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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

BASIC INSPECTION Α DIAGNOSIS AND REPAIR WORKFLOW Work Flow INFOID:0000000003085507 В **DETAILED FLOW** $oldsymbol{1}$.OBTAIN INFORMATION ABOUT SYMPTOM C Interview the customer to obtain as much information as possible about the conditions and environment under which the malfunction occurred. D >> GO TO 2 2. CHECK SYMPTOM Е • Check the symptom based on the information obtained from the customer. · Check to see if any other malfunctions are present. F >> GO TO 3 3.check consult-iii self-diagnosis results Connect CONSULT-III and perform "SELF-DIAGNOSIS". Refer to MWI-24, "CONSULT-III Function (METER/ M&A)". Are self-diagnosis results normal? Н YES >> GO TO 4 >> Repair or replace the malfunctioning parts, GO TO 5 NO 4.NARROW DOWN MALFUNCTIONING PARTS THROUGH SYMPTOM DIAGNOSIS Perform symptom diagnosis and repair or replace the identified malfunctioning parts. >> GO TO 5 5. FINAL CHECK Check that the warning buzzer in the combination meter operates normally. K Does it operate normally? YES >> Inspection End. NO >> GO TO 1 M

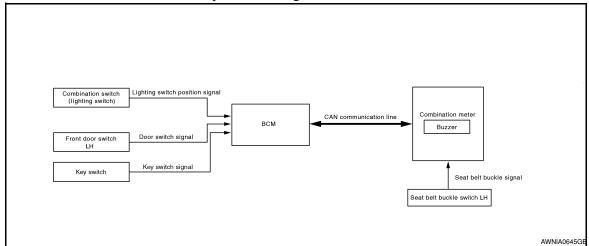
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FUNCTION DIAGNOSIS

WARNING CHIME SYSTEM WARNING CHIME SYSTEM

WARNING CHIME SYSTEM: System Diagram

INFOID:0000000003085508



WARNING CHIME SYSTEM: System Description

INFOID:0000000003085509

COMBINATION METER

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

BCM

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

BCM warning function list

Warning functions	Signal name
Light reminder warning chime	Lighting switch position signal Door switch signal
Seat belt warning chime	Seat belt buckle switch signal
Key warning chime	Key switch signal Door switch signal

WARNING CHIME SYSTEM : Component Parts Location

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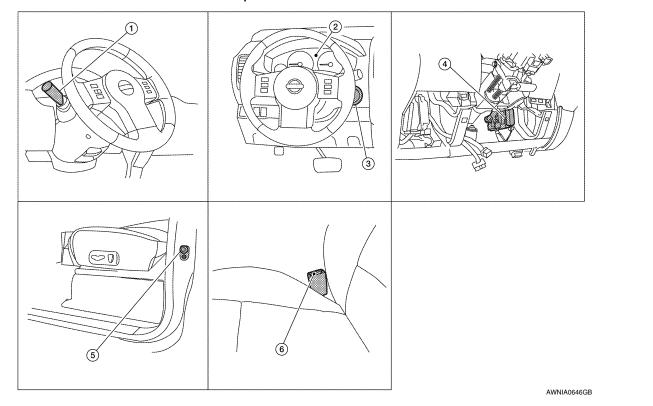
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- Combination switch (lighting switch) M28
- 4. BCM M18, M19, M20 (view with instru- 5. ment lower panel LH removed)
- . Combination meter M24
 - Front door switch LH B8
- 3. Key switch M27
- 6. Seat belt buckle switch LH B12

WARNING CHIME SYSTEM : Component Description

INFOID:0000000003085511

Unit	Description
Combination meter	 Receives the seat belt buckle switch signal from the seat belt buckle switch LH and transmits it to BCM with CAN communication line. Receives a buzzer output signal from BCM with CAN communication line.
BCM	Transmits signals provided by various units to the combination meter with CAN communication line.
Key switch	Transmits key switch signal to BCM.
Seat belt buckle switch LH	Transmits a seat belt buckle switch signal to the combination meter.
Combination switch (Lighting switch)	Transmits the lighting switch position signal to BCM.
Front door switch LH	Transmits the door switch signal to BCM.

LIGHT REMINDER WARNING CHIME

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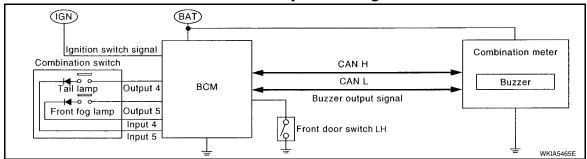
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WARNING CHIME SYSTEM

< FUNCTION DIAGNOSIS >

LIGHT REMINDER WARNING CHIME: System Diagram

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LIGHT REMINDER WARNING CHIME: System Description

INFOID:0000000003085513

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 LH ON, and lighting switch in 1ST or 2ND position. And then transmits buzzer output signal (light reminder warning chime) to combination meter with CAN communication line.
- · When combination meter receives buzzer output signal (light reminder warning chime), it sounds the buzzer.

WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled

- Lighting switch is at 1st or 2nd position
- · Ignition switch is at OFF or ACC
- · Front door switch LH is ON

WARNING CANCEL CONDITIONS

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

- Lighting switch OFF
- Ignition switch ON
- Front door switch LH is OFF

LIGHT REMINDER WARNING CHIME: Component Parts Location

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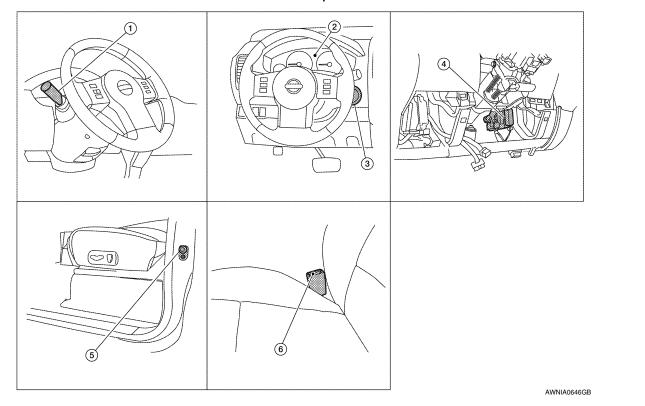
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- Combination switch (lighting switch) M28
- BCM M18, M19, M20 (view with instru- 5. ment lower panel LH removed)
- Combination meter M24
- Front door switch LH B8
- 3. Key switch M27
- Seat belt buckle switch LH B12

LIGHT REMINDER WARNING CHIME: Component Description

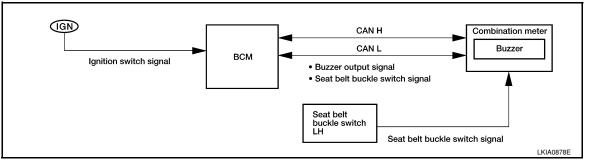
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Unit	Description
Combination meter	Receives a buzzer output signal from BCM via CAN communication line and sounds the buzzer.
ВСМ	Judges the light warning conditions from the signals provided by various switches and transmits a buzzer output signal 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 LH	Transmits the door switch signal to BCM.

SEAT BELT WARNING CHIME

SEAT BELT WARNING CHIME : System Diagram

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SEAT BELT WARNING CHIME: System Description

INFOID:0000000003085517

DESCRIPTION

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

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

WARNING OPERATION CONDITIONS

If all of the following conditions are fulfilled • Ignition switch OFF \rightarrow ON

- Seat belt buckle switch LH is ON (driver seat belt not fastened)

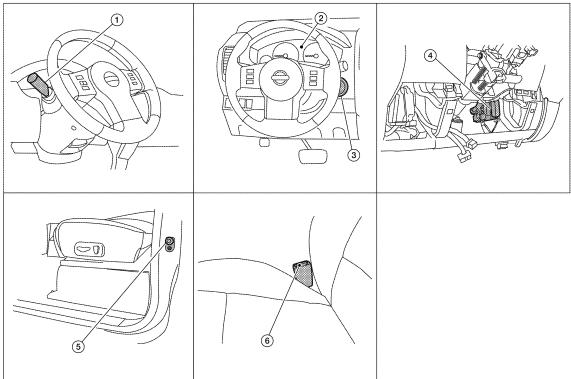
WARNING CANCEL CONDITIONS

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

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

SEAT BELT WARNING CHIME: Component Parts Location

INFOID:0000000003085518



AWNIA0646GB

- Combination switch (lighting switch)
 - BCM M18, M19, M20 (view with instru- 5. ment lower panel LH removed)
- Combination meter M24
 - Front door switch LH B8
- Key switch M27 3.
- Seat belt buckle switch LH B12 6.

SEAT BELT WARNING CHIME: Component Description

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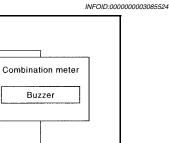
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Unit	Description
Combination meter	 Receives the seat belt buckle switch signal from the seat belt buckle switch and transmits it to BCM via CAN communication line. Receives a buzzer output signal from BCM via CAN communication line and sounds the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

KEY WARNING CHIME

(IGN) (BAT)

KEY WARNING CHIME: System Diagram



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KEY WARNING CHIME: System Description

Inserted key switch

(53)

Ignition switch signal

INFOID:0000000003085525

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

CAN H

CAN L

Front door switch LH

Buzzer output signal

- BCM detects key inserted into the ignition switch, and sends key warning signal to combination meter with CAN communication line.
- When combination meter receives key warning signal, it sounds warning chime.

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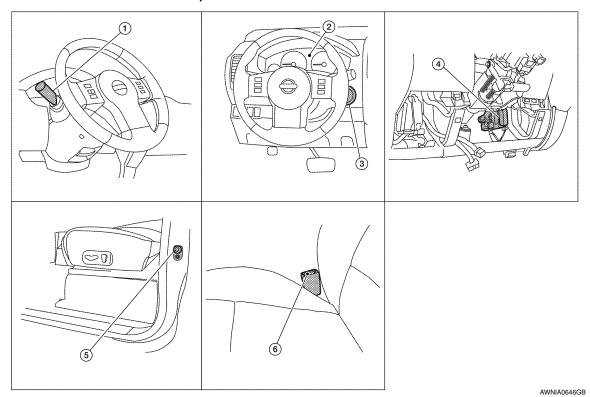
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KEY WARNING CHIME: Component Parts Location

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- Combination switch (lighting switch) M28
- 4. BCM M18, M19, M20 (view with instru- 5. ment lower panel LH removed)
- . Combination meter M24
- Front door switch LH B8
- Key switch M27

3.

6. Seat belt buckle switch LH B12

KEY WARNING CHIME : Component Description

INFOID:0000000003085527

Unit	Description
Combination meter	Receives key warning signal from BCM via CAN communication line and sounds the buzzer.
BCM	Judges the key warning condition from the door switch signal received from the front door switch LH, and the key switch signal received from the key switch. It then transmits a buzzer output signal to the combination meter via CAN communication line if necessary.
Front door switch LH	Transmits door switch signal to BCM.
Key switch	Transmits key switch signal to BCM.

DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (METER)

CONSULT-III Function (METER/M&A)

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

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

SELF-DIAG RESULTS

Display Item List

Refer to MWI-57, "DTC Index".

DATA MONITOR

Display Item List

			X: Applicable
Display item [Unit]	MAIN SIGNALS	SELECTION FROM MENU	Description
SPEED METER [km/h] or [mph]	Х	Х	Displays the value of vehicle speed signal.
SPEED OUTPUT [km/h] or [mph]	Х	Х	Displays the value of vehicle speed signal, which is transmitted to each unit with CAN communication.
TACHO METER [rpm]	Х	Х	Displays the value of engine speed signal, which is input from ECM.
FUEL METER [lit.]	Х	Х	Displays the value, which processes a resistance signal from fuel gauge.
W TEMP METER [°C] or [°F]	Х	Х	Displays the value of engine coolant temperature signal, which is input from ECM.
ABS W/L [ON/OFF]		Х	Displays [ON/OFF] condition of ABS warning lamp.
VDC/TCS IND [ON/OFF]		Х	Displays [ON/OFF] condition of VDC OFF indicator lamp.
SLIP IND [ON/OFF]		Х	Displays [ON/OFF] condition of SLIP indicator lamp.
BRAKE W/L [ON/OFF]		Х	Displays [ON/OFF] condition of brake warning lamp.*
DOOR W/L [ON/OFF]		Х	Displays [ON/OFF] condition of door warning lamp.
HI-BEAM IND [ON/OFF]		Х	Displays [ON/OFF] condition of high beam indicator.
TURN IND [ON/OFF]		Х	Displays [ON/OFF] condition of turn indicator.
OIL W/L [ON/OFF]		Х	Displays [ON/OFF] condition of oil pressure warning lamp.
C-ENG W/L [ON/OFF]		Х	Displays [ON/OFF] condition of malfunction indicator lamp.
CRUISE IND [ON/OFF]		Х	Displays [ON/OFF] condition of CRUISE indicator.
SET IND [ON/OFF]		Х	Displays [ON/OFF] condition of SET indicator.
O/D OFF W/L [ON/OFF]		Х	Displays [ON/OFF] condition of AT CHECK (with manual mode) or O/D OFF (without manual mode) warning lamp.
FUEL W/L [ON/OFF]	Χ	Х	Displays [ON/OFF] condition of low-fuel warning lamp.
AIR PRES W/L [ON/OFF]		Х	Displays [ON/OFF] condition of tire pressure warning lamp.
M RANGE SW [ON/OFF]	Х	Х	Displays [ON/OFF] condition of manual mode range switch.
NM RANGE SW [ON/OFF]	Х	Х	Displays [ON/OFF] condition of except for manual mode range switch.
AT SFT UP SW [ON/OFF]	Х	Х	Displays [ON/OFF] condition of A/T shift-up switch.
AT SFT DWN SW [ON/OFF]	Х	Х	Displays [ON/OFF] condition of A/T shift-down switch.
DISTANCE [km] or [mile]	Х	Х	Displays the value, which is calculated by vehicle speed signal, fuel gauge and fuel consumption from ECM.
BUZZER [ON/OFF]	Х	Х	Displays [ON/OFF] condition of buzzer.

