

SECTION

SB

SEAT BELTS

A

B

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PRECAUTIONS

PRECAUTIONS

PFP:00001

Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

EHS000MW

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. Information necessary to service the system safely is included in the SRS and SB section 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 section.
- Do not 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 harness connectors.

Precaution for Seat Belt Service

EHS000BE

CAUTION:

- Before removing the seat belt pre-tensioner assembly, turn the ignition switch off, disconnect 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 seat belt pre-tensioner connector, check the system function. Refer to [SRS-16, "SRS Operation Check"](#) .
- 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 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, etc.)
- 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.

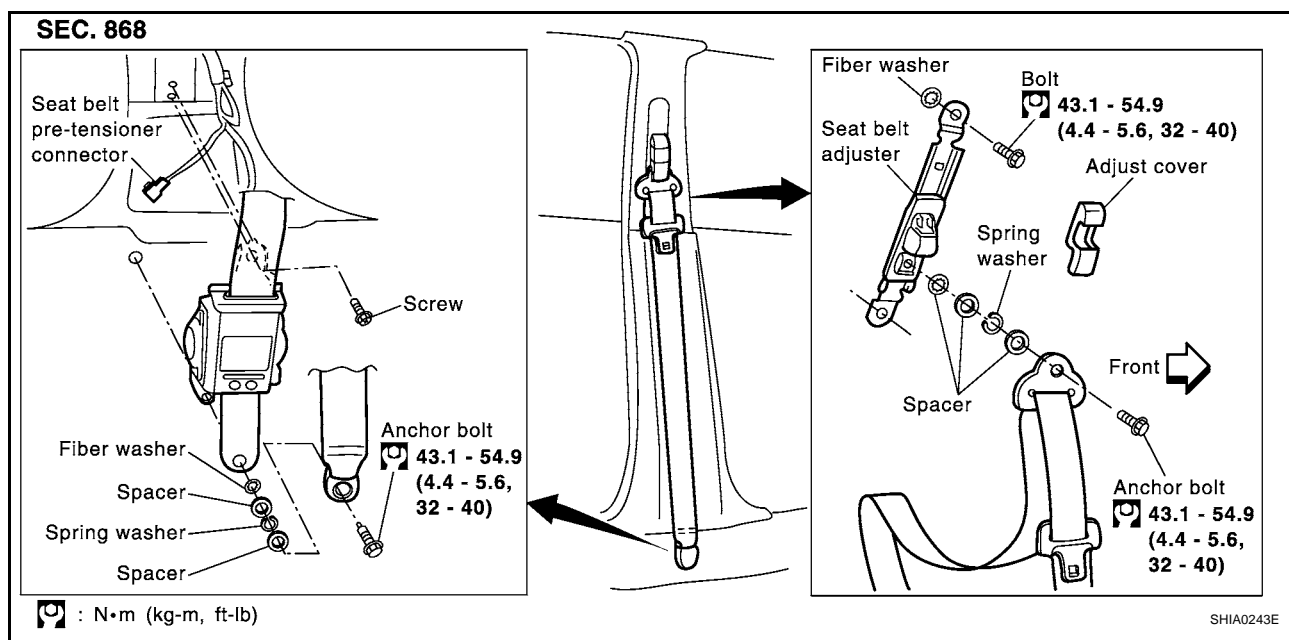
SEAT BELTS

SEAT BELTS

PPF:86884

Removal and Installation of Front Seat Belt

EHS0005W

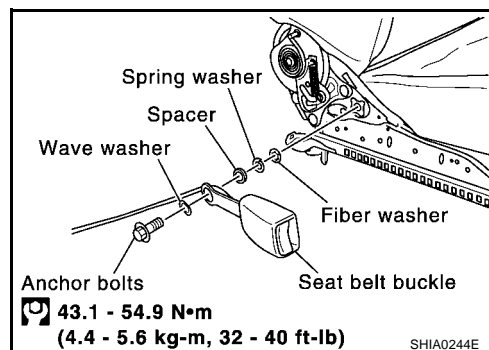


CAUTION:

Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.

REMOVAL

1. Remove adjuster cover.
2. Remove shoulder anchor bolt.
3. Slide the floor anchor cover.
4. Remove floor anchor bolt.
5. Remove pre-tensioner seat belt retractor fixing screws to remove seat belt assembly.
6. Remove front seat. Refer to [SE-8, "Removal and Installation"](#).
7. Remove screw, and remove seat cushion inner finisher.
8. Remove anchor bolt to remove seat belt buckle.



INSTALLATION

CAUTION:

Before servicing SRS, turn the ignition switch off, disconnect both battery cables and wait at least 3 minutes.

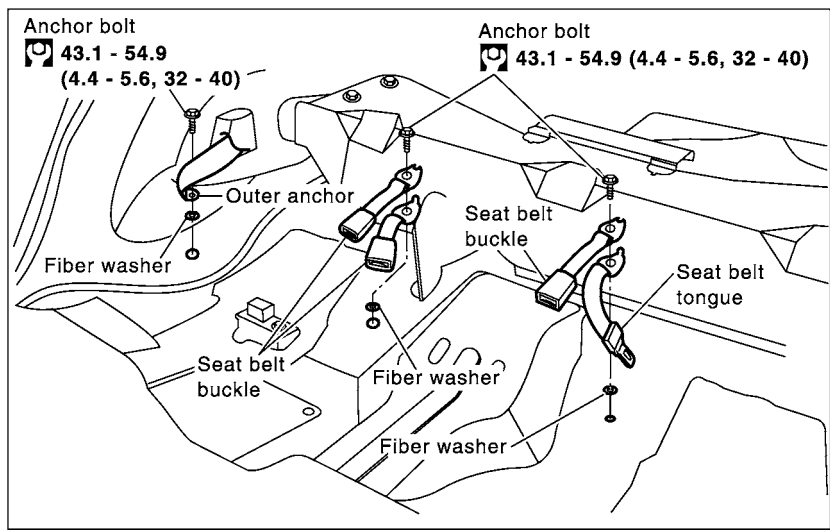
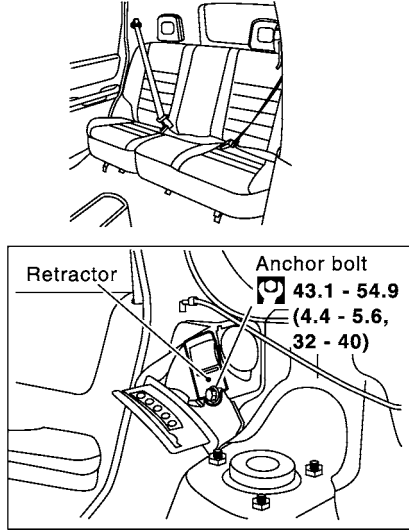
- Install in the reverse order of removal.

