WCS В SECTION WARNING CHIME SYSTEM

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< BASIC INSPECTION >

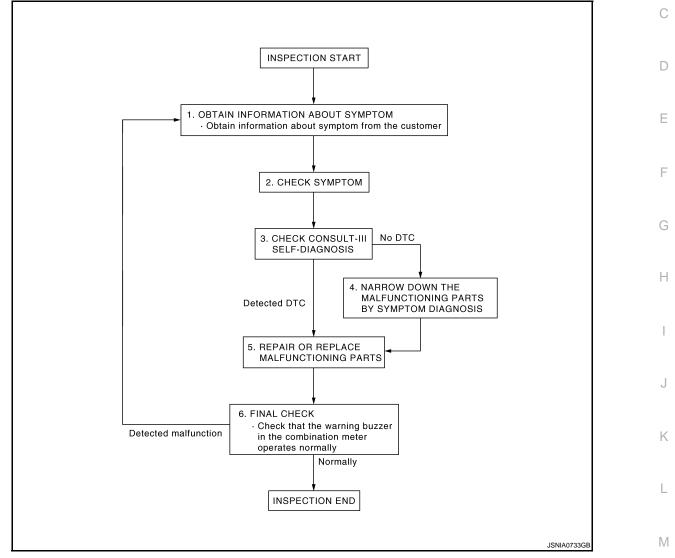
BASIC INSPECTION DIAGNOSIS AND REPAIR WORKFLOW

Work Flow

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OVERALL SEQUENCE



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 that any other malfunctions are present.

>> GO TO 3.

 $3. {\sf CHECK\ CONSULT-III\ SELF-DIAGNOSIS\ RESULTS}$

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DIAGNOSIS AND REPAIR WORKFLOW

< BASIC INSPECTION >

Connect CONSULT-III and perform "Self Diagnostic Result" of "METER/M&A". Refer to <u>MWI-37. "CONSULT-</u> <u>III Function (METER/M&A)"</u>.

Are self-diagnosis results normal?

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

4.NARROW DOWN MALFUNCTIONING PARTS BY SYMPTOM DIAGNOSIS

Perform symptom diagnosis and narrow down the malfunctioning parts.

>> GO TO 5.

5. REPAIR OR REPLACE MALFUNCTIONING PARTS

Repair or replace malfunctioning parts. **NOTE:**

If DTC is displayed, erase DTC after repair or replace malfunctioning parts.

>> GO TO 6.

6.FINAL CHECK

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

Does it operate normally?

YES >> INSPECTION END NO >> GO TO 1.

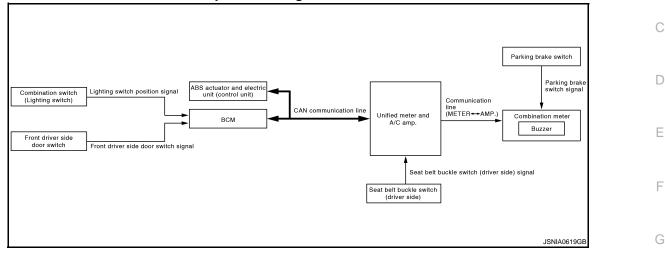
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SYSTEM DESCRIPTION

WARNING CHIME SYSTEM

WARNING CHIME SYSTEM

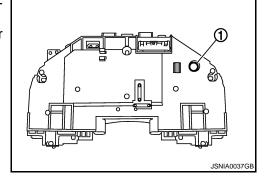
WARNING CHIME SYSTEM : System Diagram



WARNING CHIME SYSTEM : System Description

COMBINATION METER

- The buzzer (1) for warning chime system is installed in the combination meter.
- The buzzer sounds when the combination meter receives buzzer output signal from each unit through unified meter and A/C amp.



UNIFIED METER AND A/C AMP.

The unified meter and A/C amp. transmits the buzzer output signal received from BCM with CAN communication line to the combination meter.

BCM

BCM receives signals from various units and transmits a buzzer output signal to the unified meter and A/C amp. 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 signalDriver side door switch signal	0
Seat belt warning chime	Ignition switch signalSeat belt buckle switch (driver side) signal	P

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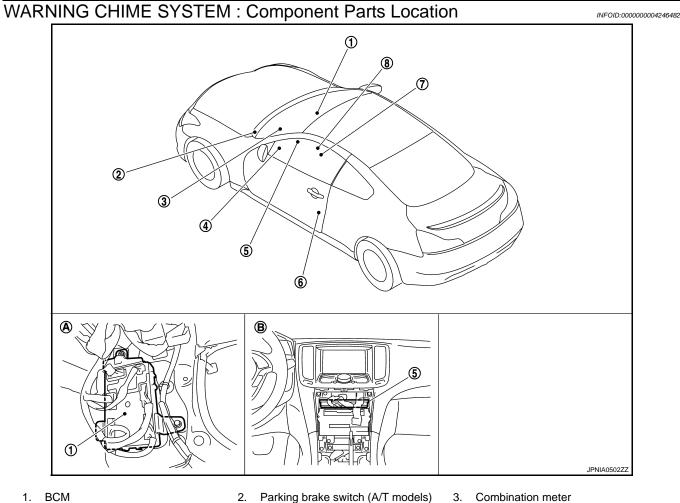
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< SYSTEM DESCRIPTION >



- 1. BCM
- Combination switch 4.
- (Lighting switch)
- 7. Seat belt buckle switch (driver side) A. Dash side lower (passenger side)
- 5. Unified meter and A/C amp.
- Parking brake switch (M/T models) 8.
- B. Behind cluster lid C (back)

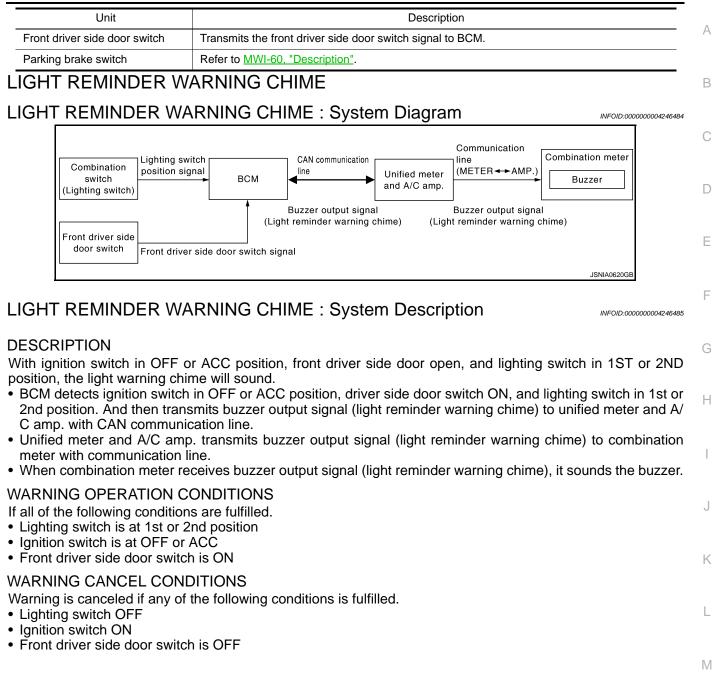
WARNING CHIME SYSTEM : Component Description

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6. Front driver side door switch

Unit	Description		
Combination meter	 Receives a buzzer output signal from the unified meter and A/C amp. and sounds the buzzer. Judges whether the parking brake is released from the vehicle speed signal received from the unified meter and A/C amp. with CAN communication line and the parking brake switch signal from the parking brake switch, and sounds the buzzer if necessary. 		
Unified meter and A/C amp.	 Receives the seat belt buckle switch signal from the seat belt buckle switch and transmits it to BCM with CAN communication line. Receives a buzzer output signal from BCM with CAN communication line and transmits it to the combination meter by means of communication line. 		
BCM	Transmits signals provided by various units to the unified meter and A/C amp. with CAN con munication line.		
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to BCM with CAN communication line.		
Seat belt buckle switch (driver side)	Transmits a seat belt buckle switch (driver side) signal to the unified meter and A/C amp.		
Combination switch (Lighting switch)	Transmits the lighting switch position signal to BCM.		

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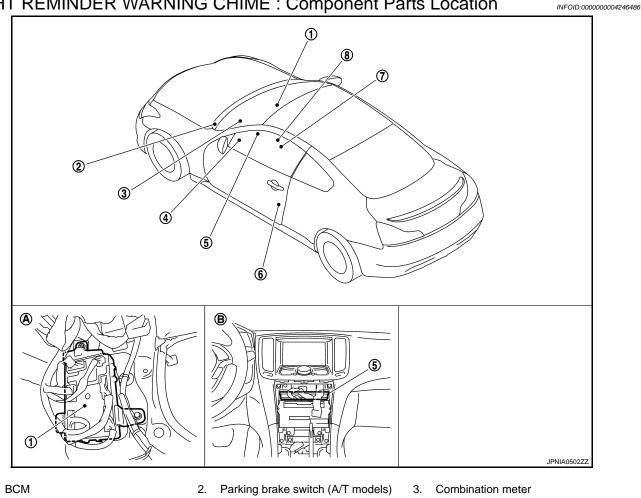


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< SYSTEM DESCRIPTION >

LIGHT REMINDER WARNING CHIME : Component Parts Location



Combination switch

1.

4. (Lighting switch)

7. Seat belt buckle switch (driver side)

A. Dash side lower (passenger side)

- 5. Unified meter and A/C amp.
- Parking brake switch (M/T models) 8.
- B. Behind cluster lid C (back)

LIGHT REMINDER WARNING CHIME : Component Description

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6. Front driver side door switch

Unit	Description Receives a buzzer output signal from the unified meter and A/C amp. and sounds the buzzer.		
Combination meter			
Unified meter and A/C amp.	Receives a buzzer output signal from BCM via CAN communication line and transmits it to the com- bination meter by means of communication line.		
ВСМ	Judges the light warning chime conditions from the signals provided by various switches and trans mits a buzzer output signal to the unified meter and A/C amp. via CAN communication line if nec essary.		
Combination switch (Lighting switch)	Transmits the lighting switch position signal to BCM.		
Front driver side door switch	Transmits the front driver side door switch signal to BCM.		

SEAT BELT WARNING CHIME

< SYSTEM DESCRIPTION > SEAT BELT WARNING CHIME : System Diagram Combination meter Communication line (METER ← AMP.) CAN communication line Unified meter всм Buzzer and A/C amp. Buzzer output signal Buzzer output signal (Seat belt warning chime) (Seat belt warning chime) Seat belt buckle switch signal Seat belt buckle

SEAT BELT WARNING CHIME : System Description

DESCRIPTION

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

• BCM receives seat belt buckle switch signal from unified meter and A/C amp. with CAN communication line.

Seat belt buckle switch (driver side) signal

- BCM detects ignition switch turned ON and seat belt buckle switch (driver side) ON. And then transmits
- buzzer output signal (seat belt warning chime) to unified meter and A/C amp. with CAN communication line.
 Unified meter and A/C amp. transmits buzzer output signal (seat belt warning chime) to combination meter with communication line.
- When combination meter receives buzzer output signal (seat belt warning chime), it sounds the buzzer.

WARNING OPERATION CONDITIONS

- If all of the following conditions are fulfilled.
- Ignition switch OFF→ON
- Seat buckle switch (driver side) is ON (driver seat belt unfastened)

WARNING CANCEL CONDITIONS

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

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

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switch

(driver side)

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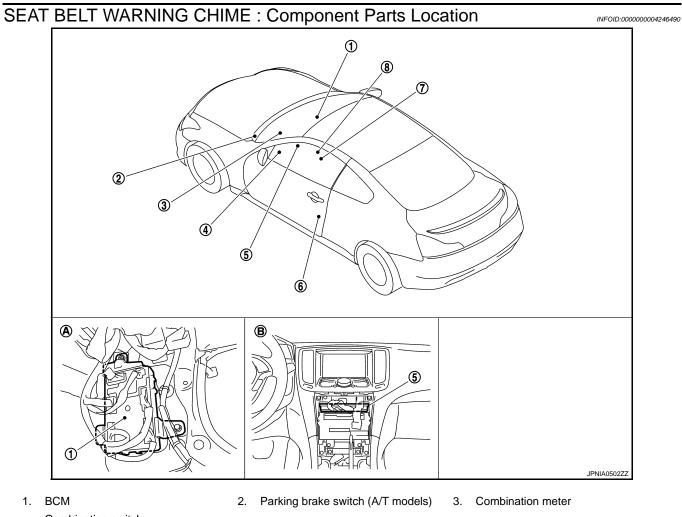
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< SYSTEM DESCRIPTION >



- 4. Combination switch
- 4. (Lighting switch)
- 7. Seat belt buckle switch (driver side)A. Dash side lower (passenger side)
- 5. Unified meter and A/C amp.
- 8. Parking brake switch (M/T models)
- B. Behind cluster lid C (back)

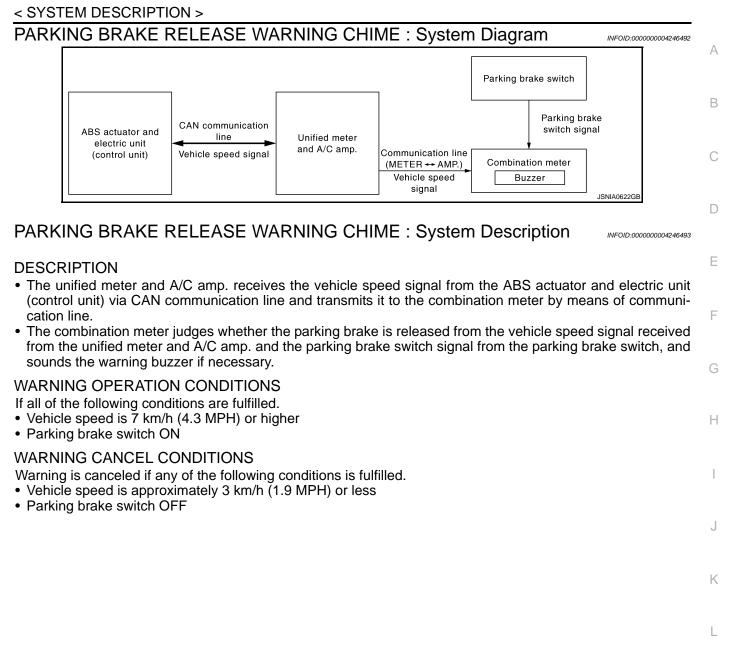
SEAT BELT WARNING CHIME : Component Description

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6. Front driver side door switch

Unit	Description		
Combination meter	Receives a buzzer output signal from the unified meter and A/C amp. and sounds the buzzer.		
Unified meter and A/C amp.	 Receives the seat belt buckle switch (driver side) signal from the seat belt buckle switch (driver side) and transmits it to BCM via CAN communication line. Receives a buzzer output signal from BCM via CAN communication line and transmits it to the combination meter by means of communication line. 		
ВСМ	Judges the seat belt warning chime condition from the seat belt buckle switch signal received from the unified meter and A/C amp. and transmits a buzzer output signal to the unified meter and A/C amp via CAN communication line if necessary.		
Seat belt buckle switch (driver side)	Refer to WCS-24, "Description".		

PARKING BRAKE RELEASE WARNING CHIME



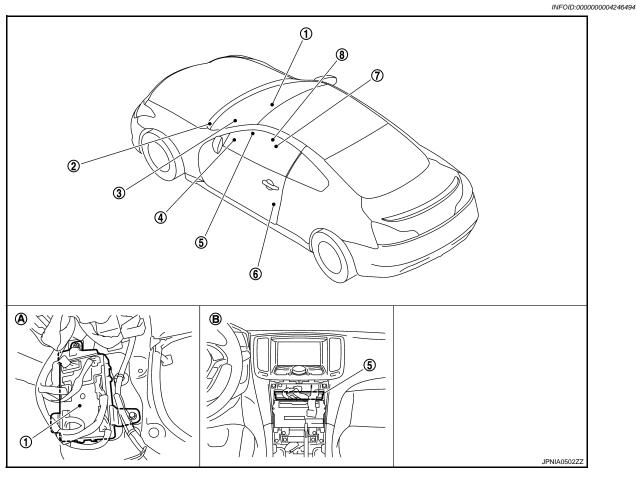
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< SYSTEM DESCRIPTION >

PARKING BRAKE RELEASE WARNING CHIME : Component Parts Location



- BCM 1.
- Combination switch 4. (Lighting switch)
- Parking brake switch (A/T models) 2. Unified meter and A/C amp.

5.

- 3. Combination meter
- 6. Front driver side door switch

- 7. Seat belt buckle switch (driver side) A. Dash side lower (passenger side)
- 8. Parking brake switch (M/T models) B. Behind cluster lid C (back)
- PARKING BRAKE RELEASE WARNING CHIME : Component Description INFOLD:00000004246495

Unit	Description		
Combination meter	Judges whether the parking brake is released from the vehicle speed signal received from the unified meter and A/C amp. via CAN communication line and the parking brake switch signal from the parking brake switch, and sounds the buzzer if necessary.		
Unified meter and A/C amp.	Receives a vehicle speed signal from ABS actuator and electric unit (control unit) via CAN com- munication line and transmits it to the combination meter by means of communication line.		
ABS actuator and electric unit (control unit)	Transmits the vehicle speed signal to combination meter via CAN communication line.		
Parking brake switch	Refer to <u>MWI-60</u> , "Description".		

< SYSTEM DESCRIPTION >

DIAGNOSIS SYSTEM (UNIFIED METER AND A/C AMP.)

CONSULT-III Function (METER/M&A)

CONSULT-III APPLICATION ITEMS

CONSULT-III can perform the following diagnosis modes with CAN communication with the unified meter and A/C amp.

			С
System	Diagnosis mode	Description	
METER/M&A	Self Diagnostic Result	Unified meter and A/C amp. checks the conditions and displays memorized error.	
	Data Monitor	Displays unified meter and A/C amp. input/output data in real time.	D

SELF DIAG RESULT Refer to <u>MWI-99, "DTC Index"</u>.

DATA MONITOR

Display Item List

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.
ODO OUTPUT [km]		Odometer signal value transmitted to other units with CAN communication line.
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.
FUEL METER [L]	х	Fuel level indicated on combination meter.
W TEMP METER [°C]	x	Value of engine coolant temperature signal received from ECM with CAN commu- nication line. NOTE: 215 is displayed when the malfunction signal is input.
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.
VDC/TCS IND [On/Off]		Status of VDC OFF indicator lamp judged from VDC OFF indicator lamp signal re- ceived 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.
DOOR W/L [On/Off]		Status of door warning judged from door switch signal received from BCM with CAN communication line.
TRUNK/GLAS-H [On/Off]		Status of trunk warning judged from trunk switch signal received from BCM with CAN communication line.

