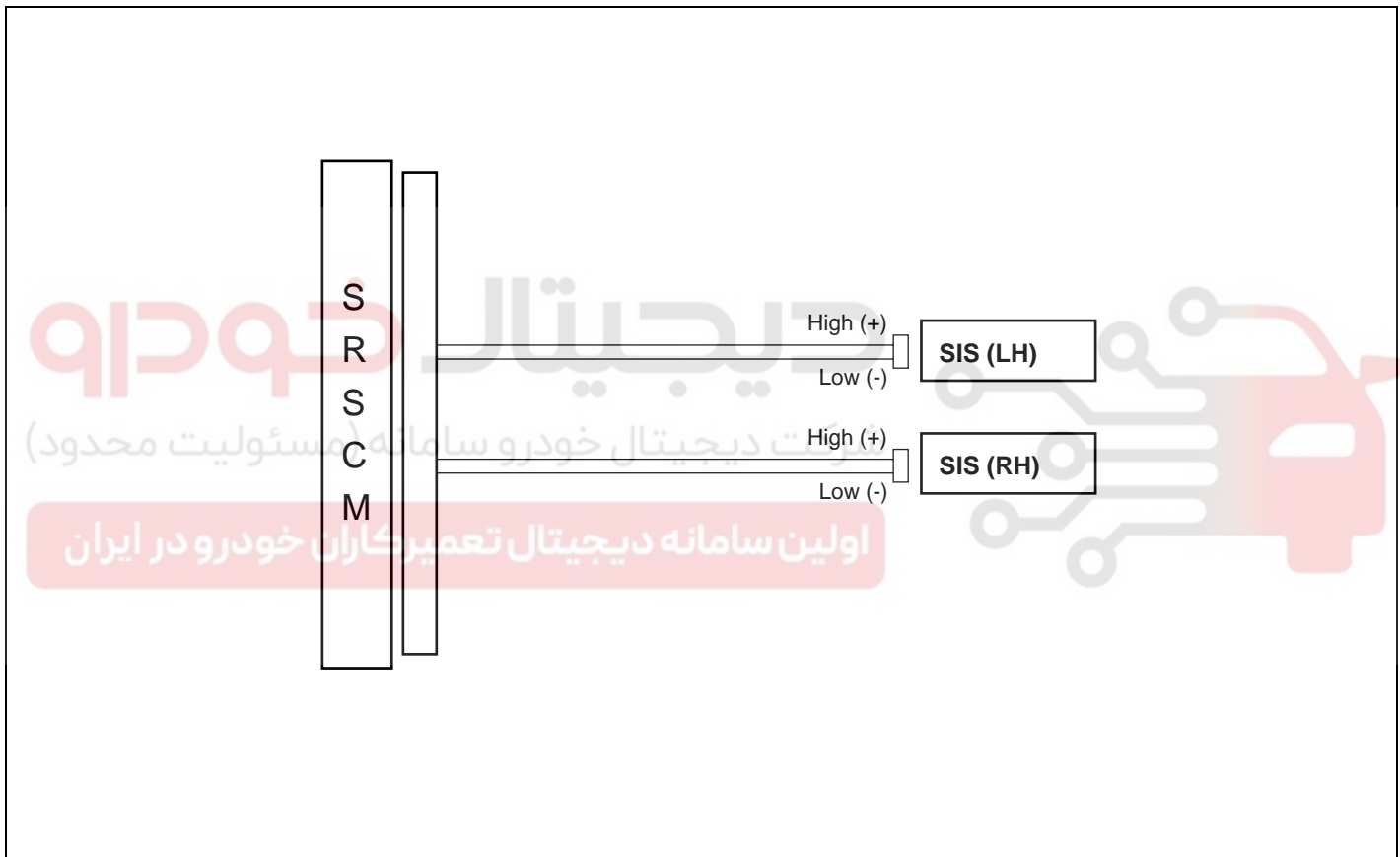
DTC	B1400 Side Impact Sensor(SIS) driver side defect B1403 Side Impact Sensor(SIS) passenger side defect B1409 Side Impact Sensor(SIS) driver communication error B1410 Side Impact Sensor(SIS) passenger communication error
-----	--

CIRCUIT DESCRIPTION

The release system for the airbag consists of the SRSCM and two SIS - one on the left - hand side and one on the right. The above DTCs are recorded when a defect or

communication error of the SIS is detected in the SIS circuit.

