SECTION WCS В WARNING CHIME SYSTEM

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PRECAUTIONS

< PRECAUTION >

PRECAUTION PRECAUTIONS

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

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 SR 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 SR 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 harnesses or harness connectors.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

- When working near the Airbag Diagnosis Sensor Unit or other Airbag System sensors with the Ignition ON or engine running, DO NOT use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the Ignition OFF, disconnect the battery and wait at least 3 minutes before performing any service.

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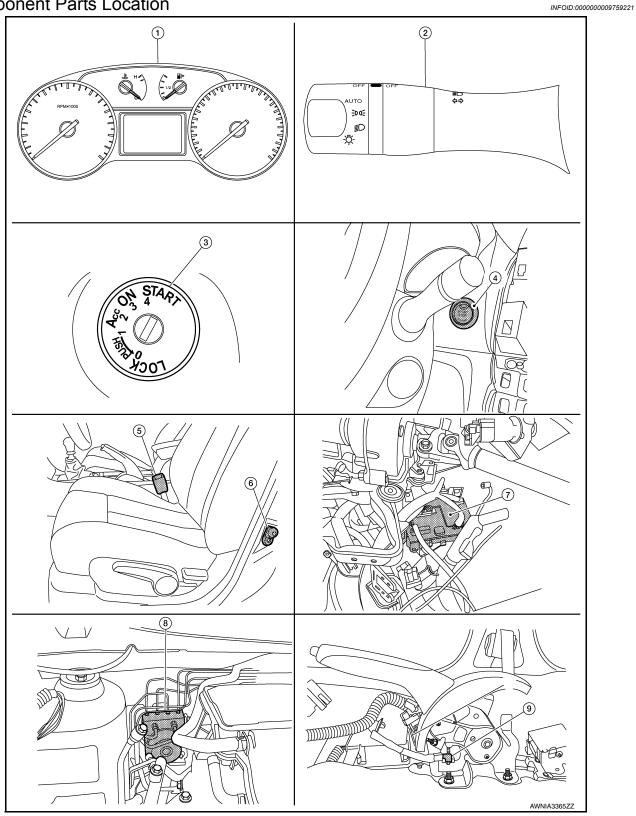
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< SYSTEM DESCRIPTION >

SYSTEM DESCRIPTION COMPONENT PARTS

Component Parts Location



COMPONENT PARTS

< SYSTEM DESCRIPTION >

1. Combination meter

BCM

7.

- 4. Push-button ignition switch (with intel- 5. ligent key system)
- Combination switch (lighting and turn 3. signal switch)
 Seat belt buckle switch LH 6.
 - ABS actuator and electric unit (control unit)
- Key switch (without intelligent key system) Front door switch LH
- Parking brake switch (view with center console removed)

(view with instrument panel removed)

Component Description

Unit	Description
	• Judges whether the parking brake is released using the vehicle speed signal and the parking brake switch signal, and sounds the buzzer if necessary.
Combination meter	Receives the seat belt buckle switch signal from the seat belt buckle switch and transmits it to BCM with CAN communication line.
	Receives a buzzer output signal from BCM with CAN communication line.
Lighting switch	Transmits lighting switch status signal to the BCM.
BCM	Transmits signals provided by various units to the combination meter with CAN communication line.
Front door switch LH	Transmits door switch signal to BCM.
Key switch	Transmits key switch signal to BCM.
Push-button ignition switch	Provides ignition switch status to the BCM
Seat belt buckle switch LH	Transmits seat belt buckle switch LH signal to the combination meter.
Parking brake switch	Transmits parking brake switch signal to the combination meter.
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to combination meter with CAN communication line.

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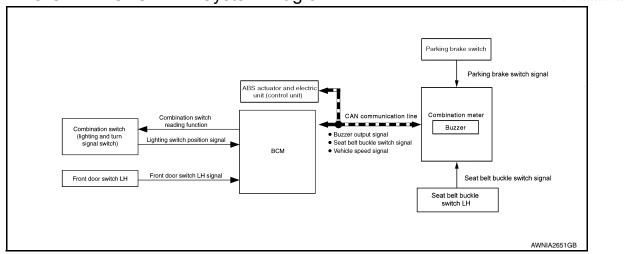
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SYSTEM WARNING CHIME SYSTEM

WARNING CHIME SYSTEM : System Diagram



WARNING CHIME SYSTEM : System Description

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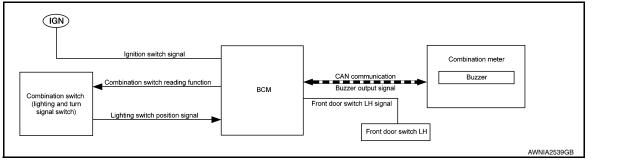
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DESCRIPTION

- The buzzer for warning chime system is installed in the combination meter.
- The buzzer sounds when the combination meter receives a buzzer output signal from the BCM.
- The BCM receives signals from various units and transmits a buzzer output signal to the combination meter with CAN communication line if it judges that the warning buzzer should be activated.

LIGHT REMINDER WARNING CHIME

LIGHT REMINDER WARNING CHIME : System Diagram



LIGHT REMINDER WARNING CHIME : System Description

INFOID:000000009759226

DESCRIPTION

With ignition switch in OFF or ACC position, driver door open, and lighting switch in parking lamp or headlamp position, the light warning chime will sound.

- BCM detects ignition switch in OFF or ACC position, front door switch LH ON, and lighting switch in parking lamp or headlamp position, and then transmits buzzer output signal (light reminder warning chime) to combination meter with CAN communication line.
- When combination meter receives buzzer output signal (light reminder warning chime), it sounds the buzzer.

WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled

- Lighting switch is in parking lamp or headlamp position
- Ignition switch is in OFF or ACC
- Front door switch LH is ON

SYSTEM

< SYSTEM DESCRIPTION >

WARNING CANCEL CONDITIONS

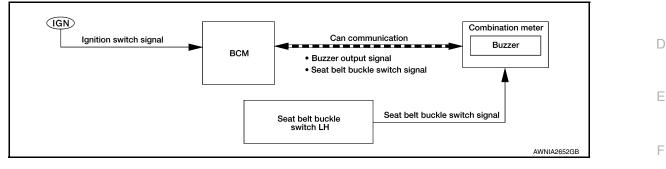
Warning is canceled if any of the following conditions is fulfilled.