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X: Applicable

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< SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description
HI-BEAM IND [On/Off]		Status of high beam indicator lamp judged from high beam request signal received from BCM with CAN communication line.
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]		This item is displayed, but cannot be monitored.
RR FOG IND [Off]		This item is displayed, but cannot be monitored.
LIGHT IND [On/Off]		Status of light indicator lamp judged from position 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 re- ceived from IPDM E/R with CAN communication line.
MIL [On/Off]		Status of malfunction indicator lamp judged from malfunctioning indicator lamp signal received from ECM with CAN communication line.
GLOW IND [On/Off]		This item is displayed, but cannot be monitored.
C-ENG2 W/L [On/Off]		This item is displayed, but cannot be monitored.
CRUISE IND [On/Off]		Status of CRUISE indicator judged from ASCD status 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.
CRUISE W/L [On/Off]		Status of CRUISE warning lamp judged from ASCD status signal received from ECM with CAN communication line.
BA W/L [Off]		This item is displayed, but cannot be monitored.
ATC/T-AMT W/L [On/Off]		Status of A/T check warning lamp judged from A/T check indicator signal received from TCM with CAN communication line.
4WD W/L [On/Off]		Status of AWD warning lamp judged from AWD warning lamp signal received from AWD control unit with CAN communication line.
4WD LOCK IND [Off]		This item is displayed, but cannot be monitored.
FUEL W/L [On/Off]		Low-fuel warning lamp status judged by the identified fuel level.
WASHER W/L [On/Off]		Status of washer warning lamp judged from washer level switch input to combina- tion meter.
AIR PRES W/L [On/Off]		Status of low tire pressure warning lamp judged from tire pressure signal received from BCM with CAN communication line.
KEY G/Y W/L [On/Off]		Status of key warning lamp (G/Y) judged from key warning signal received from BCM with CAN communication line.
AFS OFF IND [On/Off]		Status of AFS OFF indicator lamp judged from AFS OFF indicator lamp signal re- ceived from AFS control unit with CAN communication line.
4WAS/RAS W/L [On/Off]		Status of 4WAS warning lamp judged from 4WAS warning lamp signal received from 4WAS main control unit with CAN communication line.
DDS W/L [On/Off]		This item is displayed, but cannot be monitored.
LANE W/L [On/Off]		This item is displayed, but cannot be monitored.
LDP IND [On/Off]		This item is displayed, but cannot be monitored.

< SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description
LCD [B&P N, B&P I, ID NG, ROTAT, SFT P, INSRT, BATT, NO KY,OUTKY, LK WN, C&P N, C&P I]		Displays status of Intelligent Key system warning judged from meter display signal received from BCM with CAN communication line.
ACC TARGET [On/Off]		Status of vehicle ahead detection indicator judged from meter display signal re- ceived from ICC sensor integrated unit with CAN communication line.
ACC DISTANCE [Off, SHOR, MID, LONG]		Status of set distance indicator judged from meter display signal received from ICC sensor integrated unit with CAN communication line.
ACC OWN VHL [On/Off]		Status of own vehicle indicator judged from meter display signal received from ICC sensor integrated unit with CAN communication line.
ACC SET SPEED		Display ICC set vehicle speed from meter display signal received from ICC sensor integrated unit with CAN communication line.
ACC UNIT [On/Off]		Status of display unit judged from meter display signal received from ICC sensor integrated unit with CAN communication line.
O/D OFF SW [On/Off]		This item is displayed, but cannot be monitored.
SHIFT IND [P, R, N, D, M1, M2, M3, M4, M5, M6, M7]		Status of shift position indicator judged from shift position signal and manual mode indicator signal received from TCM with CAN communication line.
AT S MODE SW [On/Off]		Status of snow mode switch.
AT P MODE SW [On/Off]		This item is displayed, but cannot be monitored.
M RANGE SW [On/Off]		Status of manual mode switch.
NM RANGE SW [On/Off]		Status of not manual mode switch.
AT SFT UP SW [On/Off]		Status of A/T shift up switch.
AT SFT DWN SW [On/Off]		Status of A/T shift down switch.
ST SFT UP SW [On/Off]		Status of paddle shifter up switch.
ST SFT DWN SW [On/Off]		Status of paddle shifter down switch.
COMP F/B SIG [On/Off]		A/C compressor activation condition that ECM judges according to the water tem- perature and the acceleration degree.
4WD LOCK SW [Off]		This item is displayed, but cannot be monitored.
PKB SW [On/Off]		Status of parking brake switch.
BUCKLE SW [On/Off]		Status of seat belt buckle switch.
BRAKE OIL SW [On/Off]		Status of brake fluid level switch.
DISTANCE [km]		Value of possible driving distance calculated by unified meter and A/C amp.
OUTSIDE TEMP [°C or °F]		Ambient air temperature value converted from ambient sensor signal received from ambient sensor. NOTE: This may not match with the temperature value indicated on the information display. (Because the information display value is a corrected value from the ambient sensor input value.)

< SYSTEM DESCRIPTION >

Display item [Unit]	MAIN SIGNALS	Description
FUEL LOW SIG [On/Off]		Status of fuel level low warning signal to output to AV control unit with CAN com- munication line.
BUZZER [On/Off]	x	Buzzer status (in the combination meter) is judged with the buzzer output signal received from each unit with CAN communication line and the warning output condition of the combination meter.

NOTE:

Some items are not available according to vehicle specification.

< SYSTEM DESCRIPTION > DIAGNOSIS SYSTEM (BCM) COMMON ITEM

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

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INFOID:000000004704608

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 Diagnostic Result	Displays the diagnosis results judged by BCM.	D
CAN Diag Support Monitor	Monitors the reception status of CAN communication viewed from BCM. Refer to CONSULT-III opera- tion manual.	_
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.	F
Configuration	This function is not used even though it is displayed.	

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.

				\times : Applicable item	1
System	Sub system selection item		Diagnosis mode		-
System	Sub system selection item	Work Support	Data Monitor	Active Test	-
Door lock	DOOR LOCK	×	×	×	-
Rear window defogger	REAR DEFOGGER		×	×	-
Warning chime	BUZZER		×	×	-
Interior room lamp timer	INT LAMP	×	×	×	-
Exterior lamp	HEAD LAMP	×	×	×	_
Wiper and washer	WIPER	×	×	×	-
Turn signal and hazard warning lamps	FLASHER	×	×	×	-
	AIR CONDITONER*				_
Intelligent Key systemEngine start system	INTELLIGENT KEY	×	×	×	-
Combination switch	COMB SW		×		-
Body control system	BCM	×			_
IVIS - NATS	IMMU		×	×	
Interior room lamp battery saver	BATTERY SAVER	×	×	×	-
Trunk lid open	TRUNK		×	×	-
Vehicle security system	THEFT ALM	×	×	×	-
RAP system	RETAINED PWR*		×		-
Signal buffer system	SIGNAL BUFFER		×	×	_
TPMS	TPMS (AIR PRESSURE MONITOR)	×	×	×	-

NOTE:

*: This item is displayed, but is not used.

FREEZE FRAME DATA (FFD)

The BCM records the following vehicle condition at the time a particular DTC is detected, and displays on CONSULT-III.

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

CONSULT screen item	Indication/Unit		Description	
Vehicle Speed	km/h	Vehicle speed of the mo	oment a particular DTC is detected	
Odo/Trip Meter	km	Total mileage (Odomete	er value) of the moment a particular DTC is detected	
	SLEEP>LOCK		While turning BCM status from low power consumption mode to normal mode (Power supply position is "LOCK")	
	SLEEP>OFF		While turning BCM status from low power consumption mode to normal mode (Power supply position is "OFF".)	
	LOCK>ACC		While turning power supply position from "LOCK" to "ACC"	
	ACC>ON		While turning power supply position from "ACC" to "IGN"	
	RUN>ACC		While turning power supply position from "RUN" to "ACC" (Vehicle is stopping and selector lever is except P position.)	
	CRANK>RUN		While turning power supply position from "CRANKING" to "RUN" (From cranking up the engine to run it)	
	RUN>URGENT		While turning power supply position from "RUN" to "ACC" (Emer- gency stop operation)	
	ACC>OFF		While turning power supply position from "ACC" to "OFF"	
	OFF>LOCK	Power position status of the moment a particular DTC is detected	While turning power supply position from "OFF" to "LOCK"	
Vehicle Condition	OFF>ACC		Vyhile furning power supply position from "UEE" to "ACC"	
	ON>CRANK		While turning power supply position from "IGN" to "CRANKING"	
	OFF>SLEEP		While turning BCM status from normal mode (Power supply position is "OFF".) to low power consumption mode	
	LOCK>SLEEP		While turning BCM status from normal mode (Power supply position is "LOCK".) to low power consumption mode	
	LOCK		Power supply position is "LOCK" (Ignition switch OFF with steer- ing is locked.)	
	OFF		Power supply position is "OFF" (Ignition switch OFF with steering is unlocked.)	
	ACC		Power supply position is "ACC" (Ignition switch ACC)	
	ON		Power supply position is "IGN" (Ignition switch ON with engine stopped)	
	ENGINE RUN		Power supply position is "RUN" (Ignition switch ON with engine running)	
	CRANKING		Power supply position is "CRANKING" (At engine cranking)	
IGN Counter	0 - 39	 The number is 0 when The number increases whenever ignition swit 	t ignition switch is turned ON after DTC is detected a malfunction is detected now. s like $1 \rightarrow 2 \rightarrow 338 \rightarrow 39$ after returning to the normal condition ich OFF \rightarrow ON. o 39 until the self-diagnosis results are erased if it is over 39.	

BUZZER

BUZZER : CONSULT-III Function (BCM - BUZZER)

INFOID:000000004246498

CONSULT-III APPLICATION ITEMS

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

DATA MONITOR

DIAGNOSIS SYSTEM (BCM)

< SYSTEM DESCRIPTION >

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

ACTIVE TEST

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

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POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

DTC/CIRCUIT DIAGNOSIS POWER SUPPLY AND GROUND CIRCUIT COMBINATION METER

COMBINATION METER : Diagnosis Procedure

1.CHECK FUSE

Check for blown fuses.

Power source	Fuse No.
Battery	11
Ignition switch ON or START	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 terminal and ground.

	Terminals			
(+)		Ignition switch	Voltage (Approx.)
Combina	tion meter	()	Ignition Switch	(Approx.)
Connector	Terminals	Ť		
M53	1	Ground	OFF	Battery voltage
000	21	Giouna	ON	Dattery 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 terminal and ground.

Combina	tion meter		Continuity
Connector	Terminals	*	Continuity
	5	Ground	
M53	15		Existed
_	22		

Is the inspection result normal?

YES >> INSPECTION END

NO >> Repair harness or connector.

UNIFIED METER AND A/C AMP.

UNIFIED METER AND A/C AMP. : Diagnosis Procedure

1.CHECK FUSE

Check for blown fuses.

INFOID:000000004704610

INFOID:000000004704609

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

	Power so	urce		Fu	se No.
	Batter	y			11
	Ignition switch A	CC or ON			19
	Ignition switch Of	N or START			3
Is the inspectio	n result normal?	?			
2.CHECK PO	sure to eliminat	CIRCUIT		e installing new fuse.	nd around
Check Voltage			amp. named		na grouna.
	Terminals				
(*	+)			Voltage	
Unified meter	and A/C amp.	()	Ignition switcl	(Approx.)	
Connector	Terminals				
	54		OFF		
M67	41	Ground	ACC	Battery voltage	
	53		ON		
 Disconnect Check cont 	n switch OFF. unified meter a tinuity between and A/C amp. Terminals			narness connector terr	ninal and ground.
M67	55	Ground	Continuity		
	55 71		Existed	_	
Is the inspectio YES >> INS NO >> Re BCM (BOD)	71 <u>n result normal</u> SPECTION ENE pair harness or Y CONTRO	2 connector. L MODULE	Existed	 s Procedure	INFOID:000000004704625
Is the inspection YES >> INS NO >> Re BCM (BOD) BCM (BOD)	71 n result normal SPECTION ENE pair harness or Y CONTRO	2 connector. L MODULE _ MODULE)	Existed	 s Procedure	INFOID:00000004704625
<u>s the inspection</u> YES >> INS NO >> Re BCM (BOD) BCM (BOD) 1.CHECK FUS	71 SPECTION ENE pair harness or Y CONTRO CONTROL	2 connector. DL MODULE _ MODULE) LE LINK	Existed		INFOID:00000004704625
<u>s the inspection</u> YES >> INS NO >> Re BCM (BOD) BCM (BOD) 1.снеск гиз	71 SPECTION ENE pair harness or Y CONTRO CONTROL	2 connector. DL MODULE _ MODULE) LE LINK Ind fusible link a	Existed		INFOID:00000004704625
<u>s the inspection</u> YES >> INS NO >> Re BCM (BOD) BCM (BOD) 1.снеск гиз	71 n result normal SPECTION ENE pair harness or Y CONTRO CONTRO CONTROL SE AND FUSIBI following fuse a Signal nar	2 connector. DL MODULE _ MODULE) LE LINK Ind fusible link a	Existed	Fuse and fu	
Is the inspection YES >> INS NO >> Re BCM (BOD)	71 n result normal' SPECTION ENE pair harness or Y CONTRO CONTRO CONTROL SE AND FUSIBI following fuse a Signal nar Battery power	2 connector. DL MODULE _ MODULE) LE LINK Ind fusible link a	Existed	Fuse and fu	isible link No.

POWER SUPPLY AND GROUND CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

(-	+)	(-)	Voltage	
BC	CM		(Approx.)	
Connector	Terminal	Ground		
M118	1			
M119	11	1	Battery voltage	
M119				

Is the measurement value normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

 $3. {\sf CHECK} \, {\sf GROUND} \, {\sf CIRCUIT}$

Check continuity between BCM harness connector and ground.

BC	CM		Continuity	
Connector	Terminal	Ground		
M119	13	-	Existed	

Does continuity exist?

YES >> INSPECTION END

NO >> Repair harness or connector.

METER BUZZER CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >	
METER BUZZER CIRCUIT	А
Description INFOID:00000004246502	~
 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. 	В
Component Function Check	
1.CHECK OPERATION OF METER BUZZER	С
 Connect the CONSULT-III. Perform "LIGHT WARN ALM" in "ACTIVE TEST" of "BCM (BUZZER)". Does meter buzzer beep? 	D
YES \rightarrow INSPECTION END NO \rightarrow GO TO 2. 2. CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL	Е
Select the "Data Monitor" of "METER/M&A" and check the "BUZZER" monitor value.	F
"BUZZER" Under the condition of buzzer input : On Except above : Off	G
Is the inspection result normal? YES >> Replace combination meter. NO >> Replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u> .	Н
Diagnosis Procedure	
1. CHECK POWER SUPPLY OF COMBINATION METER	I
Check power supply of combination meter. Refer to <u>MWI-50</u> , "COMBINATION METER : Diagnosis Proce- dure".	J
Is the inspection result normal? YES >> GO TO 2. NO >> Repair power supply circuit of combination meter. 2.CHECK BATTERY POWER SUPPLY OF UNIFIED METER AND A/C AMP.	K
Check battery power supply of unified meter and A/C amp. Refer to <u>MWI-50, "UNIFIED METER AND A/C</u> AMP. : Diagnosis Procedure".	L
Is the inspection result normal? YES >> INSPECTION END NO >> Repair power supply circuit of unified meter and A/C amp.	Μ
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SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

Description

Transmits a seat belt buckle switch signal to the unified meter and A/C amp.

Component Function Check

1.CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

1. Connect the CONSULT-III.

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

"BUCKLE SW" When seat belt is fastened : Off When seat belt is unfastened : On

>> INSPECTION END

Diagnosis Procedure

1.CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

- 1. Turn ignition switch ON.
- 2. Check voltage between unified meter and A/C amp. harness connector terminal and ground.

Terminal					
(·	(+) Combination meter		Condition	Voltage	
Combina			Condition	(Approx.)	
Connector	Terminal				
M66	9	Ground	When seat belt is fastened	12 V	
IVIOO	5	Giouna	When seat belt is unfastened	0 V	

Is the inspection result normal?

YES >> Replace unified meter and A/C amp.

NO >> GO TO 2.

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

- 1. Turn ignition switch OFF.
- 2. Disconnect unified meter and A/C amp. connector and seat belt buckle switch (driver side) connector.
- 3. Check continuity between unified meter and A/C amp. harness connector terminal and seat belt buckle switch (driver side) harness connector terminal.

Unified meter	Unified meter and A/C amp.		Seat belt buckle switch (driver side)		
Connector	Terminal	Connector Terminal		Continuity	
M66	9	B13	1	Existed	

4. Check harness continuity between unified meter and A/C amp. harness connector terminal and ground.

Unified meter	and A/C amp.		Continuity	
Connector	Terminal	Ground	Continuity	
M66	9	*	Not existed	
le the increation		2		

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

 ${f 3.}$ CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) GROUND CIRCUIT

WCS-24

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INFOID:00000004246506

INFOID:000000004246507

SEAT BELT BUCKLE SWITCH SIGNAL CIRCUIT

< DTC/CIRCUIT DIAGNOSIS >

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

Seat belt buckle	switch (driver side)		Orationity		
Connector	Terminal	Ground	Continuity		В
B13	2		Existed		
s the inspectio	n result normal	<u>?</u>			С
-	SPECTION EN pair harness or				0
Component	Inspection			INFOID:00000004246508	D
LCHECK SE		LE SWITCH (DRIVER SIDE)			
1. Turn ignitic 2. Disconnec	on switch OFF. t the seat belt b	buckle switch (driver side) conne terminals 1 and 2.	ector.		Ε
 Turn ignitic Disconnect Check con 	on switch OFF. t the seat belt b tinuity between	buckle switch (driver side) conne terminals 1 and 2.			E F
 Turn ignitic Disconnect Check con 	on switch OFF. t the seat belt b	buckle switch (driver side) conne	ector. Continuity Not existed		_
 Turn ignitic Disconnect Check con 	on switch OFF. t the seat belt b tinuity between	buckle switch (driver side) connecter terminals 1 and 2.	Continuity		_
 Turn ignitic Disconnec Check con Terr 1 	on switch OFF. t the seat belt b tinuity between minal	Duckle switch (driver side) connecterterminals 1 and 2.Seat belt buckle switch (driver side)When seat belt is fastenedWhen seat belt is unfastened	Continuity Not existed		F
1. Turn ignitic 2. Disconnect 3. Check con Terr 1 <u>s the inspectio</u> YES >> INS NO >> Re	n switch OFF. t the seat belt b tinuity between ninal 2 <u>n result normal</u> SPECTION EN	Duckle switch (driver side) connecterminals 1 and 2. Seat belt buckle switch (driver side) When seat belt is fastened When seat belt is unfastened ? D t belt buckle switch (driver side)	Continuity Not existed Existed	SB-13. "SEAT BELT BUCKLE :	F

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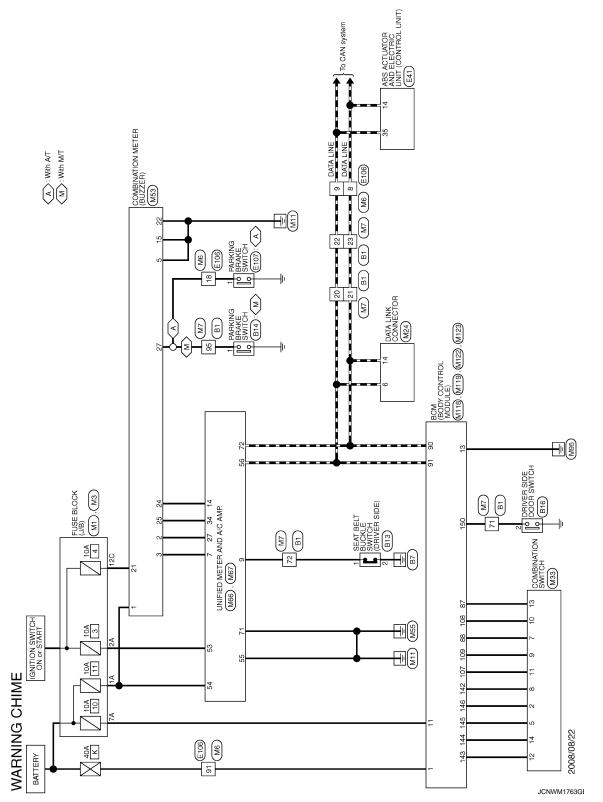
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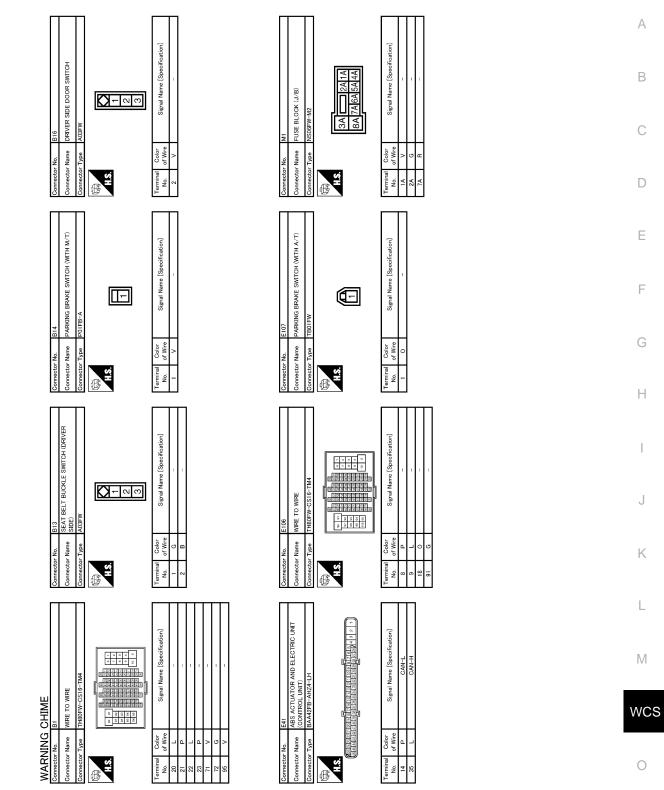
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WARNING CHIME SYSTEM