WIRING DIAGRAM

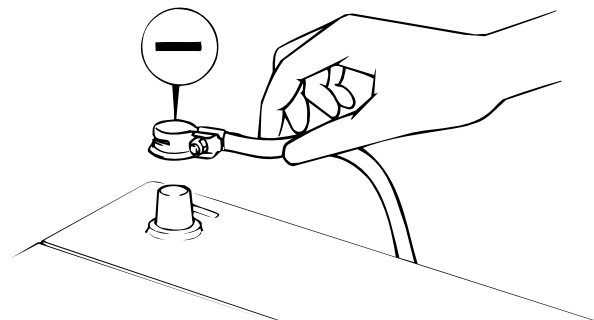


EROF500R

INSPECTION PROCEDURE

1. Preparation

- 1) Disconnect the negative (-) terminal cable from the battery, and wait at least 30 seconds.
- 2) Remove the DAB module.
- 3) Disconnect the connectors of the PAB, left and right side airbags, belt pretensioners and SIS.
- 4) Disconnect the SRSCM connector.



EADA011A

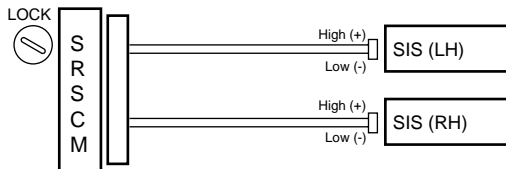
TROUBLESHOOTING

RT -33

CAUTION

Place the DAB with the front surface facing upward.

2. Check SIS circuit (communication error).



EROF500S

[PREPARATION]

Check continuity between the SRSCM connector and the SIS connector as high (+) and high, low (-) and low (-).

OK : Continuity

NG → Repair or replace the harness between the SRSCM and the SIS.

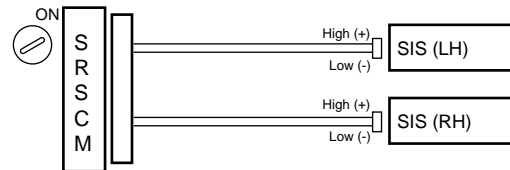
OK ↓

EROF500T

3. Check the SIS (defect).

[PREPARATION]

1. Turn the ignition switch to LOCK.
2. Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
3. Connect the SIS connector.
4. Connect the negative (-) terminal cable to the battery, and wait for 30 seconds.



EROF500U

[CHECK]

1. Turn the ignition switch to ON, and wait for at least 30 seconds.
2. Clear the malfunction code stored in the memory of the Hi-Scan Pro.
3. Turn the ignition switch to LOCK, and wait for 30 seconds.
4. Turn the ignition switch to ON, and wait for 30 seconds.
5. Using the Hi-Scan Pro, check DTC.

There is no DTC.

[HINT]

Codes other than these may be output at this time, but they are not relevant to this check.

NG → Replace the SIS.

OK



From the results of the above inspection, the malfunctioning part can now be considered normal.

EROF500V

RT -34

RESTRAINTS

CIRCUIT INSPECTION

EA5336E7

DTC	B1414 DSOS Wrong ID B1415 PSIS Wrong ID
-----	--

CIRCUIT DESCRIPTION

The detecting system for side crash consists of the SRSCM and two Side Impact Sensor(SIS).

The SRSCM sets above DTC(s) if it detects SIS wrong ID.

INSPECTION PROCEDURE

If above DTC is detected, replace Side Impact Sensors(SIS).

