

SECTION **WCS**
WARNING CHIME SYSTEM

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

BASIC INSPECTION

DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

INFOID:000000000953318

DETAILED FLOW

1.OBTAIN INFORMATION ABOUT SYMPTOM

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

>> GO TO 2.

2.CHECK SYMPTOM

- Check the symptom based on the information obtained from the customer.
- Check if any other malfunctions are present.

>> GO TO 3.

3.CHECK CONSULT-III SELF-DIAGNOSIS RESULTS

Connect CONSULT-III and perform self-diagnosis. Refer to [MWI-23, "CONSULT-III Function \(METER/M&A\)"](#).

Are self-diagnosis results normal?

YES >> GO TO 4.

NO >> Repair or replace the malfunctioning parts and 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.

Does it operate normally?

YES >> INSPECTION END

NO >> GO TO 1.

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WARNING CHIME SYSTEM

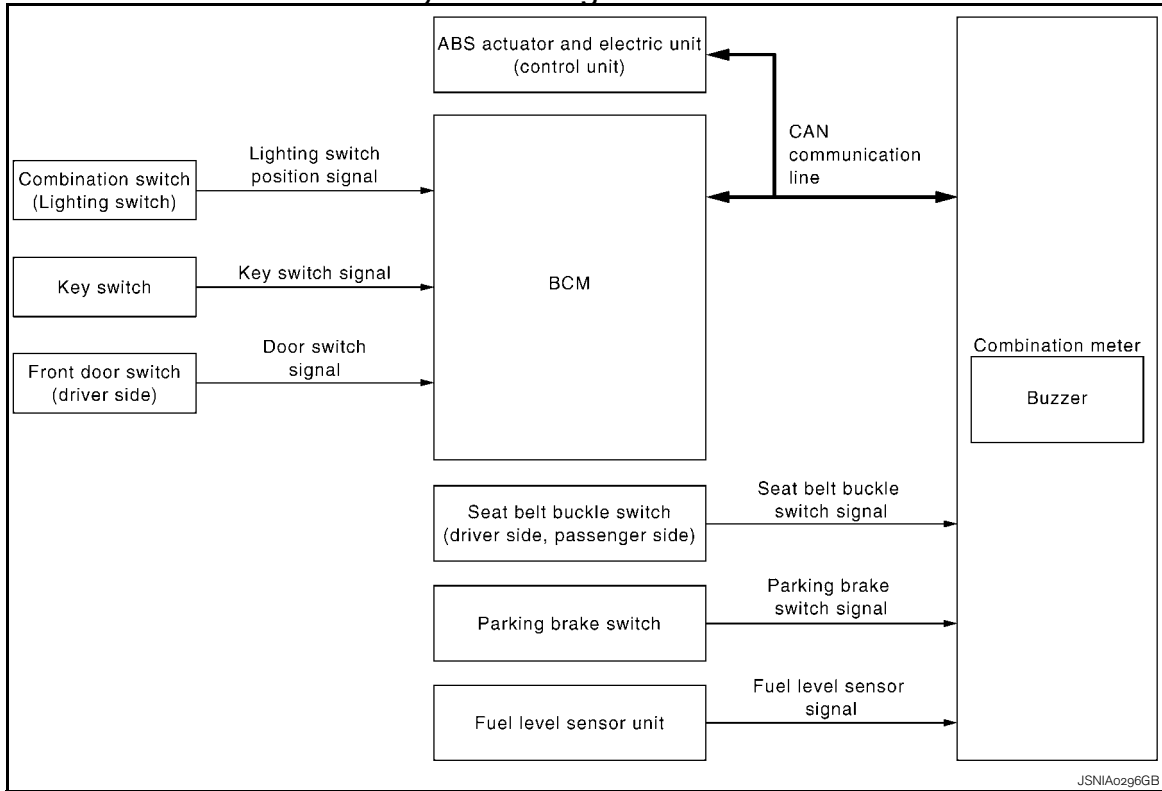
< FUNCTION DIAGNOSIS >

FUNCTION DIAGNOSIS

WARNING CHIME SYSTEM

WARNING CHIME SYSTEM

WARNING CHIME SYSTEM : System Diagram

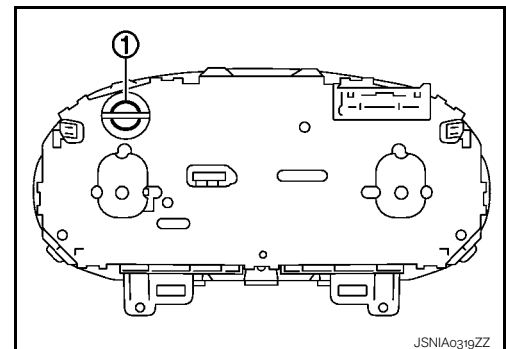


WARNING CHIME SYSTEM : System Description

INFOID:0000000000892393

COMBINATION METER

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



BCM

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

BCM warning function list

Warning functions	Signal name
Light reminder warning chime	• Ignition signal • Lighting switch position signal • Front door switch signal (driver side)
Key warning chime	• Ignition signal • Key switch signal • Front door switch signal (driver side)

WARNING CHIME SYSTEM

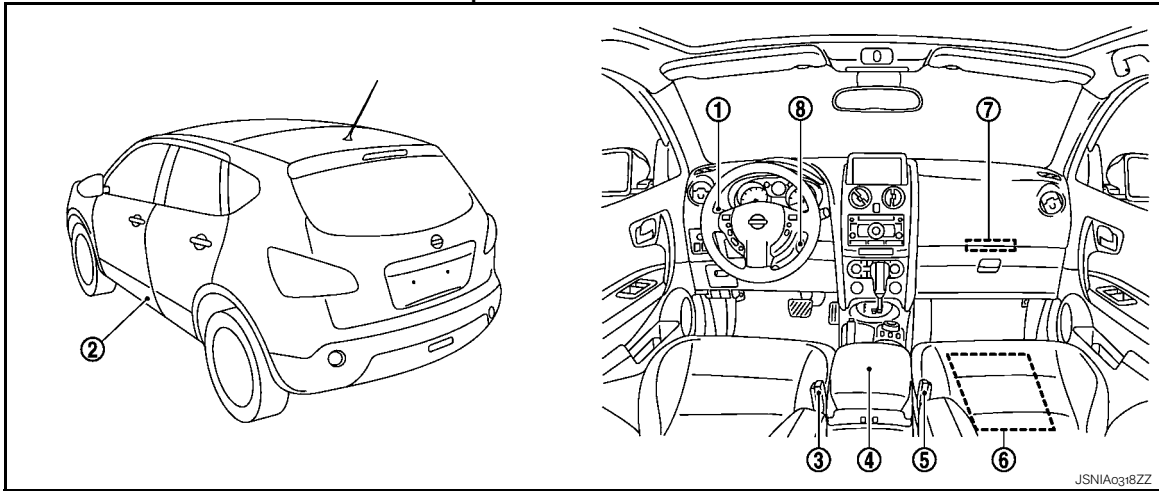
< FUNCTION DIAGNOSIS >

NOTE:

- Seat belt reminder warning, parking brake release warning and low fuel warning are judged by combination meter.
- Intelligent key warning is judged by intelligent key unit.

WARNING CHIME SYSTEM : Component Parts Location

INFOID:000000000892394



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|---|---|--|
| 1. Combination switch (Lighting switch) | 2. Front door switch (driver side) | 3. Front seat belt buckle switch (driver side) |
| 4. Parking brake switch | 5. Front seat belt buckle switch (passenger side) | 6. Occupant detection unit |
| 7. BCM | 8. Key switch | |

WARNING CHIME SYSTEM : Component Description

INFOID:000000000892395

Unit	Description
Combination meter	• Receives the buzzer output signal from BCM with the CAN communication line and sounds the buzzer. • Judges the remaining parking brake according to the vehicle speed signal received from the ABS actuator and electric unit (control unit) via CAN communication and the parking brake switch signal from parking brake switch to sound the warning buzzer.
BCM	Transmits signals received from each unit to the combination meter with the CAN communication line.
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to combination meter with the CAN communication line.
Front seat belt buckle switch (Driver side, passenger side)	Transmits the seat belt buckle switch signal to the combination meter.
Combination switch (Lighting switch)	Transmits the lighting switch signal to BCM.
Front door switch	Transmits the door switch signal to BCM.
Key switch	Transmits the ignition switch signal to BCM.
Fuel level sensor unit	Refer to MWI-30, "2WD : Description" (2WD) or MWI-31, "4WD : Description" (4WD).
Parking brake switch	Refer to WCS-23, "Description" .

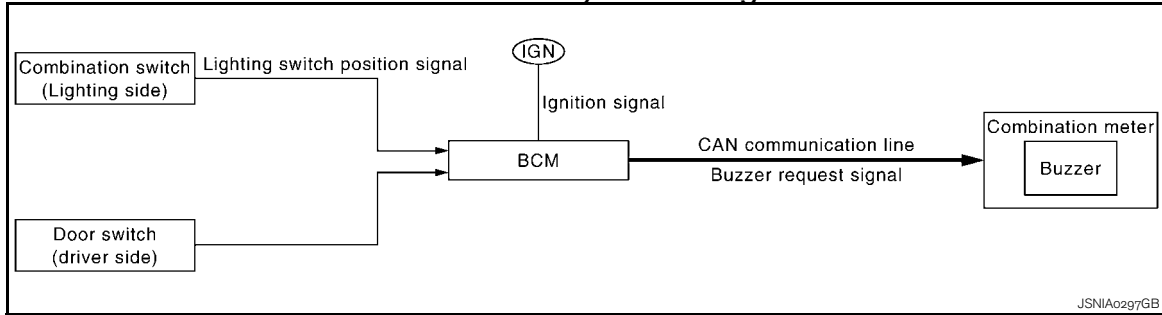
LIGHT REMINDER WARNING CHIME

WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

LIGHT REMINDER WARNING CHIME : System Diagram

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LIGHT REMINDER WARNING CHIME : System Description

INFOID:000000000892397

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, front door switch (driver side) 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
- Front door switch (driver side) is ON

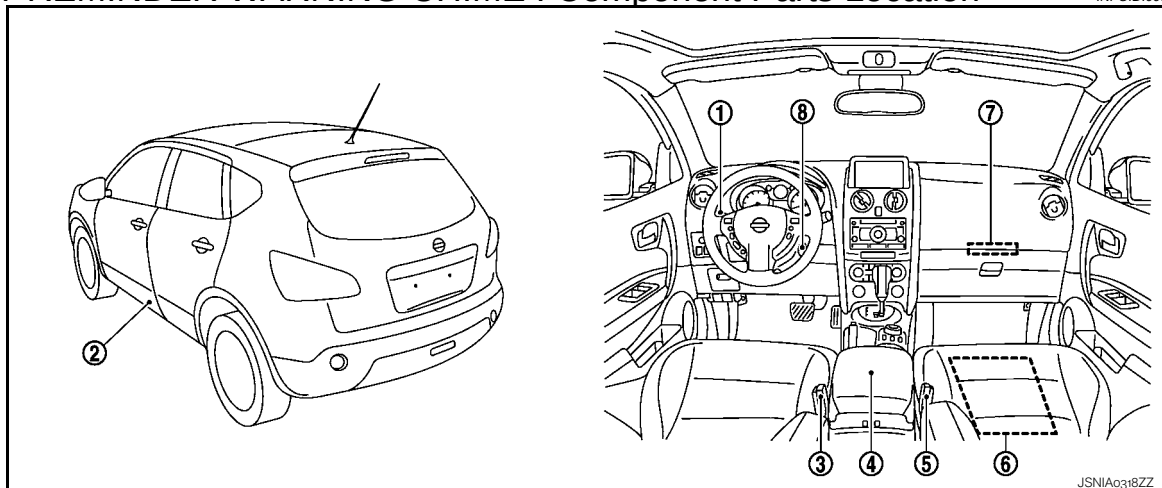
WARNING CANCEL CONDITIONS

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

- Lighting switch OFF
- Ignition switch ON
- Front door switch (driver side) is OFF

LIGHT REMINDER WARNING CHIME : Component Parts Location

INFOID:000000000936032



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|---|---|--|
| 1. Combination switch (Lighting switch) | 2. Front door switch (driver side) | 3. Front seat belt buckle switch (driver side) |
| 4. Parking brake switch | 5. Front seat belt buckle switch (passenger side) | 6. Occupant detection unit |
| 7. BCM | 8. Key switch | |

LIGHT REMINDER WARNING CHIME : Component Description

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WARNING CHIME SYSTEM

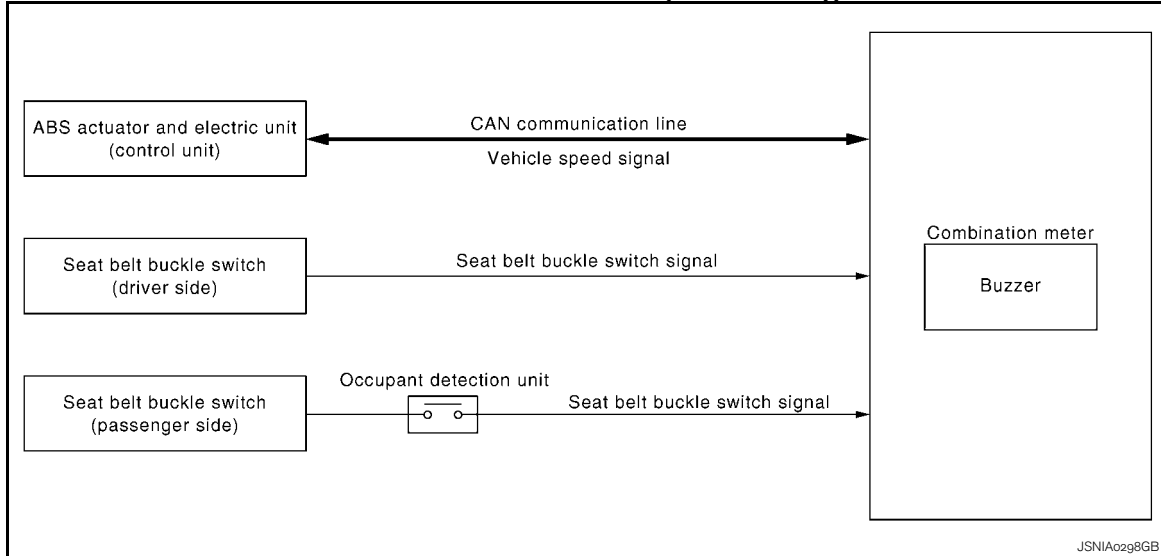
< FUNCTION DIAGNOSIS >

Unit	Description
Combination meter	Receives a buzzer output signal from the BCM 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.
Front door switch (driver side)	Transmits the door switch signal to BCM.

SEAT BELT REMINDER WARNING CHIME

SEAT BELT REMINDER WARNING CHIME : System Diagram

INFOID:000000000892400



SEAT BELT REMINDER WARNING CHIME : System Description

INFOID:000000000892401

DESCRIPTION

- Combination meter receives the vehicle speed signals from ECM with CAN communication line.
- Combination meter receives the seat belt buckle switch signals from seat belt buckle switches (driver side and passenger side).
- Combination meter judges seat belt reminder based on the received signals to sound the warning buzzer.

WARNING OPERATION CONDITIONS

Driver Side Warning Operation Conditions

If all of the following conditions are fulfilled.

- When driver seat belt is not fastened (driver seat belt buckle switch ON)
- Vehicle speed approximately 15 km/h (9.3 MPH) or more

Passenger Side Operation Conditions

If all of the following conditions are fulfilled.

- When getting in the passenger seat
- When passenger seat belt is not fastened (passenger seat belt buckle switch ON)
- Vehicle speed approximately 15 km/h (9.3 MPH) or more

WARNING CANCEL CONDITIONS

Driver Side Warning Cancel Conditions

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

- When driver seat belt is fastened (driver seat belt buckle switch OFF)
- Vehicle speed approximately 15 km/h (9.3 MPH) or less

Passenger Side Warning Cancel Conditions

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WARNING CHIME SYSTEM

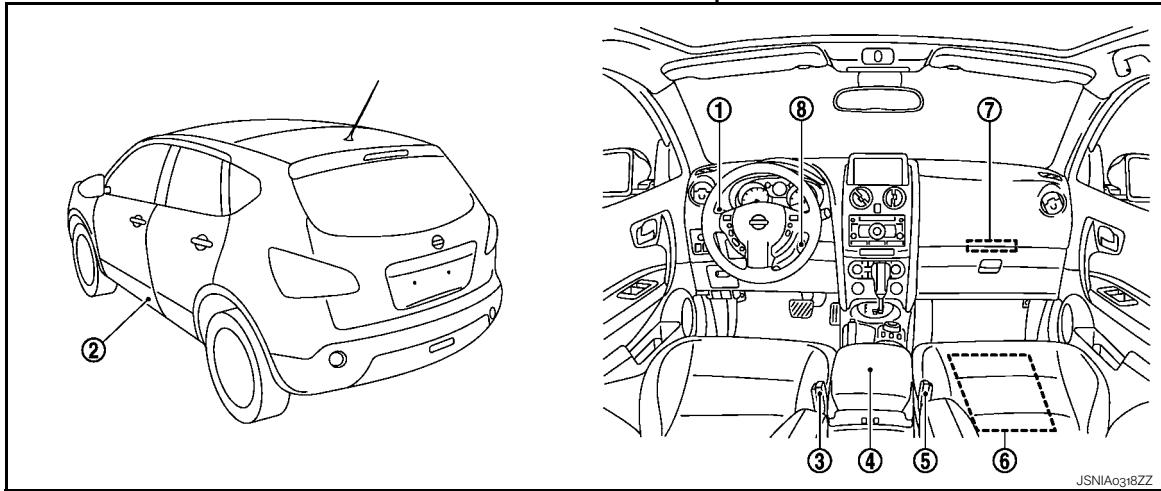
< FUNCTION DIAGNOSIS >

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

- When getting out the passenger seat
- When passenger seat belt is fastened (passenger seat belt buckle switch OFF)
- Vehicle speed approximately 15 km/h (9.3 MPH) or less

SEAT BELT REMINDER WARNING CHIME : Component Parts Location

INFOID:000000000936033



- | | | |
|---|---|--|
| 1. Combination switch (Lighting switch) | 2. Front door switch (driver side) | 3. Front seat belt buckle switch (driver side) |
| 4. Parking brake switch | 5. Front seat belt buckle switch (passenger side) | 6. Occupant detection unit |
| 7. BCM | 8. Key switch | |

SEAT BELT REMINDER WARNING CHIME : Component Description

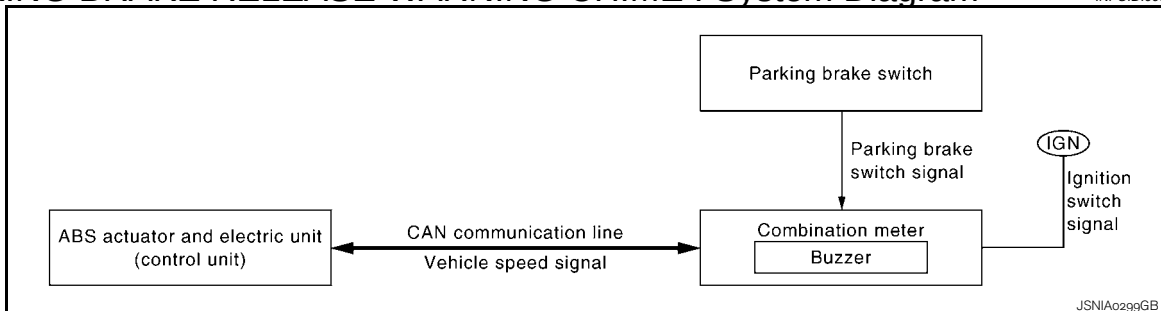
INFOID:000000000892403

Unit	Description
Combination meter	Judges the seat belt reminder warning according to the vehicle speed signal received from the ABS actuator and electric unit (control unit) via CAN communication and the seat belt buckle switch signal from seat belt buckle switch and sounds the warning buzzer.
Front seat belt buckle switch (driver side)	Transmits the seat belt buckle switch signal to the combination meter.
Front seat belt buckle switch (passenger side)	Transmits the seat belt buckle switch signal to the combination meter via the occupant detection unit.
Occupant detection unit	Detects getting in/out conditions of passenger seat.

