

SECTION **SBC**

SEAT BELT CONTROL SYSTEM

A
B
C
D
E
F
G
SBC
I
J
K
L
M
N
O
P

CONTENTS

BASIC INSPECTION	SEAT BELT WARNING LAMP	2	11
	Diagnosis Procedure		11
DIAGNOSIS AND REPAIR WORKFLOW	SEAT BELT WARNING SYSTEM	2	12
Work Flow	Wiring Diagram - SRS AIR BAG CONTROL SYS-	2	12
FUNCTION DIAGNOSIS	TEM -	5	12
SEAT BELT WARNING SYSTEM	ECU DIAGNOSIS	5	15
System Diagram	DIAGNOSIS SENSOR UNIT	5	15
System Description	DTC Index	5	15
Component Parts Location	Wiring Diagram - SRS AIR BAG CONTROL SYS-	6	19
Component Description	TEM -	6	19
COMPONENT DIAGNOSIS	SYMPTOM DIAGNOSIS	7	25
SEAT BELT BUCKLE SWITCH	SEAT BELT WARNING LAMP DOES NOT	7	25
DRIVER SIDE	TURN OFF	7	25
DRIVER SIDE : Description	Diagnosis Procedure	7	25
DRIVER SIDE : Component Function Check	SEAT BELT WARNING LAMP DOES NOT	7	26
DRIVER SIDE : Diagnosis Procedure	TURN ON	7	26
DRIVER SIDE : Component Inspection (Belt	Diagnosis Procedure	8	26
Buckle Switch)	PRECAUTION	8	27
PASSENGER SIDE	PRECAUTIONS	8	27
PASSENGER SIDE : Description	Precaution for Supplemental Restraint System	8	27
PASSENGER SIDE : Component Function Check	(SRS) "AIR BAG" and "SEAT BELT PRE-TEN-	8	27
.....	SIONER"	9	27
PASSENGER SIDE : Diagnosis Procedure	Precaution for Seat Belt Service	9	27
PASSENGER SIDE : Component Inspection (Belt	Precaution for Battery Service	10	28
Buckle Switch)		10	

DIAGNOSIS AND REPAIR WORKFLOW

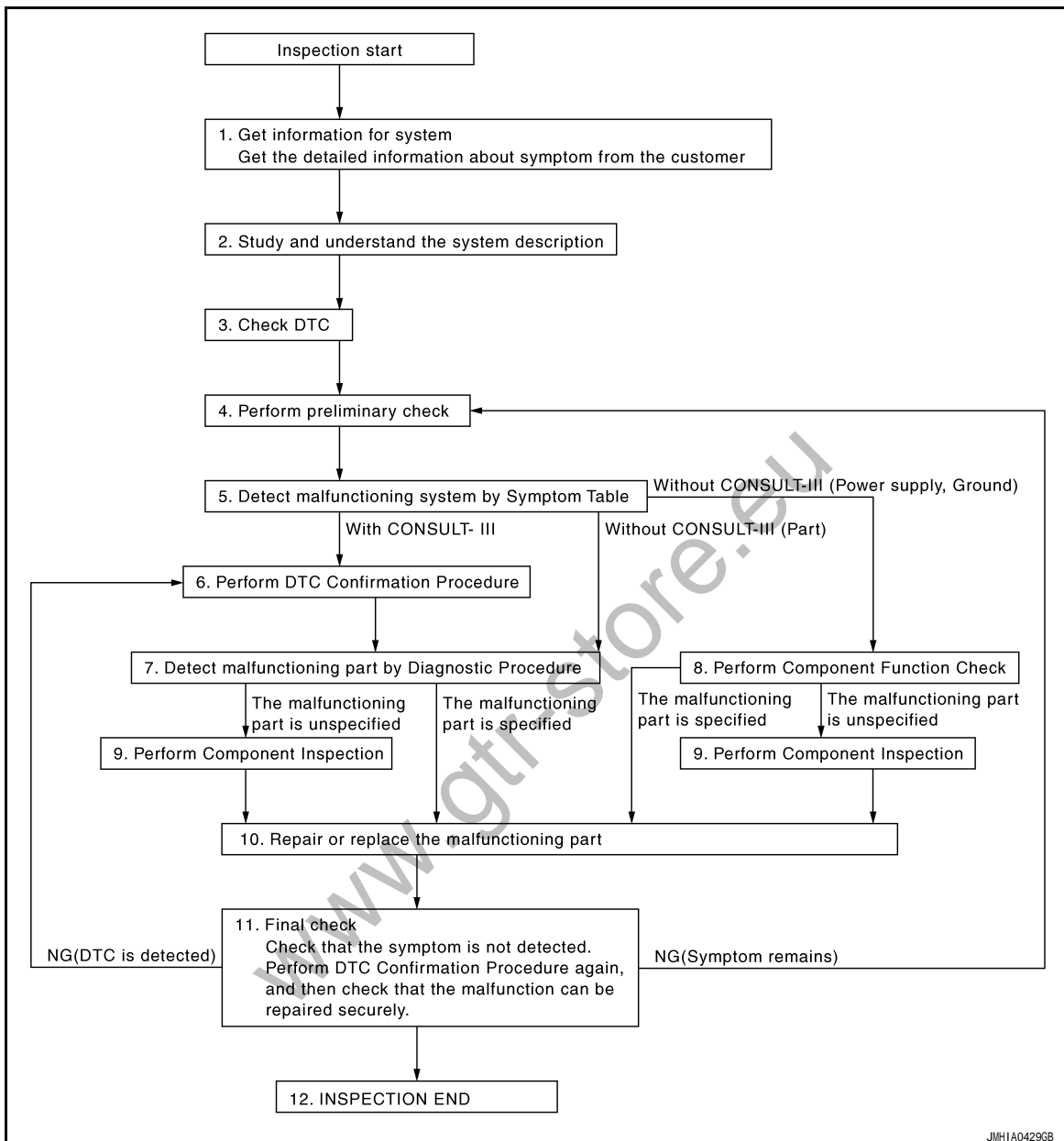
< BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000004051975



1.GET INFORMATION FOR SYSTEM

Interview the customer to obtain the malfunction information (conditions and environment when the malfunction occurred) as much as possible when the customer brings the vehicles in.

>> GO TO 2.

2.STUDY AND UNDERSTAND THE SYSTEM DESCRIPTION

Understand the operation condition or non-operation condition of pre-crash seat belt. Refer to [SBC-5, "System Description"](#).

>> GO TO 3.

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

3. CHECK DTC

Perform "Self-diagnosis procedure" of appropriate DTC to check if DTC is detected again.
At this time, always connect CONSULT-III to the vehicle, and then check the diagnosis results in real time on "DATA MONITOR (AUTO RECORD)".

There is no priority for each DTC. Record them based on the following rules.

Current malfunction: Record all DTCs detected.

Past malfunction: Record up to 5 DTCs. When the 6th DTC is detected, it is overwritten to the first recorded DTC.

Is DTC detected?

YES >> GO TO 4.

NO >> Follow the diagnosis simulation test to check. Refer to [GI-38, "Intermittent Incident"](#).

4. PERFORM PRELIMINARY CHECK

Perform Pre-Diagnosis Inspection.

>> GO TO 5.

5. DETECT MALFUNCTIONING SYSTEM BY SYMPTOM DIAGNOSIS

Detect malfunctioning system according to SYMPTOM DIAGNOSIS based on the confirmed symptom in step 4, and determine the trouble diagnosis order based on possible causes and symptom.

