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# **DIAGNOSIS AND REPAIR WORKFLOW**

# < BASIC INSPECTION > **BASIC INSPECTION** Α DIAGNOSIS AND REPAIR WORKFLOW Work Flow INFOID:0000000003899553 **DETAILED FLOW** 1. OBTAIN INFORMATION ABOUT SYMPTOM C Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred. D >> GO TO 2 2. CHECK SYMPTOM Е • Check the symptom based on the information obtained from the customer. · Check to see if any other malfunctions are present. F >> GO TO 3 3.check consult-iii self-diagnosis results Connect CONSULT-III and perform "SELF-DIAGNOSIS". Refer to MWI-29, "CONSULT-III Function (METER/ <u>M&A)"</u>. Are self-diagnosis results normal? Н YES >> GO TO 4 NO >> Repair or replace the malfunctioning parts, GO TO 5 4.NARROW DOWN MALFUNCTIONING PARTS THROUGH SYMPTOM DIAGNOSIS Perform symptom diagnosis and repair or replace the identified malfunctioning parts. >> GO TO 5 5. FINAL CHECK Check that the warning buzzer in the combination meter operates normally. K Does it operate normally? YES >> Inspection End. NO >> GO TO 1 M

**WCS** 

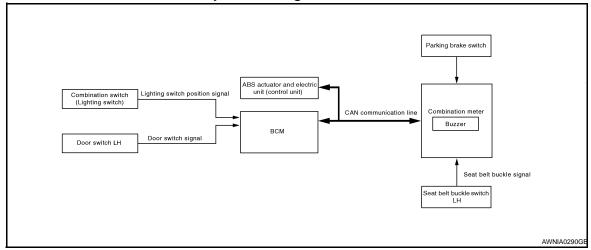
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# **FUNCTION DIAGNOSIS**

# WARNING CHIME SYSTEM WARNING CHIME SYSTEM

# WARNING CHIME SYSTEM: System Diagram

INFOID:0000000003899554

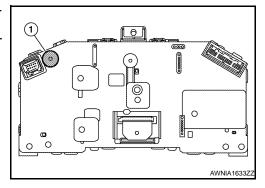


# WARNING CHIME SYSTEM: System Description

INFOID:0000000003899555

### **COMBINATION METER**

- The buzzer (1) for warning chime system is installed in the combination meter.
- The buzzer sounds when the combination meter receives a buzzer output signal from each unit.



### **BCM**

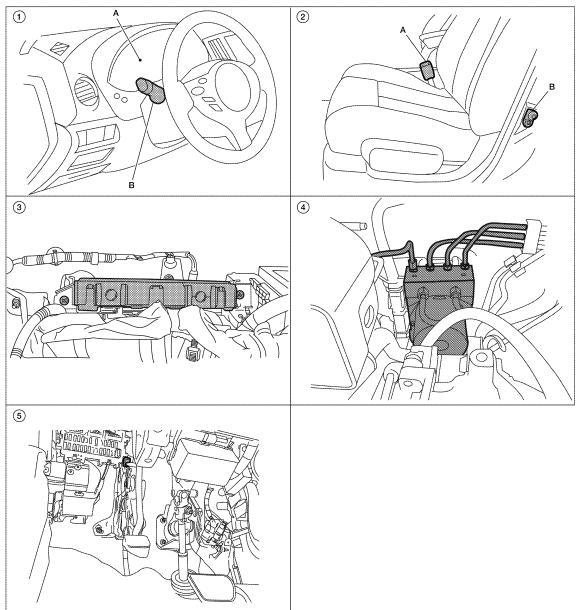
BCM receives signals from various units and transmits a buzzer output signal to the combination meter with CAN communication line if it judges that the warning buzzer should be activated.

BCM warning function list

Warning functions	Signal name
Light reminder warning chime	<ul><li>Lighting switch position signal</li><li>Door switch signal</li></ul>
Seat belt warning chime	Seat belt buckle switch signal

# WARNING CHIME SYSTEM : Component Parts Location

INFOID:0000000003899556



ALNIA1155ZZ

- A. Combination meter M24
   B. Combination switch (lighting switch)
   M28
- ABS actuator and electric unit (control 5. unit) E26
- 2. A. Seat belt buckle switch LH B202 B. Door switch LH B8
  - Parking brake switch E35 [view with instrument panel lower cover (LH) removed]

3. BCM M16, M17, M18, M19 (view with instrument panel removed)

# WARNING CHIME SYSTEM : Component Description

Unit	Description
Combination meter	<ul> <li>Judges whether the parking brake is released using the vehicle speed signal and the parking brake switch signal, and sounds the buzzer if necessary.</li> <li>Receives the seat belt buckle switch signal from the seat belt buckle switch and transmits it to BCM with CAN communication line.</li> <li>Receives a buzzer output signal from BCM with CAN communication line.</li> </ul>
BCM	Transmits signals provided by various units to the combination meter with CAN communication line.

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# < FUNCTION DIAGNOSIS >

(IGN)

Combination switch

J**∢** o o Tail lamp

Front fog lamp

Unit	Description
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to combination meter with CAN communication line.
Seat belt buckle switch LH	Transmits a seat belt buckle switch signal to the combination meter.
Combination switch (Lighting switch)	Transmits the lighting switch position signal to BCM.
Door switch LH	Transmits the door switch signal to BCM.
Parking brake switch	Transmits parking brake signal to combination meter.

CAN H

CAN L

Door switch LH

Buzzer output signal

# LIGHT REMINDER WARNING CHIME

Ignition switch signal

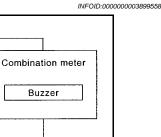
Output 4

Output 5

Input 4

Input 5

# LIGHT REMINDER WARNING CHIME: System Diagram (BAT)



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LIGHT REMINDER WARNING CHIME: System Description

**BCM** 

INFOID:0000000003899559

### DESCRIPTION

With ignition switch in OFF or ACC position, driver door open, and lighting switch in 1ST or 2ND position, the light warning chime will sound.

- BCM detects ignition switch in OFF or ACC position, door switch LH ON, and lighting switch in 1ST or 2ND 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 at 1st or 2nd position
- Ignition switch is at OFF or ACC
- Door switch LH is ON

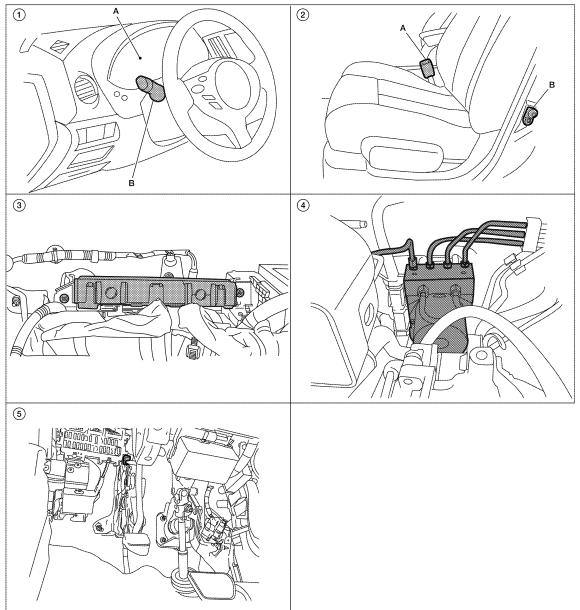
# WARNING CANCEL CONDITIONS

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

- Lighting switch OFF
- Ignition switch ON
- Door switch LH is OFF

# LIGHT REMINDER WARNING CHIME: Component Parts Location

INFOID:0000000003899560



AI NIA115577

- A. Combination meter M24 B. Combination switch (lighting switch) M28
- ABS actuator and electric unit (control 5. unit) E26
- A. Seat belt buckle switch LH B202 B. Door switch LH B8
  - Parking brake switch E35 [view with instrument panel lower cover (LH) removed]
- BCM M16, M17, M18, M19 (view with instrument panel removed)

# LIGHT REMINDER WARNING CHIME : Component Description

INFOID:0000000003899561

Unit	Description
Combination meter	Receives a buzzer output signal from BCM via CAN communication line and sounds the buzzer.
BCM	Judges the light warning conditions from the signals provided by various switches and transmits a buzzer output signal to the combination meter via CAN communication line if necessary.
Combination switch (Lighting switch)	Transmits the lighting switch position signal to BCM.
Door switch LH	Transmits the door switch signal to BCM.

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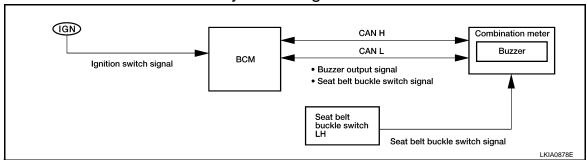
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# SEAT BELT WARNING CHIME

# SEAT BELT WARNING CHIME: System Diagram

INFOID:0000000003899562



# SEAT BELT WARNING CHIME: System Description

INFOID:0000000003899563

### 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 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 buckle switch LH is OFF (driver seat belt fastened)
- 90 seconds have passed since the start of the warning

# SEAT BELT WARNING CHIME: Component Parts Location

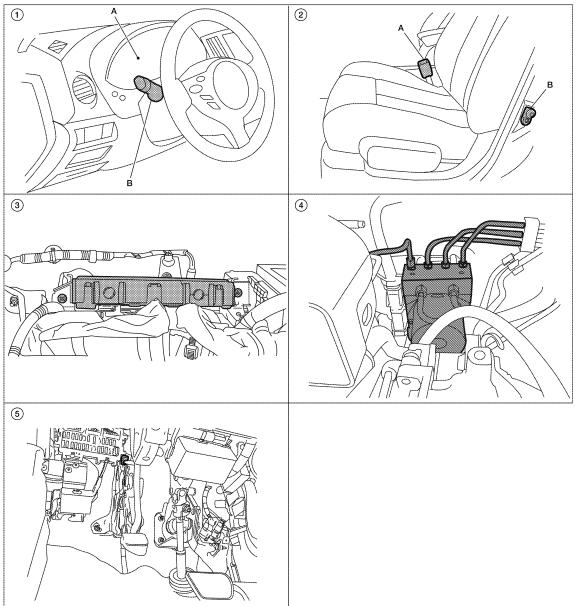
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- A. Combination meter M24
   B. Combination switch (lighting switch)
   M28
- ABS actuator and electric unit (control 5. unit) E26
- 2. A. Seat belt buckle switch LH B202 B. Door switch LH B8
  - Parking brake switch E35 [view with instrument panel lower cover (LH) removed]
- BCM M16, M17, M18, M19 (view with instrument panel removed)

# SEAT BELT WARNING CHIME: Component Description

Unit	Description
Combination meter	<ul> <li>Receives the seat belt buckle switch signal from the seat belt buckle switch and transmits it to BCM via CAN communication line.</li> <li>Receives a buzzer output signal from BCM via CAN communication line and sounds the buzzer.</li> </ul>
ВСМ	Judges the seat belt warning condition from the seat belt buckle switch signal received from the combination meter and transmits a buzzer output signal to the combination meter via CAN communication line if necessary.
Seat belt buckle switch LH	Transmits seat belt buckle switch signal to combination meter.

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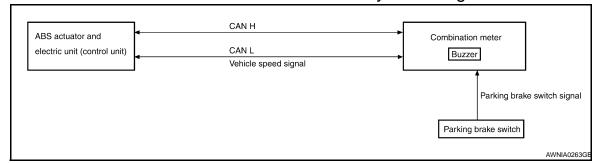
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# PARKING BRAKE RELEASE WARNING CHIME

# PARKING BRAKE RELEASE WARNING CHIME: System Diagram

INFOID:0000000003899566



# PARKING BRAKE RELEASE WARNING CHIME: System Description

INFOID:0000000003899567

### **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 is fulfilled.

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

# PARKING BRAKE RELEASE WARNING CHIME: Component Parts Location

1 2 3 4 (5)

- A. Combination meter M24 B. Combination switch (lighting switch)
- ABS actuator and electric unit (control 5. unit) E26
- A. Seat belt buckle switch LH B202 B. Door switch LH B8
- Parking brake switch E35 [view with instrument panel lower cover (LH) removed]
- BCM M16, M17, M18, M19 (view with instrument panel removed)

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# PARKING BRAKE RELEASE WARNING CHIME: Component Description INFOID-000000003899569

Unit	Description
Combination meter	<ul> <li>Judges whether the parking brake is released using the parking brake switch signal from the parking brake switch, and sounds the buzzer if necessary.</li> <li>Receives a vehicle speed signal from ABS actuator and electric unit (control unit) via CAN communication line.</li> </ul>

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# < FUNCTION DIAGNOSIS >

Unit	Description
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to combination meter via CAN communication line.
Parking brake switch	Transmits parking brake switch signal to the combination meter.

# **DIAGNOSIS SYSTEM (METER)**

### < FUNCTION DIAGNOSIS >

# **DIAGNOSIS SYSTEM (METER)**

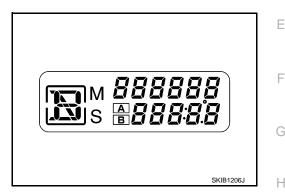
# **Diagnosis Description**

### SELF-DIAGNOSIS MODE

- Odo/trip meter and information display segment operation can be checked in self-diagnosis mode.
- Meters/gauges can be checked in self-diagnosis mode.

### **OPERATION PROCEDURE**

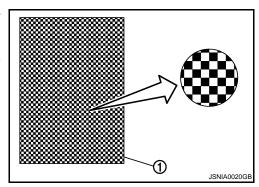
- Turn the ignition switch OFF.
- 2. While pushing the odo/trip meter switch, turn the ignition switch ON again.
- 3. Push the odo/trip meter switch at least 3 times within 7 seconds after the ignition switch is turned ON.
- 4. The unified meter control unit is turned to self-diagnosis mode.
  - All the segments on the odo/trip meter illuminate.



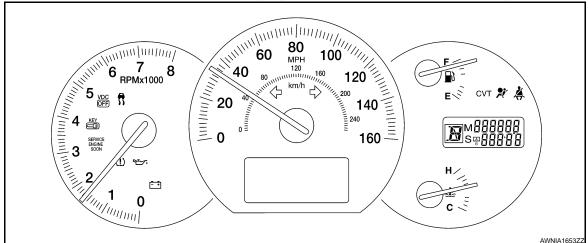
Dots in all segments of information display LCD (1) flash alternately.

### NOTE:

If any of the segments are not displayed, replace the combination meter. Refer to <a href="MWI-144">MWI-144</a>, "Removal and Installation".



5. Push the odo/trip meter switch. Each meter/gauge should indicate as shown in the figure.



# CONSULT-III Function (METER/M&A)

CONSULT-III can display each diagnostic item using the diagnostic test modes shown following.

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# **DIAGNOSIS SYSTEM (METER)**

# < FUNCTION DIAGNOSIS >

METER/M&A diagnosis mode	Description
SELF-DIAG RESULTS	Displays combination meter self-diagnosis results.
DATA MONITOR	Displays combination meter input/output data in real time.
CAN DIAG SUPPORT MNTR	The result of transmit/receive diagnosis of CAN communication can be read.

# **SELF-DIAG RESULTS**

Display Item List

Refer to MWI-72, "DTC Index".

# DATA MONITOR

Display Item List

			X: Applicable	
Display item [Unit]	MAIN SIGNALS	SELECTION FROM MENU	Description	
SPEED METER [km/h] or [mph]	Х	Х	Displays the value of vehicle speed signal.	
SPEED OUTPUT [km/h] or [mph]	Х	Х	Displays the value of vehicle speed signal, which is transmitted to each unit with CAN communication.	
ODO OUTPUT		Х	Displays the value, which is calculated by vehicle speed signal.	
TACHO METER [rpm]	Х	Х	Displays the value of engine speed signal, which is input from ECM.	
FUEL METER [lit.]	Х	Х	Displays the value, which processes a resistance signal from fuel gauge.	
W TEMP METER [°C] or [°F]	Х	х	Displays the value of engine coolant temperature signal, which is input from ECM.	
ABS W/L [ON/OFF]		Х	Displays [ON/OFF] condition of ABS warning lamp.	
VDC/TCS IND [ON/OFF]		Х	Displays [ON/OFF] condition of VDC/TCS OFF indicator lamp.	
SLIP IND [ON/OFF]		Х	Displays [ON/OFF] condition of SLIP indicator lamp.	
BRAKE W/L [ON/OFF]		Х	Displays [ON/OFF] condition of brake warning lamp.*	
DOOR W/L [ON/OFF]		Х	Displays [ON/OFF] condition of door warning lamp.	
TRUNK/GLAS-H [ON/OFF]		Х	Displays [ON/OFF] condition of trunk warning lamp.	
HI-BEAM IND [ON/OFF]		Х	Displays [ON/OFF] condition of high beam indicator.	
TURN IND [ON/OFF]		Х	Displays [ON/OFF] condition of turn indicator.	
OIL W/L [ON/OFF]		Х	Displays [ON/OFF] condition of oil pressure warning lamp.	
MIL [ON/OFF]		Х	Displays [ON/OFF] condition of malfunction indicator lamp.	
CRUISE IND [ON/OFF]		Х	Displays [ON/OFF] condition of CRUISE indicator.	
SET IND [ON/OFF]		Х	Displays [ON/OFF] condition of SET indicator.	
ATC/T-AMT W/L [ON/OFF]		Х	Displays [ON/OFF] condition of AT CHECK warning lamp.	
FUEL W/L [ON/OFF]		Х	Displays [ON/OFF] condition of low-fuel warning lamp.	
WASHER W/L [ON/OFF]		Х	Displays [ON/OFF] condition of low washer fluid warning lamp.	
AIR PRES W/L [ON/OFF]		Х	Displays [ON/OFF] condition of tire pressure warning lamp.	
KEY G W/L [ON/OFF]		Х	Displays [ON/OFF] condition of key warning lamp.	
LCD		Х	Displays the value of Intelligent Key system message indication.	
SHIFT IND [P, R, N, D, L]		Х	Displays [P, R, N, D, L] range position of CVT.	
M RANGE SW [ON/OFF]		Х	Displays [ON/OFF] condition of manual mode range switch.	
NM RANGE SW [ON/OFF]		Х	Displays [ON/OFF] condition of except for manual mode range switch.	
AT SFT UP SW [ON/OFF]		X	Displays [ON/OFF] condition of A/T shift-up switch.	
AT SFT DWN SW [ON/OFF]		Х	Displays [ON/OFF] condition of A/T shift-down switch.	