Wiring Diagram - WARNING CHIME -

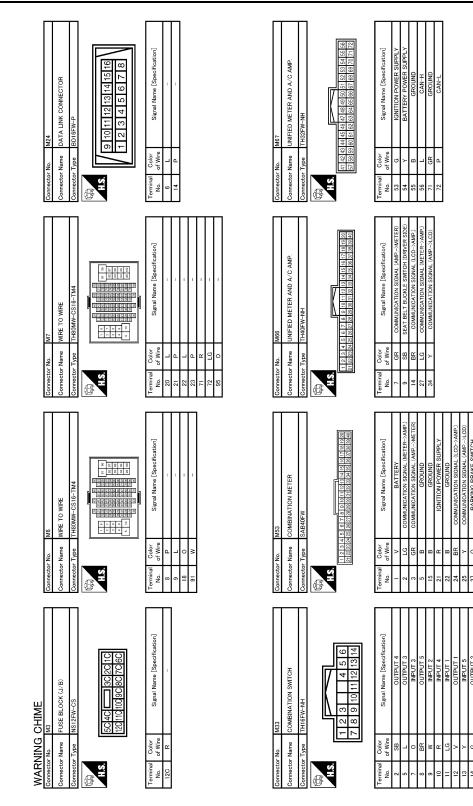


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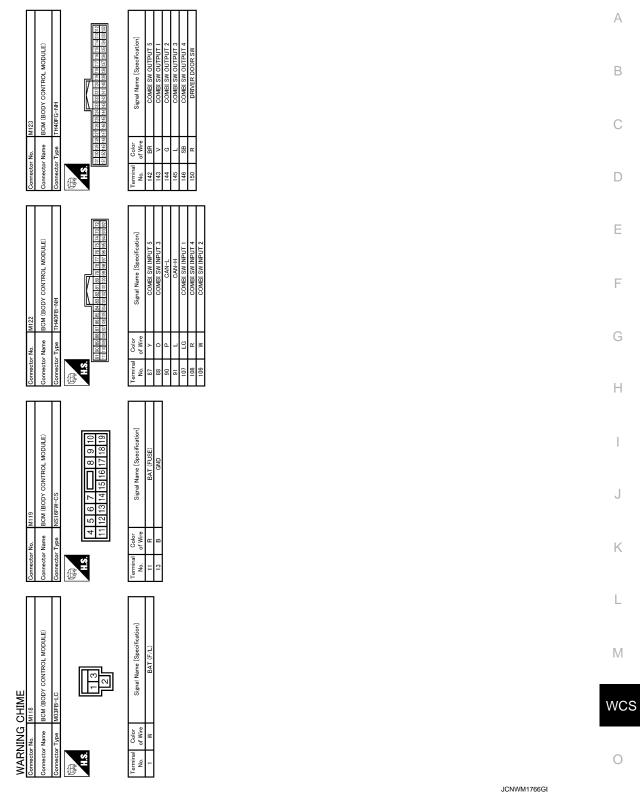
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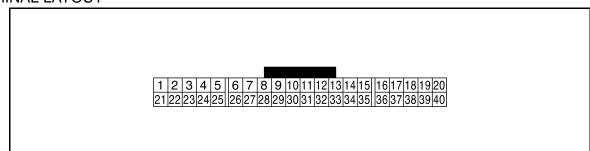


ECU DIAGNOSIS INFORMATION COMBINATION METER

Reference Value

VALUES ON THE DIAGNOSIS TOOL Refer to <u>WCS-44, "Reference Value"</u>.

TERMINAL LAYOUT



PHYSICAL VALUES

	nal No. color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
1 (V)	Ground	Battery power supply	Input	Ignition switch OFF	_	Battery voltage
2 (LG)	Ground	Communication signal (METER \rightarrow AMP.)	Output	Ignition switch ON		(V) 6 2 0 ↓ 2 0 ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
3 (GR)	Ground	Communication signal (AMP.→ METER)	Input	Ignition switch ON	_	(V) 6 2 0 • • • • • • • • • • • • • • • • • • •
5 (B)	Ground	Ground		Ignition switch ON	_	0 V
6	Ground	Alternator signal	Input	Ignition switch	Charge warning lamp ON	0 V
(W)	Giouna	Alternator signal	input	ON	Charge warning lamp OFF	12 V
7	Ground		Innut	Ignition switch	Air bag warning lamp ON	4 V
(LG)	Ground	Air bag signal	Input	ON	Air bag warning lamp OFF	0 V
10	Crowned	Socurity signal	1000	Ignition	Security warning lamp ON	0 V
(R)	Ground	Security signal	Input	switch OFF	Security warning lamp OFF	12 V

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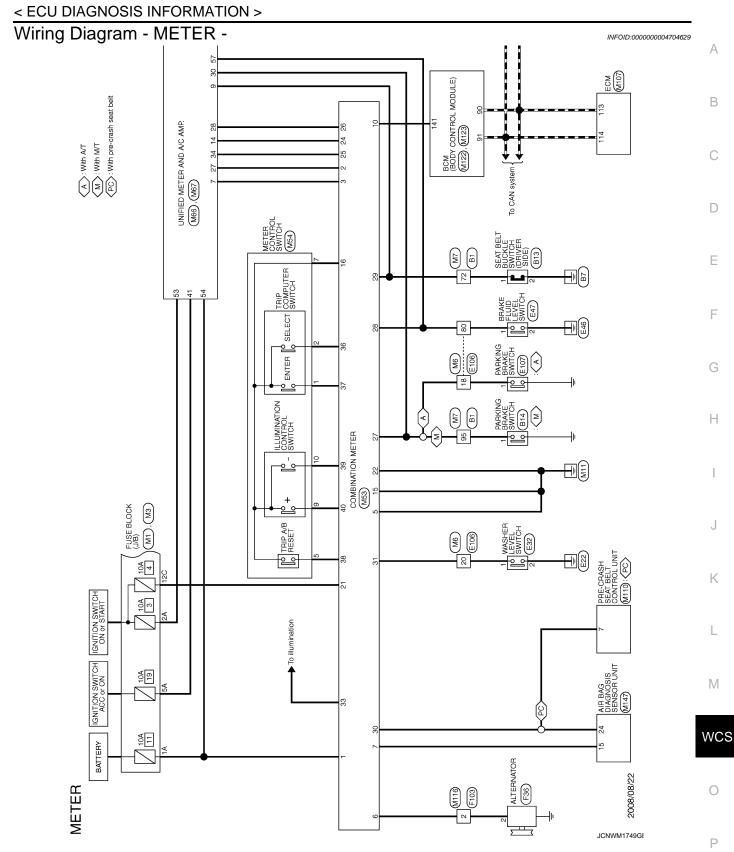
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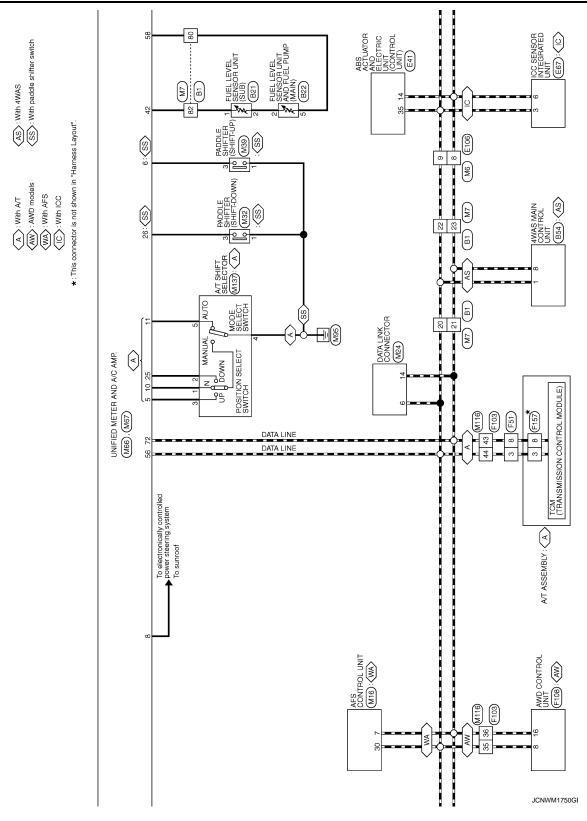
	nal No. color)	Description			Condition	Value	А
+	_	Signal name	Input/ Output		Condition	(Approx.)	
15 (B)	Ground	Ground	_	Ignition switch ON	_	0 V	В
16 (B)	Ground	Meter control switch ground		Ignition switch ON	_	0 V	С
21 (R)	Ground	Ignition signal	Input	Ignition switch ON	_	12 V	D
22 (B)	Ground	Ground		Ignition switch ON	_	0 V	E
24 (BR)	Ground	Communication signal (LCD \rightarrow AMP.)	Output	Ignition switch ON		(V) 15 10 5 0 ► • • • • • • • • • • • • • • • • • • •	F
						JSNIA0028GB	Н
25 (Y)	Ground	Communication signal (AMP. \rightarrow LCD)	Input	Ignition switch ON		(V) 6 4 2 0 ► 200 µs	l
						JSNIA0027GB NOTE: The maximum voltage varies de-	
						pending on the specification (destination unit).	K
26 (R)	Ground	Vehicle speed signal (8-pulse)	Input	Ignition switch ON	Speedometer operated [When vehicle speed is ap- prox. 40 km/h (25 MPH)]		L
						20 ms JSNIA0012GB	M
					Parking brake applied	0 V	WC
27 (O)	Ground	Parking brake switch signal	Input	lgnition switch ON	Parking brake released	(V) 8 4 0 10 ms JSNIA0007GB	0 P

< ECU DIAGNOSIS INFORMATION >

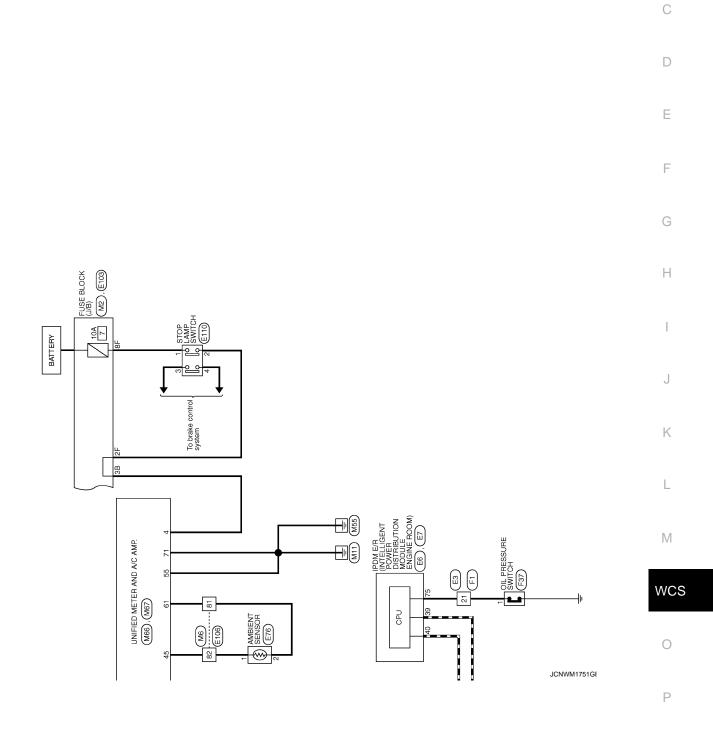
	nal No. color)	Description			Condition	Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
28 (LG)	Ground	Brake fluid level switch sig- nal	Input	Ignition switch ON	Brake fluid level is normal.	(V) 10 0 10 10 10 10 10 10 10 10 10 10 10 1
					The brake fluid level is low- er than the low level	0 V
29	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When driver seat belt is fas- tened	12 V
(LG)	Ground	nal (driver side)	Input	ON	When driver seat belt is un- fastened	0 V
30	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When getting in the passenger seatWhen passenger seat belt is fastened	12 V
(G)	Ground	nal (passenger side)	input	ON	 When getting in the passenger seat When passenger seat belt is unfastened 	0 V
31	Ground	Washer level switch signal	Input	Ignition switch	Washer level switch ON	0 V
(L)	Ground	Washer lever switch signal	input	ON	Washer level switch OFF	5 V
33 (R)	Ground	Illumination control signal	Output	Ignition switch ON	Lighting switch ON, then operate the illumination control switch.	NOTE: When brightness level is midway (V) 10 0 2 ms JSNIA0010GB
36	16	Select switch signal	Input	Ignition switch	When is pressed	0 V
(LG)	(B)		mpar	ON	Other than the above	5 V
37 (SB)	16 (B)	Enter switch signal	Input	Ignition switch	When 🖬 is pressed	0 V
(00)				ON	Other than the above	5 V
38 (L)	16 (B)	Trip A/B reset switch signal	Input	Ignition switch ON	When trip A/B reset switch is pressed Other than the above	0 V 5 V
39	16	Illumination control switch	Input	Ignition switch	When C - switch is pressed	0 V
(P)	(B)	signal (–)	1	ON	Other than the above	5 V
40 (O)	16 (B)	Illumination control switch signal (+)	Input	Ignition switch	When C + switch is pressed	0 V
. /	. ,			ON	Other than the above	5 V



< ECU DIAGNOSIS INFORMATION >



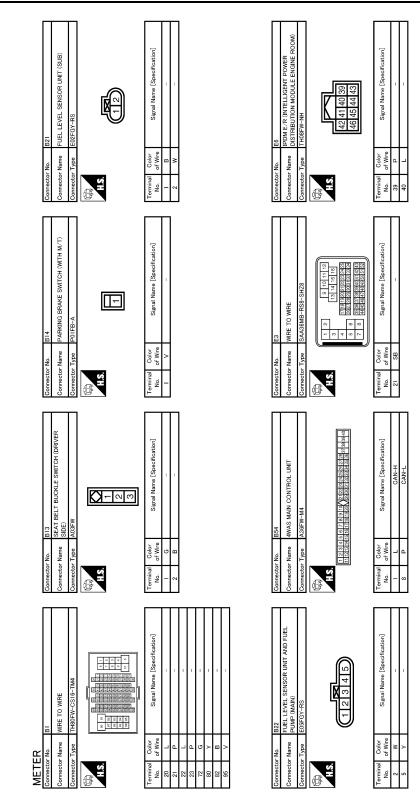
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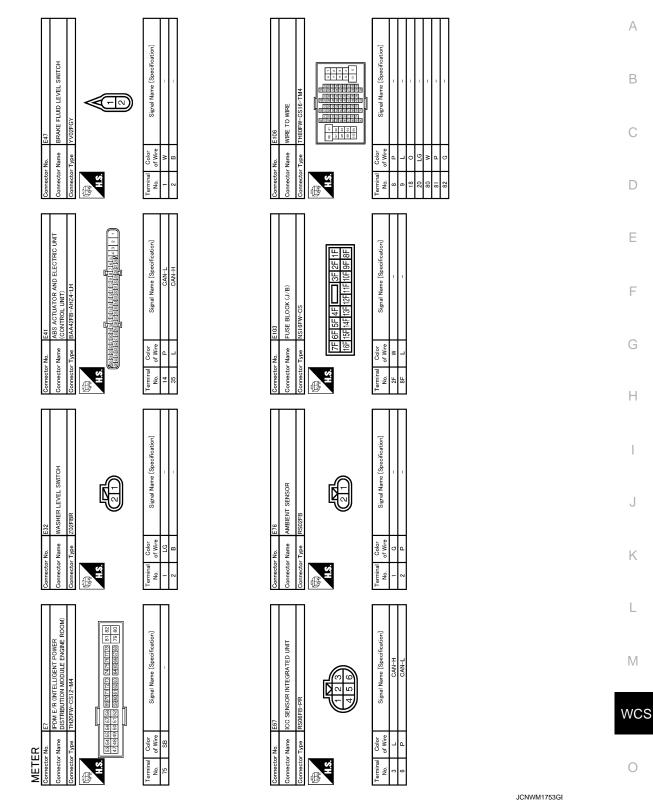
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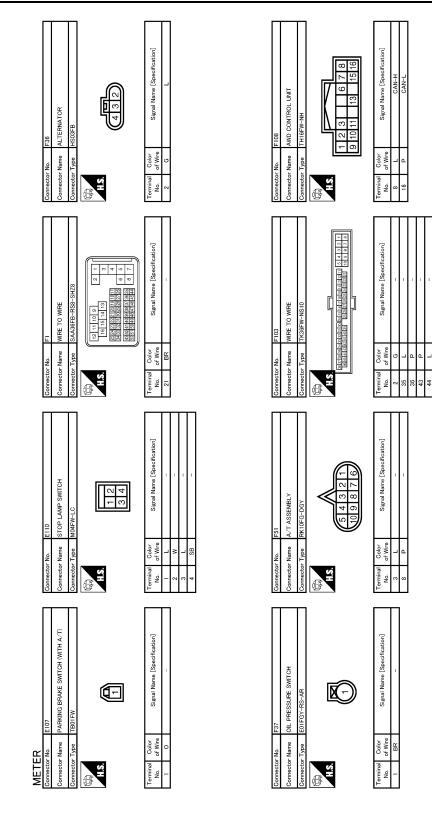
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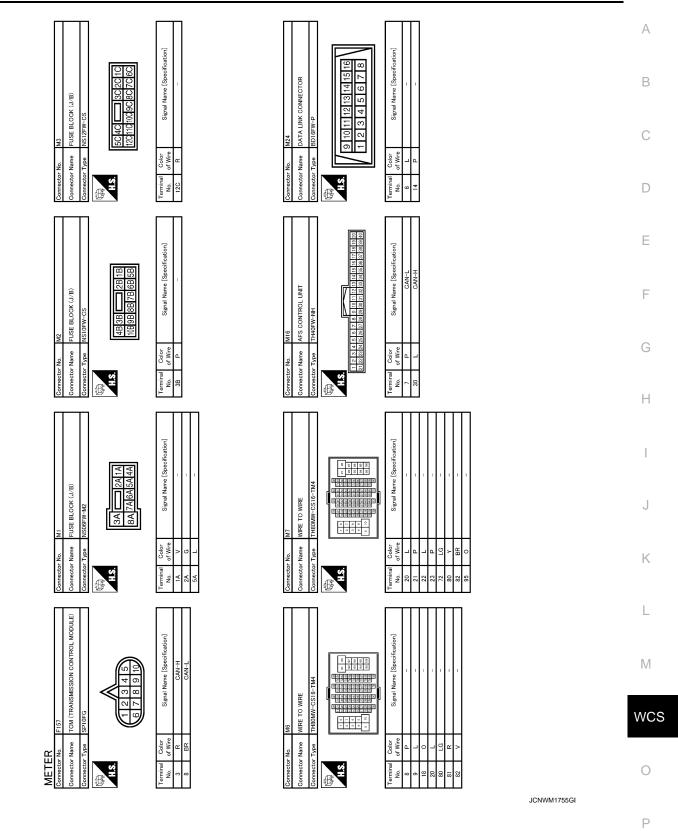
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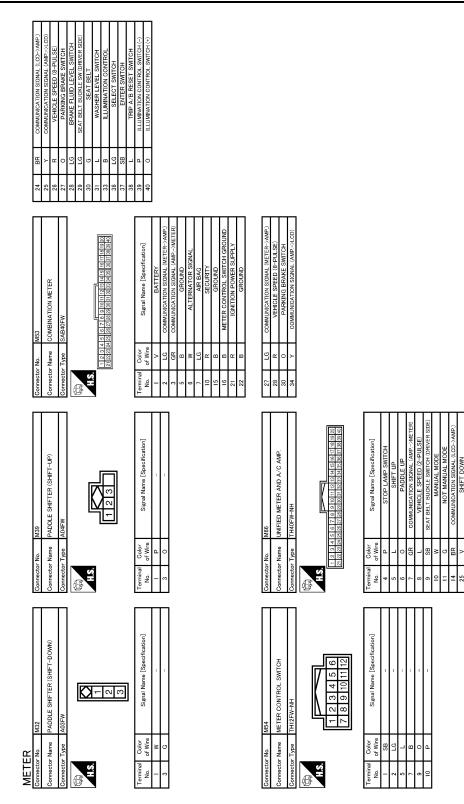
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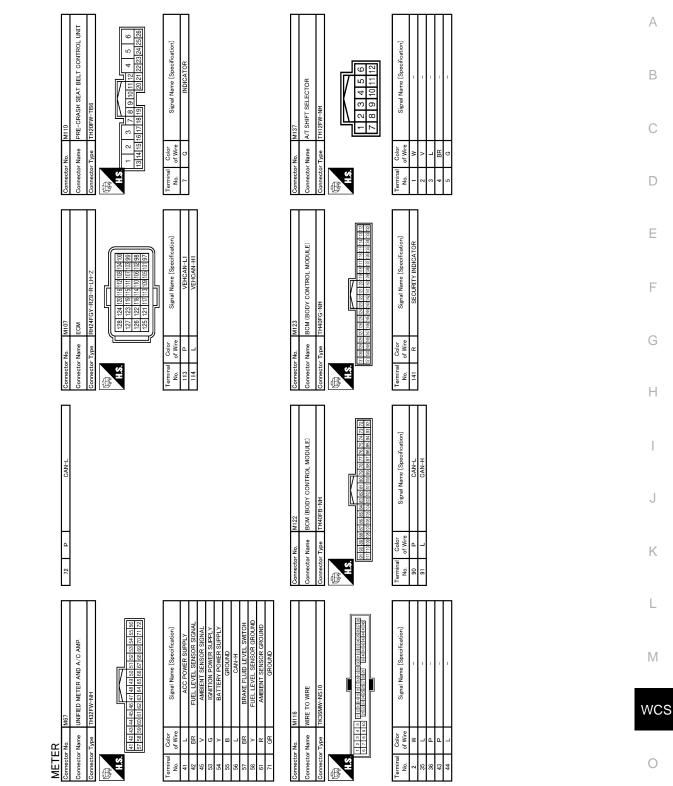
Revision: 2009 October