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DIAGNOSIS SYSTEM (METER)

< FUNCTION DIAGNOSIS >

Display item [Unit]	MAIN SIGNALS	SELECTION FROM MENU	Description
BRAKE SW [ON/OFF]		Х	Indicates [ON/OFF] condition of parking brake switch.
AT-M IND [ON/OFF]	Х	Х	Indicates [ON/OFF] condition of A/T manual mode indicator.
AT-M GEAR [1, 2, 3, 4, 5]	Х	Х	Indicates [1, 2, 3, 4, 5] condition of A/T manual mode gear position.
P RANGE IND [ON/OFF]	Х	Х	Indicates [ON/OFF] condition of A/T shift P range indicator.
R RANGE IND [ON/OFF]	Х	Х	Indicates [ON/OFF] condition of A/T shift R range indicator.
N RANGE IND [ON/OFF]	Х	Х	Indicates [ON/OFF] condition of A/T shift N range indicator.
D RANGE IND [ON/OFF]	Х	Х	Indicates [ON/OFF] condition of A/T shift D range indicator.
4 RANGE IND [ON/OFF]	Х	Х	Indicates [ON/OFF] condition of A/T shift 4 range indicator.
3 RANGE IND [ON/OFF]	Х	Х	Indicates [ON/OFF] condition of A/T shift 3 range indicator.
2 RANGE IND [ON/OFF]	Х	Х	Indicates [ON/OFF] condition of A/T shift 2 range indicator.
1 RANGE IND [ON/OFF]	Х	Х	Indicates [ON/OFF] condition of A/T shift 1range indicator.
4WD LOCK SW [ON/OFF]		Х	Indicates [ON/OFF] condition of 4WD lock switch.
4WD LOCK IND [ON/OFF]		Х	Indicates [ON/OFF] condition of 4WD lock indicator.
SEAT BELT W/L [ON/OFF]		Х	Indicates [ON/OFF] condition of seat belt warning lamp.
O/D OFF SWITCH [ON/OFF]		X	Indicates [ON/OFF] condition of O/D OFF switch.
FR FOG IND [ON/OFF]		Х	This item is not used for this model. "OFF" is always displayed.
RR FOG IND [ON/OFF]		Х	This item is not used for this model. "OFF" is always displayed.

NOTE:

Some items are not available due to vehicle specification.

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

DIAGNOSIS SYSTEM (BCM)

< FUNCTION DIAGNOSIS >

DIAGNOSIS SYSTEM (BCM)

BUZZER

BUZZER: CONSULT-III Function (BCM - BUZZER)

INFOID:0000000003085529

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CONSULT-III APPLICATION ITEMS

Test item	Diagnosis mode	Description
BUZZER	Data Monitor	Displays BCM input data in real time.
DOZZEN	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]	Status of ignition switch judged by BCM.	
KEY ON SW [On/Off]	Status of key switch judged by BCM.	
DOOR SW-DR [On/Off]	Status of front door switch LH judged by BCM.	
LIGHT SW 1ST [On/Off]	Status of lighting switch judged by BCM using the combination switch readout function.	
BUCKLE SW [On/Off]	Status of seat belt buckle switch judged by BCM.	

ACTIVE TEST

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

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POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY AND GROUND CIRCUIT COMBINATION METER

COMBINATION METER: Diagnosis Procedure

INFOID:0000000003085530

1. CHECK FUSES

Check for blown combination meter fuses.

Unit	Power source	Fuse No.
Combination meter	Battery	19
Combination meter	Ignition switch ON or START	14

Is the inspection result normal?

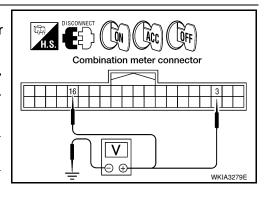
YES >> GO TO 2

NO >> Replace the blown fuse after repairing the affected circuit.

2. POWER SUPPLY CIRCUIT CHECK

- 1. Disconnect combination meter.
- 2. Check voltage between combination meter harness connector M24 terminals 3, 16 and ground.

Terminals			Ignition switch position		
(+)		(-)	OFF	ACC	ON
Connector	Terminal	()	011	7.00	OIT
M24	3	Ground	Battery voltage	Battery voltage	Battery voltage
IVI24	16	Ground	0V	0V	Battery voltage



Is the inspection result normal?

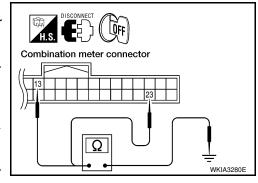
YES >> GO TO 3

NO >> Repair or replace harness.

3. GROUND CIRCUIT CHECK

- 1. Turn ignition switch OFF.
- Check continuity between combination meter harness connector M24 terminals 13, 23 and ground.

	Termi			
(+)		(-)	Continuity	
Connector	Terminal	(-)		
M24	M24 13 Ground		Yes	
10124	23	Ground	165	



Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness.

BCM (BODY CONTROL MODULE)

BCM (BODY CONTROL MODULE) : Diagnosis Procedure

INFOID:00000000003085531

1. CHECK FUSES AND FUSIBLE LINK

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

POWER SUPPLY AND GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

Terminal No.	Signal name	Fuses and fusible link No.
57	Pottory power cumply	18 (10A)
70	Battery power supply	G (50A)
11	Ignition ACC or ON	4 (10A)
38	Ignition ON or START	1 (10A)

Is the fuse blown?

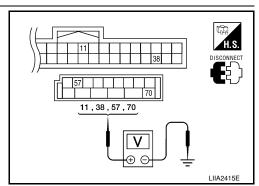
YES >> Replace the blown fuse or fusible link after repairing the affected circuit.

NO >> GO TO 2

2. CHECK POWER SUPPLY CIRCUIT

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

Connector	Term	inals	Power	Condition	Voltage (V) (Ap-	
Connector	(+)	(-)	source	Condition	prox.)	
M18	11	Ground	ACC power supply	Ignition switch ACC or ON	Battery voltage	
	38	Ground	Ignition power supply	Ignition switch ON or START	Battery voltage	
M20	57	Ground	Battery power supply	Ignition switch OFF	Battery voltage	
IVIZU	70	Ground	Battery power supply	Ignition switch OFF	Battery voltage	



Is the measurement value normal?

YES >> GO TO 3

NO >> Repair or replace harness.

3. CHECK GROUND CIRCUIT

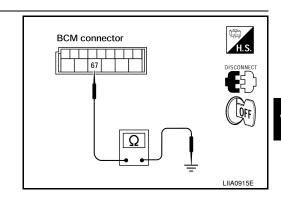
Check continuity between BCM harness connector and ground.

В	ВСМ		Continuity
Connector	Terminal	Ground	Continuity
M20	67		Yes

Does continuity exist?

YES >> Inspection End.

NO >> Repair or replace harness.



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METER BUZZER CIRCUIT

< COMPONENT DIAGNOSIS >

METER BUZZER CIRCUIT

- 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:0000000003085533

1. CHECK OPERATION OF METER BUZZER

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

Does meter buzzer activate?

YES >> Inspection End.

NO >> Replace combination meter. Refer to MWI-90, "Removal and Installation".

Diagnosis Procedure

INFOID:0000000003085534

1. CHECK POWER SUPPLY OF COMBINATION METER

Check power supply of combination meter. Refer to WCS-14, "COMBINATION METER: Diagnosis Procedure".

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness.

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

Description INFOID:0000000003085535

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

Component Function Check

1. CHECK COMBINATION METER INPUT SIGNAL

Select "DATA MONITOR" for "METER/M&A" and check the "SEAT BELT W/L" monitor value.

SEAT BELT W/L

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

>> Inspection End.

Diagnosis Procedure

1. CHECK COMBINATION METER INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage between combination meter harness connector M24 terminal 24 and ground.

24 - Ground

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

Is the inspection result normal?

YES >> Replace combination meter. Refer to MWI-90, "Removal and Installation".

NO >> GO TO 2

2. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

- Turn ignition switch OFF.
- 2. Disconnect combination meter and seat belt buckle switch LH.
- Check continuity between combination meter harness connector M24 terminal 24 and seat belt buckle switch LH harness connector B12 terminal 1.

24 - 1 : Continuity should exist.

4. Check continuity between combination meter harness connector M24 terminal 24 and ground.

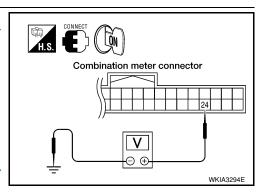
24 - Ground : Continuity should not exist.

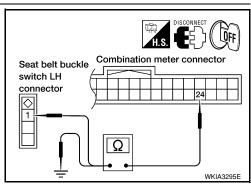
Is the inspection result normal?

YES >> GO TO 3

NO >> Repair or replace harness.

 $3.\,$ CHECK SEAT BELT BUCKLE SWITCH GROUND CIRCUIT





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SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

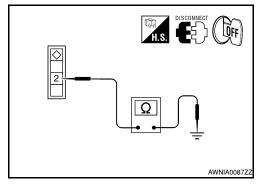
Check continuity between seat belt buckle switch LH harness connector B12 terminal 2 and ground.

2 - Ground : Continuity should exist.

Is the inspection result normal?

YES >> Inspection End.

NO >> Repair or replace harness.



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Component Inspection

1. CHECK SEAT BELT BUCKLE SWITCH

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

1-2

When seat belt is : Continuity should not exist.

fastened

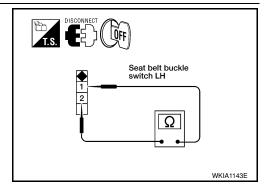
When seat belt is : Continuity should exist.

unfastened

Is the inspection result normal?

YES >> Inspection End.

NO >> Replace the seat belt buckle switch LH.



KEY SWITCH SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

KEY SWITCH SIGNAL CIRCUIT

Transmits a key switch signal to the BCM.

Component Function Check

1. CHECK BCM INPUT SIGNAL

Select "DATA MONITOR" for "BCM" and check the "KEY ON SW" monitor value.

KEY ON SW

When key is inserted into key cylinder : ON When key is removed from key cylinder : OFF

>> Inspection End.

Diagnosis Procedure

1. CHECK FUSE

Check if the key switch 10A fuse [No. 25, located in the fuse block (J/B)] is blown.

Is the fuse blown?

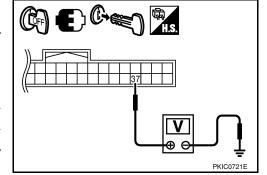
YES >> Replace the blown fuse after repairing the affected circuit.

NO >> GO TO 2

2. CHECK BCM INPUT SIGNAL

Check voltage between BCM harness connector and ground.

(+))			
	(+) BCM		Condition	Voltage (Approx.)
-				
M18	37	Ground	Key is inserted	Battery voltage
IVITO	37	Ground	Key is removed	0



Is the inspection result normal?

YES >> Inspection End.

NO >> GO TO 3

3. CHECK KEY SWITCH CIRCUIT

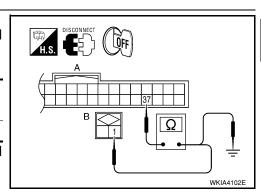
1. Disconnect BCM and key switch.

Check continuity between BCM harness connector M18 (A) and key switch harness connector M27 (B).

Α		В		Continuity
Connector	Terminal	Connector Terminal		Continuity
M18	37	M27	1	Yes

Check continuity between BCM harness connector M18 (A) and ground.