PARKING BRAKE RELEASE WARNING CHIME

PARKING BRAKE RELEASE WARNING CHIME : System Diagram

INFOID:000000000892404



PARKING BRAKE RELEASE WARNING CHIME : System Description

INFOID:000000000892405

DESCRIPTION

WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

Parking brake release warning chime judges the remaining parking brake according to the vehicle speed signal received from the ABS actuator and electric unit (control unit) via CAN communication and the parking brake switch signal from parking brake switch to sound the warning buzzer.

WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled.

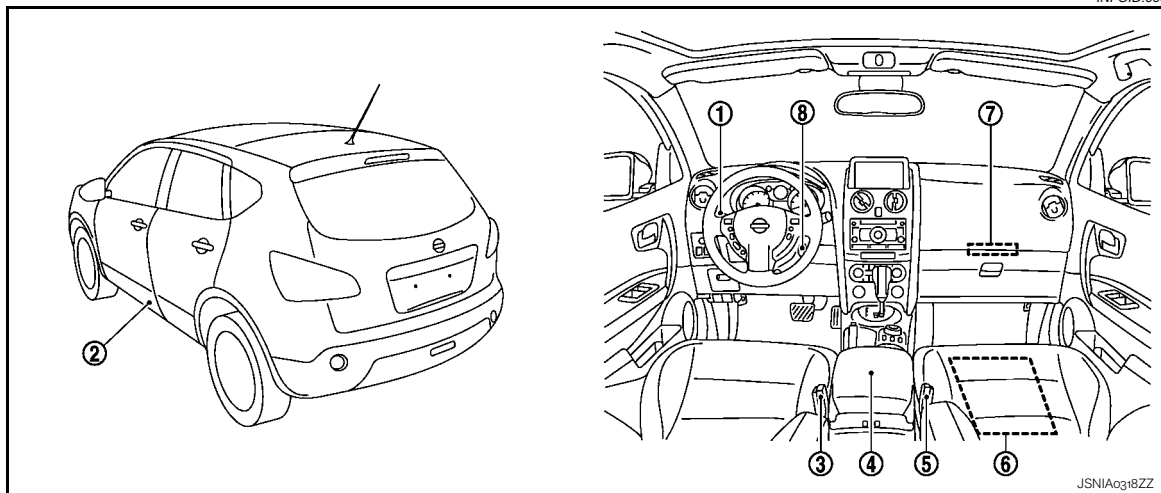
- Vehicle speed is 7 km/h (4.3 MPH) or higher
- Parking brake switch ON

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. Combination switch (Lighting switch) | 2. Front door switch (driver side) | 3. Front seat belt buckle switch (driver side) |
| 4. Parking brake switch | 5. Front seat belt buckle switch (passenger side) | 6. Occupant detection unit |
| 7. BCM | 8. Key switch | |

PARKING BRAKE RELEASE WARNING CHIME : Component Description

Unit	Description
Combination meter	Judges the remaining parking brake according to the vehicle speed signal received from the ABS actuator and electric unit (control unit) via CAN communication and the parking brake switch signal from parking brake switch and sounds the warning buzzer.
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to the combination meter via CAN communication.
Parking brake switch	Transmits the parking brake switch signal to the combination meter.

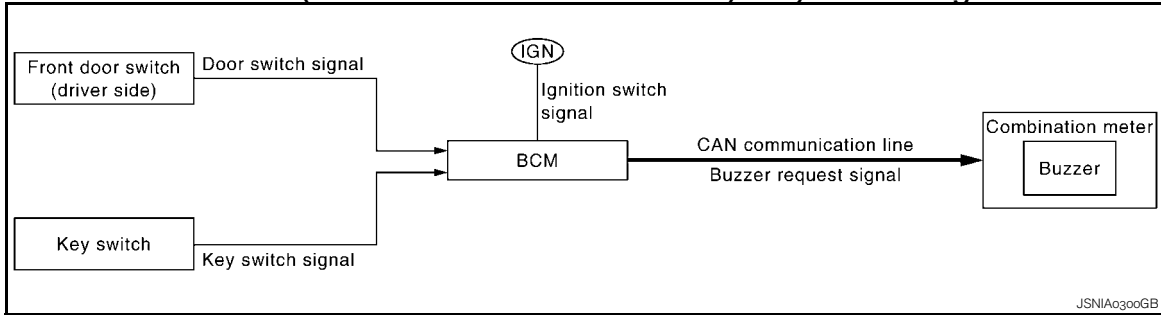
KEY WARNING CHIME (WITH INTELLIGENT KEY)

WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

KEY WARNING CHIME (WITH INTELLIGENT KEY) : System Diagram

INFOID:000000000892408



KEY WARNING CHIME (WITH INTELLIGENT KEY) : System Description

INFOID:000000000892409

DESCRIPTION

- BCM judges “key warning” according to the input of ignition switch, key switch and door switch (driver side) signals and transmits the buzzer output signal via CAN communication.
- The combination meter receives the buzzer output signal from BCM and sounds the warning buzzer.

WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled.

- Other than ignition switch ON
- Key switch ON
- Door switch (driver side) ON

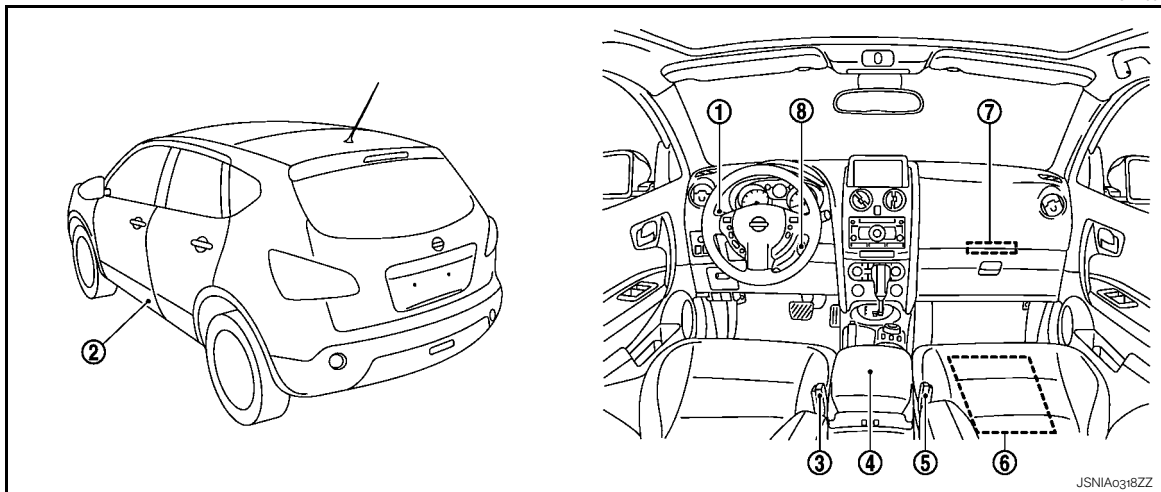
WARNING CANCEL CONDITIONS

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

- Ignition switch ON
- Key switch OFF
- Door switch (driver side) OFF

KEY WARNING CHIME (WITH INTELLIGENT KEY) : Component Parts Location

INFOID:0000000008936035



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|---|---|--|
| 1. Combination switch (Lighting switch) | 2. Front door switch (driver side) | 3. Front seat belt buckle switch (driver side) |
| 4. Parking brake switch | 5. Front seat belt buckle switch (passenger side) | 6. Occupant detection unit |
| 7. BCM | 8. Key switch | |

KEY WARNING CHIME (WITH INTELLIGENT KEY) : Component Description

INFOID:000000000892411

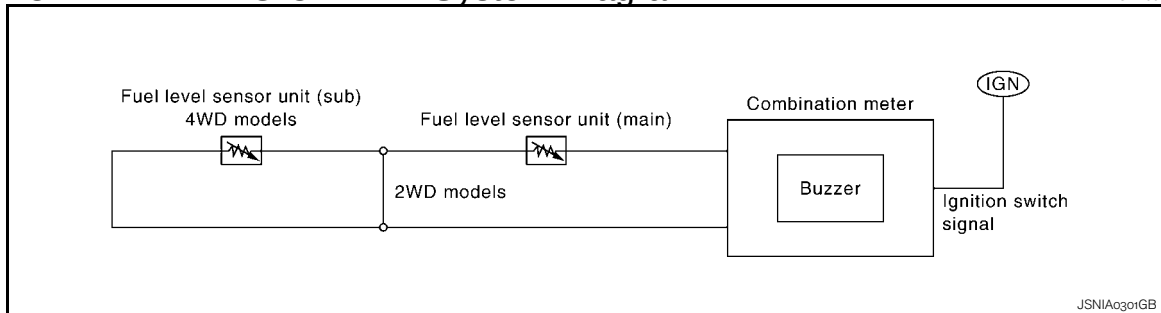
WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

Unit	Description
Combination meter	Sounds the warning buzzer according to the buzzer output signal received from BCM via CAN communication.
BCM	Judges according to the door switch signal from the front door switch (driver side) and the key switch signal from the key switch and transmits the buzzer output signal to the combination meter via CAN communication.
Front door switch (driver side)	Transmits the door switch signal to BCM.
Key switch	Transmits the key switch signal to BCM.

LOW FUEL WARNING CHIME

LOW FUEL WARNING CHIME : System Diagram



LOW FUEL WARNING CHIME : System Description

DESCRIPTION

The combination meter judges the low fuel warning according to the fuel level sensor signal from the fuel level sensor and sounds the warning buzzer.

WARNING OPERATION CONDITIONS

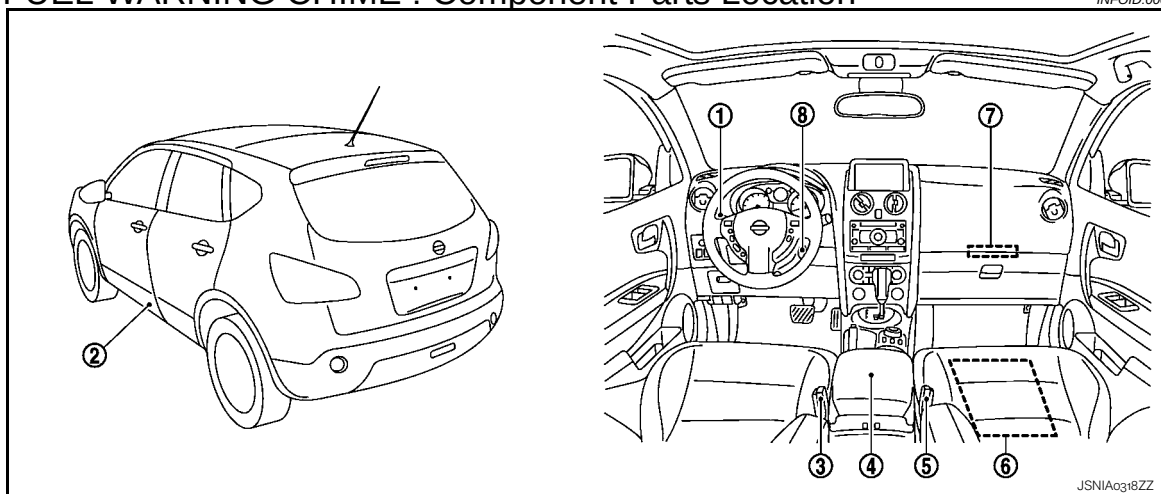
If all of the following conditions are fulfilled.

- Ignition switch ON
- Fuel level: Approximately 12.5 ℓ (3 - 3/10 US gal, 2 - 4/5 Imp gal) or less

NOTE:

The low fuel warning does not operate until refueling the fuel and fulfilling the above operation conditions again if it operates once.

LOW FUEL WARNING CHIME : Component Parts Location



1. Combination switch (Lighting switch)
2. Front door switch (driver side)
3. Front seat belt buckle switch (driver side)

WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

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|-------------------------|---|----------------------------|
| 4. Parking brake switch | 5. Front seat belt buckle switch (passenger side) | 6. Occupant detection unit |
| 7. BCM | 8. Key switch | |

LOW FUEL WARNING CHIME : Component Description

INFOID:000000000909716

Unit	Description
Combination meter	Judges according to the fuel level sensor signal received from the fuel level sensor and sounds the warning buzzer.
Fuel level sensor	Refer to MWI-30, "2WD : Description" (2WD) or MWI-31, "4WD : Description" (4WD).

DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (METER)

CONSULT-III Function (METER/M&A)

INFOID:000000000911519

CONSULT-III FUNCTION (METER/M&A)

System	Diagnosis mode	Description
METER/M&A	Self Diagnostic Result	Combination meter checks the conditions and displays memorized error.
	Data Monitor	Displays combination meter input/output data in real time.

SELF DIAG RESULT

Refer to [MWI-51. "DTC Index"](#).

DATA MONITOR

Display Item List

X: Applicable

Display item [Unit]	MAIN SIGNALS	Description
SPEED METER [km/h]	X	Value of vehicle speed signal received from ABS actuator and electric unit (control unit) with CAN communication line. NOTE: 655.35 is displayed when the malfunction signal is received.
SPEED OUTPUT [km/h]	X	Vehicle speed signal value transmitted to other units with CAN communication line. NOTE: 655.35 is displayed when the malfunction signal is received.
TACHO METER [rpm]	X	Value of the engine speed signal received from ECM with CAN communication line. NOTE: 8191.875 is displayed when the malfunction signal is received.
W TEMP METER [°C]	X	Value of engine coolant temperature signal received from ECM with CAN communication line. NOTE: 215 is displayed when the malfunction signal is input.
FUEL METER [lit.]	X	Fuel level indicated on combination meter.
DISTANCE [km]	X	Value of possible driving distance calculated by combination meter.
FUEL W/L [On/Off]	X	Low-fuel warning status judged by the identified fuel level.
MIL [On/Off]		Status of malfunction indicator lamp judged from malfunctioning indicator lamp signal received from ECM with CAN communication line.
SEAT BELT W/L [On/Off]		Status of front seat belt buckle switch (driver side).
BUZZER [On/Off]	X	Buzzer status (in the combination meter) judged with the buzzer output signal received from BCM via CAN communication and the warning output condition of the combination meter.
C -ENG2 W/L [On/Off]		Status of malfunction indicator lamp 2 judged from malfunctioning indicator lamp signal received from ECM with CAN communication line.
GLOW IND [On/Off]		Glow indicator lamp status judged from glow indicator lamp signal received from ECM with the CAN communication line.
DOOR W/L [On/Off]		Status of door warning judged from door switch signal received from BCM with CAN communication line.
HI -BEAM IND [On/Off]		Status of high beam indicator lamp judged from high beam request signal received from BCM with CAN communication line.

DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

Display item [Unit]	MAIN SIGNALS	Description
TURN IND [On/Off]		Status of turn indicator lamp judged from turn indicator signal received from BCM with CAN communication line.
FR FOG IND [On/Off]		Status of front fog light indicator lamp judged from front fog light request signal received from BCM with CAN communication line.
RR FOG IND [On/Off]		Status of rear fog light indicator lamp judged from rear fog light request signal received from BCM with CAN communication line.
OIL W/L [On/Off]		Status of oil pressure warning lamp judged from oil pressure switch signal received from IPDM E/R with CAN communication line.
LIGHT IND [On/Off]		Status of light indicator lamp judged from position light request signal received from BCM with CAN communication line.
DPF W/L [On/Off]		DPF warning lamp status judged by the DPF warning lamp signal received from ECM with the CAN communication line.
VDC/TCS IND [On/Off]		Status of VDC indicator lamp judged from VDC OFF indicator lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line.
ABS W/L [On/Off]		Status of ABS warning lamp judged from ABS warning lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line.
SLIP IND [On/Off]		Status of slip indicator lamp judged from slip indicator lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line.
BRAKE W/L [On/Off]		Status of brake warning lamp judged from brake warning lamp signal received from ABS actuator and electric unit (control unit) with CAN communication line. NOTE: Displays "Off" if the brake warning lamp is illuminated when the valve check starts, the parking brake switch is turned ON or the brake fluid level switch is turned ON.
OIL LEVEL IND [LEVEL1, 2, 3, 4, 5/CR NG/On]		Oil level status judged by the oil level sensor signal from the oil level sensor.
KEY G W/L [On/Off]		Status of key warning lamp (G) judged from key warning signal received from BCM with CAN communication line.
KEY R W/L [On/Off]		Status of key warning lamp (R) judged from key warning signal received from BCM with CAN communication line.
KEY KNOB W/L [On/Off]		Key knob switch status received from Intelligent Key unit with the CAN communication line.
M RANGE SW [On/Off]	X	Status of mode select switch (manual).
NM RANGE SW [On/Off]	X	Status of mode select switch (auto).
AT SFT UP SW [On/Off]	X	Status of position select switch (up).
AT SFT DWN SW [On/Off]	X	Status of position select switch (down).

DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

Display item [Unit]	MAIN SIGNALS	Description
P RANGE IND [On/Off]	X	Status of shift position indicator judged from shift position signal and manual mode indicator signal received from TCM with CAN communication line.
R RANGE IND [On/Off]	X	
N RANGE IND [On/Off]	X	
D RANGE IND [On/Off]	X	
4 RANGE IND [On/Off]	X	
3 RANGE IND [On/Off]	X	
2 RANGE IND [On/Off]	X	
AT CHECK W/L [On/Off]		A/T check warning lamp status judged by the A/T CHECK indicator lamp signal received from TCM with the CAN communication line.
CVT IND [On/Off]		CVT indicator lamp status judged from CVT CHECK indicator lamp signal received from TMC with the CAN communication line.
CRUISE IND [On/Off]		Status of CRUISE indicator judged from ASCD CRUISE lamp signal received from ECM with CAN communication line.
SET IND [On/Off]		Status of set indicator judged from ASCD SET indicator signal received from ECM with CAN communication line.
4WD LOCK SW [On/Off]		4WD lock switch status judged by the 4WD signal received from 4WD control unit with the CAN communication line.
4WD LOCK IND [On/Off]		4WD lock indicator status judged by the 4WD signal received from 4WD control unit with the CAN communication line.
4WD W/L [On/Off]		Status of 4WD warning lamp judged from 4WD warning lamp signal received from 4WD control unit with CAN communication line.

NOTE:

Some items are not available according to vehicle specification.

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WCS

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (BCM)

COMMON ITEM

COMMON ITEM : CONSULT-III Function (BCM - COMMON ITEM)

INFOID:000000001102445

APPLICATION ITEM

CONSULT-III performs the following functions via CAN communication with BCM.

Diagnosis mode	Function Description
WORK SUPPORT	Changes the setting for each system function.
SELF-DIAG RESULTS	Displays the diagnosis results judged by BCM. Refer to BCS-61, "DTC Index" .
CAN DIAG SUPPORT MNTR	Monitors the reception status of CAN communication viewed from BCM.
DATA MONITOR	The BCM input/output signals are displayed.
ACTIVE TEST	The signals used to activate each device are forcibly supplied from BCM.
ECU IDENTIFICATION	The BCM part number is displayed.
CONFIGURATION	- Enables to read and save the vehicle specification. - Enables to write the vehicle specification when replacing BCM.

SYSTEM APPLICATION

BCM can perform the following functions for each system.

NOTE:

It can perform the diagnosis modes except the following for all sub system selection items.

System	Sub system selection item	Diagnosis mode		
		WORK SUPPORT	DATA MONITOR	ACTIVE TEST
—	BCM	×		
Door lock	DOOR LOCK	×	×	×
Rear window defogger	REAR DEFOGGER		×	×
Warning chime	BUZZER		×	×
Interior room lamp timer	INT LAMP	×	×	×
Remote keyless entry system	MULTI REMOTE ENT	×	×	×
Exterior lamp	HEAD LAMP	×	×	×
Wiper and washer	WIPER	×	×	×
Turn signal and hazard warning lamps	FLASHER		×	×
Air conditioner	AIR CONDITONER		×	
Intelligent Key system	INTELLIGENT KEY		×	
Combination switch	COMB SW		×	
Immobilizer	IMMU		×	×
Interior room lamp battery saver	BATTERY SAVER	×	×	×
Trunk open	TRUNK		×	
Vehicle security system	THEFT ALM	×	×	×
Signal buffer system	SIGNAL BUFFER		×	×
PTC heater system	PTC HEATER		×	×

BUZZER

BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:000000000892413

CONSULT-III FUNCTION (BCM – BUZZER)

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

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

DATA MONITOR

Display item [Unit]	Description
IGN ON SW [On/Off]	Ignition switch (ON) status judged by ignition power supply input.
KEY ON SW [On/Off]	Key switch status.
DOOR SW -DR [On/Off]	Front door switch (driver side) status judged by BCM.
TAIL LAMP SW [On/Off]	Lighting switch status judged by the lighting switch signal read with combination switch reading function.
BUCKLE SW [On/Off]	Seat belt buckle switch status judged by the seat belt buckle switch signal received from combination meter via CAN communication.
DOOR SW -AS	Front door switch (passenger side) status judged by BCM.
DOOR SW -RR	Rear door switch RH status judged by BCM.
DOOR SW -RL	Rear door switch LH status judged by BCM.
BACK DOOR SW	Back door switch status judged by BCM.
VEHICLE SPEED [km/h]	Vehicle speed signal value received from combination meter via CAN communication.

ACTIVE TEST

Display item	Description
LIGHT WARN ALM	The light reminder warning operation can be checked by operating the relevant function (On/Off).
IGN KEY WARN ALM	The key warning operation can be checked by operating the relevant function (On/Off).
KEY REMINDER WARN	The key reminder warning operation can be checked by operating the relevant function (On/Off).

WCS

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT COMBINATION METER

COMBINATION METER : Diagnosis Procedure

INFOID:000000000936047

1.CHECK FUSE

Check for blown fuses.

Battery power supply	: 8
Ignition signal	: 4

Is the inspection result normal?

YES >> GO TO 2.

NO >> Be sure to eliminate cause of malfunction before installing new fuse.

2.CHECK POWER SUPPLY CIRCUIT

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

Terminal No.	Signal name	Ignition switch position	Value (Approx.)
1	Battery power supply	OFF	Battery voltage
2	Ignition signal	ON	Battery voltage

Is the inspection result normal?

YES >> GO TO 3.

NO >> Check harness between combination meter and fuse.

3.CHECK GROUND CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector.
3. Check continuity between combination meter harness connector terminals 3, 23 and ground.

3, 23 – Ground : Continuity should exist.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:0000000001102067

1.CHECK FUSES AND FUSIBLE LINK

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

Terminal No.	Signal name	Fuses and fusible link No.
41	Battery power supply	9
57		J
38	Ignition power supply	4

Is the fuse fusing?

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

NO >> GO TO 2.

2.CHECK POWER SUPPLY CIRCUIT

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

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

3. Check voltage between BCM harness connector and ground.

Terminals			Ignition switch position		
(+) BCM		(-)			
Connector	Terminal		OFF	ACC	ON
M65	38		Ground	Approx. 0 V	Approx. 0 V
M66	41		Battery voltage	Battery voltage	Battery voltage
M67	57				

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK GROUND CIRCUIT

Check continuity between BCM harness connector and ground.

BCM		Ground	Continuity
Connector	Terminal		Existed
M67	55		Existed

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

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METER BUZZER CIRCUIT

< COMPONENT DIAGNOSIS >

METER BUZZER CIRCUIT

Description

INFOID:000000000892420

- The buzzer for warning chime system is installed in the combination meter.
- The combination meter sounds the alarm buzzer based on the signals transmitted from various units.

Component Function Check

INFOID:000000000892421

1.CHECK OPERATION OF METER BUZZER

1. Select "BUZZER" of "BCM" on CONSULT-III.
2. Perform "LIGHT WARN ALM" of "ACTIVE TEST".

Does meter buzzer beep?

- YES >> INSPECTION END
NO >> GO TO 2.

2.CHECK COMBINATION METER INPUT SIGNAL

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

BUZZER
Under the condition of buzzer input : On
Except above : Off

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-72, "Removal and Installation"](#).
NO >> Replace BCM. Refer to [BCS-64, "Exploded View"](#).

Diagnosis Procedure

INFOID:000000000892422

1.CHECK POWER SUPPLY AND GROUND CIRCUIT OF COMBINATION METER

Check power supply and ground circuit of combination meter. Refer to [WCS-18, "COMBINATION METER : Diagnosis Procedure"](#).

Is the inspection result normal?

- YES >> INSPECTION END
NO >> Repair or replace malfunctioning parts.

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

Description

INFOID:000000000892423

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

Component Function Check

INFOID:000000000892424

1.CHECK COMBINATION METER INPUT SIGNAL

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

BUCKLE SW

When seat belt is fastened
(driver side) : Off

When seat belt is unfastened
(driver side) : On

>> INSPECTION END

Diagnosis Procedure

INFOID:000000000892425

1.CHECK COMBINATION METER INPUT SIGNAL 1

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

35 – Ground

When driver seat belt is fastened : Approx. 5 V

When driver seat belt is unfastened : Approx. 0 V

Is the inspection result normal?

YES >> GO TO 2.

NO >> GO TO 3.

2.CHECK COMBINATION METER INPUT SIGNAL 2

Check voltage between combination meter harness connector terminal 36 and ground.

36 – Ground

- Passenger seat getting in conditions : Approx. 12 V
- When passenger seat belt is fastened

When passenger seat belt is unfastened : Approx. 0 V

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 5.

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

1. Turn ignition switch OFF.
2. Disconnect combination meter connector and front seat belt buckle switch (driver side) connector.
3. Check continuity between combination meter harness connector terminal 35 and front seat belt buckle switch (driver side) harness connector terminal 1.

35 – 1 : Continuity should exist.

4. Check harness continuity between combination meter harness connector terminal 35 and ground.

35 – Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

4.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) GROUND CIRCUIT

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

2 – Ground : Continuity should exist.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

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

1. Turn ignition switch OFF.
2. Disconnect combination meter connector and front seat belt buckle switch (passenger side) connector.
3. Check continuity between combination meter harness connector terminal 36 and front seat belt buckle switch (passenger side) harness connector terminal 1.

36 – 1 : Continuity should exist.

4. Check harness continuity between combination meter harness connector terminal 36 and ground.

36 – Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 6.

NO >> Repair harness or connector.

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

1. Disconnect occupant detection unit connector.
2. Check continuity between front seat belt buckle switch (passenger side) harness connector terminal 2 and occupant detection unit harness connector terminal 1.

2 – 1 : Continuity should exist.

3. Check harness continuity between front seat belt buckle switch (passenger side) harness connector terminal 2 and ground.

2 – Ground : Continuity should not exist.

Is the inspection result normal?

YES >> GO TO 7.

NO >> Repair harness or connector.

7.CHECK SEAT BELT BUCKLE SWITCH (PASSENGER SIDE) GROUND CIRCUIT

Check harness continuity between occupant detection unit harness connector terminal 2 and ground.

2 – Ground : Continuity should exist.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

PARKING BRAKE SWITCH SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

PARKING BRAKE SWITCH SIGNAL CIRCUIT

Description

INFOID:000000000905323

Transmits the parking brake switch signal to the combination meter.

Diagnosis Procedure

INFOID:000000000905324

1.CHECK COMBINATION METER INPUT SIGNAL

1. Turn ignition switch ON.
2. Check voltage between combination meter harness connector terminal 26 and ground.

26 – Ground

Parking brake ON : Approx. 0 V

Parking brake OFF : Approx. 5 V

Is the inspection result normal?

YES >> INSPECTION END

NO >> GO TO 2.

2.CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

1. Turn ignition switch OFF.
2. Disconnect combination meter connector and parking brake switch connector.
3. Check continuity between combination meter harness connector terminal 26 and parking brake switch harness connector terminal 1.

26 – 1 : Continuity should exist.

4. Check continuity between combination meter harness connector terminal 26 and ground.

26 – Ground : Continuity should not exist.

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

Component Inspection

INFOID:000000000905325

Refer to [BRC-47. "Component Inspection"](#).

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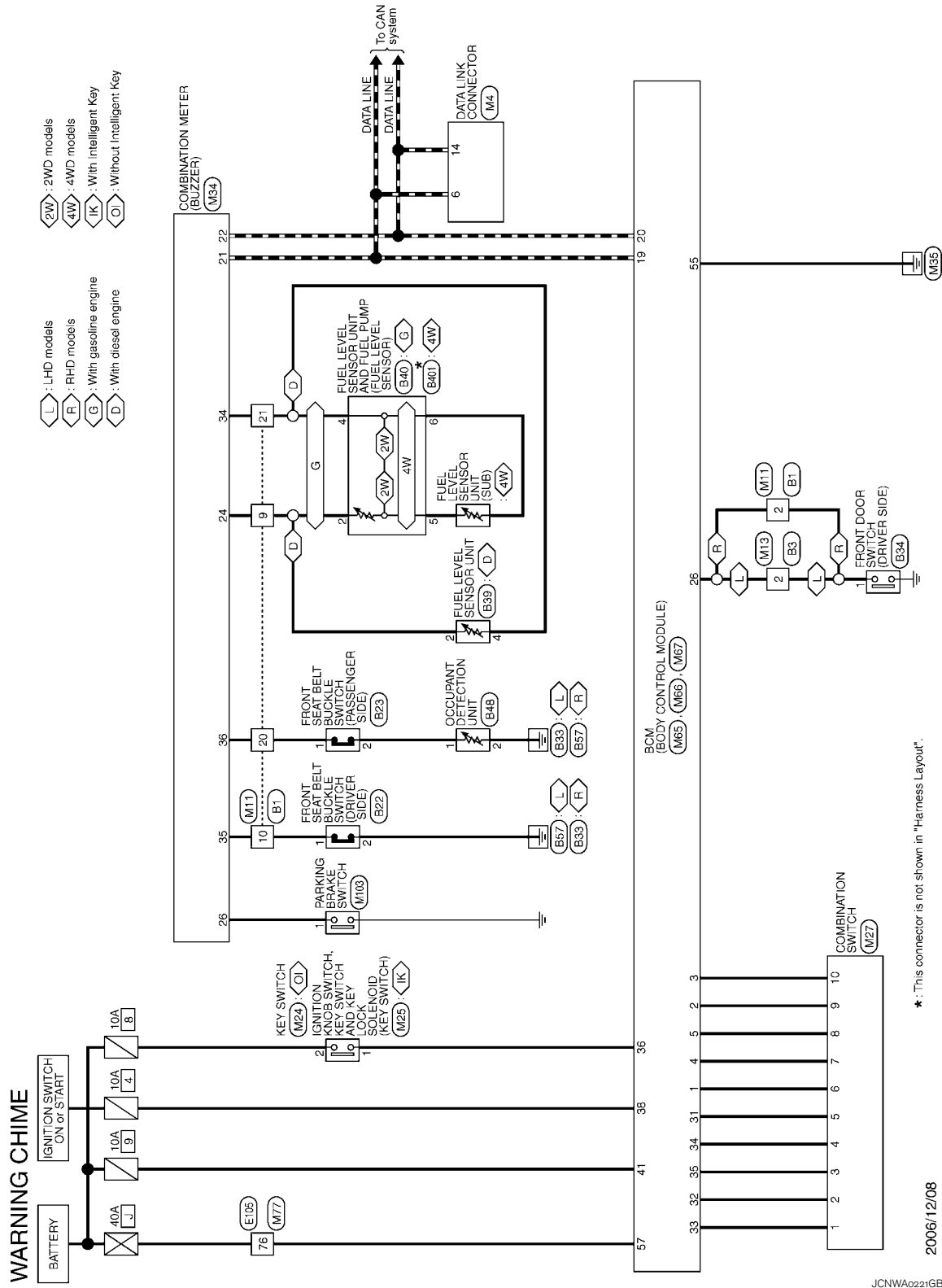
WARNING CHIME SYSTEM

< COMPONENT DIAGNOSIS >

WARNING CHIME SYSTEM

Wiring Diagram - WARNING CHIME -

INFOID:000000001090901



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WARNING CHIME SYSTEM

< COMPONENT DIAGNOSIS >

WARNING CHIME

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH24MW



Terminal No.	Color of Wire	Signal Name [Specification]
2	R/W	-(RHD models)
9	G	-
10	O	-
20	GR	-
21	B	-

Connector No.	B3
Connector Name	WIRE TO WIRE
Connector Type	TH24MW



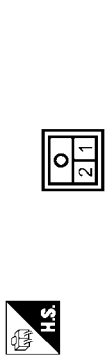
Terminal No.	Color of Wire	Signal Name [Specification]
2	R/W	-(LHD models)

Connector No.	B22
Connector Name	FRONT SEAT BELT BUCKLE SWITCH (DRIVER SIDE)
Connector Type	C02FW



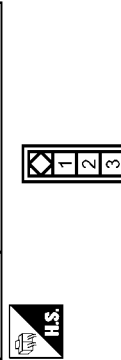
Terminal No.	Color of Wire	Signal Name [Specification]
1	O	-
2	B	-

Connector No.	B23
Connector Name	FRONT SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)
Connector Type	C02FW



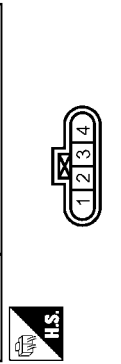
Terminal No.	Color of Wire	Signal Name [Specification]
1	GR	-
2	LG	-

Connector No.	B34
Connector Name	FRONT DOOR SWITCH (DRIVER SIDE)
Connector Type	A03FW



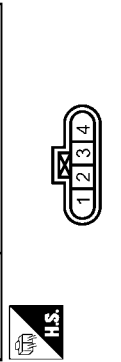
Terminal No.	Color of Wire	Signal Name [Specification]
1	R/W	-

Connector No.	B39
Connector Name	FUEL LEVEL SENSOR UNIT
Connector Type	EMFGY-RS



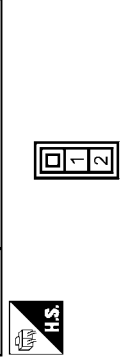
Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
4	B	-