With CONSULT-III >> GO TO 6.

Without CONSULT-III >> GO TO 7 (Parts system).

Without CONSULT-III >> GO TO 8 (Power supply, ground system).

6. PERFORM DTC CONFIRMATION PROCEDURE

Perform the inspection with "DTC REPRODUCTION PROCEDURE" of the applicable system.

>> GO TO 7.

7. DETECT MALFUNCTIONING PART BY DIAGNOSTIC PROCEDURE

Identify the malfunctioning part with "Diagnosis Procedure".

Are malfunctioning parts detected?

YES >> GO TO 10.

NO >> GO TO 9.

8. PERFORM COMPONENT FUNCTION CHECK

Identify the malfunctioning part with "Component Parts Function Inspection".

Are malfunctioning parts detected?

YES >> GO TO 10.

NO >> GO TO 9.

9. PERFORM COMPONENT INSPECTION

Perform the inspection with "Component Parts Inspection".

>> GO TO 10.

10. REPAIR OR REPLACE THE MALFUNCTIONING PART

Repair or replace the specified malfunctioning parts.

>> GO TO 11.

11. FINAL CHECK

Perform "CONSULT-III function" again to check that the repair is performed correctly.

Check that malfunctions are not reproduced when obtaining the malfunction information from the customer, referring to the symptom inspection result in step 4.

A

B

C

D

E

F

G

SBC

I

J

K

L

M

N

O

P

DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

Are all malfunctions corrected?

- YES >> • Before delivering the vehicle to the customer, check that DTC is erased.
• INSPECTION END
- NO >> DTC is reproduced: GO TO 6.

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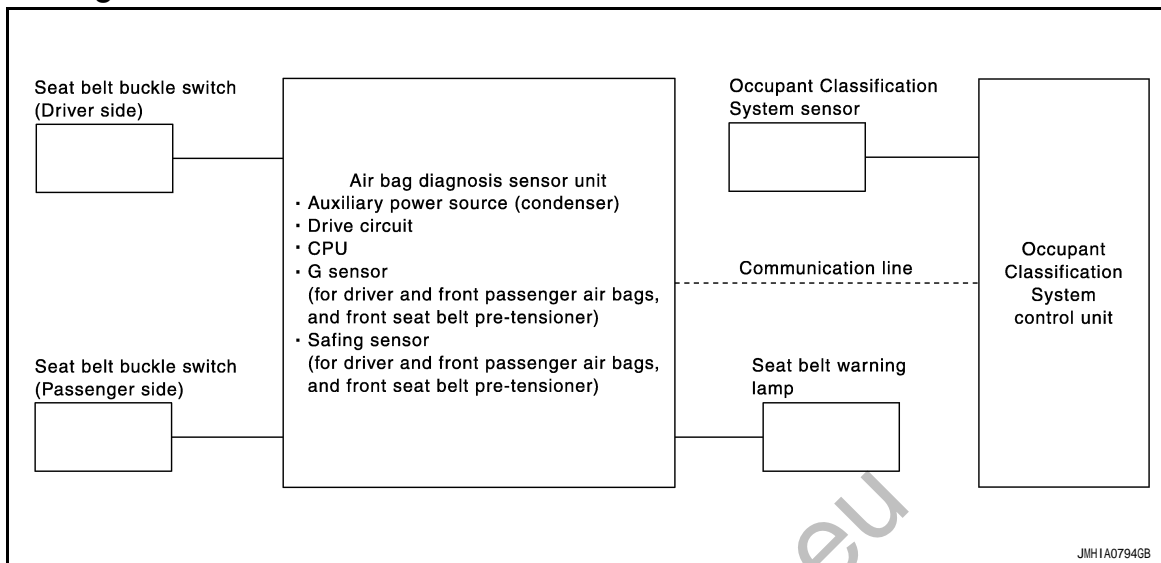
SEAT BELT WARNING SYSTEM

< FUNCTION DIAGNOSIS >

FUNCTION DIAGNOSIS

SEAT BELT WARNING SYSTEM

System Diagram



System Description

INFOID:000000004168131

- Turns ON seat belt warning lamp, when the Occupant Classification System judges adult or child in the front passenger seat and the passenger seat belt buckle switch is OFF.
- Operation of air bag diagnosis sensor unit when air bag diagnosis sensor unit receives information from Occupant Classification System.
- In addition, seat belt warning lamp illuminates, when the driver side seat belt is not fasten. This does not relate to the air bag diagnosis sensor unit.
- For driver seat belt function, refer to [MWI-5, "METER SYSTEM : System Diagram"](#)

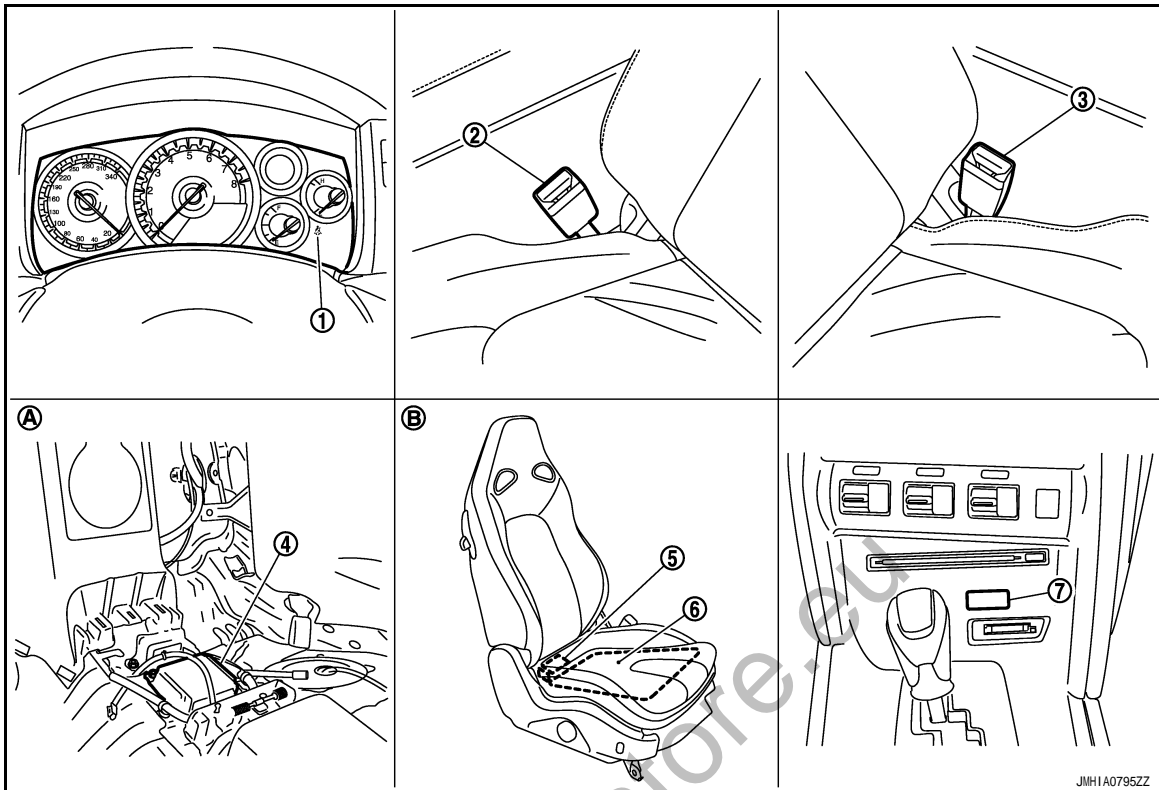
Status (front passenger seat)	Seat belt warning lamp (When front passenger seat is unbuckled)
Empty	OFF
An object	OFF
Child/ child-seat	ON
Adult	ON
Malfunction	OFF