- Lighting switch OFF
- Ignition switch ON

• Front door switch LH is OFF

SEAT BELT WARNING CHIME

SEAT BELT WARNING CHIME : System Diagram



SEAT BELT WARNING CHIME : System Description

DESCRIPTION

With ignition switch turned ON and driver seat belt unfastened, seat belt warning chime will sound for approximately 6 seconds.

- BCM receives seat belt buckle switch signal from combination meter with CAN communication line.
- BCM detects ignition switch turned ON and seat belt buckle switch LH ON, and then transmits buzzer output signal (seat belt warning chime) to combination meter with CAN communication line.
- When combination meter receives buzzer output signal (seat belt warning chime), it sounds the buzzer.

WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled

Ignition switch OFF→ON
Seat belt buckle switch LH is ON (driver seat belt not fastened)

WARNING CANCEL CONDITIONS

Cancels the warning if any of the following conditions is fulfilled.

Ignition switch OFF

• Seat belt buckle switch LH is OFF (driver seat belt fastened)

KEY WARNING CHIME (WITHOUT INTELLIGENT KEY)

KEY WARNING CHIME (WITHOUT INTELLIGENT KEY) : System Diagram

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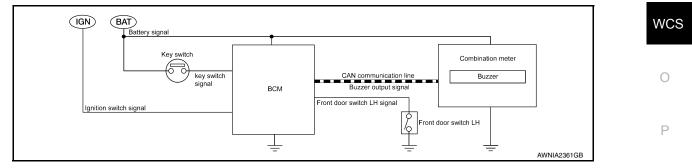
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KEY WARNING CHIME (WITHOUT INTELLIGENT KEY) : System Description

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With the key inserted into the key switch, and the ignition switch in the OFF or ACC position, when driver's door is opened, the warning chime will sound.

Revision: October 2013

2014 Sentra NAM

SYSTEM

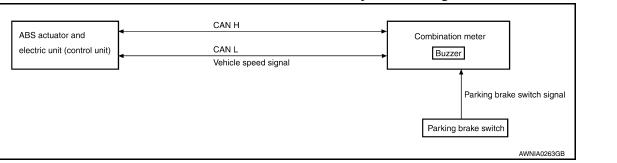
< SYSTEM DESCRIPTION >

• BCM detects key inserted into the ignition switch, and sends key warning signal to combination meter with CAN communication line.

• When combination meter receives key warning signal, it sounds warning chime.

PARKING BRAKE RELEASE WARNING CHIME

PARKING BRAKE RELEASE WARNING CHIME : System Diagram



PARKING BRAKE RELEASE WARNING CHIME : System Description

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DESCRIPTION

- The combination meter receives the vehicle speed signal from the ABS actuator and electric unit (control unit) via CAN communication line.
- The combination meter judges whether the parking brake is released using the parking brake switch signal from the parking brake switch, and sounds the warning buzzer if necessary.

WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled:

- Vehicle speed is approximately 7 km/h (4.3 MPH) or higher
- Parking brake switch ON

WARNING CANCEL CONDITIONS

Warning is canceled if any of the following conditions are fulfilled:

- Vehicle speed is approximately 3 km/h (1.9 MPH) or less
- Parking brake switch OFF

DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (COMBINATION METER)

MAIN

SIGNALS

CONSULT Function (METER/M&A)

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APPLICATION ITEMS

CONSULT can perform the following diagnosis modes via CAN communication and the combination meter.

System	Diagnosis mode	Description	С
	Self Diagnostic Result	The combination meter checks the conditions and displays memorized errors.	
METER/M&A	Data Monitor	Displays the combination meter input/output data in real time.	_
	Work Support	Displays diagnosis procedure of each work item.	D
	Warning History	Lighting history of the warning lamp and indicator lamp can be checked.	

SELF DIAG RESULT Refer to MWI-26, "DTC Index".

Display item [Unit]

DATA MONITOR

Display Item List

X: Applicable

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Description	(
ed signal.	ŀ
ed signal, which is transmitted to each unit with	
ansmitted to other units via CAN communica-	
ed signal, which is input from ECM.	

	SIGNALS						
SPEED METER [km/h] or [mph]	х	Displays the value of vehicle speed signal.	Н				
SPEED OUTPUT [km/h] or [mph]	х	splays the value of vehicle speed signal, which is transmitted to each unit with AN communication.					
ODO OUTPUT [km/h or mph]		Displays odometer signal value transmitted to other units via CAN communica- tion.	I				
TACHO METER [rpm]	x	Displays the value of engine speed signal, which is input from ECM.	.1				
FUEL METER [L]	x	Displays the fuel level.	0				
W TEMP METER [°C] or [°F]	x	Displays the value of engine coolant temperature signal, which is input from ECM.	Κ				
ABS W/L [ON/OFF]		Displays [ON/OFF] condition of ABS warning indicator	I				
SLIP IND [ON/OFF]		Displays [ON/OFF] condition of SLIP indicator lamp.	L				
VDC/TCS IND [ON/OFF]		Displays [ON/OFF] condition of VDC OFF indicator lamp.	M				
BRAKE W/L [ON/OFF]		Displays [ON/OFF] condition of brake warning indicator.					
DOOR W/L [ON/OFF]		Displays [ON/OFF] condition of door warning indicator.	WCS				
HI-BEAM IND [ON/OFF]		Displays [ON/OFF] condition of high beam indicator.	0				
TURN IND [ON/OFF]		Displays [ON/OFF] condition of turn indicator.					
FR FOG IND [On/Off]		Displays [ON/OFF] condition of front fog lamp indicator.	Ρ				
LIGHT IND [ON/OFF]		Displays [ON/OFF] condition of light indicator.					
OIL W/L [ON/OFF]		Displays [ON/OFF] condition of oil pressure warning indicator.					

DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description
MIL [ON/OFF]		Displays [ON/OFF] condition of malfunction indicator.
CRUISE IND [Off]		Displays [ON/OFF] condition of CRUISE indicator.
O/D OFF IND [ON/OFF]		Displays [ON/OFF] condition of O/D OFF indicator.
FUEL W/L [ON/OFF]		Displays [ON/OFF] condition of low-fuel warning indicator.
KEY G/Y W/L [On/Off]		Displays [ON/OFF] condition of KEY warning lamp (G/Y).
KEY KNOB W/L [On/Off]		Displays [ON/OFF] condition of shift P warning lamp.
O/D OFF SW [ON/OFF]		Displays [ON/OFF] condition of O/D OFF switch.
COMP F/B SIG [On/Off]		A/C compressor activation condition that ECM judges according to the engine coolant temperature and the acceleration degree.
BRAKE SW [ON/OFF]		Displays [ON/OFF] condition of brake switch.
EPS W/L [ON/OFF]		Displays [ON/OFF] condition of EPS indicator lamp.
ECO MODE IND [On/Off]		Displays [ON/OFF] condition of ECO mode indicator lamp.
LCD		Displays status of Intelligent Key system warning judged from meter display signal received from BCM with CAN communication line.
SHIFT IND [P, R, N, D, L]		Displays shift selector position.
FUEL CAP W/L [Off]		Displays [ON/OFF] condition of loose fuel cap warning message.
AIR PRES W/L [ON/OFF]		Displays [ON/OFF] condition of tire pressure warning lamp.
PKB SW [ON/OFF]		Status of parking brake switch.
BUCKLE SW [ON/OFF]		Status of seat belt buckle switch (LH).
PASS BUCKLE SW [ON/OFF]		Status of passenger seat belt buckle switch (RH).
BRAKE OIL SW [ON/OFF]		Status of brake fluid level switch.
A/C AMP CONN [On/Off]		Status of A/C auto amp. connection recognition signal.
DISTANCE [km] or [Mi]		Displays distance to empty.
OUTSIDE TEMP [°C or °F]		Displays the ambient air temperature, which is input from ambient sensor.
BUZZER [ON/OFF]	х	Displays [ON/OFF] condition of buzzer.
SPORT MODE IND [On/Off]		Status of DS mode indicator detected from SPORT indicator signal is received from TCM via CAN communication.
ECO DRIVE NAVI [LEVEL 0 - 30]		Status of ECO pedal guide detected from ECO pedal guide signal received from ECM via CAN communication.

NOTE:

Some items are not available according to vehicle specification.

DIAGNOSIS SYSTEM (COMBINATION METER)

< SYSTEM DESCRIPTION >

WARNING HISTORY

- Stores histories when warning/indicator lamp is turned on.
- "WARNING HISTORY" indicates the "TIME" when the warning/ indicator lamp is turned on.
- The "TIME" above is:
- 0: The condition that the warning/indicator lamp has been turned on 1 or more times after starting the engine and waiting for 30 seconds.
- 1 39: The number of times the engine was restarted after the 0 condition.
- NO WARNING HISTORY: Stores NO (0) turning on history of warning/indicator lamp.

NOTE:

- WARNING HISTORY is not stored for approximately 30 seconds after the engine starts.
- Brake warning lamp does not store any history when the parking brake is applied or the brake fluid level gets low.

WORK SUPPORT

Work support item	Description	E
Turn signal buzzer diagnosis		
Outside air temperature diagnosis	A possible malfunction can be narrowed down by following dis-	
Fuel meter diagnosis (Analog pointer)	played instructions.	F
/arning/Indicator lamp diagnosis		

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DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000010309898

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	The vehicle specification can be read and saved.The vehicle specification can be written when replacing BCM.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

		Direct Diagnostic Mode						
System	Sub System	ECU identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Exterior lamp	HEAD LAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×	×		
Air conditioner	AIR CONDITIONER			×				
Intelligent Key system	INTELLIGENT KEY		×	×	×	×		
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×	×	×	×		
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Trunk open	TRUNK			×				
Vehicle security system	THEFT ALM			×	×	×		
RAP system	RETAINED PWR			×				
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		

DIAGNOSIS SYSTEM (BCM) (WITH INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

DATA MONITOR

Monitor Item [Unit]	Description	
PUSH -SW [On/Off]	Indicates condition of push-button ignition switch.	С
UNLK SEN -DR [On/Off]	Indicates condition of driver door unlock sensor.	
VEH SPEED 1 [km/h]	Indicates vehicle speed signal received from ABS on CAN communication line.	D
TAIL LAMP SW [On/Off]	Indicates condition of combination switch.	D
FR FOG SW [On/Off]	Indicates condition of front fog lamp switch.	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.	E
CDL LOCK SW [On/Off]	Indicates condition of lock signal from door lock and unlock switch.	
ACTIVE TEST		_

Test Item	Description	
ID REGIST WARNING	This test is able to check TPMS transmitter ID regist warning chime operation [On/Off].	G
SEAT BELT WARN TEST	This test is able to check seat belt warning chime operation [On/Off].	
LIGHT WARN ALM	This test is able to check light warning chime operation [On/Off].	
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DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM) < SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM) COMMON ITEM

COMMON ITEM : CONSULT Function (BCM - COMMON ITEM)

INFOID:000000010295526

APPLICATION ITEM

CONSULT performs the following functions via CAN communication with BCM.

Direct Diagnostic Mode	Description
ECU identification	The BCM part number is displayed.
Self Diagnostic Result	The BCM self diagnostic results are displayed.
Data Monitor	The BCM input/output data is displayed in real time.
Active Test	The BCM activates outputs to test components.
Work support	The settings for BCM functions can be changed.
Configuration	The vehicle specification can be read and saved.The vehicle specification can be written when replacing BCM.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication is displayed.

SYSTEM APPLICATION

BCM can perform the following functions.