Connector No.	B40
Connector Name	FUEL LEVEL SENSOR UNIT AND FUEL PUMP
Connector Type	EMFGY-RS



Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
4	B	-

Connector No.	B48
Connector Name	OCCUPANT DETECTION UNIT
Connector Type	IS02FW



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

WARNING CHIME SYSTEM

< COMPONENT DIAGNOSIS >

WARNING CHIME

Connector No.	B401
Connector Name	FUEL LEVEL SENSOR UNIT AND FUEL PUMP
Connector Type	-



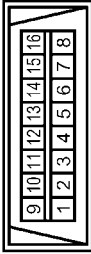
Terminal No.	Color of Wire	Signal Name [Specification]
5	-	-
6	-	-

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH80MW-NS1E-TM4



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

Connector No.	M4
Connector Name	DATA LINK CONNECTOR
Connector Type	BD16FW



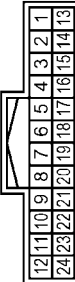
Terminal No.	Color of Wire	Signal Name [Specification]
6	L	-
14	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH24FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	R	- [RHD models]
9	G	-
10	O	-
20	GR	-
21	B	-

Connector No.	M13
Connector Name	WIRE TO WIRE
Connector Type	TH24FW



Terminal No.	Color of Wire	Signal Name [Specification]
2	R	- [LHD models]

Connector No.	M24
Connector Name	KEY SWITCH
Connector Type	A02MW



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

Connector No.	M25
Connector Name	IGNITION KNOB SWITCH KEY SWITCH AND KEY LOCK SOLENOID
Connector Type	TC08MG



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

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT1
2	G	INPUT2
3	L	INPUT3
4	GR	INPUT4
5	BR	INPUT5
6	P	OUTPUT1
7	R	OUTPUT2
8	W	OUTPUT3
9	Y	OUTPUT4
10	LG	OUTPUT3

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WARNING CHIME SYSTEM

< COMPONENT DIAGNOSIS >

WARNING CHIME

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB4QFW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
21	L	CAN-H
22	P	CAN-L
24	G	FUEL LEVEL SENS GND
26	V	PARKING BRAKE SW
34	B	FUEL LEVEL SENS
35	O	SEAT BELT BUCKLE SW (DRIVER SIDE)
36	GR	SEAT BELT BUCKLE SW (PASSENGER SIDE)

Connector No.	M87
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211PC06S0017



60	69	68	67	66	65	64	63
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Terminal No.	Color of Wire	Signal Name [Specification]
35	B	GND (POWER)
57	Y	BAT(+/L)

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAB4QFS



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	COMBI SW OUTPUT 1
2	Y	COMBI SW OUTPUT 4
3	LG	COMBI SW OUTPUT 3
4	R	COMBI SW OUTPUT 2
5	W	COMBI SW OUTPUT 5
19	L	CAN-H
20	P	CAN-L
26	R	DOOR SW (DR)
31	BR	COMBI SW INPUT 5
32	G	COMBI SW INPUT 2
33	V	COMBI SW INPUT 1

Connector No.	M77
Connector Name	WIRE TO WIRE
Connector Type	TH40FW-NS16-TM4



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40

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

34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
36	V	KEY SW
38	W/L	IGN SW



52	51	50	49	48	47	46	45	44	43	42	41
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Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT(FUSE)

Connector No.	M103
Connector Name	PARKING BRAKE SWITCH
Connector Type	P01FB-A



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

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COMBINATION METER

< ECU DIAGNOSIS >

ECU DIAGNOSIS

COMBINATION METER

Reference Value

INFOID:000000000936439

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
SPEED METER [km/h]	Ignition switch ON	While driving	Equivalent to speedometer reading NOTE: 655.35 is displayed when the malfunction signal is received
SPEED OUTPUT [km/h]	Ignition switch ON	While driving	Equivalent to speedometer reading NOTE: 655.35 is displayed when the malfunction signal is received
TACHO METER [rpm]	Ignition switch ON	While driving	Equivalent to tachometer reading NOTE: 8191.875 is displayed when the malfunction signal is received
W TEMP METER [°C]	Ignition switch ON	—	Values according to engine coolant temperature NOTE: 215 is displayed when the malfunction signal is input
FUEL METER [lit]	Ignition switch ON	—	Values according to fuel level
DISTANCE [km]	Ignition switch ON	—	Possible driving distance calculated by combination meter
FUEL W/L	Ignition switch ON	Low-fuel warning lamp ON	On
		Low-fuel warning lamp OFF	Off
MIL	Ignition switch ON	Malfunction indicator lamp ON	On
		Malfunction indicator lamp OFF	Off
SEAT BELT W/L	Ignition switch ON	Seat belt warning lamp ON	On
		Seat belt warning lamp OFF	Off
BUZZER	Ignition switch ON	Buzzer ON	On
		Buzzer OFF	Off
C-ENG 2 W/L	Ignition switch ON	Malfunction indicator lamp 2 ON	On
		Malfunction indicator lamp 2 OFF	Off
GLOW IND	Ignition switch ON	Glow indicator lamp ON	On
		Glow indicator lamp OFF	Off
DOOR W/L	Ignition switch ON	Door warning lamp ON	On
		Door warning lamp OFF	Off
HI-BEAM IND	Ignition switch ON	High-beam indicator lamp ON	On
		High-beam indicator lamp OFF	Off
TURN IND	Ignition switch ON	Turn signal indicator lamp ON	On
		Turn signal indicator lamp OFF	Off
FR FOG IND	Ignition switch ON	Front fog lamp indicator lamp ON	On
		Front fog lamp indicator lamp OFF	Off
RR FOG IND	Ignition switch ON	Rear fog lamp indicator lamp ON	On
		Rear fog lamp indicator lamp OFF	Off

COMBINATION METER

< ECU DIAGNOSIS >

Monitor Item	Condition		Value/Status
OIL W/L	Ignition switch ON	Oil pressure warning lamp ON	On
		Oil pressure warning lamp OFF	Off
LIGHT IND	Ignition switch ON	Tail lamp indicator lamp ON	On
		Tail lamp indicator lamp OFF	Off
DPF W/L	Ignition switch ON	DPF warning lamp ON	On
		DPF warning lamp OFF	Off
VDC/TCS IND	Ignition switch ON	VDC OFF indicator lamp ON	On
		VDC OFF indicator lamp OFF	Off
ABS W/L	Ignition switch ON	ABS warning lamp ON	On
		ABS warning lamp OFF	Off
SLIP IND	Ignition switch ON	SLIP Indicator lamp ON	On
		SLIP indicator lamp OFF	Off
BRAKE W/L	Ignition switch ON	Brake warning lamp ON	On
		Brake warning lamp OFF	Off
OIL LEVEL IND	Ignition switch ON	Oil level 1 is detected	LEVEL1
		Oil level 2 is detected	LEVEL2
		Oil level 3 is detected	LEVEL3
		Oil level 4 is detected	LEVEL4
		Oil level 5 is detected	LEVEL5
		OIL LOW is detected	On
		Oil level is not detected	CR NG
KEY G W/L	Ignition switch ON	KEY warning lamp (green) ON	On
		KEY warning lamp (green) OFF	Off
KEY R W/L	Ignition switch ON	KEY warning lamp (red) ON	On
		KEY warning lamp (red) OFF	Off
KEY KNOB IND	Ignition switch ON	LOCK warning lamp ON	On
		LOCK warning lamp OFF	Off
M RANGE SW	Ignition switch ON	MANUAL MODE	On
		Other than the above	Off
NM RANGE SW	Ignition switch ON	MANUAL MODE	Off
		Other than the above	On
AT SFT UP SW	Ignition switch ON	Selector lever (+) position	On
		Other than the above	Off
AT SFT DWN SW	Ignition switch ON	Selector lever (-) position	On
		Other than the above	Off
P RANGE IND	Ignition switch ON	Selector lever in P position	On
		Other than the above	Off
R RANGE IND	Ignition switch ON	Selector lever in R position	On
		Other than the above	Off
N RANGE IND	Ignition switch ON	Selector lever in N position	On
		Other than the above	Off
D RANGE IND	Ignition switch ON	Selector lever in D position	On
		Other than the above	Off

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COMBINATION METER

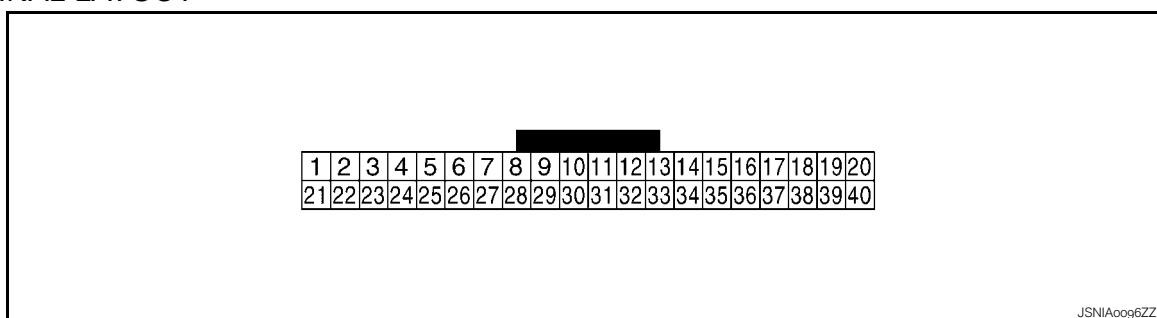
< ECU DIAGNOSIS >

Monitor Item	Condition		Value/Status
4 RANGE IND	Ignition switch ON	Shift indicator 4 is displayed	On
		Other than the above	Off
3 RANGE IND	Ignition switch ON	Shift indicator 3 is displayed	On
		Other than the above	Off
2 RANGE IND	Ignition switch ON	Shift indicator 2 is displayed	On
		Other than the above	Off
AT CHECK-W/L	Ignition switch ON	TCM electronic control system warning lamp ON	On
		TCM electronic control system warning lamp OFF	Off
CVT IND	Ignition switch ON	CVT warning lamp ON	On
		CVT warning lamp OFF	Off
CRUISE IND	Ignition switch ON	Cruise indicator lamp ON	On
		Cruise indicator lamp OFF	Off
SET IND	Ignition switch ON	SET indicator lamp ON	On
		SET indicator lamp OFF	Off
4WD LOCK SW	Ignition switch ON	4WD LOCK switch ON	On
		4WD LOCK switch OFF	Off
4WD LOCK IND	Ignition switch ON	4WD LOCK indicator lamp ON	On
		4WD LOCK indicator lamp OFF	Off
4WD W/L	Ignition switch ON	4WD warning lamp ON	On
		4WD warning lamp OFF	Off

NOTE:

Some items are not available according to vehicle specification.

TERMINAL LAYOUT

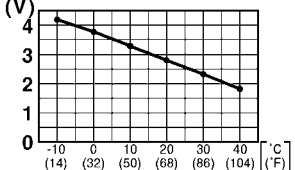
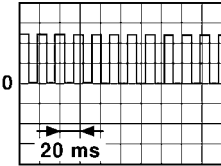


PHYSICAL VALUES

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
1 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	—	Battery voltage
2 (GR)	Ground	IGN signal	Input	Ignition switch ON	—	Battery voltage
3 (B)	Ground	Ground	—	Ignition switch ON	—	0 V

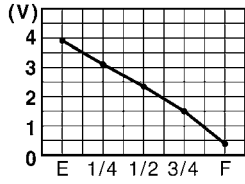
COMBINATION METER

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
11 (B)*1 (R)*2	Ground	Steering switch (trip com- puter) signal	Input	Ignition switch ON	Press the steering switch (trip computer)	0 V
					Other than the above	5 V
15 (W)	Ground	Air bag signal	Input	Ignition switch ON	Air bag warning lamp ON	4 V
					Air bag warning lamp OFF	0 V
19 (V)	Ground	OAT sensor signal	Input	Ignition switch ON	—	 JSNIA0014GB
20 (SB)	Ground	OAT sensor ground	—	Ignition switch ON	—	0 V
21 (L)	—	CAN-H	—	—	—	—
22 (P)	—	CAN-L	—	—	—	—
23 (B)	Ground	Ground	—	Ignition switch ON	—	0 V
24 (G)	Ground	Fuel level sensor signal ground	—	Ignition switch ON	—	0 V
25 (L)	Ground	Alternator signal	Input	Ignition switch ON	Charge warning lamp ON	0 V
					Charge warning lamp OFF	12 V
26 (V)	Ground	Parking brake switch signal	Input	Ignition switch ON	Parking brake ON	0 V
					Parking brake OFF	5 V
27 (BR)	Ground	Brake fluid level switch sig- nal	Input	Ignition switch ON	Brake fluid level is normal	5 V
					Brake fluid level is less than LOW level	0 V
28 (SB)	Ground	Security signal	Input	Ignition switch ON	Security warning lamp ON	0 V
					Security warning lamp OFF	12 V
31 (Y)	Ground	Vehicle speed signal (8 pulse)	Output	Ignition switch ON	Vehicle speed is approxi- mately 40 km/h (24.9 MPH)	NOTE: The maximum voltage varies de- pending on the specification (destination unit).  JSNIA0012GB

COMBINATION METER

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	—	Signal name	Input/ Output			
32 (Y)	Ground	Oil level sensor signal	Input	Ignition switch ON	—	Refer to MWI-34, "Component Inspection" . NOTE: The measurement cannot be performed because the signal is input for a moment with the ignition switch ON.
33 (P)	Ground	Oil level sensor signal ground	—	Ignition switch ON	—	0 V
34 (B)	Ground	Fuel level sensor signal	Input	Ignition switch ON	—	 JSNIA0322GB
35 (O)	Ground	Seat belt buckle switch signal (driver side)	Input	Ignition switch ON	When driver seat belt is fastened	5 V
					When driver seat belt is unfastened	0 V
36 (GR)	Ground	Seat belt buckle switch signal (passenger side)	Input	Ignition switch ON	- When getting in the passenger seat - When passenger seat belt is fastened	12 V
					- When getting in the passenger seat - When passenger seat belt is not fastened	0 V
37 (R/Y)	Ground	Not manual mode signal	Input	Ignition switch ON	Manual mode	12 V
					Other than the above	0 V
38 (LG)	Ground	Manual mode shift down signal	Input	Ignition switch ON	Selector lever down operation	0 V
					Other than the above	12 V
39 (G/W)	Ground	Manual mode shift up signal	Input	Ignition switch ON	Selector lever up operation	0 V
					Other than the above	12 V
40 (L)	Ground	Manual mode signal	Input	Ignition switch ON	Manual mode	0 V
					Other than the above	12 V