SEAT BELTS

EHS0005X

Removal and Installation of Rear Seat Belt REMOVAL/WITH 2-POINT TYPE REAR CENTER SEAT BELT

SEC. 869



: N·m (kg-m, ft-lb)

SHIA0044E

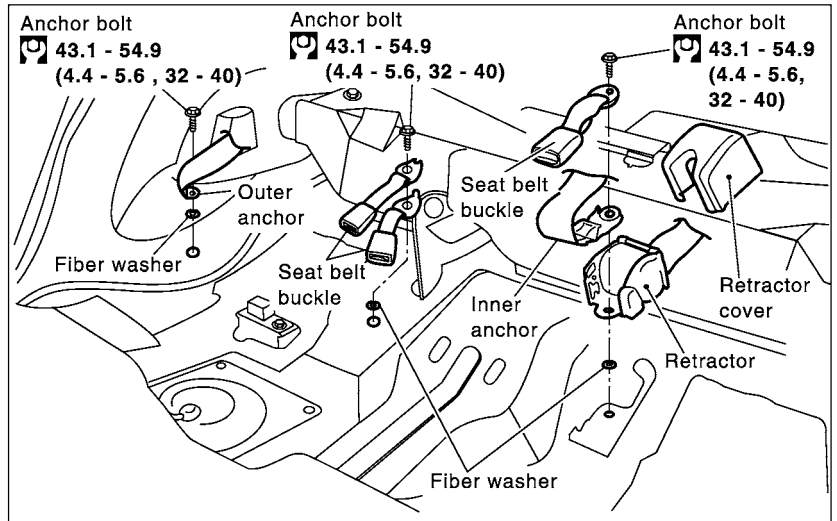
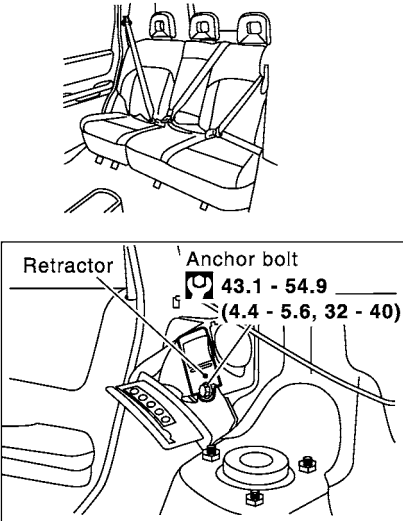
1. Fold rear seat cushion up.
2. Remove luggage-side lower finisher. Refer to [EI-26, "Removal and Installation"](#).
3. Remove outer anchor and floor anchor bolts.
4. Remove anchor bolts securing seat belt retractor. Remove seat belt assembly.

INSTALLATION/WITH 2-POINT TYPE REAR CENTER SEAT BELT

- Install in the reverse order of removal.

REMOVAL/WITH 3-POINT TYPE REAR CENTER SEAT BELT

SEC. 869



: N·m (kg-m, ft-lb)

SHIA0045E

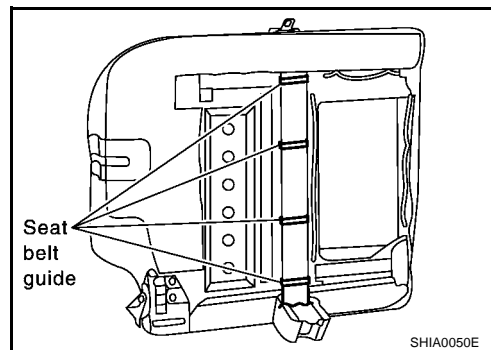
LH/RH Rear Seat Belt

1. Fold rear seat cushion up.
2. Remove luggage lower finisher. Refer to [EI-26, "Removal and Installation"](#).
3. Remove outer anchor and floor anchor bolts.
4. Remove rear seat belt retractor.

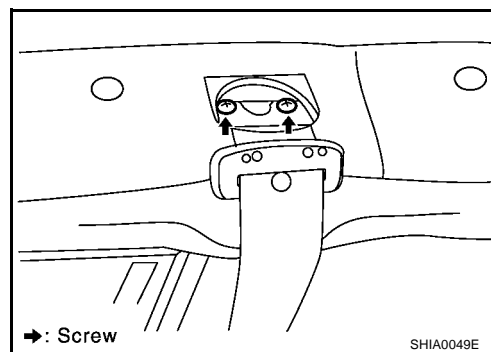
SEAT BELTS

Center Rear Seat Belt

1. Fold rear seat cushion up.
2. Remove seat belt retractor cover.
3. Remove anchor bolts securing center seat belt retractor.
4. Remove rear seatback. Refer to [SE-14, "Disassembly and Assembly"](#).
5. Remove rear seatback board.
6. Remove hog ring securing upper portion of rear seatback trim.
7. Remove rear seat belt guide.



8. Remove screws securing rear seat belt.
9. Remove rear center seat belt assembly from rear seatback.



INSTALLATION /WITH 3-POINT TYPE REAR CENTER SEAT BELT

- Install in the reverse order of removal.