				Direct [Diagnosti	c Mode		
System	Sub System	ECU identification	Self Diagnostic Result	Data Monitor	Active Test	Work support	Configuration	CAN DIAG SUPPORT MNTR
Door lock	DOOR LOCK		×	×	×	×		
Rear window defogger	REAR DEFOGGER			×	×			
Warning chime	BUZZER			×	×			
Interior room lamp timer	INT LAMP			×	×	×		
Remote keyless entry system	MULTI REMOTE ENT			×	×	×		
Exterior lamp	HEAD LAMP			×	×	×		
Wiper and washer	WIPER			×	×	×		
Turn signal and hazard warning lamps	FLASHER			×	×			
Air conditioner	AIR CONDITIONER			×				
Combination switch	COMB SW			×				
BCM	BCM	×	×			×	×	×
Immobilizer	IMMU		×		×	×		
Interior room lamp battery saver	BATTERY SAVER			×	×	×		
Trunk open	TRUNK			×				
RAP system	RETAINED PWR			×		×		
Signal buffer system	SIGNAL BUFFER			×				
TPMS	AIR PRESSURE MONITOR		×	×	×	×		
Panic alarm system	PANIC ALARM				×			

DIAGNOSIS SYSTEM (BCM) (WITHOUT INTELLIGENT KEY SYSTEM)

< SYSTEM DESCRIPTION >

BUZZER

BUZZER : CONSULT Function (BCM - BUZZER)

DATA MONITOR

Monitor Item [Unit]	Description	
IGN ON SW [On/Off]	Indicates condition of ignition switch ON position.	(
KEY ON SW [On/Off]	Indicates condition of key switch.	
DOOR SW-DR [On/Off]	Indicates condition of front door switch LH.	
REVERSE SW CAN [On/Off]	Indicates reverse switch signal received from TCM on CAN communication line.	— L
TAIL LAMP SW [On/Off]	Indicates condition of combination switch.	
FR FOG SW [On/Off]	Indicates condition of front fog lamp switch.	E
BUCKLE SW [On/Off]	Indicates condition of seat belt buckle switch.	
VEHICLE SPEED [km/h/mph]	Indicates vehicle speed signal received from combination meter on CAN communication line.	

ACTIVE TEST

Test Item	Description	 G
IGN KEY WARN ALM	This test is able to check key warning chime operation [On/Off].	
SEAT BELT WARN TEST	This test is able to check seat belt warning chime operation [On/Off].	
LIGHT WARN ALM	This test is able to check light warning chime operation [On/Off].	 Н

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ECU DIAGNOSIS INFORMATION BCM, COMBINATION METER

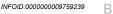
List of ECU Reference

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ECU	Reference				
	BCS-29, "Reference Value"				
BCM	BCS-46, "Fail-safe"				
(with Intelligent Key)	BCS-48, "DTC Inspection Priority Chart"				
	BCS-49, "DTC Index"				
	BCS-97, "Reference Value"				
BCM	BCS-108, "Fail-safe"				
(without Intelligent Key)	BCS-108, "DTC Inspection Priority Chart"				
	BCS-109, "DTC Index"				
	MWI-20, "Reference Value"				
Combination meter	MWI-25, "Fail-Safe"				
	MWI-26, "DTC Index"				

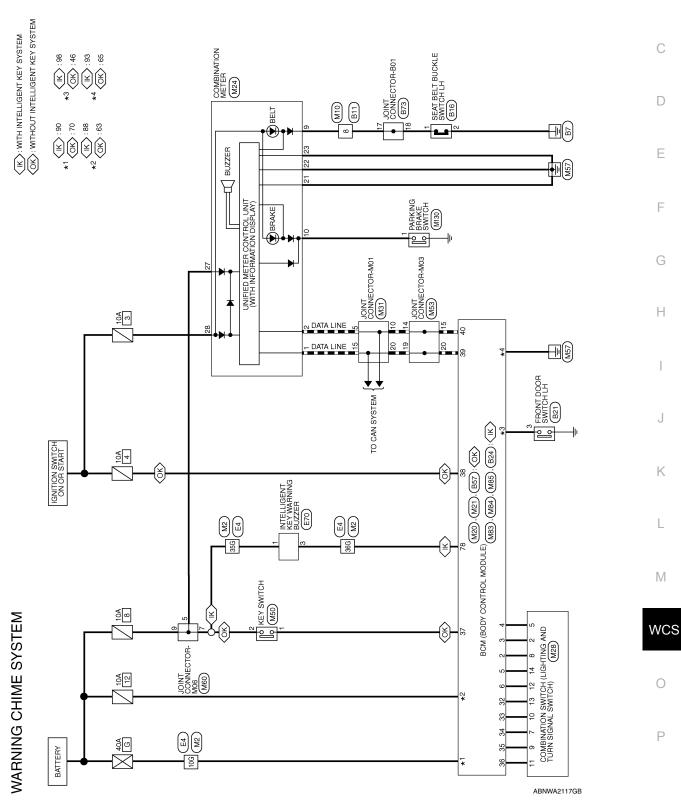
WIRING DIAGRAM WARNING CHIME SYSTEM

Wiring Diagram



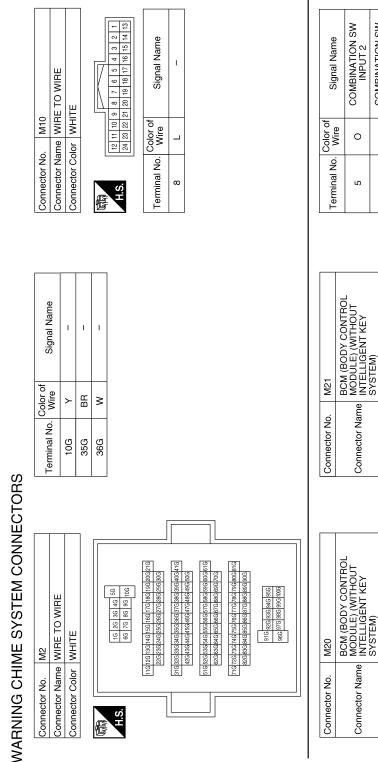
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WARNING CHIME SYSTEM

< WIRING DIAGRAM >



Signal Name	COMBINATION SW INPUT 2	COMBINATION SW INPUT 1	COMBINATION SW OUTPUT 5	COMBINATION SW OUTPUT 4	COMBINATION SW OUTPUT 3	COMBINATION SW OUTPUT 2	COMBINATION SW OUTPUT 1	KEY SW	IGN SW	CAN-H	CAN-L
Color of Wire	0	Μ	ГG	¥	>	R	SB	GR	н	Γ	٩
Terminal No.	5	9	32	33	34	35	36	22	38	66	40

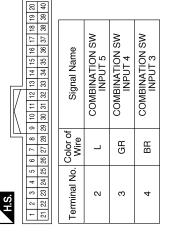
WHITE

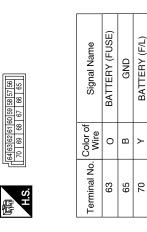
Connector Color

WHITE

Connector Color

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BATTERY (F/L)