Α			Continuity	
Connector	Connector Terminal		Continuity	
M18	37		No	



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INFOID:0000000003085544

INFOID:0000000003085545

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KEY SWITCH SIGNAL CIRCUIT

< COMPONENT DIAGNOSIS >

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair or replace harness.

4. CHECK KEY SWITCH POWER SUPPLY CIRCUIT

Check voltage between key switch harness connector and ground.

	Terminals			
(+)		Voltage (Approx.)		
Key switch	Terminal	(-)	(
M27	3	Ground	Battery voltage	

Is the inspection result normal?

YES >> Replace key switch.

NO >> Repair or replace harness.

Component Inspection

1. CHECK KEY SWITCH

- 1. Turn ignition switch OFF.
- 2. Disconnect key switch.
- 3. Check continuity between key switch terminals 1 and 2.

1-2

When key is inserted into key cylinder

When key is removed

from key cylinder

: Continuity should exist.

: Continuity should not exist.

DISCONNECT OFF

INFOID:0000000003085546

Is the inspection result normal?

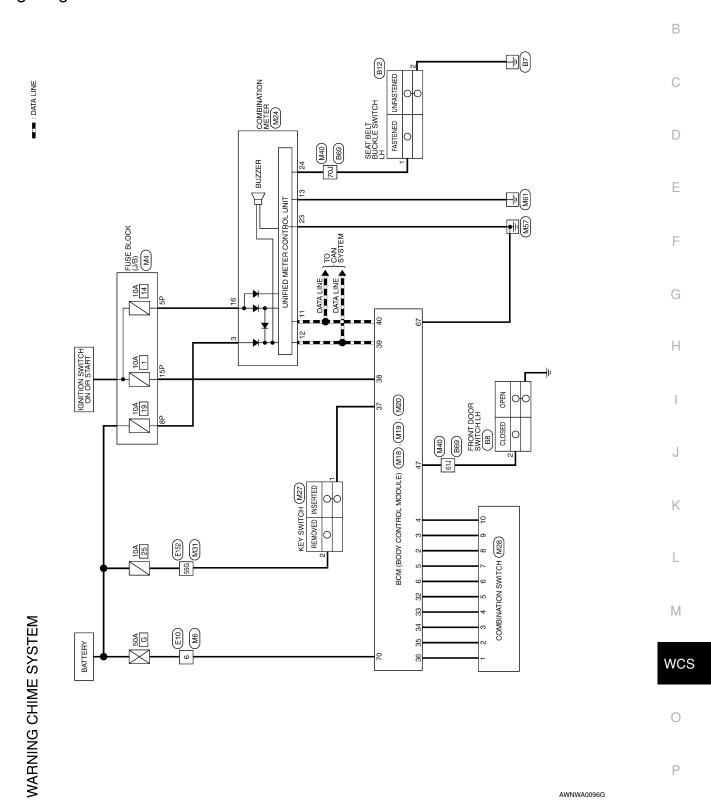
YES >> Inspection End.

NO >> Replace key switch.

WARNING CHIME SYSTEM

Wiring Diagram

Α

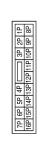


WARNING CHIME SYSTEM CONNECTORS

M4	Connector Name FUSE BLOCK (J/B)	WHITE
Connector No.	Connector Name	Connector Color WHITE

Connector No. M6
Connector Name WIRE TO WIRE

Connector Color WHITE





Signal Name	ı	ı	1	
Color of Wire	M/G	R/Υ	W/R	
Terminal No.	5P	8P	15P	

Signal Name

Color of Wire ≥

Terminal No.

	M19	BCM (BODY CC MODULE)
	Connector No.	Connector Name

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



Signal Name	DOOR SW (DR)	
Color of Wire	GR	
Terminal No.	47	

Terminal No. Color of Signal Name 4 V COMBI SW INPUTS 6 R COMBI SW INPUTS 32 O COMBI SW OUTPUTS 33 GR COMBI SW OUTPUTS 34 G COMBI SW OUTPUTS 35 BR COMBI SW OUTPUTS 36 LG COMBI SW OUTPUTS 36 LG COMBI SW OUTPUTS 36 LG COMBI SW OUTPUTS 37 B KEY SW 38 W/R IGN SW 39 L CAN-H 40 P CAN-H													
	Signal Name	COMBI SW INPUT3	COMBI SW INPUT2	COMBI SW INPUT1	COMBI SW OUTPUTS	COMBI SW OUTPUT4	COMBI SW OUTPUT3	COMBI SW OUTPUT2	COMBI SW OUTPUT1	MS Y3M	MS NDI	CAN-H	CAN-L
7 Terminal No. 5 6 6 32 33 34 35 35 35 36 36 36 36 36 36 36 36 36 36 36 36 36	Color of Wire	Λ	٦	ш	0	GR	9	BR	ГG	В	W/R	L	Р
	Terminal No.	4	5	9	32	33	34	35	36	37	38	39	40

]		18 19 20	38 39 40			
8	BCM (BODY CONTROL MODULE)	WHITE			9 10 11 12 13 14 15 16 17 11	29 30 31 32 33 34 35 36 37 3	Signal Name	COMBI SW INPUT5	COMBI SW INPUT4
M18		_			6 7 8	26 27 28	Color of Wire	Д	SB
Connector No.	Connector Name	Connector Color		语 H.S.	1 2 3 4 5	21 22 23 24 25	Terminal No.	2	3

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WARNING CHIME SYSTEM

< COMPONENT DIAGNOSIS >

Signal Name	1	CAN-L	CAN-H	1	1	1	ı
Color of Wire	R/Y	۵	_	GR	M/G	В	>
Terminal No.	3	1	12	13	16	23	24

				-	22 21
				2	22
				က	23
	~			4	24
	出			5	25
	Ш			9	27 26 25 24
	Σ			_	27
	S			∞	36 35 34 33 32 31 30 29 28
	ĭ		17		29
	Ϋ́			10	30
	圖	ш		Ξ	31
42	≥	WHITE		12	32
M24	$\ddot{\circ}$	⋝		13	33
	(D)			4	34
	ũ	ᅙ		15	35
ž	ž	ပ		16	36
ö	ior	ö		17	37
ect	ect	ec		18	38
Ë	ū	Ē	H.S.	20 19 18 17 16 15 14 13 12 11 10 9	40 39 38 37
Connector No.	Connector Name COMBINATION METER	Connector Color	優出	20	40

Connector No.). M20	0
Connector Name		BCM (BODY CONTROL MODULE)
Connector Color	_	BLACK
用.S.	56 57 58 5	86 57 58 59 60 61 62 63 64 65 66 67 88 69 70
Terminal No.	Color of Wire	Signal Name
29	В	GND
70	M	BAT (E/I)

Signal Name	INPUT 2	INPUT 3	INPUT 4	INPUT 5	OUT PUT 1	OUT PUT 2	OUT PUT 5	OUT PUT 4	OUT PUT 3
Color of Wire	BR	В	GR	0	ш	Т	Д	SB	^
Terminal No.	2	ဗ	4	2	9	7	8	6	10

	COMBINATION SWITCH		2 3 4 5 6
M28		WHITE	01 -
ctor No.	ctor Name	ctor Color	12 13

8	COMBINATION SWITCH	III	00 9 8 7	Signal Name	
. M28		lor WHITE	12 13	Color of Wire	
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	

nnector No.	M27	
or Name	ΥĒ	nnector Name KEY SWITCH
nnector Color WHITE	MH	믣
	Ma	
rminal No. W	Color of Wire	Signal Name
	В	1
	>	I

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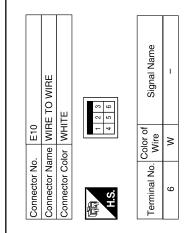
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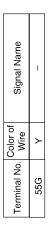
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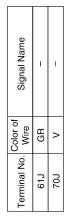
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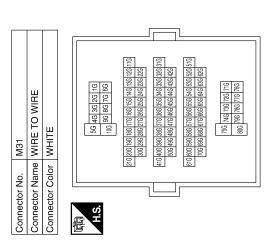
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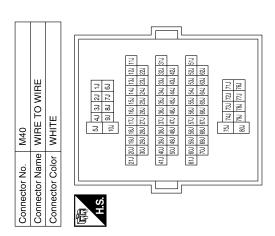
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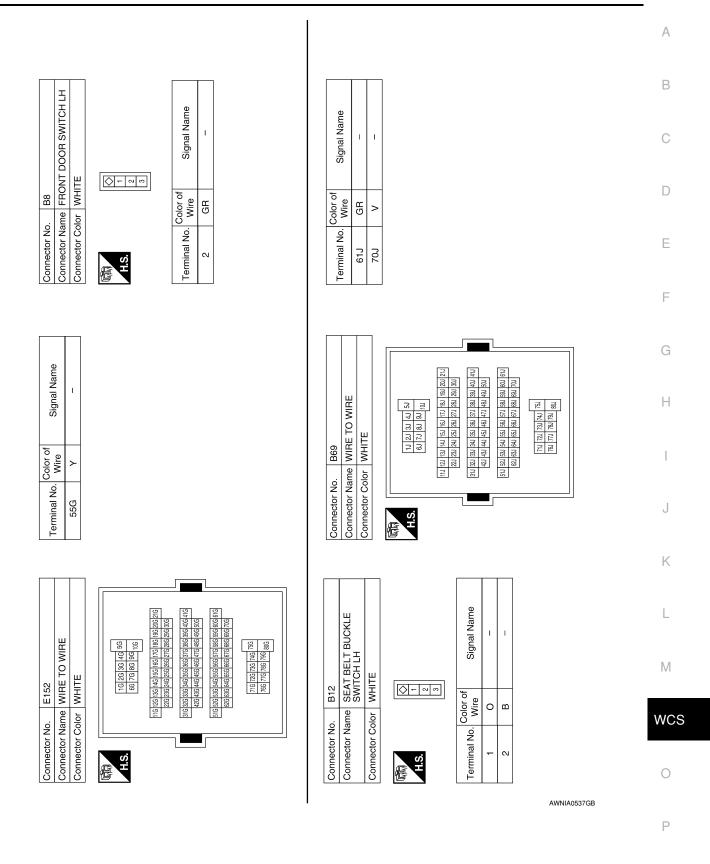






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WARNING CHIME SYSTEM

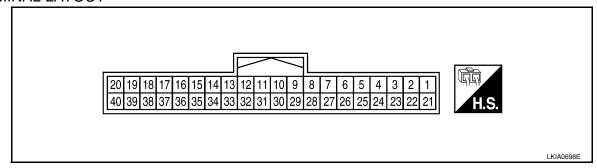


ECU DIAGNOSIS

COMBINATION METER

Reference Value

TERMINAL LAYOUT



PHYSICAL VALUES

Termi-	Wire co-			Condition	Deference value (A)
nal	lor	Item	Ignition switch	Operation or condition	Reference value (V) (Approx.)
	П	Conorator	ON	Generator voltage low	0
2	Р	Generator	ON	Generator voltage normal	Battery voltage
3	R/Y	Battery power supply	_	_	Battery voltage
4	B/Y	Fuel level sensor ground	ON	_	0
6	SB	Vehicle speed signal output (8-pulse)	ON	Speedometer operated [When vehicle speed is ap- prox. 40 km/h (25 MPH)]	NOTE: Maximum voltage may be 12V due to specifications (connected units). (V) 6 4 2 0 PKIC0643E
9	BR	Fuel level sensor signal	_	_	Refer to MWI-11, "FUEL GAUGE : System Description".
11	Р	CAN-L	_	_	_
12	L	CAN-H	_	_	_
13	GR	Ground	_	_	0
16	W/G	Ignition switch ON or START	ON	_	Battery voltage
22	BR	Illumination control switch	_	_	Refer to INL-9, "System Description".
23	В	Ground	_	_	0
24	V	Seat belt buckle switch	ON	Unfastened (ON)	0
24	v	LH	ON	Fastened (OFF)	Battery voltage
25	SB	DIFF LOCK indicator in-	ON	DIFF LOCK indicator ON	0
23	36	put	ON	DIFF LOCK indicator OFF	Battery voltage
31	G	Parking brake switch	ON	Parking brake applied	0
		Taning Diano Switch		Parking brake released	Battery voltage

COMBINATION METER

< ECU DIAGNOSIS >

Termi-	Wire co-			Condition	Deference value (M)
nal	lor	Item	Ignition switch	Operation or condition	Reference value (V) (Approx.)
32	SB	Brake fluid level switch	ON	Brake fluid level low	0
32	36	brake fluid level Switch	ON	Brake fluid level normal	Battery voltage
33	LG	Cton Jamp quitab		Brake pedal depressed	Battery voltage
33	LG	Stop lamp switch	_	Brake pedal released	0
34	L	Washer fluid level switch	ON	Washer fluid level low	0
34	L	washer huid level switch	ON	Washer fluid level normal	Battery voltage
07	SB	Air bag warning lamp in-	ON	Air bag warning lamp ON	4
37	SB	put	ON	Air bag warning lamp OFF	0
20	G	Convity indicator input	OFF	Security indicator ON	0
39	G	Security indicator input	OFF	Security indicator OFF	Battery voltage
40	LG	Seat belt buckle switch	ON	Unfastened (ON)	0
40	LG	RH	ON	Fastened (OFF)	Battery voltage