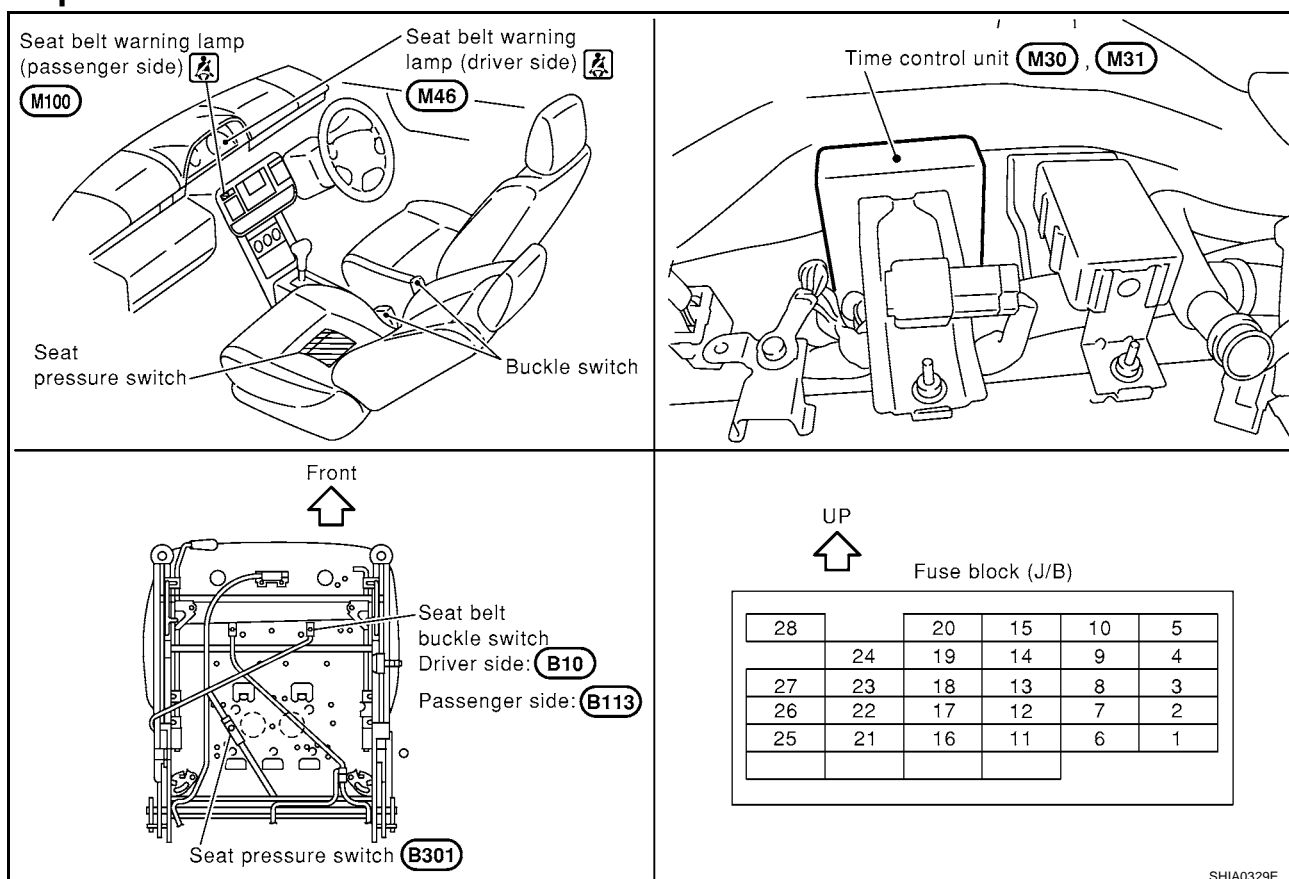
SEAT BELT WARNING SYSTEM

SEAT BELT WARNING SYSTEM

PFP:25045

Component Parts and Harness Connector Location

EHS000H6



SHIA0329E

System Description

DRIVER SIDE

Power is supplied at all times:

- through 10A fuse [No. 11, located in fuse block (J/B)]
- to combination meter terminal 46 (LHD models) or 59 (RHD models).

Ground is supplied:

- from seat belt buckle switch (driver side) terminal 1
- to time control unit terminal 21

Seat belt buckle switch (driver side) terminal 2 is grounded through body grounds B8 and B18.

PASSENGER SIDE

Power is supplied at all times:

- through 10A fuse [No. 11, located in fuse block (J/B)]
- to seat belt warning lamp (passenger side) terminal 1.

Ground is supplied:

- through seat belt pressure switch terminals 3 and 4
- through seat belt buckle switch (passenger side) terminal 1
- to time control unit terminal 22

SEAT BELT WARNING CHIME AND SEAT BELT WARNING LAMP

Driver side

When the vehicle speed exceeds 25 km/h (16 MPH) with front driver side seat belt unfastened (seat belt switch ON), warning chime will sound for approximately 90 seconds and seat belt warning lamp is flashed. If the seat belt are fastened, then unfastened again, warning chime will sound and seat belt warning lamp is flashed.

EHS000GP

SEAT BELT WARNING SYSTEM

Passenger side

When the vehicle speed exceeds 25 km/h (16 MPH) with front passenger side seat belt unfastened (seat belt switch ON) and occupant is sitting (seat pressure switch is ON), warning chime will sound for approximately 90 seconds and seat belt warning lamp is flashed.

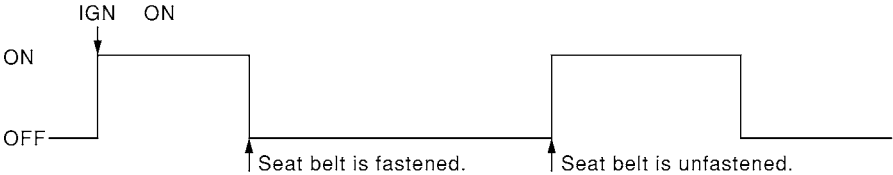
If the seat belt are fastened, then unfastened again, warning chime will sound and warning lamp is flashed.