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Connector No. M31 Connector Name JOINT CONNECTOR-M01 Connector Color GRAY	H.S.	Terminal No. Color of Wire Signal Name 5 P - 10 P - 15 L - 20 LOINT CONNECTOR-MO6 Connector Name JOINT CONNECTOR-MO6 Connector Name JOINT CONNECTOR-MO6 Connector Name JOINT CONNECTOR-MO6 Connector Nor BLUE Terminal No. Wire 5 LG 7 BR 9 W	A B C D
			F
M28 COMBINATION SWITCH WHITE	2 3 10 11 12 13 14 8 9 10 11 12 13 14	Terminal No. Color of Wire Signal Name 2 GR - 5 BR - 5 BR - 6 BR - 7 V - 8 L - 9 R - 10 Y - 11 SB - 12 W - 13 LG - 14 O - 15 P - 16 1 - 19 L - 19 L - 19 L -	G
	7 1 2 3 3 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	No. Color of GR Color of GR GR BR R BR R R R K K No. Color of Vire NO. No. Color of Vire NO. No. Color of Vire NO.	I
Connector No. Connector Name Connector Color	S.H	Terminal No. Color 2 6 5 B 7 7 8 10 9 7 11 5 12 V 13 L 13 L 14 0 14 F 15 1 16 1 17 Connector Name 20 Connector Name 20 1	J
	22 21		K
Connector No. M24 Connector Name COMBINATION METER Connector Color WHITE	11.5 11.5 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 40 38 37 38 38 38 38 38 38 38 39 30 28 27 26 25 24 23 23	Signal Name CAN-H CAN-L DR BUCKLE SW PKB SW GND 2 (POWER) GND 2 (POWER) GND 2 (POWER) GND 3 (CIRCUIT) BAT IGN Signal Name Signal Name	L
. M24 me COMBII	15 14 13 15 34 33 22 31	Color of Virre Sign Virre Sign Virre Sign Color of EB C C C C C C C C C C C C C C C C C C	WC
Connector No. M24 Connector Name COMBII Connector Color WHITE	ALLS. 2019 18 17 16 1 40 39 38 37 36 3	Terminal No. Color 1 1 2 1 9 1 9 1 10 5 23 1 24 1 1 1 1 1 1 1 1 1 2 1 3 1 1 1 1 1 1 1 1 1 1 1 2 1 3 1 3 1 1 1 3 1 2	0
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WARNING CHIME SYSTEM

Revision: October 2013

BOL Connector No. MB ROL Connector Name BC Rou Connector Name MC Rou Connector Name MC Rou Connector Name MC Rou Connector Color BL Rou S C S C C S C O	Connector No. MS Connector Name BC Connector Name BC R Connector Color R R	Terminal No Color of Signal Name	32 I.G. CO		33 Y COMBINATION SW 0UTPUT 4	34 V COMBINATION SW OUTPUT 3	35 R COMBINATION SW	9 10 11 12 13 14 15 16 17 18 19 20 99 30 31 32 33 33 53 53 57 38 39 40	39 L CAN-H	Signal Name 40 P CAN-L	COMBINATION SW INPUT 5	COMBINATION SW INPUT 4	COMBINATION SW INPUT 3	COMBINATION SW INPUT 2	COMBINATION SW INPUT 1	
			BCM (BOD) MODULE) ()	SYSTEM				6 7 8 9 10 11 12 5 26 27 28 29 30 31 32		Color of Wire						
Image: 10 cm Image: 10 cm<	ROL TPUT TPUT	Connector N	Connector N		Connector C		H.S.	1 2 3 4 5 21 22 23 24 25		Terminal No.	N	n	4	ى	Q	
	No. M83 Name BCM NTT NTT SYST SYST O. Original (1/2) M O. Wire Mire Wire Wire		(BODY CONTROL ULE) (WITH	LLIGEN I KEY	E E			51 50 49 48 47 46 45 44 43 42 71 70 69 68 67 66 65 64 63 62		Signal Name	SMART KEYLESS BUZZER OUTPUT					

Connector No.	M130
Connector Name	Connector Name PARKING BRAKE SWITCH
Connector Color BLACK	BLACK
民 H.S.	

BCM (BODY CONTROL MODULE) (WITH INTELLIGENT KEY SYSTEM)

Connector Name

WHITE

Connector Color

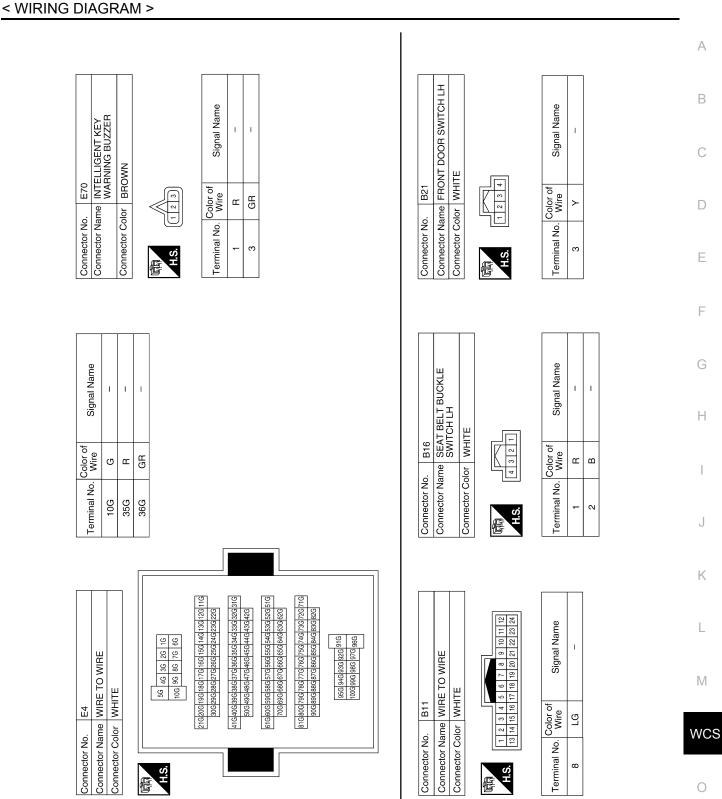
Signal Name	-
Color of Wire	SB
Terminal No.	1