SEAT BELT WARNING SYSTEM

< FUNCTION DIAGNOSIS >

Component Parts Location

INFOID:000000004051982



- | | | |
|---|---|--|
| 1. Combination meter (Seat belt warning lamp) M53 | 2. Seat belt buckle switch (Driver side) B12 | 3. Seat belt buckle switch (Passenger side) B212 |
| 4. Air bag diagnosis sensor unit B37, B237, M147 | 5. Occupant Classification System control unit B253 | 6. Occupant Classification System seat sensor |
| 7. Front passenger air bag OFF indicator M133 | | |
| A. View with rear console assembly removed | B. Front passenger seat | |

Component Description

INFOID:000000004051983

Component parts	Outline of function
Seat belt buckle switch (Driver side)	Detects if the seat belt buckle switch (driver side) is fastened or unfastened
Seat belt buckle switch (Passenger side)	Detects if the seat belt buckle switch (passenger side) is fastened or unfastened
Seat belt warning lamp	Turns the seat belt warning lamp ON when the seat belt is unfastened
Occupant Classification System control unit	Judges the passenger seat condition based on the information from Occupant Detection System control unit
Occupant Classification System seat sensor	Detects if the passenger seat is empty or occupied
Air bag diagnosis sensor unit	Turns ON seat belt warning lamp based on the information from Occupant Detection System control unit
Front passenger air bag OFF indicator	Turns the front passenger air bag OFF indicator lamp ON when the front passenger seat is occupied by a child or a child seat

SEAT BELT BUCKLE SWITCH

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

SEAT BELT BUCKLE SWITCH

DRIVER SIDE

DRIVER SIDE : Description

INFOID:000000004052733

- Performs the control of tension reducer according to the seat belt buckle switch ON/OFF.
- Detects whether or not the seat belt is fastened when the ignition switch turns ON. If the seat belt is not fastened, illuminates the seat belt warning lamp on the combination meter.
- The seat belt buckle switch is installed in the seat belt buckle.

DRIVER SIDE : Component Function Check

INFOID:000000004052734

1.CHECK SEAT BELT BUCKLE SWITCH

④ With CONSULT-III

When checking "BUCKLE SW" in DATA MONITOR in METER/M&A, check that ON/OFF display changes synchronized with the insertion operation to the seat belt buckle.

Monitor item	Condition
BUCKLE SW	When driver side seat belt is not fastened: ON
	When driver side seat belt is fastened: OFF

Is the inspection result normal?

- YES >> Seat belt buckle switch (driver side) circuit is normal.
NO >> Refer to [SBC-7. "DRIVER SIDE : Diagnosis Procedure"](#).

DRIVER SIDE : Diagnosis Procedure

INFOID:000000004054964

1.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) CIRCUIT

1. Turn ignition switch ON.
2. Check voltage between seat belt buckle switch (driver side) harness connector and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
Seat belt buckle switch (driver side)	Connector			
	Terminal	Ground	When driver side seat belt is fastened	Battery voltage
	B12		When driver side seat belt is not fastened	0

Is the inspection result normal?

- YES >> GO TO 3.
NO >> GO TO 2.

2.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter and seat belt buckle switch (driver side) connector.
3. Check continuity between combination meter harness connector and seat belt buckle switch (driver side) harness connector.

Combination meter		Seat belt buckle switch (driver side)		Continuity
Connector	Terminal	Connector	Terminal	
B53	30	B12	3	Existed

4. Check continuity between combination meter harness connector and ground.

SEAT BELT BUCKLE SWITCH

< COMPONENT DIAGNOSIS >

Combination meter		Ground	Continuity
Connector	Terminal		
B53	30		Not existed

Is the inspection result normal?

YES >> Repair or replace combination meter.

NO >> Repair or replace harness between combination meter and seat belt buckle switch (driver side).

3. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

Check continuity between seat belt buckle switch (driver side) harness connector and ground.

Seat belt buckle switch (driver side)		Ground	Continuity
Connector	Terminal		
B12	2		Existed

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace harness between seat belt buckle switch and ground.

4. CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check seat belt buckle switch (driver side). Refer to [SBC-8, "DRIVER SIDE : Component Inspection \(Belt Buckle Switch\)"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch (driver side).

DRIVER SIDE : Component Inspection (Belt Buckle Switch)

INFOID:000000004052735

1. CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

1. Turn ignition switch OFF
2. Disconnect seat belt buckle switch connector.
3. Check continuity of seat belt buckle (driver side).

Seat belt buckle switch (driver side)		Condition	Continuity
Terminal			
2	3	When driver side seat belt is not fastened	Existed
		When driver side seat belt is fastened	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch (driver side).

PASSENGER SIDE

PASSENGER SIDE : Description

INFOID:000000004052736

- Performs the control of tension reducer according to the seat belt buckle switch ON/OFF.
- Detects whether or not the seat belt is fastened when the ignition switch turns ON. If the seat belt switch is not fastened, illuminates the seat belt warning lamp on the combination meter.
- The seat belt buckle switch is installed in the seat belt buckle.

PASSENGER SIDE : Component Function Check

INFOID:000000004052737

1. CHECK SEAT BELT WARNING FUNCTION

1. Sit down to passenger seat.

SEAT BELT BUCKLE SWITCH

< COMPONENT DIAGNOSIS >

- Check that seat belt warning lamp turns OFF when passenger seat belt is fastened, and then turns ON when passenger seat belt is unfastened.

Is the inspection result normal?

- YES >> Seat belt buckle switch (passenger side) circuit is normal.
 NO >> Refer to [SBC-9, "PASSENGER SIDE : Diagnosis Procedure"](#).

PASSENGER SIDE : Diagnosis Procedure

INFOID:000000004054965

1. CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE) CIRCUIT

- Turn ignition switch ON.
- Check that voltage between seat belt buckle switch (passenger side) and ground.

(+)		(-)	Condition	Voltage (V) (Approx.)
Seat belt buckle switch (passenger side)				
Connector	Terminal			
B212	3	Ground	When passenger side seat belt is fastened	2.0 or more
			When passenger side seat belt is not fastened	0

Is the inspection result normal?

- YES >> GO TO 3.
 NO >> GO TO 2.

2. CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE) CIRCUIT

- Turn ignition switch OFF.
- Disconnect air bag diagnosis sensor unit connector and seat belt buckle switch (passenger side) connector.
- Check continuity between air bag diagnosis sensor unit harness connector and seat belt buckle switch (passenger side) harness connector.

Air bag diagnosis sensor unit		Seat belt buckle switch (passenger side)		Continuity
Connector	Terminal	Connector	Terminal	
B237	25	B212	3	Existed

- Check continuity between pre-crash seat belt control unit (passenger side) harness connector and ground.

Pre-crash seat belt control unit (passenger side)		Ground	Continuity
Connector	Terminal		
B212	3		Not existed

Is the inspection result normal?

- YES >> INSPECTION END
 NO >> Repair or replace harness between air bag diagnosis sensor unit and seat belt buckle switch (passenger side).

3. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

Check continuity between seat belt buckle switch (passenger side) harness connector and ground.

Seat belt buckle switch (passenger side)		Ground	Continuity
Connector	Terminal		
B212	2		Existed

Is the inspection result normal?

- YES >> GO TO 4.
 NO >> Repair or replace harness between seat belt buckle switch and ground.

SEAT BELT BUCKLE SWITCH

< COMPONENT DIAGNOSIS >

4. CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

Check seat belt buckle switch (passenger side). Refer to [SBC-10, "PASSENGER SIDE : Component Inspection \(Belt Buckle Switch\)"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch (passenger side).

PASSENGER SIDE : Component Inspection (Belt Buckle Switch)

INFOID:000000004052738

1. CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)

1. Turn ignition switch OFF.
2. Disconnect seat belt buckle switch connector.
3. Check continuity of seat belt buckle (passenger side).

Seat belt buckle switch (passenger side)		Condition	Continuity
Terminal			
2	3	When driver side seat belt is not fastened	Existed
		When driver side seat belt is fastened	Not existed

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace seat belt buckle switch (passenger side).

SEAT BELT WARNING LAMP

< COMPONENT DIAGNOSIS >

SEAT BELT WARNING LAMP

Diagnosis Procedure

INFOID:000000004052040

1. CHECK COMBINATION METER GROUND CIRCUIT

1. Turn the ignition switch OFF.
2. Disconnect air bag diagnosis sensor unit connector.
3. Driver seat belt is fastened.
4. Turn the ignition switch ON.
5. Check that voltage between air bag diagnosis sensor unit harness connector and ground.

(+)		(-)	Voltage (V) (Approx.)
Air bag diagnosis sensor unit			
Connector	Terminal	Ground	Battery voltage
M147	24		

Is the inspection result normal?

- YES >> Replace air bag diagnosis sensor unit.
NO >> GO TO 2.

2. CHECK COMBINATION METER GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Check continuity between combination meter harness connector and air bag diagnosis sensor unit harness connector.

Combination meter		Air bag diagnosis sensor unit		Continuity
Connector	Terminal	Connector	Terminal	
B53	29	M147	24	Existed

4. Check continuity between combination meter and ground.

Combination meter		Ground	Continuity
Connector	Terminal		
B53	29		Not existed

Is the inspection result normal?

- YES >> Replace combination meter.
NO >> Repair or replace harness between combination meter and air bag diagnosis sensor unit.

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G
SBC
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M
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SEAT BELT WARNING SYSTEM

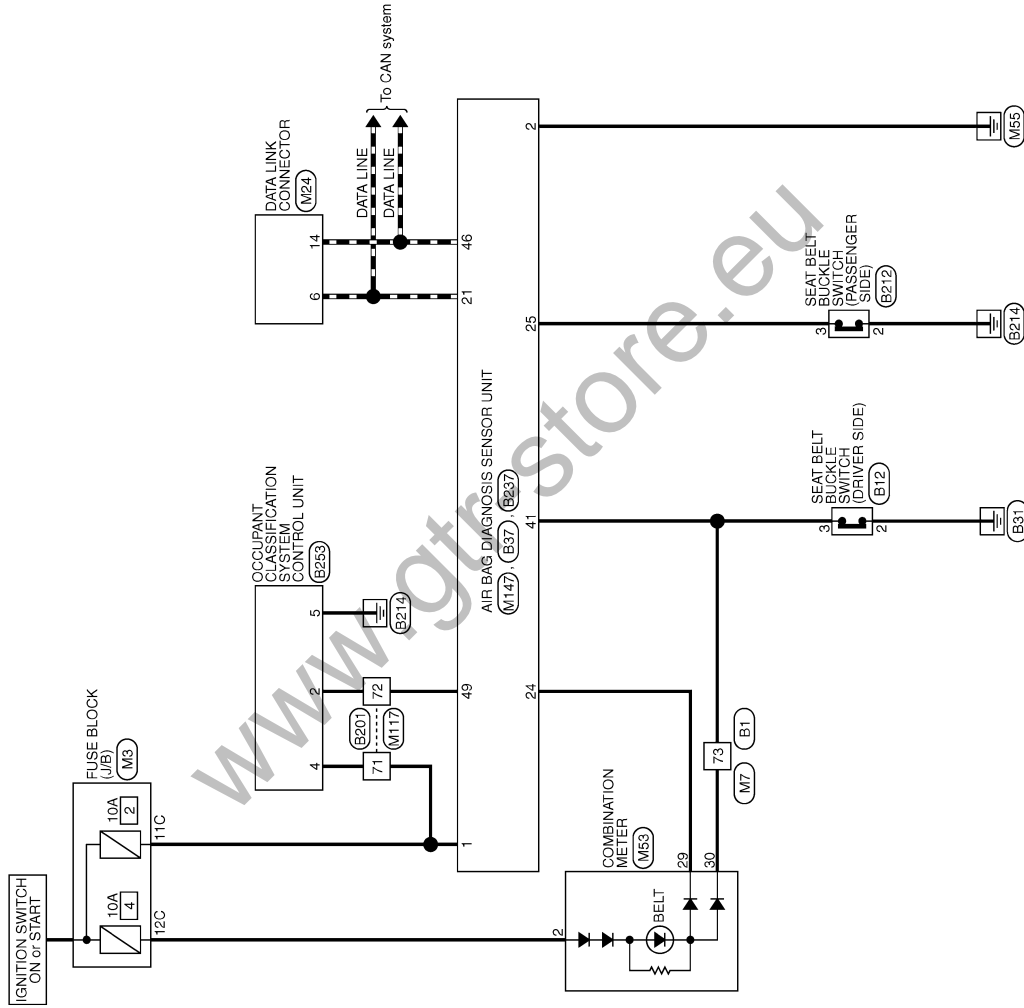
< COMPONENT DIAGNOSIS >

SEAT BELT WARNING SYSTEM

Wiring Diagram - SRS AIR BAG CONTROL SYSTEM -

INFOID:000000004052053

SEAT BELT WARNING SYSTEM



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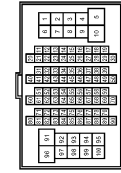
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SEAT BELT WARNING SYSTEM

< COMPONENT DIAGNOSIS >

SEAT BELT WARNING SYSTEM

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	73	SB	Color of Wire	Signal Name [Specification]

Connector No.	B12
Connector Name	SEAT BELT BUCKLE SWITCH (DRIVER SIDE)
Connector Type	TKG3FW



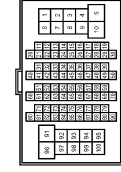
Terminal No.	2	B	Color of Wire	Signal Name [Specification]
	3	SB		

Connector No.	B37
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	TK12FY-2V-EX



Terminal No.	41	SB	Color of Wire	Signal Name [Specification]
				LH BUCKLE SW INPUT

Connector No.	B201
Connector Name	WIRE TO WIRE
Connector Type	TH80FW-CS16-TM4



Terminal No.	71	R	Color of Wire	Signal Name [Specification]
	72	V		

Connector No.	B212
Connector Name	SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)
Connector Type	TKG3FW



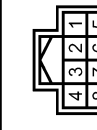
Terminal No.	2	B	Color of Wire	Signal Name [Specification]
	3	O		

Connector No.	B237
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	TK12FY-1V-EX



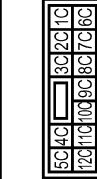
Terminal No.	25	O	Color of Wire	Signal Name [Specification]
				RH BUCKLE SW INPUT