*1 : With NAVI

*2 : Without NAVI

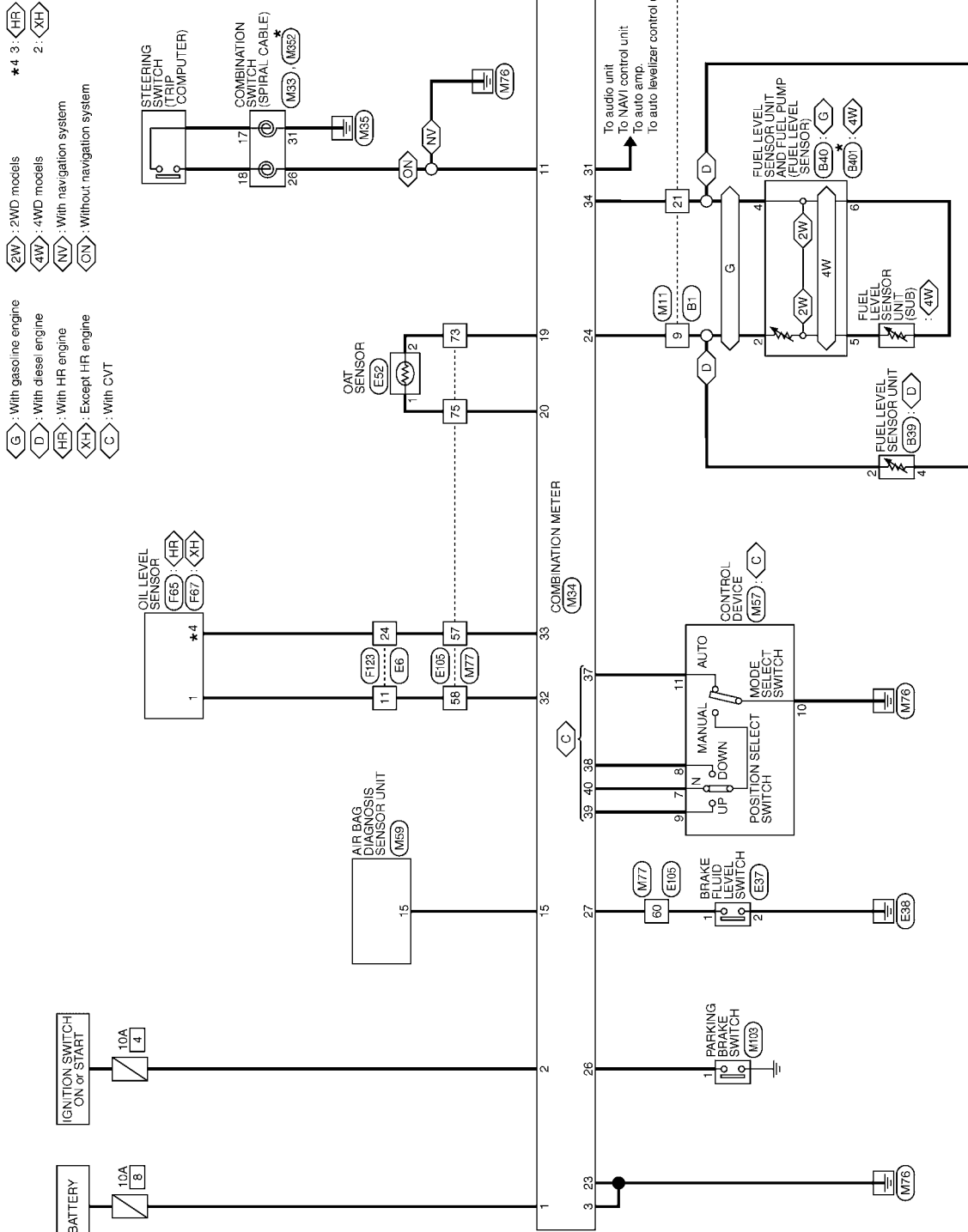
COMBINATION METER

< ECU DIAGNOSIS >

Wiring Diagram - METER -

INFOID:000000000936440

METER



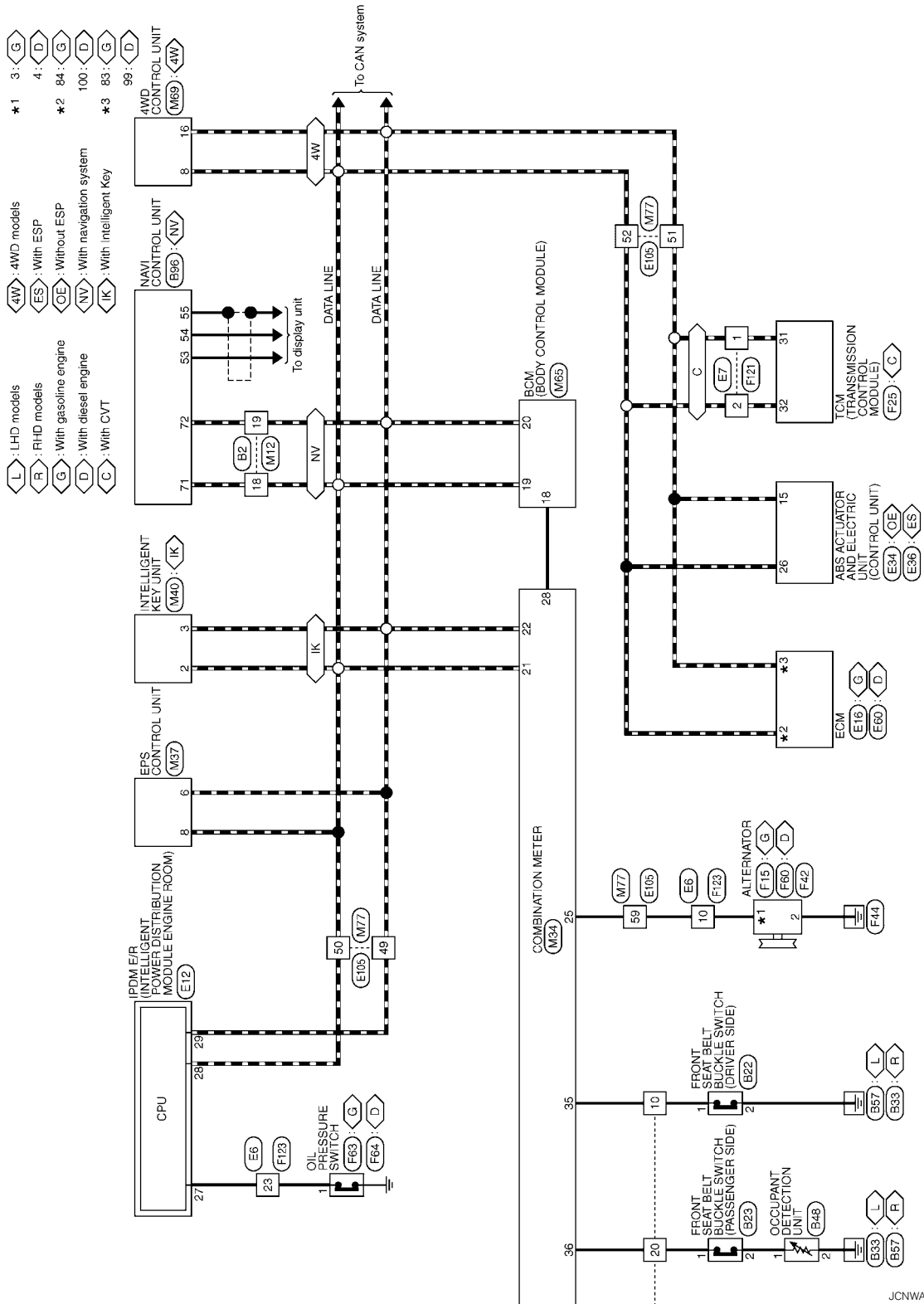
*: This connector is not shown in "Harness Layout".

2006/12/06

JCNWA0213GB

COMBINATION METER

< ECU DIAGNOSIS >



JCNWA0214GB

COMBINATION METER

< ECU DIAGNOSIS >

METER

Connector No.	B1
Connector Name	WIRE TO WIRE
Connector Type	TH24MW



1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name [Specification]
9	G	-
10	O	-
20	GR	-
21	B	-

Connector No.	B2
Connector Name	WIRE TO WIRE
Connector Type	TH24MW



1	2	3	4	5	6	7	8	9	10	11	12
13	14	15	16	17	18	19	20	21	22	23	24

Terminal No.	Color of Wire	Signal Name [Specification]
18	L	-
19	P	-

Connector No.	B22
Connector Name	FRONT SEAT BELT BUCKLE SWITCH (DRIVER SIDE)
Connector Type	C02FW



1	2
---	---

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

Connector No.	B23
Connector Name	FRONT SEAT BELT BUCKLE SWITCH (PASSENGER SIDE)
Connector Type	C02FW



1	2
---	---

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

Connector No.	B39
Connector Name	FUEL LEVEL SENSOR UNIT
Connector Type	EMFGY-RS



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
4	B	-

Connector No.	B40
Connector Name	FUEL LEVEL SENSOR UNIT AND FUEL PUMP
Connector Type	EMFGY-RS



1	2	3	4
---	---	---	---

Terminal No.	Color of Wire	Signal Name [Specification]
2	G	-
4	B	-

Connector No.	B48
Connector Name	OCCUPANT DETECTION UNIT
Connector Type	IS02FW



1	2
---	---

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

Connector No.	B56
Connector Name	NAVI CONTROL UNIT
Connector Type	TH2FW



42	44	46	48	50	52	54	56	58	60	62	64	66	68	70	72
41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71

Terminal No.	Color of Wire	Signal Name [Specification]
53	W	COMM (CONT->DISP)
54	O	COMM (DISP->CONT)
55	SHIELD	SHIELD
71	L	CAN-H
72	P	CAN-L

COMBINATION METER

< ECU DIAGNOSIS >

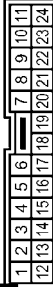
METER

Connector No.	B401
Connector Name	FUEL LEVEL SENSOR UNIT AND FUEL PUMP
Connector Type	-



Terminal No.	Color of Wire	Signal Name [Specification]
5	-	-
6	-	-

Connector No.	E5
Connector Name	WIRE TO WIRE
Connector Type	TK24MW-1V



Terminal No.	Color of Wire	Signal Name [Specification]
10	L	-
11	Y	-
23	W	-
24	P	-

Connector No.	E7
Connector Name	WIRE TO WIRE
Connector Type	NS16MW-GS



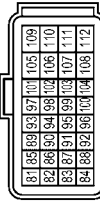
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-

Connector No.	E12
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Type	NS12PW-GS



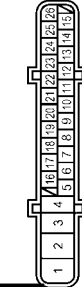
Terminal No.	Color of Wire	Signal Name [Specification]
27	W	-
28	L	-
29	P	-

Connector No.	E16
Connector Name	ECM
Connector Type	MAA24FB-MEA8-LH



Terminal No.	Color of Wire	Signal Name [Specification]
83	P	CAN-L
84	L	CAN-H

Connector No.	E34
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAA22FB-AH24-LH



Terminal No.	Color of Wire	Signal Name [Specification]
15	P	CAN-L
26	L	CAN-H

Connector No.	E36
Connector Name	ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)
Connector Type	BAA22FB-AH24-LH



Terminal No.	Color of Wire	Signal Name [Specification]
15	P	CAN-L
26	L	CAN-H

Connector No.	E37
Connector Name	BRAKE FLUID LEVEL SWITCH
Connector Type	YY02FGY



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

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COMBINATION METER

< ECU DIAGNOSIS >

METER

Connector No.	E32
Connector Name	OAT SENSOR
Connector Type	RHD4FB



Terminal No.	Color of Wire	Signal Name [Specification]
1	L/O	-
2	V	-

Connector No.	E60
Connector Name	ECM
Connector Type	MAA24FB-MEA8-LH



Terminal No.	Color of Wire	Signal Name [Specification]
99	P	MAIN CAN-L (BODY)
100	L	MAIN CAN-H (BODY)

Connector No.	E105
Connector Name	WIRE TO WIRE
Connector Type	TH60MF-NS16-TM4



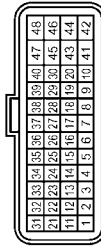
Terminal No.	Color of Wire	Signal Name [Specification]
49	P	-
50	L	-
51	P	-
52	L	-
57	P	-
58	Y	-
59	L	-
60	R/B	-
73	V	-
75	L/O	-

Connector No.	F15
Connector Name	ALTERNATOR
Connector Type	HS02FB



Terminal No.	Color of Wire	Signal Name [Specification]
3	L	L

Connector No.	F25
Connector Name	TOM (TRANSMISSION CONTROL MODULE)
Connector Type	MOLEX 50094-4111



Terminal No.	Color of Wire	Signal Name [Specification]
31	P	CAN-L
32	L	CAN-H

Connector No.	F42
Connector Name	ALTERNATOR
Connector Type	-



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

Connector No.	F60
Connector Name	ALTERNATOR
Connector Type	FEA02FB



Terminal No.	Color of Wire	Signal Name [Specification]
4	L	S

Connector No.	F63
Connector Name	OIL PRESSURE SWITCH
Connector Type	ED1GY-RS-AR



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

JCNWA0217/GB

COMBINATION METER

< ECU DIAGNOSIS >

METER

Connector No.	F64
Connector Name	OIL PRESSURE SWITCH
Connector Type	RH02FB



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

Connector No.	F65
Connector Name	OIL LEVEL SENSOR
Connector Type	RS03FSB



Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+
3	P	-

Connector No.	F67
Connector Name	OIL LEVEL SENSOR
Connector Type	BS02FB-AHY-S



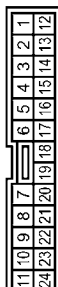
Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	+
2	P	-

Connector No.	F121
Connector Name	WIRE TO WIRE
Connector Type	NS16FW-CS



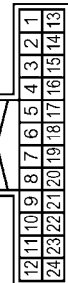
Terminal No.	Color of Wire	Signal Name [Specification]
1	P	-
2	L	-

Connector No.	F123
Connector Name	WIRE TO WIRE
Connector Type	TK24FW-TV



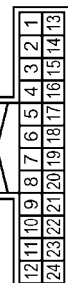
Terminal No.	Color of Wire	Signal Name [Specification]
10	L	-
11	Y	-
23	W	-
24	P	-

Connector No.	M11
Connector Name	WIRE TO WIRE
Connector Type	TH24FW



Terminal No.	Color of Wire	Signal Name [Specification]
9	G	-
10	O	-
20	GR	-
21	B	-

Connector No.	M12
Connector Name	WIRE TO WIRE
Connector Type	TH24FW



Terminal No.	Color of Wire	Signal Name [Specification]
18	L	-
19	P	-

Connector No.	M33
Connector Name	COMBINATION SWITCH (SPIRAL CABLE)
Connector Type	TK08FGY-TV



Terminal No.	Color of Wire	Signal Name [Specification]
26	R	-
31	B	-

JCNWAoz18GB

COMBINATION METER

< ECU DIAGNOSIS >

METER

Connector No.	M34
Connector Name	COMBINATION METER
Connector Type	SAB40FW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
1	Y	BAT
2	GR	IGN
3	B	GND
11	R	STEERING SW (Without navigation system)
15	W	AIR BAG
19	V	OAT SENS
20	SB	OAT SENS GND
21	L	CAN-H
22	P	CAN-L
23	B	GND
24	G	FUEL LEVEL SENS GND

25	L	ALTERNATOR
26	V	PARKING BRAKE SW
27	BR	BRAKE FLUID LEVEL SW
28	SB	SECURITY
31	Y	VEHICLE SPEED (2-PULSE)
32	Y	OIL LEVEL SENS
33	P	OIL LEVEL SENS GND
34	B	FUEL LEVEL SENS
35	O	SEAT BELT BUCKLE SW (DRIVER SIDE)
36	GR	SEAT BELT BUCKLE SW (PASSENGER SIDE)
37	R/Y	NOT MANUAL MODE
38	LG	SHIFT DOWN
39	G/W	SHIFT UP
40	L	MANUAL MODE

Connector No.	M37
Connector Name	EPS CONTROL UNIT
Connector Type	Molex 98545-0001



3	4	5	6	7	8	9	10
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Terminal No.	Color of Wire	Signal Name [Specification]
6	P	-
8	L	-

Connector No.	M40
Connector Name	INTELLIGENT KEY UNIT
Connector Type	TH40FW



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

Terminal No.	Color of Wire	Signal Name [Specification]
2	L	CAN-H
3	P	CAN-L

Connector No.	M57
Connector Name	CONTROL DEVICE
Connector Type	TH16FW



8	7	6	5	4	3	2	1
16	15	14	13	12	11	10	9

Terminal No.	Color of Wire	Signal Name [Specification]
7	L	-
8	LG	-
9	W	-
10	B	-
11	R	-

Connector No.	M59
Connector Name	AIR BAG DIAGNOSIS SENSOR UNIT
Connector Type	TK28FY-EX-SC



20	21	17	24	49	1
22	11	46	48	47	45
16	12	19	15	14	51
23	50	18	52	2	

Terminal No.	Color of Wire	Signal Name [Specification]
15	W	WARNING LAMP

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	JAB4UFB



31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20

Terminal No.	Color of Wire	Signal Name [Specification]
18	SB	SECURITY INDICATOR
19	L	CAN-H
20	P	CAN-L

Connector No.	M69
Connector Name	4WD CONTROL UNIT
Connector Type	TH16FW



1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16

Terminal No.	Color of Wire	Signal Name [Specification]
8	L	CAN-H
16	P	CAN-L

COMBINATION METER

< ECU DIAGNOSIS >

METER

Connector No. M77

Connector Name WIRE TO WIRE

Connector Type TH6DFW-MS16-TM4



Connector No. M103

Connector Name PARKING BRAKE SWITCH

Connector Type P01FB-A



Connector No. M352

Connector Name COMBINATION SWITCH (SPIRAL CABLE)

Connector Type TK08MGY-X



Terminal No. 49

Color of Wire P

Signal Name [Specification]

Terminal No. 50

Color of Wire L

Signal Name [Specification]

Terminal No. 51

Color of Wire P

Signal Name [Specification]

Terminal No. 52

Color of Wire L

Signal Name [Specification]

Terminal No. 57

Color of Wire P

Signal Name [Specification]

Terminal No. 58

Color of Wire Y

Signal Name [Specification]

Terminal No. 59

Color of Wire L

Signal Name [Specification]

Terminal No. 80

Color of Wire BR

Signal Name [Specification]

Terminal No. 73

Color of Wire V

Signal Name [Specification]

Terminal No. 75

Color of Wire L/O

Signal Name [Specification]

Terminal No. 17

Color of Wire -

Signal Name [Specification]

Terminal No. 18

Color of Wire -

Signal Name [Specification]

Fail Safe

The combination meter activates the fail-safe control if the CAN communication lines between each unit are malfunctioning.