Time Chart for Seat Belt Warning Lamp and Chime

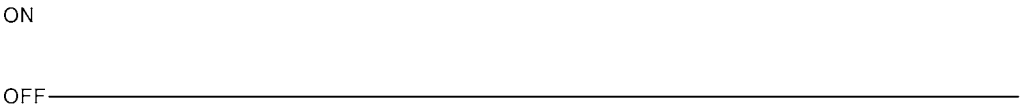
EHS000H5

When vehicle stopped or driving at a speed of 10 km (6 MPH) or less

WARNING LAMP BLINKING PATTERN

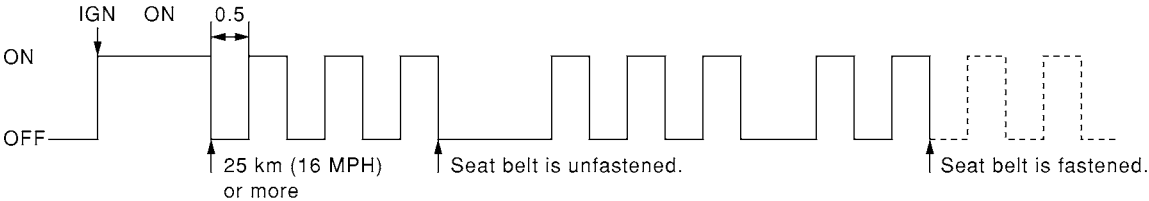


WARNING CHIME BLINKING PATTERN

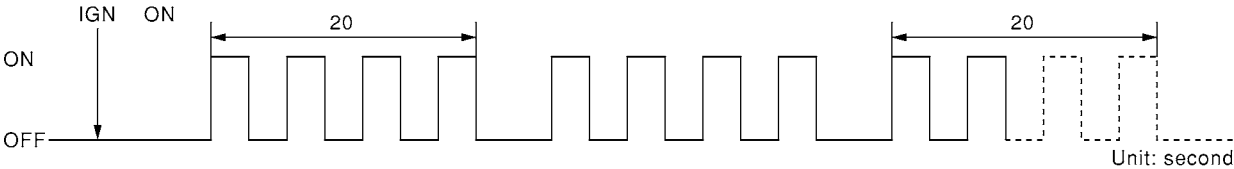


When driving at a speed of 25 km/h (16 MPH) or more

WARNING LAMP BLINKING PATTERN



WARNING CHIME BLINKING PATTERN



Unit: second

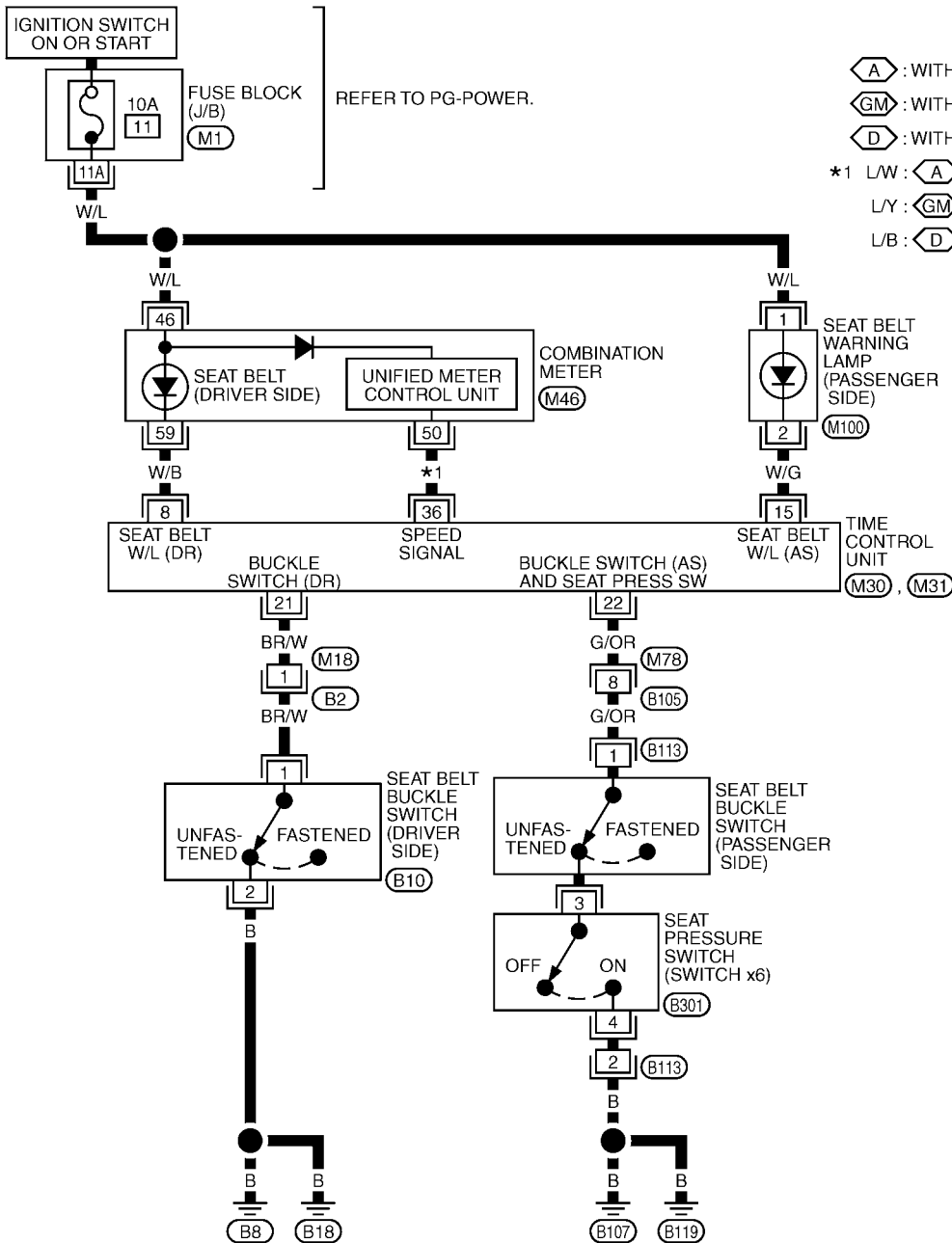
SHIA0328E

SEAT BELT WARNING SYSTEM

Wiring Diagram — S/WARN—/LHD models

EHS000GR

SB-S/WARN-01



(A) : WITH A/T

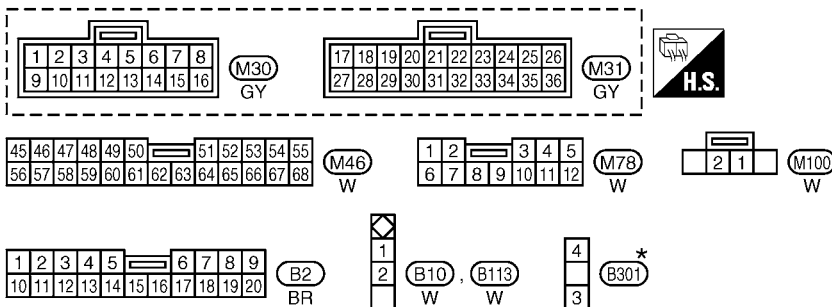
(GM) : WITH GASOLINE ENGINE WITH M/T

(D) : WITH DIESEL ENGINE

*1 L/W : (A)

L/Y : (GM)

L/B : (D)



*: THIS CONNECTOR IS NOT SHOWN IN "HARNESS LAYOUT", PG SECTION.

REFER TO THE FOLLOWING.