Connector No.	B263
Connector Name	OCCUPANT CLASSIFICATION SYSTEM CONTROL UNIT
Connector Type	TH80FW-NH



Terminal No.	2	V	Color of Wire	Signal Name [Specification]
	4	R		COMMUNICATION
	5	B		IGN GND

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Type	NS12FY-CS



Terminal No.	11C	R	Color of Wire	Signal Name [Specification]
	12C	W		

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SEAT BELT WARNING SYSTEM

< COMPONENT DIAGNOSIS >

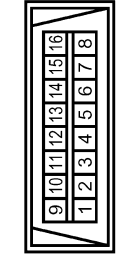
SEAT BELT WARNING SYSTEM

Connector No.	M7
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



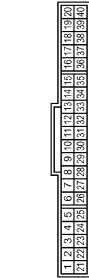
Terminal No.	Color of Wire	Signal Name [Specification]
73	LG	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M33
Connector Name	COMBINATION METER
Connector Type	SAB40FW



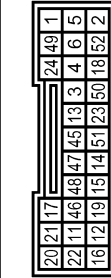
Terminal No.	Color of Wire	Signal Name [Specification]
2	W	IGNITION POWER SUPPLY
29	G	SEAT BELT BUCKLE SWITCH SIGNAL (PASSENGER SIDE)
30	SB	SEAT BELT BUCKLE SWITCH SIGNAL (DRIVER SIDE)

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
71	Y	-
72	V	-

Connector No.	M147
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	TK28FY-EX-SC



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IGN
2	B	GND
21	L	CAN-H
24	G	SEAT BELT
46	P	CAN-L
48	V	ODS INPUT

DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS >

ECU DIAGNOSIS

DIAGNOSIS SENSOR UNIT

DTC Index

INFOID:000000004199879

Diagnostic item	Explanation	Reference page
NO DTC IS DETECTED	When malfunction is indicated by the "AIR BAG" warning lamp in User mode	<p>Low battery voltage (Less than 9 V)</p> <ul style="list-style-type: none"> Self-diagnosis result "SELF-DIAG [PAST]" (previously stored in the memory) might not be erased after repair Intermittent malfunction has been detected in the past <p>SRC-13, "Diagnosis Description"</p>
	No malfunction is detected	—
CONTROL UNIT [B1001-B1015]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	<ul style="list-style-type: none"> SRC-19, "DTC Logic" SRC-21, "DTC Logic" SRC-23, "DTC Logic"
OCCUPANT SENS C/U [UNIT FAIL] [B1017] [B1020] [B1021]	Trouble occurs in Occupant Classification System control unit	SRC-25, "DTC Logic"
OCCUPANT SENS [UNIT FAIL] [B1018]	Trouble occurs in Occupant Classification System sensor	SRC-27, "DTC Logic"
OCCUPANT SENS C/U [COMM FAIL] [B1022]	Trouble occurs in Occupant Classification System control unit, circuit of Occupant Classification System control unit air bag diagnosis sensor unit, or air bag diagnosis sensor unit	SRC-29, "DTC Logic"
PASS A/B INDCTR CKT [B1023]	Front passenger air bag OFF indicator circuit is open or shorted to ground or the circuits are shorted each other	SRC-31, "DTC Logic"
CONTROL UNIT [B1026-B1031]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	SRC-33, "DTC Logic"
CRASH ZONE SEN [UNIT FAIL] [B1033] [B1034]	Crash zone sensor is malfunctioning	SRC-35, "DTC Logic"
CRASH ZONE SEN [COMM FAIL] [B1035] [UNMATCH] [B1036]	Crash zone sensor is malfunctioning or out of the specified specification	SRC-37, "DTC Logic"
CONTROL UNIT [B1042-B1047]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	SRC-39, "DTC Logic"
DRIVER AIRBAG MODULE [OPEN] [B1049] [B1054]	Driver air bag module circuit is open (including the spiral cable)	SRC-41, "DTC Logic"
DRIVER AIRBAG MODULE [VB-SHORT] [B1050] [B1055]	Driver air bag module circuit is shorted to some power supply circuit (including the spiral cable)	SRC-43, "DTC Logic"
DRIVER AIRBAG MODULE [GND-SHORT] [B1051] [B1056]	Driver air bag module circuit is shorted to ground (including the spiral cable)	SRC-45, "DTC Logic"

DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS >

Diagnostic item	Explanation	Reference page
DRIVER AIRBAG MODULE [SHORT] [B1052] [B1057]	Driver air bag module circuits are shorted to each other (including spiral cable)	SRC-47, "DTC Logic"
CONTROL UNIT [B1058-B1063]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	SRC-49, "DTC Logic"
ASSIST A/B MODULE [OPEN] [B1065] [B1070]	Front passenger air bag module circuit is open	SRC-51, "DTC Logic"
ASSIST A/B MODULE [VB-SHORT] [B1066] [B1071]	Front passenger air bag module circuit is shorted to some power supply circuit	SRC-53, "DTC Logic"
ASSIST A/B MODULE [GND-SHORT] [B1067] [B1072]	Front passenger air bag module circuit is shorted to ground	SRC-55, "DTC Logic"
ASSIST A/B MODULE [SHORT] [B1068] [B1073]	Front passenger air bag module circuits are shorted to each other	SRC-57, "DTC Logic"
CONTROL UNIT [B1074-B1079]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	SRC-59, "DTC Logic"
PRE-TEN FRONT RH [OPEN] [B1081]	Front RH seat belt pre-tensioner circuit is open	SRC-61, "DTC Logic"
PRE-TEN FRONT RH [VB-SHORT] [B1082]	Front RH seat belt pre-tensioner circuit is shorted to some power supply circuit	SRC-63, "DTC Logic"
PRE-TEN FRONT RH [GND-SHORT] [B1083]	Front RH seat belt pre-tensioner circuit is shorted to ground	SRC-65, "DTC Logic"
PRE-TEN FRONT RH [SHORT] [B1084]	Front RH seat belt pre-tensioner circuits are shorted to each other	SRC-67, "DTC Logic"
PRE-TEN FRONT LH [OPEN] [B1086]	Front LH seat belt pre-tensioner circuit is open	SRC-69, "DTC Logic"
PRE-TEN FRONT LH [VB-SHORT] [B1087]	Front LH seat belt pre-tensioner circuit is shorted to some power supply circuit	SRC-71, "DTC Logic"
PRE-TEN FRONT LH [GND-SHORT] [B1088]	Front LH seat belt pre-tensioner circuit is shorted to ground	SRC-73, "DTC Logic"
PRE-TEN FRONT LH [SHORT] [B1089]	Front LH seat belt pre-tensioner circuits are shorted to each other	SRC-75, "DTC Logic"
CONTROL UNIT [B1091] [B1093]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	SRC-77, "DTC Logic"
CONTROL UNIT [B1106-B1111]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	SRC-77, "DTC Logic"
SATELLITE SENS RH [UNIT FAIL] [B1113] [B1114]	RH satellite sensor is out of order	SRC-79, "DTC Logic"

DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS >

Diagnostic item	Explanation	Reference page	
SATELLITE SENS RH [COMM FAIL] [B1115] [UNMATCH] [B1116]	RH satellite sensor is out of order or mis-installation	SRC-81, "DTC Logic"	A
SATELLITE SENS LH [UNIT FAIL] [B1118] [B1119]	LH satellite sensor is out of order	SRC-83, "DTC Logic"	B
SATELLITE SENS LH [COMM FAIL] [B1120] [UNMATCH] [B1121]	LH satellite sensor is out of order or mis-installation	SRC-85, "DTC Logic"	C
CONTROL UNIT [B1122-B1127]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	SRC-87, "DTC Logic"	D
SIDE MODULE RH [OPEN] [B1129]	Front RH side air bag module circuit is open	SRC-89, "DTC Logic"	E
SIDE MODULE RH [VB-SHORT] [B1130]	Front RH side air bag module circuit is shorted to some power supply circuit	SRC-91, "DTC Logic"	F
SIDE MODULE RH [GND-SHORT] [B1131]	Front RH side air bag module circuit is shorted to ground	SRC-93, "DTC Logic"	G
SIDE MODULE RH [SHORT] [B1132]	Front LH seat belt pre-tensioner circuits are shorted to each other	SRC-95, "DTC Logic"	SBC
SIDE MODULE LH [OPEN] [B1134]	Front LH side air bag module circuit is open	SRC-97, "DTC Logic"	I
SIDE MODULE LH [VB-SHORT] [B1135]	Front LH side air bag module circuit is shorted to some power supply circuit	SRC-99, "DTC Logic"	J
SIDE MODULE LH [GND-SHORT] [B1136]	Front LH side air bag module circuit is shorted to ground	SRC-101, "DTC Logic"	K
SIDE MODULE LH [SHORT] [B1137]	Front LH side air bag module circuits are shorted to each other	SRC-103, "DTC Logic"	L
CURTAIN MODULE RH [OPEN] [B1145]	RH side curtain air bag module circuit is open	SRC-107, "DTC Logic"	M
CURTAIN MODULE RH [VB-SHORT] [B1146]	RH side curtain air bag module circuit is shorted to some power supply circuit	SRC-109, "DTC Logic"	N
CURTAIN MODULE RH [GND-SHORT] [B1147]	RH side curtain air bag module circuit is shorted to ground	SRC-111, "DTC Logic"	O
CURTAIN MODULE RH [SHORT] [B1148]	RH side curtain air bag module circuits are shorted to each other	SRC-113, "DTC Logic"	P
CURTAIN MODULE LH [OPEN] [B1150]	LH side curtain air bag module circuit is open	SRC-115, "DTC Logic"	

DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS >

Diagnostic item	Explanation	Reference page
CURTAIN MODULE LH [VB-SHORT] [B1151]	LH side curtain air bag module circuit is shorted to some power supply circuits	SRC-117, "DTC Logic"
CURTAIN MODULE LH [GND-SHORT] [B1152]	LH side curtain air bag module circuit is shorted to ground	SRC-119, "DTC Logic"
CURTAIN MODULE LH [SHORT] [B1153]	LH side curtain air bag module circuits are shorted to each other	SRC-121, "DTC Logic"
CONTROL UNIT [B1155] [B1157]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	SRC-77, "DTC Logic"
CONTROL UNIT [B1202-B1207]	Air bag diagnosis sensor unit is malfunctioning or out of the specified specification	SRC-123, "DTC Logic"
FRONTAL COLLISION DETECTION [B1209]	Front seat belt pre-tensioner and front air bag is deployed	SRC-125, "DTC Logic"
SIDE COLLISION DE- TECTION [B1210]	Front side air bag and side curtain air bag are deployed	SRC-127, "DTC Logic"

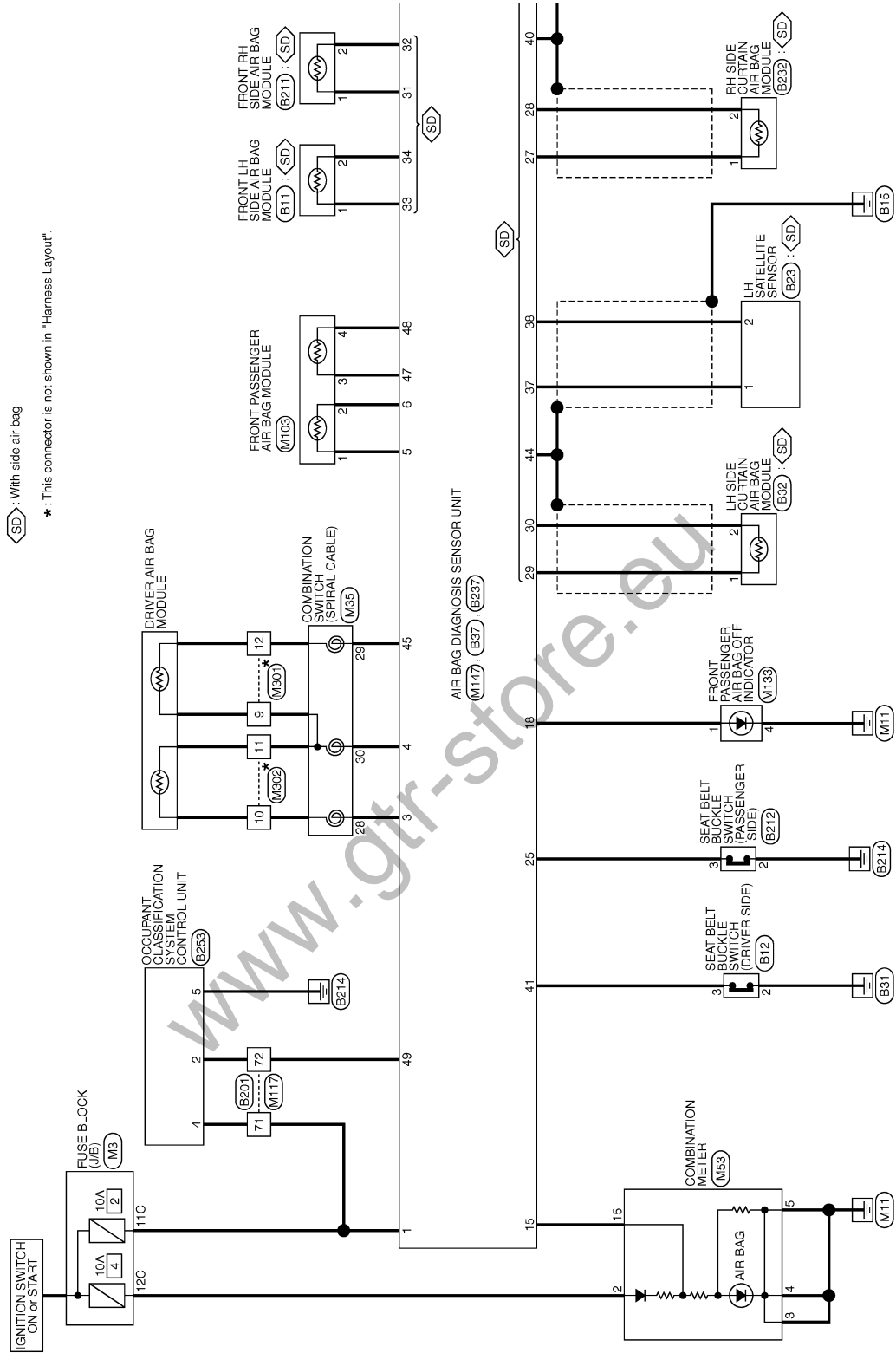
DIAGNOSIS SENSOR UNIT

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Wiring Diagram - SRS AIR BAG CONTROL SYSTEM -

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SRS AIR BAG CONTROL SYSTEM



SD : With side air bag
 *: This connector is not shown in "Harness Layout".