# **DIAGNOSIS SYSTEM (METER)**

# < FUNCTION DIAGNOSIS >

Display item [Unit]	MAIN SIGNALS	SELECTION FROM MENU	Description	
COMP F/B SIG [ON/OFF]		Х	A/C compressor activation condition that ECM judges according the water temperature and the acceleration degree.	
PKB SW [ON/OFF]		Х	Displays [ON/OFF] condition of parking brake switch.	
BUCKLE SW [ON/OFF]		Х	Displays [ON/OFF] condition of seat belt buckle switch LH.	
BRAKE OIL SW [ON/OFF]		Х	Displays [ON/OFF] condition of brake fluid level switch.	
DISTANCE [km] or [mile]		Х	Displays the value, which is calculated by vehicle speed signal, fue gauge and fuel consumption from ECM.	
OUTSIDE TEMP [°C]		Х	Displays the ambient air temperature, which is input from ambient sensor.	
FUEL LOW SIG [ON/FF]		X	Displays [ON/OFF] condition of low-fuel warning signal.	
BUZZER [ON/OFF]	X	Х	Displays [ON/OFF] condition of buzzer.	

### NOTE:

Some items are not available due to vehicle specification.

- \*: The monitor will indicate "OFF" even though the brake warning lamp is on if either of the following conditions exist.
- The parking brake is engaged
- The brake fluid level is low

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# **DIAGNOSIS SYSTEM (BCM)**

# < FUNCTION DIAGNOSIS >

# **DIAGNOSIS SYSTEM (BCM)**

**BUZZER** 

BUZZER: CONSULT-III Function (BCM-BUZZER)

INFOID:0000000004289487

# **CONSULT-III APPLICATION ITEMS**

Test item	Diagnosis mode	Description	
BUZZER	Data monitor	Displays BCM input data in real time.	
BUZZER	Active test	Operation of electrical loads can be checked by sending driving signal to them.	

# **DATA MONITOR**

Display item [Unit]	Description		
VEH SPEED 1 [Km/h]	Value of vehicle speed signal received from ABS actuator and electric unit (control unit) with CAN communication line.		
PUSH SW [On/Off]	Status of push button ignition switch judged by BCM.		
UNLK SEN -DR [On/Off]	Status of door lock assembly (door unlock sensor) judged by BCM.		
KEY SW-SLOT [On/Off]	Status of key slot judged by BCM.		
TAIL LAMP SW [On/Off]	Status of each switch judged by BCM using the combination SW readout function.		
FR FOG SW [On/Off]	Status of front fog lamp switch judged by BCM.		
DOOR SW -DR [On/Off]	Status of driver side door switch judged by BCM.		

# **ACTIVE TEST**

Display item [Unit]	Description
IGN KEY WARN ALM	The key warning chime operation can be checked by operating the relevant function (On/Off).
SEAT BELT WARN TEST	The seat belt warning chime operation can be checked by operating the relevant function (On/Off).
ID REGIST WARNING	The ID regist warning chime operation can be checked by operating the relevant function (On/Off).
LIGHT WARN ALM	The light warning chime operation can be checked by operating the relevant function (On/Off).

### POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

# COMPONENT DIAGNOSIS

# POWER SUPPLY AND GROUND CIRCUIT COMBINATION METER

# COMBINATION METER: Diagnosis Procedure

INFOID:0000000004289488

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# 1.CHECK FUSES

Check for blown combination meter fuses.

Unit	Power source	Fuse No.
Combination meter	Battery	11
	Ignition switch ON or START	4

### Is the inspection result normal?

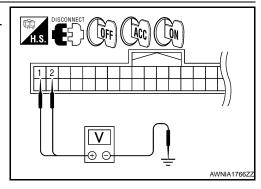
YES >> GO TO 2

NO >> If fuse is blown, be sure to eliminate cause of malfunction before installing new fuse.

# 2.POWER SUPPLY CIRCUIT CHECK

- Disconnect combination meter connector.
- Check voltage between combination meter harness connector M24 terminals 1, 2, and ground.

Terminals			Ignition switch position		
(+)		(-)	OFF	ON	START
Connector	Terminal	( )	OII		OTAKI
M24	1	Ground	Battery voltage	Battery voltage	Battery voltage
IVIZ	2	Giodila	0V	Battery voltage	Battery voltage



### Is the inspection result normal?

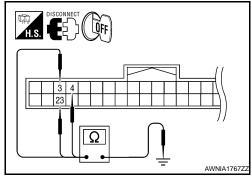
YES >> GO TO 3

NO >> Check harness for open between combination meter and fuse.

# 3. GROUND CIRCUIT CHECK

- Turn ignition switch OFF.
- Check continuity between combination meter harness connector terminals 3, 4, 23 and ground.

	Termin			
(+)			Continuity	
Connector	Terminal	(-)		
	3			
M24	4	Ground	Yes	
	23			



### Is the inspection result normal?

YES >> Inspection End.

NO >> Check ground harness.

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE): Diagnosis Procedure

1. CHECK FUSE AND FUSIBLE LINK

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INFOID:0000000004289489

### POWER SUPPLY AND GROUND CIRCUIT

# < COMPONENT DIAGNOSIS >

Check if the following BCM fuses or fusible link are blown.

Terminal No.	Signal name	Fuse and fusible link No.
1		Н
11	Battery power supply	10
24		7

### Is the fuse or fusible link blown?

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

NO >> GO TO 2

# 2. CHECK POWER SUPPLY CIRCUIT

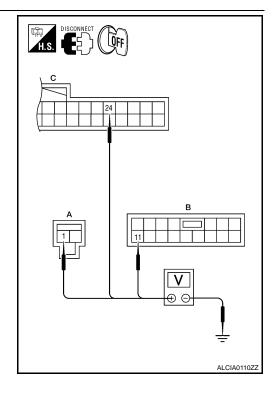
- 1. Turn ignition switch OFF.
- 2. Disconnect BCM.
- 3. Check voltage between BCM harness connector and ground.

(	(+) (-)				
В	CM		(Approx.)		
Connector	Terminal				
M16 (A)	1	Ground			
M17 (B)	11		Battery voltage		
M18 (C)	24				

### Is the measurement normal?

YES >> GO TO 3

NO >> Repair or replace harness.



# 3. CHECK GROUND CIRCUIT

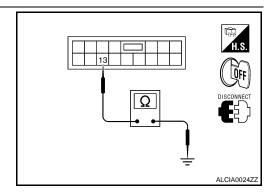
Check continuity between BCM harness connector and ground.

В	BCM		Continuity
Connector	Terminal	Ground	Continuity
M17	13		Yes

### Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



# **METER BUZZER CIRCUIT**

### < COMPONENT DIAGNOSIS >

# METER BUZZER CIRCUIT Α Description INFOID:0000000003899575 • The buzzer for warning chime system is installed in the combination meter. В • The combination meter sounds the alarm buzzer based on the signals transmitted from various units. Component Function Check INFOID:0000000003899576 1. CHECK OPERATION OF METER BUZZER Select "BUZZER" of "BCM" on CONSULT-III. D Perform "LIGHT WARN ALM" of "ACTIVE TEST". Does meter buzzer activate? YES >> Inspection End. Е >> Replace combination meter. Refer to MWI-144, "Removal and Installation". NO Diagnosis Procedure INFOID:0000000003899577 F 1. CHECK POWER SUPPLY OF COMBINATION METER Check power supply of combination meter. Refer to WCS-17, "COMBINATION METER: Diagnosis Procedure". Is the inspection result normal? YES >> Inspection End. NO >> Repair or replace harness. Н K M

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# SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

### < COMPONENT DIAGNOSIS >

# SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

Description INFOID:000000003899578

Transmits a seat belt buckle switch signal to the combination meter.

# Component Function Check

INFOID:0000000003899579

# 1. CHECK COMBINATION METER INPUT SIGNAL

Select "DATA MONITOR" for "METER/M&A" and check the "BUCKLE SW" monitor value.

### **BUCKLE SW**

When seat belt is fastened : OFF When seat belt is unfastened : ON

>> Inspection End.

# Diagnosis Procedure

INFOID:0000000003899580

# 1. CHECK COMBINATION METER INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage between combination meter harness connector M24 terminal 35 and ground.

### 35 - Ground

When driver seat belt is fastened : Approx. 12V
When driver seat belt is unfastened : Approx. 0V

### Is the inspection result normal?

YES >> Replace combination meter. Refer to <u>MWI-144</u>, <u>"Removal and Installation"</u>.

NO >> GO TO 2

# AWNIA1747ZZ

# 2. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect combination meter and seat belt buckle switch LH.
- Check continuity between combination meter harness connector M24 (A) terminal 35 and seat belt buckle switch LH harness connector B202 (B) terminal 1.

### 35 - 1 : Continuity should exist.

 Check harness continuity between combination meter harness connector M24 (A) terminal 35 and ground.



# DISCONNECT OFF

### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 ${f 3.}$  CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT

### SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

# < COMPONENT DIAGNOSIS >

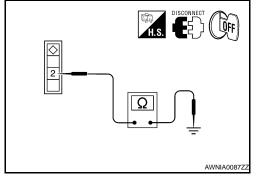
Check harness continuity between seat belt buckle switch LH harness connector B202 terminal 2 and ground.

2 - Ground : Continuity should exist.

### Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness.



### INFOID:0000000003899581

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# Component Inspection

# 1. CHECK SEAT BELT BUCKLE SWITCH

- Turn ignition switch OFF.
- 2. Disconnect the seat belt buckle switch.
- 3. Check continuity between terminals 1 and 2.

1-2

When seat belt is : Continuity should not exist.

fastened

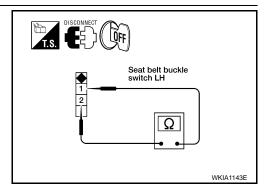
When seat belt is : Continuity should exist.

unfastened

# Is the inspection result normal?

YES >> Inspection End.

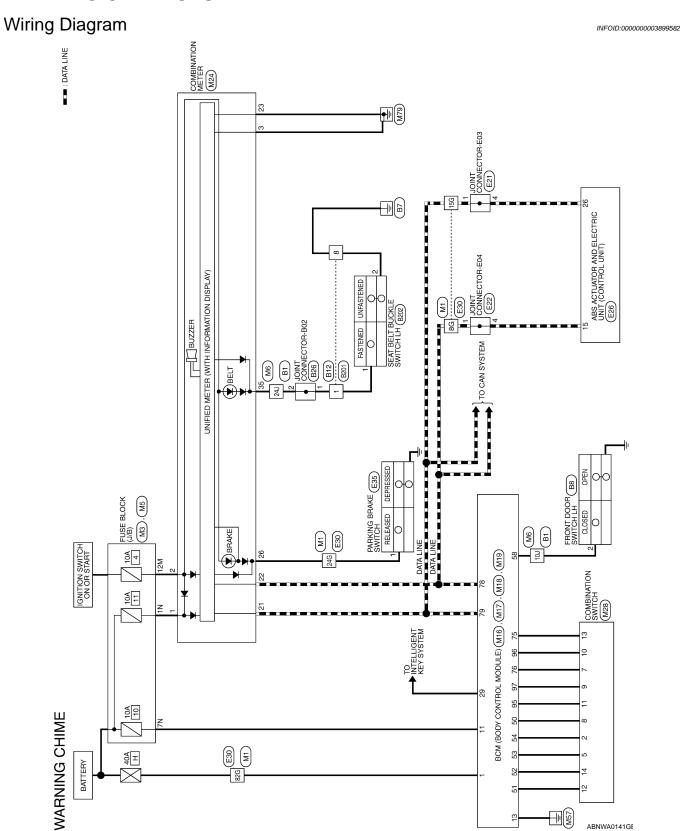
NO >> Replace the seat belt buckle switch LH.



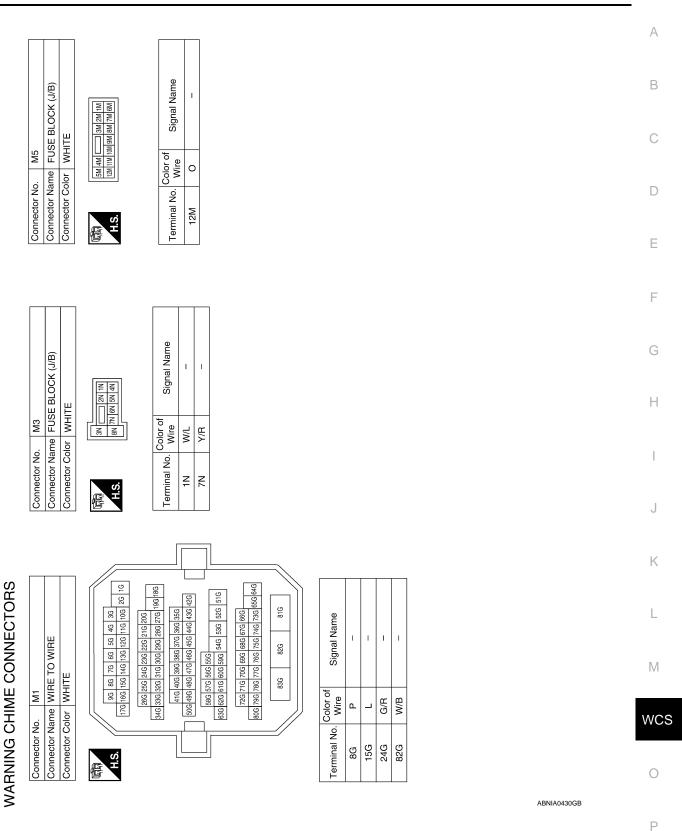
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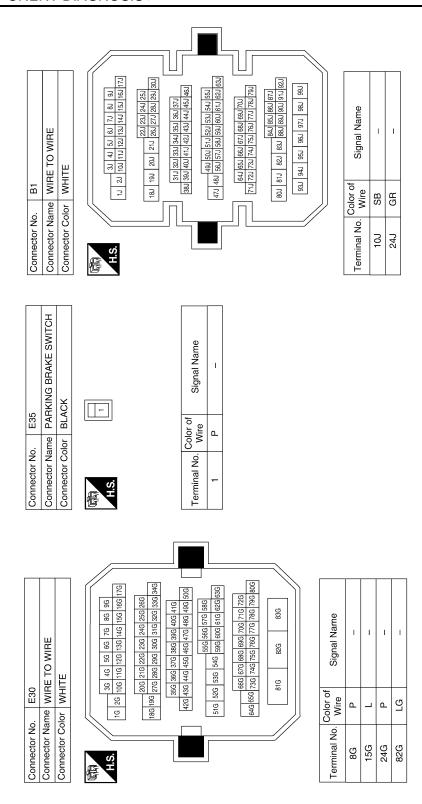
# < COMPONENT DIAGNOSIS >



Connector Ivame   WIRE   O WIRE	l erminal No.	Wire	Signal Name	Connector Name		MT6 BCM (BODY CONTROL	
	101	SB	ı			MODÙLE)	
	24)	M/B	1	Connector Color	lor BLACK	CK	
13   18   7.1   6.1   5.1   4.1   3.1   1.1   1.1   1.2   1.1   1.1   1.2   1.1   1.1   1.2   1.1   1.1   1.2   1.1   1.2   1.1   1.2   1.1   1.2				赋 H.S.			
37.1 36.1 35.1 34.1 33.1 32.1 31.1 46.1 45.1 44.1 43.1 42.1 41.1 40.1 39.1 38.1	г			Terminal No.	Color of Wire	Signal Name	
553   544   553   522   513   550   493				-	W/B	BAT POWER F/L	
70, 69, 68, 67, 66, 69, 64, 71, 78, 78, 78, 78, 78, 78, 78, 78, 78, 78							
871   862   853   843   853   854   814   805   815   805							
Odfino	Connector No.		M18 RCM (RODY CONTROL	Terminal No.	Color of Wire	Signal Name	
MODULE)			MODULE)	59	>	FOB IN SW 1	
	Connector Color	olor GREEN	EN	20	LG/B	COMBI SW OUT 5	
	Ą			51	M/l	COMBI SW OUT 1	
1 - 1				52	G/B	COMBI SW OUT 2	
11 12 13 14 15 16 17 18 19	H.S.			53	LG/R	COMBI SW OUT 3	_
				54	G/Y	COMBI SW OUT 4	
Signal Name	39 38 37 36 35 3	34 33 32 31 54 53 57 51	30 29 28 27 26 25 24 23 22 21 20 50 49 48 47 46 45 44 43 42 41 40	28	SB	DR DOOR SW	_
BAT BCM FUSE							
GND1							