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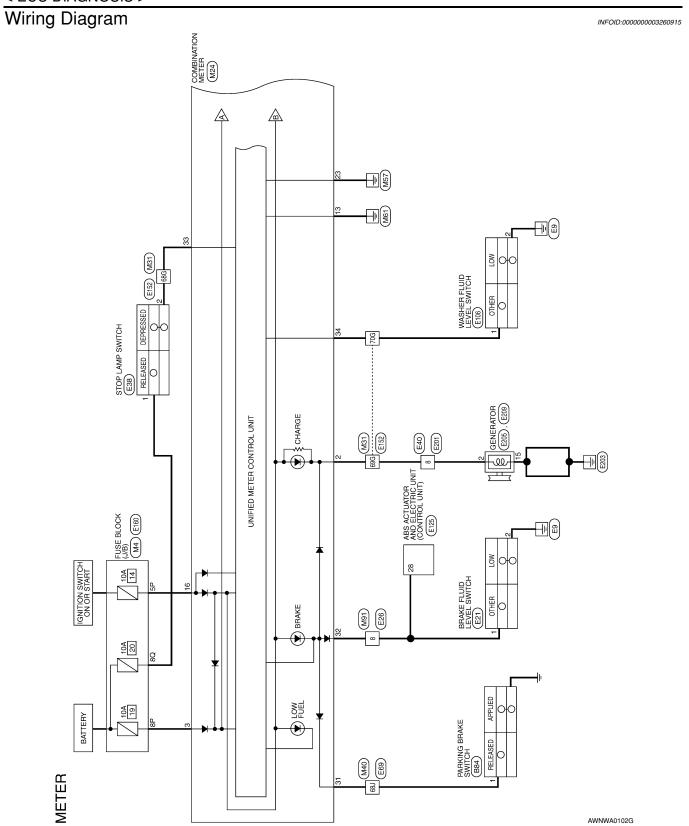
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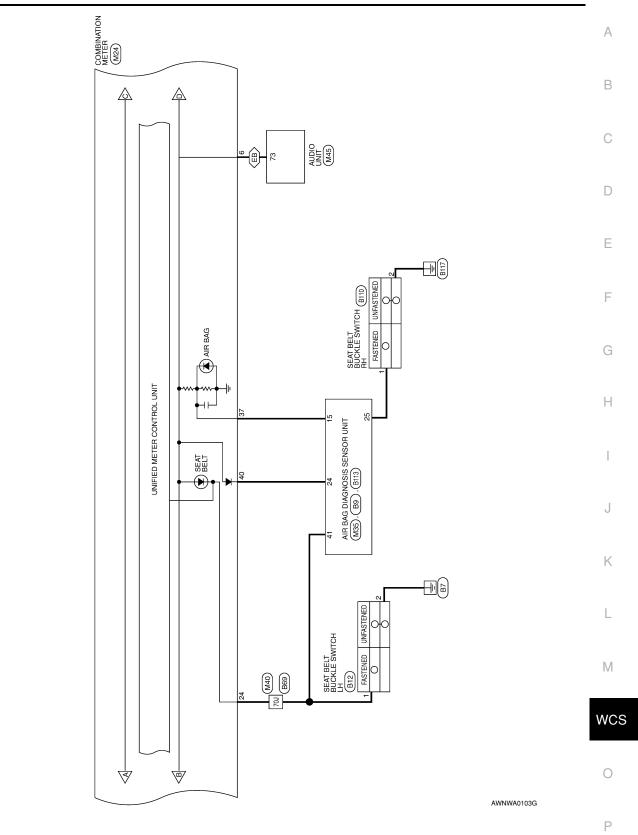
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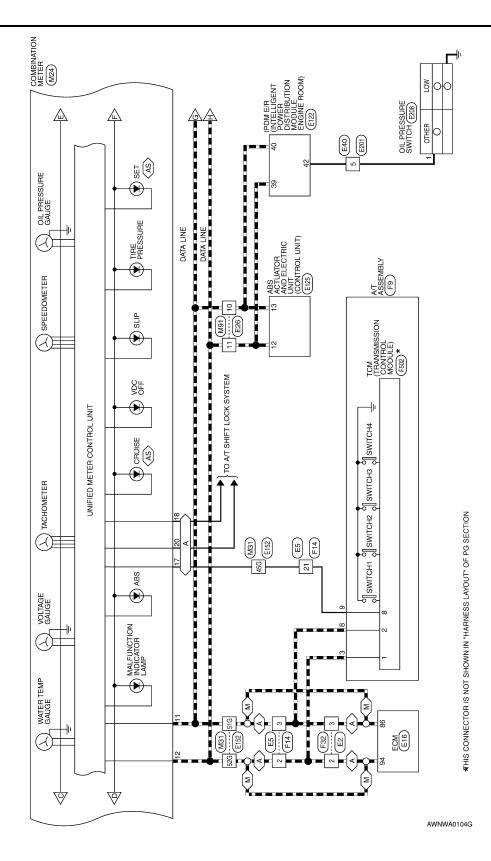
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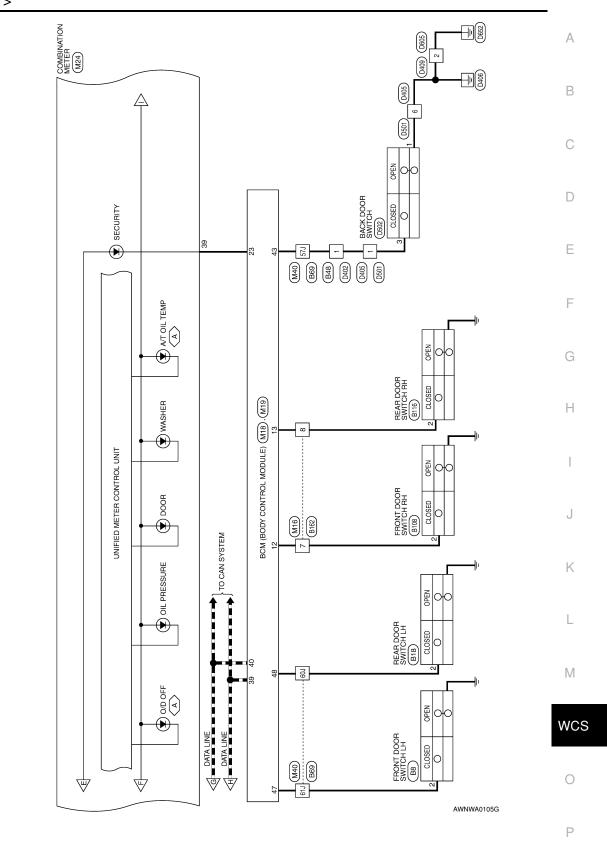


(AS): WITH AVT (AS): WITH ASCD (M): WITH M/T ■■: DATA LINE

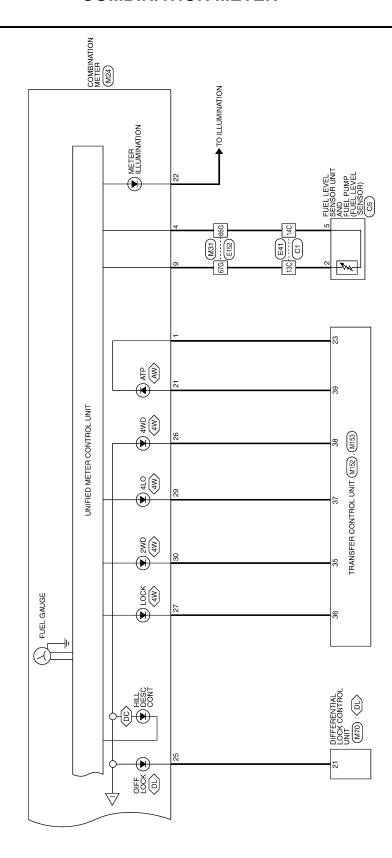


A: WITH A/T

DATA LINE







METER CONNECTORS

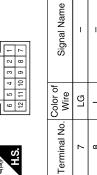
//4	Connector Name FUSE BLOCK (J/B)	VHITE	
Connector No.	Connector Name	Connector Color WHITE	

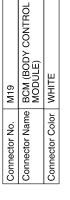




Signal Name	1	1
Color of Wire	M/G	R/Y
Terminal No.	5P	8P

M16	WIRE TO WIRE	WHITE	12 11 10 9 8 7 7
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	H.S.









Terminal No.	Color of Wire	Signal Name
12	ГG	DOOR SW (AS)
13	٦	DOOR SW (RR)
23	g	SECURITY INDICATOR OUTPUT
39	_	CAN-H
40	۵	CAN-L

Connector Name BCM (BODY CONTROL MODULE)

Connector No. M18

Connector Color WHITE

г		_	7
	20	9	1
	19	39	
	18	38	
	17	37	
	16	98	
	5	83	
	4	8	
	55	33	
117	12	33	
IV.	Ξ	31	
- 11	9	30	
II\	6	83	
<u> </u>	ω	88	
	~	27	
	9	92	
	2	25	
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Signal Name	DIFF LOCK	4WD FAIL	4WD (LOCK) INPUT	1	4WD (4 LO) INPUT	4WD (2 WD) INPUT	PARK BRAKE SW	BRAKE DIL SWITCH	BRAKE PEDAL SW	WASHER FLUID SW	ı	ı	AIRBAG CONT	1	SECURITY	PASS SEATBELT	
Color of Wire	SB	GR	BB	1	0	۸	g	SB	LG	٦	1	1	SB	1	g	LG	
Terminal No.	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	

PASS SEATBELT		
ΓG		
40		





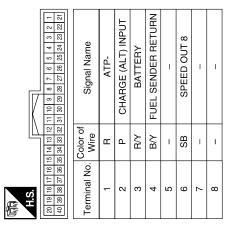
I	-	'n	7	
I	49	9	52	
I	24	4	18	
ł'	П	က	50	
l	Ш			
l	Ш	45		
l	Ш	47	14	
ļ	Ш	48	15	
l		46		
II	21	Ξ	12	
II	8	22	16	
Ľ	=			ב
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ľ	1	Š	ġ.	
d	F	1	1	
L			7	

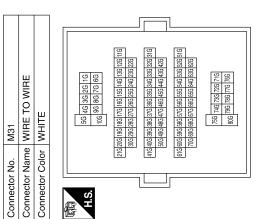
Signal Name	WARN LP	SEAT BELT REMIND
Color of Wire	SB	ГG
Terminal No.	15	24

f Signal Name	FUEL SENDER RETURN	ı	CAN-L	CAN-H	GROUND	ı	1	RUN START	AT-PN SWITCH	AT 1 RANGE SWITCH	ı	O/D OFF SWITCH	ATP+	ILLUMINATION CONTROL	POWER GND	BUCKLE (SEATBELT) SW
Color of Wire	BR	ı	۵	_	GR	1	ı	M/G	В	٦	ı	>	ГG	BR	В	>
Terminal No.	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Signal Name	I	ı	I	I	ı	I	ı	ı
Color of Wire	В	Д	Г	В/У	BR	LG	۵	٦
Terminal No.	45G	51G	52G	66G	67G	68G	69G	70G

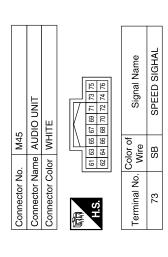
Connector No.	M24
Connector Name	Connector Name COMBINATION METER
Connector Color WHITE	WHITE



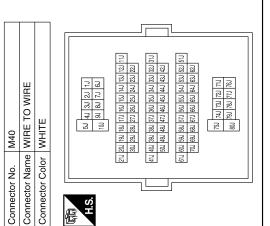


AWNIA0567GB

COMBINATION METER



Signal Name	1	ı	ı	1	I
Color of Wire	\	Ь	GR	g	>
Terminal No.	£27J	F09	61J	681	707



Į			
O	Connector No.	. M152	52
O	Connector Na	me TR/	Connector Name TRANSFER CONTROL UNIT
<u> </u>	Connector Color WHITE	lor WH	ITE THE
	मृत्	6 5 4 17 16 15 14 13 26 25 24 23 22	
-	Terminal No.	Color of Wire	Signal Name
	23	Œ	ATP SW

	WIRE TO WIRE	11	7 6 5 4	Signal Name	ı	_	-
. M91		lor WHI	7 6 5 11 16 15 14 1	Color of Wire	SB	Ь	٦
Connector No.	Connector Name	Connector Color WHITE	·····································	Terminal No.	8	10	11