98 (88) 27 (86) (85) (82) (81) 95 94 93 92 91 90	Signal Name	BATTERY (FUSE)	BATTERY (F/L)	GND (POWER)
39 88 87 86 8 95 94 93	Color of Wire	0	¥	В
H.S.	Terminal No.	88	06	63

ABNIA5771GB

WARNING CHIME SYSTEM

< WIRING DIAGRAM >

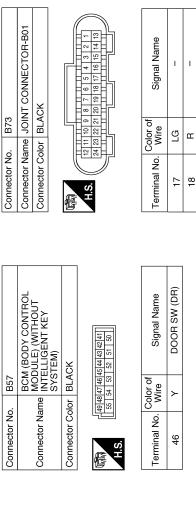


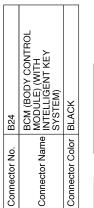
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Revision: October 2013

WARNING CHIME SYSTEM







Signal Name	DOOR SW (DR)	
Color of Wire	Y	
Terminal No.	98	

ABNIA5774GB

< BASIC INSPECTION >

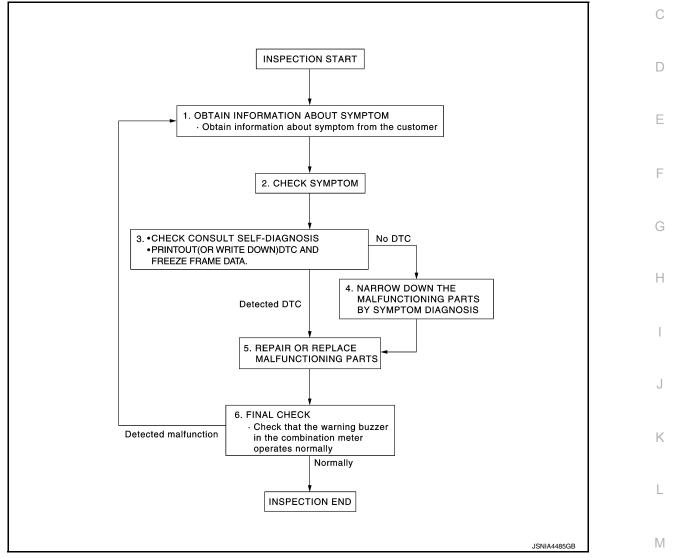
BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000009759240 B

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DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred.

>> GO TO 2.

2.CHECK SYMPTOM

Check the symptom based on the information obtained from the customer.

• Check if any other malfunctions are present.

>> GO TO 3.

3.check consult self-diagnosis results

Connect CONSULT and perform self-diagnosis. Refer to MWI-26, "DTC Index".

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

Are self-diagnosis results normal?

YES >> GO TO 4. NO >> GO TO 5.

4.NARROW DOWN MALFUNCTIONING PARTS BY SYMPTOM DIAGNOSIS

Perform symptom diagnosis and narrow down the malfunctioning parts.

>> GO TO 5.

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace malfunctioning parts.

NOTE:

If DTC is displayed, erase DTC after repairing or replacing malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

Check that the warning buzzer in the combination meter operates normally.

Does it operate normally? YES >> Inspection End.

NO >> GO TO 1.

	-		PLY AND G		CUIT	
< DTC/CIRCUIT		-				
				IT.		
POWER SU				11		
			D			
COMBINATIO		R : Diagnosi	s Procedure	9		INFOID:000000010289405
Regarding Wiring	g Diagram inf	formation, refer	to <u>MWI-28, "W</u>	iring Diagram".		
1.CHECK FUSE	ES					
Check that the fo	ollowing fuses	s are not blown.				
	Unit		Power source	2	Fuse N	
	Onit		Battery	-	8	0.
Combir	nation meter	I	gnition switch ON	or ACC	18	
		lg	nition switch ON o	r START	3	
Is the fuse blown		<i>. .</i>		,		
YES >> Repl NO >> GO		n fuse after rep	airing the affect	ted circuit.		
2. POWER SUP	PLY CIRCUI	T CHECK				
Check voltage be	etween comb	ination meter h	arness connect	or M24 terminal	s 15, 27, 28 and g	
(-	Terminals			Ignition s	witch position	1
Connector	Terminal	(-)	OFF	ACC	ON	START
	27		Battery voltage	Battery voltage	Battery voltage	Battery voltage
M24	15	Ground	0V	Battery voltage	Battery voltage	0V
	28		0V	0V	Battery voltage	Battery voltage
<u>Is the inspection</u> YES >> GO		<u>l?</u>				
NO >> Repa	air or replace	harness or con	nector.			
3.CHECK GRO	UND CIRCU	IT				
Check continuity	between cor	mbination meter	harness conne	ector M24 termir	nals 21, 22, 23 and	d ground.
	Combinatio	n meter				
Connecto	or	Terminal			Co	ontinuity V
		21		Ground		
M24		22			Yes	
		23				
<u>Is the inspection</u> YES >> Inspection	<u>result norma</u> ection End.	<u>1?</u>				
NO >> Repa	air or replace	harness or cor				
BCM (BODY	CONTRO	OL SYSTEN	1) (WITH IN	TELLIGEN	T KEY SYSTE	EM)
•	CONTRO	L SYSTEM)	(WITH INTI	ELLIGENT K	(EY SYSTEM)	: Diagnosis
Procedure						INFOID:000000010309901

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

Regarding Wiring Diagram information, refer to BCS-51, "Wiring Diagram".

1. CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not blown.

Terminal No.	Signal name	Fuses and fusible link No.
88	Battery power supply	12 (10A)
90	Battery power supply	G (40A)

Is the fuse blown?

YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

1. Disconnect BCM connector M85.

2. Check voltage between BCM connector M85 and ground.

BCM		Ground	Voltago	
Connector	Terminal	Giodria	Voltage	
 M85	88		Pattony voltago	
COIN	90	_	Battery voltage	

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM connector M85 and ground.

BCM		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
M85	93	—	Yes	

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM)

BCM (BODY CONTROL SYSTEM) (WITHOUT INTELLIGENT KEY SYSTEM) : Diagnosis Procedure

Regarding Wiring Diagram information, refer to BCS-111, "Wiring Diagram".