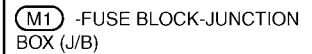
(M1) -FUSE BLOCK-JUNCTION BOX (J/B)



A
B
C
D
E
F
G
B
I
J
K
L
M

EHS000H1

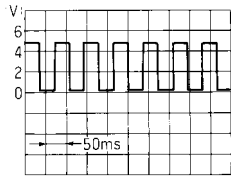
SB



SEAT BELT WARNING SYSTEM

Terminal and Reference Value for Time Control Unit

EHS000H3

TERMINAL	WIRE COLOR	ITEM	CONDITION	VOLTAGE (V)
8	W/B	Seat belt warning lamp (driver side) signal	Seat belt warning lamp (driver side) is illuminated.	0
			Seat belt warning lamp (driver side) is not illuminated.	Battery voltage
15	W/G	Seat belt warning lamp (passenger side) signal	Seat belt warning lamp (passenger side) is illuminated.	0
			Seat belt warning lamp (passenger side) is not illuminated.	Battery voltage
21	BR/W	Seat belt buckle switch (driver side) signal	Seat belt buckle switch (driver side) is unfastened.	0
			Seat belt buckle switch (driver side) is fastened.	Battery voltage
22	G/OR	Seat belt buckle switch (passenger side) signal	Seat belt buckle switch (passenger side) is unfastened.*1	0
			Seat belt buckle switch (passenger side) is fastened.*1	Battery voltage
36	*2	Vehicle speed signal	When the vehicle speed is approx. 40km (25MPH).	 <p>ELF1080D</p>

NOTE:

*1: When seat pressure switch is ON.

*2: Wire color is different depending on vehicle. Each wire color are as follows:

Vehicle	Wire color
A/T models	L/W
M/T models with gasoline engine	L/Y
Diesel engine models	L/B

Symptom Chart

EHS000GS

Symptom	Diagnoses/Service procedure	Reference page
Seat belt warning lamp (driver side) is not illuminated.	Seat belt warning lamp inspection (driver side)	SB-11
	Seat belt buckle switch inspection (driver side)	SB-14
	If the above system are normal, replace time control unit.	—
Seat belt warning lamp (passenger side) is not illuminated.	Seat belt warning lamp inspection (passenger side)	SB-13
	Seat belt buckle switch inspection (passenger side)	SB-15
	Seat pressure switch inspection	SB-16
	If the above system are normal, replace time control unit.	—
Seat belt chime does not activate.(Seat belt warning lamp is operated)	Vehicle speed signal inspection	SB-18
	If the above system is normal, replace time control unit	—

SEAT BELT WARNING SYSTEM

Seat Belt Warning Lamp Inspection (Driver side)

EHS000GT

1. FUSE INSPECTION

Check if 10A fuse [No.11, located in fuse block (J/B)] is blown.

OK or NG

OK >> GO TO 2.

NG >> Replace the 10A fuse [No.11, located in fuse block (J/B)].

2. POWER SUPPLY CIRCUIT

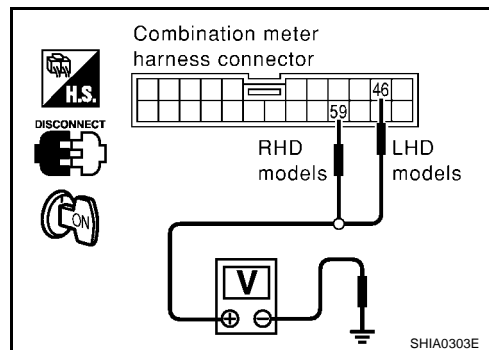
1. Disconnect combination meter harness connector.
2. Turn ignition switch "ON".
3. Check voltage between combination meter harness connector M46 terminal 46 (LHD models: W/L) or 59 (RHD models: W/L) and ground.

Battery voltage should exist.

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



3. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

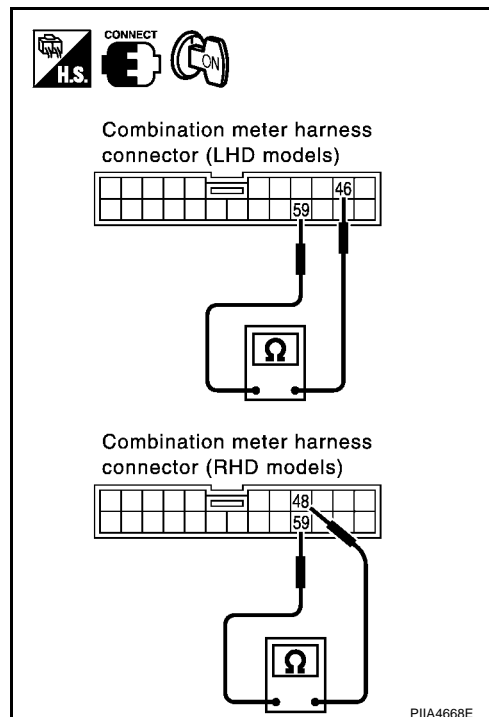
1. Connect combination meter.
2. Check continuity between combination meter harness connector M46 terminal 46 (W/L) and 59 (W/B) (LHD models) or 59 (W/L) and 48 (W/B) (RHD models)

Continuity should exist.

OK or NG

OK >> GO TO 4.

NG >> Replace combination meter.



SEAT BELT WARNING SYSTEM

4. HARNESS CONTINUITY INSPECTION

1. Turn ignition switch "OFF".
2. Disconnect time control unit connector and combination meter connector.
3. Check the following.

LHD models

- Check continuity between combination meter harness connector M46 terminal 59 (W/B) and time control unit harness connector M30 terminal 8 (W/B).

Continuity should exist.

- Check continuity between combination meter harness connector M46 terminal 59 (W/B) and ground.

Continuity should not exist.

RHD models

- Check continuity between combination meter harness connector M46 terminal 48 (W/B) and time control unit harness connector M30 terminal 8 (W/B).

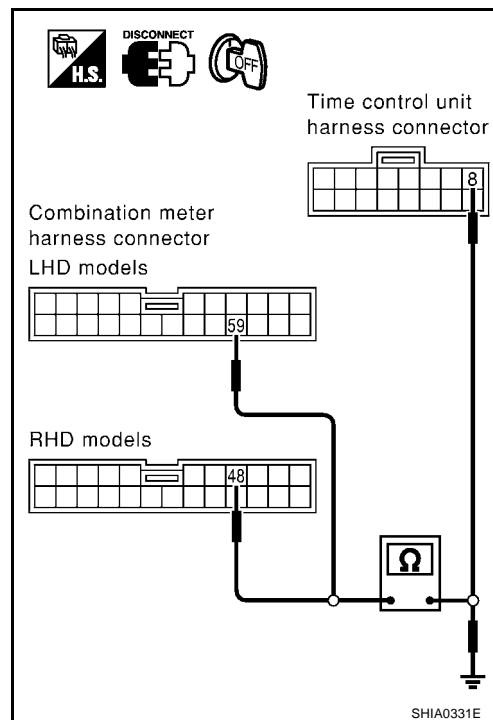
Continuity should exist.