		_			
	Connector Name DIFFERENTIAL LOCK CONTROL UNIT	ПЕ	21 20 19 18 17 16 15 14 13	Signal Name	DIFF LOCK IND
. M70	me DIF	lor WH	12 11 10 9 8 26 25 24 23 22 21 20	Color of Wire	SB
Connector No.	Connector Na	Connector Color WHITE	H.S. 26 25	Terminal No.	21

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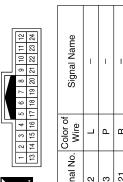
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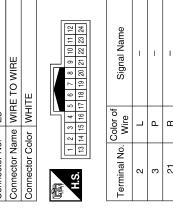
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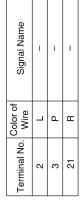
COMBINATION METER

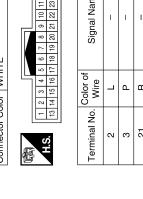
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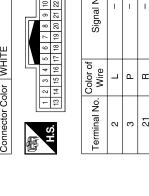


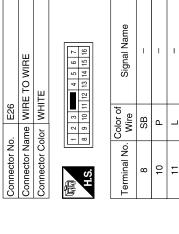


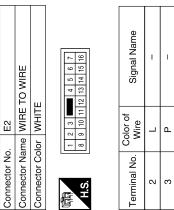




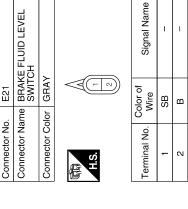


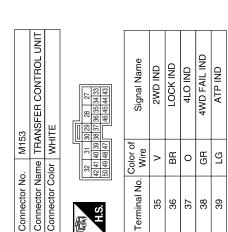


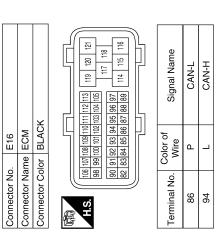




Connector No.	E21
Connector Name	Connector Name BRAKE FLUID LEVEL SWITCH
Connector Color GRAY	GRAY
南 H.S.	







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]		ı	
	WIRE TO WIRE		4 8 (3 6)	Signal Name	ı	ı
. E40	me WIRE	lor GRA	- Q Q	Color of Wire	GR	۵
Connector No.	Connector Name	Connector Color GRAY	「南南 H.S.	Terminal No.	5	80

Connector No.		THE CONTRACTOR
Connector Name		STOP LAMP SWITCH (WITH M/T)
ctor Col	Connector Color BLACK	К
	N N N N N N N N N N N N N N N N N N N	
Terminal No.	Color of Wire	Signal Name
	B/B	1

Terminal 1	Signal Name	Color of Wire R/B	Terminal No.
H.S.		~l_ll	S.
引 H.S.	42	& t	H.S.
Connect	Е	or WHITE	Connector Color WHITE
Connect	Connector Name STOP LAMP SWITCH (WITH A/T)	me STOP (WITH	onnector Nai
Connect		E38	Connector No.

Connector No.	. E106		Connector No.	E122	
onnector Na	me WASHEF SWITCH	Connector Name WASHER FLUID LEVEL SWITCH	Connector Nam	Connector Name POWER DISTRIBUTION	GENT
Connector Color BROWN	lor BRO	WN		MODULE ENGINE ROOM	HOOIM)
			Connector Color WHITE	r WHITE	
H.S.			E H.S.		
Terminal No.	Color of	Signal Name		48 47 46 45 44 43	
	wire				
1	Γ	-	Terminal No. Wire	Wire Signal Name	me
2	В	I	39	L CAN-H	

OIL PRESSURE SW

GR GR

42

E41 WIRE TO WIRE	Α	200 (410 (410 (410 (410 (410 (410 (410 (4	Signal Name	I	-	
e	lor BLACK	101 101 101 101 101 101 101 101 101 101	Color of Wire	BR	В/У	
Connector No.	Connector Color	H.S.	Terminal No.	13C	14C	
				AWN	A057	'0GB

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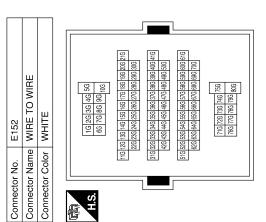
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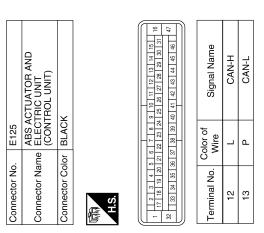
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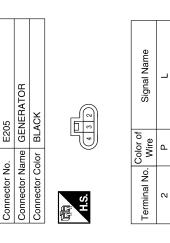
WCS

Terminal No.	Color of Wire	Signal Name
45G	В	1
51G	۵	ı
52G	L	ı
999	В/Υ	-
67G	BR	I
68G	FG	1
969	Ь	-
70G	Γ	_





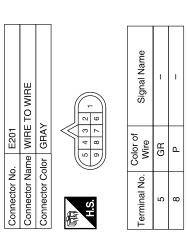




Signal Name

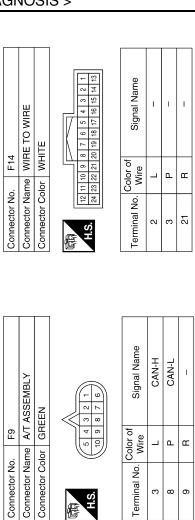
Color of Wire GR

Terminal No.



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Color of Wire

Terminal No.

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Connector No. C1	Connector Name WIRE TO WIRE		H.S. Mooleo man motion	410,320 280 200 420 330 240 240 240 240 240 240 240 240 240 24	440 380 280 130 42 440 380 280 280 140 50 460 380 280 280 140 60	460 370 300 240 160 700	390		Terminal No. Color of Signal Name Wire	
F502	ie TCM (TRANSMISSION CONTROL MODULE)	ır GRAY	7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		Color of Signal Name	BR CAN-H	L/Y CAN-L	G STARTER-RLY		
Connector No.	Connector Name	Connector Color	- 101 a		Terminal No.	-	2	8		

			l		
60	GENERATOR		[s2] (O)	Signal Name	В
). E209		olor –		Color of Wire	В
Connector No.	Connector Name	Connector Color	原 H.S.	Terminal No.	5

Connector Color GREEN

F9

Connector No.

	WIRE TO WIRE	щ	12 11 10 9 8	Signal Name	_	_
F32		or WHIT	7 6 5 4 16 15 14 13	Color of Wire	Т	Ь
Connector No.	Connector Name	Connector Color WHITE	H.S.	Terminal No.	7	ε
			_			

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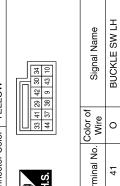
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< ECU DIAGNOSIS >





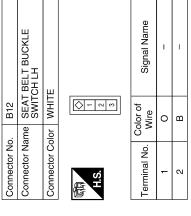
	AIR BAG DIAGNOS SENSOR UNIT	YELLOW	28 41 29 42 30 34 44 37 38 9 43 10	Signal Na	
מ			33 41	Color of Wire	
·	ame	olor			
	Connector Name	Connector Color	H.S.	Terminal No.	

		1		
ONT DOOR SWITCH LH	ІТЕ		Signal Name	-
me FR	lor WF		Color of Wire	GB
Connector Na	Connector Co	H.S.	Terminal No.	2
	Connector Name FRONT DOOR SWITCH LH	Connector Name FRONT DOOR SWITCH LH Connector Color WHITE	Connector Name FRONT DOOR SWITCH LH Connector Color WHITE	Connector Name FRONT DOOR SWITCH LH Connector Color WHITE H.S. Terminal No. Color of Wire Signal Name

Connector No. B48	H Connector Name WIRE TO WIRE	Connector Color WHITE	H.S. (4 5 6 7 8	Terminal No. Wire Signal Na	,
B18	Connector Name REAR DOOR SWITCH LH	ИНТЕ		Signal Name	
Connector No. E	ame F	Connector Color WHITE		Terminal No. Wire	٥
0	Ž	or C		No.	

Signal Name

Connector No.). C5	
Connector Name		FUEL LEVEL SENSOR UNIT AND FUEL PUMP (FUEL LEVEL SENSOR)
Connector Color	olor GRAY	,
师 H.S.	1 2 3	4 5
Terminal No.	Color of Wire	Signal Name
2	BB	I
7	Β/Y	ı



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nal Name	Connector No.). B84		
	Connector Na	me PAR	Connector Name PARIKING BRAKE SWITCH	
ı	Coppector Color BLACK	lor Bl AC	×	
ı				
-		Ш		
ı	UI	<u> </u>		
ı	Sil]	
	Terminal No. Wire	Color of Wire	Signal Name	
	-	ŋ	ı	

Signal Name	ı	1	1	1	ı	
Color of Wire	>	۵	GR	Э	>	
Terminal No.	57J	600	61J	681	707	

Connector Name WIRE TO WIRE Connector Color WHITE Live Salari Salari Live Salari	Connector No.	B69
Connector Color WHITE	Connector Name	WIRE TO WIRE
<u>φ</u>	Connector Color	WHITE
oj.		
	恒	
	v:	
12 20 20 20 20 20 20 20	_	Γ
10 (20 (20 (20 (20 (20 (20 (20 (20 (20 (2	11 12 11 12 13 23 23 23	14J 15J 16J 17J 15J 15J 20J 20J 21J 24J 25J 25J 25J 25J 25J 25J 25J 25J 25J 25
10. 00. 00. 00. 00. 00. 00. 00. 00. 00.	31, 32, 33, 42, 43, 44	34, 35, 38, 37, 38, 38, 40, 41, 41, 44, 45, 46, 47, 48, 48, 50
	51.182183	54, 552, 564, 577, 589, 580, 700 54, 552, 684, 577, 689, 580, 700

	Г				
13	AIR BAG DIAGNOSIS SENSOR UNIT	LLOW	26 27 25 31 7 36 35 40	Signal Name	BUCKLE SW RH
B113		lor YE	32 28 29 7	Color of Wire	٦
Connector No.	Connector Name	Connector Color YELLOW	H.S.	Terminal No.	52

Connector No.). B110	
Connector Name		SEAT BELT BUCKLE SWITCH RH
Connector Color	olor WHITE	Щ
雨 H.S.		
Terminal No.	Color of Wire	Signal Name
-	٦	I
2	В	1

81	FRONT DOOR SWITCH RH	ITE		Signal Name	1	
. B108	_	lor WHITE		Color of Wire	LG	
Connector No.	Connector Name	Connector Color	f南 H.S.	Terminal No.	2	

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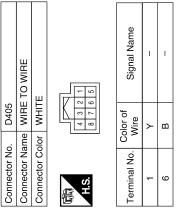
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	TO WIRE	ш	2 - 1	Signal Name	1
D402	ne WIRE	or WHIT	4 8	Color of Wire	>
Connector No.	Connector Name WIRE TO WIRE	Connector Color WHITE	向 H.S.	Terminal No.	-

	O WIRE		9 22	Signal Name	ı	1
B162	WIRE TO WIRE	WHITE	7 8 9 10 11	Color of Wire	LG	_
o.	ame	olor				
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	7	α

			ı		
91	REAR DOOR SWITCH RH	ІТЕ		Signal Name	1
, B116		lor WHITE		Color of Wire	_
Connector No.	Connector Name	Connector Color	师 H.S.	Terminal No.	2

Connector No.		D501
Connector Name		WIRE TO WIRE
Connector Color	olor W	WHITE
H.S.	- 2	8 4 8 8
Terminal No.	Color of Wire	of Signal Name
-	\	I
9	В	-

				ame	
	WIRE TO WIRE	Ш		Signal Name	1
D409	me WIRE	olor WHIT		Color of Wire	В
Connector No.	Connector Name	Connector Color WHITE	H.S.	Terminal No.	7



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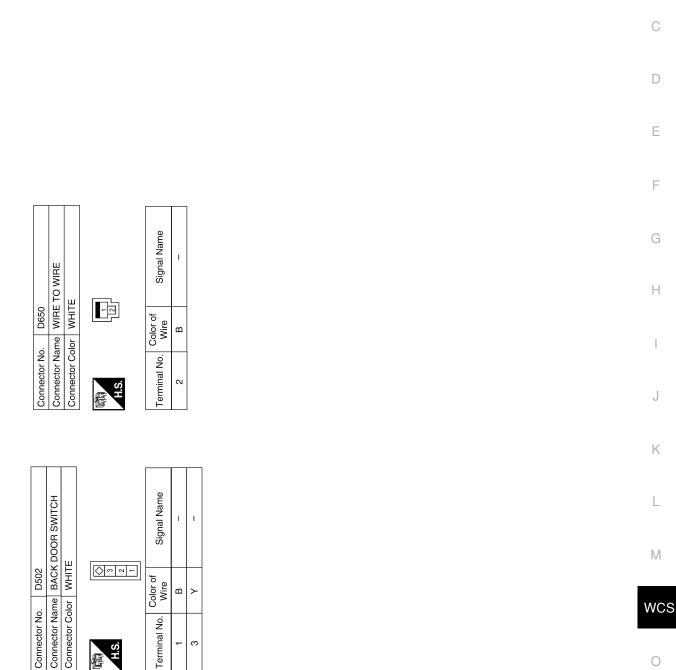
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Fail Safe

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

< ECU DIAGNOSIS >

	Function	Specifications		
Speedometer				
Tachometer				
Fuel gauge		7		
Engine coolant temperature g	gauge	Zero indication.		
Engine oil pressure gauge				
Voltage gauge				
Illumination control	Meter illumination	Change to nighttime mode when communication is lost.		
Commont LOD	Odometer	Freeze current indication.		
Segment LCD	A/T position	Display turns off.		
Buzzer		Buzzer turns off.		
	ABS warning lamp			
	Brake warning lamp	Lamp turns on when communication is lost.		
	VDC OFF indicator lamp			
	SLIP indicator lamp			
	AT oil temp warning lamp			
	Low washer fluid warning lamp			
	Hill descent control indicator lamp			
	Door open warning lamp			
	CRUISE indicator lamp	Lamp turns off when communication is lost		
	SET indicator lamp			
	O/D OFF indicator lamp	- Lamp turns off when communication is lost.		
	Oil pressure warning lamp			
Warning lamp/indicator lamp	Malfunction indicator lamp			
	Air bag warning lamp			
	High beam indicator			
	Turn signal indicator lamp			
	Driver and passenger seat belt warning lamp			
	Charge warning lamp			
	Security indicator lamp	Lamp turns off when disconnected.		
	4WD indicator lamp			
	ATP indicator lamp			
	Differential lock indicator lamp			
	Low tire pressure warning lamp	Lamp will flash every second for 1 minute and then stay on cor tinuously thereafter.		