دیجیتال خودرو

شرکت دیجیتال خودرو سامانه (مسئولیت محدود)

اولین سامانه دیجیتال تعمیرکاران خودرو در ایران



TROUBLESHOOTING

RT -35

CIRCUIT INSPECTION

EA5336E6

DTC	B1511 Driver seat belt switch open/short to Battery B1512 Driver seat belt switch short to GND B1513 Passenger seat belt switch open/short to Battery B1514 Passenger seat belt switch short to GND
-----	--

CIRCUIT DESCRIPTION

This system decides whether the seat belt of the driver or passenger are locked and then prevent the belt pretensioner from deploying on crash.

INSPECTION PROCEDURE

1. Preparation
2. Check buckle switch sensor circuit (Short to GND/Battery).

[CHECK]

Measure the voltage and resistance of the seat belt switch high and body ground between the SRSCM connector and the seat belt switch connector.

Resistance :

Voltage : 0V

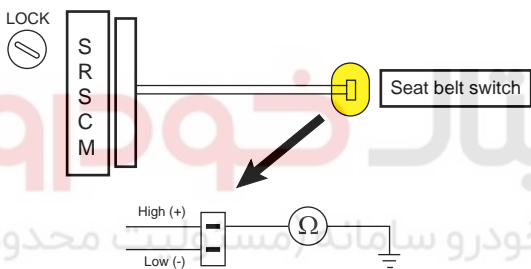
NG

→ Repair or replace the harness between the SRSCM and the seat belt switch.

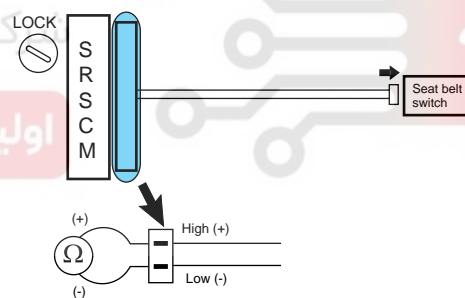
OK

3. Check the seat belt switch

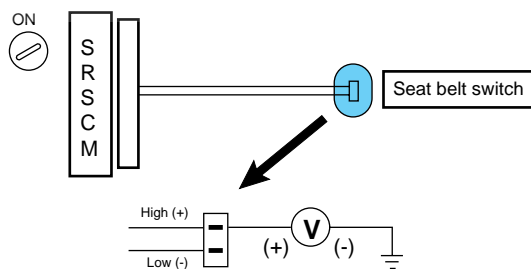
ERKB049B



EROC048A



ERKB030D



ERKB030C

[CHECK]

Check the resistance with the switch on and off.

SWITCH OPEN : R = 630 ~ 770 (Belted)

SWITCH OPEN : R = 360 ~ 440 (Unbelted)

NG

→ Replace the seat belt switch

OK

From the results of the above inspection the malfunctioning part can now be considered normal.

ERKB049C

RT -36

RESTRAINTS

CIRCUIT INSPECTION

E6456A1A

DTC	B1515 Driver seat belt switch defect B1516 Passenger seat belt switch defect
-----	---

CIRCUIT DESCRIPTION

This system decides whether the seat belt of the driver or passenger are locked and then prevent the belt pretensioner from deploying on crash.

INSPECTION PROCEDURE

- Preparation
 - Disconnect the negative (-) terminal cable from the battery, and wait 3 minutes.
 - Remove the DAB module.
 - Disconnect the connectors of the PAB, SAB, BPT, FIS and SIS.
 - Disconnect the SRSCM connector.
- Check the seat belt switch (defect).

[HINT]

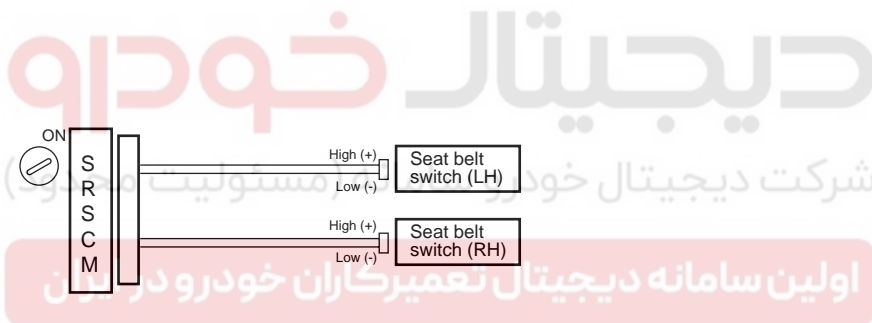
Codes other than these may be output at this time, but they are not relevant to this check.