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																			25 26								Α
JCH JCH																		1	2 23 24		1						В
Connector No. M28 Connector Name COMBINATION SWITCH Connector Color WHITE	10 11 12 13 14	Signal Name	OUTPUT 4	OUTPUT 3	INPUT 3	INPUT 2	INPUT 4	INPUT 1	OUTPUT 1	INPUT 5	OUTPUT 2			ACTUATOR AN	CONTROL UNIT	OK.			7 18 19 20 21		J	Signal Name	CAN-L	CAN-H			С
o. M28 ame COMBI olor WHITE	1 2 8 2 9 9 9	Color of	G/Y	LG/R	R/G	R/B	P/B	R/W	L/W	R/Y	G/B		o. E26	ABS	ame ELE	olor BLACK			4 16		]	Wire	۵	_	-		D
Connector No. Connector Name Connector Color	用.S.	Terminal No.	2	22	۰ 0	o	10	1	12	13	14		Connector No.		Connector Name	Connector Color	E SH		1 2 3			Terminal No.	15	26			Е
	10 20	39 40																				1					F
ETER	21 21 31 31 31 31 31 31 31 31 31 31 31 31 31	35 36 37 38	me			NER)	;] <sub>+</sub>		CUIT)		LT			OR-E04					ıme								G
Connector No. M24 Connector Name COMBINATION METER Connector Color WHITE	C   C   C   C   C   C   C   C   C   C	30 31 32 33	Signal Name	BAT	IGN	GND (POWER)	CAN-H	CAN-L	GND (CIRCUIT)	PKB	DR BELT			Connector Name JOINT CONNECTOR-E04	핃	3 0 1	7		Signal Name	1	1						Н
o. M24 ame COM olor WHIT	\\ 0 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	26 27 28	Color of Wire	M/L	0	<u>م</u> م	ـ د	۵	В	G/R	W/B	1	o.   E22	ame JOIN	olor WHI	- F	<del>†</del>	Color of		Д	Ь						I
Connector No. M24 Connector Name COMBII Connector Color WHITE	H.S.	23 24	Terminal No.	~	2	ε 4	21	22	23	26	35		Connector No.	Connector Na	Connector Color WHITE		H.S.		Terminal No.	2	4						J
		61 60 81 80	]							_																	K
/ CONTROL		68 67 66 65 64 63 62 61 60 88 87 86 85 84 83 82 81 80	Signal Name	COMBI SW/ IN 5	COMBI SW IN 3	CAN-L	CAN-H	COMBI SW IN 1	COMBI SW IN 4	COMBI SW IN 2				NECTOR-E03		[			Signal Name	1	_						L
M19 BCM (BODY CON MODULE)	BLACK	70 69 90 89				-			8	0			E21	JOINT CONNECT	WHITE		3 2 1										M
	_	75 74 73 72 95 94 93 92		Wire S	2 8	2	٦	RW	P/B	R/B					-	Į		Color of		٦	_						WCS
Connector No.	Connector Color 酥	79         78         77         76         75         74         73         72         71           99         98         97         96         95         94         93         92         91	Terminal No	2	9/	78	62	95	96	6			Connector No.	Connector Name	Connector Color		H.S.		Terminal No.	2	4						0
																						Al	BNIAG	04320	ЭВ		



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# < COMPONENT DIAGNOSIS >

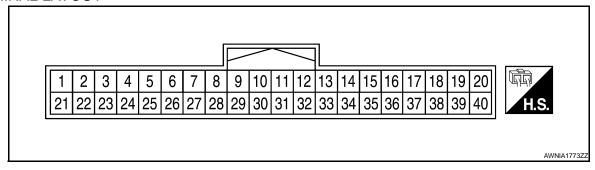
Signal Name  Signal Name  Signal Name  Connector No.  Connector Color  Terminal No.  Connector Name  Connector Name  TE  Connector No.  Connector Name  TE  Connector No.  Connector No.  Signal Name  Terminal No.  Connector Name  Terminal No.  Connector No.  Terminal No.  Millian No.  Connector No.  Terminal No.  Millian No.  Connector No.  Terminal No.  Millian No.  Terminal No.  Millian No.  Terminal No						
Connector Name WIRE TO WIRE  Connector Color WHITE  1 GR - 8 BW - 8 BW - 8 BW Connector Name SEAT BELT BUCKLE SWITCH LH Connector Color WHITE  Connector Color WHITE  Connector Color of Signal Name  1 GN Signal Name  Signal Name  1 Connector Color of Signal Name  1 L L -	INECTOR-B04			nal Name	1	1
Connector No. B12  Connector Name WIRE TO WIRE  Connector Color WHITE  1 GR  8 J 6 5 4  1 GR  8 BW    8 BW    Connector No. B202  Connector No. B202  Connector No. WHITE  Connector Color WHITE  Connector Color WHITE  Terminal No. Color of Signal Name  1 Signal Name  3   1   1   1   1   1   1   1   1   1	me JOINT CON		0 4 3 2 1			GR
Connector No.   B12	Connector Na Connector Co		H.S.		-	2
Connector No. B202 Connector No. Wire  Terminal No. Wire  Sent BE Sent		7				T
Connector No.  Connector Name Connector Color  Terminal No. Will  S By  By  Connector Name  Connector No.  Connector No.  Connector Color  Terminal No.  Mill  A.S.  Terminal No.  Color  Terminal No.  Mill  A.S.  Terminal No.  Mill  Terminal No.  Terminal No.  Mill  Terminal No.  Te	E TO WIRE			Signal Name	1	1
	ame WIR		8 7		GR	B/W
Signal Name  Signal Name  Signal Name  Signal Name  Signal Name  Signal Name	Connector Na Connector Co	Cormector	H.S.	Terminal No.	-	∞
Signal Name  Signal Name  Signal Name  Signal Name  Signal Name  Signal Name		$\neg$				
	NT DOOR SWITCH LH	ш		:	Signal Name	1
SB SB SB WITH Slor WH SI SB	me FRONT			Color of	Wire	SB
Connector No.  Connector Name  Connector No.  Z S Connector No.  Connector No.  Connector No.  ALS.  H.S.  Terminal No.  M.  Color  Terminal No.  M.  A.  A.  A.  A.  A.  A.  A.  A.  A	Connector Na		H.S.		Terminal No.	2

# **ECU DIAGNOSIS**

# **COMBINATION METER**

Reference Value

# TERMINAL LAYOUT



# PHYSICAL VALUES

Termi-	Wire			Condition	Reference value (V) (Approx.)		
nal	color	Item	Ignition switch	Operation or condition			
1	W/L	Battery power supply	_	_	Battery voltage		
2	0	Ignition switch ON or START	ON	_	Battery voltage		
3	В	Ground (Power)			0		
4	В	Ground (Illumination)	_	_	0		
5	В	Illumination output	_	_	Refer to INL-9, "System Description".		
10	O/L	Mode switch ground	ON	_	0		
44	1./D	Manda avvitala A	ON	Switch pressed	0		
11	L/R	Mode switch A	ON	Switch released	5		
40	D./D	Marker Will D	ON	Switch pressed	0		
12	B/R	Mode switch B	ON	Switch released	5		
4-	5544	Air bag warning lamp in-	O.1.	Air bag warning lamp ON	3		
15	BR/W	put	ON	Air bag warning lamp OFF	0		
18	O/B	Ambient sensor signal	ON	_	0 - 5 (Based on ambient temperature)		
19	Р	Ambient sensor power	ON	_	5		
20	B/Y	Ambient sensor ground	ON	_	0		
21	L	CAN-H	_	_	<del>-</del>		
22	Р	CAN-L	_	_	<del>-</del>		
23	В	Ground (Circuit)	_	_	0		
24	B/W	Fuel level sensor ground	ON	_	0		
25	D.D.	Concretor	ON	Generator voltage low	0		
25	BR	Generator	ON	Generator voltage normal	Battery voltage		
26	C/D	Darking broke switch	ON	Parking brake applied	0		
26	G/R	Parking brake switch	ON	Parking brake released	Battery voltage		
27	\/	Droke fluid level avritat	ON	Brake fluid level low	0		
27	V	Brake fluid level switch	ON	Brake fluid level normal	Battery voltage		
00	1./0	On a suite simuliant and in the	OFF	Security indicator ON	0		
28	L/O	Security indicator input	OFF	Security indicator OFF	Battery voltage		

# **COMBINATION METER**

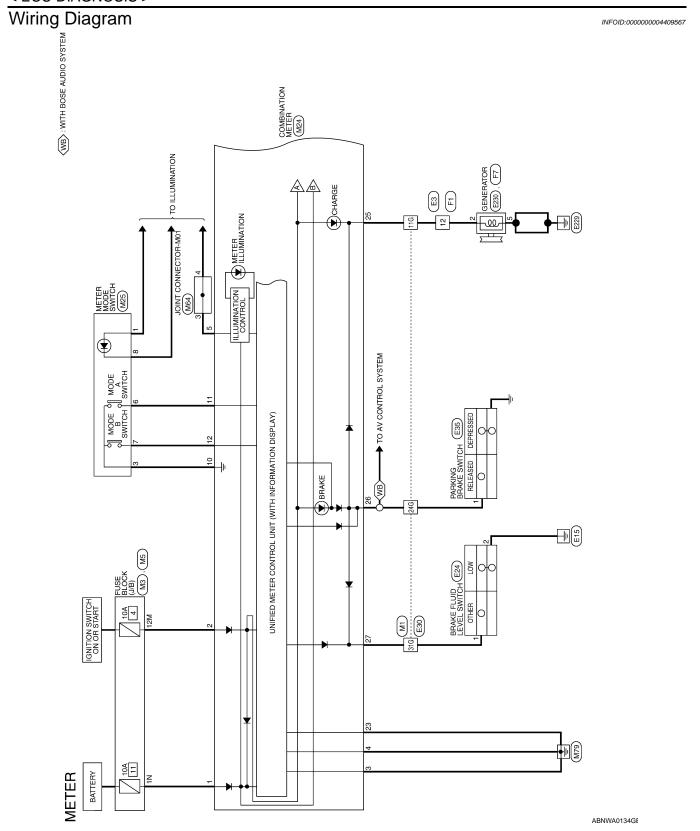
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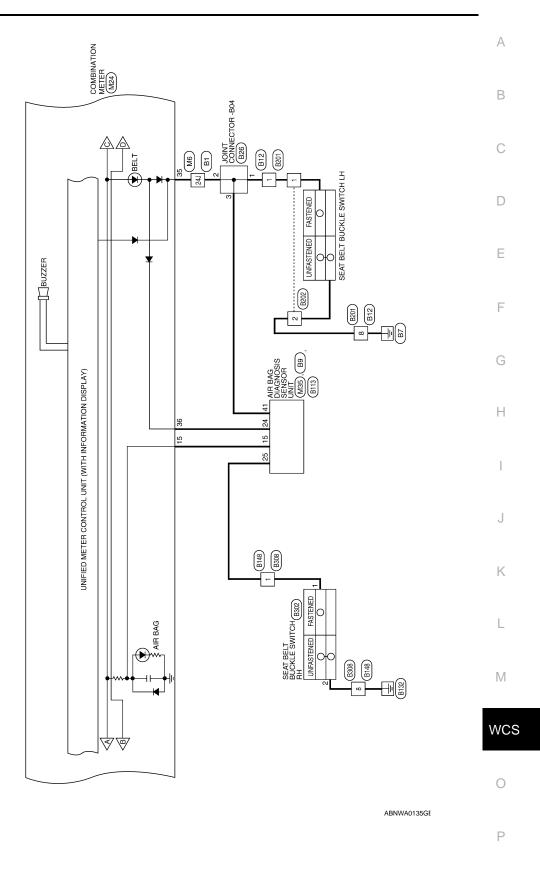
Termi-	Wire			Condition	Reference value (V)
nal	color	Item	Ignition switch	Operation or condition	(Approx.)
00	-	\\\- = \- = = \( \frac{1}{2} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	ON	Washer fluid level low	0
29	R	Washer fluid level switch	ON	Washer fluid level normal	Battery voltage
30	L/B	Vehicle speed signal output (2-pulse)	ON	Speedometer operated [When vehicle speed is approx. 20 km/h (12 MPH)]	240 Hz
31	V/W	Vehicle speed signal output (8-pulse)	ON	Speedometer operated [When vehicle speed is approx. 40 km/h (25 MPH)]	NOTE:  Maximum voltage may be 12V due to specifications (connected units).  (V) 6 4 2 0 PKIC0643E
34	G/B	Fuel level sensor signal	_	_	Refer to MWI-15, "FUEL GAUGE : System Description".
35	W/B	Seat belt buckle switch	ON	Unfastened (ON)	0
33	VV/D	LH	ON	Fastened (OFF)	Battery voltage
36	L/W	Seat belt buckle switch	ON	Unfastened (ON)	0
30	L/ VV	RH	ON	Fastened (OFF)	Battery voltage
37	G	Not M range	ON	Manual mode switch OFF	0
31	0	Not wriange	ON	Manual mode switch ON	Battery voltage
38	BR	AT shift down	ON	Manual mode switch ON     Shift down operation	0
				Other than above	Battery voltage
39	W	AT shift up	ON	Manual mode switch ON     Shift up operation	0
				Other than above	Battery voltage
40	LG/R	Maranga	ON	Manual mode switch OFF	Battery voltage
40	LG/R	M range	ON	Manual mode switch ON	0
49	G	Paddle shift signal	ON	Shift down operation	0
+3	9	(shift down)	ON	Switch released	Battery voltage
50	0	Paddle shift signal	ON	Shift up operation	0
50	9	(shift up)	ON	Switch released	Battery voltage

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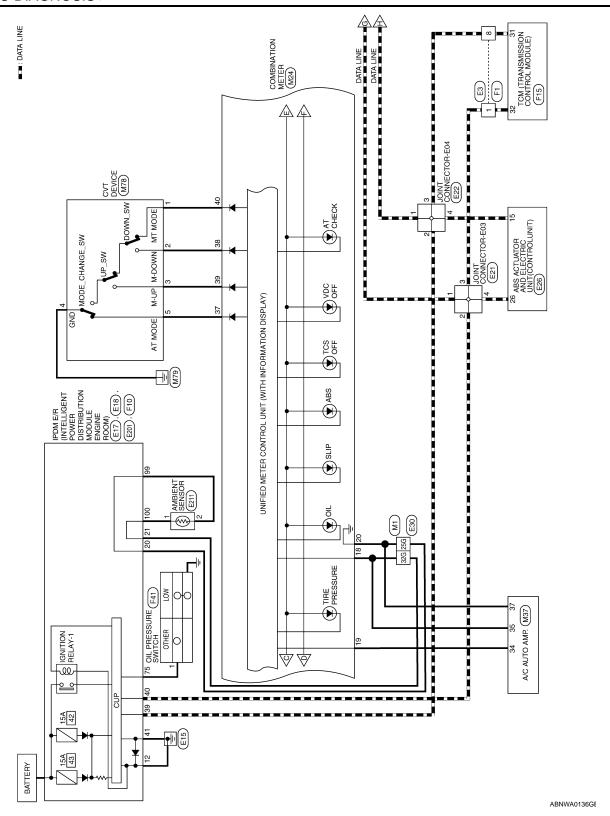
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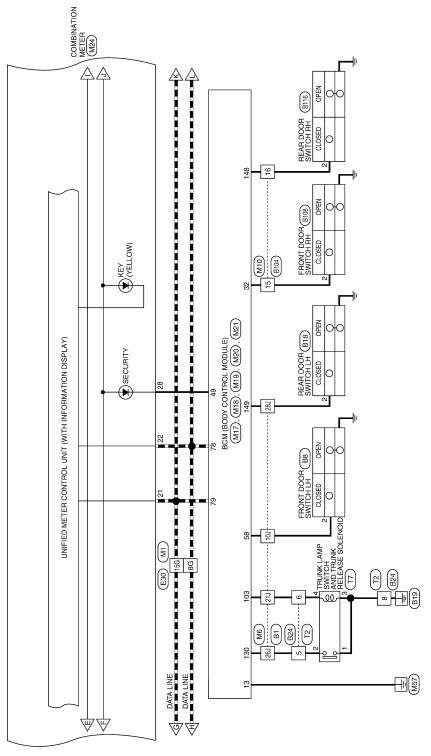




**WCS-31** 



--- : DATA LINE



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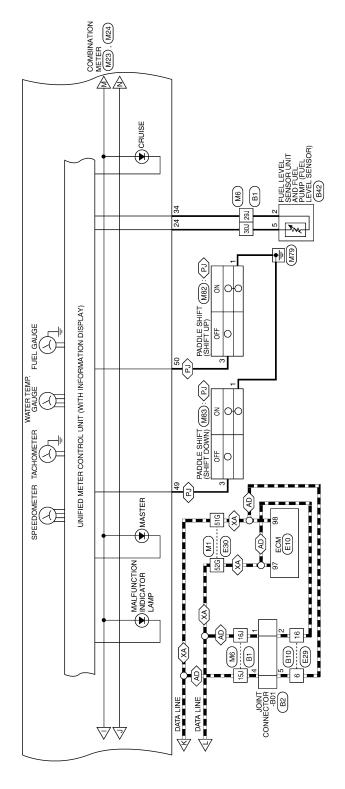
 (AD): WITH AUTOMATIC DRIVE POSITIONER

 (EJ): WITH PADDLE SHIFT

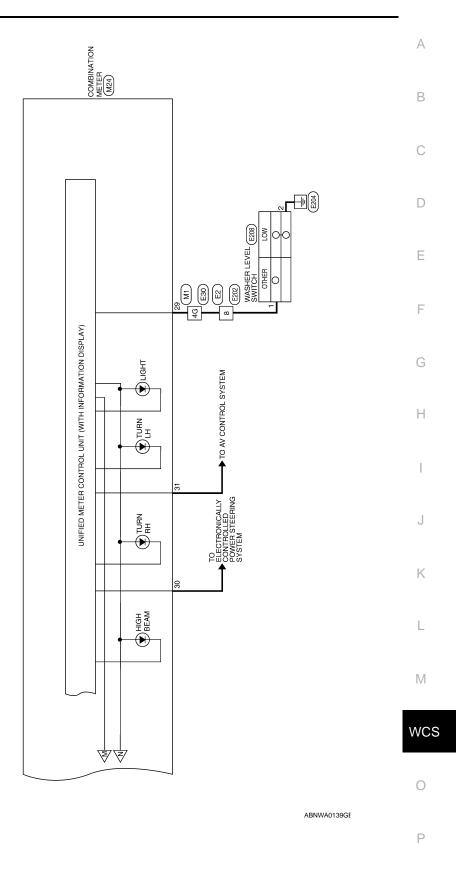
 (XA): WITHOUT AUTOMATIC DRIVE

 POSITIONER

 ■■: DATA LINE



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**WCS-35** 

Connector Name FUSE BLOCK (J/B)

Connector No.