< ECU DIAGNOSIS >

DTC Index INFOID:0000000003260917

CONSULT-III display	Malfunction	Reference page
CAN COMM CIRC [U1000]	Malfunction is detected in CAN communication. CAUTION: Even when there is no malfunction on CAN communication system, malfunction may be misinterpreted when battery has low voltage (when maintaining 7 - 8 V for about 2 seconds) or 10A fuse [No. 19, located in the fuse block (J/B)] is disconnected.	<u>MWI-27</u>
VEHICLE SPEED CIRC [B2205]	Malfunction is detected when an erroneous speed signal is input. CAUTION: Even when there is no malfunction on speed signal system, malfunction may be misinterpreted when battery has low voltage (when maintaining 7 - 8 V for about 2 seconds).	<u>MWI-28</u>

NOTE:

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

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< ECU DIAGNOSIS >

BCM (BODY CONTROL MODULE)

Reference Value

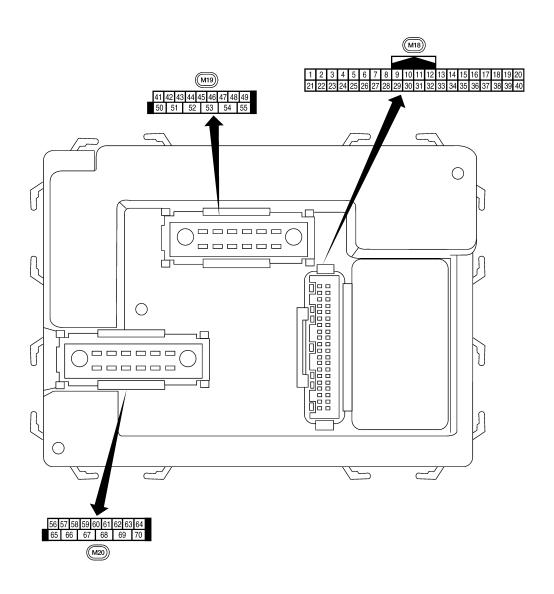
VALUES ON THE DIAGNOSIS TOOL

AIR COND SW	Monitor Item	Condition	Value/Status
BACK DOOR SW Back door closed OFF	AIR COND SW	A/C switch OFF	OFF
Back door opened	AIIT OOND SW	A/C switch ON	ON
Back door opened	BACK DOOR SW	Back door closed	OFF
CDL LOCK SW 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 Front door RH closed OFF Front door LH closed OFF DOOR SW-DR Front door LH closed OFF DOOR SW-RL Rear door LH closed OFF Rear door LH closed OFF Rear door HH closed OFF Rear door RH closed OFF Pront fog lamp switch OFF OFF Front fog lamp switch OF	BACK DOOR SW	Back door opened	ON
Press door lock/unlock switch to the LOCK side	CDI I OCK 8M	Door lock/unlock switch does not operate	OFF
CDL UNLOCK SW Press door lock/unlock switch to the UNLOCK side ON DOOR SW-AS Front door RH closed OFF Front door RH opened ON DOOR SW-DR Front door LH closed OFF DOOR SW-RL Rear door LH opened ON DOOR SW-RR Rear door RH opened ON BOOR SW-RR Rear door RH opened ON ENGINE RUN Engine stopped OFF Engine running ON FR FOG SW Front fog lamp switch OFF OFF Front fog lamp switch OFF OFF Front soll gamp switch OFF OFF Front washer switch OFF OFF Front washer switch OFF OFF Front wiper switch OFF	ODE LOOK SW	Press door lock/unlock switch to the LOCK side	ON
DOOR SW-AS Front door RH closed OFF Front door RH opened ON DOOR SW-DR Front door LH closed OFF Front door LH closed OFF Front door LH closed OFF Bear door LH closed OFF Rear door LH opened ON DOOR SW-RR Rear door RH closed OFF Rear door RH opened ON ENGINE RUN Engine stopped OFF Engine stopped OFF Engine running ON FR FOG SW Front tog lamp switch OFF OFF Front tog lamp switch OFF OFF Front wiper switch OFF OFF Front w	CDL TINI OCK SW	Door lock/unlock switch does not operate	OFF
DOOR SW-AS Front door RH opened ON DOOR SW-DR Front door LH closed OFF Front door LH opened ON DOOR SW-RL Rear door LH closed OFF Bear door LH opened ON DOOR SW-RR Rear door RH closed OFF Rear door RH opened ON Engine stopped OFF Engine stopped OFF Engine running ON FR FOG SW Front fog lamp switch OFF OFF Front fog lamp switch OFF OFF Front washer switch OFF OFF Front washer switch OFF OFF Front wiper switch OFF OFF Fro	ODL UNLOCK 3W	Press door lock/unlock switch to the UNLOCK side	ON
Front door RH opened	DOOD SW AS	Front door RH closed	OFF
DOOR SW-DR Front door LH opened ON DOOR SW-RL Rear door LH closed OFF DOOR SW-RR Rear door RH closed OFF Bear door RH opened ON ON ENGINE RUN Engine stopped OFF Engine running ON ON FR FOG SW Front fog lamp switch OFF OFF Front glamp switch OFF OFF Front washer switch OFF OFF Front washer switch OFF OFF Front wiper switch OFF OFF HAZARD SW Wh	DOOR SW-AS	Front door RH opened	ON
Front door LH opened	DOOD CW DD	Front door LH closed	OFF
DOOR SW-RL Rear door LH opened ON DOOR SW-RR Rear door RH closed OFF Rear door RH opened ON ENGINE RUN Engine stopped OFF Engine running 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 OFF OFF Front wiper switch INT ON HAZARD SW When hazard switch is not pressed OFF Headlamp switch OFF OFF Lighting switch OFF OFF Lighting switch OFF OFF Lighting switch OFF OFF Headlamp switch OFF OFF Headlamp switch OFF OFF	DOOK SW-DK	Front door LH opened	ON
Rear door LH opened	DOOD OW DI	Rear door LH closed	OFF
DOOR SW-RR	DOOR SW-RL	Rear door LH opened	ON
Rear door RH opened	DOOD CW DD	Rear door RH closed	OFF
Engine running	DOOR SW-RR	Rear door RH opened	ON
Engine running	ENGINE DUN	Engine stopped	OFF
FR FOG SW 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 FR WIPER HI Front wiper switch OFF OFF FR WIPER INT Front wiper switch OFF OFF FR WIPER STOP Front wiper switch INT ON FR WIPER STOP Any position other than front wiper stop position OFF HAZARD SW When hazard switch is not pressed OFF LIGHT SW 1ST Lighting switch OFF OFF Lighting switch 1st ON HEADLAMP SW1 Headlamp switch OFF OFF HEADLAMP SW2 Headlamp switch OFF OFF	ENGINE RUN	Engine running	ON
Front fog lamp switch ON	ED EOC SW	Front fog lamp switch OFF	OFF
FR WASHER SW 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 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 LIGHT SW 1ST Lighting switch OFF OFF Lighting switch 1st ON HEADLAMP SW1 Headlamp switch OFF OFF HEADLAMP SW2 Headlamp switch OFF OFF	FR FOG SW	Front fog lamp switch ON	ON
Front washer switch ON	ED WACHED CW	Front washer switch OFF	OFF
FR WIPER LOW Front wiper switch LO Front wiper switch OFF Front wiper switch OFF Front wiper switch HI ON FR WIPER INT Front wiper switch OFF Front wiper switch INT ON Any position other than front wiper stop position Front wiper stop position ON HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON Light IsT Lighting switch OFF Lighting switch OFF Headlamp switch OFF Headlamp switch OFF Headlamp switch OFF OFF Headlamp switch OFF OFF Headlamp switch OFF OFF OFF	FR WASHER SW	Front washer switch ON	ON
Front wiper switch LO FR WIPER HI Front wiper switch OFF Front wiper switch HI Front wiper switch OFF Front wiper switch OFF Front wiper switch OFF Front wiper switch INT ON Any position other than front wiper stop position FR WIPER STOP Front wiper stop position ON HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON LIGHT SW 1ST Lighting switch OFF Lighting switch OFF Headlamp switch OFF Headlamp switch OFF Headlamp switch OFF OFF Headlamp switch OFF OFF Headlamp switch OFF OFF OFF	ED WIDED I OW	Front wiper switch OFF	OFF
FR WIPER HI Front wiper switch HI Front wiper switch OFF Front wiper switch INT ON Any position other than front wiper stop position FR WIPER STOP Front wiper stop position ON HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON LIGHT SW 1ST LIGHT SW 1ST LIGHT SW1ST HEADLAMP SW1 Headlamp switch OFF Headlamp switch OFF Headlamp switch OFF OFF Headlamp switch OFF OFF Headlamp switch OFF OFF OFF	TH WII LILLOW	Front wiper switch LO	ON
Front wiper switch HI Front wiper switch OFF Front wiper switch INT ON Front wiper switch INT ON Any position other than front wiper stop position Front wiper stop position ON HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON Lighting switch OFF Lighting switch OFF Headlamp switch OFF Headlamp switch OFF Headlamp switch OFF OFF Headlamp switch OFF OFF Headlamp switch OFF OFF	ED WIDED LII	Front wiper switch OFF	OFF
FR WIPER INT Front wiper switch INT ON Any position other than front wiper stop position Front wiper stop position ON HAZARD SW When hazard switch is not pressed When hazard switch is pressed ON LIGHT SW 1ST Lighting switch OFF Lighting switch 1st ON HEADLAMP SW1 Headlamp switch OFF Headlamp switch OFF OFF Headlamp switch OFF ON Headlamp switch OFF ON Headlamp switch OFF OFF OFF OFF OFF OFF OFF OFF	FR WIFER HI	Front wiper switch HI	ON
Front wiper switch INT ON 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 Lighting switch OFF Lighting switch 1st ON HEADLAMP SW1 Headlamp switch OFF Headlamp switch 1st ON Headlamp switch 1st ON Headlamp switch OFF Headlamp switch OFF OFF	ED WIDED INT	Front wiper switch OFF	OFF
FR WIPER STOP Front wiper stop position When hazard switch is not pressed OFF When hazard switch is pressed ON LIGHT SW 1ST Lighting switch OFF Lighting switch 1st ON Headlamp switch OFF Headlamp switch 1st ON Headlamp switch 1st ON Headlamp switch OFF OFF Headlamp switch OFF OFF	I II WII LII IIVI	Front wiper switch INT	ON
Front wiper stop position	ED WIDED STOD	Any position other than front wiper stop position	OFF
HAZARD SW When hazard switch is pressed ON Lighting switch OFF Lighting switch 1st ON Headlamp switch OFF Headlamp switch 1st ON Headlamp switch OFF Headlamp switch OFF OFF Headlamp switch OFF OFF	FR WIFER STOP	Front wiper stop position	ON
When hazard switch is pressed ON	HAZADD CW	When hazard switch is not pressed	OFF
Lighting switch 1st ON HEADLAMP SW1 Headlamp switch OFF OFF Headlamp switch 1st ON HEADLAMP SW2 Headlamp switch OFF OFF	HAZAND SW	When hazard switch is pressed	ON
Lighting switch 1st ON	LICHT SW 1ST	Lighting switch OFF	OFF
HEADLAMP SW1 Headlamp switch 1st ON Headlamp switch OFF OFF	LIGHT SW 151	Lighting switch 1st	ON
Headlamp switch 1st ON Headlamp switch OFF OFF	HEADLAMD OWA	Headlamp switch OFF	OFF
HEADLAMP SW2	LEADLAINIL 2001	Headlamp switch 1st	ON
Headlamp switch 1st ON	HEADI AMB SIMO	Headlamp switch OFF	OFF
	HEADLAIVIF 3WZ	Headlamp switch 1st	ON