1.CHECK FUSES AND FUSIBLE LINK

Check that the following fuses and fusible link are not blown.

Terminal No.	Terminal No. Signal name	
63	Pottony power supply	12 (10A)
70	Battery power supply	G (40A)
11	Ignition switch ACC or ON	18 (10A)

Is the fuse blown?

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

YES >> Replace the blown fuse or fusible link after repairing the affected circ	YES	>> Replace the blown fuse or fusible link after repairing the affected of	circuit
---	-----	---	---------

NO >> GO TO 2.

2. CHECK POWER SUPPLY CIRCUIT

- 1. Turn ignition switch OFF.
- 2. Disconnect BCM connectors.

3. Check voltage between BCM connector and ground.

BO	CM			Ignition switch position	n
Connector	Terminal	Ground	OFF	ACC	ON
N00	63	Ground	Detter weltere	Detter veltere	Detter weltere
M20	70		Battery voltage Battery volta	Battery voltage	Battery voltage
M21	11	_	0 V	Battery voltage	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3. CHECK GROUND CIRCUIT

Check continuity between BCM connector and ground.

BCM		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
M20	65	—	Yes	H

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair harness or connector.

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METER BUZZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

METER BUZZER CIRCUIT

Description

• The buzzer for warning chime system is installed in the combination meter.

• The combination meter sounds the alarm buzzer based on the signals transmitted from various units.

Component Function Check

INFOID:000000009759245

INFOID:000000009759246

INFOID:000000009759244

1. CHECK OPERATION OF METER BUZZER

1. Select BUZZER of BCM on CONSULT.

2. Perform LIGHT WARN ALM of Active Test.

Does meter buzzer activate?

YES >> Inspection End. NO >> Refer to WCS-28, "Diagnosis Procedure".

Diagnosis Procedure

1. CHECK COMBINATION METER INPUT SIGNAL

Select the Data Monitor for the METER/M&A and check the BUZZER monitor value.

Monitor Item	Condition	Status
BUZZER	Under the condition of the Buzzer input	ON
DOZZEIN	Except above	OFF

Is the inspection result normal?

YES >> Replace combination meter. Refer to <u>MWI-77, "Removal and Installation"</u>.

NO >> Replace BCM. Refer to <u>BCS-73</u>, "<u>Removal and Installation</u>" (with Intelligent Key) or <u>BCS-126</u>, "<u>Removal and Installation</u>" (without Intelligent Key).

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT А Description INFOID:000000009759247 Transmits a seat belt buckle switch LH (driver seat) signal to the combination meter. **Component Function Check** INFOID:000000009759248 1. CHECK COMBINATION METER INPUT SIGNAL Select DATA MONITOR for METER/M&A and check the BUCKLE SW monitor value. D Condition Monitor Item Status OFF When seat belt LH (driver seat) is fastened **BUCKLE SW** ON When seat belt LH (driver seat) is unfastened Ε YES >> Inspection End. NO >> Refer to WCS-29, "Diagnosis Procedure". Diagnosis Procedure INFOID:000000009759249 Regarding Wiring Diagram information, refer to WCS-17, "Wiring Diagram". Н 1. CHECK COMBINATION METER INPUT SIGNAL Turn ignition switch ON. 1. Check voltage between combination meter harness connector M24 terminal 9 and ground. 2. Combination meter Voltage Ground Condition (Approx.) Connector Terminal 12 V When driver seat belt is fastened M24 9 Κ When driver seat belt is unfastened 0 V Is the inspection result normal? YES >> Replace combination meter. Refer to MWI-77, "Removal and Installation". NO >> GO TO 2. **2**.CHECK SEAT BELT BUCKLE SWITCH CIRCUIT 1. Turn ignition switch OFF. Μ 2. Disconnect combination meter harness connector M24 and seat belt buckle switch LH (driver seat) harness connector B16. Check continuity between combination meter harness connector M24 terminal 9 and seat belt buckle 3. WCS switch LH (driver seat) harness connector B16 terminal 1. Combination meter Seat belt buckle switch LH (driver seat) Continuity Connector Terminal Connector Terminal 9 M24 B16 Yes 1

4. Check continuity between combination meter harness connector M24 terminal 9 and ground.

Combination meter		Ground	Continuity	
Connector	Terminal	Ground	Continuity	
M24	9	_	No	

Is the inspection result normal?

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

- YES >> GO TO 3.
- NO >> Repair or replace harness or connector.

3.CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

Check continuity between seat belt buckle switch LH (driver seat) harness connector B16 terminal 2 and ground.

Seat belt buckle switch LH (driver seat)		Ground	Continuity	
Connector	Terminal	Gibuna	Continuity	
B16	2	—	Yes	

Is the inspection result normal?

YES >> Check the seat belt buckle switch. Refer to WCS-30, "Component Inspection".

NO >> Repair or replace harness or connector.

Component Inspection

INFOID:000000009759250

1. CHECK SEAT BELT BUCKLE SWITCH

1. Turn ignition switch OFF.

2. Disconnect the seat belt buckle switch LH (driver seat).

3. Check continuity between the seat belt buckle switch LH (driver seat) terminals 1 and 2.

Terminal		Condition	Continuity
1	2	When seat belt is fastened	No
		When seat belt is unfastened	Yes

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace the seat belt buckle switch LH (driver seat). Refer to <u>SR-32, "Removal and Installation"</u>.

SYMPTOM DIAGNOSIS WARNING CHIME SYSTEM SYMPTOMS

Symptom Table

CAUTION:

Perform the self-diagnosis with CONSULT before the symptom diagnosis. Perform the trouble diagnosis if any DTC is detected.

Symptom	Possible cause	Reference	
The light reminder warning does not sound.	 Harness between BCM and front door switch LH Front door switch LH BCM Combination meter 	Refer to <u>WCS-34</u> .	
The parking brake release warning continues sounding or does not sound.	 Harness between combination meter and parking brake switch Parking brake switch BCM Combination meter 	Refer to WCS-32.	
The seat belt warning continues sounding or does not sound.	 Harness between combination meter and seat belt buckle switch (LH) Seat belt buckle switch (LH) BCM Combination meter 	Refer to <u>WCS-33</u> .	
The key warning does not sound. (without Intelligent Key)	 Harness between BCM and key switch Key switch BCM 	Refer to <u>WCS-35</u> .	
Warning chime does not sound at all.	BCM Combination meter	Refer to WCS-28.	