Connector Color WHITE

HH HH

11G

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8G

G/R

24G 25G 31G 32G

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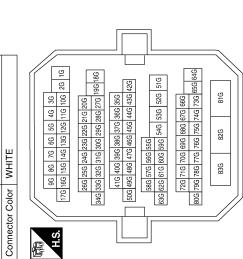
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# METER CONNECTORS





Signal Name

Color of Wire W/L

> Terminal No. Ę

0/B

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52G 51G

	SM	Connector Name   FUSE BLOCK (J/B)
	Connector No.	Connector Name

Connector Color WHITE





Signal Name	-	
Color of Wire	0	
Terminal No.	12M	

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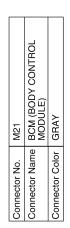
Connector No. M10  Connector Name WIRE TO WIRE  Connector Color WHITE  To b 5 4	Connector No.   M19   BCM (BODY CONTROL   MODULE)   Connector Color   BLACK   BLACK	A B C D
Color of Wire Signal Name SB	M18     BCM (BODY CONTROL     MODULE)     GREEN     GREEN     Signal Name     Immored     Signal Name     Immored     Signal Name     Immored     Signal Name     Immored     Immored	F G H
Terminal No. Co V 100 V V 150 V V 240 V V 260 C 290 C C C C C C C C C C C C C C C C C C C	Connector No.	J
WING   WING   WING   WING   WHITE   WHITE   Su   Ru   7   6   5   4   3     Th   16   15   14   13   12   11   10     Th   16   15   14   13   12   11     Th   16   15   14   13   12   14   13     Th   16   15   14   13   12   14     Th   16   16   16   16   16   16     Th   16   16   16     Th   1	M17  BCM (BODY CONTROL  MODULE)  WHITE	K L
Connector No. M6 Connector Name WIRE TO W Connector Color WHITE    WIRE TO W   WIRE TO W	Connector No. M17 Connector Name BCM (BODY CON MODULE) Connector Color WHITE  Terminal No. Vire Signal  13 B GAN	wcs o

Connector No.	M23
Connector Name	Connector Name   COMBINATION METER
Connector Color	WHITE





Signal Name	I	ı	ı	ı	I	ļ	ı	ı	STRG SHIFT DOWN SW	STRG SHIFT UP SW	ı	ı
Color of Wire	ı	ı	ı	ı	ı	ı	ı	ı	В	0	I	ı
Terminal No.	41	42	43	44	45	46	47	48	49	50	51	52







Signal Name	TRUNK SW	WS HOOD AR	RL DOOR SW
Color of Wire	8	R/W	B/B
Terminal No.	130	148	149





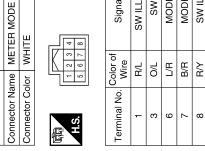




Signal Nar	CDL BACK TF
Color of Wire	٧
erminal No.	103

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Connector Name METER MODE SWITCH Connector Color WHITE SW ILL POWER MODE SW B SW ILL GND MODE SW A Signal Name SW GND Connector No. M25 Color of Wire R/L O/L R/B/R Y/B



Terminal No.	Color of Wire	Signal Name
17	_	I
18	O/B	OUTSIDE SENDER
19	۵	OUTSIDE SENDER VAC
20	В/У	OUTSIDE SENDER GND
21	Г	CAN-H
22	۵	CAN-L
23	В	GND (CIRCUIT)
24	B/W	GND (FUEL SENSOR)
25	BR	CHG
26	G/R	PKB
27	>	BRAKE OIL IN
28	0/1	SECURITY
29	Ж	LOW WASH FLUID SW
30	L/B	2P/R OUT
31	W/W	8P/R OUT
32	ı	1
33	_	_
34	G/B	FUEL SENSOR
35	W/B	DR BELT
36	M	AS BELT
37	<u>ი</u>	NOT M RANGE
38	BR	AT SHIFT DOWN
39	W	AT SHIFT UP
40	LG/R	M RANGE

Connector No.	$\vdash$		
Connector Name	_	COMBINATION METER	
Connector Color	r WHITE	ПЕ	
5 6 25 26	7 8 27 28	9 10 11 12 13 14 15 16 17 18 18 29 30 31 32 33 34 35 36 37 38 38	19 20 39 40
Terminal No.	Color of Wire	Signal Name	
	M/L	BAT	
	0	IGN	
	В	GND (POWER)	
	В	GND (ILL)	
	В	ILL OUTPUT	
	_	1	
	1	ı	
	1	1	
	_	-	
	O/L	GND (SATELLITE SW)	
	L/R	MODE A SW	
	B/R	MODE B SW	
	_	-	
	-	1	
	BR/W	AIR BAG	
	1	1	

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	Connector No.	M64
AMP.	Connector Name	Connector Name JOINT CONNECTOR-M01
	Connector Color WHITE	WHITE

_	JOINT CONNECTOR-M01	WHITE	12 10	Signal Name	I	
2			4 3	Color of Wire	В	
5	or Name	or Color		o S S		

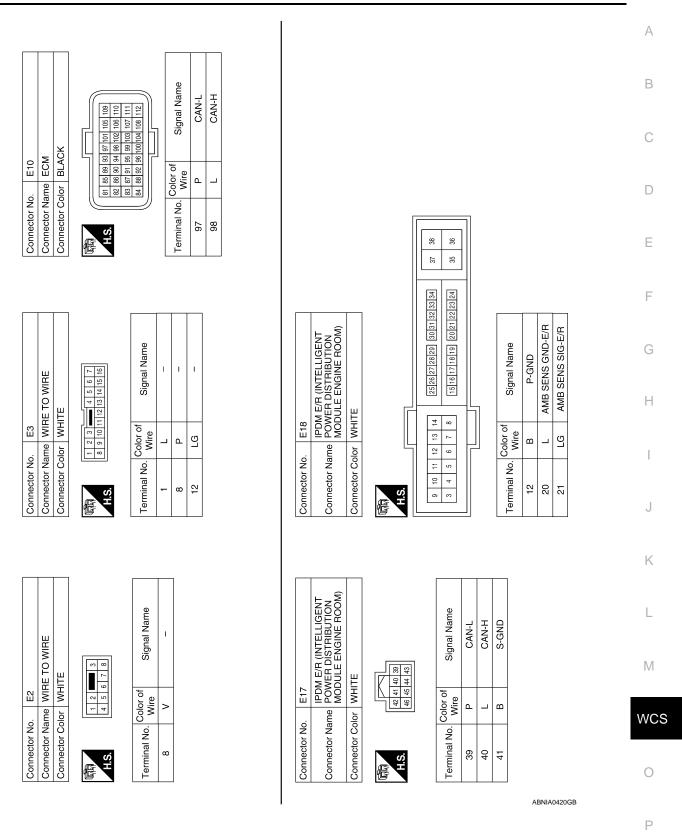
						- 1
Connector No.	. M37	7		Connector No.	. M64	4
Connector Name A/C AUTO AMP.	me A/C	: AUTO AMP.		Connector Name	me JOIN	_
Connector Color	lor WHITE	ITE		Connector Color	lor WHI	=
				恒	4 3	ll ell
Ġ.				613		
1 2 3 4 5 21 22 23 24 25		9     10     11     12     13     14     15     16       29     30     31     32     33     34     35     36	17 18 19 20 37 38 39 40			
Terminal No. Wire	Color of Wire	Signal Name		Terminal No. Wire	Color of Wire	
34	4	AMB POWER		က	В	-
35	0/B	AMB SENS		4	R/Y	
37	γ	CENS GND				

	Connector Name PADDLE SHIFTER (SHIFT	DOWN)	ПЕ			Signal Name		ı	1
M83	he PAE	S S	ır WH		ေ	Solor of	Wire	ω	5
Connector No.	Connector Nan		Connector Color WHITE	H.S.		Terminal No Color of	5	-	3
Connector No. M82	Connector Name PADDLE SHIFTER (SHIFT UP)	Connector Color WHITE		H.S.		l erminal No.   Wire   Signal Name	1 B	3	

Connector No.
Connector Name AIR BAG DIAGNOSIS SENSOR UNIT
Connector Color
12 2
Color of Wire

	_	_	1			_	ı —	_	
3	CVT DEVICE	WHITE	0 1	0, 8	Signal Name	MT MODE	M DOWN	M UP	AT MODE
M78	_	-		- ro	Color of Wire	LG/R	BR	>	g
Connector No.	Connector Name	Connector Color		H.S.	Terminal No.	-	2	င	9

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e   e     6	onnector No.	E24	unnector Name BRAKE FLUID LEVEL SWITCH	nnector Color GRAY	<	Color of Signal Name	11
	No. Oo	1	BRAKI	GRAY	(- N)	olor of Nire	^

	Connector Name BRAKE FLUID LEVEL SWI	<b>,</b>		Signal Name	_	-
1	ne BRAI	or GRA	(- N)	Color of Wire	>	Β/Y
	Connector Nar	Connector Color GRAY	H.S.	Terminal No.	1	7

Connector No.	4 Connector Name	Connector Color	小 H.S.		Terminal No. M		- 0	
E22	Connector Name JOINT CONNECTOR-E04	WHITE	3 2 1	r of Signal Name	1	ı	ı	1
Connector No.	Connector Name	Connector Color WHITE	H.S.	Terminal No. Wire	-	2 P	В	4 P
E21	Connector Name JOINT CONNECTOR-E03	WHITE	4 3 2 1	r of Signal Name	ı	ı	ı	
Connector No.	Connector Name	Connector Color WHITE	(日) H.S.	Terminal No. Wire	1	2 L	3 F	4

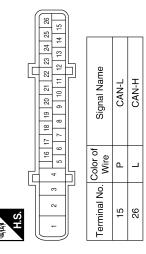
Connector No.	o. E29	
Connector Name WIRE TO WIRE	ame WIF	RE TO WIRE
Connector Color WHITE	olor WH	<u> </u>
说 说。	7 16 15 15 1	6 5 4
Terminal No. Wire	Color of Wire	Signal Name
9	٦	-
16	Ь	-

ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)

Connector Name Connector Color

Connector No.

BLACK



ABNIA0421GB

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Connector No. E230	E230		Connect	Connector No. F1	F1
Connector Name GENERATOR	GENERAT	ron	Connect	tor Name	Connector Name WIRE TO WIRE
Connector Color	ı		Connect	Connector Color WHITE	WHITE
原 H.S.	(D)		H.S.	7 6 15	S   14   13   12   11   10   9   8
Terminal No. Wire		Signal Name	Termine	Terminal No. Wire	or of Signal Name
2	В	1	-		1
	-		∞		-
			12	BR	ı

							81 82	79 80	_	
0	Connector Name POWER DISTRIBUTION	MODULE ENGINE ROOM)	НΤΕ				58 69 70 71 72 73 74 75 76 77 78	52 59 60 61 62 63 64 65 66 67 68		f Signal Name
. No.   F10	Name PO	OM_	Connector Color WHITE				25 56 57	49 50 51		Terminal No. Wire
Connector No.	Connector		Connector		H.S.		53 54	47 48		Terminal N
F7	Connector Name GENERATOR			9 5		Vire Signal Name	BR –			
Connector No.	Connector Name GENER			H.S.		Terminal No. Wire	2			



Connector No. E211



Signal Name



ABNIA0423GB

DIL PRESSURE SW Signal Name

E P

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		Α
	Signal Name	В
	Signa Signa	С
	Connector No. B2 Connector Name JOINT CONNECTOR-B01 Connector Color of BLACK  H.S. (6   5   4   3   2   1)  Terminal No. Wire 2 P - 2  2 P - 2  4 L - 5  5 L 7	D
	Connector No. Connector Name Connector Name Connector Name LAS.  1	Е
		F
OIL PRESSURE SWITCH GRAY  or of Signal Name  G	Signal Name	G
OIL PRESSU GRAY or of Sig		Н
No. F41	Color of Wire SB	I
Connector No. F41 Connector Color GRAY Connector Color GRAY H.S. Color of Terminal No. Wire 1 LG	Terminal No. 10J 15J 15J 21J 28J 28J 29J 30J	J
		K
SMISSION MODULE) 37 88 89 40 47 48 77 8 19 10 41 42 7 18 19 20 43 44 7 18 19 20 43 44 7 18 19 10 20 41 42 7 18 19 10 41 42 7 18 19 10 41 42 7 18 19 10 41 42 7 18 19 10 41 42	WIRE    Sal   Sal	L
TRANSMI TROL MOC SK 158 68 77 88 15 6 7 18 5 6 7 18 5 6 7 18 5 6 7 18 5 6 7 0 5		M
118881-1911 1051 1 1		WCS
Connector No.  Connector Color  H.S.  H.S.  Terminal No.  N.  31  32  33	Connector No.	0
	ABNIA0424GB	Р

	E TO WIRE	里		11 12 13 14 15 16		Signal Name	ı	ı
. B10	me WIR	or WHI		1 2 3 8 9 10		Color of Wire	_	۵
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE		E	S. S.	Terminal No. Wire	9	16
							Ŀ	]
	Connector Name AIR BAG DIAGNOSIS	SENSOR UNIT	MO-		29 30 34 38 9 10	Signal Name	LH BUCKLE SW INPUT	
B3	ne AIR	SEN	or YELL		33 41 44 37	Solor of Wire	GR	
Connector No.	Connector Nar		Connector Color   YELLOW		H.S.	Terminal No. Wire	41	
	_		1					1
88	Connector Name   FRONT DOOR SWITCH LH	VHITE		<b>⊘</b> −	~ E	of Signal Name	1	_
lo. B8	lame F	olor M				Color o Wire	SB	
Connector No.	Connector N	Connector Color WHITE		E	H.S.	Terminal No. Wire	2	

Signal Name Connector Name WIRE TO WIRE Connector Color WHITE Color of Wire Connector No. B24 ≥ > Terminal No. 2 9 E Connector Name REAR DOOR SWITCH LH
Connector Color WHITE Signal Name □ □ □ □ □ Terminal No. Wire 2 BR Connector No. B18 匮 Signal Name 1 Connector Name WIRE TO WIRE Connector Color WHITE B12 Color of Wire B/W GR Connector No. Terminal No. ω

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ABNIA0425GB

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onnector No. B108	). B10£	8	Connec	Connector No. B113	B113			Connector No. B116	. B11	9
onnector Na	me FRO	nector Name FRONT DOOR SWITCH RH	Connec	tor Name	AIR B	Connector Name AIR BAG DIAGNOSIS		Connector Na	me REA	Connector Name REAR DOOR SWITCH RH
onnector Color WHITE	lor WHI	11			SENS	SOR UNIT		Connector Color WHITE	lor WHI	
			Connec	Connector Color   YELLOW	. YELL	MO-	-			
S. S.	(N)		H.S.		32 28	27 25 31 38 38 40		H.S.		
erminal No. Wire	Color of Wire	Signal Name	Termina	Terminal No. Wire	olor of Nire	Signal Name		Terminal No. Wire	Color of Wire	Signal Name
2	GR	1	25		_ Н	RH BUCKLE SW INPUT		2	В	I
	_									

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Connector No.	). B202	12
Connector Name		SEAT BELT BUCKLE SWITCH LH
Connector Color WHITE	olor WH	ПЕ
H.S.		
Terminal No. Wire	Color of Wire	Signal Name
1	٦	-
2	В	1

Connecto	Connect	Connecto	E	H.S.		Terminal	•	_
	RE				nal Name	ı	1	

	WIRE TO WIRE	ITE	8 3	Signal Name	ı	ı
. B201		lor WHITE	4 5 6	Color of Wire	٦	В
Connector No.	Connector Name	Connector Color	南 H.S.	Terminal No.	-	8

B148	WIRE TO WIRE	/HITE	7 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	of Signal Name	1	ı
	me W	lor	m 80	Color of Wire	_	В
Connector No.	Connector Name	Connector Color WHITE	H.S.	Terminal No.	-	8

	E TO WIRE	<u> </u>	2 S	Signal Name	I	ı
T2	me WIRE	<u> </u>	8 3	Color of Wire	M	>
Connector No.	Connector Name WIRE TO WIRE		H.S.	Terminal No. Wire	5	9
						•
8	IE TO WIRE	<u>"</u>	8 3	Signal Name	I	ı
. B30	Ime WIR	20	1 2 2 9 9	Color of Wire	٦	В
Connector No. B308	Connector Name WIRE TO WIRE		E.S.	Terminal No. Wire	1	8
5	Connector Name SEAT BELT BUCKLE SWITCH RH	TE		Signal Name	SIGNAL	GND
. B302	me SEA SWI	lor WHI		Color of Wire	_	В
Connector No.	Connector Na	Connector Color WHITE	原 H.S.	Terminal No. Wire	-	2

ABNIA0427GB

Connector Name TRUNK LAMP SWITCH AND TRUNK RELEASE SOLENOID WHITE 17 Connector Color Connector No.