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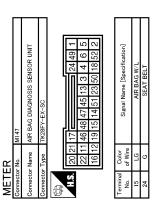
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Fail-safe

FAIL SAFE

Combination meter performs fail-safe operation when unified meter and A/C amp. communication is malfunction.

Solution for communication error between the unified meter and A/C amp. and combination meter.

WCS-42

< ECU DIAGNOSIS INFORMATION >

	Function	Specifications	
Speedometer			
Tachometer		Boost to zero by suppording communication	
uel gauge		 Reset to zero by suspending communication. 	
Water temperature gauge		—	
Illumination control		When suspending communication, change to nighttime mode.	
Information display		The display turns off by suspending communication.	
Buzzer		The buzzer turns off by suspending communication.	
	ABS warning lamp		
-	VDC OFF indicator lamp	The lamp turns on by suspending communication.	
	SLIP indicator lamp		
	Brake warning lamp		
	CRUISE warning lamp		
	High beam indicator		
	Turn signal indicator lamp		
Warning lamp/indicator	Oil pressure warning lamp		
lamp	Malfunction indicator lamp		
	A/T CHECK warning lamp		
	Low tire pressure warning lamp	The lamp turns off by suspending communication.	
	Key warning lamp		
	AFS OFF indicator lamp		
	4WAS warning lamp		
	Master warning lamp		
	AWD warning lamp		

DTC Index

Refer to WCS-61, "DTC Index".

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< ECU DIAGNOSIS INFORMATION >

UNIFIED METER AND A/C AMP.

Reference Value

INFOID:000000004704633

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

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 malfunc- tion signal is received
SPEED OUTPUT [km/h]	Ignition switch ON	While driving	Equivalent to speedometer reading NOTE: 655.35 is displayed when the malfunc- tion signal is received
ODO OUTPUT [km]	Ignition switch ON	_	Equivalent to odometer reading in combination meter
TACHO METER [rpm]	Ignition switch ON	While driving	Equivalent to tachometer reading NOTE: 8191.875 is displayed when the mal- function signal is received
FUEL METER [L]	Ignition switch ON	_	Values according to fuel level
W TEMP METER [°C]	Ignition switch ON	_	Values according to engine coolant temperature NOTE: 215 is displayed when the malfunction signal is input
	Ignition switch	ABS warning lamp ON	On
ABS W/L	ON	ABS warning lamp OFF	Off
VDC/TCS IND	Ignition switch	VDC OFF indicator lamp ON	On
	ON	VDC OFF indicator lamp OFF	Off
SLIP IND	Ignition switch	SLIP indicator lamp ON	On
	ON	SLIP indicator lamp OFF	Off
BRAKE W/L	Ignition switch	Blake warning lamp ON	On
	ON	Blake warning lamp OFF	Off
DOOR W/L	Ignition switch	Door warning displayed	On
	ON	Door warning not displayed	Off
TRUNK/GLAS-H	Ignition switch	Trunk warning displayed	On
	ON	Trunk warning not displayed	Off
HI-BEAM IND	Ignition switch	Hi-beam indicator lamp ON	On
	ON	Hi-beam indicator lamp OFF	Off
TURN IND	Ignition switch	Turn indicator lamp ON	On
	ON	Turn indicator lamp OFF	Off
FR FOG IND	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	Off
RR FOG IND	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off
LIGHT IND	Ignition switch ON	NOTE: This item is displayed, but cannot be monitored.	Off

Monitor Item		Condition	Value/Status	
	Ignition switch	Oil pressure warning lamp ON	On	- /
OIL W/L	ON	Oil pressure warning lamp OFF	Off	
MIL Ignition switch		Malfunction warning lamp ON	On	_
MIL	ŎN	Malfunction warning lamp OFF	Off	
GLOW IND	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	(
C-ENG2 W/L	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	[
	Ignition switch	Cruise indicator displayed	On	_
CRUISE IND	ON	Cruise indicator not displayed	Off	6
	Ignition switch	Set indicator lamp ON	On	
SET IND	ŎN	Set indicator lamp OFF	Off	
SPLUSE W//L Ignition switch		Cruise warning lamp ON	On	-
CRUISE W/L	ON	Cruise warning lamp OFF	Off	_
BA W/L	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	(
	Ignition switch	A/T check warning lamp ON	On	_
ATC/T-AMT W/L	ON	A/T check warning lamp OFF	Off	
Ignition sw		AWD warning lamp ON	On	
4WD W/L	ŎN	AWD warning lamp OFF	Off	
4WD LOCK IND	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	
	Ignition switch	Low-fuel warning lamp displayed	On	
FUEL W/L	ON	Low-fuel warning lamp not displayed	Off	
	Ignition switch	Washer warning displayed	On	-
WASHER W/L	ON	Washer warning not displayed	Off	
	Ignition switch	Low tire pressure lamp ON	On	-
AIR PRES W/L	ON	Low tire pressure lamp OFF	Off	_
	Ignition switch	Key warning lamp ON	On	_
KEY G/Y W/L	ON	Key warning lamp OFF	Off	-
	Ignition switch	AFS OFF indicator lamp ON	On	
AFS OFF IND	ON	AFS OFF indicator lamp OFF	Off	_
	Ignition switch	4WAS warning lamp ON	On	— W
4WAS/RAS W/L	ON	4WAS warning lamp OFF	Off	
DDS W/L	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	(
LANE W/L	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	
LDP IND	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	-

Monitor Item		Condition	Value/Status		
	Ignition switch	Engine start information display (A/T model)	B&P I		
	ON	Engine start information display (M/T model)	C&P I		
	Ignition switch	Engine start information display (A/T model)	B&P N		
	ACC	Engine start information display (M/T model)	C&P N		
	Ignition switch LOCK	Key ID warning display	ID NG		
	Ignition switch LOCK	Steering lock information display	ROTAT		
LCD	Ignition switch LOCK	P position warning display	SFT P		
	Ignition switch LOCK	Intelligent Key insert information display	INSRT		
	Ignition switch LOCK	Intelligent Key low battery warning display	BATT		
	Ignition switch ON	Take away warning display	NO KY		
	Ignition switch LOCK	Key warning display	OUTKY		
	Ignition switch ON	ICC sensor integrated unit warning display	LK WN		
ACC TARGET	Ignition switch	Vehicle ahead detection indicator displayed	On		
	ON	Vehicle ahead detection indicator not dis- played	Off		
ACC DISTANCE	Ignition switch	When following distance set to "LONG"	LONG		
		When following distance set to "MIDDLE"	MID		
	ON	When following distance set to "SHORT"	SHORT		
		Set distance indicator not displayed	Off		
ACC OWN VHL	Ignition switch	Own vehicle indicator displayed	On		
	ON	Own vehicle indicator not displayed	Off		
ACC SET SPEED	Ignition switch ON	ICC set vehicle speed display	Vehicle speed		
ACC UNIT	Ignition switch	Set vehicle speed indicator unit display ON	On		
	ON	Set vehicle speed indicator unit display OFF	Off		
O/D OFF SW	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off		
		Shift position indicator P display	Р		
		Shift position indicator R display	R		
		Shift position indicator N display	Ν		
		Shift position indicator D display	D		
		Shift position indicator M1 display	M1		
SHIFT IND	Ignition switch ON	Shift position indicator M2 display	M2		
		Shift position indicator M3 display	М3		
		Shift position indicator M4 display	M4		
		Shift position indicator M5 display	M5		
		Shift position indicator M6 display	M6		
		Shift position indicator M7 display	М7		

< ECU DIAGNOSIS INFORMATION >

Monitor Item		Condition	Value/Status	Α
	Ignition switch	Snow mode switch ON	On	A
AT S MODE SW	ŎN	Snow mode switch OFF	Off	
AT P MODE SW	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	В
M RANGE SW	Ignition switch	Selector lever DS position	On	C
IN RANGE SW	ŌN	Other than the above	Off	0
NM RANGE SW	Ignition switch	Selector lever DS position	Off	
INIVI RAINGE SVV	ON	Other than the above	On	D
	Ignition switch	Selector lever up position	On	
AT SFT UP SW	ŌN	Other than the above	Off	F
	Ignition switch	Selector lever – position	On	
AT SFT DWN SW	ON	Other than the above	Off	
	Ignition switch	Paddle shifter up operation	On	F
ST SFT UP SW	ŎN	Other than the above	Off	
	Ignition switch	Paddle shifter down operation	On	
ST SFT DWN SW	ŎN	Other than the above	Off	G
	Ignition switch	A/C compressor activation condition	On	
COMP F/B SIG	ON	A/C compressor deactivation condition	Off	Н
4WD LOCK SW	Ignition switch ON	NOTE: This item is displayed, but cannot be moni- tored.	Off	
	Ignition switch	Parking brake applied	On	
PKB SW	ŎN	Parking brake released	Off	
	Ignition switch	Seat belt (driver side) unfastened	On	J
BUCKLE SW	ON	Seat belt (driver side) fastened	Off	
	Ignition switch	Brake fluid level is lower than the low level	On	
BRAKE OIL SW	ÖN	Brake fluid level is normal	Off	K
DISTANCE [km]	Ignition switch ON	_	Possible driving distance calculated by unified meter and A/C amp.	
OUTSIDE TEMP [°C] or [°F]	Ignition switch ON	_	Equivalent to ambient temperature NOTE: This may not match the indicated val- ue on the information display.	M
	Ignition switch	Low-fuel warning signal output	On	
FUEL LOW SIG	ŎN	Low-fuel warning signal not output	Off	
	Ignition switch	Buzzer ON	On	WC
BUZZER	ON	Buzzer OFF	Off	

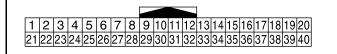
NOTE:

Some items are not available according to vehicle specification.

TERMINAL LAYOUT

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< ECU DIAGNOSIS INFORMATION >



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

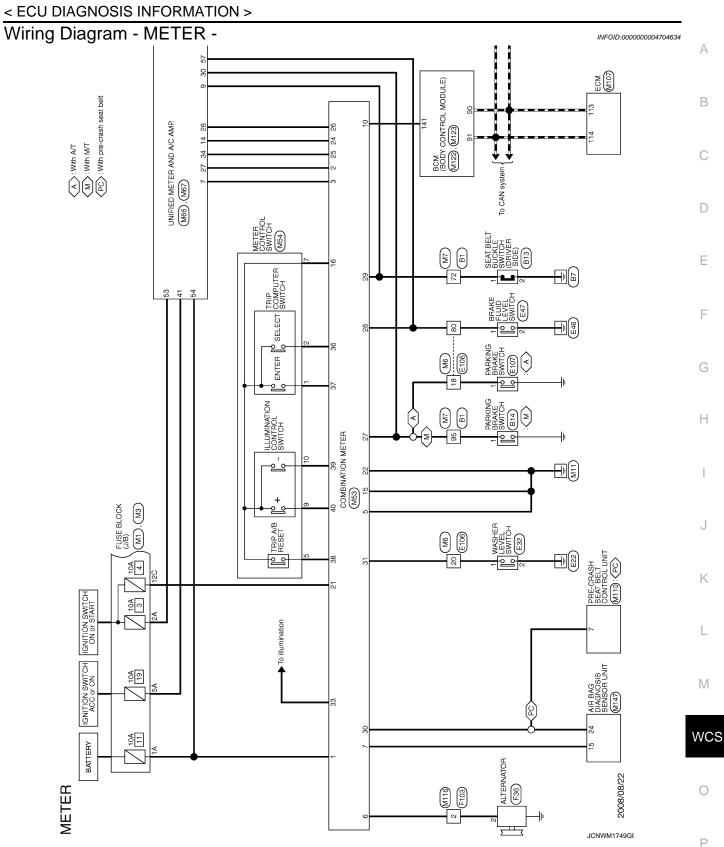
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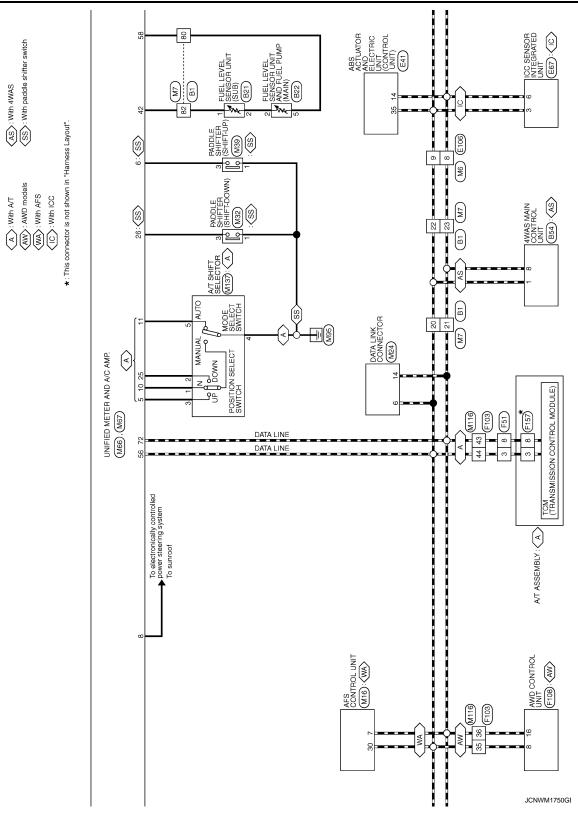
PHYSICAL VALUES

	nal No. e color)	Description			Condition	Value
+	-	Signal name	Input/ Output			(Approx.)
4	0		1	Ignition	Brake pedal is depressed	12 V
(P)	Ground	Stop lamp switch signal	Input	switch OFF	Other than the above	0 V
5	Oracial	Manual mode shift up sig-	luc ac et	Ignition	Selector lever up position	0 V
(L)	Ground	nal	Input	switch ON	Other than the above	12 V
6	Oracial	Deddle ekifter og einerel	luc ac ch	Ignition	Paddle shifter up operation	0 V
(O)	Ground	Paddle shifter up signal	Input	switch ON	Other than the above	12 V
7 (GR)	Ground	Communication signal (AMP. \rightarrow METER)	Output	Ignition switch ON		(V) 6 4 2 0 •••• 1ms SKIA3362E
8 (L)	Ground	Vehicle speed signal output (2-pulse)	Output	Ignition switch ON	Speedometer operated [When vehicle speed is ap- prox. 40 km/h (25 MPH)]	NOTE: The maximum voltage varies de- pending on the specification (destination unit).
9	Ground	Seat belt buckle switch sig-	Input	Ignition switch	When seat belt (driver side) is fastened	12 V
(SB)	Ground	nal (driver side)	mput	ON	When seat belt (driver side) is unfastened	0 V
10				Ignition	Selector lever DS position	0 V
(W)	Ground	Manual mode signal	Input	switch ON	Other than the above	12 V
11	0		las: t	Ignition	Selector lever DS position	12 V
(G)	Ground	Not manual mode signal	Input	switch ON	Other than the above	0 V