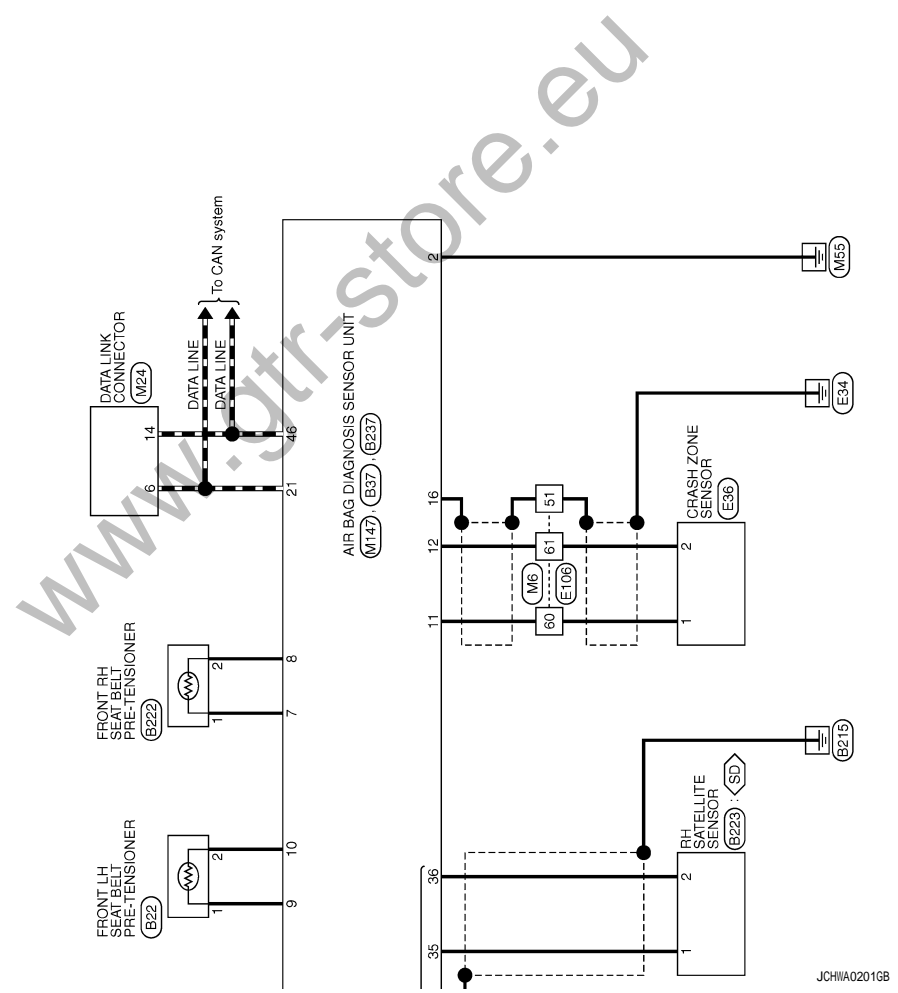
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DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS >



DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS >

SRS AIR BAG CONTROL SYSTEM

Connector No.	B11
Connector Name	FRONT LH SIDE AIR BAG MODULE
Connector Type	TK02FY-EX-1V



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	Y	-

Connector No.	B12
Connector Name	SEAT BELT BUCKLE SWITCH (DRIVER SIDE)
Connector Type	TK03FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	B	-
3	SB	-

Connector No.	B22
Connector Name	FRONT LH SEAT BELT PRE-TENSIONER
Connector Type	ACA02FY-2V



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	Y	-

Connector No.	B23
Connector Name	LH SATELLITE SENSOR
Connector Type	HK02FY-1V-EX



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-

Connector No.	B32
Connector Name	LH SIDE CURTAIN AIR BAG MODULE
Connector Type	ACA02FY-2V



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B37
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	TK12FY-2V-EX



Terminal No.	Color of Wire	Signal Name [Specification]
9	Y	PLH(+)
10	Y	PLH(-)
29	G	GLH(+)
30	R	GLH(-)
33	Y	SLH(+)
34	Y	SLH(-)
37	P	SATELLITE LH(+)
38	L	SATELLITE LH(-)
41	SB	LH BUCKLE SW INPUT
44	SHIELD	GND

Connector No.	B301
Connector Name	WIRE TO WIRE
Connector Type	TH03FW-CSI (P-TM4)



Terminal No.	Color of Wire	Signal Name [Specification]
71	R	-
72	V	-

Connector No.	B211
Connector Name	FRONT RH SIDE AIR BAG MODULE
Connector Type	TK02FY-EX-1V



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	Y	-

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DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS >

SRS AIR BAG CONTROL SYSTEM

Connector No.	B212
Connector Name	SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)
Connector Type	TKG8FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	B	-
2	B	-
3	O	-

Connector No.	B222
Connector Name	FRONT RH SEAT BELT PRE-TENSIONER
Connector Type	ACA02FY-2V



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	Y	-

Connector No.	B223
Connector Name	RH SATELLITE SENSOR
Connector Type	HK02FY-1V-EX



Terminal No.	Color of Wire	Signal Name [Specification]
1	G	-
2	R	-

Connector No.	B232
Connector Name	RH SIDE CURTAIN AIR BAG MODULE
Connector Type	ACA02FY-2V



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-

Connector No.	B237
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	TK12FY-1V-EX



Terminal No.	Color of Wire	Signal Name [Specification]
7	Y	PRH(+)
8	Y	PRH(-)
25	O	RH BUCKLE SW INPUT
27	P	GRH(+)
28	L	GRH(-)
31	Y	SRH(+)
32	Y	SRH(-)
35	G	SATELLITE RH(+)
36	R	SATELLITE RH(-)
40	SHIELD	GND

Connector No.	B263
Connector Name	OCCUPANT CLASSIFICATION SYSTEM CONTROL UNIT
Connector Type	TH08FW-NH



Terminal No.	Color of Wire	Signal Name [Specification]
2	V	COMMUNICATION
4	R	IGN
5	B	GND

Connector No.	E36
Connector Name	CRASH ZONE SENSOR
Connector Type	HK02FY-1V-EX



Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-

Connector No.	E106
Connector Name	WIRE TO WIRE
Connector Type	TH08FW-CS16-TM4



Terminal No.	Color of Wire	Signal Name [Specification]
51	SHIELD	-
60	P	-
61	L	-

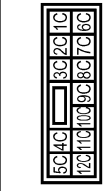
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DIAGNOSIS SENSOR UNIT

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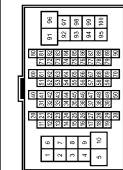
SRS AIR BAG CONTROL SYSTEM

Connector No.	M3
Connector Name	FUSE BLOCK (W/B)
Connector Type	INS12FW-GS



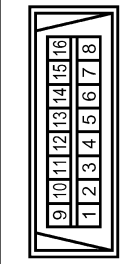
Terminal No.	Color of Wire	Signal Name [Specification]
11C	R	-
12C	W	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM



Terminal No.	Color of Wire	Signal Name [Specification]
51	SHIELD	-
60	SB	-
61	V	-

Connector No.	M24
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



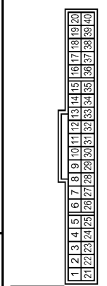
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M35
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK0BFY-EX-TV