- Check continuity between combination meter harness connector M46 terminal 48 (W/B) and ground.

Continuity should not exist.

OK or NG

- OK >> System is OK.
NG >> Repair or replace harness.



SEAT BELT WARNING SYSTEM

Seat belt Warning Lamp Inspection (Passenger Side)

EHS000GU

1. FUSE INSPECTION

Check if 10A fuse [No.11, located in fuse block (J/B)] is blown.

OK or NG

OK >> GO TO 2.

NG >> Replace the 10A fuse [No.11, located in fuse block (J/B)].

2. POWER SUPPLY CIRCUIT

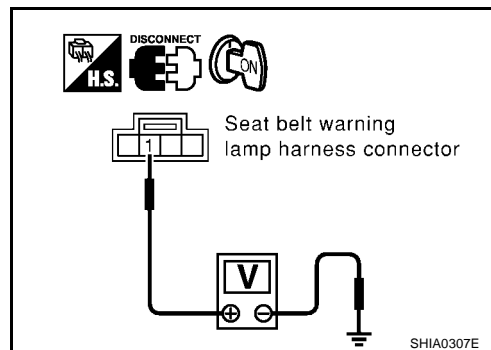
1. Disconnect seat belt warning lamp (passenger side) connector.
2. Turn ignition switch "ON".
3. Check voltage between seat belt warning lamp harness connector M100 terminal 1 (W/L) and ground.

Terminal				Voltage [V]
(+)		(-)		
Connector	Terminal (Wire color)	Connector	Terminal (Wire color)	
M100	1 (W/L)	Ground		Battery voltage

OK or NG

OK >> GO TO 3.

NG >> Repair or replace harness.



3. HARNESS CONTINUITY INSPECTION

1. Turn ignition switch "OFF".
2. Disconnect seat belt warning lamp connector and time control unit connector.
3. Check the following.
 - Check continuity between seat belt warning lamp harness connector M100 terminal 2 (W/G) and time control unit harness connector M30 terminal 15 (W/G).

Continuity should exist.

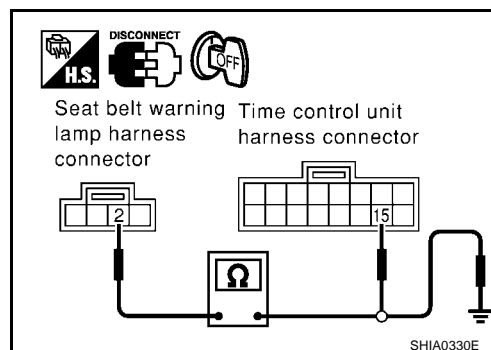
- Check continuity between seat belt warning lamp harness connector M100 terminal 2 (W/G) and ground.

Continuity should not exist.

OK or NG

OK >> GO TO 4

NG >> Replacer or repair the harness.



4. SEAT BELT WARNING LAMP (PASSENGER SIDE) CHECK

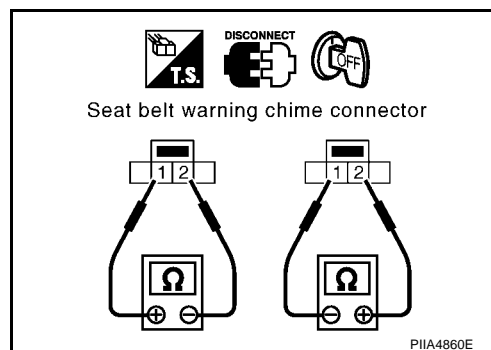
Check continuity between seat belt warning lamp (passenger side) harness connector M100 terminal 1 and 2.

Terminals		Continuity
(+)	(-)	
1	2	No
2	1	Yes

OK or NG

OK >> Replace time control unit.

NG >> Replace seat belt warning lamp (passenger side).



SEAT BELT WARNING SYSTEM

EHS000GW

Seat Belt Buckle Switch Inspection (Driver side)

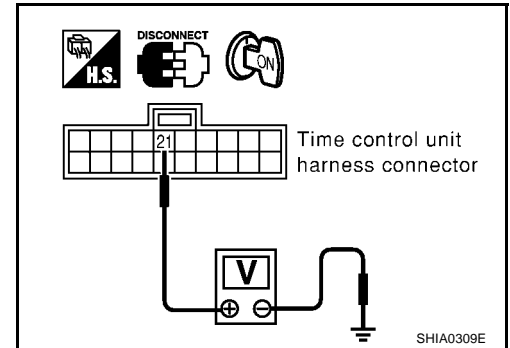
1. CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) INPUT SIGNAL

1. Turn ignition switch "ON".
2. Check voltage between time control unit harness connector M31 terminal 21 (BR/W) and ground.

Terminal (Wire color)		Condition (Driver side seat belt buckle switch)	Voltage [V]
(+)	(-)		
21 (BR/W)	Ground	Fasten	Battery voltage
		Unfasten	0

OK or NG

- OK >> System is OK.
NG >> GO TO 2.



2. HARNESS CONTINUITY INSPECTION

1. Turn ignition switch "OFF".
2. Disconnect time control unit harness connector and seat belt buckle switch (driver side) harness connector.
3. Check the following.
 - Check continuity between time control unit harness connector M31 terminal 21 (BR/W) and seat belt buckle switch (driver side) harness connector B10 terminal 1 (BR/W).

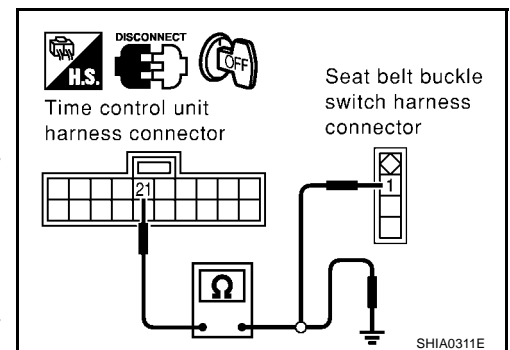
Continuity should exist.

- Check continuity between time control unit harness connector M31 terminal 21 (BR/W) and ground.

Continuity should not exist.

OK or NG

- OK >> GO TO 3.
NG >> Repair or replace harness.