Signal Name	_	-	_	1	
Color of Wire	В	Α	В	>	
Terminal No. Wire	ļ	7	8	4	

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INFOID:0000000004409568

ABNIA0428GB Fail Safe

The combination meter performs a fail-safe operation for the functions listed below when communication is lost.

#### < ECU DIAGNOSIS >

	Function	Specifications
Speedometer		
Tachometer		Zero indication.
Fuel gauge		Zero Indication.
Engine coolant temperature g	auge	
Illumination control	Meter illumination	Change to nighttime mode when communication is lost.
Comment I CD	Odometer	Freeze current indication.
Segment LCD	CVT position	Display turns off.
Buzzer		Buzzer turns off.
	ABS warning lamp	
	Brake warning lamp	
	TCS/VDC OFF indicator lamp	Lamp turns on when communication is lost.
	SLIP indicator lamp	
	A/T CHECK warning lamp	
	Oil pressure warning lamp	
	Malfunction indicator lamp	
	Master warning lamp	Lamp turns off when communication is lost
Warning lamp/indicator lamp	Air bag warning lamp	Lamp turns off when communication is lost.
	High beam indicator	
	Turn signal indicator lamp	
	Intelligent Key system warning lamp	
	Driver and passenger seat belt warning lamp	
	Charge warning lamp	Lamp turns off when disconnected.
	Security indicator lamp	
	Low tire pressure warning lamp	Lamp will flash every second for 1 minute and then stay on continuously thereafter.

**DTC Index** INFOID:0000000004409569

CONSULT-III display	ONSULT-III display Malfunction	
CAN COMM CIRCUIT [U1000]	When combination meter is not transmitting or receiving CAN communication signal for 2 seconds or more.	XX-XX,
CONTROL UNIT (CAN) [U1010]	When detecting error during the initial diagnosis of the CAN controller of combination meter.	XX-XX,
VEHICLE SPEED [B2205]	The abnormal vehicle speed signal is input from the ABS actuator and electric unit (control unit) for 2 seconds or more.	XX-XX,
ENGINE SPEED [B2267]	If ECM continuously transmits abnormal engine speed signals for 2 seconds or more.	XX-XX,
WATER TEMP [B2268]	If ECM continuously transmits abnormal engine coolant temperature signals for 60 seconds or more.	XX-XX,

#### NOTE:

- "TIME" indicates the following.
   0: Indicates that a malfunction is detected at present.
- 1-63: Indicates that a malfunction was detected in the past. (Displays number of ignition switch OFF  $\rightarrow$  ON cycles after malfunction is detected. Self-diagnosis result is erased when "63" is exceeded.)

#### < ECU DIAGNOSIS >

# **BCM (BODY CONTROL MODULE)**

Α Reference Value INFOID:0000000004351836

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### VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition	Value/Status	
FR WIPER HI	Other than front wiper switch HI	OFF	С
FK WIFEK FI	Front wiper switch HI	ON	<del></del>
ED WIDED LOW	Other than front wiper switch LO	OFF	
FR WIPER LOW	Front wiper switch LO	ON	
ED MACHED OM	Front washer switch OFF	OFF	<del></del>
FR WASHER SW	Front washer switch ON	ON	Е
ED WIDED INT	Other than front wiper switch INT	OFF	
FR WIPER INT	Front wiper switch INT	ON	_
ED WIDED OTOD	Front wiper is not in STOP position	OFF	— F
FR WIPER STOP	Front wiper is in STOP position	ON	<del></del>
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position	G
TURN CIONAL R	Other than turn signal switch RH	OFF	
TURN SIGNAL R	Turn signal switch RH	ON	<del></del>
	Other than turn signal switch LH	OFF	— Н
TURN SIGNAL L	Turn signal switch LH	ON	<del></del>
	Other than lighting switch 1ST and 2ND	OFF	
TAIL LAMP SW	Lighting switch 1ST or 2ND	ON	'
	Other than lighting switch HI	OFF	<del></del>
HI BEAM SW	Lighting switch HI	ON	J
	Other than lighting switch 2ND	OFF	<del></del>
HEAD LAMP SW 1	Lighting switch 2ND	ON	
	Other than lighting switch 2ND	OFF	K
HEAD LAMP SW 2	Lighting switch 2ND	ON	<del></del>
	Other than lighting switch PASS	OFF	L
PASSING SW	Lighting switch PASS	ON	<del></del>
	Other than lighting switch AUTO	OFF	_
AUTO LIGHT SW	Lighting switch AUTO	ON	M
	Front fog lamp switch OFF	OFF	
FR FOG SW	Front fog lamp switch ON	ON	WCS
	Driver door closed	OFF	
DOOR SW-DR	Driver door opened	ON	
	Passenger door closed	OFF	
DOOR SW-AS	Passenger door opened	ON	
	Rear door RH closed	OFF	— Р
DOOR SW-RR	Rear door RH opened	ON	
	Rear door LH closed	OFF	<del></del>
DOOR SW-RL	Rear door LH opened	ON	<del></del>
DOOR SW-BK	NOTE:	OFF	
	This item is displayed, but cannot be monitored.		

Monitor Item	Condition	Value/Status
CDL LOCK CW	Other than power door lock switch LOCK	OFF
CDL LOCK SW	Power door lock switch LOCK	ON
CDL LINII OCK CW	Other than power door lock switch UNLOCK	OFF
CDL UNLOCK SW	Power door lock switch UNLOCK	ON
KEY CYL LK CW	Other than driver door key cylinder LOCK position	OFF
KEY CYL LK-SW	Driver door key cylinder LOCK position	ON
KEY CYL UN-SW	Other than driver door key cylinder UNLOCK position	OFF
KET CTL UN-SW	Driver door key cylinder UNLOCK position	ON
KEY CYL SW-TR	NOTE: This item is displayed, but cannot be monitored.	OFF
HAZARD SW	When hazard switch is not pressed	OFF
HAZARD SW	When hazard switch is pressed	ON
REAR DEF SW	When rear window defogger switch is pressed	ON
TR CANCEL SW	Trunk lid opener cancel switch OFF	OFF
TR CANCEL SW	Trunk lid opener cancel switch ON	ON
TR/BD OPEN SW	Trunk lid opener switch OFF	OFF
IK/BD OPEN 5W	While the trunk lid opener switch is turned ON	ON
TRNK/HAT MNTR	Trunk lid closed	OFF
TRINDIAL WINTE	Trunk lid opened	ON
RKE-LOCK	When LOCK button of Intelligent Key is not pressed	OFF
RKE-LOCK	When LOCK button of Intelligent Key is pressed	ON
RKE-UNLOCK	When UNLOCK button of Intelligent Key is not pressed	OFF
KKE-UNLOCK	When UNLOCK button of Intelligent Key is pressed	ON
RKE-TR/BD	When TRUNK OPEN button of Intelligent Key is not pressed	OFF
KKE-TK/DD	When TRUNK OPEN button of Intelligent Key is pressed	ON
RKE-PANIC	When PANIC button of Intelligent Key is not pressed	OFF
INC-I AINIO	When PANIC button of Intelligent Key is pressed	ON
RKE-P/W OPEN	When UNLOCK button of Intelligent Key is not pressed and held	OFF
KKL-17W OF LIV	When UNLOCK button of Intelligent Key is pressed and held	ON
RKE-MODE CHG	When LOCK/UNLOCK button of Intelligent Key is not pressed and held simultaneously	OFF
MAL-WIODE ONG	When LOCK/UNLOCK button of Intelligent Key is pressed and held simultaneously	ON
OPTICAL SENSOR	When outside of the vehicle is bright	Close to 5 V
OF HOAL SENSOR	When outside of the vehicle is dark	Close to 0 V
REQ SW-DR	When front door request switch is not pressed (driver side)	OFF
ILLQ OW-DIX	When front door request switch is pressed (driver side)	ON
REQ SW-AS	When front door request switch is not pressed (passenger side)	OFF
	When front door request switch is pressed (passenger side)	ON
REQ SW-RL	When rear door request switch is not pressed (driver side)	OFF
NEW OVV-IVE	When rear door request switch is pressed (driver side)	ON
REQ SW-RR	When rear door request switch is not pressed (passenger side)	OFF
	When rear door request switch is pressed (passenger side)	ON
REQ SW-BD/TR	When trunk request switch is not pressed	OFF
	When trunk request switch is pressed	ON

Monitor Item	Condition	Value/Status	_
PUSH SW	When engine switch (push switch) is not pressed	OFF	_ /
FUSH 3W	When engine switch (push switch) is pressed	ON	_
IGN RLY 2-F/B	Ignition switch OFF or ACC	OFF	_ E
IGN KLT 2-F/B	Ignition switch ON	ON	_
ACC RLY-F/B	Ignition switch OFF	OFF	_
ACC REI-I/B	Ignition switch ACC or ON	ON	_ (
CLUTCH SW	NOTE: This item is displayed, but cannot be monitored.	OFF	_
BRAKE SW 1	When the brake pedal is not depressed	ON	- L
BRARE SW I	When the brake pedal is depressed	OFF	_
DETE/CANCL SW	When selector lever is in P position	OFF	-
DETE/CANCL SW	When selector lever is in any position other than P	ON	_
OFT DAVALOVA	When selector lever is in any position other than P or N	OFF	=
SFT PN/N SW	When selector lever is in P or N position	ON	_
C/L L O.C.Y.	Electronic steering column lock LOCK status	OFF	_
S/L-LOCK	Electronic steering column lock UNLOCK status	ON	- (
0/1 11011 0017	Electronic steering column lock UNLOCK status	OFF	_ (
S/L-UNLOCK	Electronic steering column lock LOCK status	ON	_
	Ignition switch OFF or ACC	OFF	- 1
S/L RELAY-F/B	Ignition switch ON	ON	_
	Driver door UNLOCK status	OFF	_
UNLK SEN-DR	Driver door LOCK status	ON	_
	When engine switch (push switch) is not pressed	OFF	_
PUSH SW-IPDM	When engine switch (push switch) is pressed	ON	-
	Ignition switch OFF or ACC	OFF	_
IGN RLY1 F/B	Ignition switch ON	ON	_
	When selector lever is in P position	OFF	-
DETE SW -IPDM	When selector lever is in any position other than P	ON	_
	When selector lever is in any position other than P or N	OFF	_
SFT PN -IPDM	When selector lever is in P or N position	ON	- '
	When selector lever is in any position other than P	OFF	_
SFT P-MET	When selector lever is in P position	ON	- 1
	When selector lever is in any position other than N	OFF	_
SFT N-MET	When selector lever is in N position	ON	_\_\
	Engine stopped	STOP	_ V
	While the engine stalls	STALL	
ENGINE STATE	At engine cranking	CRANK	- (
	Engine running	RUN	_
	Electronic steering column lock LOCK status	OFF	-
S/L LOCK-IPDM	Electronic steering column lock UNLOCK status	ON	_
	Electronic steering column lock UNLOCK status	OFF	_
S/L UNLCK-IPDM			_
	Electronic steering column lock LOCK status	ON	_
S/L RELAY-REQ	Ignition switch OFF or ACC	OFF	_
O/LIKEL/KI KEQ	Ignition switch ON	ON	

Monitor Item	Condition	Value/Status
VEH SPEED 2	While driving	Equivalent to speedometer reading
	Driver door LOCK status	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (5 seconds)	READY
	Driver door UNLOCK status	UNLK
	Passenger door LOCK status	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (5 seconds)	READY
	Passenger door UNLOCK status	UNLK
ID OK ELAC	Ignition switch ACC or ON	RESET
ID OK FLAG	Ignition switch OFF	SET
DDMT ENG STAT	When the engine start is prohibited	RESET
PRMT ENG STAT	When the engine start is permitted	SET
PRMT RKE STAT	NOTE: This item is displayed, but cannot be monitored.	RESET
KEY CW CLOT	When Intelligent Key is not inserted into key slot	OFF
KEY SW -SLOT	When Intelligent Key is inserted into key slot	ON
RKE OPE COUN1	During the operation of Intelligent Key	Operation frequency of Intelligent Key
RKE OPE COUN2	NOTE: This item is displayed, but cannot be monitored.	Operation frequency of Intelligent Key
CONFOMIDALI	The key ID that the key slot receives does not accord with any key ID registered to BCM.	YET
CONFRM ID ALL	The key ID that the key slot receives accords with any key ID registered to BCM.	DONE
CONFIRM ID4	The key ID that the key slot receives does not accord with the fourth key ID registered to BCM.	YET
CONFIRM ID4	The key ID that the key slot receives accords with the fourth key ID registered to BCM.	DONE
CONFIRM ID3	The key ID that the key slot receives does not accord with the third key ID registered to BCM.	YET
CONFIRM ID3	The key ID that the key slot receives accords with the third key ID registered to BCM.	DONE
CONFIDMIDA	The key ID that the key slot receives does not accord with the second key ID registered to BCM.	YET
CONFIRM ID2	The key ID that the key slot receives accords with the second key ID registered to BCM.	DONE
CONFIRM ID1	The key ID that the key slot receives does not accord with the first key ID registered to BCM.	YET
CONFINITION	The key ID that the key slot receives accords with the first key ID registered to BCM.	DONE
TP 4	The ID of fourth key is not registered to BCM	YET
17 4	The ID of fourth key is registered to BCM	DONE
TP 3	The ID of third key is not registered to BCM	YET
11 3	The ID of third key is registered to BCM	DONE
TP 2	The ID of second key is not registered to BCM	YET
	The ID of second key is registered to BCM	DONE
TP 1	The ID of first key is not registered to BCM	YET
1111	The ID of first key is registered to BCM	DONE
AIR PRESS FL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front LH tire

### < ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status	
AIR PRESS FR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of front RH tire	А
AIR PRESS RR	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear RH tire	В
AIR PRESS RL	Ignition switch ON (only when the signal from the transmitter is received)	Air pressure of rear LH tire	-
ID REGST FL1	When ID of front LH tire transmitter is registered	DONE	С
ID REGOT FLT	When ID of front LH tire transmitter is not registered	YET	-
ID REGST FR1	When ID of front RH tire transmitter is registered	DONE	D
ID REGGI FRI	When ID of front RH tire transmitter is not registered	YET	-
ID REGST RR1	When ID of rear RH tire transmitter is registered	DONE	-
ID REGST KKT	When ID of rear RH tire transmitter is not registered	YET	Е
ID REGST RL1	When ID of rear LH tire transmitter is registered	DONE	-
ID REGST KLT	When ID of rear LH tire transmitter is not registered	YET	E
WARNING LAMP	Tire pressure indicator OFF	OFF	- 1
WARNING LAWP	Tire pressure indicator ON	ON	-
BUZZER	Tire pressure warning alarm is not sounding	OFF	G
DUZZEK	Tire pressure warning alarm is sounding	ON	=