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Revision: October 2013

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THE PARKING BRAKE RELEASE WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE PARKING BRAKE RELEASE WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

Description

INFOID:000000009759252

- The parking brake warning buzzer sounds continuously during vehicle travel though the parking brake is released.
- The parking brake warning buzzer does not sound at all even though driving the vehicle with the parking brake applied.

Diagnosis Procedure

INFOID:000000009759253

1. CHECK PARKING BRAKE WARNING LAMP

1. Start the engine.

2. Check the operation of the brake warning lamp by operating the parking brake.

Combination meter	Condition	Status
Brake warning lamp	When parking brake is applied	ON
	When parking brake is released	OFF

Is the inspection result normal?

YES >> Replace combination meter. Refer to <u>MWI-77, "Removal and Installation"</u>.

NO >> GO TO 2.

2. CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

Check the parking brake switch signal circuit. Refer to MWI-60, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK PARKING BRAKE SWITCH

Check the parking brake switch. Refer to <u>MWI-61, "Component Inspection"</u>.

Is the inspection result normal?

- YES >> Replace combination meter. Refer to <u>MWI-77, "Removal and Installation"</u>.
- NO >> Replace parking brake switch. Refer to <u>PB-7, "Exploded View"</u>.

THE SEAT BELT REMINDER WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE SEAT BELT REMINDER WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

Description

INFOID:000000009759254

INFOID:000000009759255

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- Seat belt reminder warning does not sound.
- Seat belt reminder warning sounds continuously.

Diagnosis Procedure

1.CHECK SEAT BELT WARNING LAMP

- 1. Turn ignition switch ON.
- 2. Check the operation of the seat belt warning lamp in the combination meter.

Combination meter	Condition	Status	
Coot holt warning lamp	When seat belt LH (driver seat) is fastened	OFF	
Seat belt warning lamp	When seat belt LH (driver seat) is unfastened	ON	
s the inspection result no	rmal?		
NO >> GO TO 2.	pination meter. Refer to <u>MWI-77, "Removal and Installation in the second s</u>	<u>on"</u> .	
2.CHECK SEAT BELT B	UCKLE SWITCH (LH) SIGNAL CIRCUIT		
Check the seat belt buckle	e switch (LH) circuit. Refer to WCS-29, "Diagnosis Proce	edure".	
Is the inspection result no	rmal?		
YES >> GO TO 3.			
• · · ·	ace harness or connector.		
3.CHECK SEAT BELT BI	UCKLE SWITCH (LH)		
Check the seat belt buckle	e switch (LH). Refer to WCS-30, "Component Inspection"	<u>.</u> .	
Is the inspection result no	rmal?		
	pination meter. Refer to <u>MWI-77, "Removal and Installation</u> belt buckle (LH). Refer to <u>SR-32, "Removal and Installat</u>		

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THE LIGHT REMINDER WARNING DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE LIGHT REMINDER WARNING DOES NOT SOUND

Description

Light reminder warning chime does not sound even though headlamp is illuminated.

Diagnosis Procedure

INFOID:000000009759257

INFOID:000000009759256

1. CHECK COMBINATION METER INPUT SIGNAL

Select the Data Monitor for the METER/M&A and check the BUZZER monitor value.

Monitor Item	Condition	Status
BUZZER	Under the condition of buzzer input	ON
	Except above	OFF

Is the inspection result normal?

YES >> Replace combination meter. Refer to <u>MWI-77, "Removal and Installation"</u>.

NO >> GO TO 2.

2.CHECK FRONT DOOR SWITCH LH SIGNAL CIRCUIT

Check the front door switch LH signal circuit. Refer to <u>DLK-102, "Diagnosis Procedure"</u> (with Intelligent Key system) or <u>DLK-253, "Diagnosis Procedure"</u> (without Intelligent Key system).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair or replace harness or connector.

3.CHECK FRONT DOOR SWITCH LH

Check front door switch LH. Refer to <u>DLK-103, "Component Inspection"</u> (with Intelligent Key system) or <u>DLK-255, "Component Inspection"</u> (without Intelligent Key system).

Is the inspection result normal?

- YES >> Replace the BCM. Refer to <u>BCS-73</u>, "<u>Removal and Installation</u>" (with Intelligent Key system) or <u>BCS-126</u>, "<u>Removal and Installation</u>" (without Intelligent Key system).
- NO >> Replace the front door switch LH. Refer to <u>DLK-194</u>, "<u>Removal and Installation</u>" (with Intelligent Key system) or <u>DLK-341</u>, "<u>Removal and Installation</u>" (without Intelligent Key system).

THE KEY WARNING DOES NOT SOUND (WITHOUT INTELLIGENT KEY)

< SYMPTOM DIAGNOSIS > THE KEY WARNING DOES NOT SOUND (WITHOUT INTELLIGENT KEY) А Description INFOID:000000009759258 The key warning chime does not sound, when all of the following conditions are fulfilled. В Key inserted into the key cylinder (key switch signal ON). Ignition switch is in ACC or OFF (ignition switch signal OFF). Driver side door is open (driver side door switch ON) Diagnosis Procedure INFOID:000000009759259 1.CHECK BCM INPUT SIGNAL D 1. Connect CONSULT. Select the DATA MONITOR of BCM (BUZZER) and check the KEY ON SW monitor value. Refer to BCS-2. 88, "BUZZER : CONSULT Function (BCM - BUZZER)". Е Is the inspection result normal? >> Replace the BCM. Refer to BCS-73, "Removal and Installation" (with Intelligent Key system) or YES BCS-126, "Removal and Installation" (without Intelligent Key system). F NO >> GO TO 2. 2.CHECK KEY SWITCH SIGNAL CIRCUIT Check the key switch signal circuit. Refer to DLK-262, "Diagnosis Procedure".

Is the inspection result normal?

- YES >> Replace the BCM. Refer to <u>BCS-73, "Removal and Installation"</u> (with Intelligent Key system) or <u>BCS-126, "Removal and Installation"</u> (without Intelligent Key system).
- NO >> Check applicable parts, and repair or replace corresponding parts.

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