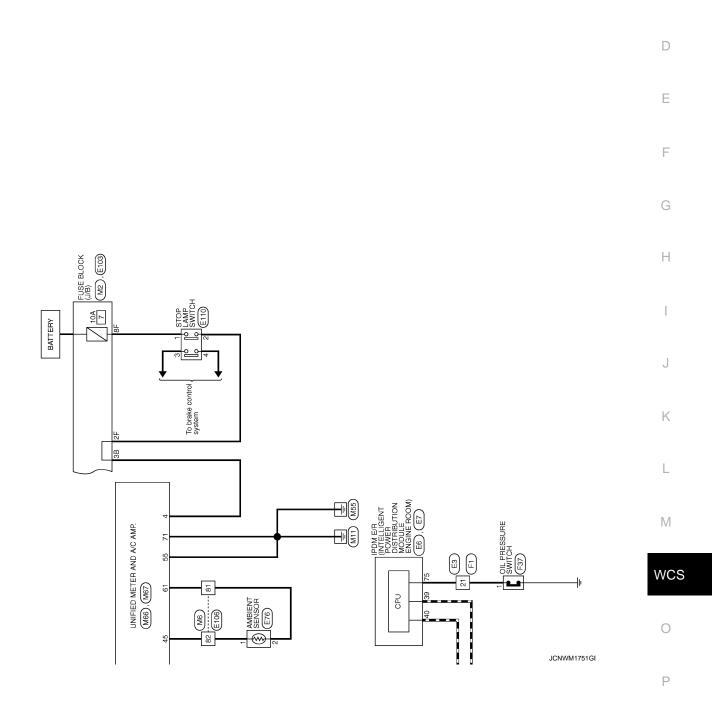
	nal No. e color)	Description	· · · · · · · · · · · · · · · · · · ·		Condition	Value	А
+	_	Signal name	Input/ Output		Condition	(Approx.)	
14 (BR)	Ground	Communication signal (LCD \rightarrow AMP.)	Input	Ignition switch ON		(V) 15 10 5 0 •••••••••••••••••••••••••••••	B C D
23 (L)	Ground	A/T snow switch signal	Input	Ignition switch	Snow mode switch ON	12 V	
25	Ground	Manual mode shift down	Input	ON Ignition switch	Snow mode switch OFF Selector lever down posi- tion	0 V 0 V	E
(V)		signal		ON	Other than the above	12 V	F
26 (G)	Ground	Paddle shift down signal	Input	Ignition switch	Paddle shifter down opera- tion	0 V	
(0)				ON	Other than the above	12 V	G
27 (LG)	Ground	Communication signal (METER \rightarrow AMP.)	Input	Ignition switch ON		(V) 6 4 2 0 • • • 1ms SKIA3361E	H
28 (R)	Ground	Vehicle speed signal output (8-pulse)	Output	Ignition switch ON	Speedometer operated [When vehicle speed is ap- prox. 40 km/h (25 MPH)]	NOTE: The maximum voltage varies de- pending on the specification (destination unit). 0 0 0 0 0 0 0 0 0 0 0 0 0	J K L
					Parking brake applied	0 V	Μ
30 (V)	Ground	Parking brake switch signal	Input	Ignition switch ON	Parking brake released	(V) 8 4 0 10 ms JSNIA0007GB	WC O
34 (Y)	Ground	Communication signal (AMP. \rightarrow LCD)	Output	lgnition switch ON		(V) 6 2 0 ▲ 200 µs JSNIA0027GB	Ρ

	nal No. e color)	Description		Condition		Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
41 (L)	Ground	ACC power supply	Input	Ignition switch ACC	_	Battery voltage
42 (BR)	Ground	Fuel level sensor signal	Input	Ignition switch ON		(V) 4 3 2 1 0 E 1/4 1/2 3/4 F JSNIA0013GB
45 (V)	Ground	Ambient sensor signal	Input			(V) 3 4 1 0 (14) (32) (50) (68) (76) (76) (77) 3 3 3 3 3 4 (77) (77) JSNIA0014GB
53 (W)	Ground	Ignition signal	Input	Ignition switch ON	_	Battery voltage
54 (Y)	Ground	Battery power supply	Input	Ignition switch OFF	_	Battery voltage
55 (B)	Ground	Ground		Ignition switch ON	_	0 V
56 (L)	Ground	CAN-H		_	—	_
57 (BR)	Ground	Brake fluid level switch sig- nal	Input	Ignition switch ON	Brake fluid level is normal.	(V) 10 0 10 ms JSNIA0008GB
					The brake fluid level is low- er than the low level	0 V
58 (Y)	Ground	Fuel level sensor signal ground	_	Ignition switch ON	_	0 V
61 (R)	Ground	Ambient sensor signal ground	_	Ignition switch ON	_	0 V
71 (GR)	Ground	Ground	_	Ignition switch ON	_	0 V
72 (P)	Ground	CAN-L		_	_	_





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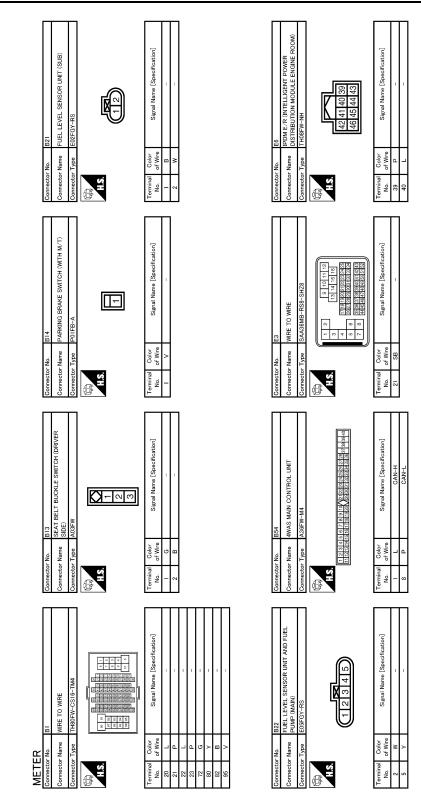


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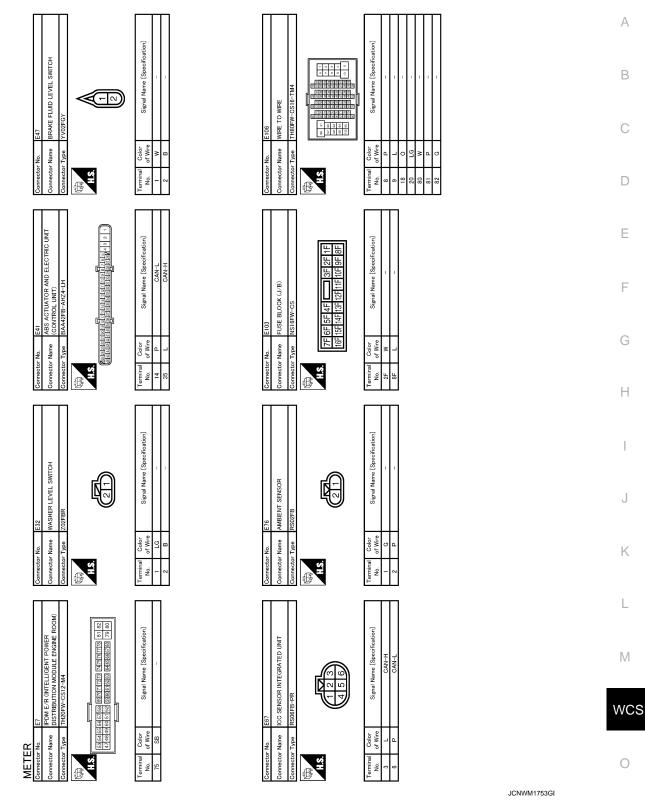
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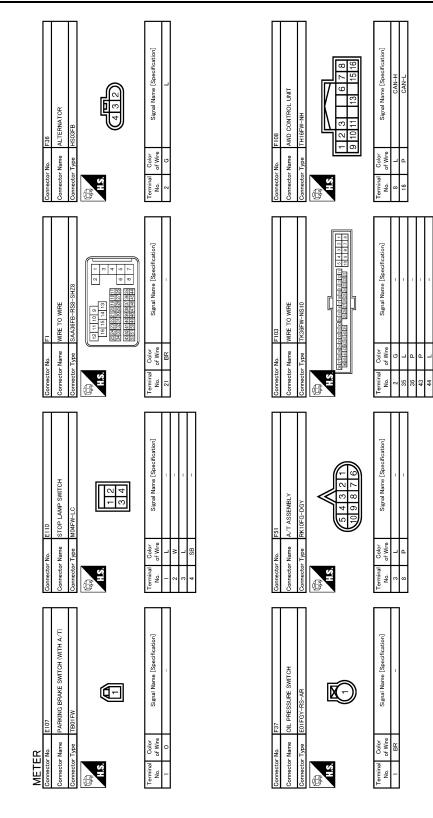
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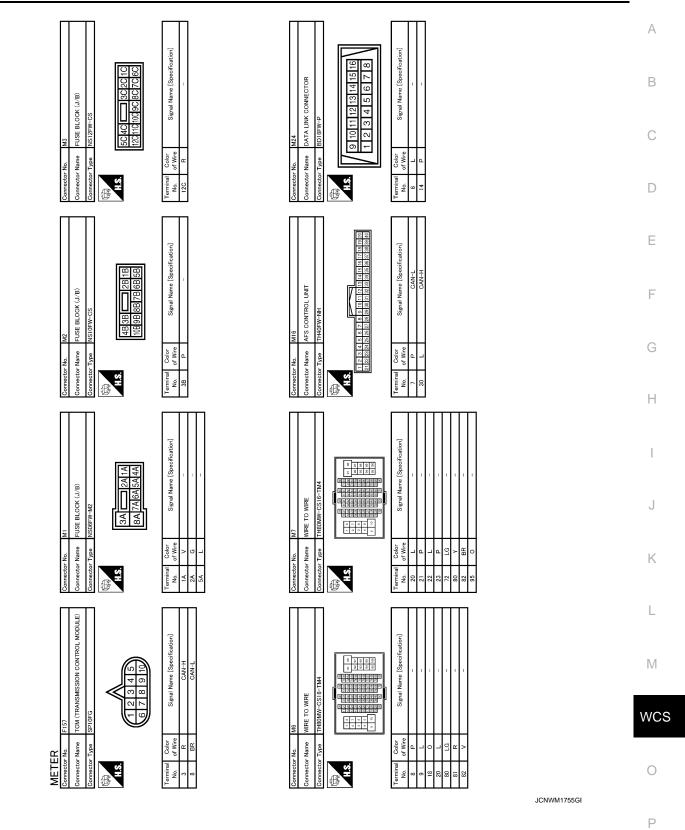
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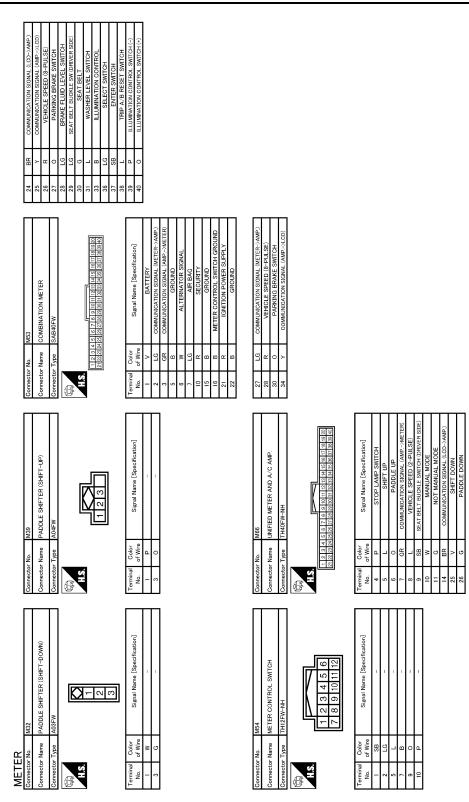
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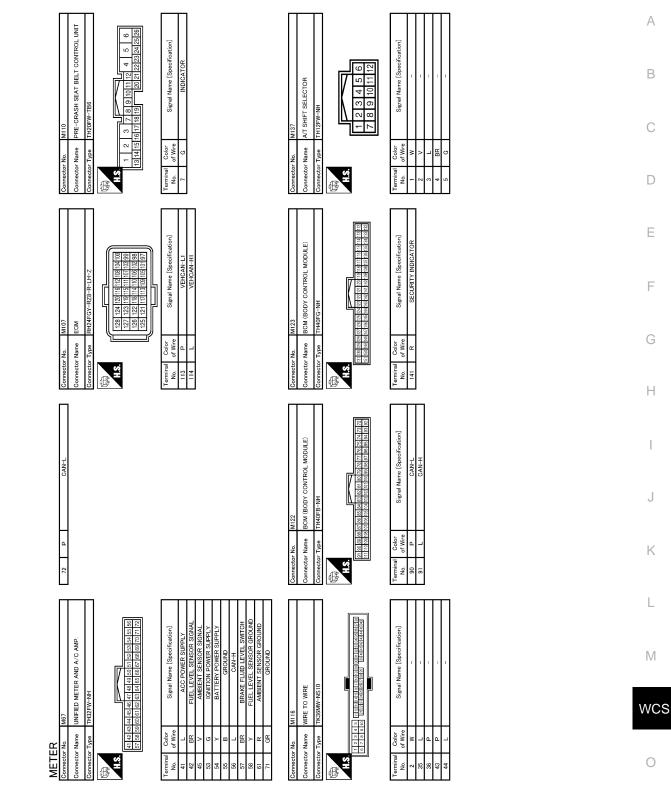
Revision: 2009 October

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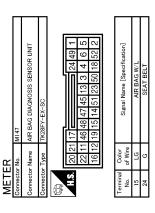
< ECU DIAGNOSIS INFORMATION >



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< ECU DIAGNOSIS INFORMATION >



JCNWM1758GI

INFOID:000000004704635

Fail-safe

FAIL SAFE

The unified meter and A/C amp. activates the fail-safe control if CAN communication with each unit is malfunctioning.

< ECU DIAGNOSIS INFORMATION >

	Function	Specifications	
Speedometer		Beact to zero by evenending communication	
Tachometer		 Reset to zero by suspending communication. 	
Fuel gauge		Indicates fuel level	
Water temperature gauge		Reset to zero by suspending communication.	
Illumination control		When suspending communication, change to nighttime mode	
Information display		The display turns off by suspending communication.	
Buzzer		The buzzer turns off by suspending communication.	
	ABS warning lamp		
	VDC OFF indicator lamp	The lamp turns on by suspending communication.	
	SLIP indicator lamp		
-	Brake warning lamp		
	AWD warning lamp		
	4WAS warning lamp		
	CRUISE warning lamp		
Warning lamp/indicator	Low tire pressure warning lamp	The lamp turns ON after flashing for 1 minute.	
lamp	AFS OFF indicator lamp	The lamp blinking caused by communication malfunction	
	High beam indicator		
	Turn signal indicator lamp		
	Oil pressure warning lamp		
	Malfunction indicator lamp	The lamp turns off by suspending communication.	
	A/T CHECK warning lamp		
	Key warning lamp		
	Master warning lamp		

DTC Index

INFOID:000000004704636

					K
Display contents of CONSULT-III	Ti	me	Diagnostic item is detected when	Refer to	-
U1000: CAN COMM CIRCUIT	CRNT	PAST	When unified meter and A/C amp. is not transmitting or receiving CAN communication signal for 2 seconds or more.	<u>MWI-41</u>	L
U1010: CONTROL UNIT (CAN)	CRNT	PAST	When detecting error during the initial diagnosis of CAN control- ler of unified meter and A/C amp.	<u>MWI-42</u>	_
B2201: COMM ERROR 1	CRNT	PAST	If a communication error is present in the communication line between unified meter and A/C amp. and combination meter for 2 seconds or more.	<u>MWI-43</u>	M
B2202: COMM ERROR 2	CRNT	PAST	If a communication error is present in the communication line between unified meter and A/C amp. and combination meter for 2 seconds or more.	<u>MWI-45</u>	WCS
B2205: VEHICLE SPEED	CRNT	PAST	The abnormal vehicle speed signal is input from ABS actuator and electric unit (control unit) for 2 seconds or more.	<u>MWI-47</u>	0
B2267: ENGINE SPEED	CRNT	PAST	If ECM continuously transmits abnormal engine speed signals for 2 seconds or more.	<u>MWI-48</u>	P
B2268: WATER TEMP	CRNT	PAST	If ECM continuously transmits abnormal engine coolant temper- ature signals for 60 seconds or more.	<u>MWI-49</u>	

NOTE:

The details of TIME display are as follows.

• CRNT: The malfunctions that are detected now.

• PAST: The malfunctions was detected in the past. IGN counter is displayed on FFD (Freeze Frame data).

< ECU DIAGNOSIS INFORMATION >

- 1 - 39: The number is indicated when it is normal at present and a malfunction was detected in the past. It increases like 0 → 1 → 2 … 38 → 39 after returning to the normal condition whenever IGN OFF → ON. It is fixed to 39 until the self-diagnosis results are erased if it is over 39. It returns to 0 when a malfunction is detected again in the process.

< ECU DIAGNOSIS INFORMATION >

BCM (BODY CONTROL MODULE)

Reference Value

VALUES ON THE DIAGNOSIS TOOL

CONSULT-III MONITOR ITEM

Monitor Item	Condition	Value/Status	
FR WIPER HI	Other than front wiper switch HI	Off	
	Front wiper switch HI	On	
FR WIPER LOW	Other than front wiper switch LO	Off	
	Front wiper switch LO	On	
FR WASHER SW	Front washer switch OFF	Off	
FR WASHER SW	Front washer switch ON	On	
FR WIPER INT	Other than front wiper switch INT	Off	
	Front wiper switch INT	On	
	Front wiper is not in STOP position	Off	
FR WIPER STOP	Front wiper is in STOP position	On	
NT VOLUME	Wiper intermittent dial is in a dial position 1 - 7	Wiper intermittent dial position	
	Other than turn signal switch RH	Off	
FURN SIGNAL R	Turn signal switch RH	On	
	Other than turn signal switch LH	Off	
URN SIGNAL L	Turn signal switch LH	On	
	Other than lighting switch 1ST and 2ND	Off	
AIL LAMP SW	Lighting switch 1ST or 2ND	On	
	Other than lighting switch HI	Off	
HI BEAM SW	Lighting switch HI	On	
	Other than lighting switch 2ND	Off	
IEAD LAMP SW 1	Lighting switch 2ND	On	
	Other than lighting switch 2ND	Off	
IEAD LAMP SW 2	Lighting switch 2ND	On	
	Other than lighting switch PASS	Off	
PASSING SW	Lighting switch PASS	On	
	Other than lighting switch AUTO	Off	
UTO LIGHT SW	Lighting switch AUTO	On	
	Front fog lamp switch OFF	Off	
R FOG SW	Front fog lamp switch ON	On	
R FOG SW	NOTE: The item is indicated, but not monitored.	Off	
	Driver door closed	Off	
OOR SW-DR	Driver door opened	On	
	Passenger door closed	Off	
OOR SW-AS	Passenger door opened	On	
OOR SW-RR	NOTE: The item is indicated, but not monitored.	Off	
DOOR SW-RL	NOTE: The item is indicated, but not monitored.	Off	

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< ECU DIAGNOSIS INFORMATION >

Monitor Item	Condition	Value/Status
DOOR SW-BK	NOTE: The item is indicated, but not monitored.	Off
	Other than power door lock switch LOCK	Off
CDL LOCK SW	Power door lock switch LOCK	On
	Other than power door lock switch UNLOCK	Off
CDL UNLOCK SW	Power door lock switch UNLOCK	On
	Other than driver door key cylinder LOCK position	Off
KEY CYL LK-SW	Driver door key cylinder LOCK position	On
	Other than driver door key cylinder UNLOCK position	Off
KEY CYL UN-SW	Driver door key cylinder UNLOCK position	On
KEY CYL SW-TR	NOTE: The item is indicated, but not monitored.	Off
	Hazard switch is OFF	Off
IAZARD SW	Hazard switch is ON	On
REAR DEF SW	NOTE: The item is indicated, but not monitored.	Off
H/L WASH SW	NOTE: The item is indicated, but not monitored.	Off
FR CANCEL SW	Trunk lid opener cancel switch OFF	Off
IR CANCEL SW	Trunk lid opener cancel switch ON	On
R/BD OPEN SW	Trunk lid opener switch OFF	Off
R/BD OPEN 3W	While the trunk lid opener switch is turned ON	On
RNK/HAT MNTR	Trunk lid closed	Off
	Trunk lid opened	On
RKE-LOCK	LOCK button of the Intelligent Key is not pressed	Off
	LOCK button of the Intelligent Key is pressed	On
	UNLOCK button of the Intelligent Key is not pressed	Off
	UNLOCK button of the Intelligent Key is pressed	On
RKE-TR/BD	TRUNK OPEN button of the Intelligent Key is not pressed	Off
	TRUNK OPEN button of the Intelligent Key is pressed	On
KE-PANIC	PANIC button of the Intelligent Key is not pressed	Off
	PANIC button of the Intelligent Key is pressed	On
KE-P/W OPEN	UNLOCK button of the Intelligent Key is not pressed	Off
KE-P/W OPEN	UNLOCK button of the Intelligent Key is pressed and held	On
RKE-MODE CHG	LOCK/UNLOCK button of the Intelligent Key is not pressed and held simulta- neously	Off
	LOCK/UNLOCK button of the Intelligent Key is pressed and held simultaneously	On
OPTICAL SENSOR	Bright outside of the vehicle	Close to 5 V
OF NUAL JENJUK	Dark outside of the vehicle	Close to 0 V
REQ SW -DR	Driver door request switch is not pressed	Off
	Driver door request switch is pressed	On
REQ SW -AS	Passenger door request switch is not pressed	Off
	Passenger door request switch is pressed	On
REQ SW -RR	NOTE: The item is indicated, but not monitored.	Off
REQ SW -RL	NOTE: The item is indicated, but not monitored.	Off