NG → Replace the seat belt switch.

OK

↓
From the results of the above inspection, the malfunctioning part can now be considered normal.

EROF500X



EROF500W

[PREPARATION]

- Turn the ignition switch to LOCK.
- Disconnect the negative (-) terminal cable from the battery, and wait for 30 seconds.
- Connect the seat belt switch connector.
- Connect the negative (-) terminal cable to the battery, and wait for 30 seconds.

[CHECK]

- Turn the ignition switch to ON, and wait for at least 30 seconds.
- Clear the malfunction code stored in the memory with the Hi-Scan Pro.
- Turn the ignition switch to LOCK, and wait for 30 seconds.
- Turn the ignition switch to ON, and wait for 30 seconds.
- Using Hi-Scan Pro, check the DTC.
There is no DTC.

TROUBLESHOOTING

RT -37

CIRCUIT INSPECTION

E9C12435

DTC	B1620 Airbag unit internal failure B1650 SRSCM crash recorded B1651 Driver side crash recording B1652 Passenger side crash recording B1657 Crash recorded-belt pretensioner only
-----	--

CIRCUIT DESCRIPTION*SRSCM MALFUNCTION*

The SRSCM shall also cyclically monitor the following:

1. Functional readiness of the firing circuit activation transistor.
2. Adequacy of deployment energy reserves.
3. Safing sensor integrity : detection of faulty closure.
4. Plausibility of accelerometer signal.
5. Operation of SRSCM components.

The timely completion of all tests is monitored by a separate hardware watchdog. During normal operation, the watchdog is triggered periodically by the SRSCM : If the SRSCM fails to trigger the watchdog, the watchdog will reset the SRSCM and activate the SRI (Service Reminder Indicator). The SRSCM must be replaced once the fault codes except B1657 mentioned above are confirmed. Be able to reuse SRSCM 5 times, when B1657 is only monitored.



RT -38

RESTRAINTS

CIRCUIT INSPECTION

EE94D0FE

DTC	B2501 Warning Lamp Fault - Bulb open B2503 Warning Lamp Fault - Short to Battery or Bulb short B2504 Warning Lamp Fault - Short to GND or Bulb open
-----	---

CIRCUIT DESCRIPTION

The SRS warning lamp is located in the cluster. When the airbag system is normal, the SRI flashes for approx. 6 seconds after the ignition switch is turned ON, and then turns off automatically. If there is a malfunction in the airbag system, the SRI lights up to inform the driver of the abnormality. The SRSCM shall measure the voltage at the airbag SRI (Malfunction Indicator Lamp) output pin, both when the lamp is on and when the lamp is off, to detect whether the commanded state matches the actual state.

INSPECTION PROCEDURE

1. Check the fuse.

[PREPARATION]

1. Remove airbag fuse and airbag warning lamp fuse from the junction block.
2. Inspect the state of the fuses.
3. Replace if necessary.

2. Check the SRS warning lamp circuit.

[PREPARATION]

1. Connect the negative (-) terminal cable to the battery.
2. Turn the ignition switch to ON.

[CHECK]

1. Measure voltage at the harness side connector of the SRSCM.

Voltage : 9 ~ 16V

NG → Check the SRS warning light bulb/repair the SRS warning light circuit.

OK

2. Check the SRS SRI (Service Reminder Indicator).

OK : SRS SRI ON

NG → If no fault is found in wiring or connector, replace the SRSCM.

OK

From the results of the above inspection, the part can now be considered to be normal.

ERDA032B