< ECU DIAGNOSIS >

Monitor Item	Condition	Value/Status	Λ
LILDEAM CM	High beam switch OFF	OFF	- A
HI BEAM SW	High beam switch HI	ON	_
H/L WASH SW	NOTE: The item is indicated, but not monitored	OFF	В
JON ON OW	Ignition switch OFF or ACC	OFF	=
IGN ON SW	Ignition switch ON	ON	С
ION OW OAN	Ignition switch OFF or ACC	OFF	= -
IGN SW CAN	Ignition switch ON	ON	_
INT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	1 - 7	- D
KEY ON OW	Mechanical key is removed from key cylinder	OFF	_
KEY ON SW	Mechanical key is inserted to key cylinder	ON	_ E
VEVI 500 LOOK	LOCK button of key fob is not pressed	OFF	=
KEYLESS LOCK	LOCK button of key fob is pressed	ON	= -
NEVI EGG LINII GGW	UNLOCK button of key fob is not pressed	OFF	F
KEYLESS UNLOCK	UNLOCK button of key fob is pressed	ON	_
OIL PRESS SW	Ignition switch OFF or ACC Engine running	OFF	G
	Ignition switch ON	ON	_
DACOING OW	Other than lighting switch PASS	OFF	- Н
PASSING SW	Lighting switch PASS	ON	_
DEAD DEE OW	Rear window defogger switch OFF	OFF	=
REAR DEF SW	Rear window defogger switch ON	ON	
RKE LOCK AND UN-	NOTE:	OFF	_
LOCK	The item is indicated, but not monitored	ON	J
RR WASHER SW	Rear washer switch OFF	OFF	
THE WASHER SW	Rear washer switch ON	ON	
RR WIPER INT	Rear wiper switch OFF	OFF	K
THE VOICE HAI	Rear wiper switch INT	ON	_
RR WIPER ON	Rear wiper switch OFF	OFF	_
NA WIFER ON	Rear wiper switch ON	ON	
DD WIDED STOD	Rear wiper stop position	OFF	_
RR WIPER STOP	Other than rear wiper stop position	ON	M
TAIL LAMP SW	Lighting switch OFF	OFF	_
TAIL LAWIP SW	Lighting switch 1ST	ON	VALC
TRNK OPNR SW	When back door opener switch is not pressed	OFF	WC
THINK OPINE SW	When back door opener switch is pressed	ON	_
TUDNI CIONALI	Turn signal switch OFF	OFF	0
TURN SIGNAL L	Turn signal switch LH	ON	= '
TUDNI CIONIAL D	Turn signal switch OFF	OFF	_
TURN SIGNAL R	Turn signal switch RH	ON	P
VEHICLE SPEED	While driving	Equivalent to speedometer reading	-

Terminal Layout



LIIA2443E

Physical Values

	Wire		Signal		Measuring condition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
1	BR	Ignition keyhole illumi-	O: :+rr: :+	OFF	Door is locked (SW OFF)	Battery voltage
I .	BK	nation	Output	OFF	Door is unlocked (SW ON)	0V
2	Р	Combination switch input 5	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 → +5ms SKIA5291E
3	SB	Combination switch input 4	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 *-5ms
4	V	Combination switch input 3	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms
5	L	Combination switch input 2				(V)
6	R	Combination switch input 1	Input	ON	Lighting, turn, wiper OFF Wiper dial position 4	5ms SKIA5292E
		Front door lock as-			ON (open, 2nd turn)	Momentary 1.5V
7	GR	sembly LH (key cylinder switch) and back door key cylinder switch (unlock)	Input	OFF	OFF (closed)	OV
		Front door lock as-			ON (open)	Momentary 1.5V
8	SB	sembly LH (key cylin- der switch) and back door key cylinder switch (lock)	Input	OFF	OFF (closed)	0V
		Describede de Co			Rear window defogger switch ON	0V
9	Υ	Rear window defogger switch	Input	ON	Rear window defogger switch OFF	5V
11	G/B	Ignition switch (ACC or ON)	Input	ACC or ON	Ignition switch ACC or ON	Battery voltage
12	LG	Front door switch RH	Input	OFF	ON (open)	OV
1.2	La		iiiput		OFF (closed)	Battery voltage

	Wire		Signal		Measuring condition	Reference value or waveform	
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)	
13	L	Rear door switch RH	tch RH Input OFF ON (open)		0V		
			,		OFF (closed)	Battery voltage	
15	W	Tire pressure warning check connector	Input	OFF	_	5V	
18	BR	Remote keyless entry receiver and optical sensor (ground)	Output	OFF	_	OV	
19	V	Remote keyless entry receiver (power sup- ply)	Output	OFF	Ignition switch OFF	(V) 6 4 2 0 *********************************	
20	G	Remote keyless entry	Input	OFF	Stand-by (keyfob buttons released)	(V) 6 4 2 0 • +50 ms	
	G	receiver (signal)	Input	OFF	When remote keyless entry receiver receives signal from keyfob (keyfob buttons pressed)	(V) 6 4 2 -1	
21	GR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF \rightarrow ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.	
22	V	BUS	_	_	Ignition switch ON or power window timer operates	(V) 15 10 5 0 200 ms	
23	G	Security indicator lamp	Output	OFF	Goes OFF \rightarrow illuminates (Every 2.4 seconds)	Battery voltage → 0V	
25	BR	NATS antenna amp.	Input	OFF → ON	Ignition switch (OFF \rightarrow ON)	Just after turning ignition switch ON: Pointer of tester should move for approx. 1 second, then return to battery voltage.	
27	W	Compressor ON sig-	Input	ON	A/C switch OFF A/C switch ON	5V 0V	
					Front blower motor OFF	Battery voltage	
28	R	Front blower monitor	Input	ON	Front blower motor ON	0V	

< ECU DIAGNOSIS >

	Wire		Signal		Measuring condition	Reference value or waveform
erminal	color	Signal name	input/ output	Ignition switch	Operation or condition	(Approx.)
29	G	Hazard switch	Input	OFF	ON	0V
29	G	Hazaru Switch	iliput	Orr	OFF	5V
32	0	Combination switch output 5	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 + 5ms SKIA5291E
33	GR	Combination switch output 4	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 ***5ms
34	G	Combination switch output 3	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	(V) 6 4 2 0 **5ms
35	BR	Combination switch output 2				(V)
36	LG	Combination switch output 1	Output	ON	Lighting, turn, wiper OFF Wiper dial position 4	*** 5ms SKIA5292E
0.7		Key switch and key		055	Key inserted	Battery voltage
37	В	lock solenoid	Input	OFF	Key inserted	OV
38	W/R	Ignition switch (ON)	Input	ON	_	Battery voltage
39	L	CAN-H	_		_	_
40	Р	CAN-L	_	_	_	
43	Υ	Back door switch	Input	OFF	ON (open)	0V
			F		OFF (closed)	Battery voltage
					Rise up position (rear wiper arm on stopper)	٥V
					A Position (full clockwise stop position)	Battery voltage
44	0	Rear wiper auto stop switch	Input	ON	Forward sweep (counterclockwise direction)	Fluctuating
					B Position (full counterclockwise stop position)	0V
					Reverse sweep (clockwise direction)	Fluctuating

	Wire Signal name		Signal		Measuring condition	D. C	
Terminal	Wire color	Signal name	input/ output	Ignition switch	Operation or condition	Reference value or waveform (Approx.)	
45	V	Lock switch	Input	OFF	ON (lock) OFF	0V Battery voltage	
46	LG	Unlock switch	Input	OFF	ON (unlock)	0V	
				.	OFF	Battery voltage	
47	GR	Front door switch LH	Input	OFF	ON (open)	0V	
					OFF (closed)	Battery voltage	
48	Р	Rear door switch LH	Input	OFF	ON (open) OFF (closed)	0V Battery voltage	
					Any door open (ON)		
49	L	Cargo lamp	Output	OFF	All doors closed (OFF)	Battery voltage	
51	G	Trailer turn signal (right)	Output	ON	Turn right ON	(V) 15 10 500 ms SKIA3009J	
52	V	Trailer turn signal (left)	Output	ON	Turn left ON	(V) 15 10 500 ms SKIA3009J	
55	W	Rear wiper output cir- cuit 1	Output	ON	OFF ON	0 Battery voltage	
56	V	Battery saver output	ON OFF 30 minutes after ignition		30 minutes after ignition	ov	
				ON	_	Battery voltage	
57	R/Y	Battery power supply	Input	OFF	_	Battery voltage	
				ON	When optical sensor is illuminated	3.1V or more	
58	W	Optical sensor	sor Input		When optical sensor is not illuminated	0.6V or less	
		Front door lock as-			OFF (neutral)	0V	
59	GR	sembly LH actuator (unlock)	Output	OFF	ON (unlock)	Battery voltage	
60	LG	Turn signal (left)	Output	ON	Turn left ON	(V) 15 10 500 ms	

< ECU DIAGNOSIS >

	Wire		Signal		Measuring con	dition	Reference value or waveform
Terminal	color	Signal name	input/ output	Ignition switch	Operation or condition		(Approx.)
61	G	Turn signal (right)	Output	ON	Turn right ON		(V) 15 10 5 5 0 SKIA3009J
63	BR	Interior room/map	Output	OFF	Any door	ON (open)	OV
	Dit	lamp	Output	011	switch OFF (closed)		Battery voltage
65	V	All door lock actuators	Output	OFF	OFF (neutral)		0V
	•	(lock)	Catput	0	ON (lock)		Battery voltage
		Front door lock actua-			OFF (neutral)		0V
66	L	tor RH, rear door lock actuators LH/RH and back door lock actua- tor (unlock)	I/RH and Output OFF		ON (unlock)		Battery voltage
67	В	Ground	Input	ON	_		0V
					Ignition switch	ON	Battery voltage
				_	Within 45 seconds after ignition switch OFF		Battery voltage
68	0	Power window power supply (RAP)	Output		More than 45 s nition switch C	seconds after ig- FF	OV
					When front do open or power operates		OV
70	W	Battery power supply	Input	OFF		_	Battery voltage

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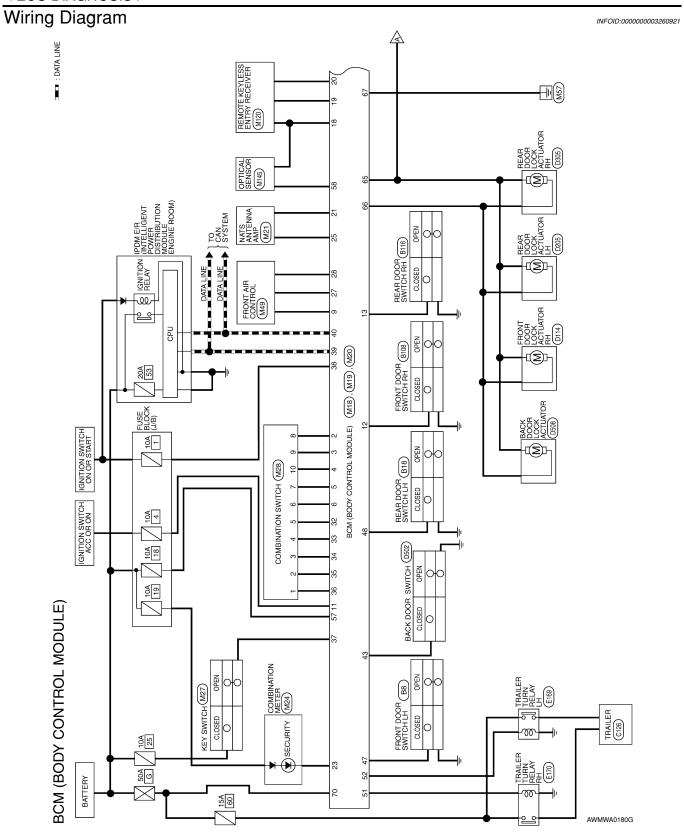
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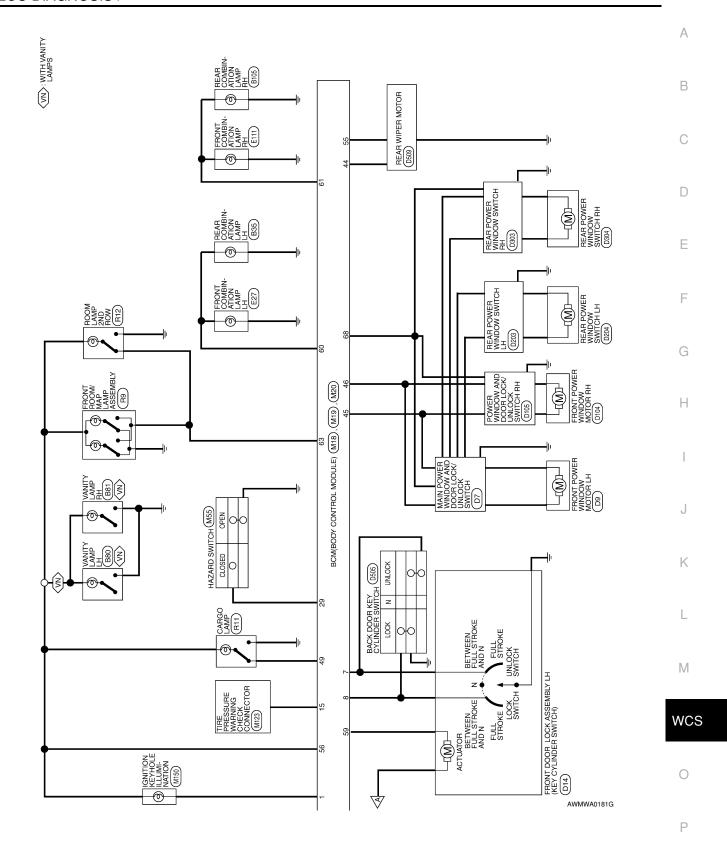
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BCM (BODY CONTROL MODULE) CONNECTORS