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Monitor Item	Condition	Value/Status	
	Trunk lid opener request switch is not pressed	Off	
REQ SW -BD/TR	Trunk lid opener request switch is pressed	On	-
PUSH SW	Push-button ignition switch (push switch) is not pressed	Off	-
F 0311 3W	Push-button ignition switch (push switch) is pressed	On	_
	Ignition switch in OFF or ACC position	Off	_
IGN RLY2 -F/B	Ignition switch in ON position	On	_
ACC RLY -F/B	NOTE: The item is indicated, but not monitored.	Off	-
CLUCH SW	The clutch pedal is not depressed	Off	_
	The clutch pedal is depressed	On	_
	The brake pedal is depressed when No. 7 fuse is blown	Off	_
BRAKE SW 1	The brake pedal is not depressed when No. 7 fuse is blown, or No. 7 fuse is nor- mal	On	
BRAKE SW 2	The brake pedal is not depressed	Off	
DINARE SVV Z	The brake pedal is depressed	On	-
DETE/CANCL SW	Selector lever in P position (Except M/T models) The clutch pedal is depressed (M/T models)	Off	_
DETE/CANGE SW	Selector lever in any position other than P (Except M/T models) The clutch pedal is not depressed (M/T models)	On	
SFT PN/N SW	Selector lever in any position other than P and N	Off	-
SFT PIN/IN SW	Selector lever in P or N position	On	_
S/L -LOCK	Steering is unlocked	Off	_
3/L -LOUK	Steering is locked	On	_
S/L -UNLOCK	Steering is locked	Off	_
S/L-UNLOCK	Steering is unlocked	On	_
S/L RELAY-F/B	Ignition switch in OFF or ACC position	Off	_
3/L RELAT-F/B	Ignition switch in ON position	On	_
UNLK SEN -DR	Driver door is unlocked	Off	_
	Driver door is locked	On	
PUSH SW -IPDM	Push-button ignition switch (push-switch) is not pressed	Off	
	Push-button ignition switch (push-switch) is pressed	On	_
IGN RLY1 -F/B	Ignition switch in OFF or ACC position	Off	
	Ignition switch in ON position	On	-
	Selector lever in any position other than P	Off	_
DETE SW -IPDM	Selector lever in P position	On	
SFT PN -IPDM	Selector lever in any position other than P and N (Except M/T models) The clutch pedal is not depressed (M/T models)	Off	
	Selector lever in P or N position The clutch pedal is depressed	On	_
SFT P -MET	Selector lever in any position other than P	Off	-
	Selector lever in P position	On	-
SFT N -MET	Selector lever in any position other than N	Off	-
	Selector lever in N position	On	_

Monitor Item	Condition	Value/Status
	Engine stopped	Stop
ENGINE STATE	While the engine stalls	Stall
	At engine cranking	Crank
	Engine running	Run
	Steering is unlocked	Off
S/L LOCK-IPDM	Steering is locked	On
	Steering is locked	Off
S/L UNLK-IPDM	Steering is unlocked	On
S/L RELAY-REQ	Steering lock system is not the LOCK condition and the changing condition from LOCK to UNLOCK	Off
S/L RELAT-REQ	Steering lock system are not the LOCK condition or the changing condition from LOCK to UNLOCK	On
VEH SPEED 1	While driving	Equivalent to speed- ometer reading
VEH SPEED 2	While driving	Equivalent to speed- ometer reading
	Driver door is locked	LOCK
DOOR STAT-DR	Wait with selective UNLOCK operation (60 seconds)	READY
	Driver door is unlocked	UNLOCK
	Passenger door is locked	LOCK
DOOR STAT-AS	Wait with selective UNLOCK operation (60 seconds)	READY
	Passenger door is unlocked	UNLOCK
ID OK FLAG	Steering is locked	Reset
ID OK FLAG	Steering is unlocked	Set
PRMT ENG STRT	The engine start is prohibited	Reset
	The engine start is permitted	Set
PRMT RKE STRT	NOTE: The item is indicated, but not monitored.	Reset
KEY SW -SLOT	The Intelligent Key is not inserted into key slot	Off
RET 3W -3LOT	The Intelligent Key is inserted into key slot	On
RKE OPE COUN1	During the operation of the Intelligent Key	Operation frequency o the Intelligent Key
RKE OPE COUN2	NOTE: The item is indicated, but not monitored.	_
CONFRM ID ALL	The key ID that the key slot receives is not recognized by any key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by any key ID registered to BCM.	Done
CONFIRM ID4	The key ID that the key slot receives is not recognized by the fourth key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the fourth key ID registered to BCM.	Done
CONFIRM ID3	The key ID that the key slot receives is not recognized by the third key ID registered to BCM.	Yet
	The key ID that the key slot receives is recognized by the third key ID registered to BCM.	Done

< ECU DIAGNOSIS INFORMATION >

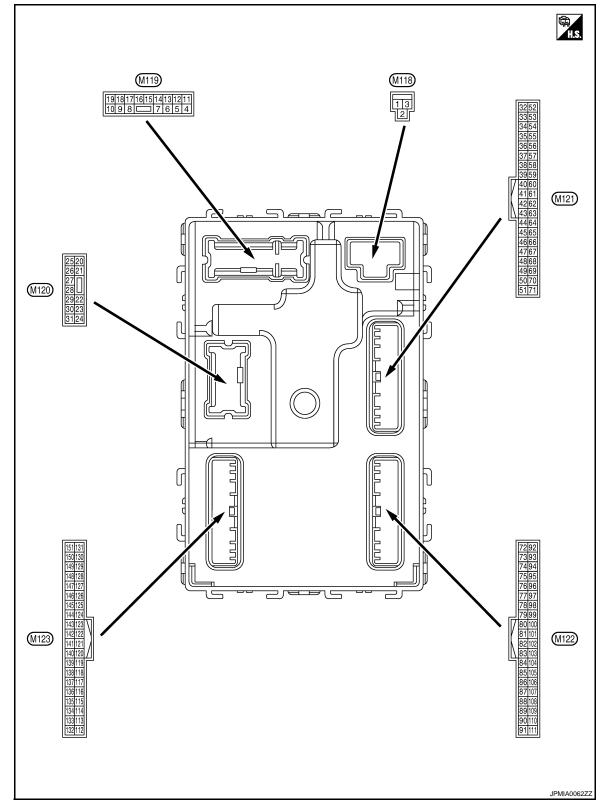
Monitor Item	Condition	Value/Status
CONFIRM ID2	The key ID that the key slot receives is not recognized by the second key ID reg- istered to BCM.	Yet
CONFIRMIDZ	The key ID that the key slot receives is recognized by the second key ID registered to BCM.	Done
CONFIRM ID1	The key ID that the key slot receives is not recognized by the first key ID regis- tered to BCM.	Yet
	The key ID that the key slot receives is recognized by the first key ID registered to BCM.	Done
	The ID of fourth Intelligent Key is not registered to BCM	Yet
TP 4	The ID of fourth Intelligent Key is registered to BCM	Done
	The ID of third Intelligent Key is not registered to BCM	Yet
TP 3	The ID of third Intelligent Key is registered to BCM	Done
TP 2	The ID of second Intelligent Key is not registered to BCM	Yet
1	The ID of second Intelligent Key is registered to BCM	Done
	The ID of first Intelligent Key is not registered to BCM	Yet
TP 1	The ID of first Intelligent Key is registered to BCM	Done
AIR PRESS FL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front LH tire
AIR PRESS FR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of front RH tire
AIR PRESS RR	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear RH tire
AIR PRESS RL	Ignition switch ON (Only when the signal from the transmitter is received)	Air pressure of rear LH tire
	ID of front LH tire transmitter is registered	Done
ID REGST FL1	ID of front LH tire transmitter is not registered	Yet
	ID of front RH tire transmitter is registered	Done
D REGST FR1	ID of front RH tire transmitter is not registered	Yet
	ID of rear RH tire transmitter is registered	Done
D REGST RR1	ID of rear RH tire transmitter is not registered	Yet
D REGST RL1	ID of rear LH tire transmitter is registered	Done
U REGOI KLI	ID of rear LH tire transmitter is not registered	Yet
WARNING LAMP	Tire pressure indicator OFF	Off
	Tire pressure indicator ON	On
	Tire pressure warning alarm is not sounding	Off
BUZZER	Tire pressure warning alarm is sounding	On

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< ECU DIAGNOSIS INFORMATION >

TERMINAL LAYOUT



PHYSICAL VALUES

< ECU DIAGNOSIS INFORMATION >

Terminal No. (Wire color)		Description				Value	
+	-	Signal name	Input/ Output		Condition	(Approx.)	
1 (W)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage	
2 (Y)	Ground	P/W power supply (BAT)	Output	Ignition switch (DFF	12 V	
3 (O)	Ground	P/W power supply (RAP)	Output	Ignition switch (NC	12 V	
					mp battery saver is activated. or room lamp power supply)	0 V	
4 (LG)	Ground	Interior room lamp power supply	Output	Interior room lamp battery saver is not activated. (Outputs the interior room lamp power supply)		12 V	
5	Crownd	Passenger door UN-	Outrout	Passenger	UNLOCK (Actuator is activated)	12 V	
(P)	Ground	LOCK	Output	door	Other than UNLOCK (Ac- tuator is not activated)	0 V	
7	Ground	Ston Jamp	Outout	Stop Jamp	ON	0 V	
(SB)	Ground	Step lamp	Output	Step lamp	OFF	12 V	
8	Crownd	Ground All doors, fuel lid LOCK Outp	Output	Output All doors, fuel lid	LOCK (Actuator is activated)	12 V	
(V)	Ground		Output		Other than LOCK (Actuator is not activated)	0 V	
9	Cround	Driver door, fuel lid		Driver door,	UNLOCK (Actuator is activated)	12 V	
(G)	Ground	UNLOCK		fuel lid	fuel lid	Other than UNLOCK (Actuator is not activated)	0 V
11 (R)	Ground	Battery power supply	Input	Ignition switch (DFF	Battery voltage	
13 (B)	Ground	Ground	_	Ignition switch (NC	0 V	
					OFF	0 V	
14 (W)	Ground	Push-button ignition switch illumination ground	Output	Tail lamp	ON	NOTE: When the illumination brighten- ing/dimming level is in the neutral position.	
15 (O)	Ground	ACC indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage	
				ACC	0 V		

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Terminal No.		Description				
(Wire +	color) –	Signal name	Input/ Output	Condition		Value (Approx.)
					Turn signal switch OFF	0 V
17 (W)	Ground	Turn signal RH (Front)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 10 10 10 10 10 10 10 10 10
					Turn signal switch OFF	0 V
18 (O)	Ground	Turn signal LH (Front)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 0 1 s 1 s PKID0926E 6.5 V
19	Ground	Room lamp timer	Output	Interior room	OFF	12 V
(V)	Cround	control	Output	lamp	ON	0 V
					Turn signal switch OFF	0 V
20 (V)	Ground	Turn signal RH (Rear)	Output	Ignition switch ON	Turn signal switch RH	(V) 15 0 1 s
23	Oracurad	Trunk lid open	Output	Trunk lid	OPEN (Trunk lid opener actuator is activated)	12 V
(L)	Ground				Other than OPEN (Trunk lid opener actuator is not activated)	0 V
					Turn signal switch OFF	0 V
25 (Y)	Ground	Turn signal LH (Rear)	Output	Ignition switch ON	Turn signal switch LH	(V) 15 10 5 0 1 5 0 1 5 0 1 5 0 FKID0926E 6.5 V
30	Ground	Trunk room land	Output	Trunk room	ON	0 V
(P)	Ground	Trunk room lamp	Output	lamp	OFF	12 V

Terminal No. (Wire color)		Description				Value	
(vvire +		Signal name	Input/ Output		Condition	(Approx.)	A
34	Ground	Trunk room antenna (-)	Output	Output Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	B C D
(SB)	Cround				When Intelligent Key is not in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0063GB	E
35	Ground	Trunk room antenna (+)	Output	Ignition switch OFF	When Intelligent Key is in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0062GB	G H
(V)	Ground				When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	J K L
38	Ground	Rear bumper anten-	Output	When the trunk lid opener re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0062GB	WC
(B)	Ground	operated v	operated with ignition switch	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	P	

Terminal No.		Description				Value	
(Wire +	color)	Signal name	Input/ Output	Condition		(Approx.)	
39	Ground	Rear bumper anten-	Output	When the trunk lid opener re- quest switch is operated with ignition switch OFF	When Intelligent Key is in the antenna detection area	(V) 15 0 1 1 1 1 1 1 1 1 1 1 1 1 1	
(W)	Giound	na (+)	Guiput		When Intelligent Key is not in the antenna detection area	(V) 15 0 1 s JMKIA0063GB	
47		Ignition relay (IPDM	.		OFF or ACC	12 V	
(Y)	Ground	E/R) control	Output	Ignition switch	ON	0 V	
50 (R)	Ground	Trunk room lamp switch	Input	Trunk room lamp switch	OFF (Trunk lid is closed)	(V) 15 0 10 ms JPMIA0011GB 11.8 V	
					ON (Trunk lid is opened)	0 V	
		Starter relay control	Output	lgr Of	Ignition switch ON (A/T mod-	When selector lever is in P or N position	12 V
52	Ground			els)	When selector lever is not in P or N position	0 V	
(SB)	Cround				When the clutch pedal is depressed	Battery voltage	
					When the clutch pedal is not depressed	0 V	
					ON (Pressed)	0 V	
61 (SB)	Ground	Trunk lid opener re- quest switch	Input	Trunk lid open- er request switch	OFF (Not pressed)	(V) 15 10 10 10 ms JPMIA0016GB	
		latelline at 12		Intelline of K	O a vera dia a	1.0 V	
64 (L)	Ground	Ground ing buzzer (Engine room)	Output	Intelligent Key warning buzzer (Engine room)	Sounding	0 V	
(L)					Not sounding	12 V	

< ECU DIAGNOSIS INFORMATION >

	nal No. color)	Description				Value
+	-	Signal name	Input/ Output		Condition	(Approx.)
					Pressed	0 V
67 (GR)	Ground	Trunk lid opener switch	Input	Trunk lid open- er switch	Not pressed	(V) 15 10 10 10 ms JPMIA0011GB 11.8 V
72		Room antenna 2 (–)			When Intelligent Key is in the passenger compart- ment	(V) 15 0 15 0 15 0 15 15 15 15 15 15 15 15 15 15
(R)	Ground	(Center console)	Output	Ignition switch OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 •••••••••••••••••••••••••••••
73	Ground	Room antenna 2 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB
(G)		(Center console)	Capat	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB

	nal No.	Description				Value
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)
74	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 10 0 1 s JMKIA0062GB
(SB)		tenna (–)	Cutput	operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
75	Ground	Passenger door an-	Output	When the pas- senger door re- quest switch is	When Intelligent Key is in the antenna detection area	(V) 15 0 0 1 s JMKIA0062GB
(BR)		tenna (+)	Cutput	operated with ignition switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB
76	Ground	Driver door antenna	Output	When the driv- er door request switch is oper-	When Intelligent Key is in the antenna detection area	(V) 15 0 1 s JMKIA0062GB
(V)	Ground	()	Output	ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB

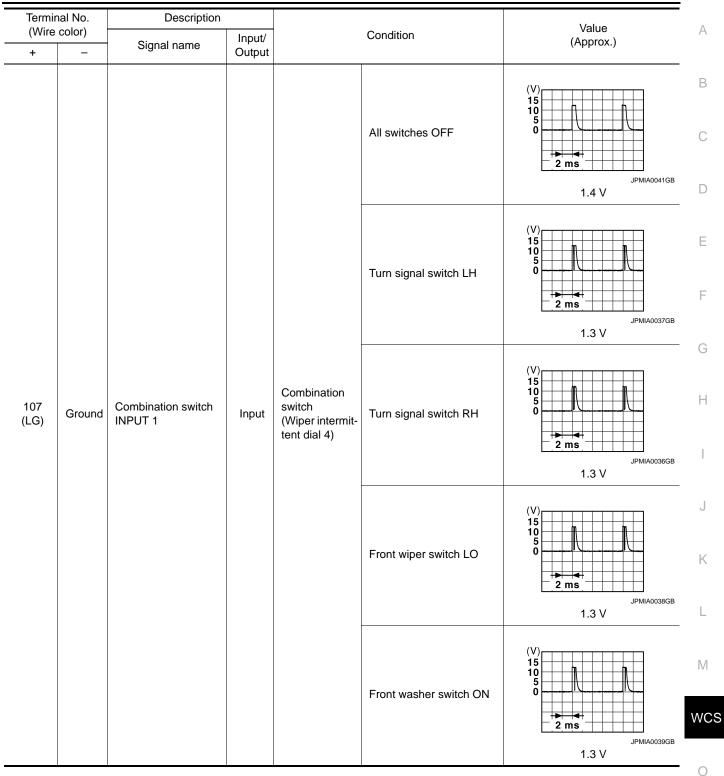
	nal No.	Description				Value	А
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)	A
77		Driver door antenna		When the driv- er door request	When Intelligent Key is in the antenna detection area	(V) 15 10 5 0 15 10 5 0 15 15 10 5 0 15 15 10 5 0 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 10 15 15 15 15 15 15 15 15 15 15 15 15 15	B C D
(LG)	Ground	(+)	Output	switch is oper- ated with igni- tion switch OFF	When Intelligent Key is not in the antenna detection area	(V) 15 10 5 0 1 s JMKIA0063GB	E
78	Ground	Room antenna 1 (-)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	G H
(Y)	Ground	(Instrument panel)	Cutput	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 0 5 0 1 s JMKIA0063GB	J K L
79	Ground	Room antenna 1 (+)	Output	Ignition switch	When Intelligent Key is in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0062GB	M WC
(BR)		(Instrument panel)	Catput	OFF	When Intelligent Key is not in the passenger compart- ment	(V) 15 10 5 0 1 s JMKIA0063GB	P

	nal No.	Description				Value
(Wire +	color) –	Signal name	Input/ Output		Condition	(Approx.)
80 (GR)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
81 (W)	Ground	NATS antenna amp (Built in key slot)	Input/ Output	During waiting	Ignition switch is pressed while inserting the Intelli- gent Key into the key slot.	Just after pressing ignition switch. Pointer of tester should move.
82 (R)	Ground	Ignition relay [Fuse block (J/B)] control	Output	Ignition switch	OFF or ACC ON	0 V 12 V
83	Ground	Remote keyless entry receiver communica-	Input/	During waiting		(V) 15 10 5 0 1 ms JMKIA0064GB
(Y)	Giouna	tion	Output	When operating gent Key	either button on the Intelli-	(V) 15 10 5 0 1 1 1 1 1 1 1 1 1 1 1 1 1
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V
87 (Y)	Ground	Combination switch INPUT 5	Input	Combination switch	Front fog lamp switch ON (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0037GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 6 • Wiper intermittent dial 7	(V) 15 0 2 ms JPMA0040GB 1.3 V