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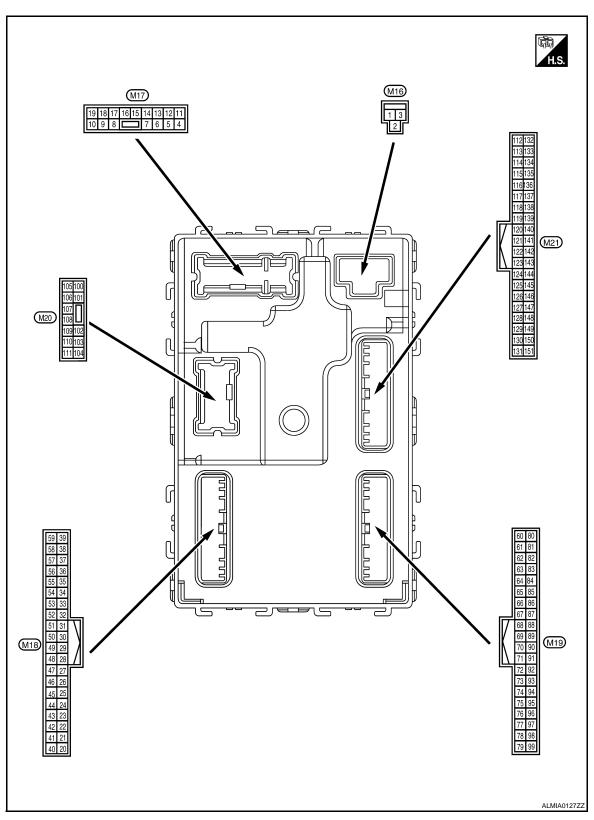
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Terminal Layout



Physical Values

Termi	inal No.	Description					A
(Wire	e color)	Signal name	Input/ Output		Condition	Value (Approx.)	7.
1 (W/B)	Ground	Battery power supply	Input	Ignition switch OF		Battery voltage	В
2 (R/Y)	Ground	Battery power supply output	Output	Ignition switch OF	F	Battery voltage	C
3 (L/W)	Ground	Ignition power supply output	Output	Ignition switch ON		Battery voltage	0
4	Ground	Interior room lamp	Output	After passing the ir er operation time	nterior room lamp battery sav-	0V	D
(P/W)	0.04.14	power supply	Caipai	Any other time after lamp battery save	er passing the interior room r operation time	Battery voltage	Е
5	Ground	Front door RH UN-	Output	Front door RH	UNLOCK (actuator is activated)	Battery voltage	
(G)	Oround	LOCK	Output	T TOTAL GOOT TATE	Other than UNLOCK (actuator is not activated)	OV	F
7	Ground	Step lamp	Output	Step lamp	ON	0V	_
(R/W)	Cround	Otop lamp	Output	Otop lamp	OFF	Battery voltage	G
8	Ground	All doors LOCK	Output	All doors	LOCK (actuator is activated)	Battery voltage	
(V)	Ciouna	All doors Look	Output	711 00013	Other than LOCK (actuator is not activated)	OV	Н
9	Ground	Front door LH UN-	Output	Front door LH	UNLOCK (actuator is activated)	Battery voltage	I
(L)	Giouna	LOCK	Output	FIGHT GOOL EN	Other than UNLOCK (actuator is not activated)	OV	
10	Ground	Rear door RH and rear door LH UN-	Output	Rear door RH	UNLOCK (actuator is activated)	Battery voltage	J
(G)	Oround	LOCK	Output	and rear door LH	Other than UNLOCK (actuator is not activated)	ov	K
11 (Y/R)	Ground	Battery power supply	Input	Ignition switch OF	F	Battery voltage	_
13 (B)	Ground	Ground	I	Ignition switch ON		OV	L
					OFF	0V	_
14 (GR/ W)	Ground	Engine switch (push switch) illumination ground	Input	Tail lamp	ON	When the illumination brightening/dimming level is in the neutral position  (V)  10  2 ms  JSNIA0010GB	M wcs
15	Ground	ACC indicator lamp	Output	Ignition switch	OFF	Battery voltage	Р
(Y/L)	Ciodila	7.00 maioator lamp	Jaipai	ignition switch	ACC or ON	0V	_

Term	inal No.	Description				
(Wire	e color)	<u> </u>	Input/		Condition	Value (Approx.)
(+)	(-)	Signal name	Output			(, tpp10/ii)
17 (G/B)	Ground	Turn signal (RH)	Output	Ignition switch ON	Turn signal switch OFF  Turn signal switch RH	0V  (V) 15 10 5 0 PKID0926E 6.5 V
					Turn signal switch OFF	OV
18 (G/Y)	Ground	Turn signal (LH)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 s PKID0926E 6.5 V
19	Craund	Room lamp timer	Outroit	Interior room	OFF	Battery voltage
(Y)	Ground	control	Output	Output lamp	ON	OV
21	Ground	Optical sensor signal	Input Ignition switch	When outside of the vehi- cle is bright	Close to 5V	
(P/B)			,	ON	When outside of the vehi- cle is dark	Close to 0V
24 (R/W)	Ground	Stop lamp switch 1	Input		_	Battery voltage
26	Ground	Stop lamp switch 2	Input	Stop lamp switch	OFF (brake pedal is not depressed)	0V
(O/L)		2.57		5357 35377	ON (brake pedal is depressed)	Battery voltage
27 (O)	Ground	Front door lock assembly LH (unlock sensor)	Input	Front door LH	LOCK status	(V) 15 10 5 0 10 ms JPMIA0011GB
					UNLOCK status	0V
29	Ground	Key slot switch	Input	_	ey is inserted into key slot	Battery voltage
(Y)		<b>,</b>	r	When Intelligent Key	ey is not inserted into key slot	0V
30	Ground	ACC feedback signal	Input	Ignition switch	OFF	0
(V/Y)		-		_	ACC or ON	Battery voltage
31 (G)	Ground	Rear window defog- ger feedback signal	Input	it / Kear William ac	OFF	OV Pattern verte re
(3)		ger recuback signal			ON	Battery voltage

### < ECU DIAGNOSIS >

	inal No. e color)	Description				Value	А
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	71
32 (R/B)	Ground	Front door RH switch	Input	Front door RH switch	OFF (when front door RH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB	В
					ON (when front door RH opens)	11.8 V	D
37 (O)	Ground	Trunk lid opener cancel switch	Input	Trunk lid opener cancel switch	CANCEL	(V) 15 10 5 0 10 ms JPMIA0012GB	E F G
					ON	OV	Н
38 (GR/ W)	Ground	Rear window defog- ger ON signal	Input	Rear window de- fogger switch	OFF	5V 0V	
40 (Y/G)	Ground	Power window serial link	Input/ Output	Ignition switch ON		(V) 15 10 5 0 10 ms JPMIA0013GB	J K
				Ignition switch OF	F or ACC	OV	
41		Engine switch (push		Engine switch	ON	5.5V	L
(W)	Ground	switch) illumination	Output	(push switch) illu- mination	OFF	OV	M
42 (R)	Ground	LOCK indicator lamp	Output	LOCK indicator	ON	0V	171
45	Ground	Receiver & sensor	Input	lamp Ignition switch ON	OFF	Battery voltage  0V	wcs
(P)		ground Receiver & sensor	F	J	OFF	0V	
46 (V/W)	Ground	power supply output	Output	Ignition switch	ACC or ON	5.0V	0

Р

	inal No. e color)	Description	la a vet/		Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
47	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 • • 0.2s
(G/O)	Clound	er signal	Output	ON	When receiving the signal from the transmitter	(V) 6 4 2 0 ••• 0.2s OCC3880D
48	0	Selector lever P/N		0.1	P or N position	12.0V
(R/G)	Ground	position signal	Input	Selector lever	Except P and N positions	0V
					ON	0V
49 (L/O)	Ground	Security indicator signal	Output	Security indicator	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB
					OFF	Battery voltage
50		Combination switch		Combination switch	All switch OFF Lighting switch 1ST Lighting switch high-beam Lighting switch 2ND	0V (V) 15 10 5
(LG/ B)	Ground	OUTPUT 5	Output	(Wiper intermittent dial 4)	Turn signal switch RH	2 ms JPMIA0031GB
					All switch OFF (Wiper intermittent dial 4)	OV
					Front wiper switch HI (Wiper intermittent dial 4)	(V)
51 (L/W)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the conditions below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3  • Wiper intermittent dial 6  • Wiper intermittent dial 7	15 10 5 0 2 ms JPMIA0032GB

### < ECU DIAGNOSIS >

	inal No.	Description				Value	Λ
(Wire	e color)	Signal name	Input/ Output		Condition	(Approx.)	А
					All switch OFF (Wiper intermittent dial 4) Front washer switch ON	OV	В
52 (G/B)	Ground	Combination switch OUTPUT 2	Output	Combination switch	(Wiper intermittent dial 4)  Any of the conditions below	(V) 15 10 5	С
					with all switch OFF  Wiper intermittent dial 1  Wiper intermittent dial 5  Wiper intermittent dial 6	2 ms JPMIA0033GB	D
					All switch OFF	OV	Е
					Front wiper switch INT		
				Combination	Front wiper switch LO	(V)	F
53 (LG/ R)	Ground	Combination switch OUTPUT 3	Output	switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 5 0 2 ms JPMIA0034GB	G
					All switch OFF	10.7V	Н
					Front fog lamp switch ON	OV	
					Lighting switch 2ND	[   (V) <sub> </sub>	
54 (G/Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit-	Lighting switch flash-to- pass	15 10 5 0	I
				tent dial 4)	Turn signal switch LH	2 ms JPMIA0035GB	J
57 (W)	Ground	Tire pressure warning check switch	Input		_	5V	K
						(V)	L
58 (SB)	Ground	Front door LH switch	Input	Front door LH switch	OFF (front door LH CLOSE)	10 5 0	M
						JPMIA0011GB 11.8V	WC
					ON (front door LH OPEN)	0V	
59		Rear window defog-		Rear window de-	Active	Battery voltage	
(G/R)	Ground	ger relay	Output	fogger	Not activated	0V	0

Ρ

	inal No. e color)	Description	loo: t/		Condition	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
60		Front console anten-		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(B/R)	Ground	na 2 (-)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
61	Ground	Center console an-	Output	, Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 JMKIA0062GB
(W/R)	Glodina	tenna 2 (+)	Guipui	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
62	Ground	Front outside handle	Output	When the front door RH request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 11 1 s  JMKIA0062GB
(V)	Giodila	RH antenna (-)	Cuipui	switch is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB

	inal No. e color)	Description	Т		O a selfer a	Value	
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)	/
				When the front	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 JMKIA0062GB	(
63 (P)	Ground	Front outside handle RH antenna (+)	Output	door RH request switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0	[
						JMKIA0063GB	(
					When Intelligent Key is in the antenna detection area	(V) 15 10 5 0	ŀ
				When the front		JMKIA0062GB	
64 (V)	Ground	Front outside handle LH antenna (-)	Output	door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0	ŀ
						JMKIA0063GB	
C.F.				When the front	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	V
65 (P)	Ground	Front outside handle LH antenna (+)	Output	door LH request switch is operat- ed with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0	(

	inal No. e color)	Description			O Bit	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
66 (B)	Ground	Instrument panel an-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1   S   S   S   S   S   S   S   S   S
(R)		tenna (-)		OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB
67	Ground	Instrument panel an-	Output	Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB
(G)	Godina	tenna (+)	Gupu	OFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB
68 (G/O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
69 (O)	Ground	NATS antenna amp (built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelligent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
70 (R/B)	Ground	Ignition relay-2 control	Output	Ignition switch	OFF or ACC ON	0V Battery voltage

	inal No.	Description				Value	٨
(Wire (+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	А
71	Ground	Remote keyless entry	Input/	During waiting		(V) 15 10 5 1 ms 1 ms JMKIA0064GB	B C
(L/O)	Glound	receiver signal	Output	When operating e	ither button on Intelligent Key	(V) 15 10 5 0 1 ms JMKIA0065GB	E
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	G H
75 (R/Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms  JPMIA0037GB 1.3V	J K L
					Any of the conditions below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 6  • Wiper intermittent dial 7	(V) 15 10 5 0 2 ms  JPMIA0040GB 1.3V	M WC

	inal No.	Description				Value
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB
76 (B(C))	Ground	Combination switch	Input	Combination	Lighting switch high-beam (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB
(R/G)		INPUT 3		switch	Lighting switch 2ND (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0037GB
						Any of the conditions below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 2  • Wiper intermittent dial 3
77	Ground	Engine switch (push	Input	Engine switch	Pressed	OV
(BR)	Cround	switch)		(push switch)	Not pressed	Battery voltage
78 (P)	Ground	CAN-L	Input/ Output		_	_
79 (L)	Ground	CAN-H	Input/ Output		_	_
					OFF	0V
80 (R/L)	Ground	Key slot illumination	Output	Key slot illumina- tion	Blinking	(V) 15 10 5 0 1 s JPMIA0015GB
					ON	6.5V  Battery voltage
					ON	Dallery Vollage

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	inal No. e color)	Description	T		Oditi	Value
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)
81	Ground	ON indicator lamp	Output	Ignition switch	OFF or ACC	0V
(Y/L)	Cround	C. T. Indioator lamp	Calput	- Sindon Switch	ON	Battery voltage
83	Ground	ACC relay control	Output	Ignition switch	OFF	0V
(L)	Oroana	7100 Tolay control	Carpar	iginaeri ewiteri	ACC or ON	Battery voltage
84 (Y/R)	Ground	A/T device	Output		_	Battery voltage
85	0	Electronic steering	la a cat	Electronic steer-	Lock status	OV
(L/O)	Ground	column lock condition No. 1	Input	ing column lock	Unlock status	Battery voltage
86		Electronic steering		Electronic steer-	Lock status	Battery voltage
(G/R)	Ground	column lock condition No. 2	Input	ing column lock	Unlock status	0V
87	Craund	Selector lever P posi-	lanut	Colonton lover	P position	0V
(G/B)	Ground	tion switch	Input	Selector lever	Any position other than P	Battery voltage
					ON (pressed)	0V
88 (R)	Ground	Front door RH request switch	Input	Front door RH request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
					ON (pressed)	0V
89 (R)	Ground	Front door LH request switch	Input	Front door LH request switch	OFF (not pressed)	(V) 15 10 5 10 ms JPMIA0016GB
90	Ground	Blower fan motor re-	Output	Ignition switch	OFF or ACC	0V
(Y)		lay control	1		ON	Battery voltage
91 (L/R)	Ground	Remote keyless entry receiver power supply	Output	Ignition switch OF	F	Battery voltage
94	Ground	Steering wheel lock	Outout	Ignition switch	OFF or ACC	Battery voltage
(G/Y)	Ground	unit power supply	Output	ignition switch	ON	0V

Terminal No. (Wire color)		Description		•		Value	
(+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	
	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermittent dial 4)	All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	
					Turn signal switch LH	(V) 15 10 5 2 ms JPMIA0037GB 1.3V	
95 (R/W)					Turn signal switch RH	(V) 15 10 5 0 2 ms JPMIA0036GB	
					Front wiper switch LO	(V) 15 10 5 0 2 ms JPMIA0038GB 1.3V	
					Front washer switch ON	(V) 15 10 5 0 2 ms JPMIA0039GB	

### < ECU DIAGNOSIS >

Terminal No. (Wire color)		Description			O and division	Value	
(+)	(-)	Signal name	Input/ Output		Condition	(Approx.)	Α
					All switch OFF (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0041GB	B C
96	Ground	Combination switch INPUT 4	Input	Combination switch	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0038GB	E
(P/B)					Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 10 5 0 2 ms JPMIA0036GB 1.3V	G H
					Any of the conditions below with all switch OFF  • Wiper intermittent dial 1  • Wiper intermittent dial 5  • Wiper intermittent dial 6	(V) 15 10 5 0 2 ms	J K
						JРМIA0039GB 1.3V	L

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Terminal No.		Description				Value	
(Wire (+)	e color)	Signal name	Input/ Output		Condition	(Approx.)	
					All switch OFF	(V) 15 10 5 0 2 ms JPMIA0041GB	
					Lighting switch flash-to- pass	(V) 15 10 5 0 2 ms JPMIA0037GB	
97 (R/B)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	Lighting switch 2ND	(V) 15 10 5 0 2 ms JPMIA0036GB	
					Front wiper switch INT	(V) 15 10 5 0 2 ms JPMIA0038GB	
					Front wiper switch HI	(V) 15 10 5 0 2 ms JPMIA0040GB	
					Pressed	0 V	
98 (G/O)	Ground	Hazard switch	Input	Hazard switch	Not pressed	(V) 15 10 5 0 10 ms JPMIA0012GB	

### < ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value	
(+)	(-)	Signal name	Input/ Output	Condition		(Approx.)	
					LOCK status	Battery voltage	
99 (L/Y)	Ground	Electronic steering column lock unit communication	Input/ Output	Electronic steer- ing column lock	LOCK or UNLOCK	(V) 15 10 50 ms JMKIA0066GB	
					For 15 seconds after UN- LOCK	Battery voltage	
					15 seconds or later after UNLOCK	OV	
103 (V)	Cround	Trunk lid opening.	Output	Trunk lid	Open (trunk lid opener actuator is activated)	Battery voltage	
	Ground				Close (trunk lid opener actuator is not activated)	OV	
110 Gr	Ground	Trunk room lamp	Output	Trunk room lamp	ON	OV	
(V/W)	Ordana	Trank room lamp	Catpat	Traint room lamp	OFF	Battery voltage	
114 (B) Grou	Ground	Trunk room antenna	( )LITOLIT	Ignition switch OFF	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	
	Ground	1 (-)					
					When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0063GB	