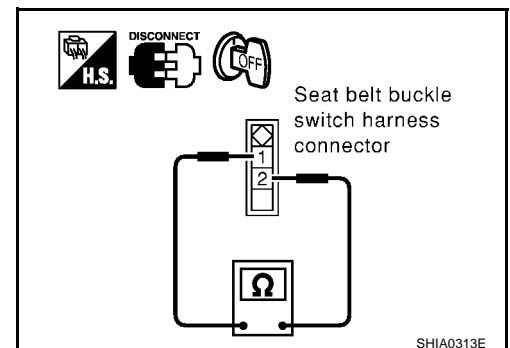
3. CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check continuity between seat belt buckle switch (driver side) harness connector B10 terminals 1 and 2.

Terminal		Condition (Driver side seat belt buckle switch)	Continuity
1	2		
1	2	Fasten	No
		Unfasten	Yes

OK or NG

- OK >> GO TO 4.
NG >> Replace seat belt buckle switch (driver side).



SEAT BELT WARNING SYSTEM

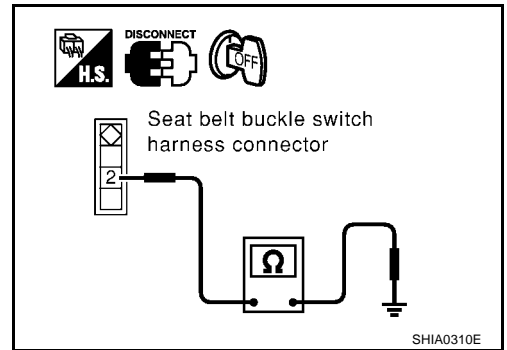
4. CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

1. Turn ignition switch "OFF".
2. Disconnect seat belt buckle switch (driver side) harness connector.
3. Check harness continuity between seat belt buckle switch (driver side) harness connector B10 terminal 2 (B) and ground.

Continuity should exist.

OK or NG

- OK >> Replace time control unit.
NG >> Repair or replace harness.



Seat Belt Buckle Switch Inspection (Passenger Side)

1. CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE) INPUT SIGNAL

1. Turn ignition switch "ON".
2. Check voltage between time control unit harness connector M31 terminal 22(G/OR) and ground.

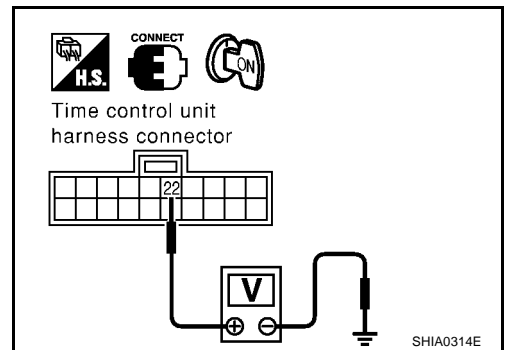
NOTE:

When performing the following procedure, a person is sitting on the passenger side seat. (As a result, the seat pressure sensor is turned ON.)

Terminal		Condition (passenger side seat belt buckle switch)	Voltage [V]
(+)	(-)		
22 (G/OR)	Ground	Fasten	Battery voltage
		Unfasten	0

OK or NG

- OK >> System is OK.
NG >> GO TO 2.



2. HARNESS CONTINUITY INSPECTION

1. Turn ignition switch "OFF".
2. Disconnect time control unit harness connector and seat belt buckle switch (passenger side) harness connector.
3. Check the following.
 - Check continuity between time control unit harness connector M31 terminal 22 (G/OR) and seat belt buckle switch (passenger side) harness connector B113 terminal 1 (G/OR).

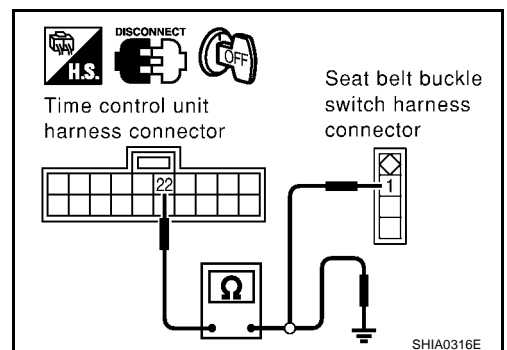
Continuity should exist.

- Check continuity between time control unit harness connector M31 terminal 22 (G/OR) and ground.

Continuity should not exist.

OK or NG

- OK >> GO TO 3.
NG >> Repair or replace harness.



SEAT BELT WARNING SYSTEM

3. CHECK SEAT BELT BUCKLE SWITCH INPUT(PASSENGER SIDE)

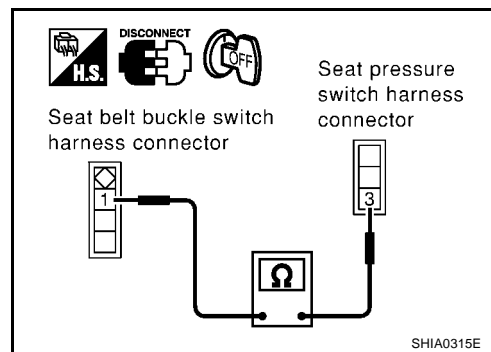
1. Disconnect seat pressure switch harness connector.
2. Check continuity between seat belt buckle switch (passenger side) harness connector B113 terminal 1 (G/OR) and seat belt pressure switch harness connector B301 terminal 3.

Terminal (wire color)		Condition (passenger side seat buckle switch)	Continuity
1 (G/OR)	3	Fasten	No
		Unfasten	Yes

OK or NG

OK >> GO TO 4.

NG >> Replace seat belt buckle switch (passenger side).



4. CHECK SEAT BUCKLE SWITCH GROUND CIRCUIT

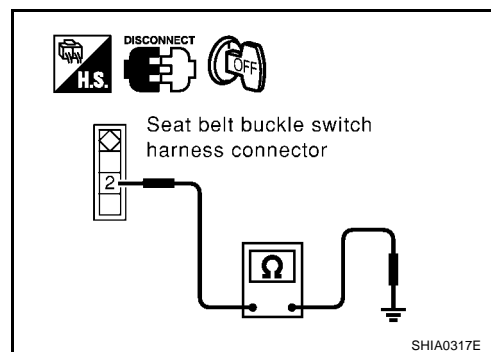
Check continuity between seat buckle switch harness connector B113 terminal 2 (B) and ground.

Continuity should exist.