Terminal No.	Color of Wire	Signal Name [Specification]
28	Y	-
29	Y	-
30	Y	-

Connector No.	M53
Connector Name	COMBINATION METER
Connector Type	SAG4FW



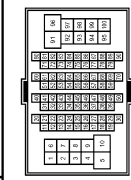
Terminal No.	Color of Wire	Signal Name [Specification]
2	W	IGNITION POWER SUPPLY
3	B	GROUND
4	B	ILL. GND
5	B	GROUND
15	R	AIR BAG

Connector No.	M103
Connector Name	FRONT PASSENGER AIR BAG MODULE
Connector Type	RK04FY-BD



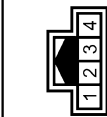
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	-
2	Y	-
3	Y	-
4	Y	-

Connector No.	M117
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-CS16-TM



Terminal No.	Color of Wire	Signal Name [Specification]
71	Y	-
72	V	-

Connector No.	M133
Connector Name	FRONT PASSENGER AIR BAG OFF INDICATOR
Connector Type	TH80MW-RH



Terminal No.	Color of Wire	Signal Name [Specification]
1	R	-
4	B	-

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DIAGNOSIS SENSOR UNIT

< ECU DIAGNOSIS >

SRS AIR BAG CONTROL SYSTEM

Connector No.	M147
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	TK2BFY-EX-SG



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22	11	46	47	45	13
16	12	19	15	14	51
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Terminal No.	Color of Wire	Signal Name [Specification]
1	R	IGN
2	B	GND
3	Y	DR1 (+)
4	Y	DR1 (-) DR2 (-)
5	Y	AS1 (+)
6	Y	AS1 (-)
11	SB	ECZS (+)
12	V	ECZS (-)
15	R	AIR BAG W/L
16	SHIELD	GND
18	R	CUTOFF TELLTALE

21	L	CAN-H
45	Y	DR2 (+)
46	P	CAN-L
47	Y	AS2 (+)
48	Y	AS2 (-)
49	V	ODS INPUT



Connector No.	M301
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	ACGA2E0R



Terminal No.	Color of Wire	Signal Name [Specification]
9	-	-
12	-	-

Connector No.	M302
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	ACGA2FY-2V



Terminal No.	Color of Wire	Signal Name [Specification]
10	-	-
11	-	-

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SEAT BELT WARNING LAMP DOES NOT TURN OFF

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

SEAT BELT WARNING LAMP DOES NOT TURN OFF

Diagnosis Procedure

INFOID:000000004052048

1. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT (DRIVER SIDE)

Check seat belt buckle switch circuit (driver side). Refer to [SBC-7. "DRIVER SIDE : Component Function Check"](#)

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair or replace the malfunctioning parts.

2. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT (PASSENGER SIDE)

Check seat belt buckle switch circuit (passenger side). Refer to [SBC-8. "PASSENGER SIDE : Component Function Check"](#)

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace the malfunctioning parts.

3. CHECK SEAT BELT WARNING LAMP CIRCUIT

Check seat belt warning lamp circuit. Refer to [SBC-11. "Diagnosis Procedure"](#)

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts.

4. CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

YES >> Check intermittent incident. Refer to [GI-38. "Intermittent Incident"](#).

NO >> GO TO 1.

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SEAT BELT WARNING LAMP DOES NOT TURN ON

< SYMPTOM DIAGNOSIS >

SEAT BELT WARNING LAMP DOES NOT TURN ON

Diagnosis Procedure

INFOID:000000004052049

1.CHECK SELF DIAGNOSIS RESULT

Perform "COMBINATION METER" self diagnostic result. Refer to [MWI-41, "CONSULT-III Function \(METER/M&A\)"](#)

Is DTC detected?

- YES >> Repair or replace the malfunctioning parts.
- NO >> GO TO 2.

2.CHECK POWER SUPPLY

Check fuse are not blown.

Check ignition power supply of combination meter. Refer to [MWI-54, "COMBINATION METER : Diagnosis Procedure"](#)

Is the inspection result normal?

- YES >> GO TO 3.
- NO >> Repair or replace the malfunctioning parts.

3.CHECK SEAT BELT BUCKLE SWITCH CIRCUIT (DRIVER SIDE)

Check seat belt buckle switch circuit (driver side). Refer to [SBC-7, "DRIVER SIDE : Component Function Check"](#)

Is the inspection result normal?

- YES >> GO TO 4.
- NO >> Repair or replace the malfunctioning parts.

4..CHECK SEAT BELT BUCKLE SWITCH CIRCUIT (PASSENGER SIDE)

Check seat belt buckle switch circuit (passenger side). Rer to [SBC-8, "PASSENGER SIDE : Component Function Check"](#)

Is the inspection result normal?

- YES >> GO TO 5.
- NO >> Repair or replace the malfunctioning parts.

5..CHECK SEAT BELT WARNING LAMP CIRCUIT

Check seat belt warning lamp circuit. Rer to [SBC-11, "Diagnosis Procedure"](#)

Is the inspection result normal?

- YES >> GO TO 6.
- NO >> Repair or replace the malfunctioning parts.

6.CONFIRM THE OPERATION

Confirm the operation again.

Is the inspection result normal?

- YES >> Check intermittent incident. Refer to [GI-38, "Intermittent Incident"](#).
- NO >> GO TO 1.

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000004052050

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the "SRS AIRBAG" and "SEAT BELT" of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the "SRS AIRBAG".
- Never use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

Precaution for Seat Belt Service

INFOID:000000004052051

CAUTION:

- Before removing the seat belt pre-tensioner assembly, turn the ignition switch off, disconnect the both battery cables and wait at least 3 minutes.
- Do not use electrical test equipment for seat belt pre-tensioner connector.
- After replacing or reinstalling seat belt pre-tensioner assembly, or reconnecting front seat belt pre-tensioner connector, check the system function. Refer to [SRC-13, "Diagnosis Description"](#).
- Do not use disassemble buckle or seat belt assembly.
- Replace anchor bolts if they are deformed or worn out.
- Never oil tongue and buckle.
- If any component of seat belt assembly is questionable, do not repair. Replace the whole seat belt assembly.
- If webbing is cut, frayed, or damaged, replace seat belt assembly.
- When replacing seat belt assembly, use a genuine NISSAN seat belt assembly.

AFTER A COLLISION

WARNING:

Inspect all seat belt assemblies including retractors and attaching hardware after any collision. NISSAN recommends that all seat belt assemblies in use during a collision be replaced unless the collision was minor and the belts show no damage and continue to operate properly. Failure to do so could result in serious personal injury in an accident. Seat belt assemblies not in use during a collision should also be replaced if either damage or improper operation is noted. Seat belt pre-tensioner should be replaced even if the seat belts are not in use during a frontal collision in which the air bags are deployed.

Replace any seat belt assembly (including anchor bolts) if:

- The seat belt was in use at the time of a collision (except for minor collisions and the belts, retractors and buckles show no damage and continue to operate properly).
- The seat belt was damaged in an accident. (i.e. torn webbing, bent retractor or guide).
- The seat belt attaching point was damaged in an accident. Inspect the seat belt attaching area for damage or distortion and repair as necessary before installing a new seat belt assembly.
- Anchor bolts are deformed or worn out.
- The seat belt pre-tensioner should be replaced even if the seat belts are not in use during the collision in which the air bags are deployed.

PRECAUTIONS

< PRECAUTION >

Precaution for Battery Service

INFOID:000000004052052

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

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