WCS

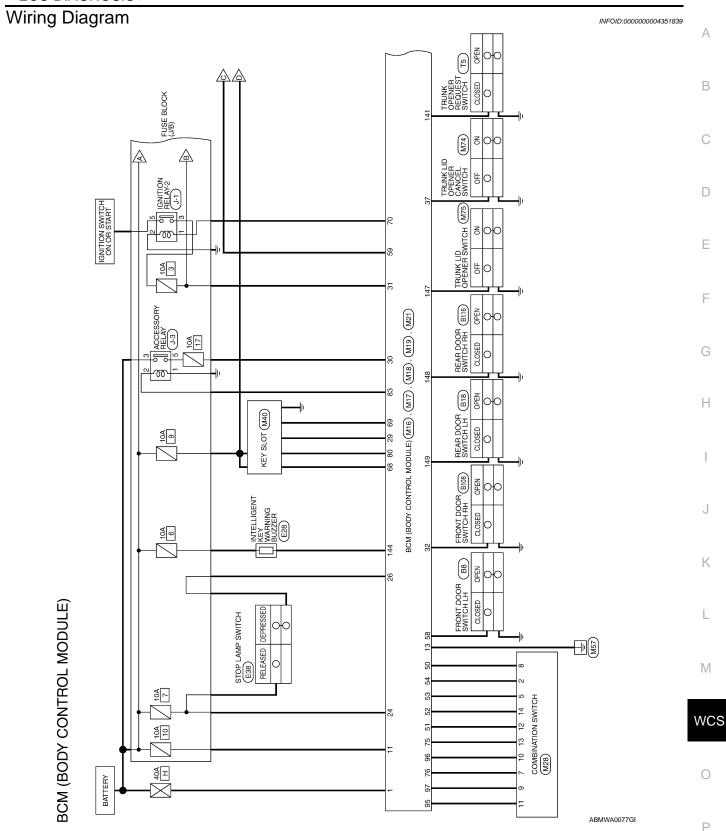
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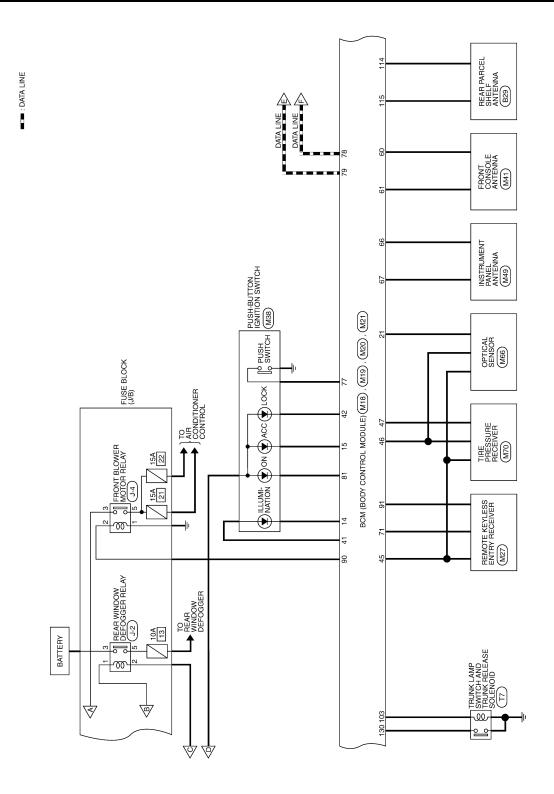
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	inal No. e color)	Description Input/		Condition		Value	
(+)	(-)	Signal name	Output		Condition	(Approx.)	
115		Trunk room antenna		Ignition switch	When Intelligent Key is in the passenger compartment	(V) 15 10 5 0 1 s JMKIA0062GB	
(W)	Ground	1 (+)	Output	ÖFF	When Intelligent Key is not in the passenger compartment	(V) 15 10 5 0 JMKIA0063GB	
118	Ground	Rear bumper antenna (-)	Output	When the trunk lid request switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(L/O)					When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	
119 (BR/	Ground	Rear bumper anten-	Output	When the trunk	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	
(BK/ W)	Glound	na (+)	Output	is operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 JMKIA0063GB	

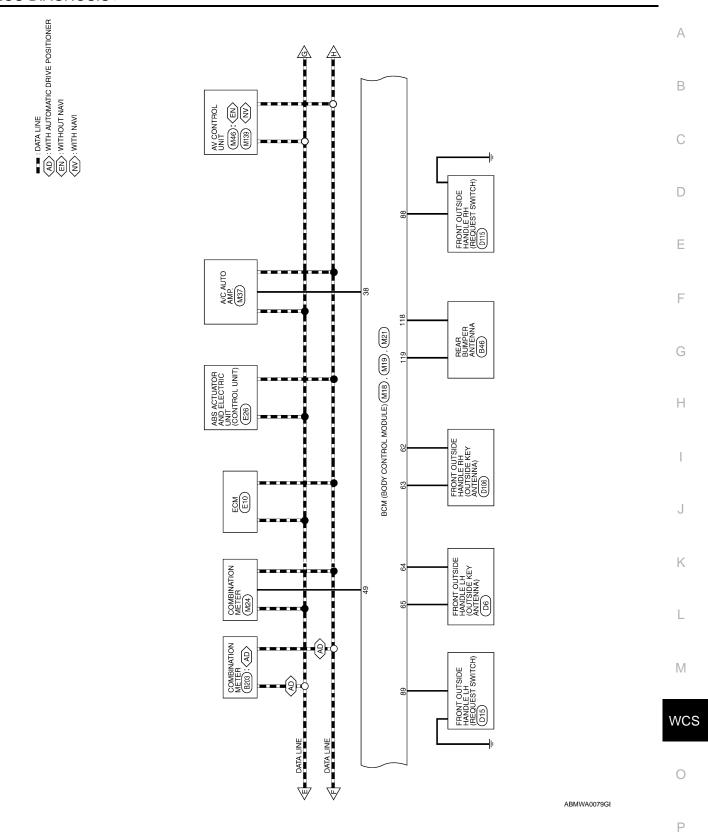
	inal No.	Description				Value
(Wire	e color) (-)	Signal name	Input/ Output		Condition	(Approx.)
127 (BR/ W)	Ground	Ignition relay (IPDM E/R) control	Output	Ignition switch	OFF or ACC	Battery voltage 0V
130 (W)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (trunk is closed) ON (trunk is open)	(V) 15 10 5 0 10 ms  JPMIA0011GB 11.8V
					When the clutch pedal is	
				Ignition switch OFF (M/T vehi-	depressed	Battery voltage
				cle)	When the clutch pedal is not depressed	OV
132 (R)	Ground	Starter motor relay control	Output	Ignition switch	When selector lever is in P or N position and the brake is depressed	Battery voltage
				ON (other than M/ T vehicle)	When selector lever is in P or N position and the brake is not depressed	ov
					ON (pressed)	0V
141 (BR)	Ground	Trunk request switch	Input	Trunk request switch	OFF (not pressed)	(V) 15 10 5 0 10 ms JPMIA0016GB
144	Ground	Request switch buzz-	Output	Request switch	Sounding	0V
(GR)		er	1	buzzer	Not sounding	Battery voltage
147 (L/R)	Ground	Trunk lid opener switch	Input	Trunk lid opener switch	Pressed	0V
(=/:\/				5	Not pressed	Battery voltage
148 (R/W)	Ground	Rear door RH switch	Input	Rear door RH switch	OFF (when rear door RH closes)	(V) 15 10 5 0 JPMIA0011GB 11.8V
					ON (when rear door RH opens)	OV

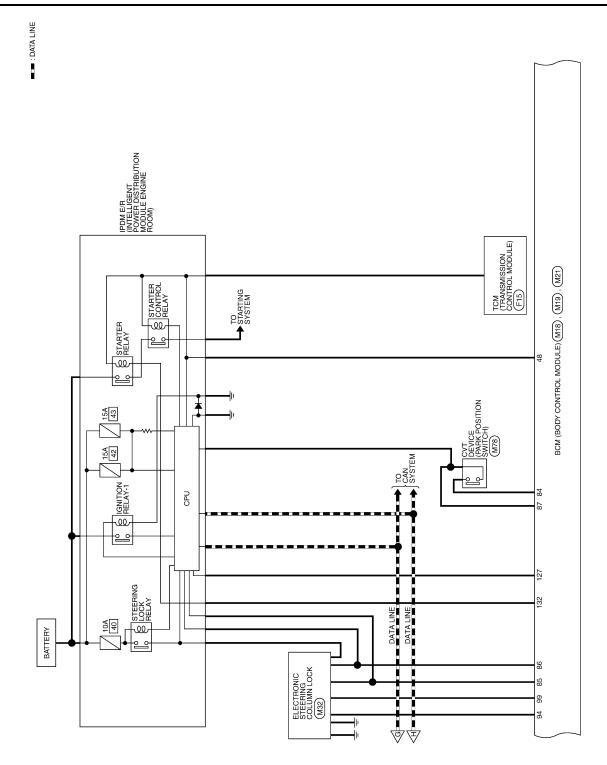
	inal No.	Description				Value
(Wire	e color)	Signal name	Input/		Condition	(Approx.)
(+)	(-)	Olgital Harric	Output			· · · /
149 (R/B)	Ground	Rear door LH switch	Input	Rear door LH switch	OFF (when rear door LH closes)	(V) 15 10 5 0 10 ms JPMIA0011GB
					ON (when rear door LH opens)	oV





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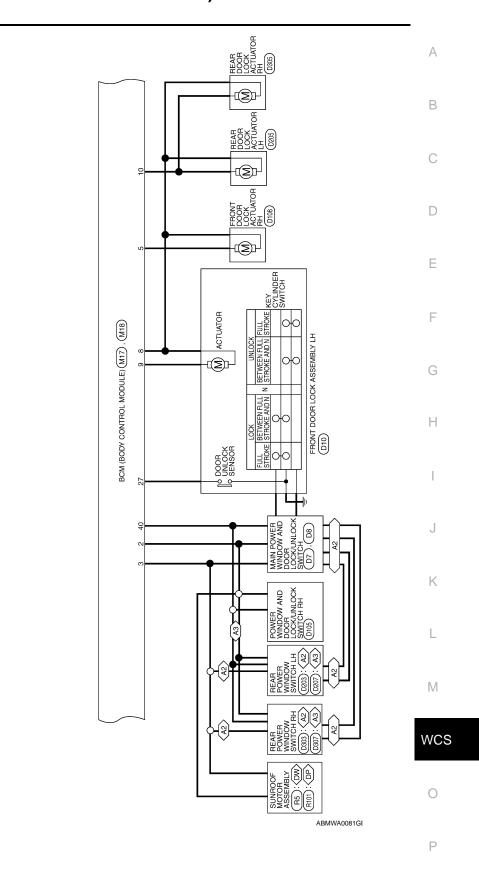
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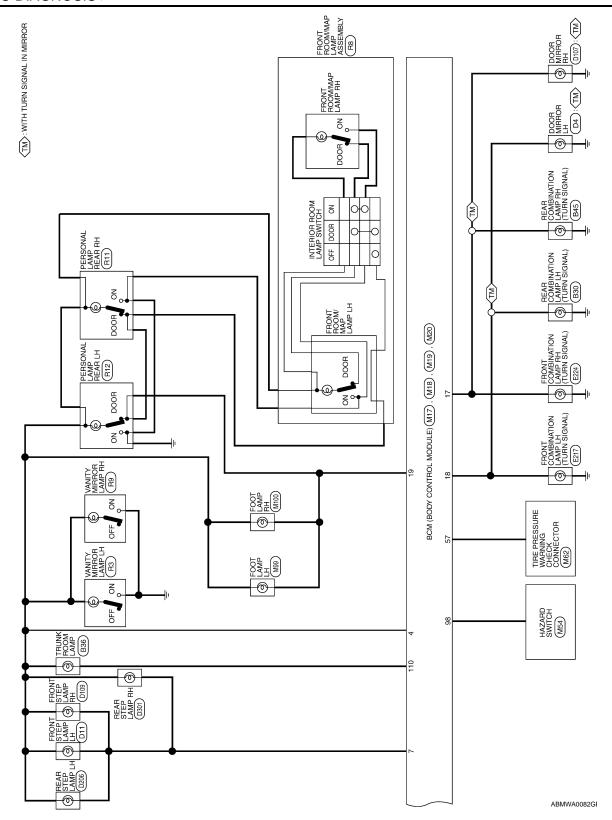
 (A2)
 : WITH LEFT AND RIGHT FRONT POWER WINDOW ANTI-PINCH SYSTEM

 (A3)
 : WITH FRONT AND REAR POWER WINDOW ANTI-PINCH SYSTEM

 (DP)
 : WITH DUAL PANEL SUNROOF

 (DW)
 : WITHOUT DUAL PANEL SUNROOF





DOOR UNLOCK OUTPUT (RR/RL) BAT BCM FUSE

Signal Name

Terminal No. 10 7

# BCM (BODY CONTROL MODULE) CONNECTORS

7	Connector Name BCM (BODY CONTROL MODULE)	HE HE	4 5 6 7 6 9 10	Signal Name	R/L POWER SUPPLY	DOOR UNLOCK OUTPUT AS	1	STEP LAMP CONT	
- M17	me BC	lor	4 5 6	Color of Wire	P/W	U	ı	₩.	
Connector No.	Connector Na	Connector Color WHITE	响 H.S.	Terminal No.   Wire	4	S	9	7	
					1	Τ.			
(0	Connector Name BCM (BODY CONTROL MODULE)	4CK	23	Signal Name	BAT POWER F/L	P/W POWER SUPPLY	PERM	P/W POWER SUPPLY IGN	
. M16	me BCI	lor BLA		Color of Wire	M/B	Ž		3	
Connector No.	Connector Na	Connector Color BLACK	是 H.S.	Terminal No.	-	2		က	

LOW SIDE PUSH LED

GR/W

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13

12

ACC LED

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15 16

R/L POWER SUPPLY

ROOM LAMP CONT

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DOOR UNLOCK OUTPUT (DR/FL) DOOR UNLOCK OUTPUT ALL

FR FLASHER FL FLASHER

G/B ď≺

17

Terminal No.	Color of Wire	Signal Name
45	۵	GND RF2 A/L
46	V/W	A/L POWER SUPPLY 5V
47	0/9	RF2 TUNER SIGNAL
48	R/G	SHIFT N/P/ NEUTRAL SW
49	0/7	IMMO LED (SECURITY INDICATOR)
50	LG/B	COMBI SW OUT 5
51	M/I	COMBI SW OUT 1
52	G/B	COMBI SW OUT 2
53	LG/R	COMBI SW OUT 3
53	G/Y	COMBI SW OUT 4
54	1	I
55	_	-
56	8	TPMS MODE
58	SB	DR DOOR SW
59	G/R	REAR DEFOGGER

Signal Name	DOOR LOCK STATUS DR	I	FOB IN SW 1	ACC F/B	IGN F/B	AS DOOR SW 1	I	I	_	I	TRUNK CANCEL SW	REAR DEFOGGER SW	I	BW K-LINE	PUSH LED	S/L LOCK LED	_	_
Color of Wire	0	ı	>	٨/٨	G	B/B	ı	ı	_	1	0	GR/W	1	Y/G	8	æ	_	_
Terminal No.	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44

	ONTROL			26 25 24 23 22 21 20 46 45 44 43 42 41 40	Name		A/L SIGNAL TYPE 1			BRAKE SW1	1	
M18	BCM (BODY CONTROL MODULE)	GREEN		32 31 30 29 28 27 52 51 50 49 48 47	of Signal Name							
		-		54 33	Color of Wire	1	P/B	1	1	₩.	1	ā
Connector No.	Connector Name	Connector Color	是 H.S.	39 38 37 36 35 3 59 58 57 56 55 8	Terminal No.	20	21	22	23	24	25	Ü

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В

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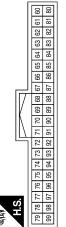
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Signal Name	AT DEVICE OUT	S/L CONDITION 1	S/L CONDITION 2	SHIFT P/ASCD CANCEL SW	AS REQUEST SW	DR REQUEST SW	BLOWER FAN RELAY	RF POWER SUPPLY 12V	ı	1	S/L POWER SUPPLY 12V	COMBI SW IN 1	COMBI SW IN 4	COMBI SW IN 2	HAZARD SW	S/L K-LINE
Color of Wire	Y/R	9	G/R	G/B	В	æ	<b>&gt;</b>	L/R R	1	-	G/Y	B/W	P/B	B/B	0/9	۲
Terminal No.	84	85	98	87	88	88	06	91	82	63	94	96	96	26	86	66

Signal Name	ROOM ANT 1 A	FOB READER CLOCK	FOB READER DATA	IGN REL OUTPUT 2	RF1 TUNER SIGNAL	ı	ı	ı	COMBI SW IN 5	COMBI SW IN 3	ENG START SW	CAN-L	CAN-H	FOB SLOT ILLUMINATION	IGN ON LED	I	ACC CONT
Color of Wire	U	G/O	0	B/B	0/1	1	1	1	R/Υ	R/G	BR	Ь	٦	R/L	Y/L	ļ	٦
Terminal No.	29	89	69	70	71	72	73	74	75	9/	77	78	6/	80	81	82	83