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 All switches OFF (Wiper intermittent dial 4) 2 ms JPMIA0041GB D 1.4 V $(\setminus$ 15 10 Ε Lighting switch HI ſ (Wiper intermittent dial 4) F 2 ms JPMIA0036GB 1.3 V 88 Combination switch Combination Ground Input (O) **INPUT 3** switch 15 10 Н Lighting switch 2ND ٢ (Wiper intermittent dial 4) 2 ms JPMIA0037GB 1.3 V 15 Any of the conditions be-10 low with all switches OFF 0 · Wiper intermittent dial 1 Κ · Wiper intermittent dial 2 · Wiper intermittent dial 3 2 ms JPMIA0040GB 1.3 V L Push-button ig-0 V Pressed 89 Push-button ignition Ground Input nition switch (BR) switch (Push switch) Not pressed Battery voltage (push switch) Μ 90 Input/ Ground CAN-L (P) Output 91 Input/ WCS CAN-H Ground (L) Output OFF 0 V (V 15 10 Ρ 92 Key slot illumi-Ground Key slot illumination Output Blinking (LG) nation 1 s JPMIA0015GB 6.5 V ON 12 V

BCM (BODY CONTROL MODULE)

	nal No.	Description				Value			
(Wire +	color) –	Signal name	Input/ Output		Condition	(Approx.)			
93 (Y)	Ground	ON indicator lamp	Output	Ignition switch	OFF (LOCK indicator is not illuminated)	Battery voltage			
(1)					ON	0 V			
95	Ground	ACC relay control	Output	Ignition switch	OFF	0 V			
(O)	Croana		Output	Ignition ownon	ACC or ON	12 V			
96 (GR)	Ground	A/T shift selector (De- tention switch) power supply	Output		_	12 V			
97	Ground	Steering lock condi-	Input	Steering lock	LOCK status	0 V			
(L)		tion No. 1	•	5	UNLOCK status	12 V			
98	Ground	Steering lock condi-	Input	Steering lock	LOCK status	12 V			
(P)		tion No. 2	•	5	UNLOCK status	0 V			
		Selector lever P posi-		Selector lever	P position	0 V			
		tion switch			Any position other than P	12 V			
		ASCD clutch switch (M/T models without		ASCD clutch	OFF (Clutch pedal is de- pressed)	0 V			
99 (R)	Ground	ICC)	Input	switch	ON (Clutch pedal is not depressed)	12 V			
		ICC clutch switch (M/		ICC clutch	OFF (Clutch pedal is de- pressed)	0 V			
		T models with ICC)		switch	ON (Clutch pedal is not depressed)	12 V			
·					ON (Pressed)	0 V			
100 (Y)	Ground	Passenger door re- quest switch	Input	Passenger door request switch	OFF (Not pressed)	(V) 15 0 10 10 10 10 10 10 10 10 10			
					ON (Pressed)	0 V			
101 (P)	Ground	Driver door request switch	Input	Driver door re- quest switch	OFF (Not pressed)	(V) 15 0 10 ms JPMIA0016GB 1.0 V			
102 (O)	Ground	Blower fan motor re- lay control	Output	Ignition switch	OFF or ACC ON	0 V 12 V			
103 (LG)	Ground	Remote keyless entry receiver power sup- ply	Output	Ignition switch C		12 V 12 V			
106	0	Steering lock unit	0	Innitian av 101	OFF or ACC	12 V			
(W)	Ground	power supply	Output	Ignition switch	ON	0 V			



< ECU DIAGNOSIS INFORMATION >

	nal No.	Description				Value
(vvire +	color)	Signal name	Input/ Output		Condition	(Approx.)
					All switches OFF (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0041GB 1.4 V
108	Ground	Combination switch	Input	Combination	Lighting switch AUTO (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0038GB 1.3 V
(R)		INPUT 4	switch		Lighting switch 1ST (Wiper intermittent dial 4)	(V) 15 0 2 ms JPMIA0036GB 1.3 V
					Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 5 • Wiper intermittent dial 6	(V) 15 0 2 ms JPMIA0039GB 1.3 V

Terminal No. Description Value А (Wire color) Condition Input/ (Approx.) Signal name + _ Output В (V 15 10 ٢ All switches OFF С 2 m s JPMIA0041GB D 1.4 V (V) 15 10 Е C Lighting switch PASS F 2 ms JPMIA0037GB 1.3 V (V 15 10 Combination Н 109 switch Combination switch n Ground Input Lighting switch 2ND **INPUT 2** (W) (Wiper intermittent dial 4) 2 ms JPMIA0036GB 1.3 V J (V 15 10 0 Front wiper switch INT Κ 2 ms JPMIA0038GB L 1.3 V (V 15 Μ 10 5 Front wiper switch HI 0 WCS 2 ms JPMIA0040GB 1.3 V Ο ON 0 V Ρ 10 110 Ground Hazard switch Input Hazard switch 5 (G) ò OFF 10 ms JPMIA0012GB 1.1 V

BCM (BODY CONTROL MODULE)

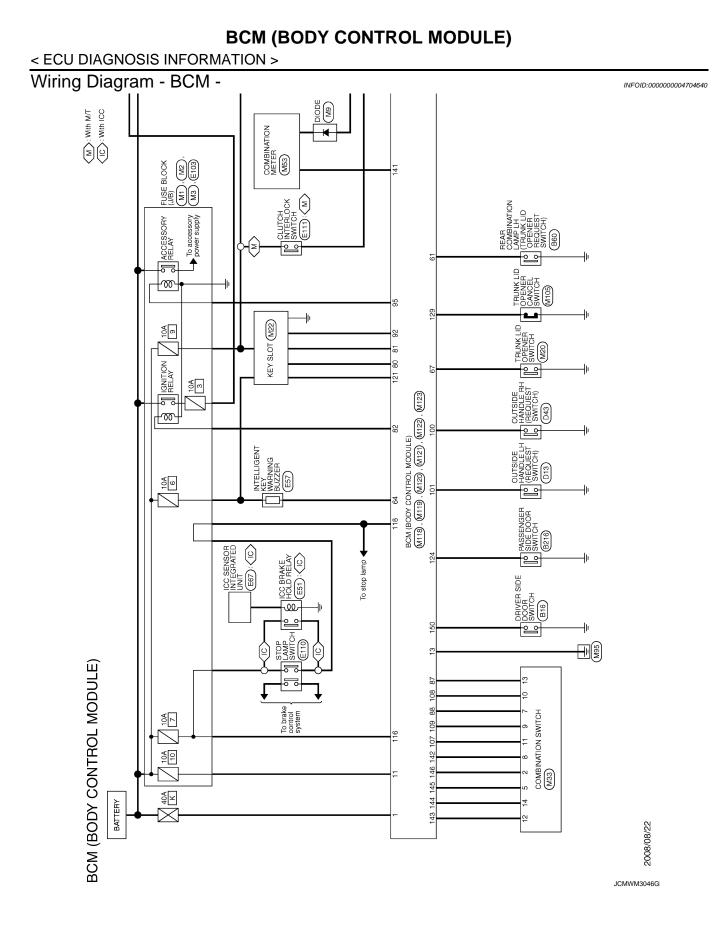
	nal No.	Description				Value			
(Wire +	color)	Signal name	Input/ Output		Condition	Value (Approx.)			
					LOCK status	12 V			
111 (Y)	Ground	Steering lock unit communication	Input/ Output	Steering lock	LOCK or UNLOCK	(V) 15 10 50 50 ms JMKIA0066GB			
					For 15 seconds after UN- LOCK	12 V			
					15 seconds or later after UNLOCK	0 V			
113	Ground	Optical sensor	Input	Ignition switch	When bright outside of the vehicle	Close to 5 V			
(O)	Ground	Optical sensor	input	ON	When dark outside of the vehicle	Close to 0 V			
114		Clutch interlock		Clutchinterlock	OFF (Clutch pedal is not depressed)	0 V			
(R)	Ground	switch	Input	switch	ON (Clutch pedal is de- pressed)	Battery voltage			
116 (SB)	Ground	Stop lamp switch 1	Input		_	Battery voltage			
		Stop lamp switch 2		Stop lamp	OFF (Brake pedal is not depressed)	0 V			
118	Ground	(Without ICC)	Innut	switch	ON (Brake pedal is de- pressed)	Battery voltage			
(BR)	Ground	Stop lamp switch 2	Input		h OFF (Brake pedal is not ICC brake hold relay OFF	0 V			
		(With ICC)			h ON (Brake pedal is de- brake hold relay ON	Battery voltage			
119 (SB)	Ground	Driver side door lock assembly (Unlock sensor)	Input	Driver door	LOCK status (Unlock sensor switch OFF)	(V) 15 0 10 10 10 10 11 11 11 11 11			
					UNLOCK status (Unlock switch sensor ON)	0 V			
121	Ground	Key slot switch	Innut	When the Intellig	gent Key is inserted into key	12 V			
(SB)	Ground	Ney SIOL SWILCH	Input	When the Intelli key slot	gent Key is not inserted into	0 V			
123	Ground	IGN feedback	Input	Ignition switch	OFF or ACC	0 V			
(W)	Cround		input	-gritton Switch	ON	Battery voltage			

	erminal No. Description Wire color)		1			Value															
+	-	Signal name	Input/ Output		Condition	(Approx.)															
124 (LG)	Ground	Passenger door switch	Input	Passenger door switch	OFF (Door close)	(V) 15 10 5 0 10 ms JPMIA0011GB 11.8 V															
					ON (Door open)	0 V															
129 (O)	Ground	Trunk lid opener can- cel switch	Input	Trunk lid open- er cancel switch	CANCEL	(V) 15 10 5 0 •••••••••••••••••••••••••••••															
					ON	JPMIA0012GB 1.1 V 0 V															
132 (V)	Ground	Power window switch communication	Input/ Output	Ignition switch C	DN	(V) 15 10 5 0 															
						JPMIA0013GB 10.2 V															
				Ignition switch C	1	12 V															
					ON (Tail lamps OFF)	9.5 V															
																					NOTE: The pulse width of this wave is varied by the illumination bright- ening/dimming level.
133 (L)	Ground	Push-button ignition switch illumination	Output	Push-button ig- nition switch il- lumination	ON (Tail lamps ON)	(V) 15 10 5 0 JPMIA0159GB															
					OFF	0 V															
134				LOCK indicator	OFF	Battery voltage															
(LG)	Ground	LOCK indicator lamp	Output	lamp	ON	0 V															
137 (O)	Ground	Receiver and sensor ground	Input	Ignition switch C	DN	0 V															
138	Ground	Receiver and sensor	Output	Ignition switch	OFF	0 V															
(V)	Ground	power supply	Output	ignition switch	ACC or ON	5.0 V															

	nal No.	Description				Value				
(Wire +	color) –	Signal name	Input/ Output		Condition	(Approx.)				
139	Ground	Tire pressure receiv-	Input/	Ignition switch	Standby state	(V) 6 4 2 0 ••• 0.2s ••• 0.2s				
(L)	Glound	er communication	Output	ON	When receiving the signal from the transmitter	(V) 4 2 0 • • 0.2s OCC3880D				
140	Crownd	Selector lever P/N	lanut		P or N position	12 V				
(GR)	Ground	position (A/T models)	Input	Selector lever	Except P and N positions	0 V				
					ON	0 V				
141 (R)	Ground	Security indicator	Output	Security indica- tor	Blinking	(V) 15 10 5 0 1 s JPMIA0014GB 11.3 V				
					OFF	12 V				
					All switches OFF	0 V				
			bination switch		Combination		Lighting switch 1ST			
							Lighting switch HI	(V) 15		
142	Ground	Combination switch			Lighting switch 2ND					
(BR)	Ground	OUTPUT 5	Output	(Wiper intermit- tent dial 4)	Turn signal switch RH	0 2 ms JPMIA0031GB				
						10.7 V				
					All switches OFF (Wiper intermittent dial 4)	0 V				
					Front wiper switch HI (Wiper intermittent dial 4)	(V) 15				
143 (V)	Ground	Combination switch OUTPUT 1	Output	Combination switch	Any of the conditions be- low with all switches OFF • Wiper intermittent dial 1 • Wiper intermittent dial 2 • Wiper intermittent dial 3 • Wiper intermittent dial 6 • Wiper intermittent dial 7	15 0 2 ms JPMIA0032GB 10.7 V				

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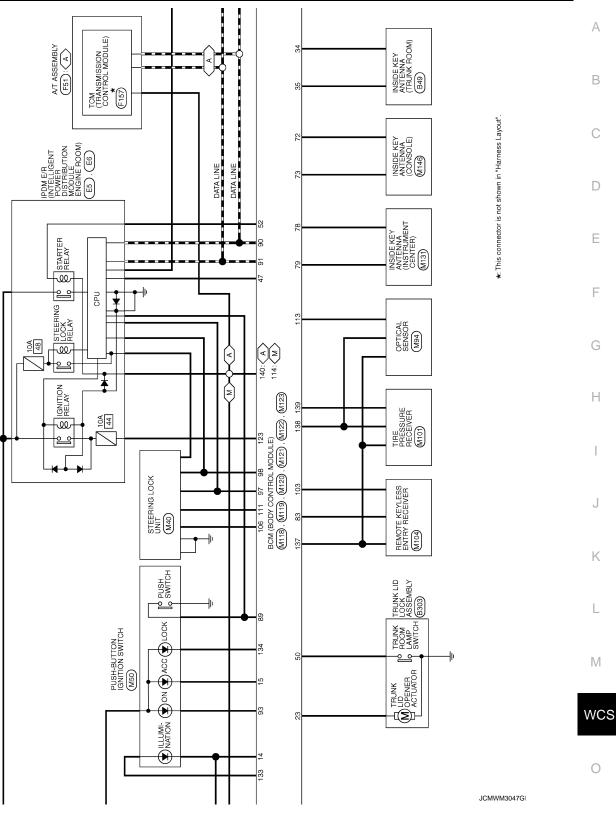
	nal No. color)	Description			Canditian	Value			
+	-	Signal name	Input/ Output		Condition	(Approx.)			
					All switches OFF (Wiper intermittent dial 4)	0 V			
					Front washer switch ON (Wiper intermittent dial 4)	(V) 15			
144 (G)	Ground	Combination switch OUTPUT 2	Output	OutputCombination switchAny of the conditions be- low with all switches OFF• Wiper intermittent dial 1• Wiper intermittent dial 5• Wiper intermittent dial 5• Wiper intermittent dial 6		15 0 2_ms 			
					All switches OFF	0 V			
					Front wiper switch INT				
				Combination	Front wiper switch LO	(V) 15			
145 (L)	Ground	Combination switch OUTPUT 3	Output	switch (Wiper intermit- tent dial 4)	Lighting switch AUTO	10 0 2 ms 10 10 10 10 10 10 10 10 10 10 10 10 10			
					All switches OFF	0 V			
					Front fog lamp switch ON				
					Lighting switch 2ND	(V)			
146		Combination switch	0.1.1	Combination switch	switch	switch	switch	Lighting switch PASS	
(SB)	Ground	OUTPUT 4	Output	(Wiper intermit- tent dial 4)	Turn signal switch LH	0 2 ms JPMIA0035GB			
149		Tire pressure warning				10.7 V			
(W)	Ground	check switch	Input		_	12 V			
150 (R)	Ground	Driver door switch	Input	Driver door switch	OFF (Door close)	(V) 15 0 10 ms JPMIA0011GB 11.8 V			
					ON (Door open)	0 V			
151	Ground	Rear window defog-	Output	Rear window Active 0 V					
(G)	2.54114	ger relay control	Carpor	defogger	Not activated	Battery voltage			



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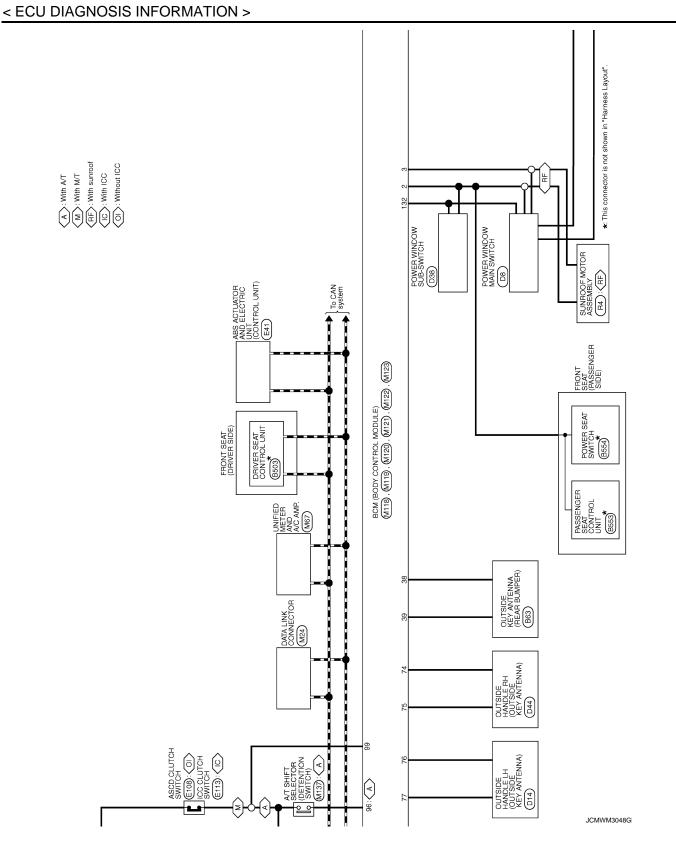
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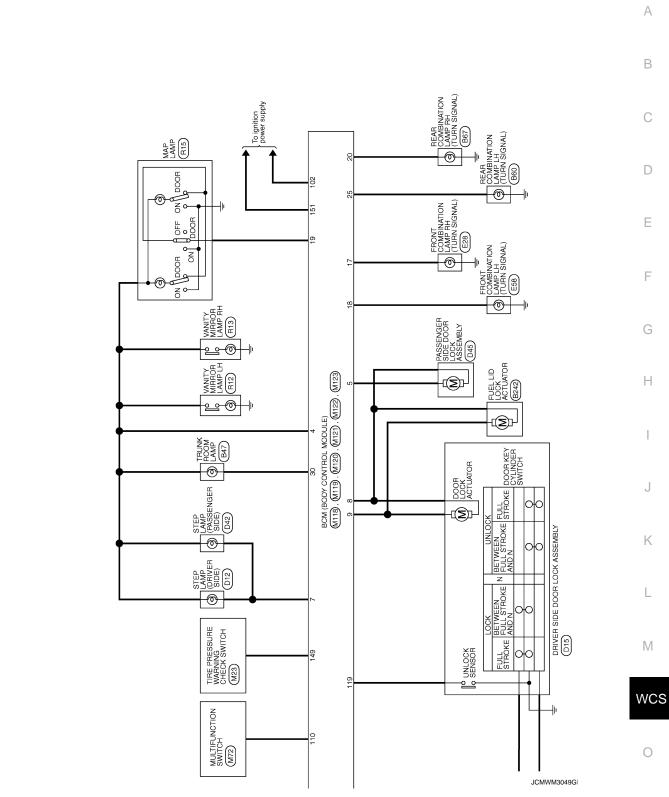
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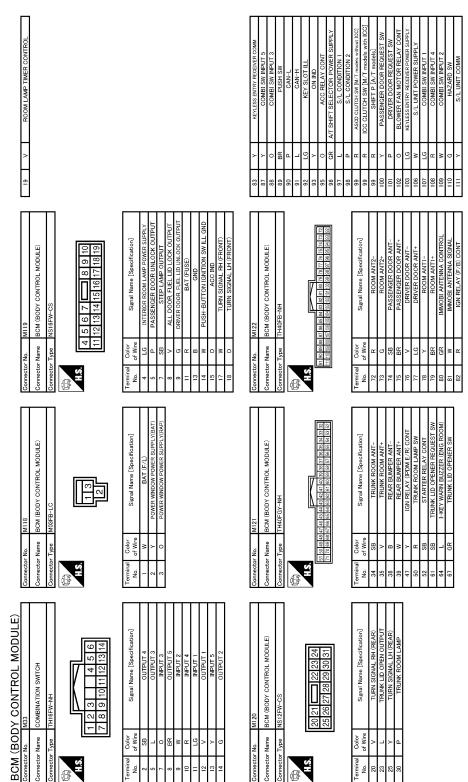
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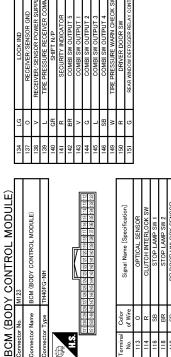


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r Type	131 [30] [23] [23	51 150 148 148	Color	of Wire	0	æ	SB	BR	SB	SB	W	ГG	0	^	-	
Connector Type	H.S.		Terminal	No.	113	114	116	118	119	121	123	124	129	132	133	

Fail-safe

FAIL-SAFE CONTROL BY DTC

Name

BCM performs fail-safe control when any DTC are detected.