Connector Name BCM (BODY CONTROL MODULE)

WHITE

Connector Color

_ <u>+</u>	Terminal No.	Color of Wire	Signal Name
	22	1	ı
	23	g	SECURITY INDICATOR OUTPUT
	24	ı	1
	25	BR	IMMOBILISER ATNENNA SIG (TX,RX)
	26	_	1
	27	Μ	AIRCON SW
	28	В	BLOWER FAN SW
	29	G	HAZARD SW
	30	1	1
	31	_	1
	32	0	COMBI SW OUTPUT 5 (PULL UP SIDE)
	33	GR	COMBI SW OUTPUT 4 (PULL UP SIDE)
	34	G	COMBI SW OUTPUT 3 (PULL UP SIDE)
	35	BB	COMBI SW OUTPUT 2 (PULL UP SIDE)
	36	ГС	COMBI SW OUTPUT 1 (PULL UP SIDE)
	37	В	KEY SW
	38	W/R	IGN SW
	39	٦	CAN-H
	40	Ф	CAN-L

Terminal No.	Color of Wire	Signal Name
2	GR	KEY CYLINDER UNLOCK SW
8	SB	KEY CYLINDER LOCK SW
6	>	DEFOGGER SW
10	1	1
11	G/B	ACC_SW
12	ГG	DOOR SW (AS)
13	Т	DOOR SW (RR)
14	-	ı
15	8	TPMS MODE TRIGGER SW
16	1	1
17	_	1
18	BB	KEYLESS & AUTO LIGHT SENSOR GND
19	>	KEYLESS TUNER POWER SUPPLY OUTPUT
20	ŋ	KEYLESS TUNER SIGNAL
21	GR	IMMOBILSER ATNENNA SIG (CLOCK)

Signal Name	KEY RING OUTPUT	COMBI SW INPUT 5 (LOW SIDE)	COMBI SW INPUT 3 (LOW SIDE)	COMBI SW INPUT 4 (LOW SIDE)	COMBI SW INPUT 2 (LOW SIDE)	COMBI SW INPUT 1 (LOW SIDE)
Color of Wire	BR	Ь	SB	>	٦	ш
Terminal No.	1	2	3	4	5	9

AWMIA0384GB

Signal Name	CDL LOCK SW	CDL UNLOCK SW	DOOR SW (DR)	DOOR SW (RL)	LUGGCARGO LAMP OUTPUT	ı	TRAILER FLASHER OUTPUT (RIGHT)	ŤRAILEŘ FLASHER OUTPUT (LEFT)	ı	_	REAR WIPER MOTOR OUTPUT 1	
Color of Wire	>	ГG	GR	Ь	Г	ı	ŋ	>	ı	_	M	
Terminal No.	45	46	47	48	49	50	51	52	53	54	55	

Signal Name	FLASHER OUTPUT (RIGHT)	ı	ROOM LAMP OUTPUT	-	DOOR LOCK OUTPUT (ALL)	DOOR UNLOCK OUTPUT (OTHER)	GND (POWER)	POWER WINDOW POWER SUPPLY OUT (LINKED TO RAP)	1	BAT (F/L)
Color of Wire	g	1	BR	1	>	7	В	0	1	×
Terminal No.	61	62	63	64	99	99	29	89	69	70

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INFOID:0000000003260922

	CONTROL		6 47 48 49 3 54 55	Signal Name	1	1	BACK DOOR SW	REAR WIPER AUTO STOP SW1
M19	BCM (BODY CONTROL MODULE)	WHITE	41 42 43 44 45 46 47 48 49 50 51 52 53 54 55				BACK	REAR W
		olor W		Color of Wire	1	1	\	0
Connector No.	Connector Name	Connector Color	是 H.S.	Terminal No.	41	42	43	44

		Г	1			_			
0	BCM (BODY CONTROL MODULE)	BLACK	56 57 58 59 60 61 62 63 64 65 66 67 68 69 70	Signal Name	BATTERY SAVER OUTPUT	BAT (FUSE)	-	DOOR UNLOCK OUTPUT (DR)	FLASHER OUTPUT (LEFT)
. M20		_	56 57 58 59 6 65 66 67	Color of Wire	>	₽	1	GR	ΓG
Connector No.	Connector Name	Connector Color	H.S.	Terminal No.	99	22	89	69	09

DTC Inspection Priority Chart

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

< 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
3	C1729: VHCL SPEED SIG ERR
4	C1704: LOW PRESSURE FL C1705: LOW PRESSURE RR C1706: LOW PRESSURE RR C1707: LOW PRESSURE RL C1708: [NO DATA] FL C1709: [NO DATA] FR C1710: [NO DATA] RR C1711: [NO DATA] RR C1711: [NO DATA] RL C1712: [CHECKSUM ERR] FL C1713: [CHECKSUM ERR] FR C1714: [CHECKSUM ERR] FR C1715: [CHECKSUM ERR] RR C1716: [PRESSDATA ERR] FR C1716: [PRESSDATA ERR] FR C1717: [PRESSDATA ERR] FR C1719: [PRESSDATA ERR] RR C1719: [PRESSDATA ERR] RR C1719: [CODE ERR] FR C1720: [CODE ERR] FR C1721: [CODE ERR] RR C1722: [CODE ERR] RR C1723: [CODE ERR] RR C1724: [BATT VOLT LOW] FR C1725: [BATT VOLT LOW] RR C1726: [BATT VOLT LOW] RR

DTC Index

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.
- 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	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
No DTC is detected. further testing may be required.	_	_	_	_
U1000: CAN COMM CIRCUIT	_	_	_	BCS-28
U1010: CONTROL UNIT (CAN)	_	_	_	BCS-29
B2190: NATS ANTTENA AMP	_	_	_	SEC-17
B2191: DIFFERENCE OF KEY	_	_	_	SEC-20
B2192: ID DISCORD BCM-ECM	_	_	_	SEC-21
B2193: CHAIN OF BCM-ECM	_	_	_	SEC-23
C1708: [NO DATA] FL	_	_	_	<u>WT-13</u>
C1709: [NO DATA] FR	_	_	_	<u>WT-13</u>

< ECU DIAGNOSIS >

CONSULT display	Fail-safe	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Reference page
C1710: [NO DATA] RR	_	_	_	<u>WT-13</u>
C1711: [NO DATA] RL		_	_	<u>WT-13</u>
C1712: [CHECKSUM ERR] FL	_	_	_	<u>WT-15</u>
C1713: [CHECKSUM ERR] FR		_	_	<u>WT-15</u>
C1714: [CHECKSUM ERR] RR	_	_	_	<u>WT-15</u>
C1715: [CHECKSUM ERR] RL	_	_	_	<u>WT-15</u>
C1716: [PRESSDATA ERR] FL	_	_	_	<u>WT-17</u>
C1717: [PRESSDATA ERR] FR	_	_	_	<u>WT-17</u>
C1718: [PRESSDATA ERR] RR	_	_	_	<u>WT-17</u>
C1719: [PRESSDATA ERR] RL	_	_	_	<u>WT-17</u>
C1720: [CODE ERR] FL		_	_	<u>WT-15</u>
C1721: [CODE ERR] FR		_	_	<u>WT-15</u>
C1722: [CODE ERR] RR		_	_	<u>WT-15</u>
C1723: [CODE ERR] RL	_	_	_	<u>WT-15</u>
C1724: [BATT VOLT LOW] FL	_	_	_	<u>WT-15</u>
C1725: [BATT VOLT LOW] FR	_	_	_	<u>WT-15</u>
C1726: [BATT VOLT LOW] RR	_	_	_	<u>WT-15</u>
C1727: [BATT VOLT LOW] RL	_	_	_	<u>WT-15</u>
C1729: VHCL SPEED SIG ERR	_	_	_	<u>WT-18</u>
C1734: CONTROL UNIT	_	_	_	_

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THE LIGHT REMINDER WARNING DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

THE LIGHT REMINDER WARNING DOES NOT SOUND

Description

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

Diagnosis Procedure

INFOID:0000000003085559

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-4, "Work Flow".

2.CHECK FRONT DOOR SWITCH LH SIGNAL CIRCUIT

Perform inspection of the front door switch LH signal circuit. Refer to <u>DLK-20, "Diagnosis Procedure"</u>. Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3.CHECK FRONT DOOR SWITCH LH

Perform a unit inspection for the front door switch LH. Refer to <u>DLK-20</u>, "<u>Diagnosis Procedure</u>". <u>Is the inspection result normal?</u>

YES >> Replace the BCM. Refer to BCS-52, "Removal and Installation".

NO >> Replace the front door switch LH.

THE SEAT BELT WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE SEAT BELT WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

Description

- Seat belt warning does not sound even though driver seat belt is not fastened.
- Seat belt warning sounds even though driver seat belt is fastened.

Diagnosis Procedure

1. CHECK WARNING CHIME OPERATION

- 1. With key removed from key switch and the front door LH open, turn lighting switch to 1st or 2nd position.
- 2. Return lighting switch to off position, and insert key into key switch.

Does warning chime sound for both steps?

YES >> GO TO 2

NO >> Replace combination meter. Refer to MWI-90, "Removal and Installation".

2.CHECK SEAT BELT WARNING LAMP

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

Seat belt fastened : OFF Seat belt not fastened : ON

Is the inspection result normal?

YES >> Replace BCM. Refer to BCS-52, "Removal and Installation".

NO >> GO TO 3

3. CHECK SEAT BELT BUCKLE SWITCH CIRCUIT

Perform inspection of the seat belt buckle switch circuit. Refer to WCS-17, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 4

NO >> Repair harness or connector.

4. CHECK SEAT BELT BUCKLE SWITCH UNIT

Perform a unit inspection for the seat belt buckle switch. Refer to WCS-18, "Component Inspection".

Is the inspection result normal?

YES >> Replace the combination meter. Refer to MWI-90, "Removal and Installation".

NO >> Replace the seat belt buckle switch LH.

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INFOID:000000000308556

THE KEY WARNING DOES NOT SOUND

< SYMPTOM DIAGNOSIS >

THE KEY WARNING DOES NOT SOUND

Description INFOID:0000000003085562

Key warning does not sound even though key is in ignition and front door LH is opened.

Diagnosis Procedure

INFOID:0000000003085563

1. CHECK WARNING CHIME OPERATION

With key removed from the ignition and the front door LH open, turn the lighting switch to 1st or 2nd position. Does warning chime sound?

YES >> GO TO 2

NO >> Replace combination meter. Refer to MWI-90, "Removal and Installation".

2.check key switch circuit

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

Is the inspection result normal?

YES >> GO TO 3

NO >> Repair harness or connector.

3. CHECK KEY SWITCH

Perform a unit inspection for the key switch. Refer to <u>WCS-20, "Component Inspection"</u>. Is the inspection result normal?

YES >> Replace the BCM. Refer to BCS-52, "Removal and Installation".

NO >> Replace the key switch.

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

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

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

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal
 injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag
 Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

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