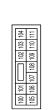
Signal Name	I	I	I	I	I	I	TRUNK LAMP CONT	-
Color of Wire	ı	-	1	1	_	1	M/Λ	_
Terminal No.	104	105	106	107	108	109	110	111

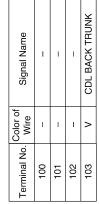
Connector No.	M19
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color BLACK	BLACK



	Signal Name	ROOM ANT 2 B	ROOM ANT 2 A	AS DOOR ANT B	AS DOOR ANT A	DR DOOR ANT B	DR DOOR ANT A	ROOM ANT 1 B
Color of	Wire	B/R	W/R	^	۵	^	Ь	œ
	Terminal No.	09	61	62	63	64	99	99

Connector No.	M20
Connector Name	Connector Name BCM (BODY CONTROL MODULE)
Connector Color WHITE	WHITE
H.S.	0 101



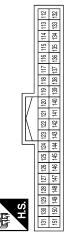


ABMIA0178GB

Signal Name	_	I	-	I	1	TRUNK REQUEST SW	_	ı	BUZZER	ı	ı	BACK TRUNK OPENER	RR DOOR SW	RL DOOR SW	_	_
Color of Wire	ı	1	ı	ı	ı	BR	-	1	GR	ı	1	L/R	B/W	R/B	1	_
Terminal No.	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151

Terminal No.	Color of Wire	Signal Name
119	BR/W	BACK DOOR ANT A
120	_	I
121	1	ı
122	_	ı
123	1	ı
124	ı	ı
125	_	-
126	_	l
127	BR/W	IGN RELAY OUTPUT
128	1	ı
129	_	-
130	M	TRUNK SW
131	_	I
132	Я	ST RELAY OUTPUT
133	1	_
134	1	-
135	-	I

Connector No.	M21
Connector Name	Connector Name BCM (BODY CONTROL
	MODULE)
Connector Color GRAY	GRAY



Signal Name	1	-	TRUNK ANT 1 B	TRUNK ANT 1 A	_	-	BACK DOOR ANT B
Color of Wire	I	1	В	>	ı	ı	Γ/0
Terminal No. Wire	112	113	114	115	116	117	118

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Fail Safe

Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC

Display contents of CONSULT	Fail-safe	Cancellation
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI-SCANNING	Inhibit engine cranking	Erase DTC
B2557: VEHICLE SPEED	Inhibit electronic steering column lock	When normal vehicle speed signals have been received from ABS actuator and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent  • Starter control relay signal  • Starter relay status signal
B2562: LO VOLTAGE	Inhibit engine cranking     Inhibit electronic steering column lock	100 ms after the power supply voltage increases to more than 8.8 V
B2601: SHIFT POSITION	Inhibit electronic steering column lock	<ul> <li>500 ms after the following signal reception status becomes consistent</li> <li>Selector lever P position switch signal</li> <li>P range signal (CAN)</li> </ul>
B2602: SHIFT POSITION	Inhibit electronic steering column lock	<ul> <li>5 seconds after the following BCM recognition conditions are fulfilled</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P position switch signal: Except P position (battery voltage)</li> <li>Vehicle speed: 4 km/h or more</li> </ul>
B2603: SHIFT POSI STATUS	Inhibit electronic steering column lock	500 ms after the following BCM recognition conditions are fulfilled  Ignition switch is in the ON position  Selector lever P position switch signal: Except P position (battery voltage)  Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit electronic steering column lock	<ul> <li>500 ms after any of the following BCM recognition conditions is fulfilled</li> <li>Status 1</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: P and N position (battery voltage)</li> <li>P range signal or N range signal (CAN): ON</li> <li>Status 2</li> <li>Ignition switch is in the ON position</li> <li>Selector lever P/N position signal: Except P and N positions (0 V)</li> <li>P range signal and N range signal (CAN): OFF</li> </ul>
B2605: PNP SW	Inhibit electronic steering column lock	500 ms after any of the following BCM recognition conditions is fulfilled  • Ignition switch is in the ON position  - Power position: IGN  - Selector lever P/N position signal: Except P and N positions (0 V)  - Interlock/PNP switch signal (CAN): OFF  • Status 2  - Ignition switch is in the ON position  - Selector lever P/N position signal: P or N position (battery voltage)  - PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent  • Electronic steering column lock relay signal (Request signal)  • Electronic steering column lock relay signal (Condition signal)
B2607: S/L RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status has become consistent  • Electronic steering column lock relay signal (Request signal)  • Electronic steering column lock relay signal (Condition signal)

## < ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
B2608: STARTER RELAY	Inhibit engine cranking	500 ms after the following signal communication status becomes consistent  • Starter motor relay control signal  • Starter relay status signal (CAN)
B2609: S/L STATUS	Inhibit engine cranking     Inhibit electronic steering column lock	When the following electronic steering column lock conditions agree  BCM electronic steering column lock control status  Electronic steering column lock condition No. 1 signal status  Electronic steering column lock condition No. 2 signal status
B260A: IGNITION RELAY	Inhibit engine cranking	<ul> <li>500 ms after the following conditions are fulfilled</li> <li>IGN relay (IPDM E/R) control signal: OFF (Battery voltage)</li> <li>Ignition ON signal (CAN to IPDM E/R): OFF (Request signal)</li> <li>Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal)</li> </ul>
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions is fulfilled  • Power position changes to ACC  • Receives engine status signal (CAN)
B2612: S/L STATUS	Inhibit engine cranking     Inhibit electronic steering column lock	When any of the following conditions is fulfilled  Electronic steering column lock unit status signal (CAN) is received normally  The BCM electronic steering column lock control status matches the electronic steering column lock status recognized by the electronic steering column lock unit status signal (CAN from IPDM E/R)
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM becomes normal
B2619: BCM	Inhibit engine cranking	1 second after the electronic steering column lock unit power sup- ply output control inside BCM becomes normal
B26E1: ENG STATE NO RECIV	Inhibit engine cranking	When any of the following conditions are fulfilled Power position changes to ACC Receives engine status signal (CAN)

# DTC Inspection Priority Chart

INFOID:0000000004351841

If some DTCs are displayed at the same time, perform inspections one by one based on the following priority chart.

Priority	DTC
1	B2562: LO VOLTAGE
2	U1000: CAN COMM CIRCUIT U1010: CONTROL UNIT (CAN)
3	B2190: NATS ANTENNA AMP     B2191: DIFFERENCE OF KEY     B2192: ID DISCORD BCM-ECM     B2193: CHAIN OF BCM-ECM

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# < ECU DIAGNOSIS >

Priority	DTC
4	B2013: ID DISCORD BCM-S/L     B2014: CHAIN OF S/L-BCM     B2553: IGNITION RELAY     B2555: STOP LAMP     B2556: PUSH-BTN IGN SW     B2557: VEHICLE SPEED     B2560: STARTER CONT RELAY     B2601: SHIFT POSITION     B2602: SHIFT POSITION     B2603: SHIFT POSI STATUS     B2604: PNP SW     B2606: PNP SW     B2606: S/L RELAY     B2607: S/L RELAY     B2608: STARTER RELAY     B2608: STARTER RELAY     B2609: S/L STATUS     B2600: S/L STATUS     B2600: STERING LOCK UNIT     B2600: STEERING LOCK UNIT     B2600: STEERING LOCK UNIT     B2601: STEERING LOCK UNIT     B2601: SNESTEERING LOCK UNIT     B2607: STATUS     B2614: ACC RELAY CIRC     B2614: ACC RELAY CIRC     B2615: BLOWER RELAY CIRC     B2616: IGN RELAY CIRC     B2616: IGN RELAY CIRC     B2616: BCM RELAY CIRC     B2617: STARTER RELAY CIRC     B2618: BCM     B2619: BCM     B2611: ENG STATE NO RECIV     C1729: VHCL SPEED SIG ERR     U0415: VEHICLE SPEED SIG
5	C1704: LOW PRESSURE FL C1705: LOW PRESSURE FR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] FR C1711: [NO DATA] RR C1711: [NO DATA] RL C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] RR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FL C1717: [PRESSDATA ERR] FR C1718: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1719: [CODE ERR] FR C1720: [CODE ERR] FR C1721: [CODE ERR] RR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FR C1725: [BATT VOLT LOW] RR C1727: [BATT VOLT LOW] RR
6	B2621: INSIDE ANTENNA     B2622: INSIDE ANTENNA     B2623: INSIDE ANTENNA

DTC Index

NOTE:

#### < ECU DIAGNOSIS >

Details of time display

- CRNT: Displays when there is a malfunction now or after returning to the normal condition until turning ignition switch OFF → ON again.
- 1 39: Displayed if any previous malfunction is present when current condition is normal. It increases 1 → 2 → 3...38 → 39 after returning to the normal condition whenever ignition switch OFF → ON. The counter remains at 39 even if the number of cycles exceeds it. It is counted from 1 again when turning ignition switch OFF → ON after returning to the normal condition if the malfunction is detected again.

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CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	BCS-37
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-38
U0415: VEHICLE SPEED SIG	_	_	_	BCS-39
B2013: ID DISCORD BCM-S/L	×	_	_	SEC-30
B2014: CHAIN OF S/L-BCM	×	_	_	SEC-31
B2190: NATS ANTENNA AMP	×	_	_	SEC-34
B2191: DIFFERENCE OF KEY	×	_	_	SEC-37
B2192: ID DISCORD BCM-ECM	×	_	_	SEC-38
B2193: CHAIN OF BCM-ECM	×	_	_	SEC-39
B2553: IGNITION RELAY	_	_	_	PCS-54
B2555: STOP LAMP	_	_	_	SEC-40
B2556: PUSH-BTN IGN SW	_	×	_	SEC-42
B2557: VEHICLE SPEED	×	×	_	SEC-44
B2560: STARTER CONT RELAY	×	×	_	SEC-45
B2562: LOW VOLTAGE	_	_	_	BCS-40
B2601: SHIFT POSITION	×	×		SEC-46
B2602: SHIFT POSITION	×	×	_	SEC-49
B2603: SHIFT POSI STATUS	×	×	_	SEC-51
B2604: PNP SW	×	×	_	<u>SEC-54</u>
B2605: PNP SW	×	×		<u>SEC-56</u>
B2606: S/L RELAY	×	×		SEC-58
B2607: S/L RELAY	×	×	_	SEC-59
B2608: STARTER RELAY	×	×	_	SEC-61
B2609: S/L STATUS	×	×		SEC-63
B260A: IGNITION RELAY	×	×	_	PCS-56
B260B: STEERING LOCK UNIT	_	×	_	SEC-67
B260C: STEERING LOCK UNIT	_	×	_	SEC-68
B260D: STEERING LOCK UNIT	_	×	_	SEC-69
B260F: ENG STATE SIG LOST	×	×	_	SEC-70
B2612: S/L STATUS	×	×	_	SEC-72
B2614: ACC RELAY CIRC	_	×	_	PCS-58
B2615: BLOWER RELAY CIRC	_	×	_	PCS-61
B2616: IGN RELAY CIRC	_	×	_	PCS-64
B2617: STARTER RELAY CIRC	×	×	_	PCS-64
B2618: BCM	×	×		PCS-67

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
B2619: BCM	×	×	_	SEC-78
B261A: PUSH-BTN IGN SW	_	×	_	SEC-79
B2621: INSIDE ANTENNA	_	_	_	DLK-57
B2622: INSIDE ANTENNA	_	_	_	<u>DLK-60</u>
B2623: INSIDE ANTENNA	_	_	_	<u>DLK-63</u>
B26E1: ENG STATE NO RES	×	×	_	<u>SEC-71</u>
C1704: LOW PRESSURE FL	_	_	×	<u>WT-48</u>
C1705: LOW PRESSURE FR	_	_	×	<u>WT-48</u>
C1706: LOW PRESSURE RR	_	_	×	<u>WT-48</u>
C1707: LOW PRESSURE RL	_	_	×	<u>WT-48</u>
C1708: [NO DATA] FL	_	_	×	<u>WT-13</u>
C1709: [NO DATA] FR	_	_	×	<u>WT-13</u>
C1710: [NO DATA] RR	_	_	×	<u>WT-13</u>
C1711: [NO DATA] RL	_	_	×	<u>WT-13</u>
C1712: [CHECKSUM ERR] FL	_	_	×	<u>WT-15</u>
C1713: [CHECKSUM ERR] FR	_	_	×	<u>WT-15</u>
C1714: [CHECKSUM ERR] RR	_	_	×	<u>WT-15</u>
C1715: [CHECKSUM ERR] RL	_	_	×	<u>WT-15</u>
C1716: [PRESSDATA ERR] FL	_	_	×	<u>WT-17</u>
C1717: [PRESSDATA ERR] FR	_	_	×	<u>WT-17</u>
C1718: [PRESSDATA ERR] RR	_	_	×	<u>WT-17</u>
C1719: [PRESSDATA ERR] RL	_	_	×	<u>WT-17</u>
C1720: [CODE ERR] FL	_	_	×	<u>WT-15</u>
C1721: [CODE ERR] FR	_	_	×	<u>WT-15</u>
C1722: [CODE ERR] RR	_	_	×	<u>WT-15</u>
C1723: [CODE ERR] RL	_	_	×	<u>WT-15</u>
C1724: [BATT VOLT LOW] FL	_	_	×	<u>WT-15</u>
C1725: [BATT VOLT LOW] FR	_	_	×	<u>WT-15</u>
C1726: [BATT VOLT LOW] RR	_	_	×	<u>WT-15</u>
C1727: [BATT VOLT LOW] RL	_	_	×	<u>WT-15</u>
C1729: VHCL SPEED SIG ERR	_	_	×	<u>WT-18</u>
C1734: CONTROL UNIT	_	_	×	<u>WT-19</u>

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

< SYMPTOM DIAGNOSIS >

# SYMPTOM DIAGNOSIS

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

Description INFOID:000000003899595

- 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**

# 1. CHECK PARKING BRAKE WARNING LAMP

- 1. Start the engine.
- 2. Check the operation of the brake warning lamp by operating the parking brake.

Parking brake ON : ON Parking brake OFF : OFF

#### Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-144, "Removal and Installation".

NO >> GO TO 2

# 2. CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

Perform inspection of the parking brake switch signal circuit. Refer to MWI-43, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

## 3. CHECK PARKING BRAKE SWITCH UNIT

Perform a unit inspection for the parking brake switch. Refer to MWI-43, "Component Inspection".

#### Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-144, "Removal and Installation".

NO >> Replace the parking brake switch.

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#### THE LIGHT REMINDER WARNING DOES NOT SOUND

#### < SYMPTOM DIAGNOSIS >

## THE LIGHT REMINDER WARNING DOES NOT SOUND

**Description** 

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

## Diagnosis Procedure

INFOID:0000000003899598

# 1. CHECK COMBINATION SWITCH (LIGHT SWITCH) OPERATION

Check that the headlamps operate normally by operating the combination switch (light switch).

#### Do they operate normally?

YES >> GO TO 2

NO >> Refer to EXL-6, "Work Flow".

# 2. CHECK DOOR SWITCH LH SIGNAL CIRCUIT

Perform inspection of the door switch LH signal circuit. Refer to WCS-19, "Diagnosis Procedure".

#### Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

# 3. CHECK DOOR SWITCH LH

Perform a unit inspection for the door switch LH. Refer to <u>WCS-19</u>, <u>"Component Function Check"</u>. <u>Is the inspection result normal?</u>

YES >> Replace the BCM. Refer to BCS-87, "Removal and Installation".

NO >> Replace the front door switch LH.

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

< SYMPTOM DIAGNOSIS >

#### THE SEAT BELT WARNING CONTINUES SOUNDING, OR DOES NOT SOUND Description INFOID:0000000003899599 В Seat belt warning does not sound even though driver seat belt is not fastened. • Seat belt warning sounds even though driver seat belt is fastened. Diagnosis Procedure INFOID:0000000003899600 1. CHECK WARNING CHIME OPERATION D With the driver door open, turn lighting switch to 1st or 2nd position. Does warning chime sound? YES >> GO TO 2 Е >> Replace combination meter. Refer to MWI-144, "Removal and Installation". NO 2. CHECK SEAT BELT WARNING LAMP Turn ignition switch ON. 2. Check the operation of the seat belt warning lamp in the combination meter. Seat belt fastened : OFF Seat belt not fastened : ON Is the inspection result normal? Н >> Replace BCM. Refer to BCS-87, "Removal and Installation". YES NO >> GO TO 3 3. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT Perform inspection of the seat belt buckle switch circuit. Refer to WCS-20, "Diagnosis Procedure". Is the inspection result normal? YES >> GO TO 4 NO >> Repair or replace harness. f 4. CHECK SEAT BELT BUCKLE SWITCH UNIT Perform a unit inspection for the seat belt buckle switch. Refer to WCS-21, "Component Inspection". Is the inspection result normal? YES >> Replace the combination meter. Refer to MWI-144, "Removal and Installation". L >> Replace the seat belt buckle switch LH. NO M

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#### **PRECAUTIONS**

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# **PRECAUTION**

# **PRECAUTIONS**

Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSION-ER"

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 SR and SB sections 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.