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Display contents of CONSULT	Fail-safe	Cancellation
B2013: ID DISCORD BCM-S/L	Inhibit engine cranking	Erase DTC
B2014: CHAIN OF S/L-BCM	Inhibit engine cranking	Erase DTC
B2190: NATS ANTENNA AMP	Inhibit engine cranking	Erase DTC
B2191: DIFFERENCE OF KEY	Inhibit engine cranking	Erase DTC
B2192: ID DISCORD BCM-ECM	Inhibit engine cranking	Erase DTC
B2193: CHAIN OF BCM-ECM	Inhibit engine cranking	Erase DTC
B2195: ANTI SCANNING	Inhibit engine cranking	Ignition switch $ON \rightarrow OFF$
B2557: VEHICLE SPEED Inhibit steering lock		When normal vehicle speed signals are received from ABS actua- tor and electric unit (control unit) for 500 ms
B2560: STARTER CONT RELAY	Inhibit engine cranking	500 ms after the following CAN signal communication status be- comes consistentStarter control relay signalStarter relay status signal
B2601: SHIFT POSITION	Inhibit steering lock	 500 ms after the following signal reception status becomes consistent Selector lever P position switch signal P range signal (CAN)
B2602: SHIFT POSITION	Inhibit steering lock	 5 seconds after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Vehicle speed: 4 km/h (2.5 MPH) or more
B2603: SHIFT POSI STATUS	Inhibit steering lock	 500 ms after the following BCM recognition conditions are fulfilled Ignition switch is in the ON position Selector lever P position switch signal: Except P position (battery voltage) Selector lever P/N position signal: Except P and N positions (0 V)
B2604: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: P and N position (battery voltage) P range signal or N range signal (CAN): ON Status 2 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) P range signal and N range signal (CAN): OFF
B2605: PNP SW	Inhibit steering lock	 500 ms after any of the following BCM recognition conditions are fulfilled Status 1 Ignition switch is in the ON position Selector lever P/N position signal: Except P and N positions (0 V) Interlock/PNP switch signal (CAN): OFF Status 2 Ignition switch is in the ON position Selector lever P/N position signal: P or N position (battery voltage) PNP switch signal (CAN): ON
B2606: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal)

< ECU DIAGNOSIS INFORMATION >

Display contents of CONSULT	Fail-safe	Cancellation		
B2607: S/L RELAY	Inhibit engine cranking	 500 ms after the following CAN signal communication status h becomes consistent Steering lock relay signal (Request signal) Steering lock relay signal (Condition signal) 		
B2608: STARTER RELAY	Inhibit engine cranking	 500 ms after the following signal communication status becomes consistent Starter motor relay control signal Starter relay status signal (CAN) 		
B2609: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When the following steering lock conditions agree BCM steering lock control status Steering lock condition No. 1 signal status Steering lock condition No. 2 signal status 		
B260A: IGNITION RELAY	Inhibit engine cranking	 500 ms after the following conditions are fulfilled IGN relay (IPDM E/R) control signal: OFF (Battery voltage) Ignition ON signal (CAN to IPDM E/R): OFF (Request signal) Ignition ON signal (CAN from IPDM E/R): OFF (Condition signal) 		
B260F: ENG STATE SIG LOST	Maintains the power supply position attained at the time of DTC detection	When any of the following conditions are fulfilledPower position changes to ACCReceives engine status signal (CAN)		
B2612: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When any of the following conditions are fulfilled Steering lock unit status signal (CAN) is received normally The BCM steering lock control status matches the steering lock status recognized by the steering lock unit status signal (CAN from IPDM E/R) 		
B2617: STARTER RELAY CIRC	Inhibit engine cranking	1 second after the starter motor relay control inside BCM becomes normal		
B2618: BCM	Inhibit engine cranking	1 second after the ignition relay (IPDM E/R) control inside BCM be- comes normal		
B2619: BCM	Inhibit engine cranking	1 second after the steering lock unit power supply output control in- side BCM becomes normal		
B261E: VEHICLE TYPE	Inhibit engine cranking	BCM initialization		
B26E8: CLUTCH SW	Inhibit engine cranking	 When any of the following BCM recognition conditions are fulfilled Status 1 Clutch switch signal (CAN from ECM): ON Clutch interlock switch signal: OFF (0 V) Status 2 Clutch switch signal (CAN from ECM): OFF Clutch interlock switch signal: ON (Battery voltage) 		
B26E9: S/L STATUS	Inhibit engine crankingInhibit steering lock	 When BCM transmits the LOCK request signal to steering lock unit, and receives LOCK response signal from steering lock unit, the following conditions are fulfilled Steering condition No. 1 signal: LOCK (0 V) Steering condition No. 2 signal: LOCK (Battery voltage) 		

HIGH FLASHER OPERATION

BCM detects the turn signal lamp circuit status by the current value.

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.

DTC Inspection Priority Chart

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

INFOID:000000004704642

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Priority	DTC
1	B2562: LOW VOLTAGE
2	U1000: CAN COMM U1010: CONTROL UNIT(CAN)
3	 B2190: NATS ANTENNA AMP B2191: DIFFERENCE OF KEY B2192: ID DISCORD BCM-ECM B2193: CHAIN OF BCM-ECM B2195: ANTI SCANNING
4	 B2013: ID DISCORD BCM-S/L B2014: CHAIN OF S/L-BCM B2553: IGNITION RELAY B2555: STOP LAMP B2555: STOP LAMP B2556: PUSH-BTN IGN SW B2557: VEHICLE SPEED B2560: STARTER CONT RELAY B2601: SHIFT POSITION B2602: SHIFT POSITION B2603: SHIFT POSITION B2606: PNP SW B2606: S/L RELAY B2607: S/L RELAY B2608: STARTER RELAY B2609: S/L STARTER RELAY B26009: STEERING LOCK UNIT B26001: STEERING LOCK UNIT B26001: STEERING LOCK UNIT B2601: SIL STATE SIG LOST B2611: GLOWER RELAY CIRC B2613: BLOWER RELAY CIRC B2613: BLOM B2614: ACC RELAY CIRC B2613: BCM B2614: PUSH-BTNIGN SW B2614: VEHICLE TYPE B2684: KEY REGISTRATION C1720: VHICL SPEED SIG ERR U0415: VEHICLE SPEED SIG ERR U0415: VEHICLE SPEED SIG SIG

< ECU DIAGNOSIS INFORMATION >

Priority	DTC	
	C1704: LOW PRESSURE FL	
	C1705: LOW PRESSURE FR	
	C1706: LOW PRESSURE RR	
	C1707: LOW PRESSURE RL	
	• C1708: [NO DATA] FL	
	• C1709: [NO DATA] FR	
	• C1710: [NO DATA] RR	
	• C1711: [NO DATA] RL	
	C1712: [CHECKSUM ERR] FL	
	C1713: [CHECKSUM ERR] FR	
	C1714: [CHECKSUM ERR] RR	
	C1715: [CHECKSUM ERR] RL	
5	C1716: [PRESSDATA ERR] FL	
	C1717: [PRESSDATA ERR] FR	
	C1718: [PRESSDATA ERR] RR	
	C1719: [PRESSDATA ERR] RL	
	C1720: [CODE ERR] FL	
	 C1721: [CODE ERR] FR C1722: [CODE ERR] RR 	
	C1722: [CODE ERR] RR C1723: [CODE ERR] RL	
	C1723: [CODE ERK] RE C1724: [BATT VOLT LOW] FL	
	C1725: [BATT VOLT LOW] FR	
	C1726: [BATT VOLT LOW] RR	
	C1727: [BATT VOLT LOW] RL	
	C1734: CONTROL UNIT	
	B2621: INSIDE ANTENNA	
6	B2622: INSIDE ANTENNA	
	B2623: INSIDE ANTENNA	

DTC Index

NOTE:

The details of time display are as follows.

- CRNT: A malfunction is detected now.
- PAST: A malfunction was detected in the past.

IGN counter is displayed on Freeze Frame Data. For details of Freeze Frame Data, refer to <u>BCS-14. "COM-MON ITEM : CONSULT-III Function (BCM - COMMON ITEM)"</u>.

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	L
No DTC is detected. further testing may be required.	_	_	_	_	_	Μ
U1000: CAN COMM	—	—	—	—	BCS-35	
U1010: CONTROL UNIT(CAN)	_	_	—	—	BCS-36	WCS
U0415: VEHICLE SPEED SIG		—		—	BCS-37	
B2013: ID DISCORD BCM-S/L	×	×		—	<u>SEC-55</u>	0
B2014: CHAIN OF S/L-BCM	×	×		—	<u>SEC-56</u>	0
B2190: NATS ANTENNA AMP	×	—		—	<u>SEC-47</u>	
B2191: DIFFERENCE OF KEY	×	—		—	<u>SEC-50</u>	Ρ
B2192: ID DISCORD BCM-ECM	×	—		—	<u>SEC-51</u>	
B2193: CHAIN OF BCM-ECM	×	—		—	<u>SEC-53</u>	
B2195: ANTI SCANNING	×	—	—	—	<u>SEC-54</u>	
B2553: IGNITION RELAY	—	×	—	—	PCS-48	
B2555: STOP LAMP	_	×			<u>SEC-59</u>	

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CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page
B2556: PUSH-BTN IGN SW	_	×	×	_	<u>SEC-61</u>
B2557: VEHICLE SPEED	×	×	×	_	<u>SEC-63</u>
B2560: STARTER CONT RELAY	×	×	×	_	<u>SEC-64</u>
B2562: LOW VOLTAGE	_	×		_	BCS-38
B2601: SHIFT POSITION	×	×	×	—	<u>SEC-65</u>
B2602: SHIFT POSITION	×	×	×	—	<u>SEC-68</u>
B2603: SHIFT POSI STATUS	×	×	×	_	<u>SEC-70</u>
B2604: PNP SW	×	×	×	_	<u>SEC-73</u>
B2605: PNP SW	×	×	×	_	<u>SEC-75</u>
B2606: S/L RELAY	×	×	×	_	<u>SEC-77</u>
B2607: S/L RELAY	×	×	×		<u>SEC-78</u>
B2608: STARTER RELAY	×	×	×	_	<u>SEC-80</u>
B2609: S/L STATUS	×	×	×	_	<u>SEC-82</u>
B260A: IGNITION RELAY	×	×	×	_	PCS-50
B260B: STEERING LOCK UNIT	_	×	×		<u>SEC-86</u>
B260C: STEERING LOCK UNIT	_	×	×		<u>SEC-87</u>
B260D: STEERING LOCK UNIT	_	×	×		<u>SEC-88</u>
B260F: ENG STATE SIG LOST	×	×	×		<u>SEC-89</u>
B2612: S/L STATUS	×	×	×		<u>SEC-94</u>
B2614: ACC RELAY CIRC	_	×	×	_	PCS-52
B2615: BLOWER RELAY CIRC	_	×	×	_	PCS-54
B2616: IGN RELAY CIRC	_	×	×		PCS-56
B2617: STARTER RELAY CIRC	×	×	×		<u>SEC-98</u>
B2618: BCM	×	×	×	_	PCS-58
B2619: BCM	×	×	×		<u>SEC-100</u>
B261A: PUSH-BTN IGN SW	_	×	×		PCS-59
B261E: VEHICLE TYPE	×	×	× (Turn ON for 15 seconds)	_	<u>SEC-101</u>
B2621: INSIDE ANTENNA	_	×	_	_	DLK-55
B2622: INSIDE ANTENNA	—	×		—	DLK-57
B2623: INSIDE ANTENNA	—	×		—	<u>DLK-59</u>
B26E8: CLUTCH SW	×	×	×		<u>SEC-90</u>
B26E9: S/L STATUS	×	×	imes (Turn ON for 15 seconds)	_	<u>SEC-92</u>
B26EA: KEY REGISTRATION	—	×	× (Turn ON for 15 seconds)	—	<u>SEC-93</u>
C1704: LOW PRESSURE FL	—	_	—	×	
C1705: LOW PRESSURE FR	—	_	—	×	\A/T 47
C1706: LOW PRESSURE RR	_	—	—	×	<u>WT-17</u>
C1707: LOW PRESSURE RL	_	—	—	×	

< ECU DIAGNOSIS INFORMATION >

CONSULT display	Fail-safe	Freeze Frame Data •Vehicle Speed •Odo/Trip Meter •Vehicle condition	Intelligent Key warning lamp ON	Tire pressure monitor warning lamp ON	Refer- ence page	A
C1708: [NO DATA] FL	—	—	—	×		В
C1709: [NO DATA] FR	—	—	—	×	WT-19	
C1710: [NO DATA] RR	—	—	—	×	<u>vv1-19</u>	
C1711: [NO DATA] RL	_	—		×		С
C1712: [CHECKSUM ERR] FL	_	—		×		
C1713: [CHECKSUM ERR] FR	—	—		×	WT-21	D
C1714: [CHECKSUM ERR] RR	—	—	—	×	<u>vv1-21</u>	
C1715: [CHECKSUM ERR] RL	_	—		×		
C1716: [PRESSDATA ERR] FL	_	—		×		E
C1717: [PRESSDATA ERR] FR	_	_		×		
C1718: [PRESSDATA ERR] RR	_	—		×	<u>WT-24</u>	F
C1719: [PRESSDATA ERR] RL	_	—		×		1
C1720: [CODE ERR] FL	_	—		×		
C1721: [CODE ERR] FR	—	_		×		G
C1722: [CODE ERR] RR	_	_		×	<u>WT-26</u>	
C1723: [CODE ERR] RL	_	_		×		
C1724: [BATT VOLT LOW] FL	—	_	—	×		Н
C1725: [BATT VOLT LOW] FR	—	_	—	×	WT 20	
C1726: [BATT VOLT LOW] RR	—	_	—	×	<u>WT-29</u>	
C1727: [BATT VOLT LOW] RL	—	_	—	×		
C1729: VHCL SPEED SIG ERR	—	_	—	×	<u>WT-32</u>	-
C1734: CONTROL UNIT	—	_		×	<u>WT-33</u>	J

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

< SYMPTOM DIAGNOSIS >

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

Description

INFOID:000000004246523

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

Diagnosis Procedure

INFOID:000000004246524

1.CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

- 1. Connect the CONSULT-III.
- 2. Select the "Data Monitor" of the "METER/M&A" and check the "PKB SW" monitor value. Refer to <u>MWI-60</u>, <u>"Component Function Check"</u>.

Is the inspection result normal?

YES >> Replace combination meter.

NO >> GO TO 2.

2.CHECK PARKING BRAKE SWITCH SIGNAL CIRCUIT

Check the parking brake switch signal circuit. Refer to <u>BRC-71, "Diagnosis Procedure"</u>.

Is the inspection result normal?

YES >> GO TO 3.

NO >> Repair harness or connector.

3.CHECK PARKING BRAKE SWITCH

Check the parking brake switch. Refer to <u>BRC-72, "Component Inspection"</u>.

Is the inspection result normal?

- YES >> Replace combination meter.
- NO >> Replace parking brake switch. Refer to <u>PB-6</u>, "<u>PEDAL TYPE</u> : <u>Exploded View</u>" (pedal type) or <u>PB-7</u>, "<u>LEVER TYPE</u> : <u>Exploded View</u>" (lever type).

THE LIGHT REMINDER WARNING DOES NOT SOUND

< SYMPTOM DIAGNOSIS >
THE LIGHT REMINDER WARNING DOES NOT SOUND
Description INFOID:00000004246525
Light reminder warning chime does not sound even though headlamp is illuminated.
Diagnosis Procedure
1. CHECK COMBINATION SWITCH (LIGHT SWITCH) OPERATION
Check that the headlamps operate normally by operating the combination switch (light switch).
Do they operate normally? YES >> GO TO 2.
NO >> Refer to EXL-180, "Diagnosis Procedure".
2. CHECK FRONT DRIVER SIDE DOOR SWITCH SIGNAL CIRCUIT
Check the front driver side door switch signal circuit. Refer to <u>DLK-62. "Diagnosis Procedure"</u> .
Is the inspection result normal?
YES >> GO TO 3. NO >> Repair harness or connector.
3. CHECK FRONT DRIVER SIDE DOOR SWITCH
Check the front driver side door switch. Refer to <u>DLK-63</u> , "Component Inspection".
Is the inspection result normal?
 YES >> Replace BCM. Refer to <u>BCS-81, "Removal and Installation"</u>. NO >> Replace front driver side door switch. Refer to <u>DLK-237, "Removal and Installation"</u>.

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THE SEAT BELT WARNING CONTINUES SOUNDING, OR DOES NOT SOUND < SYMPTOM DIAGNOSIS >

THE SEAT BELT WARNING CONTINUES SOUNDING, OR DOES NOT SOUND

Description

INFOID:000000004246527

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

Diagnosis Procedure

INFOID:000000004246528

- **1.**CHECK SEAT BELT WARNING LAMP
- 1. Turn ignition switch ON.
- 2. Check the operation of the seat belt warning lamp in the combination meter.

Seat belt fastened	: OFF
Seat belt unfastened	: ON

Is the inspection result normal?

YES >> Replace BCM.

NO >> GO TO 2.

2.CHECK UNIFIED METER AND A/C AMP. INPUT SIGNAL

- 1. Connect the CONSULT-III.
- 2. Select the "Data Monitor" of the "METER/M&A" and check the "BUCKLE SW" monitor value. Refer to <u>WCS-24, "Component Function Check"</u>.

Is the inspection result normal?

YES >> Replace combination meter.

NO >> GO TO 3.

${f 3.}$ CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE) SIGNAL CIRCUIT

Check the seat belt buckle switch (driver side) signal circuit. Refer to WCS-24, "Diagnosis Procedure".

Is the inspection result normal?

YES >> GO TO 4.

NO >> Repair harness or connector.

4.CHECK SEAT BELT BUCKLE SWITCH (DRIVER SIDE)

Check the seat belt buckle switch (driver side). Refer to WCS-25, "Component Inspection".

Is the inspection result normal?

- YES >> Replace unified meter and A/C amp.
- NO >> Replace seat belt buckle switch (driver side). Refer to <u>SB-8. "SEAT BELT BUCKLE : Removal and Installation"</u>.

< PRECAUTION > PRECAUTION PRECAUTIONS

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

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. 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 "SRS AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

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

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

WARNING:

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

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