JCNWA0220GB
INFOID:000000000936441

COMBINATION METER

< ECU DIAGNOSIS >

Function		Specifications
Speedometer		Reset to zero by suspending communication.
Tachometer		
Meter illumination control		Changed to nighttime mode.
Buzzer		Turned off by suspending communication.
Warning lamp/indicator lamp	ABS warning lamp	Turned on by suspending communication.
	Brake warning lamp	
	EPS OFF indicator lamp	
	VDC OFF indicator lamp	
	SLIP indicator lamp	
	CVT warning lamp	Turned off by suspending communication.
	Oil pressure warning lamp	
	Door warning lamp	
	Malfunction indicator lamp	
	CRUISE indicator lamp	
	Tail lamp indicator	
	Front fog indicator lamp	
	Rear fog indicator lamp	
	Glow indicator lamp	
	Malfunction indicator lamp 2	
	Trailer indicator lamp	
	Key R/G warning lamp	
	KEY LOCK warning lamp	
	High beam indicator lamp	
	Turn signal indicator lamp	

DTC Index

INFOID:000000000936442

Display contents of CONSULT-III	Time	Diagnostic item is detected when ...	Refer to
CAN COMM CIRCUIT [U1000]	CRNT, 1 - 39	Combination meter is not transmitting or receiving CAN communication signal for 2 seconds or more.	MWI-26
VEHICLE SPEED [B2205]	CRNT, 1 - 39	The abnormal vehicle speed signal is input from ABS actuator and electric unit (control unit) for 2 seconds or more.	MWI-27

WCS

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE)

Reference Value

INFOID:000000001102068

VALUES ON THE DIAGNOSIS TOOL

Monitor Item	Condition		Value/Status
ACC ON SW	Ignition switch OFF		OFF
	Ignition switch ACC or ON		ON
AIR COND SW	A/C switch OFF		OFF
	A/C switch ON		ON
AUT LIGHT SYS	Outside of the room is dark		OFF
	Outside of the room is bright		ON
AUTO LIGHT SW	Lighting switch OFF		OFF
	Lighting switch AUTO		ON
BACK DOOR SW	Back door closed		OFF
	Back door opened		ON
BATTERY VOLT NOTE: Diesel engine models only	Ignition switch ON		Approximately the same as power supply voltage
BUCKLE SW	Driver's seat belt unfastened		OFF
	Driver's seat belt fastened		ON
CDL LOCK SW	Door lock/unlock switch does not operate		OFF
	Press door lock/unlock switch to the LOCK side		ON
CDL UNLOCK SW	Door lock/unlock switch does not operate		OFF
	Press door lock/unlock switch to the UNLOCK side		ON
DOOR SW-AS	Passenger door closed		OFF
	Passenger door opened		ON
DOOR SW-DR	Driver door closed		OFF
	Driver door opened		ON
DOOR SW-RL	Rear LH door closed		OFF
	Rear LH door opened		ON
DOOR SW-RR	Rear RH door closed		OFF
	Rear RH door opened		ON
ELEC PWR CUT NOTE: Diesel engine models only	Engine running	Fan switch ON (when engine coolant is cool) NOTE: Depending on the ambient temperature, battery voltage, etc.	OFF
		The current status maintained with the signal from ECM received.	FREEZ
		- Fan switch OFF - Fan switch ON after engine warming UP NOTE: Depending on the engine coolant temperature, ambient temperature, battery voltage, etc.	INHBT

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
ENG COOLNT T NOTE: Diesel engine models only	Engine running	Approximately the same as water temperature gauge reading
ENGINE RPM NOTE: Diesel engine models only	Engine running	Approximately the same as tachometer reading
ENGINE RUN	Engine stopped	OFF
	Engine running	ON
ENGINE STATUS NOTE: Diesel engine models only	Engine stopped	STOP
	While the engine stalls	STALL
	Engine running	RUN
	At engine cranking	CRA
FAN ON SIG	Fan switch OFF	OFF
	Fan switch ON	ON
FR FOG SW	Front fog lamp switch OFF	OFF
	Front fog lamp switch ON	ON
FR WASHER SW	Front washer switch OFF	OFF
	Front washer switch ON	ON
FR WIPER LOW	Front wiper switch OFF	OFF
	Front wiper switch LO	ON
FR WIPER HI	Front wiper switch OFF	OFF
	Front wiper switch HI	ON
FR WIPER INT	Front wiper switch OFF	OFF
	Front wiper switch INT	ON
FR WIPER STOP	Any position other than front wiper stop position	OFF
	Front wiper stop position	ON
HAZARD SW	When hazard switch is not pressed	OFF
	When hazard switch is pressed	ON
HEAD LAMP SW 1	Lighting switch OFF	OFF
	Lighting switch 2ND	ON
HEAD LAMP SW 2	Lighting switch OFF	OFF
	Lighting switch 2ND	ON
HI BEAM SW	Lighting switch OFF	OFF
	Lighting switch HI	ON
HOOD SW	Close the hood NOTE: Vehicles without theft warning system are OFF-fixed	OFF
	Open the hood	ON
H/L WASH SW	NOTE: The item is indicated, but not monitored	OFF
IGN ON SW	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
IGN SW CAN	Ignition switch OFF or ACC	OFF
	Ignition switch ON	ON
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7

A

B

C

D

E

F

G

H

I

J

K

L

M

WCS

O

P

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
I-KEY LOCK	LOCK button of Intelligent Key is not pressed	OFF
	LOCK button of Intelligent Key is pressed	ON
I-KEY UNLOCK	UNLOCK button of Intelligent Key is not pressed	OFF
	UNLOCK button of Intelligent Key is pressed	ON
KEY ON SW	Mechanical key is removed from key cylinder	OFF
	Mechanical key is inserted to key cylinder	ON
KEYLESS LOCK	LOCK button of key fob is not pressed	OFF
	LOCK button of key fob is pressed	ON
KEYLESS UNLOCK	UNLOCK button of key fob is not pressed	OFF
	UNLOCK button of key fob is pressed	ON
LIT-SEN FAIL	Light & rain sensor is in normal condition	OK
	Light & rain sensor is with internal error	NOTOK
OIL PRESS SW	- Ignition switch OFF or ACC - Engine running	OFF
	Ignition switch ON	ON
OUT SIDE TEMP NOTE: Diesel engine models	Ignition switch ON	Approximately the same as outside air temperature
PASSING SW	Other than lighting switch PASS	OFF
	Lighting switch PASS	ON
PUSH SW	Return to ignition switch to LOCK position	OFF
	Press ignition switch	ON
REAR DEF SW	Rear window defogger switch OFF	OFF
	Rear window defogger switch ON	ON
RKE LOCK AND UN-LOCK	NOTE: The item is indicated, but not monitored	OFF
		ON
RR FOG SW	Rear fog lamp switch OFF	OFF
	Rear fog lamp switch ON	ON
RR WASHER SW	Rear washer switch OFF	OFF
	Rear washer switch ON	ON
RR WIPER INT	Rear wiper switch OFF	OFF
	Rear wiper switch INT	ON
RR WIPER ON	Rear wiper switch OFF	OFF
	Rear wiper switch ON	ON
RR WIPER STOP	Rear wiper stop position	OFF
	Other than rear wiper stop position	ON
SHOCK SENSOR	Ignition switch ON	NOMAL
	After the reception of air bag deployment signal from air bag diagnosis sensor unit	OFF
	During the reception of air bag deployment signal from air bag diagnosis sensor unit	ON
TAIL LAMP SW	Lighting switch OFF	OFF
	Lighting switch 1ST	ON
TRNK OPNR SW	When back door opener switch is not pressed	OFF
	When back door opener switch is pressed	ON

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status
TURN SIGNAL L	Turn signal switch OFF	OFF
	Turn signal switch LH	ON
TURN SIGNAL R	Turn signal switch OFF	OFF
	Turn signal switch RH	ON
UNLOCK WITH DR	NOTE: The item is indicated, but not monitored	OFF
		ON
UNLOCK SHOCK	Other than the following	OFF
	During the unlock operation interlocked with air bag	ON
VEHICLE SPEED	While driving	Equivalent to speedometer reading

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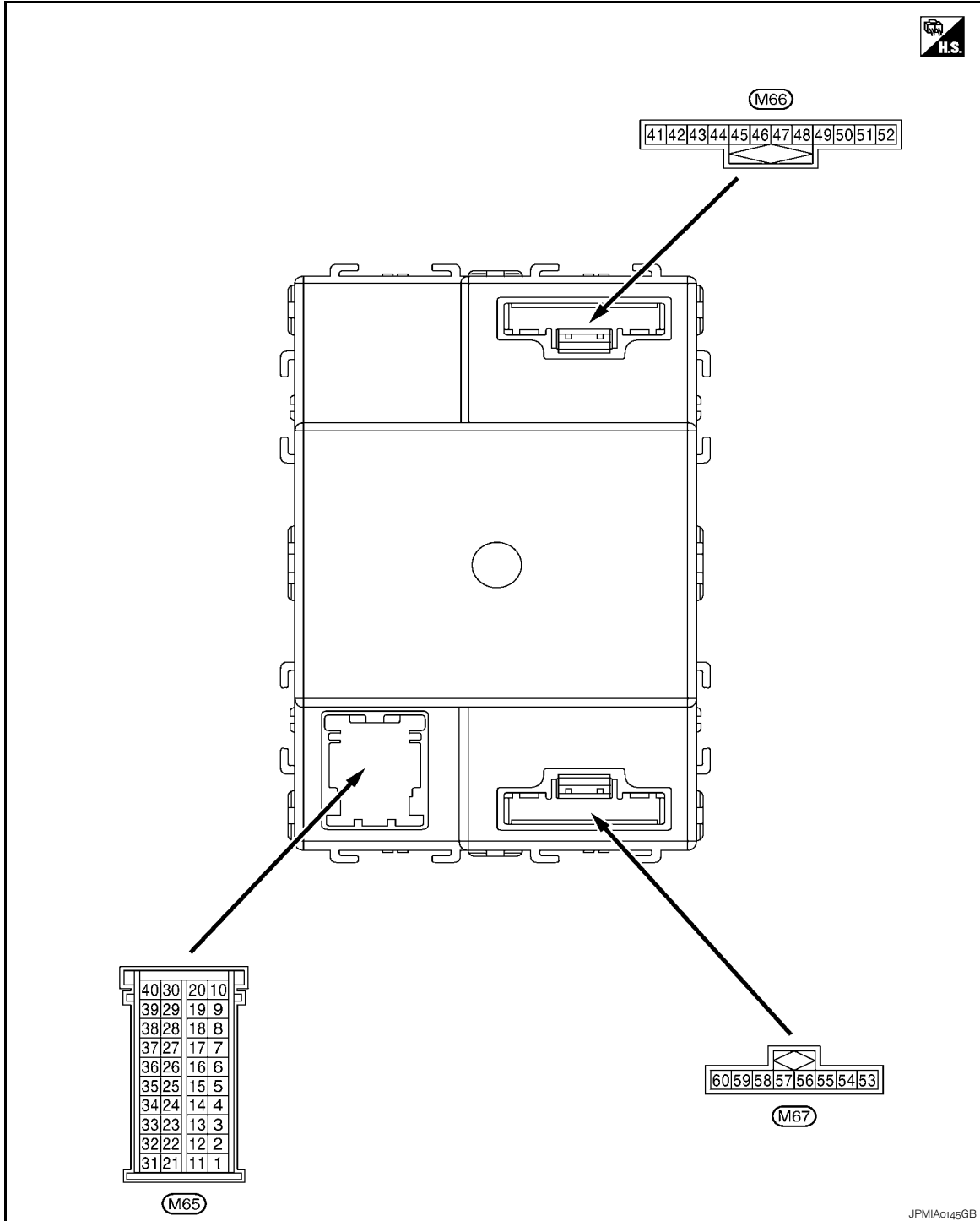
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

TERMINAL LAYOUT



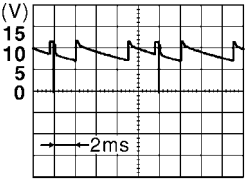
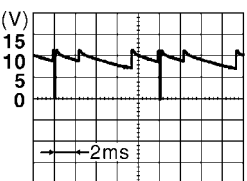
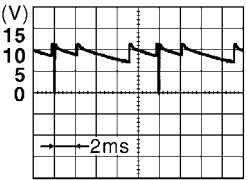
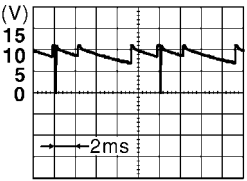
PHYSICAL VALUES

CAUTION:

- Check combination switch system terminal waveform under the loaded condition with lighting switch, turn signal switch and wiper switch OFF is not to be fluctuated by being overloaded.
- Turn wiper intermittent dial position to 4 except when checking waveform or voltage of wiper intermittent dial position. Wiper intermittent dial position can be confirmed on CONSULT -III. Refer to [BCS-26, "COMB SW : CONSULT-III Function \(BCM - COMB SW\)"](#).
- BCM reads the status of the combination switch at 10 ms internal normally. Refer to [BCS-7, "System Description"](#).

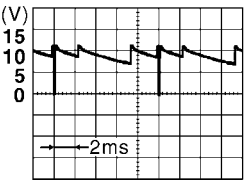
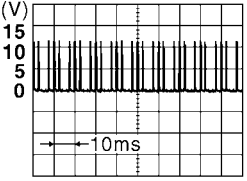
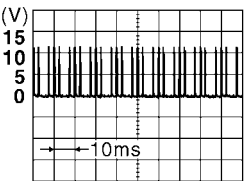
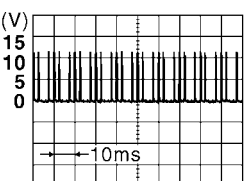
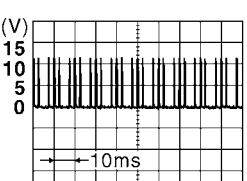
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
1 (P)	Ground	Combination switch OUTPUT 1	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front wiper switch HI (Wiper intermittent dial 4)	 9.1 V
					Rear wiper switch INT (Wiper intermittent dial 4)	
					Any of the condition 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	
2 (Y)	Ground	Combination switch OUTPUT 4	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch 2ND	 9.3 V
					Lighting switch PASS	
					Front fog lamp switch ON	
					Turn signal switch LH	
3 (LG)	Ground	Combination switch OUTPUT 3	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch AUTO	 9.3 V
					Rear fog lamp switch OFF	
					Front wiper switch MIST	
					Front wiper switch INT	
					Front wiper switch LO	
4 (R)	Ground	Combination switch OUTPUT 2	Output	Combination switch	All switch OFF (Wiper intermittent dial 4)	0 V
					Front washer switch ON (Wiper intermittent dial 4)	 9.1 V
					Rear wiper switch ON (Wiper intermittent dial 4)	
					Rear washer switch ON (Wiper intermittent dial 4)	
					Any of the condition below with all switch OFF	
					• Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	

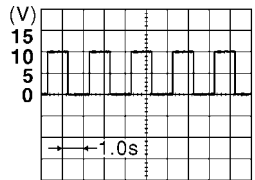
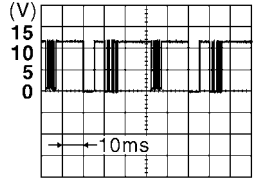
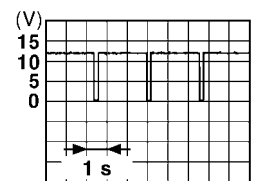
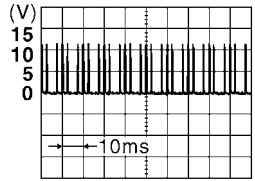
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
5 (W)	Ground	Combination switch OUTPUT 5	Output	Combination switch (Wiper intermit- tent dial 4)	All switch OFF	0 V
					Lighting switch 1ST	 JPMIA0164GB 9.1 V
					Lighting switch 2ND	
					Lighting switch HI	
					Turn signal switch RH	
7 (P)	Ground	Door lock/unlock switch (Lock)	Output	Door lock/un- lock switch	Not pressed	 JPMIA0154GB 1.2 V
					Pressed to the lock side	0 V
8 (LG)	Ground	Hazard switch	Output	Hazard switch	Not pressed	 JPMIA0154GB 1.3 V
					Pressed	0 V
9 (BR)	Ground	Door lock/unlock switch (Unlock)	Output	Door lock/un- lock switch	Not pressed	 JPMIA0154GB 1.2 V
					Pressed to the unlock side	0 V
12 (P)	Ground	Back door opener switch	Output	Back door opener switch	Not pressed	 JPMIA0154GB 1.2 V
					Pressed	0 V

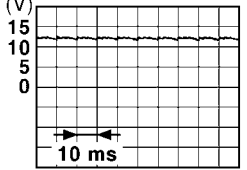
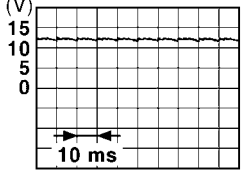
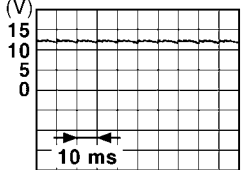
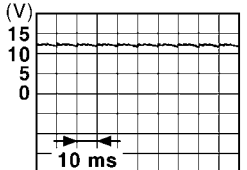
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
13 (R)	Ground	Shock detect sensor	Input	Ignition switch OFF or ACC		0 V
				Ignition switch ON		 6.0 V
14 (L/R)	Ground	A/C switch	Output	A/C switch	Not pressed	Battery voltage
					Pressed	0 V
15 (LG/B)	Ground	Fan switch	Output	Fan switch	Not pressed	Battery voltage
					Pressed	0 V
16 (GR)	Ground	Alarm link	Input	—		—
17 (BR)	Ground	Light & rain sensor serial link	Output	Ignition switch OFF or ACC		Battery voltage
				Ignition switch ON		 8.7 V
18 (SB)	Ground	Security indicator	Output	Security indicator	ON	0 V
					Blinking	 10.3 V
					OFF	Battery voltage
19 (L)	—	CAN-H	Input/ Output	—		—
20 (P)	—	CAN-L	Input/ Output	—		—
21 (SB)	Ground	Rear window defog- ger switch	Output	Rear window defogger switch	Not pressed	 1.1 V
					While pressing	0 V

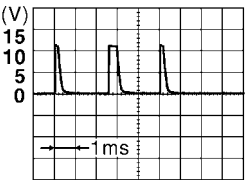
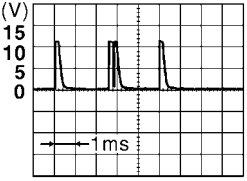
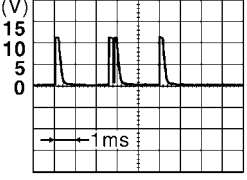
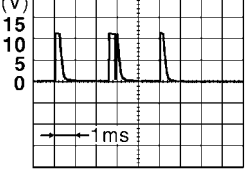
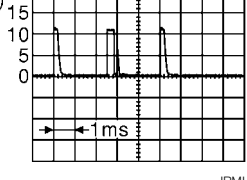
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
24 (GR)	Ground	Door lock status indicator	Output	Door lock status indicator	ON	Battery voltage
					OFF	0 V
25 (GR)	Ground	Rear door switch LH	Input	Rear door switch LH	OFF (When rear door LH closed)	 11.2 V
					ON (When rear door LH opened)	0 V
26 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (When driver door closed)	 11.2 V
					ON (When driver door opened)	0 V
27 (BR)	Ground	Passenger door switch	Input	Passenger door switch	OFF (When passenger door closed)	 11.2 V
					ON (When passenger door opened)	0 V
28 (G)	Ground	Back door switch	Input	Back door switch	OFF (When back door closed)	Battery voltage
					ON (When back door opened)	0 V
29 (LG)	Ground	Rear door switch RH	Input	Rear door switch RH	OFF (When rear door RH closed)	 11.2 V
					ON (When rear door RH opened)	0 V
30 (SB)	Ground	Audio link	Output	—	—	—

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
31 (BR)	Ground	Combination switch INPUT 5	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)  1.3 V JPMIA0165GB
					Front fog lamp switch ON (Wiper intermittent dial 4)  1.3 V JPMIA0167GB
					Rear fog lamp switch ON (Wiper intermittent dial 4)  1.3 V JPMIA0168GB
					Rear wiper switch ON (Wiper intermittent dial 4)  1.3 V JPMIA0169GB
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7  1.3 V JPMIA0196GB