OK or NG

OK >> GO TO [SB-16, "Seat Pressure Switch Inspection"](#).

NG >> Repair or replace harness.



Seat Pressure Switch Inspection

1. CHECK SEAT PRESSURE SWITCH

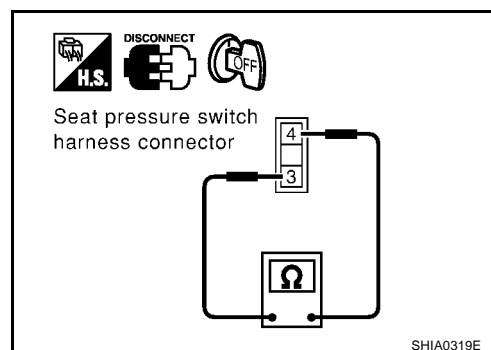
1. Turn ignition switch "OFF".
2. Disconnect seat pressure switch harness connector.
3. Check continuity between seat pressure switch harness connector B301 terminal 3 and 4.

Terminal (wire color)		Condition (seat pressure switch)	Continuity
3	4	ON	Yes
		OFF	No

OK or NG

OK >> GO TO 2.

NG >> Replace seat pressure switch.



SEAT BELT WARNING SYSTEM

2. HARNESS CONTINUITY INSPECTION

1. Disconnect seat belt buckle switch (passenger side).
2. Check the following.
 - Check continuity between seat pressure switch harness connector B301 terminal 4 (B) and seat belt buckle switch harness connector B113 terminal 2 (B).

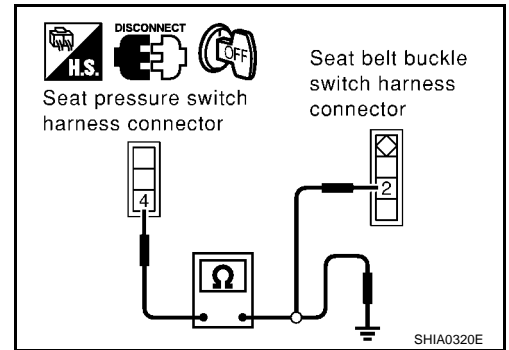
Continuity should exist.

- Check the following. Check continuity between seat pressure switch harness connector B301 terminal 4 (B) and ground.

Continuity should not exist.

OK or NG

- | | |
|----|-------------------------------|
| OK | >> System is OK. |
| NG | >> Repair or replace harness. |



A
B
C
D
E
F
G
SB
I
J
K
L
M

SEAT BELT WARNING SYSTEM

EHS000GZ

Vehicle Speed Signal Inspection

1. COMBINATION METER CHECK

Check the speed meter in combination meter operates normally.

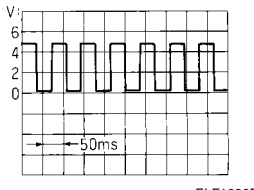
OK or NG

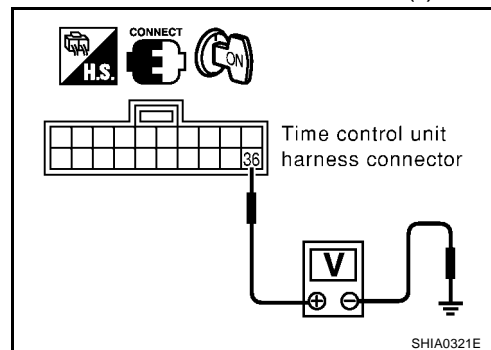
OK >> GO TO 2.

NG >> Check combination meter system. Refer to [DI-12, "SYMPTOM CHART"](#) (LHD models) or [DI-32, "SYMPTOM CHART"](#) (RHD models).

2. VEHICLE SPEED INPUT SIGNAL INSPECTION

Start the engine, and check the voltage between time control unit harness connector M31 terminal 36 (*).

Terminal		Voltage
(+)	(-)	
36*	Ground	



NOTE:

*: Wire color is different depending on vehicle. Each wire color are as follows:

Vehicle	Wire color
A/T models	L/W
M/T models with gasoline engine	L/Y
Diesel engine models	L/B

OK or NG

OK >> System is OK.

NG >> GO TO 3.

SEAT BELT WARNING SYSTEM

3. HARNESS CONTINUITY INSPECTION

1. Turn ignition switch "OFF".
2. Disconnect time control unit harness connector and combination meter harness connector.
3. Check the following.

LHD models

- Check continuity between combination meter harness connector M46 terminal 50 (*) and time control unit M31 terminal 36 (*).

Continuity should exist.

- Check continuity between combination meter harness connector M46 terminal 50 (*) and ground.

Continuity should not exist.

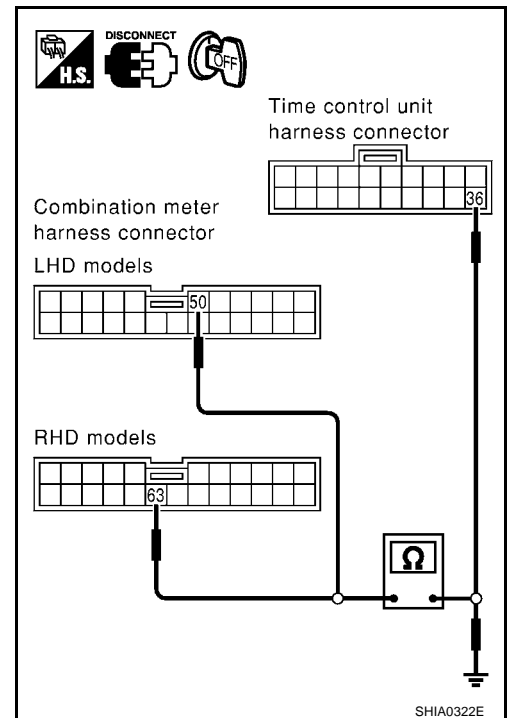
RHD models

- Check continuity between combination meter harness connector M46 terminal 63 (*) and time control unit M31 terminal 36 (*).

Continuity should exist.

- Check continuity between combination meter harness connector M46 terminal 63 (*) and ground.

Continuity should not exist.



NOTE:

*: Wire color is different depending on vehicle. Each wire color are as follows:

Vehicle	Wire color
A/T models	L/W
M/T models with gasoline engine	L/Y
Diesel engine models	L/B

OK or NG

- OK >> Replace combination meter.
 NG >> Replace or replace harness.

SEAT BELT WARNING SYSTEM