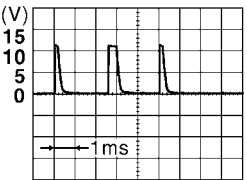
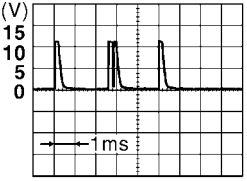
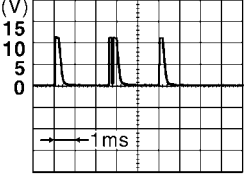
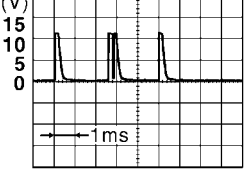
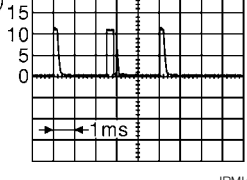
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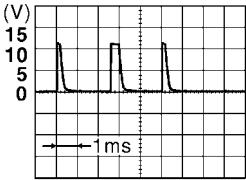
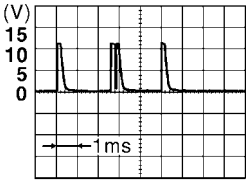
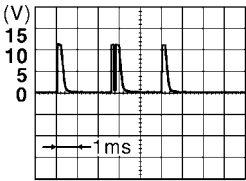
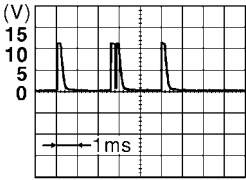
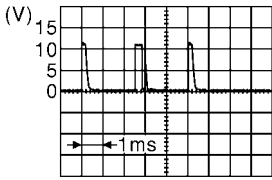
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
32 (G)	Ground	Combination switch INPUT 2	Input	Combination switch (Wiper intermit- tent dial 4)	 1.4 V
					 1.3 V
					 1.3 V
					 1.3 V
					 1.3 V

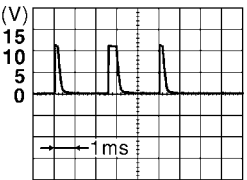
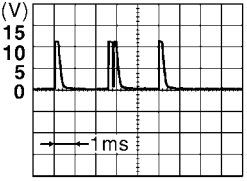
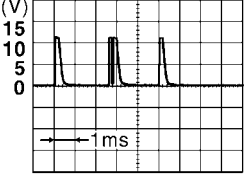
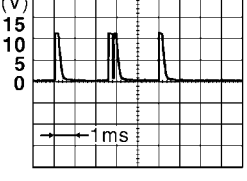
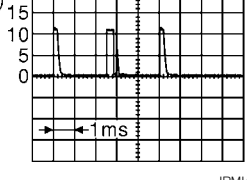
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
33 (V)	Ground	Combination switch INPUT 1	Input	Combination switch (Wiper intermit- tent dial 4)	All switch OFF  1.4 V
					Turn signal switch LH  1.3 V
					Turn signal switch RH  1.3 V
					Front wiper switch LO  1.3 V
					Front washer switch ON  1.3 V

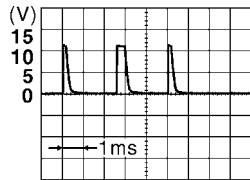
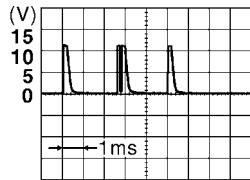
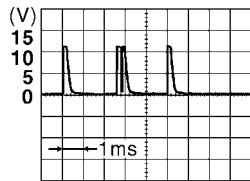
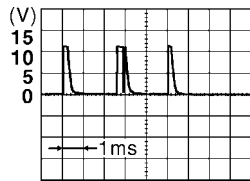
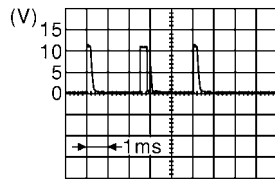
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition	Value (Approx.)
+	-	Signal name	Input/ Output		
34 (GR)	Ground	Combination switch INPUT 4	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)  JPMIAor165GB 1.4 V
					Lighting switch AUTO (Wiper intermittent dial 4)  JPMIAor167GB 1.3 V
					Lighting switch 1ST (Wiper intermittent dial 4)  JPMIAor166GB 1.3 V
					Rear wiper INT (Wiper intermittent dial 4)  JPMIAor167GB 1.3 V
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 6  JPMIAor166GB 1.3 V

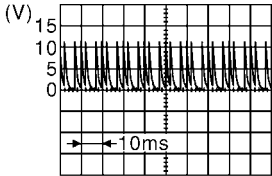
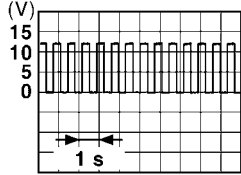
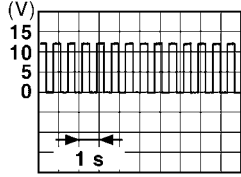
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
35 (L)	Ground	Combination switch INPUT 3	Input	Combination switch	All switch OFF (Wiper intermittent dial 4)	 JPMIA0165GB 1.4 V
					Lighting switch HI (Wiper intermittent dial 4)	 JPMIA0166GB 1.3 V
					Lighting switch 2ND (Wiper intermittent dial 4)	 JPMIA0167GB 1.3 V
					Rear wiper switch ON	 JPMIA0169GB 1.3 V
					Any of the condition below with all switch OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3	 JPMIA0196GB 1.3 V
36 (V)	Ground	Key switch	Output	Insert mechanical key into ignition key cylinder	Battery voltage	
				Remove mechanical key from ignition key cylinder	0 V	
37 (R)	Ground	ACC power supply	Output	Ignition switch OFF	0 V	
				Ignition switch ACC or ON	Battery voltage	
38 (W/L)	Ground	Ignition power supply	Output	Ignition switch OFF or ACC	0 V	
				Ignition switch ON	Battery voltage	

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
39 (P)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder		Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
40 (LG)	Ground	NATS antenna amp.	Input/ Output	Insert mechanical key into ignition key cylinder		Just after Insert mechanical key into ignition key cylinder. Pointer of tester should move
41 (V)	Ground	Battery power supply	Input	Ignition switch OFF		Battery voltage
42 (V)	Ground	Interior room lamp power supply	Output	After passing the interior room lamp battery saver operation time		0 V
				Any other time after passing the interior room lamp battery saver operation time		Battery voltage
43 (L)	Ground	Rear wiper motor	Output	Rear wiper switch OFF		0 V
				Rear wiper switch ON		Battery voltage
44 (L/W)	Ground	Rear wiper auto stop	Output	Ignition switch ON	Rear wiper stop position	0 V
					Any position other than rear wiper stop position	 JPMIA0197GB
45 (GR)	Ground	Back door lock actuator	Output	Back door opener switch	Pressed	Battery voltage (300ms)
					Not pressed	0 V
47 (G/Y)	Ground	Turn signal LH	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch LH	 PKID0926E 6.5 V
48 (G/B)	Ground	Turn signal RH	Output	Ignition switch ON	Turn signal switch OFF	0 V
					Turn signal switch RH	 PKID0926E 6.5 V
49 (Y)	Ground	Rear fog lamp	Output	Lighting switch 1ST and front fog lamp switch ON	Rear fog lamp switch OFF	0 V
					Rear fog lamp switch ON	Battery voltage
51 (R/W)*1 (R)*2	Ground	Stop lamp switch	Output	Depress the brake pedal		Battery voltage
				Release the brake pedal		0 V

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Terminal No. (Wire color)		Description		Condition		Value (Approx.)
+	-	Signal name	Input/ Output			
52 (R)	Ground	Room lamp timer control	Output	Interior room lamp	OFF	Battery voltage
					ON	0 V
53 (L)	Ground	Power window pow- er supply	Output	Ignition switch	OFF or ACC	0 V
					ON	Battery voltage
54 (O)	Ground	Door unlock (All)	Output	Door lock/un- lock switch	Pressed to the unlock side	Battery voltage
					Pressed to the lock side	0 V
55 (B)	Ground	Ground	—	Ignition switch ON		0 V
56 (Y)*1 (SB)*2	Ground	Door lock (All)	Output	Door lock/un- lock switch	Pressed to the unlock side	0 V
					Pressed to the lock side	Battery voltage
57 (Y)	Ground	Battery power sup- ply	Output	Ignition switch OFF		Battery voltage
58 (P)	Ground	Power window pow- er supply	Output	Ignition switch OFF		Battery voltage
59 (BR)	Ground	Super lock	Output	When lock button of key fob or Intelligent Key is not pressed		0 V
				When lock button of key fob or Intelligent Key is pressed		Battery voltage
60 (GR)	Ground	Driver door unlock	Output	Door lock/un- lock switch	Pressed to the unlock side	Battery voltage
					Pressed to the lock side	0 V

*1: With Intelligent Key system

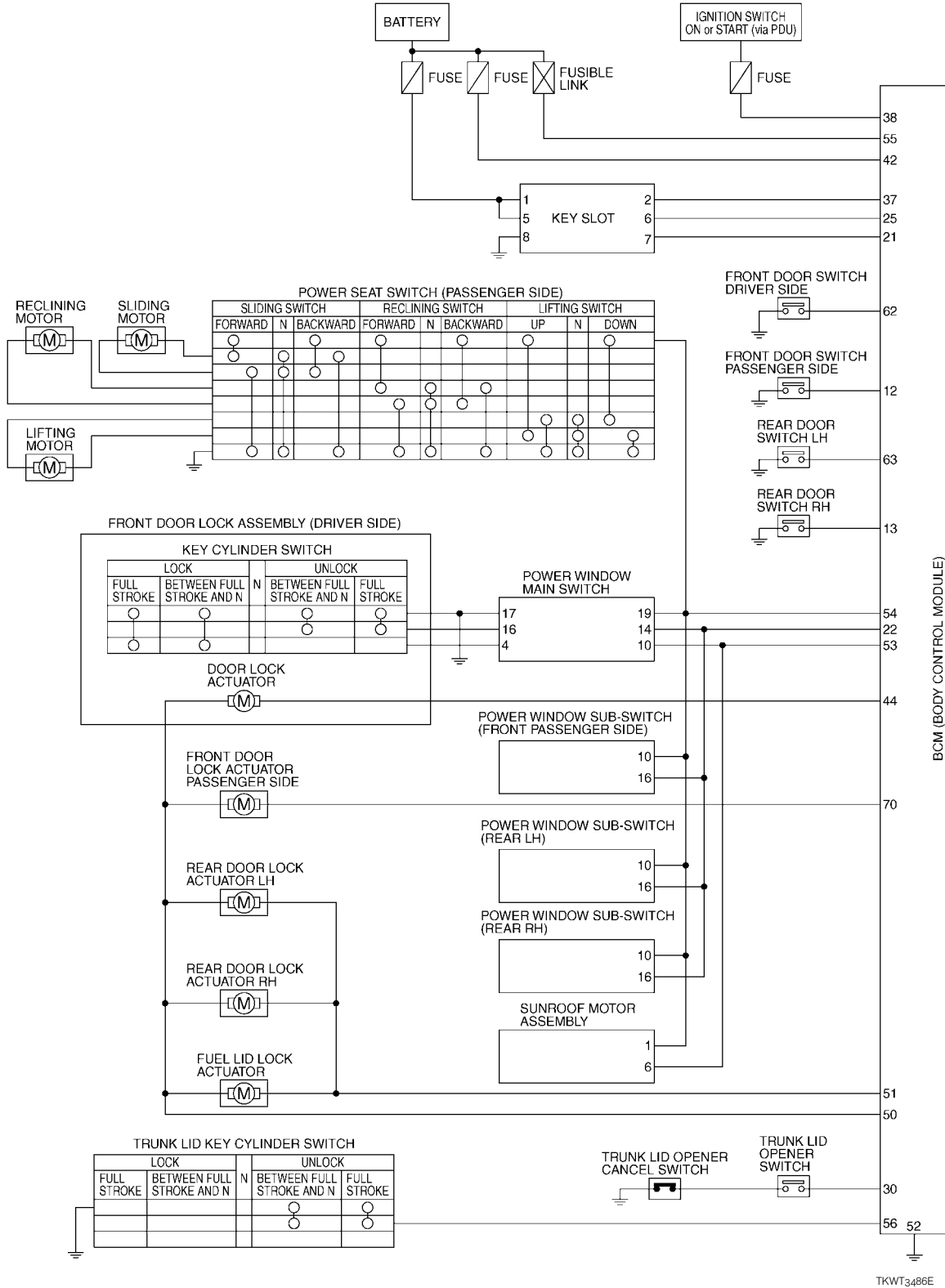
*2: Without Intelligent Key system

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

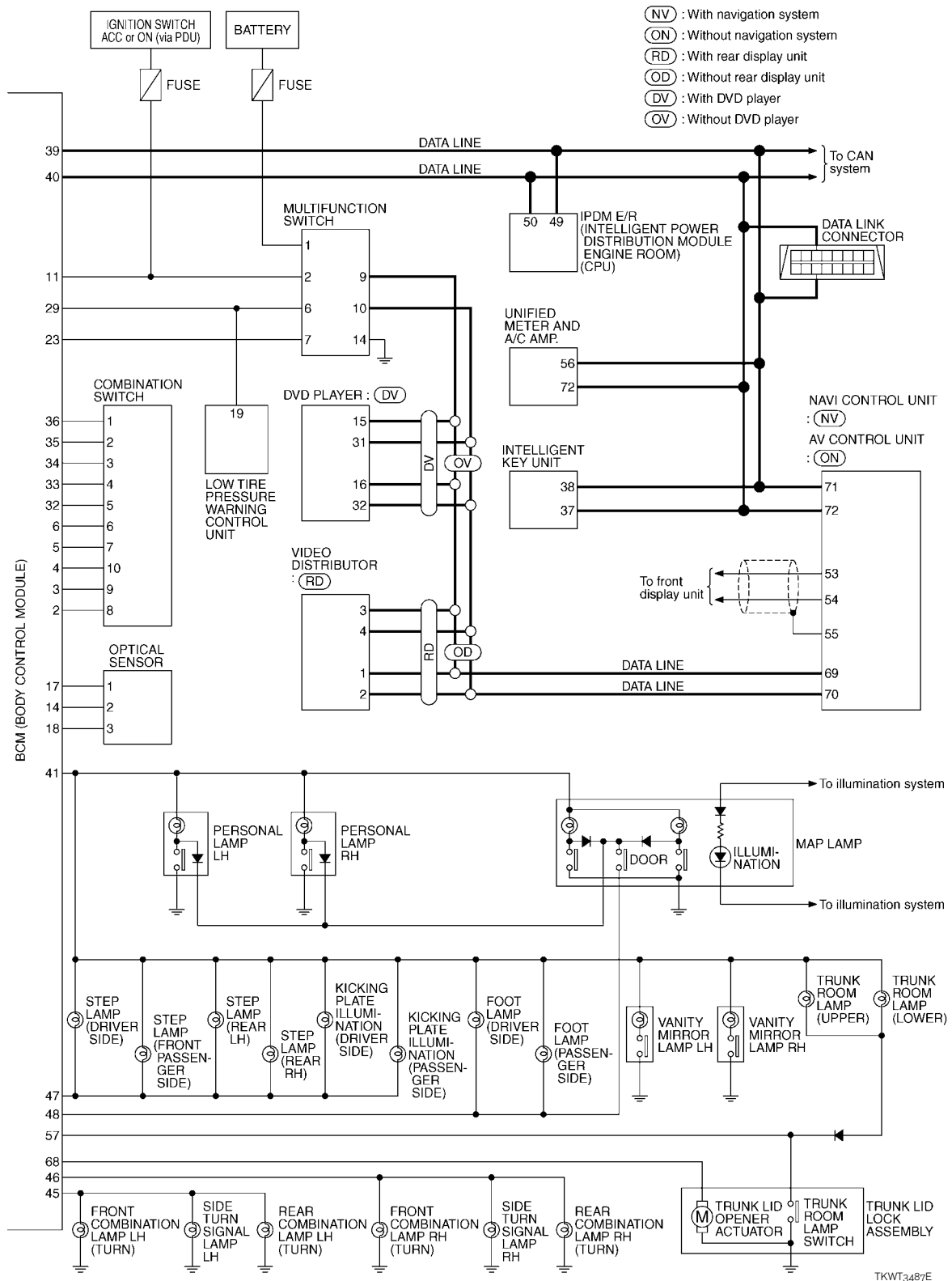
Wiring Diagram - BCM -

INFOID:000000001102069



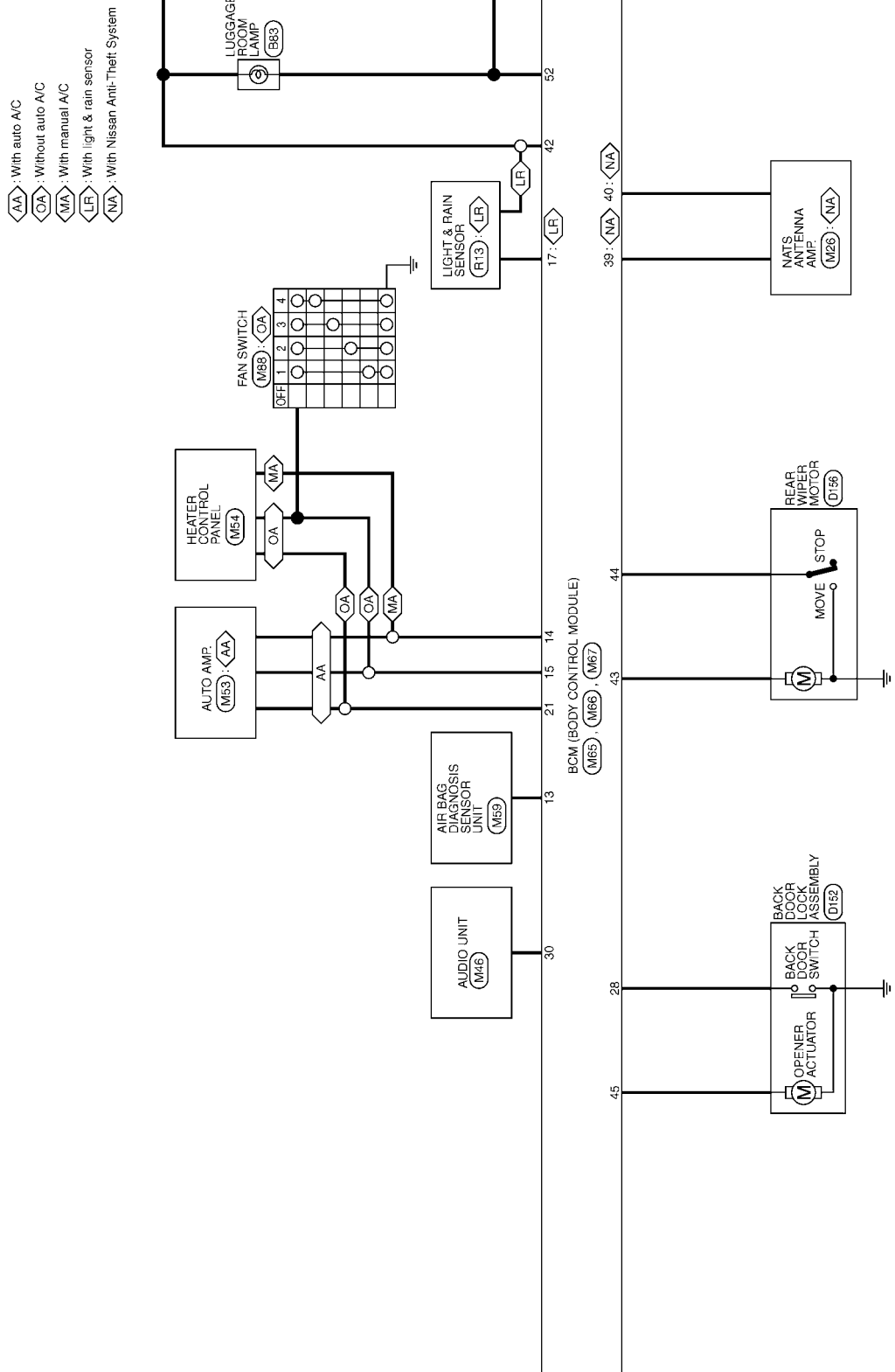
BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >



BCM (BODY CONTROL MODULE)

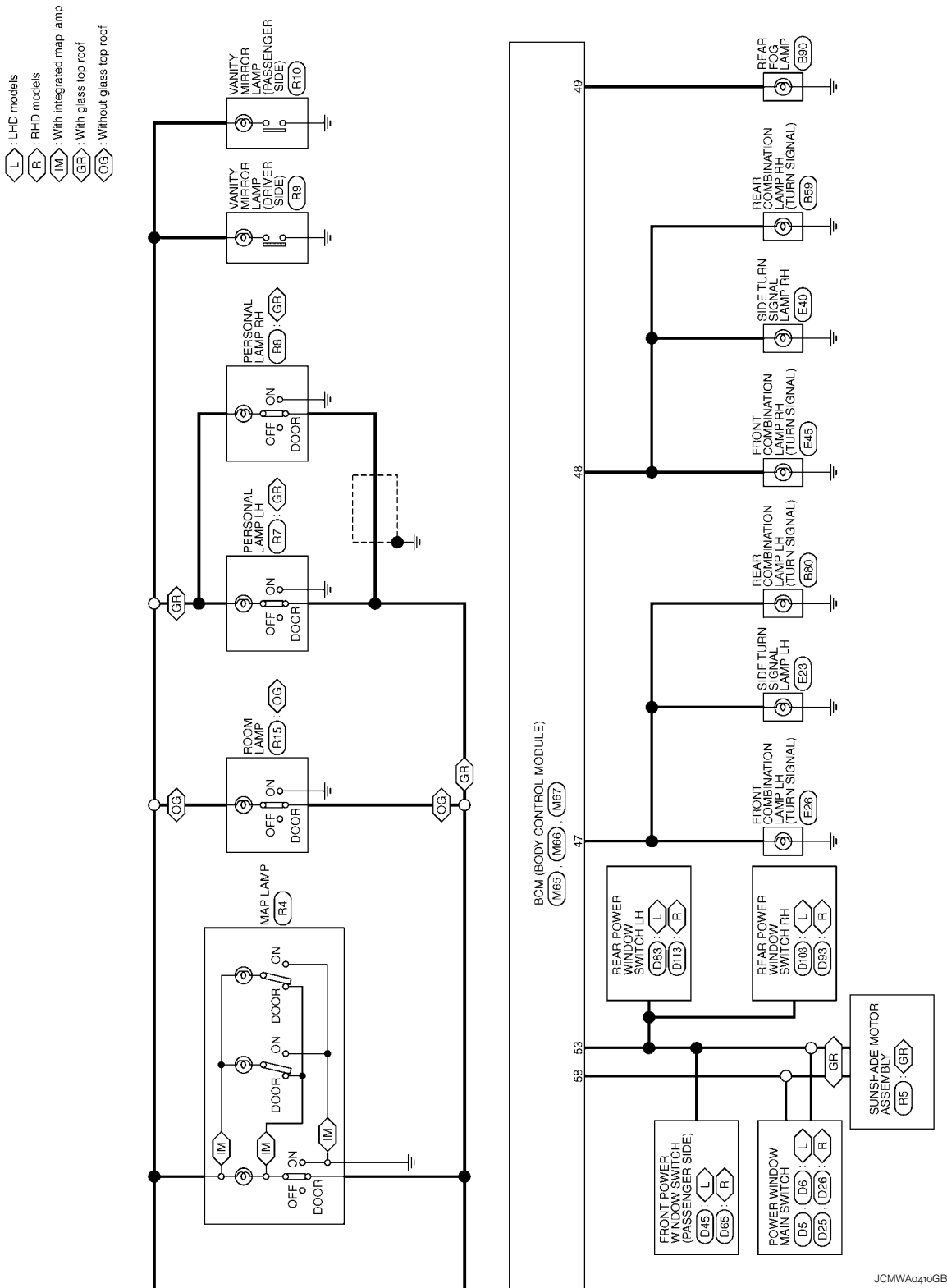
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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >



BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE)

Connector No.	M27
Connector Name	COMBINATION SWITCH
Connector Type	TK16FW



12	13	10	9	8	7		
14	11	1	2	3	4	5	6

Terminal No.	Color of Wire	Signal Name [Specification]
1	V	INPUT1
2	G	INPUT2
3	L	INPUT3
4	GR	INPUT4
5	BR	INPUT5
6	P	OUTPUT1
7	R	OUTPUT2
8	W	OUTPUT5
9	Y	OUTPUT4
10	LG	OUTPUT3

Connector No.	M67
Connector Name	BOM (BODY CONTROL MODULE)
Connector Type	FCI 211P03BIS0017



60	59	58	57	56	55	54	53
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Terminal No.	Color of Wire	Signal Name [Specification]
53	L	POWER WDW PWR SUPPLY (LINKED TO IGN)
54	O	DOOR UNLOCK OUTPUT (OTHER)
55	B	GNUP (POWER)
56	Y	DOOR LOCK OUTPUT (ALL) (With Intelligent Key)
58	SB	DOOR LOCK OUTPUT (ALL) (Without Intelligent Key)
57	Y	BAT (F/L)
58	P	POWER WDW PWR SUPPLY (BAT)
59	BR	SUPER LOCK SET OUTPUT
60	GR	UNLOCK (DR)

Connector No.	M65
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	AAABJ0FB



37	32	33	34	35	36	37	38	39	40
27	22	23	24	25	26	27	28	29	30
17	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

Terminal No.	Color of Wire	Signal Name [Specification]
1	P	COMBI SW OUTPUT 1
2	Y	COMBI SW OUTPUT 4
3	LG	COMBI SW OUTPUT 3
4	R	COMBI SW OUTPUT 2
5	W	COMBI SW OUTPUT 5
7	P	LOCK/UNLOCK SW (LOCK)
8	LG	HAZARD SW
9	BR	LOCK/UNLOCK SW (UNLOCK)
12	P	TRUNK/BACK DOOR OPEN SW
13	R	SHOCK DETECT SIG
14	L/R	A/C SW

15	LG/B	BLOWER FAN SW
16	GR	ALARM LINK
17	BR	LIGHT & RAIN SENS
18	SB	SECURITY INDICATOR
19	L	CAN-H
20	P	CAN-L
21	SB	REAR DEFFOGER SW
24	GR	DOOR LOCK STATUS IND
25	GR	DOOR SW (RL)
26	R	DOOR SW (DR)
27	BR	DOOR SW (AS)
28	G	DOOR SW (BACK)
29	LG	DOOR SW (FR)
30	SB	AUDIO LINK
31	BR	COMBI SW INPUT 5
32	G	COMBI SW INPUT 2
33	V	COMBI SW INPUT 1
34	GR	COMBI SW INPUT 4
35	L	COMBI SW INPUT 3
36	V	KEY SW
37	R	ACC SW
38	W/L	IGN SW
39	P	NATS ANTENNA AMP.
40	LG	NATS ANTENNA AMP.

Connector No.	M66
Connector Name	BCM (BODY CONTROL MODULE)
Connector Type	FCI 211P0122S1017



62	51	50	49	48	47	46	45	44	43	42	41
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Terminal No.	Color of Wire	Signal Name [Specification]
41	V	BAT (USE)
42	V	ROOM LAMP POWER SUPPLY
43	L	REAR WIPER MOTOR OUTPUT
44	L/W	REAR WIPER AUTO STOP
45	GR	BACK DOOR OPENER
47	G/Y	FLASHER OUTPUT (LEFT)
48	G/B	FLASHER OUTPUT (RIGHT)
49	Y	REAR FOG LAMP
51	R/W	STOP LAMP SW (With Intelligent Key)
51	R	STOP LAMP SW (Without Intelligent Key)
52	R	ROOM LAMP OUTPUT

Fail Safe

Fail-safe index

BCM performs fail-safe control when any DTC listed below is detected.

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BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Display contents of CONSULT	Fail-safe	Cancellation
B2190: NATS ANTENNA AMP	- Inhibits engine cranking - Inhibits steering lock unlocking (Intelligent Key unit) - Fuel cut (ECM)	Erase DTC
B2191: DIFFERENCE OF KEY	- Inhibits engine cranking - Inhibits steering lock unlocking (Intelligent Key unit) - Fuel cut (ECM)	Erase DTC
B2192: ID DISCORD BCM-ECM	Fuel cut (ECM)	Erase DTC
B2193: CHAIN OF BCM-ECM	Fuel cut (ECM)	Erase DTC
B2194: DISCORD BCM-I-KEY	- Inhibits engine cranking - Inhibits steering lock unlocking (Intelligent Key unit) - Fuel cut (ECM)	Erase DTC
B2195: ANTI SCANNING	- Inhibits engine cranking - Inhibits steering lock unlocking (Intelligent Key unit) - Fuel cut (ECM)	Erase DTC
B2196: DONGLE NG	- Inhibits engine cranking - Inhibits steering lock unlocking (Intelligent Key unit) - Fuel cut (ECM)	Erase DTC

REAR WIPER CONTROL

BCM detects a rear wiper stopping position according to a rear wiper auto stop signal.

When a rear wiper auto stop signal is in the condition listed below, BCM stops power supply to rear wiper after rear wiper is activated for five seconds.

Ignition switch	Rear wiper switch	Auto stop signal
ON	OFF	Rear wiper stop position signal cannot be input 5 seconds.
	ON	The signal does not change for 5 seconds.

NOTE:

The above operation is repeated when operating the rear wiper switch one minute after the stop of the rear wiper caused by Fail-safe.

TURN SIGNAL LAMP CONTROL

BCM detects the turn signal lamp circuit status from the terminal voltage.

BCM increases the turn signal lamp blinking speed if the bulb or harness open is detected with the turn signal lamp operating.

NOTE:

The blinking speed is normal while activating the hazard warning lamp.

LIGHT & RAIN SENSOR MALFUNCTION DETECTION FUNCTION

BCM controls the following items when LIGHT & RAIN sensor has a malfunction.

Auto Light Control

Headlamp is turned ON.

Front Wiper Control

The condition just before the activation of Fail-safe is maintained until the front wiper switch is turned OFF.

DTC Inspection Priority Chart

INFOID:000000001102071

BCM (BODY CONTROL MODULE)

< ECU DIAGNOSIS >

Priority	DTC
1	- U1000: CAN COMM CIRCUIT - U1010: CONTROL UNIT (CAN)
2	- B2190: NATS ANTENNA AMP - B2191: DIFFERENCE OF KEY - B2192: ID DISCORD BCM-ECM - B2193: CHAIN OF BCM-ECM - B2194: DISCORD BCM-I-KEY - B2195: ANTI SCANNING - B2196: DONGLE NG

DTC Index

INFOID:000000001102072

NOTE:

- 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.
- PAST: Displays when there is a malfunction that is detected in the past and stored.
- 1 - 39: Displayed if any previous malfunction is present when current condition is normal. It increases like 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.

CONSULT display	TIME		Fail-safe	Refer to
No DTC is detected. further testing may be required.	—	—	—	—
U1000: CAN COMM CIRCUIT	0	1 - 39	—	BCS-32
U1010: CONTROL UNIT (CAN)	0	1 - 39	—	BCS-33
B2190: NATS ANTENNA AMP	CRNT	PAST	×	- With Intelligent Key system SEC-33 - Without Intelligent Key system SEC-174
B2191: DIFFERENCE OF KEY	CRNT	PAST	×	- With Intelligent Key system SEC-35 - Without Intelligent Key system SEC-176
B2192: ID DISCORD BCM-ECM	CRNT	PAST	×	- With Intelligent Key system SEC-36 - Without Intelligent Key system SEC-177
B2193: CHAIN OF BCM-ECM	CRNT	PAST	×	- With Intelligent Key system SEC-38 - Without Intelligent Key system SEC-178
B2194: DISCORD BCM-I-KEY	CRNT	PAST	×	SEC-39
B2195: ANTI SCANNING	CRNT	PAST	×	- With Intelligent Key system SEC-179 - Without Intelligent Key system SEC-179
B2196: DONGLE NG	CRNT	PAST	×	- With Intelligent Key system SEC-41 - Without Intelligent Key system SEC-180

THE LIGHT REMINDER WARNING DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

THE LIGHT REMINDER WARNING DOES NOT SOUND

Description

INFOID:0000000000892444

The light reminder warning does not sound under the following conditions.

- Lighting switch 1st or 2nd position
- Driver door open
- Ignition switch OFF or ACC

Diagnosis Procedure

INFOID:0000000000892445

1.CHECK COMBINATION SWITCH (LIGHTING SWITCH) OPERATION

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

Do they operate normally?

YES >> GO TO 2.

NO >> Refer to [EXL-156, "Symptom Table"](#).

2.CHECK FRONT DOOR SWITCH (DRIVER SIDE) SIGNAL CIRCUIT

Perform the inspection for the front door switch (driver side) signal circuit. Refer to [DLK-83, "DRIVER SIDE : Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK FRONT DOOR SWITCH (DRIVER SIDE) UNIT

Perform a unit inspection for the front door switch (driver side). Refer to [DLK-84, "DRIVER SIDE : Component Inspection"](#).

Is the inspection result normal?

YES >> Replace the BCM. Refer to [BCS-64, "Exploded View"](#).

NO >> Replace the front door switch (driver side). Refer to [DLK-272, "Removal and Installation"](#).

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WCS

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

< SYMPTOM DIAGNOSIS >

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

Description

INFOID:000000000892446

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

Trouble diagnosis procedure

INFOID:000000000892447

1.CHECK FRONT SEAT BELT BUCKLE SWITCH CIRCUIT

Perform the front seat belt buckle switch circuit inspection. Refer to [WCS-21, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> GO TO 2.

NO >> Repair the harnesses or connectors.

2.CHECK FRONT SEAT BELT BUCKLE SWITCH UNIT

Perform the front seat belt buckle switch unit inspection. Refer to [SBC-8, "Component Inspection"](#) (driver side) or [SBC-11, "Component Inspection \(seat belt buckle switch passenger side\)"](#) (passenger side).

Is the inspection result normal?

YES >> GO TO 3.

NO >> Replace the seat belt buckle. Refer to [SB-8, "SEAT BELT BUCKLE : Removal and Installation"](#).

3.CHECK OCCUPANT DETECTION UNIT

Perform a unit inspection for the occupant detection unit. Refer to [SBC-11, "Component Inspection \(occupant detection unit\)"](#).

Is the inspection result normal?

YES >> INSPECTION END

NO >> Replace the occupant detection unit. Refer to [SE-25, "Disassembly and Assembly"](#).

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

< SYMPTOM DIAGNOSIS >

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

Description

INFOID:000000000892442

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

Diagnosis Procedure

INFOID:000000000892443

1.CHECK PARKING BRAKE WARNING LAMP OPERATION

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

Condition	Warning lamp status
Parking brake ON	ON
Parking brake OFF	OFF

Is the inspection result normal?

- YES >> Replace combination meter.
NO >> GO TO 2.

2.CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

Perform an inspection for the parking brake switch signal circuit. Refer to [WCS-23, "Diagnosis Procedure"](#).

Is the inspection result normal?

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

3.CHECK PARKING BRAKE SWITCH UNIT

Perform a unit inspection for the parking brake switch. Refer to [WCS-23, "Component Inspection"](#).

Is the inspection result normal?

- YES >> Replace combination meter. Refer to [MWI-72, "Removal and Installation"](#).
NO >> Replace parking brake switch.

THE KEY WARNING DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE KEY WARNING DOES NOT SOUND

Description

INFOID:000000000911528

The key warning does not sound with the ignition switch OFF, the driver door open, and the mechanical key inserting conditions.

Diagnosis Procedure

INFOID:000000000911529

1.CHECK BCM INPUT SIGNAL

Connect CONSULT-III and inspect the BCM input signal. Refer to [DLK-597, "Component Function Check"](#).

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-64, "Exploded View"](#).

NO >> GO TO 2.

2.CHECK KEY SWITCH SIGNAL CIRCUIT

Perform an inspection for the key switch signal circuit. Refer to [DLK-597, "Diagnosis Procedure"](#).

Is the inspection result normal?

YES >> Replace BCM. Refer to [BCS-64, "Exploded View"](#).

NO >> Check applicable parts, and repair or replace corresponding parts.

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

INFOID:000000001078352

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 SRC and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRC 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.

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